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South Yorkshire Housing Association

Aldham House Lane
Barnsley
South Yorkshire
S73 8RU

Phase I & II Geo Environmental Site Assessment

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September 2013

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Revision Record

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1. Introduction

1.1. General Introduction

This Report presents the results of a combined Phase I and Phase II Geo-environmental Site Assessment of a site at Aldham House Lane, Barnsley, South Yorkshire, S73 8RU, (Grid Reference: E438743, N403938) for South Yorkshire Housing Association.

The Desk Study (Phase I) comprised obtaining research/archive information from Emapsite, in the form of a GroundSure Report as well as a Coal Authority Report. The GroundSure Report provides the basic background information including Historical Ordnance Survey Plans, British Geological Survey Plans, Coal Authority Report and Environment Agency Report (including Radon). This Desk Study presents the findings of this background information as it relates to the proposed end use of the site and considers the potential for contamination of the site. The GroundSure and Coal Authority Reports are attached in Appendix I and II respectively.

The Intrusive Site Investigation (Phase II) comprised of Trial Pits and Boreholes to establish the sub surface strata and remove samples for contamination and geotechnical testing. The test results combined with the findings of the trial pits/boreholes will then be used to make recommendations for any remedial works which may be necessary together with recommendations for foundations. A topographical survey of the site including positions of the intrusive investigations can be found in Appendix III of this report.

1.2. Objectives

This Desk Study was conducted in order to formulate an opinion as to the potential for hazardous substances to exist on, at, or near the vicinity of the site which might affect the future development of the site, appropriate to the proposed end use of the site. It is understood that redevelopment of the site is for residential use, providing houses with private landscaped garden areas. The "vicinity" of the site for the purposes of this report is defined as being located within an approximate 250m radius of the site.

The objectives of the Desk Study were aimed to determine:-

- The historic site usage, identifying any factors, based on the Archive Ordnance Survey Maps, which might give rise to the potential for hazardous substances to exist on, at, or near the vicinity of the site.
- The general ground conditions at the site, based on published Geological Maps, identifying any significant geotechnical conditions which might affect the future redevelopment of the site.
- Current operations undertaken within the site and in the immediate vicinity, based on the Ground Sure database, which might give rise to the potential for hazardous substances to exist on, at, or near the vicinity of the site and which might affect the future redevelopment of the site.

The intrusive investigation was conducted to assess and confirm the immediate sub-surface ground conditions and extract in-situ soil samples for laboratory testing as recommended in Phase I of this report to determine the geotechnical and environmental position of the site.

1.3. Scope of Works

In order to meet the above objectives, Met Engineers Limited, obtained research information from Emapsite which includes data from the following sources: -

- Historical Ordnance Survey Plans
- British Geological Survey Plans and Radon Report
- Environment Agency Report
- Coal Authority Report

Phase I of this report presents the findings of the Desk Study as related to the proposed end use as detailed and described within this document. The purpose of the Desk Study is to allow an opinion to be formulated as to the likely geo-environmental conditions at the site and the potential implications for the end use. This report does not quantify those findings nor provide any recommendations for remedial works, mitigation or risk management.

Based upon the recommendations of the Desk Study, Phase I of this report and a visual assessment of the sub-strata materials during the intrusive works, soil samples were taken for laboratory testing. CLEA Guidelines and recommendations given in Land Quality Management General Assessment Criteria have been applied to establish a risk based CLEA Model to assess the likely contamination issues and to comment on potential constraints for development of the site. Judgement is based strictly on the findings of the specific trial pits tested and therefore may not be representative of the site as a whole.

1.4. Limitations of the Report

South Yorkshire Housing Association (the Client) has requested that a Phase I Geo-environmental Site Assessment and Phase II Site Investigation, CLEA Conceptual Model and Risk Assessment be undertaken in order to assess the suitability of the site for redevelopment. The report is not a comprehensive site characterisation and should not be construed as such.

This report has been prepared for the sole internal use and reliance of South Yorkshire Housing Association. The report shall not be relied upon or transferred to any other parties without the express written authority of Met Engineers Limited. If any unauthorised third party comes into possession of the report, they rely on it at their own risk and Met Engineers Limited owes them no duty of care.

The findings and opinions conveyed via this report are based on information obtained from a variety of sources as detailed within this report and which Met Engineers Limited, believes are reliable. Nevertheless, Met Engineers Limited, cannot and does not guarantee the authenticity or reliability of the information it has relied upon. The information contained in this report is to the best of our knowledge accurate at the date of issue, however, sub-surface conditions, including ground water levels, may vary, especially with time.

It is possible that the GroundSure Report may not include information from every information source. Assuming such further information sources actually exist, their information has not been considered in the formulation of these findings and opinions; this report only considers the information contained within the Ground Sure Report.

In preparing this report it has been assumed that all past and present occupants and Third Parties have provided accurate information, especially relating to known or potential hazards. This report does not identify deficiencies or mistakes in the information provided by the user/owner, or from any other source, except where obvious in the light of other information.

This report is relevant at the date the report was written and should be read in the light of any subsequent changes in legislation, statutory requirement or industry practices.

The report represents the technical findings and opinions of Met Engineers Limited, and does not constitute any legal advice. As such, the advice of a Solicitor may also be required.

Phase I – Desk Study

2. Environmental Setting

A detailed review of the published history, hydrological, geological and available environmental information has been carried out.

The area of land referred to as 'The Site' within this document is indicated in Appendix III.

2.1. Site Description

Site Name	Aldham House Lane, Barnsley, S73 8RU
Location	Grid Reference: E438743, N403938
Setting	The site is located approximately 5km South East of Barnsley city centre. The site is fairly rectangular in shape and has a slight fall from South to North. The Northern boundary is with a 2m high timber panel and concrete post fence, and bushes providing the rear garden boundary to 6 adjacent properties. Further North of these houses is open grassed land leading to Pearson Crescent. The Western boundary is with several rear gardens of semi detached houses along Wortley Avenue. The boundary is again made up of timber panel and concrete post fencing and large bushes. Further beyond Wortley Avenue is a new housing estate which is currently being developed. To the South of the site is a new apartment block with adjacent car park. The car park has a 2m high timber & concrete post fence which creates the Southern boundary of the site. The Eastern boundary is with Aldham House Lane. Beyond this road are residential houses and then there are 2 football pitches approximately 40m East of the site. The site has a small square section that is to the North West of the site heading towards Wortley Avenue which splits the 6 houses to the North from the rest of the residential properties along Wortley Avenue. The site is currently unoccupied and is predominantly grassed land. There is a small access road which runs from North West to South East across half of the site gaining access from Wortley Avenue through the small square area of the site.

2.2. Site History

Year	Comment
1850 (1:10,560)	The site is shown as undeveloped agricultural land. Aldham House lane runs North to South immediately to the East of the

	site.Aldham House is located approximately 350m South West of the site. The Barnsley & Sheffield Railway runs South West to North East approximately 300m West of the site. Another railway line named Darley Main runs West to East approximately 400m North West of the site. These two railway lines meet the South Yorkshire Railway 425m North of the site and then continue to run North West to South East. The Dearne and Dove Canal runs in a similar direction to the South Yorkshire Railway approximately 350m North of the site. The River Dove runs from West to East approximately 400m North of the site. Aldham House Lane runs South to North until it meets Wombwell Lane 300m North of the site. Wombwell lane runs North West to South East. Aldham mill is approximately 350m North West of the site.
1890 (1:10,560)	No significant change to the site. Aldham Glass Bottle Works is now located 400m North East of the site. Mitchell Main Colliery is 450m North East of the site. A few residential buildings have been developed along Wombwell Lane 450m East of the site called Mitchell's Terrace.
1893 (1:2,500)	No significant change to the site or the immediate surrounding area.
1901-1904 (1:10,560)	No significant change to the site. A few further developments have been built along Wombwell Lane close to the Glass Bottle Works.
1906 (1:2,500)	No significant change to the site or the immediate surrounding area.
1929-1931 (1:10,560)	No significant change to the site or the immediate surrounding area.
1931 (1:2,500)	No significant change to the site or the immediate surrounding area.
1938 (1:10,560)	No significant change to the site or the immediate surrounding area.
1948 (1:10,560)	No significant change to the site or the immediate surrounding area.
1951-1955 (1:10,560)	No significant change to the site or the immediate surrounding area.
1961 (1:2,500)	No significant change to the site or the immediate surrounding area.
1970 (1:2,500)	The site has now been developed with 14 semi-detached houses along with garages that are accessed from a small road to the West of the site. The immediate surrounding area has now been heavily developed. To the North and South in all Western areas the surrounding area is residential up until the existing Railway. To the East across Aldham House Lane there is now a pavilion with associated playing fields. Further beyond the playing fields, approximately 250m East of the site are several residential properties. There is now also a Textile Factory 200m North East of the site.
1971 (1:2,500)	No significant change to the site or the immediate surrounding area.
1974-1977 (1:10,000)	No significant change to the site. Several residential developments have taken place immediately adjacent to the East of Aldham House Lane. Further developments have occurred 350m South of the site with houses and a school.
1980	No significant change to the site or the immediate surrounding

(1:1,250)	area.
1981-1982 (1:1,250)	No significant change to the site or the immediate surrounding area.
1982-1987 (1:10,000)	No significant change to the site. The Railways are now all dismantled. The canal is disused and has been filled and developed on with an Industrial Estate approximately 400m North East of the site.
1986 (1:2,500)	No significant change to the site or the immediate surrounding area.
1987-1982 (1:10,000)	No significant change to the site or the immediate surrounding area.
1993 (1:1,250)	No significant change to the site or the immediate surrounding area.
1994 (1:1,250)	No significant change to the site or the immediate surrounding area.
2002 (1:10,000)	No significant change to the site. The Textile Factory has now been demolished.
2012 (1:1,250)	The semi-detached houses and garages within the site boundary have now been demolished. The site is now predominantly grassed land with the small road from the West remaining which provided access to the former garages. The houses further North and West of the site approximately 50m away have also been demolished. However the properties immediately to the West and North remain.
2012 (1:10,000)	No significant change to the site or the immediate surrounding area.

2.3. Site Historical Overview

Historical Overview	The site remained undeveloped until 1970 when 14 semi-detached houses along with garages were built upon the site. These properties remained upon the site until 2012 when all the buildings were demolished. The surrounding area has predominantly been developed with residential land use. There are two large areas of grass land used as Recreational Grounds. Several Railways ran within the vicinity of the site until 1980 when they were dismantled. Mitchell Main Colliery is located approximately 450m North East of the site.

2.4. Geological Overview

Geology	Artificial Ground – None present beneath the site Superficial Deposits – None present beneath the site Bedrock Geology – • Oaks Rock - Sandstone There is a fault running North West to South East 45m North East of the site. There is a coal outcrop 262m West of the site which is classed as an inferred coal seam.

Radon	The site is in a Radon affected area however no radon protective measures are required as described in publication BR211 by the Building Research Establishment.
Ground workings	There are 2 historical surface ground workings located within 250m of the site. One is 91m east of the site and the other is 235m North West of the site, A current ground working is shown as Mitchell Main Colliery 435m North East of the site. It is producing deep coal but has ceased working.
Mining	According to the records in the possession of the Coal Authority, the property is in the likely zone of influence from workings in 11 seams of coal at 100m to 620m depth, and last worked in 1985. Any ground movement from these coal workings should have stopped by now. The property is not in the likely zone of influence of any present or future underground coal workings. However, reserves of coal exist in the local area which could be worked at some time in the future. There is 1 coal seam outcropping 262m West of the site. See Appendix VIII of this report for a Coal Mining Risk Assessment.
Boreholes	There are 17 BGS boreholes located within 250m of the site boundary all of which are 130m – 230m South of the site. No access is available to view the data from these boreholes though.

2.5. Environmental Overview

Environmental Permits	There are no Part A, Part B and RAS 3 & 4 Permits present within 250m of the site.
Pollution Incidents	There are no recorded pollution incidents within 500m of the site.
Landfill Sites	There are no recorded current or historic landfill sites within 500m of the site.
Industrial Land Uses	There are 9 current industrial land uses within 250m of the site.
Hydrogeology	The site is underlain by a Secondary (A) Aquifer within the Bedrock geology. The site is not within a source protection zone. There are no Groundwater Abstraction Licences or Surface Water Abstraction Licences within 250m of the site. There are no potable water abstractions within 500m of the site
Hydrology	There is a primary river 400m North of the site called the River Dove. There are also 3 secondary rivers within 500m of the site.

Flooding	The site is not within an area of Environment Agency indicative flood plains. Zone 2 Floodplain and Zone 3 Floodplain are approximately 230m away from the site to the North.

2.6. Previous Investigations

We are not aware of any other site investigations and none have been provided.

3. Potential Contamination

3.1. Background

Current Environmental Legislation, in particular Part IIA of the Environmental Protection Act 1990, adopts a risk-based approach to the evaluation of contaminated sites, based on the proposed end use of the site. The commonly accepted approach is to adopt a Source-Pathway-Receptor model where the Source of the contaminant is examined in relation to potential Receptors (i.e. humans, controlled waters etc.) to determine if there is a Pathway (i.e. pollution linkage) connecting them. If any of these elements (i.e. contaminant, pathway or receptor) are absent or removed, then there is no risk

3.2. Historical Overview of Area

The site remained undeveloped until 1970 when 14 semi-detached houses along with garages were built upon the site. These properties remained upon the site until 2012 when all the buildings were demolished.

The surrounding area has predominantly been developed with residential land use. There are two large areas of grass land used as Recreational Grounds. Several Railways ran within the vicinity of the site until 1980 when they were dismantled. Mitchell Main Colliery is located approximately 450m North East of the site.

3.3. Current Situation

The site is located approximately 5km South East of Barnsley city centre.

The site is fairly rectangular in shape and has a slight fall from South to North.

The Northern boundary is with a 2m high timber panel and concrete post fence, and bushes providing the rear garden boundary to 6 adjacent properties. Further North of these houses is open grassed land leading to Pearson Crescent. The Western boundary is with several rear gardens of semi detached houses along Wortley Avenue. The boundary is again made up of timber panel and concrete post fencing and large bushes. Further beyond Wortley Avenue is a new housing estate which is currently being developed. To the South of the site is a new apartment block with adjacent car park. The car park has a 2m high timber & concrete post fence which creates the Southern boundary of the site. The Eastern boundary is with Aldham House Lane. Beyond this road are residential houses and then there are 2 football pitches approximately 40m East of the site. The site has a small square section that is to the North West of the site heading towards Wortley Avenue which splits the 6 houses to the North from the rest of the residential properties along Wortley Avenue.

The site is currently unoccupied and is predominantly grassed land. There is a small access road which runs from North West to South East across half of the site gaining access from Wortley Avenue through the small square area of the site.

3.4. Identified Sources

The site has been developed on once before with 14 semi-detached houses and associated garages. Therefore there is only a slight risk of contaminants being present on the site, as a result of historical land use and the demolition process.

Based on the above, the possible sources of contamination include:

Historical Site Usage Description	Contaminants
Residential	Heating Oil / Ash / Demolition Spoil / Land Gas

Historical Neighbours	Contaminants
Residential	Heating Oil / Ash / Demolition Spoil / Land Gas

3.5. Current Site Usage

Current Site Usage	Contaminants
None	None

Current Neighbours	Contaminants
Residential	None

The above list of possible contaminants has been based solely on the Historic Land Use as identified by the GroundSure Report and should not be considered exhaustive.

3.6. Preliminary Risk Assessment

The risks identified in this report are perceived risks relative to the proposed end use, understood to be residential housing and are based on information available for review. Actual risks will be fully assessed in the intrusive site investigation section of this report.

In considering the potential for contamination, the above information has to be assessed with respect to the development of the site for residential purposes, utilising the source-pathway-receptor methodology. Should one of the three links be absent, the site cannot be considered contaminated under Part IIA of the Environmental Protection Act. The preliminary conceptual risk assessment model undertaken for the site is detailed as follows:

Source

Based on information available there is potential for contamination sources to be present at the site. These potential contaminants could originate from the demolition material from the previous residential buildings.

Pathways

The Potential main pathways specific to the probable future use of the site are:

1. Direct Contact
2. Incidental ingestion
3. Migration of liquids via permeable strata or over ground.
4. Vertical migration of liquids

Receptors

The following site-specific receptors should be considered:

1. Humans
   a. Site Workers – construction staff involved in works at the site
   b. Maintenance staff – carrying out maintenance on landscaped areas at some point in the future
   c. Long term site users

2. Flora and Fauna
   a. Landscaping / plants

3. Controlled Water
   a. Secondary (A) Aquifer

4. Buildings and Infrastructure

   a. Building Substructure
   b. Infrastructure – drainage etc.

Risk to Humans

There is potential for End Users to come into contact with contaminated materials. There is potential for Construction workers to come into contact with contaminated materials during construction.

Risk to Flora and Fauna

Given the former uses of the site, there is potential for flora and fauna to be at risk from contamination.

Risk to Controlled Waters

Information available from the British Geological Survey indicates that the site lies over a Secondary (A) - Aquifer; therefore there is a risk to the groundwater from potential contamination.

Risk to Building and Infrastructure

There is a possibility that aggressive contaminants may be present from demolition rubble of the previous residential buildings, which may potentially cause damage to the substructure. There is also a slight risk to substructures from aggressive materials naturally occurring in sub-soil.

3.7. Conclusion

Based on the above, it is considered that the site has only slight potential to be contaminated.

On this basis a general suite of testing for common contaminants including metals, poly aromatic hydrocarbons, asbestos and land gas has been undertaken and assessed in the intrusive site investigation section of this report, to confirm the above. The intrusive investigation has also been carried out to determine and assess the immediate sub-surface ground conditions in order to formulate recommendations for foundations to the new development.

Phase II – Intrusive Site Investigation

4. Environmental Setting

A detailed review of the published history, geology, hydrogeology and hydrology and available environmental information was carried out as part of the Phase I - Desk Study of this report.

4.1. Introduction

The site is located approximately 5km South East of Barnsley city centre.

The site is fairly rectangular in shape and has a slight fall from South to North.

The Northern boundary is with a 2m high timber panel and concrete post fence, and bushes providing the rear garden boundary to 6 adjacent properties. Further North of these houses is open grassed land leading to Pearson Crescent. The Western boundary is with several rear gardens of semi detached houses along Wortley Avenue. The boundary is again made up of timber panel and concrete post fencing and large bushes. Further beyond Wortley Avenue is a new housing estate which is currently being developed. To the South of the site is a new apartment block with adjacent car park. The car park has a 2m high timber & concrete post fence which creates the Southern boundary of the site. The Eastern boundary is with Aldham House Lane. Beyond this road are residential houses and then there are 2 football pitches approximately 40m East of the site. The site has a small square section that is to the North West of the site heading towards Wortley Avenue which splits the 6 houses to the North from the rest of the residential properties along Wortley Avenue.

The site is currently unoccupied and is predominantly grassed land. There is a small access road which runs from North West to South East across half of the site gaining access from Wortley Avenue through the small square area of the site.

4.2. Fieldwork

The intrusive investigation consisted of 8 No. Trial Pits and 5No. Boreholes carried out on 22nd August 2013. The locations of the intrusive positions can be found within Appendix III of the report.

The trial pits were carried out to depths between 1.6m and 2.0m by a mechanical excavator.

The boreholes were carried out to depths between 2.295m and 2.825m by a mini-rig.

The Trial Pits all encountered limited depths of topsoil underlain by concrete/bricks within a soily matrix which was the demolition rubble from the previous housing occupying the site. This was to a depth of 0.7m – 1.0m where sand/sandstone gravels were found.

Boreholes generally comprised of similar ground conditions to that found within the trial pits.

Soil samples were removed for laboratory analysis from the all the trial pits.

The Trial Pits and Boreholes were spread out evenly across the site in order to get a good review of the underlying strata. A location plan can be found in Appendix III of this document

Logs of the trial pits and boreholes can be found in Appendix IV and V of this report.

4.3. Groundwater

Groundwater was not encountered in the trial pits or the boreholes.

4.4. Laboratory Testing

The desk study found in part I of this report recommended a regime of contamination testing on soil samples recovered from trial pits. The samples were tested for contaminants including:

Metals – Arsenic, Cadmium, Chromium, Lead, Mercury, Selenium, Copper, Nickel, Zinc, Boron, Soluble Sulphate,

Poly Aromatic Hydrocarbons

Asbestos

5. Contamination Assessment

5.1. General

Current Environmental Legislation, in particular Part IIA of the Environmental Protection Act 1990, adopts a risk-based approach to the evaluation of contaminated sites, based on the proposed end use of the site. The commonly accepted approach is to adopt a Source-Pathway-Receptor model where the Source of the contaminant is examined in relation to potential Receptors (i.e. humans, controlled waters etc.) to determine if there is a Pathway (i.e. pollution linkage) connecting them. If any of these elements (i.e. contaminant, pathway or receptor) are absent or removed, then there is no risk.

The Department of the Environment, Food and Rural Affairs (DEFRA) have published a series of guidelines in connection with Risk Assessment. The Contaminated Land Exposure Model (CLEA) defines Soil Guideline Values (SGV's) for those elements which pose the greatest risk to human health. A model has been used to determine any significant pollutant linkages and identify suitable risk management proposals on which remediation design (if any required) can be based. The model is summarized at the end of this section in tabular form. Where there are published Soil Guideline Values (SGV's), these have been used to assess risk. Where there are no published SGV's, we have used Land Quality Management General Assessment Criteria Values (GAC), to assess risk.

By considering the Source-Pathway-Receptors Model, an assessment can be made as to whether the source contamination can reach a receptor. The degree and significance of any resulting risk is then determined. The categorization of the risk is based on consideration of both:

- the likelihood or probability of an event (taking into account both the presence of the Source and the Receptor, and the integrity of the Pathway).

- the severity of the potential consequence (taking into account both the potential severity of the Source and the sensitivity of the Receptor).

The following categorization of risk has been adopted in this report:

Very High	There is a high probability that severe harm could arise to a designated receptor from an identified hazard at the site without appropriate remedial action.
High	Harm is likely to arise to a designated receptor from an identified hazard without appropriate remedial action.
Moderate	It is possible that, without appropriate remedial action, harm could arise to a designated receptor, but it is relatively unlikely that any such harm would be severe and, if harm were to occur, it is more likely that such harm would be relatively mild.

Low	It is possible that harm could arise to a designated receptor from an identified hazard, but it is likely that, at worst, this harm, if realized, would normally be mild.
Negligible	The presence of an identified hazard does not give rise to the potential to cause any significant harm to a designated receptor on this site.

5.2. Contamination Criteria for Testing

The results of the chemical analysis on the soil samples are given below and are compared against the CLEA Soil Guideline Values (SGV) for Residential Developments (where there are published SGV's) or Land Quality Management General Assessment Criteria Values (GAC) where there are no published SGV's. These values are then used as Intervention Values (IV) to assess the risk.

It is proposed that the land will be developed with residential buildings with landscaped garden and car parking areas. Therefore the proposed land use can be classified as 'Residential' in accordance with the CLEA Guidelines.

5.3. Conceptual Site Model

Sources can comprise of Metals, Semi-Metals, Non-Metals, Hydrocarbons, Sulphates etc.

Pathways can comprise of Ingestion, Inhalation, Direct Contact etc.

Receptors can comprise of People, Groundwater, Watercourses etc.

The following table provides a list of the possible Sources, Pathways and Receptors that have potential to exist on this site.

Source	Pathway	Receptor
Heavy Metals	**a –** Ingestion of soils **b –** Inhalation of soil dust **c –** Direct Contact with soil **d –** Direct Contact with groundwater **e –** Migration via Groundwater	**A –** Construction Workers **B –** Future End user **C** – Aquifer **E** – Flora & Fauna
Polyaromatic Hydrocarbons	**a –** Ingestion of soils **b –** Inhalation of soil dust **c –** Direct Contact with soil **d –** Direct Contact with groundwater **e –** Migration via Groundwater **f –** Inhalation of gases	**A –** Construction Workers **B –** Future End user **C** – Aquifer **E** – Flora & Fauna
Asbestos	**a** – Ingestion of soils **b** – Inhalation of soil dust	**A** – Construction Workers **B** – Future End user

Based on the above conceptual site model, the following sources of contamination have been investigated;

- Soils – Heavy Metals,
- Soils – Poly Aromatic Hydrocarbons
- Soils - Asbestos

5.4. Results of Contamination Testing

The following tables are summaries of the laboratory test results.

Heavy Metals

Location	TP01	TP02	TP03	TP04	TP05	TP06	TP07	TP08		
Depth (m)	0.40	0.50	0.50	0.55	0.60	0.40	0.50	0.50		
Contaminant									**IV**	**Number Exceeding**
Arsenic	9	5	10	8	5	6	6	10	*32*	0
Cadmium	0.5	<0.5	0.5	<0.5	<0.5	<0.5	<0.5	0.5	*10*	0
Copper	26	11	24	20	12	20	17	22	*3970*	0
Chromium	27	15	23	16	12	14	13	15	*100*	0
Lead	30	20	33	34	22	24	25	37	*166*	0
Mercury	0.37	<0.17	0.19	<0.17	<0.17	0.27	<0.17	<0.17	*6.28*	0
Nickel	23	10	17	17	14	14	16	16	*130*	0
Selenium	<1	<1	<1	<1	<1	<1	<1	<1	*350*	0
Zinc	62	35	63	59	46	55	51	55	*1690*	0

Poly Aromatic Hydrocarbons

Location	TP01	TP02	TP03	TP04	TP05	TP06	TP07	TP08		
Depth (m)	0.40	0.50	0.50	0.55	0.60	0.40	0.50	0.50		
Contaminant									**IV**	**Number Exceeding**
Acenapthene	<0.01	<0.01	<0.01	<0.01	<0.01	0.01	<0.01	<0.01	*210*	0
Acenapthylene	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	*170*	0
Anthracene	<0.02	<0.02	0.03	<0.02	<0.02	0.03	<0.02	<0.02	*2300*	0
Benzo(a)anthracene	0.04	<0.04	0.21	0.08	0.05	0.16	0.07	0.05	*3.1*	0
Benzo(a)pyrene	0.06	0.05	0.22	0.11	0.06	0.17	0.08	0.08	*0.83*	0
Benzo(b)fluoranthene	<0.05	<0.05	0.33	0.16	0.06	0.24	0.1	0.1	*5.6*	0
Benzo(ghi)perylene	<0.05	<0.05	0.1	<0.05	<0.05	0.08	<0.05	<0.05	*44*	0
Benzo(k)fluoranthene	<0.07	<0.07	0.12	0.08	<0.07	0.1	<0.07	<0.07	*8.5*	0
Chrysene	<0.06	<0.06	0.16	0.07	<0.06	0.12	0.07	<0.06	*6.0*	0
Dibenzo(ah)anthracene	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	*0.76*	0
Flouranthene	<0.08	<0.08	0.28	0.13	<0.08	0.23	0.11	<0.08	*260*	0
Flourene	<0.01	<0.01	<0.01	<0.01	<0.01	0.01	<0.01	<0.01	*160*	0
Indeno(123-cd)pyrene	0.08	0.04	0.14	0.07	0.05	0.1	0.06	0.04	*3.2*	0
Naphthalene	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	*1.5*	0
Phenanthrene	0.03	<0.03	0.17	0.08	<0.03	0.14	0.07	0.05	*92*	0
Pyrene	<0.07	<0.07	0.23	0.12	<0.07	0.2	0.09	<0.07	*560*	0
PAH Total	0.22	0.09	1.99	0.89	0.25	1.62	0.65	0.33	*100*	0

Asbestos

Location	TP03	TP06		
Depth (m)	0.50	0.40		
Contaminant			**IV***	**Number Exceeding**
Asbestos in Soil	NAD	NAD		0

The results have been compared against the CLEA Soil Guideline Values or Generic Assessment Criteria (GAC values) from Land Quality Management (where there are no published SGV's).

The full test certificates are included in Appendix VI of this report.

5.5. Contamination Sources

Based upon the above soil contamination results, it can be seen that, for the proposed land use as Residential, all of the tested contaminants which are considered to pose a risk to human health, have been found to exist in concentrations less than the intervention values for the site.

Source	Present
Heavy Metals	No
Poly Aromtic Hydrocarbons	No
Asbestos	No

5.6. Pathways

Based on the proposed land use, the possible pathways that exist on site for the identified source of contamination are as follows;

- Ingestion of soils
- Inhalation of soil dust
- Direct Contact with soil
- Direct contact with groundwater
- Inhalation of soil vapour

The current site proposals indicate residential buildings with private garden and car parking areas.

5.7. Receptors

Based on the identified sources of contamination, and the possible pathways, the potential receptors for the development are:-

- End User
- Construction worker
- Flora & Fauna
- Aquifer

5.8. Site Specific Model

Source	Present	Receptor	Pathway	Risk
Heavy Metals	No	**A -** Construction Workers **B -** Future End user **C -** Aquifer **E** – Flora & Fauna	**a -** Ingestion of soils **b -** Inhalation of soil dust **c -** Direct Contact with soil **d -** Direct Contact with groundwater **f -** Inhalation of soil vapours	Negligible
Polycyclic Aromatic Hydrocarbons	No	**A -** Construction Workers **B -** Future End user **C -** Aquifer **E** – Flora & Fauna	**a -** Ingestion of soils **b -** Inhalation of soil dust **c -** Direct Contact with soil **d -** Direct Contact with groundwater **f -** Inhalation of soil vapours	Negligible
Asbestos	No	**A -** Construction Workers **B -** Future End user	**a -** Ingestion of soils **b -** Inhalation of soil dust	Negligible

5.9. Contamination Issues

Based upon the model, no pollution linkages are present on the site which will require further consideration.

5.10. Assessed Risks and Management

It is currently proposed to develop the site with residential buildings with private garden and car parking areas.

Whilst no pathways are shown to exist, all construction workers should still observe good practise with respect to sue use of gloves and good standards of hygiene especially prior to eating meals.

All ground works should be monitored by a suitably qualified person for any deviation from the general findings of the ground investigation. Any significant deviation from the findings of this document is to be reported to the Engineer immediately prior to commencing any further works.

5.11. Summary

It is currently proposed to develop the site with residential buildings with private garden and car parking areas.

All of the tested contaminants which are considered to pose a risk to human health, have been found to exist in concentrations less than the intervention values for the site. Therefore no specific remedial works are currently proposed.

Construction workers should observe good practise with respect to sue of gloves and good standards of hygiene especially prior to eating meals.

All ground works should be monitored by a suitably qualified person for any deviation from the general findings of the ground investigation. Any significant deviation from the findings of this document is to be reported to the Engineer immediately prior to commencing any further works.

6. Geotechnical Assessment

6.1. General

The intrusive investigation consisted of 8 No. Trial Pits and 5No. Boreholes carried out on 22nd August 2013. The locations of the intrusive positions can be found within Appendix III of the report.

The trial pits were carried out to depths between 1.6m and 2.0m by a mechanical excavator.

The boreholes were carried out to depths between 2.295m and 2.825m by a mini-rig.

The Trial Pits all encountered limited depths of topsoil underlain by concrete/bricks within a soily matrix which was the demolition rubble from the previous housing occupying the site. This was to a depth of 0.7m – 1.0m where sand/sandstone gravels were found.

Boreholes generally comprised of similar ground conditions to that found within the trial pits.

Soil samples were removed for laboratory analysis from the all the trial pits.

The Trial Pits and Boreholes were spread out evenly across the site in order to get a good review of the underlying strata. A location plan can be found in Appendix III of this document.

6.2. Mining

According to the records in the possession of the Coal Authority, the property is in the likely zone of influence from workings in 11 seams of coal at 100m to 620m depth, and last worked in 1985. Any ground movement from these coal workings should have stopped by now.

The property is not in the likely zone of influence of any present or future underground coal workings. However, reserves of coal exist in the local area which could be worked at some time in the future.

Initially it would be prudent to speak with the local building control to determine whether the area is known to be at risk from unrecorded shallow coal workings. It may then be necessary to undertake open rotary boreholes to investigate this possibility.

See Appendix VIII of this report for a Coal Mining Risk Assessment.

6.3. Gas

Gas and water monitoring equipment was installed in 3No Borehole positions across the site. Monitoring is now complete. Results can be seen in section 7 of this report.

6.4. Radon

The site is in a Radon affected area however no radon protective measures are required as described in publication BR211 by the Building Research Establishment.

6.5. Foundations

The natural sandstone bedrock encountered within the investigation will be suitable founding strata for a low rise housing development. The rock will be reached at fairly shallow depths of 1.0m – 1.2m where shallow spread foundations will be suitable. The founding strata should be competent and consistent. Reinforcement may be required across any significant variations in depth.

Further investigations are however required into the risk of unrecorded shallow coal workings, and seams that may be present below the rock strata before works can take place.

Location	TP03	TP06	TP08
Depth (m)	1.10	1.00	0.9
Determinand			
pH	8.50	7.85	7.75
SO4 (2:1)	0.04	0.12	<0.01

The levels of water soluble Sulphate (2:1) was found to be maximum 0.12g/l with a minimum pH of 7.75, therefore AC-1s conditions exist for buried concrete in accordance with BRE Special Digest 1: 2005 – Concrete in Aggressive Ground.

Foundations should be designed in accordance with NHBC Guideline Chapter 4.2 with respect to trees.

6.6. Ground Floor Construction

It is considered that suspended ground floors are suitable for the proposed development.

6.7. Drainage

Results of soakaway testing are shown in Appendix V of this report. Based on these results soakaway drainage may be a viable option for this site. Soakaway tests were undertaken in BH2 and BH5 and provided results to satisfy the use of soakaway drainage upon the site. The water installed ran away within 2 minutes and 4 minutes respectively. Further investigation should be carried out in accordance with BRE Digest 365 to confirm the suitability of soakaway drainage.

6.8. Summary

It is currently proposed to develop the site with residential buildings with private garden and car parking areas.

All of the tested contaminants which are considered to pose a risk to human health, have been found to exist in concentrations less than the intervention values for the site. Therefore no specific remedial works are currently proposed.

Construction workers should observe good practise with respect to sue of gloves and good standards of hygiene especially prior to eating meals.

All ground works should be monitored by a suitably qualified person for any deviation from the general findings of the ground investigation. Any significant deviation from the findings of this document is to be reported to the Engineer immediately prior to commencing any further works.

The natural sandstone bedrock encountered within the investigation will be suitable founding strata for a low rise housing development. The rock will be reached at fairly shallow depths of 1.0m – 1.2m where shallow spread foundations will be suitable. The founding strata should be competent and consistent. Reinforcement may be required across any significant variations in depth.

Further investigations are however required into the risk of unrecorded shallow coal workings, and seams that may be present below the rock strata before works can take place.

It is considered that suspended ground floors are suitable for the proposed development.

AC-1s conditions exist for buried concrete in accordance with BRE Special Digest 1:2005 – Concrete in Aggressive Ground.

Foundations should be designed in accordance with NHBC Guideline Chapter 4.2 with respect to trees.

7. Gas Monitoring

7.1. Monitoring Results

3No gas monitoring installations have been positioned within boreholes undertaken on the site. 3No rounds of monitoring are planned in the upcoming months. 2No. rounds have been carried out as shown below and on completion of all 3 an amendment to this report will be issued.

Date	WS Number	CH_4 (%)	CO_2 (%)	O_2 (%)	Atmos. Pres.(mb)	Flow (l/h)	Water (mbgl)	Depth to Bottom (m)
05.09.13	BH1	0	0.5	20.9	1015	0.1	Dry	2.0
	BH4	0	0.8	20.4	1017	0.1	Dry	2.4
	BH3	0	0.7	20.4	1018	0	Dry	2.2

Date	WS Number	CH_4 (%)	CO_2 (%)	O_2 (%)	Atmos. Pres.(mb)	Flow (l/h)	Water (mbgl)	Depth to Bottom (m)
18.09.13	BH1	0	1.0	20.9	994	0	Dry	2.0
	BH4	0	0.5	21.0	996	0.2	Dry	2.4
	BH3	0	0.6	21.0	996	0.2	Dry	2.2

Date	WS Number	CH_4 (%)	CO_2 (%)	O_2 (%)	Atmos. Pres.(mb)	Flow (l/h)	Water (mbgl)	Depth to Bottom (m)
22.10.13	BH1	0	0.9	20.5	987	0.2	Dry	2.0
	BH2	0	0.7	20.5	987	0.2	Dry	2.4
	BH3	0	0.8	20.4	988	0	Dry	2.2

7.2 Analysis

The above results have been evaluated in conjunction with NHBC Guidance document: Guidance on evaluation of development proposals on sites where methane & carbon dioxide are present, 4th Edition, March 2007.

Based on chapter 14 of this document, the maximum gas screening value (gsv) noted throughout the monitoring is 0.000 for Methane & 0.0018 for Carbon Dioxide, In addition maximum observed concentration of Methane & Carbon Dioxide are 0.0 and 1.0 (%v/v) respectively.

From Table 14.1 within this document, the traffic light classification of the site would be Green. Based on Table 14.2, and assuming Green conditions, no gas protection measures are required.

8. Conclusions

It is currently proposed to develop the site with residential buildings with private garden and car parking areas.

All of the tested contaminants which are considered to pose a risk to human health, have been found to exist in concentrations less than the intervention values for the site. Therefore no specific remedial works are currently proposed.

Construction workers should observe good practise with respect to sue of gloves and good standards of hygiene especially prior to eating meals.

All ground works should be monitored by a suitably qualified person for any deviation from the general findings of the ground investigation. Any significant deviation from the findings of this document is to be reported to the Engineer immediately prior to commencing any further works.

The natural sandstone bedrock encountered within the investigation will be suitable founding strata for a low rise housing development. The rock will be reached at fairly shallow depths of 1.0m – 1.2m where shallow spread foundations will be suitable. The founding strata should be competent and consistent. Reinforcement may be required across any significant variations in depth.

Further investigations are however required into the risk of unrecorded shallow coal workings, and seams that may be present below the rock strata before works can take place.

It is considered that suspended ground floors are suitable for the proposed development.

AC-1s conditions exist for buried concrete in accordance with BRE Special Digest 1:2005 – Concrete in Aggressive Ground.

Foundations should be designed in accordance with NHBC Guideline Chapter 4.2 with respect to trees.

Gas Monitoring suggests that no gas protection measures are required suiting Green conditions.

Appendix I

GroundSure Report

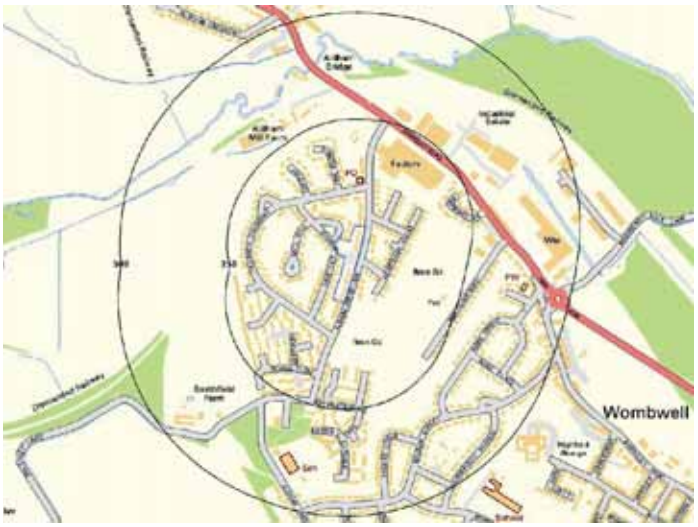
GroundSure GeoInsight

Address: ,

Date: 15 Aug 2013

Report Reference: EMS-216408_285657

Your Reference: EMS_216408_285657



Brought to you by emapsite

Aerial Photograph of Study Site

NW N NE



W E

SW S SE

Aerial photography supplied by Getmapping PLC.
© Copyright Getmapping PLC 2003. All Rights Reserved.

Site Name: ,
Grid Reference: 438743,403938
Size of Site: 0.63 ha

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.

Report Section	Number of records found within (X) m of the study site boundary
1. Geology	**Description**
1.1 Artificial Ground,	
1.1.1 Is there any Artificial Ground /Made Ground present beneath the study site?*	No
1.1.2 Are there any records relating to permeability of artificial ground within the study site* boundary?	No
1.2 Superficial Geology & 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
1.3.4 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
1.3.5 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

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

Source:Scale 1:50,000 BGS Sheet No:087

2. Ground Workings	on-site	0-50	51-250	251-500	501-1000
2.1 Historical Surface Ground Working Features from Small Scale Mapping	0	0	6	-	-
2.2 Historical Underground Workings Features from Small Scale Mapping	0	0	0	8	6
2.3 Current Ground Workings	0	0	0	1	2

3. Mining, Extraction & Natural Cavities	on-site	0-50	51-250	251-500	501-1000
3.1 Historical Mining	0	0	0	8	6
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*	1	0	1	1	6
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

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

4. Natural Ground Subsidence	on-site*	0-50	51-250	251-500	501-1000
4.1 Shrink-Swell Clay	Negligible	-	-	-	-
4.2 Landslides	Very Low	-	-	-	-
4.3 Ground Dissolution of Soluble Rocks	Null	-	-	-	-
4.4 Compressible Deposits	Negligible	-	-	-	-
4.5 Collapsible Deposits	Very Low	-	-	-	-
4.6 Running Sand	Negligible	-	-	-	-

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

5. Borehole Records	on-site	0-50	51-250	251-500	501-1000
5.1 BGS Recorded Boreholes	0	0	17	-	-

6. Estimated Background Soil Chemistry	on-site	0-50	51-250	251-500	501-1000
6.1 Records of Background Soil Chemistry	2	0	0	-	-

1.1 Artificial Ground Map

NW N NE



W E

SW S SE

Artificial Ground Legend

Mapping sourced from Ordnance Survey
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Site Outline

500
1000
Search Buffers (m)

Made Ground (undivided)

Disturbed Ground (undivided)

Worked Ground (undivided)

Landscaped Ground (undivided)

Infilled Ground

Reclaimed Ground

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

1.1 Artificial Ground

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

1.1.1 Artificial/Made Ground

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	325.0	NE	MGR-MGRD	MADE GROUND (UNDIVIDED)	ARTIFICIAL DEPOSIT
2	430.0	NE	MGR-MGRD	MADE GROUND (UNDIVIDED)	ARTIFICIAL DEPOSIT
3	492.0	SW	MGR-MGRD	MADE GROUND (UNDIVIDED)	ARTIFICIAL DEPOSIT

1.1.2 Permeability of Artificial Ground

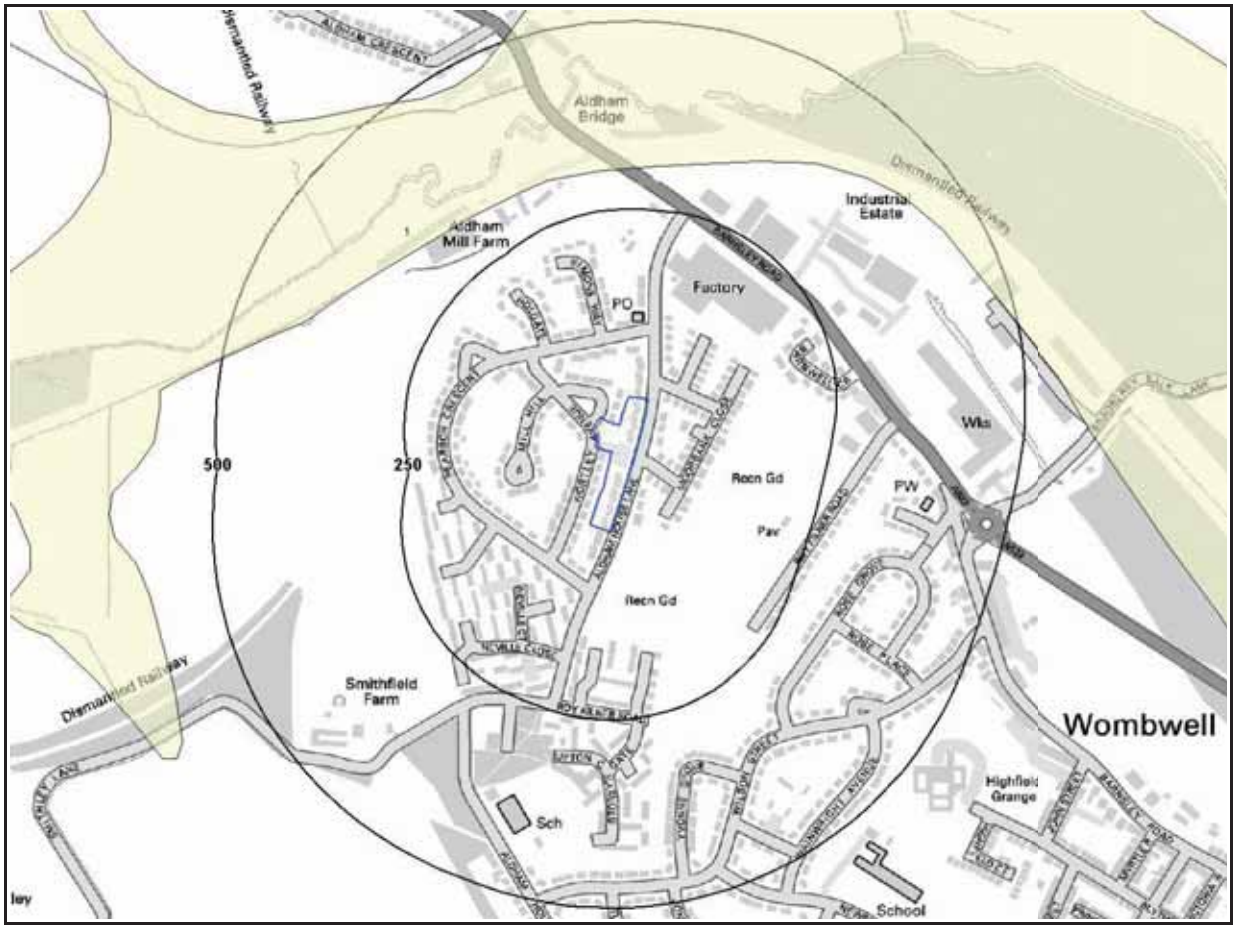
Are there any records relating to permeability of artificial ground within the study site* boundary? No

Database searched and no data found.

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

1.2 Superficial Deposits and Landslips Map

NW N NE



W E

SW S SE

Superficial and Landslips Legend

Mapping sourced from Ordnance Survey

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Site Outline

500
1000
Search Buffers (m)

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

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? Yes

ID	Distance (m)	Direction	Lex Code	Description	Rock Description
1	303.0	N	ALV-CLSI	ALLUVIUM	CLAY AND SILT

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.

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: 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

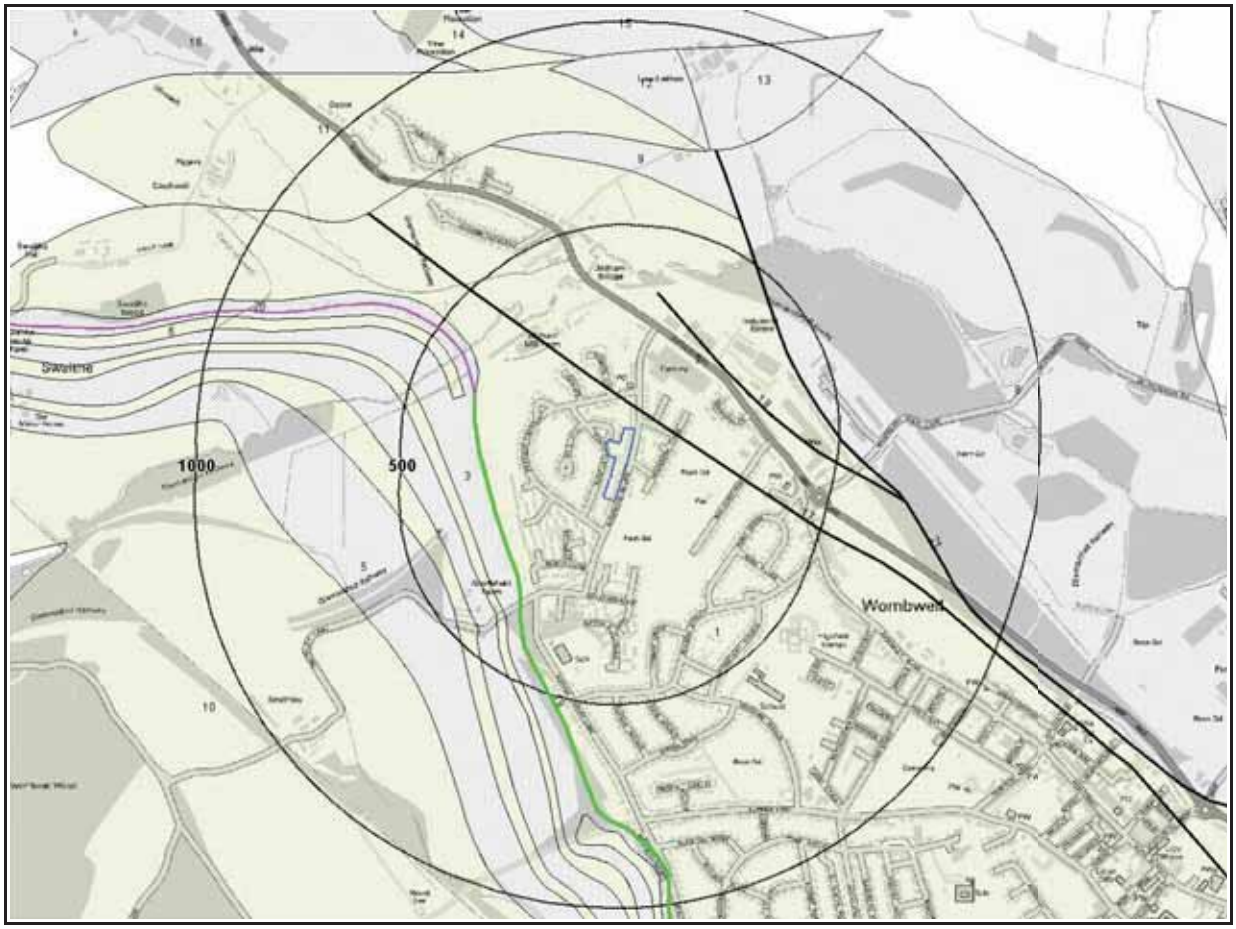
Are there any records relating to permeability of landslips within the study site* boundary? No

Database searched and no data found.

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

1.3 Bedrock and Faults Map

NW N NE



W E

SW S SE

Bedrock & Faults Deposits Legend

Mapping sourced from Ordnance Survey

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Site Outline

500
1000
Search Buffers (m)

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

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	Rock Description	Rock Age
1	0.0	On Site	OR-SDST	Oaks Rock - Sandstone	Duckmantian (westphalian B)
2	45.0	NE	OR-SDST	Oaks Rock - Sandstone	Duckmantian (westphalian B)
3	262.0	W	PMCM-MDSS	Pennine Middle Coal Measures Formation - Mudstone, Siltstone And Sandstone	Bolsovian (westphalian C) / Duckmantian (westphalian B)
4	332.0	W	PMCM-SDST	Pennine Middle Coal Measures Formation - Sandstone	Bolsovian (westphalian C) / Duckmantian (westphalian B)
5	359.0	W	PMCM-MDSS	Pennine Middle Coal Measures Formation - Mudstone, Siltstone And Sandstone	Bolsovian (westphalian C) / Duckmantian (westphalian B)
6	366.0	W	PMCM-SDST	Pennine Middle Coal Measures Formation - Sandstone	Bolsovian (westphalian C) / Duckmantian (westphalian B)
7	405.0	W	PMCM-SDST	Pennine Middle Coal Measures Formation - Sandstone	Bolsovian (westphalian C) / Duckmantian (westphalian B)
8	416.0	NE	PMCM-MDSS	Pennine Middle Coal Measures Formation - Mudstone, Siltstone And Sandstone	Bolsovian (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

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
17	45.0	NE	FAULT	Normal fault, inferred
18	261.0	NE	FAULT	Normal fault, inferred
19	262.0	W	ROCK	Coal seam, inferred
20	340.0	W	FOSSIL_HORIZON	Fossil horizon, marine band
21	416.0	NE	FAULT	Normal fault, 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.

1.3.4 Radon Affected Areas

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

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

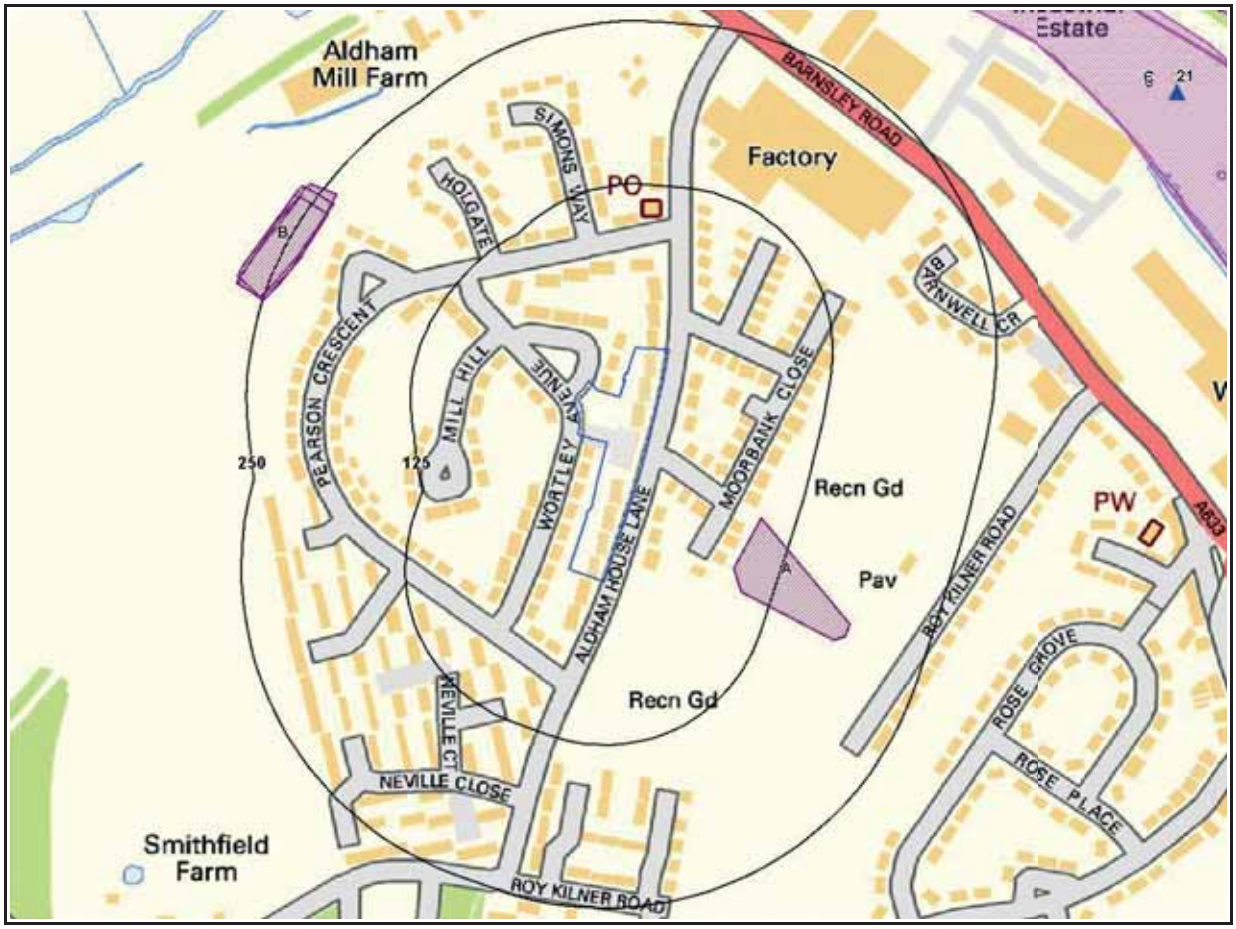
1.3.5 Radon Protection

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

NW N NE



W E

SW S SE

Ground Workings Legend

Mapping sourced from Ordnance Survey

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Site Outline

125
250
Search Buffers (m)

Historic Surface Ground Workings

Historic Underground Workings

Current Ground Workings

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	91.0	E	438876,403842	Unspecified Pit	1987
2A	91.0	E	438876,403842	Unspecified Pit	1977
3B	235.0	NW	438488,404096	Cuttings	1904
4B	235.0	NW	438488,404096	Cuttings	1948
5B	235.0	NW	438491,404101	Cuttings	1890
6B	236.0	NW	438490,404101	Cuttings	1951

2.2 Historical Underground Workings 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
7C	322.0	N	439244,404135	Colliery	1890
8	325.0	N	439328,404032	Colliery	1948
9C	325.0	N	439244,404132	Colliery	1904
10	416.0	NE	439328,404262	Colliery	1951
Not shown	421.0	SW	438199,403057	Colliery	1951
12C	440.0	E	439204,404152	Unspecified Shaft	1987
13C	440.0	E	439204,404152	Unspecified Shaft	1977
14C	440.0	E	439204,404152	Unspecified Shaft	1966
Not shown	601.0	NE	439257,404629	Unspecified Workings	1977
Not shown	619.0	S	438385,403088	Unspecified Mine	1966
Not shown	820.0	S	438344,402898	Colliery	1948
Not shown	862.0	S	438405,402922	Colliery	1901
Not shown	997.0	W	437516,403946	Colliery	1890
Not shown	997.0	W	437517,403965	Colliery	1904

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.

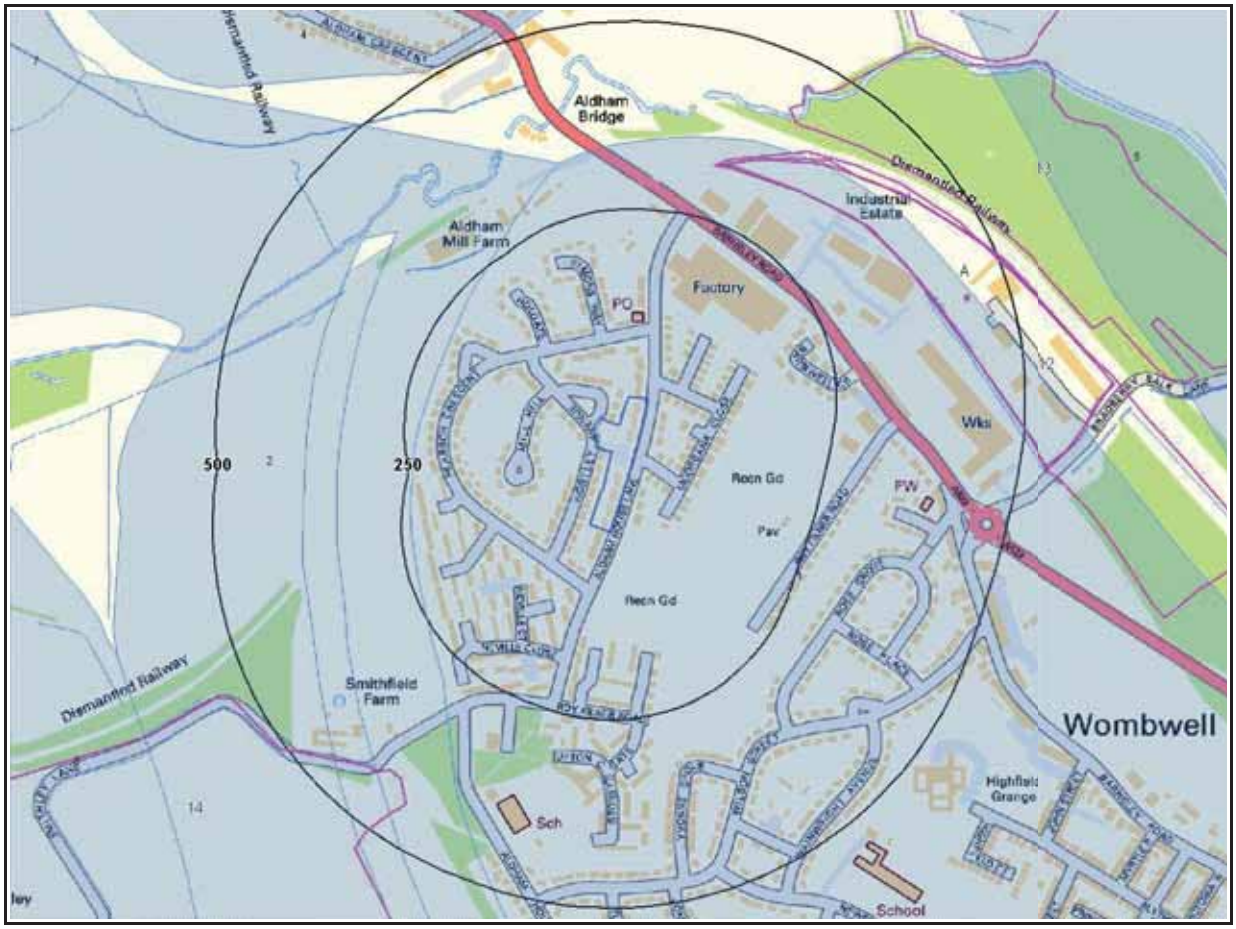
Are there any BGS Current Ground Workings within 1000m of the study site boundary? Yes

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

ID	Distance (m)	Direction	NGR	Commodity Produced	Pit Name	Type of working	Status
21	435.0	NE	4391 70,40 4215	Coal, Deep	Mitchell Main 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
Not shown	792.0	S	4385 70,40 3065	Clay & Shale	Wombwell Main Clay pit	A surface mineral working. It may be termed Quarry, Sand Pit, Clay Pit or Opencast Coal Site	Ceased
Not shown	972.0	SW	4383 15,40 2960	Coal, Deep	Wombwell Main 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

3. Mining, Extraction & Natural Cavities Map

NW N NE



W E

SW S SE

Mining, Extraction & Natural Cavities Legend

Mapping sourced from Ordnance Survey

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Site Outline

250
500
Search Buffers (m)

Historical Mining

Non-Coal Mining Cavities

Natural Cavities

Non-Coal Mining

Highly likely

Likely

Unlikely

Highly unlikely

Rare

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
10A	322.0	N	439244,404 135	Colliery	1890
11A	325.0	N	439244,404 132	Colliery	1904
12	325.0	N	439328,404 032	Colliery	1948
13	416.0	NE	439328,404 262	Colliery	1951
14	421.0	SW	438199,403 057	Colliery	1951
15A	440.0	E	439204,404 152	Unspecified Shaft	1966
16A	440.0	E	439204,404 152	Unspecified Shaft	1987
17A	440.0	E	439204,404 152	Unspecified Shaft	1977
18	601.0	NE	439257,404 629	Unspecified Workings	1977
Not shown	619.0	S	438385,403 088	Unspecified Mine	1966
Not shown	820.0	S	438344,402 898	Colliery	1948
Not shown	862.0	S	438405,402 922	Colliery	1901
Not shown	997.0	W	437516,403 946	Colliery	1890
Not shown	997.0	W	437517,403 965	Colliery	1904

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. No results 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	Sheffield Area	Vein Mineral/Iron ore	Highly Unlikely - Localised small scale mining may have occurred but restricted in extent.
2	219.0	W	Not available	Iron Ore (Bedded)	Highly Unlikely - Localised small scale mining may have occurred but restricted in extent.
3	329.0	W	Sheffield Area	Vein Mineral/Iron ore	Highly Unlikely - Localised small scale mining may have occurred but restricted in extent.
4	503.0	NW	Sheffield Area	Vein Mineral/Iron ore	Highly Unlikely - Localised small scale mining may have occurred but restricted in extent.
5	609.0	NE	Not available	Iron Ore (Bedded)	Highly Unlikely - Localised small scale mining may have occurred but restricted in extent.
6	650.0	W	Sheffield Area	Vein Mineral/Iron ore	Highly Unlikely - Localised small scale mining may have occurred but restricted in extent.
7	821.0	NW	Sheffield Area	Vein Mineral/Iron ore	Highly Unlikely - Localised small scale mining may have occurred but restricted in extent.
Not shown	974.0	W	Sheffield Area	Vein Mineral/Iron ore	Highly Unlikely - Localised small scale mining may have occurred but restricted in extent.
Not shown	980.0	N	Not available	Iron Ore (Bedded)	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. More detailed information on potential Tin Mining may be found in Section 3.4 – Non-Coal Mining Hazards.

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

Database searched and no data found.

3.10 Clay Mining

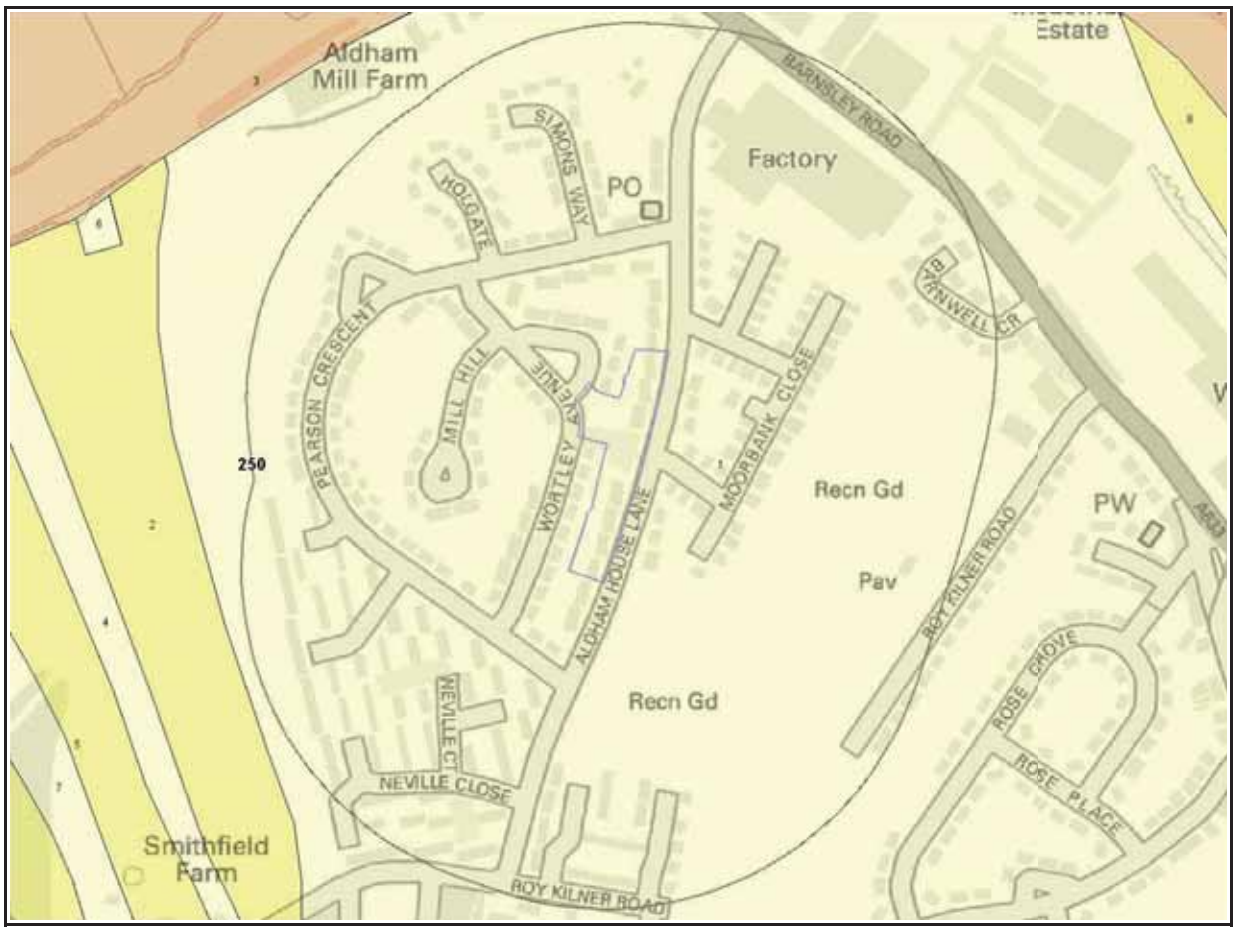
This dataset provides information on Kaolin and Ball Clay mining from relevant mining records.

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

NW N NE



W E

SW S SE

Shrink-Swell Clay Legend

Mapping sourced from Ordnance Survey

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Site Outline

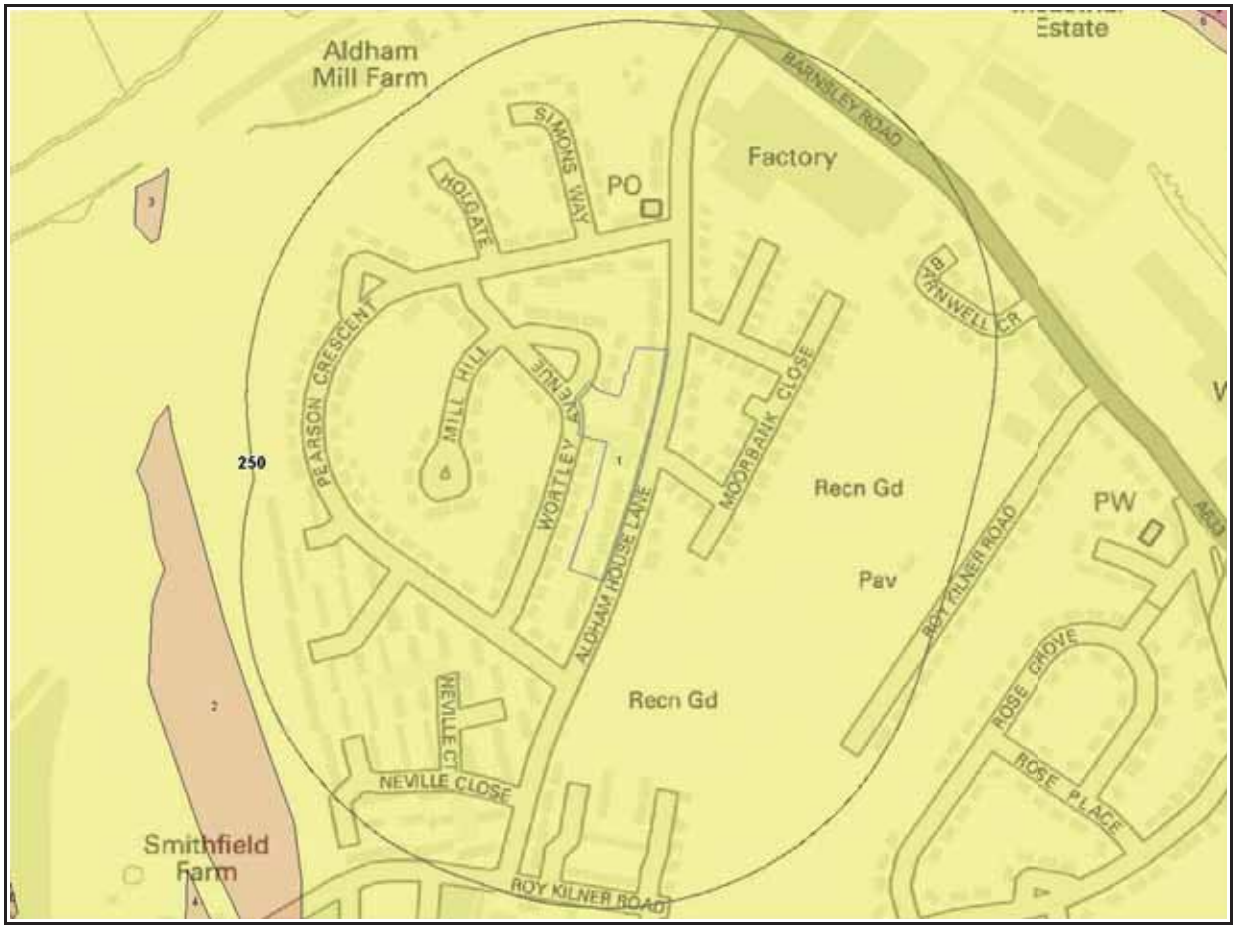
125
250
Search Buffers (m)

No Data / Null
Negligible
Very Low

Low
Moderate
High

4.2 Landslides Map

NW N NE



W E

SW S SE

Landslides Legend

Mapping sourced from Ordnance Survey

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Site Outline

125
250
Search Buffers (m)

No Data / Null
Negligible
Very Low

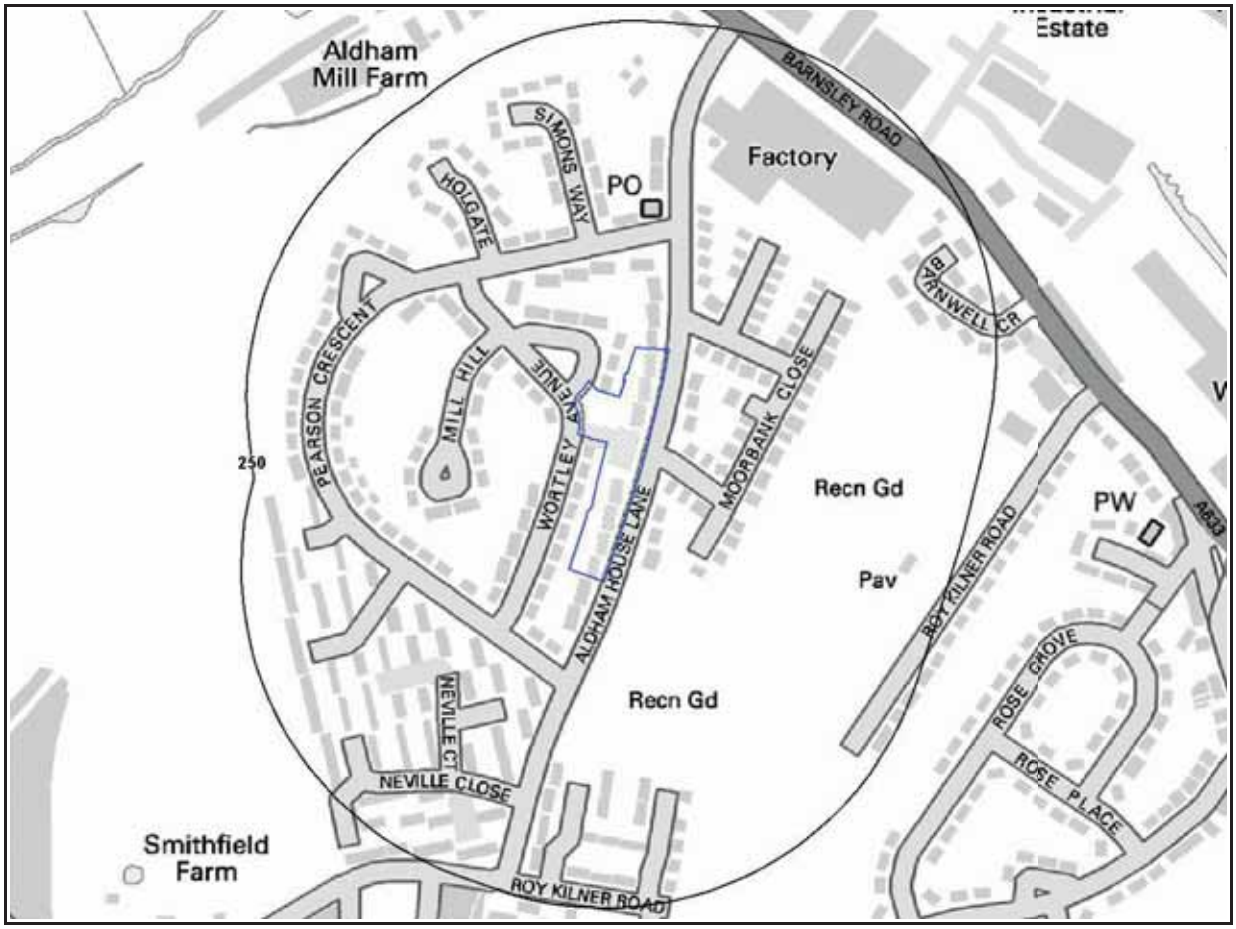
Low
Moderate
High

4.3 Ground Dissolution Soluble Rocks Map

NW N NE

W E

SW S SE



Ground Dissolution Soluble Rocks Legend

Mapping sourced from Ordnance Survey

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Site Outline

125
250
Search Buffers (m)

No Data / Null
Negligible
Very Low

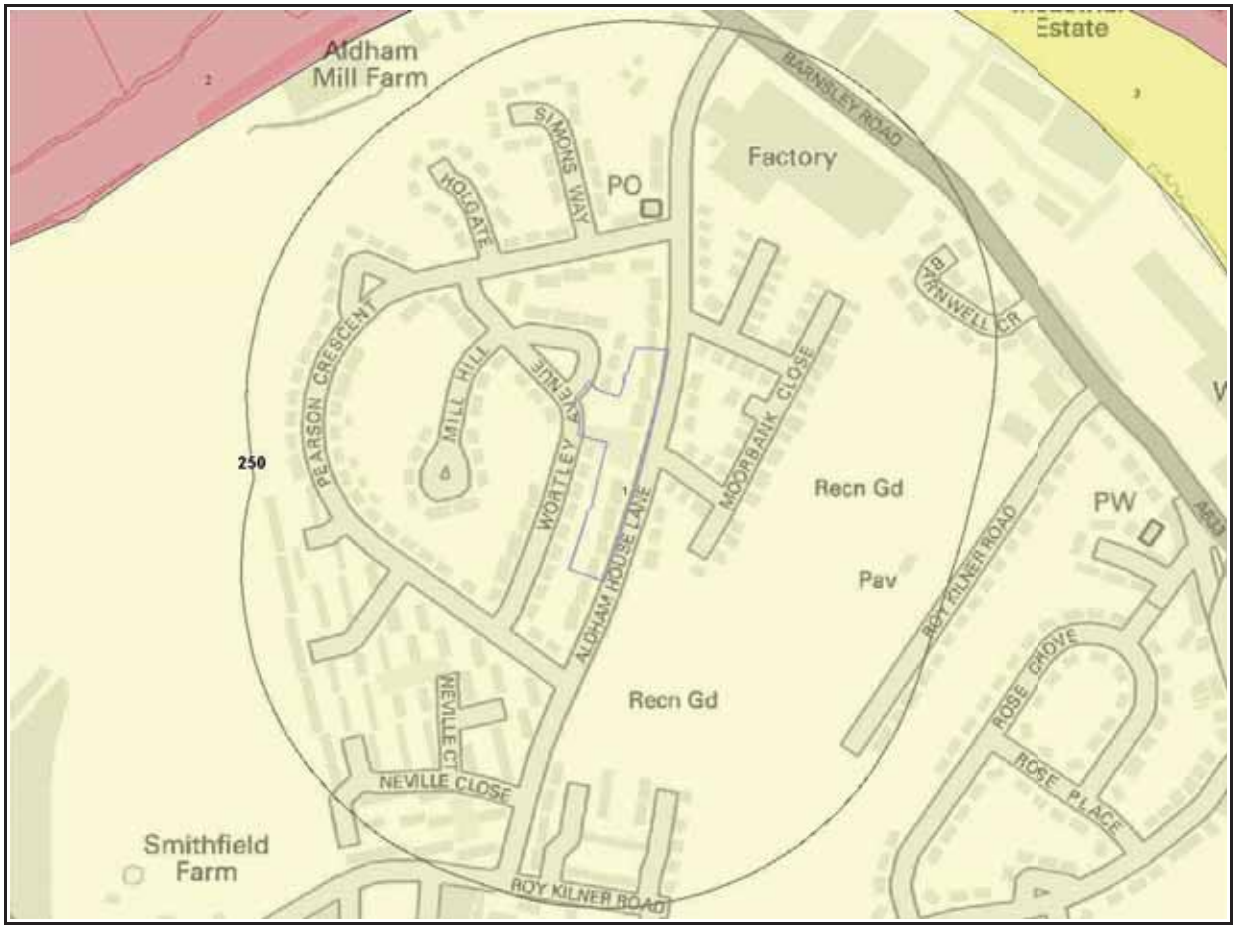
Low
Moderate
High

4.4 Compressible Deposits Map

NW N NE

W E

SW S SE



Compressible Deposits Legend

Mapping sourced from Ordnance Survey

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Site Outline

125
250
Search Buffers (m)

No Data / Null
Negligible
Very Low

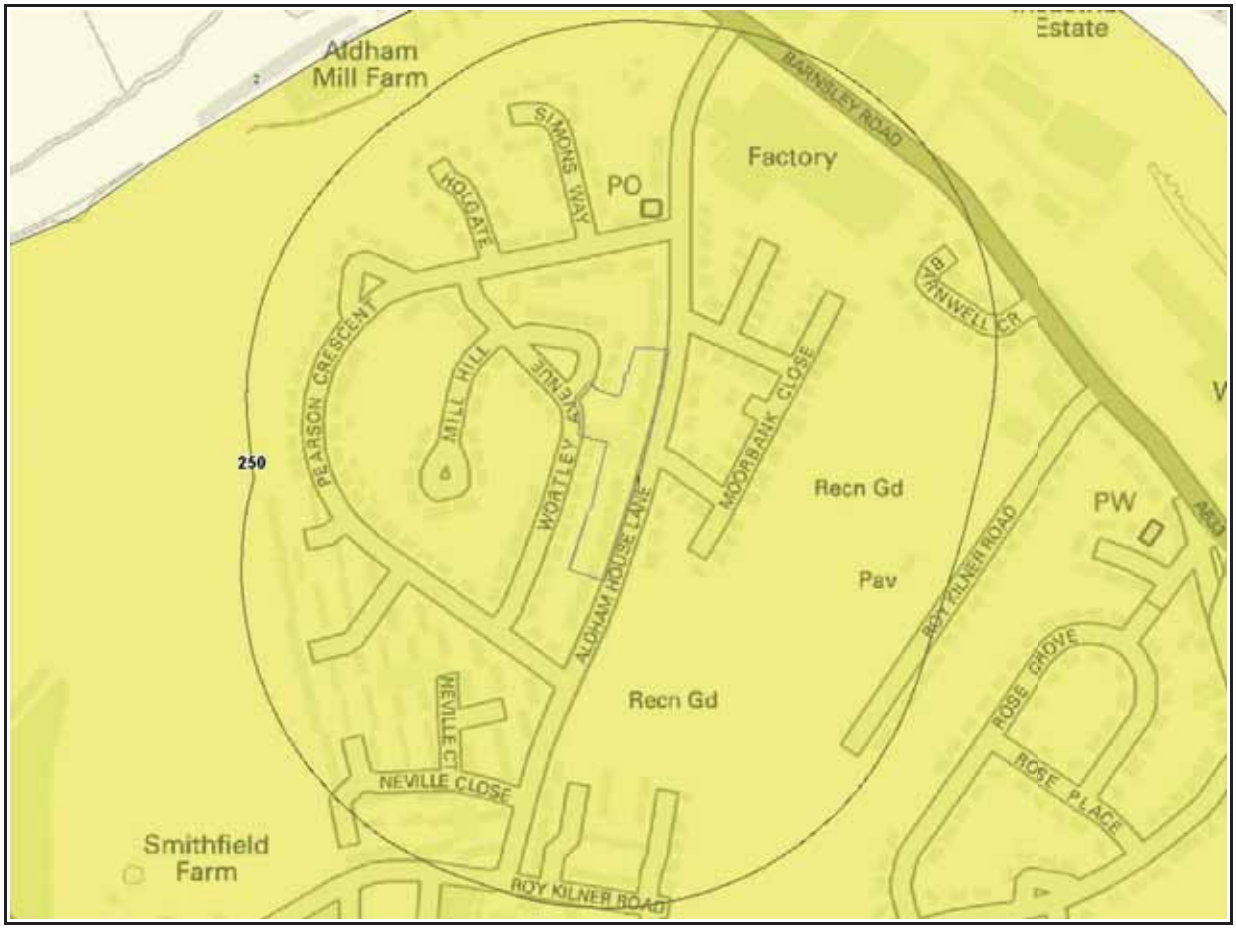
Low
Moderate
High

4.5 Collapsible Deposits Map

NW N NE

W E

SW S SE



Collapsible Deposits Legend

Mapping sourced from Ordnance Survey

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Site Outline

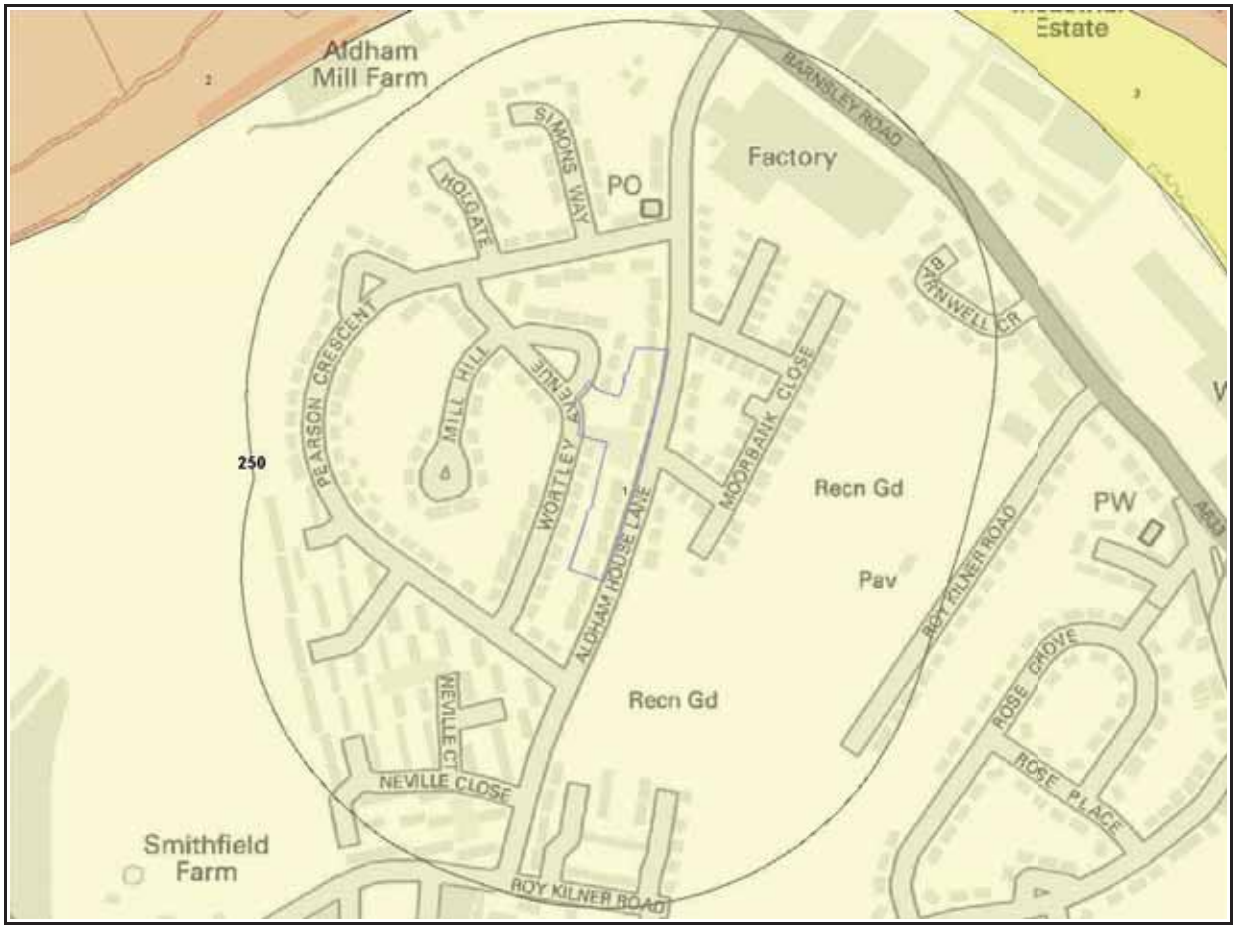
125
250
Search Buffers (m)

No Data / Null
Negligible
Very Low

Low
Moderate
High

4.6 Running Sand Map

NW N NE



W E

SW S SE

Running Sand Legend

Mapping sourced from Ordnance Survey

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Site Outline

125
250
Search Buffers (m)

No Data / Null

Negligible

Very Low

Low

Moderate

High

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.

4.2 Landslides

The following Landslides information provided by the British Geological Survey:

ID	Distance (m)*	Direction	Hazard Rating	Details
1	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.

4.3 Ground Dissolution of Soluble Rocks

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

Distance (m)*	Direction	Hazard Rating	Details
0.0	On site	Null-Negligible	Soluble rocks are not present in the search area. 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 Ground information provided by the British Geological Survey:

ID	Distance (m)*	Direction	Hazard Rating	Details

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

1	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 is 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.

4.6 Running Sands

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

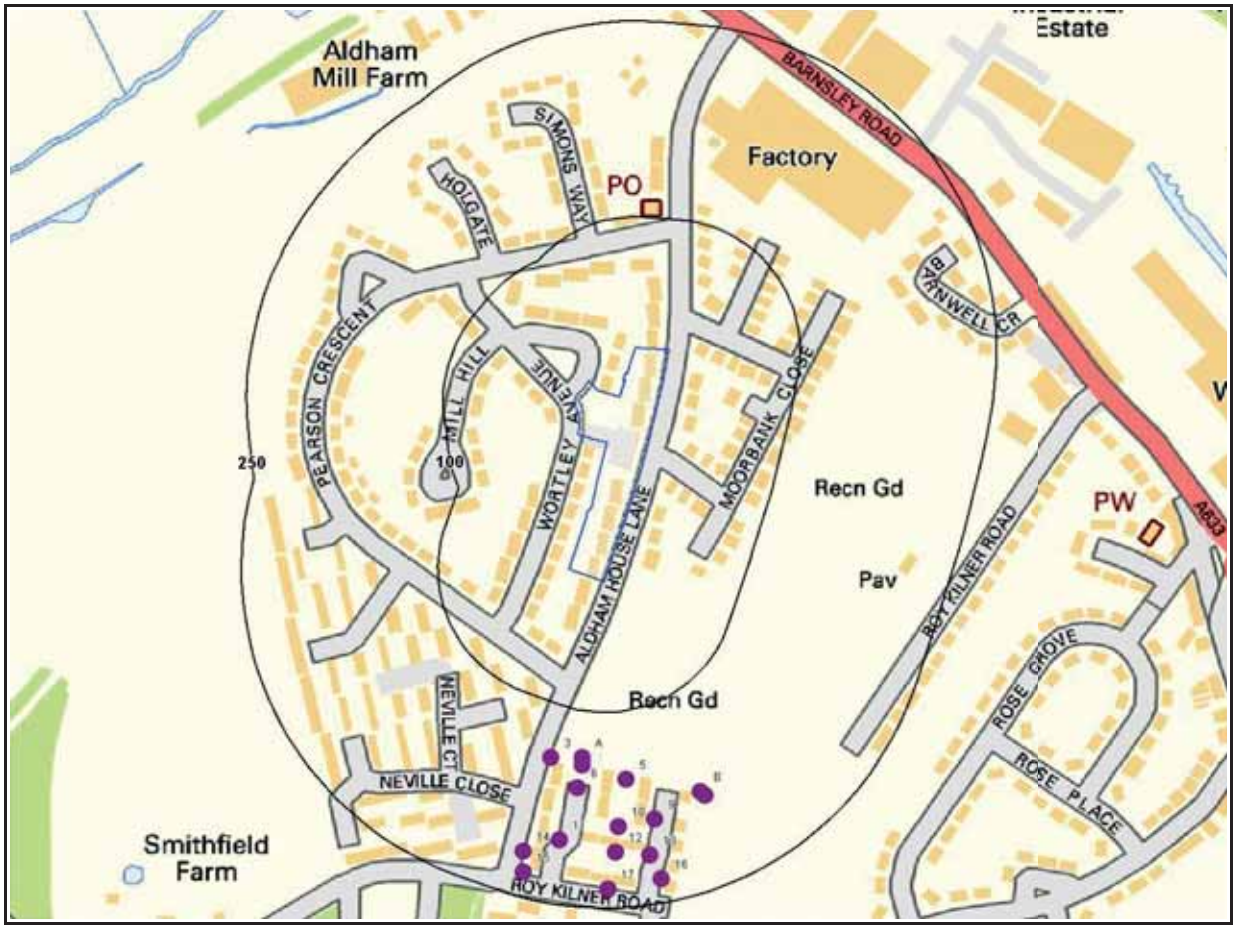
ID	Distance (m)*	Direction	Hazard Rating	Details
1	0.0	On Site	Negligible	No indicators for running sand identified. No special actions required to avoid problems due to running sand. No special ground investigation required, and increased construction costs or increased financial risks are unlikely due to potential problems with running sand.

5. Borehole Records Map

NW N NE

W E

SW S SE



Borehole Records Legend

Mapping sourced from Ordnance Survey

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Site Outline

Borehole Locations

125
250
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: **17**

ID	Distance (m)	Direction	NGR	BGS Reference	Drilled Length (m)	Borehole Name
1A	136.0	S	438716,403705	SE30SE211	-1.0	ROY KILNER ROAD WOMBWELL BARNSLEY TP12
2A	137.0	S	438716,403704	SE30SE197	-1.0	ROY KILNER ROAD WOMBWELL BARNSLEY 4
3	141.0	S	438692,403705	SE30SE210	-1.0	ROY KILNER ROAD WOMBWELL BARNSLEY TP11
4A	142.0	S	438716,403699	SE30SE198	-1.0	ROY KILNER ROAD WOMBWELL BARNSLEY 4a
5	153.0	S	438749,403688	SE30SE206	-1.0	ROY KILNER ROAD WOMBWELL BARNSLEY TP7
6	159.0	S	438712,403682	SE30SE208	-1.0	ROY KILNER ROAD WOMBWELL BARNSLEY TP9
7B	177.0	SE	438806,403679	SE30SE195	-1.0	ROY KILNER ROAD WOMBWELL BARNSLEY 2
8B	181.0	SE	438809,403676	SE30SE203	-1.0	ROY KILNER ROAD WOMBWELL BARNSLEY TP4
9	186.0	S	438771,403658	SE30SE202	-1.0	ROY KILNER ROAD WOMBWELL BARNSLEY TP3
10	188.0	S	438743,403652	SE30SE205	-1.0	ROY KILNER ROAD WOMBWELL BARNSLEY TP6
11	201.0	S	438698,403642	SE30SE207	-1.0	ROY KILNER ROAD WOMBWELL BARNSLEY TP8
12	208.0	S	438741,403632	SE30SE196	-1.0	ROY KILNER ROAD WOMBWELL BARNSLEY 3
13	213.0	S	438767,403630	SE30SE201	-1.0	ROY KILNER ROAD WOMBWELL BARNSLEY TP2
14	216.0	S	438671,403633	SE30SE199	-1.0	ROY KILNER ROAD WOMBWELL BARNSLEY 5
15	231.0	S	438671,403617	SE30SE209	-1.0	ROY KILNER ROAD WOMBWELL BARNSLEY TP10
16	232.0	S	438776,403612	SE30SE194	-1.0	ROY KILNER ROAD WOMBWELL BARNSLEY 1
17	236.0	S	438735,403604	SE30SE204	-1.0	ROY KILNER ROAD WOMBWELL BARNSLEY TP5

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

6.Estimated Background Soil Chemistry

Records of background estimated soil chemistry within 250m of the study site boundary: 2

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

			Estimated Geometric Mean Soil Concentrations (mg/kg)				
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 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. Contacts

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sales@emapsite.com

British Geological Survey Enquiries
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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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British Gypsum Ltd, East Leake, Loughborough, Leicestershire, LE12 6HX
Tel: www.british-gypsum.com

The Coal Authority
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Tel: 0845 762 6848
DX 716176 Mansfield 5 www.coal.gov.uk

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Acknowledgements

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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

4.1The 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

5.1GroundSure 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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GroundSure EnviroInsight

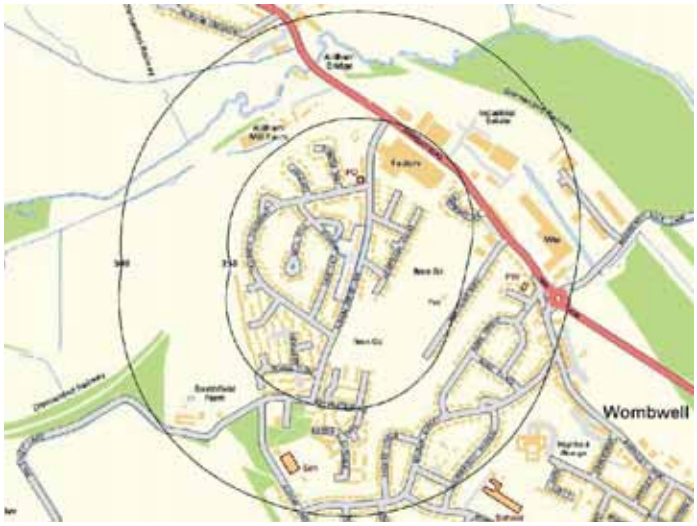
Address: ,

Date: 15 Aug 2013

GroundSure Reference: EMS-216408_285658

Your Reference: EMS_216408_285658

Client: EmapSite



Brought to you by emapsite

Aerial Photograph of Study Site

NW ▲ N NE



◄W E►

SW ▼ S SE

Aerial photography supplied by Getmapping PLC.
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Site Name: ,
Grid Reference: 438743,403938
Size of Site: 0.63 ha

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.

Report Section	Number of records found within (X) m of the study site boundary					
1. Environmental Permits, Incidents and Registers	on-site	0-50	51-250	251-500	501-1000	1000-1500
1.1 Industrial Sites Holding Environmental Permits and/or Authorisations						
Records of historic IPC Authorisations	0	0	0	0	-	-
Records of Part A(1) and IPPC Authorised Activities	0	0	0	0	-	-
Records of Water Industry Referrals (potentially harmful discharges to the public sewer)	0	0	0	0	-	-
Records of Red List Discharge Consents (potentially harmful discharges to controlled waters)	0	0	0	0	-	-
Records of List 1 Dangerous Substances Inventory sites	0	0	0	0	-	-
Records of List 2 Dangerous Substances Inventory sites	0	0	0	1	-	-
Records of Part A(2) and Part B Activities and Enforcements	0	0	0	1	-	-
Records of Category 3 or 4 Radioactive Substances Authorisations	0	0	0	0	-	-
Records of Licensed Discharge Consents	0	0	0	4	-	-
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						
National Incidents Recording System, List 2	0	0	0	-	-	-
National Incidents Recording System, List 1	0	0	0	-	-	-
1.4 Sites Determined as Contaminated Land under Part IIA EPA 1990	0	0	0	0	-	-

2. Landfill and Other Waste Sites	on-site	0-50	51-250	251-500	501-1000	1000-1500
2.1 Landfill Sites						
Environment Agency Registered Landfill Sites	0	0	0	0	0	-
Landfill Data – Operational Landfill Sites	0	0	0	0	0	-
Environment Agency Historic Landfill Sites	0	0	0	0	3	10
Landfill Data – Non-Operational Landfill Sites	0	0	0	0	0	-
BGS/DoE Landfill Site Survey	0	0	0	0	0	2
GroundSure Local Authority Landfill Sites Data	0	0	0	0	0	2
2.2 Landfill and Other Waste Sites Findings						
Operational Waste Treatment, Transfer and Disposal Sites	0	0	0	0	-	-
Non-Operational Waste Treatment, Transfer and Disposal Sites	0	0	0	0	-	-
Environment Agency Licensed Waste Sites	0	0	0	1	0	1

3. Current Land Uses

	on-site	0-50	51-250	251-500	501-1000	1000-1500
3.1 Current Industrial Sites Data	0	0	9	-	-	-
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	-	-

4. Geology

	Description
4.1 Are there any records of Artificial Ground and Made Ground present beneath the study site? *	No
4.2 Are there any records of Superficial Ground and Drift Geology present beneath the study site? *	No
4.3 For records of Bedrock and Solid Geology beneath the study site* see the detailed findings section.	

Source: Scale: 1:50,000 BGS Sheet 087

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

5. Hydrogeology and Hydrology

	on-site	0-50	51-250	251-500	501-1000	1001-2000
5.1 Are there any records of Productive Strata in the Superficial Geology within 500m of the study site?				Yes		
5.2 Are there any records of Productive Strata in the Bedrock Geology within 500m of the study site?				Yes		
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 Are there any Source Protection Zones within 500m of the study site?					No	

5.7 River Quality	on-site	0-50	51-250	251-500	501-1000	1001-1500
Is there any Environment Agency information on river quality within 1500m of the study site?	No	No	No	No	No	No
5.8 Detailed River Network entries within 500m of the site	0	0	0	14	-	-
5.9 Surface water features within 250m of the study site	No	No	No	-	-	-

6. Flooding

6.1 Are there any Environment Agency indicative Zone 2 floodplains within 250m of the study site?	Yes
6.2 Are there any Environment Agency indicative Zone 3 floodplains within 250m of the study site?	Yes
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?	Very Low
6.7 What is the BGS confidence rating for the Groundwater Flooding susceptibility areas?	Low

7. Designated Environmentally Sensitive Sites

	on-site	0-50	51-250	251-500	501-1000	1001-2000
7.1 Records of Sites of Special Scientific Interest (SSSI)	0	0	0	0	0	1
7.2 Records of National Nature Reserves (NNR)	0	0	0	0	0	0

7.1 Records of Sites of Special Scientific Interest (SSSI)	0	0	0	0	0	1
7.3 Records of Local Nature Reserves (LNR)	0	0	0	0	0	0
7.4 Records of Special Areas of Conservation (SAC)	0	0	0	0	0	0
7.5 Records of Special Protection Areas (SPA)	0	0	0	0	0	0
7.6 Records of Ramsar sites	0	0	0	0	0	0
7.7 Records of World Heritage Sites	0	0	0	0	0	0
7.8 Records of Environmentally Sensitive Areas	0	0	0	0	0	0
7.9 Records of Areas of Outstanding Natural Beauty (AONB)	0	0	0	0	0	0
7.10 Records of National Parks	0	0	0	0	0	0
7.11 Records of Nitrate Sensitive Areas	0	0	0	0	0	0
7.12 Records of Nitrate Vulnerable Zones	1	0	0	0	0	1
7.13 Records of Ancient Woodlands	0	0	0	0	0	6

8. Natural Hazards

8.1 What is the maximum risk of natural ground subsidence?	Very Low

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".

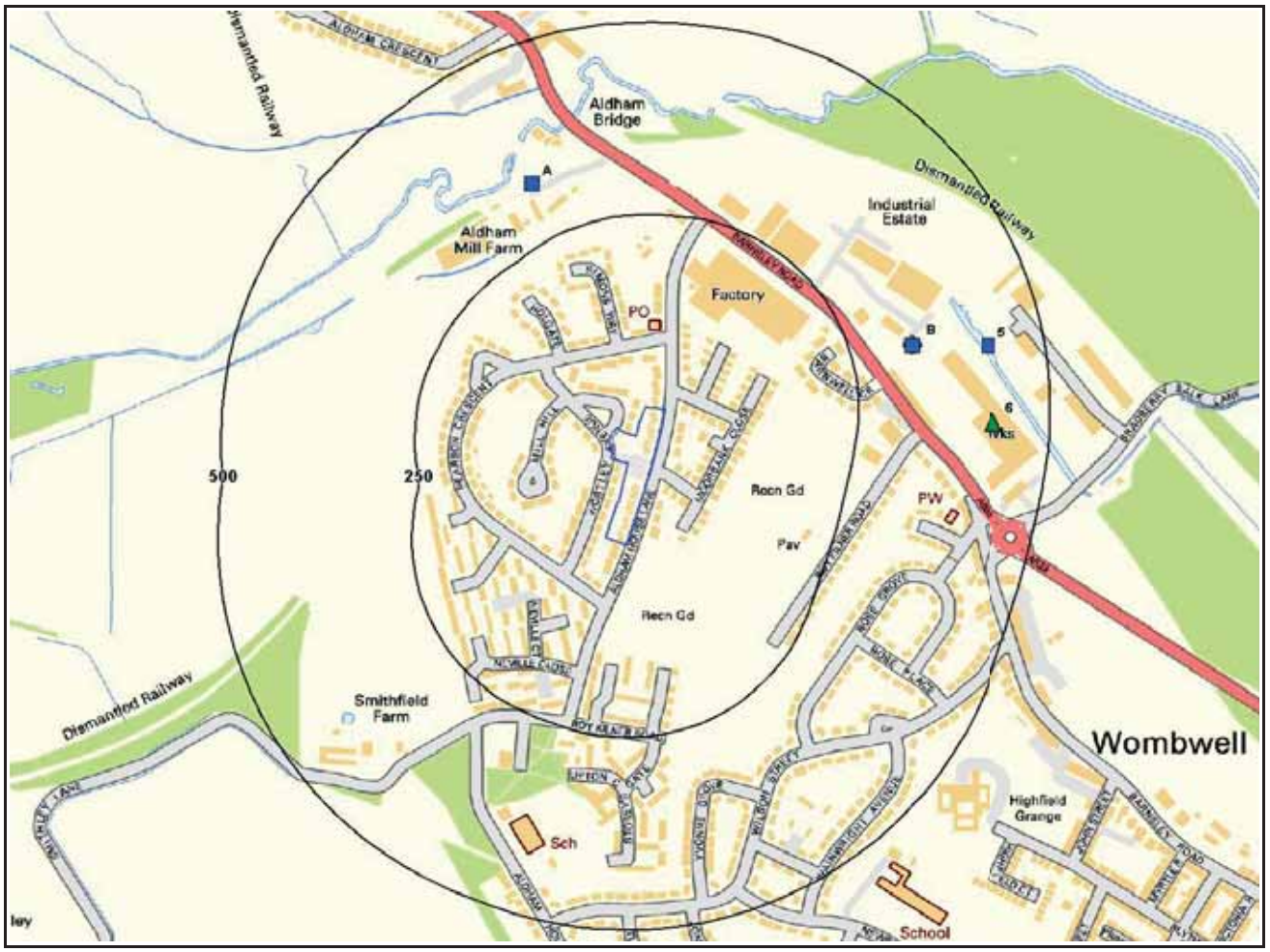
All distances given in this report are in Metres (m). Directions are given as compass headings such as N: North, E: East, NE: North East from the nearest point of the study site boundary.

1. Environmental Permits, Incidents and Registers Map

NW ▲ N NE

◄W E►

SW ▼ S SE



Authorisations,Incidents and Registers Legend

Mapping sourced from Ordnance Survey

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- Site Outline
- Search Buffers (m) — 250 — 500
- Recorded Pollution Incident
- Dangerous Substances (List 1)
- Dangerous Substances (List 2)
- Water Industry Referrals
- Licenced Discharge Consents
- Red List Discharge Consents
- RAS 3 & 4 Authorisations
- Part A(1) Authorised Processes and Historic IPC Authorisations
- Part A(2) and Part B Authorised Processes
- COMAH / NIHHS Sites
- Sites Determined as Contaminated Land
- 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:

Records of historic IPC Authorisations within 500m of the study site: **0**

Database searched and no data found.

Records of Part A(1) and IPPC Authorised Activities within 500m of the study site: **0**

Database searched and no data found.

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.

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.

Records of List 1 Dangerous Substances Inventory Sites within 500m of the study site: **0**

Database searched and no data found.

Records of List 2 Dangerous Substance Inventory Sites within 500m of the study site: **1**

The following List 2 Dangerous Substance Inventory Site records are represented as points on the Authorisations, Incidents and Registers map:

ID	Distance	Direction	NGR	Details	
1B	328.0	E	439100, 404100	Name: British Coal, Mitchells Main Pumping Stn Status: Not Active Receiving Water: River Dearne	Authorised Substances: Iron

Records of Part A(2) and Part B Activities and Enforcements within 500m of the study site: **1**

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

ID	Distance	Direction	NGR	Details

6	424.0	E	439206, 403998	Address: Billington Structures (Wombwell), Barnsley Road, Wombwell, Barnsley S73 8DS Process: Coating & Enamelling Process and Plastic Process Status: Current Permit Permit Type: Part B	Enforcement: No Enforcement Notified Date of Enforcement: No Enforcement Notified Comment: No Enforcement Notified

Records of Category 3 or 4 Radioactive Substance Licences within 500m of the study site: **0**

Database searched and no data found.

Records of Licensed Discharge Consents within 500m of the study site: **4**

The following Licensed Discharge Consents records are represented as points on the Authorisations, Incidents and Registers map:

ID	Distance	Direction	NGR	Details	
2A	325.0	NW	438610, 404310	Address: Properties At Aldham Water Mill, Aldham Farm, Barnsley Road, Wombwell, South Yorkshire Effluent Type: Sewage Discharges - Final/treated Effluent - Not Water Company Permit Number: WRA7726 Permit Version: 2	Receiving Water: Land Status: Varied Under Epr 2010 Issue date: 26/7/2012 Effective Date: 26/7/2012 Revocation Date: -
3A	325.0	NW	438610, 404310	Address: Properties At Aldham Water Mill, Aldham Farm, Barnsley Road, Wombwell, South Yorkshire Effluent Type: Sewage Discharges - Final/treated Effluent - Not Water Company Permit Number: WRA7726 Permit Version: 1	Receiving Water: Land Status: New Consent (wra 91, S88 & Sched 10 As Amended By Env Act 1995) Issue date: 21/5/2001 Effective Date: 21/5/2001 Revocation Date: 25/7/2012
4B	328.0	E	439100, 404100	Address: Mitchells Main Pumping Station, Wombwell, Barnsley, South Yorkshire Effluent Type: Trade Discharges - Unspecified Permit Number: 3756 Permit Version: 1	Receiving Water: - Status: Consent Revoked - Discharge Ceased (wra 91, Sched 10 & 6) Issue date: - Effective Date: - Revocation Date: -
5	426.0	E	439200, 404100	Address: Mitchells Main Pumping Station, Wombwell, Barnsley, South Yorkshire Effluent Type: Trade Discharges - Unspecified Permit Number: 3756 Permit Version: 1	Receiving Water: - Status: Consent Revoked - Discharge Ceased (wra 91, Sched 10 & 6) Issue date: - Effective Date: - Revocation Date: -

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

Records of National Incidents Recording System, List 2 within 250m of the study site: **0**

Database searched and no data found.

Records of National Incidents Recording System, List 1 within 250m of the study site: **0**

Database searched and no data found.

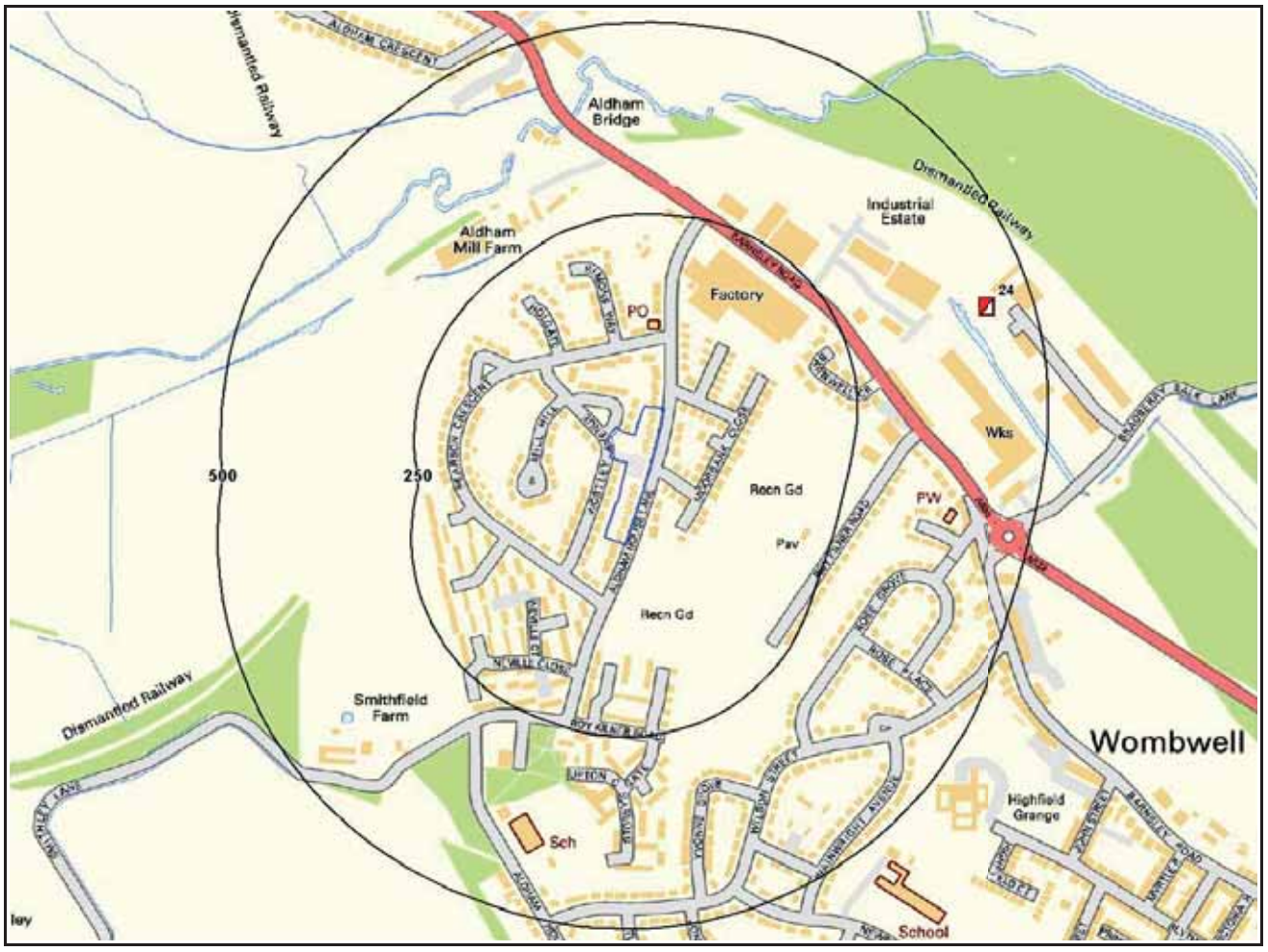
1.4 Sites Determined as Contaminated Land under Part IIA EPA 1990

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

NW N NE



W E

SW S SE

Landfill & Other Waste Sites Legend

Mapping sourced from Ordnance Survey

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- Site Outline
- Search Buffers (m): 250, 500
- E.A. Active Landfill
- E.A. Historic Landfill (Area Data)
- E.A. Historic Landfill (Point Data)
- BGS / DoE Survey Landfill
- Local Authority Landfill (Area Data)
- Local Authority Landfill (Point Data)
- Operational Waste Treatment Licence
- Closed Waste Treatment Licence
- REGIS Waste Licence
- Operational Landfill
- Closed Landfill

2. Landfill and Other Waste Sites

2.1 Landfill Sites

Records from Environment Agency landfill data within 1000m of the study site: 0

Database searched and no data found.

Records of operational landfill sites sourced from Landmark within 1000m of the study site: 0

Database searched and no data found.

Records of Environment Agency historic landfill sites within 1500m of the study site: 13

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

ID	Distance	Direction	NGR	Details	
Not shown	809.0	NW	438100, 404700	Site Address: Disused railway cutting to the rear of 39 Wombell Lane, Stairfoot, Barnsley Waste Licence: Yes Site Reference: 4400/B430, WD20 B430 Waste Type: Inert, Commercial Regis Reference: -	Licence Issue: 16-May-1984 Licence Surrendered: 29-May-1991 Licence Hold Address: 38 Wombwell Lane, Stairfoot, Barnsley Operator: William Gosney Limited
Not shown	980.0	W	437400, 403900	Site Address: C E Medlam, Swaithe House Farm, Worsbrough Dale, Barnsley, South Yorkshire Waste Licence: Yes Site Reference: WD20 B89, 60599, NE4239 Waste Type: Inert, Industrial, Commercial, Household Regis Reference: -	Licence Issue: 28-Feb-1979 Licence Surrendered: 31-Dec-1990 Licence Hold Address: - Operator: Mr C E Medlam
Not shown	997.0	W	437500, 403900	Site Address: Swaithe Tip, Warsborough Dale, Barnsley, Yorkshire Waste Licence: - Site Reference: - Waste Type: Commercial Regis Reference: -	Licence Issue: Licence Surrendered: Licence Hold Address: - Operator: Worsbrough Urban District Council
Not shown	1025.0	NW	438000, 404800	Site Address: Stairfoot Brickworks Quarry, Wombwell Lane, Stairfoot, Barnsley Waste Licence: Yes Site Reference: 2B9, 4400/B9, WD2 B9, WD255 Waste Type: Inert, Industrial, Commercial, Household, Liquid sludge Regis Reference: -	Licence Issue: 17-Jan-1978 Licence Surrendered: 31-Dec-1982 Licence Hold Address: - Operator: Yorkshire Brick Company
Not shown	1079.0	SE	439700, 403300	Site Address: North Ferriby Tip, Church Road, North Ferriby Waste Licence: Yes Site Reference: 55/30/10, 4400/41B61 Waste Type: Inert, Industrial, Commercial, Household Regis Reference: -	Licence Issue: 13-Jul-1995 Licence Surrendered: Licence Hold Address: - Operator: Humberside County Council
Not shown	1125.0	NW	438000, 405000	Site Address: Stairfoot Quarry No.2, Wombwell Lane, Stairfoot, Barnsley Waste Licence: Yes Site Reference: WD2 S9, WD2 B6, 2B6 (2), 4400/B6 Waste Type: Inert, Industrial, Commercial, Household, Special, Liquid sludge Regis Reference: -	Licence Issue: 07-Apr-1982 Licence Surrendered: 31-Dec-1987 Licence Hold Address: - Operator: Barnsley Metropolitan Borough Council

Not shown	1161.0	S	438100, 402600	Site Address: Former Quarry, Off Dovecliffe Road, Wombwell Waste Licence: Yes Site Reference: WD20 S226, 4400/(133) Waste Type: Household Regis Reference: -	Licence Issue: 27-Apr-1978 Licence Surrendered: 22-Mar-1995 Licence Hold Address: Greenland Road Division, Greenland Road, Sheffield Operator: -
Not shown	1164.0	S	438100, 402600	Site Address: Quarry Tip, Wombwell, Barnsley Waste Licence: - Site Reference: - Waste Type: Household Regis Reference: -	Licence Issue: Licence Surrendered: Licence Hold Address: - Operator: Wombwell Urban District Council
Not shown	1213.0	SE	439900, 403200	Site Address: Disused canal between Station Road and Littlefield Road, Wombell, Barnsley Waste Licence: Yes Site Reference: WD2 B19, WD20 B609, 4400/B609, 20B609(56) Waste Type: Inert, Regis Reference: -	Licence Issue: 26-Sep-1988 Licence Surrendered: 22-Apr-1993 Licence Hold Address: Stanney Mill Road, Little Stanney, Chester Operator: Barnsley Metropolitan Borough Council
Not shown	1389.0	SE	440000, 403100	Site Address: Disused Canal between Littlefield Lane and Station Road, Wombwell, Barnsley Waste Licence: Yes Site Reference: WD2 B17, 4400/B17 Waste Type: Inert, Regis Reference: -	Licence Issue: 02-Mar-1988 Licence Surrendered: Licence Hold Address: Public Services Department, Central Offices, Kendray Street, Barnsley Operator: -
Not shown	1400.0	NW	437600, 405300	Site Address: Stairfoot Landfill Site, Stairfoot (North Quarry), Stairfoot, Barnsley Waste Licence: Yes Site Reference: WD2 B20, 4400/B20, WD2 S10, WD20 B772 Waste Type: Inert, Industrial, Commercial, Household, Special, Liquid sludge Regis Reference: -	Licence Issue: 03-Dec-1986 Licence Surrendered: 31-Dec-1990 Licence Hold Address: Cleansing Division, Smithies Lane, Barnsley Operator: Barnsley Metropolitan Borough Council
Not shown	1400.0	NW	437600, 405200	Site Address: Stairfoot Brickworks, North Quarry Phase 2, Wombwell Lane, Stairfoot Waste Licence: Yes Site Reference: 4400/B266, 20B266, 20B772, WD2 B21, CD2, WD20 B772 Waste Type: Industrial, Commercial, Household Regis Reference: -	Licence Issue: 17-Jul-1991 Licence Surrendered: Licence Hold Address: Public Services Department, Cleansing Division, Smithies Lane, Barnsley Operator: -
Not shown	1463.0	W	437100, 403200	Site Address: Dovecliffe Quarry, Wombwell Wood, Blacker Hill, Barnsley Waste Licence: Yes Site Reference: 4400/B2, 2B2(8), WD2 B2 Waste Type: Inert, Industrial, Commercial, Household, Liquid sludge Regis Reference: -	Licence Issue: 03-Nov-1976 Licence Surrendered: 31-Dec-1982 Licence Hold Address: - Operator: Barnsley Metropolitan Borough Council

Records of non-operational landfill sites sourced from Landmark within 1000m of the study site: 0

Database searched and no data found.

Records of BGS/DoE non-operational landfill sites within 1500m of the study site: 2

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

ID	Distance	Direction	NGR	Details	
Not shown	1207.0	W	437500.0,403900.0	Address: Swaithe Tip, Warsborough Dale, Barnsley, Yorks BGS Number: 2630.0	Risk: No risk to aquifer Waste Type: N/A
Not shown	1256.0	SW	438200.0,402700.0	Address: Quarry Tip, Wombwell Wood, S. Yorks BGS Number: 183.0	Risk: Risk to major aquifer Waste Type: N/A

Records of Local Authority landfill sites within 1500m of the study site: **2**

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

ID	Distance	Direction	Site Address	Source	Data Type
Not shown	1409.0	NW	Refuse Tip	1990 mapping	Polygon
Not shown	1410.0	NW	Refuse Tip	1995 mapping	Polygon

2.2 Other Waste Sites

Records of operational waste treatment, transfer or disposal sites within 500m of the study site: **0**

Database searched and no data found.

Records of non-operational waste treatment, transfer or disposal sites within 500m of the study site: **0**

Database searched and no data found.

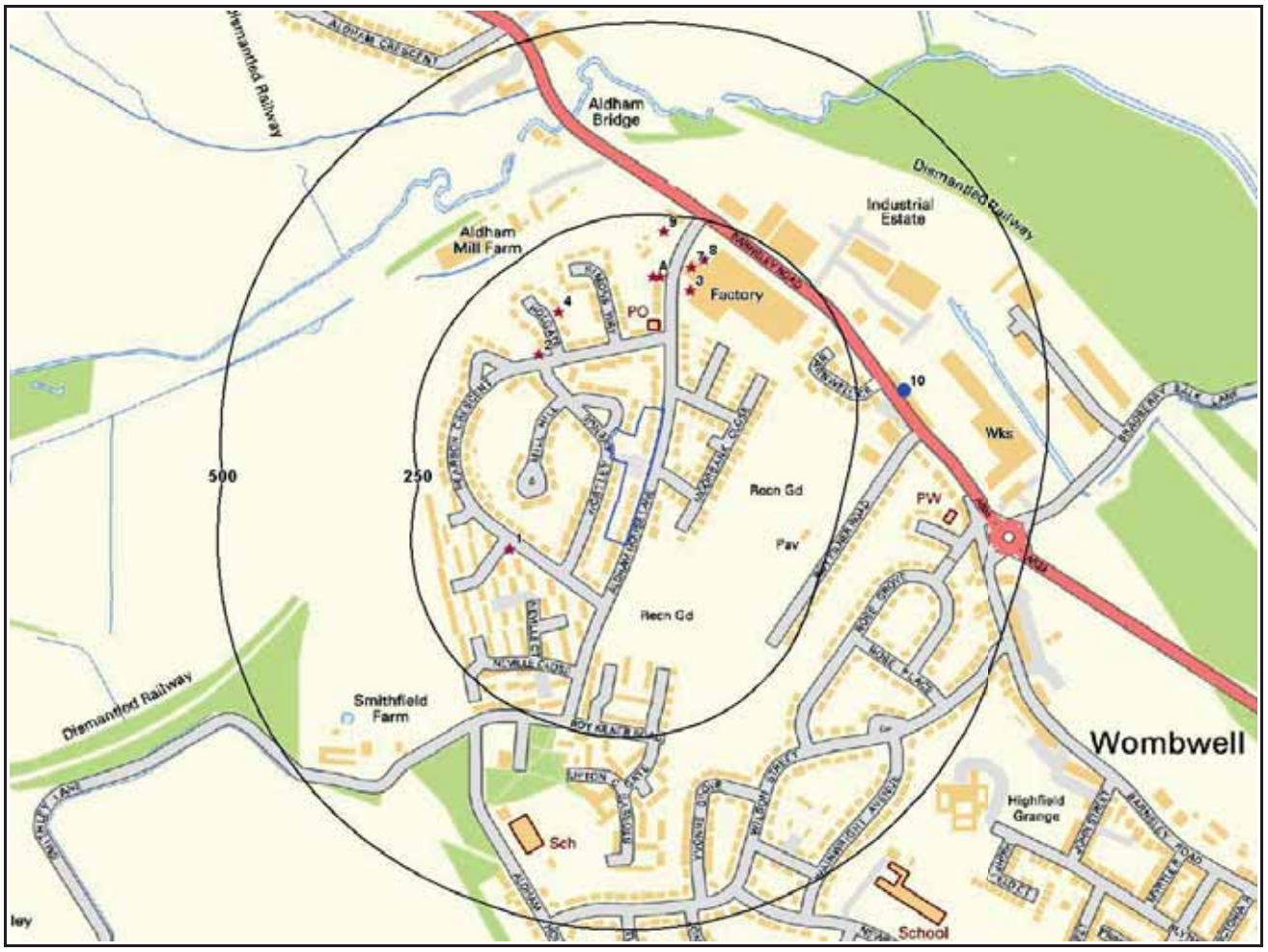
Records of Environment Agency licensed waste sites within 1500m of the study site: **2**

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

ID	Distance	Direction	NGR	Details	
24	438.0	E	439200, 404150	Site Address: Mitchell's Enterprise Park, Bradbury Balk Lane, Wombwell, Barnsley, South Yorks, S73 8HR Type: Physical Treatment Facility Size: >= 25000 tonnes < 75000 tonnes Regis Licence Number: CUL008 EPR reference: EA/EPR/CB3635RY/A001 Operator: G B Cullet Ltd Waste Management licence No: 103467 Annual Tonnage: 60000.0	Issue Date: 28/02/2013 Effective Date: - Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Issued Site Name: The Cullet Yard Correspondence Address: -, -
Not shown	1117.0	W	437600, 404100	Site Address: Swaithe House Farm, Worsbrough Dale, Barnsley, S Yorks, S70 3QF Type: Household, Commercial & Industrial Waste Landfill Size: >= 75000 tonnes Regis Licence Number: MED001 EPR reference: - Operator: Medlam C E Waste Management licence No: 60599 Annual Tonnage: 0.0	Issue Date: 28/02/1979 Effective Date: - Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Issued Site Name: C E Medlam Correspondence Address: -, Swaithe House Farm, Worsbrough Dale, Barnsley, S Yorks, S70 3QF

3. Current Land Use Map

NW N NE



W E

S

SW SE

Current Land Use Legend

Mapping sourced from OS Ordnance Survey

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Site Outline

250 500 Search Buffers (m)

Current Industrial Sites

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: 9

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

ID	Distance	Direction	Company	Address	Activity	Category
1	124.0	W	Electricity Sub Station	S73	Electrical Features	Infrastructure and Facilities
2	137.0	NW	Electricity Sub Station	S73	Electrical Features	Infrastructure and Facilities
3	157.0	N	Tank	S73	Tanks (Generic)	Industrial Features
4	167.0	NW	Beedan Camm Scaffolding	4, Holgate, Wombwell, Barnsley, S73 8SL	Construction and Tool Hire	Hire Services
5A	169.0	N	Gas Governor	S73	Gas Features	Infrastructure and Facilities
6A	170.0	N	Gas Governor Station	S73	Gas Features	Infrastructure and Facilities
7	187.0	N	Tank	S73	Tanks (Generic)	Industrial Features
8	200.0	N	Electricity Sub Station	S73	Electrical Features	Infrastructure and Facilities
9	229.0	N	Electricity Sub Station	S73	Electrical Features	Infrastructure and Facilities

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	Direction	NGR	Company	Address	LPG	Status
10	311.0	E	439092, 404041	Obsolete	Dixon, Barnsley Road, Barnsley Road, Wombwell, Barnsley, South Yorkshire, S73 8DU	Not Applicable	Obsolete

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

Database searched and no data found.

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

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
OR-SDST	OAKS ROCK	SANDSTONE
OR-SDST	OAKS ROCK	SANDSTONE

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

For more detailed geological and ground stability data please refer to the "GroundSure GeoInsight". Available from our website.

5a. Hydrogeology - Aquifer Within Superficial Geology

NW N NE

W E

SW S SE



Aquifer Within Superficial Geology Legend

Mapping sourced from Ordnance Survey

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Site Outline

250
500
Search Buffers (m)

Principal Aquifer

Secondary (A) Aquifer - Permeable Layers

Secondary (B) Aquifer - Lower Permeability Layers

Secondary Aquifer - Undifferentiated Layers

Unproductive

Unknown (lakes and landslip)

5b. Hydrogeology - Aquifer Within Bedrock Geology and Abstraction Licenses

NW N NE



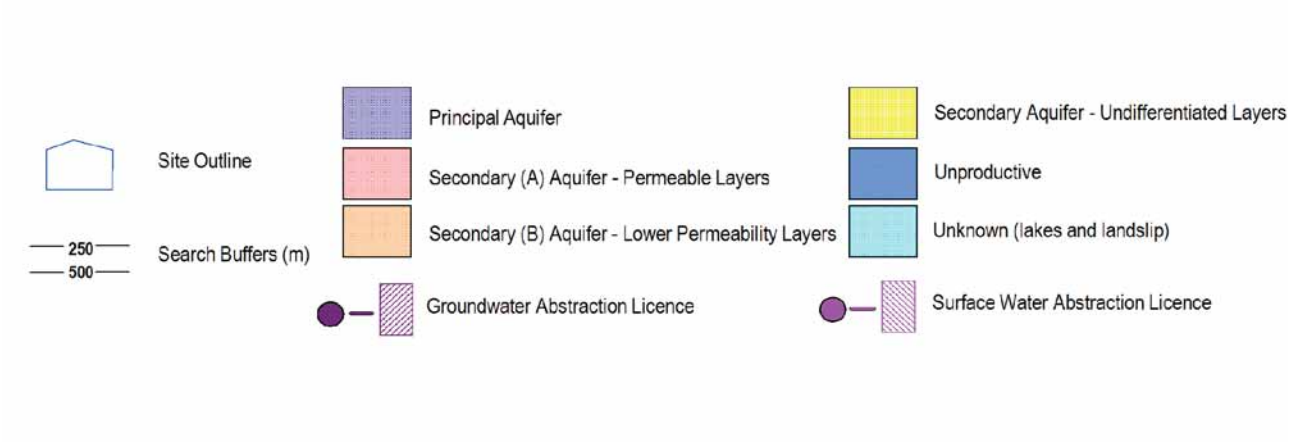
W E

SW S SE

Aquifer Within Bedrock Geology Legend

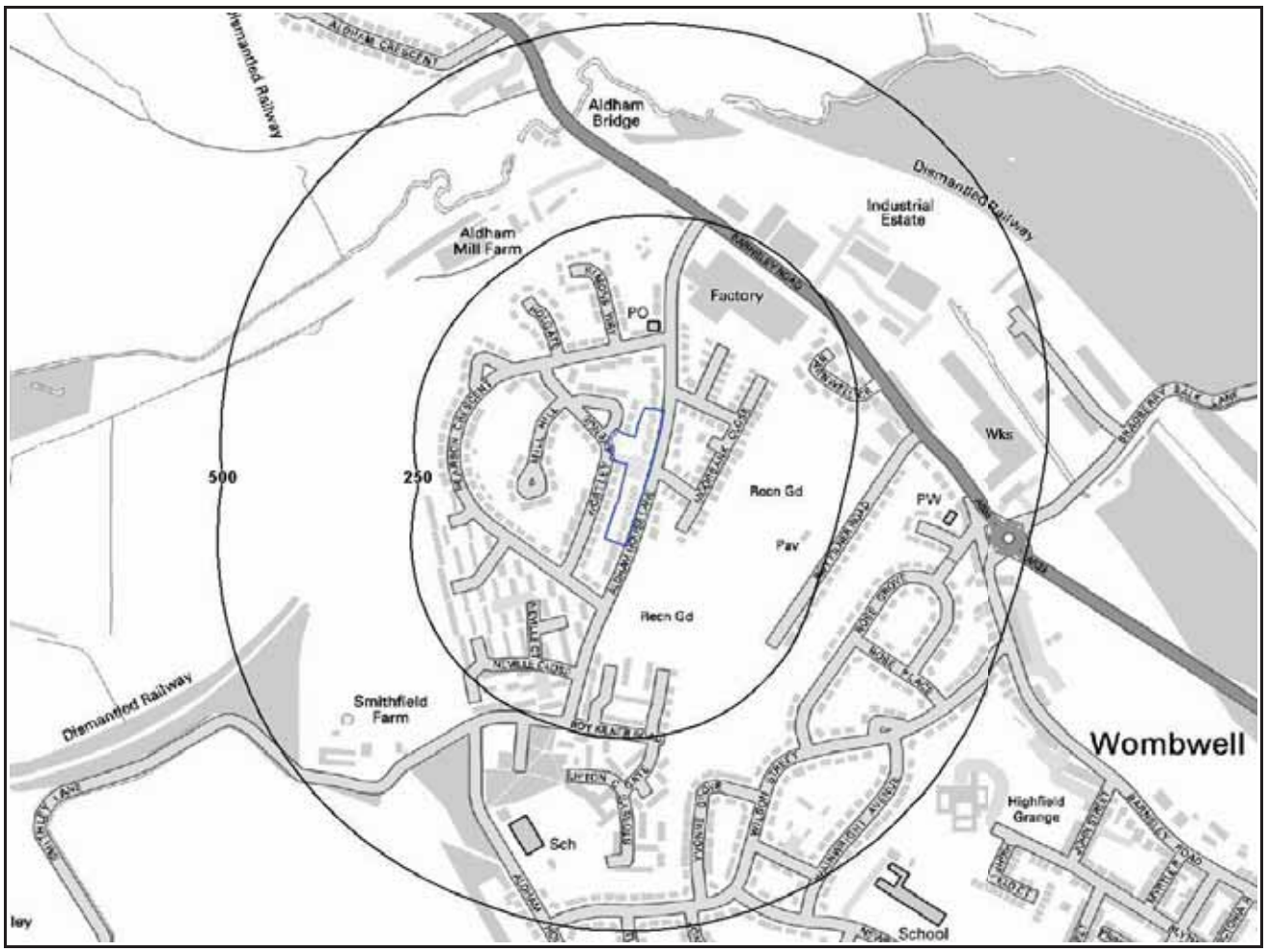
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5c. Hydrogeology – Source Protection Zones and Potable Water Abstraction Licenses

NW N NE

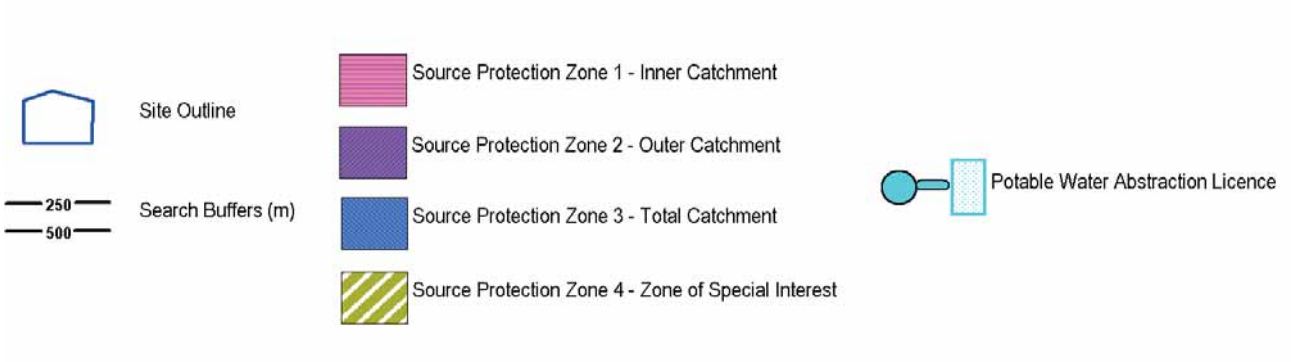


W E

SW S SE

SPZ and Potable Water Abstraction Licenses
Legend

Mapping sourced from Ordnance Survey
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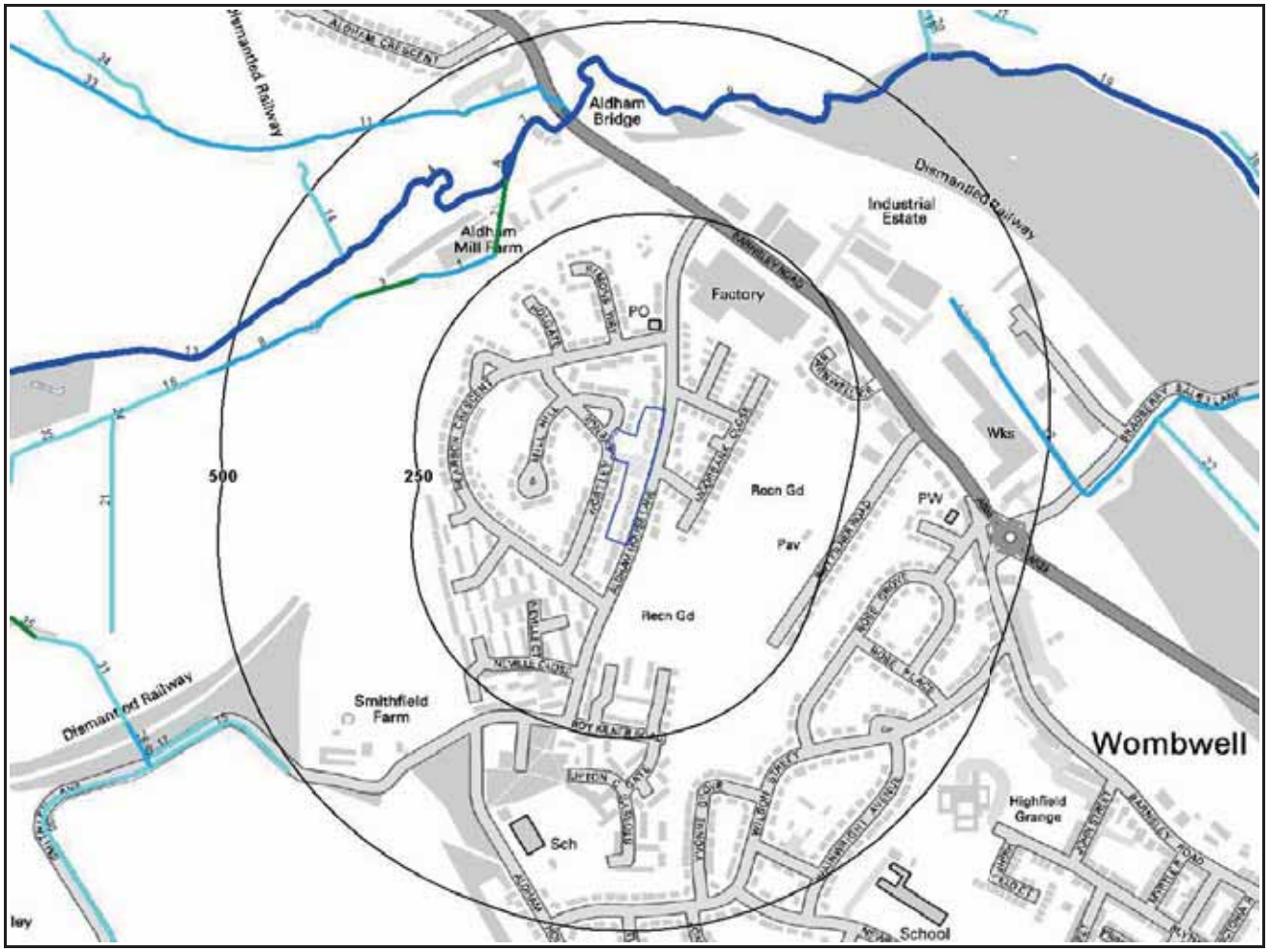


5d. Hydrology – Detailed River Network and River Quality

NW N NE

W E

SW S SE



Hydrology Legend

Mapping sourced from Ordnance Survey

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- Site Outline
- 250 / 500 Search Buffers (m)
- Primary River
- Secondary River
- Tertiary River
- Lake/Reservoir
- Underground River (inferred)
- General Quality Assessment: Chemistry
- Canal
- Canal Tunnel
- Extended Culvert (greater than 50m)
- D/S of High Water Mark
- D/S seaward extension
- General Quality Assessment: Biology

5.Hydrogeology and Hydrology

5.1 Aquifer within Superficial Deposits

Are there records of productive strata within the superficial 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 Superficial Geology Map (5a):

ID	Distance [m]	Direction	Designation	Description
1	303.0	N	Secondary A	Permeable layers capable of supporting water supplies at a local rather than strategic scale, and in some cases forming an important source of base flow to rivers. These are generally aquifers formerly classified as minor aquifers

5.2 Aquifer within Bedrock Deposits

Are there records of productive strata 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

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	Direction	NGR	Details	
Not shown	1128.0	N		Licence No: 2/27/08/029 Details: General Farming & Domestic Direct Source: Groundwaters Point: Spring No2 - Low Laithes Data Type: Point	Annual Volume (m³): - Max Daily Volume (m³): - Original Application No: 01449 Original Start Date: 20/1/1966 Expiry Date: - Issue No: 100 Version Start Date: 9/1/1990 Version End Date:

Not shown	1128.0	N	Licence No: 2/27/08/029 Details: General Farming & Domestic Direct Source: Groundwaters Point: Spring No2 Data Type: Point	Annual Volume (m³): - Max Daily Volume (m³): - Original Application No: 01449 Original Start Date: 20/1/1966 Expiry Date: - Issue No: 100 Version Start Date: 9/1/1990 Version End Date:
Not shown	1586.0	N	Licence No: 2/27/08/029 Details: General Farming & Domestic Direct Source: Groundwaters Point: Spring No1 Data Type: Point	Annual Volume (m³): - Max Daily Volume (m³): - Original Application No: 01449 Original Start Date: 20/1/1966 Expiry Date: - Issue No: 100 Version Start Date: 9/1/1990 Version End Date:
Not shown	1586.0	N	Licence No: 2/27/08/029 Details: General Farming & Domestic Direct Source: Groundwaters Point: Spring No1 - Low Laithes Data Type: Point	Annual Volume (m³): - Max Daily Volume (m³): - Original Application No: 01449 Original Start Date: 20/1/1966 Expiry Date: - Issue No: 100 Version Start Date: 9/1/1990 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	Direction	NGR	Details	
Not shown	1907.0	W	436550, 403450	Licence No: 2/27/08/128 Details: Make-Up or Top Up Water Direct Source: Surface Water Point: Inland Water - River Dove Data Type: Line	Annual Volume (m³): - Max Daily Volume (m³): - Application No: 8024 Original Start Date: 13/9/2002 Expiry Date: 31/3/2017 Issue No: 1 Version Start Date: 13/9/2002 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 River Quality

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

Biological Quality:

Database searched and no data found.

Chemical Quality:

Database searched and no data found.

5.8 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	Direction		Details
1	273.0	NW	River Name: Drain Water Course Name: - Welsh River Name: - Alternative Name: -	River Type: Secondary River Catchment: - Drain: YES Main River Status: Currently Undefined
2	276.0	NW	River Name: - Water Course Name: - Welsh River Name: - Alternative Name: -	River Type: Extended Culvert (greater than 50m) Catchment: - Drain: NO Main River Status: Currently Undefined
3	322.0	NW	River Name: - Water Course Name: - Welsh River Name: - Alternative Name: -	River Type: Extended Culvert (greater than 50m) Catchment: - Drain: NO Main River Status: Currently Undefined
4	344.0	NW	River Name: - Water Course Name: - Welsh River Name: - Alternative Name: -	River Type: Primary River Catchment: - Drain: NO Main River Status: Currently Undefined
5A	348.0	NW	River Name: - Water Course Name: - Welsh River Name: - Alternative Name: -	River Type: Primary River Catchment: - Drain: NO Main River Status: Currently Undefined
6A	348.0	NW	River Name: - Water Course Name: - Welsh River Name: - Alternative Name: -	River Type: Primary River Catchment: - Drain: NO Main River Status: Currently Undefined
7	369.0	NW	River Name: - Water Course Name: - Welsh River Name: - Alternative Name: -	River Type: Primary River Catchment: - Drain: NO Main River Status: Currently Undefined
8	376.0	NW	River Name: Drain Water Course Name: - Welsh River Name: - Alternative Name: -	River Type: Secondary River Catchment: - Drain: YES Main River Status: Currently Undefined
9	381.0	N	River Name: River Dove Water Course Name: RIVER DOVE Welsh River Name: - Alternative Name: -	River Type: Primary River Catchment: - Drain: NO Main River Status: Currently Undefined
10	382.0	N	River Name: - Water Course Name: RIVER DOVE Welsh River Name: - Alternative Name: -	River Type: Primary River Catchment: - Drain: NO Main River Status: Currently Undefined
11	389.0	N	River Name: - Water Course Name: - Welsh River Name: - Alternative Name: -	River Type: Secondary River Catchment: - Drain: NO Main River Status: Currently Undefined
12	395.0	E	River Name: Canal (disused) Water Course Name: - Welsh River Name: - Alternative Name: -	River Type: Secondary River Catchment: - Drain: NO Main River Status: Currently Undefined
13	413.0	NW	River Name: River Dove Water Course Name: - Welsh River Name: - Alternative Name: -	River Type: Primary River Catchment: - Drain: NO Main River Status: Currently Undefined

14	413.0	NW	River Name: Drain Water Course Name: - Welsh River Name: - Alternative Name: -	River Type: Tertiary River Catchment: - Drain: YES Main River Status: Currently Undefined

5.9 Surface Water Features

Are there any surface water features within 250m of the study site? **No**

Database searched and no data found.

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6. Environment Agency Flood Map

NW ▲ N NE

◄W E►

SW ▼ S SE



Environment Agency Flood Legend

Mapping sourced from Ordnance Survey

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Site Outline

250 / 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

Zone 2 floodplain estimates the annual probability of flooding as one in one thousand (0.1%) or greater from rivers and the sea but less than 1% from rivers or 0.5% from the sea. Alternatively, where information is available they may show the highest known flood level.

Is the site within 250m of an Environment Agency indicative Zone 2 floodplain? **Yes**

The following floodplain records are represented as green shading on the Flood Map:

ID	Distance	Direction	Update	Type
1	174.0	NE	27-Jun-2013	Zone 2 - (Fluvial Models)

6.2 Zone 3 Flooding

Zone 3 estimates the annual probability of flooding as one in one hundred (1%) or greater from rivers and a one in two hundred (0.5%) or greater from the sea. Alternatively, where information is available they may show the highest known flood level.

Is the site within 250m of an Environment Agency indicative Zone 3 floodplain? **Yes**

The following floodplain records are represented as blue shading on the Flood Map:

ID	Distance	Direction	Update	Type
10	184.0	N	27-Jun-2013	Zone 3 - (Fluvial Models)

6.3 Flood Defences

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

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 used for Flood Storage

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

6.6 Groundwater Flooding Susceptibility Areas

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

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

6.7 Groundwater Flooding Confidence Areas

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

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

NW ▲ N NE



◄W E►

SW ▼ S SE

Designated Environmentally Sensitive Sites Legend

Mapping sourced from Ordnance Survey

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- Site Outline
- SAC
- SSSI
- NNR
- World Heritage Sites
- SPA
- Ramsar
- LNR
- Environmentally Sensitive Areas
- Areas of Outstanding Natural Beauty
- 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**

Records of Sites of Special Scientific Interest (SSSI) within 2000m of the study site: **1**

The following Site of Special Scientific Interest (SSSI) 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	Direction	SSSI Name	Data Source
1	1012.0	NW	Stairfoot Brickworks	Natural England

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

Database searched and no data found.

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

Database searched and no data found.

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

Database searched and no data found.

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

Database searched and no data found.

Records of Local Nature Reserves (LNR) within 2000m of the study site: **0**

Database searched and no data found.

Records of World Heritage Sites within 2000m of the study site: **0**

Database searched and no data found.

Records of Environmentally Sensitive Areas within 2000m of the study site: **0**

Database searched and no data found.

Records of Areas of Outstanding Natural Beauty (AONB) within 2000m of the study site: **0**

Database searched and no data found.

Records of National Parks (NP) within 2000m of the study site: **0**

Database searched and no data found.

Records of Nitrate Sensitive Areas within 2000m of the study site: **0**

Database searched and no data found.

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	Direction	NVZ Type	Data Source
2	0.0	On Site	NVZ Area	DEFRA
3	1218.0	E	NVZ Area	DEFRA

Records of Ancient Woodland within 2000m of the study site: **6**

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	Direction	Ancient Woodland Name	Type
Not shown	1159.0	S	WOMBWELL WOOD	Ancient and Semi-Natural Woodland
5	1282.0	SW	WOMBWELL WOOD	Ancient Replanted Woodland
6	1306.0	SW	WOMBWELL WOOD	Ancient and Semi-Natural Woodland
7	1317.0	SW	WOMBWELL WOOD	Ancient Replanted Woodland
Not shown	1504.0	S	WOMBWELL WOOD SOUTH	Ancient and Semi-Natural Woodland
Not shown	1913.0	S	WOMBWELL WOOD SOUTH	Ancient and Semi-Natural Woodland

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? **Negligible**

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

Hazard
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.

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.

8.1.3 Soluble Rocks

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

Soluble rocks are not present in the search area. 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? **Negligible**

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

Hazard
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.

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.

8.1.6Running Sand

What is the maximum Running Sand* 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
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.

* 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.

10.Contacts

EmapSite
Telephone: 0118 9736883
sales@emapsite.com

British Geological Survey (England & Wales)
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

Health Protection Agency
Chilton, Didcot, Oxon, OX11 0RQ
Tel: 01235 822622 www.hpa.org.uk/radiation
Radon measures and general radon information and guidance

The Coal Authority
200 Lichfield Lane, Mansfield, Notts NG18 4RG
Tel: 0845 762 6848
DX 716176 Mansfield 5
Web: www.groundstability.com

Ordnance Survey
Romsey Road
Southampton SO16 4GU
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

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

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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

3.1The 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

4.1The 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

5.1GroundSure 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

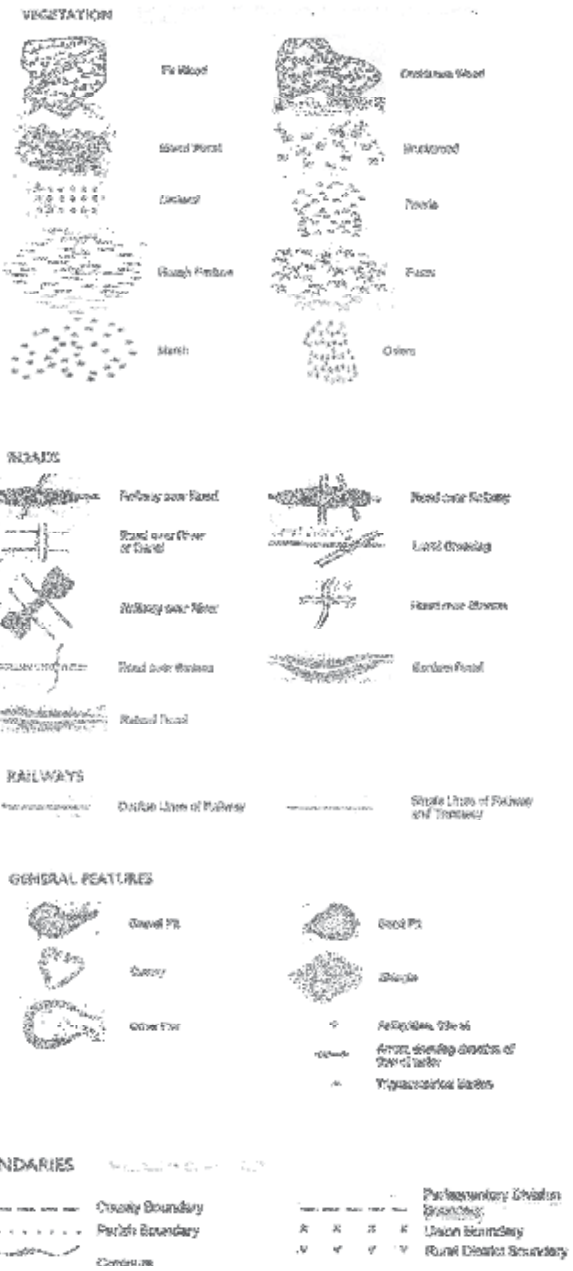
10.1 Upon termination of the Contract:
(i) GroundSure shall take steps to bring to an end the Services in an orderly manner, vacate any Site with all reasonable speed and shall deliver to the Client and/or Beneficiary any property of the Client and/or Beneficiary in GroundSure's possession or control;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

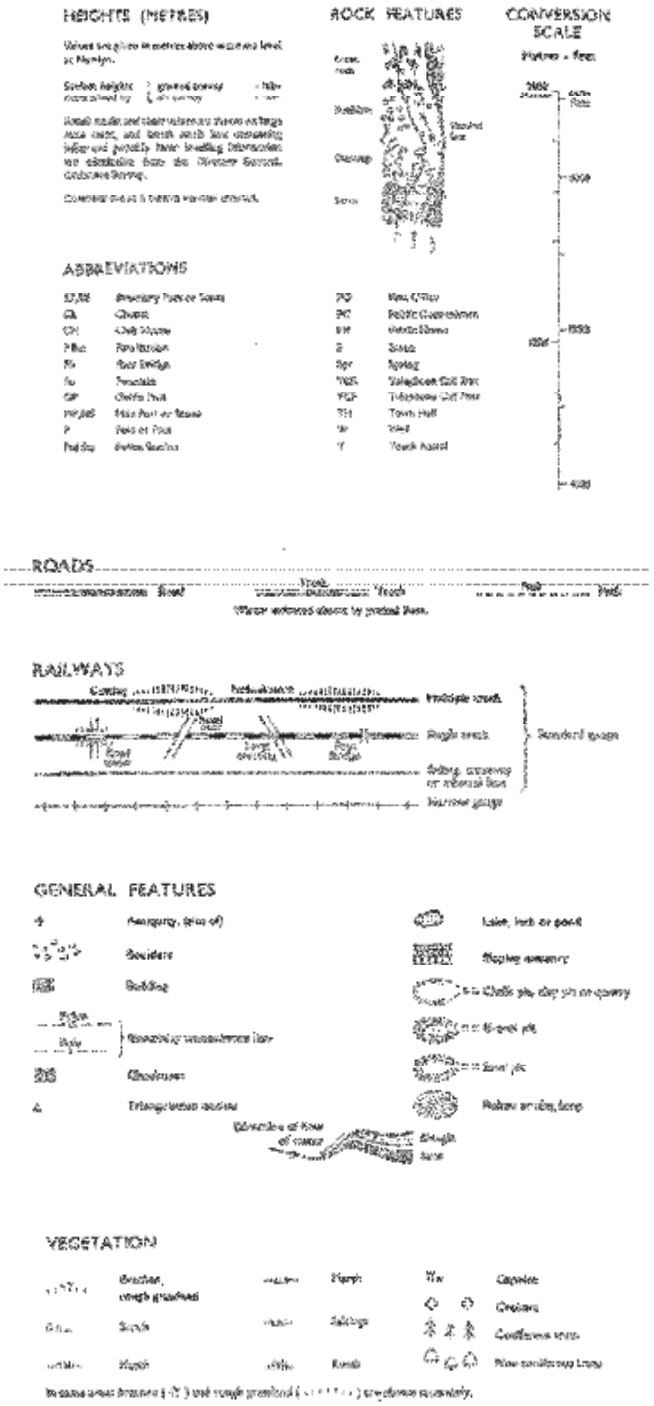
12.1 The Mapping contained in the Services is protected by Crown copyright and must not be used for any purpose other than as part of the Services or as specifically provided in the Contract.
12.2 The Client shall be permitted to make one copy only of each Report or Mapping Order. Thereafter the Client 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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County Series 1:10,560 scale



National Grid 1:10,000 scale



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.

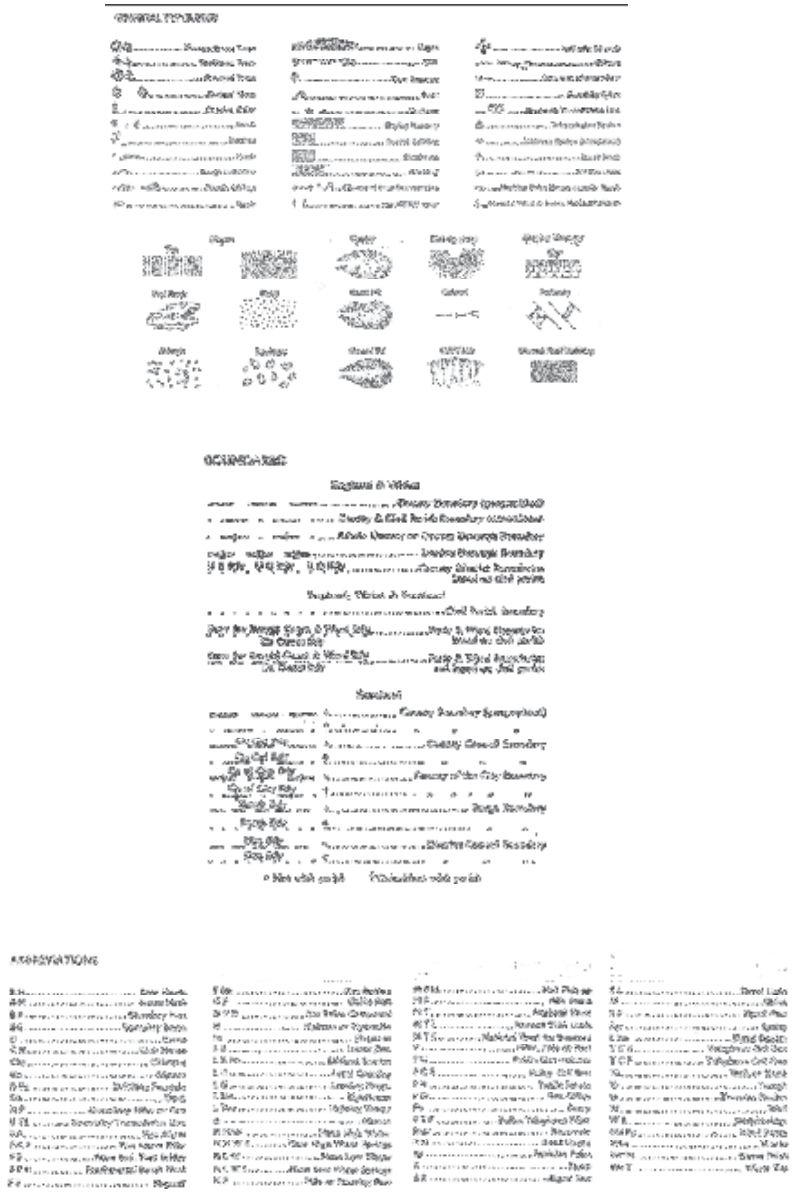
Technical Helpline

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

County Series 1:2,500 scale



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



GroundSure

Historical Map Pack Legend

County Series

1:1,250 scale

~

County Series & National Grid

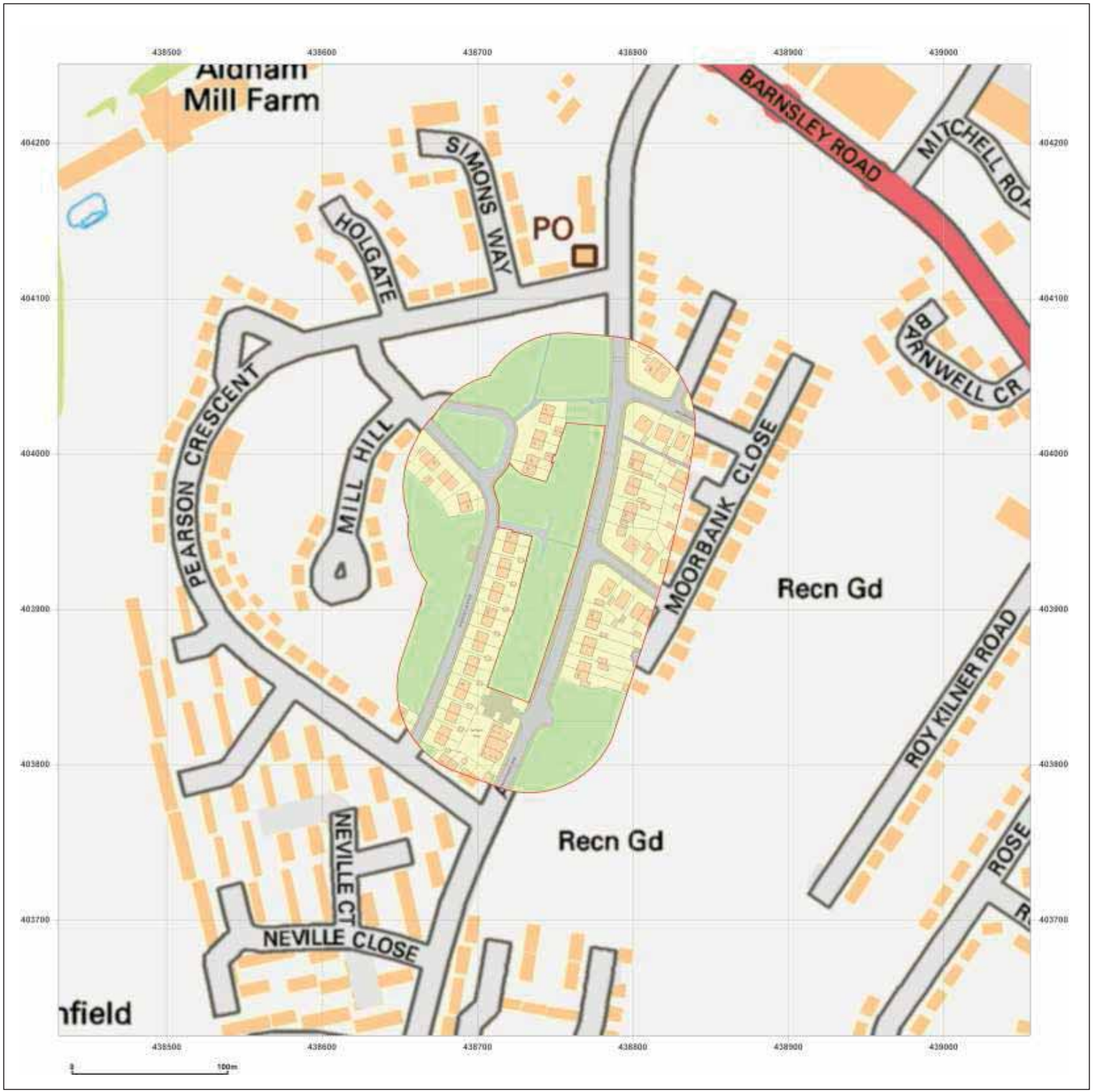
1:2,500 scale

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Technical Helpline:

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



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Site Details:

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Client Ref: EMS_216408_285656
Report Ref: EMS-216408_285656
Grid Ref: 438743, 403938

Map Name: MasterMap
Map date: 2012
Scale: 1:1,250
Printed at: 1:2,500





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Site Details:

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Client Ref: EMS_216408_285656
Report Ref: EMS-216408_285656
Grid Ref: 438743, 403938

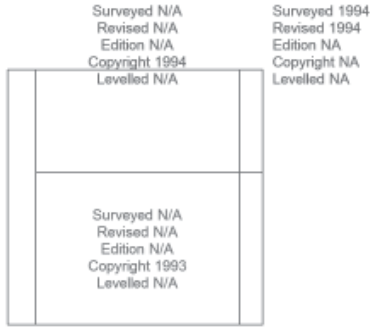
Map Name: National Grid

Map date: **1993-1994**

Scale: 1:1,250

Printed at: 1:2,500





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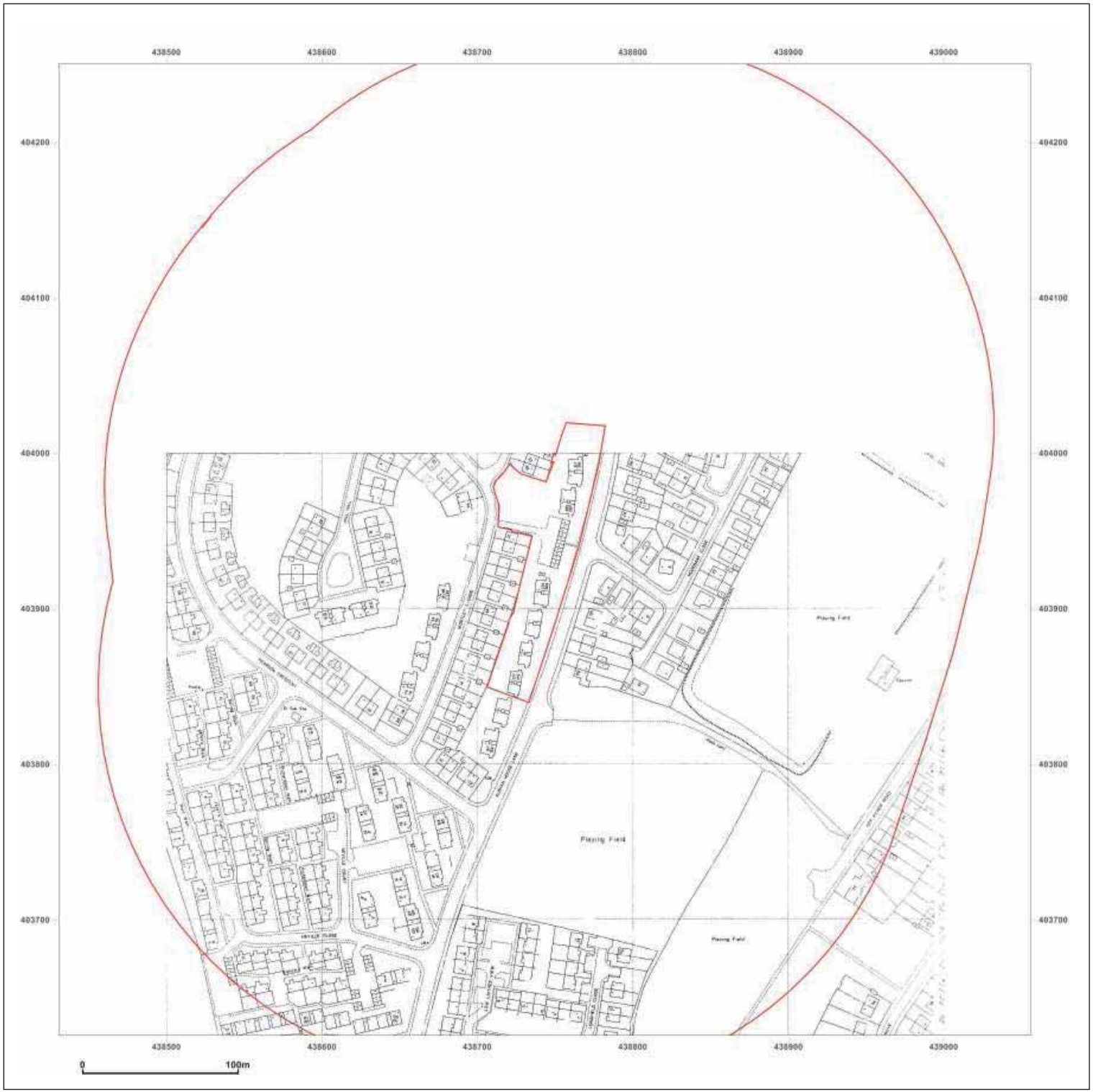
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Site Details:

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Client Ref: EMS_216408_285656
Report Ref: EMS-216408_285656
Grid Ref: 438743, 403938

Map Name: National Grid
Map date: **1994**
Scale: 1:1,250
Printed at: 1:2,500

Surveyed N/A
Revised N/A
Edition N/A
Copyright 1994
Levelled N/A

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Site Details:

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Client Ref: EMS_216408_285656
Report Ref: EMS-216408_285656
Grid Ref: 438743, 403938

Map Name: National Grid
Map date: **1993**
Scale: 1:1,250
Printed at: 1:2,500

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

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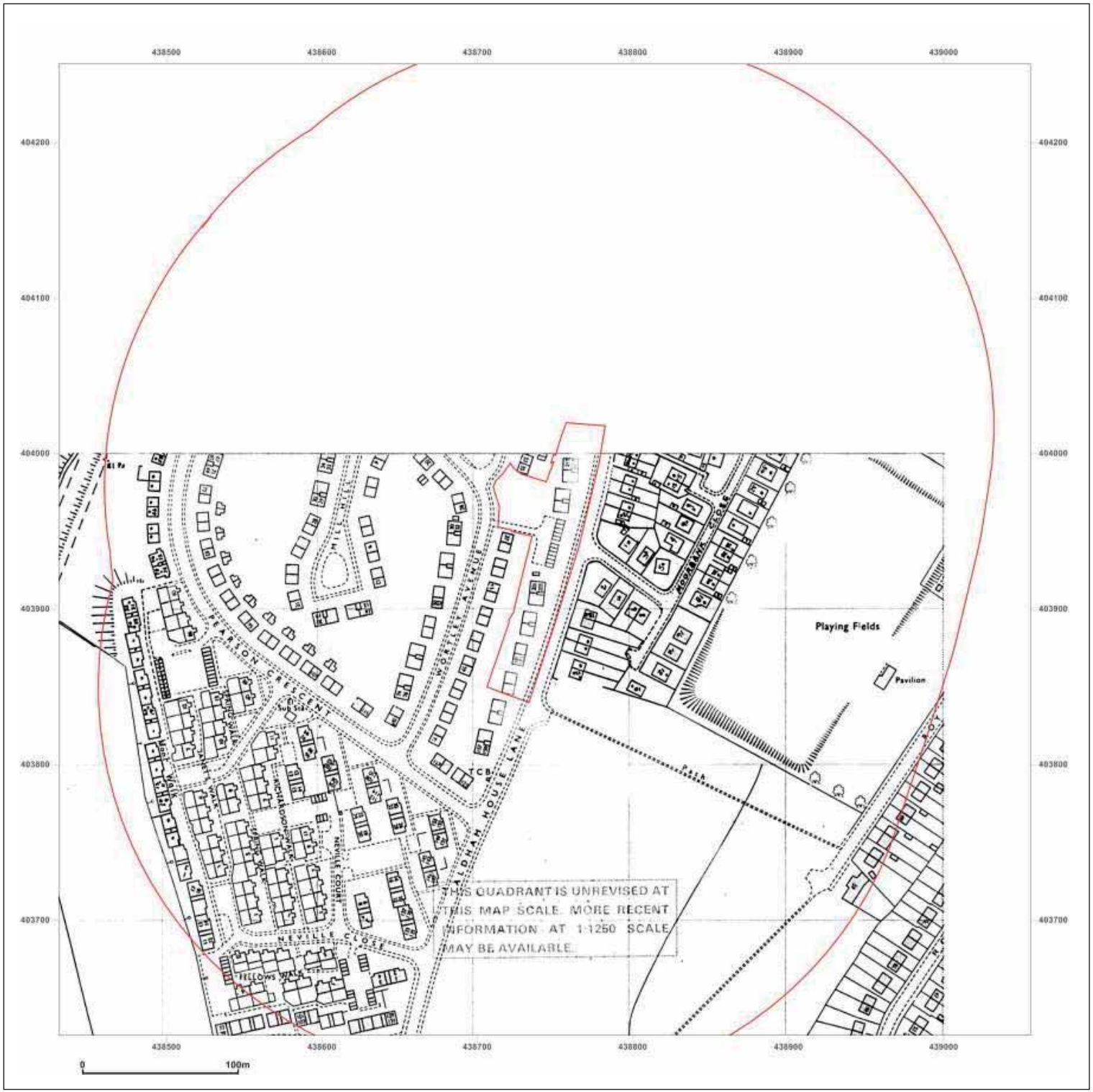
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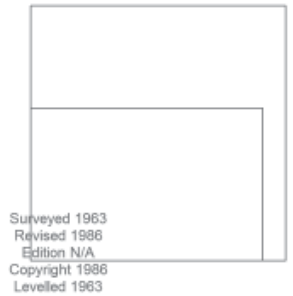
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Report Ref: EMS-216408_285656
Grid Ref: 438743, 403938

Map Name: National Grid
Map date: **1986**
Scale: 1:2,500
Printed at: 1:2,500



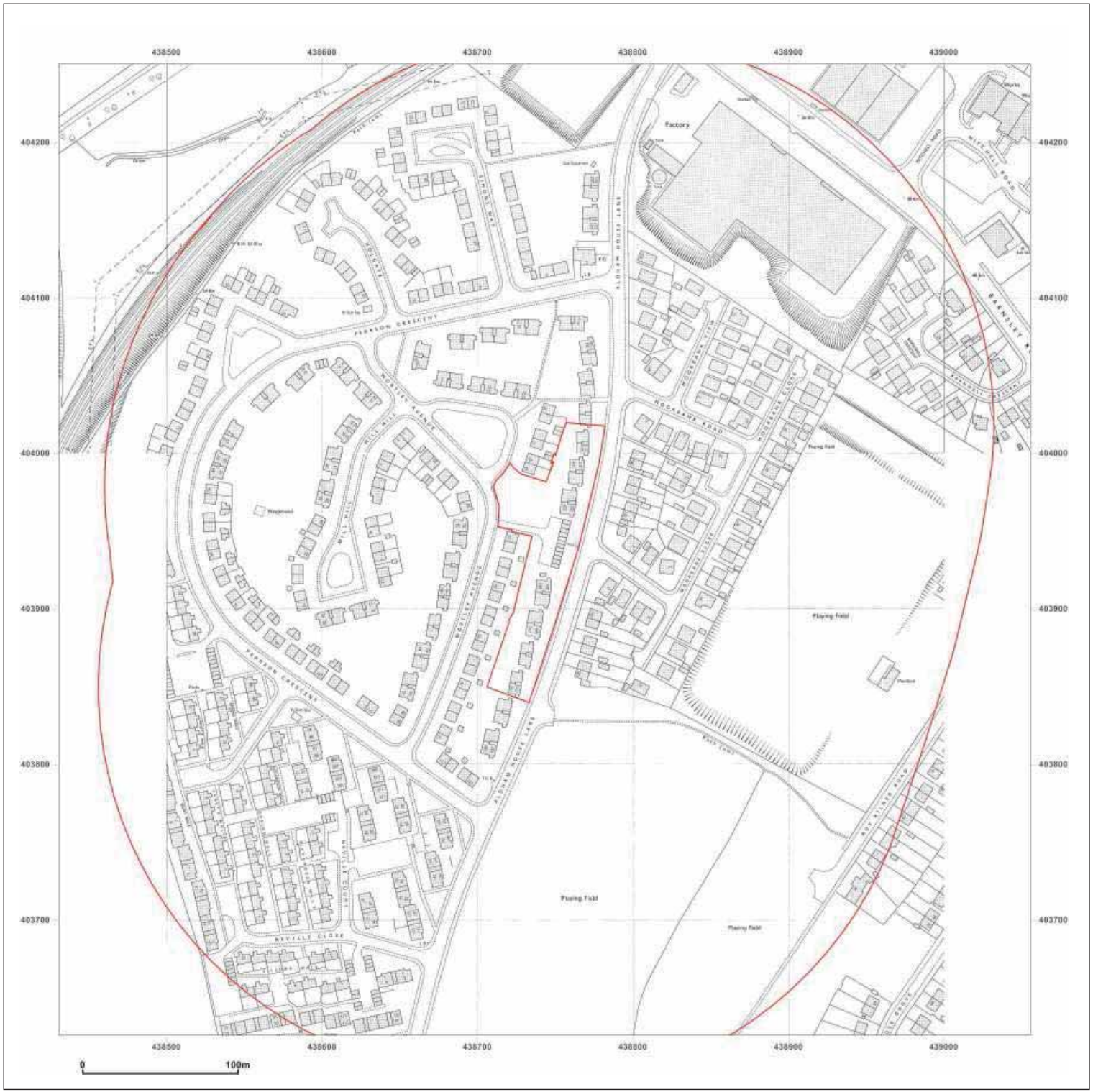
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Client Ref: EMS_216408_285656
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Grid Ref: 438743, 403938

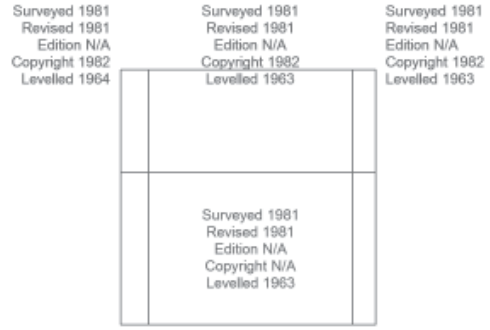
Map Name: National Grid

Map date: **1981-1982**

Scale: 1:1,250

Printed at: 1:2,500





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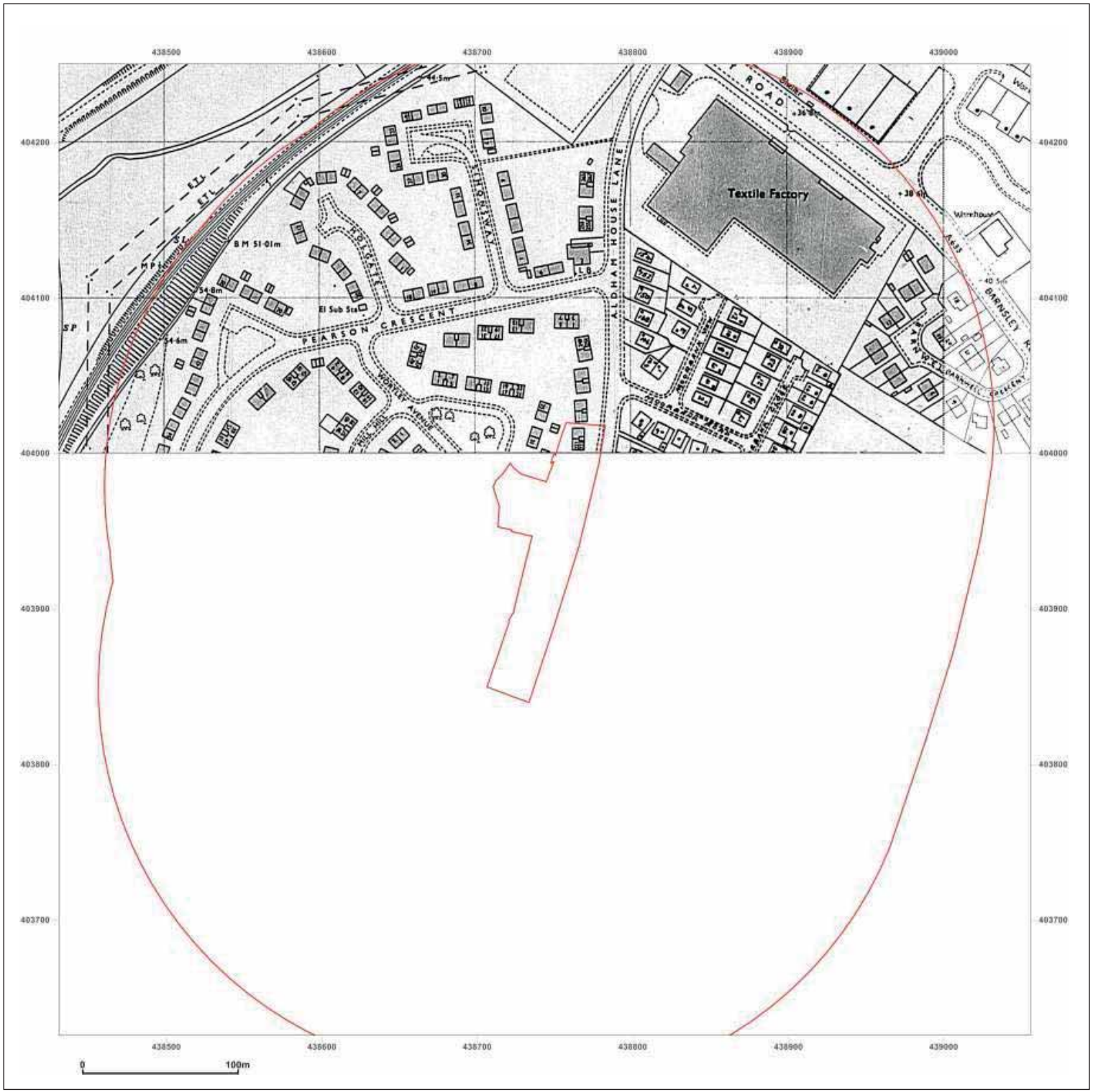
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Site Details:

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Client Ref: EMS_216408_285656
Report Ref: EMS-216408_285656
Grid Ref: 438743, 403938

Map Name: National Grid
Map date: 1980
Scale: 1:2,500
Printed at: 1:2,500

Surveyed 1963
Revised 1980
Edition N/A
Copyright 1980
Levelled 1963

Surveyed 1963
Revised 1980
Edition N/A
Copyright 1980
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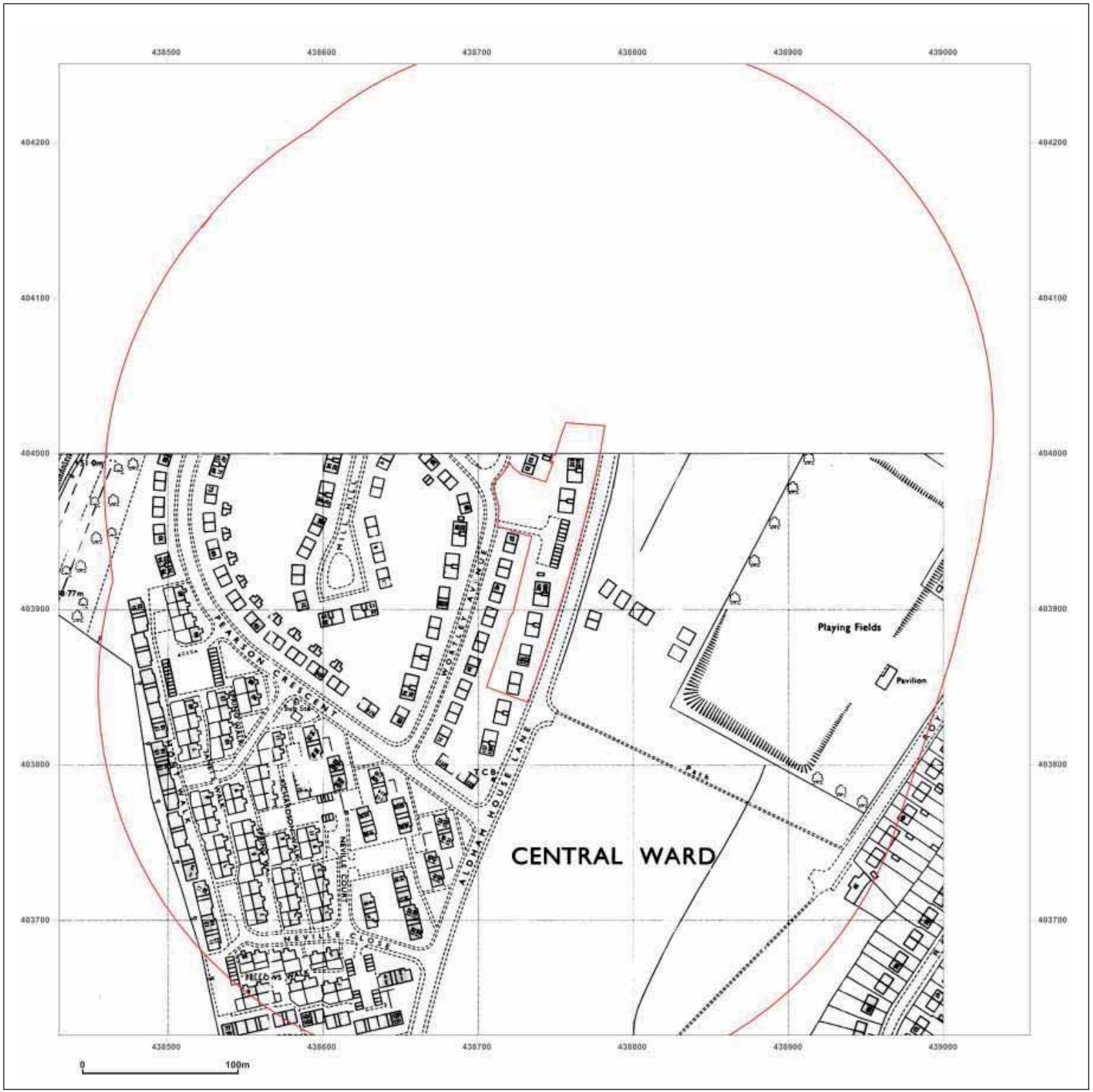
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Site Details:

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Client Ref: EMS_216408_285656
Report Ref: EMS-216408_285656
Grid Ref: 438743, 403938

Map Name: National Grid
Map date: 1971
Scale: 1:2,500
Printed at: 1:2,500

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

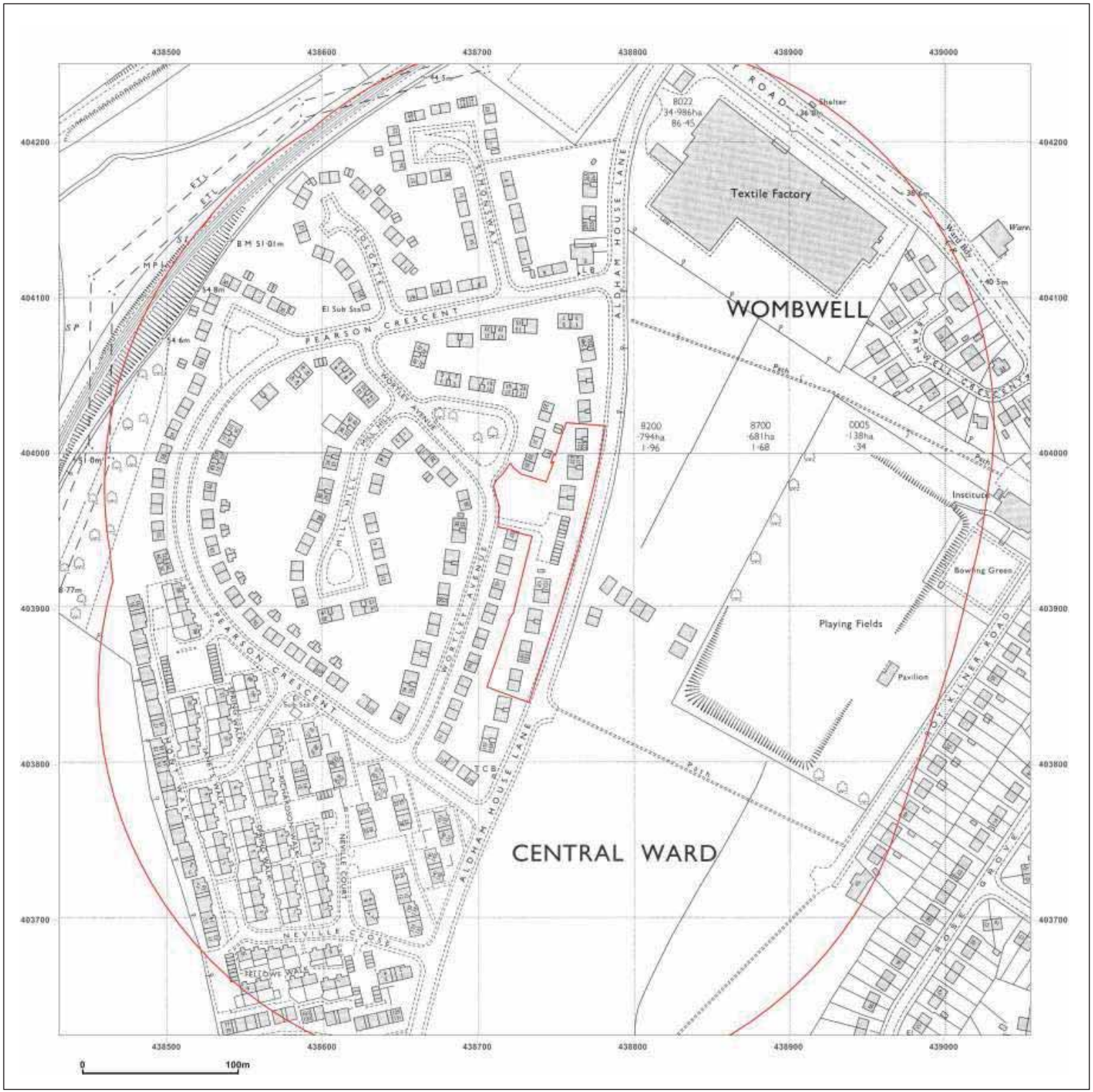
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Client Ref: EMS_216408_285656
Report Ref: EMS-216408_285656
Grid Ref: 438743, 403938

Map Name: National Grid

Map date: **1970**

Scale: 1:2,500

Printed at: 1:2,500

Surveyed 1970
Revised 1970
Edition N/A
Copyright 1970
Levelled 1964

Surveyed 1970
Revised 1970
Edition N/A
Copyright 1971
Levelled 1963

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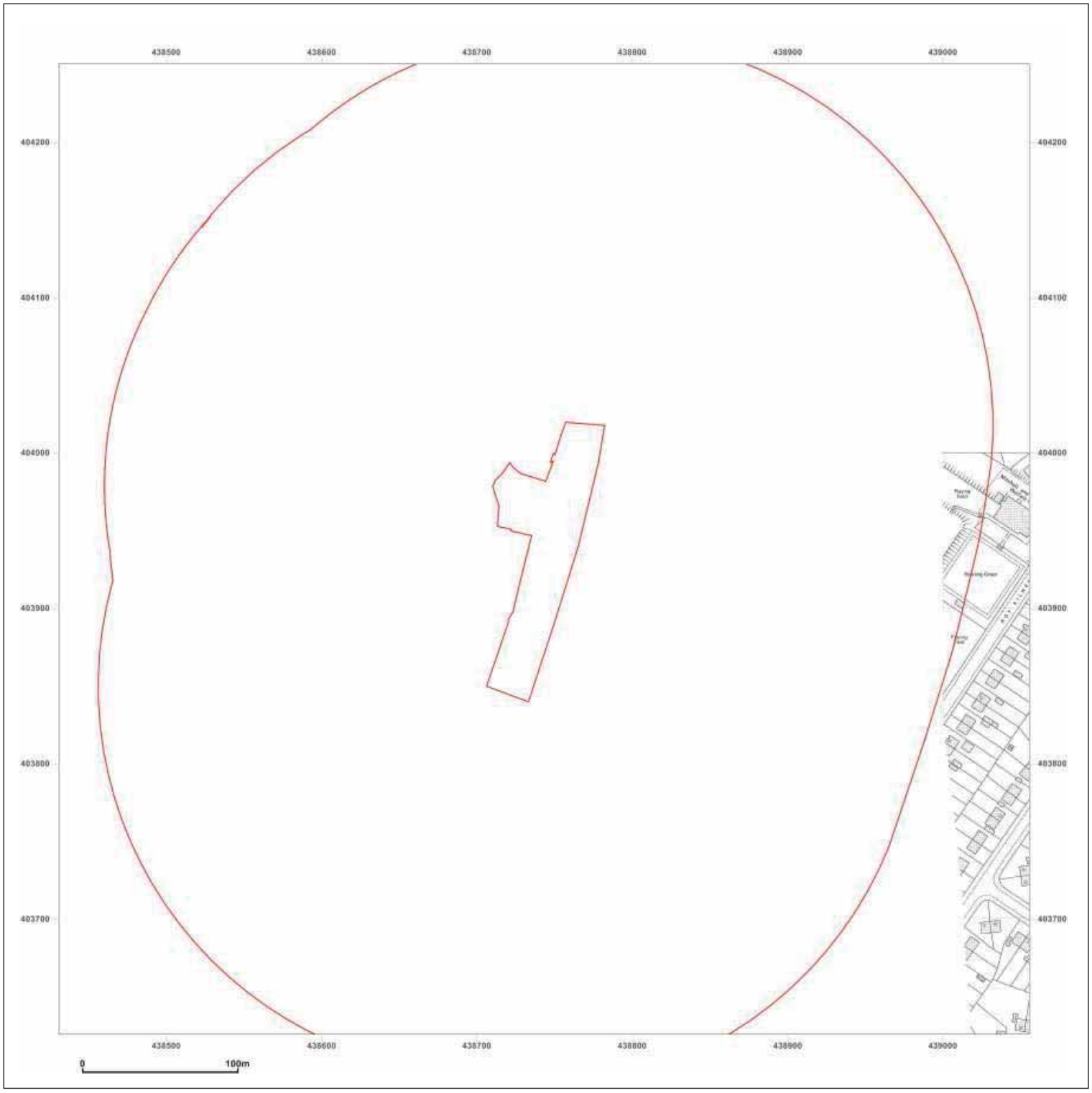
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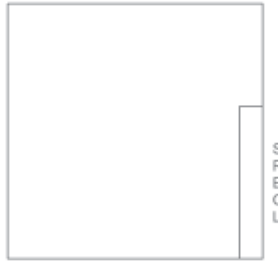
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Client Ref: EMS_216408_285656
Report Ref: EMS-216408_285656
Grid Ref: 438743, 403938

Map Name: National Grid
Map date: **1963**
Scale: 1:1,250
Printed at: 1:2,500





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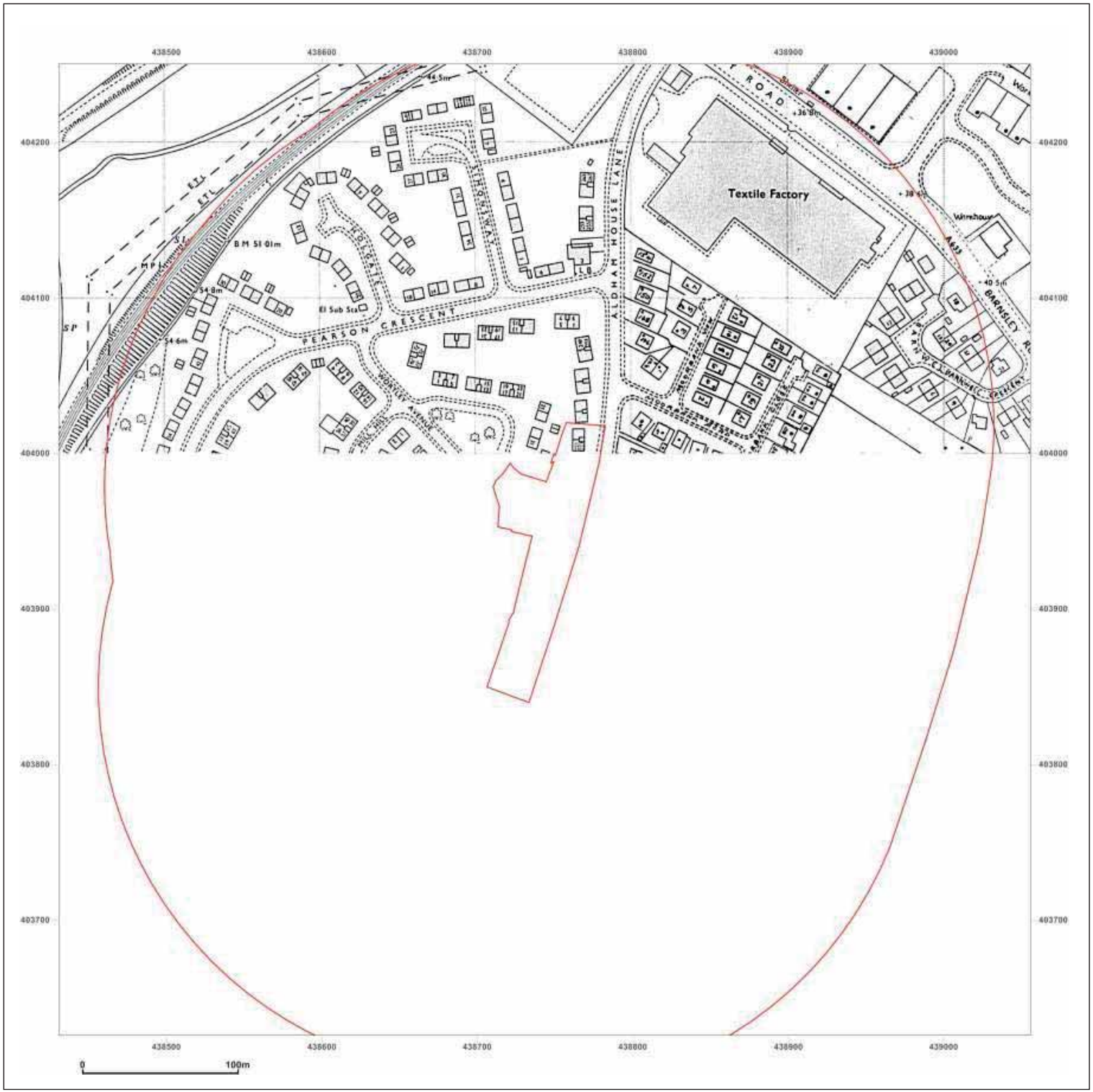
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Client Ref: EMS_216408_285656
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Grid Ref: 438743, 403938

Map Name: National Grid
Map date: **1963**
Scale: 1:2,500
Printed at: 1:2,500

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

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



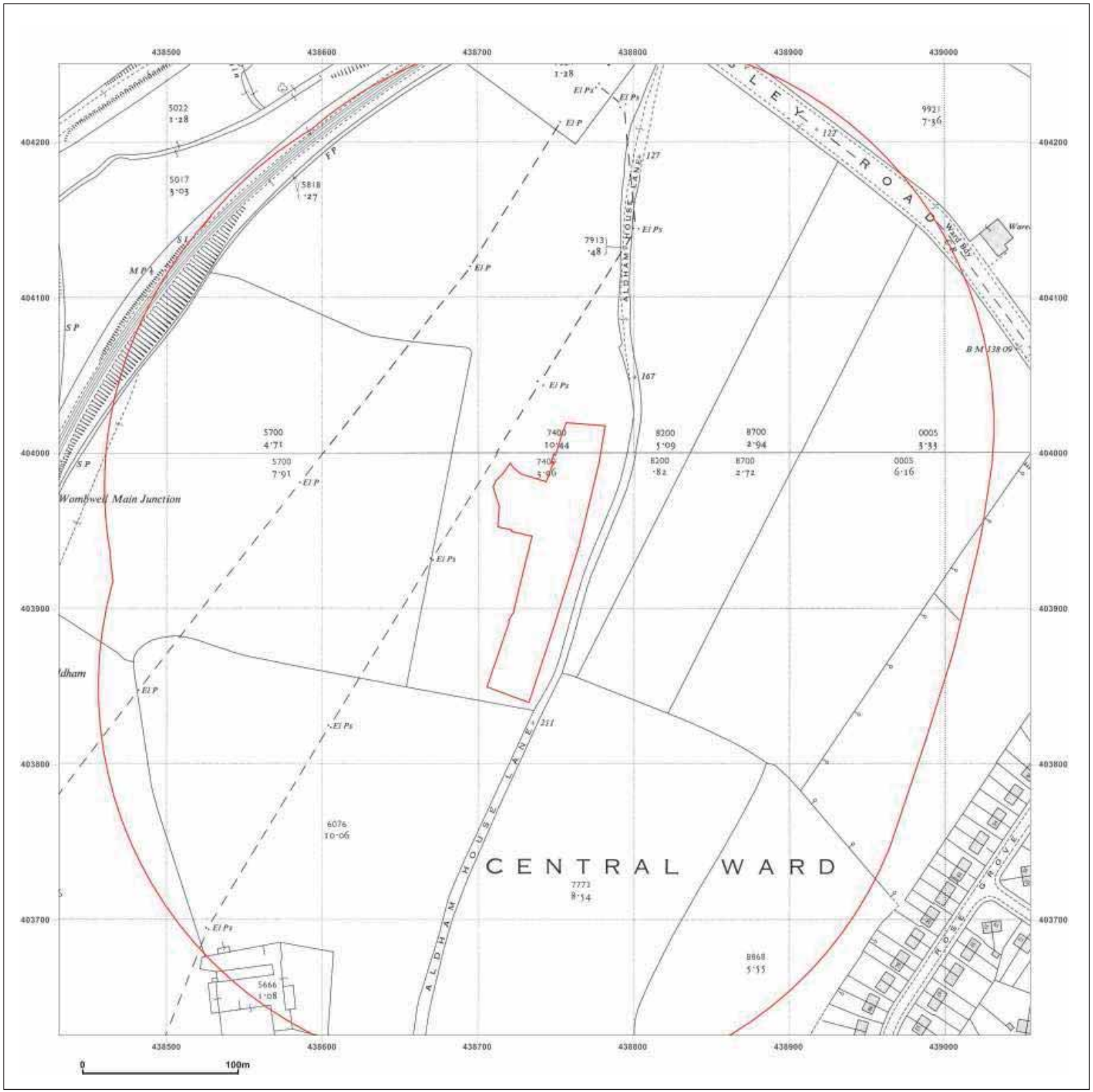
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Site Details:

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Client Ref: EMS_216408_285656
Report Ref: EMS-216408_285656
Grid Ref: 438743, 403938

Map Name: National Grid

Map date: **1961**

Scale: 1:2,500

Printed at: 1:2,500





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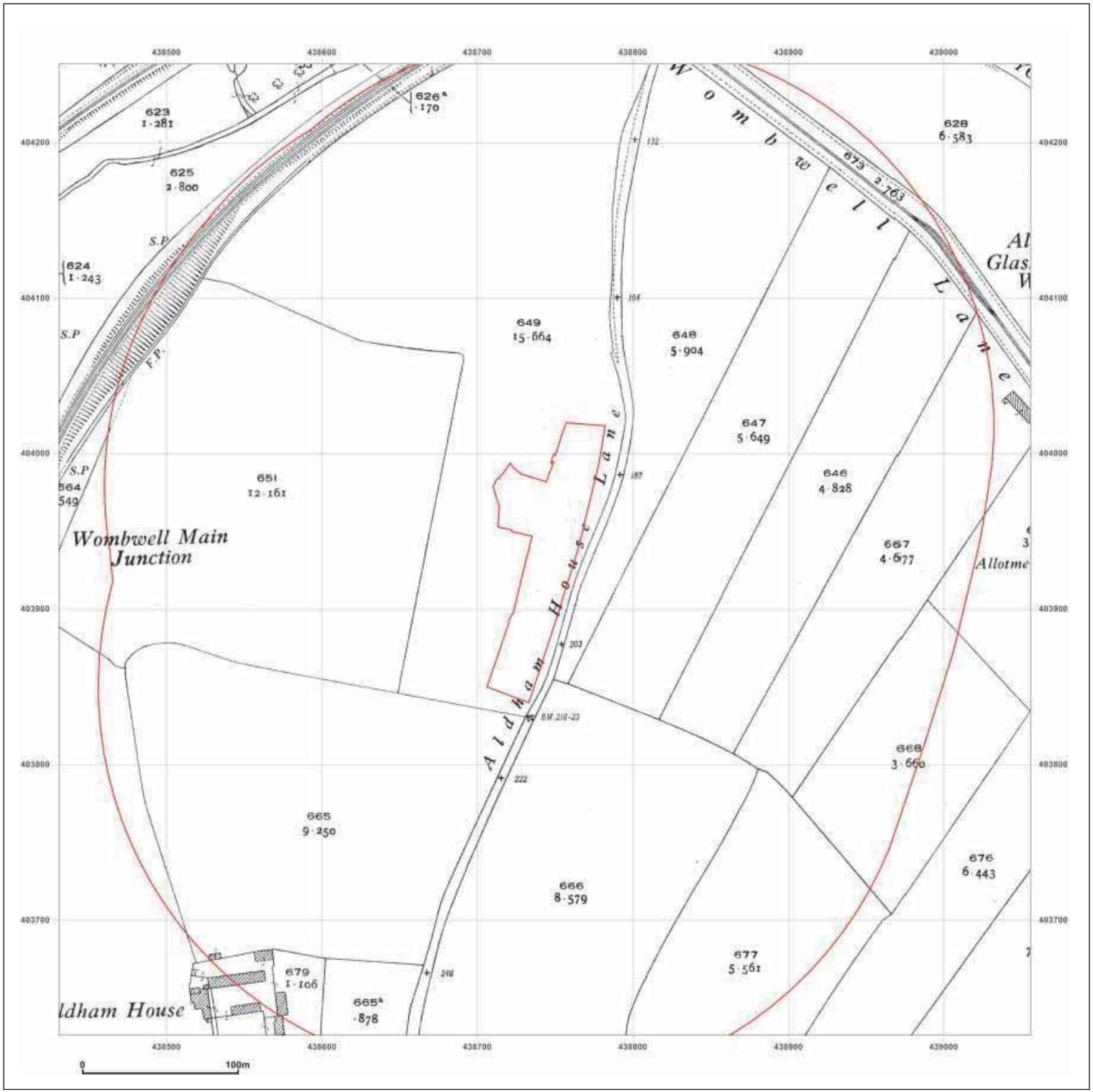
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Site Details:

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Client Ref: EMS_216408_285656
Report Ref: EMS-216408_285656
Grid Ref: 438743, 403938

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

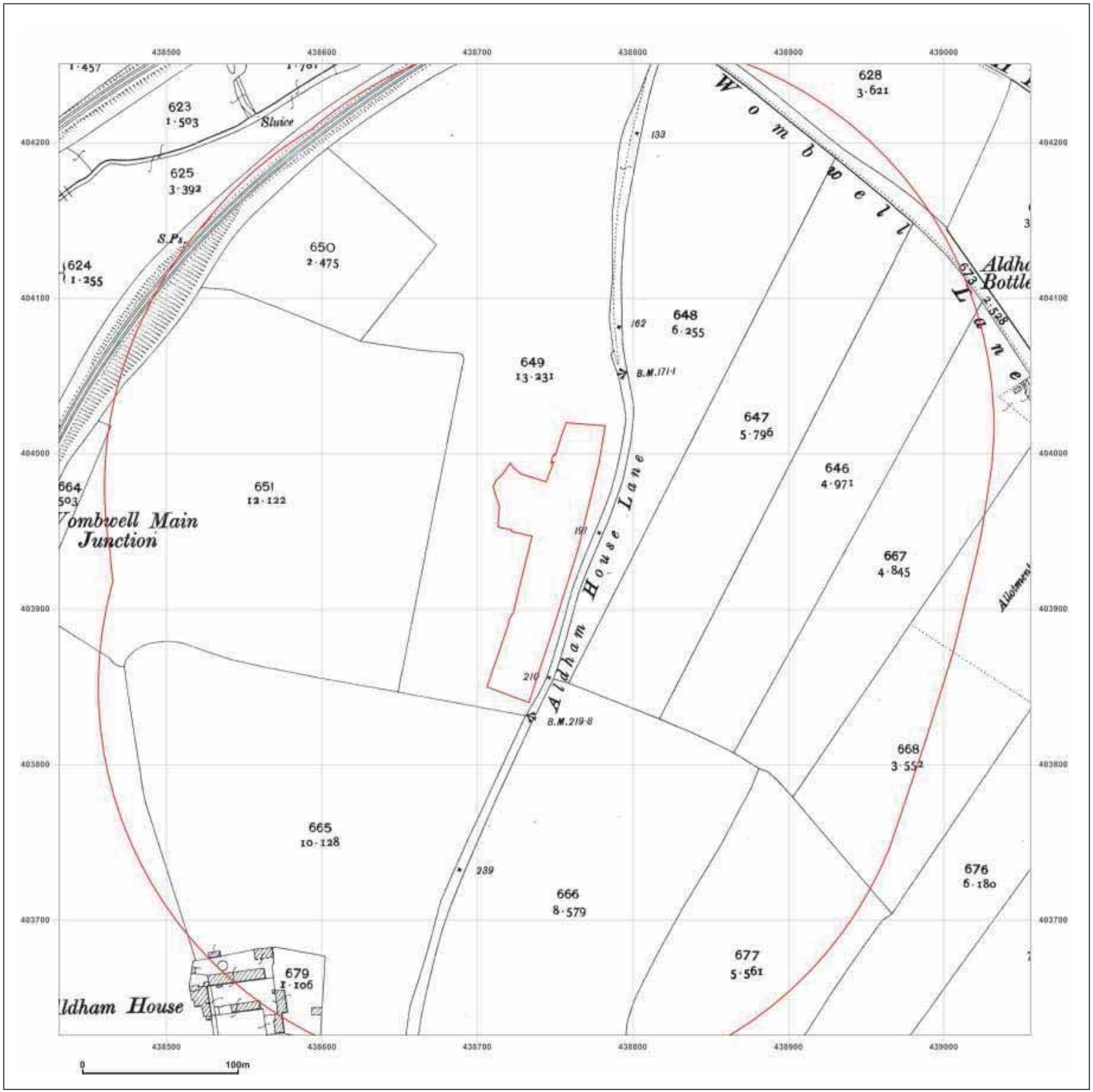
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Site Details:

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Client Ref: EMS_216408_285656
Report Ref: EMS-216408_285656
Grid Ref: 438743, 403938

Map Name: County Series
Map date: **1906**
Scale: 1:2,500
Printed at: 1:2,500

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

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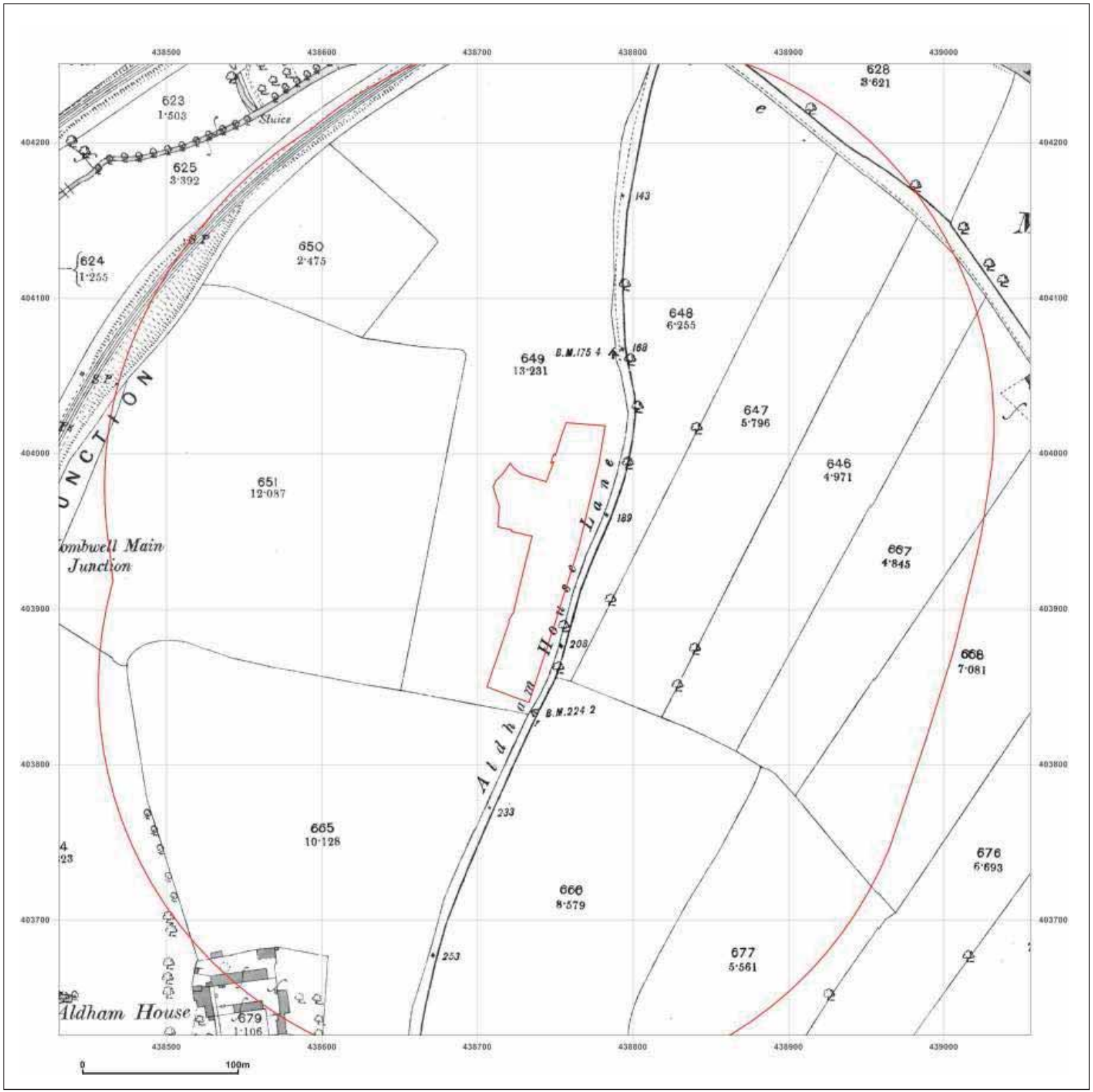
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Client Ref: EMS_216408_285656
Report Ref: EMS-216408_285656
Grid Ref: 438743, 403938

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

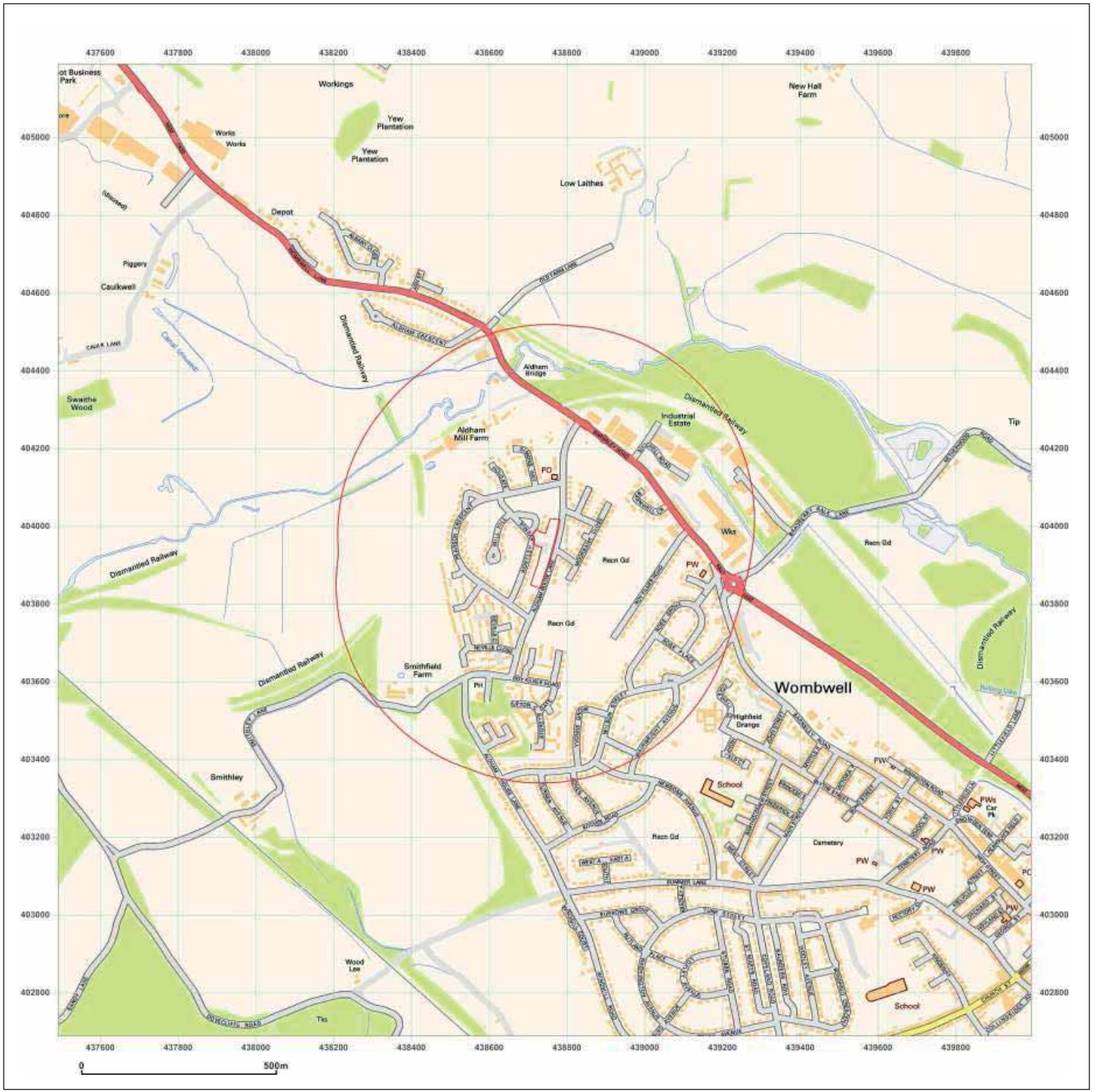
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Site Details:

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Report Ref: EMS-216408_285656
Grid Ref: 438743, 403938

Map Name: National Grid

Map date: 2012

Scale: 1:10,000

Printed at: 1:10,000





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