

Phase I Environmental Desk Study and Mining Report

Rockingham Development, Birdwell S70 5TW.

For

Hartwood Estates Ltd



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For:	Hartwood Estates Ltd
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1.0 INTRODUCTION

Background

- 1.1 Enzygo Limited has been commissioned by Hartwood Estates Ltd to prepare a Phase I Environmental Desk Study and Mining Report for a proposed development site off Rockingham Row, Birdwell, Barnsley S70 5TW.

Proposed Development

- 1.2 An initial existing site Layout plan has been provided. This has been incorporated into the site location plan included in the Drawing section of this report. It is proposed to develop the site for commercial use.

Objectives

- 1.3 The objectives of the study are to:
- Review historical plans, geology, hydrogeology, site sensitivity, and mining records in order to complete a Desk Study. A Groundsure report has been provided, a copy of which is included in Appendix A;
 - Assess the implications of any potential geotechnical risks and development constraints associated with the site in relation to the future use of the site; and
 - Assess the likelihood for coal underneath the site.
 - Provide a factual and interpretative report relating to the desk study and Mining assessment.
 - Provide preliminary geotechnical recommendations and initial assessment of ground engineering considerations.

Risk Classification

- 1.4 Where adverse risks from ground instability are identified these are discussed within the report.

2.0 SITE SETTING

Site Description

Item	Description
Site Address	Land off Rockingham Business Park, Birdwell, Barnsley, nearest post code S70 5TW.
National Grid Reference	Centre of the site 434957, 400569.

Current Site Description

- 2.1 The following site description has been compiled from the current maps and aerial photographs.
- 2.2 The site currently comprises open derelict land with scattered trees associated with site boundaries and occasional scattered shrubs across the entire site. The site is covered in long grass.
- 2.3 There is one overhead cable north south and towards the eastern boundary of the site with a single double pole within the site.
- 2.4 Rockingham Industrial estate is shown to the north west of the site and a Depot is shown to west and south west of the site. This is separated from the site by trees.
- 2.5 The A6195 (Dearne Valley Partway) is shown bordering the eastern boundary of the site. The site is accessed off a roundabout on this road to the north of the site.
- 2.6 The site is shown as undulating however is generally a level site.

Surrounding Area

- 2.7 Land uses surrounding the site are summarised as follows:

Direction	Land Use
South	Roundabout, road and open fields
East	Road and open fields
West	Depot, Road and Residential beyond.
North	Industrial Estate and Residential beyond

- 2.8 The only environmental risk is the Industrial Estate Park and Depot to the north and west of the site.

3.0 SITE HISTORY

3.1 A review of historical Ordnance Survey maps and information pertinent to the site and within a 250m radius is summarised below:

Potentially Contaminative Historical Land Use		
Map Edition	Site	Surrounding Area
1850	Open fields, Yorkshire Railway line in the north corner of the site and bordering the north boundary of the site. Footpath dissects site from the east to the west.	Open fields.
1882-1891	No changes.	Rockingham. Gas works 20m NW. Railway N boundary. Coke works 200m NE. Reservoir 200 NE. Birdwell Quarry 200m NW. Rockingham colliery 300m NE.
1903-1905	No changes.	Filter Beds are shown 120m NE. Residential development (Rockingham Row and Vernon Way) 100m NW. Ribbon residential development 100m W.
1931-1938	Pond shown in the central area of the site on the eastern boundary of the site.	Rockingham colliery extended NW and SW includes a large spoil heap to the south west of the railway. Gas works has enlarged and now comprises an aerial cable to the colliery. Sewerage works 300m E. Tankersley common Side is shown 20m E.
1951-1955	Pond is no longer shown.	Gas works has been replaced by NCB Central Workshops. A new Aerial ropeway is shown 80m for the site from the Colliery extending to the south of the site.
1966	No changes.	Birdwell Quarry is shown to be partially infilled by 1966.
1973	No changes	Aerial ropeway no longer shown. Reminder of Birdwell Quarry is shown as disused. A Highways depot is shown 10m W. The NCB Central workshops includes two chimneys and two electoral sub stations and one Engineering works. M1 is shown 250m W. A6135 is shown on southern corner of the site.
1980-	No changes.	Works shown 250m W. Slurry Ponds 300m W.
1987	Railway shown as disused.	Colliery and Tip shown as disused. Slurry Ponds shown as tip disused.
2002	Footpath diverted onto western boundary of the site. Overhead cable shown crossing the site trending N-S approximately.	A6135 and QA61 roundabout and interchange 20m S. New Road A6135 extends along eastern boundary of site. New Roundabout 20m NE. NCB works shown as works. Drain shown 0m N. and 10m NE.
2010-2014	No changes.	Recreation ground shown 50m S. Drain 0m N not shown.

- 3.2 There is a low to moderate risk associated with the colliery 300m north east and any associated workings underneath the site. Given the distance of workings and colliery and the likely dip of the geology the risk is considered as moderate as it is likely that these workings will dip underneath the site. The colliery is shown as accessing the coal from shafts and not from the surface. It is therefore likely that the depth of the workings will be in excess of 30m at the sites boundary.
- 3.3 There is a low risk of previous pond shown to be backfilled by 1951 containing Made Ground.
- 3.4 There is a low to moderate risk associated with the Gas works to the north of the site
- 3.5 No other significant risks are identified.

4.0 ENVIRONMENTAL SETTING

Ground Conditions

- 4.1 The British Geological Survey (BGS) indicates that the site is underlain by the following geological sequence:

Geological Unit	Type	Description	Aquifer Classification
Drift.	None	None	N/a
Solid.	Pennine Middle Coal Measures.	Mudstone, Siltstone with Sandstone	Secondary A
	Haigh Noor Rock	Sandstone	Secondary A

- 4.2 Made Ground has been recorded on the site associated with the railway to the north of the site.
- 4.3 There are no records of landslip within 500m of the site.
- 4.4 A fault is shown within the southern corner of the site and is shown as a normal fault. Differential movement could occur in the vicinity of this fault. Depending on the vertically difference in strata on each side of the fault (measured as the throw of the fault) workings could be on one side and not the other as workings generally did not penetrate through faults.
- 4.5 Records of background soil chemistry do not show any elevated concentrations.
- 4.6 BGS boreholes records for the site and the surrounding area indicate the presence of coal seams at depths ranging from 20m to 330m bgl across the site. The maximum thickness of the superficial materials shown in borehole to the north west of the site is 5.3m thick (330m south of the site) to 6.0m thick. The thickness of the coal seams ranges from 1 foot to 4 foot thick (0.30m to 1.0m thick).

Groundwater

- 4.7 The recorded permeability of the bedrock is moderate to very high reflecting the variable nature of the materials with the low Moderate reflecting the Mudstone and the high reflecting the Sandstone and that it is fracture flow type.
- 4.8 The Ground Sure Report shows the site to be outside of any Source Protection Zones.

- 4.9 There are no groundwater abstraction licenses within 500m of the site.
- 4.10 BGS records show the site to have a moderate risk to groundwater flooding based on geological conditions.

Coal Mining

- 4.11 The ground sure report has identified coal working associated with the site. A coal mining report was obtained and is given in Appendix C. The Coal Mining report indicates that the site is underlain by 8 coal seams at depths ranging from 60m to 330m depth and last worked in 1959. The Coal Authority has concluded that any ground movements from these coal workings should have stopped.
- 4.12 The Coal Mining report indicates that there are no coal mine entries/shafts within 20m of the site.
- 4.13 The Coal Mining report also indicates that there is past open cast working for coal, this is likely to be associated with the Birdwell Quarry to the north west of the site discussed and dismissed given its distance from the site in the historical Section present.
- 4.14 The Coal Mining report also indicates that there is no present or future potential from open cast coal mining within the vicinity of the site.
- 4.15 Further discussion with the Coal Authority Surveyor for the area concluded that the working referred to in the Coal Mining Report are for the Lidgett Coal at 60m depth associated with the Rockingham Colliery to the north east of the site. His records indicate that these were last worked in 1959 which links in with the Coal Mining Report and any movements apparent on the surface should have ceased by now. Historical information indicates that the colliery is shown as disused in 1980.
- 4.16 Further information was also collected from the BGS and includes one borehole log to the north of the site. A copy of this logs are given in Appendix C. This logs confirm the presence of coal, with the Lidgett Seam at 87m depth indicating that the dip is to the north east. A higher coal seam (Swallow Wood Coal seam) is also shown at depths of 20mbgl. This information ties up with the depth recorded in the Coal Mining report of approximately 60m bgl indicating that the Lidgett seam has been worked.
- 4.17 It is unknown whether the shallow seams recorded in the borehole log has been worked, although based on thickness and structure of these seam (small seams of coal (1 foot thick) inter-bedded with mudstone) this seam would not be commercially viable to work.

- 4.18 Given the thickness of the Lidgett coal seam 1-2m thick (from the BGS borehole), the recorded thickness of the superficial materials (5.3m thick) recorded from a separate borehole (given in the Appendix C) and the confirmation that this coal seam has been worked at 60m bgl, any collapse or Ground surface movements of this seam or deeper workings should not affect the surface and should have ceased.
- 4.19 Further information for the Lidgett Coal seam given in the Groundsure report shows that it has been worked in a quarry at the surface 681m south west of the site.
- 4.20 The remaining risk is associated with the shallow coal seam recorded in the borehole log and is dependant on whether this shallow seam has been worked. If this shallow seam has been worked then there is a risk of voids migrating to the surface associated with the collapse of these workings, however based on the thickness of the seams (one foot) and the depth of these potential working (20m bgl) any collapse of these workings are unlikely to affect the surface and should have ceased.
- 4.21 Historically there has been no subsidence claims in the area and there have been no recorded gas emissions requiring the action by the Coal Authority in the area.

Non Coal Mining and Cavities

- 4.22 There are no recorded non coal mining activities within 1000m of the site and the risk of iron ore extraction is considered to be highly unlikely.
- 4.23 There are no recorded cavities within 1000m of the site.

Ground Workings

- 4.24 There are no active ground workings within 250m of the site.
- 4.25 The following historic ground workings are identified within 250m of the site:

Details	Distance	Notes
Railway cutting/refuse tip	Northern corner of the site and 79m SW to 117m SW	Given a cutting on the site has been infilled there is a risk of Made Ground in the vicinity of the cutting and gas generation. The remaining cutting is dismissed given the distance from the site.
Filter beds and refuse tip	139m to 142m E	Potential to generate gas, although dismissed given the distance from the site.
Quarry	146m W	Not identified in the historical maps however dismissed given the distance from the site.

Birdwell quarry	200m W	Quarry has ceased and given the distance to the site this has been dismissed.
Colliery, Reservoir slurry ponds, spoil heaps	129 NE to 247m E	Colliery has ceased and none of these are associated with the site and are associated with the Rockingham colliery site and so dismissed.

4.26 One quarry was identified which was not seen in the historical section, however given the distance from the site there is considered to be no risk to the site.

Hydrology

4.27 There are no water courses on the site. A tertiary river is located 292m north west. Which drains into a secondary river 309 north east. A further secondary river/culvert/tertiary river is shown between 368m and 471m south west.

4.28 There is no river quality information for these rivers.

4.29 Environment Agency records show that the site is not located within a food zone

Radon Risk Potential

4.30 The Groundsure GeoInsight Report indicates that the site is within a Radon Affected Area where between 1% and 3% of properties are above the Action Level however the Groundsure reports indicates that no radon Protection measures are necessary.

Natural Hazards Finding

4.31 BGS information presented within the Groundsure Geoinsight report identifies the following ground conditions:

Hazard	Risk Designation (Groundsure)
Coal Mining	There is a low risk of coal mining, however seams have been proved underneath the site, which will require investigation.
Collapsible Ground	Very low.
Compressible Ground	Very Low to Negligible.
Ground Dissolution	Negligible.
Landslide	Very Low to Negligible.
Running Sand	Negligible to Low.
Swelling / Shrinking Clay	Very low to Negligible.

- 4.32 There are no geotechnical ground risks which have not been described in the Coal Mining Section.

Sensitive Land Uses

- 4.33 The site comprises derelict land and is considered to be of moderate sensitivity.
- 4.34 English Heritage identifies no historical features on the site.

Industrial Land Uses

- 4.35 Industrial land uses within 250m of the site are limited to industrial uses associated with the Industrial Estate to the north of the site, the Depot to the west of the site, the Disused Quarry to the west and electrical sub stations described in the site description and historical section. Given the distance from the site these are not considered a significant risk to the site.
- 4.36 The Groundsure EnviroInsight Report indicates that there is one open fuel stations within 500m of the site. Given the modern construction of the petrol filling station and the distance from the site (335m east) it is considered that there is no risk to the site.
- 4.37 No high pressure oil/gas pipelines within 500m of the site.
- 4.38 No new risks are identified from the register of industrial land uses.

5.0 CONSULTATIONS

Regulatory Database

5.1 The following information has been obtained from a commercially available environmental database.

Environmental Permits, Incidents and Registers	0 -250m	250-500m	Details
Site determined as contaminated land	0	0	Not applicable
Authorised industrial processes	0	0	Not applicable.
Registered radioactive substances	0	0	Not applicable.
Enforcements, prohibitions or prosecutions	0	0	Not applicable.
Pollution Incidents	2	3	Closest being 34m E Minor impact to Water and land Inert Materials dumped in 2003. No risk to the site.
Consents issued under the Planning (Hazardous Substances) Act 1990	0	0	Not Applicable.
Control of Major Accident Hazard (COMAH)/ Notification of Installations Handling Hazardous Substances (NIHHS) sites	0	0	Not Applicable.
Records of Licensed Discharge Consents	0	4	Given the distance from the site no risk.

5.2 No significant risks are identified from the regulatory data base.

Landfill Sites and Waste Treatment Sites

5.3 There are no operational landfill sites within 500m of the site.

5.4 There are two recorded landfills within 250m of the site. The first, is on the site and is associated with the infill of the railway cutting with inert and commercial waste dated 1992. The second is associated with Birdwell Quarry which has been partially infilled with unknown waste. Given the distance of the quarry there is no risk to the site. Given the presence of the landfill on site it is recommended that this is investigation for contamination leachate and gas.

- 5.4 There are two operational and non-operational waste treatment, transfer or disposal sites within 500m site. These are located 76m south east and associated with the chemical treatment facility in Lidget Garage and a metal recycling yard 129 west of the site which was surrendered in 1996.
- 5.5 There was an historic planning application for a refuse heaps 16m north west and 412m north east of the site.
- 5.6 A potential significant risks has been identified from waste activities in the form of a historical landfill associated with a railway cutting. This will require further investigation.

6.0 PRELIMINARY CONCEPTUAL MODEL

Source	Location	Exposure Pathway	Potential Receptor	Probability of Exposure	Details
Human Health					
Asbestos, metals and hydrocarbons.	Potential Made Ground over spills and off site migration. (Historical Gasworks)	Ingestion dermal and inhalation.	Construction Workers.	Low/Moderate	Suitable construction PPE will address risk under CDM.
			Site users.	Low/Moderate	Potential for Made Ground requiring investigation
Asbestos, metals and hydrocarbons.	Potential Made Ground on site from infill of pond.	Ingestion dermal and inhalation.	Construction Workers.	Dismissed.	Normal construction PPE will address risk under CDM.
			Site users.	Low	Potential for Made Ground requiring investigation
Metals and hydrocarbons	Potential Made Ground associated with the railway cutting and landfill	Ingestion dermal and inhalation.	Construction Workers.	Low	Normal construction PPE will address risk under CDM.
			Site users.	Low	Potential for Made Ground requiring investigation.
Hydrocarbon and metals.	Migration from off-site sources.	Ingestion dermal and inhalation.	Construction Workers.	Low.	Potential sources identified including Depot and industrial units and historical gas works and railway to the north and west. Investigation required.
			Site users.		
Ground Gas.	Mine gas.	Inhalation & Explosive.	Construction Workers.	Dismissed	No source identified. No mine shafts on site
			Site users.		
	Historic Landfills.	Inhalation & Explosive.	Construction Workers.	Low to moderate	Landfill associated with infill of cutting northern corner of site. Requires investigation. Likely to be negligible risk given no putrescible materials should have been used as infill (based on inert waste classification).
			Site users.		
	Made Ground.	Inhalation & Explosive.	Construction Workers.	Negligible	No confined access likely.
			Site users.	Negligible.	Unlikely to be significant highly putrescible matter.
Groundwater					
Hydrocarbon and metals.	Historical Landfill	Vertical Migration.	Groundwater.	Low to moderate	Potential for significant source likely. Investigation required in the vicinity of the landfill.
	Spillage on site.	Vertical Migration.	Groundwater.	Negligible	Significant source unlikely. No evidence of spillages.
Surface Water					
Hydrocarbon and metals.	Potential spillage on site.	Horizontal Migration.	River Network.	Dismissed	No receptor.
Environmental Receptors					
On site contaminants	Ingestion dermal and inhalation.		Ecology.	Dismissed.	No sensitive ecology designation.
	Direct.		Archaeology.	Dismissed.	None present.
	Direct.		Geology.	Dismissed.	None present.
	Phytotoxic.		Woodland.	Dismissed.	None present.
	Phytotoxic.		Crops.	Dismissed.	None present.
	Ingestion dermal and inhalation.		Livestock.	Dismissed.	None present.
Building Services					
On site contaminants	Direct.		Historic Buildings.	Dismissed.	No receptors
	Direct.		Proposed Buildings.	Dismissed.	No source identified.
	Permeate into pipework.		Water Pipes.	Dismissed.	No source identified.

- 6.1 There is a negligible to low risk of gas migration from the pond backfill.
- 6.2 There is low risk associated with Made Ground from the infilled materials of the pond and the railway cutting landfill.
- 6.3 There is low to moderate risk from contamination migrating from and off site source associated with the depot to the west and the industrial works/former gasworks/and former railway to the north.

7.0 DISCUSSIONS AND RECOMMENDATIONS

Geotechnical Discussion and Recommendations

- 7.1 Based on the BGS logs given in the appendix the site is underlain by superficial materials ranging with an estimated thickness of 5.3m thick over competent rock proved to depths of 330m. A shallow coal seam has been recorded to the north east of the site at depths of 20m with a coal seam thickness of 1.0m thick, however based on the coal mining report it is likely that this seam has not been worked with the worked seam at 60m bgl. This cannot be confirmed without intrusive investigation.
- 7.2 Based on the historical information no subsidence claims existing for the site or the surrounding area.
- 7.3 Given the proposed usage of the site as potential commercial development it is likely that any loadings will not affect the underlying workings, however there is a potential for void migration associated with collapsed workings at depth. After discussion with the Coal Authority should a void migrate to the surface it will be remediated by Coal Authority.
- 7.4 Given the presence of coal underneath the site it is likely that raft foundations will be required by the Coal Authority and Building Control.
- 7.5 In order to confirm the depth of the workings in excess of 30m as indicated in the borehole logs and by the Coal Authority it is recommended that four rotary boreholes are drilled across the site. Four number boreholes are required given the presence of a fault across the south eastern corner of the site which may have different strata bedrock across the fault line.

Environmental Discussion and Recommendations

- 7.6 It is considered that there is a Low risk associated with land quality issues at the site and some remediation may be required in the vicinity of the railway cutting.
- 7.7 Given the potential for Contamination associated with the former landfill and off site sources it is recommended that an environmental investigation is undertaken to confirm the level of contamination and gas regime across the site. This is likely to be in the form of window sampling and trial pitting with associated chemical sampling and gas monitoring from installations. These boreholes and trial pits can also be used to provide geotechnical parameters for soakaway design, foundation design and pavement design.

- 7.8 Should contamination be encountered it is likely that a remediation strategy will be required documenting the appropriate actions to mitigate any of the contamination risk. This could include long term gas monitoring, remediation of the infilled cutting and any localised hotspots and the inclusion of a cover thickness of imported Topsoil for landscaping areas.
- 7.9 As part of the remediation strategy the Topsoil should be confirmed as clean and pass the chemical requirements.
- 7.10 If unforeseen contamination is encountered during construction works such as localised an Environmental consultant will be available on a 'call out' basis to undertake an assessment of risk. If 'unforeseen contamination' is encountered the discovery strategy will be to remove or cover the source using clean capping soils as it is likely to be very limited in extent and the Local Planning Authority advised.

Recommendations

- 7.11 It is recommended that an intrusive ground investigation is undertaken to confirm the presence of potential workings underneath the site at shallow depth (depth less than 30m bgl).
- 7.10 The intrusive investigation will also confirm the thickness of the superficial materials and rock cover above any worked seams.
- 7.11 Based on the desk study there is considered to be a low risk of these workings affecting the proposed development.
- 7.12 It is considered that given the low risk from potential contamination that an environmental investigation will be required across the site to confirm the contamination and gas regime across the site with particular attention made of the landfill and the potential off site sources.
- 7.13 The preliminary scope of the ground investigation proposed is given below:
- Advance of four rotary boreholes through the superficial materials and into the underlying bedrock to depths of 30-40m bgl to confirm the nature of the underlying soils and provide information in relation to the conditions and depth of the coal seams.
 - The sinking of a number of window sampling boreholes to collect samples for chemical and geotechnical analysis, for foundation design and the installation of the gas monitoring installations.

- The excavation of a number of trial pits to collect appropriate samples for geotechnical and chemical analysis.
- Preparation of a geo-environmental report based on the findings of the ground investigation providing geotechnical properties to assist with the development of the site and environmental recommendations for the potential landfill and hotspots remediation.
- Should contamination be encountered a remediation strategy may be required .The Provision of a 'discovery strategy' to address any localised contamination than may be encountered during site development works.

APPENDIX B – DESK STUDY INFORMATION

County Series 1:10,560 scale

VEGETATION

ROADS

RAILWAYS

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GENERAL FEATURES

BOUNDARIES

National Grid 1:10,000 scale

HEIGHTS (METRES)

Values are given in metres above mean sea level at Newlyn.

Surface heights determined by ground survey

Vertical bench marks and bench mark lists containing fuller and possibly later levelling information are obtainable from the Director General, Ordnance Survey.

Contours are at 5 metres vertical interval.

ROCK FEATURES

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ABBREVIATIONS

BP/BS	Boundary Post or Stone	PO	Post Office
Ch	Church	PC	Public Convenience
CH	Club House	PH	Public House
F Sta	Fire Station	S	Stone
FB	Foot Bridge	Spr	Spring
Fn	Fountain	TCB	Telephone Call Box
GP	Guide Post	TCP	Telephone Call Post
MP/MS	Mile Post or Stone	TH	Town Hall
P	Pole or Post	W	Well
Pol Sta	Police Station	Y	Youth hostel

ROADS

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Where unfenced shown by piked lines.

RAILWAYS

GENERAL FEATURES

VEGETATION

In some areas bracken () and rough grassland () are shown separately.

GroundSure Historical Map Pack Legend

County Series & National Grid 1:10,560 scale & 1:10,000 scale

Information present on these legends is sourced from the same Ordnance Survey mapping as the maps used in this product.

If you have a query regarding any of the maps provided please contact GroundSure's technical helpline. We will endeavour to answer any queries you may have.

Technical Helpline
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www.groundsure.com



GroundSure

Historical Map Pack Legend

County Series

1:1,250 scale



County Series & National Grid

1:2,500 scale

Information present on these legends is sourced from the same Ordnance Survey mapping as the maps used in this product.

If you have a query regarding any of the maps provided within this map pack, please contact GroundSure's technical helpline. We will endeavour to answer any queries you may have.

Technical Helpline:

Tel: 01273 819 700
maps&data@groundsure.com
www.groundsure.com

National Grid 1:2,500 / 1:1,250 scale

GENERAL FEATURES

<ul style="list-style-type: none"> Non-indigenous Trees Coniferous Trees Deciduous Trees Orchard Trees Other Trees Shrub Bracken Heath Rough Grassland Marsh, Sludge Reeds 	<ul style="list-style-type: none"> Slope Cliff Crack Exposure Rock Slope Masonry Reinforced Concrete Transpiration Station Triangulation Station Beach Rock Recession Point (non-massively fixed) Recession Point & Beach Part coincident 	<ul style="list-style-type: none"> Sloping Masonry Top Archway Glazed Roof Building
<ul style="list-style-type: none"> Quarry Sand Pit Gravel Pit Sand Boulders Shingle Top Flat Rock Shingle 	<ul style="list-style-type: none"> Relief Heap Covert Off-Scap 	<ul style="list-style-type: none"> Relief Heap Covert Off-Scap Glazed Roof Building

BOUNDARIES

England & Wales

- County Boundary (geographical)
- County & Civil Parish Boundary coincident
- Admin County or County Borough Boundary
- London Borough Boundary
- County District Boundary based on civil parish
- Civil Parish Boundary
- Parish & Ward Boundaries based on civil parish
- Parish & Ward Boundaries not based on civil parish

Scotland

- County Boundary (geographical)
- County Council Boundary
- City Council Boundary
- County of the City Boundary
- Burgh Boundary
- Dist. Bd. Boundary
- Dist. Bd. Boundary coincident with parish

County Series 1:2,500 scale

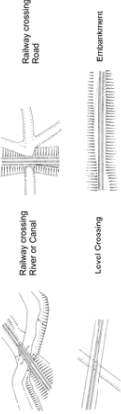
GENERAL FEATURES

SI Sluice
 Tr Trough
 SP Spill
 W Wall
 M.R. Mooring Ring
 M.P. Mooring Post
 B.S. Boundary Stone
 B.P. Boundary Post
 A Triangulation Station
 507 Altitude at Triangulation Station
 B.M. 325.9 Bench Mark
 342 Surface Level
 Permanent Triangulation Station
 Antiquities (alt of)
 Arrow denotes flow of water

ROADS



RAILWAYS



ABBREVIATIONS

SI	Sluice
Tr	Trough
SP	Spill
M.R.	Mooring Ring
M.P.	Mooring Post
B.S.	Boundary Stone
B.P.	Boundary Post
▲	Triangulation Station
▲	Altitude at Triangulation Station
B.M. 325.9	Bench Mark
342	Surface Level
▲	Permanent Triangulation Station
+	Antiquities (alt of)
→	Arrow denotes flow of water

ABBREVIATIONS

B.H.	Beer House	F.S.	Fire Station	M.P.U.	Mail Pickup	S.L.	Signal Light
B.M.	Bench Mark	G.V.C.	Gas Valve	N.T.	National Tidal Limit	S.P.	Signal Post
B.S.	Boundary Stone	H.	Hydrant or Hydraulic	N.T.L.	Normal Tidal Limit	S.Pr.	Spring
C.	Crane	H.	Heath	N.T.S.	National Trust for Scotland	S.St.	Signal Station
C.H.	Club House	L.B.S.	Level Gauge	P.C.	Public Convenience	T.C.B.	Telephone Call Box
C.L.	Club	L.C.	Level Crossing	P.C.B.	Police Call Box	T.K.	Tank or Truck
D.F.	Drinking Fountain	L.G.	Leading Gauge	P.H.	Public House	T.P.	Trough
D.P.	Dock	L.L.	Light House	P.L.	Police Telephone Pillar	T.P.P.	Transverse Station
E.T.L.	Electricity Transmission Line	L.P.	Lighthouse	P.P.	Police Telephone Post	W.B.	Windmill
F.A.	Fire Alarm	L.T.	Lighthouse	P.P.P.	Police Telephone Pillar	W.P.	Wind Pump
F.A.P.	Fire Alarm Pillar	M.H.W.	Mean High Water	R.	Reservoir	W.P.P.	Water Pump
F.F.	Flagstaff	M.L.W.S.	Mean Low Water Springs	R.P.	Reception Point	W.P.N.	Water Point
F.B.M.	Fundamental Bench Mark	M.P.	Mile or Posing Post	S.	Stone	W.T.	Water Tap
F.S.	Flagstaff			S.B.	Signal Box		



EmapSite
Masdar House, ,
Eversley, RG27 ORP

GroundSure Reference: EMS-263991_356478

Your Reference: EMS_263991_356478

Report Date 18 Aug 2014

Report Delivery Method: Email - pdf

GroundSure EnviroInsight

Address: ,

Dear Sir/ Madam,

Thank you for placing your order with GroundSure. Please find enclosed the **GroundSure Enviroinsight** as requested.

If you would like further assistance regarding this report then please contact the emapsite customer services team on 0118 9736883 quoting the above report reference number.

Yours faithfully,

emapsite customer services team

Enc.
GroundSure EnviroInsight



GroundSure Envirolnsight

Address: ,
Date: 18 Aug 2014
Reference: EMS-263991_356478
Client: EmapSite

NW

N

NE

W

E



SW

S

SE

Aerial Photograph Capture date: 28-May-2012
Grid Reference: 434957,400569
Site Size: 2.99ha

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Overview of Findings

For further details on each dataset, please refer to each individual section in the main report as listed. Where the database has been searched a numerical result will be recorded. Where the database has not been searched '-' will be recorded.

Section 1: Environmental Permits, Incidents and Registers		On-site	0-50m	51-250	251-500		
1.1 Industrial Sites Holding Environmental Permits and/or Authorisations							
1.1.1	Records of historic IPC Authorisations	0	0	0	0		
1.1.2	Records of Part A(1) and IPPC Authorised Activities	0	0	0	0		
1.1.3	Records of Water Industry Referrals (potentially harmful discharges to the public sewer)	0	0	0	0		
1.1.4	Records of Red List Discharge Consents (potentially harmful discharges to controlled waters)	0	0	0	0		
1.1.5	Records of List 1 Dangerous Substances Inventory sites	0	0	0	0		
1.1.6	Records of List 2 Dangerous Substances Inventory sites	0	0	0	0		
1.1.7	Records of Part A(2) and Part B Activities and Enforcements	0	0	1	4		
1.1.8	Records of Category 3 or 4 Radioactive Substances Authorisations	0	0	0	0		
1.1.9	Records of Licensed Discharge Consents	0	0	0	6		
1.1.10	Records of Planning Hazardous Substance Consents and Enforcements	0	0	0	0		
1.2	Records of COMAH and NIHHS sites	0	0	0	0		
1.3 Environment Agency Recorded Pollution Incidents							
1.3.1	National Incidents Recording System, List 2	0	1	1	3		
1.3.2	National Incidents Recording System, List 1	0	0	0	0		
1.4	Sites Determined as Contaminated Land under Part 2A EPA 1990	0	0	0	0		
Section 2: Landfill and Other Waste Sites		On-site	0-50m	51-250	251-500	501-1000	1000-5000
2.1 Landfill Sites							
2.1.1	Environment Agency Registered Landfill Sites	0	0	0	0	0	Not searched
2.1.2	Environment Agency Historic Landfill Sites	1	0	0	1	0	1
2.1.3	BGS/DoE Landfill Site Survey	0	0	0	0	0	0
2.1.4	GroundSure Local Authority Landfill Sites Data	0	0	0	0	0	0
2.2 Landfill and Other Waste Sites Findings							
2.2.1	Operational and Non-Operational Waste Treatment, Transfer and Disposal Sites	0	1	0	1	Not searched	Not searched
2.2.2	Environment Agency Licensed Waste Sites	0	0	4	0	0	0

Section 3: Current Land Use	On-site	0-50m	51-250	251-500
3.1 Current Industrial Sites Data	0	6	9	Not searched
3.2 Records of Petrol and Fuel Sites	0	0	0	1
3.3 Underground High Pressure Oil and Gas Pipelines	0	0	0	0

Section 4: Geology

4.1 Are there any records of Artificial Ground and Made Ground present beneath the study site?	Yes
4.2 Are there any records of Superficial Ground and Drift Geology present beneath the study site?	None
4.3 For records of Bedrock and Solid Geology beneath the study site see the detailed findings section.	

Section 5: Hydrogeology and Hydrology

	0-500m
5.1 Are there any records of Strata Classification in the Superficial Geology within 500m of the study site?	No
5.2 Are there any records of Strata Classification in the Bedrock Geology within 500m of the study site?	Yes

	On-site	0-50m	51-250	251-500	501-1000	1000-2000
5.3 Groundwater Abstraction Licences (within 2000m of the study site)	0	0	0	0	0	4
5.4 Surface Water Abstraction Licences (within 2000m of the study site)	0	0	0	0	0	1
5.5 Potable Water Abstraction Licences (within 2000m of the study site)	0	0	0	0	0	0
5.6 Source Protection Zones (within 500m of the study site)	0	0	0	0	Not searched	Not searched
5.7 Groundwater Vulnerability and Soil Leaching Potential (within 500m of the study site)	2	0	0	4	Not searched	Not searched
	On-site	0-50m	51-250	251-500	501-1000	1000-1500
5.8 Is there any Environment Agency information on river quality within 1500m of the study site?	No	No	No	No	No	No
5.9 Detailed River Network entries within 500m of the site	0	0	0	20	Not searched	Not searched
5.10 Surface water features within 250m of the study site	No	No	Yes	Not searched	Not searched	Not searched

Section 6: Flooding

6.1 Are there any Environment Agency Zone 2 floodplains within 250m of the study site?	No
6.2 Are there any Environment Agency Zone 3 floodplains within 250m of the study site?	No
6.3 Are there any Flood Defences within 250m of the study site?	No
6.4 Are there any areas benefiting from Flood Defences within 250m of the study site?	No
6.5 Are there any areas used for Flood Storage within 250m of the study site?	No
6.6 What is the maximum BGS Groundwater Flooding susceptibility within 50m of the study site?	Potential at Surface
6.7 What is the BGS confidence rating for the Groundwater Flooding susceptibility areas?	Moderate

Section 7: Designated Environmentally Sensitive Sites

	On-site	0-50m	51-250	251-500	501-1000	1000-2000
7.1 Records of Sites of Special Scientific Interest (SSSI)	0	0	0	0	0	0
7.2 Records of National Nature Reserves (NNR)	0	0	0	0	0	0
7.3 Records of Special Areas of Conservation (SAC)	0	0	0	0	0	0
7.4 Records of Special Protection Areas (SPA)	0	0	0	0	0	0
7.5 Records of Ramsar sites	0	0	0	0	0	0
7.6 Records of Ancient Woodlands	0	0	0	0	5	9
7.7 Records of Local Nature Reserves (LNR)	0	0	0	0	2	0
7.8 Records of World Heritage Sites	0	0	0	0	0	0
7.9 Records of Environmentally Sensitive Areas	0	0	0	0	0	0
7.10 Records of Areas of Outstanding Natural Beauty (AONB)	0	0	0	0	0	0
7.11 Records of National Parks	0	0	0	0	0	0
7.12 Records of Nitrate Sensitive Areas	0	0	0	0	0	0
7.13 Records of Nitrate Vulnerable Zones	1	0	0	1	0	0

Section 8: Natural Hazards

8.1 What is the maximum risk of natural ground subsidence?	Very Low
8.1.1 What is the maximum Shrink-Swell hazard rating identified on the study site?	Very Low
8.1.2 What is the maximum Landslides hazard rating identified on the study site?	Very Low
8.1.3 What is the maximum Soluble Rocks hazard rating identified on the study site?	Negligible
8.1.4 What is the maximum Compressible Ground hazard rating identified on the study site?	Very Low
8.1.5 What is the maximum Collapsible Rocks hazard rating identified on the study site?	Very Low
8.1.6 What is the maximum Running Sand hazard rating identified on the study site?	Very Low

Section 9: Mining

9.1 Are there any coal mining areas within 75m of the study site?

Yes

9.2 What is the risk of subsidence relating to shallow mining within 150m of the study site?

Low-Moderate

9.3 Are there any brine affected areas within 75m of the study site?

No

Using this report

The following report is designed by Environmental Consultants for Environmental Professionals bringing together the most up-to-date market leading environmental data. This report is provided under and subject to the Terms & Conditions agreed between GroundSure and the Client. The document contains the following sections:

1. Environmental Permits, Incidents and Registers

Provides information on Regulated Industrial Activities and Pollution Incidents as recorded by Regulatory Authorities, and sites determined as Contaminated Land. This search is conducted using radii up to 500m.

2. Landfills and Other Waste Sites

Provides information on landfills and other waste sites that may pose a risk to the study site. This search is conducted using radii up to 1500m.

3. Current Land Uses

Provides information on current land uses that may pose a risk to the study site in terms of potential contamination from activities or processes. These searches are conducted using radii of up to 500m. This includes information on potentially contaminative industrial sites, petrol stations and fuel sites as well as high pressure underground oil and gas pipelines.

4. Geology

Provides information on artificial and superficial deposits and bedrock beneath the study site.

5. Hydrogeology and Hydrology

Provides information on productive strata within the bedrock and superficial geological layers, abstraction licenses, Source Protection Zones (SPZs) and river quality. These searches are conducted using radii of up to 2000m.

6. Flooding

Provides information on surface water flooding, flood defences, flood storage areas and groundwater flood areas. This search is conducted using radii of up to 250m.

7. Designated Environmentally Sensitive Sites

Provides information on the Sites of Special Scientific Interest (SSSI), National Nature Reserves (NNR), Special Areas of Conservation (SAC), Special Protection Areas (SPA), Ramsar sites, Local Nature Reserves (LNR), Areas of Outstanding Natural Beauty (AONB), National Parks (NP), Environmentally Sensitive Areas, Nitrate Sensitive Areas, Nitrate Vulnerable Zones and World Heritage Sites and Scheduled Ancient Woodland. These searches are conducted using radii of up to 2000m.

8. Natural Hazards

Provides information on a range of natural hazards that may pose a risk to the study site. These factors include natural ground subsidence.

9. Mining

Provides information on areas of coal and shallow mining.

10. Contacts

This section of the report provides contact points for statutory bodies and data providers that may be able to provide further information on issues raised within this report. Alternatively, GroundSure provide a free Technical Helpline (08444 159000) for further information and guidance.

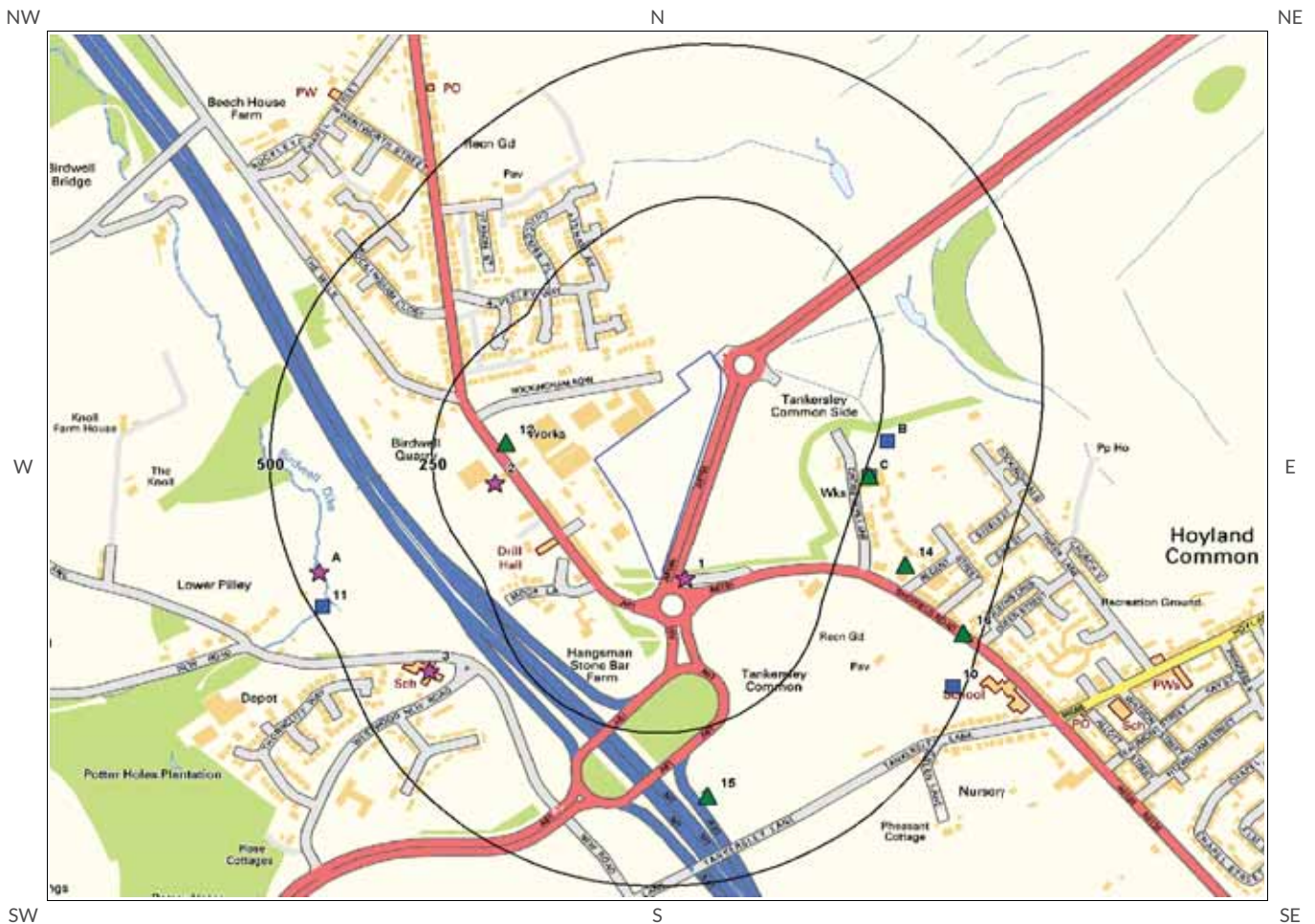
Note: Maps

Only certain features are placed on the maps within the report. All features represented on maps found within this search are given an identification number. This number identifies the feature on the mapping and correlates it to the additional information provided below. This identification number precedes all other information and takes the following format -Id: 1, Id: 2, etc. Where numerous features on the same map are in such close proximity that the numbers would obscure each other a letter identifier is used instead to represent the features. (e.g. Three features which overlap may be given the identifier "A" on the map and would be identified separately as features 1A, 3A, 10A on the data tables provided).

Where a feature is reported in the data tables to a distance greater than the map area, it is noted in the data table as "Not Shown".

All distances given in this report are in Metres (m). Directions are given as compass headings such as N: North, E: East, NE: North East from the nearest point of the study site boundary.

1. Environmental Permits, Incidents and Registers Map



Environmental Permits, Incidents and Registers Legend



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- | | | | | | |
|--|--------------------|--|-------------------------------|--|--|
| | Site Outline | | Recorded Pollution Incident | | RAS 3 & 4 Authorisations |
| | Search Buffers (m) | | Dangerous Substances (List 1) | | Part A(1) Authorised Processes and Historic IPC Authorisations |
| | | | Dangerous Substances (List 2) | | Part A(2) and Part B Authorised Processes |
| | | | Water Industry Referrals | | COMAH / NIHHS Sites |
| | | | Licenced Discharge Consents | | Sites Determined as Contaminated Land |
| | | | Red List Discharge Consents | | Hazardous Substance Consents and Enforcements |



1. Environmental Permits, Incidents and Registers

1.1 Industrial Sites Holding Licences and/or Authorisations

Searches of information provided by the Environment Agency and Local Authorities reveal the following information:

1.1.1 Records of historic IPC Authorisations within 500m of the study site:

0

Database searched and no data found.

1.1.2 Records of Part A(1) and IPPC Authorised Activities within 500m of the study site:

0

Database searched and no data found.

1.1.3 Records of Water Industry Referrals (potentially harmful discharges to the public sewer) within 500m of the study site:

0

Database searched and no data found.

1.1.4 Records of Red List Discharge Consents (potentially harmful discharges to controlled waters) within 500m of the study site:

0

Database searched and no data found.

1.1.5 Records of List 1 Dangerous Substances Inventory Sites within 500m of the study site:

0

Database searched and no data found.

1.1.6 Records of List 2 Dangerous Substance Inventory Sites within 500m of the study site:

0

Database searched and no data found.

1.1.7 Records of Part A(2) and Part B Activities and Enforcements within 500m of the study site:

5

The following Part A(2) and Part B Activities are represented as points on the Environmental Permits, Incidents and Registers Map:

ID	Distance	Direction	NGR	Details
12	139.0	W	434712 400594	Address: Hartwood Exports (Machinery) Ltd, Hangmanstone Depot, Sheffield Rd, Birdwell, S70 5TR Process: Waste Oil Burning Process Status: Historical Permit Permit Type: Part B Enforcement: No Enforcements Notified Date of Enforcement: No Enforcements Notified Comment: No Enforcements Notified
13C	258.0	E	435271 400541	Address: G B Trucks Ltd, Cross Keys Lane, Hoyland, Barnsley, S74 0QA Process: Vehicle Re-spray Process Status: Current Permit Permit Type: Part B Enforcement: No Enforcement Notified Date of Enforcement: No Enforcement Notified Comment: No Enforcement Notified
14	355.0	E	435327 400395	Address: Cross Keys Garage (Barnsley) Ltd, Sheffield Road, Hoyland Common, Barnsley, S74 0PY Process: Petrol Vapour Recovery Process Status: Current Permit Permit Type: Part B Enforcement: No Enforcement Notified Date of Enforcement: No Enforcement Notified Comment: No Enforcement Notified
15	363.0	S	435023 400019	Address: Save Serv Station, Sheffield Rd, Hoyland Common, Barnsley, S74 0DP Process: Petrol Vapour Recovery Process Status: Historical Permit Permit Type: Part B Enforcement: No Enforcements Notified Date of Enforcement: No Enforcements Notified Comment: No Enforcements Notified
16	472.0	E	435416 400284	Address: British Coal Corporation, Sheffield Road, Hoyland, Barnsley, S74 1DQ Process: Coal, Coke And Coal Products Process Status: Historical Permit Permit Type: Part B Enforcement: No Enforcements Notified Date of Enforcement: No Enforcements Notified Comment: No Enforcements Notified

1.1.8 Records of Category 3 or 4 Radioactive Substances Authorisations:

0

Database searched and no data found.

1.1.9 Records of Licensed Discharge Consents within 500m of the study site:

6

The following Licensed Discharge Consents records are represented as points on the Environmental Permits, Incidents and Registers Map:

ID	Distance	Direction	NGR	Details	
6C	259.0	E	435272 400542	Address: G.b. Trucks Services Ltd, Cross Keys Works, Cross Keys Lane, Hoyland Land, Barnsley, S74 0QA Effluent Type: Sewage Discharges - Final/treated Effluent - Not Water Company Permit Number: S/P/1181 Permit Version: 1	Receiving Water: Short Wood Dike Status: Undetermined 1961 Application Issue date: 19/5/1963 Effective Date: 19/5/1963 Revocation Date: -
7B	267.0	E	435300 400600	Address: Cross Key Lane Works, Hoyland Common, Barnsley Effluent Type: Trade Discharges - Site Drainage (contam Surface Water, Not Waste Sit) Permit Number: C5082 Permit Version: 2	Receiving Water: Trib Of Shortbridge Dyke Status: Lapsed Under Schedule 23 Environment Act 1995 Issue date: 21/6/1994 Effective Date: 21/6/1994 Revocation Date: 1/10/1996
8B	267.0	E	435300 400600	Address: Cross Key Lane Works, Hoyland Common, Barnsley Effluent Type: Trade Discharges - Site Drainage (contam Surface Water, Not Waste Sit) Permit Number: C5082 Permit Version: 1	Receiving Water: Trib Of Shortbridge Dyke Status: Transferred From Copa 1974 Issue date: 13/5/1988 Effective Date: 13/5/1988 Revocation Date: 20/6/1994
9B	267.0	E	435300 400600	Address: Cross Key Lane Works, Hoyland Common, Barnsley Effluent Type: Trade Discharges - Site Drainage (contam Surface Water, Not Waste Sit) Permit Number: WRA7281 Permit Version: 1	Receiving Water: Short Wood Dyke Status: New Consent (wra 91, S88 & Sched 10 As Amended By Env Act 1995) Issue date: 28/1/1997 Effective Date: 28/1/1997 Revocation Date: -
10	481.0	E	435400 400200	Address: Valley Farm, Hutton Bonville, Northallerton, North Yorkshire Effluent Type: Sewage Discharges - Final/treated Effluent - Not Water Company Permit Number: WA 5000 Permit Version: 1	Receiving Water: River Wiske Status: New Consent (wra 91, S88 & Sched 10 As Amended By Env Act 1995) Issue date: 9/8/1996 Effective Date: 9/8/1996 Revocation Date: -
11	483.0	SW	434430 400330	Address: Woodbine Cottages, New Road/lidget Lane (end Of), Tankersley, Barnsley, South Yorkshire Effluent Type: Sewage Discharges - Sewer Storm Overflow - Water Company Permit Number: WRA7987 Permit Version: 1	Receiving Water: Birdwell Dike Status: New Consent (wra 91, S88 & Sched 10 As Amended By Env Act 1995) Issue date: 3/2/2004 Effective Date: 31/3/2004 Revocation Date: -

1.1.10 Records of Planning Hazardous Substance Consents and Enforcements within 500m of the study site:

0

Database searched and no data found.

1.2 Dangerous or Hazardous Sites

Records of COMAH & NIHHS sites within 500m of the study site:

0

Database searched and no data found.

1.3 Environment Agency Recorded Pollution Incidents

1.3.1 Records of National Incidents Recording System, List 2 within 500m of the study site:

5

The following NIRS List 2 records are represented as points on the Environmental Permits, Incidents and Registers Map:

ID	Distance	Direction	NGR	Details
1	34.0	E	434987 400377	Incident Date: 22/03/2003 Incident Identification: 145104 Pollutant: Inert Materials and Wastes Pollutant Description: Construction and Demolition Materials and Wastes Water Impact: Category 3 (Minor) Land Impact: Category 3 (Minor) Air Impact: Category 4 (No Impact)
2	159.0	W	434695 400532	Incident Date: 08/02/2002 Incident Identification: 57238 Pollutant: Specific Waste Materials Pollutant Description: Other Specific Waste Material Water Impact: Category 4 (No Impact) Land Impact: Category 3 (Minor) Air Impact: Category 4 (No Impact)
3	380.0	SW	434594 400226	Incident Date: 25/06/2002 Incident Identification: 87260 Pollutant: Specific Waste Materials Pollutant Description: Other Specific Waste Material Water Impact: Category 4 (No Impact) Land Impact: Category 3 (Minor) Air Impact: Category 4 (No Impact)
4A	464.0	SW	434423 400387	Incident Date: 20/07/2002 Incident Identification: 93171 Pollutant: Sewage Materials Pollutant Description: Crude Sewage Water Impact: Category 3 (Minor) Land Impact: Category 4 (No Impact) Air Impact: Category 4 (No Impact)
5A	464.0	SW	434423 400387	Incident Date: 20/07/2002 Incident Identification: 93171 Pollutant: Sewage Materials Pollutant Description: Crude Sewage Water Impact: Category 3 (Minor) Land Impact: Category 4 (No Impact) Air Impact: Category 4 (No Impact)

1.3.2 Records of National Incidents Recording System, List 1 within 500m of the study site:

0

Database searched and no data found.

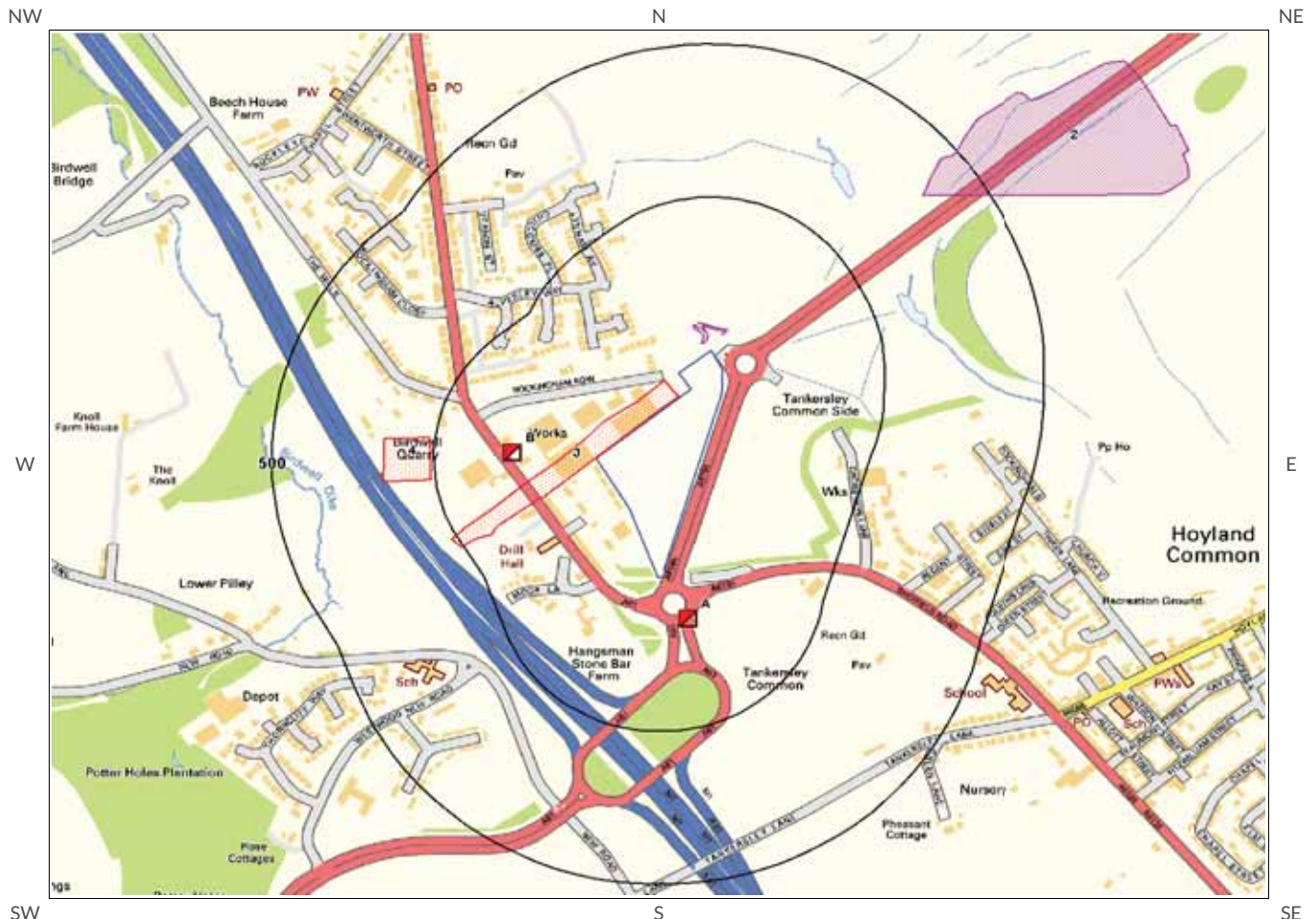
1.4 Sites Determined as Contaminated Land under Part 2A EPA 1990

How many records of sites determined as contaminated land under Section 78R of the Environmental Protection Act 1990 are there within 500m of the study site?

0

Database searched and no data found.









2. Landfill and Other Waste Sites Map



Landfill and Other Waste Sites Legend



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- | | | | | | |
|---|--------------------|---|--------------------------|---|----------------------------------|
|  | Site Outline |  | E.A. Active Landfill |  | Historic and Planned Waste Sites |
|  | Search Buffers (m) |  | E.A. Historic Landfill |  | E.A. Licensed Waste Site |
| | |  | Local Authority Landfill |  | BGS / DoE Survey Landfill |



2. Landfill and Other Waste Sites

2.1 Landfill Sites

2.1.1 Records from Environment Agency landfill data within 1000m of the study site:

0

Database searched and no data found.

2.1.2 Records of Environment Agency historic landfill sites within 1500m of the study site:

3

The following landfill records are represented as either points or polygons on the Landfill and Other Waste Sites map:

ID	Distance (m)	Direction	NGR	Details
3	0.0	On Site	434800 400500	Site Address: British Rail Railway Cutting, Adjoining premises of Hartwood Exports (Machinery) Limited, Sheffield Road, Birdwell, Barnsley Waste Licence: Yes Site Reference: WD20 B378, 4400/B378, 20B378(53), (36)B, 4400/(36), 4400/0439 Waste Type: Inert, Commercial, Environmental Permitting Regulations (Waste) Reference: - Licence Issue: 10-May-1983 Licence Surrendered: 21-Jan-1992 Licence Hold Address: - Operator: Hartwood Exports Machinery Limited
4	256.0	W	434500 400500	Site Address: Birdwell Common Quarry, Birdwell, Barnsley, South Yorkshire Waste Licence: - Site Reference: WD20 D928, 4400/(153) Waste Type: - Environmental Permitting Regulations (Waste) Reference: - Licence Issue: Licence Surrendered: Licence Hold Address: Templeborough House, Mill Close, Rotherham Operator: -
Not shown	1100.0	NE	435700 401600	Site Address: Shortwood, Upper Hoyland Road, Hoyland, Barnsley Waste Licence: Yes Site Reference: 20B76(21), 4400/B76, WD20 B76 Waste Type: Inert, Industrial Environmental Permitting Regulations (Waste) Reference: - Licence Issue: 04-Oct-1979 Licence Surrendered: 21-Feb-1992 Licence Hold Address: Shortwood, Hoyland, Barnsley Operator: Hoyland Marshall Limited

2.1.3 Records of BGS/DoE non-operational landfill sites within 1500m of the study site:

0

Database searched and no data found.

2.1.4 Records of Local Authority landfill sites within 1500m of the study site:

0

Database searched and no data found.

2.2 Other Waste Sites

2.2.1 Records of waste treatment, transfer or disposal sites within 500m of the study site:

2

The following waste treatment, transfer or disposal sites records are represented as points on the Landfill and Other Waste Sites map:

ID	Distance (m)	Direction	NGR	Details		
1	16.0	NW	435015 400775	Type of Site: Ground Workings and Refuse Heap Site Address: N/A	Planning Application Reference: N/A Date: 1955	Further Details: N/A Data Source: Historic Mapping Data Type: Polygon
2	413.0	NE	435558 401109	Type of Site: Ground Workings and Refuse Heap Site Address: N/A	Planning Application Reference: N/A Date: 1960	Further Details: N/A Data Source: Historic Mapping Data Type: Polygon

2.2.2 Records of Environment Agency licensed waste sites within 1500m of the study site:

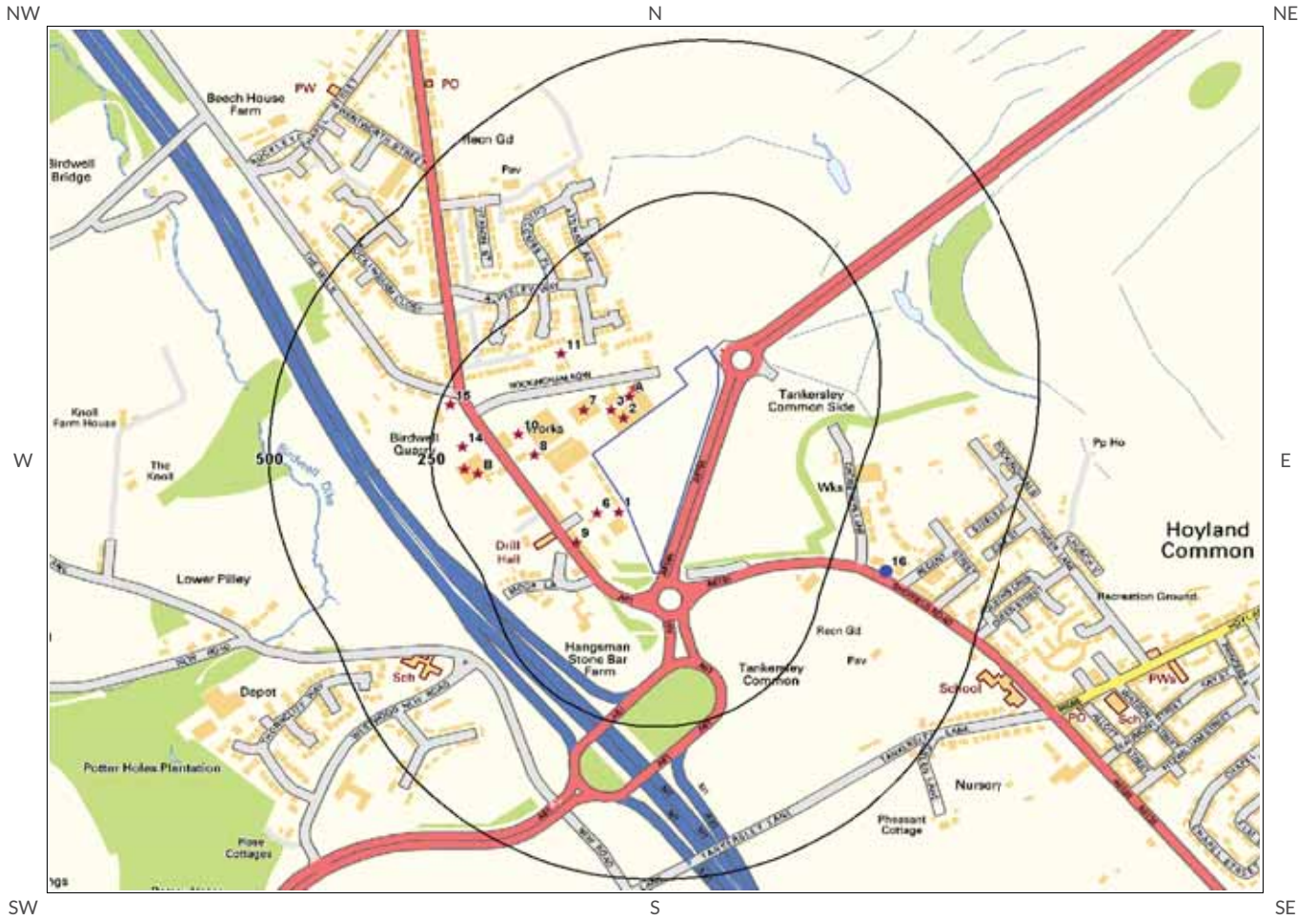
4

The following waste treatment, transfer or disposal sites records are represented as points on the Landfill and Other Waste Sites map:

ID	Distance (m)	Direction	NGR	Details	
6A	76.0	SE	434990 400309	Site Address: Lidget Garage, Sheffield Road, Hoyland Common, Barnsley, S74 0EB Type: - Size: < 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: 000077 EPR reference: - Operator: Richard Adrian Goodwin Waste Management licence No: 65291 Annual Tonnage: 0.0	Issue Date: 05/04/2006 Effective Date: - Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Issued Site Name: Lidget Garage Correspondence Address: -, Lidget Garage, Sheffield Road, Hoyland Common, Barnsley, S74 0EB

ID	Distance (m)	Direction	NGR	Details
7A	76.0	SE	434990 400309	<p>Site Address: Lidget Garage, Sheffield Road, Hoyland Common, Barnsley, South Yorkshire, S74 0EB Type: Physico-Chemical Treatment Facility Size: < 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: 000077 EPR reference: EA/EPR/GP3892ZW/A001 Operator: Richard Adrian Goodwin Waste Management licence No: 65291 Annual Tonnage: 50000.0</p> <p>Issue Date: 05/04/2006 Effective Date: - Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Issued Site Name: Lidget Garage Correspondence Address: -, -</p>
8B	129.0	W	434720 400580	<p>Site Address: Hangmanstone Depot, Sheffield Road, Birdwell, Barnsley, S Yorks, S70 5TR Type: Metal Recycling Site (Vehicle Dismantler) Size: < 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: HAR002 EPR reference: - Operator: Hartwood Exports Machinery Ltd Waste Management licence No: 60553 Annual Tonnage: 0.0</p> <p>Issue Date: 22/11/1996 Effective Date: - Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Issued Site Name: Hartwood Exports Correspondence Address: -, Hangmanstone Depot, Sheffield Road, Birdwell, Barnsley, S Yorks, S70 5TR</p>
9B	129.0	W	434720 400580	<p>Site Address: Hangmanstone Depot, Sheffield Road, Birdwell, Barnsley, South Yorkshire, S70 5TR Type: Metal Recycling Site (Vehicle Dismantler) Size: < 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: HAR120 EPR reference: EA/EPR/CP3695LB/S003 Operator: Hartwood Estates Ltd Waste Management licence No: 60553 Annual Tonnage: 0.0</p> <p>Issue Date: 22/11/1996 Effective Date: 30/01/2008 Modified: - Surrendered Date: 16/02/2009 Expiry Date: - Cancelled Date: - Status: Surrendered Site Name: Hartwood Exports Correspondence Address: -, -</p>

3. Current Land Use Map



Current Land Use Legend



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Site Outline



Current Industrial Sites



Search Buffers (m)



Petrol & Fuel Sites



Underground High Pressure Oil & Fuel Pipelines



3. Current Land Uses

3.1 Current Industrial Data

Records of potentially contaminative industrial sites within 250m of the study site:

15

The following records are represented as points on the Current Land Uses map.

ID	Distance (m)	Direction	Company	NGR	Address	Activity	Category
1	15.0	W	Hopper	434890 400476	S70	Hoppers and Silos	Farming
2	17.0	NW	Exploration & Production Ltd	434897 400629	Unit 5 Rockingham Business Park, Rockingham Row, Birdwell, Barnsley, S70 5TW	Metals Manufacturers, Fabricators and Stockholders	Industrial Products
3	39.0	NW	Electricity Sub Station	434877 400642	S70	Electrical Features	Infrastructure and Facilities
4A	40.0	NW	Darwill Ltd	434905 400664	Unit 13 Rockingham Business Park, Rockingham Row, Birdwell, Barnsley, S70 5TW	Lifting and Handling Equipment	Industrial Products
5A	45.0	NW	Rubicon Ltd	434913 400677	Unit 11 Rockingham Business Park, Rockingham Row, Birdwell, Barnsley, S70 5TW	Metals Manufacturers, Fabricators and Stockholders	Industrial Products
6	46.0	SW	Depot	434856 400474	S70	Container and Storage	Transport, Storage and Delivery
7	65.0	NW	Environmental Techniques	434835 400642	Unit 4 Rockingham Business Park, Rockingham Row, Birdwell, Barnsley, S70 5TW	Civil Engineers	Engineering Services
8	90.0	W	Electricity Sub Station	434759 400569	S70	Electrical Features	Infrastructure and Facilities
9	95.0	W	Direct Repair Services	434823 400425	20, Wood View, Birdwell, Barnsley, S70 5TT	Conservatories	Consumer Products
10	119.0	W	Wks	434734 400602	S70	Unspecified Works Or Factories	Industrial Features
11	159.0	NW	Mast	434800 400734	S70	Telecommunications Features	Infrastructure and Facilities
12B	181.0	W	Take 2 Printers	434671 400538	311, Sheffield Road, Birdwell, Barnsley, S70 5TU	Published Goods	Industrial Products
13B	200.0	W	Warehouse	434651 400546	S70	Container and Storage	Transport, Storage and Delivery
14	202.0	W	Birdwell Quarry (Disused)	434647 400582	S70	Unspecified Quarries Or Mines	Extractive Industries
15	234.0	W	Colin Vaines & Sons Ltd	434629 400651	2, The Walk, Birdwell, Barnsley, S70 5UA	Distribution and Haulage	Transport, Storage and Delivery

3.2 Petrol and Fuel Sites

Records of petrol or fuel sites within 500m of the study site: 1

The following petrol or fuel site records provided by Catalist are represented as points on the Current Land Use map:

ID	Distance (m)	Direction	NGR	Company	Address	LPG	Status
16	335.0	E	435302 400379	Jet	Cross Keys Garage, Sheffield Road, Sheffield Road, Regent Street, Hoyland, Barnsley, South Yorkshire, S74 0PY	No	Open

3.3 Underground High Pressure Oil and Gas Pipelines

Records of high pressure underground pipelines within 500m of the study site: 0

Database searched and no data found.



4. Geology

4.1 Artificial Ground and Made Ground

The database has been searched on site, including a 50m buffer.

Lex Code	Description	Rock Type
MGR-MGRD	MADE GROUND (UNDIVIDED)	ARTIFICIAL DEPOSIT

4.2 Superficial Ground and Drift Geology

Database searched and no data found.

The database has been searched on site, including a 50m buffer.

4.3 Bedrock and Solid Geology

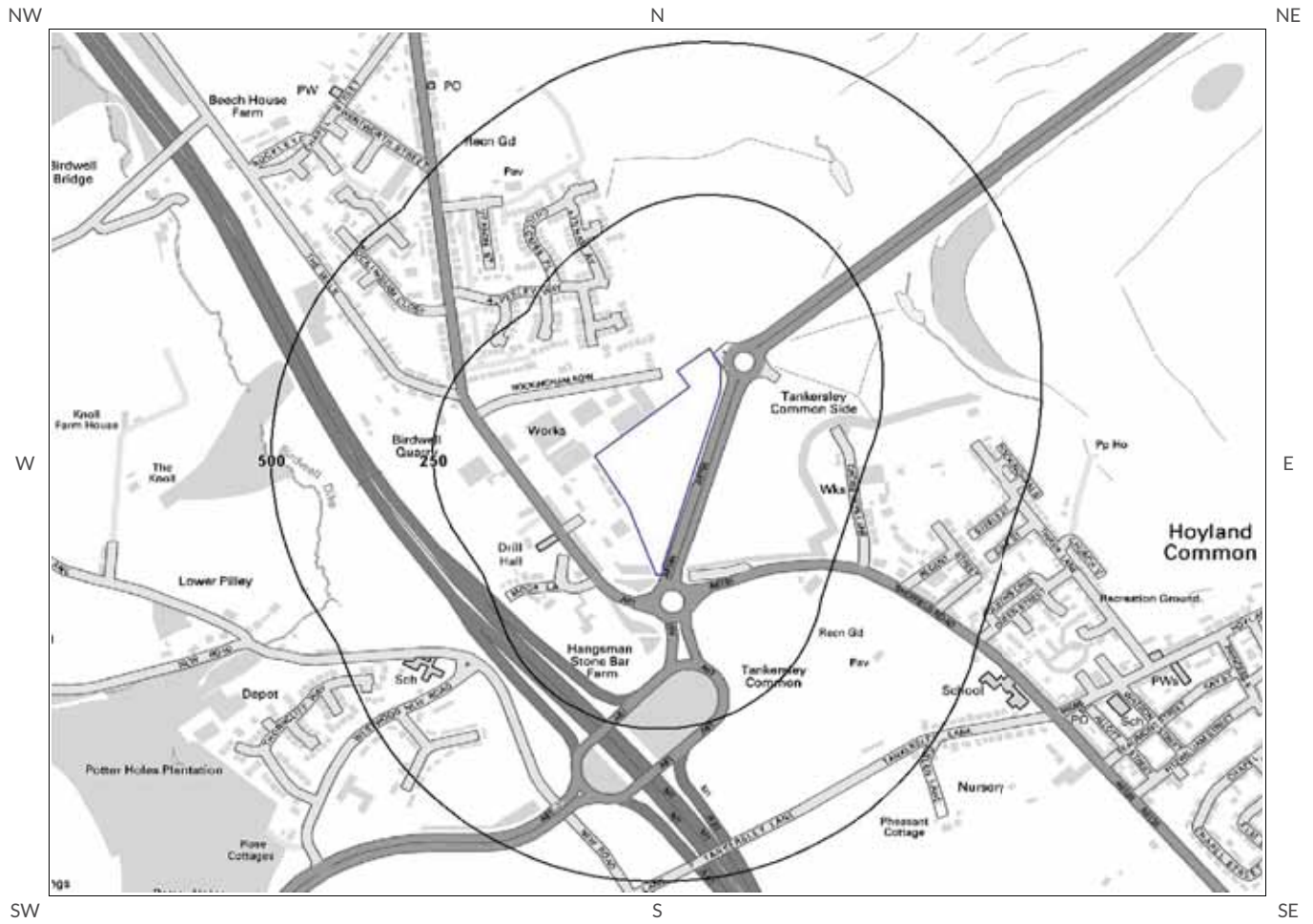
The database has been searched on site, including a 50m buffer.

Lex Code	Description	Rock Type
PMCM-MDSS	PENNINE MIDDLE COAL MEASURES FORMATION	MUDSTONE, SILTSTONE AND SANDSTONE
HMR-SDST	HAIGH MOOR ROCK	SANDSTONE
PMCM-MDSS	PENNINE MIDDLE COAL MEASURES FORMATION	MUDSTONE, SILTSTONE AND SANDSTONE
PMCM-SDST	PENNINE MIDDLE COAL MEASURES FORMATION	SANDSTONE

(Derived from the BGS 1:50,000 Digital Geological Map of Great Britain)

5. Hydrogeology and Hydrology









5a. Aquifer Within Superficial Geology



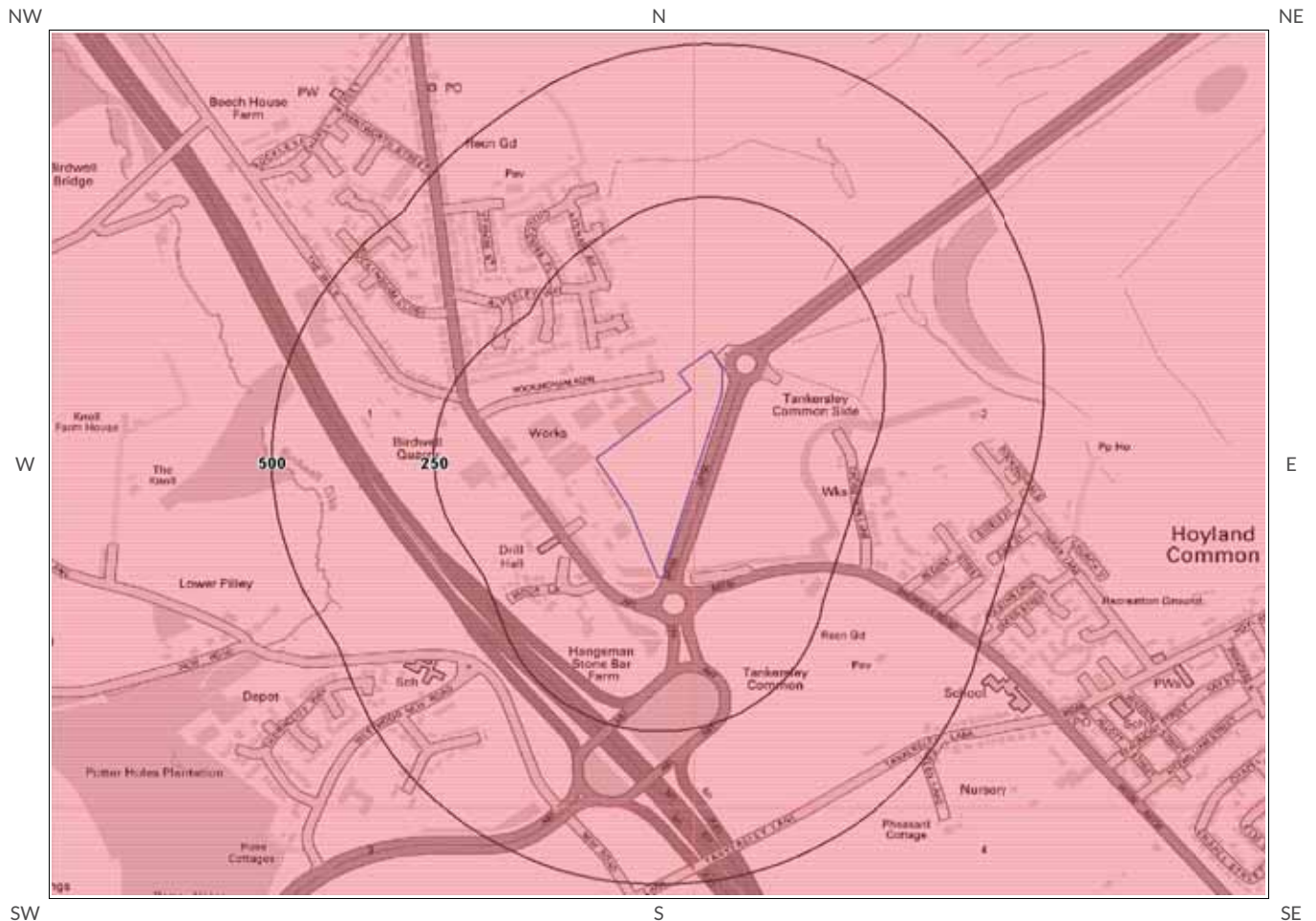
Map Legend



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	Site Outline		Principal Aquifer		Secondary Aquifer - Undifferentiated Layers
	Search Buffers (m)		Secondary (A) Aquifer - Permeable Layers		Unproductive
			Secondary (B) Aquifer - Lower Permeability Layers		Unknown (lakes and landslip)

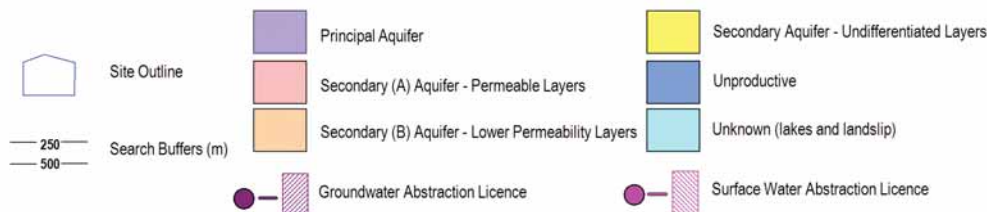
5b. Aquifer Within Bedrock Geology and Abstraction Licenses



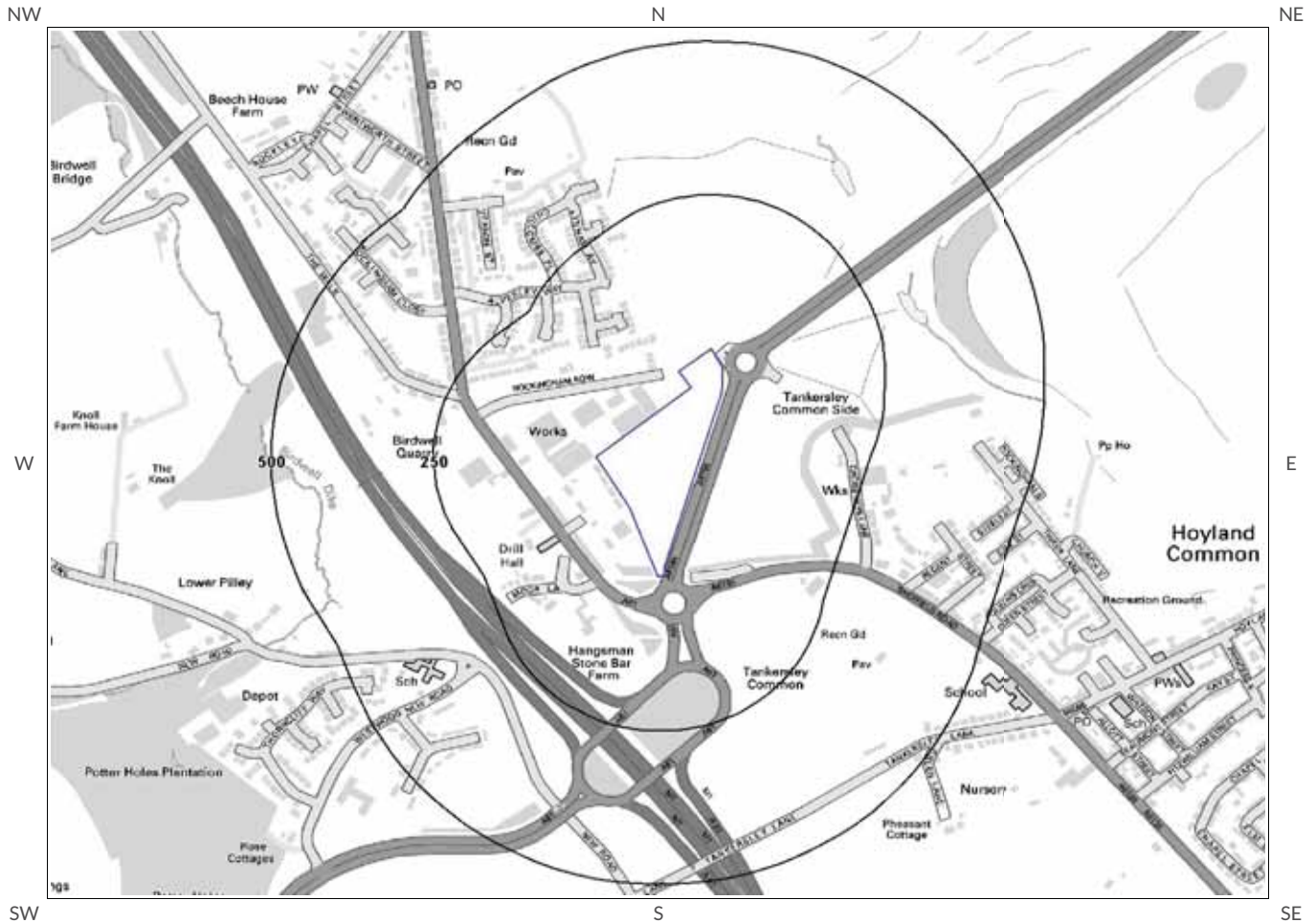
Map Legend

Mapping sourced from Ordnance Survey

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






5c. Hydrogeology – Source Protection Zones and Potable Water Abstraction Licenses



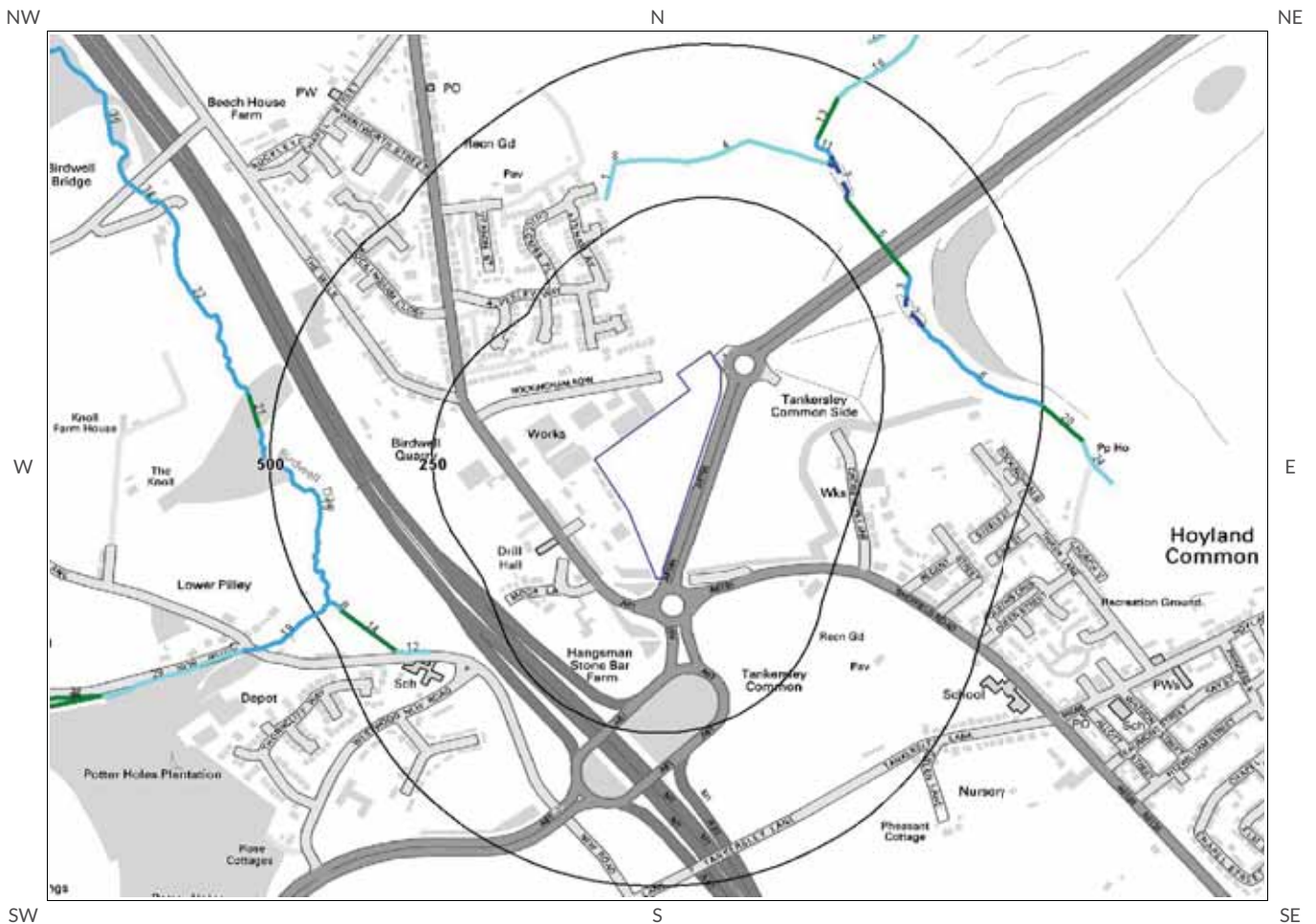
Map Legend



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-  Site Outline
-  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
-  Potable Water Abstraction Licence
-  Search Buffers (m)
-  Search Buffers (m)

5d. Hydrology – Detailed River Network and River Quality

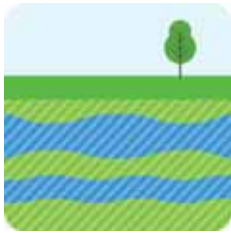


Map Legend



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- | | | | | | |
|--|------------------------|--|---------------------------------------|--|-------------------------------------|
| | Site Outline | | Primary River | | Canal |
| | 250 Search Buffers (m) | | Secondary River | | Canal Tunnel |
| | 500 Search Buffers (m) | | Tertiary River | | Culvert |
| | | | Lake/Reservoir | | Multiple Channel Culvert |
| | | | Underground River (inferred) | | Underground River (Potential Sewer) |
| | | | General Quality Assessment: Biology | | Underground River (local knowledge) |
| | | | General Quality Assessment: Chemistry | | |



5. Hydrogeology and Hydrology

5.1 Aquifer within Superficial Deposits

Are there records of strata classification within the superficial geology at or in proximity to the property? No

Database searched and no data found.

From 1 April 2010, the Environment Agency's Groundwater Protection Policy has been using aquifer designations consistent with the Water Framework Directive. For further details on the designation and interpretation of this information, please refer to the GroundSure Enviroinsight User Guide.

5.2 Aquifer within Bedrock Deposits

Are there records of strata classification within the bedrock geology at or in proximity to the property? Yes

From 1 April 2010, the Environment Agency's Groundwater Protection Policy has been using aquifer designations consistent with the Water Framework Directive. For further details on the designation and interpretation of this information, please refer to the GroundSure Enviroinsight User Guide.

The following aquifer records are shown on the Aquifer within Bedrock Geology Map (5b):

ID	Distance (m)	Direction	Designation	Description
1	0.0	On Site	Secondary A	Permeable layers capable of supporting water supplies at a local rather than strategic scale, and in some cases forming an important source of base flow to rivers. These are generally aquifers formerly classified as minor aquifers
2	0.0	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
3	375.0	S	Secondary A	Permeable layers capable of supporting water supplies at a local rather than strategic scale, and in some cases forming an important source of base flow to rivers. These are generally aquifers formerly classified as minor aquifers
4	378.0	S	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

5.3 Groundwater Abstraction Licences

Are there any Groundwater Abstraction Licences within 2000m of the study site?

Yes

The following Abstraction Licences records are represented as points, lines and regions on the Aquifer within Bedrock Geology Map (5b):

ID	Distance (m)	Direction	NGR	Details
Not shown	1804.0	S	435570 398680	Licence No: 2/27/06/043 Details: Spray Irrigation - Direct Direct Source: Groundwaters Point: Borehole-shaft Coal Measures-high Green Data Type: Point Annual Volume (m ³): 8200 Max Daily Volume (m ³): 226 Original Application No: 836(2) Original Start Date: 17/3/1966 Expiry Date: - Issue No: 102 Version Start Date: 9/2/2004 Version End Date:
Not shown	1834.0	SE	435700 398700	Licence No: 2/27/06/043 Details: Spray Irrigation - Direct Direct Source: Groundwaters Point: Borehole - Shaft - Coal Measures - High Green Sheffield Data Type: Point Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: 83602 Original Start Date: 17/3/1966 Expiry Date: - Issue No: 101 Version Start Date: 24/10/2000 Version End Date:
Not shown	1834.0	SE	435700 398700	Licence No: 2/27/06/043 Details: Spray Irrigation - Direct Direct Source: Groundwaters Point: Borehole-shaft-coal Measures-high Green-sheffield Data Type: Point Annual Volume (m ³): 8200 Max Daily Volume (m ³): 226 Original Application No: 836(2) Original Start Date: 17/3/1966 Expiry Date: - Issue No: 102 Version Start Date: 9/2/2004 Version End Date:
Not shown	1867.0	N	434800 402600	Licence No: 2/27/08/040 Details: General Farming & Domestic Direct Source: Groundwaters Point: Well - Coal Measures - Worsborough Data Type: Point Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: 03403 Original Start Date: 27/1/1966 Expiry Date: - Issue No: 100 Version Start Date: 27/1/1966 Version End Date:

5.4 Surface Water Abstraction Licences

Are there any Surface Water Abstraction Licences within 2000m of the study site?

Yes

The following Surface Water Abstraction Licences records are represented as points, lines and regions on the Aquifer within Bedrock Geology Map (5b):

ID	Distance (m)	Direction	NGR	Details
Not shown	1961.0	NW	433500 402000	Licence No: 2/27/08/025 Details: Spray Irrigation - Direct Direct Source: Surface Water Point: Dyke X4 - Worsborough Data Type: Point Annual Volume (m ³): 2728 Max Daily Volume (m ³): 159.11 Application No: 322 Original Start Date: 14/12/1965 Expiry Date: - Issue No: 100 Version Start Date: 14/12/1965 Version End Date:

5.5 Potable Water Abstraction Licences

Are there any Potable Water Abstraction Licences within 2000m of the study site? No

Database searched and no data found.

5.6 Source Protection Zones

Are there any Source Protection Zones within 500m of the study site? No

Database searched and no data found.

5.7 Groundwater Vulnerability and Soil Leaching Potential

Is there any Environment Agency information on groundwater vulnerability and soil leaching potential within 500m of the study site? Yes

Distance (m)	Direction	Classification	Soil Vulnerability Category	Description
0	On Site	Minor Aquifer/High Leaching Potential	HU	Soil information for urban areas and restored mineral workings. These soils are therefore assumed to be highly permeable in the absence of site-specific information.
0	On Site	Minor Aquifer/Low Leaching Potential	L	Soils in which pollutants are unlikely to penetrate the soil layer because either water movement is largely horizontal, or they have the ability to attenuate diffuse pollutants.
275	S	Minor Aquifer/High Leaching Potential	H3	Coarse textured or moderately shallow soils which readily transmit non-adsorbed pollutants and liquid discharges but have some ability to attenuate adsorbed pollutants because of their clay or organic matter content.
287	N	Minor Aquifer/Low Leaching Potential	L	Soils in which pollutants are unlikely to penetrate the soil layer because either water movement is largely horizontal, or they have the ability to attenuate diffuse pollutants.
375	S	Minor Aquifer/Low Leaching Potential	L	Soils in which pollutants are unlikely to penetrate the soil layer because either water movement is largely horizontal, or they have the ability to attenuate diffuse pollutants.
379	S	Minor Aquifer/High Leaching Potential	H3	Coarse textured or moderately shallow soils which readily transmit non-adsorbed pollutants and liquid discharges but have some ability to attenuate adsorbed pollutants because of their clay or organic matter content.

5.8 River Quality

Is there any Environment Agency information on river quality within 1500m of the study site? No

5.8.1 Biological Quality:

Database searched and no data found.

5.8.2 Chemical Quality:

Database searched and no data found.

5.9 Detailed River Network

Are there any Detailed River Network entries within 500m of the study site?

Yes

The following Detailed River Network records are represented on the Hydrology Map (5d):

ID	Distance (m)	Direction	Details	
1	292.0	NW	River Name: Drain Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined
2	303.0	E	River Name: - Welsh River Name: - Alternative Name: -	River Type: Lake/Reservoir Main River Status: Currently Undefined
3	309.0	NE	River Name: - Welsh River Name: - Alternative Name: -	River Type: Secondary River Main River Status: Currently Undefined
4	311.0	N	River Name: Drain Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined
5	318.0	NE	River Name: - Welsh River Name: - Alternative Name: -	River Type: Culvert Main River Status: Currently Undefined
6	319.0	E	River Name: Drain Welsh River Name: - Alternative Name: -	River Type: Secondary River Main River Status: Currently Undefined
7	325.0	NE	River Name: - Welsh River Name: - Alternative Name: -	River Type: Lake/Reservoir Main River Status: Currently Undefined
8	339.0	NW	River Name: - Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined
9A	355.0	NE	River Name: - Welsh River Name: - Alternative Name: -	River Type: Lake/Reservoir Main River Status: Currently Undefined
10 A	359.0	NE	River Name: - Welsh River Name: - Alternative Name: -	River Type: Lake/Reservoir Main River Status: Currently Undefined
11	362.0	NE	River Name: Drain Welsh River Name: - Alternative Name: -	River Type: Secondary River Main River Status: Currently Undefined
12	368.0	W	River Name: - Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined
13	382.0	NE	River Name: - Welsh River Name: - Alternative Name: -	River Type: Culvert Main River Status: Currently Undefined
14	416.0	W	River Name: - Welsh River Name: - Alternative Name: -	River Type: Culvert Main River Status: Currently Undefined
15	430.0	W	River Name: Birdwell Dike Welsh River Name: - Alternative Name: -	River Type: Secondary River Main River Status: Currently Undefined
16	458.0	NE	River Name: - Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined
17 B	463.0	SW	River Name: - Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined
18 B	464.0	SW	River Name: - Welsh River Name: - Alternative Name: -	River Type: Secondary River Main River Status: Currently Undefined
19	471.0	SW	River Name: - Welsh River Name: - Alternative Name: -	River Type: Secondary River Main River Status: Currently Undefined
20	500.0	E	River Name: - Welsh River Name: - Alternative Name: -	River Type: Culvert Main River Status: Currently Undefined

5.10 Surface Water Features

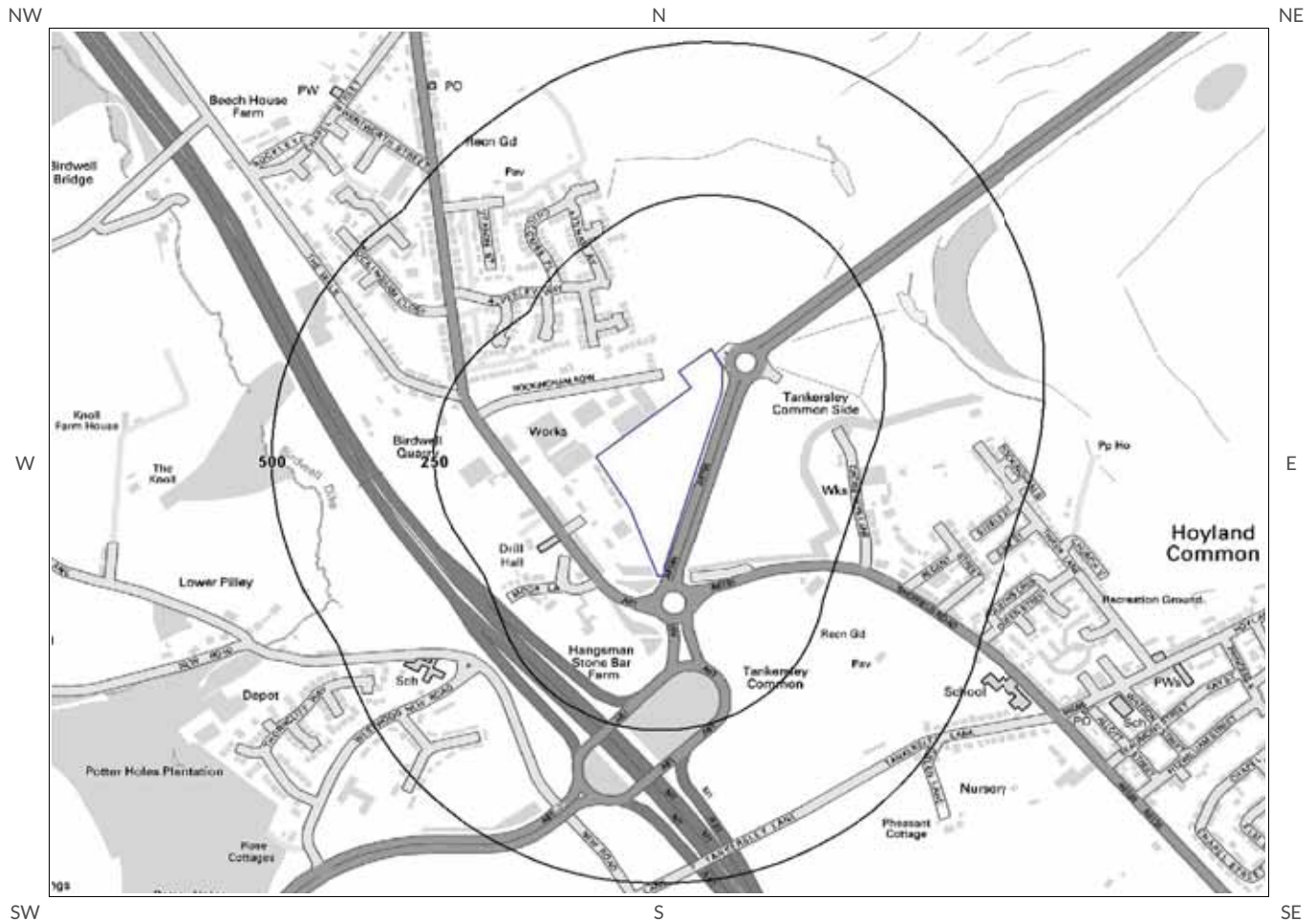
Are there any surface water features within 250m of the study site?

Yes

The following surface water records are not represented on mapping:

Distance (m)	Direction
82.0	E
115.0	NE
208.0	NE
213.0	E









6. Environment Agency Flood Map for planning (from rivers and the sea)



Map Legend



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-  Site Outline
-  250 Search Buffers (m)
-  500 Search Buffers (m)
-  Zone 2 Floodplain
-  Zone 3 Floodplain
-  Flood Storage Area
-  Area Benefiting from Flood Defences
-  Flood Defences



6. Flooding

6.1 Zone 2 Flooding

Environment Agency Zone 2 floodplains estimate the annual probability of flooding as between 1 in 1000 (0.1%) and 1 in 100 (1%) from rivers and between 1 in 1000 (0.1%) and 1 in 200 (0.5%) from the sea. Any relevant data is represented on Map 1 – Environment Agency Flood Map for Planning:

Is the site within 250m of an Environment Agency Zone 2 floodplain? No

Database searched and no data found.

6.2 Zone 3 Flooding

Zone 3 shows the extent of a river flood with a 1 in 100 (1%) or greater chance of occurring in any year or a sea flood with a 1 in 200 (0.5%) or greater chance of occurring in any year. Any relevant data is represented on Map 1 – Environment Agency Flood Map for Planning.

Is the site within 250m of an Environment Agency Zone 3 floodplain? No

Database searched and no data found.

6.3 Flood Defences

Are there any Flood Defences within 250m of the study site? No

Database searched and no data found.

6.4 Areas benefiting from Flood Defences

Are there any areas benefiting from Flood Defences within 250m of the study site? No

6.5 Areas benefiting from Flood Storage

Are there any areas used for Flood Storage within 250m of the study site? No

6.6 Groundwater Flooding Susceptibility Areas

6.6.1 Are there any British Geological Survey groundwater flooding susceptibility areas within 50m of the boundary of the study site?

Yes

Does this relate to Clearwater Flooding or Superficial Deposits Flooding? Superficial Deposits Flooding

Notes: Groundwater flooding may either be associated with shallow unconsolidated sedimentary aquifers which overlie unproductive aquifers (Superficial Deposits Flooding), or with unconfined aquifers (Clearwater Flooding).

6.6.2 What is the highest susceptibility to groundwater flooding in the search area based on the underlying geological conditions?

Potential at Surface

Where potential for groundwater flooding to occur at surface is indicated, this means that given the geological conditions in the area groundwater flooding hazard should be considered in all land-use planning decisions. It is recommended that other relevant information e.g. records of previous incidence of groundwater flooding, rainfall, property type, and land drainage information be investigated in order to establish relative, but not absolute, risk of groundwater flooding.

6.7 Groundwater Flooding Confidence Areas

What is the British Geological Survey confidence rating in this result? Moderate

Notes: Groundwater flooding is defined as the emergence of groundwater at the ground surface or the rising of groundwater into man-made ground under conditions where the normal range of groundwater levels is exceeded.

The confidence rating is on a threefold scale - Low, Moderate and High. This provides a relative indication of the BGS confidence in the accuracy of the susceptibility result for groundwater flooding. This is based on the amount and precision of the information used in the assessment. In areas with a relatively lower level of confidence the susceptibility result should be treated with more caution. In other areas with higher levels of confidence the susceptibility result can be used with more confidence.

7. Designated Environmentally Sensitive Sites Map



Map Legend

Mapping sourced from Ordnance Survey®

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- | | | | | |
|-------------------------------------|--------------------------|-------------------------|----------------|---------------------------------|
| Site Outline | SAC | SSSI | NNR | World Heritage Sites |
| Areas of Outstanding Natural Beauty | SPA | Ramsar | LNR | Environmentally Sensitive Areas |
| | Nitrate Vulnerable Zones | Nitrate Sensitive Areas | National Parks | Ancient Woodlands |



7. Designated Environmentally Sensitive Sites

Presence of Designated Environmentally Sensitive Sites within 2000m of the study site? Yes

7.1 Records of Sites of Special Scientific Interest (SSSI) within 2000m of the study site: 0

Database searched and no data found.

7.2 Records of National Nature Reserves (NNR) within 2000m of the study site: 0

Database searched and no data found.

7.3 Records of Special Areas of Conservation (SAC) within 2000m of the study site: 0

Database searched and no data found.

7.4 Records of Special Protection Areas (SPA) within 2000m of the study site: 0

Database searched and no data found.

7.5 Records of Ramsar sites within 2000m of the study site: 0

Database searched and no data found.

7.6 Records of Ancient Woodland within 2000m of the study site:

14

The following Ancient Woodland records are supplied by English Nature/Scottish Natural Heritage/Countryside Council for Wales and are represented as polygons on the Designated Environmentally Sensitive Sites Map:

ID	Distance (m)	Direction	Ancient Woodland Name	Data Source
5	711.0	N	SHORT WOOD	Ancient and Semi-Natural Woodland
6A	830.0	NW	THE OLD PARK	Ancient and Semi-Natural Woodland
7A	939.0	NW	THE OLD PARK	Ancient Replanted Woodland
8	946.0	S	BULL WOOD	Ancient and Semi-Natural Woodland
9	949.0	NW	THE OLD PARK	Ancient Replanted Woodland
10	1368.0	NW	THE OLD PARK	Ancient and Semi-Natural Woodland
11	1414.0	NW	THE OLD PARK	Ancient Replanted Woodland
Not shown	1462.0	NW	UNKNOWN	Ancient and Semi-Natural Woodland
Not shown	1627.0	NW	WIGFIELD WOOD	Ancient and Semi-Natural Woodland
Not shown	1677.0	NW	UNKNOWN	Ancient and Semi-Natural Woodland
Not shown	1721.0	N	UNKNOWN	Ancient and Semi-Natural Woodland
Not shown	1872.0	SW	WEST WOOD	Ancient and Semi-Natural Woodland
Not shown	1925.0	SW	WEST WOOD	Ancient and Semi-Natural Woodland
Not shown	1965.0	SE	SKIERS SPRING WOOD	Ancient and Semi-Natural Woodland

7.7 Records of Local Nature Reserves (LNR) within 2000m of the study site:

2

The following Local Nature Reserve (LNR) records provided by Natural England/Countryside Council for Wales and Scottish Natural Heritage are represented as polygons on the Designated Environmentally Sensitive Sites Map:

ID	Distance (m)	Direction	LNR Name	Data Source
1	694.0	SW	Potter Holes Plantation	Natural England
2	696.0	SW	Potter Holes Plantation	Natural England

7.8 Records of World Heritage Sites within 2000m of the study site:

0

Database searched and no data found.

7.9 Records of Environmentally Sensitive Areas within 2000m of the study site:

0

Database searched and no data found.

7.10 Records of Areas of Outstanding Natural Beauty (AONB) within 2000m of the study site:

0

Database searched and no data found.

7.11 Records of National Parks (NP) within 2000m of the study site:

0

Database searched and no data found.

7.12 Records of Nitrate Sensitive Areas within 2000m of the study site:

0

Database searched and no data found.

7.13 Records of Nitrate Vulnerable Zones within 2000m of the study site:

2

The following Nitrate Vulnerable Zone records produced by DEFRA are represented as polygons on the Designated Environmentally Sensitive Sites Map:

ID	Distance (m)	Direction	NVZ Name	Data Source
3	0.0	On Site	NVZ Area	DEFRA
4	375.0	S	NVZ Area	DEFRA



8. Natural Hazards Findings

8.1 Detailed BGS GeoSure Data

BGS GeoSure Data has been searched to 50m. The data is included in tabular format. If you require further information on geology and ground stability, please obtain a **GroundSure GeoInsight**, available from our [website](#). The following information has been found:

8.1.1 Shrink Swell

What is the maximum Shrink-Swell* hazard rating identified on the study site? Very Low

The following natural subsidence information provided by the British Geological Survey is not represented on mapping:

Hazard

Ground conditions predominantly low plasticity. No special actions required to avoid problems due to shrink-swell clays. No special ground investigation required, and increased construction costs or increased financial risks are unlikely due to potential problems with shrink-swell clays.

8.1.2 Landslides

What is the maximum Landslide* hazard rating identified on the study site? Very Low

The following natural subsidence information provided by the British Geological Survey is not represented on mapping:

Hazard

Slope instability problems are unlikely to be present. No special actions required to avoid problems due to landslides. No special ground investigation required, and increased construction costs or increased financial risks are unlikely due to potential problems with landslides.

* This indicates an automatically generated 50m buffer and site.

8.1.3 Soluble Rocks

What is the maximum Soluble Rocks* hazard rating identified on the study site? Negligible

The following natural subsidence information provided by the British Geological Survey is not represented on mapping:

Hazard

Soluble rocks are present, but unlikely to cause problems except under exceptional conditions. No special actions required to avoid problems due to soluble rocks. No special ground investigation required, and increased construction costs or increased financial risks are unlikely due to potential problems with soluble rocks.

8.1.4 Compressible Ground

What is the maximum Compressible Ground* hazard rating identified on the study site? Very Low

The following natural subsidence information provided by the British Geological Survey is not represented on mapping:

Hazard

Very low potential for compressible deposits to be present. No special actions required to avoid problems due to compressible deposits. No special ground investigation required, and increased construction costs or increased financial risks are unlikely due to potential problems with compressible deposits.

8.1.5 Collapsible Rocks

What is the maximum Collapsible Rocks* hazard rating identified on the study site? Very Low

The following natural subsidence information provided by the British Geological Survey is not represented on mapping:

Hazard

Deposits with potential to collapse when loaded and saturated are unlikely to be present. No special ground investigation required or increased construction costs or increased financial risk due to potential problems with collapsible deposits.

8.1.6 Running Sand

What is the maximum Running Sand** hazard rating identified on the study site?

Very Low

The following natural subsidence information provided by the British Geological Survey is not represented on mapping:

Hazard

Very low potential for running sand problems if water table rises or if sandy strata are exposed to water. No special actions required, to avoid problems due to running sand. No special ground investigation required, and increased construction costs or increased financial risks are unlikely due to potential problems with running sand.

* This indicates an automatically generated 50m buffer and site.



9. Mining

9.1 Coal Mining

Are there any coal mining areas within 75m of the study site?

Yes

The following coal mining information provided by the Coal Authority is not represented on Mapping:

Distance	Direction	Details
0.0	On Site	The study site is located within the specified search distance of an identified mining area. Further details concerning this can be obtained from the Coal Authority Helpline on 0845 762 6848.

9.2 Shallow Mining

What is the subsidence hazard relating to shallow mining on-site*?

Low-Moderate

*Please note this data is searched with a 150m buffer.

9.3 Brine Affected Areas

Are there any brine affected areas within 75m of the study site?

No

Guidance: No Guidance Required.

Contact Details

EmapSite
Telephone: 0118 9736883
sales@emapsite.com



British Geological Survey Enquiries

Kingsley Dunham Centre
Keyworth, Nottingham NG12 5GG
Tel: 0115 936 3143.
Fax: 0115 936 3276.
Email: enquiries@bgs.ac.uk
Web: www.bgs.ac.uk

BGS Geological Hazards Reports and general geological enquiries



Environment Agency

National Customer Contact Centre, PO Box 544
Rotherham, S60 1BY
Tel: 08708 506 506

Web: www.environment-agency.gov.uk
Email: enquiries@environment-agency.gov.uk



Public Health England

Public information access office
Public Health England, Wellington House
133-155 Waterloo Road, London, SE1 8UG
<https://www.gov.uk/government/organisations/public-health-england>

Email: enquiries@phe.gov.uk
Main switchboard: 020 7654 8000



The Coal Authority

200 Lichfield Lane
Mansfield
Notts NG18 4RG
Tel: 0345 7626 848
DX 716176 Mansfield 5
www.coal.gov.uk



Ordnance Survey

Adanac Drive, Southampton
SO16 0AS
Tel: 08456 050505



Local Authority

Authority: Barnsley Metropolitan Borough Council
Phone: 01226 770770
Web: www.barnsley.gov.uk/index.asp
Address: Town Hall, Barnsley, South Yorkshire, S70 2TA

Gemapping PLC

Virginia Villas, High Street, Hartley Witney,
Hampshire RG27 8NW
Tel: 01252 845444



Acknowledgements: Site of Special Scientific Interest, National Nature Reserve, Ramsar Site, Special Protection Area, Special Area of Conservation data is provided by, and used with the permission of, English Nature who retain the Copyright and Intellectual Property Rights for the data. PointX © Database Right/Copyright, Thomson Directories Limited © Copyright Link Interchange Network Limited © Database Right/Copyright and Ordnance Survey © Crown Copyright and/or Database Right. All Rights Reserved. Licence Number [03421028]. This report has been prepared in accordance with the GroundSure Ltd standard Terms and Conditions of business for work of this nature.

Standard Terms and Conditions

1 Definitions

In these terms and conditions unless the context otherwise requires:

"Beneficiary" means the person or entity for whose benefit the Client has obtained the Services.

"Client" means the party or parties entering into a Contract with GroundSure.

"Commercial" means any building or property which is not Residential.

"Confidential Information" means the contents of this Contract and all information received from the Client as a result of, or in connection with, this Contract other than

(i) information which the Client can prove was rightfully in its possession prior to disclosure by GroundSure and

(ii) any information which is in the public domain (other than by virtue of a breach of this Contract).

"Support Services" means Support Services provided by GroundSure including, without limitation, interpreting third party and in-house environmental data, providing environmental support advice, undertaking environmental audits and assessments, Site investigation, Site monitoring and related items.

"Contract" means the contract between GroundSure and the Client for the provision of the Services, and which shall incorporate these terms and conditions, the Order, and the relevant User Guide.

"Third Party Data Provider" means any third party providing Third Party Content to GroundSure.

"Data Reports" means reports comprising factual data with no accompanying interpretation.

"Fees" has the meaning set out in clause 5.1.

"GroundSure" means GroundSure Limited, a company registered in England and Wales under number 03421028.

"GroundSure Materials" means all materials prepared by GroundSure and provided as part of the Services, including but not limited to Third Party Content, Data Reports, Mapping, and Risk Screening Reports.

"Intellectual Property" means any patent, copyright, design rights, trade or service mark, moral rights, data protection rights, know-how or trade mark in each case whether registered or not and including applications for the same or any other rights of a similar nature anywhere in the world.

"Mapping" means a map, map data or a combination of historical maps of various ages, time periods and scales.

"Order" means an electronic, written or other order form submitted by the Client requesting Services from GroundSure in respect of a specified Site.

"Ordnance Survey" means the Secretary of State for Business, Innovation and Skills, acting through Ordnance Survey, Adanac Drive, Southampton, SO16 0AS, UK.

"Order Website" means the online platform through which Orders may be placed by the Client and accepted by GroundSure.

"Report" means a Risk Screening Report or Data Report for Commercial or Residential property.

"Residential" means any building or property used as or intended to be used as a single dwelling.

"Risk Screening Report" means a risk screening report comprising factual data with an accompanying interpretation by GroundSure.

"Services" means any Report, Mapping and/or Support Services which GroundSure has agreed to provide by accepting an Order pursuant to clause 2.6.

"Site" means the area of land in respect of which the Client has requested GroundSure to provide the Services.

"Third Party Content" means data, database information or other information which is provided to GroundSure by a Third Party Data Provider.

"User Guide" means the user guide, as amended from time to time, available upon request from GroundSure and on the website (www.GroundSure.com) and forming part of this Contract.

2 Scope of Services, terms and conditions, requests for insurance and quotations

2.1 GroundSure agrees to provide the Services in accordance with the Contract.

2.2 GroundSure shall exercise reasonable skill and care in the provision of the Services.

2.3 Subject to clause 7.3 the Client acknowledges that it has not relied on any statement or representation made by or on behalf of GroundSure which is not set out and expressly agreed in writing in the Contract and all such statements and representations are hereby excluded to the fullest extent permitted by law.

2.4 The Client acknowledges that terms and conditions appearing on a Client's order form, printed stationery or other communication, or any terms or conditions

implied by custom, practice or course of dealing shall be of no effect, and that this Contract shall prevail over all others in relation to the Order.

2.5 If the Client or Beneficiary requests insurance in conjunction with or as a result of the Services, GroundSure shall use reasonable endeavours to recommend such insurance, but makes no warranty that such insurance shall be available from insurers or that it will be offered on reasonable terms. Any insurance purchased by the Client or Beneficiary shall be subject solely to the terms of the policy issued by insurers and GroundSure will have no liability therefor. In addition you acknowledge and agree that GroundSure does not act as an agent or broker for any insurance providers. The Client should take (and ensure that the Beneficiary takes) independent advice to ensure that the insurance policy requested or offered is suitable for its requirements.

2.6 GroundSure's quotations or proposals are valid for a period of 30 days only unless an alternative period of time is explicitly stipulated by GroundSure. GroundSure reserves the right to withdraw any quotation or proposal at any time before an Order is accepted by GroundSure. GroundSure's acceptance of an Order shall be binding only when made in writing and signed by GroundSure's authorised representative or when accepted through the Order Website.

3 The Client's obligations

3.1 The Client shall comply with the terms of this Contract and

(i) procure that the Beneficiary or any third party relying on the Services complies with and acts as if it is bound by the Contract and

(ii) be liable to GroundSure for the acts and omissions of the Beneficiary or any third party relying on the Services as if such acts and omissions were those of the Client.

3.2 The Client shall be solely responsible for ensuring that the Services are appropriate and suitable for its and/or the Beneficiary's needs.

3.3 The Client shall supply to GroundSure as soon as practicable and without charge all requisite information (and the Client warrants that such information is accurate, complete and appropriate), including without limitation any environmental information relating to the Site and shall give such assistance as GroundSure shall reasonably require in the provision of the Services including, without limitation, access to the Site, facilities and equipment.

3.4 Where the Client's approval or decision is required to enable GroundSure to carry out work in order to provide the Services, such approval or decision shall be given or procured in reasonable time and so as not to delay or disrupt the performance of the Services.

3.5 Save as expressly permitted by this Contract the Client shall not, and shall procure that the Beneficiary shall not, re-sell, alter, add to, or amend the GroundSure Materials, or use the GroundSure Materials in a manner for which they were not intended. The Client may make the GroundSure Materials available to a third party who is considering acquiring some or all of, or providing funding in relation to, the Site, but such third party cannot rely on the same unless expressly permitted under clause 4.

3.6 The Client is responsible for maintaining the confidentiality of its user name and password if using the Order Website and the Client acknowledges that GroundSure accepts no liability of any kind for any loss or damage suffered by the Client as a consequence of using the Order Website.

4 Reliance

4.1 The Client acknowledges that the Services provided by GroundSure consist of the presentation and analysis of Third Party Content and other content and that information obtained from a Third Party Data Provider cannot be guaranteed or warranted by GroundSure to be reliable.

4.2 In respect of Data Reports, Mapping and Risk Screening Reports, the following classes of person and no other are entitled to rely on their contents;

(i) the Beneficiary,

(ii) the Beneficiary's professional advisers, (iii) any person providing funding to the Beneficiary in relation to the Site (whether directly or as part of a lending syndicate),

(iv) the first purchaser or first tenant of the Site, and

(v) the professional advisers and lenders of the first purchaser or tenant of the Site.

4.3 In respect of Support Services, only the Client, Beneficiary and parties expressly named in a Report and no other parties are entitled to rely on its contents.

4.4 Save as set out in clauses 4.2 and 4.3 and unless otherwise expressly agreed in writing, no other person or entity of any kind is entitled to rely on any Services or Report issued or provided by GroundSure. Any party considering such Reports and Services does so at their own risk.

5 Fees and Disbursements

5.1 GroundSure shall charge and the Client shall pay fees at the rate and frequency specified in the written proposal, Order Website or Order acknowledgement form, plus (in the case of Support Services) all proper disbursements incurred by GroundSure. The Client shall in addition pay all value added tax or other tax payable on such fees and disbursements in relation to the provision of the Services (together "Fees").

5.2 The Client shall pay all outstanding Fees to GroundSure in full without deduction, counterclaim or set off within 30 days of the date of GroundSure's invoice or such other period as may be agreed in writing between GroundSure and the Client ("Payment Date"). Interest on late payments will accrue on a daily basis from the Payment Date until the date of payment (whether before or after judgment) at the rate of 8% per annum.

5.3 The Client shall be deemed to have agreed the amount of any invoice unless an objection is made in writing within 28 days of the date of the invoice. As soon as reasonably practicable after being notified of an objection, without prejudice to clause 5.2 a member of GroundSure's management team will contact the Client and the parties shall then use all reasonable endeavours to resolve the dispute within 15 days.

6 Intellectual Property and Confidentiality

6.1 Subject to

(i) full payment of all relevant Fees and

(ii) compliance with this Contract, the Client is granted (and is permitted to sub-licence to the Beneficiary) a royalty-free, worldwide, non-assignable and (save to the extent set out in this Contract) non-transferable licence to make use of the GroundSure Materials.

6.2 All Intellectual Property in the GroundSure Materials are and shall remain owned by GroundSure or GroundSure's licensors (including without limitation the Third Party Data Providers) the Client acknowledges, and shall procure acknowledgement by the Beneficiary of, such ownership. Nothing in this Contract purports to transfer or assign any rights to the Client or the Beneficiary in respect of such Intellectual Property.

6.3 Third Party Data Providers may enforce any breach of clauses 6.1 and 6.2 against the Client or Beneficiary.

6.4 The Client shall, and shall procure that any recipients of the GroundSure Materials shall:

(i) not remove, suppress or modify any trade mark, copyright or other proprietary marking belonging to GroundSure or any third party from the Services;

(ii) use the information obtained as part of the Services in respect of the subject Site only, and shall not store or reuse any information obtained as part of the Services provided in respect of adjacent or nearby sites;

(iii) not create any product or report which is derived directly or indirectly from the Services (save that those acting in a professional capacity to the Beneficiary may provide advice based upon the Services);

(iv) not combine the Services with or incorporate such Services into any other information data or service;

(v) not reformat or otherwise change (whether by modification, addition or enhancement), the Services (save that those acting for the Beneficiary in a professional capacity shall not be in breach of this clause 6.4(v) where such reformatting is in the normal course of providing advice based upon the Services);

(vi) where a Report and/or Mapping contains material belonging to Ordnance Survey, acknowledge and agree that such content is protected by Crown Copyright and shall not use such content for any purpose outside of receiving the Services; and

(vii) not copy in whole or in part by any means any map prints or run-on copies containing content belonging to Ordnance Survey (other than that contained within Ordnance Survey's OS Street Map) without first being in possession of a valid Paper Map Copying Licence from Ordnance Survey,

6.5 Notwithstanding clause 6.4, the Client may make reasonable use of the GroundSure Materials in order to advise the Beneficiary in a professional capacity. However, GroundSure shall have no liability in respect of any advice, opinion or report given or provided to Beneficiaries by the Client.

6.6 The Client shall procure that any person to whom the Services are made available shall notify GroundSure of any request or requirement to disclose, publish or disseminate any information contained in the Services in accordance with the Freedom of Information Act 2000, the Environmental Information Regulations 2004 or any associated legislation or regulations in force from time to time.

7. Liability: Particular Attention Should Be Paid To This Clause

7.1 This Clause 7 sets out the entire liability of GroundSure, including any liability for the acts or omissions of its employees, agents, consultants, subcontractors and Third Party Content, in respect of:

(i) any breach of contract, including any deliberate breach of the Contract by GroundSure or its employees, agents or subcontractors;

(ii) any use made of the Reports, Services, Materials or any part of them; and

(iii) any representation, statement or tortious act or omission (including negligence) arising under or in connection with the Contract.

7.2 All warranties, conditions and other terms implied by statute or common law are, to the fullest extent permitted by law, excluded from the Contract.

7.3 Nothing in the Contract limits or excludes the liability of the Supplier for death

or personal injury resulting from negligence, or for any damage or liability incurred by the Client or Beneficiary as a result of fraud or fraudulent misrepresentation.

7.4 GroundSure shall not be liable for

(i) loss of profits;

(ii) loss of business;

(iii) depletion of goodwill and/or similar losses;

(iv) loss of anticipated savings;

(v) loss of goods;

(vi) loss of contract;

(vii) loss of use;

(viii) loss or corruption of data or information;

(ix) business interruption;

(x) any kind of special, indirect, consequential or pure economic loss, costs, damages, charges or expenses;

(xi) loss or damage that arise as a result of the use of all or part of the GroundSure Materials in breach of the Contract;

(xii) loss or damage arising as a result of any error, omission or inaccuracy in any part of the GroundSure Materials where such error, omission or inaccuracy is caused by any Third Party Content or any reasonable interpretation of Third Party Content;

(xiii) loss or damage to a computer, software, modem, telephone or other property; and

(xiv) loss or damage caused by a delay or loss of use of GroundSure's internet ordering service.

7.5 GroundSure's total liability in relation to or under the Contract shall be limited to £10 million for any claim or claims.

7.6 GroundSure shall procure that the Beneficiary shall be bound by limitations and exclusions of liability in favour of GroundSure which accord with those detailed in clauses 7.4 and 7.5 (subject to clause 7.3) in respect of all claims which the Beneficiary may bring against GroundSure in relation to the Services or other matters arising pursuant to the Contract.

8 GroundSure's right to suspend or terminate

8.1 If GroundSure reasonably believes that the Client or Beneficiary has not provided the information or assistance required to enable the proper provision of the Services, GroundSure shall be entitled to suspend all further performance of the Services until such time as any such deficiency has been made good.

8.2 GroundSure shall be entitled to terminate the Contract immediately on written notice in the event that:

(i) the Client fails to pay any sum due to GroundSure within 30 days of the Payment Date; or

(ii) the Client (being an individual) has a bankruptcy order made against him or (being a company) shall enter into liquidation whether compulsory or voluntary or have an administration order made against it or if a receiver shall be appointed over the whole or any part of its property assets or undertaking or if the Client is struck off the Register of Companies or dissolved; or

(iii) the Client being a company is unable to pay its debts within the meaning of Section 123 of the Insolvency Act 1986 or being an individual appears unable to pay his debts within the meaning of Section 268 of the Insolvency Act 1986 or if the Client shall enter into a composition or arrangement with the Client's creditors or shall suffer distress or execution to be levied on his goods; or

(iv) the Client or the Beneficiary breaches any term of the Contract (including, but not limited to, the obligations in clause 4) which is incapable of remedy or if remediable, is not remedied within five days of notice of the breach.

9. Client's Right to Terminate and Suspend

9.1 Subject to clause 10.1, the Client may at any time upon written notice terminate or suspend the provision of all or any of the Services.

9.2 In any event, where the Client is a consumer (and not a business) he/she hereby expressly acknowledges and agrees that:

(i) the supply of Services under this Contract (and therefore the performance of this Contract) commences immediately upon GroundSure's acceptance of the Order; and

(ii) the Reports and/or Mapping provided under this Contract are

(a) supplied to the Client's specification(s) and in any event

(b) by their nature cannot be returned.

10 Consequences of Withdrawal, Termination or Suspension

10.1 Upon termination of the Contract:

(i) GroundSure shall take steps to bring to an end the Services in an orderly manner, vacate any Site with all reasonable speed and shall deliver to the Client and/or Beneficiary any property of the Client and/or Beneficiary in

GroundSure's possession or control; and

(ii) the Client shall pay to GroundSure all and any Fees payable in respect of the performance of the Services up to the date of termination or suspension. In respect of any Support Services provided, the Client shall also pay GroundSure any additional costs incurred in relation to the termination or suspension of the Contract.

11 Anti-Bribery

11.1 The Client warrants that it shall:

(i) comply with all applicable laws, statutes and regulations relating to anti-bribery and anti-corruption including but not limited to the Bribery Act 2010;

(ii) comply with such of GroundSure's anti-bribery and anti-corruption policies as are notified to the Client from time to time; and

(iii) promptly report to GroundSure any request or demand for any undue financial or other advantage of any kind received by or on behalf of the Client in connection with the performance of this Contract.

11.2 Breach of this Clause 11 shall be deemed a material breach of this Contract.

12 General

12.1 The Mapping contained in the Services is protected by Crown copyright and must not be used for any purpose other than as part of the Services or as specifically provided in the Contract.

12.2 The Client shall be permitted to make one copy only of each Report or Mapping Order. Thereafter the Client shall be entitled to make unlimited copies of the Report or Mapping Order only in accordance with an Ordnance Survey paper map copy license available through GroundSure.

12.3 GroundSure reserves the right to amend or vary this Contract. No amendment or variation to this Contract shall be valid unless signed by an authorised representative of GroundSure.

12.4 No failure on the part of GroundSure to exercise, and no delay in exercising, any right, power or provision under this Contract shall operate as a waiver thereof.

12.5 Save as expressly provided in this Contract, no person other than the persons set out therein shall have any right under the Contract (Rights of Third Parties) Act 1999 to enforce any terms of the Contract.

12.6 The Secretary of State for Business, Innovation and Skills ("BIS") or BIS' successor body, as the case may be, acting through Ordnance Survey may enforce a breach of clause 6.4(vi) and clause 6.4(vii) of these terms and conditions against the Client in accordance with the provisions of the Contracts (Rights of Third Parties) Act 1999.

12.7 GroundSure shall not be liable to the Client if the provision of the Services is delayed or prevented by one or more of the following circumstances:

- (i) the Client or Beneficiary's failure to provide facilities, access or information;
- (ii) fire, storm, flood, tempest or epidemic;
- (iii) Acts of God or the public enemy;
- (iv) riot, civil commotion or war;
- (v) strikes, labour disputes or industrial action;
- (vi) acts or regulations of any governmental or other agency;
- (vii) suspension or delay of services at public registries by Third Party Data Providers;
- (viii) changes in law; or
- (ix) any other reason beyond GroundSure's reasonable control.

In the event that GroundSure is prevented from performing the Services (or any part thereof) in accordance with this clause 12.6 for a period of not less than 30 days then GroundSure shall be entitled to terminate this Contract immediately on written notice to the Client.

12.8 Any notice provided shall be in writing and shall be deemed to be properly given if delivered by hand or sent by first class post, facsimile or by email to the address, facsimile number or email address of the relevant party as may have been notified by each party to the other for such purpose or in the absence of such notification the last known address.

12.9 Such notice shall be deemed to have been received on the day of delivery if delivered by hand, facsimile or email (save to the extent such day is not a working day where it shall be deemed to have been delivered on the next working day) and on the second working day after the day of posting if sent by first class post.

12.10 The Contract constitutes the entire agreement between the parties and shall supersede all previous arrangements between the parties relating to the subject matter hereof.

12.11 Each of the provisions of the Contract is severable and distinct from the others and if one or more provisions is or should become invalid, illegal or unenforceable, the validity and enforceability of the remaining provisions shall not in any way be tainted or impaired.

12.12 This Contract shall be governed by and construed in accordance with English

law and any proceedings arising out of or connected with this Contract shall be subject to the exclusive jurisdiction of the English courts.

12.13 GroundSure is an executive member of the Council of Property Search Organisation (CoPSO) and has signed up to the Search Code administered by the Property Codes Compliance Board (PCCB). All Risk Screening Reports shall be supplied in accordance with the provisions of the Search Code.

12.14 If the Client or Beneficiary has a complaint about the Services, written notice should be given to the Compliance Officer at GroundSure who will respond in a timely manner.

12.15 The Client agrees that it shall, and shall procure that each Beneficiary shall, treat in confidence all Confidential Information and shall not, and shall procure that each Beneficiary shall not (i) disclose any Confidential Information to any third party other than in accordance with the terms of this Contract; and (ii) use Confidential Information for a purpose other than the exercise of its rights and obligations under this Contract. Subject to clause 6.6, nothing shall prevent the Client or any Beneficiary from disclosing Confidential Information to the extent required by law. © GroundSure Limited June 2013



EmapSite

Masdar House,
Eversley, RG27 ORP

Report Reference: EMS-263991_356477

Your Reference: EMS_263991_356477

Report Date 18 Aug 2014

Report Delivery Method: Email - pdf

GroundSure Geoinsight

Address: ,

Dear Sir/ Madam,

Thank you for placing your order with GroundSure. Please find enclosed the **GroundSure Geolnsight** as requested.

If you would like further assistance regarding this report then please contact the emapsite customer services team on 0118 9736883 quoting the above report reference number.

Yours faithfully,

emapsite customer services team

Enc.
GroundSure Geolnsight



GroundSure GeoInsight

Address: ,
Date: 18 Aug 2014
Reference: EMS-263991_356477
Client: EmapSite

NW N NE

W E



SW S SE

Aerial Photograph Capture date: 28-May-2012
Grid Reference: 434957,400569
Site Size: 2.99ha

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Overview of Findings

The GroundSure GeoInsight provides high quality geo-environmental information that allows geo-environmental professionals and their clients to make informed decisions and be forewarned of potential ground instability problems that may affect the ground investigation, foundation design and possibly remediation options that could lead to possible additional costs.

The report is based on the BGS 1:50,000 Digital Geological Map of Great Britain, BGS Geosure data; BRITPITS database; Shallow Mining data and Borehole Records, Coal Authority data including brine extraction areas, PBA non-coal mining and natural cavities database, Johnson Poole and Bloomer mining data and GroundSure's unique database including historical surface ground and underground workings.

For further details on each dataset, please refer to each individual section in the report as listed. Where the database has been searched a numerical result will be recorded. Where the database has not been searched '-' will be recorded.

Section 1: Geology

1.1 Artificial Ground	1.1.1 Is there any Artificial Ground/ Made Ground present beneath the study site?	Yes
	1.1.2 Are there any records relating to permeability of artificial ground within the study site* boundary?	Yes
1.2 Superficial Geology and Landslips	1.2.1 Is there any Superficial Ground/Drift Geology present beneath the study site?	No
	1.2.2 Are there any records relating to permeability of superficial geology within the study site boundary?	No
	1.2.3 Are there any records of landslip within 500m of the study site boundary?	No
	1.2.4 Are there any records relating to permeability of landslips within the study site boundary?	No
1.3 Bedrock, Solid Geology & Faults	1.3.1 For records of Bedrock and Solid Geology beneath the study site* see the detailed findings section.	
	1.3.2 Are there any records relating to permeability of bedrock within the study site boundary?	Yes
	1.3.3 Are there any records of faults within 500m of the study site boundary?	Yes
1.4 Radon data	1.4.1 Is the property in a Radon Affected Area as defined by the Health Protection Agency (HPA) and if so what percentage of homes are above the Action Level?	The property is in a Radon Affected Area, as between 1 and 3% of properties are above the Action Level
	1.4.2 Is the property in an area where Radon Protection Measures are required for new properties or extensions to existing ones as described in publication BR211 by the Building Research Establishment?	No radon protective measures are necessary

Section 2: Ground Workings

	On-site	0-50m	51-250	251-500	501-1000
2.1 Historical Surface Ground Working Features from Small Scale Mapping	3	0	35	Not Searched	Not Searched
2.2 Historical Underground Workings from Small Scale Mapping	0	0	6	0	12
2.3 Current Ground Workings	0	0	2	2	6

Section 3: Mining, Extraction & Natural Cavities

	On-site	0-50m	51-250	251-500	501-1000
3.1 Historical Mining	0	0	6	0	12

Section 3: Mining, Extraction & Natural Cavities	On-site	0-50m	51-250	251-500	501-1000
3.2 Coal Mining	1	0	0	0	0
3.3 Johnson Poole and Bloomer Mining Area	0	0	0	0	0
3.4 Non-Coal Mining	2	0	0	2	2
3.5 Non-Coal Mining Cavities	0	0	0	0	0
3.6 Natural Cavities	0	0	0	0	0
3.7 Brine Extraction	0	0	0	0	0
3.8 Gypsum Extraction	0	0	0	0	0
3.9 Tin Mining	0	0	0	0	0
3.10 Clay Mining	0	0	0	0	0

Section 4: Natural Ground Subsidence	On-site
4.1 Shrink Swell Clay	Very Low
4.2 Landslides	Very Low
4.3 Ground Dissolution of Soluble Rocks	Negligible
4.4 Compressible Deposits	Very Low
4.5 Collapsible Deposits	Very Low
4.6 Running Sand	Very Low

Section 5: Borehole Records	On-site	0-50m	51-250
5 BGS Recorded Boreholes	0	0	7

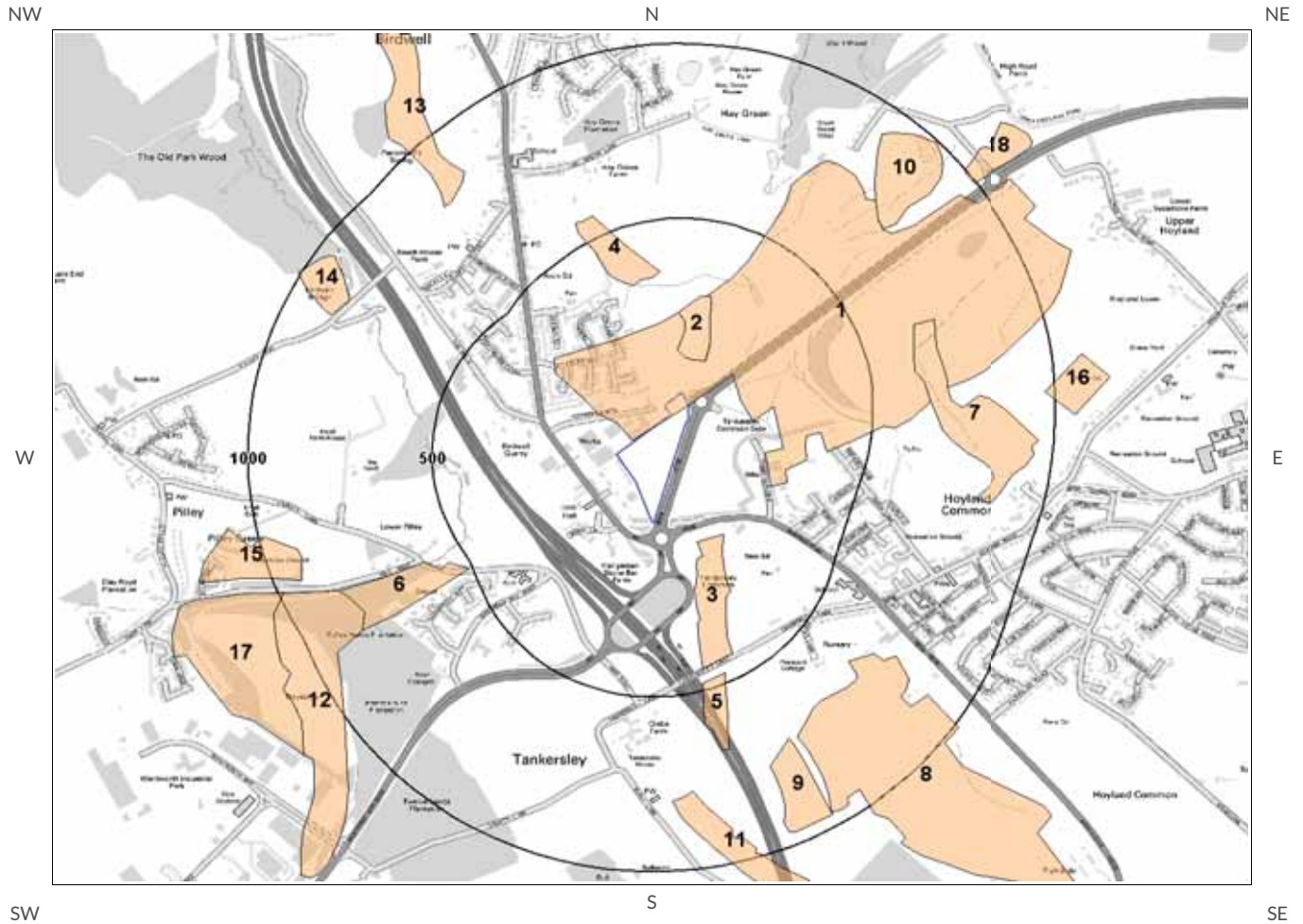
Section 6: Estimated Background Soil Chemistry	On-site	0-50m	51-250
6 Records of Background Soil Chemistry	3	3	4

Section 7: Railways and Tunnels	On-site	0-50m	51-250	251-500
7.1 Tunnels	0	0	0	Not Searched
7.2 Historical Railway and Tunnel Features	17	5	5	Not Searched
7.3 Historical Railways	1	0	0	Not Searched
7.4 Active Railways	0	0	0	Not Searched

Section 7:Railways and Tunnels	On-site	0-50m	51-250	251-500
7.5 Railway Projects	0	0	0	0

1 Geology

1.1 Artificial Ground Map



Artificial Ground Legend



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	Site Outline		Made Ground (undivided)		Disturbed Ground (undivided)
	Search Buffers (m)		Worked Ground (undivided)		Landscaped Ground (undivided)
			Infilled Ground		Reclaimed Ground



1 Geology

1.1 Artificial Ground

1.1.1 Artificial/ Made Ground

The following geological information represented on the mapping is derived from 1:50,000 scale BGS Geological mapping, Sheet No:087

Are there any records of Artificial/Made Ground within 500m of the study site boundary? Yes

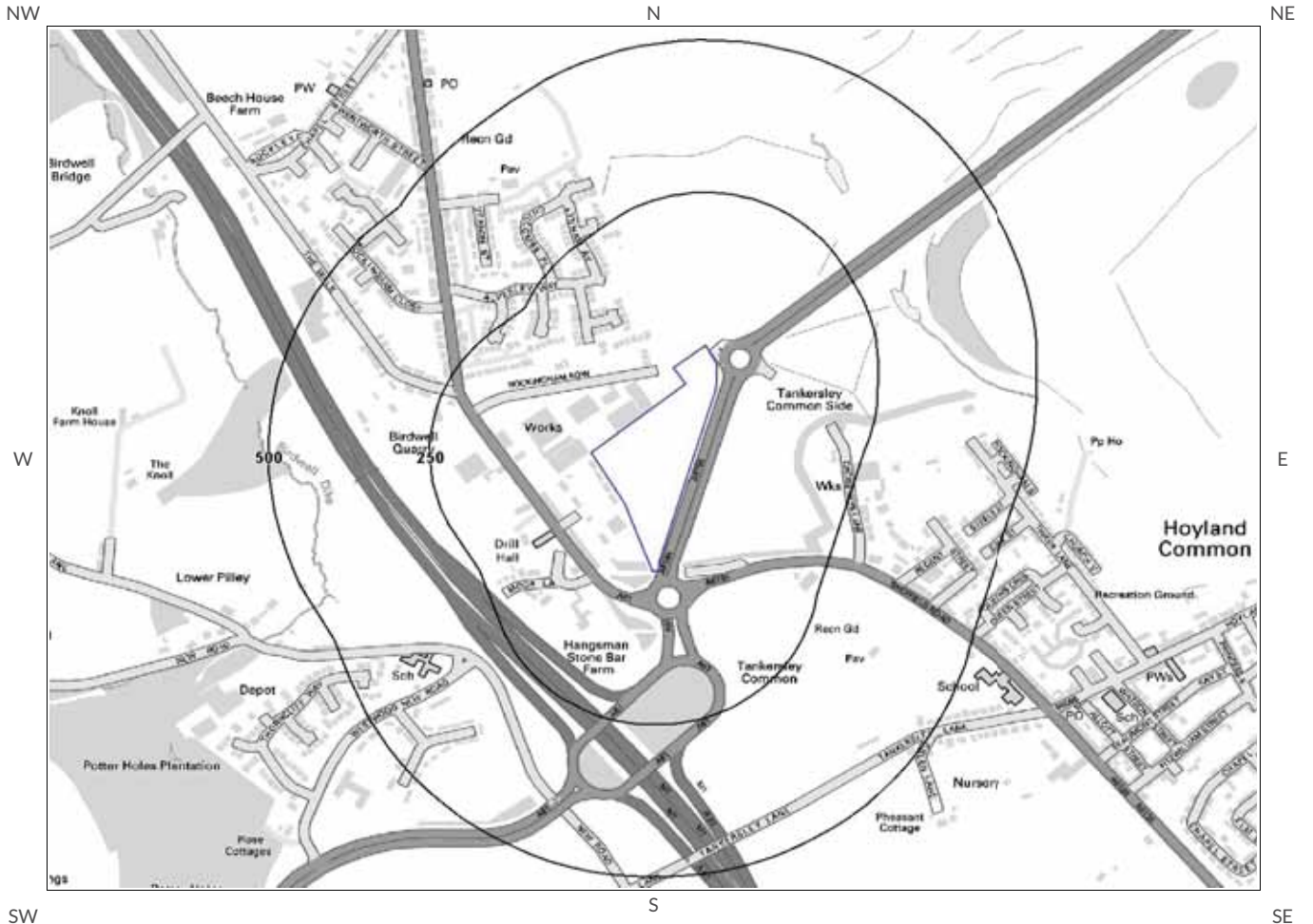
ID	Distance (m)	Direction	LEX Code	Description	Rock Description
1	0.0	On Site	MGR-MGRD	MADE GROUND (UNDIVIDED)	ARTIFICIAL DEPOSIT
2	100.0	N	WMGR-MGRD	INFILLED GROUND	ARTIFICIAL DEPOSIT
3	127.0	SE	WMGR-MGRD	INFILLED GROUND	ARTIFICIAL DEPOSIT
4	333.0	NW	WMGR-MGRD	INFILLED GROUND	ARTIFICIAL DEPOSIT
5	471.0	SE	WMGR-MGRD	INFILLED GROUND	ARTIFICIAL DEPOSIT

1.1.2 Permeability of Artificial Ground

Are there any records relating to permeability of artificial ground within the study site boundary? Yes

Distance (m)	Direction	Flow Type	Maximum Permeability	Minimum Permeability
0.0	On Site	Intergranular	Very High	Very Low
0.0	On Site	Intergranular	Very High	Very Low




1.2 Superficial Deposits and Landslips Map



Superficial Deposits and Landslips Legend



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-  Site Outline
 -  500
 -  1000
- Search Buffers (m)

1.2 Superficial Deposits and Landslips

1.2.1 Superficial Deposits/ Drift Geology

Are there any records of Superficial Deposits/ Drift Geology within 500m of the study site boundary? No

Database searched and no data found.

1.2.2 Permeability of Superficial Ground

Are there any records relating to permeability of superficial ground within the study site boundary? No

Database searched and no data found.

1.2.3 Landslip

Are there any records of Landslip within 500m of the study site boundary? No

Database searched and no data found.

This Geology shows the main components as discrete layers, these are: Artificial / Made Ground, Superficial / Drift Geology and Landslips. These are all displayed with the BGS Lexicon code for the rock unit and BGS sheet number. Not all of the main geological components have nationwide coverage.

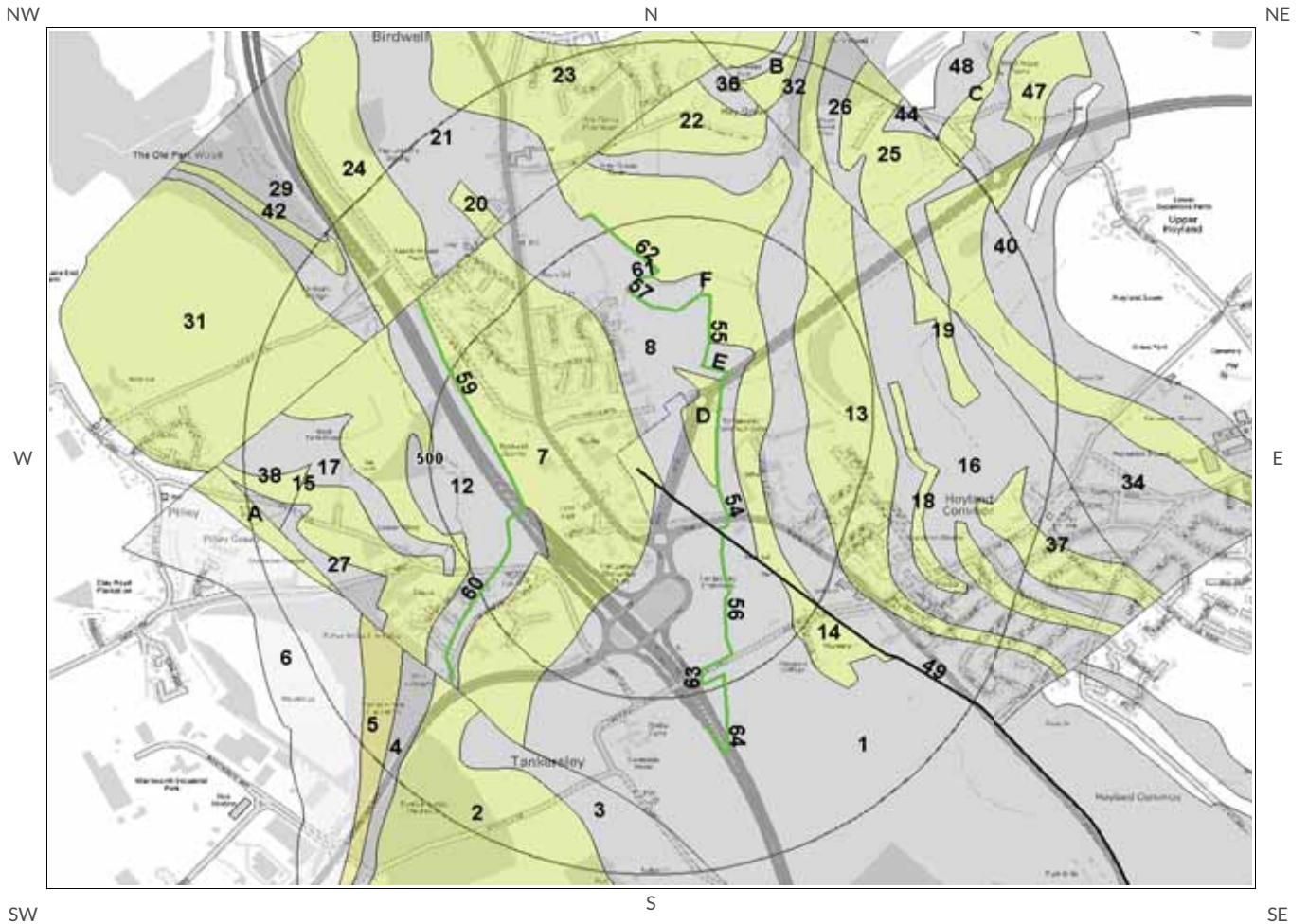
1.2.4 Landslip Permeability

Are there any records relating to permeability of landslips within the study site** boundary? No

Database searched and no data found.

* This includes an automatically generated 50m buffer zone around the site


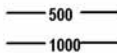
1.3 Bedrock and Faults Map



Bedrock and Faults Legend



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-  Site Outline
-  Search Buffers (m)

1.3 Bedrock, Solid Geology & Faults

The following geological information represented on the mapping is derived from 1:50,000 scale BGS Geological mapping, Sheet No:087

1.3.1 Bedrock/ Solid Geology

Records of Bedrock/ Solid Geology within 500m of the study site boundary:

ID	Distance (m)	Direction	LEX Code	Description	Rock Age
1	0.0	On Site	PMCM-MDSS	Pennine Middle Coal Measures Formation - Mudstone, Siltstone And Sandstone	Bolsoviaian (westphalian C) / Duckmantian (westphalian B)
7	0.0	On Site	HMR-SDST	Haigh Moor Rock - Sandstone	Duckmantian (westphalian B)
8	0.0	On Site	PMCM-MDSS	Pennine Middle Coal Measures Formation - Mudstone, Siltstone And Sandstone	Bolsoviaian (westphalian C) / Duckmantian (westphalian B)
9D	0.0	On Site	PMCM-SDST	Pennine Middle Coal Measures Formation - Sandstone	Bolsoviaian (westphalian C) / Duckmantian (westphalian B)
10F	124.0	E	PMCM-SDST	Pennine Middle Coal Measures Formation - Sandstone	Bolsoviaian (westphalian C) / Duckmantian (westphalian B)
11	212.0	E	PMCM-MDSS	Pennine Middle Coal Measures Formation - Mudstone, Siltstone And Sandstone	Bolsoviaian (westphalian C) / Duckmantian (westphalian B)
12	273.0	SW	PMCM-MDSS	Pennine Middle Coal Measures Formation - Mudstone, Siltstone And Sandstone	Bolsoviaian (westphalian C) / Duckmantian (westphalian B)
13	311.0	E	PMCM-SDST	Pennine Middle Coal Measures Formation - Sandstone	Bolsoviaian (westphalian C) / Duckmantian (westphalian B)
14	366.0	SE	PMCM-SDST	Pennine Middle Coal Measures Formation - Sandstone	Bolsoviaian (westphalian C) / Duckmantian (westphalian B)
15	464.0	SW	PMCM-SDST	Pennine Middle Coal Measures Formation - Sandstone	Bolsoviaian (westphalian C) / Duckmantian (westphalian B)

1.3.2 Permeability of Bedrock Ground

Are there any records relating to permeability of bedrock ground within the study site[†] boundary? Yes

Distance (m)	Direction	Flow Type	Maximum Permeability	Minimum Permeability
0.0	On Site	Fracture	High	Moderate
0.0	On Site	Fracture	Moderate	Low
0.0	On Site	Fracture	Moderate	Low
0.0	On Site	Fracture	High	Moderate

1.3.3 Faults

Are there any records of Faults within 500m of the study site boundary? Yes

ID	Distance (m)	Direction	Category Description	Feature Description
49	0.0	On Site	FAULT	Normal fault, inferred

* This includes an automatically generated 50m buffer zone around the site

ID	Distance (m)	Direction	Category Description	Feature Description
50D	83.0	E	ROCK	Coal seam, inferred
51E	91.0	NE	ROCK	Coal seam, inferred
52E	111.0	NE	ROCK	Coal seam, inferred
53E	112.0	NE	ROCK	Coal seam, inferred
54	138.0	E	ROCK	Coal seam, inferred
55	160.0	NE	ROCK	Coal seam, inferred
56	189.0	E	ROCK	Coal seam, inferred
57	231.0	N	ROCK	Coal seam, inferred
58F	231.0	N	ROCK	Coal seam, inferred
59	284.0	SW	ROCK	Coal seam, inferred
60	287.0	SW	ROCK	Coal seam, inferred
61	333.0	NW	ROCK	Coal seam, inferred
62	339.0	N	ROCK	Coal seam, inferred
63	439.0	S	ROCK	Coal seam, inferred
64	471.0	SE	ROCK	Coal seam, inferred

The geology map for the site and surrounding area are extracted from the BGS Digital Geological Map of Great Britain at 1:50,000 scale.

This Geology shows the main components as discrete layers, these are: Bedrock/ Solid Geology and linear features such as Faults. These are all displayed with the BGS Lexicon code for the rock unit and BGS sheet number. Not all of the main geological components have nationwide coverage.

1.4 Radon Data

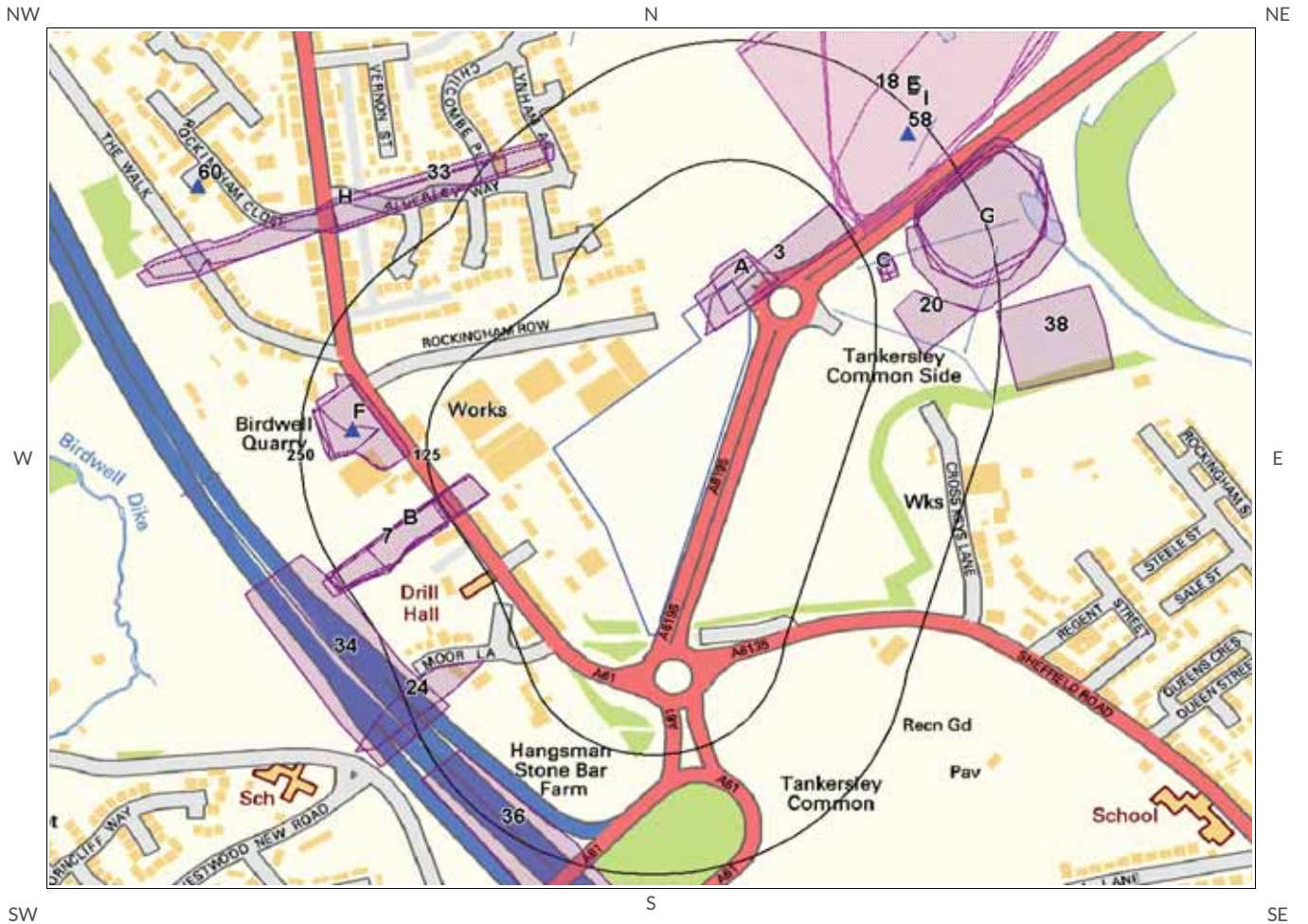
1.4.1 Radon Affected Areas

Is the property in a Radon Affected Area as defined by the Health Protection Agency (HPA) and if so what percentage of homes are above the Action Level? The property is in a Radon Affected Area, as between 1 and 3% of properties are above the Action Level

1.4.2 Radon Protection

Is the property in an area where Radon Protection are required for new properties or extensions to existing ones as described in publication BR211 by the Building Research Establishment? No radon protective measures are necessary

2 Ground Workings Map



Ground Workings Legend



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- Site Outline
- Historic Surface Ground Workings
- Historic Underground Workings
- Current Ground Workings
- 125 Search Buffers (m)
- 250 Search Buffers (m)



2 Ground Workings

2.1 Historical Surface Ground Working Features derived from Historical Mapping

This dataset is based on GroundSure's unique Historical Land Use Database derived from 1:10,560 and 1:10,000 scale historical mapping.

Are there any Historical Surface Ground Working Features within 250m of the study site boundary? Yes

The following Historical Surface Ground Working Features are provided by GroundSure:

ID	Distance (m)	Direction	NGR	Use	Date
1A	0.0	On Site	435039 400745	Cuttings	1951
2A	0.0	On Site	435028 400732	Cuttings	1938
3	0.0	On Site	435074 400758	Refuse Heap	1987
4B	79.0	SW	434708 400485	Cuttings	1903
5B	81.0	SW	434707 400482	Cuttings	1891
6B	117.0	SW	434690 400472	Cuttings	1951
7	128.0	SW	434684 400466	Cuttings	1938
8I	129.0	NE	435299 401070	Colliery	1891
9D	130.0	NE	435346 401126	Colliery	1903
10B	131.0	SW	434705 400479	Cuttings	1977
11C	133.0	E	435177 400753	Filter Beds	1903
12C	134.0	E	435181 400757	Filter Beds	1938
13C	136.0	E	435181 400762	Filter Beds	1951
14D	137.0	NE	435346 401126	Colliery	1938
15E	138.0	NE	435365 401076	Colliery	1966
16E	138.0	NE	435365 401076	Colliery	1951
17D	139.0	NE	435264 401104	Colliery	1977
18	140.0	NE	435198 400980	Disused Workings	1987
19F	141.0	W	434661 400597	Unspecified Quarry	1951
20	142.0	E	435228 400702	Refuse Heap	1977
21F	146.0	W	434657 400593	Unspecified Quarry	1891

ID	Distance (m)	Direction	NGR	Use	Date
22F	146.0	W	434657 400593	Unspecified Quarry	1903
23F	146.0	W	434657 400593	Unspecified Quarry	1938
24	162.0	W	434718 400301	Pond	1938
25G	168.0	E	435279 400800	Unspecified Disused Tip	1987
26F	173.0	W	434644 400587	Unspecified Disused Quarry	1977
27G	184.0	E	435274 400810	Reservoir	1977
28G	185.0	E	435275 400811	Reservoir	1891
29G	185.0	E	435275 400811	Reservoir	1938
30G	185.0	E	435275 400811	Reservoir	1903
31G	189.0	NE	435275 400819	Water Body	1966
32G	189.0	NE	435275 400819	Reservoir	1951
33	206.0	NW	434740 400844	Cuttings	1938
34	211.0	W	434646 400348	Cuttings	1977
35H	211.0	NW	434644 400822	Cuttings	1951
36	213.0	SW	434829 400145	Cuttings	1977
37H	227.0	NW	434620 400808	Cuttings	1903
38	247.0	E	435348 400686	Slurry Ponds	1977

2.2 Historical Underground Working Features derived from Historical Mapping

This data is derived from the GroundSure unique Historical Land Use Database. It contains data derived from 1:10,000 and 1:10,560 historical Ordnance Survey Mapping and includes some natural topographical features (Shake Holes for example) as well as manmade features that may have implications for ground stability. Underground and mining features have been identified from surface features such as shafts. The distance that these extend underground is not shown.

Are there any Historical Underground Working Features within 1000m of the study site boundary? Yes

The following Historical Underground Working Features are provided by GroundSure:

ID	Distance (m)	Direction	NGR	Use	Date
39I	129.0	NE	435299 401070	Colliery	1891
40D	130.0	NE	435346 401126	Colliery	1903
41D	137.0	NE	435346 401126	Colliery	1938
42E	138.0	NE	435365 401076	Colliery	1966

ID	Distance (m)	Direction	NGR	Use	Date
43E	138.0	NE	435365 401076	Colliery	1951
44E	139.0	NE	435264 401104	Colliery	1977
Not shown	601.0	SW	433989 400132	Colliery	1951
Not shown	831.0	NE	435634 401525	Unspecified Workings	1987
Not shown	859.0	NW	434095 400989	Air Shaft	1951
Not shown	874.0	SW	434089 400133	Air Shaft	1903
Not shown	874.0	SW	434089 400133	Air Shaft	1938
Not shown	931.0	W	433596 399957	Colliery	1891
Not shown	935.0	SW	433741 399700	Colliery	1966
Not shown	954.0	W	433901 400415	Drift	1977
Not shown	954.0	W	433901 400415	Drift	1951
Not shown	954.0	W	433901 400415	Drift	1965
Not shown	977.0	W	433834 400365	Drift	1938
Not shown	995.0	SW	434069 399893	Pumping Shaft	1903

2.3 Current Ground Workings

This dataset is derived from the BGS BRITPITS database covering active; inactive mines; quarries; oil wells; gas wells and mineral wharves; and rail deposits throughout the British Isles.

Are there any BGS Current Ground Workings within 1000m of the study site boundary? Yes

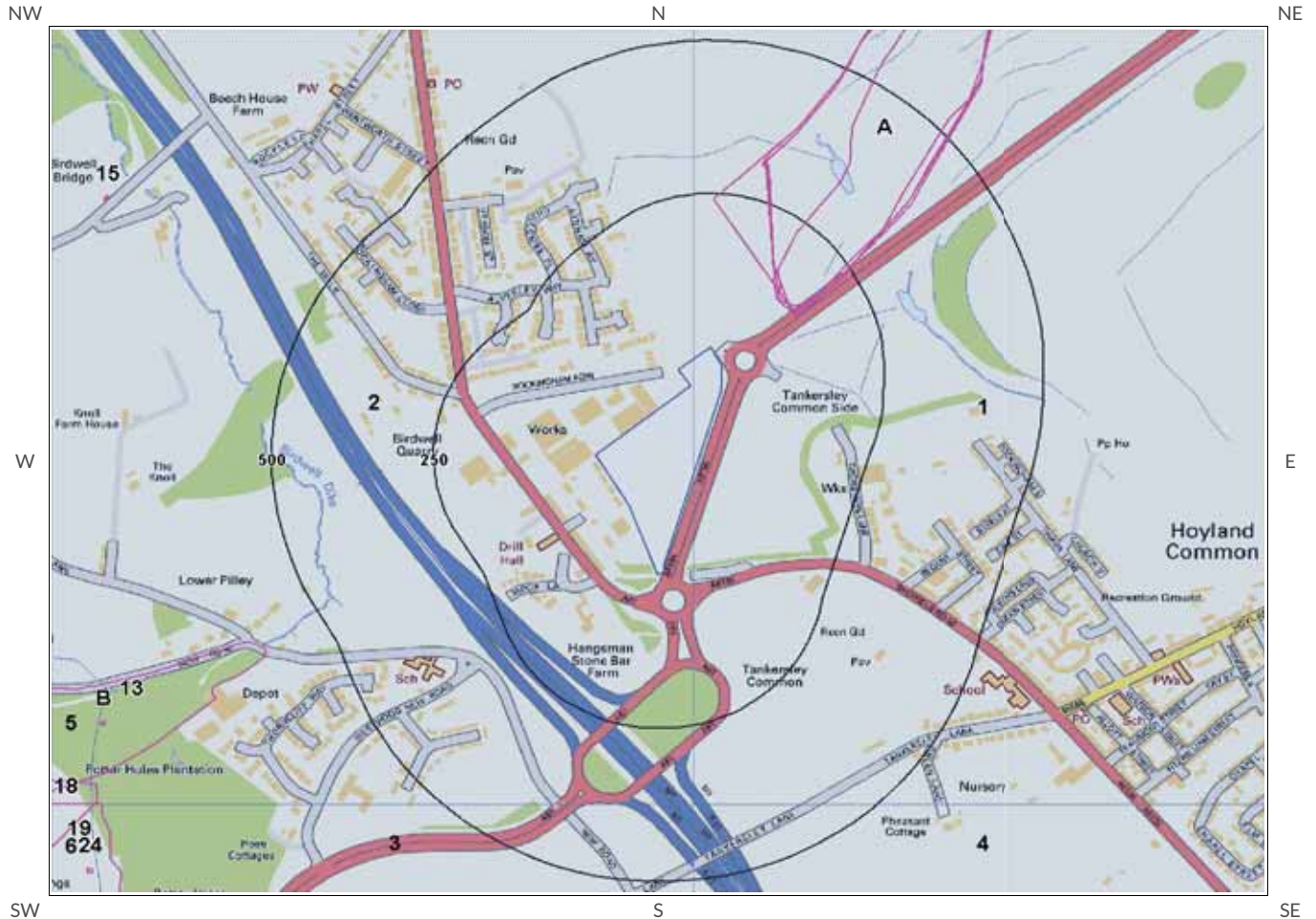
The following Current Ground Workings information is provided by British Geological Survey:

ID	Distance (m)	Direction	NGR	Commodity Produced	Pit Name	Type of working	Status
57F	200.0	W	434650 400590	Sandstone	Birdwell	A surface mineral working. It may be termed Quarry, Sand Pit, Clay Pit or Opencast Coal Site	Ceased
58	232.0	NE	435200 400900	Coal, Surface Mined	Rockingham OCCS	A surface mineral working. It may be termed Quarry, Sand Pit, Clay Pit or Opencast Coal Site	Ceased
Not shown	403.0	NE	435280 401060	Coal, Deep	Rockingham Colliery	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)	Ceased
60	445.0	NW	434498 400845	Sandstone	Bird Well Common	A surface mineral working. It may be termed Quarry, Sand Pit, Clay Pit or Opencast Coal Site	Ceased
Not shown	559.0	NE	435447 401114	Sandstone	Singleton Wood	A surface mineral working. It may be termed Quarry, Sand Pit, Clay Pit or Opencast Coal Site	Ceased

ID	Distance (m)	Direction	NGR	Commodity Produced	Pit Name	Type of working	Status
Not shown	681.0	SW	434226 400296	Sandstone	Lidget	A surface mineral working. It may be termed Quarry, Sand Pit, Clay Pit or Opencast Coal Site	Ceased
Not shown	874.0	NW	434087 400999	Coal, Deep	Bird Well Coal Pit	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)	Ceased
Not shown	889.0	NE	435635 401395	Clay & Shale	High Royd	A surface mineral working. It may be termed Quarry, Sand Pit, Clay Pit or Opencast Coal Site	Ceased
Not shown	971.0	S	434986 399405	Ironstone	Tankersley Ironstone Pit	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)	Ceased
Not shown	975.0	NE	435659 401488	Clay & Shale	Hoyland Brick Works	A surface mineral working. It may be termed Quarry, Sand Pit, Clay Pit or Opencast Coal Site	Ceased



3 Mining, Extraction & Natural Cavities Map



Mining, Extraction and Natural Cavities Legend



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3 Mining, Extraction & Natural Cavities

3.1 Historical Mining

This dataset is derived from GroundSure unique Historical Land-use Database that are indicative of mining or extraction activities.

Are there any Historical Mining areas within 1000m of the study site boundary? Yes

The following Historical Mining information is provided by GroundSure:

ID	Distance (m)	Direction	NGR	Details	Date
7A	129.0	NE	435299 401070	Colliery	1891
8A	130.0	NE	435346 401126	Colliery	1903
9A	137.0	NE	435346 401126	Colliery	1938
10A	138.0	NE	435365 401076	Colliery	1951
11A	138.0	NE	435365 401076	Colliery	1966
12A	139.0	NE	435264 401104	Colliery	1977
13	601.0	SW	433989 400132	Colliery	1951
Not shown	831.0	NE	435634 401525	Unspecified Workings	1987
15	859.0	NW	434095 400989	Air Shaft	1951
16B	874.0	SW	434089 400133	Air Shaft	1903
17B	874.0	SW	434089 400133	Air Shaft	1938
18	931.0	W	433596 399957	Colliery	1891
19	935.0	SW	433741 399700	Colliery	1966
Not shown	954.0	W	433901 400415	Drift	1965
Not shown	954.0	W	433901 400415	Drift	1977
Not shown	954.0	W	433901 400415	Drift	1951
Not shown	977.0	W	433834 400365	Drift	1938
24	995.0	SW	434069 399893	Pumping Shaft	1903

3.2 Coal Mining

This dataset provides information as to whether the study site lies within a known coal mining affected area as defined by the coal authority.

Are there any Coal Mining areas within 1000m of the study site boundary? Yes

The following Coal Mining information provided by the Coal Authority is not represented on Mapping:

Distance (m)	Direction	Details
0.0	On Site	The study site is located within the specified search distance of an identified mining area. Further details concerning this can be obtained from the Coal Authority Helpline on 0845 762 6848.

3.3 Johnson Poole and Bloomer

This dataset provides information as to whether the study site lies within an area where JPB hold information relating to mining.

Are there any JPB Mining areas within 1000m of the study site boundary? No

The following information provided by JPB is not represented on mapping: Database searched and no data found.

3.4 Non-Coal Mining

This dataset provides information as to whether the study site lies within an area which may have been subject to non-coal historic mining.

Are there any Non-Coal Mining areas within 1000m of the study site boundary? Yes

The following non-coal mining information is provided by the BGS:

ID	Distance (m)	Direction	Name	Commodity	Assessment of likelihood
1	0.0	On Site	Not available	Iron Ore (Bedded)	Highly Unlikely - Localised small scale mining may have occurred but restricted in extent.
2	0.0	On Site	Not available	Iron Ore (Bedded)	Highly Unlikely - Localised small scale mining may have occurred but restricted in extent.
3	375.0	S	Not available	Iron Ore (Bedded)	Highly Unlikely - Localised small scale mining may have occurred but restricted in extent.
4	378.0	S	Not available	Iron Ore (Bedded)	Highly Unlikely - Localised small scale mining may have occurred but restricted in extent.
5	844.0	SW	Sheffield Area	Vein Mineral/Iron ore	Highly Unlikely - Localised small scale mining may have occurred but restricted in extent.
6	951.0	SW	Sheffield Area	Vein Mineral/Iron ore	Highly Unlikely - Localised small scale mining may have occurred but restricted in extent.

3.5 Non-Coal Mining Cavities

This dataset provides information from the Peter Brett Associates (PBA) mining cavities database (compiled for the national study entitled "Review of mining instability in Great Britain, 1990" PBA has also continued adding to this database) on mineral extraction by mining.

Are there any Non-Coal Mining cavities within 1000m of the study site boundary? No

Database searched and no data found.

3.6 Natural Cavities

This dataset provides information based on Peter Brett Associates natural cavities database.

Are there any Natural Cavities within 1000m of the study site boundary? No

Database searched and no data found.

3.7 Brine Extraction

This dataset provides information from the Brine Compensation Board which has been discontinued and is now covered by the Coal Authority.

Are there any Brine Extraction areas within 1000m of the study site boundary? No

Database searched and no data found.

3.8 Gypsum Extraction

This dataset provides information on Gypsum extraction from British Gypsum records.

Are there any Gypsum Extraction areas within 1000m of the study site boundary? No

Database searched and no data found.

3.9 Tin Mining

This dataset provides information on tin mining areas and is derived from tin mining records. This search is based upon postcode information to a sector level.

Are there any Tin Mining areas within 1000m of the study site boundary? No

Database searched and no data found.

3.10 Clay Mining

This dataset provides information on Kaolin and Ball Clay mining from relevant mining records.

Are there any Clay Mining areas within 1000m of the study site boundary?

No

Database searched and no data found.

4 Natural Ground Subsidence

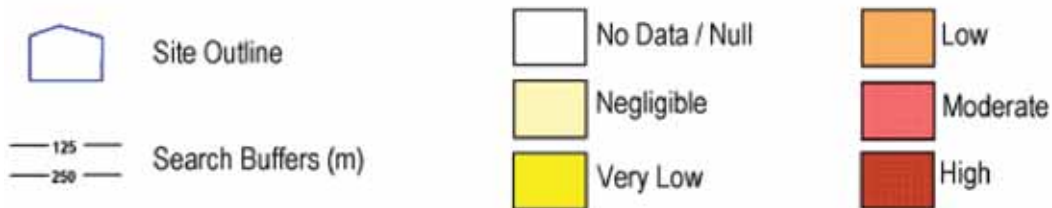
4.1 Shrink-Swell Clay Map



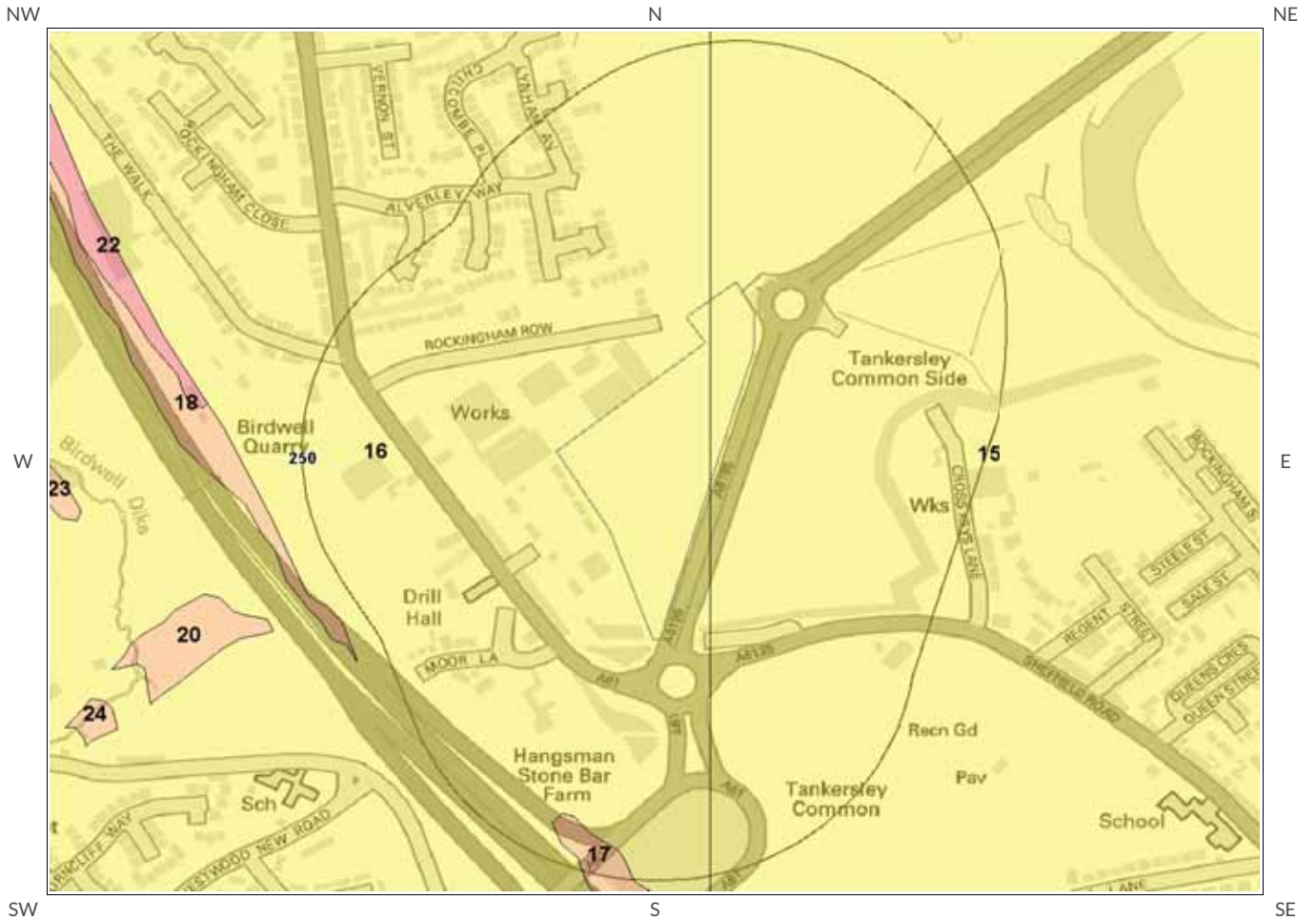
Shrink Swell Clay Legend



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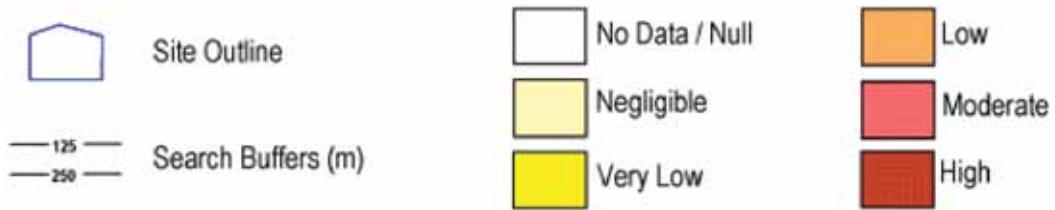
4.2 Landslides Map



Landslides Legend



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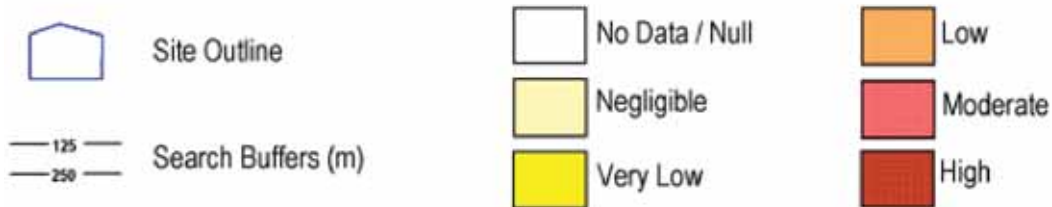
4.3 Ground Dissolution Soluble Rocks Map



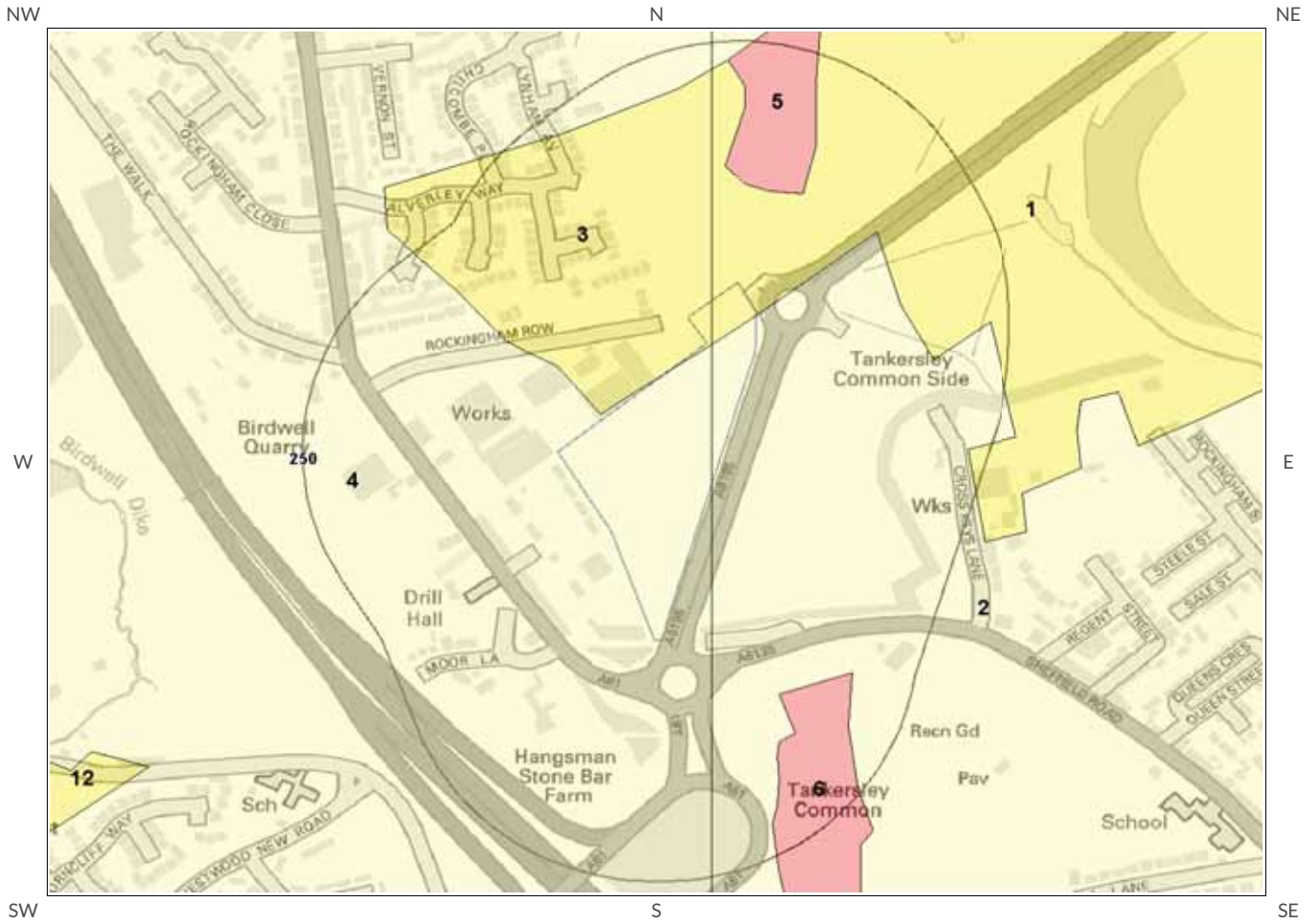
Ground Dissolution Soluble Rocks Legend



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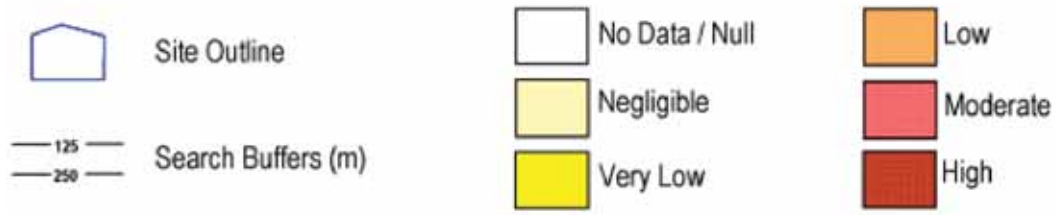
4.4 Compressible Deposits Map



Compressible Deposits Legend



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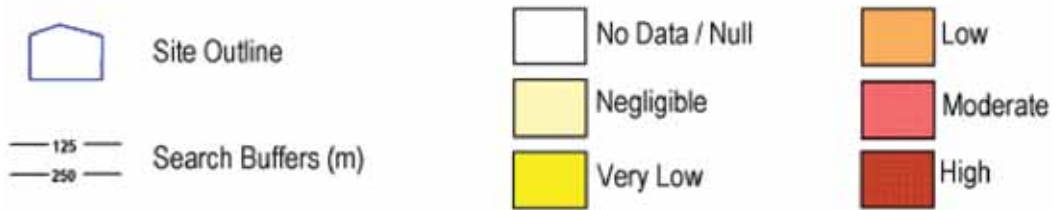
4.5 Collapsible Deposits Map



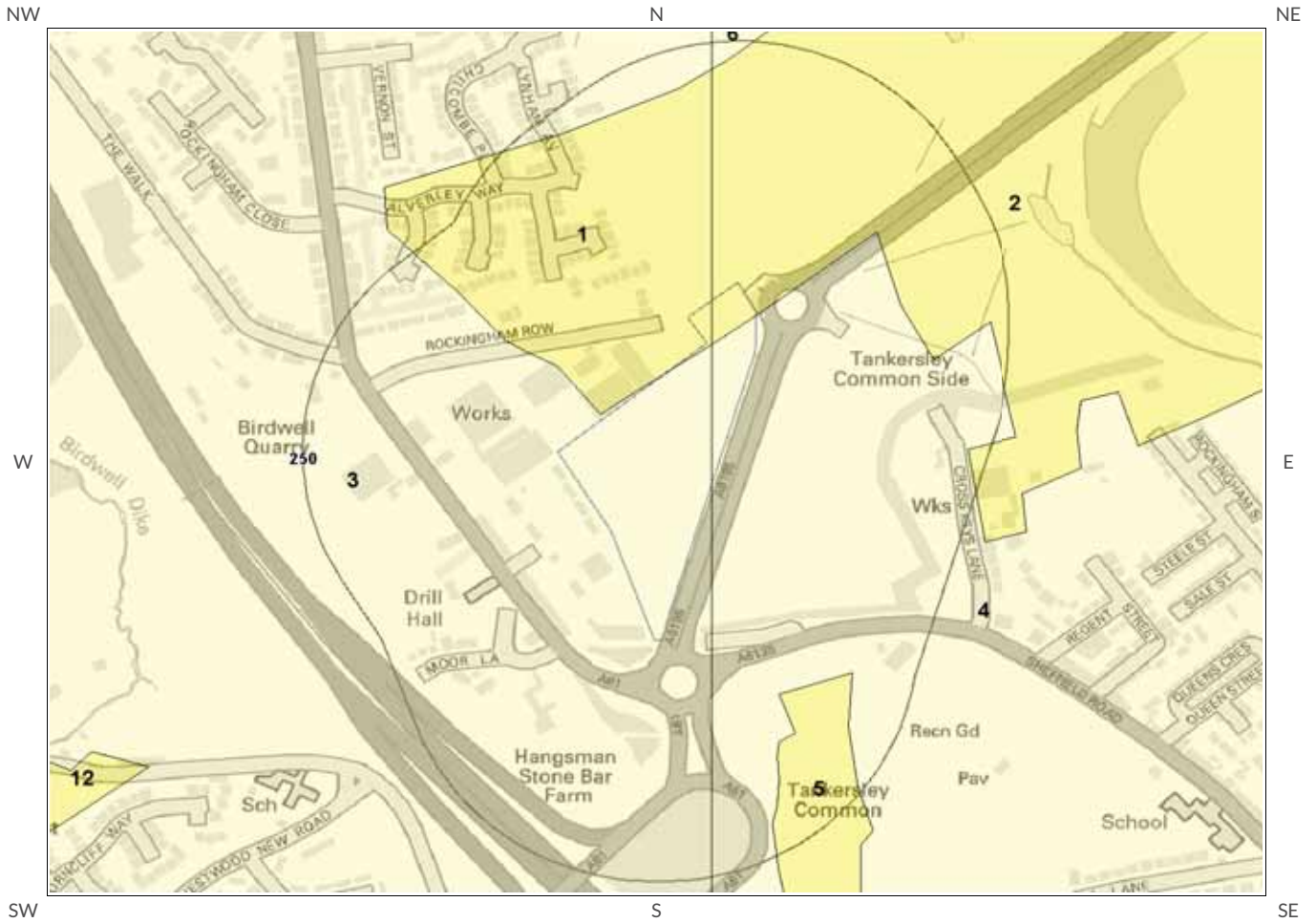
Collapsible Deposits Legend



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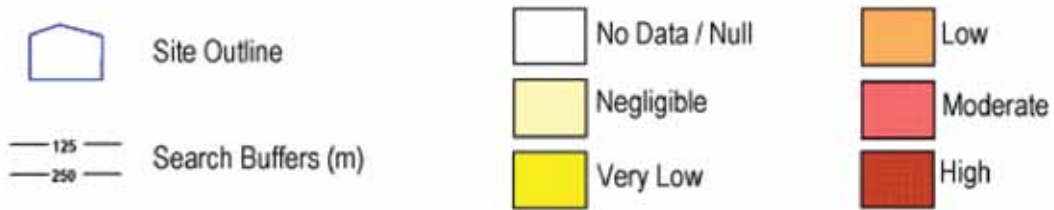
4.6 Running Sand Map



Running Sand Legend



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4 Natural Ground Subsidence

The National Ground Subsidence rating is obtained through the 6 natural ground stability hazard datasets, which are supplied by the British Geological Survey (BGS).

The following GeoSure data represented on the mapping is derived from the BGS Digital Geological map of Great Britain at 1:50,000 scale.

What is the maximum hazard rating of natural subsidence within the study site* boundary? Very Low

4.1 Shrink-Swell Clays

The following Shrink Swell information provided by the British Geological Survey:

ID	Distance (m)	Direction	Hazard Rating	Details
1	0.0	On Site	Negligible	Ground conditions predominantly non-plastic. No special actions required to avoid problems due to shrink-swell clays. No special ground investigation required, and increased construction costs or increased financial risks are unlikely likely due to potential problems with shrink-swell clays.
2	0.0	On Site	Very Low	Ground conditions predominantly low plasticity. No special actions required to avoid problems due to shrink-swell clays. No special ground investigation required, and increased construction costs or increased financial risks are unlikely due to potential problems with shrink-swell clays.
3	0.0	On Site	Very Low	Ground conditions predominantly low plasticity. No special actions required to avoid problems due to shrink-swell clays. No special ground investigation required, and increased construction costs or increased financial risks are unlikely due to potential problems with shrink-swell clays.
4	0.0	On Site	Negligible	Ground conditions predominantly non-plastic. No special actions required to avoid problems due to shrink-swell clays. No special ground investigation required, and increased construction costs or increased financial risks are unlikely likely due to potential problems with shrink-swell clays.

4.2 Landslides

The following Landslides information provided by the British Geological Survey:

ID	Distance (m)	Direction	Hazard Rating	Details
15	0.0	On Site	Very Low	Slope instability problems are unlikely to be present. No special actions required to avoid problems due to landslides. No special ground investigation required, and increased construction costs or increased financial risks are unlikely due to potential problems with landslides.
16	0.0	On Site	Very Low	Slope instability problems are unlikely to be present. No special actions required to avoid problems due to landslides. No special ground investigation required, and increased construction costs or increased financial risks are unlikely due to potential problems with landslides.

* This includes an automatically generated 50m buffer zone around the site

4.3 Ground Dissolution of Soluble Rocks

The following Ground Dissolution information provided by the British Geological Survey:

ID	Distance (m)	Direction	Hazard Rating	Details
1	0.0	On Site	Negligible	Soluble rocks are present, but unlikely to cause problems except under exceptional conditions. No special actions required to avoid problems due to soluble rocks. No special ground investigation required, and increased construction costs or increased financial risks are unlikely due to potential problems with soluble rocks.
2	0.0	On Site	Negligible	Soluble rocks are present, but unlikely to cause problems except under exceptional conditions. No special actions required to avoid problems due to soluble rocks. No special ground investigation required, and increased construction costs or increased financial risks are unlikely due to potential problems with soluble rocks.

4.4 Compressible Deposits

The following Compressible Deposits information provided by the British Geological Survey:

ID	Distance (m)	Direction	Hazard Rating	Details
1	0.0	On Site	Very Low	Very low potential for compressible deposits to be present. No special actions required to avoid problems due to compressible deposits. No special ground investigation required, and increased construction costs or increased financial risks are unlikely due to potential problems with compressible deposits.
2	0.0	On Site	Negligible	No indicators for compressible deposits identified. No special actions required to avoid problems due to compressible deposits. No special ground investigation required, and increased construction costs or increased financial risks are unlikely due to potential problems with compressible deposits.
3	0.0	On Site	Very Low	Very low potential for compressible deposits to be present. No special actions required to avoid problems due to compressible deposits. No special ground investigation required, and increased construction costs or increased financial risks are unlikely due to potential problems with compressible deposits.
4	0.0	On Site	Negligible	No indicators for compressible deposits identified. No special actions required to avoid problems due to compressible deposits. No special ground investigation required, and increased construction costs or increased financial risks are unlikely due to potential problems with compressible deposits.

4.5 Collapsible Deposits

The following Collapsible Rocks information provided by the British Geological Survey:

ID	Distance (m)	Direction	Hazard Rating	Details
1	0.0	On Site	Very Low	Deposits with potential to collapse when loaded and saturated are unlikely to be present. No special ground investigation required or increased construction costs or increased financial risk due to potential problems with collapsible deposits.
2	0.0	On Site	Very Low	Deposits with potential to collapse when loaded and saturated are unlikely to be present. No special ground investigation required or increased construction costs or increased financial risk due to potential problems with collapsible deposits.

4.6 Running Sands

The following Running Sands information provided by the British Geological Survey:

ID	Distance (m)	Direction	Hazard Rating	Details
1	0.0	On Site	Very Low	Very low potential for running sand problems if water table rises or if sandy strata are exposed to water. No special actions required, to avoid problems due to running sand. No special ground investigation required, and increased construction costs or increased financial risks are unlikely due to potential problems with running sand.
2	0.0	On Site	Very Low	Very low potential for running sand problems if water table rises or if sandy strata are exposed to water. No special actions required, to avoid problems due to running sand. No special ground investigation required, and increased construction costs or increased financial risks are unlikely due to potential problems with running sand.
3	0.0	On Site	Negligible	No indicators for running sand identified. No special actions required to avoid problems due to running sand. No special ground investigation required, and increased construction costs or increased financial risks are unlikely due to potential problems with running sand.
4	0.0	On Site	Negligible	No indicators for running sand identified. No special actions required to avoid problems due to running sand. No special ground investigation required, and increased construction costs or increased financial risks are unlikely due to potential problems with running sand.

5 Borehole Records Map



Borehole Records Legend



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-  Site Outline
-  Borehole Locations
-  Search Buffers (m)



5 Borehole Records

The systematic analysis of data extracted from the BGS Borehole Records database provides the following information.

Records of boreholes within 250m of the study site boundary:

7

ID	Distance (m)	Direction	NGR	BGS Reference	Drilled Length	Borehole Name
1	195.0	E	435142 400329	SE30SE46	-1.0	HOYLAND COMMON 0.50
2	197.0	SE	435131 400292	SE30SE45	-1.0	HOYLAND COMMON 0.49
3	202.0	N	435077 400942	SE30SE24	-1.0	ROCKINGHAM COLLIERY 9
4	212.0	SW	434750 400290	SE30SW150	10.3	BIRDWELL QUARRY FOOTBRIDGE 4
5	213.0	SW	434800 400218	SE30SW169	12.25	SOUTH YORKSHIRE COA NMCS2 UPGRADE M43
6	229.0	SE	435144 400251	SE30SE44	-1.0	HOYLAND COMMON 0.48
7	247.0	SW	434720 400270	SE30SW149	14.4	BIRDWELL QUARRY FOOTBRIDGE 3

Additional online information is available for the following boreholes listed above:

#4: scans.bgs.ac.uk/sobi_scans/boreholes/15624567

#5: scans.bgs.ac.uk/sobi_scans/boreholes/18913632

#7: scans.bgs.ac.uk/sobi_scans/boreholes/15624566



6 Estimated Background Soil Chemistry

Records of background estimated soil chemistry within 250m of the study site boundary:

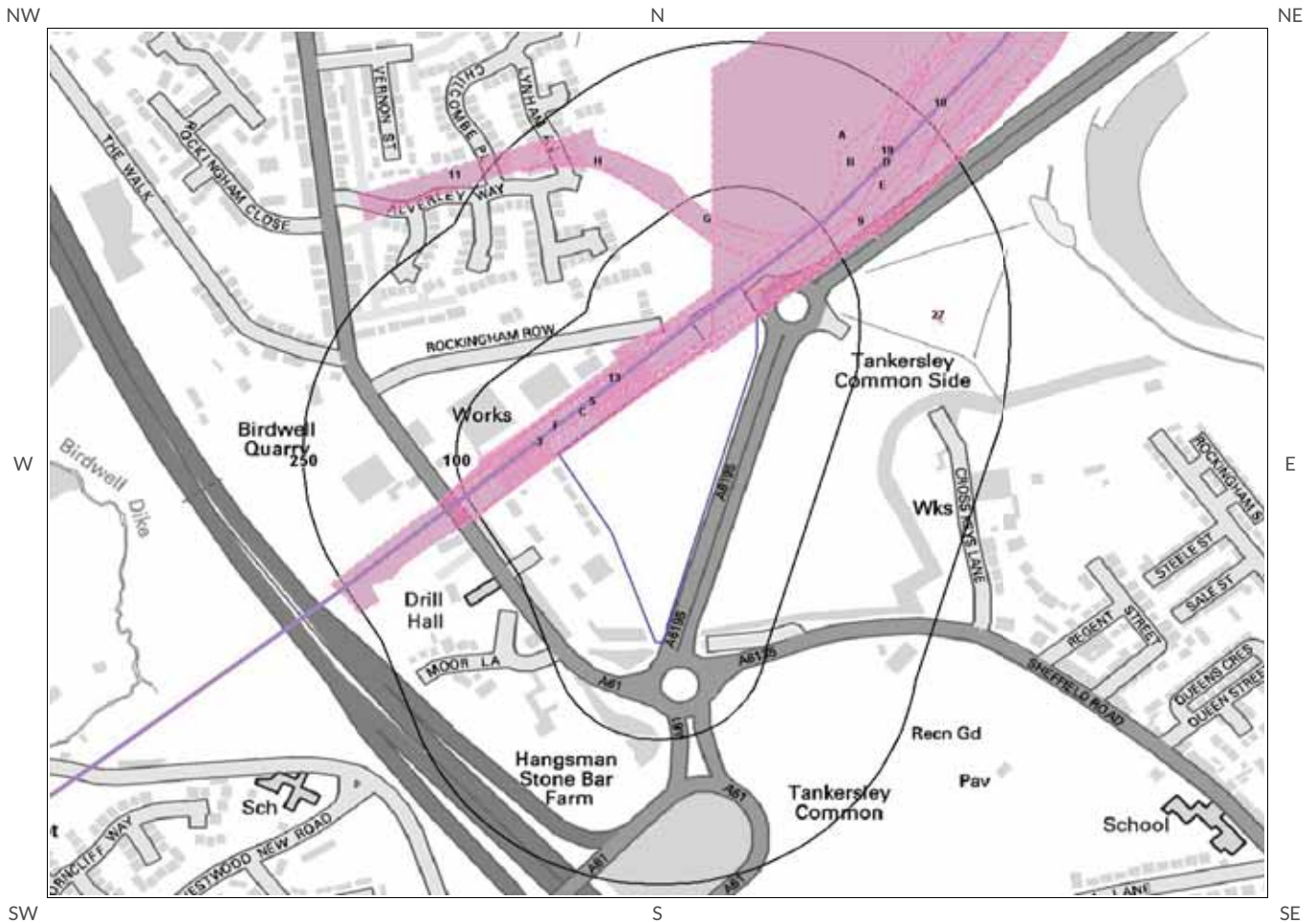
10

For further information on how this data is calculated and limitations upon its use, please see the GroundSure Geolnsight User Guide, available on request.

Distance (m)	Direction	Sample Type	Arsenic (As)	Cadmium (Cd)	Chromium (Cr)	Nickel (Ni)	Lead (Pb)
0.0	On Site	RuralSoil	15 - 25 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<150 mg/kg
0.0	On Site	RuralSoil	15 - 25 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<150 mg/kg
0.0	On Site	RuralSoil	15 - 25 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<150 mg/kg
5.0	NW	RuralSoil	15 - 25 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<150 mg/kg
10.0	E	RuralSoil	15 - 25 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<150 mg/kg
28.0	W	RuralSoil	15 - 25 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<150 mg/kg
94.0	E	RuralSoil	15 - 25 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<150 mg/kg
146.0	E	RuralSoil	15 - 25 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<150 mg/kg
198.0	E	RuralSoil	15 - 25 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<150 mg/kg
210.0	E	RuralSoil	15 - 25 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<150 mg/kg

*As this data is based upon underlying 1:50,000 scale geological information, a 50m buffer has been added to the search radius.

7 Railways and Tunnels Map



Railways and Tunnels Legend



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- Underground or Partially Underground Railway / Subway System
 - Railway Track (OpenStreetMap)
 - Railway Tunnel (OS Mapping)
 - High Speed 2
 - Abandoned or Dismantled Railway (OpenStreetMap)
 - Crossrail
 - Railway Track (OS Mapping)
 - Railway and/or Tunnel Feature from Historical Mapping
-
- Site Outline
 - Search Buffers (m)



7 Railways and Tunnels

7.1 Tunnels

This data is derived from OpenStreetMap and provides information on the possible locations of underground railway systems in the UK - the London Underground, the Tyne & Wear Metro and the Glasgow Subway.

Have any underground railway lines been identified within the study site boundary? No

Have any underground railway lines been identified within 250m of the study site boundary? No

Database searched and no data found.

Any records that have been identified are represented on the Railways and Tunnels Map.

This data is derived from Ordnance Survey mapping and provides information on the possible locations of railway tunnels forming part of the UK overground railway network.

Have any other railway tunnels been identified within the site boundary? No

Have any other railway tunnels been identified within 250m of the site boundary? No

Database searched and no data found.

Any records that have been identified are represented on the Railways and Tunnels Map.

7.2 Historical Railway and Tunnel Features

This data is derived from GroundSure's unique Historical Land-use Database and contains features relating to tunnels, railway tracks or associated works that have been identified from historical Ordnance Survey mapping.

Have any historical railway or tunnel features been identified within the study site boundary? Yes

Have any historical railway or tunnel features been identified within 250m of the study site boundary? Yes

ID	Distance (m)	Direction	NGR	Details	Date
1A	0	On Site	436085 402311	Railway Sidings	1966
2A	0	On Site	436085 402311	Railway Sidings	1951
3	0	On Site	434814 400574	Railway Sidings	1977
4C	0	On Site	434873 400614	Railway Sidings	1951
5	0	On Site	434874 400622	Railway Sidings	1965
6B	0	On Site	435326 401109	Railway Sidings	1903
7B	0	On Site	435326 401109	Railway Sidings	1938
8E	0	On Site	435331 401034	Railway Sidings	1977

ID	Distance (m)	Direction	NGR	Details	Date
9	0	On Site	435299 401032	Railway Sidings	1948
12C	0	On Site	434834 400577	Railway Sidings	1973
13	0	On Site	434877 400628	Railway Sidings	1956
14D	0	On Site	435301 401017	Railway Sidings	1893
15D	0	On Site	435301 401017	Railway Sidings	1906
16E	0	On Site	435314 401015	Railway Sidings	1931
17	0	On Site	435166 400853	Railway Sidings	1955
18	0	On Site	435178 400889	Railway Sidings	1974
19	0	On Site	435167 400853	Railway Sidings	1955
20F	12	NW	434840 400593	Railway Sidings	1931
21F	14	NW	434844 400592	Railway Sidings	1905
22F	14	NW	434844 400592	Railway Sidings	1893
23G	34	N	434979 400819	Railway Sidings	1906
24G	34	N	434979 400819	Railway Sidings	1931
10	129	NE	435326 401119	Railway Sidings	1891
25H	134	NW	434917 400864	Railway Sidings	1905
26H	134	NW	434917 400864	Railway Sidings	1931
27	172	E	435221 400711	Railway Sidings	1955
11	209	NW	434750 400855	Railway Sidings	1965

Any records that have been identified are represented on the Railways and Tunnels Map.

7.3 Historical Railways

This data is derived from OpenStreetMap and provides information on the possible alignments of abandoned or dismantled railway lines in proximity to the study site.

Have any historical railway lines been identified within the study site boundary? Yes

Have any historical railway lines been identified within 250m of the study site boundary? Yes

Distance (m)	Direction	Status
0	On Site	Historical

Note: multiple sections of the same track may be listed in the detail above

Any records that have been identified are represented on the Railways and Tunnels Map.

7.4 Active Railways

These datasets are derived from Ordnance Survey mapping and OpenStreetMap and provide information on the possible locations of active railway lines in proximity to the study site.

Have any active railway lines been identified within the study site boundary?	No
Have any active railway lines been identified within 250m of the study site boundary?	No

Database searched and no data found.

Note: multiple sections of the same track may be listed in the detail above
Any records that have been identified are represented on the Railways and Tunnels Map.

7.5 Railway Projects

These datasets provide information on the location of large scale railway projects High Speed 2 and Crossrail.

Is the study site within 5km of the route of the High Speed 2 rail project?	Yes
Is the study site within 500m of the route of the Crossrail rail project?	No

*Further information on proximity to these routes, the project construction status and associated works can be obtained through the purchase of a **GroundSure HS2 and Crossrail Report**.*

Contact Details



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sales@emapsite.com



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Kingsley Dunham Centre
Keyworth, Nottingham NG12 5GG
Tel: 0115 936 3143.
Fax: 0115 936 3276.
Email: enquiries@bgs.ac.uk
Web: www.bgs.ac.uk

BGS Geological Hazards Reports and general geological enquiries



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LE12 6HX



The Coal Authority

200 Lichfield Lane
Mansfield
Notts NG18 4RG
Tel: 0345 7626 848
DX 716176 Mansfield 5
www.coal.gov.uk



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Public Health England, Wellington House
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<https://www.gov.uk/government/organisations/public-health-england>
Email: enquiries@phe.gov.uk
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Report Reference: EMS-263991_356477

Client Reference: EMS_263991_356477

Standard Terms and Conditions

1 Definitions

In these terms and conditions unless the context otherwise requires:

"Beneficiary" means the person or entity for whose benefit the Client has obtained the Services.

"Client" means the party or parties entering into a Contract with GroundSure.

"Commercial" means any building or property which is not Residential.

"Confidential Information" means the contents of this Contract and all information received from the Client as a result of, or in connection with, this Contract other than

(i) information which the Client can prove was rightfully in its possession prior to disclosure by GroundSure and

(ii) any information which is in the public domain (other than by virtue of a breach of this Contract).

"Support Services" means Support Services provided by GroundSure including, without limitation, interpreting third party and in-house environmental data, providing environmental support advice, undertaking environmental audits and assessments, Site investigation, Site monitoring and related items.

"Contract" means the contract between GroundSure and the Client for the provision of the Services, and which shall incorporate these terms and conditions, the Order, and the relevant User Guide.

"Third Party Data Provider" means any third party providing Third Party Content to GroundSure.

"Data Reports" means reports comprising factual data with no accompanying interpretation.

"Fees" has the meaning set out in clause 5.1.

"GroundSure" means GroundSure Limited, a company registered in England and Wales under number 03421028.

"GroundSure Materials" means all materials prepared by GroundSure and provided as part of the Services, including but not limited to Third Party Content, Data Reports, Mapping, and Risk Screening Reports.

"Intellectual Property" means any patent, copyright, design rights, trade or service mark, moral rights, data protection rights, know-how or trade mark in each case whether registered or not and including applications for the same or any other rights of a similar nature anywhere in the world.

"Mapping" means a map, map data or a combination of historical maps of various ages, time periods and scales.

"Order" means an electronic, written or other order form submitted by the Client requesting Services from GroundSure in respect of a specified Site.

"Ordnance Survey" means the Secretary of State for Business, Innovation and Skills, acting through Ordnance Survey, Adanac Drive, Southampton, SO16 0AS, UK.

"Order Website" means the online platform through which Orders may be placed by the Client and accepted by GroundSure.

"Report" means a Risk Screening Report or Data Report for Commercial or Residential property.

"Residential" means any building or property used as or intended to be used as a single dwelling.

"Risk Screening Report" means a risk screening report comprising factual data with an accompanying interpretation by GroundSure.

"Services" means any Report, Mapping and/or Support Services which GroundSure has agreed to provide by accepting an Order pursuant to clause 2.6.

"Site" means the area of land in respect of which the Client has requested GroundSure to provide the Services.

"Third Party Content" means data, database information or other information which is provided to GroundSure by a Third Party Data Provider.

"User Guide" means the user guide, as amended from time to time, available upon request from GroundSure and on the website (www.GroundSure.com) and forming part of this Contract.

2 Scope of Services, terms and conditions, requests for insurance and quotations

2.1 GroundSure agrees to provide the Services in accordance with the Contract.

2.2 GroundSure shall exercise reasonable skill and care in the provision of the Services.

2.3 Subject to clause 7.3 the Client acknowledges that it has not relied on any statement or representation made by or on behalf of GroundSure which is not set out and expressly agreed in writing in the Contract and all such statements and representations are hereby excluded to the fullest extent permitted by law.

2.4 The Client acknowledges that terms and conditions appearing on a Client's order form, printed stationery or other communication, or any terms or conditions implied by custom, practice or course of dealing shall be of no effect, and that this Contract shall prevail over all others in relation to the Order.

2.5 If the Client or Beneficiary requests insurance in conjunction with or as a result of the Services, GroundSure shall use reasonable endeavours to recommend such insurance, but makes no warranty that such insurance shall be available from insurers or that it will be offered on reasonable terms. Any insurance purchased by the Client or Beneficiary shall be subject solely to the terms of the policy issued by insurers and GroundSure will have no liability therefor. In addition you acknowledge and agree that GroundSure does not act as an agent or broker for any insurance providers. The Client should take (and ensure that the Beneficiary takes) independent advice to ensure that the insurance policy requested or offered is suitable for its requirements.

2.6 GroundSure's quotations or proposals are valid for a period of 30 days only unless an alternative period of time is explicitly stipulated by GroundSure. GroundSure reserves the right to withdraw any quotation or proposal at any time before an Order is accepted by GroundSure. GroundSure's acceptance of an Order

shall be binding only when made in writing and signed by GroundSure's authorised representative or when accepted through the Order Website.

3 The Client's obligations

3.1 The Client shall comply with the terms of this Contract and

(i) procure that the Beneficiary or any third party relying on the Services complies with and acts as if it is bound by the Contract and

(ii) be liable to GroundSure for the acts and omissions of the Beneficiary or any third party relying on the Services as if such acts and omissions were those of the Client.

3.2 The Client shall be solely responsible for ensuring that the Services are appropriate and suitable for its and/or the Beneficiary's needs.

3.3 The Client shall supply to GroundSure as soon as practicable and without charge all requisite information (and the Client warrants that such information is accurate, complete and appropriate), including without limitation any environmental information relating to the Site and shall give such assistance as GroundSure shall reasonably require in the provision of the Services including, without limitation, access to the Site, facilities and equipment.

3.4 Where the Client's approval or decision is required to enable GroundSure to carry out work in order to provide the Services, such approval or decision shall be given or procured in reasonable time and so as not to delay or disrupt the performance of the Services.

3.5 Save as expressly permitted by this Contract the Client shall not, and shall procure that the Beneficiary shall not, re-sell, alter, add to, or amend the GroundSure Materials, or use the GroundSure Materials in a manner for which they were not intended. The Client may make the GroundSure Materials available to a third party who is considering acquiring some or all of, or providing funding in relation to, the Site, but such third party cannot rely on the same unless expressly permitted under clause 4.

3.6 The Client is responsible for maintaining the confidentiality of its user name and password if using the Order Website and the Client acknowledges that GroundSure accepts no liability of any kind for any loss or damage suffered by the Client as a consequence of using the Order Website.

4 Reliance

4.1 The Client acknowledges that the Services provided by GroundSure consist of the presentation and analysis of Third Party Content and other content and that information obtained from a Third Party Data Provider cannot be guaranteed or warranted by GroundSure to be reliable.

4.2 In respect of Data Reports, Mapping and Risk Screening Reports, the following classes of person and no other are entitled to rely on their contents;

(i) the Beneficiary,

(ii) the Beneficiary's professional advisers, (iii) any person providing funding to the Beneficiary in relation to the Site (whether directly or as part of a lending syndicate),

(iv) the first purchaser or first tenant of the Site, and

(v) the professional advisers and lenders of the first purchaser or tenant of the Site.

4.3 In respect of Support Services, only the Client, Beneficiary and parties expressly named in a Report and no other parties are entitled to rely on its contents.

4.4 Save as set out in clauses 4.2 and 4.3 and unless otherwise expressly agreed in writing, no other person or entity of any kind is entitled to rely on any Services or Report issued or provided by GroundSure. Any party considering such Reports and Services does so at their own risk.

5 Fees and Disbursements

5.1 GroundSure shall charge and the Client shall pay fees at the rate and frequency specified in the written proposal, Order Website or Order acknowledgement form, plus (in the case of Support Services) all proper disbursements incurred by GroundSure. The Client shall in addition pay all value added tax or other tax payable on such fees and disbursements in relation to the provision of the Services (together "Fees").

5.2 The Client shall pay all outstanding Fees to GroundSure in full without deduction, counterclaim or set off within 30 days of the date of GroundSure's invoice or such other period as may be agreed in writing between GroundSure and the Client ("Payment Date"). Interest on late payments will accrue on a daily basis from the Payment Date until the date of payment (whether before or after judgment) at the rate of 8% per annum.

5.3 The Client shall be deemed to have agreed the amount of any invoice unless an objection is made in writing within 28 days of the date of the invoice. As soon as reasonably practicable after being notified of an objection, without prejudice to clause 5.2 a member of GroundSure's management team will contact the Client and the parties shall then use all reasonable endeavours to resolve the dispute within 15 days.

6 Intellectual Property and Confidentiality

6.1 Subject to

(i) full payment of all relevant Fees and

(ii) compliance with this Contract, the Client is granted (and is permitted to sub-licence to the Beneficiary) a royalty-free, worldwide, non-assignable and (save to the extent set out in this Contract) non-transferable licence to make use of the GroundSure Materials.

6.2 All Intellectual Property in the GroundSure Materials are and shall remain owned by GroundSure or GroundSure's licensors (including without limitation the Third Party Data Providers) the Client acknowledges, and shall procure acknowledgement by the Beneficiary of, such ownership. Nothing in this Contract purports to transfer or assign any rights to the Client or the Beneficiary in respect of such Intellectual Property.

6.3 Third Party Data Providers may enforce any breach of clauses 6.1 and 6.2 against the Client or Beneficiary.

6.4 The Client shall, and shall procure that any recipients of the GroundSure Materials shall:

(i) not remove, suppress or modify any trade mark, copyright or other proprietary marking belonging to GroundSure or any third party from the Services;

(ii) use the information obtained as part of the Services in respect of the subject Site only, and shall not store or reuse any information obtained as part of the Services provided in respect of adjacent or nearby sites;

(iii) not create any product or report which is derived directly or indirectly from the Services (save that those acting in a professional capacity to the Beneficiary may provide advice based upon the Services);

(iv) not combine the Services with or incorporate such Services into any other information data or service;

(v) not reformat or otherwise change (whether by modification, addition or enhancement), the Services (save that those acting for the Beneficiary in a professional capacity shall not be in breach of this clause 6.4(v) where such reformatting is in the normal course of providing advice based upon the Services);

(vi) where a Report and/or Mapping contains material belonging to Ordnance Survey, acknowledge and agree that such content is protected by Crown Copyright and shall not use such content for any purpose outside of receiving the Services; and

(vii) not copy in whole or in part by any means any map prints or run-on copies containing content belonging to Ordnance Survey (other than that contained within Ordnance Survey's OS Street Map) without first being in possession of a valid Paper Map Copying Licence from Ordnance Survey,

6.5 Notwithstanding clause 6.4, the Client may make reasonable use of the GroundSure Materials in order to advise the Beneficiary in a professional capacity. However, GroundSure shall have no liability in respect of any advice, opinion or report given or provided to Beneficiaries by the Client.

6.6 The Client shall procure that any person to whom the Services are made available shall notify GroundSure of any request or requirement to disclose, publish or disseminate any information contained in the Services in accordance with the Freedom of Information Act 2000, the Environmental Information Regulations 2004 or any associated legislation or regulations in force from time to time.

7. Liability: Particular Attention Should Be Paid To This Clause

7.1 This Clause 7 sets out the entire liability of GroundSure, including any liability for the acts or omissions of its employees, agents, consultants, subcontractors and Third Party Content, in respect of:

(i) any breach of contract, including any deliberate breach of the Contract by GroundSure or its employees, agents or subcontractors;

(ii) any use made of the Reports, Services, Materials or any part of them; and

(iii) any representation, statement or tortious act or omission (including negligence) arising under or in connection with the Contract.

7.2 All warranties, conditions and other terms implied by statute or common law are, to the fullest extent permitted by law, excluded from the Contract.

7.3 Nothing in the Contract limits or excludes the liability of the Supplier for death or personal injury resulting from negligence, or for any damage or liability incurred by the Client or Beneficiary as a result of fraud or fraudulent misrepresentation.

7.4 GroundSure shall not be liable for

(i) loss of profits;

(ii) loss of business;

(iii) depletion of goodwill and/or similar losses;

(iv) loss of anticipated savings;

(v) loss of goods;

(vi) loss of contract;

(vii) loss of use;

(viii) loss or corruption of data or information;

(ix) business interruption;

(x) any kind of special, indirect, consequential or pure economic loss, costs, damages, charges or expenses;

(xi) loss or damage that arise as a result of the use of all or part of the GroundSure Materials in breach of the Contract;

(xii) loss or damage arising as a result of any error, omission or inaccuracy in any part of the GroundSure Materials where such error, omission or inaccuracy is caused by any Third Party Content or any reasonable interpretation of Third Party Content;

(xiii) loss or damage to a computer, software, modem, telephone or other property; and

(xiv) loss or damage caused by a delay or loss of use of GroundSure's internet ordering service.

7.5 GroundSure's total liability in relation to or under the Contract shall be limited to £10 million for any claim or claims.

7.6 GroundSure shall procure that the Beneficiary shall be bound by limitations and exclusions of liability in favour of GroundSure which accord with those detailed in clauses 7.4 and 7.5 (subject to clause 7.3) in respect of all claims which the Beneficiary may bring against GroundSure in relation to the Services or other matters arising pursuant to the Contract.

8 GroundSure's right to suspend or terminate

8.1 If GroundSure reasonably believes that the Client or Beneficiary has not provided the information or assistance required to enable the proper provision of the Services, GroundSure shall be entitled to suspend all further performance of the Services until such time as any such deficiency has been made good.

8.2 GroundSure shall be entitled to terminate the Contract immediately on written notice in the event that:

(i) the Client fails to pay any sum due to GroundSure within 30

days of the Payment Date; or

(ii) the Client (being an individual) has a bankruptcy order made against him or (being a company) shall enter into liquidation whether compulsory or voluntary or have an administration order made against it or if a receiver shall be appointed over the whole or any part of its property assets or undertaking or if the Client is struck off the Register of Companies or dissolved; or

(iii) the Client being a company is unable to pay its debts within the meaning of Section 123 of the Insolvency Act 1986 or being an individual appears unable to pay his debts within the meaning of Section 268 of the Insolvency Act 1986 or if the Client shall enter into a composition or arrangement with the Client's creditors or shall suffer distress or execution to be levied on his goods; or

(iv) the Client or the Beneficiary breaches any term of the Contract (including, but not limited to, the obligations in clause 4) which is incapable of remedy or if remediable, is not remedied within five days of notice of the breach.

9. Client's Right to Terminate and Suspend

9.1 Subject to clause 10.1, the Client may at any time upon written notice terminate or suspend the provision of all or any of the Services.

9.2 In any event, where the Client is a consumer (and not a business) he/she hereby expressly acknowledges and agrees that:

(i) the supply of Services under this Contract (and therefore the performance of this Contract) commences immediately upon GroundSure's acceptance of the Order; and

(ii) the Reports and/or Mapping provided under this Contract are

(a) supplied to the Client's specification(s) and in any event

(b) by their nature cannot be returned.

10 Consequences of Withdrawal, Termination or Suspension

10.1 Upon termination of the Contract:

(i) GroundSure shall take steps to bring to an end the Services in an orderly manner, vacate any Site with all reasonable speed and shall deliver to the Client and/or Beneficiary any property of the Client and/or Beneficiary in GroundSure's possession or control; and

(ii) the Client shall pay to GroundSure all and any Fees payable in respect of the performance of the Services up to the date of termination or suspension. In respect of any Support Services provided, the Client shall also pay GroundSure any additional costs incurred in relation to the termination or suspension of the Contract.

11 Anti-Bribery

11.1 The Client warrants that it shall:

(i) comply with all applicable laws, statutes and regulations relating to anti-bribery and anti-corruption including but not limited to the Bribery Act 2010;

(ii) comply with such of GroundSure's anti-bribery and anti-corruption policies as are notified to the Client from time to time; and

(iii) promptly report to GroundSure any request or demand for any undue financial or other advantage of any kind received by or on behalf of the Client in connection with the performance of this Contract.

11.2 Breach of this Clause 11 shall be deemed a material breach of this Contract.

12 General

12.1 The Mapping contained in the Services is protected by Crown copyright and must not be used for any purpose other than as part of the Services or as specifically provided in the Contract.

12.2 The Client shall be permitted to make one copy only of each Report or Mapping Order. Thereafter the Client shall be entitled to make unlimited copies of the Report or Mapping Order only in accordance with an Ordnance Survey paper map copy license available through GroundSure.

12.3 GroundSure reserves the right to amend or vary this Contract. No amendment or variation to this Contract shall be valid unless signed by an authorised representative of GroundSure.

12.4 No failure on the part of GroundSure to exercise, and no delay in exercising, any right, power or provision under this Contract shall operate as a waiver thereof.

12.5 Save as expressly provided in this Contract, no person other than the persons set out therein shall have any right under the Contract (Rights of Third Parties) Act 1999 to enforce any terms of the Contract.

12.6 The Secretary of State for Business, Innovation and Skills ("BIS") or BIS' successor body, as the case may be, acting through Ordnance Survey may enforce a breach of clause 6.4(vi) and clause 6.4(vii) of these terms and conditions against the Client in accordance with the provisions of the Contracts (Rights of Third Parties) Act 1999.

12.7 GroundSure shall not be liable to the Client if the provision of the Services is delayed or prevented by one or more of the following circumstances:

(i) the Client or Beneficiary's failure to provide facilities, access or information;

(ii) fire, storm, flood, tempest or epidemic;

(iii) Acts of God or the public enemy;

(iv) riot, civil commotion or war;

(v) strikes, labour disputes or industrial action;

(vi) acts or regulations of any governmental or other agency;

(vii) suspension or delay of services at public registries by Third

Party Data Providers;

(viii) changes in law; or

(ix) any other reason beyond GroundSure's reasonable control.

In the event that GroundSure is prevented from performing the Services (or any part thereof) in accordance with this clause 12.6 for a period of not less than 30 days then GroundSure shall be entitled to terminate this Contract immediately on written notice to the Client.

12.8 Any notice provided shall be in writing and shall be deemed to be properly

given if delivered by hand or sent by first class post, facsimile or by email to the address, facsimile number or email address of the relevant party as may have been notified by each party to the other for such purpose or in the absence of such notification the last known address.

12.9 Such notice shall be deemed to have been received on the day of delivery if delivered by hand, facsimile or email (save to the extent such day is not a working day where it shall be deemed to have been delivered on the next working day) and on the second working day after the day of posting if sent by first class post.

12.10 The Contract constitutes the entire agreement between the parties and shall supersede all previous arrangements between the parties relating to the subject matter hereof.

12.11 Each of the provisions of the Contract is severable and distinct from the others and if one or more provisions is or should become invalid, illegal or unenforceable, the validity and enforceability of the remaining provisions shall not in any way be tainted or impaired.

12.12 This Contract shall be governed by and construed in accordance with English law and any proceedings arising out of or connected with this Contract shall be subject to the exclusive jurisdiction of the English courts.

12.13 GroundSure is an executive member of the Council of Property Search Organisation (CoPSO) and has signed up to the Search Code administered by the Property Codes Compliance Board (PCCB). All Risk Screening Reports shall be supplied in accordance with the provisions of the Search Code.

12.14 If the Client or Beneficiary has a complaint about the Services, written notice should be given to the Compliance Officer at GroundSure who will respond in a timely manner.

12.15 The Client agrees that it shall, and shall procure that each Beneficiary shall, treat in confidence all Confidential Information and shall not, and shall procure that each Beneficiary shall not (i) disclose any Confidential Information to any third party other than in accordance with the terms of this Contract; and (ii) use Confidential Information for a purpose other than the exercise of its rights and obligations under this Contract. Subject to clause 6.6, nothing shall prevent the Client or any Beneficiary from disclosing Confidential Information to the extent required by law

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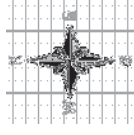
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Grid Ref: 434957, 400569

Map Name: County Series

Map date: 1850

Scale: 1:10,560

Printed at: 1:10,560



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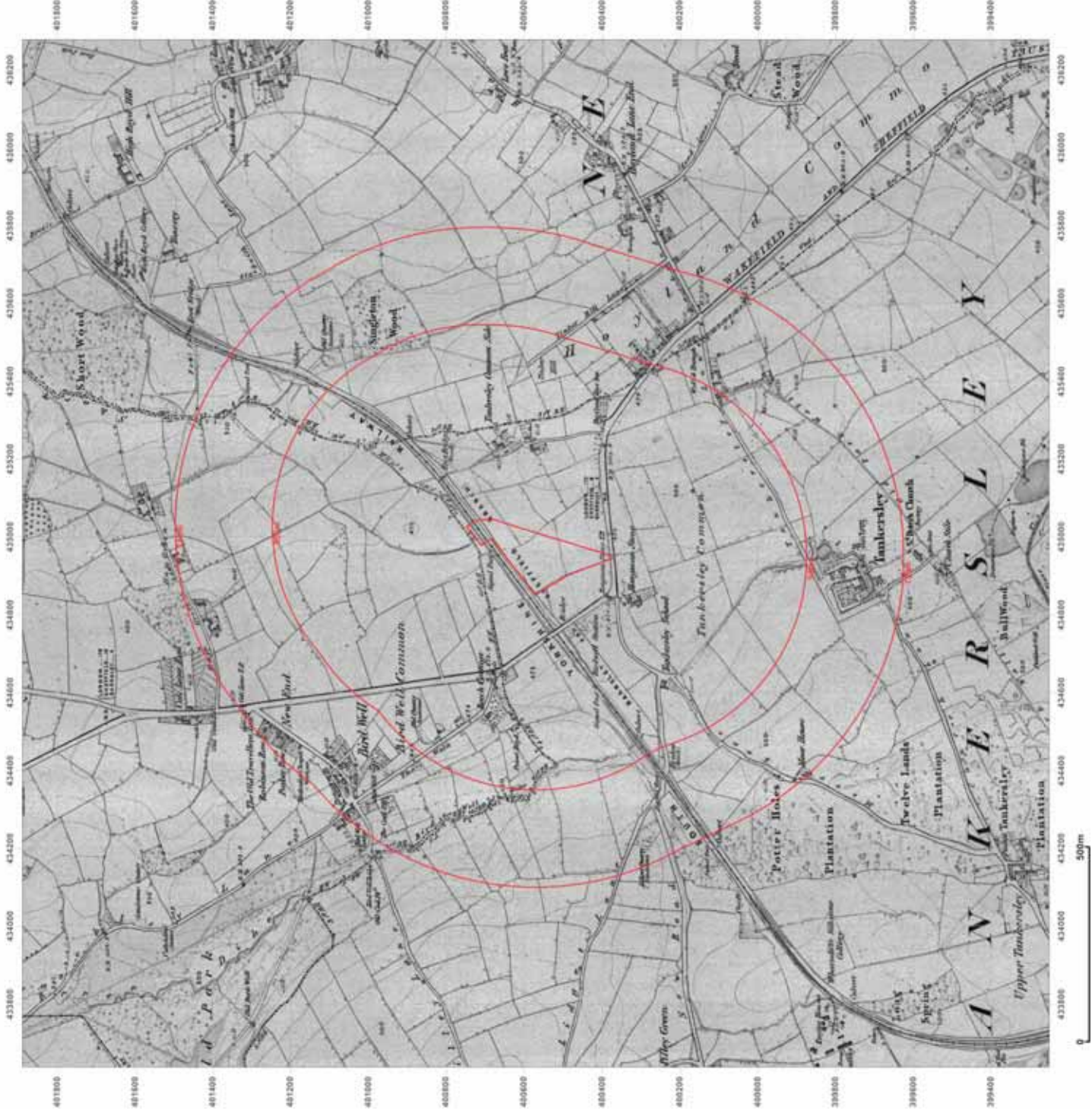


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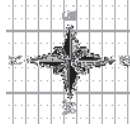
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Map Name: County Series

Map date: 1891

Scale: 1:10,560

Printed at: 1:10,560



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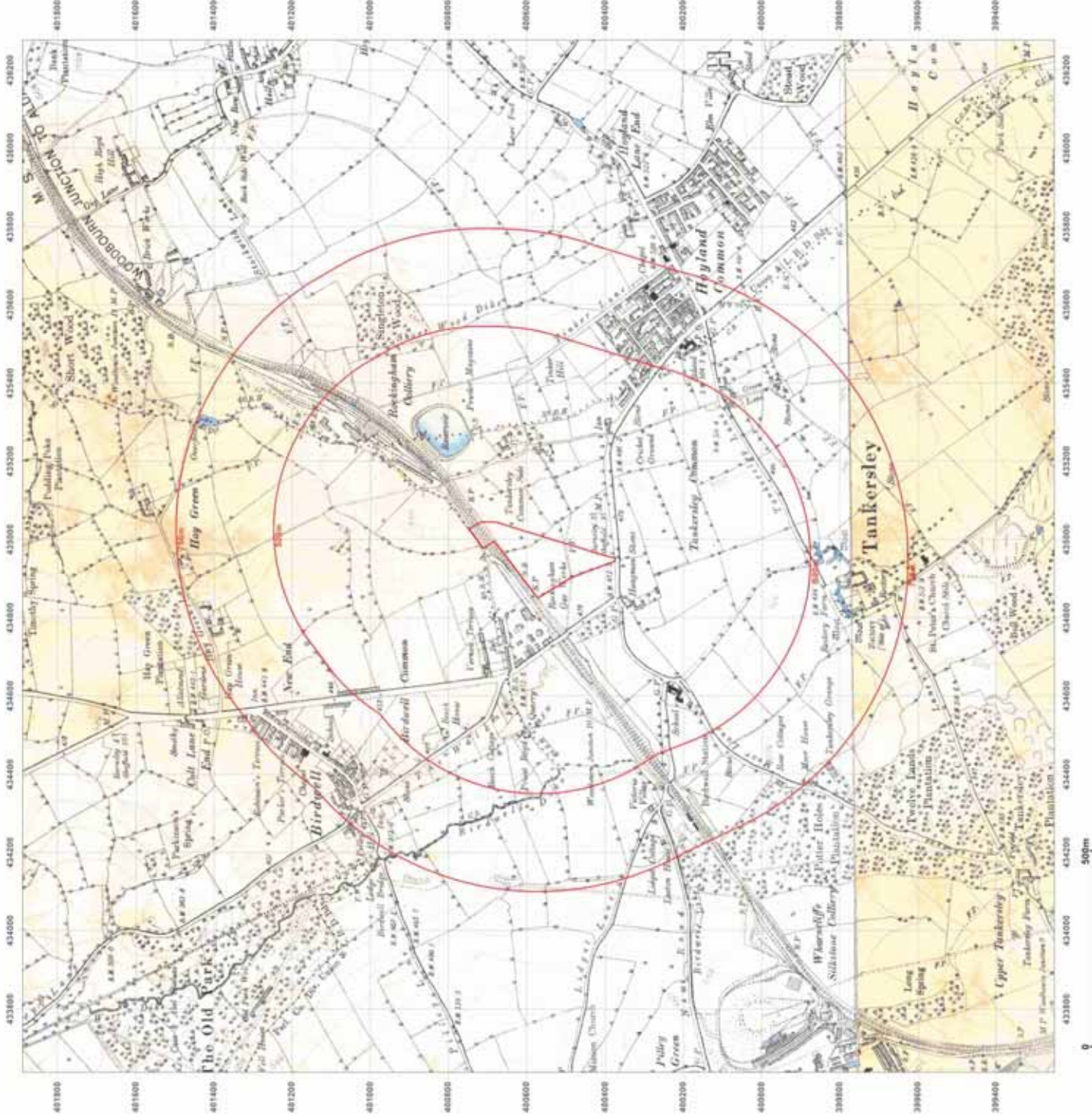


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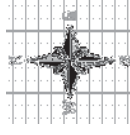
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Map Name: County Series

Map date: 1903

Scale: 1:10,560

Printed at: 1:10,560



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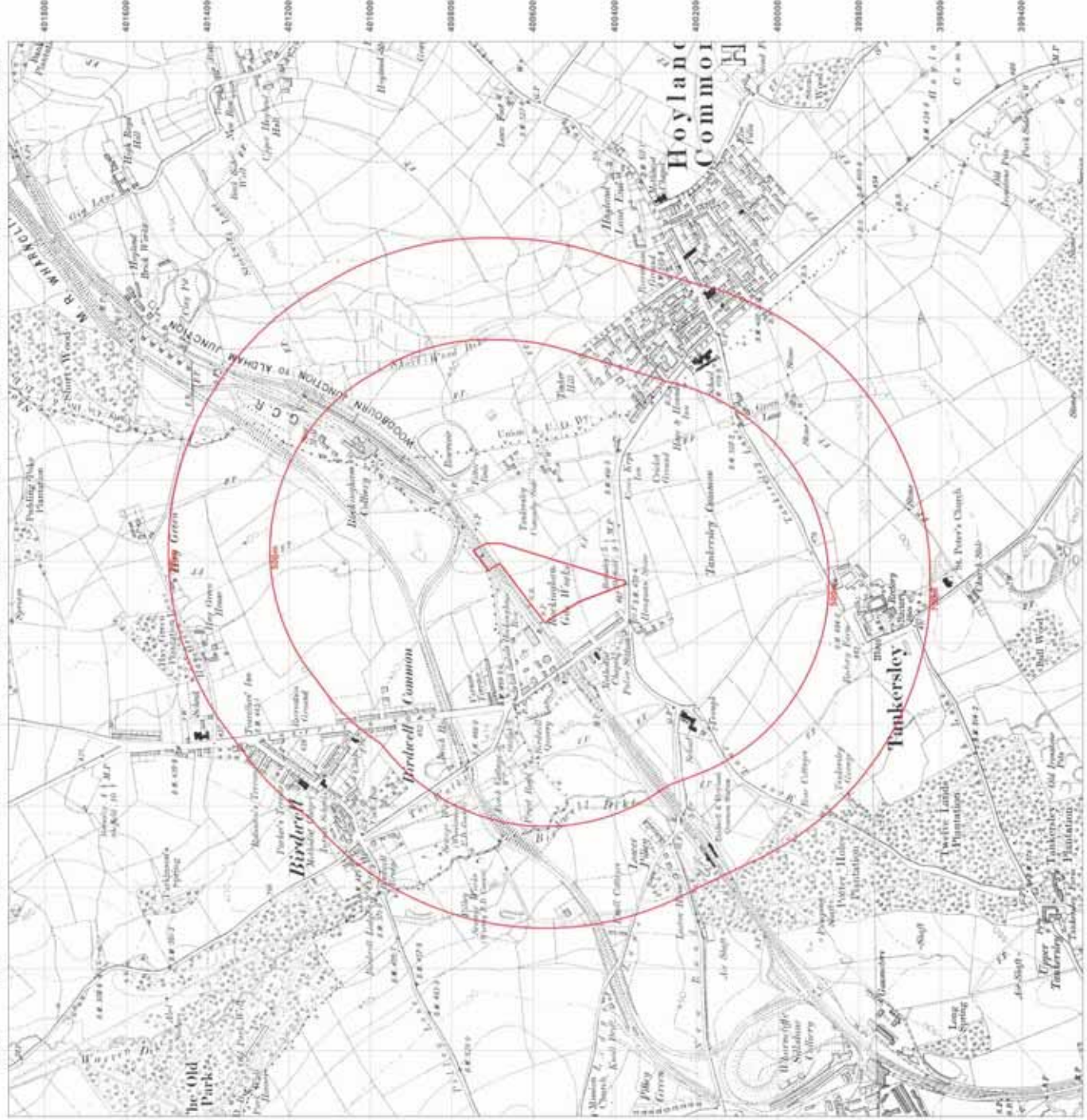


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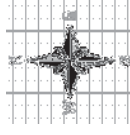
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Map Name: County Series

Map date: 1929

Scale: 1:10,560

Printed at: 1:10,560



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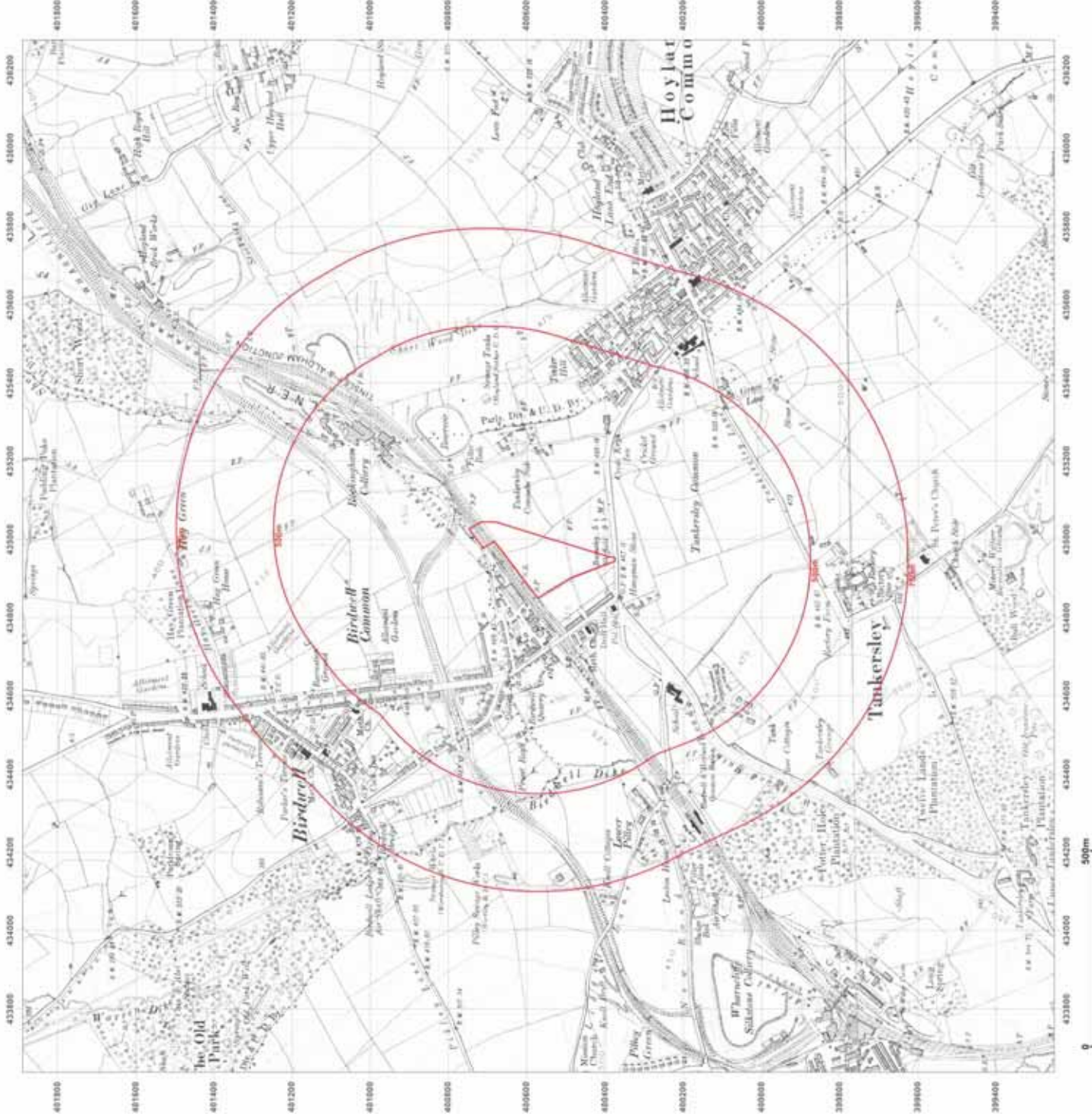


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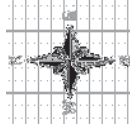
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Map date: 1938

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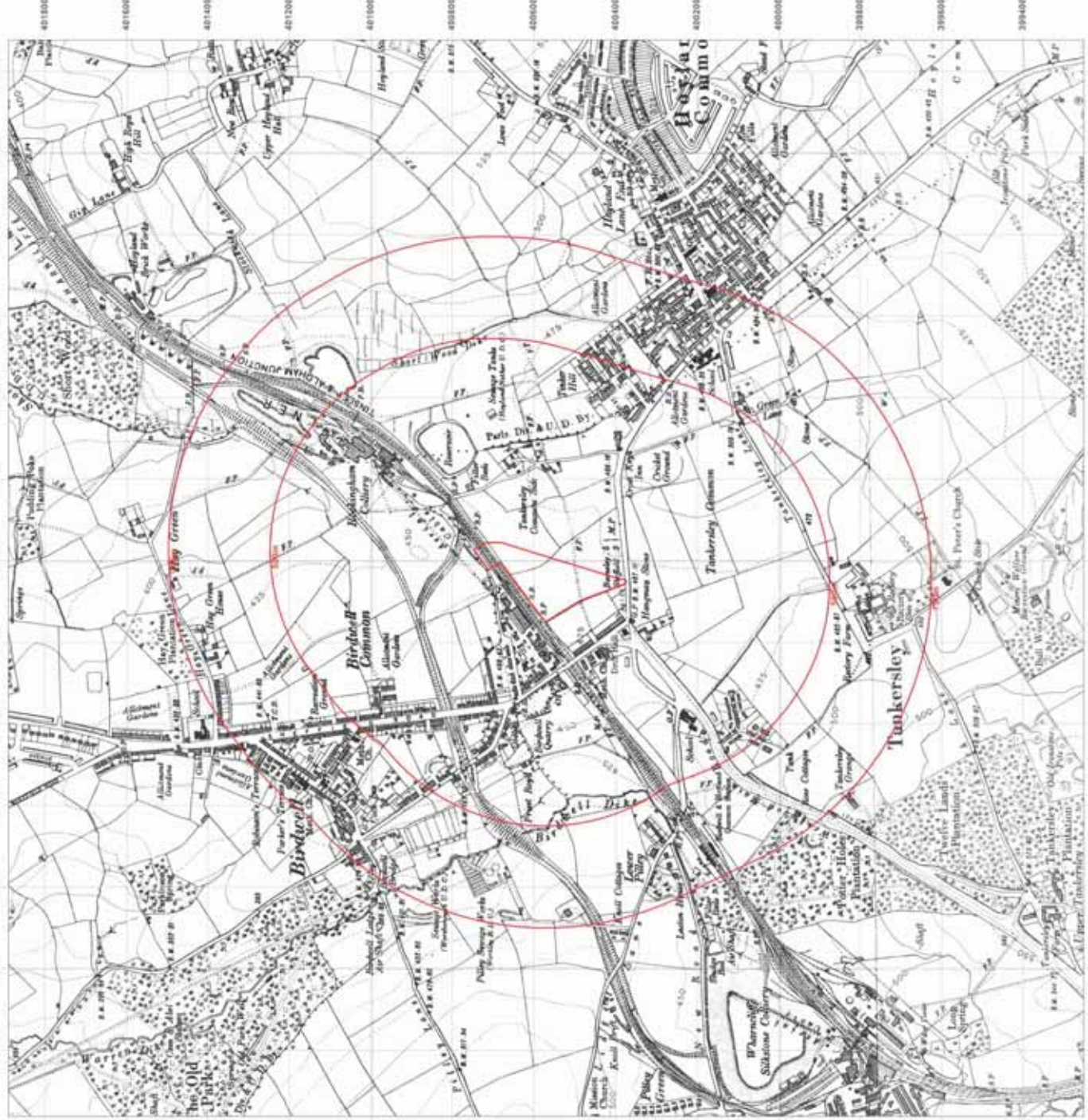


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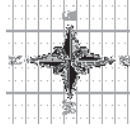
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Map Name: County Series

Map date: 1948

Scale: 1:10,560

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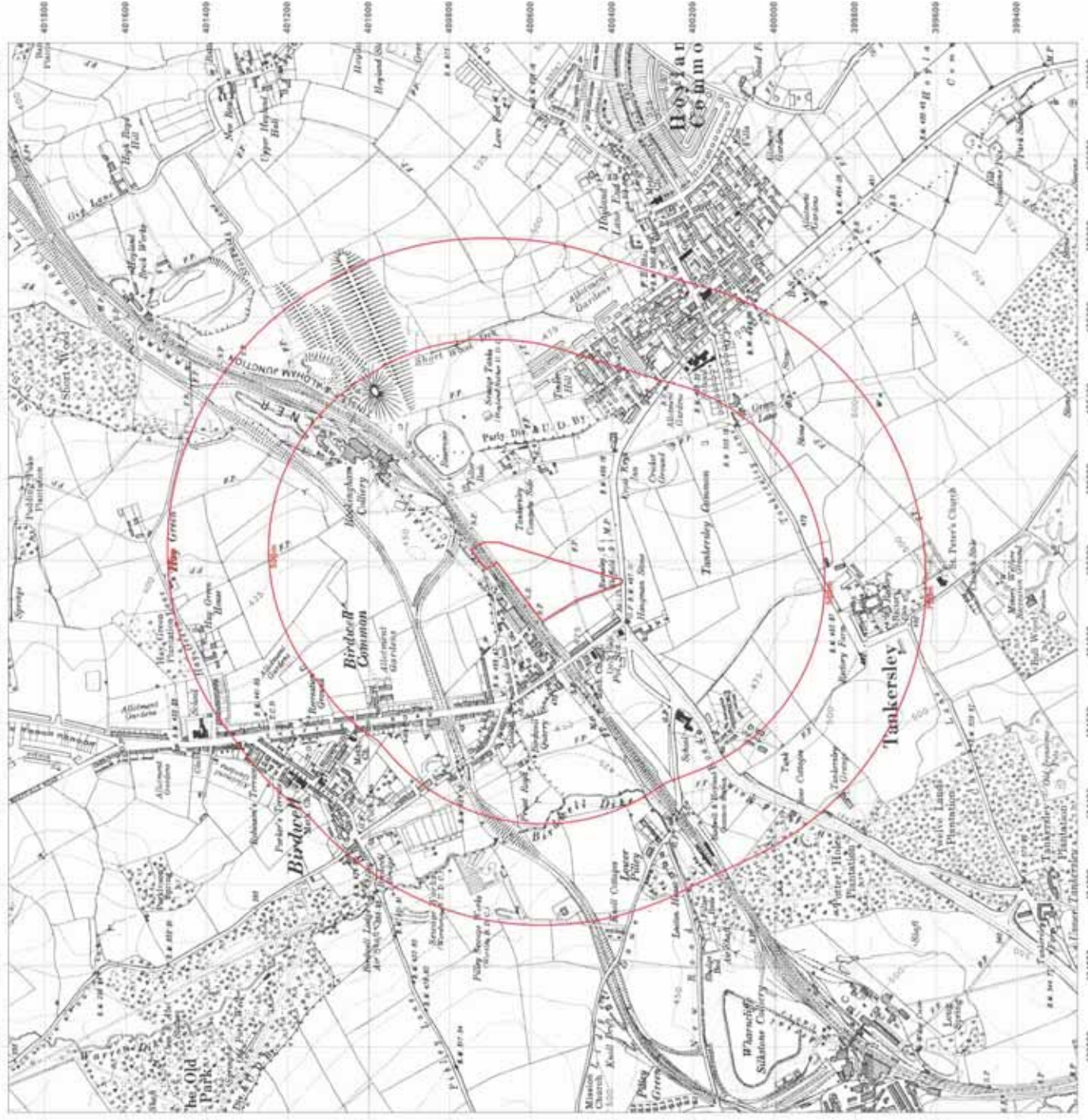


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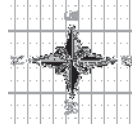
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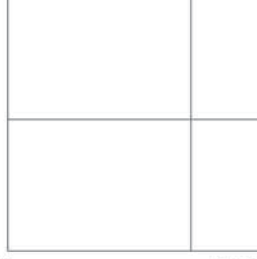
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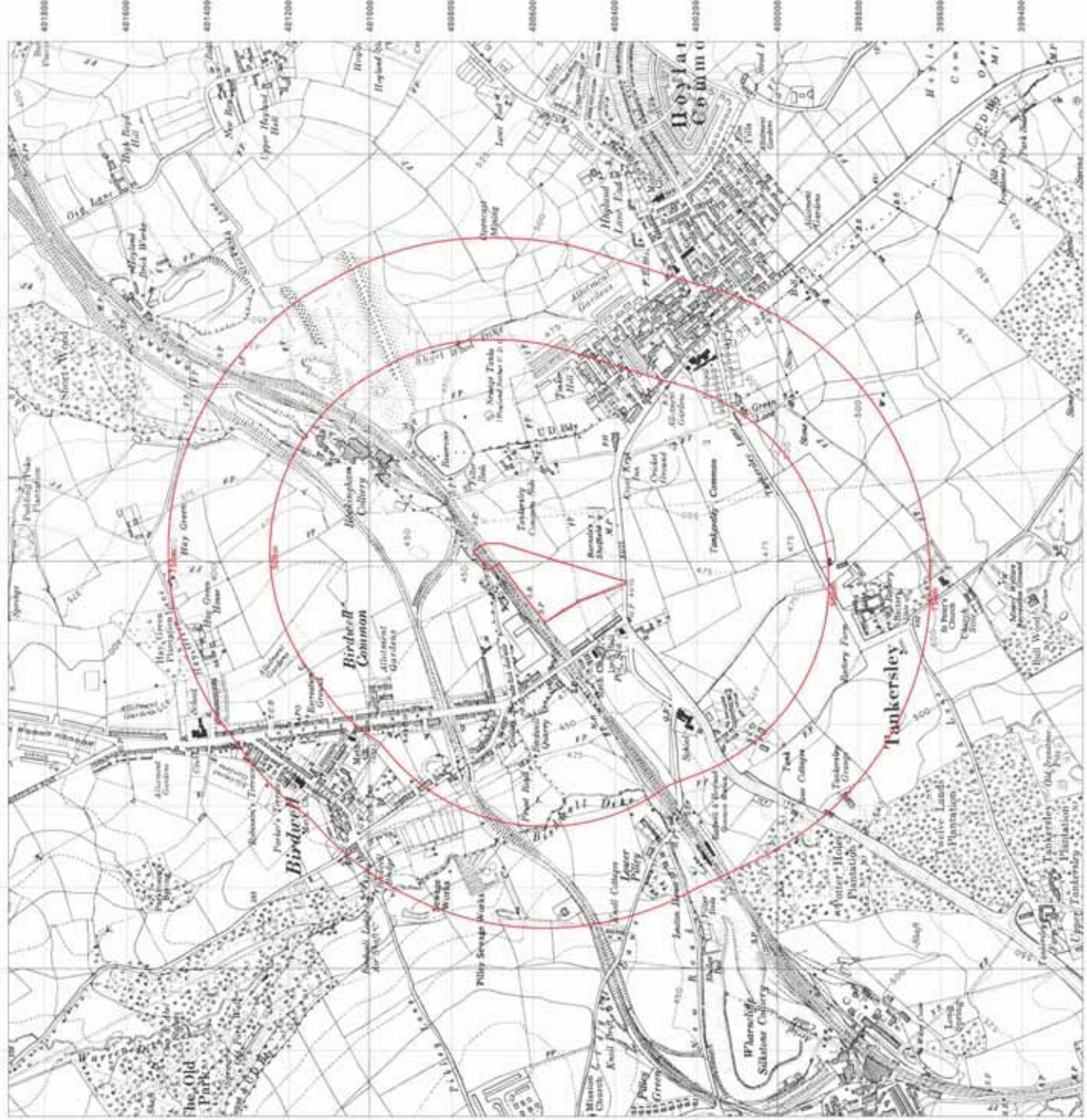


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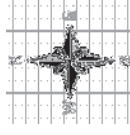
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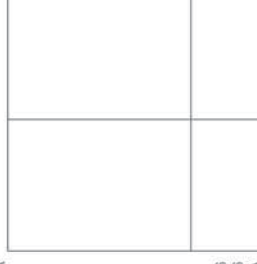


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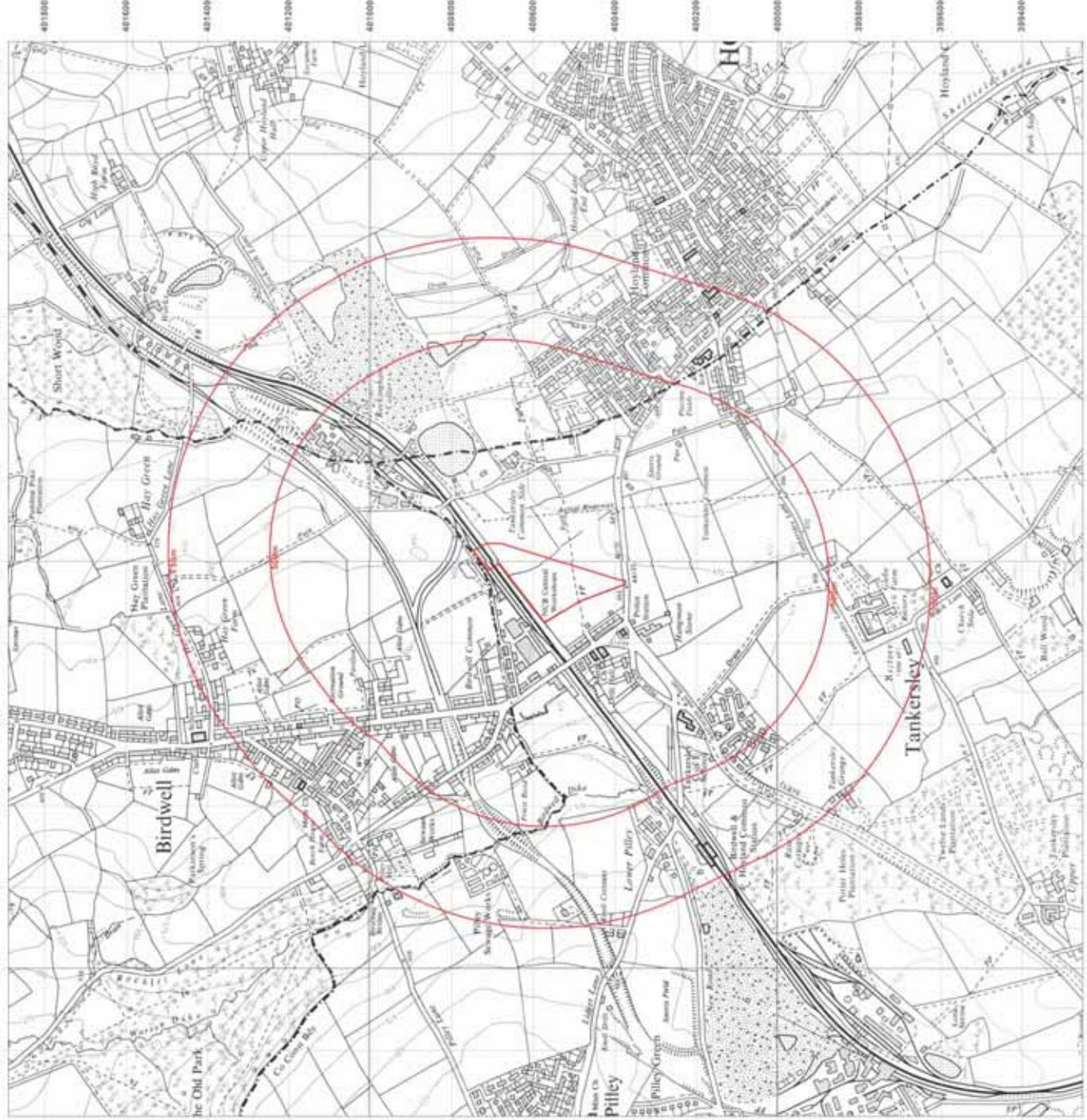


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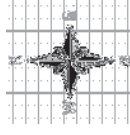
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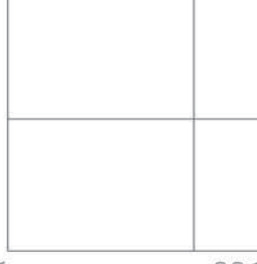


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Surveyed 1976
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Surveyed 1980
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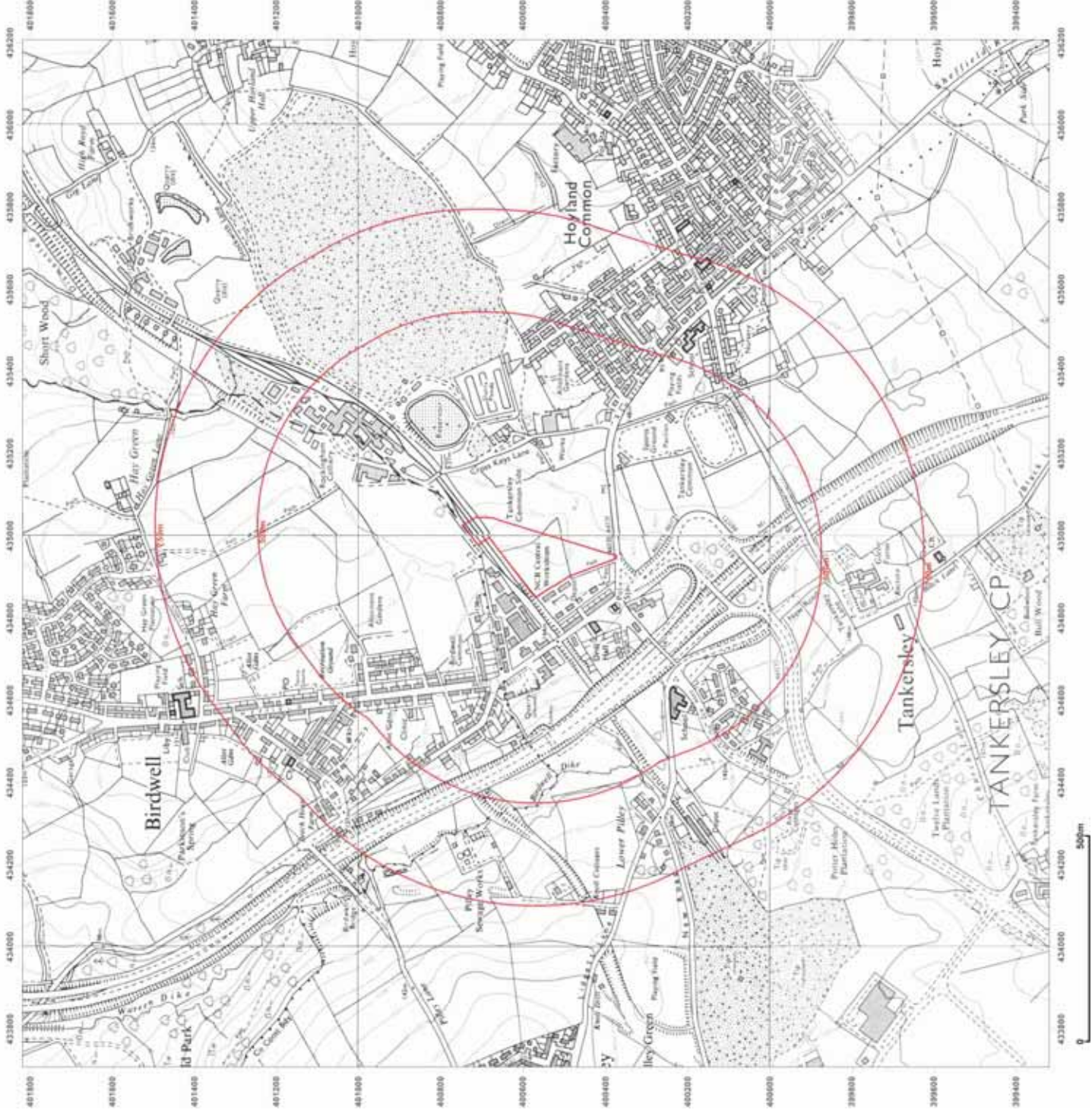


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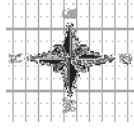
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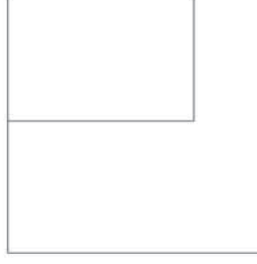
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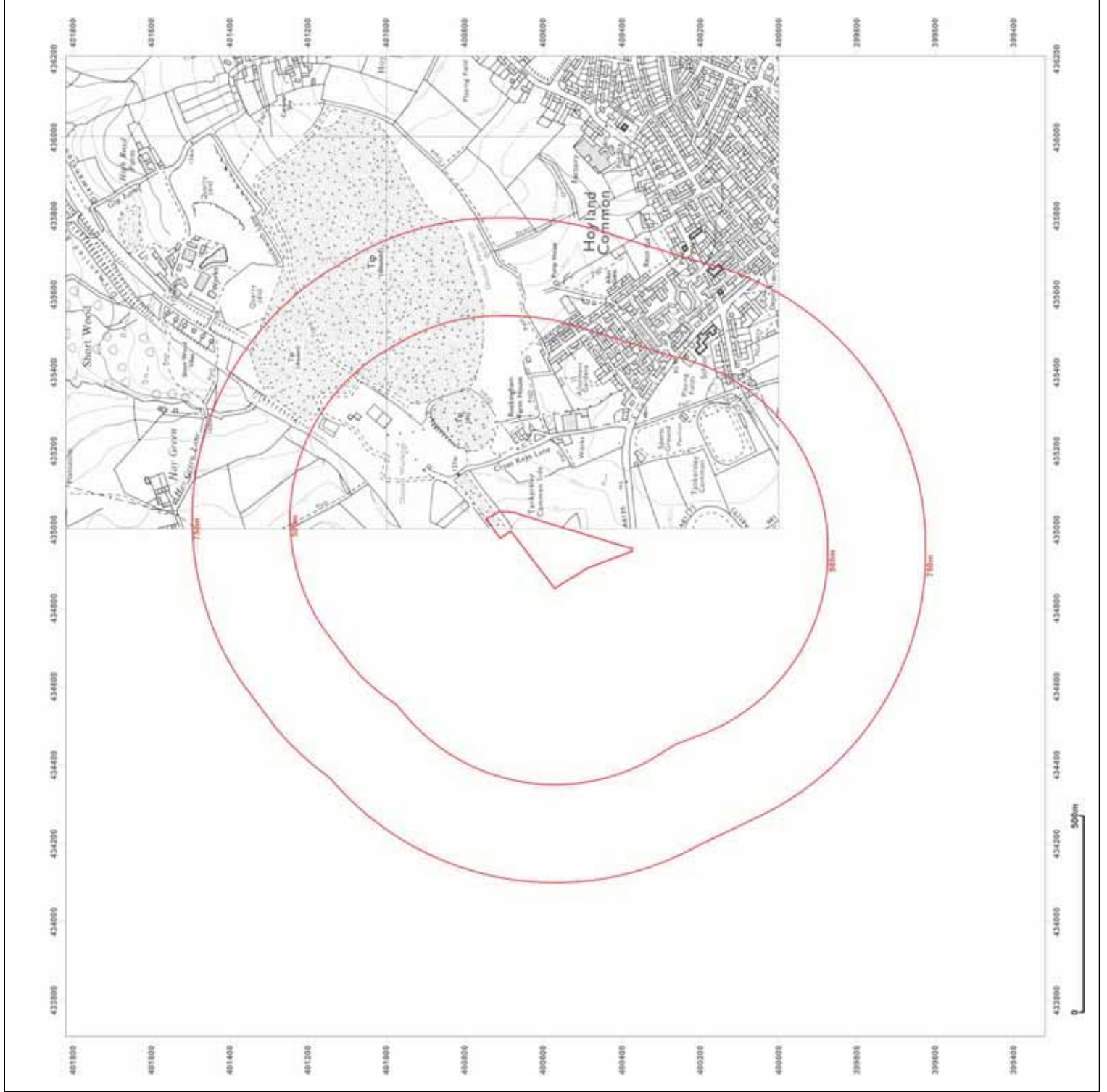


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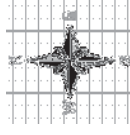
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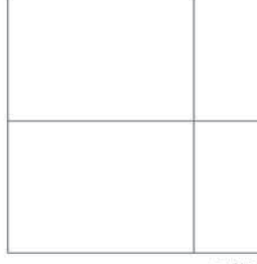
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Revised 1991
Edition N/A
Copyright N/A
Levelled N/A



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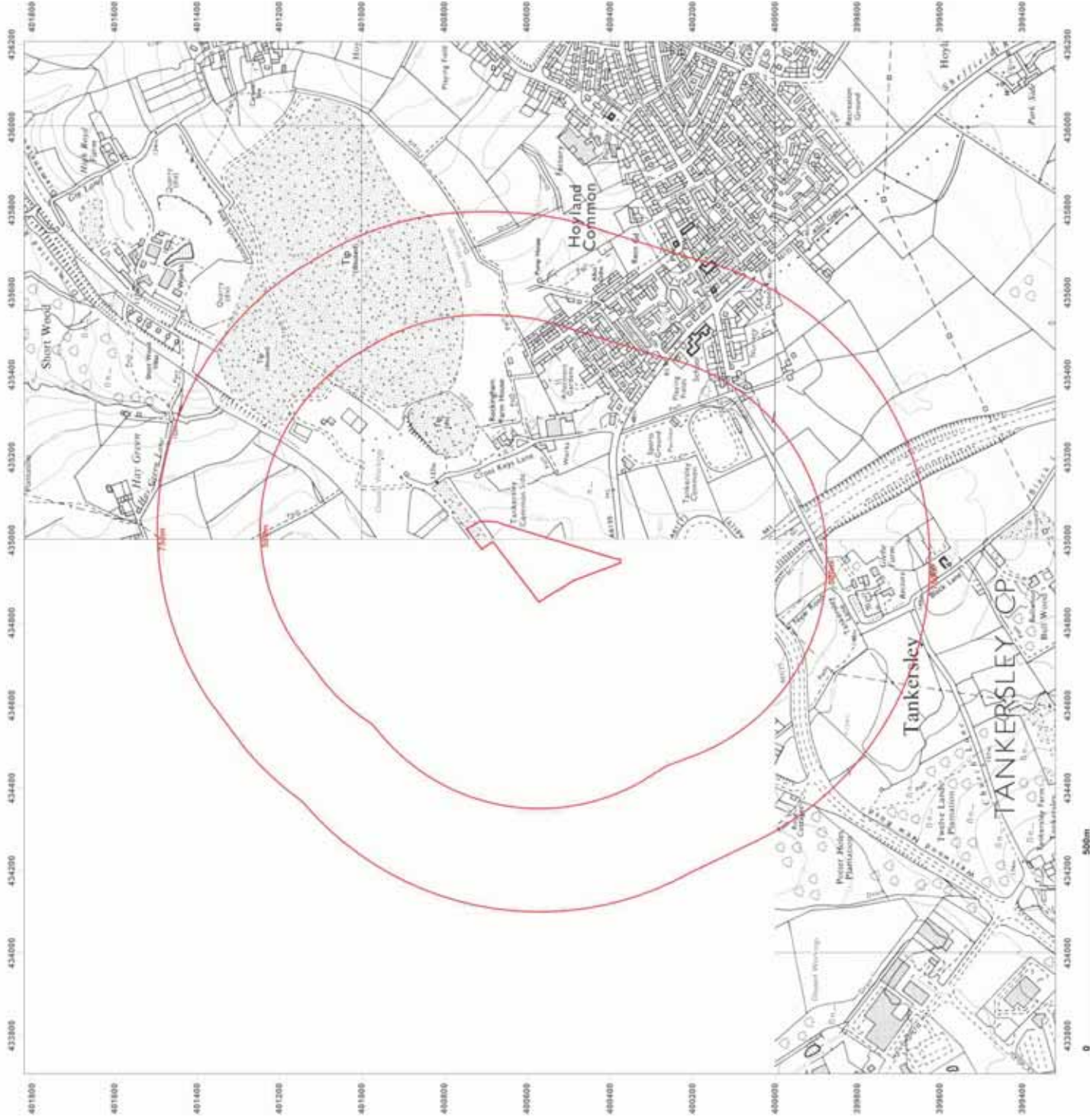


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Production date: 18 August 2014

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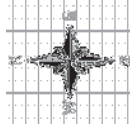
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Report Ref: EMS-263991_356476
Grid Ref: 434957, 400569

Map Name: 1:10,000 Raster

Map date: 2002

Scale: 1:10,000

Printed at: 1:10,000



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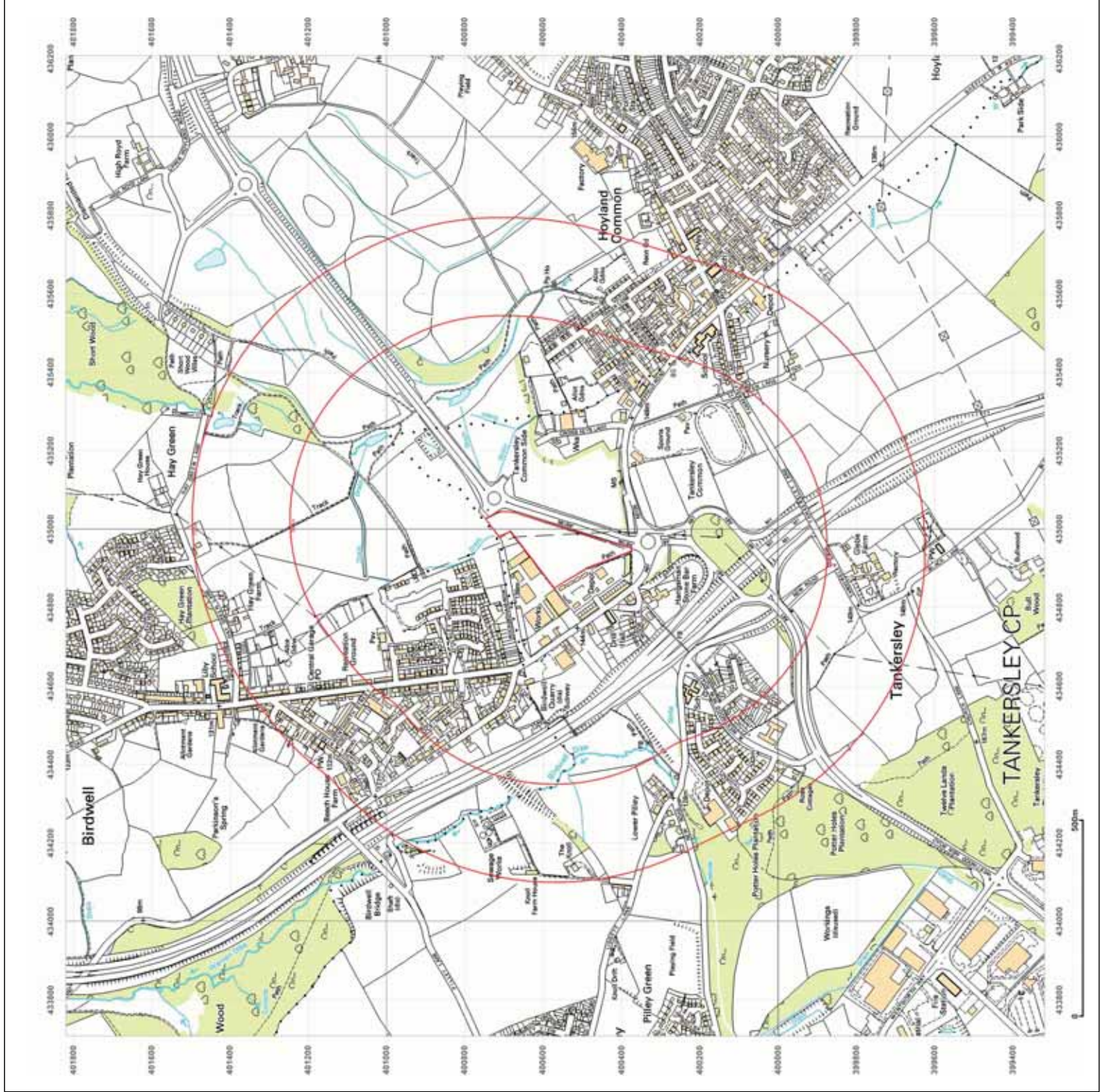


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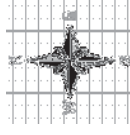
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Report Ref: EMS-263991_356476
Grid Ref: 434957, 400569

Map Name: National Grid

Map date: 2010

Scale: 1:10,000

Printed at: 1:10,000



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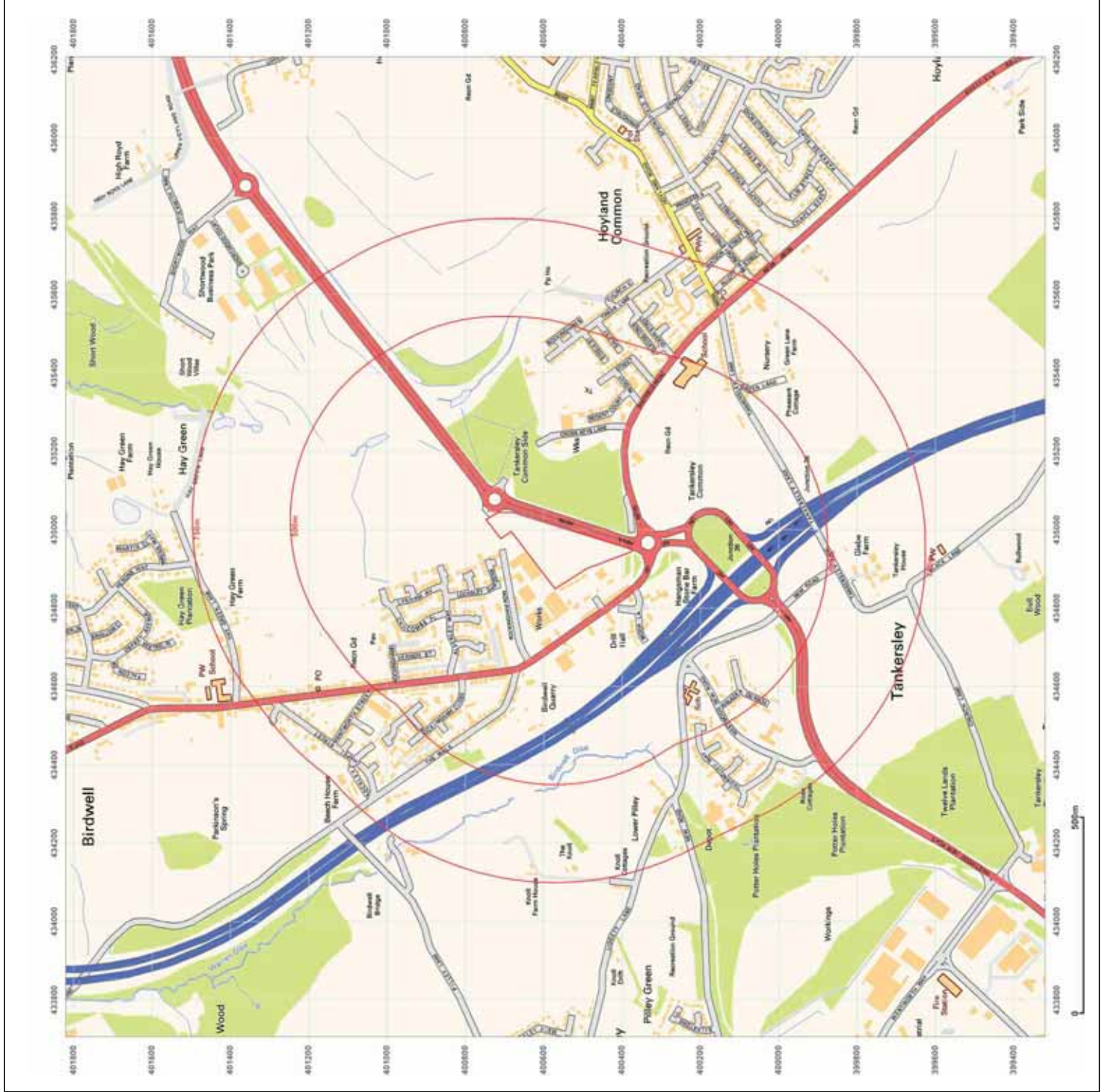


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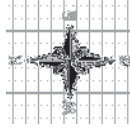
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Report Ref: EMS-263991_356476
Grid Ref: 434957, 400569

Map Name: County Series

Map date: 1893

Scale: 1:2,500

Printed at: 1:2,500



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

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



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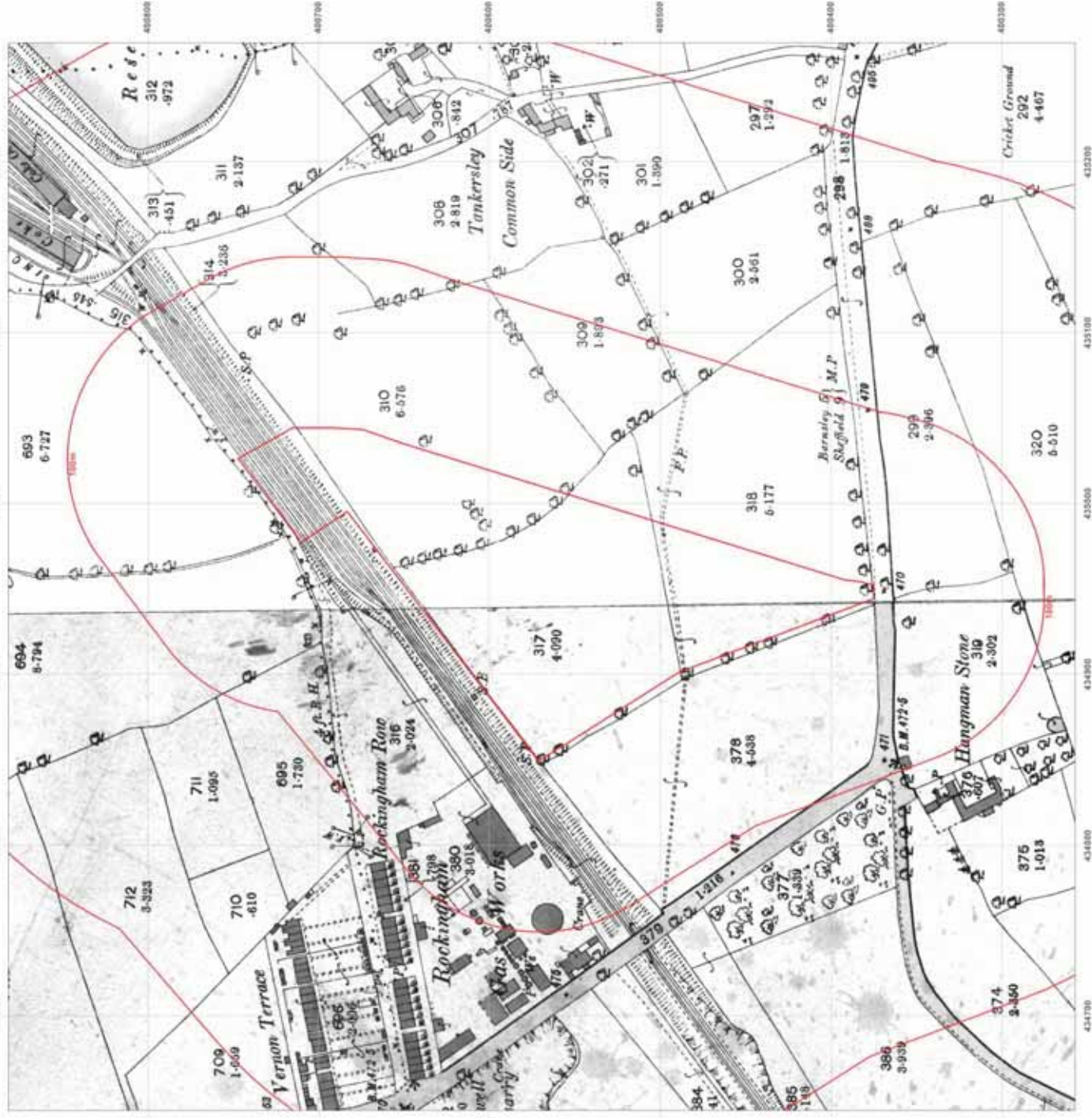


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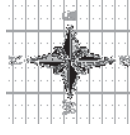
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Grid Ref: 434957, 400569

Map Name: County Series

Map date: 1905-1906

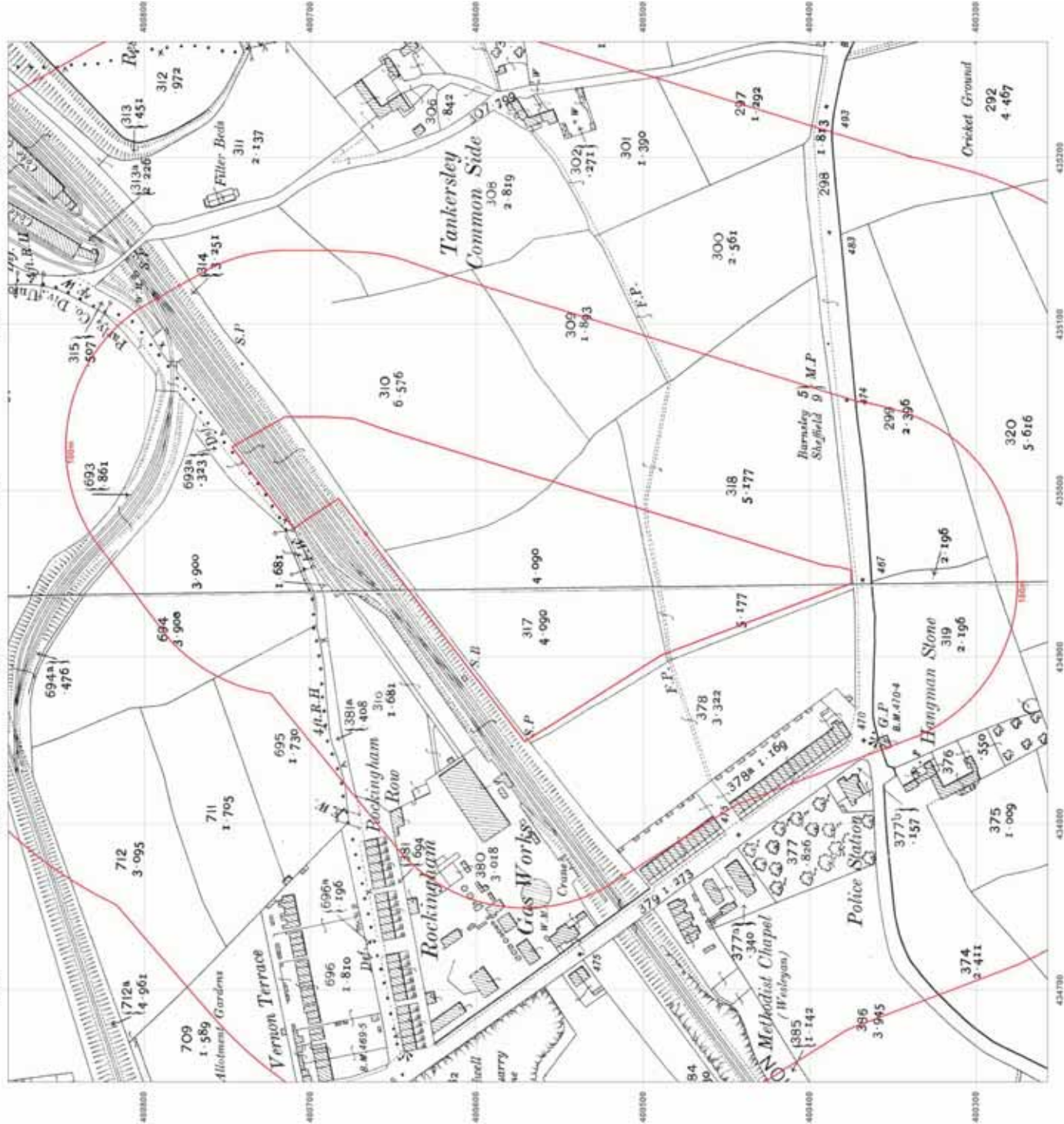
Scale: 1:2,500

Printed at: 1:2,500



Surveyed 1905
Revised 1905
Edition N/A
Copyright N/A
Levelled N/A

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



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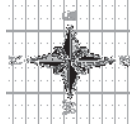
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Report Ref: EMS-263991_356476
Grid Ref: 434957, 400569

Map Name: County Series

Map date: 1931

Scale: 1:2,500

Printed at: 1:2,500



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

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



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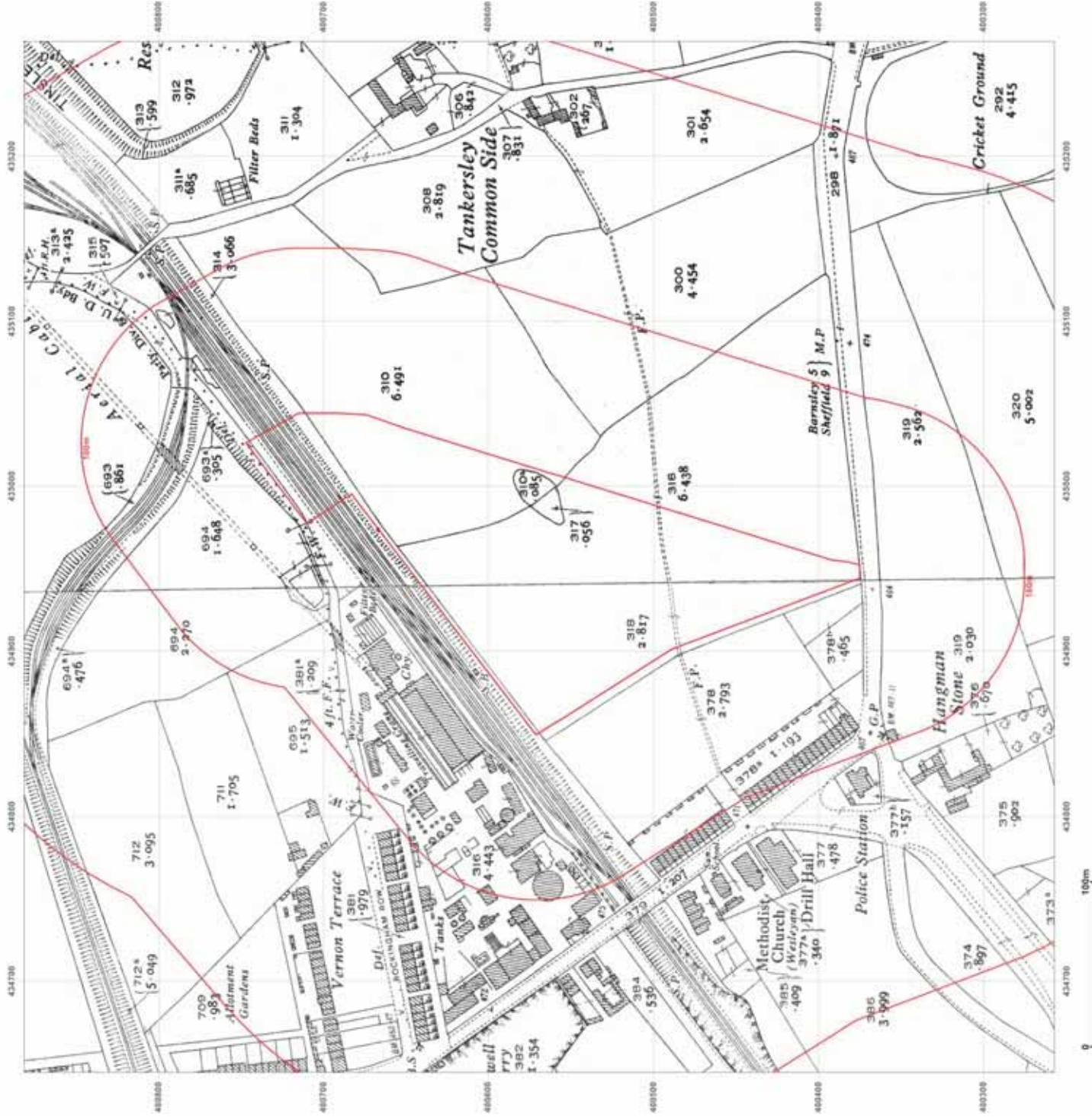


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Production date: 18 August 2014

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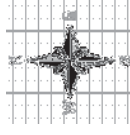
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Report Ref: EMS-263991_356476
Grid Ref: 434957, 400569

Map Name: National Grid

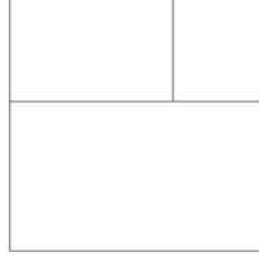
Map date: 1955

Scale: 1:1,250

Printed at: 1:2,000



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



Surveyed 1955
Revised 1955
Edition N/A
Copyright N/A
Levelled 1930



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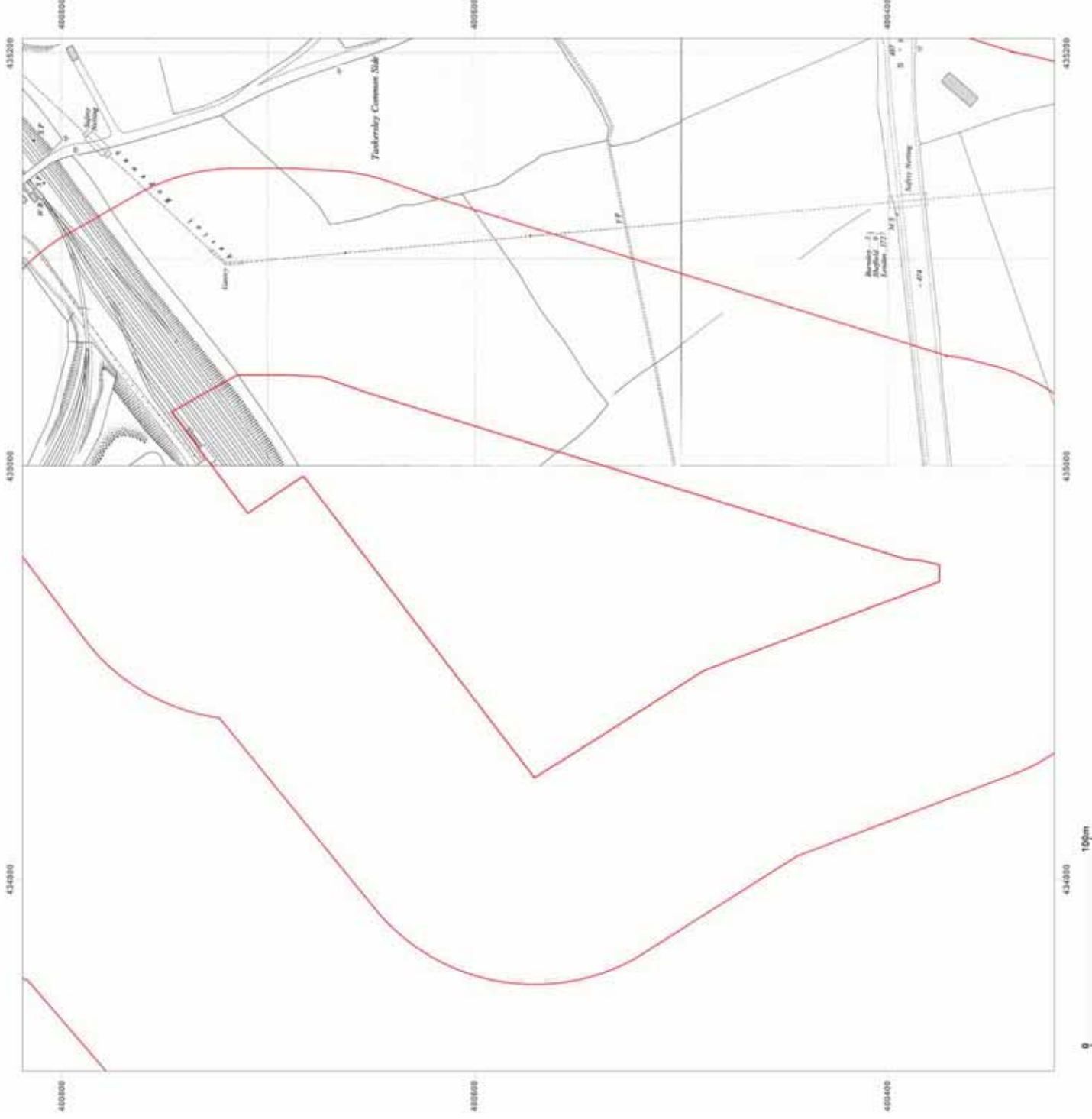


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Production date: 18 August 2014

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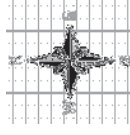
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Report Ref: EMS-263991_356476
Grid Ref: 434957, 400569

Map Name: National Grid

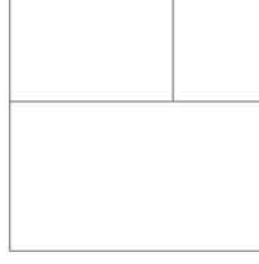
Map date: 1956

Scale: 1:1,250

Printed at: 1:2,000



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



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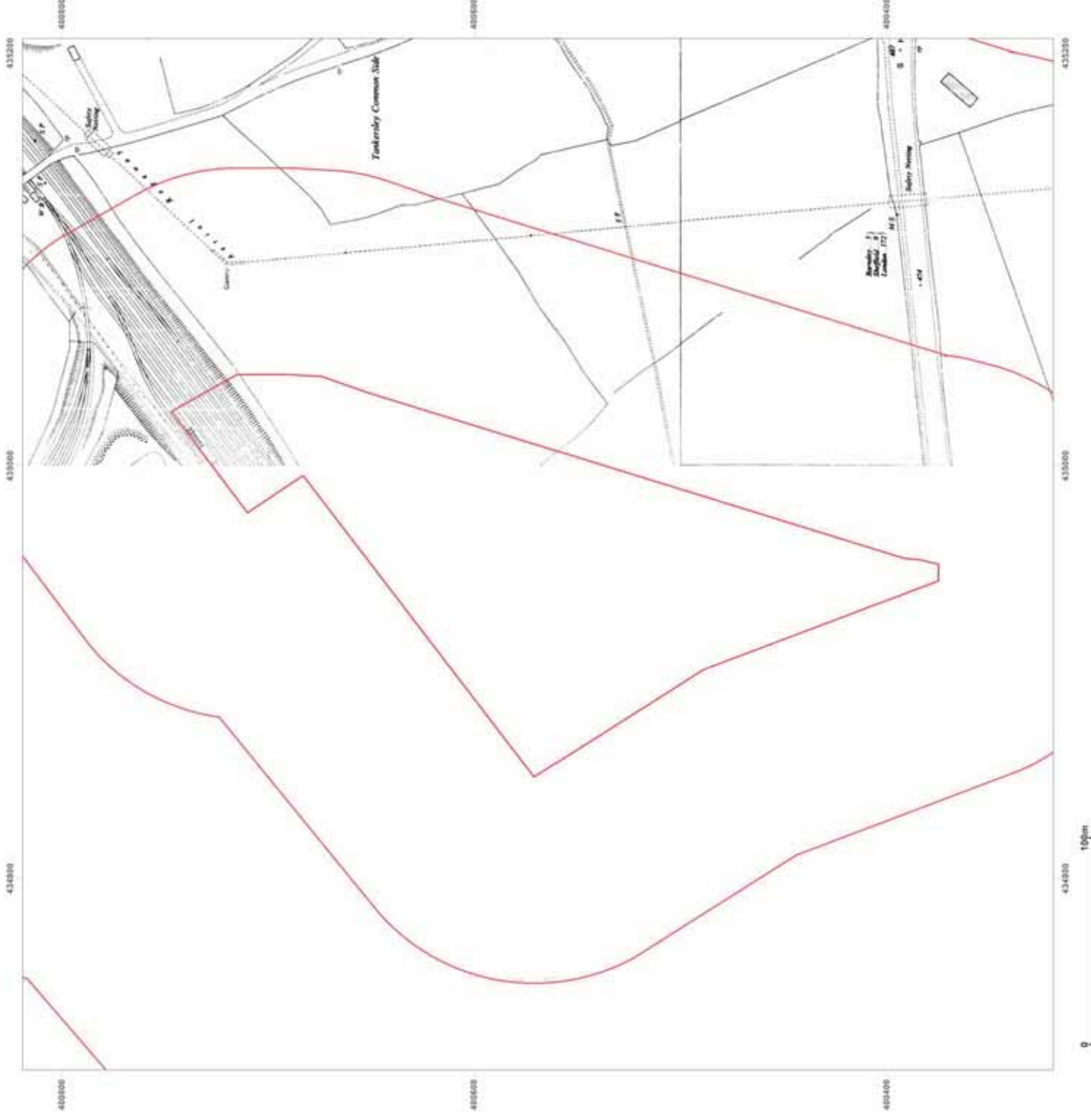


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Production date: 18 August 2014

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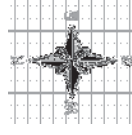
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Report Ref: EMS-263991_356476
Grid Ref: 434957, 400569

Map Name: National Grid

Map date: 1955-1956

Scale: 1:2,500

Printed at: 1:2,500



Surveyed 1956
 Revised 1956
 Edition N/A
 Copyright N/A
 Levelled 1930

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



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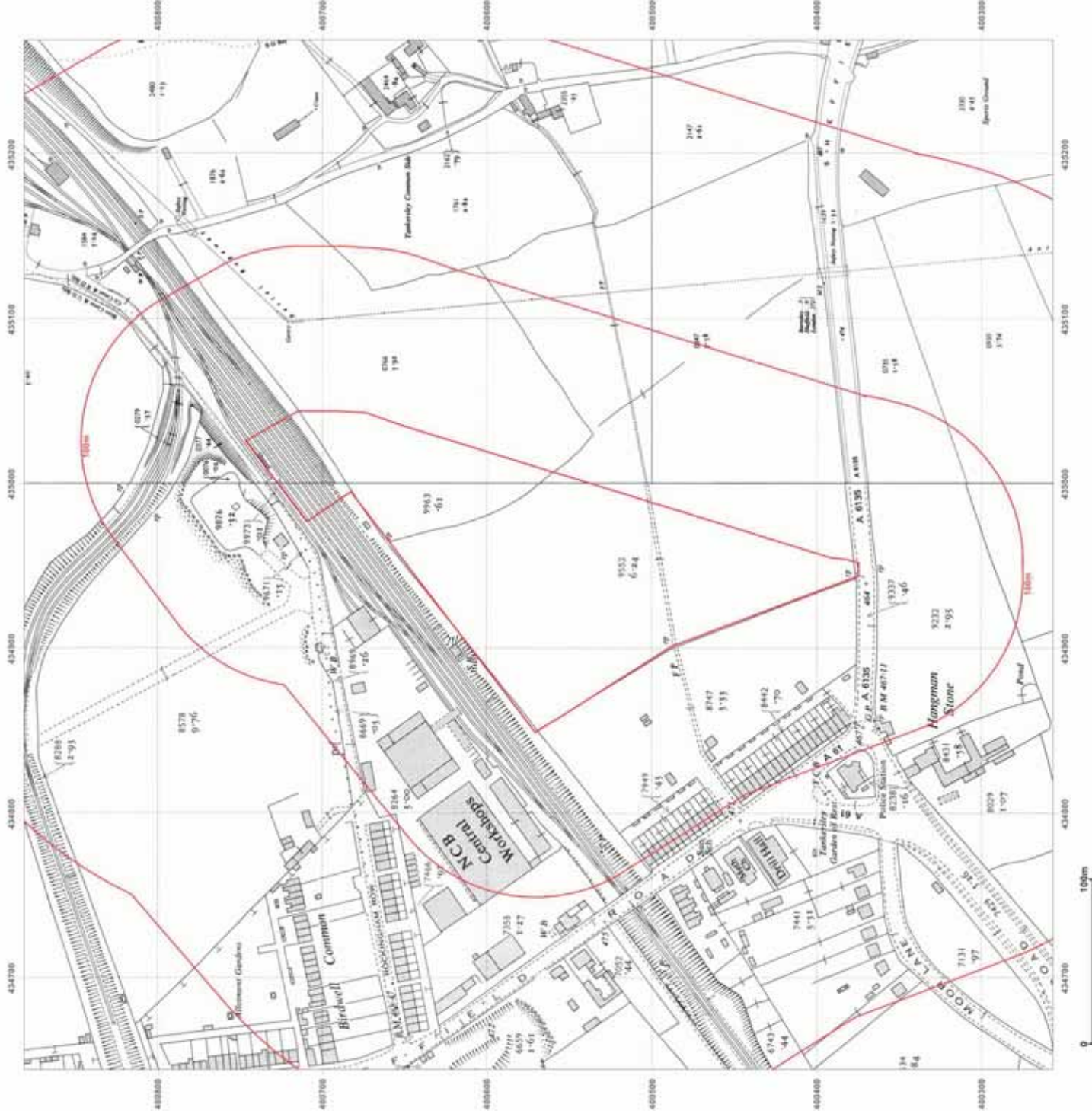


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Production date: 18 August 2014

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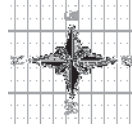
Client Ref: EMS_263991_356476
Report Ref: EMS-263991_356476
Grid Ref: 434957, 400569

Map Name: National Grid

Map date: 1973

Scale: 1:2,500

Printed at: 1:2,500



Surveyed 1973
Revised 1973
Edition N/A
Copyright 1974
Levelled 1963



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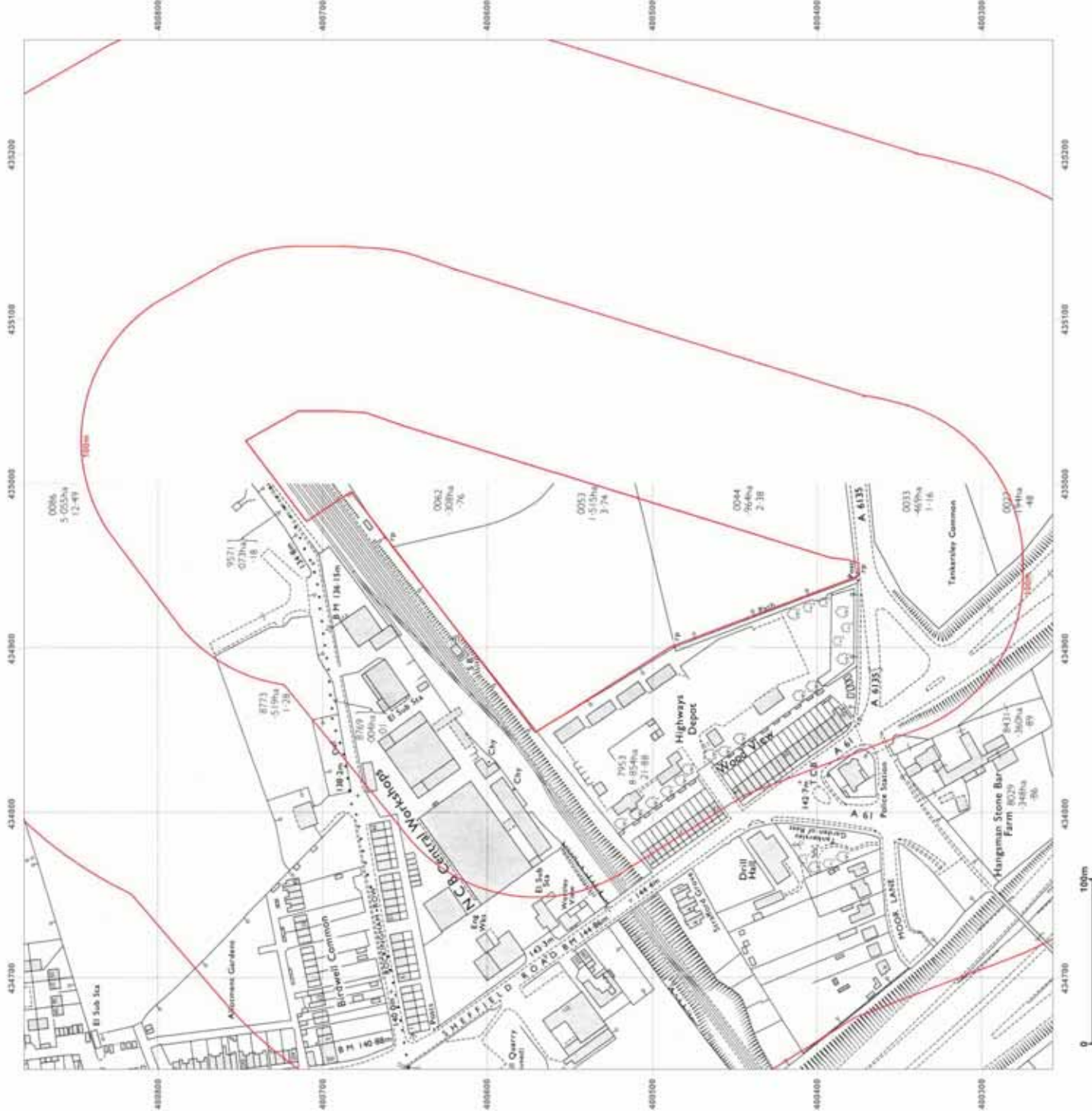


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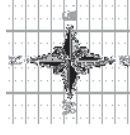
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Report Ref: EMS-263991_356476
Grid Ref: 434957, 400569

Map Name: National Grid

Map date: 1973-1974

Scale: 1:1,250

Printed at: 1:2,000



Surveyed 1955
Revised 1973
Edition N/A
Copyright 1974
Levelled 1963



Surveyed 1955
Revised 1972
Edition N/A
Copyright 1973
Levelled 1963



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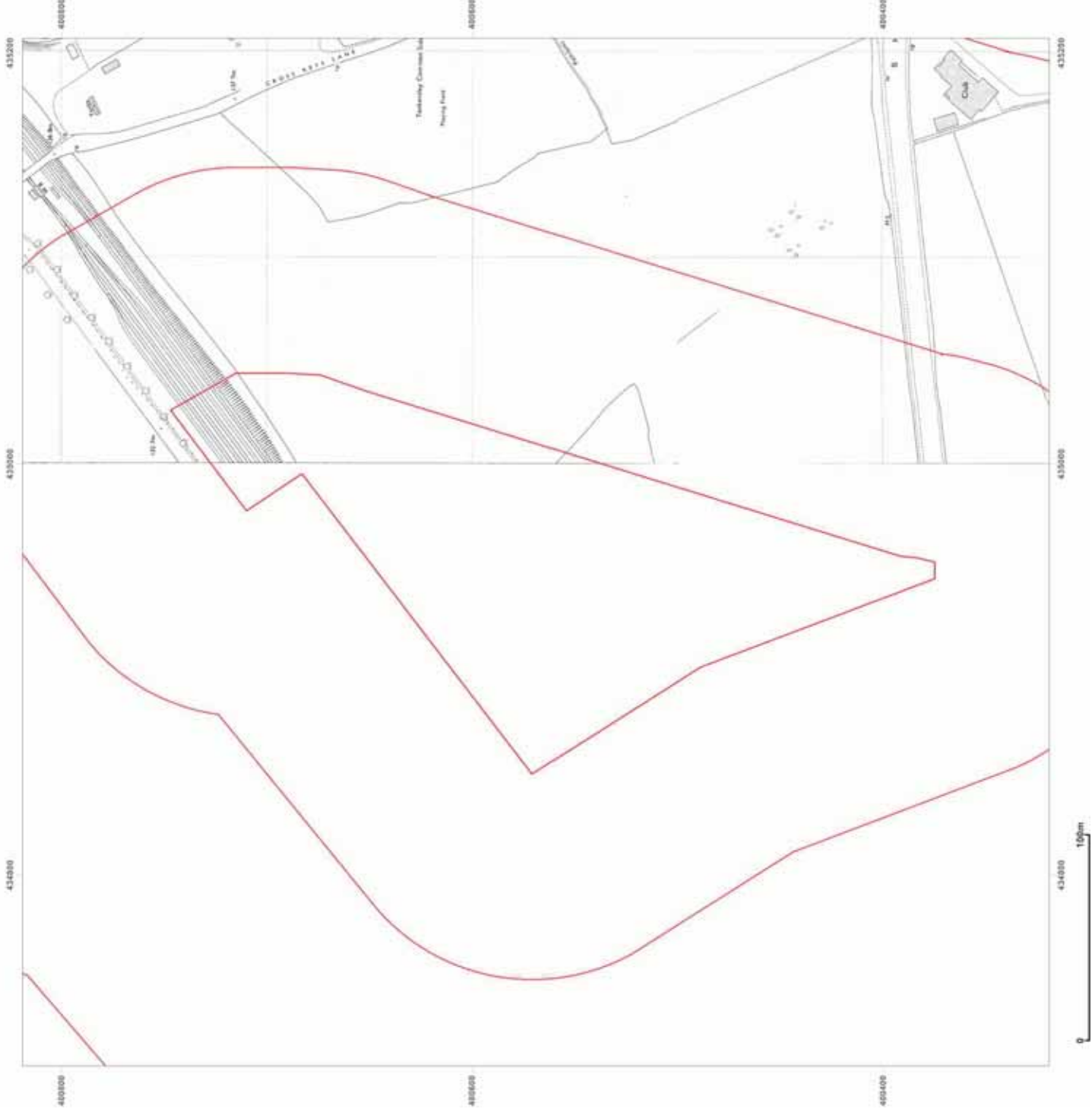


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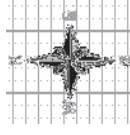
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Grid Ref: 434957, 400569

Map Name: National Grid

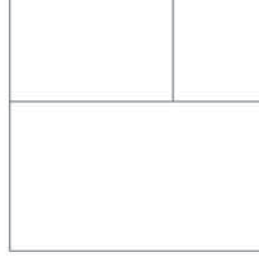
Map date: 1981-1986

Scale: 1:1,250

Printed at: 1:2,000



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



Surveyed 1981
Revised 1981
Edition NA
Copyright NA
Levelled NA



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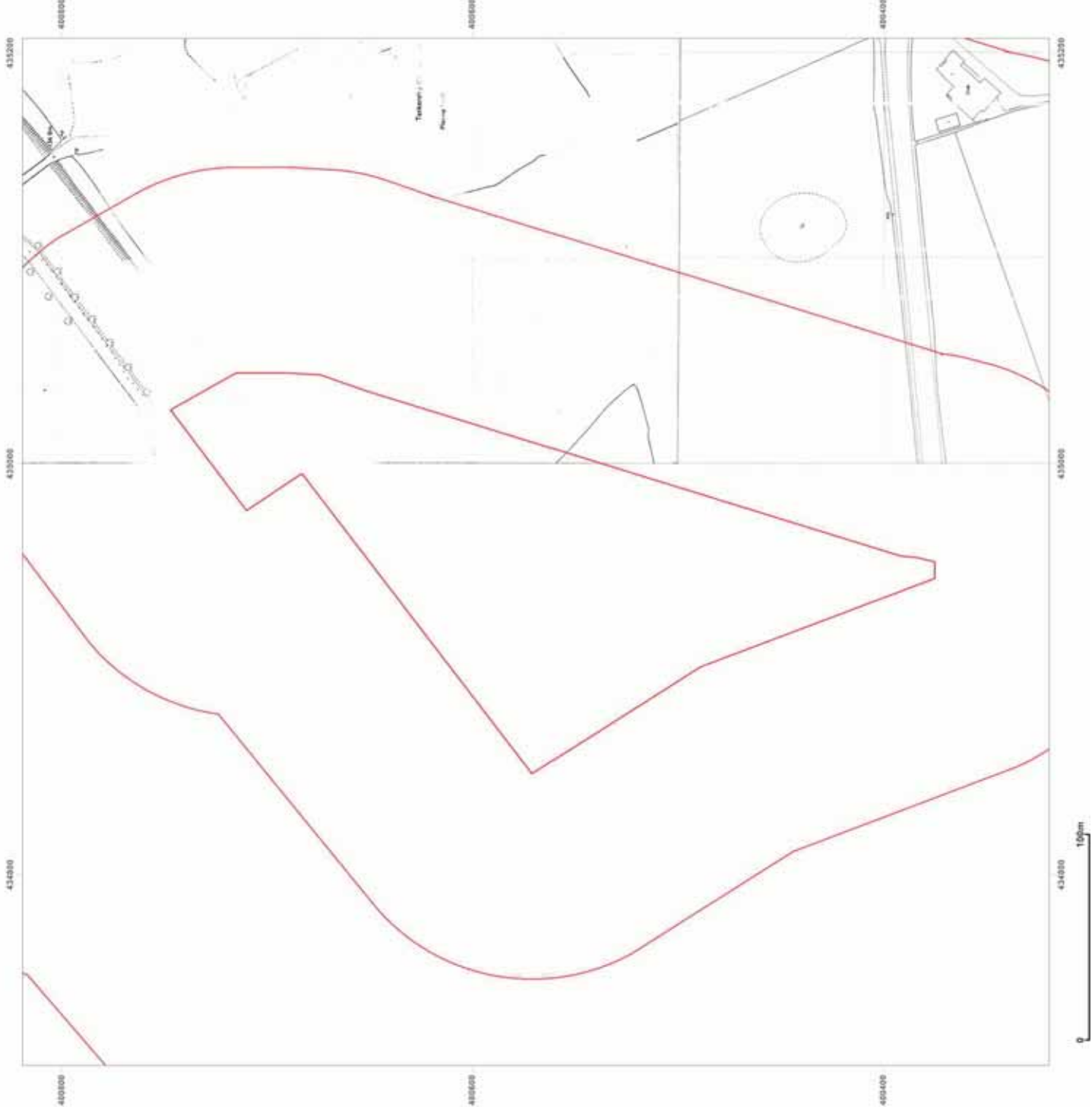


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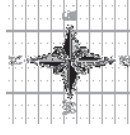
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Grid Ref: 434957, 400569

Map Name: National Grid

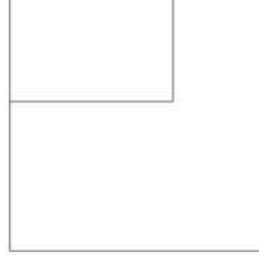
Map date: 1986

Scale: 1:1,250

Printed at: 1:2,000



Surveyed 1963
Revised 1986
Edition N/A
Copyright 1986
Levelled 1963



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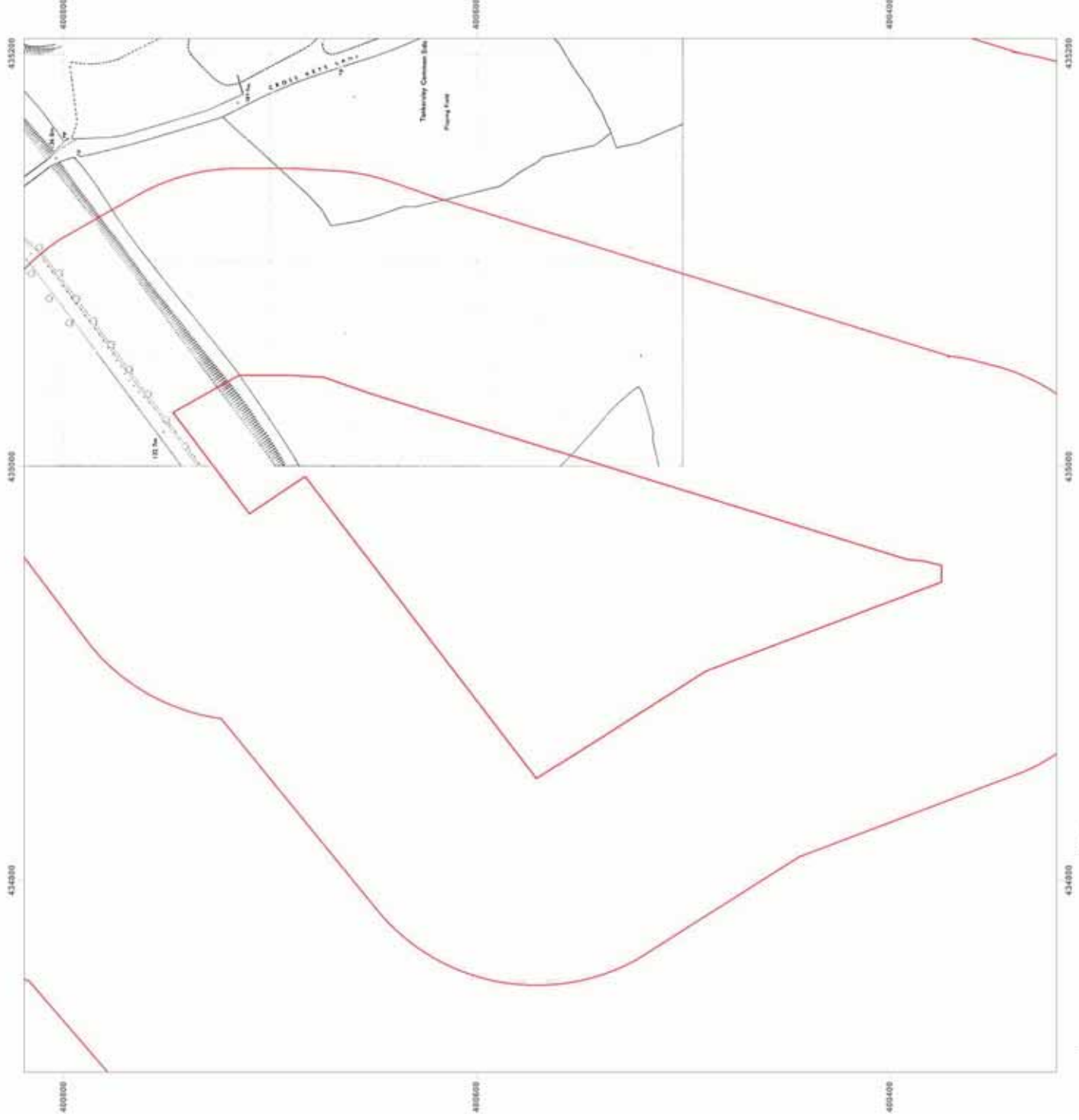


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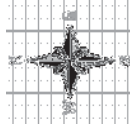
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Grid Ref: 434957, 400569

Map Name: National Grid

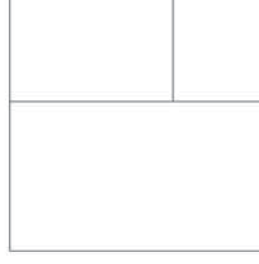
Map date: 1993

Scale: 1:1,250

Printed at: 1:2,000



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



Surveyed 1993
Revised 1993
Edition NA
Copyright NA
Levelled NA



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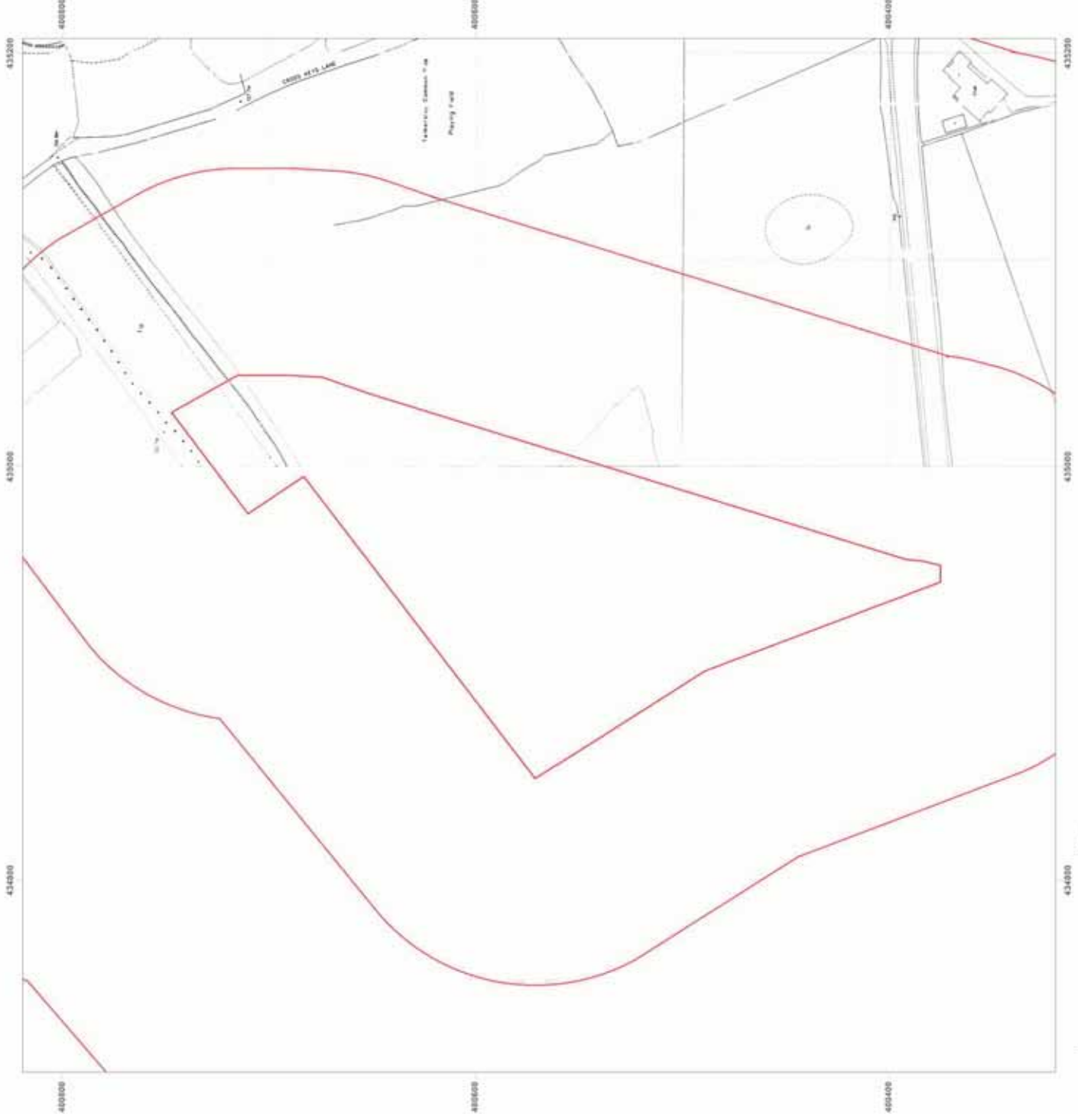


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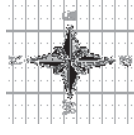
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Grid Ref: 434957, 400569

Map Name: National Grid

Map date: 1993

Scale: 1:2,500

Printed at: 1:2,500



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



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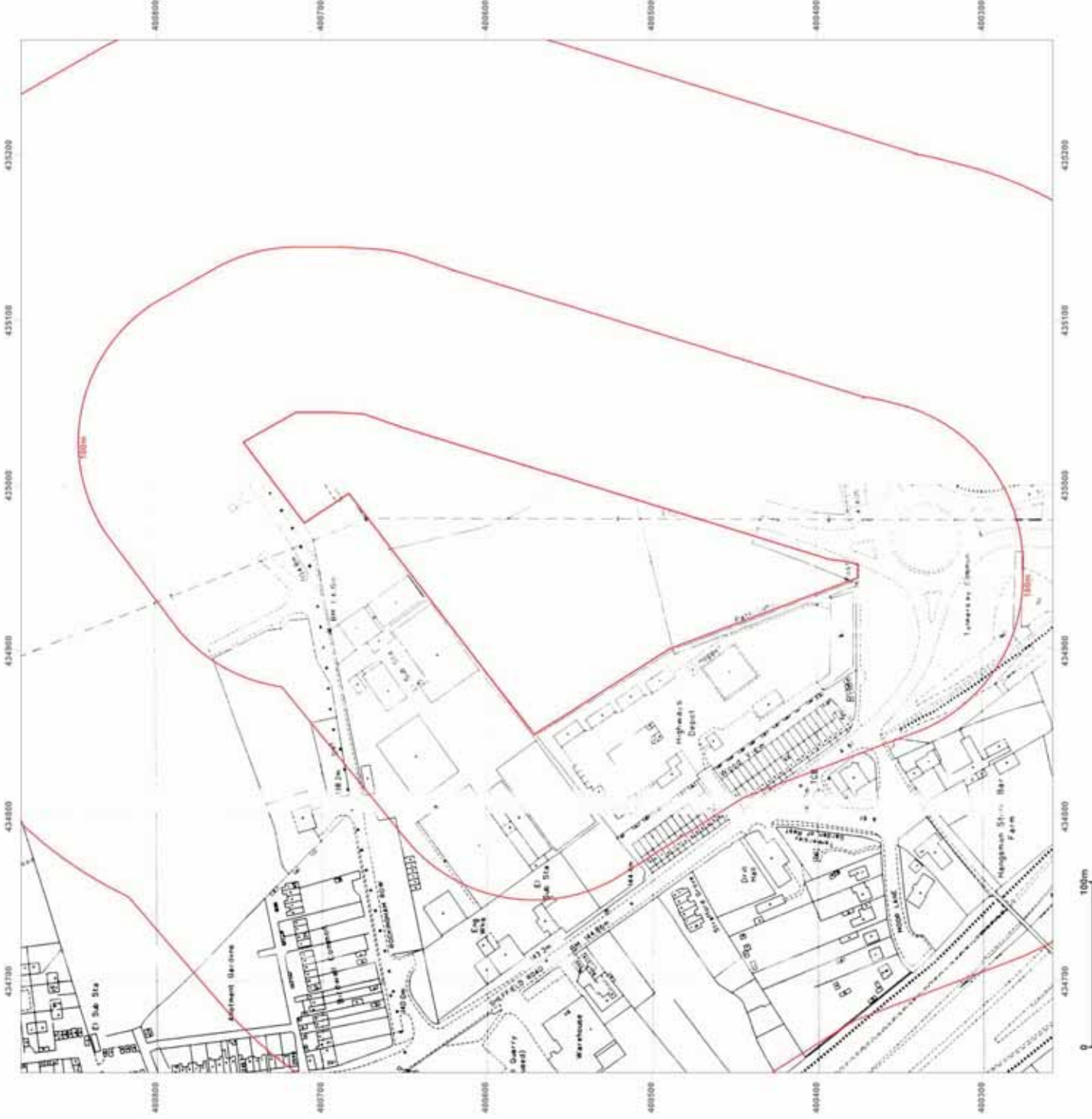


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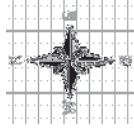
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Grid Ref: 434957, 400569

Map Name: National Grid

Map date: 1993

Scale: 1:2,500

Printed at: 1:2,500



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



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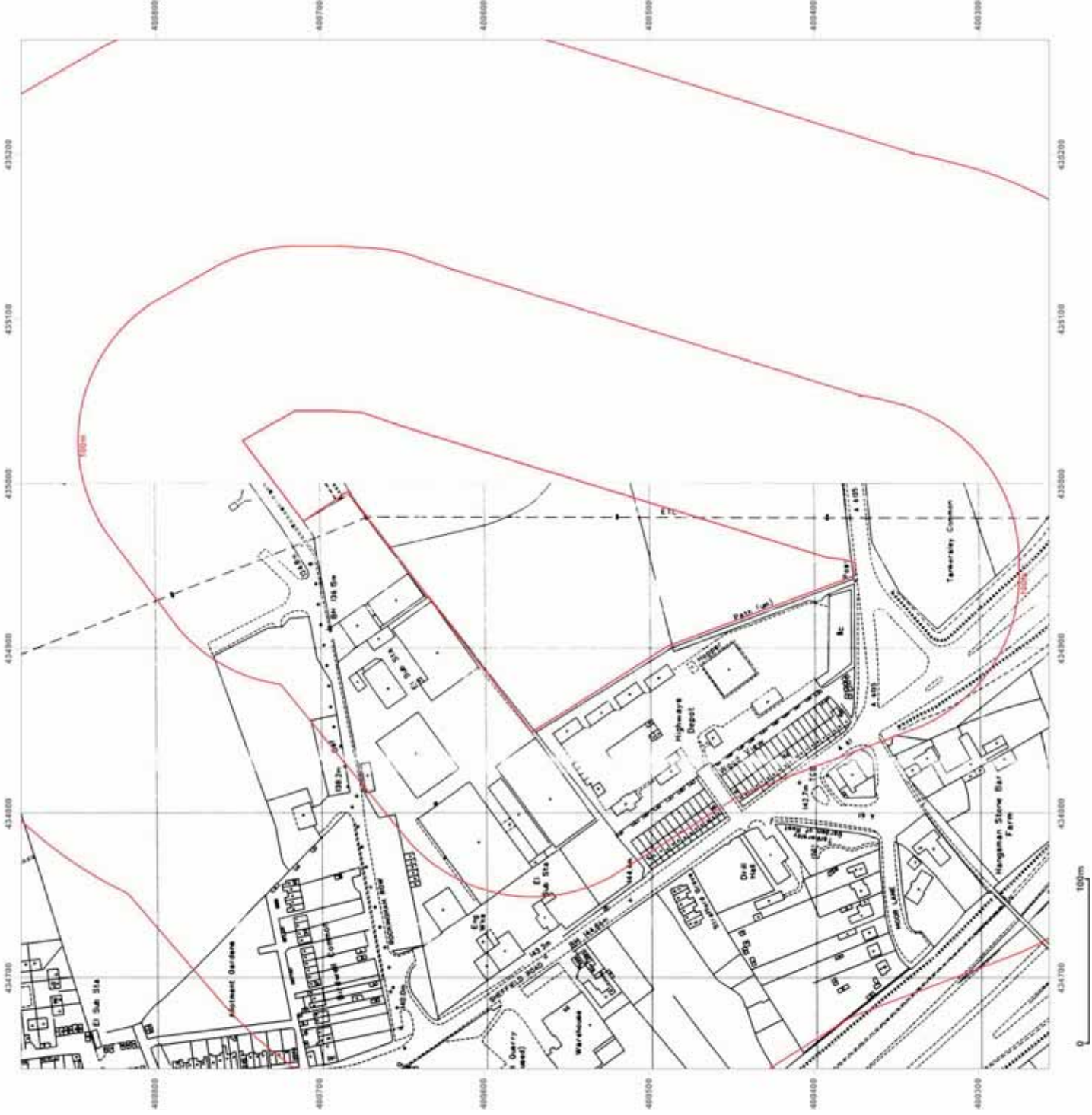


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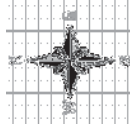
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Grid Ref: 434957, 400569

Map Name: National Grid

Map date: 1993

Scale: 1:2,500

Printed at: 1:2,500



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



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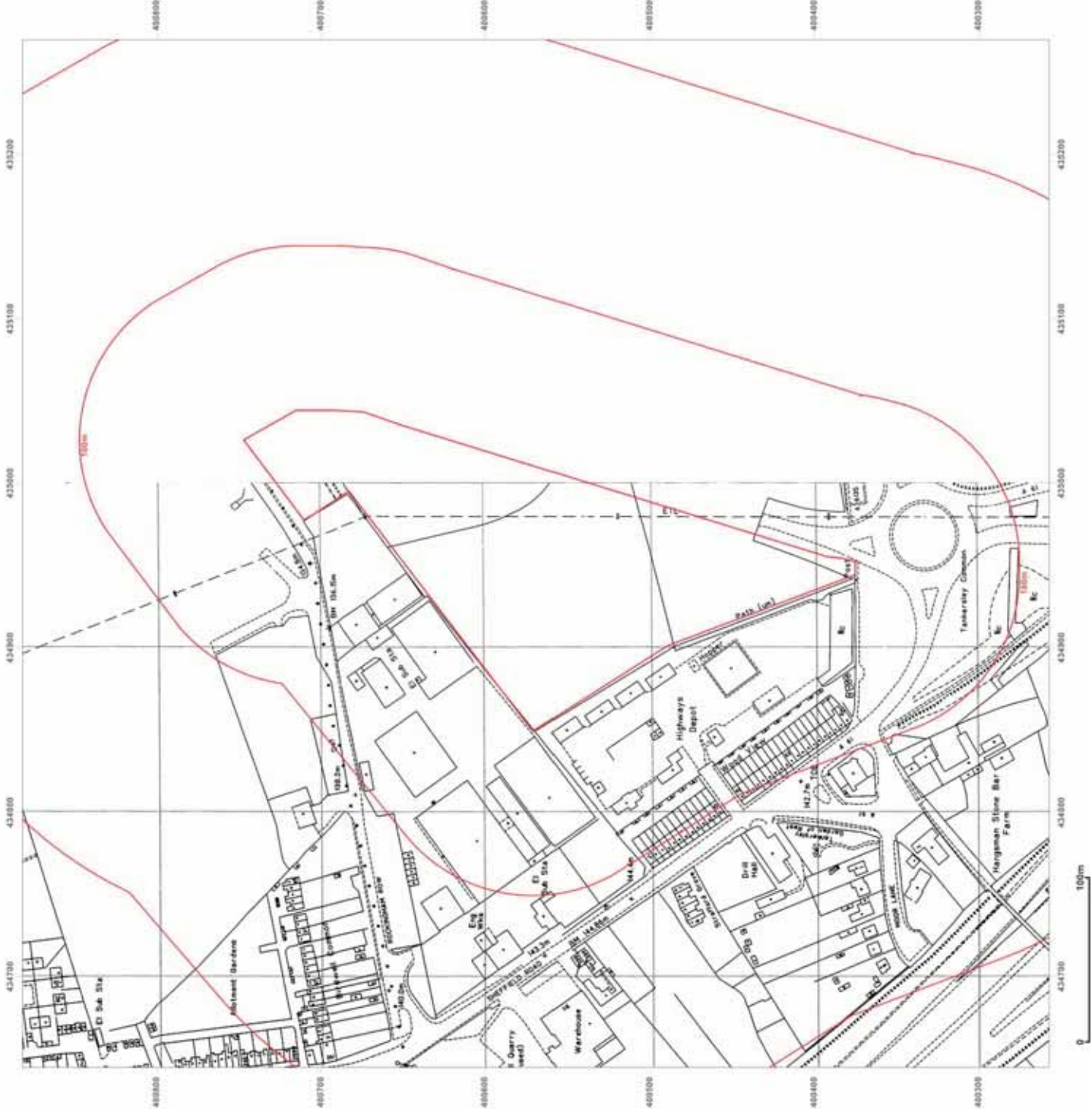


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APPENDIX C – COAL MINING INFORMATION



SE 351 010 87/77

(B11067) WL 17062-2154-5,000 18/86 G.S. 100. O.S.

SECTION OF Rockingham Colliery at 1/2 mile east of Bradwell

Maps: One-inch 87 Six-inch 282 NE County Yorkshire

Height above O.D. 425 ft. Latitude 53° 30' 15" Longitude 1° 28' 5" W.

Communicated by 'Sec. Strata Yks. Clfd' 1927 p. 280 Date of Sinking Not stated

Made by _____ Dip of Strata 1 in 18 N 60° E

SE 30SE/13

Summary of published record:		Thickness.	Depth from Surface.
	Earth + clay	6 -	6 -
Intervening beds are shales, brinds, etc. with thin coals seams.	Swallow Wood Coal	3 1	68 8
	Stone	100 3	196 8
	Lidgett quarry	17 7	276 4
	Lidgett Coal (with dirt)	4 1	290 3
	Joan Coal	1 6	419 8
	Tankersley Ironstone	7 8	476 -
	Flockton Thick Coal (with dirt)	6 6	506 -
	Flockton Thin Coal (with mid-dirt)	3 7	596 5
	High Fenton " (with dirt)	4 8	676 3
	Low " " (with dirt)	4 5	686 6
Cobaltiferous	Parkgate Coal (with dirt)	11 3	746 10
	Rock	28 3	824 5
	Thorncliffe Thin Coal (with dirt)	10 -	844 9
	Clay wood Ironstone	6 6	978 8
	Silkstone Coal (with dirt)	5 1 1/2	1016 11
SILKSTONE SEAM	Rock	7 10	1026 8

Totals given in published record for coal at 978'8"

Silkstone + bottom of shaft are incorrect

vide Colliery Summary (file J.V. Stephens)

This mistake is due to misprint in item

No. 122 Blue bind 0.0.6". This should be 6.0.0".



Machine:	Casing Diameter	Ground Level (mOD)	Client	Job Number
Flush :	121mm cased to 1.50m		Tarmac	F11288A
Core Dia: mm	Location	Dates	Engineer	Sheet
Method :	434182 E 401036 N	19/03/1999	WSP Environmental Ltd	1/2

Depth (m)	TCR	SCR	RQD	FI	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
0.80	97	85	62	0			0.10 (0.45)	TOPSOIL. MADE GROUND: Brown sandy clay with roots.		
1.50	82	14	14	0	C C16 C2		0.55 0.65 (0.15) (0.80)	MADE GROUND: Yellow brown and pink sandy fine to coarse subangular gravel of limestone. Red brown fine and medium grained SANDSTONE, moderately strong (iron stained).		
2.30							1.50	Grey and orangish brown closely to medium horizontally bedded and inclined medium grained moderately to slightly weathered SANDSTONE, moderately weak. Dark grey and black thinly laminated moderately to highly weathered MUDSTONE, very weak to weak.		
3.80	73	0	0	0			(2.30)			
3.80-4.04					9.14/19.50.0.0 SPT(C) 69/93		3.80	Stiff grey CLAY with many fine and medium subangular and angular mudstone lithorelicts (Completely weathered mudstone). ---from 3.80m to 4.30m soft clay recovered ---from 4.30m becomes firm		
5.30	90	0	0	0			(1.50)			
6.80	38	7	7	0			5.30	Dark grey thinly horizontally laminated highly weathered MUDSTONE, very weak. Discontinuities: extremely closely spaced horizontal and subvertical open smooth planar and irregular clay smeared.		
8.30	93	41	16	0			(1.50)	Dark grey thinly horizontally laminated moderately weathered MUDSTONE, weak. Discontinuities: extremely closely spaced horizontal and subvertical open smooth planar and irregular clay smeared.		
8.30-9.30	100	96	93	0	50.0/0.0.0.0 SPT(C) 50/0		8.30	Orangish brown and grey thinly laminated and very thin to thinly subhorizontally bedded highly weathered silty MUDSTONE, weak. Discontinuities: very closely and closely spaced subhorizontal medium spac ---from 8.30m to 8.50m extremely closely spaced random fractures		
9.50					C		9.50	Light grey and orangish brown thinly subhorizontally laminated and thin to medium bedded slightly weathered fine and medium grained SANDSTONE, strong to very strong. Discontinuities: closely and medi		
9.80					C					

Remarks	Scale (approx)	Logged By
1. Inspection pit excavated to 0.80m. 2. Borehole complete at 12.00m. 3. Bore	1:50	NBR
	Figure No.	



SE 30 SE/13 30' 87/71
SECTION OF Rockingham Colliery at 1/2 mile east of ~~Burdwell~~

Maps: One-inch 87 Six-inch 282 NE County Yorkshire
Height above O.D. 425 ft. Latitude 53° 30' 15" Longitude 1° 28' 6"
Communicated by 'Sec. Strata Yks. Clfd' 1927 p. 280 Date of Sinking Not stated
Made by Dip of Strata 1 in 18 N 60° E

Summary of published record:		Thickness.			Depth from Surface.			
Interspersing beds are shales, limestones, etc. with thin coalseams.	WESTPHALIAN B	Earth + clay	1.83	6	-	6	-	
		Swallow Wood Coal	0.93	3	1	20.93	68	8
		Stone	30.56	100	3	59.95	196	8
		Lidgett quarry	5.36	17	7	84.23	276	14
		Lidgett Coal (with dirt)	1.24	4	1	88.47	290	3
		Joan Coal	0.46	1	6	127.92	419	8
		Tankersley Ironstone	2.34	7	8	145.08	476	-
		Flockton Thick Coal (with dirt)	1.98	6	6	154.23	506	-
		Flockton Thin Coal (with mid-dirt)	1.14	3	9	181.79	596	5
		High Fenton " (with dirt)	1.42	4	8	206.12	676	3
Low " " (with dirt)	1.35	4	5	209.25	686	6		
CARBONIFEROUS	WESTPHALIAN A	Parkgate Coal (with dirt)	3.43	11	3	227.63	746	10
		Rock	8.61	28	3	251.28	824	5
		Thorncliffe Thin Coal (with dirt)	3.05	10	-	257.48	844	9
		Clay wood Ironstone	1.98	6	6	292.30	978	8
SILURIAN	SEAN	Silkstone Coal (with dirt)	1.56	5	1/2	309.96	1016	11
		Rock	2.39	7	10	312.93	1026	8

Totals given in published record for coal at 978'8"
Silkstone + bottom of shaft are incorrect
fide Colliery Surveyor (fide J.V. Stephens)
This mistake is due to misprint in item

Issued by:

The Coal Authority, Property Search Services, 200 Lichfield Lane, Berry Hill, Mansfield, Nottinghamshire, NG18 4RG
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**ENZYGO LTD
THE GRANARY
WOODEND
WOTTON-UNDER-EDGE
GLOUCESTERSHIRE
GL12 8AA**

Our reference: **51000610198001**
Your reference: **SHF.1122.002 Birdwell**
Date of your enquiry: **20 August 2014**
Date we received your enquiry: **20 August 2014**
Date of issue: **20 August 2014**

This report is for the property described in the address below and the attached plan.

Non-Residential Coal Authority Mining Report

ROCKINGHAM ROW, BIRDWELL, BARNSELY, SOUTH YORKSHIRE, S70 5TW

This report is based on and limited to the records held by, the Coal Authority, and the Cheshire Brine Subsidence Compensation Board's records, at the time we answer the search.

Coal mining	See comments below
Brine Compensation District	No

Information from the Coal Authority

Underground coal mining

Past

The property is in the likely zone of influence from workings in 8 seams of coal at 60m to 330m depth, and last worked in 1959.

Any ground movement from these coal workings should have stopped by now.

Present

The property is not in the likely zone of influence of any present underground coal workings.

Future

The property is not in an area for which the Coal Authority is determining whether to grant a licence to remove coal using underground methods.

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

The property is not in an area that is likely to be affected at the surface from any planned future workings.

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

No notice of the risk of the land being affected by subsidence has been given under section 46 of the Coal Mining Subsidence Act 1991.

Mine entries

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

Records may be incomplete. Consequently, there may exist in the local area mine entries of which the Coal Authority has no knowledge.

Coal mining geology

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

Opencast coal mining

Past

The property is within the boundary of an opencast site from which coal has been removed by opencast methods.

Present

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

Future

The property is not within 800 metres of the boundary of an opencast site for which the Coal Authority is determining whether to grant a licence to remove coal by opencast methods.

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

Coal mining subsidence

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

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

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

Mine gas

There is no record of a mine gas emission requiring action by the Coal Authority within the boundary of the property.

Hazards related to coal mining

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

Withdrawal of support

The property is in an area for which a notice of entitlement to withdraw support was published in 1950.

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

Working facilities orders

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

Payments to owners of former copyhold land

The property is not in an area for which a relevant notice has been published under the Coal Industry Act 1975/Coal Industry Act 1994.

Comments on Coal Authority information

In view of the mining circumstances a prudent developer would seek appropriate technical advice before any works are undertaken.

Therefore if development proposals are being considered, technical advice relating to both the investigation of coal and former coal mines and their treatment should be obtained before beginning work on site. All proposals should apply good engineering practice developed for mining areas. No development should be undertaken that intersects, disturbs or interferes with any coal or mines of coal without the permission of the Coal Authority. Developers should be aware that the investigation of coal seams/former mines of coal may have the potential to generate and/or displace underground gases and these risks both under and adjacent to the development should be fully considered in developing any proposals. The need for effective measures to prevent gases entering into public properties either during investigation or after development also needs to be assessed and properly addressed. This is necessary due to the public safety implications of any development in these circumstances.

Information from the Cheshire Brine Subsidence Compensation Board

The property lies outside the Cheshire Brine Compensation District.

Additional Remarks

This report is prepared in accordance with the Law Society's Guidance Notes 2006, the User Guide 2006 and the Coal Authority and Cheshire Brine Board's Terms and Conditions 2006. The Coal Authority owns the copyright in this report. The information we have used to write this report is protected by our database right. All rights are reserved and unauthorised use is prohibited. If we provide a report for you, this does not mean that copyright and any other rights will pass to you. However, you can use the report for your own purposes.

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