



SOUTH EXTENSION

Phase 1 Geo-Environmental Assessment

JULY 2016

Incorporating

EC HARRIS
BUILT ASSET
CONSULTANCY



CONTACTS



CHRISTOPHER WARD
Principal Consultant

dd +44 (0)161 245 8700

df +44 (0)161 245 8701

m +44 (0)7825 326425

e christopher.ward@arcadis.com

Arcadis.

10th Floor
3 Piccadilly Place
Manchester
M1 3BN
UK

Existing Staff Car Park 1 and 1a (South), Jaguar Land
Rover, Speke Boulevard, Halewood, Liverpool L24 9BJ

3443710027

South Extension

3443710027

Author	Peter Tuffin
Reviewer	Jonny Aykroyd
Authoriser	Matt Gardner
Report No	3443710027
Date	JULY 2016

VERSION CONTROL

Version	Date	Author	Changes
First	June 2016	Peter Tuffin	-
2 nd / Final	July 2016	Peter Tuffin	Neala Hardy / Jonny Aykroyd – Client Feedback

CONTENTS

1	INTRODUCTION	1
1.1	Appointment.....	1
1.2	Proposed Development.....	1
1.3	Existing Site Investigation Information	3
1.4	Objectives & Scope of Work.....	3
1.5	Limitations & User Reliance	4
2	SITE SETTING	5
2.1	Site Reconnaissance	5
2.2	General Site Setting.....	5
2.2.1	Location	5
2.3	Site Description	5
2.3.1	Storage Tanks	5
2.3.2	Asbestos Containing Materials	5
2.3.3	Materials Handling	5
2.3.4	Surrounding Land-use	6
3	ENVIRONMENTAL SETTING	7
3.1	Geology.....	7
3.1.1	Published & application site-Specific Geology	7
3.1.2	Coal Mining	8
3.1.3	Radon Assessment.....	8
3.2	Hydrogeology.....	8
3.2.1	Hydrogeology & Groundwater Vulnerability.....	8
3.2.2	Groundwater Abstractions & Source Protection Zones	8
3.3	Hydrology	8
3.3.1	Surface Water Features.....	8
3.3.2	Surface Water Abstractions	8
3.3.3	Flooding from Rivers or Sea without Defences	8
3.3.4	Flooding from Surface Water	8
3.3.5	Discharge Consents	8
3.3.6	Pollution Incidents to Controlled Water	9
3.4	Ground Gas Sources	9

3.5	Environmental Permits.....	9
3.6	Oil Pipeline	9
3.7	Unexploded Ordnance	9
3.8	Invasive Plants & Protected Habitats/ Species	9
4	SITE HISTORY	10
4.1	Historical Land Use	10
4.2	History of the Surrounding Area	10
5	POTENTIAL POLLUTANT LINKAGES.....	11
5.1	Introduction	11
5.2	Contamination Sources	11
5.3	Receptors	11
5.3.1	Human Health	11
5.3.2	Ecological Receptors	12
5.3.3	Property (buildings, etc.).....	12
5.3.4	Controlled Water.....	12
5.4	Pathways	12
5.4.1	Airborne Migration Pathways.....	12
5.4.2	Aqueous Migration Pathways	12
5.4.3	Direct Contact Exposure Pathways	12
5.5	Qualitative Risk Appraisal	13
5.6	Discussion.....	14
6	OTHER DEVELOPMENT CONSIDERATIONS.....	15
6.1	Preliminary Geotechnical Assessment	15
6.1.1	Foundations	15
6.1.2	Pavement Design	15
6.1.3	Excavations.....	15
6.1.4	Material Re-use	16
6.1.5	Drainage	16
6.2	Waste Arisings	16
6.3	Health, Safety & Environment	16
7	CONCLUSIONS & RECOMMENDATIONS.....	17
7.1	Conclusions	17
7.1.1	Land Contamination – LOW risk.....	17

7.1.2	Geotechnical Appraisal.....	17
7.1.3	Invasive Species.....	17
7.1.4	Waste Management.....	17
7.2	Recommendations.....	18

IMAGES

Image 1	Identification of proposed Southern Extension within Jaguar Land Rover Halewood.....	2
Image 2	Proposed site layout plan	2
Image 3	Indicative future layout plan.....	3
Image 4	application site Location and Layout	5

TABLES

Table 1	– Published Geology & Relevant 2007 SI Information	7
Table 2	Historical Land Use.....	10
Table 3	History of the Surrounding Area	10
Table 4	– Qualitative Risk Appraisal.....	14

APPENDICES

APPENDIX A

Site Location and Layout Plan

APPENDIX B

Study Limitations

APPENDIX C

Groundsure Geosight Report

1 Introduction

1.1 Appointment

Arcadis (UK) Limited has been commissioned by Jaguar Land Rover to provide environmental planning consultancy services to support proposed improvements to on-site efficiencies, capabilities and resilience works at Jaguar Land Rover Halewood, Merseyside.

This report provides the findings of the Phase 1 Geo-Environmental Assessment including site walkover survey for the South Extension project (the application site).

1.2 Proposed Development

This planning application includes proposals to extend the existing Body in White (BIW) building to the south of the Jaguar Land Rover Halewood site to provide a temporary building of 14,969 sq m of manufacturing and storage floorspace (Use Classes B2 and B8). To facilitate the temporary extension, the Halewood site highway network along South Road and internal site road are to be realigned creating a route around the proposed temporary extension, ensuring South Road remains accessible and open as a continuous link around the Jaguar Land Rover Halewood. The application also includes proposals to provide 250 staff car parking spaces and 19 product parking spaces as well as associated works.

The purpose of the proposal is to provide a temporary storage unit to allow for improvement works to be undertaken internally within the Materials, Planning and Logistics (MP&L) area. The temporary storage will allow for production to continue at normal capacity whilst the improvement works are being undertaken. Once the internal improvement works have been completed, the temporary unit will be removed. The temporary period sought is 5 years.

Once removed, it is Jaguar Land Rover's intention to use the area for product parking, although the parking proposals do not form part of this current planning application. The purpose of realigning South Road and the internal site road therefore serves not only to facilitate the erection of the temporary building but to enable the inclusion of the product parking within the site's secure boundary. It is proposed that the details of the product parking proposals will be controlled by way of a planning condition, which would need to be formally discharged prior to removal of the temporary building.

Plans illustrating the location of the development and the proposed layout are provided as Images 1-1 and 1-2. Image 1-3 provides an indication of the intended future permanent layout of the site for product parking, although this does not form part of the current planning application. A Site Location and Layout plan is present as Appendix A.

South Extension – Jaguar Land Rover Halewood

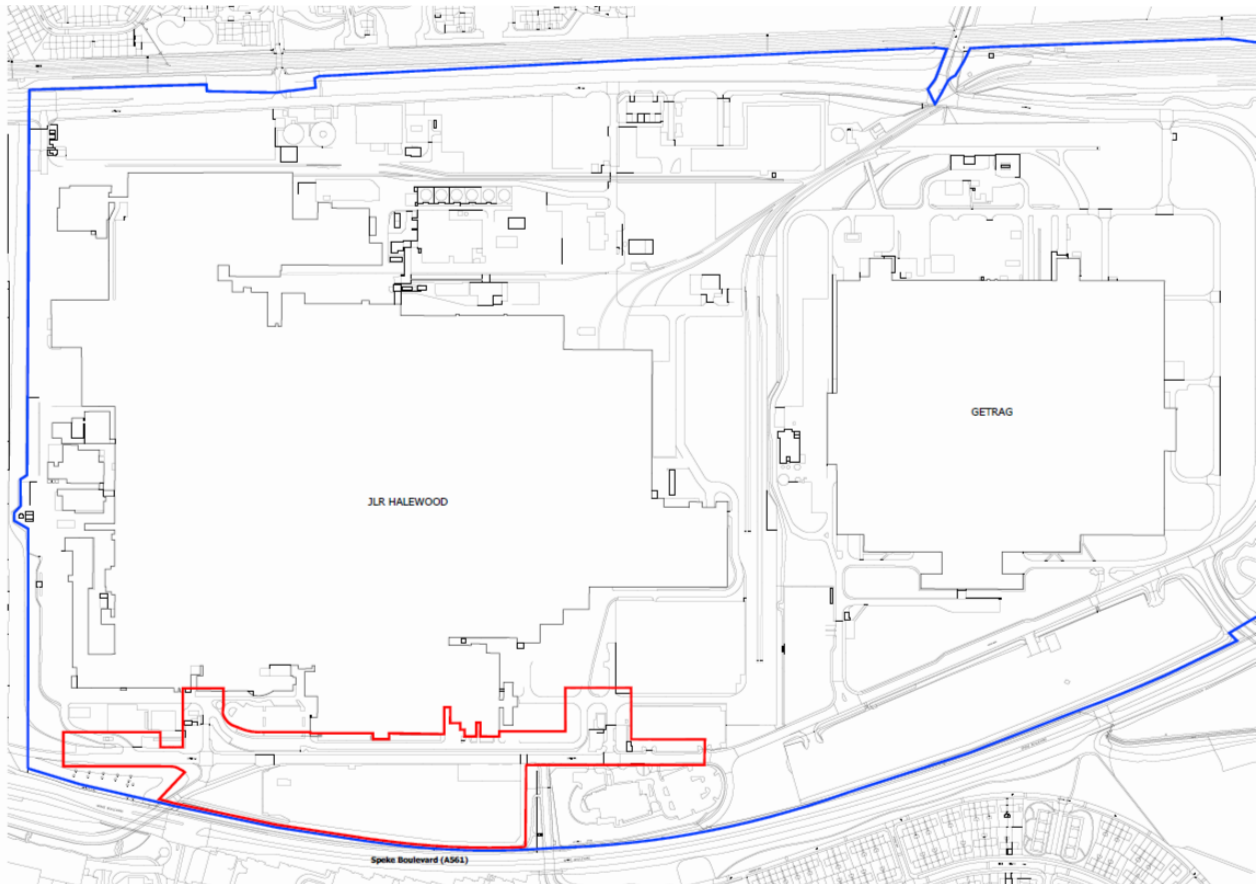


Image 1 Identification of proposed Southern Extension within Jaguar Land Rover Halewood

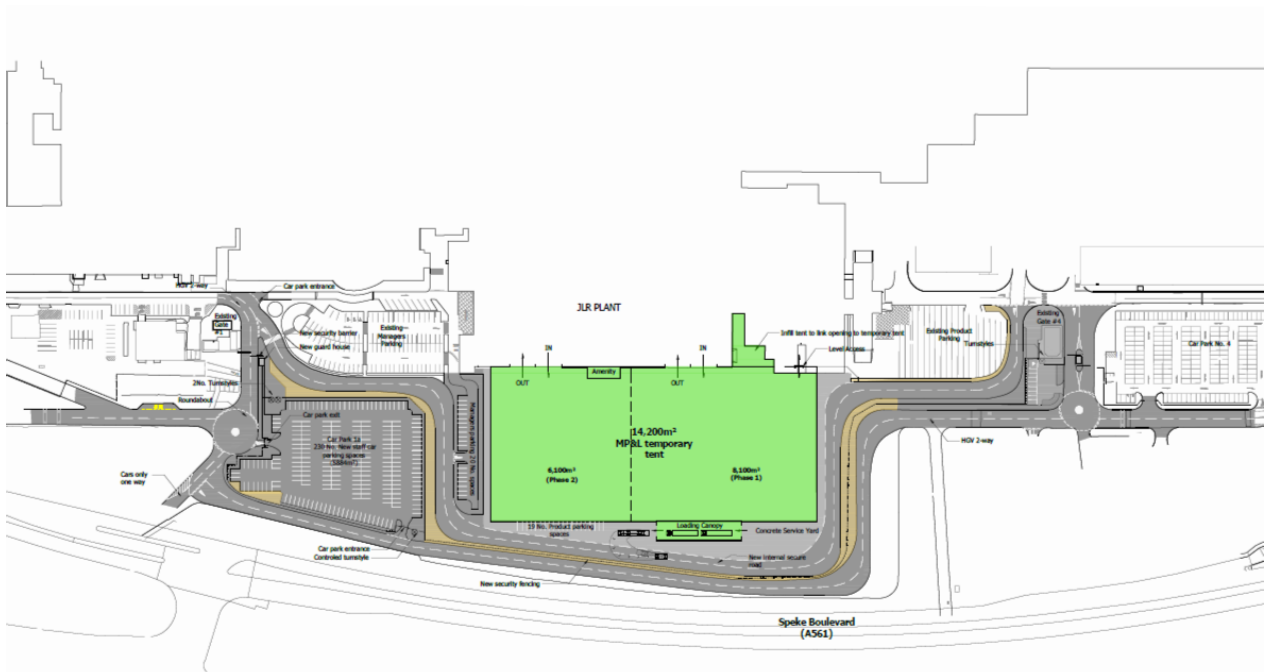


Image 2 Proposed site layout plan

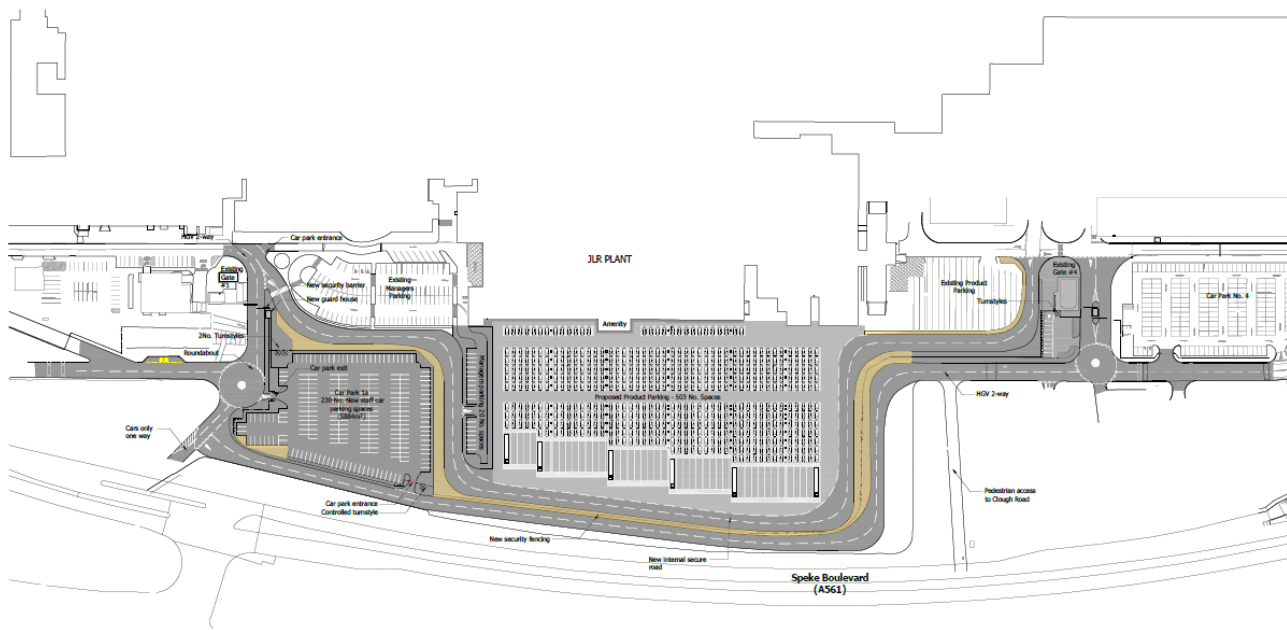


Image 3 Indicative future layout plan

1.3 Existing Site Investigation Information

A previous technical report was produced by Arcadis in 2007 for the wider Jaguar Land Rover Halewood site; the full reference of which is as follows:

- Phase II Environmental application site Assessment, Jaguar and Land Rover Manufacturing Plant, Halewood, Merseyside, L24 9BJ (Arcadis Reference: 926880905, September 2007).

The 2007 investigation included various intrusive, exploratory hole locations across Jaguar Land Rover Halewood however none were located within the application (red line) boundary. The closest borehole location was approximately 40m north of the application site (BH6) and was progressed to 4.5mbgl. The relevant findings of the 2007 investigation are discussed further in Section 3.1 of this report.

1.4 Objectives & Scope of Work

The objective of this assessment was to collate and review the available geo-environmental information to determine potential constraints on the proposed development, such as ground contamination risks and geotechnical hazards. Based on this review, it has been determined whether further assessment may be required to identify and/or mitigate any potentially unacceptable risks.

The methodology adopted in the assessment is broadly consistent with that outlined in BS10175:2011 + A1:2013 "Investigation of potentially contaminated sites – Code of practice" and BS5930:2015 "Code of practice for site investigations", with the development of a conceptual understanding of the application site or Conceptual application site Model (CSM). With respect to land contamination, the approach leads to the completion of a Preliminary Risk Assessment (PRA); i.e. the earliest stage of risk assessment identified in Contaminated Land Report 11 (CLR11) "Model procedures for the management of land contamination". In completing the PRA, the significance of land contamination aspects is based on the "suitable for use" and "source-pathway-receptor" concepts.

To achieve the objective, the following scope of work was defined:

- Carry out a walkover survey of the site;
- Review published and readily available information concerning the application site, including:
 - Recent Ordnance Survey (OS) Maps;
 - application site-specific Groundsure Geoin sight Report;

- Review available existing geo-environmental reports that pertain to the application site or part thereof;
- Provide detail on historical use, published geology and hydrogeology, setting and sensitivity, and recorded ground conditions;
- Identify potential source-pathway-receptor linkages associated with possible below ground contamination that could pose a risk;
- Define the CSM that relates the anticipated ground conditions and constraints to the proposed development; and
- Identify potential further actions required to better understand and/ or mitigate the risks posed by the reported or anticipated conditions.

1.5 Limitations & User Reliance

This report is only valid when used in its entirety and with reference to preceding technical reports. Any information or advice included in the report should not be relied upon until considered in the context of the whole report and previous work. Reference should be made to the notes on Study Limitations presented in Appendix B.

Arcadis warrants that the services performed were conducted in a competent and professional manner in accordance with sound consulting practices and procedures. Arcadis cannot warrant the actual property conditions described in this report beyond matters in accordance with the limits of this report.

There are neither third party rights nor benefits conferred under this report. Use of this report is strictly limited to the Client and its direct and indirect subsidiaries, which are the sole parties to whom Arcadis intends to confer any rights. Any reliance on the contents of this report by any other party is the sole responsibility of that party.

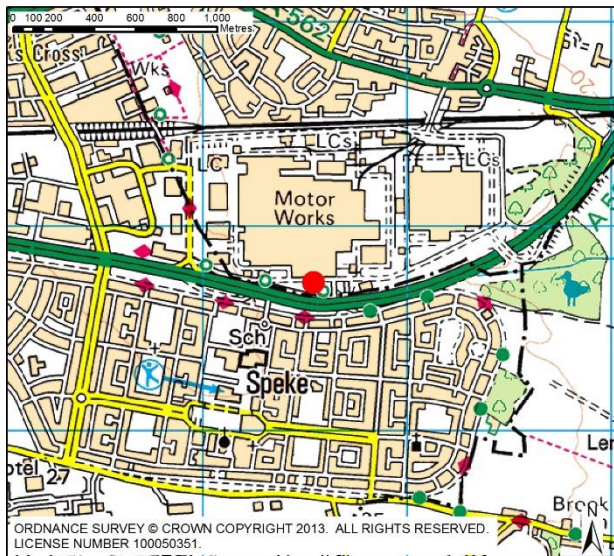
2 Site Setting

2.1 Site Reconnaissance

A site walkover was completed by Ben Le Grice of Arcadis on 2nd March 2016 to determine the current site conditions. Information collected during the site walkover and desk study is presented in the following sections.

2.2 General Site Setting

2.2.1 Location



SITE LOCATION



SITE LAYOUT

Image 4 application site Location and Layout

National Grid Coordinates 344531 383698 identify the approximate centre of the application site, which is situated in an existing product car park to the south of the existing manufacturing plant buildings and South Road and to the north of Speke Boulevard.

2.3 Site Description

The application site area is approximately 5.7 hectares (57,000 m²). At the time of the site walkover, the application site comprised car parks, roads, small landscaped areas, fencing and a single storey brick-built building at its eastern extent (Gatehouse 4).

The application site is ostensibly flat with a general elevation of ~24m AOD.

2.3.1 Storage Tanks

There were no known underground storage tanks (UST) or above ground storage tanks (AST) located on the application site.

2.3.2 Asbestos Containing Materials

A detailed asbestos survey is outside of the scope of this commission; however shallow soils across the application site are expected to comprise a thickness of Made Ground. Made Ground has the potential to contain Asbestos Containing Materials (ACM). Gatehouse 4 also has the potential to contain ACM given its age.

2.3.3 Materials Handling

Materials handling was not carried out on the application site.

2.3.4 Surrounding Land-use

The current land uses surrounding the application site are as follows:

- North:** Jaguar Land Rover Body in White building beyond which is the rest of the manufacturing plant.
- East:** An area of landscaping and an access road leading to an underpass beneath Speke Boulevard, beyond which is the Land Rover Experience, Halewood Visitor Centre and further vehicle parking areas.
- South:** Speke Boulevard (a dual carriage way) beyond which lie residential areas of Speke.
- West:** Jaguar Land Rover Halewood peripheral landscaping and South Road; beyond which lies Speke Boulevard and Boulevard Industrial Park.

3 Environmental Setting

3.1 Geology

3.1.1 Published & application site-Specific Geology

Geological information pertaining to the application site was gained from published sources supplemented by intrusive investigation information from previous works (2007) completed at Jaguar Land Rover Halewood. The published information comprises the BGS 1:50,000 scale map (Sheet 97, Solid 1980 and Drift 1977), the BGS website (accessed June 2016) and records from the BGS borehole log archive.

Information gathered from inspection of 2007 investigation borehole logs includes the most relevant boreholes, BH27 and BH6, located approximately 115m and 40m north of the application site respectively.

Formation	Published	2007 Investigation
Made Ground	Made Ground deposits are not indicated to be present on the BGS maps; however, it should be noted that the BGS sources are only likely to indicate the presence of Made Ground when there is a substantial thickness.	Made Ground was present to a maximum of 1.25mbgl (BH27) and consisted of Bituminous material, sand and ash, clay and clayey sand. No groundwater was encountered.
Superficial Geology	The BGS information indicates the superficial deposits to comprise Devensian Till which include firm and stiff gravelly clays with occasional sand or gravel bands. Alluvial deposits are recorded approximately 80m east of the application site which are indicated to include clay, silt, sand and gravel.	Stiff to very stiff brown mottled grey slightly gravelly sometimes slightly sandy clays were encountered in BH6 and BH27 from 0.9 mbgl and 1.25 mbgl respectively to base of hole. No groundwater was encountered.
Bedrock Geology	BGS sources indicate the superficial geology to overlie the red brown to yellow fine to medium grained Kinnerton Sandstone Formation in the eastern third of the application site and the commonly pebbly and conglomeratic fine to coarse sandstone of the Chester Pebble Beds in the western two thirds of the application site. Delineating the two bedrock formations is an inferred fault with unknown displacement, however the presence of the older Kinnerton Sandstone formation at surface to the east of the fault which usually conformably underlie the Chester Pebble Beds would indicate that downthrow is to the west of the fault. The nearest BGS boreholes to the application site are located approximately 240m north within Jaguar Land Rover Halewood, however these borehole records are not available in detail on the BGS website. The nearest available borehole is approximately 570m north (SJ48SW241) records “drift” to 42.20 mbgl overlying “Collyhurst Sandstone” to base (181m)	No boreholes advanced during the 2007 investigation encountered bedrock.

Table 1 – Published Geology & Relevant 2007 SI Information

3.1.2 Coal Mining

The Groundsure Geosight Report indicates that a mining area is located approximately 1.2km to the north of the application site. Review of the Coal Authority web site (accessed June 2016) indicates that a mining report is not required for the application site.

3.1.3 Radon Assessment

The Groundsure report indicates that the application site is not within a radon affected zone.

3.2 Hydrogeology

3.2.1 Hydrogeology & Groundwater Vulnerability

The Environment Agency (EA) website (accessed April 2016) identifies that The Till deposits across the application site are designated as a Secondary (undifferentiated) Aquifer.

Both the Kinnerton Sandstone and Chester Pebble Beds are identified as Principal Aquifers.

It is anticipated that discrete (perched) water bodies may be present beneath the application site associated with shallow Made Ground and more permeable (granular) layers/pockets within the Till as well as deeper groundwater within the Kinnerton Sandstone and Chester Pebble Beds Principal Aquifers.

3.2.2 Groundwater Abstractions & Source Protection Zones

The Groundsure Report records details of five active licenced groundwater abstractions within 2km of the application site. The nearest is approximately 900m northwest of the application site and is licenced to Eli Lilly & Co. Ltd for the purpose of feeding boilers, evaporative and non-evaporative cooling and process water.

There are no recorded potable water extractions within 2km of the application site.

The EA website indicates that the application site is not located within a Groundwater Source Protection Zone.

3.3 Hydrology

3.3.1 Surface Water Features

Approximately 520m east of the application site is a primary river named Ram's Brook which is indicated to flow towards the east.

There are no existing ponds recorded within 1km of the application site.

3.3.2 Surface Water Abstractions

The Groundsure Report indicates one active surface water abstraction licence within 2km of the application site, issued to United Utilities Water Ltd for the purpose of general washing/process washing. The abstraction is located approximately 1.65km east of the application site on Rams Brook.

3.3.3 Flooding from Rivers or Sea without Defences

The application site is not located within an area classified by the EA as at risk from flooding from rivers or the sea.

3.3.4 Flooding from Surface Water

Parts of the application site, most notably those immediately around the current road network, are classified by the EA as being at medium risk of flooding from surface water.

A medium risk of flooding from surface water is defined as "...each year, this area has a chance of flooding of between 1 in 100 (1%) and 1 in 30 (3.3%)."

3.3.5 Discharge Consents

The Groundsure Report does not list any active Discharge Consents to Controlled Waters within a 1km radius of the application site.

3.3.6 Pollution Incidents to Controlled Water

The Groundsure Report indicates that there have been three pollution incidents to controlled waters recorded within 1km of the application site. The most recent was in 2003, relating to a release of inorganic chemicals/products approximately 300m west of the application site on Jaguar Land Rover Halewood. This incident was recorded as Category 3 (minor) to waters and Category 4 (no impact) to land and air.

The remaining recorded pollution incidents occurred in 2001 and 2002, listed as a Category 3 Minor incidents, located approximately 430m and 730m south west and northwest of the application site respectively.

3.4 Ground Gas Sources

The Groundsure Report records a historical landfill approximately 820m northeast of the application site at Crab Tree Rough. It was licenced to Ford Motoring Company, and is listed as taking Industrial Waste. The site licence is listed as having been surrendered, however no date is provided. In consideration of the landfill's distance from the application site in the context of the local geology, the landfill is not considered to pose a significant risk to the subject site and therefore has been discounted as a plausible ground gas source at this stage.

There are no further historical or active landfills within 1.5km of the application site, according to the Groundsure report. However, there was a record of three areas of potentially infilled land on the application site along the southern application site boundary where ponds have been recorded on historical mapping.

Due to historical re-profiling of the application site, it is possible that Made Ground (materials of unknown quality, composition and provenance) may exist. Together with the potential for infilled ground at three areas along the southern application site boundary, these are considered a potential source of permanent ground gas (carbon dioxide and/or methane); albeit of "low" gas generation potential.

3.5 Environmental Permits

According to the Groundsure report, there is currently one active environmental permit record within 500m of the application site, relating to Jaguar Land Rover Halewood, allowing Combustion Processes (any fuel =<50MW).

3.6 Oil Pipeline

There were no Oil Pipeline Agency Assets identified from the Linesearch enquiry undertaken.

3.7 Unexploded Ordnance

Readily available records indicate that during WWII several high explosive bombs fell within 0.5km of the application site, which was located in the immediate vicinity of a bombing decoy.

Given this, a preliminary site-specific Unexploded Ordnance (UXO) assessment desk study is recommended to assess and potentially zone the UXO hazard level on the application site prior to intrusive works taking place.

3.8 Invasive Plants & Protected Habitats/ Species

No invasive species were identified on the application site during the site walkover. As the site walkover was undertaken during winter months there is potential for invasive species to be present but not readily identifiable due to the lack of foliage.

There is a Local Nature Reserve (LNR) at Milwood and Alder Wood approximately 500m east of the site.

The application site is within a Site of Special Scientific Interest (SSSI) Impact Risk Zone for the Mersey Estuary.

4 Site History

4.1 Historical Land Use

The historical use of the application site was determined from a review of 1:2,500 and 1:10,000 scale OS maps. Historical OS maps are presented with the Groundsure Geoinsight Report in Appendix C. A summary of the historical land use of the application site and potentially contaminative use is presented below:

Aspect	Map Dates	Comments
Farmland, ponds and wood	1849-1954	The application site is shown to be agricultural land. Farm buildings occupy the centre of the application site identified as Whitfield Farm surrounded by a wooded area and three ponds.
Wider development	1965-present	By 1965 significant re-development had occurred including the apparent demolition of the farm buildings, re-profiling of the application site and the development of the buildings which appear to make up the present day Jaguar Land Rover Halewood site. Adjacent to the south of the application site, Speke Boulevard is present at the application site boundary.

Table 2 Historical Land Use

4.2 History of the Surrounding Area

Based on the OS Maps in Appendix C, the key features of the surrounding area are summarised below:

Aspect	Location	Map Dates	Comments
Farmland and Ponds	On site and adjacent	1849-1967	Numerous ponds are located in the surroundings. Osier beds are recorded adjacent to the north of the south and within 100m to the north west. Around the osiers to the north west is an area of woodland identified as “new plantation” and there is a building identified as “Old Hutte” 150m to the east of the application site.
Automotive works	Adjacent to west boundary	1964-Present	Jaguar Land Rover Halewood has been developed into an automotive works consisting primarily of two large factory buildings. Several ponds are no longer recorded on the mapping and may have been filled. Railway lines have been extended onto the centre and west of Jaguar Land Rover Halewood. Decommissioning of selected sidings appears to occur in around 1991.
Railway	700m north	1849-Present	Liverpool to Warrington line recorded to pass approximately 450m north of the application site in an east-west orientation.
Railway sidings	450m north	1904-Present	Liverpool to Warrington line sidings are noted to be present approximately 450m to the north-west, servicing Jaguar Land Rover Halewood.

Table 3 History of the Surrounding Area

5 Potential Pollutant Linkages

5.1 Introduction

In this section, a qualitative evaluation of potentially active “pollutant linkages” for the application site (the Application Area) has been carried out; these being plausible scenarios whereby a source is connected to a possible receptor by one or more pathways:

- Potential sources of contamination: these include any actual or potentially contaminating materials and activities, located either beneath or in the vicinity of the application site;
- Potential pathways for contamination migration: these comprise the routes or mechanisms by which contaminants may migrate from the source to the receptor including environmental migration pathways and human health exposure pathways; and
- Potential receptors of contamination: these include present and/or future land users, ecological systems, water resources and property.

5.2 Contamination Sources

Based on the information reviewed in this report the following potential contamination sources have been identified:

- Made Ground; likely to be present based on the recorded historical farm buildings and any re-profiling of the application site associated with Jaguar Land Rover Halewood’s construction, re-routing of streams/land drainage ditches, infilling of ponds etc.;
- Railway line (450m north);
- Automotive Works (adjacent to the north).

The railway line to the north is unlikely to present a significant risk due to its distance from the application site, however, the former farm and subsequent development of the application site as part of the automotive works may have resulted in the import of soils of unknown provenance and quality which may include contamination in solid, liquid and gaseous phases.

5.3 Receptors

With reference to CLR 11 and the National Planning Policy Framework (NPPF) (Department for Communities and Local Government, 2012) the potential receptors to be considered in any contaminated land scenario can be summarised as follows:

5.3.1 Human Health

The proposed development is formed of two phases:

1. Involving realignment of the Halewood site highway network along South Road to facilitate the erection of a temporary building/extension for manufacturing and storage floorspace together with proposals to provide 250 staff car parking spaces and 19 product parking spaces; and
2. Removal of the temporary building (up to 5 years later) with subsequent use of the area for product parking.

Hardstanding surfacing will be included throughout the majority of the application site area.

Users of the temporary buildings and ultimately future product car park are considered the primary receptor of concern for potential contamination risk however it is considered that the presence of hardstanding post-development will break all but vapour inhalation pathways for the contaminants of potential concern.

Construction workers/ contractors /maintenance could also be exposed to contaminants during any construction processes (i.e. during any redevelopment or maintenance works involving excavation), unless appropriate risk mitigation measures are adopted. It is anticipated that the majority of these potential risks

would be mitigated by the main contractor through their mandatory duties under the Health and Safety at Work legislation and the Construction Design and Management regulations.

Users of the adjacent buildings (and wider Jaguar Land Rover Halewood site) could also be at risk; though for exposure to occur, active cross-boundary migration pathways would be required.

5.3.2 Ecological Receptors

There is a Local Nature Reserve (Millwood and Alder Wood) 500m east of the application site. The application site is within the SSSI Impact Risk Zone for the Mersey Estuary.

5.3.3 Property (buildings, etc.)

Future below-ground concrete will need to consider the potential for chemically aggressive ground conditions.

5.3.4 Controlled Water

Superficial deposits beneath the application site are classified as a Secondary Aquifer (undifferentiated) and bedrock geology is indicated to be a Principal Aquifer.

A river (Ram's Brook) is located 520m to the east of the application site.

The potential for preferential pathways, such as drainage, to be installed as part of the development will need to be considered.

5.4 Pathways

Potential migration pathways are discussed below, in relation to the identified potential receptors.

5.4.1 Airborne Migration Pathways

- Ground gas migration follows pressure gradients (i.e. from high to low pressure via the path of least resistance). Given the nature of the ground conditions, ground gas migration will be predominantly vertical, migrating from the theoretical source to the surface along the path of least resistance. Ground gas migration pathways are therefore considered active at this stage.
- Under the proposed development scenario the majority of the site will be covered by buildings/hard-standing; however landscaping areas may be included and as such (without consideration of any mitigation) the particulate inhalation pathway is considered active. Notwithstanding landscaped areas are likely to be grassed and as such dust generation is likely to be minimal.
- During development works, sub-surface soils could be exposed and therefore dust has the potential to be generated. Notwithstanding, typical dust suppression techniques could be employed during construction and events such as these would only result in short-period exposures linked to the development programme.
- Vapour inhalation pathways are potentially active irrespective of site status.

Appropriate risk mitigation measures can be employed during the redevelopment works to address concerns relating to on-site workers or other nearby land users during construction.

5.4.2 Aqueous Migration Pathways

- Leaching of contaminants in the shallow soils is likely to be negligible in areas of hard-standing (buildings, pavement etc. across the majority of the site) where infiltration of rainfall is minimal, however may occur in soft landscaped areas of the application site.
- Good site practices such as preventing surface run off from entering surface water bodies/drains, will limit the potential migration during construction.

5.4.3 Direct Contact Exposure Pathways

- Under the proposed development scenario, the majority of the application site area will be covered in some form of hard-standing (building floor slabs, road pavement, parking etc); however landscaped areas

will be included and as such (without consideration of any mitigation) direct contact pathways are considered active (locally).

- During the construction phase of the development, soils can become exposed at the surface and hence the direct contact pathways should be considered active for the duration of the development programme.

5.5 Qualitative Risk Appraisal

Based on the CSM the following table presents the plausible pollutant linkages that apply to the area being assessed. An indicative qualitative assessment of the likelihood that a risk could be realised is provided in the table below:

Potential Receptor	Potential Source	Potential Pathway	Preliminary Risk
Human Health: Site Staff	Contaminated soils (including asbestos), ground gas and groundwater.	Vapour inhalation (outdoor and indoor) Locally - Particulate inhalation (soils)/ direct contact/ asphyxiation or explosion	Low to Negligible
Human Health: Ground workers and neighbouring workers during construction	Contaminated soils (including asbestos) and groundwater	Particulate inhalation (soils) / direct contact (on-site only) / vapour inhalation (outdoor and indoor, on-site) / inhalation (indoor, off-site) / asphyxiation or explosion	Low to Medium
Human Health: Neighbouring land users	Contaminated soils (including asbestos)	Particulate inhalation (soils) / direct contact (on-site only) / vapour inhalation (outdoor and indoor, on-site) / inhalation (indoor, off-site) / asphyxiation or explosion	Low to Negligible
Water Resources: Secondary Undifferentiated Aquifer Principal Aquifer Watercourses in site surroundings	Contaminated soils and groundwater	Leaching (locally) and migration through sub surface/ preferential pathways (drainage)	Low

Potential Receptor	Potential Source	Potential Pathway	Preliminary Risk
<i>Statutory Ecological Receptors:</i> Surface Water (pond and streams adjoining-site) Millwood and Alder Wood (LNR, 250m south)	Contaminated soils and groundwater	Leaching (locally) and migration through sub surface/ preferential pathways (drainage)	Low to Negligible

Table 4 – Qualitative Risk Appraisal

Potential Risk Classification:

- Negligible – Remote potential for significant source pathway receptor linkage to be present.
- Low – Limited potential for significant source pathway receptor linkage to be present.
- Medium – Low potential for significant source pathway receptor linkage to be present.
- High – Reasonable potential for source pathway receptor linkage to be present.

Further assessment is considered appropriate to evaluate those pollutant linkages with a medium to high risk status.

5.6 Discussion

On the basis of the above, the preliminary risks associated with the proposed site end-use are considered to be LOW in the majority of potentially active pollutant linkages; this is largely due to the limited development history of the site (lack of significant on-site potential contamination sources) and due to the fact that an abundance of hardstanding cover will either eliminate or significantly reduce the risks to potential receptors in the developed scenario (temporary and permanent configurations).

Notwithstanding the above, should redevelopment for an alternate end-use be considered in the future (e.g. with buildings), this assessment will need to be revisited.

6 Other Development Considerations

6.1 Preliminary Geotechnical Assessment

The following paragraphs provide a preliminary assessment of with respect to the development proposals and the application site based on the anticipated ground conditions.

A development-specific, intrusive investigation should be carried out to confirm ground conditions and geotechnical design parameters.

6.1.1 Foundations

The proposed development may require the construction of new, structural foundations however no details of proposed loadings have been made available.

For relatively lightly loaded structures it is likely that shallow spread (strip or pad) foundations within firm to stiff Glacial Till will be adequate however it will be necessary through development-specific intrusive investigations to confirm the depth to competent bearing strata and confirm soil strength and plasticity parameters to facilitate detailed foundation design.

Whilst chemically aggressive ground conditions are not anticipated, water soluble sulphate and pH analysis will be required to determine the class of any concrete that will be required to be used for any buried structures/foundations.

6.1.2 Pavement Design

The proposed development includes the realignment of an existing internal site road and the construction of a new car park with provision for 250 staff car parking spaces and 19 product parking spaces.

The erection of a temporary warehouse (5 years) will also require the construction of new hardstanding pavement which will ultimately be used for product parking following the removal of the temporary warehouse.

It is anticipated that any regrading will be minimal and will be designed to achieve a cut/fill balance following the removal of existing hardstanding and topsoil (locally) from the application site, the sub base will be laid on a formation of either Made Ground or Glacial Till. At present no information is available as to the nature of the Made Ground and intrusive investigation will be required to confirm the nature of this material. It may be necessary to turn over the Made Ground (up to 1m bgl) to minimise the potential for differential settlements. The excavated material may be suitable for screening and processing to produce an engineered fill (subject to further assessment).

For preliminary design purposes it is recommended that a CBR value of 3% be assumed for the formation, however this should be confirmed with appropriate materials testing. Consideration should be given to options to improve the subgrade and/or the use of reinforcement (geogrid) to reduce the necessary sub base thickness and or the requirements for capping. Allowance should be made for excavation of softened material locally and its replacement with well compacted granular fill.

Notwithstanding, it is recommended that once the site has been graded to the appropriate pavement formation level, it is inspected and, if necessary, *in-situ* CBR testing be conducted on the subgrade to confirm the appropriate pavement design (i.e. to determine the subbase and capping thickness). In addition, the formation should be proof-rolled and soft/loose pockets encountered should be excavated and replaced with well compacted granular fill prior to pavement construction. Requirements for the design of road pavements are given in the Highways Agency, '*Design Manual for Roads and Bridges, Volume 7. Pavement Design and Maintenance: Foundations HD 25/94*'.

6.1.3 Excavations

It is anticipated that excavation works will be limited to shallow drainage installation etc. Excavations within the Made Ground and Glacial Till should be within the capability of traditional excavation plant.

Side slopes within the Made Ground and the underlying natural may not remain stable in the short term without support or without being battered back to a safe slope gradient; however with current development plans only limited excavations are likely to be necessary. A detailed inspection of the side slopes should be made during

excavation and a risk assessment carried out to fully assess the support measures required, particularly where man entry is required.

6.1.4 Material Re-use

Stiff Glacial Till deposits are likely to be geotechnically suitable for re-use, although some conditioning may be required to ensure that the materials are placed at suitable moisture contents to provide an appropriate level of compaction. The suitability for reuse of existing Made Ground deposits will depend on its geotechnical and environmental properties which will need to be assessed further via appropriate intrusive investigations and environmental (chemical testing).

Any re-use of materials is required to be designed early such that the appropriate permit, permit exemption of Materials Management Plan can be developed and approved before re-use.

6.1.5 Drainage

Soakaways are unlikely be suitable due to the anticipated depth of Glacial Till across the application site and the presence of relatively shallow groundwater.

A detailed drainage assessment has been produced separately to support the planning application for the development.

6.2 Waste Arisings

Careful management of soils during the excavation works will ensure optimum utilisation of soil resources. For example topsoil should be stripped and tested, and where suitable stockpiled for reuse elsewhere in the development.

The re-use of soil during development will require the contractor to obtain an Environmental Permit or Permit Exemption. On this basis it is considered likely that soils from the former farm buildings may **not** classify as Non-hazardous/ Inert for disposal; however soils from outside the former farm buildings area may classify as Non-hazardous/ Inert for disposal so long as they have not been impacted by the landfill itself. Appropriate testing should be carried out to confirm the waste classification ahead of the development.

The re-use of soil during development will require the contractor to obtain an Environmental Permit or Permit Exemption; or develop a Materials Management Plan Design Statement in line with CL:AIRE (2011).

6.3 Health, Safety & Environment

There is the potential for impacted soils (e.g. contaminated fill from ponds and former farm buildings) to be encountered during the development works, consideration should be given to the level of PPE that should be provided to future site operatives. There is a specific unknown over the potential presence of asbestos in Made Ground soils.

All work on-site should be conducted in accordance with appropriate Health and Safety guidance.

Care should be taken to minimise the risk of potentially contaminative incidents occurring during redevelopment. Good working practices should be adopted during construction works in order to minimise the risk of contamination occurring as a result of spillage or leakage of fuels, oils or chemicals stored or used for the Proposed Development. All such materials should be sited on an impervious base within a bund and should be adequately secured. In particular, care should be taken to prevent fuel, oils or other mobile contamination sources from entering any surface water drains.

Throughout any redevelopment works, due regard should be given to potential detrimental effects on the surroundings including noise, vibration, odour and dust.

7 Conclusions & Recommendations

7.1 Conclusions

7.1.1 Land Contamination – LOW risk

- *The preliminary risks to human health and Controlled Water associated with the proposed site end use are considered to be LOW in the majority of potentially active pollutant linkages.*

Historical activities on and surrounding the site could have resulted in ground/groundwater contamination, however the risk is anticipated to be LOW; this is largely due to the limited development history of the site (lack of significant on-site potential contamination sources) and due to the fact that an abundance of hardstanding cover will either eliminate or significantly reduce the risks to potential receptors in the developed scenario. Notwithstanding, the risk will be elevated during the development window with the temporary removal of existing hardstanding which will allow for the exposure of shallow soils and open the ground to infiltration and potential for leaching of contaminants.

To Arcadis' knowledge no assessment of the potential for contamination beneath the site has been completed, and while Arcadis completed an intrusive investigation in 2007, the nearest borehole is located a significant distance from the site (approximately 40m to the north of the site).

Whilst the land contamination risk is considered low, development intrusive investigations will need to be undertaken to allow for waste classification or material re-use assessment during the development and should also incorporate "environmental" investigations and assessment; designed to interrogate the Phase 1 CSM, confirm (or otherwise) the status of the identified Source-Pathway-Receptor linkages and thereby reduce uncertainties in the qualitative risk appraisal.

Notwithstanding the above, should redevelopment for an alternate end-use be considered in the future (e.g. with permanent buildings), this assessment will need to be revisited.

7.1.2 Geotechnical Appraisal

- There is uncertainty regarding the shallow ground conditions and appropriate geotechnical design parameters.

Geotechnical intrusive ground investigations will be required to support the detailed design of any minor earthworks, the hardstanding, road pavement and any temporary or permanent structural foundations.

For preliminary design purposes it is recommended that a CBR value of 3% be assumed for the subgrade formation at this stage. Allowance should be made for excavation of any locally softened material associated with potential historical ponds and/or land drainage ditches and its replacement with well compacted granular fill. It may also be necessary to provide additional drainage in these areas.

For relatively lightly loaded structures it is likely that shallow spread (strip or pad) foundations within firm to stiff Glacial Till will be adequate however it will be necessary through development-specific intrusive investigations. Water soluble sulphate and pH analysis will be required to determine the class of any buried structural concrete.

7.1.3 Invasive Species

No invasive species were noted during the site walkover.

7.1.4 Waste Management

There is uncertainty regarding the properties and quality of the shallow soils which may need to be excavated/re-used during the development.

Careful management of soils during the excavation works will help to optimise utilisation of soil resources. Where excess soils require off-site disposal an appropriate waste characterisation will need to be undertaken via chemical testing which should be completed prior to making disposal arrangements.

7.2 Recommendations

Prior to any redevelopment of the site, Phase 2 Intrusive Investigations will be required to establish the nature of the ground conditions, obtain development-specific geotechnical design parameters and allow appropriate environmental testing for waste classification and/or material re-use assessment.

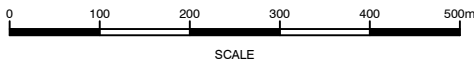
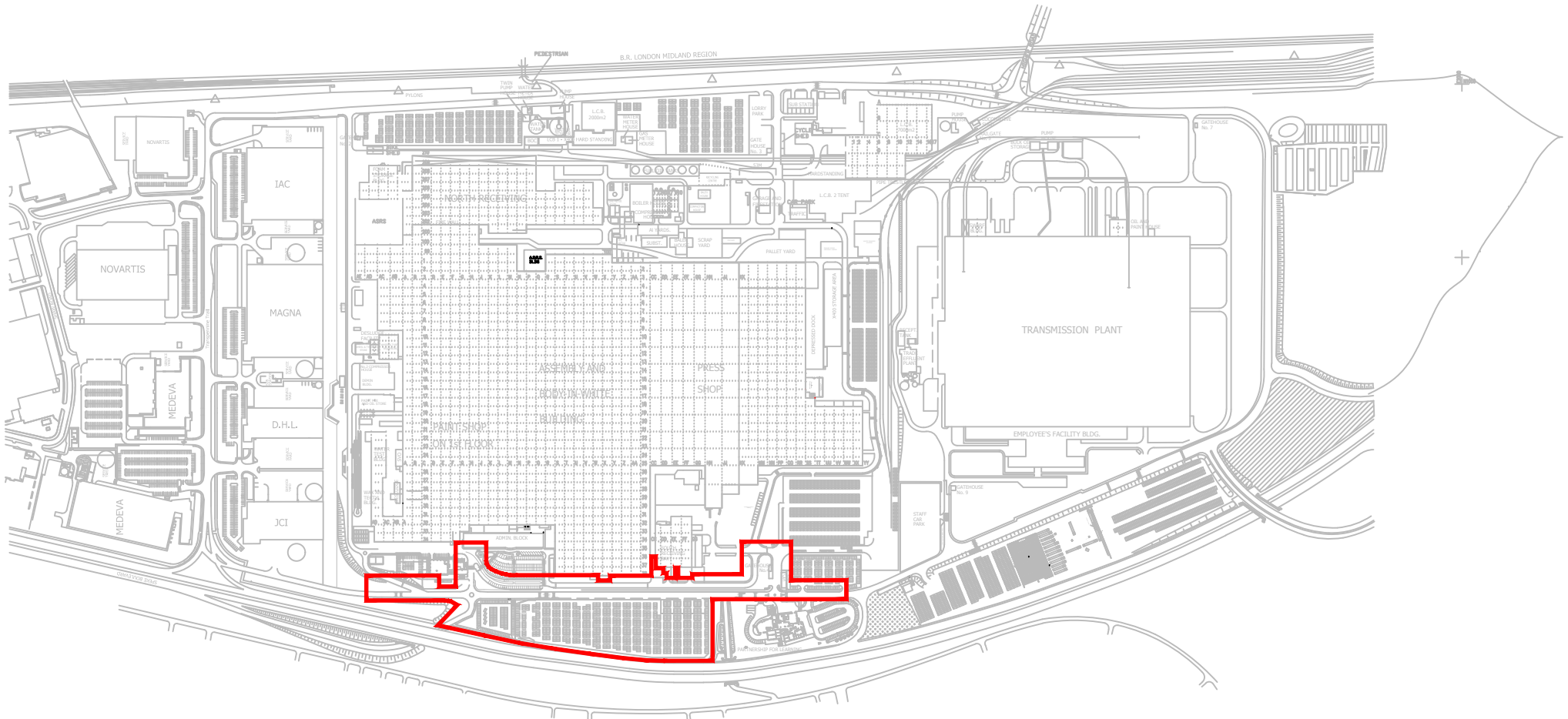
Whilst the land contamination risk is considered low on the basis of this assessment, the development intrusive investigations should also include “environmental” investigations; designed to interrogate the Phase 1 CSM, confirm (or otherwise) the status of the identified Source-Pathway-Receptor linkages and thereby reduce uncertainties in the qualitative risk appraisal.

The findings of the Phase 2 investigations and subsequent assessments will establish the need (or otherwise) for any mitigation measures necessary for the development to progress including (albeit unlikely) whether land remediation is needed. In addition, should any unforeseen contamination impacts be encountered during construction, the geo-environmental consultant should be consulted to agree the appropriate course of action such that the impact can be properly assessed and managed.

In such events, further site investigation maybe appropriate or risk assessment in order to develop a Remediation Strategy may be required. In this respect reference should be made to CLR11 (DEFRA & Environment Agency, 2004) and supporting guidance.

APPENDIX A

Site Location and Layout Plan



NOTES	
NOTE: ALL ENTITIES SHOWN ON THIS DRAWING ARE TO BE REGARDED AS APPROXIMATE AND ARE INDICATIVE ONLY. NO MEASUREMENTS TAKEN FROM THIS DRAWING SHOULD BE USED FOR THE LOCATION OF INTRUSIVE INVESTIGATION WORKS ON SITE. SYMBOLS FOR BOREHOLES, TRIAL PITS AND OTHER SPECIFIC FEATURES ARE REPRESENTATIONS OF LOCATION ONLY AND UNLESS OTHERWISE SPECIFIED, DO NOT REPRESENT THE TRUE SIZE OF THE FEATURE. CONTACT ARCADIS IN CASE OF ANY QUERY	BASED ON DRAWING BY LAND ROVER.
Reproduced from the OS Landranger map 1:50 000 scale by permission of Ordnance Survey® on behalf of The Controller of Her Majesty's Stationery Office. © Crown Copyright. All rights reserved. Licence Number 100021489.	

KEY	
	SOUTHERN CAR PARK EXTENSION

TITLE: SITE LOCATION AND LAYOUT PLAN SOUTHERN CAR PARK EXTENSION		SITE: HALEWOOD	
PROJECT:	34437100	CLIENT:	JAGUAR LAND ROVER
DATE:	13/06/16	PRINT:	A3
DRAWN BY:	BNB	REV:	-
DRG.No.:	3443710028-CAD	ARCADIS Design & Consultancy for natural and built assets	

APPENDIX B

Study Limitations

This appendix should be read before reliance is placed on any of the information, opinions, advice, recommendations or conclusions contained in this report.

1. This report has been prepared by Arcadis UK Limited (Arcadis), with all reasonable skill, care and diligence within the terms of the Appointment and with the resources and manpower agreed with Jaguar Land Rover (the 'Client'). Arcadis does not accept responsibility for any matters outside the agreed scope.
2. This report has been prepared for the sole benefit of the Client unless agreed otherwise in writing.
3. Unless stated otherwise, no consultations with authorities or funders or other interested third parties have been carried out. Arcadis are unable to give categorical assurance that the findings will be accepted by these third parties as such bodies may have unpublished, more stringent objectives. Further work may be required by these parties.
4. All work carried out in preparing this report has used, and is based on, Arcadis' professional knowledge and understanding of current relevant legislation. Changes in legislation or regulatory guidance may cause the opinion or advice contained in this report to become inappropriate or incorrect. In giving opinions and advice, pending changes in legislation, of which Arcadis is aware, have been considered. Following delivery of the report, Arcadis have no obligation to advise the Client or any other party of such changes or their repercussions.
5. This report is only valid when used in its entirety. Any information or advice included in the report should not be relied upon until considered in the context of the whole report.
6. Whilst this report and the opinions made are correct to the best of Arcadis' belief, Arcadis cannot guarantee the accuracy or completeness of any information provided by third parties.
7. This report has been prepared based on the information reasonably available during the project programme. All information relevant to the scope may not have been received.
8. This report refers, within the limitations stated, to the condition of the Site at the time of the inspections. No warranty is given as to the possibility of changes in the condition of the Site since the time of the investigation.
9. The content of this report represents the professional opinion of experienced environmental consultants. Arcadis does not provide specialist legal or other professional advice. The advice of other professionals may be required.
10. Where intrusive investigation techniques have been employed they have been designed to provide a reasonable level of assurance on the conditions. Given the discrete nature of sampling, no investigation technique is capable of identifying all conditions present in all areas. In some cases the investigation is further limited by site operations, underground obstructions and above ground structures. Unless otherwise stated, areas beyond the boundary of the site have not been investigated.
11. If below ground intrusive investigations have been conducted as part of the scope, service tracing for safe location of exploratory holes has been carried out. The location of underground services shown on any drawing in this report has been determined by visual observations and electromagnetic techniques. No guarantee can be given that all services have been identified. Additional services, structures or other below ground obstructions, not indicated on the drawing, may be present on Site.
12. Unless otherwise stated the report provides no comment on the nature of building materials, operational integrity of the facility or on any regulatory compliance issues.

APPENDIX C

Groundsure Geoinsight Report

Arcadis (UK) Limited

10th Floor
Three Piccadilly Place
Manchester
M1 3BN
United Kingdom

T: +44 (0) 161 245 8700

[arcadis.com](https://www.arcadis.com)

A decorative graphic consisting of three thin orange lines. One line is horizontal, extending across the width of the page. Two other lines are diagonal, starting from the bottom left and extending towards the top right, intersecting the horizontal line.



EmapSite

Masdar House,
Eversley, RG27 0RP

Report Reference: EMS-343518_462067

Your Reference: EMS_343518_462067

Report Date 28 Jan 2016

Report Delivery Method: Email - pdf

Groundsure Geoinsight

Address: ,

Dear Sir/ Madam,

Thank you for placing your order with Groundsure. Please find enclosed the **Groundsure Geoinsight** as requested.

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

Yours faithfully,

emapsite customer services team

Enc.
Groundsure Geoinsight



Groundsure Geoinsight

Address: ,
Date: 28 Jan 2016
Reference: EMS-343518_462067
Client: EmapSite



Aerial Photograph Capture date: 24-Jun-2009
Grid Reference: 344944,384097
Site Size: 117.54ha

Contents Page

Overview of Findings.....	5
1 Geology.....	8
1.1 Artificial Ground Map.....	8
1 Geology.....	9
1.1 Artificial Ground.....	9
1.1.1 Artificial/ Made Ground.....	9
1.1.2 Permeability of Artificial Ground.....	9
1.2 Superficial Deposits and Landslips Map.....	10
1.2 Superficial Deposits and Landslips.....	11
1.2.1 Superficial Deposits/ Drift Geology.....	11
1.2.2 Permeability of Superficial Ground.....	11
1.2.3 Landslip.....	11
1.2.4 Landslip Permeability.....	12
1.3 Bedrock and Faults Map.....	13
1.3 Bedrock, Solid Geology & Faults.....	14
1.3.1 Bedrock/ Solid Geology.....	14
1.3.2 Permeability of Bedrock Ground.....	14
1.3.3 Faults.....	14
1.4 Radon Data.....	15
1.4.1 Radon Affected Areas.....	15
1.4.2 Radon Protection.....	15
2 Ground Workings Map.....	16
2 Ground Workings.....	17
2.1 Historical Surface Ground Working Features derived from Historical Mapping.....	17
2.2 Historical Underground Working Features derived from Historical Mapping.....	19
2.3 Current Ground Workings.....	20
3 Mining, Extraction & Natural Cavities Map.....	21
3 Mining, Extraction & Natural Cavities.....	22
3.1 Historical Mining.....	22
3.2 Coal Mining.....	22
3.3 Johnson Poole and Bloomer.....	22
3.4 Non-Coal Mining.....	23
3.5 Non-Coal Mining Cavities.....	23
3.6 Natural Cavities.....	23
3.7 Brine Extraction.....	23
3.8 Gypsum Extraction.....	24
3.9 Tin Mining.....	24
3.10 Clay Mining.....	24
4 Natural Ground Subsidence.....	25
4.1 Shrink-Swell Clay Map.....	25
4.2 Landslides Map.....	26
4.3 Ground Dissolution Soluble Rocks Map.....	27
4.4 Compressible Deposits Map.....	28
4.5 Collapsible Deposits Map.....	29
4.6 Running Sand Map.....	30
4 Natural Ground Subsidence.....	31
4.1 Shrink-Swell Clays.....	31
4.2 Landslides.....	31
4.3 Ground Dissolution of Soluble Rocks.....	32

4.4 Compressible Deposits.....	32
4.5 Collapsible Deposits.....	33
4.6 Running Sands.....	33
5 Borehole Records Map.....	35
5 Borehole Records.....	36
6 Estimated Background Soil Chemistry.....	40
7 Railways and Tunnels Map.....	42
7 Railways and Tunnels.....	43
7.1 Tunnels	43
7.2 Historical Railway and Tunnel Features	43
7.3 Historical Railways.....	46
7.4 Active Railways.....	46
7.5 Railway Projects.....	47

Overview of Findings

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

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

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

Section 1:Geology

1.1 Artificial Ground	1.1.1 Is there any Artificial Ground/ Made Ground present beneath the study site?	No
	1.1.2 Are there any records relating to permeability of artificial ground within the study site* boundary?	No
1.2 Superficial Geology and Landslips	1.2.1 Is there any Superficial Ground/Drift Geology present beneath the study site?	Yes
	1.2.2 Are there any records relating to permeability of superficial geology within the study site boundary?	Yes
	1.2.3 Are there any records of landslip within 500m of the study site boundary?	No
	1.2.4 Are there any records relating to permeability of landslips within the study site boundary?	No
1.3 Bedrock, Solid Geology & Faults	1.3.1 For records of Bedrock and Solid Geology beneath the study site* see the detailed findings section.	
	1.3.2 Are there any records relating to permeability of bedrock within the study site boundary?	Yes
	1.3.3 Are there any records of faults within 500m of the study site boundary?	Yes
1.4 Radon data	1.4.1 Is the property in a Radon Affected Area as defined by the Health Protection Agency (HPA) and if so what percentage of homes are above the Action Level?	The property is not in a Radon Affected Area, as less than 1% of properties are above the Action Level
	1.4.2 Is the property in an area where Radon Protection Measures are required for new properties or extensions to existing ones as described in publication BR211 by the Building Research Establishment?	No radon protective measures are necessary

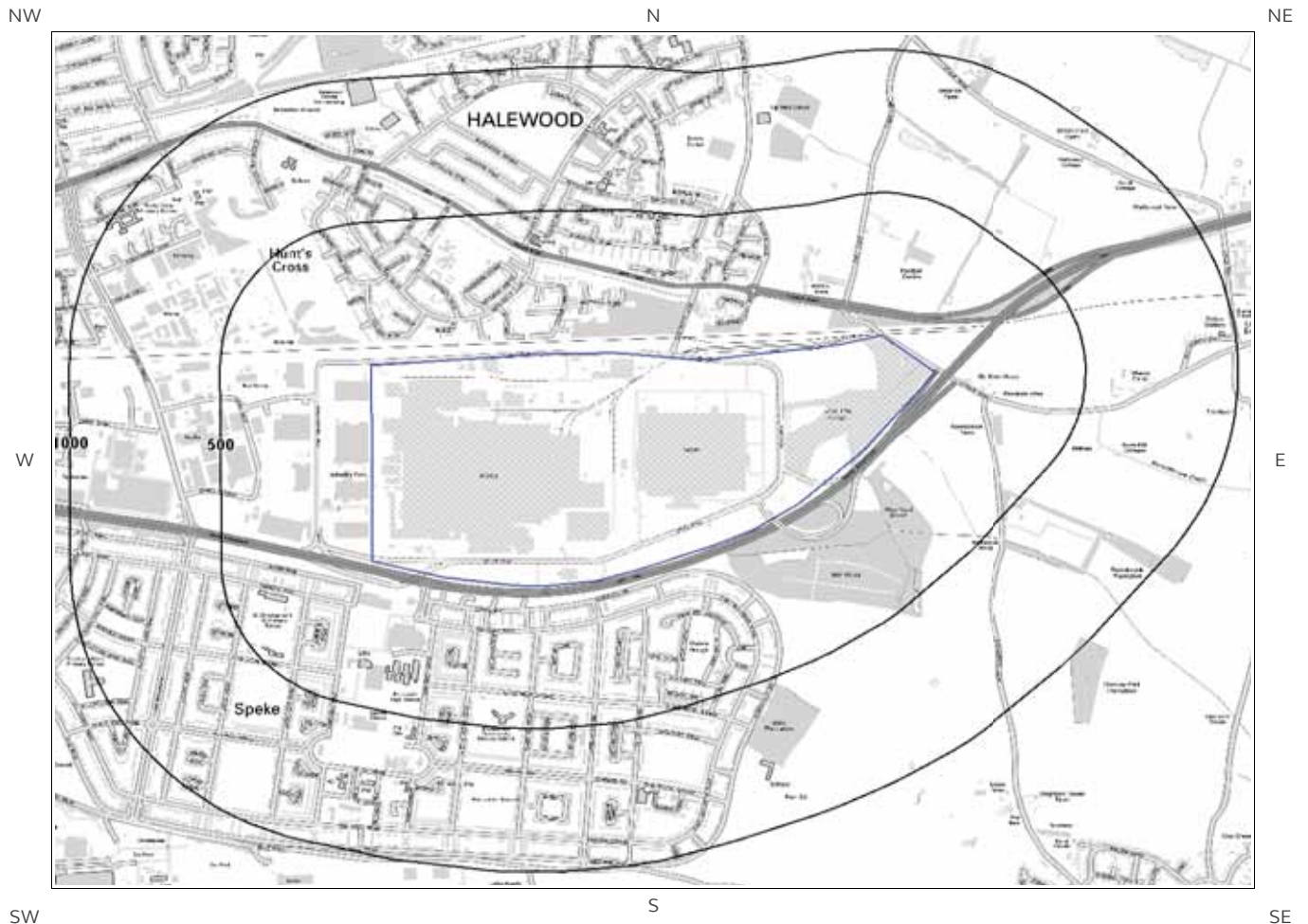
Section 2:Ground Workings	On-site	0-50m	51-250	251-500	501-1000
2.1 Historical Surface Ground Working Features from Small Scale Mapping	27	15	23	Not Searched	Not Searched
2.2 Historical Underground Workings from Small Scale Mapping	0	0	0	0	0
2.3 Current Ground Workings	0	0	0	0	0

Section 3: Mining, Extraction & Natural Cavities	On-site	0-50m	51-250	251-500	501-1000
3.1 Historical Mining	0	0	0	0	0
3.2 Coal Mining	0	0	0	1	0
3.3 Johnson Poole and Bloomer Mining Area	0	0	0	0	0
3.4 Non-Coal Mining	0	0	1	0	1
3.5 Non-Coal Mining Cavities	0	0	0	0	0
3.6 Natural Cavities	0	0	0	0	0
3.7 Brine Extraction	0	0	0	0	0
3.8 Gypsum Extraction	0	0	0	0	0
3.9 Tin Mining	0	0	0	0	0
3.10 Clay Mining	0	0	0	0	0
Section 4: Natural Ground Subsidence	On-site				
4.1 Shrink Swell Clay	Very Low				
4.2 Landslides	Very Low				
4.3 Ground Dissolution of Soluble Rocks	Negligible				
4.4 Compressible Deposits	Moderate				
4.5 Collapsible Deposits	Very Low				
4.6 Running Sand	Low				
Section 5: Borehole Records	On-site	0-50m	51-250		
5 BGS Recorded Boreholes	51	0	0		
Section 6: Estimated Background Soil Chemistry	On-site	0-50m	51-250		
6 Records of Background Soil Chemistry	40	3	30		
Section 7: Railways and Tunnels	On-site	0-50m	51-250	251-500	
7.1 Tunnels	0	0	0	Not Searched	
7.2 Historical Railway and Tunnel Features	48	9	8	Not Searched	
7.3 Historical Railways	0	0	0	Not Searched	
7.4 Active Railways	9	11	9	Not Searched	

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

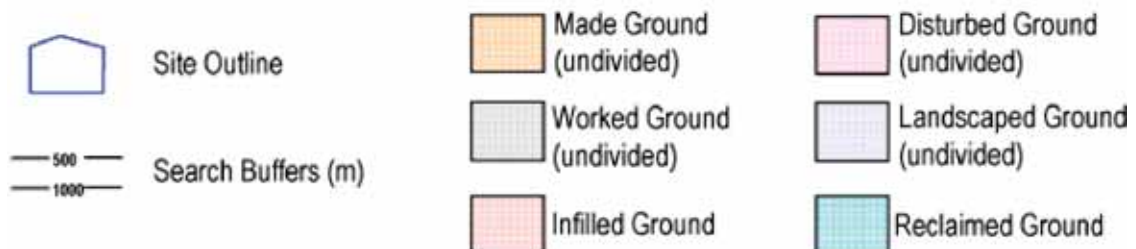
1 Geology

1.1 Artificial Ground Map



Artificial Ground Legend

© Crown copyright and database rights 2016.
Ordnance Survey license 100035207.



1 Geology

1.1 Artificial Ground

1.1.1 Artificial/ Made Ground

The following geological information represented on the mapping is derived from 1:50,000 scale BGS Geological mapping, Sheet No:097

Are there any records of Artificial/Made Ground within 500m of the study site boundary? No

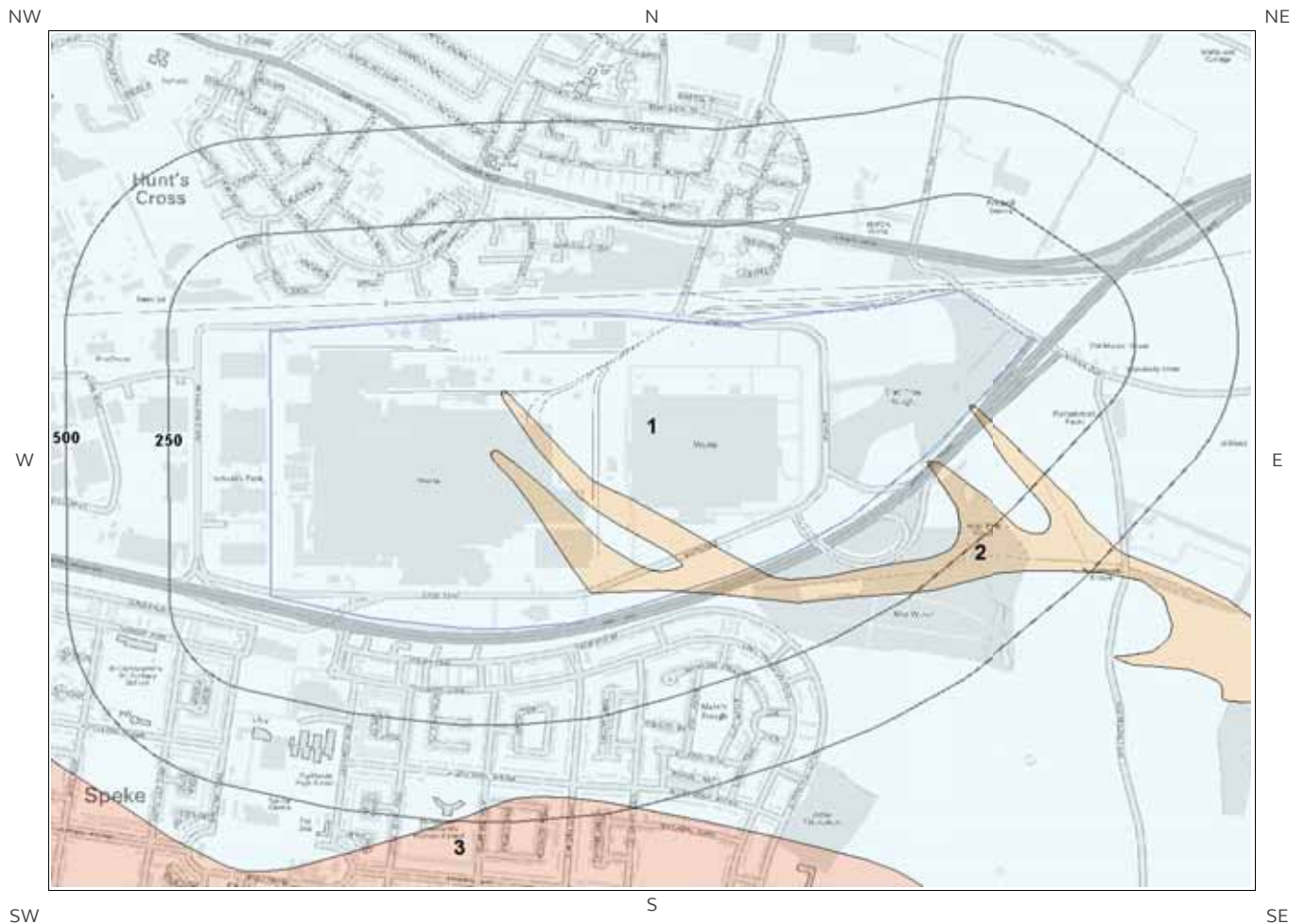
Database searched and no data found.

1.1.2 Permeability of Artificial Ground

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

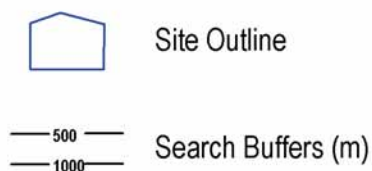
Database searched and no data found.

1.2 Superficial Deposits and Landslips Map



**Superficial Deposits and Landslips
Legend**

© Crown copyright and database rights 2016.
Ordnance Survey license 100035207.



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	0.0	On Site	TILLD	TILL, DEVENSIAN	DIAMICTON
2	0.0	On Site	ALV	ALLUVIUM	CLAY, SILT, SAND AND GRAVEL [UNLITHIFIED DEPOSITS CODING SCHEME]
3	438.0	S	SSA	SHIRDLEY HILL SAND FORMATION	SAND [UNLITHIFIED DEPOSITS CODING SCHEME]

1.2.2 Permeability of Superficial Ground

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

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

1.2.3 Landslip

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

Database searched and no data found.

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

1.2.4 Landslip Permeability

Are there any records relating to permeability of landslips within the study site** boundary?

No

Database searched and no data found.

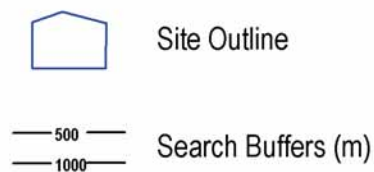
* This includes an automatically generated 50m buffer zone around the site

1.3 Bedrock and Faults Map



Bedrock and Faults Legend

© Crown copyright and database rights 2016.
Ordnance Survey license 100035207.



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:097

1.3.1 Bedrock/ Solid Geology

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

ID	Distance (m)	Direction	LEX Code	Description	Rock Age
1	0.0	On Site	WLSF-SDST	Wilmslow Sandstone Formation - Sandstone	No Details
2	0.0	On Site	CPB-PESST	Chester Pebble Beds Formation - Sandstone, Pebbly (gravelly)	No Details
3	0.0	On Site	KNSF-SDST	Kinnerton Sandstone Formation - Sandstone	No Details
4	69.0	N	ETM-MDSC	Etruria Formation - Mudstone, Sandstone And Conglomerate	No Details
5	290.0	E	CPB-PESST	Chester Pebble Beds Formation - Sandstone, Pebbly (gravelly)	No Details

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	Mixed	High	Moderate
0.0	On Site	Intergranular	High	High
0.0	On Site	Intergranular	High	High
0.0	On Site	Intergranular	High	High

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
8	0.0	On Site	FAULT	Fault, inferred, displacement unknown

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.

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

1.4 Radon Data

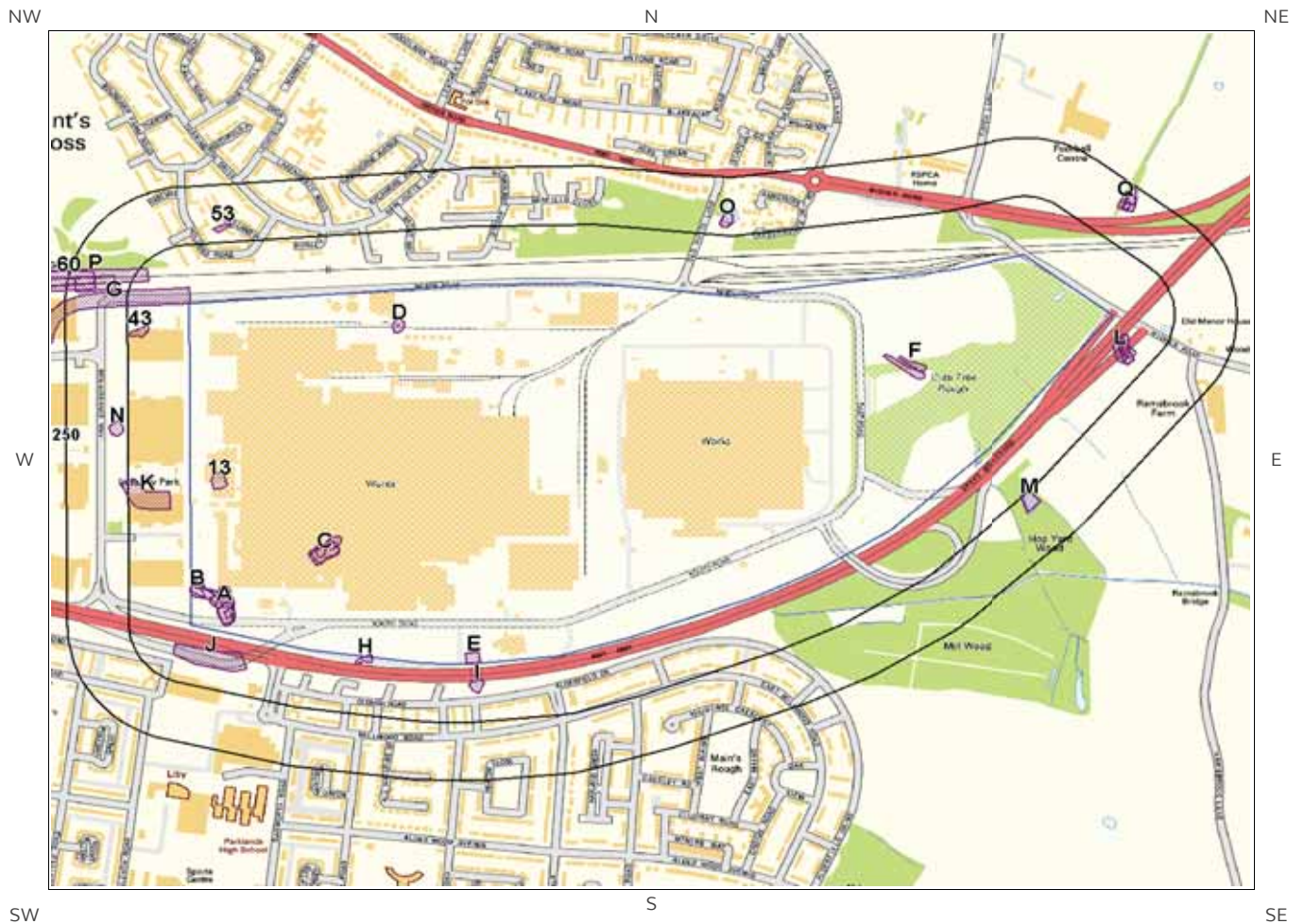
1.4.1 Radon Affected Areas

Is the property in a Radon Affected Area as defined by the Health Protection Agency (HPA) and if so what percentage of homes are above the Action Level? The property is not in a Radon Affected Area, as less than 1% of properties are above the Action Level

1.4.2 Radon Protection

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

2 Ground Workings Map



Ground Workings Legend

© Crown copyright and database rights 2016.
Ordnance Survey license 100035207.



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
1F	0.0	On Site	345607 384279	Ponds	1949
2H	0.0	On Site	344499 383645	Pond	1938
3A	0.0	On Site	344213 383755	Ponds	1938
4A	0.0	On Site	344213 383755	Ponds	1938
5A	0.0	On Site	344213 383755	Ponds	1904
6E	0.0	On Site	344720 383651	Cuttings	1980
7B	0.0	On Site	344163 383792	Pond	1938
8B	0.0	On Site	344163 383792	Pond	1938
9B	0.0	On Site	344163 383792	Pond	1904
10C	0.0	On Site	344418 383871	Ponds	1938
11C	0.0	On Site	344418 383871	Ponds	1904
12C	0.0	On Site	344419 383875	Ponds	1891
13	0.0	On Site	344207 384028	Pond	1904
14D	0.0	On Site	344569 384358	Pond	1938
15D	0.0	On Site	344569 384358	Pond	1938
16A	0.0	On Site	344203 383778	Ponds	1956
17C	0.0	On Site	344426 383887	Ponds	1956
18E	0.0	On Site	344720 383651	Cuttings	1991
19F	0.0	On Site	345591 384272	Ponds	1891
20E	0.0	On Site	344720 383651	Cuttings	1966

ID	Distance (m)	Direction	NGR	Use	Date
21G	0.0	On Site	343879 384383	Cuttings	1991
22G	0.0	On Site	343879 384383	Cuttings	1980
23G	0.0	On Site	343879 384383	Cuttings	1966
24H	0.0	On Site	344499 383645	Pond	1938
25H	0.0	On Site	344499 383645	Pond	1904
26B	0.0	On Site	344217 383766	Ponds	1891
27C	0.0	On Site	344418 383871	Ponds	1938
28I	35.0	S	344728 383589	Cuttings	1980
29I	35.0	S	344728 383589	Cuttings	1991
30I	35.0	S	344728 383589	Cuttings	1966
31J	36.0	S	344188 383651	Cuttings	1966
32J	36.0	S	344188 383651	Cuttings	1980
33J	36.0	S	344188 383651	Cuttings	1991
34L	38.0	SE	346033 384307	Ponds	1891
35K	41.0	W	344058 384000	Cuttings	1980
36K	41.0	W	344058 384000	Cuttings	1966
37K	41.0	W	344058 384000	Cuttings	1991
38L	42.0	SE	346047 384318	Ponds	1949
39L	48.0	SE	346045 384304	Pond	1894
40L	48.0	SE	346045 384304	Pond	1894
41L	49.0	SE	346044 384303	Ponds	1925
42L	49.0	SE	346044 384303	Ponds	1905
43	81.0	W	344046 384348	Ponds	1891
44P	95.0	NW	343726 384449	Cuttings	1956
45M	117.0	SE	345852 383985	Pond	1982
46M	117.0	SE	345852 383985	Pond	1968
47N	134.0	W	343999 384140	Pond	1938
48N	134.0	W	343999 384140	Pond	1938

ID	Distance (m)	Direction	NGR	Use	Date
49O	143.0	N	345232 384585	Pond	1891
50O	144.0	N	345231 384586	Pond	1938
51O	144.0	N	345231 384586	Pond	1938
52O	144.0	N	345231 384586	Pond	1904
53	148.0	N	344213 384569	Pond	1891
54G	152.0	W	343956 384449	Cuttings	1938
55G	152.0	W	343956 384449	Cuttings	1904
56P	193.0	W	343698 384437	Cuttings	1891
57Q	193.0	NE	346039 384625	Ponds	1891
58Q	196.0	NE	346049 384623	Ponds	1925
59Q	196.0	NE	346049 384623	Ponds	1905
60	197.0	W	343857 384457	Cuttings	1938
61Q	197.0	NE	346049 384623	Pond	1894
62Q	197.0	NE	346049 384623	Pond	1894
63Q	208.0	NE	346051 384638	Pond	1982
64Q	208.0	NE	346051 384638	Pond	1968
65Q	208.0	NE	346051 384638	Ponds	1949

2.2 Historical Underground Working Features derived from Historical Mapping

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

Are there any Historical Underground Working Features within 1000m of the study site boundary? No

Database searched and no data found.

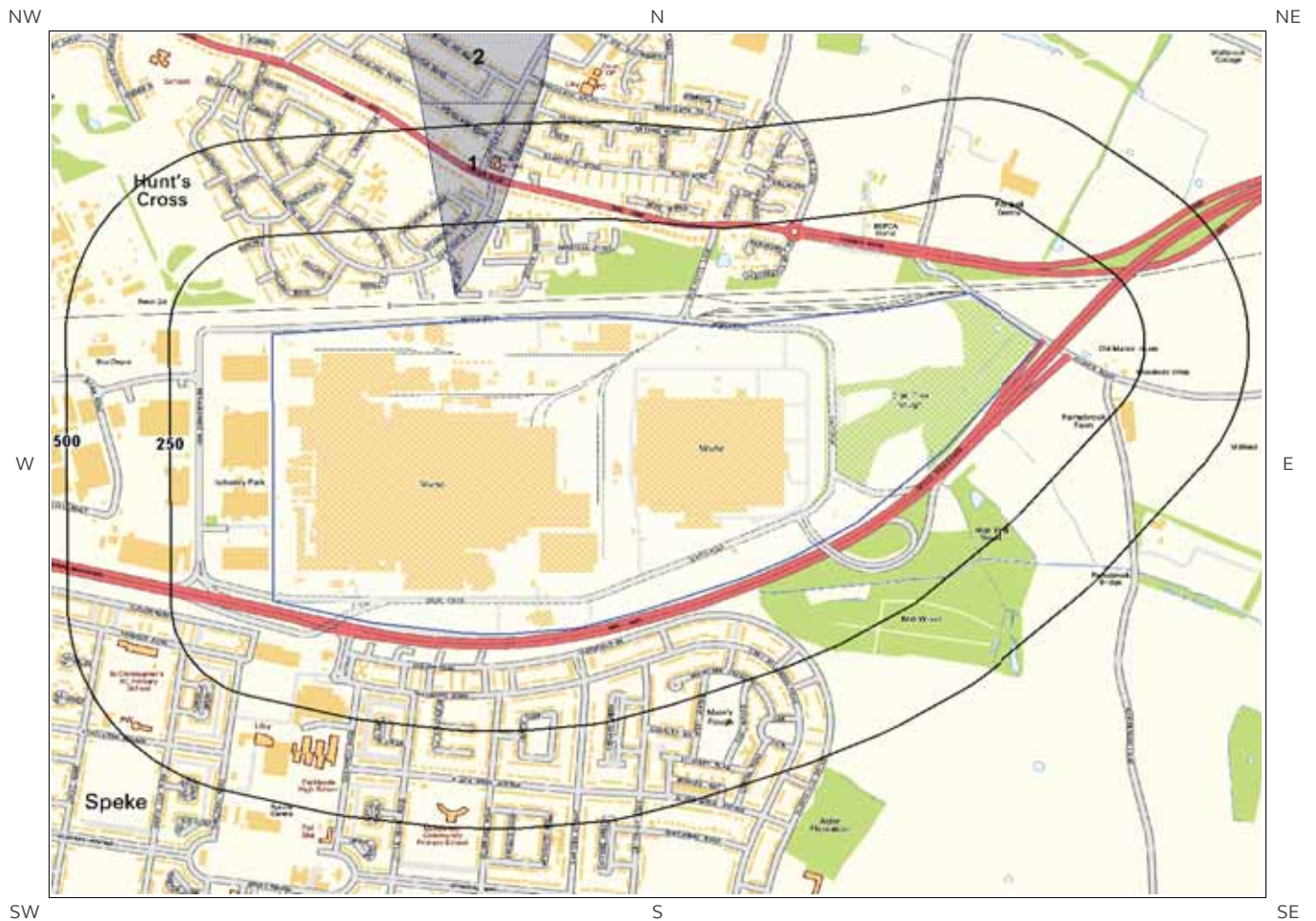
2.3 Current Ground Workings

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? No

Database searched and no data found.

3 Mining, Extraction & Natural Cavities Map



Mining, Extraction and Natural Cavities Legend

© Crown copyright and database rights 2016.
Ordnance Survey license 100035207.



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? No

Database searched and no data found.

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
489.0	N	The study site is located within the specified search distance of an identified mining area. Further details concerning this can be obtained from the Coal Authority Helpline on 0845 762 6848.

3.3 Johnson Poole and Bloomer

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

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

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

3.4 Non-Coal Mining

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

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

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

ID	Distance (m)	Direction	Name	Commodity	Assessment of likelihood
1	69.0	N	Not available	Vein Mineral	Occasional minor mining may have occurred but of restricted extent.
2	552.0	N	Not available	Vein Mineral	Occasional minor mining may have occurred but of restricted 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 data provides information from the Coal Authority issued on behalf of the Cheshire Brine Subsidence Compensation Board.

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

Database searched and no data found.

3.8 Gypsum Extraction

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

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

Database searched and no data found.

3.9 Tin Mining

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

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

Database searched and no data found.

3.10 Clay Mining

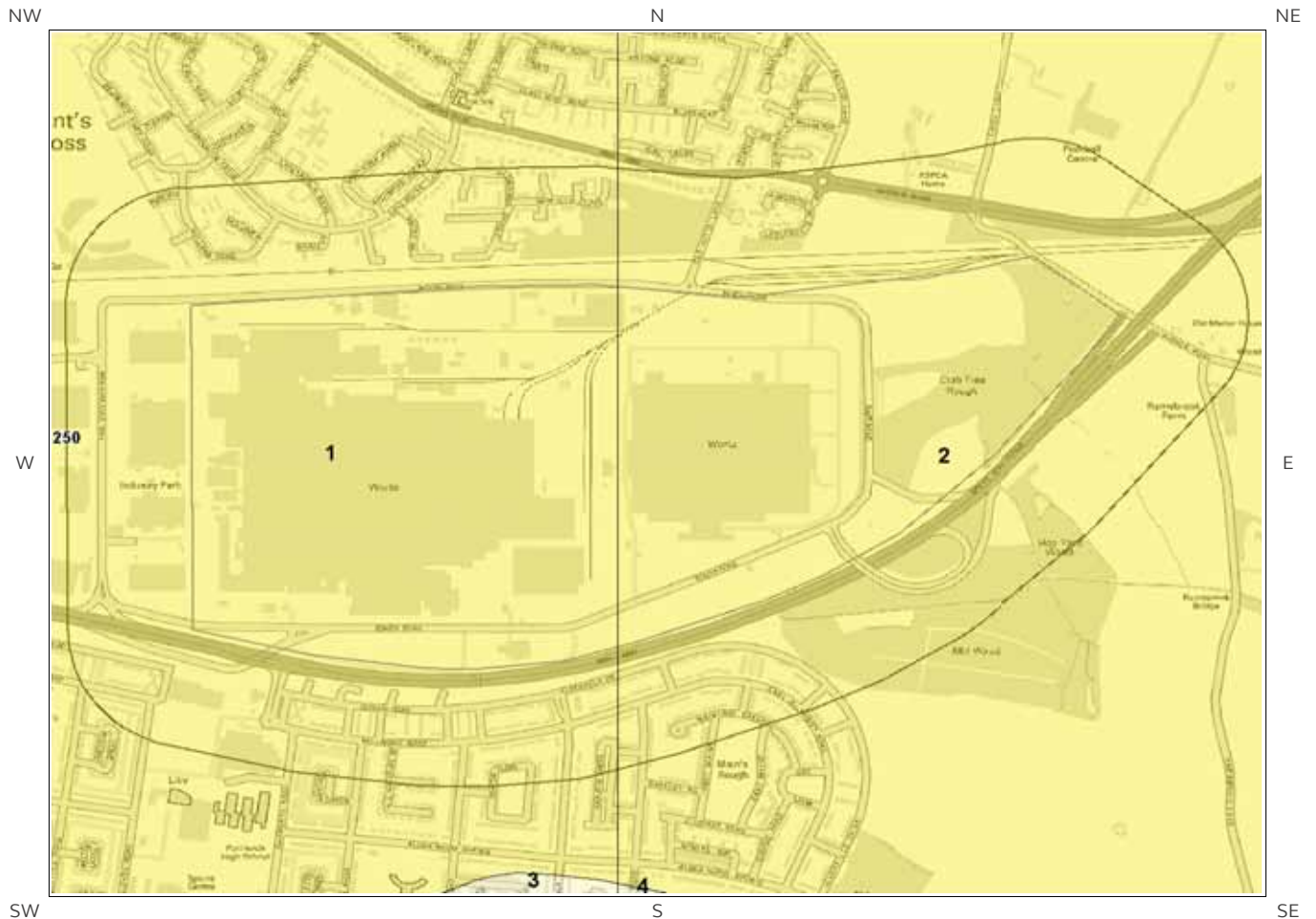
This dataset provides information on Kaolin and Ball Clay mining from relevant mining records.

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

Database searched and no data found.

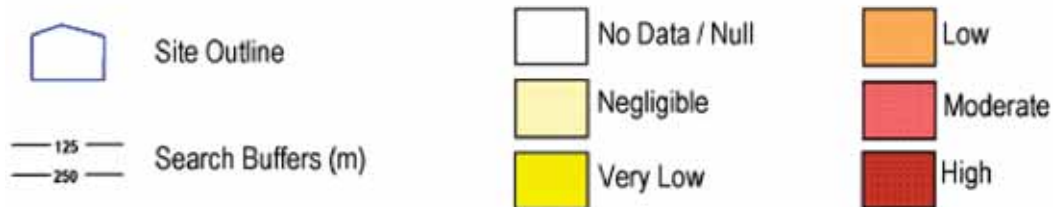
4 Natural Ground Subsidence

4.1 Shrink-Swell Clay Map

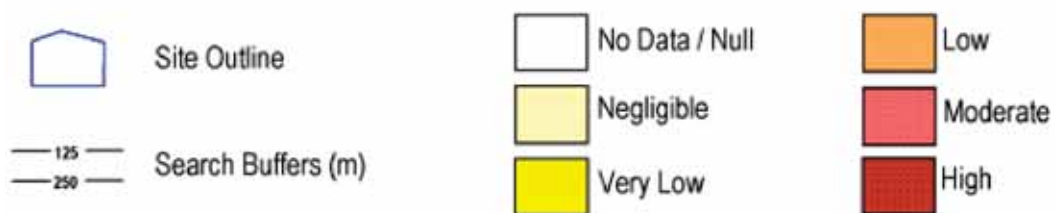
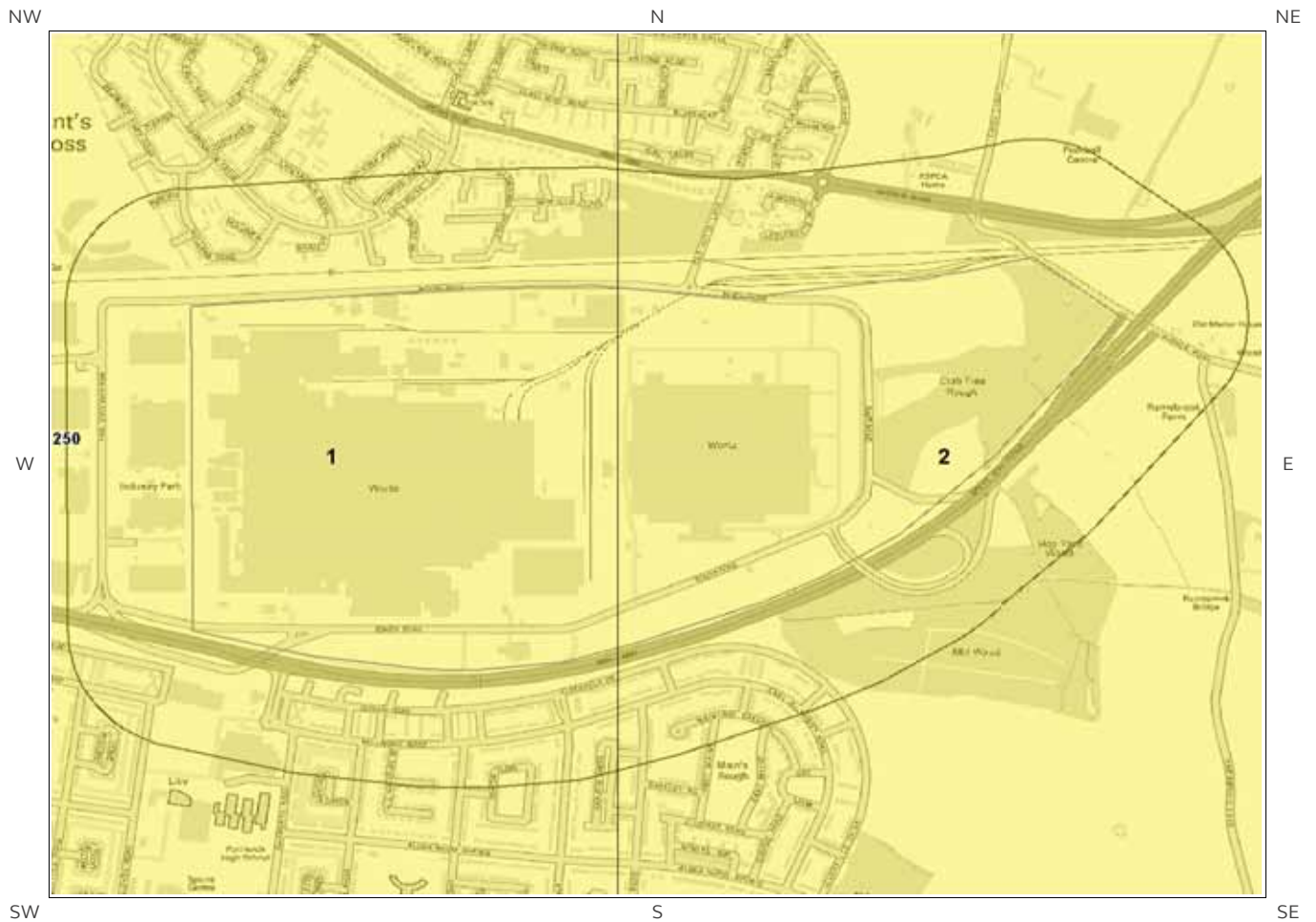


Shrink Swell Clay Legend

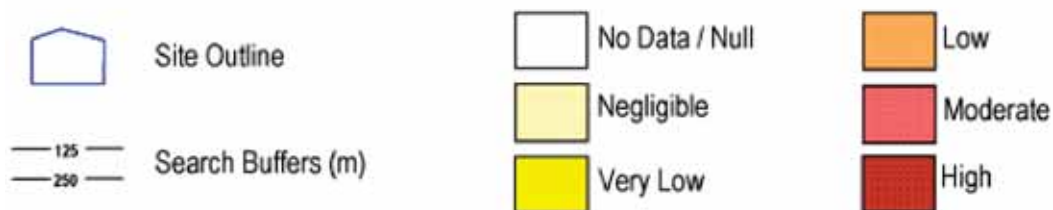
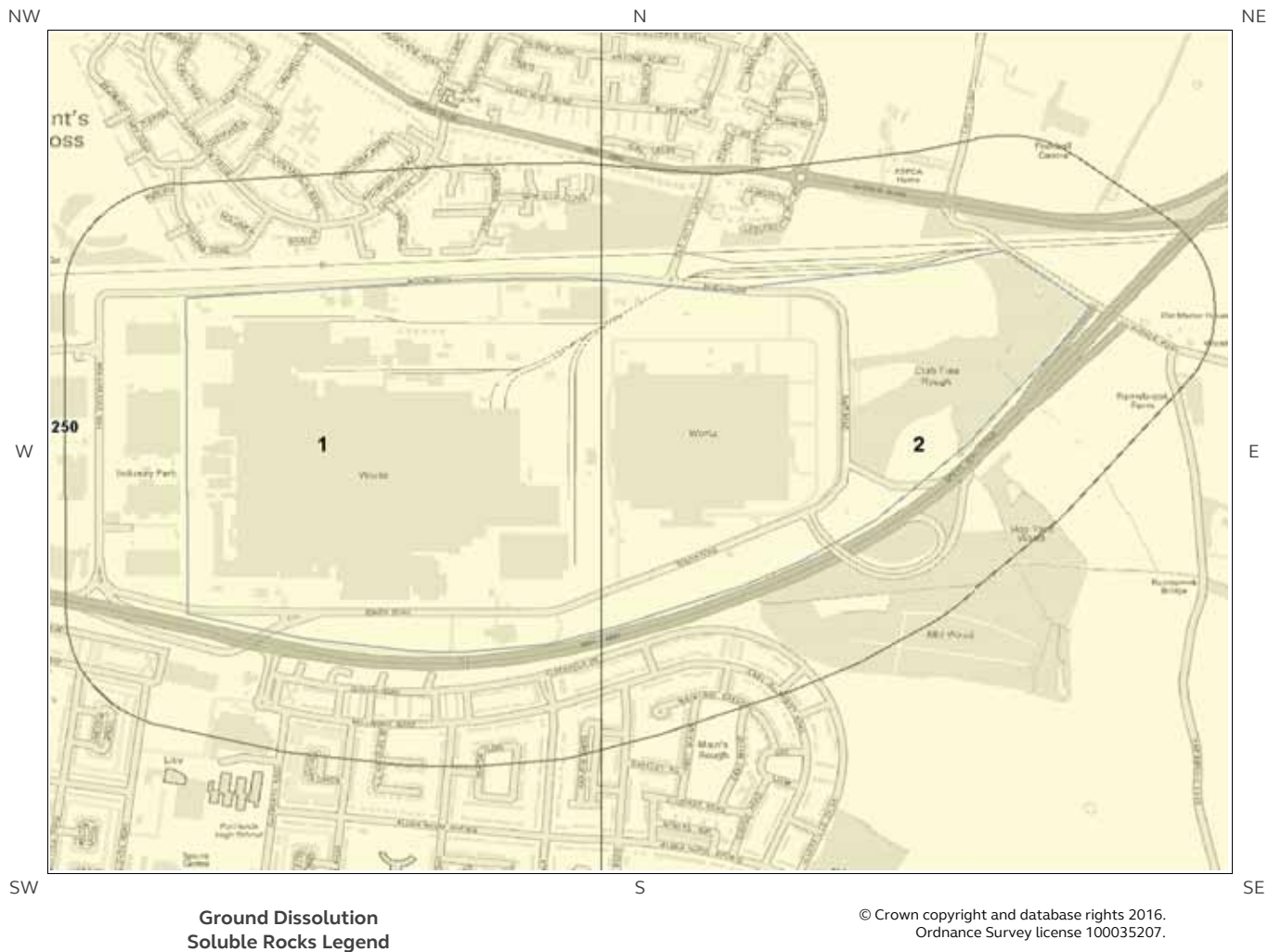
© Crown copyright and database rights 2016.
Ordnance Survey license 100035207.



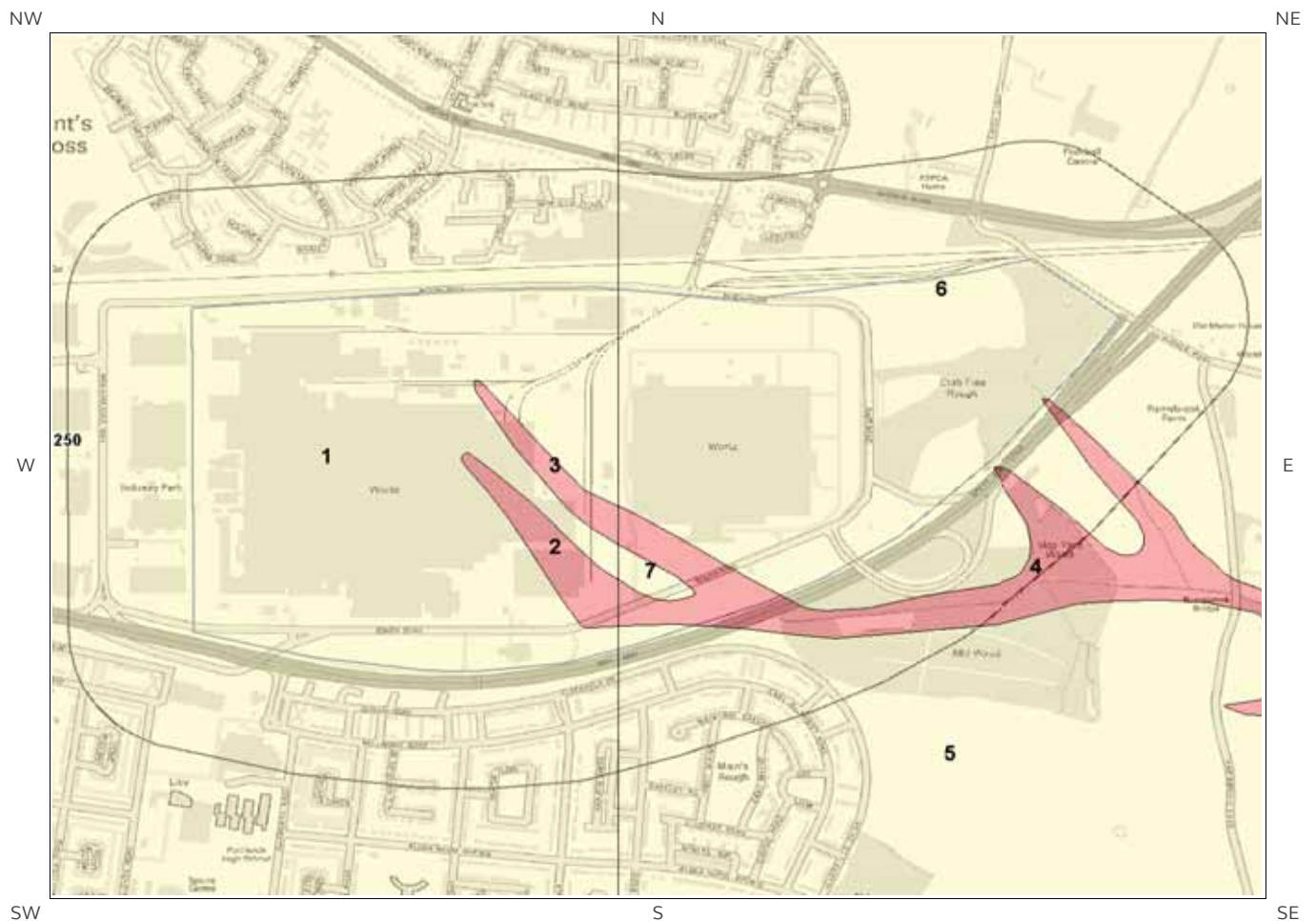
4.2 Landslides Map



4.3 Ground Dissolution Soluble Rocks Map

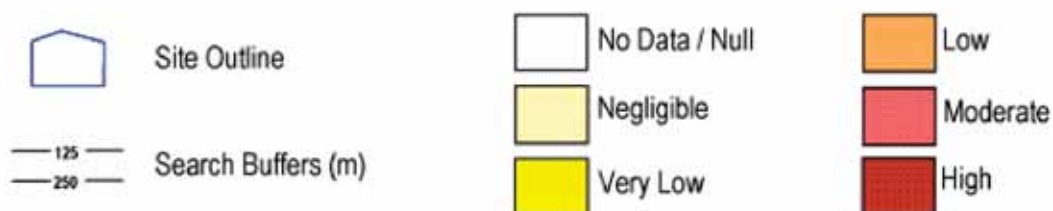


4.4 Compressible Deposits Map

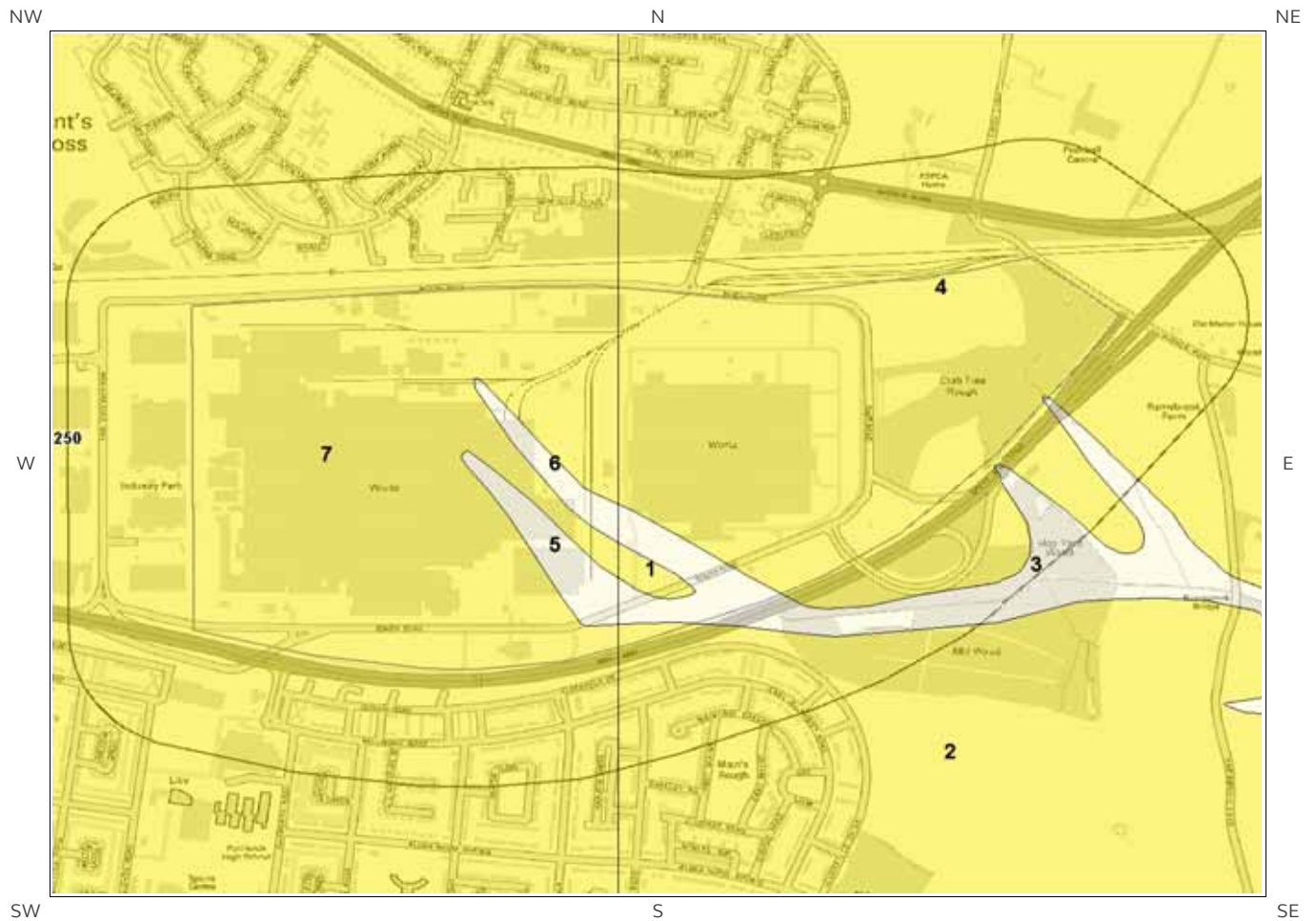


Compressible Deposits Legend

© Crown copyright and database rights 2016.
Ordnance Survey license 100035207.

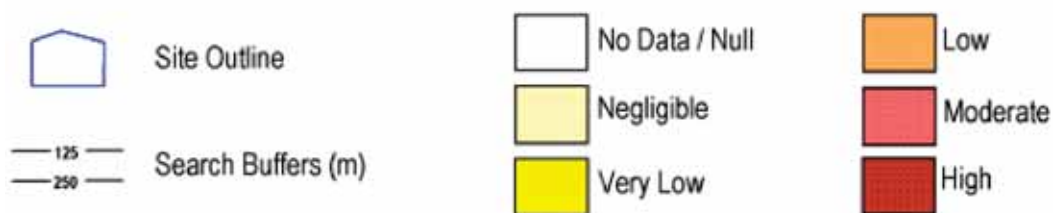


4.5 Collapsible Deposits Map

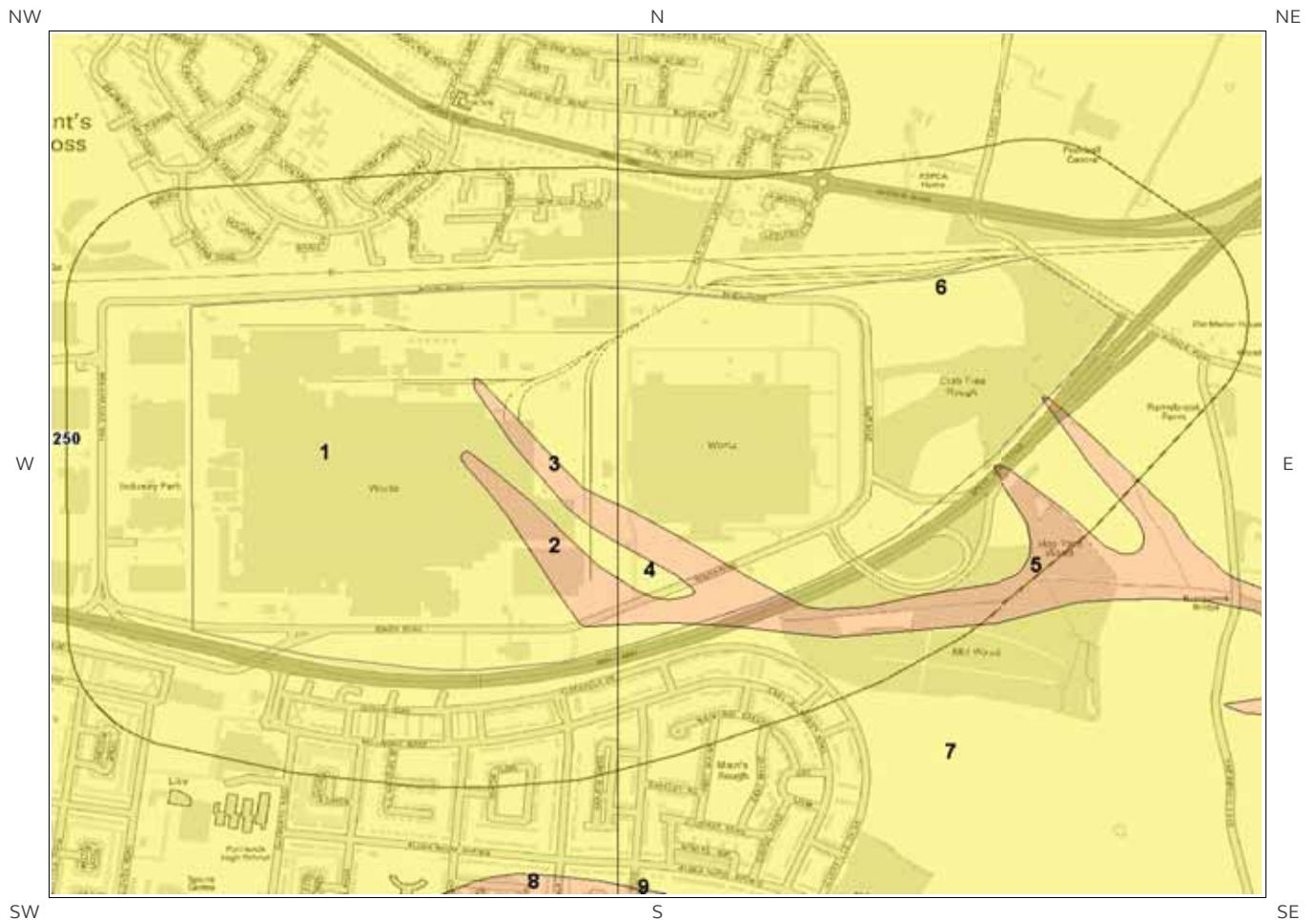


Collapsible Deposits Legend

© Crown copyright and database rights 2016.
Ordnance Survey license 100035207.

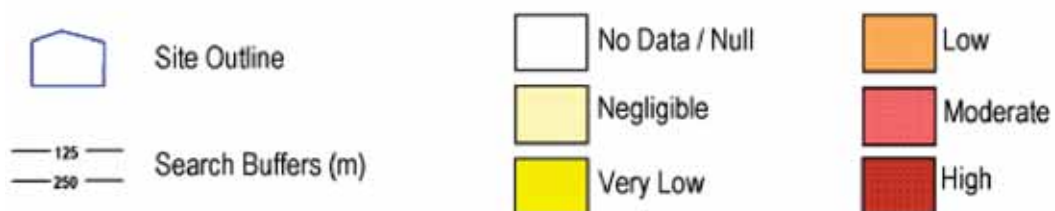


4.6 Running Sand Map



Running Sand Legend

© Crown copyright and database rights 2016.
Ordnance Survey license 100035207.



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? **Moderate**

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	Very Low	Ground conditions predominantly low plasticity. No special actions required to avoid problems due to shrink-swell clays. No special ground investigation required, and increased construction costs or increased financial risks are unlikely due to potential problems with shrink-swell clays.
2	0.0	On Site	Very Low	Ground conditions predominantly low plasticity. No special actions required to avoid problems due to shrink-swell clays. No special ground investigation required, and increased construction costs or increased financial risks are unlikely due to potential problems with shrink-swell clays.

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.
2	0.0	On Site	Very Low	Slope instability problems are unlikely to be present. No special actions required to avoid problems due to landslides. No special ground investigation required, and increased construction costs or increased financial risks are unlikely due to potential problems with landslides.

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

4.3 Ground Dissolution of Soluble Rocks

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

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

4.4 Compressible Deposits

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

ID	Distance (m)	Direction	Hazard Rating	Details
1	0.0	On Site	Negligible	No indicators for compressible ground identified. No special actions required to avoid problems due to compressible ground. No special ground investigation required, and increased construction costs or increased financial risks are unlikely due to potential problems with compressible ground.
2	0.0	On Site	Moderate	Significant potential for compressibility problems. Do not drain, load or de-water ground near the property without technical advice. For new build, consider possibility of compressible ground in ground investigation, construction and building design. Consider effects of groundwater changes. Extra construction costs are likely. For existing property, possible increase in insurance risk from compressibility, especially if water conditions or loading of the ground change significantly.
3	0.0	On Site	Moderate	Significant potential for compressibility problems. Do not drain, load or de-water ground near the property without technical advice. For new build, consider possibility of compressible ground in ground investigation, construction and building design. Consider effects of groundwater changes. Extra construction costs are likely. For existing property, possible increase in insurance risk from compressibility, especially if water conditions or loading of the ground change significantly.
4	0.0	On Site	Moderate	Significant potential for compressibility problems. Do not drain, load or de-water ground near the property without technical advice. For new build, consider possibility of compressible ground in ground investigation, construction and building design. Consider effects of groundwater changes. Extra construction costs are likely. For existing property, possible increase in insurance risk from compressibility, especially if water conditions or loading of the ground change significantly.
5	0.0	On Site	Negligible	No indicators for compressible ground identified. No special actions required to avoid problems due to compressible ground. No special ground investigation required, and increased construction costs or increased financial risks are unlikely due to potential problems with compressible ground.
6	0.0	On Site	Negligible	No indicators for compressible ground identified. No special actions required to avoid problems due to compressible ground. No special ground investigation required, and increased construction costs or increased financial risks are unlikely due to potential problems with compressible ground.
7	0.0	On Site	Negligible	No indicators for compressible ground identified. No special actions required to avoid problems due to compressible ground. No special ground investigation required, and increased construction costs or increased financial risks are unlikely due to potential problems with compressible ground.

4.5 Collapsible Deposits

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

ID	Distance (m)	Direction	Hazard Rating	Details
1	0.0	On Site	Very Low	Deposits with potential to collapse when loaded and saturated are unlikely to be present. No special ground investigation required or increased construction costs or increased financial risk due to potential problems with collapsible deposits.
2	0.0	On Site	Very Low	Deposits with potential to collapse when loaded and saturated are unlikely to be present. No special ground investigation required or increased construction costs or increased financial risk due to potential problems with collapsible deposits.
3	0.0	On Site	Negligible	No indicators for collapsible deposits identified. No actions required to avoid problems due to collapsible deposits. No special ground investigation required, or increased construction costs or increased financial risk due to potential problems with collapsible deposits.
4	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.
5	0.0	On Site	Negligible	No indicators for collapsible deposits identified. No actions required to avoid problems due to collapsible deposits. No special ground investigation required, or increased construction costs or increased financial risk due to potential problems with collapsible deposits.
6	0.0	On Site	Negligible	No indicators for collapsible deposits identified. No actions required to avoid problems due to collapsible deposits. No special ground investigation required, or increased construction costs or increased financial risk due to potential problems with collapsible deposits.
7	0.0	On Site	Very Low	Deposits with potential to collapse when loaded and saturated are unlikely to be present. No special ground investigation required or increased construction costs or increased financial risk due to potential problems with collapsible deposits.

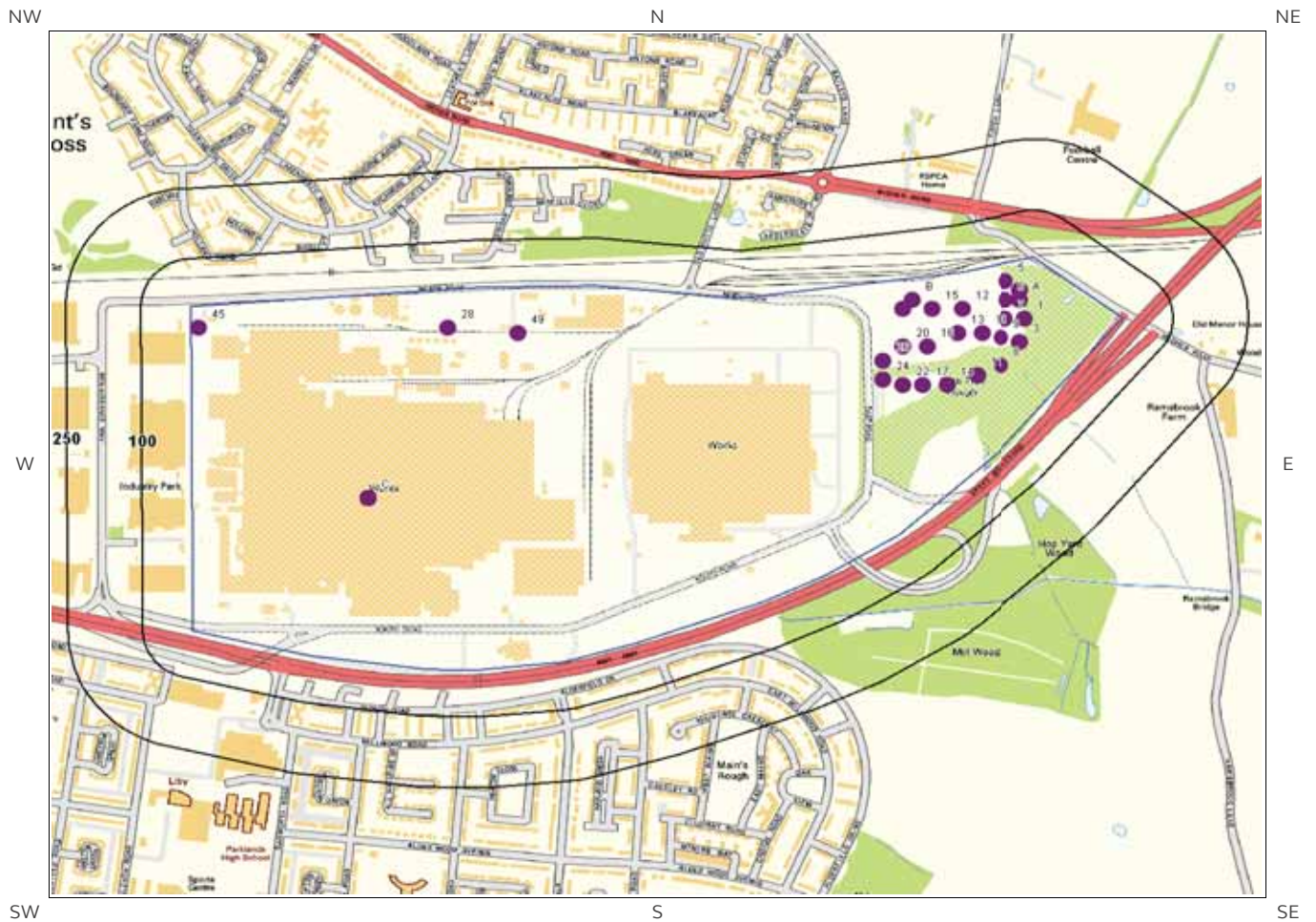
4.6 Running Sands

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

ID	Distance (m)	Direction	Hazard Rating	Details
1	0.0	On Site	Very Low	Very low potential for running sand problems if water table rises or if sandy strata are exposed to water. No special actions required to avoid problems due to running sand. No special ground investigation required, and increased construction costs or increased financial risks are unlikely due to potential problems with running sand.
2	0.0	On Site	Low	Possibility of running sand problems after major changes in ground conditions. Normal maintenance to avoid leakage of water-bearing services or water bodies (ponds, swimming pools) should reduce likelihood of problems due to running sand. For new build, consider possibility of running sand into trenches or excavations if water table is high or sandy strata are exposed to water. Avoid concentrated water inputs to site. Unlikely to be an increase in construction costs due to potential for running sand. For existing property, no significant increase in insurance risk due to running sand problems is likely.

ID	Distance (m)	Direction	Hazard Rating	Details
3	0.0	On Site	Low	Possibility of running sand problems after major changes in ground conditions. Normal maintenance to avoid leakage of water-bearing services or water bodies (ponds, swimming pools) should reduce likelihood of problems due to running sand. For new build, consider possibility of running sand into trenches or excavations if water table is high or sandy strata are exposed to water. Avoid concentrated water inputs to site. Unlikely to be an increase in construction costs due to potential for running sand. For existing property, no significant increase in insurance risk due to running sand problems is likely.
4	0.0	On Site	Very Low	Very low potential for running sand problems if water table rises or if sandy strata are exposed to water. No special actions required to avoid problems due to running sand. No special ground investigation required, and increased construction costs or increased financial risks are unlikely due to potential problems with running sand.
5	0.0	On Site	Low	Possibility of running sand problems after major changes in ground conditions. Normal maintenance to avoid leakage of water-bearing services or water bodies (ponds, swimming pools) should reduce likelihood of problems due to running sand. For new build, consider possibility of running sand into trenches or excavations if water table is high or sandy strata are exposed to water. Avoid concentrated water inputs to site. Unlikely to be an increase in construction costs due to potential for running sand. For existing property, no significant increase in insurance risk due to running sand problems is likely.
6	0.0	On Site	Very Low	Very low potential for running sand problems if water table rises or if sandy strata are exposed to water. No special actions required to avoid problems due to running sand. No special ground investigation required, and increased construction costs or increased financial risks are unlikely due to potential problems with running sand.
7	0.0	On Site	Very Low	Very low potential for running sand problems if water table rises or if sandy strata are exposed to water. No special actions required to avoid problems due to running sand. No special ground investigation required, and increased construction costs or increased financial risks are unlikely due to potential problems with running sand.

5 Borehole Records Map



Borehole Records Legend

© Crown copyright and database rights 2016.
Ordnance Survey license 100035207.



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:

51

ID	Distance (m)	Direction	NGR	BGS Reference	Drilled Length	Borehole Name
1	0.0	On Site	345820 384380	SJ48SE308	-1.0	JAGUAR EASTERN COMPOUND HALEWOOD TP20
2A	0.0	On Site	345810 384420	SJ48SE310	-1.0	JAGUAR EASTERN COMPOUND HALEWOOD TP22
3	0.0	On Site	345810 384330	SJ48SE306	-1.0	JAGUAR EASTERN COMPOUND HALEWOOD TP18
4A	0.0	On Site	345810 384440	SJ48SE299	-1.0	JAGUAR EASTERN COMPOUND HALEWOOD 12
5	0.0	On Site	345780 384460	SJ48SE311	-1.0	JAGUAR EASTERN COMPOUND HALEWOOD TP23
6	0.0	On Site	345780 384420	SJ48SE309	-1.0	JAGUAR EASTERN COMPOUND HALEWOOD TP21
7	0.0	On Site	345780 384380	SJ48SE307	-1.0	JAGUAR EASTERN COMPOUND HALEWOOD TP19
8	0.0	On Site	345770 384280	SJ48SE300	-1.0	JAGUAR EASTERN COMPOUND HALEWOOD 13
9	0.0	On Site	345770 384340	SJ48SE305	-1.0	JAGUAR EASTERN COMPOUND HALEWOOD TP17
10	0.0	On Site	345730 384350	SJ48SE304	-1.0	JAGUAR EASTERN COMPOUND HALEWOOD TP16
11	0.0	On Site	345720 384260	SJ48SE303	-1.0	JAGUAR EASTERN COMPOUND HALEWOOD TP12
12	0.0	On Site	345690 384400	SJ48SE291	-1.0	JAGUAR EASTERN COMPOUND HALEWOOD 3
13	0.0	On Site	345680 384350	SJ48SE294	-1.0	JAGUAR EASTERN COMPOUND HALEWOOD 6
14	0.0	On Site	345660 384240	SJ48SE297	-1.0	JAGUAR EASTERN COMPOUND HALEWOOD 9
15	0.0	On Site	345630 384400	SJ48SE290	-1.0	JAGUAR EASTERN COMPOUND HALEWOOD 2

ID	Distance (m)	Direction	NGR	BGS Reference	Drilled Length	Borehole Name
16	0.0	On Site	345620 384320	SJ48SE293	-1.0	JAGUAR EASTERN COMPOUND HALEWOOD 5
17	0.0	On Site	345610 384240	SJ48SE296	-1.0	JAGUAR EASTERN COMPOUND HALEWOOD 8
18B	0.0	On Site	345590 384420	SJ48SE301	-1.0	JAGUAR EASTERN COMPOUND HALEWOOD TP1
19B	0.0	On Site	345570 384400	SJ48SE289	-1.0	JAGUAR EASTERN COMPOUND HALEWOOD 1
20	0.0	On Site	345570 384320	SJ48SE292	-1.0	JAGUAR EASTERN COMPOUND HALEWOOD 4
21C	0.0	On Site	344500 384000	SJ48SW258	-1.0	FORD HALEWOOD S I, 15
22	0.0	On Site	345570 384240	SJ48SE295	-1.0	JAGUAR EASTERN COMPOUND HALEWOOD 7
23C	0.0	On Site	344500 384000	SJ48SW262	15.24	FORD HALEWOOD S I, 19
24	0.0	On Site	345530 384250	SJ48SE302	-1.0	JAGUAR EASTERN COMPOUND HALEWOOD TP4
25C	0.0	On Site	344500 384000	SJ48SW254	-1.0	FORD HALEWOOD S I, 11
26	0.0	On Site	345530 384290	SJ48SE298	-1.0	JAGUAR EASTERN COMPOUND HALEWOOD 10
27C	0.0	On Site	344500 384000	SJ48SW257	-1.0	FORD HALEWOOD S I, 14
28	0.0	On Site	344660 384360	SJ48SW240	190.0	FORD MOTOR CO. HALEWOOD NO. 2
29C	0.0	On Site	344500 384000	SJ48SW252	26.52	FORD HALEWOOD S I, 9
30C	0.0	On Site	344500 384000	SJ48SW246	-1.0	FORD HALEWOOD S I, 3
31C	0.0	On Site	344500 384000	SJ48SW229	-1.0	FORD HALEWOOD S.I. HOLES (24)
32C	0.0	On Site	344500 384000	SJ48SW255	-1.0	FORD HALEWOOD S I, 12
33C	0.0	On Site	344500 384000	SJ48SW244	36.35	FORD HALEWOOD S I, 1
34C	0.0	On Site	344500 384000	SJ48SW251	-1.0	FORD HALEWOOD S I, 8
35C	0.0	On Site	344500 384000	SJ48SW259	-1.0	FORD HALEWOOD S I, 16
36C	0.0	On Site	344500 384000	SJ48SW263	-1.0	FORD HALEWOOD S I, 20
37C	0.0	On Site	344500 384000	SJ48SW264	15.39	FORD HALEWOOD S I, 21
38C	0.0	On Site	344500 384000	SJ48SW267	24.38	FORD HALEWOOD S I, 24
39C	0.0	On Site	344500 384000	SJ48SW261	15.54	FORD HALEWOOD S I, 18
40C	0.0	On Site	344500 384000	SJ48SW250	-1.0	FORD HALEWOOD S I, 7

ID	Distance (m)	Direction	NGR	BGS Reference	Drilled Length	Borehole Name
41C	0.0	On Site	344500 384000	SJ48SW256	-1.0	FORD HALEWOOD S I, 13
42C	0.0	On Site	344500 384000	SJ48SW265	-1.0	FORD HALEWOOD S I, 22
43C	0.0	On Site	344500 384000	SJ48SW266	-1.0	FORD HALEWOOD S I, 23
44C	0.0	On Site	344500 384000	SJ48SW260	15.39	FORD HALEWOOD S I, 17
45	0.0	On Site	344160 384360	SJ48SW241	181.0	FORD OBH, HALEWOOD
46C	0.0	On Site	344500 384000	SJ48SW245	24.87	FORD HALEWOOD S I, 2
47C	0.0	On Site	344500 384000	SJ48SW253	-1.0	FORD HALEWOOD S I, 10
48C	0.0	On Site	344500 384000	SJ48SW249	-1.0	FORD HALEWOOD S I, 6
49	0.0	On Site	344800 384350	SJ48SW13	190.0	FORD MOTOR CO LTD HALEWOOD 1
50C	0.0	On Site	344500 384000	SJ48SW248	-1.0	FORD HALEWOOD S I, 5
51C	0.0	On Site	344500 384000	SJ48SW247	-1.0	FORD HALEWOOD S I, 4

The borehole records are available using the hyperlinks below: Please note that if the donor of the borehole record has requested the information be held as commercial-in-confidence, the additional data will be held separately by the BGS and a formal request must be made for its release.

#21C: scans.bgs.ac.uk/sobi_scans/boreholes/1137039
#23C: scans.bgs.ac.uk/sobi_scans/boreholes/1137043
#25C: scans.bgs.ac.uk/sobi_scans/boreholes/1137035
#27C: scans.bgs.ac.uk/sobi_scans/boreholes/1137038
#28: scans.bgs.ac.uk/sobi_scans/boreholes/164880
#29C: scans.bgs.ac.uk/sobi_scans/boreholes/1137033
#30C: scans.bgs.ac.uk/sobi_scans/boreholes/1137027
#31C: scans.bgs.ac.uk/sobi_scans/boreholes/164869
#32C: scans.bgs.ac.uk/sobi_scans/boreholes/1137036
#33C: scans.bgs.ac.uk/sobi_scans/boreholes/1137025
#34C: scans.bgs.ac.uk/sobi_scans/boreholes/1137032
#35C: scans.bgs.ac.uk/sobi_scans/boreholes/1137040
#36C: scans.bgs.ac.uk/sobi_scans/boreholes/1137044
#37C: scans.bgs.ac.uk/sobi_scans/boreholes/1137045
#38C: scans.bgs.ac.uk/sobi_scans/boreholes/1137048
#39C: scans.bgs.ac.uk/sobi_scans/boreholes/1137042
#40C: scans.bgs.ac.uk/sobi_scans/boreholes/1137031
#41C: scans.bgs.ac.uk/sobi_scans/boreholes/1137037
#42C: scans.bgs.ac.uk/sobi_scans/boreholes/1137046
#43C: scans.bgs.ac.uk/sobi_scans/boreholes/1137047
#44C: scans.bgs.ac.uk/sobi_scans/boreholes/1137041
#45: scans.bgs.ac.uk/sobi_scans/boreholes/164881
#46C: scans.bgs.ac.uk/sobi_scans/boreholes/1137026
#47C: scans.bgs.ac.uk/sobi_scans/boreholes/1137034
#48C: scans.bgs.ac.uk/sobi_scans/boreholes/1137030
#49: scans.bgs.ac.uk/sobi_scans/boreholes/164653
#50C: scans.bgs.ac.uk/sobi_scans/boreholes/1137029

#51C: scans.bgs.ac.uk/sobi_scans/boreholes/1137028

6 Estimated Background Soil Chemistry

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

73

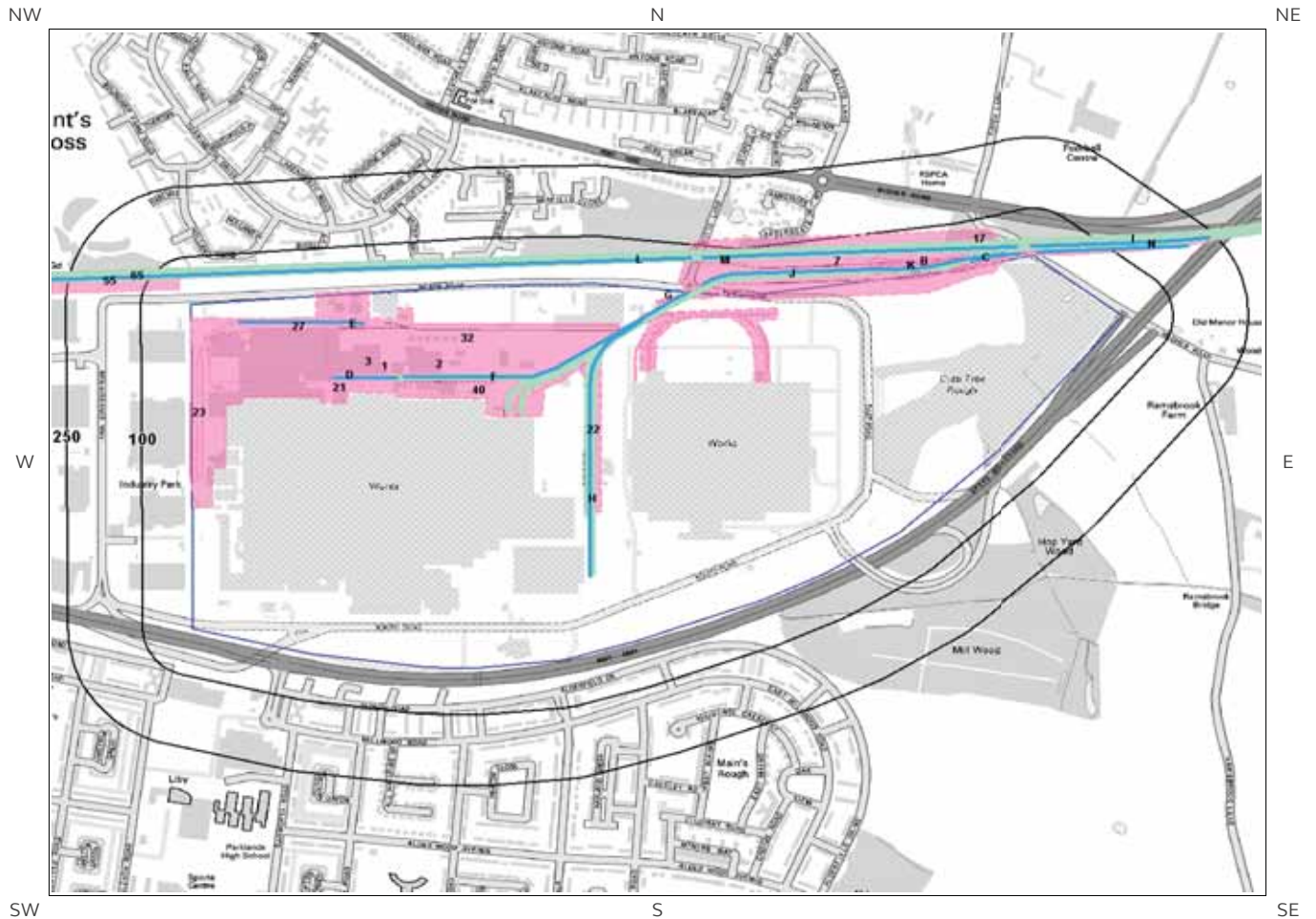
For further information on how this data is calculated and limitations upon its use, please see the Groundsure Geosight User Guide, available on request.

Distance (m)	Direction	Sample Type	Arsenic (As)	Cadmium (Cd)	Chromium (Cr)	Nickel (Ni)	Lead (Pb)
0.0	On Site	RuralSoil	<15 mg/kg	<1.8 mg/kg	90 - 120 mg/kg	15 - 30 mg/kg	<100 mg/kg
0.0	On Site	RuralSoil	<15 mg/kg	<1.8 mg/kg	40 - 60 mg/kg	<15 mg/kg	<100 mg/kg
0.0	On Site	RuralSoil	<15 mg/kg	<1.8 mg/kg	90 - 120 mg/kg	30 - 45 mg/kg	<100 mg/kg
0.0	On Site	RuralSoil	<15 mg/kg	<1.8 mg/kg	90 - 120 mg/kg	30 - 45 mg/kg	<100 mg/kg
0.0	On Site	RuralSoil	<15 mg/kg	<1.8 mg/kg	40 - 60 mg/kg	<15 mg/kg	<100 mg/kg
0.0	On Site	RuralSoil	<15 mg/kg	<1.8 mg/kg	40 - 60 mg/kg	<15 mg/kg	<100 mg/kg
0.0	On Site	RuralSoil	<15 mg/kg	<1.8 mg/kg	90 - 120 mg/kg	30 - 45 mg/kg	<100 mg/kg
0.0	On Site	RuralSoil	<15 mg/kg	<1.8 mg/kg	90 - 120 mg/kg	30 - 45 mg/kg	<100 mg/kg
0.0	On Site	RuralSoil	<15 mg/kg	<1.8 mg/kg	40 - 60 mg/kg	<15 mg/kg	<100 mg/kg
0.0	On Site	RuralSoil	<15 mg/kg	<1.8 mg/kg	40 - 60 mg/kg	<15 mg/kg	<100 mg/kg
0.0	On Site	RuralSoil	<15 mg/kg	<1.8 mg/kg	90 - 120 mg/kg	30 - 45 mg/kg	<100 mg/kg
0.0	On Site	RuralSoil	15 - 25 mg/kg	<1.8 mg/kg	90 - 120 mg/kg	15 - 30 mg/kg	<100 mg/kg
0.0	On Site	RuralSoil	15 - 25 mg/kg	<1.8 mg/kg	90 - 120 mg/kg	15 - 30 mg/kg	<100 mg/kg
0.0	On Site	RuralSoil	<15 mg/kg	<1.8 mg/kg	90 - 120 mg/kg	30 - 45 mg/kg	<100 mg/kg
0.0	On Site	RuralSoil	<15 mg/kg	<1.8 mg/kg	90 - 120 mg/kg	30 - 45 mg/kg	<100 mg/kg
0.0	On Site	RuralSoil	<15 mg/kg	<1.8 mg/kg	90 - 120 mg/kg	30 - 45 mg/kg	<100 mg/kg
0.0	On Site	RuralSoil	15 - 25 mg/kg	<1.8 mg/kg	90 - 120 mg/kg	15 - 30 mg/kg	<100 mg/kg
0.0	On Site	RuralSoil	<15 mg/kg	<1.8 mg/kg	90 - 120 mg/kg	30 - 45 mg/kg	<100 mg/kg
0.0	On Site	RuralSoil	<15 mg/kg	<1.8 mg/kg	40 - 60 mg/kg	<15 mg/kg	<100 mg/kg
0.0	On Site	RuralSoil	15 - 25 mg/kg	<1.8 mg/kg	90 - 120 mg/kg	15 - 30 mg/kg	<100 mg/kg
0.0	On Site	RuralSoil	<15 mg/kg	<1.8 mg/kg	90 - 120 mg/kg	30 - 45 mg/kg	<100 mg/kg
0.0	On Site	RuralSoil	<15 mg/kg	<1.8 mg/kg	90 - 120 mg/kg	30 - 45 mg/kg	<100 mg/kg
0.0	On Site	RuralSoil	<15 mg/kg	<1.8 mg/kg	90 - 120 mg/kg	30 - 45 mg/kg	<100 mg/kg
0.0	On Site	RuralSoil	15 - 25 mg/kg	<1.8 mg/kg	90 - 120 mg/kg	15 - 30 mg/kg	<100 mg/kg
0.0	On Site	RuralSoil	<15 mg/kg	<1.8 mg/kg	90 - 120 mg/kg	30 - 45 mg/kg	<100 mg/kg
0.0	On Site	RuralSoil	<15 mg/kg	<1.8 mg/kg	90 - 120 mg/kg	30 - 45 mg/kg	<100 mg/kg
0.0	On Site	RuralSoil	<15 mg/kg	<1.8 mg/kg	40 - 60 mg/kg	<15 mg/kg	<100 mg/kg
0.0	On Site	RuralSoil	<15 mg/kg	<1.8 mg/kg	90 - 120 mg/kg	30 - 45 mg/kg	<100 mg/kg
0.0	On Site	RuralSoil	<15 mg/kg	<1.8 mg/kg	90 - 120 mg/kg	15 - 30 mg/kg	<100 mg/kg
0.0	On Site	RuralSoil	<15 mg/kg	<1.8 mg/kg	90 - 120 mg/kg	30 - 45 mg/kg	<100 mg/kg
0.0	On Site	RuralSoil	<15 mg/kg	<1.8 mg/kg	90 - 120 mg/kg	30 - 45 mg/kg	<100 mg/kg
0.0	On Site	RuralSoil	<15 mg/kg	<1.8 mg/kg	40 - 60 mg/kg	<15 mg/kg	<100 mg/kg
0.0	On Site	RuralSoil	<15 mg/kg	<1.8 mg/kg	90 - 120 mg/kg	30 - 45 mg/kg	<100 mg/kg
0.0	On Site	RuralSoil	<15 mg/kg	<1.8 mg/kg	90 - 120 mg/kg	15 - 30 mg/kg	<100 mg/kg
0.0	On Site	RuralSoil	15 - 25 mg/kg	<1.8 mg/kg	90 - 120 mg/kg	15 - 30 mg/kg	<100 mg/kg
0.0	On Site	RuralSoil	<15 mg/kg	<1.8 mg/kg	90 - 120 mg/kg	30 - 45 mg/kg	<100 mg/kg
0.0	On Site	RuralSoil	<15 mg/kg	<1.8 mg/kg	40 - 60 mg/kg	<15 mg/kg	<100 mg/kg
0.0	On Site	RuralSoil	<15 mg/kg	<1.8 mg/kg	40 - 60 mg/kg	<15 mg/kg	<100 mg/kg
0.0	On Site	RuralSoil	<15 mg/kg	<1.8 mg/kg	90 - 120 mg/kg	15 - 30 mg/kg	<100 mg/kg

Distance (m)	Direction	Sample Type	Arsenic (As)	Cadmium (Cd)	Chromium (Cr)	Nickel (Ni)	Lead (Pb)
0.0	On Site	RuralSoil	<15 mg/kg	<1.8 mg/kg	90 - 120 mg/kg	15 - 30 mg/kg	<100 mg/kg
14.0	SE	RuralSoil	<15 mg/kg	<1.8 mg/kg	40 - 60 mg/kg	<15 mg/kg	<100 mg/kg
44.0	N	RuralSoil	<15 mg/kg	<1.8 mg/kg	90 - 120 mg/kg	30 - 45 mg/kg	<100 mg/kg
49.0	N	RuralSoil	<15 mg/kg	<1.8 mg/kg	90 - 120 mg/kg	30 - 45 mg/kg	<100 mg/kg
53.0	N	RuralSoil	<15 mg/kg	<1.8 mg/kg	90 - 120 mg/kg	30 - 45 mg/kg	<100 mg/kg
62.0	N	RuralSoil	15 - 25 mg/kg	<1.8 mg/kg	90 - 120 mg/kg	15 - 30 mg/kg	<100 mg/kg
68.0	N	RuralSoil	15 - 25 mg/kg	<1.8 mg/kg	90 - 120 mg/kg	15 - 30 mg/kg	<100 mg/kg
69.0	N	RuralSoil	<15 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<100 mg/kg
86.0	NE	RuralSoil	<15 mg/kg	<1.8 mg/kg	90 - 120 mg/kg	15 - 30 mg/kg	<100 mg/kg
94.0	SE	RuralSoil	<15 mg/kg	<1.8 mg/kg	40 - 60 mg/kg	<15 mg/kg	<100 mg/kg
94.0	SE	RuralSoil	<15 mg/kg	<1.8 mg/kg	40 - 60 mg/kg	<15 mg/kg	<100 mg/kg
96.0	N	RuralSoil	15 - 25 mg/kg	<1.8 mg/kg	90 - 120 mg/kg	15 - 30 mg/kg	<100 mg/kg
137.0	S	RuralSoil	15 - 25 mg/kg	<1.8 mg/kg	90 - 120 mg/kg	15 - 30 mg/kg	<100 mg/kg
139.0	S	RuralSoil	<15 mg/kg	<1.8 mg/kg	90 - 120 mg/kg	30 - 45 mg/kg	<100 mg/kg
144.0	SE	RuralSoil	<15 mg/kg	<1.8 mg/kg	90 - 120 mg/kg	30 - 45 mg/kg	<100 mg/kg
144.0	SE	RuralSoil	<15 mg/kg	<1.8 mg/kg	90 - 120 mg/kg	15 - 30 mg/kg	<100 mg/kg
146.0	W	RuralSoil	15 - 25 mg/kg	<1.8 mg/kg	90 - 120 mg/kg	15 - 30 mg/kg	<100 mg/kg
146.0	W	RuralSoil	15 - 25 mg/kg	<1.8 mg/kg	90 - 120 mg/kg	15 - 30 mg/kg	<100 mg/kg
148.0	W	RuralSoil	15 - 25 mg/kg	<1.8 mg/kg	90 - 120 mg/kg	15 - 30 mg/kg	<100 mg/kg
148.0	W	RuralSoil	15 - 25 mg/kg	<1.8 mg/kg	90 - 120 mg/kg	15 - 30 mg/kg	<100 mg/kg
148.0	W	RuralSoil	15 - 25 mg/kg	<1.8 mg/kg	90 - 120 mg/kg	15 - 30 mg/kg	<100 mg/kg
148.0	W	RuralSoil	15 - 25 mg/kg	<1.8 mg/kg	90 - 120 mg/kg	15 - 30 mg/kg	<100 mg/kg
149.0	SE	RuralSoil	<15 mg/kg	<1.8 mg/kg	90 - 120 mg/kg	15 - 30 mg/kg	<100 mg/kg
152.0	S	RuralSoil	15 - 25 mg/kg	<1.8 mg/kg	90 - 120 mg/kg	15 - 30 mg/kg	<100 mg/kg
173.0	NW	RuralSoil	15 - 25 mg/kg	<1.8 mg/kg	90 - 120 mg/kg	15 - 30 mg/kg	<100 mg/kg
173.0	NW	RuralSoil	15 - 25 mg/kg	<1.8 mg/kg	90 - 120 mg/kg	15 - 30 mg/kg	<100 mg/kg
176.0	S	RuralSoil	<15 mg/kg	<1.8 mg/kg	90 - 120 mg/kg	30 - 45 mg/kg	<100 mg/kg
176.0	S	RuralSoil	<15 mg/kg	<1.8 mg/kg	90 - 120 mg/kg	15 - 30 mg/kg	<100 mg/kg
184.0	SE	RuralSoil	<15 mg/kg	<1.8 mg/kg	40 - 60 mg/kg	<15 mg/kg	<100 mg/kg
233.0	SE	RuralSoil	<15 mg/kg	<1.8 mg/kg	90 - 120 mg/kg	15 - 30 mg/kg	<100 mg/kg
240.0	SE	RuralSoil	<15 mg/kg	<1.8 mg/kg	90 - 120 mg/kg	15 - 30 mg/kg	<100 mg/kg
240.0	SE	RuralSoil	<15 mg/kg	<1.8 mg/kg	90 - 120 mg/kg	15 - 30 mg/kg	<100 mg/kg
247.0	SE	RuralSoil	<15 mg/kg	<1.8 mg/kg	40 - 60 mg/kg	<15 mg/kg	<100 mg/kg
247.0	SE	RuralSoil	<15 mg/kg	<1.8 mg/kg	40 - 60 mg/kg	<15 mg/kg	<100 mg/kg

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

7 Railways and Tunnels Map



Railways and Tunnels Legend

© Crown copyright and database rights 2016.
Ordnance Survey license 100035207.
© OpenStreetMapContributors

	Site Outline		Underground or Partially Underground Railway / Subway System		Railway Track (OpenStreetMap)
	Search Buffers (m)		Railway Tunnel (OS Mapping)		High Speed 2
			Abandoned or Dismantled Railway (OpenStreetMap)		Crossrail 1
			Railway Track (OS Mapping)		Railway and/or Tunnel Feature from Historical Mapping

7 Railways and Tunnels

7.1 Tunnels

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

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

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

Database searched and no data found.

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

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

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

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

Database searched and no data found.

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

7.2 Historical Railway and Tunnel Features

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

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

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

ID	Distance (m)	Direction	NGR	Details	Date
1	0	On Site	344197 384206	Railway Sidings	1980
2	0	On Site	344158 384199	Railway Sidings	1991
3	0	On Site	344197 384206	Railway Sidings	1966
4A	0	On Site	345062 384321	Railway Sidings	1968
5A	0	On Site	345062 384321	Railway Sidings	1982
6C	0	On Site	345741 384497	Railway Sidings	1938

ID	Distance (m)	Direction	NGR	Details	Date
7	0	On Site	345444 384491	Railway Sidings	1968
8B	0	On Site	345603 384490	Railway Sidings	1938
9B	0	On Site	345603 384490	Railway Sidings	1904
10B	0	On Site	345603 384490	Railway Sidings	1925
11C	0	On Site	345741 384508	Railway Sidings	1905
12C	0	On Site	345741 384508	Railway Sidings	1925
13C	0	On Site	345731 384511	Railway Sidings	1891
18D	0	On Site	344465 384251	Railway Sidings	1993
19F	0	On Site	344737 384237	Railway Sidings	1993
20E	0	On Site	344471 384358	Railway Sidings	1993
21	0	On Site	344163 384206	Railway Sidings	1965
22	0	On Site	344951 384136	Railway Sidings	1993
23	0	On Site	344164 384176	Railway Sidings	1993
24H	0	On Site	344949 383988	Railway Sidings	1989
25	0	On Site	344162 384206	Railway Sidings	1989
26D	0	On Site	344464 384250	Railway Sidings	1989
27	0	On Site	344360 384352	Railway Sidings	1965
28	0	On Site	344774 384179	Railway Sidings	1974
29E	0	On Site	344470 384356	Railway Sidings	1989
30F	0	On Site	344890 384279	Railway Sidings	1965
31K	0	On Site	345612 384479	Railway Sidings	1966
32	0	On Site	344163 384284	Railway Sidings	1967
33A	0	On Site	345062 384316	Railway Sidings	1966
34A	0	On Site	345041 384318	Railway Sidings	1994
35I	0	On Site	n/a	Railways	1907
36G	0	On Site	345104 384419	Railway Sidings	1966
37G	0	On Site	345105 384421	Railway Sidings	1994
38H	0	On Site	344949 383988	Railway Sidings	1993
39H	0	On Site	344949 383989	Railway Sidings	1973

ID	Distance (m)	Direction	NGR	Details	Date
40	0	On Site	344952 384165	Railway Sidings	1989
41A	0	On Site	345040 384315	Railway Sidings	1985
42G	0	On Site	345099 384416	Railway Sidings	1985
43B	0	On Site	345579 384494	Railway Sidings	1893
44B	0	On Site	345579 384494	Railway Sidings	1936
45B	0	On Site	345579 384494	Railway Sidings	1927
46I	0	On Site	n/a	Railways	1893
47I	0	On Site	n/a	Railways	1927
48B	0	On Site	345611 384478	Railway Sidings	1994
49C	0	N	345727 384503	Railway Sidings	1890
50C	0	N	345727 384503	Railway Sidings	1907
51C	0	N	345727 384503	Railway Sidings	1927
52J	0	N	345331 384465	Railway Sidings	1994
53J	1	N	345337 384466	Railway Sidings	1985
54K	3	N	345513 384494	Railway Sidings	1907
14B	4	N	345614 384492	Railway Sidings	1925
15B	4	N	345614 384492	Railway Sidings	1925
16B	7	N	345624 384511	Railway Sidings	1953
17	37	N	345725 384540	Railway Sidings	1851
55	38	NW	n/a	Railway	1891
56L	50	N	345044 384496	Railway Sidings	1985
57L	50	N	345045 384497	Railway Sidings	1994
58M	57	N	345237 384491	Railway Sidings	1966
59M	58	N	345216 384493	Railway Sidings	1994
60M	60	N	345207 384492	Railway Sidings	1985
61N	104	NE	346073 384528	Railway Sidings	1962
62N	104	NE	346073 384528	Railway Sidings	1967
63N	107	NE	346076 384532	Railway Sidings	1997
64N	107	NE	346076 384532	Railway Sidings	1994
65	114	NW	344040 384462	Railway Sidings	1965

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

7.3 Historical Railways

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

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

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

Database searched and no data found.

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

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

7.4 Active Railways

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

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

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

Distance (m)	Direction	Name	Type
0	On Site	Not given	Rail
0	On Site	Not given	Rail
0	On Site	Not given	Rail
0	On Site	Not given	Rail
0	On Site	Not given	Rail
0	On Site	Not given	Multi Track
0	On Site	Not given	Multi Track
0	On Site	Not given	Multi Track
0	On Site	Not given	Multi Track
9	N	Not given	Multi Track
10	NE	Not given	Multi Track
15	N	Not given	Multi Track
17	N	West Coast Main Line	Rail
19	N	Not given	Multi Track
21	N	West Coast Main Line	Rail
24	N	Not given	Multi Track
25	N	West Coast Main Line	Rail
30	N	West Coast Main Line	Rail
43	N	Not given	Multi Track
50	N	Not given	Rail
53	N	Not given	Rail
53	N	Not given	Rail
57	N	Not given	Rail
57	N	Not given	Rail
59	NE	West Coast Main Line	Rail

Distance (m)	Direction	Name	Type
61	N	Not given	Rail
62	N	Not given	Rail
66	N	Not given	Rail
67	N	West Coast Main Line	Rail

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

7.5 Railway Projects

These datasets provide information on the location of large scale railway projects High Speed 2 and Crossrail 1 .

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

Is the study site within 500m of the route of the Crossrail 1 rail project? No

Further information on proximity to these routes, the project construction status and associated works can be obtained through the purchase of a Groundsure HS2 and Crossrail 1 Report.

The route data has been digitised from publicly available maps by Groundsure. The route as provided relates to the Crossrail 1 project only, and does not include any details of the Crossrail 2 project, as final details of the route for Crossrail 2 are still under consultation.

Contact Details

emapsite™

EmapSite
Telephone: 0118 9736883
sales@emapsite.com

emapsite™

British Geological Survey Enquiries

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



BGS Geological Hazards Reports and general geological enquiries

British Gypsum

British Gypsum Ltd
East Leake
Loughborough
Leicestershire
LE12 6HX



The Coal Authority

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



Public Health England

Public information access office
Public Health England, Wellington House
133-155 Waterloo Road, London, SE1 8UG
<https://www.gov.uk/government/organisations/public-health-england>
Email: enquiries@phe.gov.uk
Main switchboard: 020 7654 8000



Johnson Poole & Bloomer Limited

Harris and Pearson Building, Brettel Lane
Brierley Hill, West Midlands
DY5 3LH
Tel: +44 (0) 1384 262 000
Email: enquiries.gs@jpb.co.uk
Website: www.jpb.co.uk



Ordnance Survey

Adanac Drive, Southampton
SO16 0AS
Tel: 08456 050505
Website: <http://www.ordnancesurvey.co.uk/>



Getmapping PLC

Virginia Villas, High Street, Hartley Witney,
Hampshire RG27 8NW
Tel: 01252 845444
Website: <http://www1.getmapping.com/>



Contact Details

emapsite™

Peter Brett Associates

Caversham Bridge House
Waterman Place
Reading
Berkshire RG1 8DN

Tel: +44 (0)118 950 0761 E-mail: reading@pba.co.uk
Website: <http://www.peterbrett.com/home>



Acknowledgements: Ordnance Survey © Crown Copyright and/or Database Right. All Rights Reserved. Licence Number [03421028]. This report has been prepared in accordance with the Groundsure Ltd standard Terms and Conditions of business for work of this nature.

Standard Terms and Conditions

1 Definitions

In these terms and conditions unless the context otherwise requires:

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

“Client” means the party or parties entering into a Contract with Groundsure.

“Commercial” means any building or property which is not Residential.

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

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

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

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

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

“Third Party Data Provider” means any third party providing Third Party Content to Groundsure.

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

“Fees” has the meaning set out in clause 5.1.

“Groundsure” means Groundsure Limited, a company registered in England and Wales under number 03421028.

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

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

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

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

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

“Order Website” means the online platform through which Orders may be placed by the Client and accepted by Groundsure.

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

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

“Risk Screening Report” means a risk screening report comprising factual data with an accompanying interpretation by Groundsure.

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

“Site” means the area of land in respect of which the Client has requested Groundsure to provide the Services.

“Third Party Content” means data, database information or other information which is provided to Groundsure by a Third Party Data Provider.

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

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

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

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

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

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

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

2.6 Groundsure's quotations or proposals are valid for a period of 30 days only unless an alternative period of time is explicitly stipulated by Groundsure.

Groundsure reserves the right to withdraw any quotation or proposal at any time before an Order is accepted by Groundsure. Groundsure's acceptance of an Order shall be binding only when made in writing and signed by Groundsure's authorised representative or when accepted through the Order Website.

3 The Client's obligations

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

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

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

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

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

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

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

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

4 Reliance

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

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

(i) the Beneficiary,
(ii) the Beneficiary's professional advisers, (iii) any person providing funding to the Beneficiary in relation to the Site (whether directly or as part of a lending syndicate),
(iv) the first purchaser or first tenant of the Site, and
(v) the professional advisers and lenders of the first purchaser or tenant of the Site.

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

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

5 Fees and Disbursements

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

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

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

6 Intellectual Property and Confidentiality

6.1 Subject to

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

6.2 All Intellectual Property in the Groundsure Materials are and shall remain owned by Groundsure or Groundsure's licensors (including without limitation the Third Party Data Providers) the Client acknowledges, and shall procure

acknowledgement by the Beneficiary of, such ownership. Nothing in this Contract purports to transfer or assign any rights to the Client or the Beneficiary in respect of such Intellectual Property.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

7.4 Groundsure shall not be liable for

(i) loss of profits;

(ii) loss of business;

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

(iv) loss of anticipated savings;

(v) loss of goods;

(vi) loss of contract;

(vii) loss of use;

(viii) loss or corruption of data or information;

(ix) business interruption;

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

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

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

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

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

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

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

8 Groundsure's right to suspend or terminate

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

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

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

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

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

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

9. Client's Right to Terminate and Suspend

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

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

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

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

(a) supplied to the Client's specification(s) and in any event
(b) by their nature cannot be returned.

10 Consequences of Withdrawal, Termination or Suspension

10.1 Upon termination of the Contract:

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

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

11 Anti-Bribery

11.1 The Client warrants that it shall:

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

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

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

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

12 General

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

12.14 If the Client or Beneficiary has a complaint about the Services, written notice should be given to the Compliance Officer at Groundsure who will respond in a timely manner. In the event you are not satisfied with Groundsure's complaints handling process or you are unable to resolve the complaint, at your discretion you may refer the complaint to The Property Ombudsman Scheme at the following URL/email: website www.tpos.co.uk or email: admin@tpos.co.uk

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



EmapSite

Masdar House, ,
Eversley, RG27 0RP

Groundsure
Reference:

EMS-343518_462068

Your Reference:

EMS_343518_462068

Report Date

28 Jan 2016

Report Delivery
Method:

Email - pdf

Groundsure Enviroinsight

Address: ,

Dear Sir/ Madam,

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

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

Yours faithfully,

emapsite customer services team

Enc.

Groundsure Enviroinsight



Groundsure Enviroinsight

Address: ,
Date: 28 Jan 2016
Reference: EMS-343518_462068
Client: EmapSite

NW

N

NE

W

E



SW

S

SE

Aerial Photograph Capture date: 24-Jun-2009
Grid Reference: 344944,384097
Site Size: 117.54ha

Report Reference: EMS-343518_462068
Client Reference: EMS_343518_462068

Contents Page

Contents Page	3
Overview of Findings	6
Using this report	10
1. Historical Land Use	11
1. Historical Industrial Sites	12
1.1 Potentially Contaminative Uses identified from 1:10,000 scale Mapping	12
1.2 Additional Information – Historical Tank Database	14
1.3 Additional Information – Historical Energy Features Database	18
1.4 Additional Information – Historical Petrol and Fuel Site Database	20
1.5 Additional Information – Historical Garage and Motor Vehicle Repair Database	20
1.6 Potentially Infilled Land	20
2. Environmental Permits, Incidents and Registers Map	24
2. Environmental Permits, Incidents and Registers	25
2.1 Industrial Sites Holding Licences and/or Authorisations	25
2.1.1 Records of historic IPC Authorisations within 500m of the study site	25
2.1.2 Records of Part A(1) and IPPC Authorised Activities within 500m of the study site	26
2.1.3 Records of Red List Discharge Consents (potentially harmful discharges to controlled waters) within 500m of the study site	28
2.1.4 Records of List 1 Dangerous Substances Inventory Sites within 500m of the study site	28
2.1.5 Records of List 2 Dangerous Substance Inventory Sites within 500m of the study site	28
2.1.6 Records of Part A(2) and Part B Activities and Enforcements within 500m of the study site	29
2.1.7 Records of Category 3 or 4 Radioactive Substances Authorisations	29
2.1.8 Records of Licensed Discharge Consents within 500m of the study site	30
2.1.9 Records of Water Industry Referrals (potentially harmful discharges to the public sewer) within 500m of the study site	30
2.1.10 Records of Planning Hazardous Substance Consents and Enforcements within 500m of the study site	30
2.2 Dangerous or Hazardous Sites	30
2.3 Environment Agency Recorded Pollution Incidents	31
2.3.1 Records of National Incidents Recording System, List 2 within 500m of the study site	31
2.3.2 Records of National Incidents Recording System, List 1 within 500m of the study site	31
2.4 Sites Determined as Contaminated Land under Part 2A EPA 1990	31
3. Landfill and Other Waste Sites Map	32
3. Landfill and Other Waste Sites	33
3.1 Landfill Sites	33
3.1.1 Records from Environment Agency landfill data within 1000m of the study site	33
3.1.2 Records of Environment Agency historic landfill sites within 1500m of the study site	33
3.1.3 Records of BGS/DoE non-operational landfill sites within 1500m of the study site	33
3.1.4 Records of Landfills from Local Authority and Historical Mapping Records within 1500m of the study site	34
3.2 Other Waste Sites	34
3.2.1 Records of waste treatment, transfer or disposal sites within 500m of the study site	34
3.2.2 Records of Environment Agency licensed waste sites within 1500m of the study site	34
4. Current Land Use Map	38
4. Current Land Uses	39
4.1 Current Industrial Data	39
4.2 Petrol and Fuel Sites	42
4.3 National Grid High Voltage Underground Electricity Transmission Cables	42
4.4 National Grid High Pressure Gas Transmission Pipelines	43
5. Geology	44
5.1 Artificial Ground and Made Ground	44

5.2 Superficial Ground and Drift Geology	44
5.3 Bedrock and Solid Geology	44
6 Hydrogeology and Hydrology	45
6a. Aquifer Within Superficial Geology	45
6b. Aquifer Within Bedrock Geology and Abstraction Licenses	46
6c. Hydrogeology – Source Protection Zones and Potable Water Abstraction Licenses	47
6d. Hydrogeology – Source Protection Zones within confined aquifer	48
6e. Hydrology – Detailed River Network and River Quality	49
6. Hydrogeology and Hydrology	50
6.1 Aquifer within Superficial Deposits.....	50
6.2 Aquifer within Bedrock Deposits.....	51
6.3 Groundwater Abstraction Licences.....	51
6.4 Surface Water Abstraction Licences.....	61
6.5 Potable Water Abstraction Licences.....	61
6.6 Source Protection Zones.....	62
6.7 Source Protection Zones within Confined Aquifer.....	62
6.8 Groundwater Vulnerability and Soil Leaching Potential.....	63
6.9 River Quality.....	63
6.9.1 Biological Quality:.....	63
6.9.2 Chemical Quality:.....	64
6.10 Detailed River Network.....	64
6.11 Surface Water Features.....	66
7a. Environment Agency Flood Map for Planning (from rivers and the sea)	67
7b. Environment Agency Risk of Flooding from Rivers and the Sea (RoFRaS) Map	68
7 Flooding	69
7.1 River and Coastal Zone 2 Flooding.....	69
7.2 River and Coastal Zone 3 Flooding.....	69
7.3 Risk of Flooding from Rivers and the Sea (RoFRaS) Flood Rating.....	69
7.4 Flood Defences.....	69
7.5 Areas benefiting from Flood Defences.....	69
7.6 Areas benefiting from Flood Storage.....	70
7.7 Groundwater Flooding Susceptibility Areas.....	70
7.7.1 Are there any British Geological Survey groundwater flooding susceptibility areas within 50m of the boundary of the study site? Yes.....	70
7.7.2 What is the highest susceptibility to groundwater flooding in the search area based on the underlying geological conditions?.....	70
7.8 Groundwater Flooding Confidence Areas.....	70
8. Designated Environmentally Sensitive Sites Map	71
8. Designated Environmentally Sensitive Sites	72
8.1 Records of Sites of Special Scientific Interest (SSSI) within 2000m of the study site:.....	72
8.2 Records of National Nature Reserves (NNR) within 2000m of the study site:.....	72
8.3 Records of Special Areas of Conservation (SAC) within 2000m of the study site:.....	72
8.4 Records of Special Protection Areas (SPA) within 2000m of the study site:.....	72
8.5 Records of Ramsar sites within 2000m of the study site:.....	73
8.6 Records of Ancient Woodland within 2000m of the study site:	73
8.7 Records of Local Nature Reserves (LNR) within 2000m of the study site:.....	73
8.8 Records of World Heritage Sites within 2000m of the study site:.....	74
8.9 Records of Environmentally Sensitive Areas within 2000m of the study site:	74
8.10 Records of Areas of Outstanding Natural Beauty (AONB) within 2000m of the study site:	74
8.11 Records of National Parks (NP) within 2000m of the study site:	74
8.12 Records of Nitrate Sensitive Areas within 2000m of the study site:.....	74
8.13 Records of Nitrate Vulnerable Zones within 2000m of the study site:.....	74

8.14 Records of Green Belt land within 2000m of the study site:.....	75
9. Natural Hazards Findings.....	76
9.1 Detailed BGS GeoSure Data.....	76
9.1.1 Shrink Swell.....	76
9.1.2 Landslides.....	76
9.1.3 Soluble Rocks.....	76
9.1.4 Compressible Ground.....	77
9.1.5 Collapsible Rocks.....	77
9.1.6 Running Sand.....	77
9.2 Radon.....	77
9.2.1 Radon Affected Areas.....	77
9.2.2 Radon Protection.....	78
10. Mining.....	79
10.1 Coal Mining.....	79
10.2 Non-Coal Mining.....	79
10.3 Brine Affected Areas	79
Contact Details.....	80
Standard Terms and Conditions.....	82

Overview of Findings

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

Section 1: Historical Industrial Sites	On-site	0-50	51-250	251-500
1.1 Potentially Contaminative Uses identified from 1:10,000 scale mapping	38	16	15	40
1.2 Additional Information – Historical Tank Database	90	0	8	41
1.3 Additional Information – Historical Energy Features Database	8	0	25	47
1.4 Additional Information – Historical Petrol and Fuel Site Database	0	0	0	0
1.5 Additional Information – Historical Garage and Motor Vehicle Repair Database	12	0	1	8
1.6 Potentially Infilled Land	39	15	29	49

Section 2: Environmental Permits, Incidents and Registers	On-site	0-50m	51-250	251-500
2.1 Industrial Sites Holding Environmental Permits and/or Authorisations				
2.1.1 Records of historic IPC Authorisations	5	0	0	1
2.1.2 Records of Part A(1) and IPPC Authorised Activities	2	0	8	8
2.1.3 Records of Red List Discharge Consents	0	0	0	0
2.1.4 Records of List 1 Dangerous Substances Inventory sites	0	0	0	1
2.1.5 Records of List 2 Dangerous Substances Inventory sites	0	0	0	0
2.1.6 Records of Part A(2) and Part B Activities and Enforcements	3	0	3	1
2.1.7 Records of Category 3 or 4 Radioactive Substances Authorisations	0	0	0	0
2.1.8 Records of Licensed Discharge Consents	0	0	0	0
2.1.9 Records of Water Industry Referrals	0	0	0	0
2.1.10 Records of Planning Hazardous Substance Consents and Enforcements within 500m of the study site	1	0	0	0
2.2 Records of COMAH and NIHHS sites	1	0	0	2
2.3 Environment Agency Recorded Pollution Incidents				
2.3.1 National Incidents Recording System, List 2	0	0	3	3
2.3.2 National Incidents Recording System, List 1	0	0	0	0
2.4 Sites Determined as Contaminated Land under Part 2A EPA 1990	0	0	0	0

Section 3: Landfill and Other Waste Sites	On-site	0-50m	51-250	251-500	501-1000	1000-1500
3.1 Landfill Sites						
3.1.1 Environment Agency Registered Landfill Sites	0	0	0	0	0	Not searched
3.1.2 Environment Agency Historic Landfill Sites	1	0	0	0	1	1
3.1.3 BGS/DoE Landfill Site Survey	0	0	0	0	0	0
3.1.4 Records of Landfills in Local Authority and Historical Mapping Records	0	0	0	0	0	0
3.2 Landfill and Other Waste Sites Findings						
3.2.1 Operational and Non-Operational Waste Treatment, Transfer and Disposal Sites	0	1	0	0	Not searched	Not searched
3.2.2 Environment Agency Licensed Waste Sites	2	0	0	0	8	6

Section 4: Current Land Use	On-site	0-50m	51-250	251-500
4.1 Current Industrial Sites Data	43	8	30	Not searched
4.2 Records of Petrol and Fuel Sites	0	0	1	1
4.3 National Grid Underground Electricity Cables	0	0	0	0
4.4 National Grid Gas Transmission Pipelines	0	0	0	0

Section 5: Geology	
5.1 Are there any records of Artificial Ground and Made Ground present beneath the study site?	No
5.2 Are there any records of Superficial Ground and Drift Geology present beneath the study site?	Yes
5.3 For records of Bedrock and Solid Geology beneath the study site see the detailed findings section.	

Section 6: Hydrogeology and Hydrology	0-500m					
6.1 Are there any records of Strata Classification in the Superficial Geology within 500m of the study site?	Yes					
6.2 Are there any records of Strata Classification in the Bedrock Geology within 500m of the study site?	Yes					
	On-site	0-50m	51-250	251-500	501-1000	1000-2000
6.3 Groundwater Abstraction Licences (within 2000m of the study site)	0	0	0	11	43	8
6.4 Surface Water Abstraction Licences (within 2000m of the study site)	0	0	0	0	2	0
6.5 Potable Water Abstraction Licences (within 2000m of the study site)	0	0	0	0	0	2
6.6 Source Protection Zones (within 500m of the study site)	1	0	0	0	Not searched	Not searched
6.7 Source Protection Zones within Confined Aquifer	0	0	0	0	Not searched	Not searched
6.8 Groundwater Vulnerability and Soil Leaching Potential (within 500m of the study site)	3	0	2	0	Not searched	Not searched
	On-site	0-50m	51-250	251-500	501-1000	1000-1500

Section 6: Hydrogeology and Hydrology

0-500m

6.9 Is there any Environment Agency information on river quality within 1500m of the study site?	No	No	No	No	No	Yes
6.10 Detailed River Network entries within 500m of the site	4	3	9	11	Not searched	Not searched
6.11 Surface water features within 250m of the study site	Yes	Yes	Yes	Not searched	Not searched	Not searched

Section 7: Flooding

7.1 Are there any Environment Agency Zone 2 floodplains within 250m of the study site?	No
7.2 Are there any Environment Agency Zone 3 floodplains within 250m of the study site	No
7.3 What is the Risk of flooding from Rivers and the Sea (RoFRaS) rating for the study site?	Very Low
7.4 Are there any Flood Defences within 250m of the study site?	No
7.5 Are there any areas benefiting from Flood Defences within 250m of the study site?	No
7.6 Are there any areas used for Flood Storage within 250m of the study site?	No
7.7 What is the maximum BGS Groundwater Flooding susceptibility within 50m of the study site?	Limited potential
7.8 What is the BGS confidence rating for the Groundwater Flooding susceptibility areas?	Low

Section 8: Designated Environmentally Sensitive Sites

On-site 0-50m 51-250 251-500 501-1000 1000-2000

8.1 Records of Sites of Special Scientific Interest (SSSI)	0	0	0	0	0	1
8.2 Records of National Nature Reserves (NNR)	0	0	0	0	0	0
8.3 Records of Special Areas of Conservation (SAC)	0	0	0	0	0	0
8.4 Records of Special Protection Areas (SPA)	0	0	0	0	0	2
8.5 Records of Ramsar sites	0	0	0	0	0	2
8.6 Records of Ancient Woodlands	0	0	1	0	0	2
8.7 Records of Local Nature Reserves (LNR)	0	1	0	0	0	0
8.8 Records of World Heritage Sites	0	0	0	0	0	0
8.9 Records of Environmentally Sensitive Areas	0	0	0	0	0	0
8.10 Records of Areas of Outstanding Natural Beauty (AONB)	0	0	0	0	0	0

Section 8: Designated Environmentally Sensitive Sites	On-site	0-50m	51-250	251-500	501-1000	1000-2000
8.11 Records of National Parks	0	0	0	0	0	0
8.12 Records of Nitrate Sensitive Areas	0	0	0	0	0	0
8.13 Records of Nitrate Vulnerable Zones	1	0	0	0	0	0
8.14 Records of Green Belt land	1	1	1	0	1	1

Section 9: Natural Hazards	
9.1 What is the maximum risk of natural ground subsidence?	Moderate
9.1.1 What is the maximum Shrink-Swell hazard rating identified on the study site?	Very Low
9.1.2 What is the maximum Landslides hazard rating identified on the study site?	Very Low
9.1.3 What is the maximum Soluble Rocks hazard rating identified on the study site?	Negligible
9.1.4 What is the maximum Compressible Ground hazard rating identified on the study site?	Moderate
9.1.5 What is the maximum Collapsible Rocks hazard rating identified on the study site?	Very Low
9.1.6 What is the maximum Running Sand hazard rating identified on the study site?	Low
9.2 Radon	
9.2.1 Is the property in a Radon Affected Area as defined by the Health Protection Agency (HPA) and if so what percentage of homes are above the Action Level?	The property is not in a Radon Affected Area, as less than 1% of properties are above the Action Level.
9.2.2 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.

Section 10: Mining	
10.1 Are there any coal mining areas within 75m of the study site?	No
10.2 Are there any Non-Coal Mining areas within 50m of the study site boundary?	No
10.3 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. Historical Industrial Sites

Provides information on past land uses that may pose a risk to the study site in terms of potential contamination from activities or processes. Potentially Infilled Land features are also included. This search is conducted using radii of up to 500m.

2. 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.

3. 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.

4. 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 gas pipelines and underground electricity transmission lines.

5. Geology

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

6. 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.

7. Flooding

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

8. 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.

9. 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 and radon..

10. Mining

Provides information on areas of coal and non-coal mining and brine affected areas.

11. 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.

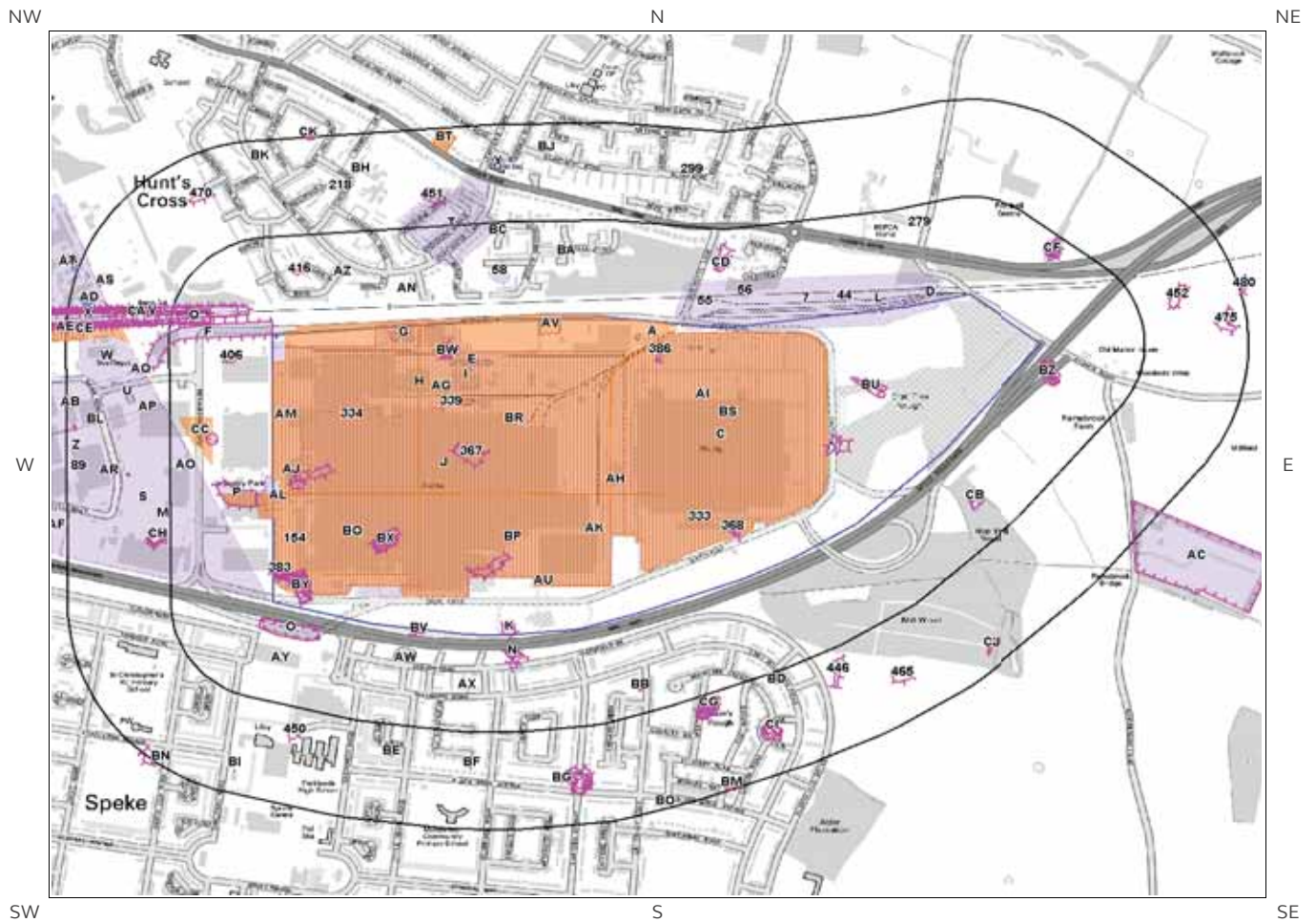
Note: Maps

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).

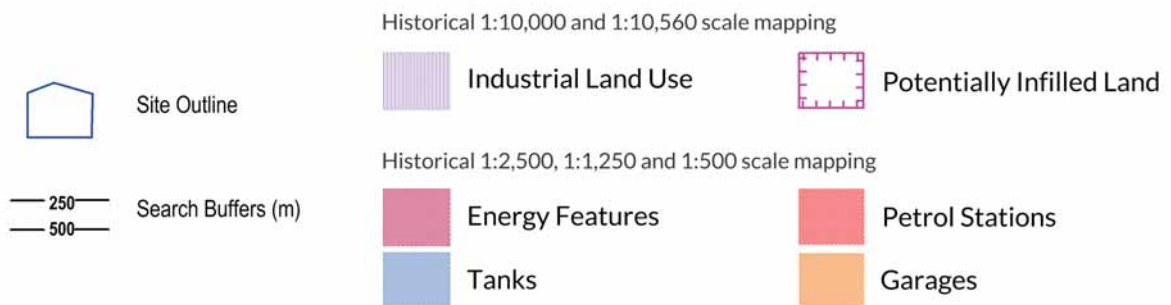
Where a feature is reported in the data tables to a distance greater than the map area, it is noted in the data table as "Not Shown".

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. Historical Land Use



© Crown copyright and database rights 2016.
Ordnance Survey license 100035207.



1. Historical Industrial Sites

1.1 Potentially Contaminative Uses identified from 1:10,000 scale Mapping

The systematic analysis of data extracted from standard 1:10,560 and 1:10,000 scale historical maps provides the following information:

Records of sites with a potentially contaminative past land use within 500m of the search boundary: 109

ID	Distance [m]	Direction	Use	Date
1A	0	On Site	Engine Shed	1968
2A	0	On Site	Engine Shed	1982
3B	0	On Site	Railway Sidings	1982
4B	0	On Site	Railway Sidings	1968
5C	0	On Site	Unspecified Works	1982
6C	0	On Site	Unspecified Works	1968
7	0	On Site	Railway Sidings	1968
8D	0	On Site	Railway Sidings	1905
9D	0	On Site	Railway Sidings	1925
10D	0	On Site	Railway Sidings	1891
11A	0	On Site	Unspecified Tank	1982
12E	0	On Site	Unspecified Tanks	1991
13E	0	On Site	Unspecified Tanks	1980
14E	0	On Site	Unspecified Tanks	1966
15E	0	On Site	Unspecified Tank	1991
16E	0	On Site	Unspecified Tank	1980
17E	0	On Site	Unspecified Tank	1966
18I	0	On Site	Chimneys	1966
19F	0	On Site	Cuttings	1980
20F	0	On Site	Cuttings	1966
21F	0	On Site	Cuttings	1991
22G	0	On Site	Unspecified Tanks	1980
23G	0	On Site	Unspecified Tanks	1991
24G	0	On Site	Unspecified Tanks	1966
25J	0	On Site	Unspecified Works	1991
26H	0	On Site	Railway Sidings	1966
27H	0	On Site	Railway Sidings	1980
28I	0	On Site	Railway Sidings	1991
29AH	0	On Site	Unspecified Tank	1991
30J	0	On Site	Motor Car Works	1966
31J	0	On Site	Unspecified Works	1980
32K	0	On Site	Cuttings	1991
33K	0	On Site	Cuttings	1966
34K	0	On Site	Cuttings	1980

35D	0	On Site	Railway Sidings	1938
36L	0	On Site	Railway Sidings	1904
37L	0	On Site	Railway Sidings	1925
38L	0	On Site	Railway Sidings	1938
39L	4	N	Railway Sidings	1925
40L	4	N	Railway Sidings	1925
41L	7	N	Railway Sidings	1953
42M	10	W	Engineering Works	1956
43M	10	W	Engineering Works	1966
44	35	N	Railway Building	1968
45N	35	S	Cuttings	1991
46N	35	S	Cuttings	1980
47N	35	S	Cuttings	1966
48O	36	S	Cuttings	1991
49O	36	S	Cuttings	1966
50O	36	S	Cuttings	1980
51D	37	N	Railway Sidings	1851
52P	41	W	Cuttings	1966
53P	41	W	Cuttings	1980
54P	41	W	Cuttings	1991
55	52	N	Railway Building	1968
56	71	N	Railway Building	1968
57CA	77	NW	Cuttings	1851
58	90	N	Unspecified Tanks	1991
59R	95	NW	Cuttings	1956
60T	149	N	Nursery	1956
61Q	152	W	Cuttings	1925
62Q	152	W	Cuttings	1904
63R	154	W	Cuttings	1925
64R	154	W	Cuttings	1925
65S	170	W	Unspecified Works	1991
66S	170	W	Unspecified Works	1980
67T	186	N	Nursery	1938
68R	193	W	Cuttings	1891
69V	197	W	Cuttings	1938
70U	268	W	Unspecified Factory	1991
71U	268	W	Unspecified Factory	1966
72U	268	W	Unspecified Factory	1980
73V	278	W	Cuttings	1925
74V	278	W	Cuttings	1904
75W	313	W	Unspecified Depot	1980
76W	313	W	Bus Depot	1966
77W	313	W	Unspecified Depot	1991
78X	338	W	Cuttings	1966
79X	338	W	Cuttings	1980
80X	338	W	Cuttings	1991

81Y	378	N	Police Station	1980
82Y	378	N	Police Station	1966
83Y	378	N	Police Station	1991
84Z	383	W	Unspecified Works	1991
85Z	383	W	Unspecified Works	1980
86X	386	W	Cuttings	1938
87X	386	W	Cuttings	1925
88X	386	W	Cuttings	1904
89	387	W	Unspecified Commercial/Industrial	1966
90AT	400	W	Bio-Chemicals Factory	1956
91AA	403	W	Unspecified Commercial/Industrial	1966
92AA	403	W	Unspecified Works	1991
93AA	403	W	Unspecified Works	1980
94AB	419	W	Unspecified Depot	1991
95AB	420	W	Unspecified Works	1966
96AC	427	SE	Sewage Works	1982
97AC	427	SE	Unspecified Works	1968
98AD	446	W	Unspecified Tank	1980
99AD	446	W	Unspecified Tank	1991
100AD	446	W	Unspecified Tank	1980
101AD	446	W	Unspecified Tank	1991
102AE	455	W	Garage	1980
103AE	455	W	Garage	1991
104AE	457	W	Garage	1966
105AD	466	W	Unspecified Tank	1980
106AD	466	W	Unspecified Tank	1991
107AD	466	W	Unspecified Tank	1966
108AF	490	W	Unspecified Factory	1991
109AF	490	W	Unspecified Commercial/Industrial	1980

1.2 Additional Information – Historical Tank Database

The systematic analysis of data extracted from High Detailed 1:1,250 and 1:2,500 scale historical maps provides the following information.

Records of historical tanks within 500m of the search boundary:

139

ID	Distance (m)	Direction	Use	Date
110AG	0	On Site	Unspecified Tank	1965
111AG	0	On Site	Unspecified Tank	1967
112AG	0	On Site	Unspecified Tank	1989
113I	0	On Site	Unspecified Tank	1974

114I	0	On Site	Unspecified Tank	1965
115I	0	On Site	Unspecified Tank	1967
116I	0	On Site	Unspecified Tank	1989
117E	0	On Site	Unspecified Tank	1967
118E	0	On Site	Tanks	1974
119E	0	On Site	Unspecified Tank	1965
120E	0	On Site	Unspecified Tank	1967
121E	0	On Site	Tanks	1974
122E	0	On Site	Unspecified Tank	1965
123E	0	On Site	Unspecified Tank	1965
124E	0	On Site	Tanks	1974
125E	0	On Site	Unspecified Tank	1967
126E	0	On Site	Tanks	1989
127E	0	On Site	Unspecified Tank	1965
128E	0	On Site	Tanks	1974
129E	0	On Site	Unspecified Tank	1967
130AG	0	On Site	Unspecified Tank	1965
131G	0	On Site	Unspecified Tank	1967
132AH	0	On Site	Tanks	1965
133G	0	On Site	Unspecified Tank	1967
134AH	0	On Site	Tanks	1967
135AI	0	On Site	Tanks	1967
136AI	0	On Site	Tanks	1994
137A	0	On Site	Unspecified Tank	1994
138AH	0	On Site	Tanks	1965
139AJ	0	On Site	Tanks	1967
140AJ	0	On Site	Tanks	1965
141AJ	0	On Site	Tanks	1965
142AJ	0	On Site	Tanks	1967
143B	0	On Site	Tanks	1966
144B	0	On Site	Tanks	1967
145B	0	On Site	Tanks	1994
146B	0	On Site	Tanks	1994
147B	0	On Site	Tanks	1966
148B	0	On Site	Tanks	1967
149B	0	On Site	Tanks	1994
150B	0	On Site	Tanks	1966
151B	0	On Site	Tanks	1967
152B	0	On Site	Tanks	1994
153AJ	0	On Site	Tanks	1965
154	0	On Site	Unspecified Tank	1974
155AG	0	On Site	Unspecified Tank	1967
156AG	0	On Site	Unspecified Tank	1974
157I	0	On Site	Unspecified Tank	1989
158G	0	On Site	Unspecified Tank	1965
159I	0	On Site	Unspecified Tank	1974

160G	0	On Site	Unspecified Tank	1965
161AG	0	On Site	Tanks	1989
162AH	0	On Site	Tanks	1989
163AI	0	On Site	Tanks	1966
164AH	0	On Site	Tanks	1974
165AH	0	On Site	Tanks	1974
166AH	0	On Site	Tanks	1989
167AH	0	On Site	Tanks	1989
168AK	0	On Site	Tanks	1993
169AK	0	On Site	Tanks	1989
170AI	0	On Site	Tanks	1985
171A	0	On Site	Unspecified Tank	1985
172AL	0	On Site	Unspecified Tank	1989
173AL	0	On Site	Unspecified Tank	1989
174B	0	On Site	Tanks	1985
175B	0	On Site	Tanks	1985
176B	0	On Site	Tanks	1985
177G	0	On Site	Unspecified Tank	1989
178G	0	On Site	Unspecified Tank	1989
179AJ	0	On Site	Tanks	1989
180AJ	0	On Site	Tanks	1989
181AM	0	On Site	Unspecified Tank	1989
182AJ	0	On Site	Tanks	1993
183AJ	0	On Site	Tanks	1993
184AG	0	On Site	Unspecified Tank	1993
185E	0	On Site	Tanks	1993
186I	0	On Site	Unspecified Tank	1993
187E	0	On Site	Tanks	1993
188AG	0	On Site	Tanks	1993
189E	0	On Site	Tanks	1993
190I	0	On Site	Unspecified Tank	1993
191E	0	On Site	Tanks	1993
192E	0	On Site	Tanks	1993
193AH	0	On Site	Tanks	1993
194AH	0	On Site	Tanks	1993
195AH	0	On Site	Tanks	1993
196AM	0	On Site	Unspecified Tank	1993
197G	0	On Site	Unspecified Tank	1993
198G	0	On Site	Unspecified Tank	1993
199E	0	On Site	Tanks	1993
200AN	85	N	Unspecified Tank	1907
201AN	86	N	Unspecified Tank	1936
202AN	86	N	Unspecified Tank	1927
203AN	96	N	Unspecified Tank	1953
204AN	97	N	Unspecified Tank	1953
205AO	211	W	Unspecified Tank	1993

206AO	212	W	Unspecified Tank	1971
207AO	212	W	Unspecified Tank	1992
208AP	304	W	Unspecified Tank	1992
209AP	304	W	Unspecified Tank	1971
210AQ	310	W	Tanks	1992
211AQ	310	W	Tanks	1971
212AQ	310	W	Tanks	1962
213AQ	311	W	Tanks	1962
214AQ	311	W	Tanks	1993
215AQ	316	W	Unspecified Tank	1992
216AQ	316	W	Unspecified Tank	1993
217AQ	316	W	Unspecified Tank	1971
218	361	N	Unspecified Tank	1971
219U	376	W	Tanks	1992
220U	377	W	Tanks	1971
221AR	396	W	Tanks	1992
222AR	397	W	Tanks	1971
223AS	423	W	Tanks	1993
224BL	431	W	Unspecified Tank	1992
225AS	432	W	Tanks	1987
226AS	433	W	Tanks	1993
227AS	439	W	Unspecified Tank	1993
228AS	440	W	Unspecified Tank	1987
229AD	445	W	Tanks	1992
230AD	446	W	Tanks	1993
231AS	447	W	Unspecified Tank	1993
232AS	448	W	Unspecified Tank	1979
233AS	448	W	Unspecified Tank	1987
234AS	466	W	Unspecified Tank	1993
235AD	467	W	Unspecified Tank	1971
236AS	467	W	Unspecified Tank	1979
237AS	467	W	Unspecified Tank	1987
238AD	468	W	Unspecified Tank	1993
239AD	468	W	Unspecified Tank	1966
240AS	469	W	Tanks	1993
241AD	469	W	Unspecified Tank	1979
242AD	469	W	Unspecified Tank	1987
243AS	470	W	Tanks	1979
244AS	470	W	Tanks	1987
245AS	475	W	Unspecified Tank	1979
246AT	499	W	Unspecified Tank	1993
247AT	499	W	Unspecified Tank	1979
248AT	499	W	Unspecified Tank	1987

1.3 Additional Information – Historical Energy Features Database

The systematic analysis of data extracted from High Detailed 1:1,250 and 1:2,500 scale historical maps provides the following information.

Records of historical energy features within 500m of the search boundary:

80

ID	Distance (m)	Direction	Use	Date
249AU	0	On Site	Gas Governor	1989
250AU	0	On Site	Gas Governor	1993
251AG	0	On Site	Electricity Substation	1989
252AG	0	On Site	Electricity Substation	1974
253AV	0	On Site	Electricity Substation	1993
254AV	0	On Site	Electricity Substation	1989
255AV	0	On Site	Electricity Substation	1974
256AG	0	On Site	Electricity Substation	1993
257AW	84	S	Electricity Substation	1989
258AW	84	S	Electricity Substation	1974
259AX	134	S	Electricity Substation	1973
260AX	137	S	Electricity Substation	1989
261AX	138	S	Electricity Substation	1993
262AY	139	S	Electricity Substation	1989
263AZ	139	N	Electricity Substation	1971
264AX	139	S	Electricity Substation	1972
265AY	139	S	Electricity Substation	1974
266AX	139	S	Electricity Substation	1993
267AZ	140	N	Electricity Substation	1993
268BA	163	N	Electricity Substation	1971
269BA	163	N	Electricity Substation	1984
270BA	165	N	Electricity Substation	1993
271BB	182	S	Electricity Substation	1954
272BB	183	S	Electricity Substation	1967
273BB	183	S	Electricity Substation	1954
274BB	185	S	Electricity Substation	1996
275BB	186	S	Electricity Substation	1985
276BB	186	S	Electricity Substation	1987
277BB	186	S	Electricity Substation	1954
278BB	186	S	Electricity Substation	1968
279	195	N	Electricity Substation	1984
280BC	219	N	Electricity Substation	1993
281BC	220	N	Electricity Substation	1984
282BD	270	S	Electricity Substation	1985
283BD	271	S	Electricity Substation	1994
284BE	324	S	Electricity Substation	1967
285BE	324	S	Electricity Substation	1953

1.3 Additional Information – Historical Energy Features Database

The systematic analysis of data extracted from High Detailed 1:1,250 and 1:2,500 scale historical maps provides the following information.

Records of historical energy features within 500m of the search boundary:

80

ID	Distance (m)	Direction	Use	Date
249AU	0	On Site	Gas Governor	1989
250AU	0	On Site	Gas Governor	1993
251AG	0	On Site	Electricity Substation	1989
252AG	0	On Site	Electricity Substation	1974
253AV	0	On Site	Electricity Substation	1993
254AV	0	On Site	Electricity Substation	1989
255AV	0	On Site	Electricity Substation	1974
256AG	0	On Site	Electricity Substation	1993
257AW	84	S	Electricity Substation	1989
258AW	84	S	Electricity Substation	1974
259AX	134	S	Electricity Substation	1973
260AX	137	S	Electricity Substation	1989
261AX	138	S	Electricity Substation	1993
262AY	139	S	Electricity Substation	1989
263AZ	139	N	Electricity Substation	1971
264AX	139	S	Electricity Substation	1972
265AY	139	S	Electricity Substation	1974
266AX	139	S	Electricity Substation	1993
267AZ	140	N	Electricity Substation	1993
268BA	163	N	Electricity Substation	1971
269BA	163	N	Electricity Substation	1984
270BA	165	N	Electricity Substation	1993
271BB	182	S	Electricity Substation	1954
272BB	183	S	Electricity Substation	1967
273BB	183	S	Electricity Substation	1954
274BB	185	S	Electricity Substation	1996
275BB	186	S	Electricity Substation	1985
276BB	186	S	Electricity Substation	1987
277BB	186	S	Electricity Substation	1954
278BB	186	S	Electricity Substation	1968
279	195	N	Electricity Substation	1984
280BC	219	N	Electricity Substation	1993
281BC	220	N	Electricity Substation	1984
282BD	270	S	Electricity Substation	1985
283BD	271	S	Electricity Substation	1994
284BE	324	S	Electricity Substation	1967
285BE	324	S	Electricity Substation	1953

286BE	325	S	Electricity Substation	1967
287BE	325	S	Electricity Substation	1953
288BE	325	S	Electricity Substation	1985
289BE	325	S	Electricity Substation	1986
290BE	328	S	Electricity Substation	1989
291BE	328	S	Electricity Substation	1993
292BF	330	S	Electricity Substation	1972
293BF	341	S	Electricity Substation	1993
294AR	347	W	Electricity Substation	1992
295AR	348	W	Electricity Substation	1971
296AR	348	W	Electricity Substation	1993
297BG	379	S	Electricity Substation	1972
298BG	381	S	Electricity Substation	1993
299	385	N	Electricity Substation	1995
300BH	399	N	Electricity Substation	1993
301BH	399	N	Electricity Substation	1971
302BJ	429	N	Electricity Substation	1967
303BI	429	S	Electricity Substation	1986
304BI	429	S	Electricity Substation	1985
305BJ	429	N	Electricity Substation	1971
306BJ	429	N	Electricity Substation	1967
307BJ	431	N	Electricity Substation	1993
308BJ	432	N	Electricity Substation	1984
309BI	440	S	Electricity Substation	1989
310BI	440	S	Electricity Substation	1993
311BK	449	N	Electricity Substation	1971
312BK	450	N	Electricity Substation	1993
313BL	476	W	Electricity Substation	1992
314BL	477	W	Electricity Substation	1993
315BL	477	W	Electricity Substation	1971
316BM	478	S	Electricity Substation	1967
317BM	479	S	Electricity Substation	1996
318BN	484	SW	Electricity Substation	1986
319BN	484	SW	Electricity Substation	1960
320BN	487	SW	Electricity Substation	1975
321BO	487	S	Electricity Substation	1996
322BN	487	SW	Electricity Substation	1993
323BO	488	S	Electricity Substation	1987
324BO	488	S	Electricity Substation	1985
325BM	488	S	Electricity Substation	1968
326BM	490	S	Electricity Substation	1985
327BM	490	S	Electricity Substation	1987
328AF	497	W	Electricity Substation	1999

1.4 Additional Information – Historical Petrol and Fuel Site Database

The systematic analysis of data extracted from High Detailed 1:1,250 and 1:2,500 scale historical maps provides the following information.

Records of historical petrol stations and fuel sites within 500m of the search boundary: 0

Database searched and no data found.

1.5 Additional Information – Historical Garage and Motor Vehicle Repair Database

The systematic analysis of data extracted from High Detailed 1:1,250 and 1:2,500 scale historical maps provides the following information.

Records of historical garage and motor vehicle repair sites within 500m of the search boundary: 21

ID	Distance (m)	Direction	Use	Date
329BP	0	On Site	Motor Car Works	1973
330BQ	0	On Site	Motor Car Works	1974
331BP	0	On Site	Motor Car Works	1965
332BQ	0	On Site	Motor Car Works	1965
333	0	On Site	Motor Car Works	1965
334	0	On Site	Motor Car Works	1965
335BR	0	On Site	Motor Car Works	1974
336BR	0	On Site	Motor Car Works	1965
337BS	0	On Site	Motor Car Works	1966
338BP	0	On Site	Motor Car Works	1967
339	0	On Site	Motor Car Works	1967
340BS	0	On Site	Motor Car Works	1967
341CC	147	W	Motor Car Works	1971
342CE	347	W	Garage	1993
343BT	437	N	Garage	1993
344BT	437	N	Garage	1984
345BT	438	N	Garage	1967
346BT	438	N	Garage	1967
347BT	438	N	Garage	1971
348AE	457	W	Garage	1992
349AE	458	W	Garage	1971

1.6 Potentially Infilled Land

Records of Potentially Infilled Features from 1:10,000 scale mapping within 500m of the study site: 132

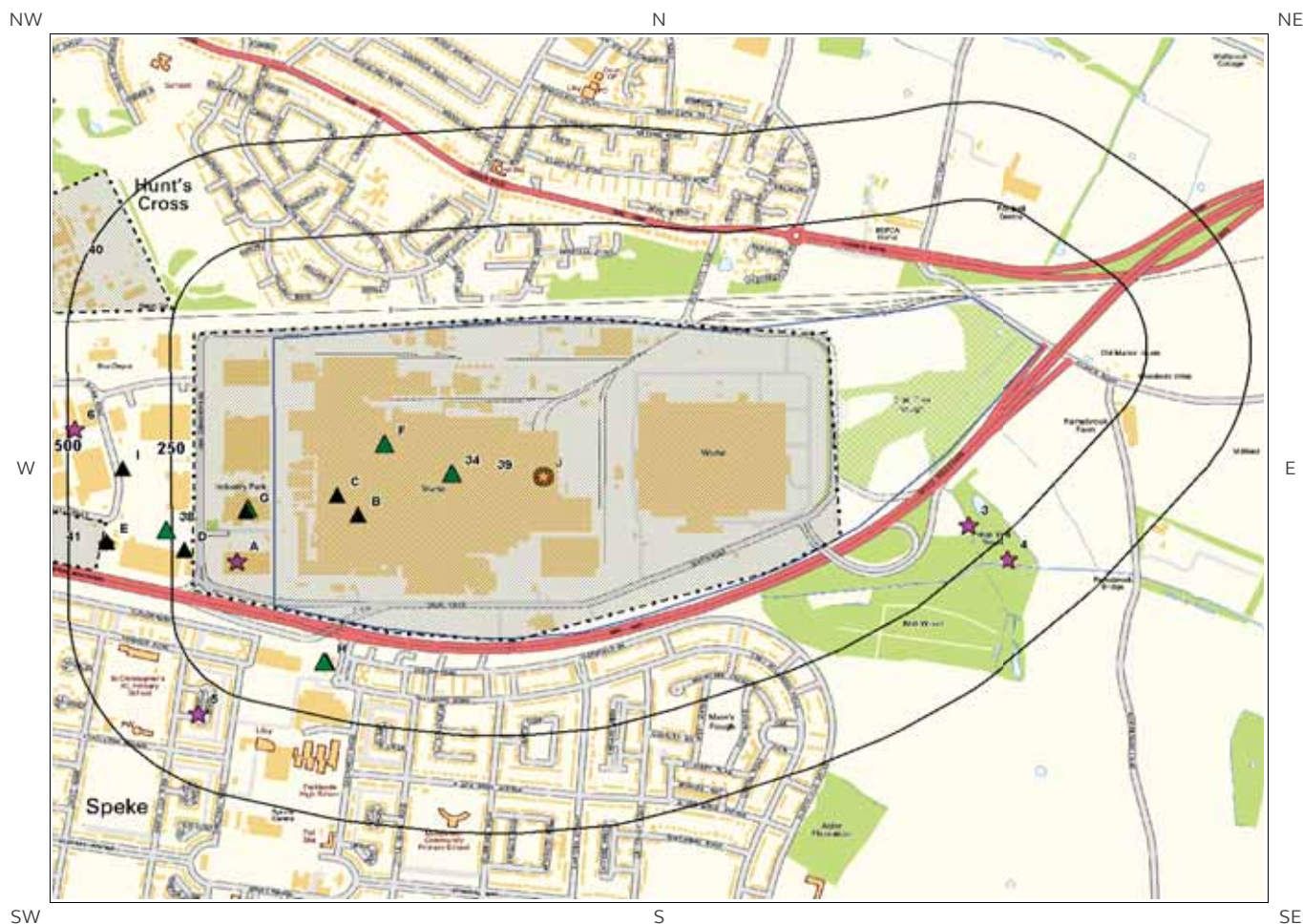
The following Historical Potentially Infilled Features derived from the Historical Mapping information is provided by Groundsure:

ID	Distance(m)	Direction	Use	Date
350BU	0	On Site	Ponds	1891
351BU	0	On Site	Ponds	1953
352K	0	On Site	Cuttings	1966
353K	0	On Site	Cuttings	1980
354K	0	On Site	Cuttings	1991
355BV	0	On Site	Pond	1925
356BV	0	On Site	Pond	1904
357BV	0	On Site	Pond	1938
358BW	0	On Site	Pond	1925
359BW	0	On Site	Pond	1938
360BX	0	On Site	Ponds	1891
361BX	0	On Site	Ponds	1956
362BX	0	On Site	Ponds	1925
363BX	0	On Site	Ponds	1904
364BX	0	On Site	Ponds	1938
365BW	0	On Site	Pond	1851
366	0	On Site	Ponds	1851
367	0	On Site	Pond	1851
368	0	On Site	Pond	1851
369	0	On Site	Ponds	1851
370F	0	On Site	Cuttings	1980
371F	0	On Site	Cuttings	1966
372BX	0	On Site	Ponds	1925
373BX	0	On Site	Ponds	1925
374BY	0	On Site	Ponds	1904
375BY	0	On Site	Ponds	1925
376BY	0	On Site	Ponds	1938
377BY	0	On Site	Ponds	1891
378BY	0	On Site	Ponds	1925
379BY	0	On Site	Ponds	1956
380BY	0	On Site	Pond	1904
381BY	0	On Site	Pond	1925
382BY	0	On Site	Pond	1938
383	0	On Site	Pond	1851
384AJ	0	On Site	Ponds	1851
385AJ	0	On Site	Pond	1904
386	0	On Site	Pond	1851
387F	0	On Site	Cuttings	1991
388BY	0	On Site	Ponds	1925
389N	35	S	Cuttings	1966
390N	35	S	Cuttings	1991
391N	35	S	Cuttings	1980
392O	36	S	Cuttings	1991
393O	36	S	Cuttings	1966
394O	36	S	Cuttings	1980

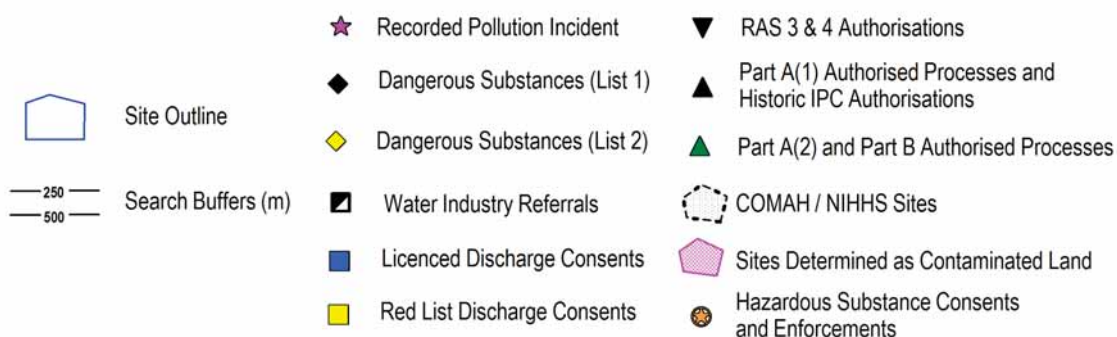
395BZ	38	SE	Ponds	1891
396P	41	W	Cuttings	1991
397P	41	W	Cuttings	1980
398P	41	W	Cuttings	1966
399BZ	42	SE	Ponds	1953
400BZ	48	SE	Pond	1894
401BZ	49	SE	Ponds	1905
402BZ	49	SE	Ponds	1925
403BZ	50	SE	Ponds	1938
404N	53	S	Pond	1851
405CA	77	NW	Cuttings	1851
406	81	W	Ponds	1891
407R	95	NW	Cuttings	1956
408CB	117	SE	Pond	1982
409CB	117	SE	Pond	1968
410CC	134	W	Pond	1925
411CC	134	W	Pond	1938
412CD	143	N	Pond	1891
413CD	144	N	Pond	1925
414CD	144	N	Pond	1904
415CD	144	N	Pond	1938
416	148	N	Pond	1891
417Q	152	W	Cuttings	1925
418Q	152	W	Cuttings	1904
419CD	154	N	Pond	1851
420R	154	W	Cuttings	1925
421R	154	W	Cuttings	1925
422CF	188	NE	Pond	1851
423CE	193	W	Cuttings	1891
424CF	193	NE	Ponds	1891
425CF	196	NE	Ponds	1905
426CF	196	NE	Ponds	1925
427V	197	W	Cuttings	1938
428CF	197	NE	Ponds	1938
429CF	197	NE	Pond	1894
430CF	208	NE	Ponds	1953
431CF	208	NE	Pond	1968
432CF	208	NE	Pond	1982
433CH	258	W	Pond	1851
434CG	262	S	Ponds	1912
435CG	264	S	Ponds	1953
436CH	267	W	Pond	1891
437CH	268	W	Pond	1925
438CH	269	W	Pond	1925
439CH	269	W	Pond	1938
440CH	269	W	Pond	1904

441CG	274	S	Ponds	1925
442CG	274	S	Ponds	1925
443CG	275	S	Pond	1891
444V	278	W	Cuttings	1904
445V	278	W	Cuttings	1925
446	279	SE	Pond	1851
447CG	279	S	Pond	1938
448CG	279	S	Ponds	1904
449CG	279	S	Pond	1925
450	297	S	Pond	1851
451	306	N	Pond	1851
452	325	E	Pond	1851
453X	338	W	Cuttings	1966
454X	338	W	Cuttings	1991
455X	338	W	Cuttings	1980
456BG	353	S	Ponds	1912
457CI	363	S	Ponds	1912
458BG	363	S	Ponds	1891
459BG	365	S	Ponds	1925
460BG	365	S	Ponds	1925
461CI	366	S	Pond	1953
462BG	367	S	Pond	1938
463BG	367	S	Pond	1925
464BG	367	S	Pond	1904
465	374	SE	Pond	1851
466CI	374	S	Pond	1891
467CI	380	S	Ponds	1938
468CI	380	S	Ponds	1925
469CI	380	S	Ponds	1904
470	384	NW	Pond	1851
471CE	386	W	Cuttings	1925
472CE	386	W	Cuttings	1938
473CE	386	W	Cuttings	1904
474AC	427	SE	Sewage Works	1982
475	428	E	Ponds	1851
476CJ	439	SE	Pond	1982
477CJ	439	SE	Pond	1968
478BN	484	SW	Pond	1851
479CK	493	N	Pond	1904
480	496	E	Pond	1851
481CK	496	N	Ponds	1891

2. Environmental Permits, Incidents and Registers Map



© Crown copyright and database rights 2016.
Ordnance Survey license 100035207.



2. Environmental Permits, Incidents and Registers

2.1 Industrial Sites Holding Licences and/or Authorisations

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

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

6

The following IPC Authorisations are represented as points on the Environmental Permits, Incidents and Registers Map:

ID	Distance (m)	Direction	NGR	Details
61B	0	On Site	344350 383950	Operator: Jaguar Cars Ltd Address: Halewood, Liverpool, L24 9BJ Process: Combustion Processes Permit Number: AV0576 Original Permit Number: IPCMINVAR Date Approved: 3-10-1996 Effective Date: 10-10-1996 Status: Superseded By Variation
62B	0	On Site	344350 383950	Operator: Jaguar Cars Ltd Address: Halewood, Liverpool, L24 9BJ Process: Combustion Processes Permit Number: BJ3837 Original Permit Number: IPCMINVAR Date Approved: 12-7-2005 Effective Date: 12-7-2005 Status: Revoked - Now Ippc
63B	0	On Site	344350 383950	Operator: Jaguar Cars Ltd Address: Halewood, Liverpool, L24 9BJ Process: Combustion Processes Permit Number: AA3620 Original Permit Number: IPCAPP Date Approved: 26-6-1992 Effective Date: 26-6-1992 Status: Superseded By Variation
64B	0	On Site	344350 383950	Operator: Jaguar Cars Ltd Address: Halewood, Liverpool, L24 9BJ Process: Combustion Processes Permit Number: BD5330 Original Permit Number: IPCMINVAR Date Approved: 24-11-1998 Effective Date: 30-11-1998 Status: Superseded By Variation
65B	0	On Site	344350 383950	Operator: Jaguar Cars Ltd Address: Halewood, Liverpool, L24 9BJ Process: Combustion Processes Permit Number: BI7186 Original Permit Number: IPCMINVAR Date Approved: 26-6-2000 Effective Date: 3-7-2000 Status: Superseded By Variation
66I	368	W	343780 384070	Operator: Apph Ltd Address: PO Box 1, Shaw Road, Speke, Liverpool, Merseyside, L24 9JY Process: Inorganic Chemical Processes Permit Number: AN9174 Original Permit Number: IPCAPP Date Approved: 30-11-1994 Effective Date: 8-12-1994 Status: Revoked

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

18

The following Part A(1) and IPPC Authorised Activities are represented as points on the Environmental Permits, Incidents and Registers Map:

ID	Distance (m)	Direction	NGR	Details
43C	0	On Site	344300 384000	Operator: Jaguar Land Rover Limited Installation Name: Halewood Combustion Plant Process: COMBUSTION; ANY FUEL =>50MW Permit Number: PP3234EE Original Permit Number: BS5673IQ EPR Reference: - Issue Date: 12/12/2013 Effective Date: 12/12/2013 Last date noted as effective: 2015-10-01 Status: Effective
44C	0	On Site	344300 384000	Operator: Jaguar Cars Ltd Installation Name: Halewood Combustion Plant Process: COMBUSTION; ANY FUEL =>50MW Permit Number: BS5673IQ Original Permit Number: BS5673IQ EPR Reference: - Issue Date: 29/6/2007 Effective Date: 29/6/2007 Last date noted as effective: 2015-10-01 Status: Superseded
45G	69	W	344080 383960	Operator: Chiron Vaccines Limited Installation Name: Speke Vaccine Manufacture Process: PHARMACEUTICALS; PRODUCING PHARMACEUTICALS USING CHEMICAL/BIOLOGICAL PROCESSES Permit Number: KP3330LF Original Permit Number: KP3330LF EPR Reference: - Issue Date: 6/4/2006 Effective Date: 20/12/2006 Last date noted as effective: 2015-10-01 Status: Revoked
46D	219	W	343930 383860	Operator: Medimmune Uk Ltd Installation Name: Renaissance Way, Speke Pharmaceuticals Process: PHARMACEUTICALS; PRODUCING PHARMACEUTICALS USING CHEMICAL/BIOLOGICAL PROCESSES Permit Number: TP3030GT Original Permit Number: BL6241IR EPR Reference: - Issue Date: 26/1/2009 Effective Date: 30/1/2009 Last date noted as effective: 2015-10-01 Status: Superseded
47D	219	W	343930 383860	Operator: Medimmune Uk Ltd Installation Name: Renaissance Way, Speke Pharmaceuticals Process: PHARMACEUTICALS; PRODUCING PHARMACEUTICALS USING CHEMICAL/BIOLOGICAL PROCESSES Permit Number: TP3239EU Original Permit Number: BL6241IR EPR Reference: - Issue Date: 29/11/2013 Effective Date: 29/11/2013 Last date noted as effective: 2015-10-01 Status: Superseded
48D	219	W	343930 383860	Operator: Medimmune Uk Ltd Installation Name: Renaissance Way, Speke Pharmaceuticals Process: PHARMACEUTICALS; PRODUCING PHARMACEUTICALS USING CHEMICAL/BIOLOGICAL PROCESSES Permit Number: TP3339ZM Original Permit Number: BL6241IR EPR Reference: - Issue Date: 23/11/2012 Effective Date: 23/11/2012 Last date noted as effective: 2015-10-01 Status: Superseded
49D	219	W	343930 383860	Operator: Medimmune Uk Ltd Installation Name: Renaissance Way, Speke Pharmaceuticals Process: PHARMACEUTICALS; PRODUCING PHARMACEUTICALS USING CHEMICAL/BIOLOGICAL PROCESSES Permit Number: BL6241IR Original Permit Number: BL6241IR EPR Reference: - Issue Date: 1/2/2006 Effective Date: 1/2/2006 Last date noted as effective: 2015-10-01 Status: Superseded

ID	Distance (m)	Direction	NGR	Details	
50D	219	W	343930 383860	Operator: Medimmune Uk Ltd Installation Name: Renaissance Way, Speke Pharmaceuticals Process: PHARMACEUTICALS; PRODUCING PHARMACEUTICALS USING CHEMICAL/BIOLOGICAL PROCESSES	Permit Number: YP3830WJ Original Permit Number: BL6241IR EPR Reference: - Issue Date: 25/2/2015 Effective Date: 25/2/2015 Last date noted as effective: 2015-10-01 Status: Effective
51D	219	W	343930 383860	Operator: Medimmune Uk Ltd Installation Name: Renaissance Way, Speke Pharmaceuticals Process: PHARMACEUTICALS; PRODUCING PHARMACEUTICALS USING CHEMICAL/BIOLOGICAL PROCESSES	Permit Number: BP3837TH Original Permit Number: BL6241IR EPR Reference: - Issue Date: 19/10/2010 Effective Date: 19/10/2010 Last date noted as effective: 2015-10-01 Status: Superseded
52D	219	W	343930 383860	Operator: Medimmune Uk Ltd Installation Name: Renaissance Way, Speke Pharmaceuticals Process: PHARMACEUTICALS; PRODUCING PHARMACEUTICALS USING CHEMICAL/BIOLOGICAL PROCESSES	Permit Number: AP3839FQ Original Permit Number: BL6241IR EPR Reference: - Issue Date: 20/7/2011 Effective Date: 20/7/2011 Last date noted as effective: 2015-10-01 Status: Superseded
53E	409	W	343740 383880	Operator: Novartis Vaccines And Diagnostics Limited Installation Name: Chiron Vaccines Site 1,2,3,4 Process: PHARMACEUTICALS; PRODUCING PHARMACEUTICALS USING CHEMICAL/BIOLOGICAL PROCESSES	Permit Number: CP3032FR Original Permit Number: BS5401IK EPR Reference: - Issue Date: 21/10/2011 Effective Date: 21/10/2011 Last date noted as effective: 2015-10-01 Status: Superseded
54E	409	W	343740 383880	Operator: Novartis Vaccines And Diagnostics Limited Installation Name: Novartis Vaccines And Diagnostics Process: PHARMACEUTICALS; PRODUCING PHARMACEUTICALS USING CHEMICAL/BIOLOGICAL PROCESSES	Permit Number: CP3131VF Original Permit Number: BS5401IK EPR Reference: - Issue Date: 10/2/2014 Effective Date: 10/2/2014 Last date noted as effective: 2015-10-01 Status: Effective
55E	409	W	343740 383880	Operator: Novartis Vaccines And Diagnostics Limited Installation Name: Novartis Vaccines And Diagnostics Process: PHARMACEUTICALS; PRODUCING PHARMACEUTICALS USING CHEMICAL/BIOLOGICAL PROCESSES	Permit Number: EP3534EH Original Permit Number: BS5401IK EPR Reference: - Issue Date: 10/2/2014 Effective Date: 10/2/2014 Last date noted as effective: 2014-04-01 Status: Effective
56E	409	W	343740 383880	Operator: Novartis Grimsby Ltd Installation Name: Chiron Vaccines Site 1,2,3,4 Process: PHARMACEUTICALS; PRODUCING PHARMACEUTICALS USING CHEMICAL/BIOLOGICAL PROCESSES	Permit Number: BS5401IK Original Permit Number: BS5401IK EPR Reference: - Issue Date: 21/12/2006 Effective Date: 21/12/2006 Last date noted as effective: 2015-10-01 Status: Superseded
57E	409	W	343740 383880	Operator: Novartis Vaccines And Diagnostics Limited Installation Name: Chiron Vaccines Site 1,2,3,4 Process: PHARMACEUTICALS; PRODUCING PHARMACEUTICALS USING CHEMICAL/BIOLOGICAL PROCESSES	Permit Number: YP3531UV Original Permit Number: BS5401IK EPR Reference: - Issue Date: 21/12/2007 Effective Date: 21/12/2007 Last date noted as effective: 2015-10-01 Status: Superseded

ID	Distance (m)	Direction	NGR	Details
58E	409	W	343740 383880	Operator: Novartis Vaccines And Diagnostics Limited Installation Name: Chiron Vaccines Site 1,2,3,4 Process: PHARMACEUTICALS; PRODUCING PHARMACEUTICALS USING CHEMICAL/BIOLOGICAL PROCESSES Permit Number: AP3131HR Original Permit Number: BS5401IK EPR Reference: - Issue Date: 5/5/2011 Effective Date: 5/5/2011 Last date noted as effective: 2015-10-01 Status: Superceded
59E	409	W	343740 383880	Operator: Novartis Vaccines And Diagnostics Limited Installation Name: Chiron Vaccines Site 1,2,3,4 Process: PHARMACEUTICALS; PRODUCING PHARMACEUTICALS USING CHEMICAL/BIOLOGICAL PROCESSES Permit Number: BP3937KL Original Permit Number: BS5401IK EPR Reference: - Issue Date: 9/4/2010 Effective Date: 9/4/2010 Last date noted as effective: 2015-10-01 Status: Superceded
60E	409	W	343740 383880	Operator: Novartis Vaccines And Diagnostics Limited Installation Name: Chiron Vaccines Site 1,2,3,4 Process: PHARMACEUTICALS; PRODUCING PHARMACEUTICALS USING CHEMICAL/BIOLOGICAL PROCESSES Permit Number: QP3839HW Original Permit Number: BS5401IK EPR Reference: - Issue Date: 5/10/2010 Effective Date: 5/10/2010 Last date noted as effective: 2015-10-01 Status: Superceded

2.1.3 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.

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

1

The following List 1 Dangerous Substance Inventory Site records are represented as points on the Environmental Permits, Incidents and Registers Map:

ID	Distance (m)	Direction	NGR	Details
7E	409	W	343740 383880	Name: Novartis Vaccines And Diagnostics Limited, L24 9gr Status: Active Receiving Water: Mersey Estuary Authorised Substances: Mercury (other)

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

0

Database searched and no data found.

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

7

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

ID	Distance (m)	Direction	NGR	Details
32F	0	On Site	344414 384131	Address: Jaguar Cars Ltd PFS, Speke Boulevard, Halewood, L24 9LE Process: Unloading Of Petrol Status: Current Permit Permit Type: Part B Enforcement: No Enforcements Notified Date of Enforcement: No Enforcements Notified Comment: No Enforcements Notified
33F	0	On Site	344414 384131	Address: Jaguar Cars Ltd, Speke Boulevard, Halewood, L24 9LE Process: Paint Application In Vehicle Manufacture Status: Current Permit Permit Type: Part A2 Enforcement: No Enforcements Notified Date of Enforcement: No Enforcements Notified Comment: No Enforcements Notified
34	0	On Site	344577 384055	Address: Ford Motor, Co South Rd, Halewood, Liverpool, L24 9LE Process: Vehicle Re-spray Process Status: Historical Permit Permit Type: Part B Enforcement: No Enforcements Notified Date of Enforcement: No Enforcements Notified Comment: No Enforcements Notified
35G	65	W	344084 383966	Address: Decoma-Merplas, 6 Renaissance Way, Boulevard Ind. Park, Halewood, L24 9PL Process: Coating Of Metal & Plastic Status: Current Permit Permit Type: Part A2 Enforcement: No Enforcements Notified Date of Enforcement: No Enforcements Notified Comment: No Enforcements Notified
36H	117	S	344267 383574	Address: WM Morrison (Speke) Process: Petrol Filling Station Status: Current Permit Permit Type: Part B Enforcement: No Enforcement Notified Date of Enforcement: No Enforcement Notified Comment: No Enforcement Notified
37H	118	S	344271 383572	Address: WM Morrison, Dry Cleaners Process: Dry Cleaners Status: Current Permit Permit Type: Part B Enforcement: No Enforcement Notified Date of Enforcement: No Enforcement Notified Comment: No Enforcement Notified
38	262	W	343887 383910	Address: A P Hydraulics Process: Metal De-contamination Process Status: Historical Permit Permit Type: Part B Enforcement: No Enforcement Notified Date of Enforcement: No Enforcement Notified Comment: No Enforcement Notified

2.1.7 Records of Category 3 or 4 Radioactive Substances Authorisations:

0

Database searched and no data found.

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

0

Database searched and no data found.

2.1.9 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.

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

1

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

ID	Distance (m)	Direction	Application Reference Number	NGR	Application Status	Application Date	Address	Details	Details of Enforcement Action
67J	0	On Site	No Details	344798 384052	Approved	No Details	Ford Motor Co Ltd, Halewood, Liverpool, L24 9LE	No Details	Enforcement: No Enforcements Notified Date of Enforcement: No Enforcement Notified Comment: No Enforcement Notified

2.2 Dangerous or Hazardous Sites

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

3

The following COMAH & NIHHS Authorisation records provided by the Health and Safety Executive are represented as polygons or buffered points on the Environmental Permits, Incidents and Registers Map:

ID	Distance (m)	Direction	Company	Address	Operational Status	Tier
39	0	On Site	Ford Motor Co Ltd	Ford Motor Co Ltd, Halewood, Liverpool, L24 9le	Historical NIHHS Site	-
40	254	W	Eli Lilly And Company Limited	Eli Lilly And Company Limited, Liverpool, Fleming Road, Speke, Liverpool, Merseyside, L24 9ln	Current COMAH Site	COMAH Top Tier Operator
41	409	W	Medeva Pharma Ltd	Medeva Pharma Ltd, Gaskill Road, Speke, L24 9gr	Historical NIHHS Site	-

2.3 Environment Agency Recorded Pollution Incidents

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

6

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

ID	Distance (m)	Direction	NGR	Details
1A	94	W	344055 383834	Incident Date: 20-Jan-2003 Incident Identification: 132261 Pollutant: Inorganic Chemicals/Products Pollutant Description: Acids Water Impact: Category 3 (Minor) Land Impact: Category 4 (No Impact) Air Impact: Category 4 (No Impact)
2A	94	W	344055 383834	Incident Date: 20-Jan-2003 Incident Identification: 132261 Pollutant: Inorganic Chemicals/Products Pollutant Description: Acids Water Impact: Category 3 (Minor) Land Impact: Category 4 (No Impact) Air Impact: Category 4 (No Impact)
3	170	SE	345827 383927	Incident Date: 06-Oct-2005 Incident Identification: 351536 Pollutant: Sewage Materials Pollutant Description: Sludge Water Impact: Category 2 (Significant) Land Impact: Category 3 (Minor) Air Impact: Category 4 (No Impact)
4	304	SE	345930 383840	Incident Date: 20-Jun-2003 Incident Identification: 167548 Pollutant: Pollutant Not Identified Pollutant Description: Not Identified Water Impact: Category 3 (Minor) Land Impact: Category 4 (No Impact) Air Impact: Category 4 (No Impact)
5	335	SW	343961 383445	Incident Date: 31-Jul-2001 Incident Identification: 20724 Pollutant: Specific Waste Materials Pollutant Description: Asbestos Water Impact: Category 4 (No Impact) Land Impact: Category 3 (Minor) Air Impact: Category 3 (Minor)
6	485	W	343662 384172	Incident Date: 17-May-2002 Incident Identification: 79364 Pollutant: Specific Waste Materials Pollutant Description: Tyres Water Impact: Category 4 (No Impact) Land Impact: Category 3 (Minor) Air Impact: Category 4 (No Impact)

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

0

Database searched and no data found.

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

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

0

Database searched and no data found.

3. Landfill and Other Waste Sites

3.1 Landfill Sites

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

0

Database searched and no data found.

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

3

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

ID	Distance (m)	Direction	NGR	Details
2	0	On Site	345600 384300	Site Address: Crab Tree Rough, Knowsley, Merseyside Waste Licence: - Site Reference: GDO M108 Waste Type: Industrial Environmental Permitting Regulations (Waste) Reference: - Licence Issue: Licence Surrendered: Licence Hold Address: - Operator: Ford Motor Factory First Recorded: - Last Recorded: -
Not shown	973	S	343700 382500	Site Address: Speke Airport, Speke, Merseyside Waste Licence: - Site Reference: GDO M105 Waste Type: - Environmental Permitting Regulations (Waste) Reference: - Licence Issue: Licence Surrendered: Licence Hold Address: - Operator: - First Recorded: - Last Recorded: -
Not shown	1045	W	343000 384500	Site Address: Factory Unit - Former Stedall Premises, Edwards Lane, Hunts Cross, Liverpool, Merseyside Waste Licence: Yes Site Reference: 452/02, GDO M240, 226 Waste Type: Inert Environmental Permitting Regulations (Waste) Reference: - Licence Issue: 25-Aug-1993 Licence Surrendered: Licence Hold Address: Registered Office, 17-19 Fenwick Street, Liverpool, Merseyside Operator: Coward and Company First Recorded: - Last Recorded: -

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

0

Database searched and no data found.

3.1.4 Records of Landfills from Local Authority and Historical Mapping Records within 1500m of the study site:

0

Database searched and no data found.

3.2 Other Waste Sites

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

1

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

ID	Distance (m)	Direction	NGR	Details	
1	39	W	344084 383966	Type of Site: Waste Storage Facility Site Address: Novertis Vaccines Site 4, Renaissance Way, LIVERPOOL, Merseyside, L24 9PY Planning Application Reference: 11F/0724 Date: 18/09/2011	Further Details: Scheme comprises installation of provide new waste storage facility to store chemicals. Construction - hardcore site works. An application (ref: 11F/0724) for detailed planning permission was granted by Liverpool C.C. A detailed planning application habeen granted. Data Source: Historic Planning Application Data Type: Point

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

16

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

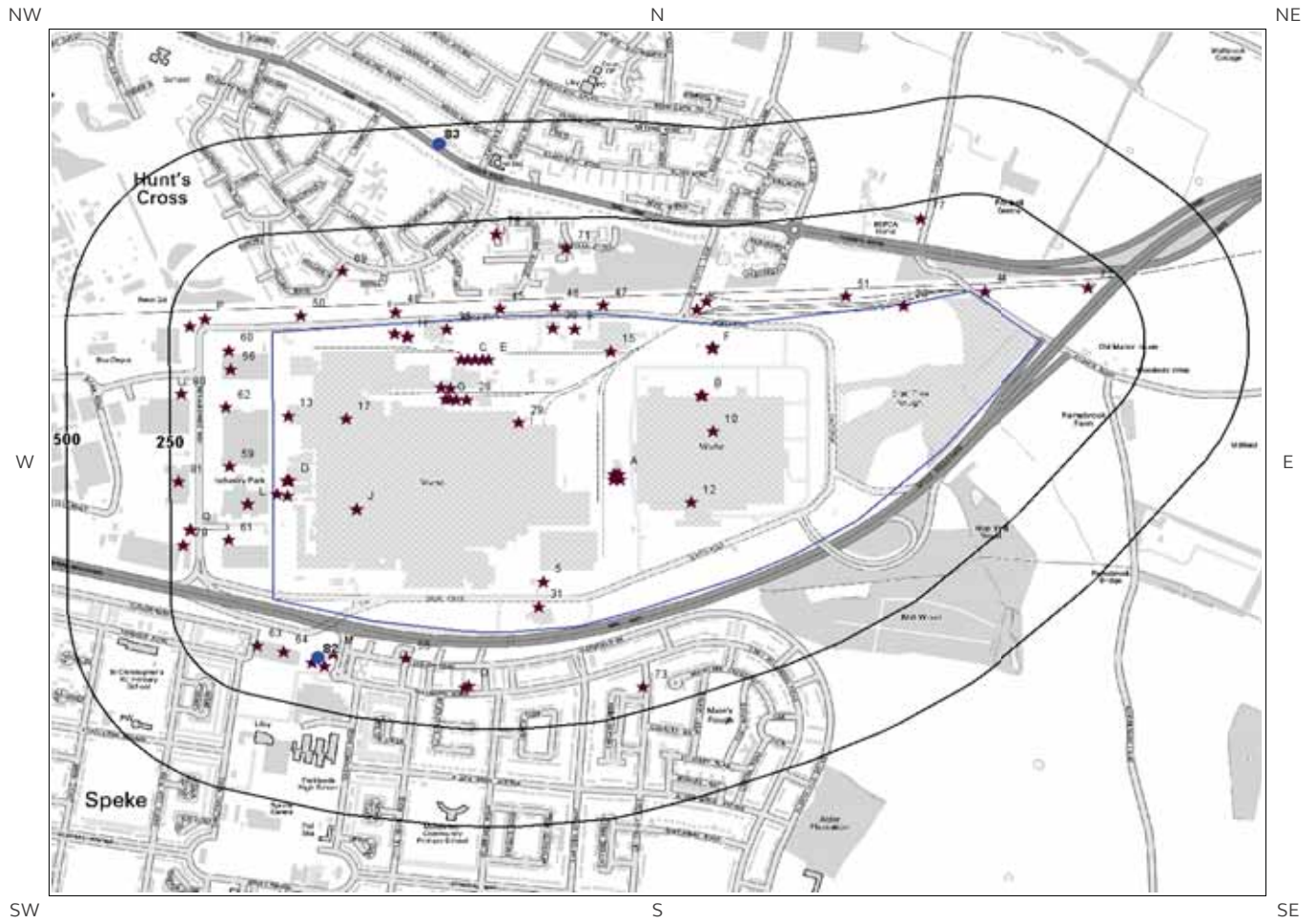
ID	Distance (m)	Direction	NGR	Details	
5A	0	On Site	344500 384000	Site Address: Halewood Site, Halewood, Liverpool, Merseyside, L24 9LE Type: In-House Storage Facility Size: < 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: FMC001 EPR reference: - Operator: Ford Motor Co Ltd Waste Management licence No: 53520 Annual Tonnage: 208.0	Issue Date: 19/11/1997 Effective Date: - Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Issued Site Name: Ford Halewood Site Correspondence Address: -, Ford Motor Co Ltd, Eagle Way, Brentwood, Essex, CM13 3BW

ID	Distance (m)	Direction	NGR	Details
6A	0	On Site	344500 384000	Site Address: Land/premises At, Halewood Site, Halewood, Liverpool, Merseyside, L24 9BJ Type: In-House Storage Facility Size: < 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: JAG005 EPR reference: EA/EPR/CP3292CS/T001 Operator: Jaguar Cars Ltd Waste Management licence No: 53520 Annual Tonnage: 208.0 Issue Date: 19/11/1997 Effective Date: 10/04/2008 Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Transferred Site Name: Jaguar Cars Halewood Site Correspondence Address: -, -
7	512	W	343636 384092	Site Address: Vicount Centre, Unit 12, Gaskill Road, Speke, Liverpool, Merseyside, L24 9GS Type: Physical Treatment Facility Size: < 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: CRE002 EPR reference: EA/EPR/ZP3694CZ/A001 Operator: Create Liverpool Ltd Waste Management licence No: 50377 Annual Tonnage: 24999.0 Issue Date: 14/03/2005 Effective Date: - Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Issued Site Name: Create Correspondence Address: -, -
Not shown	540	W	343608 384091	Site Address: Unit 12 The Viscount Centre, Gaskill Road, Speke, Liverpool, Merseyside, L24 9GS Type: WEEE treatment facility Size: < 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: LOC031 EPR reference: EA/EPR/JB3737RH/V002 Operator: Lockbox Storage.com Ltd Waste Management licence No: 104524 Annual Tonnage: 74999.0 Issue Date: 06/08/2012 Effective Date: - Modified: 30/09/2013 Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Modified Site Name: Unit 12 The Viscount Centre Correspondence Address: -, -
Not shown	543	W	343604 384234	Site Address: M C S House, Shaw Road, Speke, Liverpool, Merseyside, L24 9JT Type: Clinical Waste Transfer Station Size: < 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: SRC005 EPR reference: EA/EPR/SP3990VQ/S003 Operator: S R C L Ltd Waste Management licence No: 102384 Annual Tonnage: 0.0 Issue Date: 11/03/2011 Effective Date: - Modified: 13/06/2013 Surrendered Date: 26/02/2015 Expiry Date: - Cancelled Date: - Status: Surrendered Site Name: Speke Clinical Waste Transfer Station Correspondence Address: -, -
10B	653	SE	346393 383822	Site Address: Land/premises At, Ramsbrook Lane, Widnes, Cheshire, WA8 8NZ Type: Household, Commercial & Industrial Waste T Stn Size: >= 25000 tonnes < 75000 tonnes Environmental Permitting Regulations (Waste) Licence Number: NWW011 EPR reference: EA/EPR/CP3298CN/V002 Operator: United Utilities Water Limited Waste Management licence No: 50022 Annual Tonnage: 6250.0 Issue Date: 14/05/1999 Effective Date: - Modified: 13/01/2015 Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Modified Site Name: Halewood Waste Water Treatment Works Correspondence Address: -, -

ID	Distance (m)	Direction	NGR	Details	
11B	653	SE	346393 383822	Site Address: Land/premises At, Ramsbrook Lane, Widnes, Cheshire, WA8 8NZ Type: Household, Commercial & Industrial Waste T Stn Size: >= 25000 tonnes < 75000 tonnes Environmental Permitting Regulations (Waste) Licence Number: NWW011 EPR reference: EA/EPR/CP3298CN/A001 Operator: United Utilities Water Plc Waste Management licence No: 50022 Annual Tonnage: 6250.0	Issue Date: 14/05/1999 Effective Date: - Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Issued Site Name: Halewood Waste Water Treatment Works Correspondence Address: -, -
12B	653	SE	346393 383822	Site Address: Ramsbrook Lane, Widnes, Cheshire, WA8 8NZ Type: Household, Commercial & Industrial Waste T Stn Size: >= 75000 tonnes Environmental Permitting Regulations (Waste) Licence Number: NWW011 EPR reference: - Operator: United Utilities Water Plc Waste Management licence No: 50022 Annual Tonnage: 6250.0	Issue Date: 14/05/1999 Effective Date: - Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Issued Site Name: Halewood Waste Water Treatment Works Correspondence Address: -, Lingley Green Avenue, Great Sankey, Warrington, Cheshire, WA5 3LP
Not shown	998	W	343150 384045	Site Address: Venture Point Ind Est, Evans Road, Speke, Liverpool, L14 9LU Type: HCI Waste TS + treatment Size: < 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: KCS001 EPR reference: - Operator: K C Skip Hire & Waste Management Waste Management licence No: 100471 Annual Tonnage: 0.0	Issue Date: 9/12/2008 Effective Date: - Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Issued Site Name: K C Skip Hire & Waste Management Ltd Correspondence Address: -, 16, Dunchurch Road, Dovecot, Liverpool, L14 2DP
Not shown	998	W	343150 384045	Site Address: Venture Point Ind Est, Evans Road, Speke, Liverpool, Merseyside, L14 9PB Type: HCI Waste TS + treatment Size: < 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: KCS001 EPR reference: EA/EPR/AP3391LT/A001 Operator: South Liverpool Recycling Ltd Waste Management licence No: 100471 Annual Tonnage: 24999.0	Issue Date: 12/09/2008 Effective Date: - Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Issued Site Name: South Liverpool Recycling Ltd Correspondence Address: -, -
Not shown	1252	W	342895 384183	Site Address: Yard 3 Pier Hard Works, Evans Road, Speke, Merseyside, L24 9HZ Type: Vehicle Depollution Facility <5000 tps Size: < 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: ALL042 EPR reference: EA/EPR/JP3295EW/V002 Operator: Allfords Recycling Centre Ltd Waste Management licence No: 100199 Annual Tonnage: 4999.0	Issue Date: 24/01/2008 Effective Date: - Modified: 03/12/2012 Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Modified Site Name: Yard 3 Pier Head Works Correspondence Address: -, -

ID	Distance (m)	Direction	NGR	Details
Not shown	1252	W	342895 384183	Site Address: Yard 3, Evans Road, Venture Point Bus Pk, Liverpool, Merseyside, L24 9HZ Type: ELV Facility Size: < 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: ALL042 EPR reference: EA/EPR/JP3295EW/A001 Operator: Allfords Recycling Centre Ltd Waste Management licence No: 100199 Annual Tonnage: 2499.0 Issue Date: 24/01/2008 Effective Date: - Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Issued Site Name: Pier Head Correspondence Address: -, -
Not shown	1263	W	342885 384070	Site Address: U G S, Venture Point Business Park, Spere Boulevard, Liverpool, Merseyside, L24 9HZ Type: Deposit of waste to land as a recovery operation Size: < 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: UGS001 EPR reference: - Operator: Gardner Mark Waste Management licence No: 100053 Annual Tonnage: 0.0 Issue Date: 21/08/2007 Effective Date: - Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Issued Site Name: U G S Venture Point Business Park Correspondence Address: -, U G S, Venture Point Business Park, Spere Boulevard, Liverpool, Merseyside, L24 9HZ
Not shown	1263	W	342885 384070	Site Address: U G S, Venture Point Business Park, Spere Boulevard, Liverpool, Merseyside, L24 9HZ Type: ELV Facility Size: < 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: UGS001 EPR reference: EA/EPR/FP3695EY/A001 Operator: Gardner Mark Waste Management licence No: 100053 Annual Tonnage: 0.0 Issue Date: 21/08/2007 Effective Date: - Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Issued Site Name: U G S Venture Point Business Park Correspondence Address: -, U G S, Venture Point Business Park, Spere Boulevard, Liverpool, Merseyside, L24 9HZ
Not shown	1263	W	342885 384070	Site Address: Premier Salvage, Venture Point Business Park, Speke Boulevard, Liverpool, Merseyside, L24 9HZ Type: ELV Facility Size: < 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: KAN002 EPR reference: EA/EPR/AP3596EV/T001 Operator: Kane Anthony Waste Management licence No: 100053 Annual Tonnage: 4999.0 Issue Date: 21/08/2007 Effective Date: 07/10/2009 Modified: 07/10/2009 Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Modified Site Name: Premier Salvage Correspondence Address: -, -
Not shown	1378	W	342769 384202	Site Address: Yards 2 & 3 Pier Hard Works, Evans Road, Venture Point Bus Park, Speke, Liverpool, Merseyside, L24 9HZ Type: Vehicle Depollution Facility <5000 tps Size: < 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: ALL042 EPR reference: EA/EPR/JP3295EW/V003 Operator: All Fords Recycling Centre Limited Waste Management licence No: 100199 Annual Tonnage: 4999.0 Issue Date: 24/01/2008 Effective Date: - Modified: 11/03/2015 Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Modified Site Name: All Fords Recycling Centre (Yards 2 & 3) Correspondence Address: -, -

4. Current Land Use Map



© Crown copyright and database rights 2016.
Ordnance Survey license 100035207.



4. Current Land Uses

4.1 Current Industrial Data

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

81

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

ID	Distance (m)	Direction	Company	NGR	Address	Activity	Category
1C	0	On Site	Tank	344620 384337	L24	Tanks (Generic)	Industrial Features
2B	0	On Site	Tank	345189 384245	L24	Tanks (Generic)	Industrial Features
3F	0	On Site	Tank	345213 384364	L24	Tanks (Generic)	Industrial Features
4D	0	On Site	Tank	344187 384026	L24	Tanks (Generic)	Industrial Features
5	0	On Site	Gas Governor Station	344803 383768	L24	Gas Features	Infrastructure and Facilities
6A	0	On Site	Tank	344987 384043	L24	Tanks (Generic)	Industrial Features
7J	0	On Site	Le Control Within Jaguar Landrover	344351 383954	Speke Boulevard, Halewood, Liverpool, L24 9LE	Measurement and Inspection Equipment	Industrial Products
8A	0	On Site	Tank	344974 384029	L24	Tanks (Generic)	Industrial Features
9	0	On Site	Electricity Sub Station	344878 384416	L24	Electrical Features	Infrastructure and Facilities
10	0	On Site	Works	345215 384153	L24	Unspecified Works Or Factories	Industrial Features
11B	0	On Site	Tank	345185 384246	L24	Tanks (Generic)	Industrial Features
12	0	On Site	Getrag	345160 383971	Halewood, Liverpool, L24 9LE	Vehicle Components	Industrial Products
13	0	On Site	Tank	344185 384193	L24	Tanks (Generic)	Industrial Features
14E	0	On Site	Tank	344670 384336	L24	Tanks (Generic)	Industrial Features
15	0	On Site	Electricity Sub Station	344965 384358	L24	Electrical Features	Infrastructure and Facilities
16C	0	On Site	Tank	344602 384336	L24	Tanks (Generic)	Industrial Features
17	0	On Site	Works	344326 384185	L24	Unspecified Works Or Factories	Industrial Features
18D	0	On Site	Tank	344183 384026	L24	Tanks (Generic)	Industrial Features
19G	0	On Site	Tank	344566 384235	L24	Tanks (Generic)	Industrial Features

ID	Distance (m)	Direction	Company	NGR	Address	Activity	Category
20	0	On Site	Pylon	345676 384475	L24	Electrical Features	Infrastructure and Facilities
21H	0	On Site	(Water Tower)	344472 384397	L24	Water Pumping Stations	Industrial Features
22E	0	On Site	Tank	344655 384336	L24	Tanks (Generic)	Industrial Features
23F	0	On Site	Tank	345214 384370	L24	Tanks (Generic)	Industrial Features
24F	0	On Site	Tank	345213 384367	L24	Tanks (Generic)	Industrial Features
25G	0	On Site	Tank	344577 384264	L24	Tanks (Generic)	Industrial Features
26A	0	On Site	Tank	344989 384029	L24	Tanks (Generic)	Industrial Features
27G	0	On Site	Tank	344575 384235	L24	Tanks (Generic)	Industrial Features
28	0	On Site	Electricity Sub Station	344616 384234	L24	Electrical Features	Infrastructure and Facilities
29	0	On Site	Works	344742 384176	L24	Unspecified Works Or Factories	Industrial Features
30	0	On Site	Electricity Sub Station	344825 384418	L24	Electrical Features	Infrastructure and Facilities
31	0	On Site	Electricity Sub Station	344791 383704	L24	Electrical Features	Infrastructure and Facilities
32A	0	On Site	Tank	344973 384042	L24	Tanks (Generic)	Industrial Features
33H	0	On Site	Tank	344443 384403	L26	Tanks (Generic)	Industrial Features
34I	0	On Site	Tank	344158 383992	L24	Tanks (Generic)	Industrial Features
35	0	On Site	Gas Governor	344569 384415	L24	Gas Features	Infrastructure and Facilities
36I	0	On Site	Tank	344182 383988	L24	Tanks (Generic)	Industrial Features
37H	0	On Site	Tank	344475 384395	L24	Tanks (Generic)	Industrial Features
38G	0	On Site	Tank	344554 384266	L24	Tanks (Generic)	Industrial Features
39J	0	On Site	Jaguar Landrover	344350 383953	Halewood, Liverpool, L24 9BJ	Vehicles	Industrial Products
40A	0	On Site	Tank	344979 384042	L24	Tanks (Generic)	Industrial Features
41C	0	On Site	Tank	344637 384336	L24	Tanks (Generic)	Industrial Features
42D	0	On Site	Tank	344179 384026	L24	Tanks (Generic)	Industrial Features
43G	0	On Site	Pumping Station	344591 384233	L24	Water Pumping Stations	Industrial Features
44	22	NE	Pylon	345874 384512	L24	Electrical Features	Infrastructure and Facilities
45	23	N	Pylon	344697 384468	L24	Electrical Features	Infrastructure and Facilities
46	24	N	Pylon	344830 384473	L24	Electrical Features	Infrastructure and Facilities

ID	Distance (m)	Direction	Company	NGR	Address	Activity	Category
47	26	N	Pylon	344948 384477	L24	Electrical Features	Infrastructure and Facilities
48	31	N	Pylon	344445 384459	L26	Electrical Features	Infrastructure and Facilities
49K	34	N	Pylon	345175 384466	L24	Electrical Features	Infrastructure and Facilities
50	37	N	Pylon	344214 384449	L26	Electrical Features	Infrastructure and Facilities
51	39	N	Pylon	345536 384500	L24	Electrical Features	Infrastructure and Facilities
52K	57	N	Pylon	345198 384487	L24	Electrical Features	Infrastructure and Facilities
53L	64	W	Melpas	344084 383966	6, Renaissance Way, Liverpool, L24 9PL	Vehicle Components	Industrial Products
54L	64	W	D H L Supply Chain	344084 383966	4, Renaissance Way, Liverpool, L24 9PY	Vehicle Components	Industrial Products
55	85	S	Electricity Sub Station	344469 383571	L24	Electrical Features	Infrastructure and Facilities
56	101	W	I A C Group Ltd	344045 384312	8, Renaissance Way, Liverpool, L24 9PS	Vehicle Components	Industrial Products
57M	102	S	Morrisons Speke	344292 383584	1, Penketh Drive, Liverpool, L24 2WZ	Petrol and Fuel Stations	Road and Rail
58M	102	S	Morrisons Speke	344292 383584	1, Penketh Drive, Liverpool, L24 2WZ	Petrol and Fuel Stations	Road and Rail
59	106	W	Electricity Sub Station	344042 384063	L24	Electrical Features	Infrastructure and Facilities
60	106	W	Electricity Sub Station	344040 384361	L24	Electrical Features	Infrastructure and Facilities
61	109	W	Electricity Sub Station	344040 383875	L24	Electrical Features	Infrastructure and Facilities
62	113	W	Electricity Sub Station	344034 384215	L24	Electrical Features	Infrastructure and Facilities
63	124	S	Electricity Sub Station	344108 383604	L24	Electrical Features	Infrastructure and Facilities
64	125	S	Benson's for Beds	344173 383587	8, Penketh Drive, Liverpool, L24 2WZ	Beds and Bedding	Consumer Products
65N	136	S	Electricity Sub Station	344241 383561	L24	Electrical Features	Infrastructure and Facilities
66O	138	S	Electricity Sub Station	344621 383501	L24	Electrical Features	Infrastructure and Facilities
67N	139	S	Morrisons Speke	344271 383551	1, Penketh Drive, Liverpool, L24 2WZ	Vehicle Cleaning Services	Personal, Consumer and Other Services
68O	144	S	Electricity Sub Station	344613 383495	L24	Electrical Features	Infrastructure and Facilities
69	145	N	Electricity Sub Station	344316 384564	L26	Electrical Features	Infrastructure and Facilities
70P	167	W	Pylon	343983 384441	L26	Electrical Features	Infrastructure and Facilities
71	174	N	Electricity Sub Station	344858 384623	L26	Electrical Features	Infrastructure and Facilities
72	179	NE	Pylon	346128 384522	WA8	Electrical Features	Infrastructure and Facilities
73	190	S	Electricity Sub Station	345045 383498	L24	Electrical Features	Infrastructure and Facilities

ID	Distance (m)	Direction	Company	NGR	Address	Activity	Category
74Q	201	W	Gas Valve Compound	343948 383901	L24	Gas Features	Infrastructure and Facilities
75P	202	W	Electricity Sub Station	343945 384422	L26	Electrical Features	Infrastructure and Facilities
76Q	203	W	Gas Valve Compound	343946 383901	L24	Gas Features	Infrastructure and Facilities
77	208	N	Electricity Sub Station	345718 384698	L26	Electrical Features	Infrastructure and Facilities
78	215	N	Electricity Sub Station	344687 384660	L26	Electrical Features	Infrastructure and Facilities
79	219	W	Novartis	343930 383860	Novartis, Renaissance Way, Liverpool, L24 9JW	Medical Equipment, Supplies and Pharmaceuticals	Industrial Products
80	221	W	Boulevard Industry Park	343926 384249	L24	Business Parks and Industrial Estates	Industrial Features
81	230	W	Medimmune	343917 384023	5, Renaissance Way, Liverpool, L24 9JW	Medical Equipment, Supplies and Pharmaceuticals	Industrial Products

4.2 Petrol and Fuel Sites

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

2

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

ID	Distance (m)	Direction	NGR	Company	Address	LPG	Status
82	122	S	344257 383571	Morrisons	Morrisons Speke, 1, Penketh Drive, Penketh Drive, Speke Boulevard, Speke, Liverpool, Merseyside, L24 2WZ	No	Open
83	453	N	344550 384889	Shell	Halewood Service Station, 195, Higher Road, Higher Road, Halewood, Liverpool, Merseyside, L26 1UN	No	Open

4.3 National Grid High Voltage Underground Electricity Transmission Cables

This dataset identifies the high voltage electricity transmission lines running between generating power plants and electricity substations. The dataset does not include the electricity distribution network (smaller, lower voltage cables distributing power from substations to the local user network). This information has been extracted from databases held by National Grid and is provided for information only with no guarantee as to its completeness or accuracy. National Grid do not offer any warranty as to the accuracy of the available data and are excluded from any liability for any such inaccuracies or errors.

Records of National Grid high voltage underground electricity transmission cables within 500m of the study site:

0

Database searched and no data found.

4.4 National Grid High Pressure Gas Transmission Pipelines

This dataset identifies high-pressure, large diameter pipelines which carry gas between gas terminals, power stations, compressors and storage facilities. The dataset does not include the Local Transmission System (LTS) which supplies gas directly into homes and businesses. This information has been extracted from databases held by National Grid and is provided for information only with no guarantee as to its completeness or accuracy. National Grid do not offer any warranty as to the accuracy of the available data and are excluded from any liability for any such inaccuracies or errors.

Records of National Grid high pressure gas transmission pipelines within 500m of the study site: 0

Database searched and no data found.

5. Geology

5.1 Artificial Ground and Made Ground

Database searched and no data found.

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

5.2 Superficial Ground and Drift Geology

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

Lex Code	Description	Rock Type
TILLD	TILL, DEVENSIAN	DIAMICTON
ALV	ALLUVIUM	CLAY, SILT, SAND AND GRAVEL [UNLITHIFIED DEPOSITS CODING SCHEME]

5.3 Bedrock and Solid Geology

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

Lex Code	Description	Rock Type
WLSF-SDST	WILMSLOW SANDSTONE FORMATION	SANDSTONE
CPB-PESST	CHESTER PEBBLE BEDS FORMATION	SANDSTONE, PEBBLY (GRAVELLY)
KNSF-SDST	KINNERTON SANDSTONE FORMATION	SANDSTONE

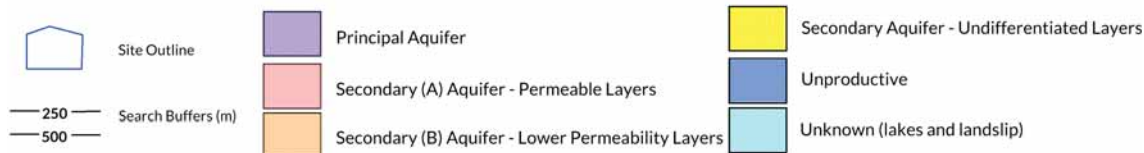
(Derived from the BGS 1:50,000 Digital Geological Map of Great Britain)

6 Hydrogeology and Hydrology

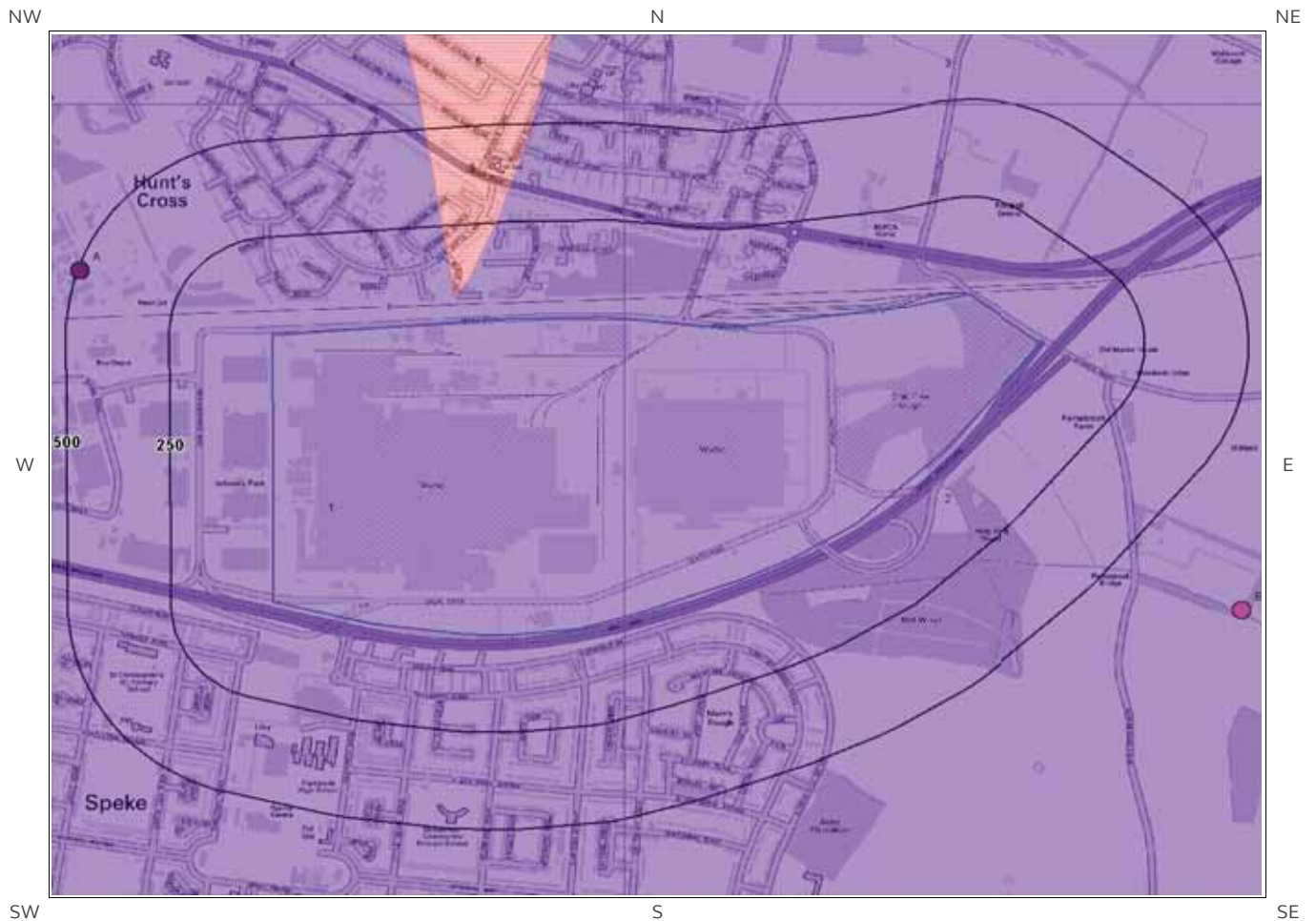
6a. Aquifer Within Superficial Geology



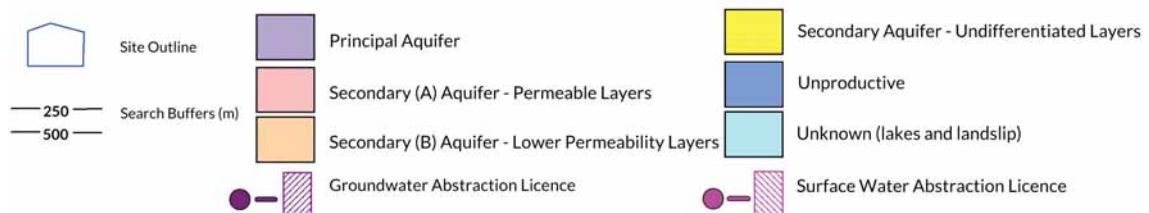
© Crown copyright and database rights 2016
Ordnance Survey license 100035207.



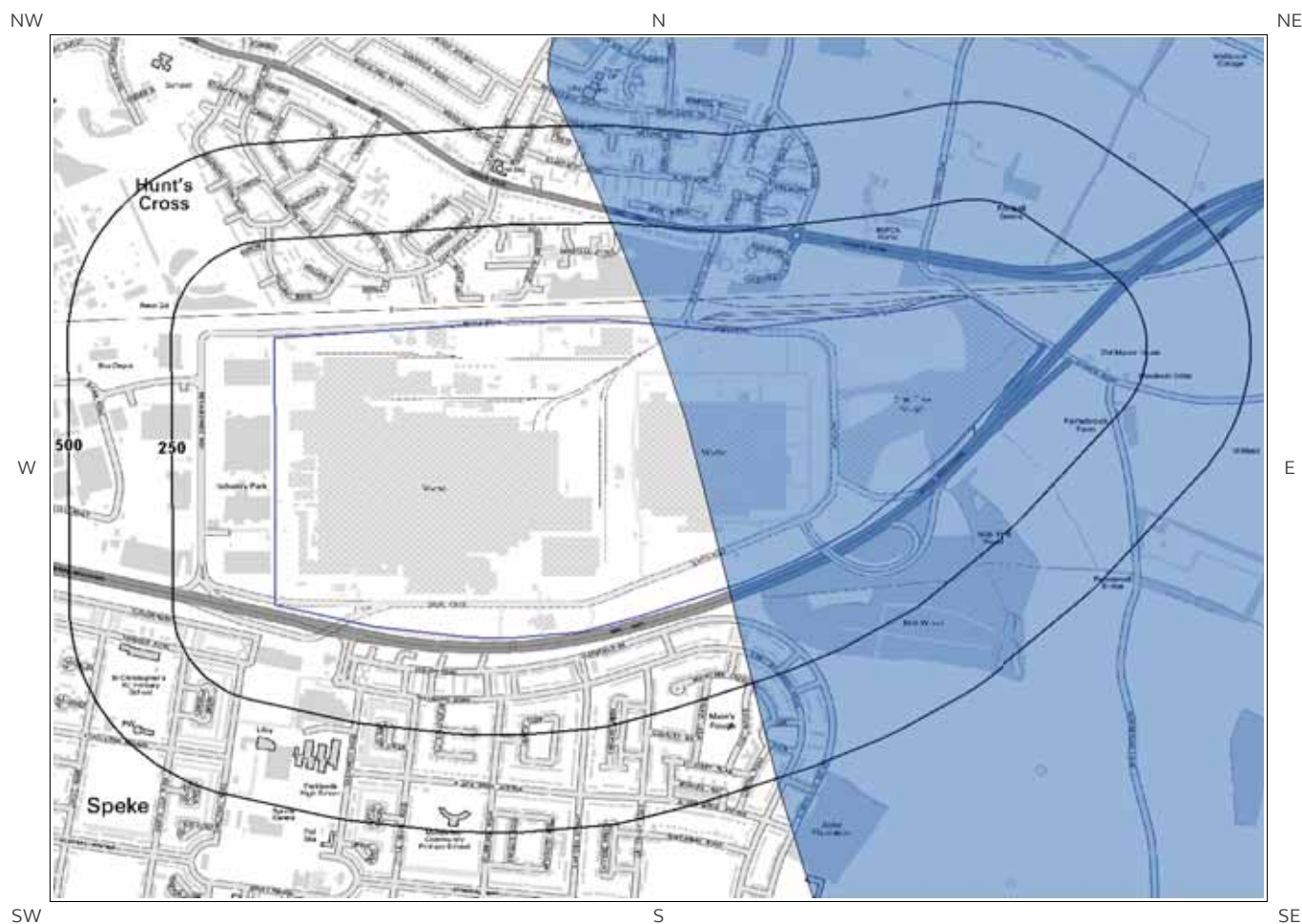
6b. Aquifer Within Bedrock Geology and Abstraction Licenses



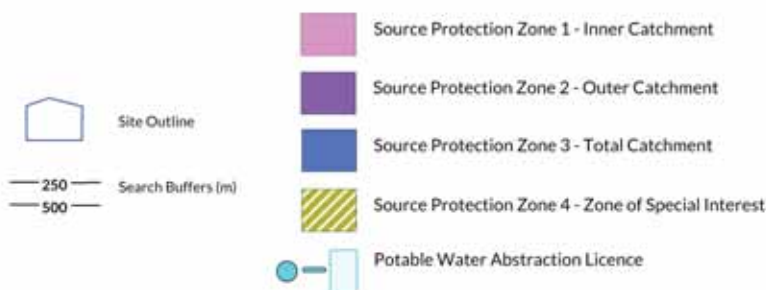
© Crown copyright and database rights 2016
Ordnance Survey license 100035207.



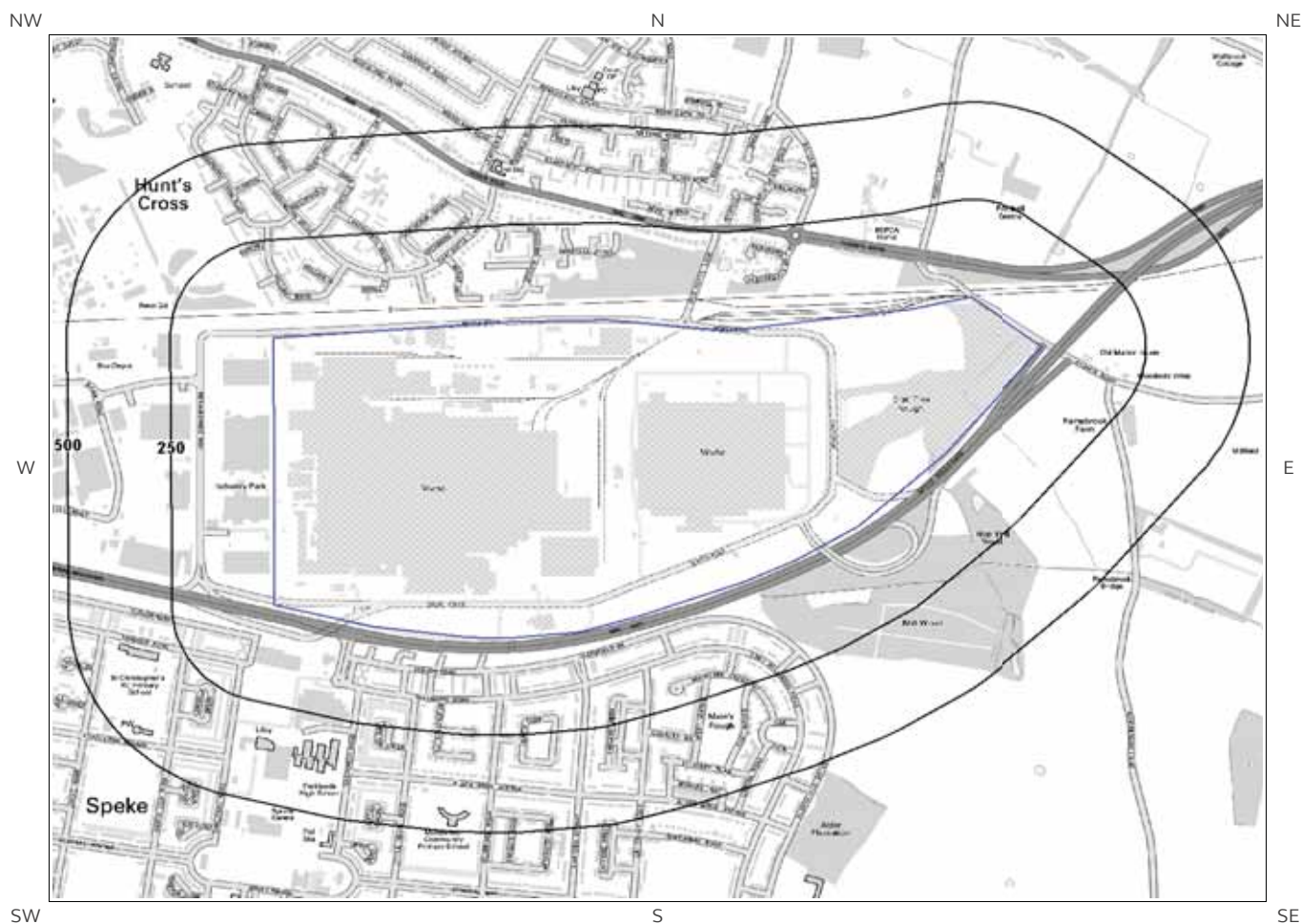
6c. Hydrogeology – Source Protection Zones and Potable Water Abstraction Licenses



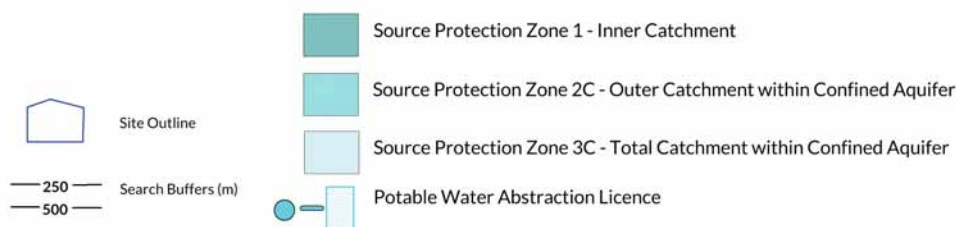
© Crown copyright and database rights 2016
Ordnance Survey license 100035207.



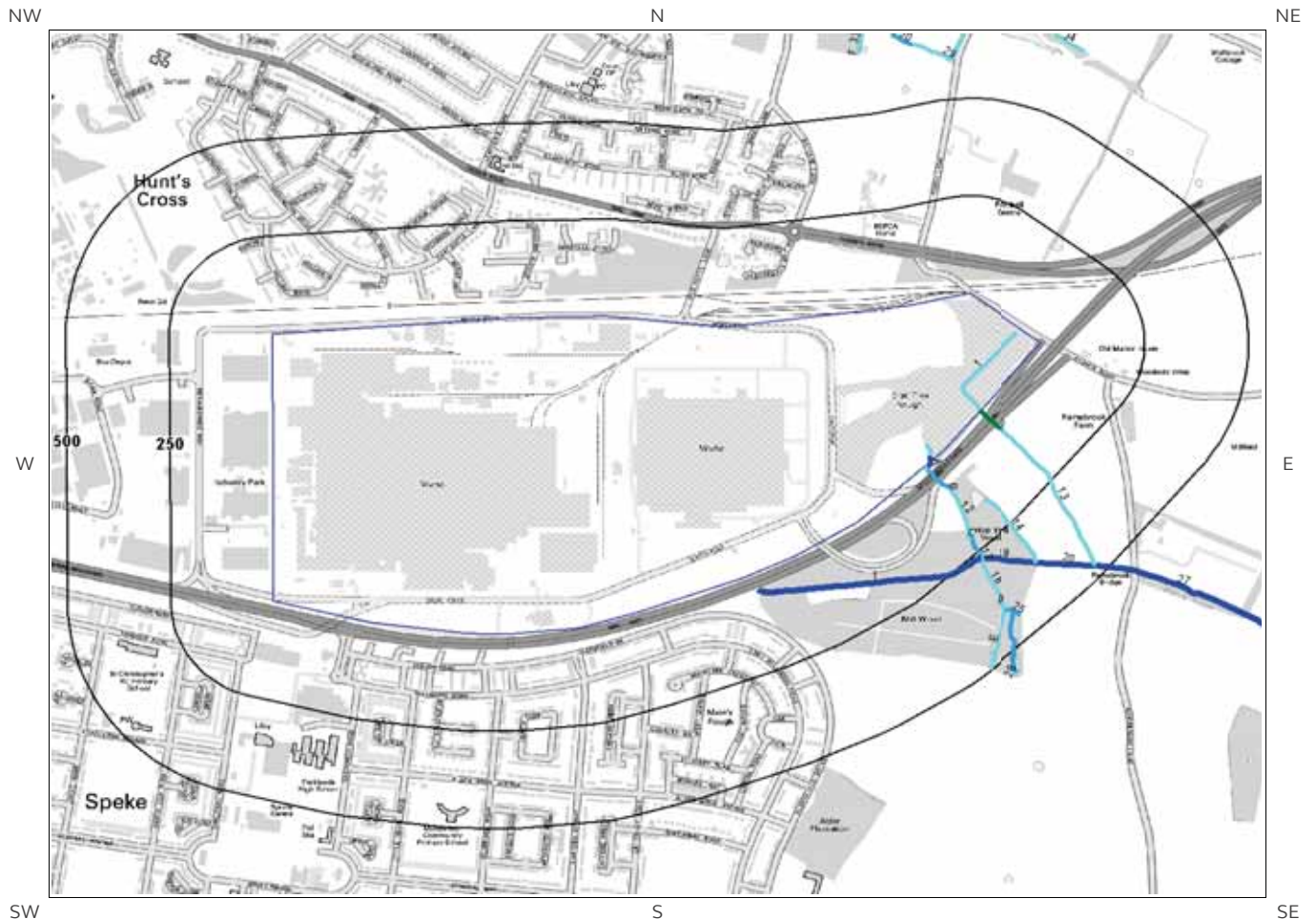
6d. Hydrogeology – Source Protection Zones within confined aquifer



© Crown copyright and database rights 2016
Ordnance Survey license 100035207.



6e. Hydrology – Detailed River Network and River Quality



© Crown copyright and database rights 2016.
Ordnance Survey license 100035207.

6. Hydrogeology and Hydrology

6.1 Aquifer within Superficial Deposits

Are there records of strata classification 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 (6a):

ID	Distance (m)	Direction	Designation	Description
1	0	On Site	Secondary A	Permeable layers capable of supporting water supplies at a local rather than strategic scale, and in some cases forming an important source of base flow to rivers. These are generally aquifers formerly classified as minor aquifers
2	0	On Site	Secondary A	Permeable layers capable of supporting water supplies at a local rather than strategic scale, and in some cases forming an important source of base flow to rivers. These are generally aquifers formerly classified as minor aquifers
3	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
6	0	On Site	Secondary (undifferentiated)	Assigned where it is not possible to attribute either category A or B to a rock type. In general these layers have previously been designated as both minor and non-aquifer in different locations due to the variable characteristics of the rock type
7	0	On Site	Secondary (undifferentiated)	Assigned where it is not possible to attribute either category A or B to a rock type. In general these layers have previously been designated as both minor and non-aquifer in different locations due to the variable characteristics of the rock type
8	0	On Site	Secondary (undifferentiated)	Assigned where it is not possible to attribute either category A or B to a rock type. In general these layers have previously been designated as both minor and non-aquifer in different locations due to the variable characteristics of the rock type
4	438	S	Secondary A	Permeable layers capable of supporting water supplies at a local rather than strategic scale, and in some cases forming an important source of base flow to rivers. These are generally aquifers formerly classified as minor aquifers
5	482	S	Secondary A	Permeable layers capable of supporting water supplies at a local rather than strategic scale, and in some cases forming an important source of base flow to rivers. These are generally aquifers formerly classified as minor aquifers
9	489	N	Secondary (undifferentiated)	Assigned where it is not possible to attribute either category A or B to a rock type. In general these layers have previously been designated as both minor and non-aquifer in different locations due to the variable characteristics of the rock type

6.2 Aquifer within Bedrock Deposits

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

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

The following aquifer records are shown on the Aquifer within Bedrock Geology Map (6b):

ID	Distance (m)	Direction	Designation	Description
1	0	On Site	Principal	Geology of high intergranular and/or fracture permeability, usually providing a high level of water storage and may support water supply/river base flow on a strategic scale. Generally principal aquifers were previously major aquifers
2	0	On Site	Principal	Geology of high intergranular and/or fracture permeability, usually providing a high level of water storage and may support water supply/river base flow on a strategic scale. Generally principal aquifers were previously major aquifers
5	69	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
3	489	N	Principal	Geology of high intergranular and/or fracture permeability, usually providing a high level of water storage and may support water supply/river base flow on a strategic scale. Generally principal aquifers were previously major aquifers

6.3 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 (6b):

ID	Distance (m)	Direction	NGR	Details
7A	494	W	343680 384570	Status: Historical Licence No: 2569030023 Details: Boiler Feed Direct Source: Ground Water - North West Region Point: B/hole 'c' At Lh's Premesis, Fleming Rd, Speke, L'pool Data Type: Point Name: ELI LILLY & CO LTD Annual Volume (m³): 1500000 Max Daily Volume (m³): 45000 Original Application No: 1345 Original Start Date: 16/2/1966 Expiry Date: - Issue No: 102 Version Start Date: 22/12/2004 Version End Date:
8A	494	W	343680 384570	Status: Historical Licence No: 2569030023 Details: General Cooling (Existing Licences Only) (Low Loss) Direct Source: Ground Water - North West Region Point: B/hole 3 At Lh's Premesis, Fleming Rd, Speke, L'pool Data Type: Point Name: ELI LILLY & CO LTD Annual Volume (m³): 1500000 Max Daily Volume (m³): 45000 Original Application No: 1345 Original Start Date: 16/2/1966 Expiry Date: - Issue No: 102 Version Start Date: 22/12/2004 Version End Date:

ID	Distance (m)	Direction	NGR	Details	
9A	494	W	343680 384570	Status: Historical Licence No: 2569030023 Details: Process Water Direct Source: Ground Water - North West Region Point: B/hole 'c' At Lh's Premesis, Fleming Rd, Speke, L'pool Data Type: Point Name: ELI LILLY & CO LTD	Annual Volume (m³): 1500000 Max Daily Volume (m³): 45000 Original Application No: 1345 Original Start Date: 16/2/1966 Expiry Date: - Issue No: 102 Version Start Date: 22/12/2004 Version End Date:
10A	494	W	343680 384570	Status: Historical Licence No: 2569030023 Details: Process water Direct Source: Ground Water - North West Region Point: "b/hole 'c' At Lh's Premesis, Fleming Rd, Speke, L'pool" Data Type: Point Name: ELI LILLY & CO LTD	Annual Volume (m³): - Max Daily Volume (m³): - Original Application No: 1345 Original Start Date: 16/2/1966 Expiry Date: - Issue No: 101 Version Start Date: 17/12/1999 Version End Date:
11A	494	W	343680 384570	Status: Historical Licence No: 2569030023 Details: General Cooling (Existing Licences Only) (Low Loss) Direct Source: Ground Water - North West Region Point: B/hole 'c' At Lh's Premesis, Fleming Rd, Speke, L'pool Data Type: Point Name: ELI LILLY & CO LTD	Annual Volume (m³): 1500000 Max Daily Volume (m³): 45000 Original Application No: 1345 Original Start Date: 16/2/1966 Expiry Date: - Issue No: 102 Version Start Date: 22/12/2004 Version End Date:
12A	494	W	343680 384570	Status: Historical Licence No: 2569030023 Details: General Cooling (Existing Licences Only) (Low Loss) Direct Source: Ground Water - North West Region Point: "b/hole 'c' At Lh's Premesis, Fleming Rd, Speke, L'pool" Data Type: Point Name: ELI LILLY & CO LTD	Annual Volume (m³): - Max Daily Volume (m³): - Original Application No: 1345 Original Start Date: 16/2/1966 Expiry Date: - Issue No: 101 Version Start Date: 17/12/1999 Version End Date:
13A	494	W	343680 384570	Status: Historical Licence No: 2569030023 Details: Boiler Feed Direct Source: Ground Water - North West Region Point: "b/hole 'c' At Lh's Premesis, Fleming Rd, Speke, L'pool" Data Type: Point Name: ELI LILLY & CO LTD	Annual Volume (m³): - Max Daily Volume (m³): - Original Application No: 1345 Original Start Date: 16/2/1966 Expiry Date: - Issue No: 101 Version Start Date: 17/12/1999 Version End Date:
14A	494	W	343680 384570	Status: Active Licence No: 2569030023 Details: Non-Evaporative Cooling Direct Source: Ground Water - North West Region Point: B/hole 3 At Lh's Premesis, Fleming Rd, Speke, L'pool Data Type: Point Name: ELI LILLY & CO LTD	Annual Volume (m³): 1500000 Max Daily Volume (m³): 4500 Original Application No: NPS/WR/017746 Original Start Date: 16/2/1966 Expiry Date: - Issue No: 103 Version Start Date: 18/3/2015 Version End Date:
15A	494	W	343680 384570	Status: Active Licence No: 2569030023 Details: Boiler Feed Direct Source: Ground Water - North West Region Point: B/hole 3 At Lh's Premesis, Fleming Rd, Speke, L'pool Data Type: Point Name: ELI LILLY & CO LTD	Annual Volume (m³): 1500000 Max Daily Volume (m³): 4500 Original Application No: NPS/WR/017746 Original Start Date: 16/2/1966 Expiry Date: - Issue No: 103 Version Start Date: 18/3/2015 Version End Date:

ID	Distance (m)	Direction	NGR	Details	
16A	494	W	343680 384570	Status: Active Licence No: 2569030023 Details: Evaporative Cooling Direct Source: Ground Water - North West Region Point: B/hole 3 At Lh's Premesis, Fleming Rd, Speke, L'pool Data Type: Point Name: ELI LILLY & CO LTD	Annual Volume (m³): 1500000 Max Daily Volume (m³): 4500 Original Application No: NPS/WR/017746 Original Start Date: 16/2/1966 Expiry Date: - Issue No: 103 Version Start Date: 18/3/2015 Version End Date:
17A	494	W	343680 384570	Status: Active Licence No: 2569030023 Details: Process Water Direct Source: Ground Water - North West Region Point: B/hole 3 At Lh's Premesis, Fleming Rd, Speke, L'pool Data Type: Point Name: ELI LILLY & CO LTD	Annual Volume (m³): 1500000 Max Daily Volume (m³): 4500 Original Application No: NPS/WR/017746 Original Start Date: 16/2/1966 Expiry Date: - Issue No: 103 Version Start Date: 18/3/2015 Version End Date:
Not shown	581	W	343570 384480	Status: Historical Licence No: 2569030023 Details: General Cooling (Existing Licences Only) (Low Loss) Direct Source: Ground Water - North West Region Point: B/hole 'b' At Lh's Premises, Fleming Rd, Speke, L'pool Data Type: Point Name: ELI LILLY & CO LTD	Annual Volume (m³): 1500000 Max Daily Volume (m³): 45000 Original Application No: 1345 Original Start Date: 16/2/1966 Expiry Date: - Issue No: 102 Version Start Date: 22/12/2004 Version End Date:
Not shown	581	W	343570 384480	Status: Historical Licence No: 2569030023 Details: Boiler Feed Direct Source: Ground Water - North West Region Point: "b/hole 'b' At Lh's Premises, Fleming Rd, Speke, L'pool" Data Type: Point Name: ELI LILLY & CO LTD	Annual Volume (m³): - Max Daily Volume (m³): - Original Application No: 1345 Original Start Date: 16/2/1966 Expiry Date: - Issue No: 101 Version Start Date: 17/12/1999 Version End Date:
Not shown	581	W	343570 384480	Status: Historical Licence No: 2569030023 Details: Boiler Feed Direct Source: Ground Water - North West Region Point: B/hole2 At Lh's Premises, Fleming Rd, Speke, L'pool Data Type: Point Name: ELI LILLY & CO LTD	Annual Volume (m³): 1500000 Max Daily Volume (m³): 45000 Original Application No: 1345 Original Start Date: 16/2/1966 Expiry Date: - Issue No: 102 Version Start Date: 22/12/2004 Version End Date:
Not shown	581	W	343570 384480	Status: Historical Licence No: 2569030023 Details: Process Water Direct Source: Ground Water - North West Region Point: B/hole2 At Lh's Premises, Fleming Rd, Speke, L'pool Data Type: Point Name: ELI LILLY & CO LTD	Annual Volume (m³): 1500000 Max Daily Volume (m³): 45000 Original Application No: 1345 Original Start Date: 16/2/1966 Expiry Date: - Issue No: 102 Version Start Date: 22/12/2004 Version End Date:
Not shown	581	W	343570 384480	Status: Historical Licence No: 2569030023 Details: General Cooling (Existing Licences Only) (Low Loss) Direct Source: Ground Water - North West Region Point: "b/hole 'b' At Lh's Premises, Fleming Rd, Speke, L'pool" Data Type: Point Name: ELI LILLY & CO LTD	Annual Volume (m³): - Max Daily Volume (m³): - Original Application No: 1345 Original Start Date: 16/2/1966 Expiry Date: - Issue No: 101 Version Start Date: 17/12/1999 Version End Date:

ID	Distance (m)	Direction	NGR	Details	
Not shown	581	W	343570 384480	Status: Historical Licence No: 2569030023 Details: Process Water Direct Source: Ground Water - North West Region Point: B/hole 'b' At Lh's Premises, Fleming Rd, Speke, L'pool Data Type: Point Name: ELI LILLY & CO LTD	Annual Volume (m³): 1500000 Max Daily Volume (m³): 45000 Original Application No: 1345 Original Start Date: 16/2/1966 Expiry Date: - Issue No: 102 Version Start Date: 22/12/2004 Version End Date:
Not shown	581	W	343570 384480	Status: Historical Licence No: 2569030023 Details: General Cooling (Existing Licences Only) (Low Loss) Direct Source: Ground Water - North West Region Point: B/hole2 At Lh's Premises, Fleming Rd, Speke, L'pool Data Type: Point Name: ELI LILLY & CO LTD	Annual Volume (m³): 1500000 Max Daily Volume (m³): 45000 Original Application No: 1345 Original Start Date: 16/2/1966 Expiry Date: - Issue No: 102 Version Start Date: 22/12/2004 Version End Date:
Not shown	581	W	343570 384480	Status: Historical Licence No: 2569030023 Details: Process water Direct Source: Ground Water - North West Region Point: "b/hole 'b' At Lh's Premises, Fleming Rd, Speke, L'pool" Data Type: Point Name: ELI LILLY & CO LTD	Annual Volume (m³): - Max Daily Volume (m³): - Original Application No: 1345 Original Start Date: 16/2/1966 Expiry Date: - Issue No: 101 Version Start Date: 17/12/1999 Version End Date:
Not shown	581	W	343570 384480	Status: Historical Licence No: 2569030023 Details: Boiler Feed Direct Source: Ground Water - North West Region Point: B/hole 'b' At Lh's Premises, Fleming Rd, Speke, L'pool Data Type: Point Name: ELI LILLY & CO LTD	Annual Volume (m³): 1500000 Max Daily Volume (m³): 45000 Original Application No: 1345 Original Start Date: 16/2/1966 Expiry Date: - Issue No: 102 Version Start Date: 22/12/2004 Version End Date:
Not shown	624	NW	343600 384710	Status: Historical Licence No: 2569030023 Details: Boiler Feed Direct Source: Ground Water - North West Region Point: "b/hole 'a' At Lh's Premesis, Fleming Rd, Speke, L'pool" Data Type: Point Name: ELI LILLY & CO LTD	Annual Volume (m³): - Max Daily Volume (m³): - Original Application No: 1345 Original Start Date: 16/2/1966 Expiry Date: - Issue No: 101 Version Start Date: 17/12/1999 Version End Date:
Not shown	624	NW	343600 384710	Status: Historical Licence No: 2569030023 Details: Process water Direct Source: Ground Water - North West Region Point: B/hole 'a' At Lh's Premesis, Fleming Rd, Speke, L'pool Data Type: Point Name: ELI LILLY & CO LTD	Annual Volume (m³): - Max Daily Volume (m³): - Original Application No: 1345 Original Start Date: 16/2/1966 Expiry Date: - Issue No: 102 Version Start Date: 22/12/2004 Version End Date:
Not shown	624	NW	343600 384710	Status: Historical Licence No: 2569030023 Details: General Cooling (Existing Licences Only) (Low Loss) Direct Source: Ground Water - North West Region Point: Borehole A At Lh S Premises Fleming Road Speke Data Type: Point Name: ELI LILLY & CO LTD	Annual Volume (m³): 1500000 Max Daily Volume (m³): 45000 Original Application No: 1345 Original Start Date: 16/2/1966 Expiry Date: - Issue No: 102 Version Start Date: 22/12/2004 Version End Date:

ID	Distance (m)	Direction	NGR	Details	
Not shown	624	NW	343600 384710	Status: Active Licence No: 2569030023 Details: Non-Evaporative Cooling Direct Source: Ground Water - North West Region Point: Borehole 1 At Lh S Premises Fleming Road Speke Data Type: Point Name: ELI LILLY & CO LTD	Annual Volume (m³): 1500000 Max Daily Volume (m³): 4500 Original Application No: NPS/WR/017746 Original Start Date: 16/2/1966 Expiry Date: - Issue No: 103 Version Start Date: 18/3/2015 Version End Date:
Not shown	624	NW	343600 384710	Status: Historical Licence No: 2569030023 Details: Process Water Direct Source: Ground Water - North West Region Point: Borehole A At Lh S Premises Fleming Road Speke Data Type: Point Name: ELI LILLY & CO LTD	Annual Volume (m³): 1500000 Max Daily Volume (m³): 45000 Original Application No: 1345 Original Start Date: 16/2/1966 Expiry Date: - Issue No: 102 Version Start Date: 22/12/2004 Version End Date:
Not shown	624	NW	343600 384710	Status: Historical Licence No: 2569030023 Details: General Cooling (Existing Licences Only) (Low Loss) Direct Source: Ground Water - North West Region Point: Borehole 1 At Lh S Premises Fleming Road Speke Data Type: Point Name: ELI LILLY & CO LTD	Annual Volume (m³): 1500000 Max Daily Volume (m³): 45000 Original Application No: 1345 Original Start Date: 16/2/1966 Expiry Date: - Issue No: 102 Version Start Date: 22/12/2004 Version End Date:
Not shown	624	NW	343600 384710	Status: Historical Licence No: 2569030023 Details: Boiler Feed Direct Source: Ground Water - North West Region Point: Borehole A At Lh S Premises Fleming Road Speke Data Type: Point Name: ELI LILLY & CO LTD	Annual Volume (m³): 1500000 Max Daily Volume (m³): 45000 Original Application No: 1345 Original Start Date: 16/2/1966 Expiry Date: - Issue No: 102 Version Start Date: 22/12/2004 Version End Date:
Not shown	624	NW	343600 384710	Status: Historical Licence No: 2569030023 Details: Boiler Feed Direct Source: Ground Water - North West Region Point: B/hole 'a' At Lh's Premesis, Fleming Rd, Speke, L'pool Data Type: Point Name: ELI LILLY & CO LTD	Annual Volume (m³): - Max Daily Volume (m³): - Original Application No: 1345 Original Start Date: 16/2/1966 Expiry Date: - Issue No: 102 Version Start Date: 22/12/2004 Version End Date:
Not shown	624	NW	343600 384710	Status: Historical Licence No: 2569030023 Details: General Cooling (Existing Licences Only) (Low Loss) Direct Source: Ground Water - North West Region Point: "b/hole 'a' At Lh's Premesis, Fleming Rd, Speke, L'pool" Data Type: Point Name: ELI LILLY & CO LTD	Annual Volume (m³): - Max Daily Volume (m³): - Original Application No: 1345 Original Start Date: 16/2/1966 Expiry Date: - Issue No: 101 Version Start Date: 17/12/1999 Version End Date:
Not shown	624	NW	343600 384710	Status: Active Licence No: 2569030023 Details: Boiler Feed Direct Source: Ground Water - North West Region Point: Borehole 1 At Lh S Premises Fleming Road Speke Data Type: Point Name: ELI LILLY & CO LTD	Annual Volume (m³): 1500000 Max Daily Volume (m³): 4500 Original Application No: NPS/WR/017746 Original Start Date: 16/2/1966 Expiry Date: - Issue No: 103 Version Start Date: 18/3/2015 Version End Date:

ID	Distance (m)	Direction	NGR	Details	
Not shown	624	NW	343600 384710	Status: Historical Licence No: 2569030023 Details: Process water Direct Source: Ground Water - North West Region Point: "b/hole 'a' At Lh's Premesis, Fleming Rd, Speke, L'pool" Data Type: Point Name: ELI LILLY & CO LTD	Annual Volume (m³): - Max Daily Volume (m³): - Original Application No: 1345 Original Start Date: 16/2/1966 Expiry Date: - Issue No: 101 Version Start Date: 17/12/1999 Version End Date:
Not shown	624	NW	343600 384710	Status: Historical Licence No: 2569030023 Details: General Cooling (Existing Licences Only) (Low Loss) Direct Source: Ground Water - North West Region Point: B/hole 'a' At Lh's Premesis, Fleming Rd, Speke, L'pool Data Type: Point Name: ELI LILLY & CO LTD	Annual Volume (m³): - Max Daily Volume (m³): - Original Application No: 1345 Original Start Date: 16/2/1966 Expiry Date: - Issue No: 102 Version Start Date: 22/12/2004 Version End Date:
Not shown	624	NW	343600 384710	Status: Active Licence No: 2569030023 Details: Evaporative Cooling Direct Source: Ground Water - North West Region Point: Borehole 1 At Lh S Premises Fleming Road Speke Data Type: Point Name: ELI LILLY & CO LTD	Annual Volume (m³): 1500000 Max Daily Volume (m³): 4500 Original Application No: NPS/WR/017746 Original Start Date: 16/2/1966 Expiry Date: - Issue No: 103 Version Start Date: 18/3/2015 Version End Date:
Not shown	624	NW	343600 384710	Status: Active Licence No: 2569030023 Details: Process Water Direct Source: Ground Water - North West Region Point: Borehole 1 At Lh S Premises Fleming Road Speke Data Type: Point Name: ELI LILLY & CO LTD	Annual Volume (m³): 1500000 Max Daily Volume (m³): 4500 Original Application No: NPS/WR/017746 Original Start Date: 16/2/1966 Expiry Date: - Issue No: 103 Version Start Date: 18/3/2015 Version End Date:
Not shown	645	W	343506 384484	Status: Active Licence No: 2569030023 Details: Boiler Feed Direct Source: Ground Water - North West Region Point: B/hole2 At Lh's Premises, Fleming Rd, Speke, L'pool Data Type: Point Name: ELI LILLY & CO LTD	Annual Volume (m³): 1500000 Max Daily Volume (m³): 4500 Original Application No: NPS/WR/017746 Original Start Date: 16/2/1966 Expiry Date: - Issue No: 103 Version Start Date: 18/3/2015 Version End Date:
Not shown	645	W	343506 384484	Status: Active Licence No: 2569030023 Details: Evaporative Cooling Direct Source: Ground Water - North West Region Point: B/hole2 At Lh's Premises, Fleming Rd, Speke, L'pool Data Type: Point Name: ELI LILLY & CO LTD	Annual Volume (m³): 1500000 Max Daily Volume (m³): 4500 Original Application No: NPS/WR/017746 Original Start Date: 16/2/1966 Expiry Date: - Issue No: 103 Version Start Date: 18/3/2015 Version End Date:
Not shown	645	W	343506 384484	Status: Active Licence No: 2569030023 Details: Non-Evaporative Cooling Direct Source: Ground Water - North West Region Point: B/hole2 At Lh's Premises, Fleming Rd, Speke, L'pool Data Type: Point Name: ELI LILLY & CO LTD	Annual Volume (m³): 1500000 Max Daily Volume (m³): 4500 Original Application No: NPS/WR/017746 Original Start Date: 16/2/1966 Expiry Date: - Issue No: 103 Version Start Date: 18/3/2015 Version End Date:

ID	Distance (m)	Direction	NGR	Details	
Not shown	645	W	343506 384484	Status: Active Licence No: 2569030023 Details: Process Water Direct Source: Ground Water - North West Region Point: B/hole2 At Lh's Premises, Fleming Rd, Speke, L'pool Data Type: Point Name: ELI LILLY & CO LTD	Annual Volume (m³): 1500000 Max Daily Volume (m³): 4500 Original Application No: NPS/WR/017746 Original Start Date: 16/2/1966 Expiry Date: - Issue No: 103 Version Start Date: 18/3/2015 Version End Date:
Not shown	671	N	345890 385180	Status: Historical Licence No: 2569028025 Details: Spray Irrigation - Direct Direct Source: Ground Water - North West Region Point: Borehole At Everton Football Club Finch Lane Halewood Data Type: Point Name: THE EVERTON FOOTBALL CLUB COMPANY LIMITED	Annual Volume (m³): 49142 Max Daily Volume (m³): 491.42 Original Application No: 7575 Original Start Date: 26/5/2007 Expiry Date: 1/6/2012 Issue No: 1 Version Start Date: 26/5/2007 Version End Date:
Not shown	678	N	345886 385187	Status: Active Licence No: NW/069/0028/025 Details: Spray Irrigation - Direct Direct Source: Ground Water - North West Region Point: Borehole At Everton Football Club Finch Lane Halewood Data Type: Point Name: THE EVERTON FOOTBALL CLUB COMPANY LIMITED	Annual Volume (m³): 35000 Max Daily Volume (m³): 492 Original Application No: NPS/WR/008532 Original Start Date: 26/5/2007 Expiry Date: 31/3/2028 Issue No: 100 Version Start Date: 2/6/2012 Version End Date:
Not shown	744	W	343450 384670	Status: Historical Licence No: 2569030023 Details: Process water Direct Source: Ground Water - North West Region Point: "b/hole 'd' At Lh's Premesis, Fleming Rd, Speke, L'pool" Data Type: Point Name: ELI LILLY & CO LTD	Annual Volume (m³): - Max Daily Volume (m³): - Original Application No: 1345 Original Start Date: 16/2/1966 Expiry Date: - Issue No: 101 Version Start Date: 17/12/1999 Version End Date:
Not shown	744	W	343450 384670	Status: Historical Licence No: 2569030023 Details: General Cooling (Existing Licences Only) (Low Loss) Direct Source: Ground Water - North West Region Point: "b/hole 'd' At Lh's Premesis, Fleming Rd, Speke, L'pool" Data Type: Point Name: ELI LILLY & CO LTD	Annual Volume (m³): - Max Daily Volume (m³): - Original Application No: 1345 Original Start Date: 16/2/1966 Expiry Date: - Issue No: 101 Version Start Date: 17/12/1999 Version End Date:
Not shown	744	W	343450 384670	Status: Historical Licence No: 2569030023 Details: Boiler Feed Direct Source: Ground Water - North West Region Point: B/hole 'd' At Lh's Premesis, Fleming Rd, Speke, L'pool Data Type: Point Name: ELI LILLY & CO LTD	Annual Volume (m³): - Max Daily Volume (m³): - Original Application No: 1345 Original Start Date: 16/2/1966 Expiry Date: - Issue No: 102 Version Start Date: 22/12/2004 Version End Date:

ID	Distance (m)	Direction	NGR	Details	
Not shown	744	W	343450 384670	Status: Historical Licence No: 2569030023 Details: General Cooling (Existing Licences Only) (Low Loss) Direct Source: Ground Water - North West Region Point: Borehole D At Lh S Premises Fleming Road Speke Data Type: Point Name: ELI LILLY & CO LTD	Annual Volume (m³): 1500000 Max Daily Volume (m³): 45000 Original Application No: 1345 Original Start Date: 16/2/1966 Expiry Date: - Issue No: 102 Version Start Date: 22/12/2004 Version End Date:
Not shown	744	W	343450 384670	Status: Historical Licence No: 2569030023 Details: General Cooling (Existing Licences Only) (Low Loss) Direct Source: Ground Water - North West Region Point: B/hole 'd' At Lh's Premesis, Fleming Rd, Speke, L'pool Data Type: Point Name: ELI LILLY & CO LTD	Annual Volume (m³): - Max Daily Volume (m³): - Original Application No: 1345 Original Start Date: 16/2/1966 Expiry Date: - Issue No: 102 Version Start Date: 22/12/2004 Version End Date:
Not shown	744	W	343450 384670	Status: Historical Licence No: 2569030023 Details: Boiler Feed Direct Source: Ground Water - North West Region Point: Borehole D At Lh S Premises Fleming Road Speke Data Type: Point Name: ELI LILLY & CO LTD	Annual Volume (m³): 1500000 Max Daily Volume (m³): 45000 Original Application No: 1345 Original Start Date: 16/2/1966 Expiry Date: - Issue No: 102 Version Start Date: 22/12/2004 Version End Date:
Not shown	744	W	343450 384670	Status: Historical Licence No: 2569030023 Details: Process Water Direct Source: Ground Water - North West Region Point: Borehole D At Lh S Premises Fleming Road Speke Data Type: Point Name: ELI LILLY & CO LTD	Annual Volume (m³): 1500000 Max Daily Volume (m³): 45000 Original Application No: 1345 Original Start Date: 16/2/1966 Expiry Date: - Issue No: 102 Version Start Date: 22/12/2004 Version End Date:
Not shown	744	W	343450 384670	Status: Active Licence No: 2569030023 Details: Evaporative Cooling Direct Source: Ground Water - North West Region Point: Borehole 4 At Lh S Premises Fleming Road Speke Data Type: Point Name: ELI LILLY & CO LTD	Annual Volume (m³): 1500000 Max Daily Volume (m³): 4500 Original Application No: NPS/WR/017746 Original Start Date: 16/2/1966 Expiry Date: - Issue No: 103 Version Start Date: 18/3/2015 Version End Date:
Not shown	744	W	343450 384670	Status: Historical Licence No: 2569030023 Details: General Cooling (Existing Licences Only) (Low Loss) Direct Source: Ground Water - North West Region Point: Borehole 4 At Lh S Premises Fleming Road Speke Data Type: Point Name: ELI LILLY & CO LTD	Annual Volume (m³): 1500000 Max Daily Volume (m³): 45000 Original Application No: 1345 Original Start Date: 16/2/1966 Expiry Date: - Issue No: 102 Version Start Date: 22/12/2004 Version End Date:

ID	Distance (m)	Direction	NGR	Details	
Not shown	744	W	343450 384670	Status: Historical Licence No: 2569030023 Details: Boiler Feed Direct Source: Ground Water - North West Region Point: "b/hole 'd' At Lh's Premesis, Fleming Rd, Speke, L'pool" Data Type: Point Name: ELI LILLY & CO LTD	Annual Volume (m³): - Max Daily Volume (m³): - Original Application No: 1345 Original Start Date: 16/2/1966 Expiry Date: - Issue No: 101 Version Start Date: 17/12/1999 Version End Date:
Not shown	744	W	343450 384670	Status: Active Licence No: 2569030023 Details: Process Water Direct Source: Ground Water - North West Region Point: Borehole 4 At Lh S Premises Fleming Road Speke Data Type: Point Name: ELI LILLY & CO LTD	Annual Volume (m³): 1500000 Max Daily Volume (m³): 4500 Original Application No: NPS/WR/017746 Original Start Date: 16/2/1966 Expiry Date: - Issue No: 103 Version Start Date: 18/3/2015 Version End Date:
Not shown	744	W	343450 384670	Status: Active Licence No: 2569030023 Details: Non-Evaporative Cooling Direct Source: Ground Water - North West Region Point: Borehole 4 At Lh S Premises Fleming Road Speke Data Type: Point Name: ELI LILLY & CO LTD	Annual Volume (m³): 1500000 Max Daily Volume (m³): 4500 Original Application No: NPS/WR/017746 Original Start Date: 16/2/1966 Expiry Date: - Issue No: 103 Version Start Date: 18/3/2015 Version End Date:
Not shown	744	W	343450 384670	Status: Active Licence No: 2569030023 Details: Boiler Feed Direct Source: Ground Water - North West Region Point: Borehole 4 At Lh S Premises Fleming Road Speke Data Type: Point Name: ELI LILLY & CO LTD	Annual Volume (m³): 1500000 Max Daily Volume (m³): 4500 Original Application No: NPS/WR/017746 Original Start Date: 16/2/1966 Expiry Date: - Issue No: 103 Version Start Date: 18/3/2015 Version End Date:
Not shown	744	W	343450 384670	Status: Historical Licence No: 2569030023 Details: Process water Direct Source: Ground Water - North West Region Point: B/hole 'd' At Lh's Premesis, Fleming Rd, Speke, L'pool Data Type: Point Name: ELI LILLY & CO LTD	Annual Volume (m³): - Max Daily Volume (m³): - Original Application No: 1345 Original Start Date: 16/2/1966 Expiry Date: - Issue No: 102 Version Start Date: 22/12/2004 Version End Date:
Not shown	1255	E	347200 384800	Status: Active Licence No: 2569028001 Details: Process Water Direct Source: Ground Water - North West Region Point: Borehole At Lh S Premises Halebank Widnes Cheshire Data Type: Point Name: PENTAGON FINE CHEMICALS LIMITED	Annual Volume (m³): 1136500 Max Daily Volume (m³): 4091.4 Original Application No: CW 0024 Original Start Date: 25/3/1966 Expiry Date: - Issue No: 102 Version Start Date: 17/12/2003 Version End Date:
Not shown	1255	E	347200 384800	Status: Active Licence No: 2569028001 Details: General Cooling (Existing Licences Only) (Low Loss) Direct Source: Ground Water - North West Region Point: Borehole At Lh S Premises Halebank Widnes Cheshire Data Type: Point Name: PENTAGON FINE CHEMICALS LIMITED	Annual Volume (m³): 1136500 Max Daily Volume (m³): 4091.4 Original Application No: CW 0024 Original Start Date: 25/3/1966 Expiry Date: - Issue No: 102 Version Start Date: 17/12/2003 Version End Date:

ID	Distance (m)	Direction	NGR	Details	
Not shown	1255	E	347200 384800	Status: Historical Licence No: 2569028001 Details: General Cooling (Existing Licences Only) (Low Loss) Direct Source: Ground Water - North West Region Point: Borehole At Lh's Premises, Halebank, Widnes, Cheshire Data Type: Point Name: PENTAGON FINE CHEMICALS LIMITED	Annual Volume (m³): - Max Daily Volume (m³): - Original Application No: CW 0024 Original Start Date: 25/3/1966 Expiry Date: - Issue No: 102 Version Start Date: 17/12/2003 Version End Date:
Not shown	1255	E	347200 384800	Status: Historical Licence No: 2569028001 Details: Process water Direct Source: Ground Water - North West Region Point: Borehole At Lh's Premises, Halebank, Widnes, Cheshire Data Type: Point Name: PENTAGON FINE CHEMICALS LIMITED	Annual Volume (m³): - Max Daily Volume (m³): - Original Application No: CW 0024 Original Start Date: 25/3/1966 Expiry Date: - Issue No: 102 Version Start Date: 17/12/2003 Version End Date:
Not shown	1255	E	347200 384800	Status: Historical Licence No: 2569028001 Details: General Cooling (Existing Licences Only) (Low Loss) Direct Source: Ground Water - North West Region Point: "borehole At Lh's Premises, Halebank, Widnes, Cheshire" Data Type: Point Name: GREAT LAKES FINE CHEMICALS LTD	Annual Volume (m³): - Max Daily Volume (m³): - Original Application No: 24 Original Start Date: 25/3/1966 Expiry Date: - Issue No: 100 Version Start Date: 1/1/1995 Version End Date:
Not shown	1255	E	347200 384800	Status: Historical Licence No: 2569028001 Details: Process water Direct Source: Ground Water - North West Region Point: "borehole At Lh's Premises, Halebank, Widnes, Cheshire" Data Type: Point Name: GREAT LAKES FINE CHEMICALS LTD	Annual Volume (m³): - Max Daily Volume (m³): - Original Application No: 24 Original Start Date: 25/3/1966 Expiry Date: - Issue No: 100 Version Start Date: 1/1/1995 Version End Date:
Not shown	1889	N	345800 386400	Status: Active Licence No: 2569028014 Details: Potable Water Supply - Direct Direct Source: Ground Water - North West Region Point: Boreholes (2) At Greensbridge Lane Pumping Station, Whiston Data Type: Point Name: UNITED UTILITIES WATER LTD	Annual Volume (m³): 1500000 Max Daily Volume (m³): 11400 Original Application No: 1611 Original Start Date: 23/3/1966 Expiry Date: - Issue No: 101 Version Start Date: 1/9/2001 Version End Date:
Not shown	1889	N	345800 386400	Status: Historical Licence No: 2569028014 Details: Potable Water Supply - Direct Direct Source: Ground Water - North West Region Point: "boreholes (2) At Greensbridge Lane Pumping Station, Whiston" Data Type: Point Name: UNITED UTILITIES WATER PLC	Annual Volume (m³): - Max Daily Volume (m³): - Original Application No: 1611 Original Start Date: 23/3/1966 Expiry Date: - Issue No: 101 Version Start Date: 1/9/2001 Version End Date:

6.4 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 (6b):

ID	Distance (m)	Direction	NGR	Details
69B	814	SE	346500 383700	Status: Historical Licence No: 2569029001 Details: General Washing/Process Washing Direct Source: "surface, Non-tidal - North West Region" Point: "rams Brk, Halewood Wastewater Treatment Works, Merseyside" Data Type: Point Name: UNITED UTILITIES WATER PLC Annual Volume (m³): - Max Daily Volume (m³): - Application No: 2743 Original Start Date: 18/6/1987 Expiry Date: - Issue No: 100 Version Start Date: 18/6/1987 Version End Date:
70B	814	SE	346500 383700	Status: Active Licence No: 2569029001 Details: General Washing/Process Washing Direct Source: Surface, Non-tidal - North West Region Point: Rams Brk, Halewood Wastewater Treatment Works, Merseyside Data Type: Point Name: UNITED UTILITIES WATER LTD Annual Volume (m³): 13638 Max Daily Volume (m³): 109.1 Application No: 2743 Original Start Date: 18/6/1987 Expiry Date: - Issue No: 100 Version Start Date: 18/6/1987 Version End Date:

6.5 Potable Water Abstraction Licences

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

Yes

The following Potable Water Abstraction Licences records are represented as points, lines and regions on the SPZ and Potable Water Abstraction Licences Map (6c):

ID	Distance (m)	Direction	NGR	Details
Not shown	1889	N	345800 386400	Status: Historical Licence No: 2569028014 Details: Potable Water Supply - Direct Direct Source: Ground Water - North West Region Point: "boreholes (2) At Greensbridge Lane Pumping Station, Whiston" Data Type: Point Name: UNITED UTILITIES WATER PLC Annual Volume (m³): - Max Daily Volume (m³): - Original Application No: 1611 Original Start Date: 23/3/1966 Expiry Date: - Issue No: 101 Version Start Date: Version End Date:
Not shown	1889	N	345800 386400	Status: Active Licence No: 2569028014 Details: Potable Water Supply - Direct Direct Source: Ground Water - North West Region Point: Boreholes (2) At Greensbridge Lane Pumping Station, Whiston Data Type: Point Name: UNITED UTILITIES WATER LTD Annual Volume (m³): 1500000 Max Daily Volume (m³): 11400 Original Application No: 1611 Original Start Date: 23/3/1966 Expiry Date: - Issue No: 101 Version Start Date: Version End Date:

6.6 Source Protection Zones

Are there any Source Protection Zones within 500m of the study site?

Yes

The following Source Protection Zones records are represented on the SPZ and Potable Water Abstraction Map (6c):

ID	Distance (m)	Direction	Zone	Description
1	0	On Site	3	Total catchment

6.7 Source Protection Zones within Confined Aquifer

Are there any Source Protection Zones within the Confined Aquifer within 500m of the study site?

No

Historically, Source Protection Zone maps have been focused on regulation of activities which occur at or near the ground surface, such as prevention of point source pollution and bacterial contamination of water supplies. Sources in confined aquifers were often considered to be protected from these surface pressures due to the presence of a low permeability confining layer (e.g. glacial till, clay). The increased interest in subsurface activities such as onshore oil and gas exploration, ground source heating and cooling requires protection zones for confined sources to be marked on SPZ maps where this has not already been done.

Database searched and no data found.

6.8 Groundwater Vulnerability and Soil Leaching Potential

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

Yes

Distance (m)	Direction	Classification	Soil Vulnerability Category	Description
0	On Site	Major Aquifer/Low Leaching Potential	L	Soils in which pollutants are unlikely to penetrate the soil layer because either water movement is largely horizontal, or they have the ability to attenuate diffuse pollutants.
0	On Site	Minor Aquifer/High Leaching Potential	H1	Soils which readily transmit liquid discharges because they are shallow or susceptible to rapid flow directly to rock, gravel or groundwater.
0	On Site	Major Aquifer/High Leaching Potential	HU	Soil information for urban areas and restored mineral workings. These soils are therefore assumed to be highly permeable in the absence of site-specific information.
58	N	Minor Aquifer/High Leaching Potential	HU	Soil information for urban areas and restored mineral workings. These soils are therefore assumed to be highly permeable in the absence of site-specific information.
201	SE	Major Aquifer/Low Leaching Potential	L	Soils in which pollutants are unlikely to penetrate the soil layer because either water movement is largely horizontal, or they have the ability to attenuate diffuse pollutants.

6.9 River Quality

Is there any Environment Agency information on river quality within 1500m of the study site?

Yes

6.9.1 Biological Quality:

Database searched and no data found.

Chemical quality data is based on the General Quality Assessment Headline Indicators scheme (GQAH). In England, each chemical sample is measured for ammonia and dissolved oxygen. In Wales, the samples are measured for biological oxygen demand (BOD), ammonia and dissolved oxygen. The results are graded from A ('Very Good') to F ('Bad').

The following Chemical Quality records are shown on the Hydrology Map (6e):

ID	Distance (m)	Direction	NGR	River Quality Grade	Chemical Quality Grade				
					2005	2006	2007	2008	2009
Not shown	1435	N	346200 385900	River Name: Ditton Bk. Reach: Warrington/L'pool Rly To Fwl End/Start of Stretch: Start of Stretch NGR	E	E	E	E	E

6.10 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 (6e):

ID	Distance (m)	Direction	Details	
1	0	On Site	River Name: Drain Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined
2A	0	On Site	River Name: - Welsh River Name: - Alternative Name: -	River Type: Lake/Reservoir Main River Status: Currently Undefined
3A	0	On Site	River Name: - Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined
4	0	On Site	River Name: - Welsh River Name: - Alternative Name: -	River Type: Culvert Main River Status: Currently Undefined
5A	2	SE	River Name: - Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined
6	11	SE	River Name: - Welsh River Name: - Alternative Name: -	River Type: Secondary River Main River Status: Currently Undefined
7	41	SE	River Name: Ram's Brook Welsh River Name: - Alternative Name: -	River Type: Primary River Main River Status: Currently Undefined
8	67	SE	River Name: - Welsh River Name: - Alternative Name: -	River Type: Secondary River Main River Status: Currently Undefined
9B	74	SE	River Name: - Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined
10B	74	SE	River Name: - Welsh River Name: - Alternative Name: -	River Type: Secondary River Main River Status: Currently Undefined

ID	Distance (m)	Direction	Details	
11B	75	SE	River Name: - Welsh River Name: - Alternative Name: -	River Type: Secondary River Main River Status: Currently Undefined
12	78	SE	River Name: Drain Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined
13	79	SE	River Name: - Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined
14	155	SE	River Name: - Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined
15C	202	SE	River Name: Drain Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined
16C	210	SE	River Name: Drain Welsh River Name: - Alternative Name: -	River Type: Secondary River Main River Status: Currently Undefined
17	258	SE	River Name: - Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined
18	269	SE	River Name: - Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined
19	269	SE	River Name: Ram's Brook Welsh River Name: - Alternative Name: -	River Type: Primary River Main River Status: Currently Undefined
20	369	SE	River Name: Ram's Brook Welsh River Name: - Alternative Name: -	River Type: Primary River Main River Status: Currently Undefined
21D	379	SE	River Name: Drain Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined
22D	392	SE	River Name: - Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined
23D	407	SE	River Name: - Welsh River Name: - Alternative Name: -	River Type: Secondary River Main River Status: Currently Undefined
24E	407	SE	River Name: Drain Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined
25	422	SE	River Name: Drain Welsh River Name: - Alternative Name: -	River Type: Secondary River Main River Status: Currently Undefined
26E	422	SE	River Name: Drain Welsh River Name: - Alternative Name: -	River Type: Secondary River Main River Status: Currently Undefined
27	475	SE	River Name: Ram's Brook Welsh River Name: - Alternative Name: -	River Type: Primary River Main River Status: Currently Undefined

6.11 Surface Water Features

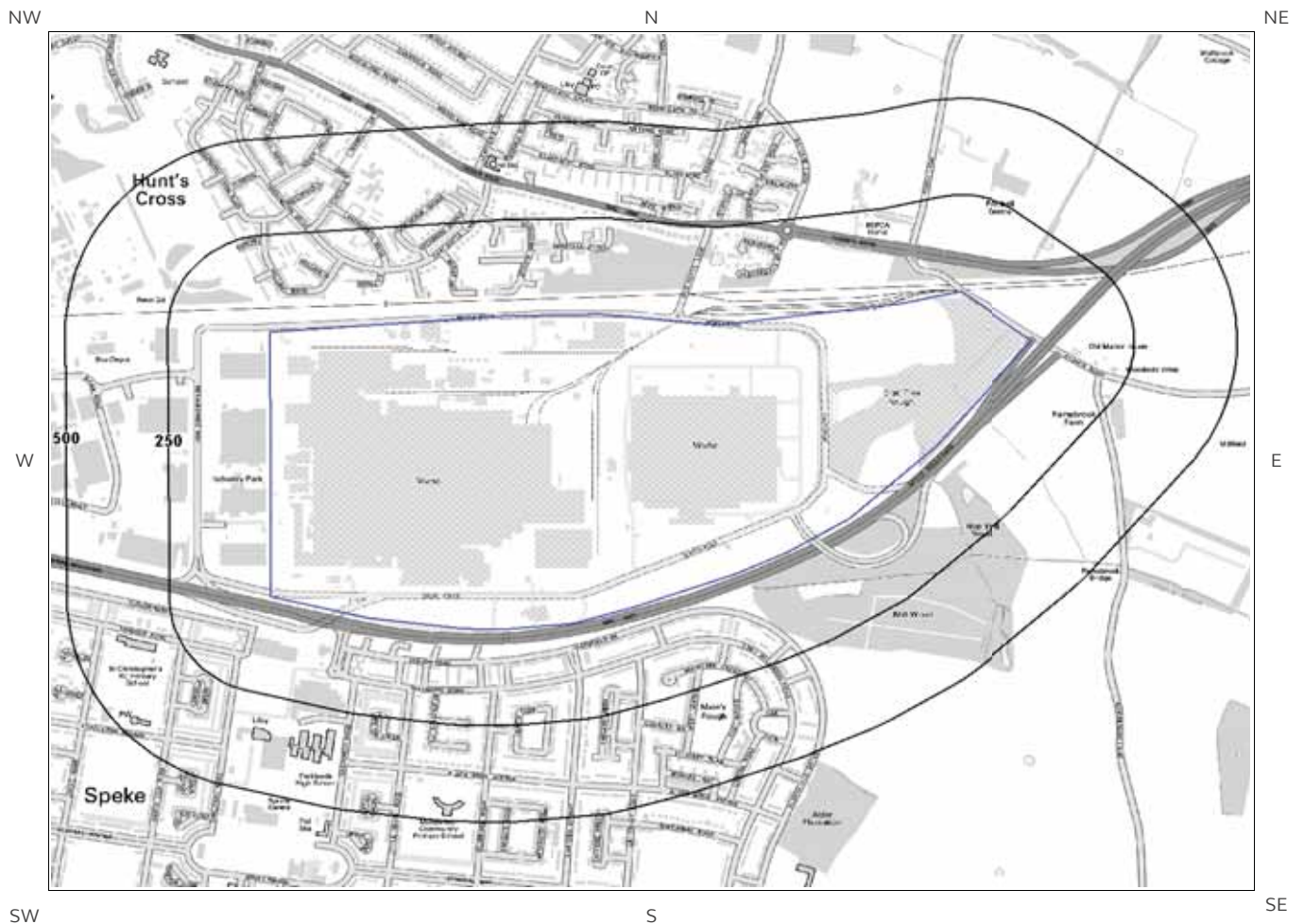
Are there any surface water features within 250m of the study site?

Yes

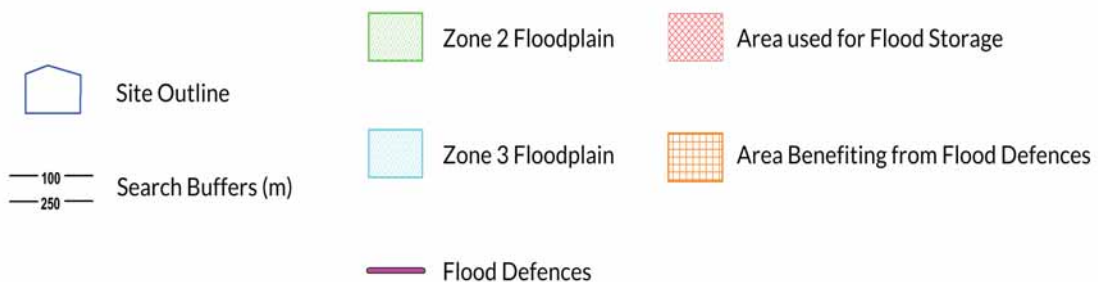
The following surface water records are not represented on mapping:

Distance (m)	Direction
0	On Site
0	On Site
0	On Site
0	On Site
2	SE
40	SE
78	SE
79	SE
117	SE
135	SE
154	N
155	SE
235	SE

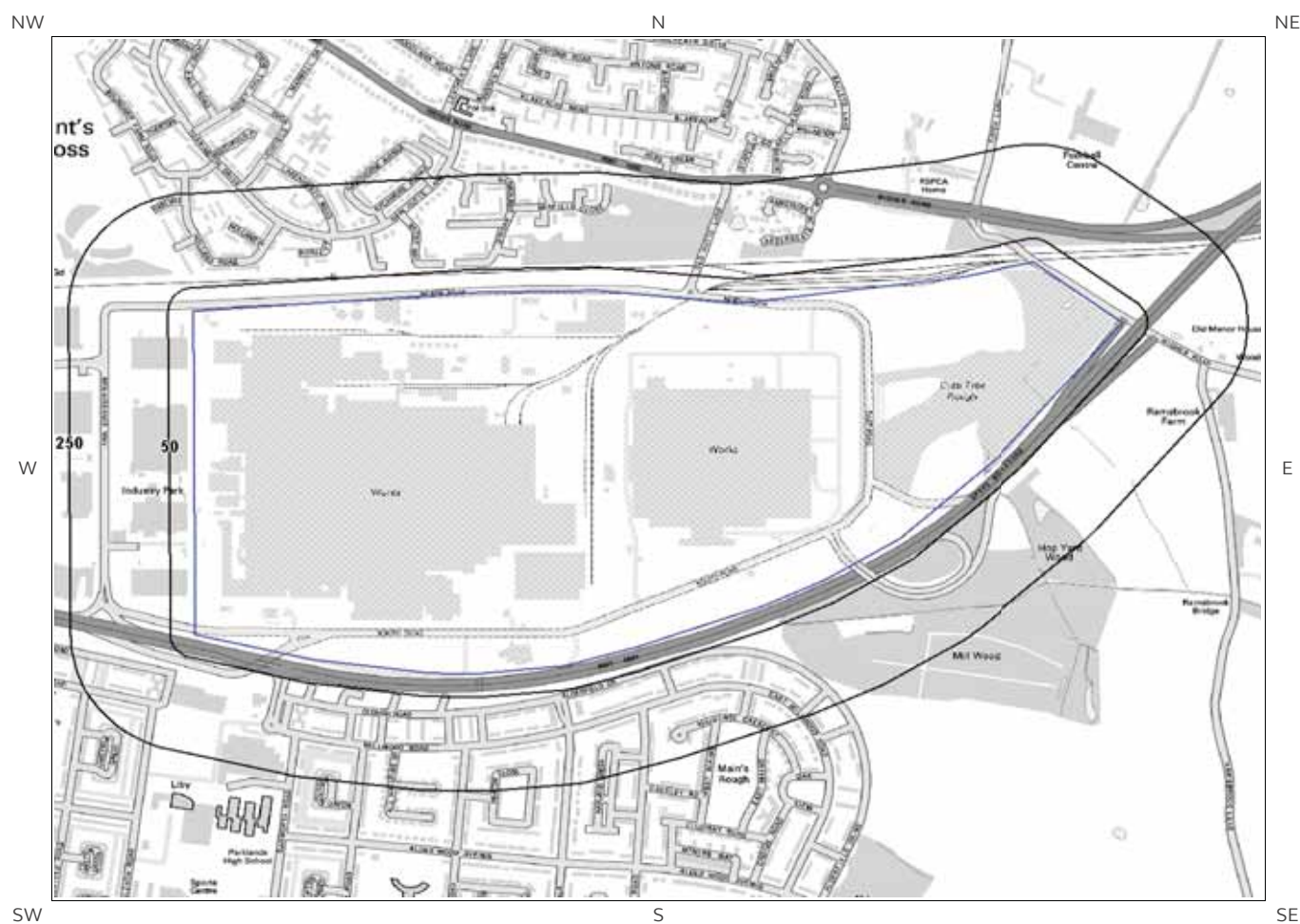
7a. Environment Agency Flood Map for Planning (from rivers and the sea)



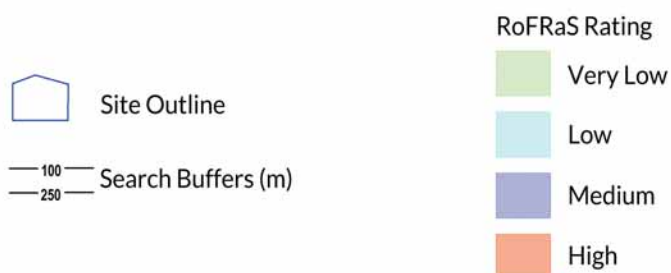
© Crown copyright and database rights 2016.
Ordnance Survey license 100035207.



7b. Environment Agency Risk of Flooding from Rivers and the Sea (RoFRaS) Map



© Crown copyright and database rights 2016.
Ordnance Survey license 100035207.



7 Flooding

7.1 River and Coastal Zone 2 Flooding

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

Environment Agency Zone 2 floodplains estimate the annual probability of flooding as between 1 in 1000 (0.1%) and 1 in 100 (1%) from rivers and between 1 in 1000 (0.1%) and 1 in 200 (0.5%) from the sea. Any relevant data is represented on Map 7a – Flood Map for Planning:

Database searched and no data found.

7.2 River and Coastal Zone 3 Flooding

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

Zone 3 shows the extent of a river flood with a 1 in 100 (1%) or greater chance of occurring in any year or a sea flood with a 1 in 200 (0.5%) or greater chance of occurring in any year. Any relevant data is represented on Map 7a – Flood Map for Planning.

Database searched and no data found.

7.3 Risk of Flooding from Rivers and the Sea (RoFRaS) Flood Rating

What is the highest risk of flooding onsite? Very Low

The Environment Agency RoFRaS database provides an indication of river and coastal flood risk at a national level on a 50m grid with the flood rating at the centre of the grid calculated and given above. The data considers the probability that the flood defences will overtop or breach by considering their location, type, condition and standard of protection.

RoFRaS data for the study site indicates the property is in an area with a Very Low (less than 1 in 1000) chance of flooding in any given year.

7.4 Flood Defences

Are there any Flood Defences within 250m of the study site? No
Database searched and no data found.

7.5 Areas benefiting from Flood Defences

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

7.6 Areas benefiting from Flood Storage

Are there any areas used for Flood Storage within 250m of the study site?

No

7.7 Groundwater Flooding Susceptibility Areas

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

Does this relate to Clearwater Flooding or Superficial Deposits Flooding?

Clearwater Flooding

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

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

Limited potential

Where limited potential for groundwater flooding to occur is indicated, this means that although given the geological conditions there may be a groundwater flooding hazard, unless other relevant information, e.g. records of previous flooding, suggests groundwater flooding has occurred before in this area, you need take no further action in relation to groundwater flooding hazard.

7.8 Groundwater Flooding Confidence Areas

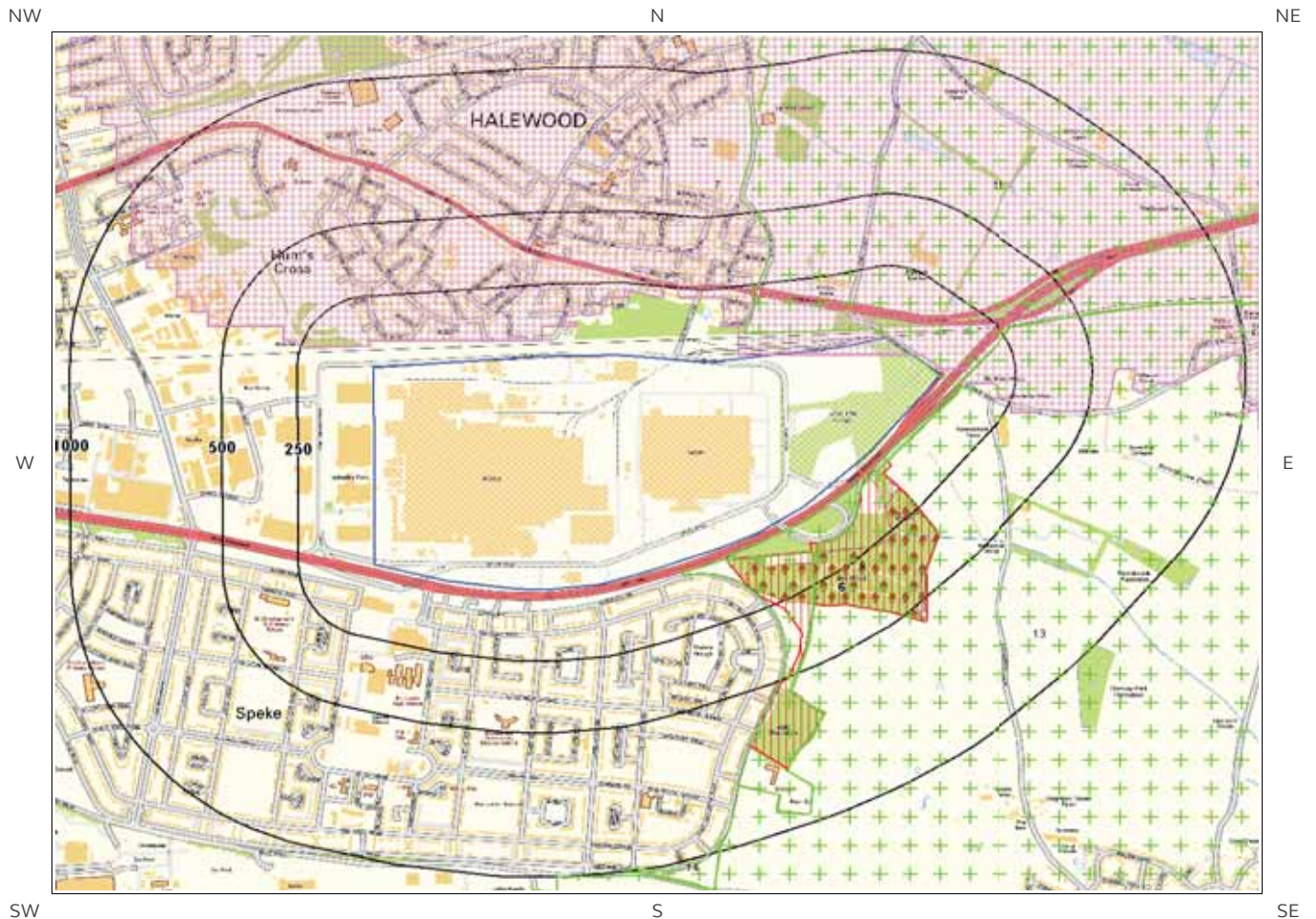
What is the British Geological Survey confidence rating in this result?

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.

8. Designated Environmentally Sensitive Sites Map



© Crown copyright and database rights 2016.
Ordnance Survey license 100035207.



8. Designated Environmentally Sensitive Sites

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

Yes

8.1 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/Natural Resources Wales are represented as polygons on the Designated Environmentally Sensitive Sites Map:

ID	Distance (m)	Direction	SSSI Name	Data Source
Not shown	1560	S	Mersey Estuary	Natural England

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

0

Database searched and no data found.

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

0

Database searched and no data found.

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

2

The following Special Protection Area (SPA) records provided by Natural England/Natural Resources Wales are represented as polygons on the Designated Environmentally Sensitive Sites Map:

ID	Distance (m)	Direction	SPA Name	Data Source
Not shown	1560	S	Mersey Estuary	Natural England
Not shown	1689	S	Mersey Estuary	Natural England

8.5 Records of Ramsar sites within 2000m of the study site:

2

The following Ramsar records provided by Natural England/Natural Resources Wales are represented as polygons on the Designated Environmentally Sensitive Sites Map:

ID	Distance (m)	Direction	Ramsar Site Name	Ramsar Site Status	Data Source
Not shown	1560	S	Mersey Estuary	Listed	Natural England
Not shown	1689	S	Mersey Estuary	Listed	Natural England

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

3

The following records of Designated Ancient Woodland provided by Natural England/Natural Resources Wales are represented as polygons on the Designated Environmentally Sensitive Sites Map:

ID	Distance (m)	Direction	Ancient Woodland Name	Data Source
8	88	SE	UNKNOWN	Ancient and Semi-Natural Woodland
Not shown	1383	S	UNKNOWN	Ancient and Semi-Natural Woodland
Not shown	1880	SW	UNKNOWN	Ancient and Semi-Natural Woodland

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

1

The following Local Nature Reserve (LNR) records provided by Natural England/Natural Resources Wales are represented as polygons on the Designated Environmentally Sensitive Sites Map:

ID	Distance (m)	Direction	LNR Name	Data Source
6	34	SE	Millwood & Alder Wood	Natural England

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

0

Database searched and no data found.

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

0

Database searched and no data found.

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

0

Database searched and no data found.

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

0

Database searched and no data found.

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

0

Database searched and no data found.

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

1

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

ID	Distance (m)	Direction	NVZ Name	Data Source
7	0	On Site	Existing	DEFRA

8.14 Records of Green Belt land within 2000m of the study site:

5

Green Belt data contains Ordnance Survey data © Crown copyright and database right [2015].

ID	Distance	Direction	Green Belt Name	Local Authority Name
11	0	On Site	Liverpool, Manchester and West Yorks Greenbelt	Knowsley District (B)
12	34	S	Liverpool, Manchester and West Yorks Greenbelt	Liverpool District (B)
13	64	SE	Liverpool, Manchester and West Yorks Greenbelt	Halton (B)
14	961	S	Liverpool, Manchester and West Yorks Greenbelt	Liverpool District (B)
Not shown	1531	S	Liverpool, Manchester and West Yorks Greenbelt	Liverpool District (B)

9. Natural Hazards Findings

9.1 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:

9.1.1 Shrink Swell

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

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

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

9.1.2 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.

9.1.3 Soluble Rocks

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

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

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

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

9.1.4 Compressible Ground

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

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

Hazard
Significant potential for compressibility problems. Avoid large differential loadings of ground. Do not drain or de-water ground near the property without technical advice. For new build Ö consider possibility of compressible ground in ground investigation, construction and building design. Consider effects of groundwater changes. Extra construction costs are likely. For existing property x°ossible increase in insurance risk from compressibility, especially if water conditions or loading of the ground change significantly.

9.1.5 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.

9.1.6 Running Sand

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

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

Hazard
Possibility of running sand problems after major changes in ground conditions. Normal maintenance to avoid leakage of water-bearing services or water bodies (ponds, swimming pools) should reduce likelihood of problems due to running sand. For new build Ö consider possibility of running sand into trenches or excavations if water table is high or sandy strata are exposed to water. Avoid concentrated water inputs to site. Unlikely to be an increase in construction costs due to potential for running sand. For existing property Ö no significant increase in insurance risk due to running sand problems is likely.

9.2 Radon

9.2.1 Radon Affected Areas

Is the property in a Radon Affected Area as defined by the Health Protection Agency (HPA) and if so what percentage of homes are above the Action Level? The property is not in a Radon Affected Area, as less than 1% of properties are above the Action Level.

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

9.2.2 Radon Protection

Is the property in an area where Radon Protection are required for new properties or extensions to existing

ones as described in publication BR211 by the Building Research Establishment? No radon protective measures are necessary.

10. Mining

10.1 Coal Mining

Are there any coal mining areas within 75m of the study site? No

Database searched and no data found.

10.2 Non-Coal Mining

Are there any Non-Coal Mining areas within 50m of the study site boundary? No

Database searched and no data found.

10.3 Brine Affected Areas

Are there any brine affected areas within 75m of the study site? No

Guidance: No Guidance Required.

Contact Details

EmapSite
Telephone: 0118 9736883
sales@emapsite.com

emapsite™

British Geological Survey Enquiries

Kingsley Dunham Centre
Keyworth, Nottingham NG12 5GG
Tel: 0115 936 3143.
Fax: 0115 936 3276.
Email:

Web: www.bgs.ac.uk

BGS Geological Hazards Reports and general geological enquiries:
enquiries@bgs.ac.uk



**British
Geological Survey**

NATURAL ENVIRONMENT RESEARCH COUNCIL

Environment Agency

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

Web: www.environment-agency.gov.uk

Email: enquiries@environment-agency.gov.uk



Public Health England

Public information access office
Public Health England, Wellington House
133-155 Waterloo Road, London, SE1 8UG
www.gov.uk/phe

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



The Coal Authority

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



Ordnance Survey

Adanac Drive, Southampton
SO16 0AS
Tel: 08456 050505



Local Authority

Authority: Knowsley Metropolitan Borough Council
Phone: 0151 489 6000

Web: <http://www.knowsley.gov.uk/>

Address: Municipal Buildings, Cherryfield Drive, Knowsley, L32 1TX

Gemapping PLC

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



Acknowledgements: Site of Special Scientific Interest, National Nature Reserve, Ramsar Site, Special Protection Area, Special Area of Conservation data is provided by, and used with the permission of, Natural England who retain the Copyright and Intellectual Property Rights for the data.

PointX © Database Right/Copyright, Thomson Directories Limited © Copyright Link Interchange Network Limited © Database Right/Copyright and Ordnance Survey © Crown Copyright and/or Database Right. All Rights Reserved. Licence Number [03421028].

This report has been prepared in accordance with the Groundsure Ltd standard Terms and Conditions of business for work of this nature.

Standard Terms and Conditions

1 Definitions

In these terms and conditions unless the context otherwise requires:

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

“Client” means the party or parties entering into a Contract with Groundsure.

“Commercial” means any building or property which is not Residential.

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

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

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

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

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

“Third Party Data Provider” means any third party providing Third Party Content to Groundsure.

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

“Fees” has the meaning set out in clause 5.1.

“Groundsure” means Groundsure Limited, a company registered in England and Wales under number 03421028.

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

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

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

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

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

“Order Website” means the online platform through which Orders may be placed by the Client and accepted by Groundsure.

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

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

“Risk Screening Report” means a risk screening report comprising factual data with an accompanying interpretation by Groundsure.

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

“Site” means the area of land in respect of which the Client has requested Groundsure to provide the Services.

“Third Party Content” means data, database information or other information which is provided to Groundsure by a Third Party Data Provider.

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

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

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

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

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

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

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

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

3 The Client’s obligations

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

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

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

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

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

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

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

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

4 Reliance

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

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

- (i) the Beneficiary,
- (ii) the Beneficiary’s professional advisers, (iii) any person providing funding to the Beneficiary in relation to the Site (whether directly or as part of a lending syndicate),
- (iv) the first purchaser or first tenant of the Site, and
- (v) the professional advisers and lenders of the first purchaser or tenant of the Site.

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

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

5 Fees and Disbursements

5.1 Groundsure shall charge and the Client shall pay fees at the rate and

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

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

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

6 Intellectual Property and Confidentiality

6.1 Subject to

(i) full payment of all relevant Fees and

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

subcontractors;

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

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

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

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

7.4 Groundsure shall not be liable for

(i) loss of profits;

(ii) loss of business;

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

(iv) loss of anticipated savings;

(v) loss of goods;

(vi) loss of contract;

(vii) loss of use;

(viii) loss or corruption of data or information;

(ix) business interruption;

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

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

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

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

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

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

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

8 Groundsure's right to suspend or terminate

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

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

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

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

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

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

9. Client's Right to Terminate and Suspend

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

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

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

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

- (a) supplied to the Client's specification(s) and in any event
- (b) by their nature cannot be returned.

10 Consequences of Withdrawal, Termination or Suspension

10.1 Upon termination of the Contract:

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

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

11 Anti-Bribery

11.1 The Client warrants that it shall:

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

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

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

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

12 General

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

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

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

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

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

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

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

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

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

(iii) Acts of God or the public enemy;

(iv) riot, civil commotion or war;

(v) strikes, labour disputes or industrial action;

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

(vii) suspension or delay of services at public registries by Third Party Data Providers;

(viii) changes in law; or

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

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

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

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

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

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

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

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

12.14 If the Client or Beneficiary has a complaint about the Services, written notice should be given to the Compliance Officer at Groundsure who will respond in a timely manner. In the event you are not satisfied with Groundsure's complaints handling process or you are unable to resolve the complaint, at your discretion you may refer the complaint to The Property Ombudsman Scheme at the following URL/email: website www.tpos.co.uk or email: admin@tpos.co.uk

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

Site Details:

Client Ref: EMS_343518_462066
Report Ref: EMS-343518_462066_SS_1_1
Grid Ref: 343874, 384074

Map Name: County Series

Map date: 1849

Scale: 1:10,560

Printed at: 1:10,560



Surveyed 1846
Revised N/A
Edition 1849
Copyright N/A
Levelled N/A



Produced by
Groundsure Insights
www.groundsure.com

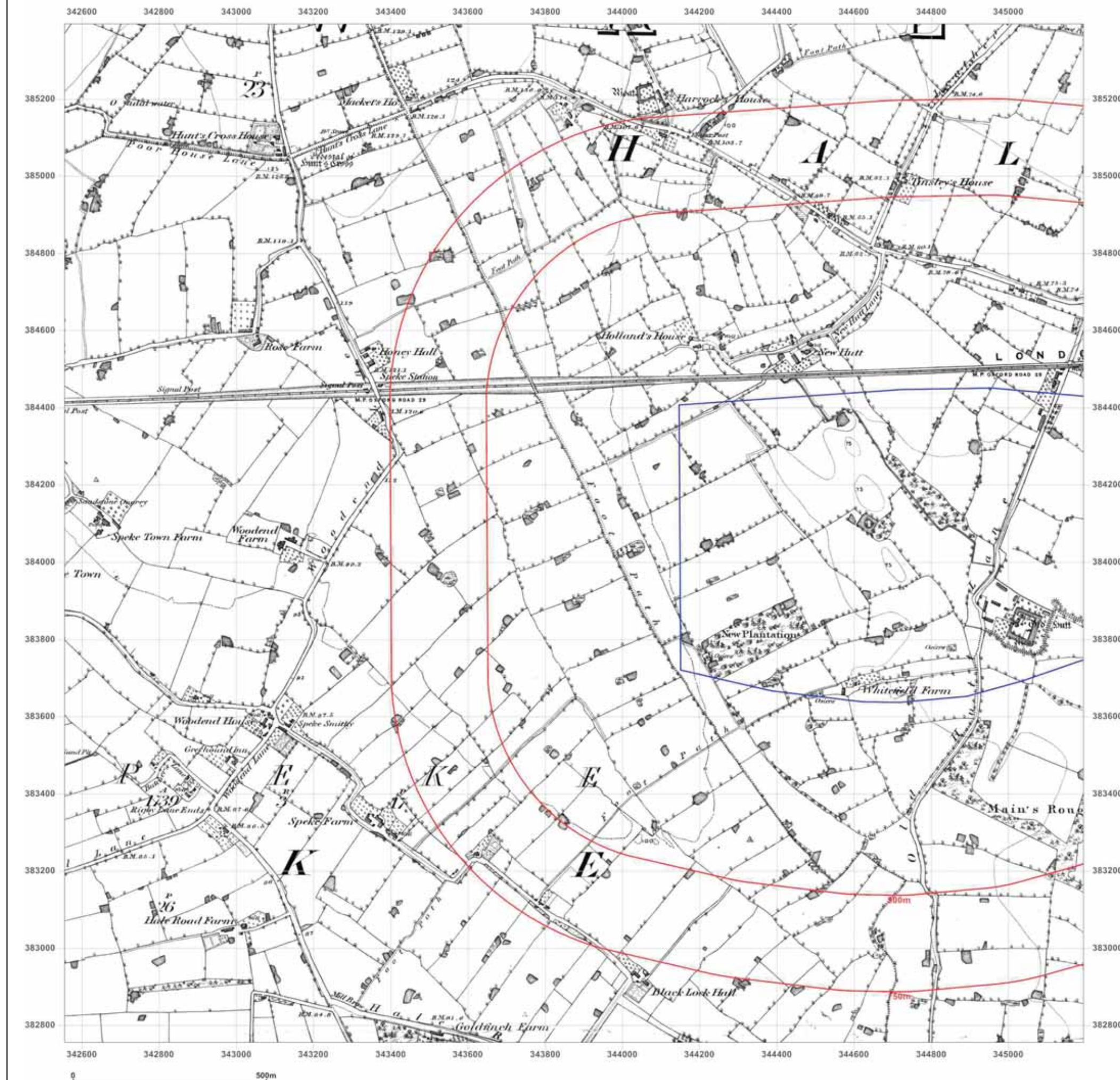


Supplied by:
www.emapsite.com
sales@emapsite.com

© Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 28 January 2016

To view map legend click here [Legend](#)



Site Details:

Client Ref: EMS_343518_462066
Report Ref: EMS-343518_462066_SS_1_1
Grid Ref: 343874, 384074

Map Name: County Series

Map date: 1891

Scale: 1:10,560

Printed at: 1:10,560



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



Produced by
Groundsure Insights
www.groundsure.com

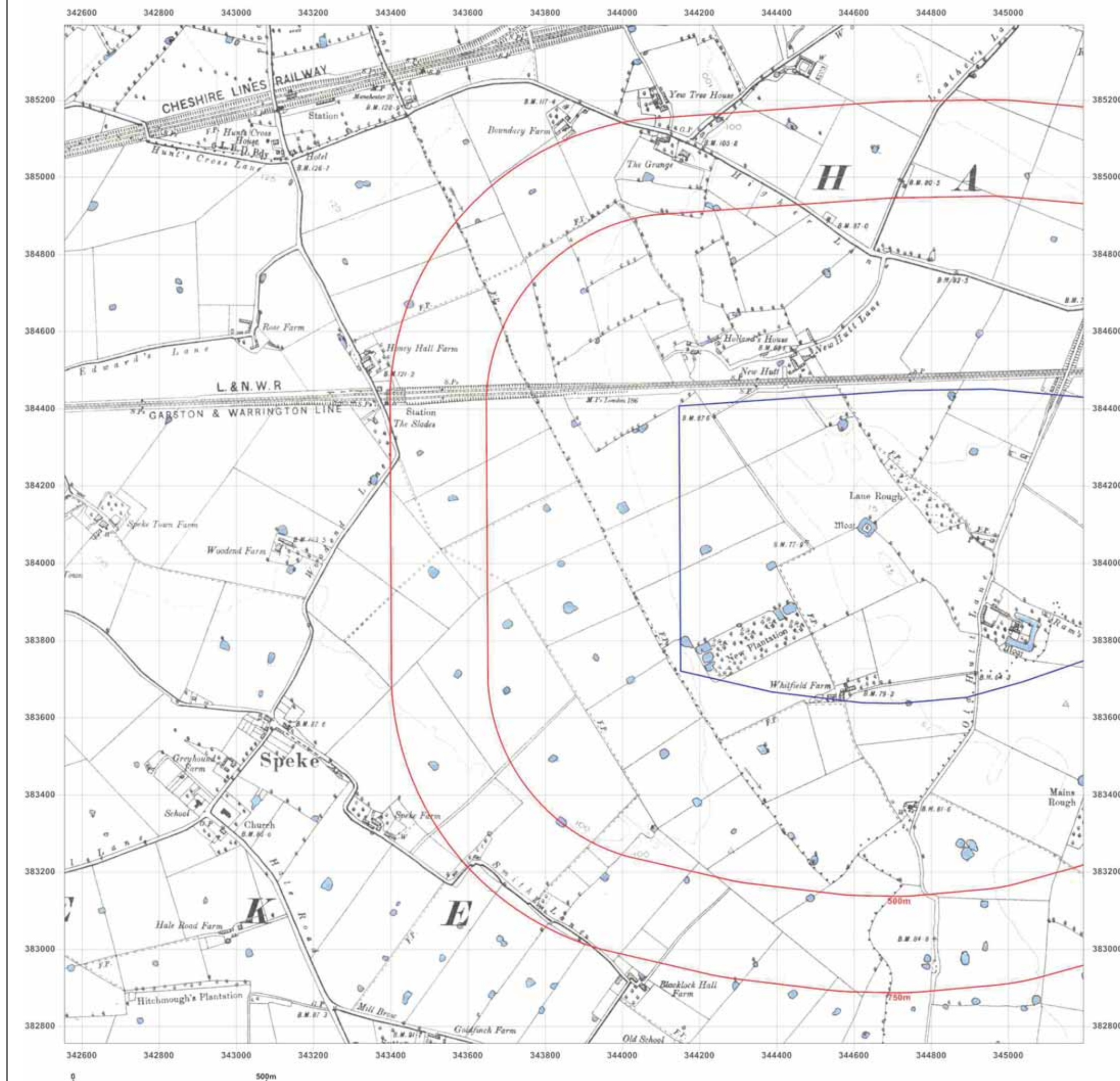


Supplied by:
www.emapsite.com
sales@emapsite.com

© Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 28 January 2016

To view map legend click here [Legend](#)



Site Details:

Client Ref: EMS_343518_462066
Report Ref: EMS-343518_462066_SS_1_1
Grid Ref: 343874, 384074

Map Name: County Series

Map date: 1904

Scale: 1:10,560

Printed at: 1:10,560



Surveyed 1891
Revised 1904
Edition N/A
Copyright N/A
Levelled N/A



Produced by
Groundsure Insights
www.groundsure.com

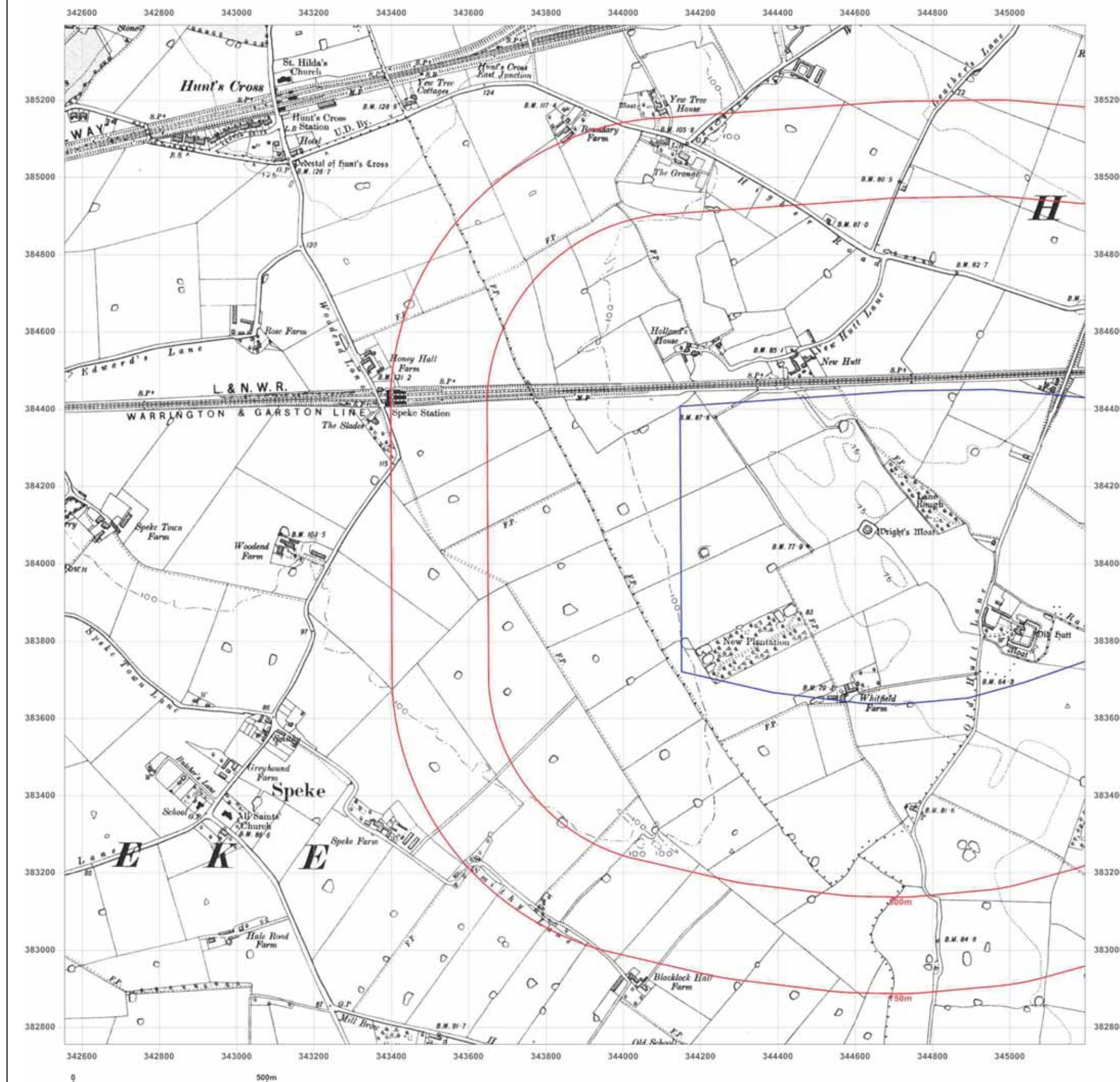


Supplied by:
www.emapsite.com
sales@emapsite.com

© Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 28 January 2016

To view map legend click here [Legend](#)



Site Details:

Client Ref: EMS_343518_462066
Report Ref: EMS-343518_462066_SS_1_1
Grid Ref: 343874, 384074

Map Name: County Series

Map date: 1912

Scale: 1:10,560

Printed at: 1:10,560



Surveyed 1872
 Revised 1912
 Edition N/A
 Copyright N/A
 Levelled N/A

Surveyed 1872
 Revised 1912
 Edition N/A
 Copyright N/A
 Levelled N/A



Produced by
 Groundsure Insights
www.groundsure.com

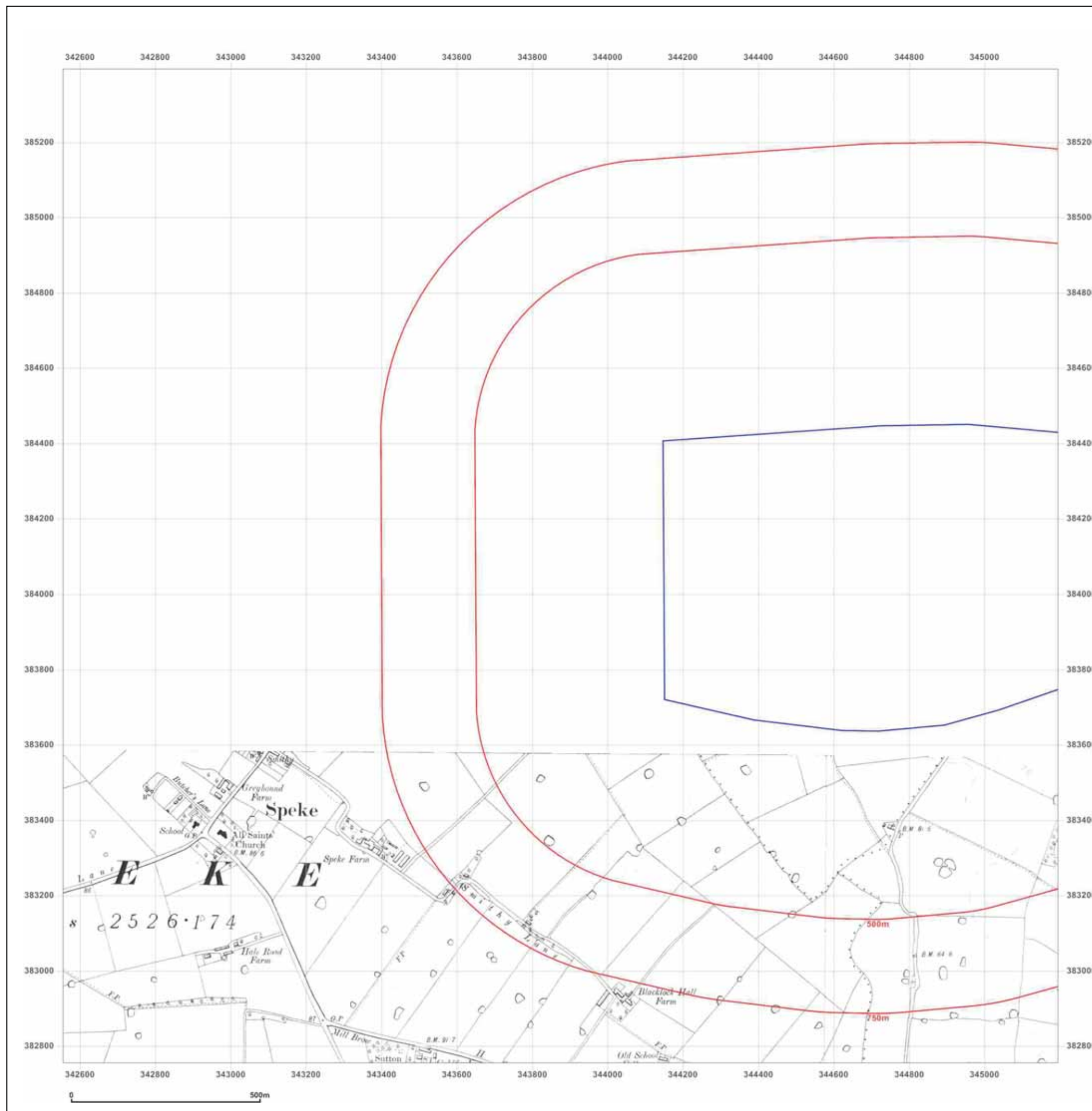


Supplied by:
www.emapsite.com
sales@emapsite.com

© Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 28 January 2016

To view map legend click here [Legend](#)



Site Details:

Client Ref: EMS_343518_462066
Report Ref: EMS-343518_462066_SS_1_1
Grid Ref: 343874, 384074

Map Name: County Series

Map date: 1925

Scale: 1:10,560

Printed at: 1:10,560



Surveyed 1848
Revised 1925
Edition N/A
Copyright N/A
Levelled N/A



Produced by
Groundsure Insights
www.groundsure.com

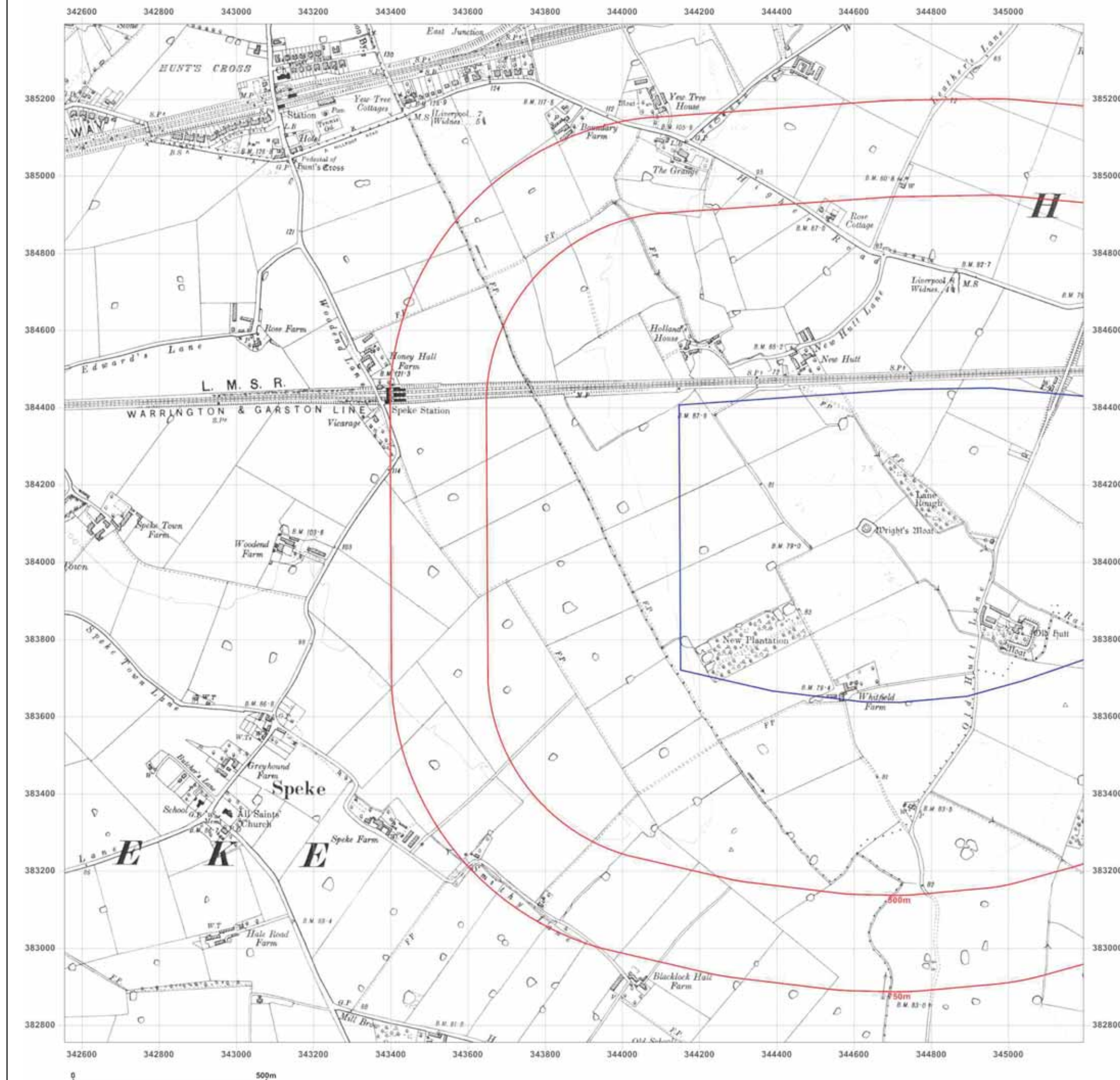


Supplied by:
www.emapsite.com
sales@emapsite.com

© Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 28 January 2016

To view map legend click here [Legend](#)





Client Ref: EMS_343518_462066
Report Ref: EMS-343518_462066_SS_1_1
Grid Ref: 343874, 384074

Map Name: County Series

Map date: 1925

Scale: 1:10,560

Printed at: 1:10,560



Surveyed 1848
Revised 1925
Edition N/A
Copyright N/A
Levelled N/A



Produced by
Groundsure Insights
www.groundsure.com

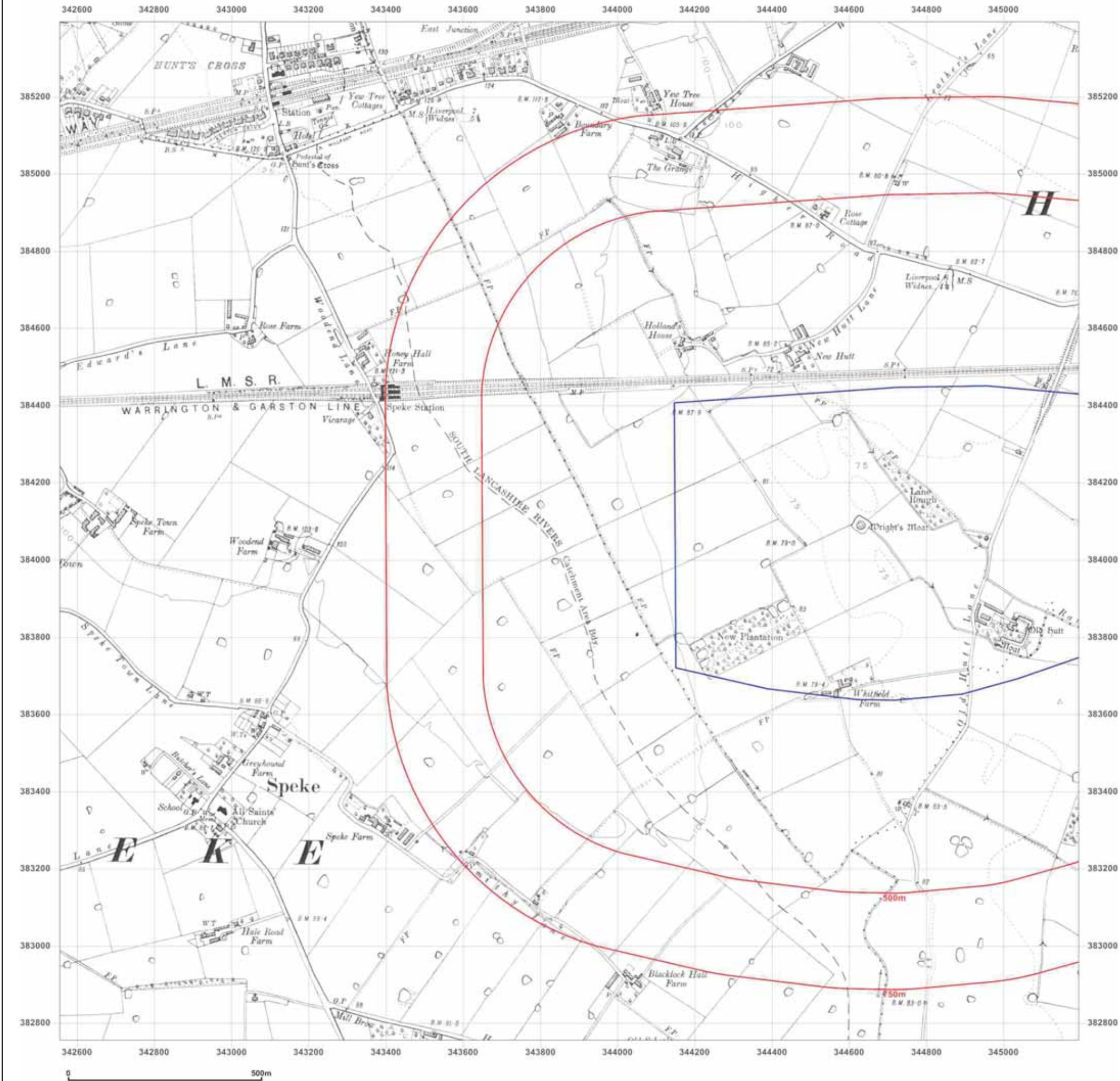


Supplied by:
www.emapsite.com
sales@emapsite.com

© Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 28 January 2016

To view map legend click here [Legend](#)



Site Details:

Client Ref: EMS_343518_462066
Report Ref: EMS-343518_462066_SS_1_1
Grid Ref: 343874, 384074

Map Name: County Series

Map date: 1938

Scale: 1:10,560

Printed at: 1:10,560



Surveyed 1848
Revised 1938
Edition N/A
Copyright N/A
Levelled N/A



Produced by
Groundsure Insights
www.groundsure.com

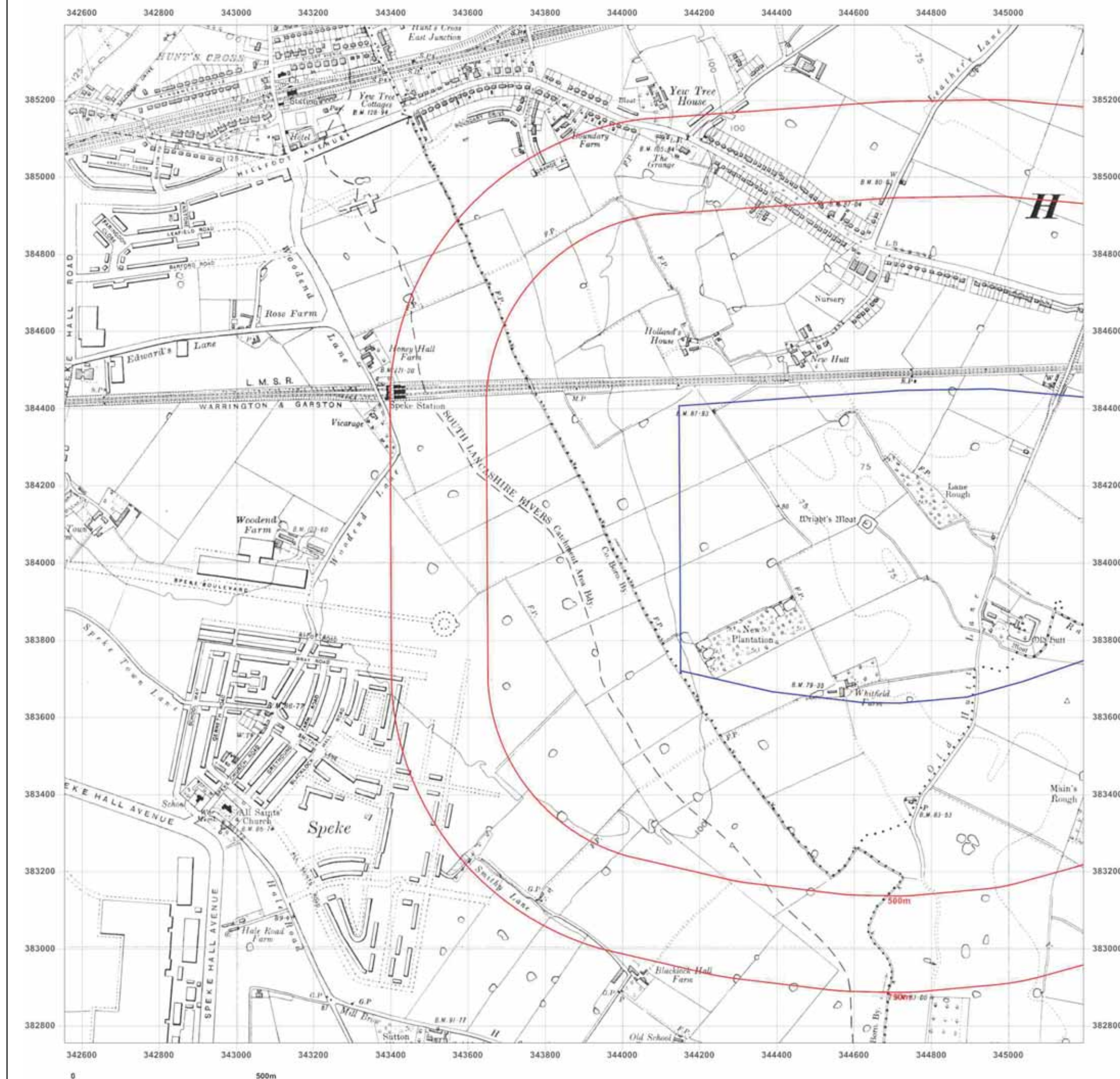


Supplied by:
www.emapsite.com
sales@emapsite.com

© Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 28 January 2016

To view map legend click here [Legend](#)



Site Details:

Client Ref: EMS_343518_462066
Report Ref: EMS-343518_462066_SS_1_1
Grid Ref: 343874, 384074

Map Name: County Series

Map date: 1938

Scale: 1:10,560

Printed at: 1:10,560



Surveyed 1848
Revised 1938
Edition N/A
Copyright N/A
Levelled N/A



Produced by
Groundsure Insights
www.groundsure.com

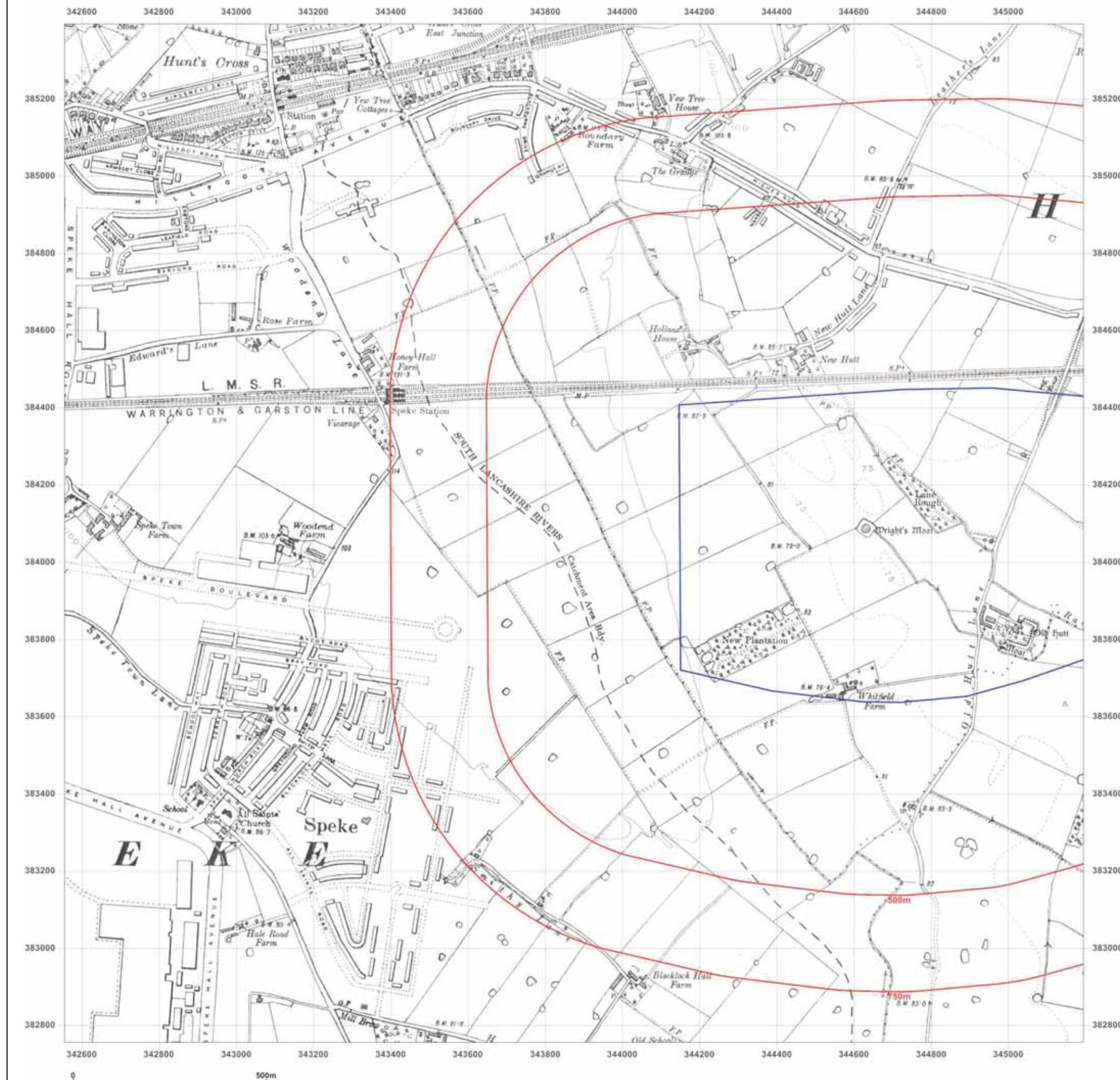


Supplied by:
www.emapsite.com
sales@emapsite.com

© Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 28 January 2016

To view map legend click here [Legend](#)



Site Details:

Client Ref: EMS_343518_462066
Report Ref: EMS-343518_462066_SS_1_1
Grid Ref: 343874, 384074

Map Name: Provisional

Map date: 1954-1956

Scale: 1:10,560

Printed at: 1:10,560



Surveyed 1949
Revised 1949
Edition N/A
Copyright N/A
Levelled N/A

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

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

Surveyed N/A
Revised 1953
Edition 1954
Copyright N/A
Levelled N/A



Produced by
Groundsure Insights
www.groundsure.com



Supplied by:
www.emapsite.com
sales@emapsite.com

© Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 28 January 2016

To view map legend click here [Legend](#)



Site Details:

Client Ref: EMS_343518_462066
Report Ref: EMS-343518_462066_SS_1_1
Grid Ref: 343874, 384074

Map Name: Provisional

Map date: 1966-1967

Scale: 1:10,560

Printed at: 1:10,560



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

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

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



Produced by
Groundsure Insights
www.groundsure.com



Supplied by:
www.emapsite.com
sales@emapsite.com

© Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 28 January 2016

To view map legend click here [Legend](#)



Site Details:

Client Ref: EMS_343518_462066
Report Ref: EMS-343518_462066_SS_1_1
Grid Ref: 343874, 384074

Map Name: National Grid

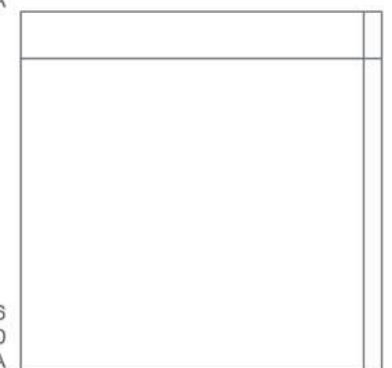
Map date: 1980-1982

Scale: 1:10,000

Printed at: 1:10,000



Surveyed 1979
 Revised 1980
 Edition N/A
 Copyright N/A
 Levelled N/A



Surveyed 1976
 Revised 1980
 Edition N/A
 Copyright N/A
 Levelled N/A

Surveyed 1979
 Revised 1982
 Edition N/A
 Copyright N/A
 Levelled N/A



Produced by
 Groundsure Insights
www.groundsure.com



Supplied by:
www.emapsite.com
sales@emapsite.com

© Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 28 January 2016

To view map legend click here [Legend](#)



Site Details:

Client Ref: EMS_343518_462066
Report Ref: EMS-343518_462066_SS_1_1
Grid Ref: 343874, 384074

Map Name: National Grid

Map date: 1989-1991

Scale: 1:10,000

Printed at: 1:10,000



Surveyed 1986
 Revised 1989
 Edition N/A
 Copyright N/A
 Levelled N/A

Surveyed 1989
 Revised 1991
 Edition N/A
 Copyright N/A
 Levelled N/A



Produced by
 Groundsure Insights
www.groundsure.com

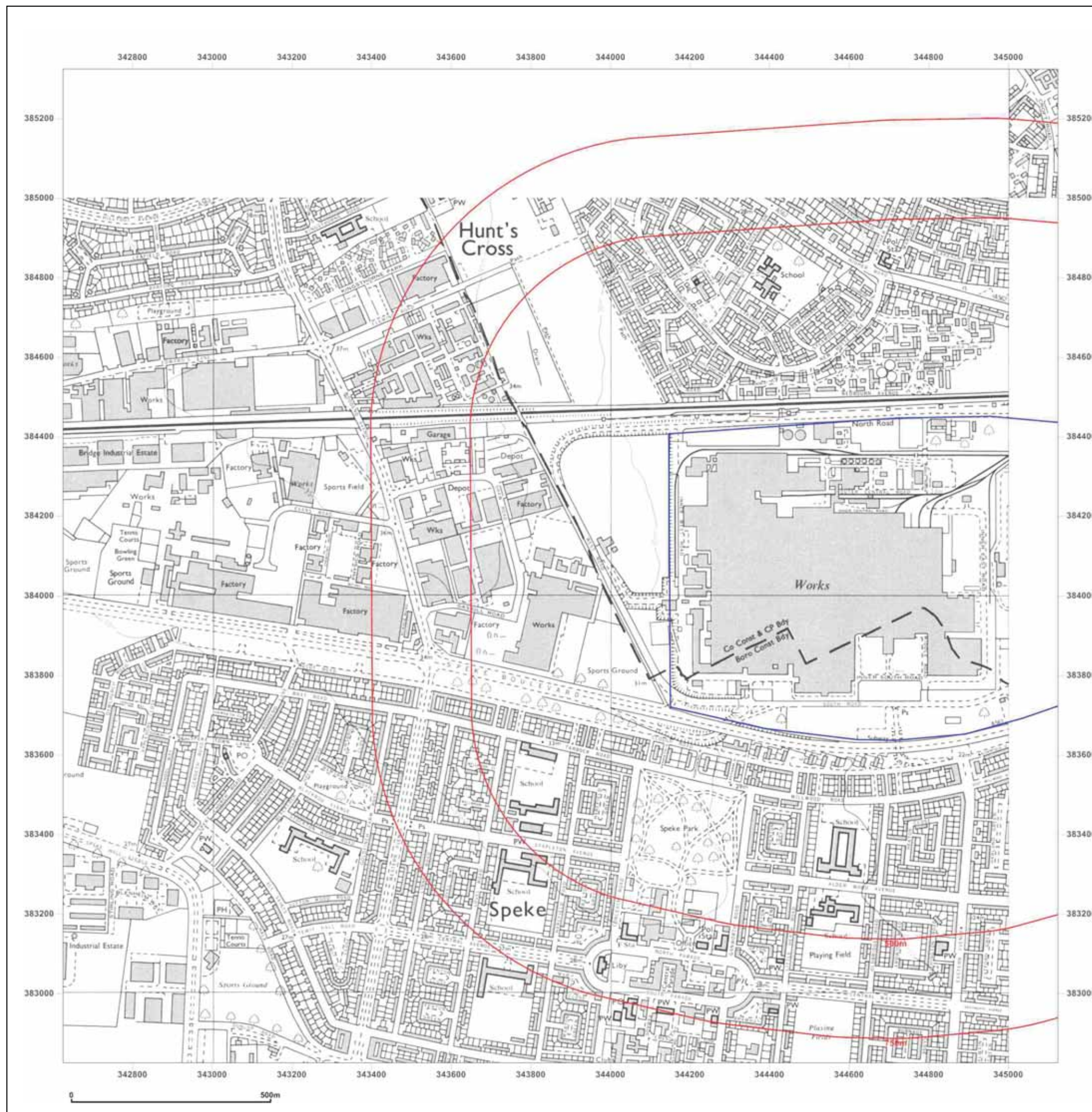


Supplied by:
www.emapsite.com
sales@emapsite.com

© Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 28 January 2016

To view map legend click here [Legend](#)





Client Ref: EMS_343518_462066
Report Ref: EMS-343518_462066_SS_1_1
Grid Ref: 343874, 384074

Map Name: 1:10,000 Raster

Map date: 2002

Scale: 1:10,000

Printed at: 1:10,000



2002



Produced by
Groundsure Insights
www.groundsure.com



Supplied by:
www.emapsite.com
sales@emapsite.com

© Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 28 January 2016

To view map legend click here [Legend](#)



Site Details:

Client Ref: EMS_343518_462066
Report Ref: EMS-343518_462066_SS_1_1
Grid Ref: 343874, 384074

Map Name: National Grid

Map date: 2010

Scale: 1:10,000

Printed at: 1:10,000



2010



Produced by
Groundsure Insights
www.groundsure.com

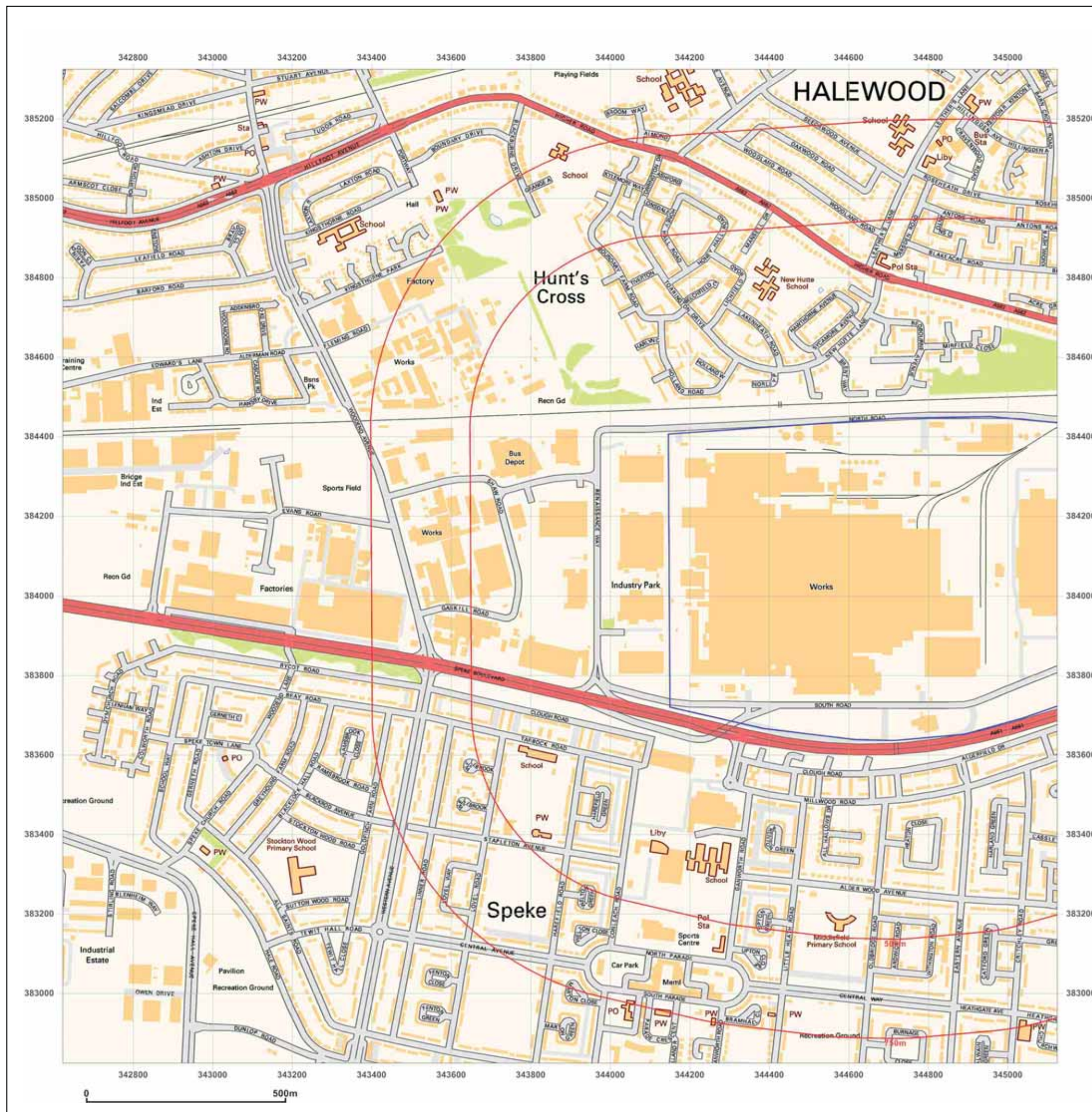


Supplied by:
www.emapsite.com
sales@emapsite.com

© Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 28 January 2016

To view map legend click here [Legend](#)



Site Details:

Client Ref: EMS_343518_462066
Report Ref: EMS-343518_462066_SS_1_1
Grid Ref: 343874, 384074

Map Name: National Grid

Map date: 2014

Scale: 1:10,000

Printed at: 1:10,000



2014



Produced by
Groundsure Insights
www.groundsure.com

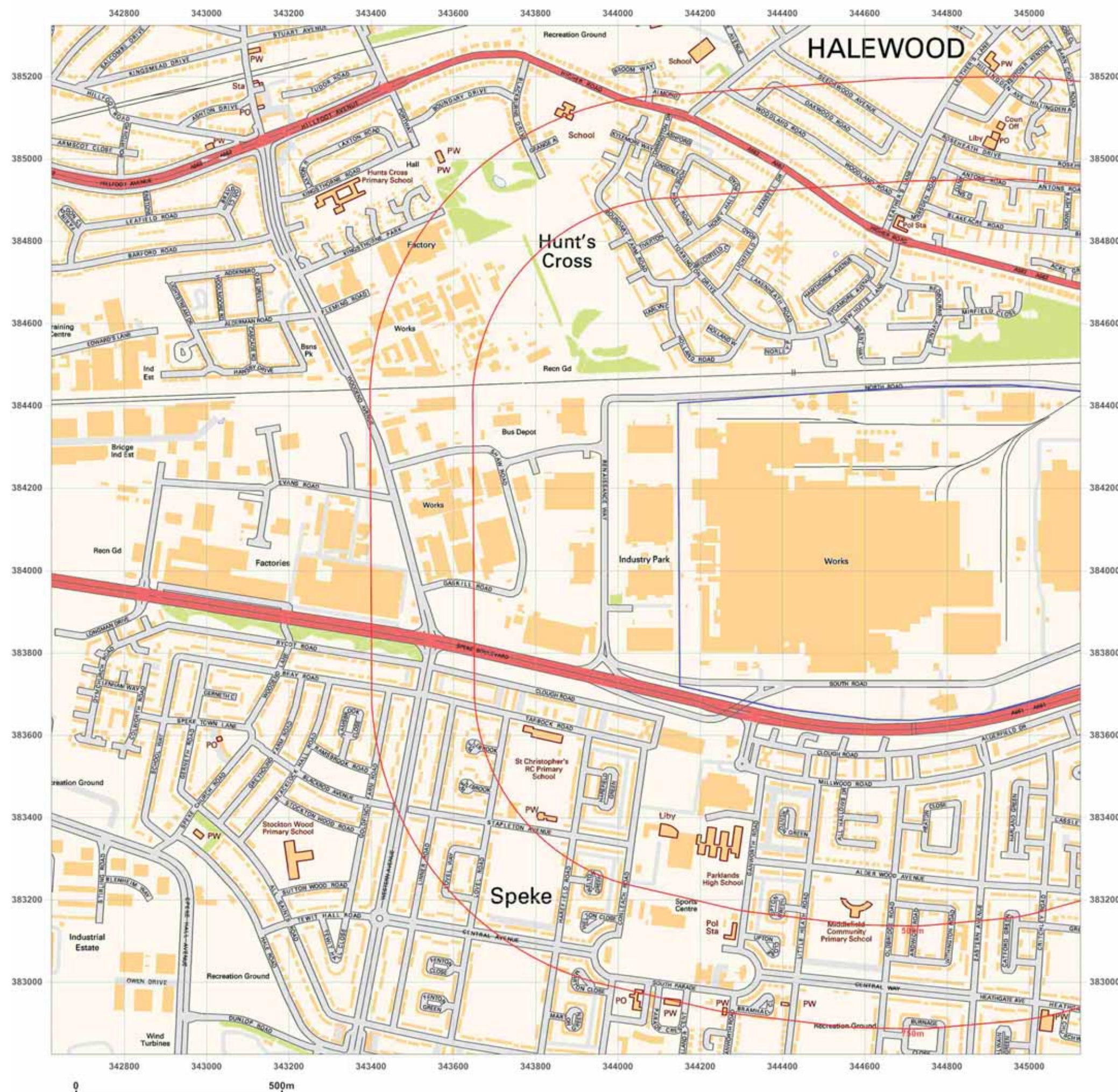


Supplied by:
www.emapsite.com
sales@emapsite.com

© Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 28 January 2016

To view map legend click here [Legend](#)



Site Details:

Client Ref: EMS_343518_462066
Report Ref: EMS-343518_462066_SS_2_1
Grid Ref: 346284, 384074

Map Name: County Series

Map date: 1849

Scale: 1:10,560

Printed at: 1:10,560



Surveyed 1846
Revised N/A
Edition 1849
Copyright N/A
Levelled N/A



Produced by
Groundsure Insights
www.groundsure.com



Supplied by:
www.emapsite.com
sales@emapsite.com

© Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 28 January 2016

To view map legend click here [Legend](#)



Site Details:

Client Ref: EMS_343518_462066
Report Ref: EMS-343518_462066_SS_2_1
Grid Ref: 346284, 384074

Map Name: County Series

Map date: 1904-1905

Scale: 1:10,560

Printed at: 1:10,560



Surveyed 1891
Revised 1904
Edition N/A
Copyright N/A
Levelled N/A

Surveyed 1891
Revised 1905
Edition N/A
Copyright N/A
Levelled N/A



Produced by
Groundsure Insights
www.groundsure.com

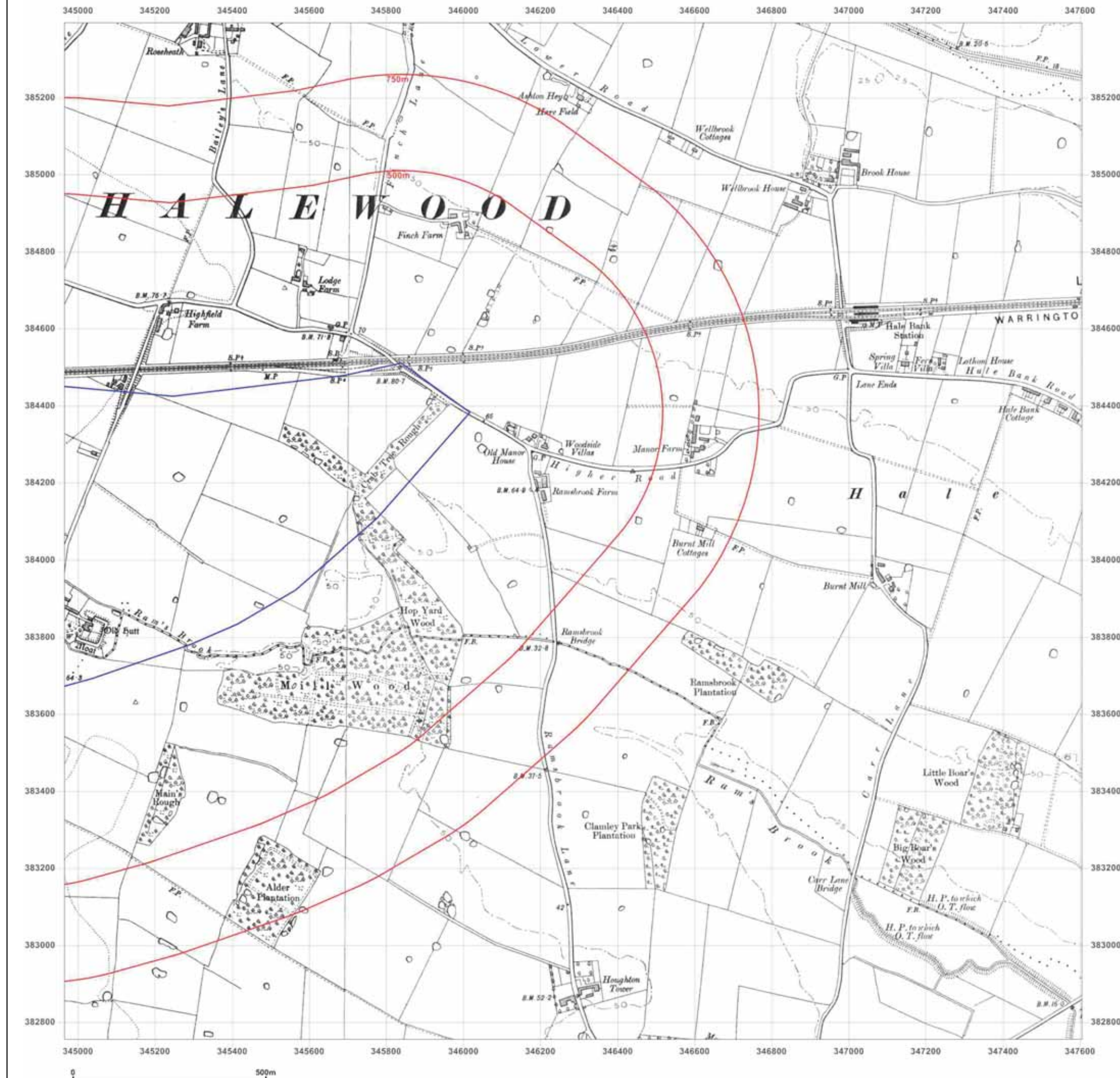


Supplied by:
www.emapsite.com
sales@emapsite.com

© Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 28 January 2016

To view map legend click here [Legend](#)



Site Details:

Client Ref: EMS_343518_462066
Report Ref: EMS-343518_462066_SS_2_1
Grid Ref: 346284, 384074

Map Name: County Series

Map date: 1912

Scale: 1:10,560

Printed at: 1:10,560



Surveyed 1872
 Revised 1912
 Edition N/A
 Copyright N/A
 Levelled N/A



Produced by
 Groundsure Insights
www.groundsure.com

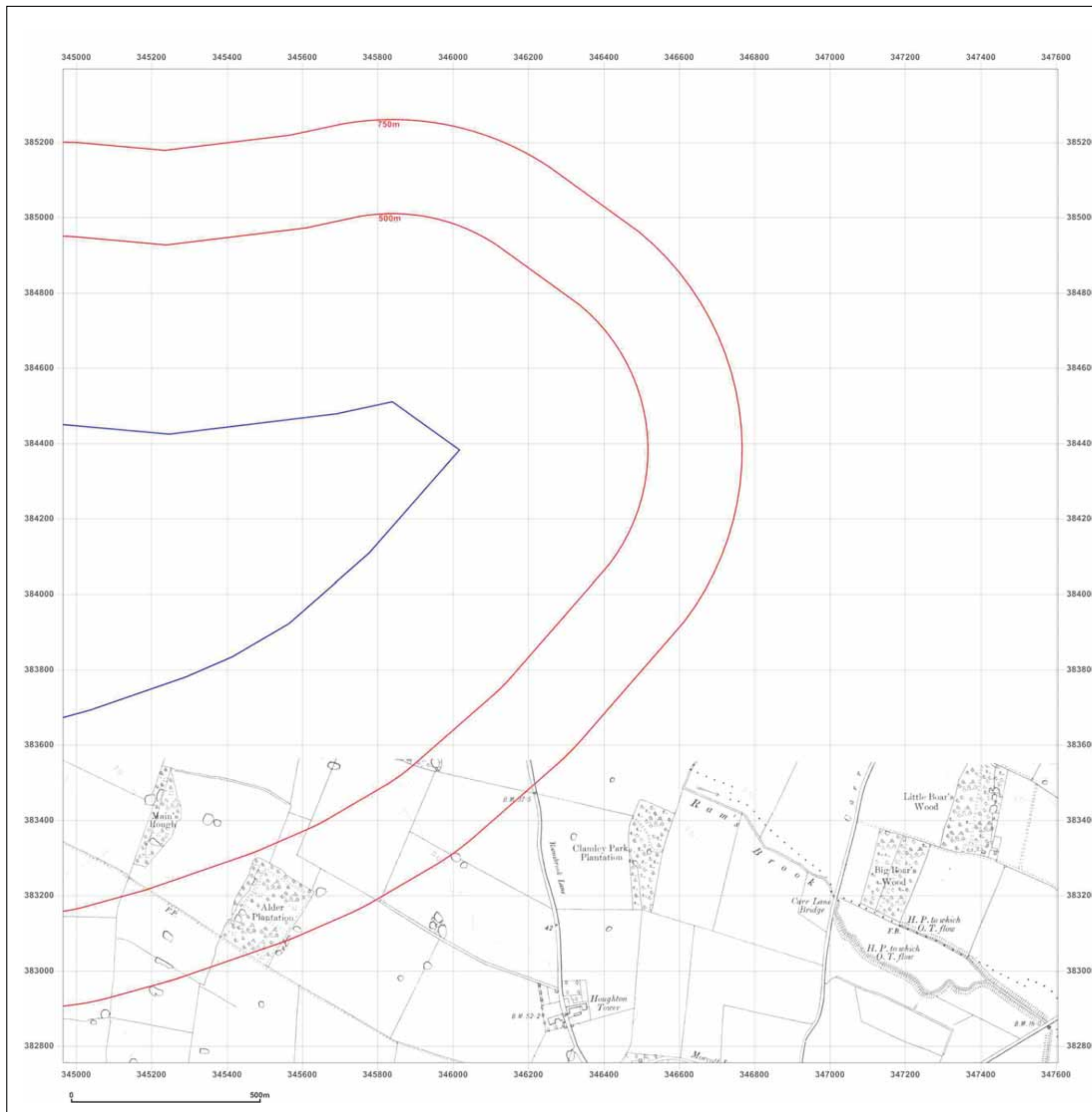


Supplied by:
www.emapsite.com
sales@emapsite.com

© Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 28 January 2016

To view map legend click here [Legend](#)



Site Details:

Client Ref: EMS_343518_462066
Report Ref: EMS-343518_462066_SS_2_1
Grid Ref: 346284, 384074

Map Name: County Series

Map date: 1925

Scale: 1:10,560

Printed at: 1:10,560



Surveyed 1848
Revised 1925
Edition N/A
Copyright N/A
Levelled N/A

Surveyed 1846
Revised 1925
Edition N/A
Copyright N/A
Levelled N/A



Produced by
Groundsure Insights
www.groundsure.com

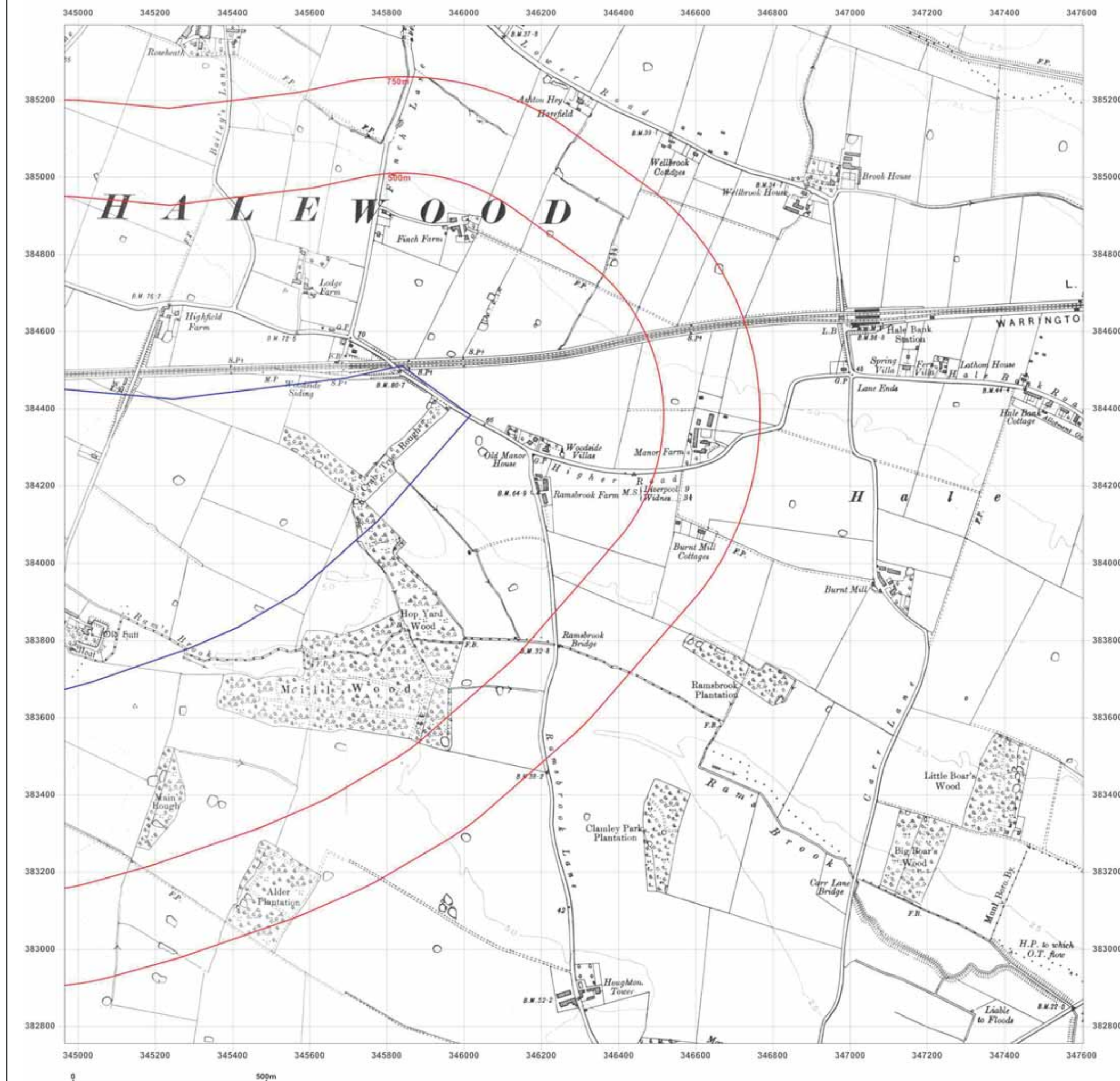


Supplied by:
www.emapsite.com
sales@emapsite.com

© Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 28 January 2016

To view map legend click here [Legend](#)



Site Details:

Client Ref: EMS_343518_462066
Report Ref: EMS-343518_462066_SS_2_1
Grid Ref: 346284, 384074

Map Name: County Series

Map date: 1925

Scale: 1:10,560

Printed at: 1:10,560



Surveyed 1848
Revised 1925
Edition N/A
Copyright N/A
Levelled N/A

Surveyed 1846
Revised 1925
Edition N/A
Copyright N/A
Levelled N/A



Produced by
Groundsure Insights
www.groundsure.com

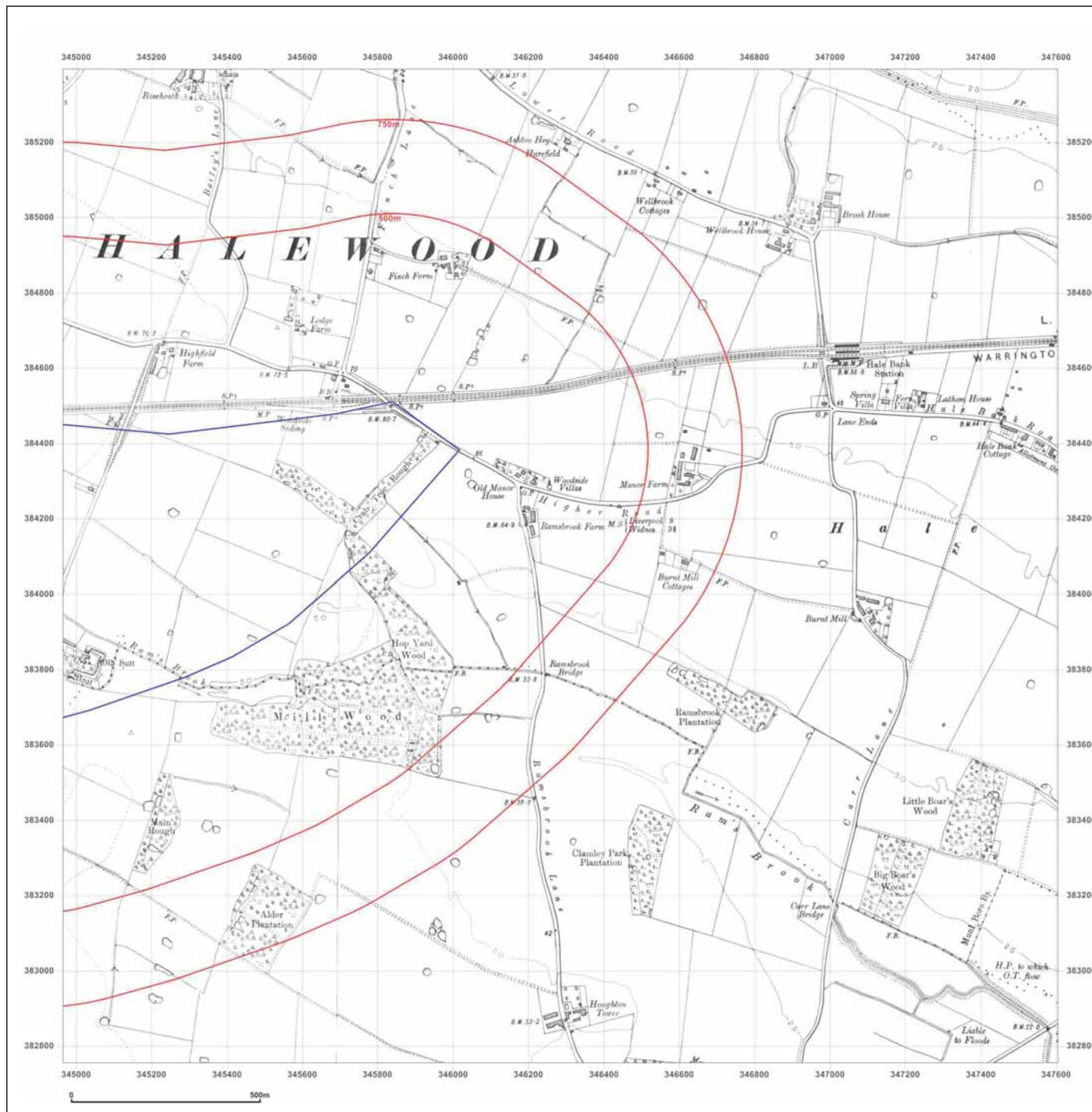


Supplied by:
www.emapsite.com
sales@emapsite.com

© Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 28 January 2016

To view map legend click here [Legend](#)



Site Details:

Client Ref: EMS_343518_462066
Report Ref: EMS-343518_462066_SS_2_1
Grid Ref: 346284, 384074

Map Name: County Series

Map date: 1938

Scale: 1:10,560

Printed at: 1:10,560



Surveyed 1848
 Revised 1938
 Edition N/A
 Copyright N/A
 Levelled N/A



Produced by
 Groundsure Insights
www.groundsure.com

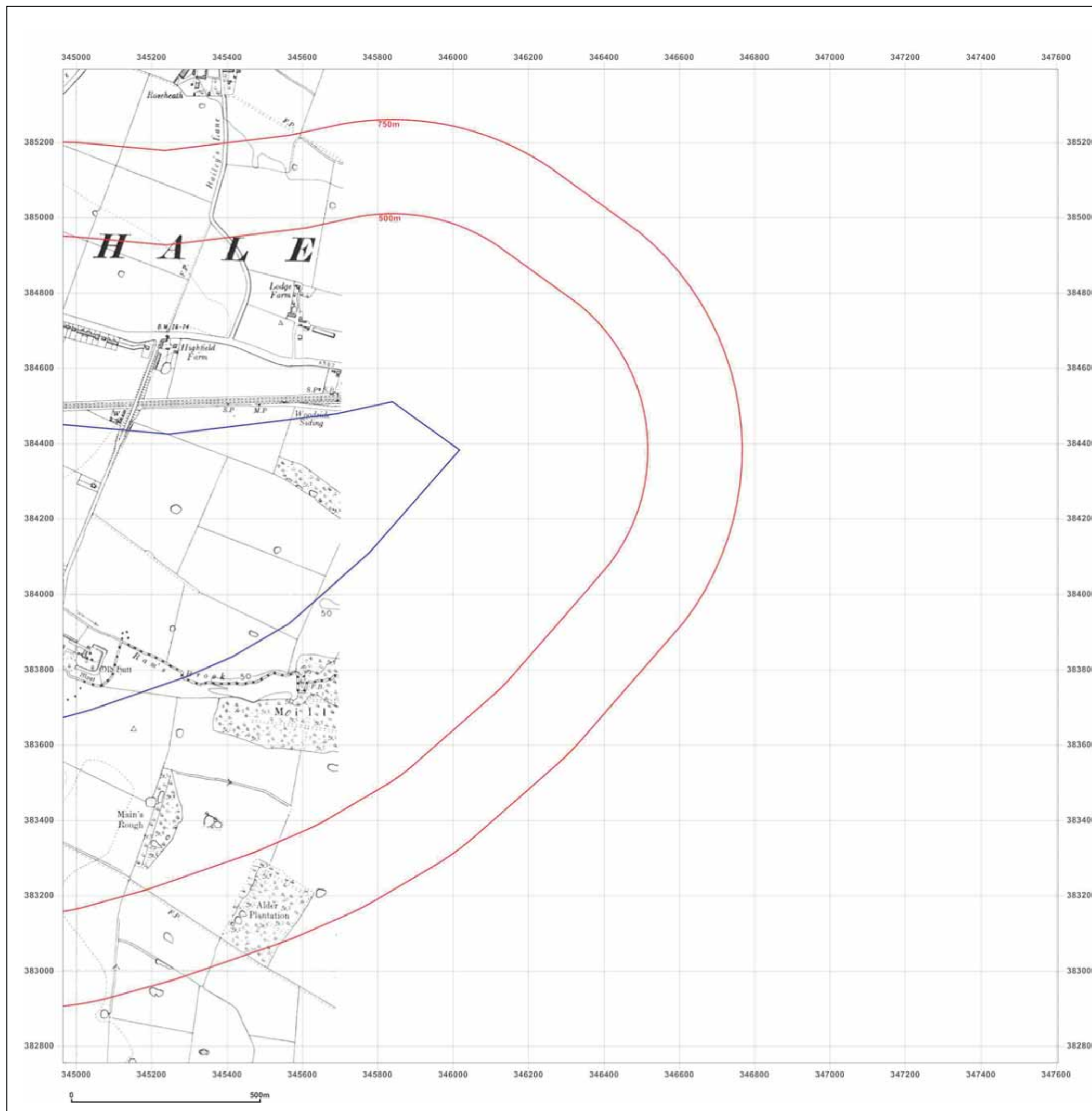


Supplied by:
www.emapsite.com
sales@emapsite.com

© Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 28 January 2016

To view map legend click here [Legend](#)



Site Details:

Client Ref: EMS_343518_462066
Report Ref: EMS-343518_462066_SS_2_1
Grid Ref: 346284, 384074

Map Name: County Series

Map date: 1938

Scale: 1:10,560

Printed at: 1:10,560



Surveyed 1848
Revised 1938
Edition N/A
Copyright N/A
Levelled N/A

Surveyed 1846
Revised 1938
Edition N/A
Copyright N/A
Levelled N/A



Produced by
Groundsure Insights
www.groundsure.com

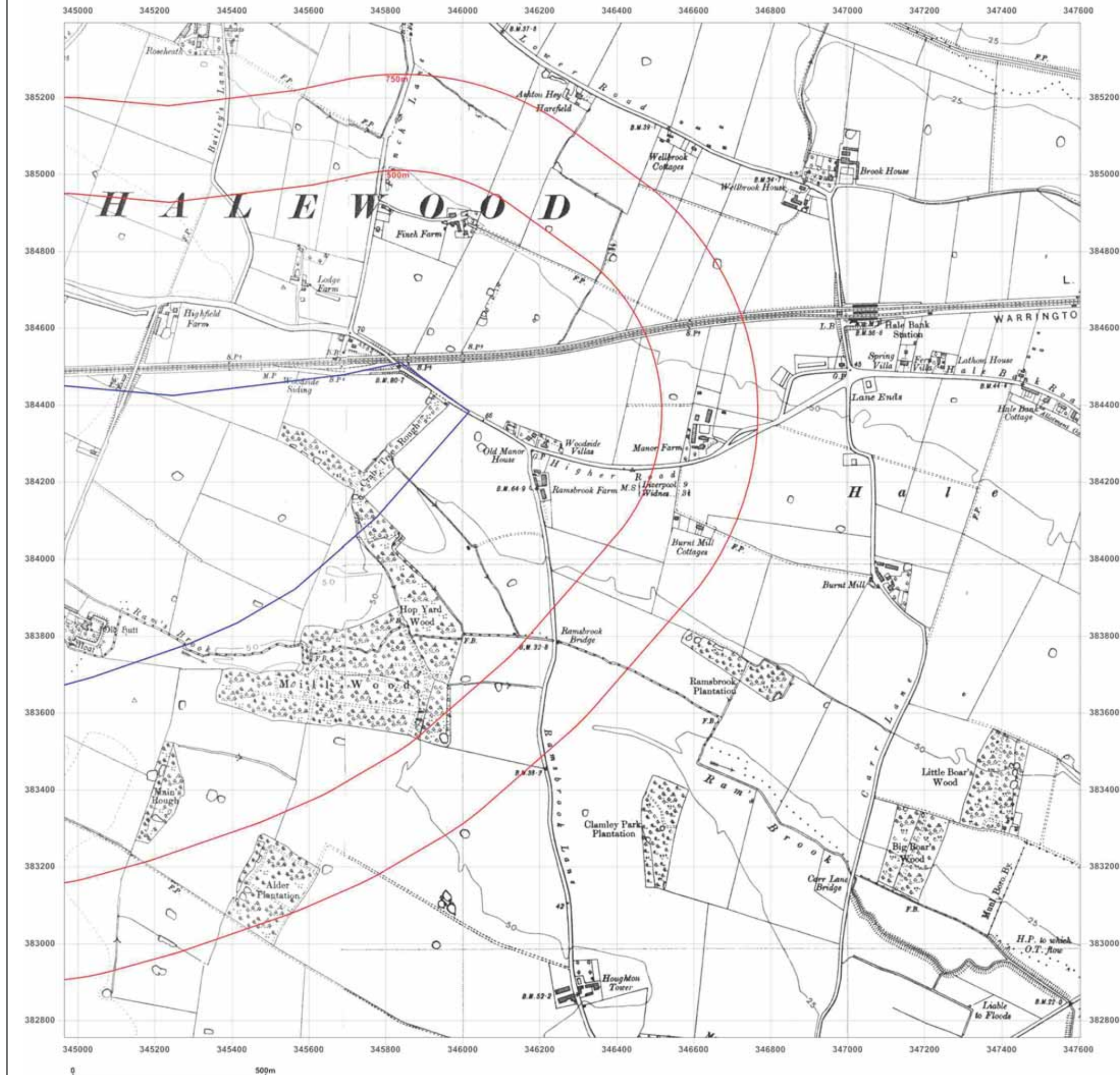


Supplied by:
www.emapsite.com
sales@emapsite.com

© Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 28 January 2016

To view map legend click here [Legend](#)



Site Details:

Client Ref: EMS_343518_462066
Report Ref: EMS-343518_462066_SS_2_1
Grid Ref: 346284, 384074

Map Name: Provisional

Map date: 1954-1956

Scale: 1:10,560

Printed at: 1:10,560



Surveyed 1949
Revised 1949
Edition N/A
Copyright N/A
Levelled N/A

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

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

Surveyed N/A
Revised 1953
Edition 1954
Copyright N/A
Levelled N/A



Produced by
Groundsure Insights
www.groundsure.com

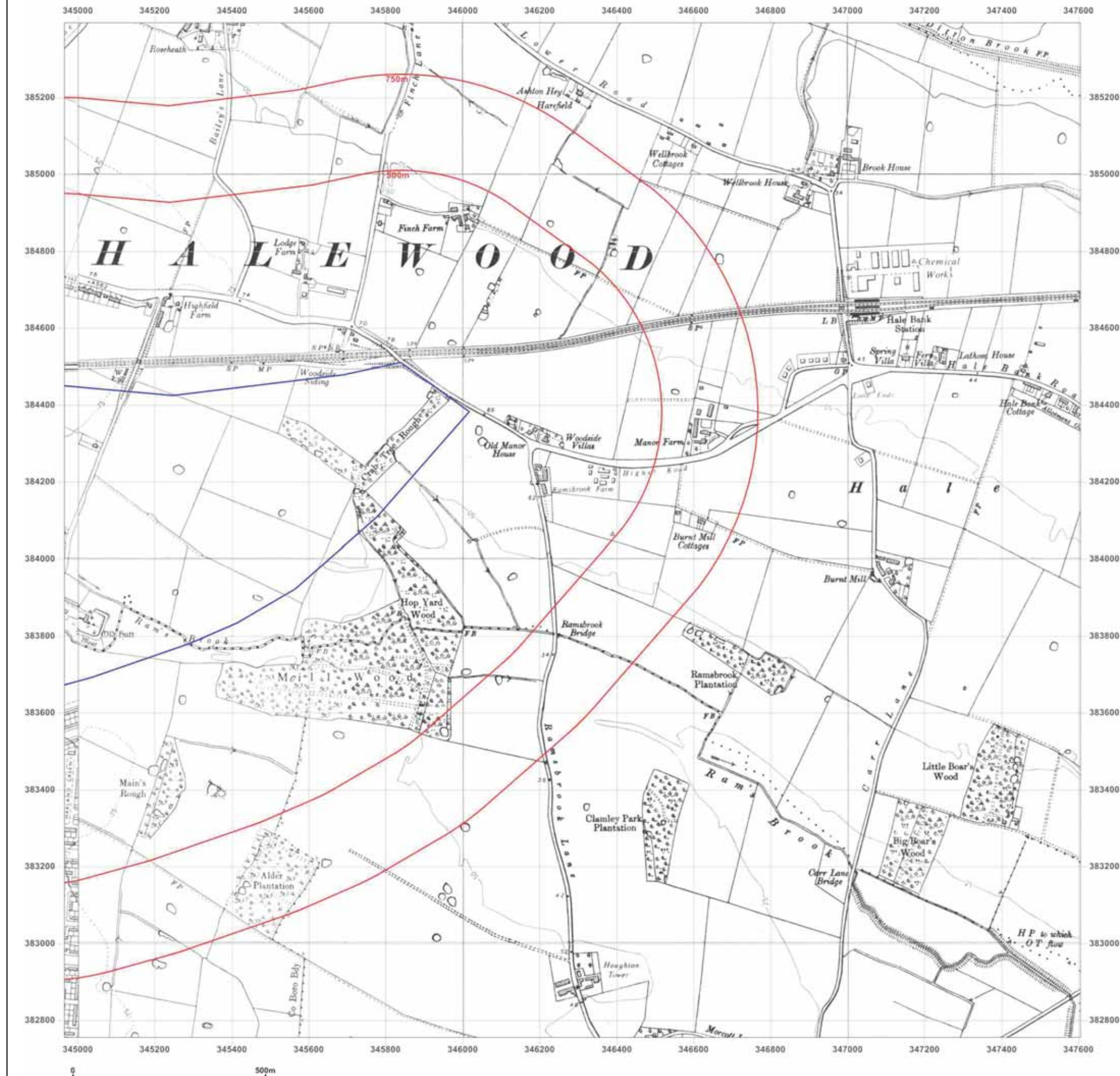


Supplied by:
www.emapsite.com
sales@emapsite.com

© Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 28 January 2016

To view map legend click here [Legend](#)



Site Details:

Client Ref: EMS_343518_462066
Report Ref: EMS-343518_462066_SS_2_1
Grid Ref: 346284, 384074

Map Name: National Grid

Map date: 1968

Scale: 1:10,000

Printed at: 1:10,000



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



Produced by
Groundsure Insights
www.groundsure.com

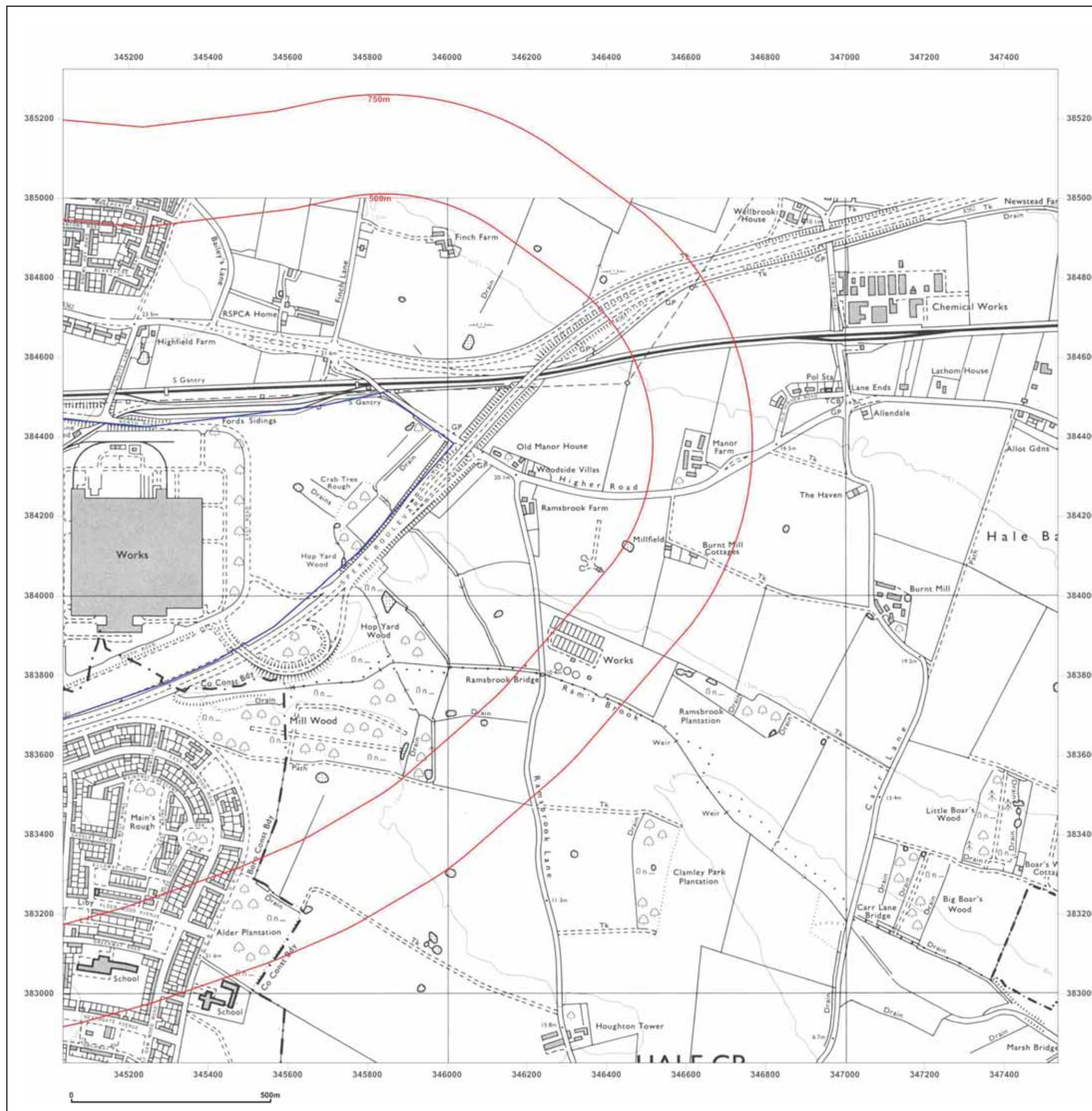


Supplied by:
www.emapsite.com
sales@emapsite.com

© Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 28 January 2016

To view map legend click here [Legend](#)



Site Details:

Client Ref: EMS_343518_462066
Report Ref: EMS-343518_462066_SS_2_1
Grid Ref: 346284, 384074

Map Name: National Grid

Map date: 1982

Scale: 1:10,000

Printed at: 1:10,000



Surveyed 1979
Revised 1982
Edition N/A
Copyright N/A
Levelled N/A



Produced by
Groundsure Insights
www.groundsure.com

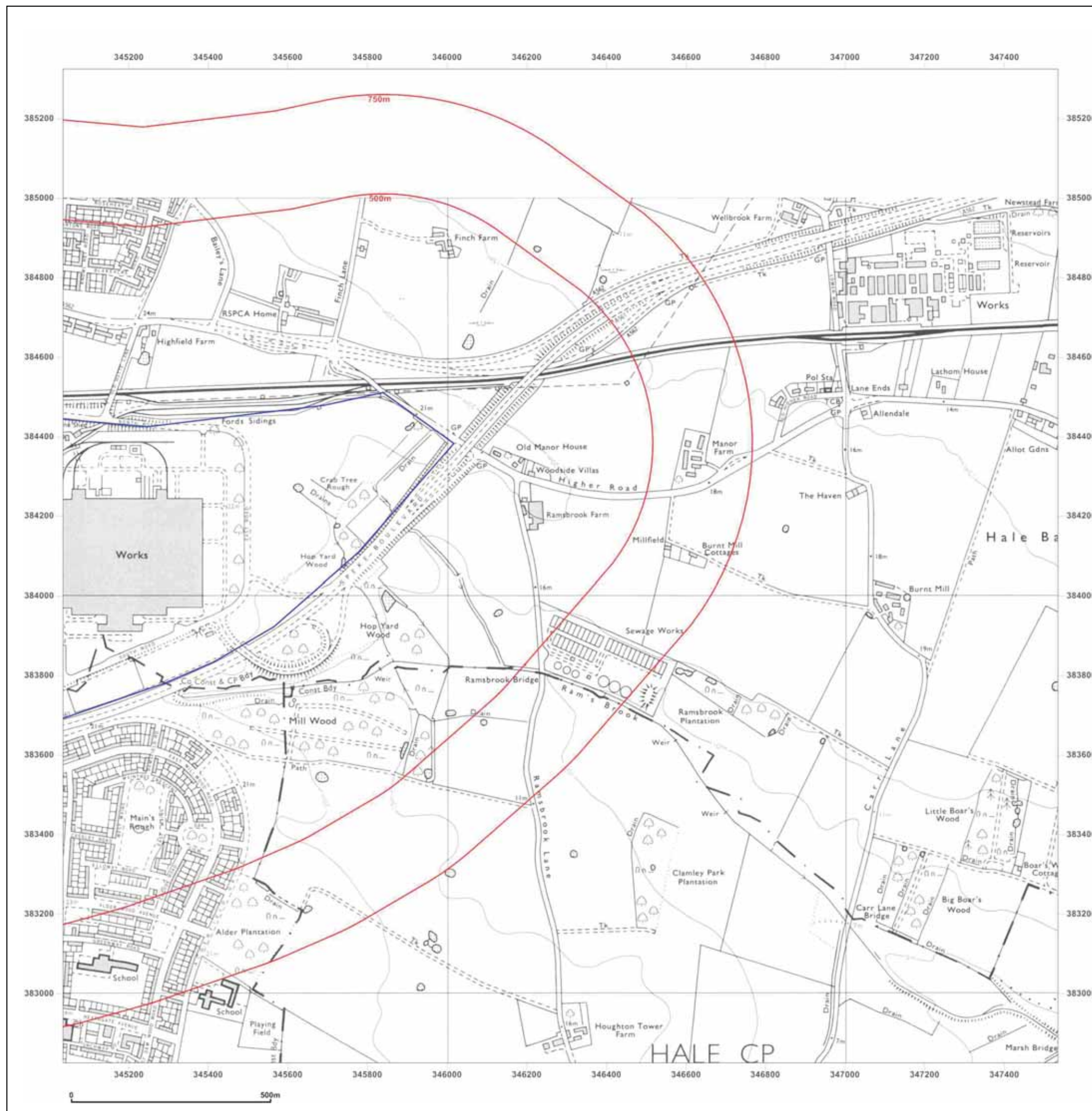


Supplied by:
www.emapsite.com
sales@emapsite.com

© Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 28 January 2016

To view map legend click here [Legend](#)



Site Details:

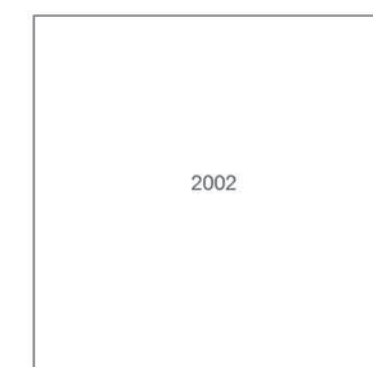
Client Ref: EMS_343518_462066
Report Ref: EMS-343518_462066_SS_2_1
Grid Ref: 346284, 384074

Map Name: 1:10,000 Raster

Map date: 2002

Scale: 1:10,000

Printed at: 1:10,000



Produced by
Groundsure Insights
www.groundsure.com

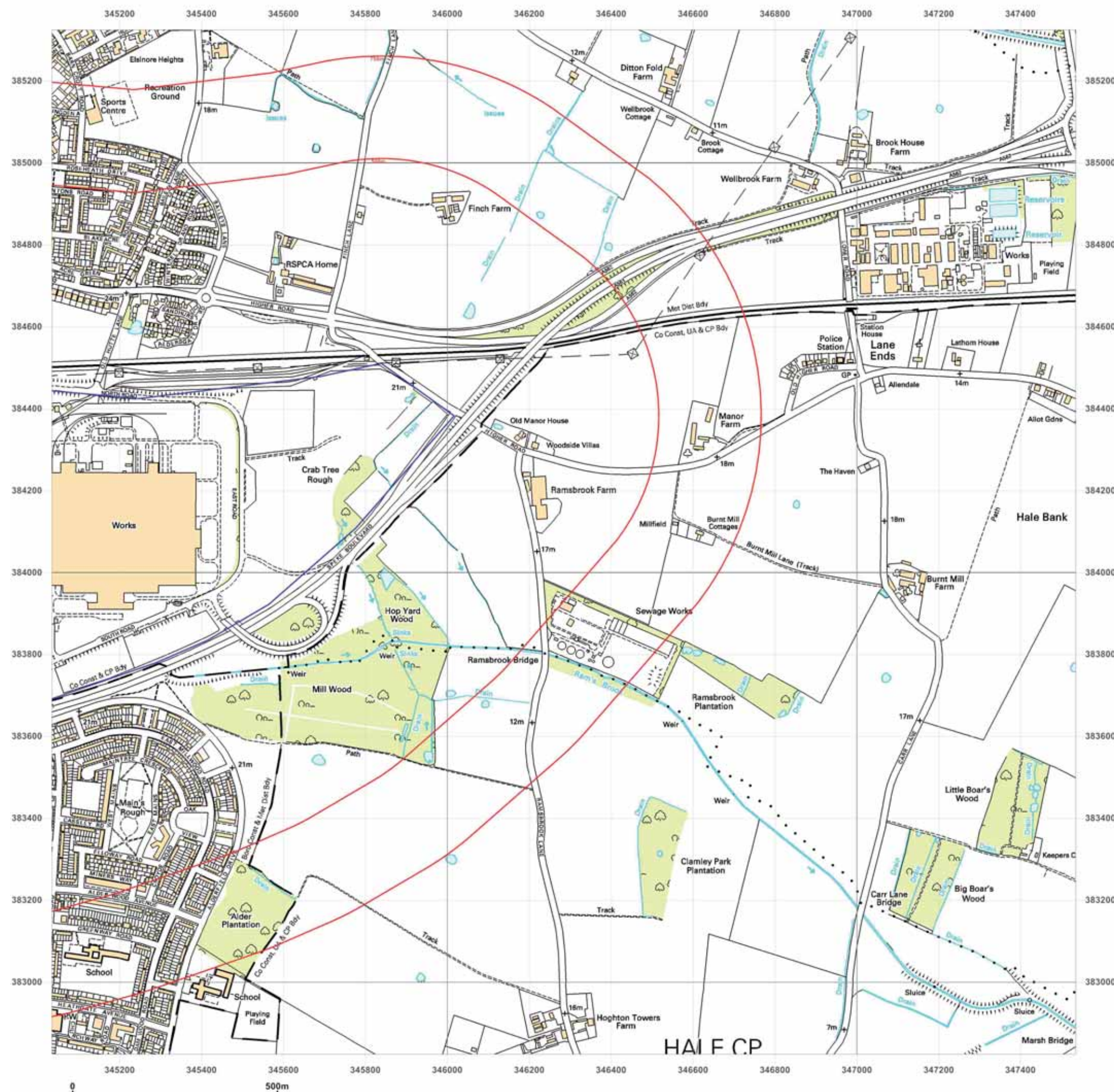


Supplied by:
www.emapsite.com
sales@emapsite.com

© Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 28 January 2016

To view map legend click here [Legend](#)



emapsite™

Site Details:

Client Ref: EMS_343518_462066
Report Ref: EMS-343518_462066_SS_2_1
Grid Ref: 346284, 384074

Map Name:	National Grid
-----------	---------------

Map date: 2010

Scale: 1:10,000

Printed at: 1:10,000



2010



Produced by
Groundsure Insights
www.groundsure.com

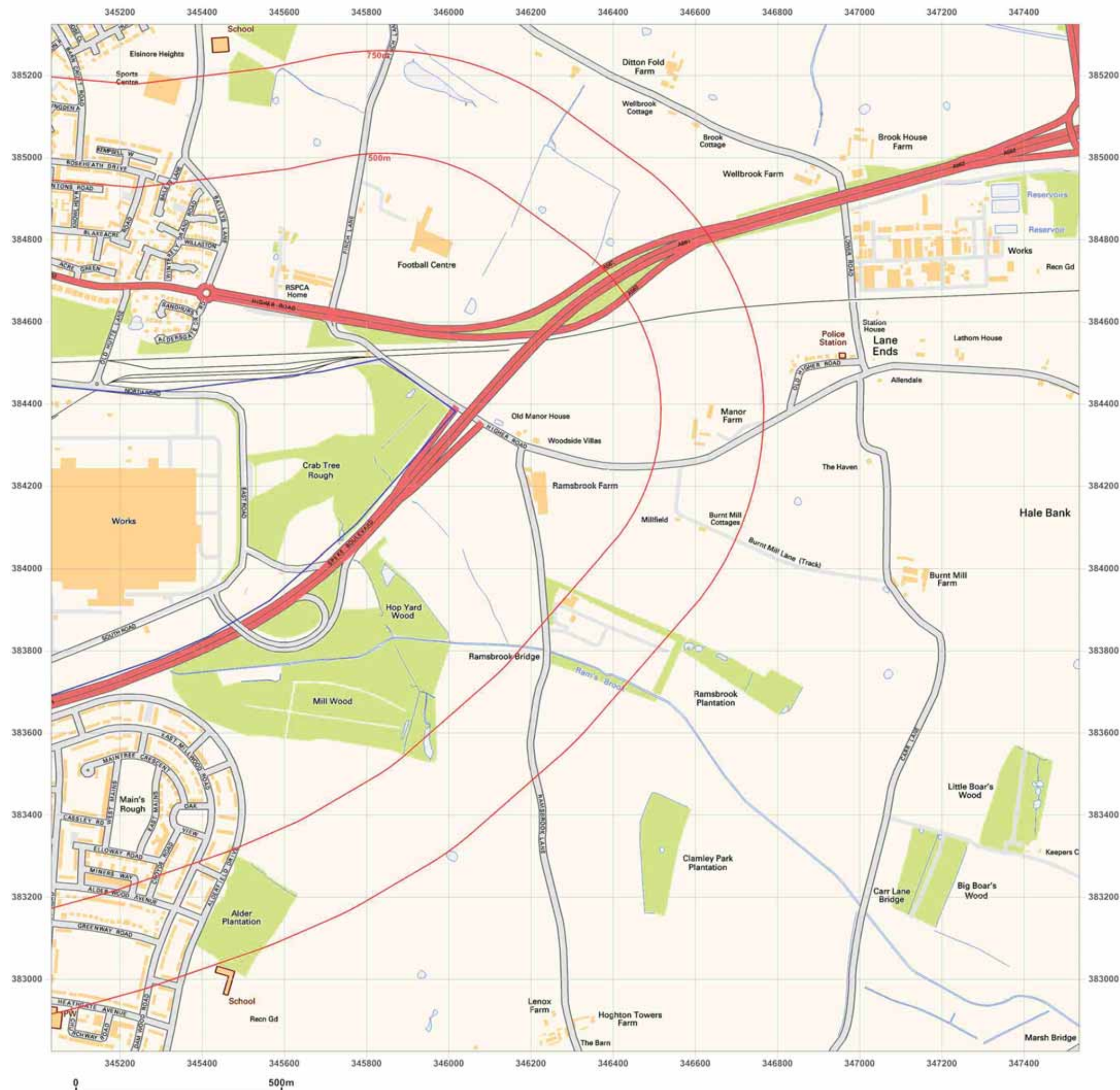


Supplied by:
www.emapsite.com
sales@emapsite.com

© Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 28 January 2016

To view map legend click here [Legend](#)



Site Details:

Client Ref: EMS_343518_462066
Report Ref: EMS-343518_462066_SS_2_1
Grid Ref: 346284, 384074

Map Name: National Grid

Map date: 2014

Scale: 1:10,000

Printed at: 1:10,000



2014



Produced by
Groundsure Insights
www.groundsure.com

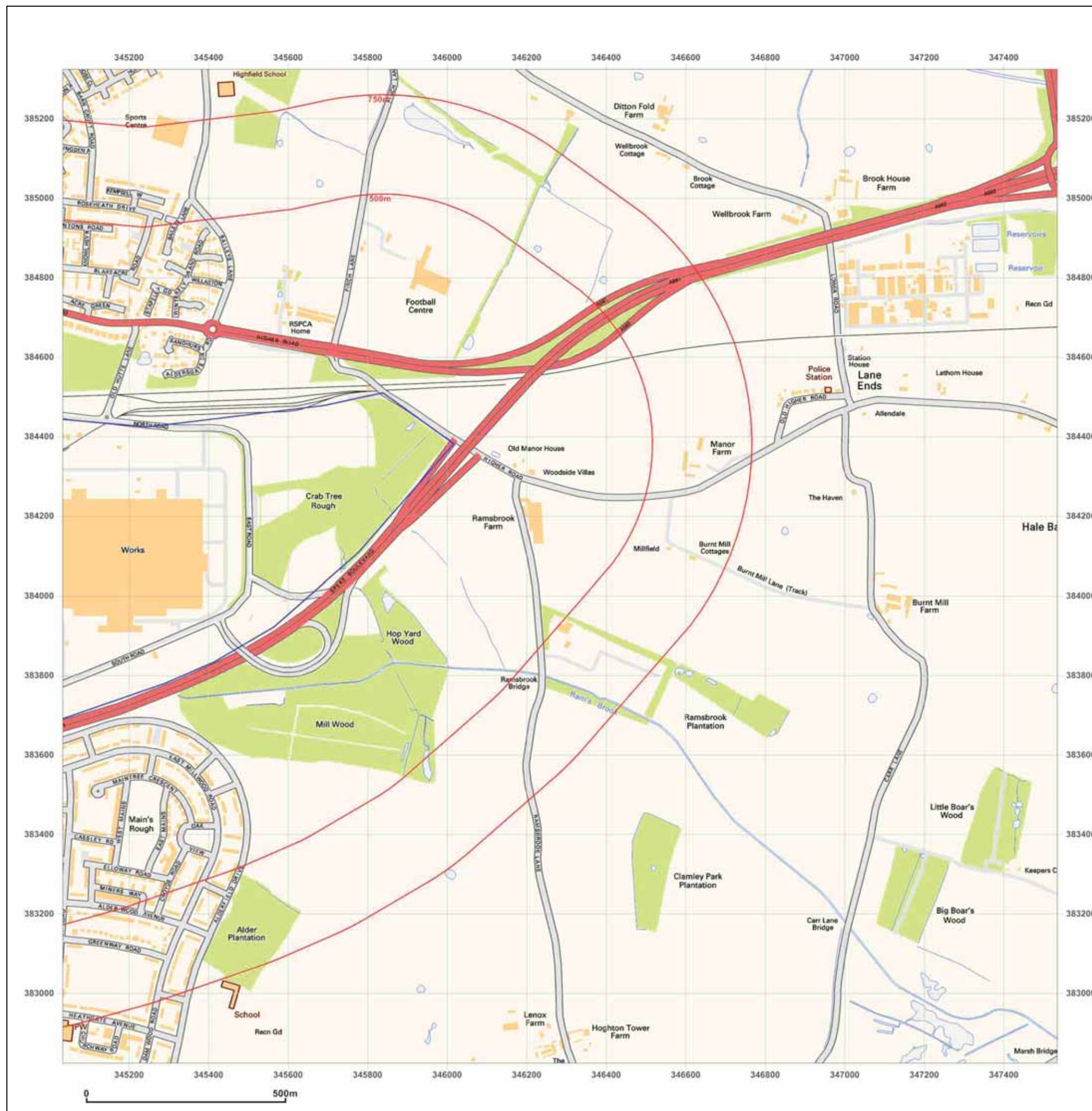


Supplied by:
www.emapsite.com
sales@emapsite.com

© Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 28 January 2016

To view map legend click here [Legend](#)



County Series 1:10,560 scale

National Grid 1:10,000 scale



County Series & National Grid

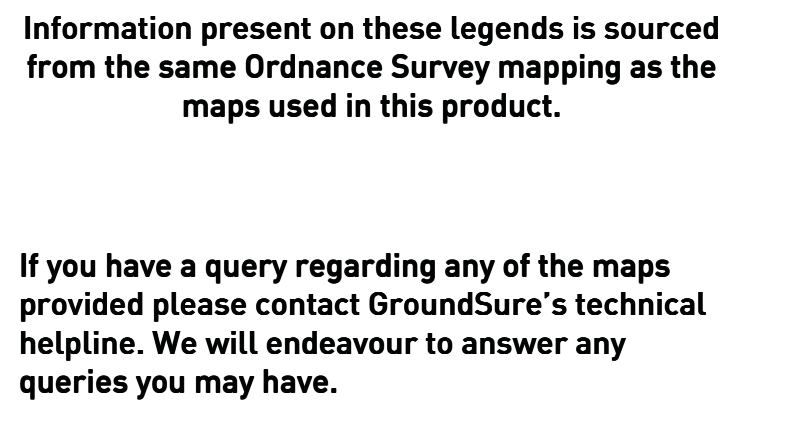
1:10,560 scale

County Series & National Grid

1:10,560 scale

County Series & National Grid

1:10,560 scale



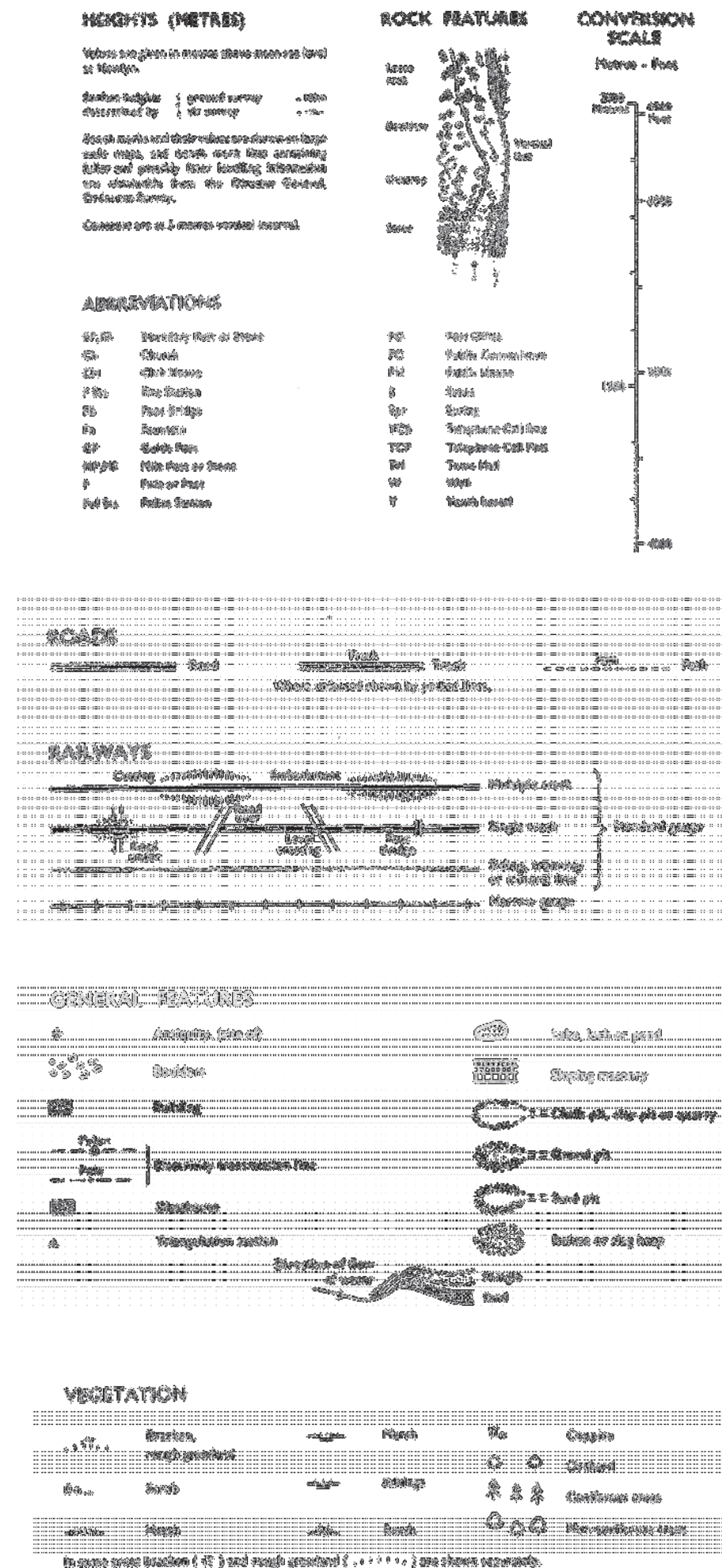
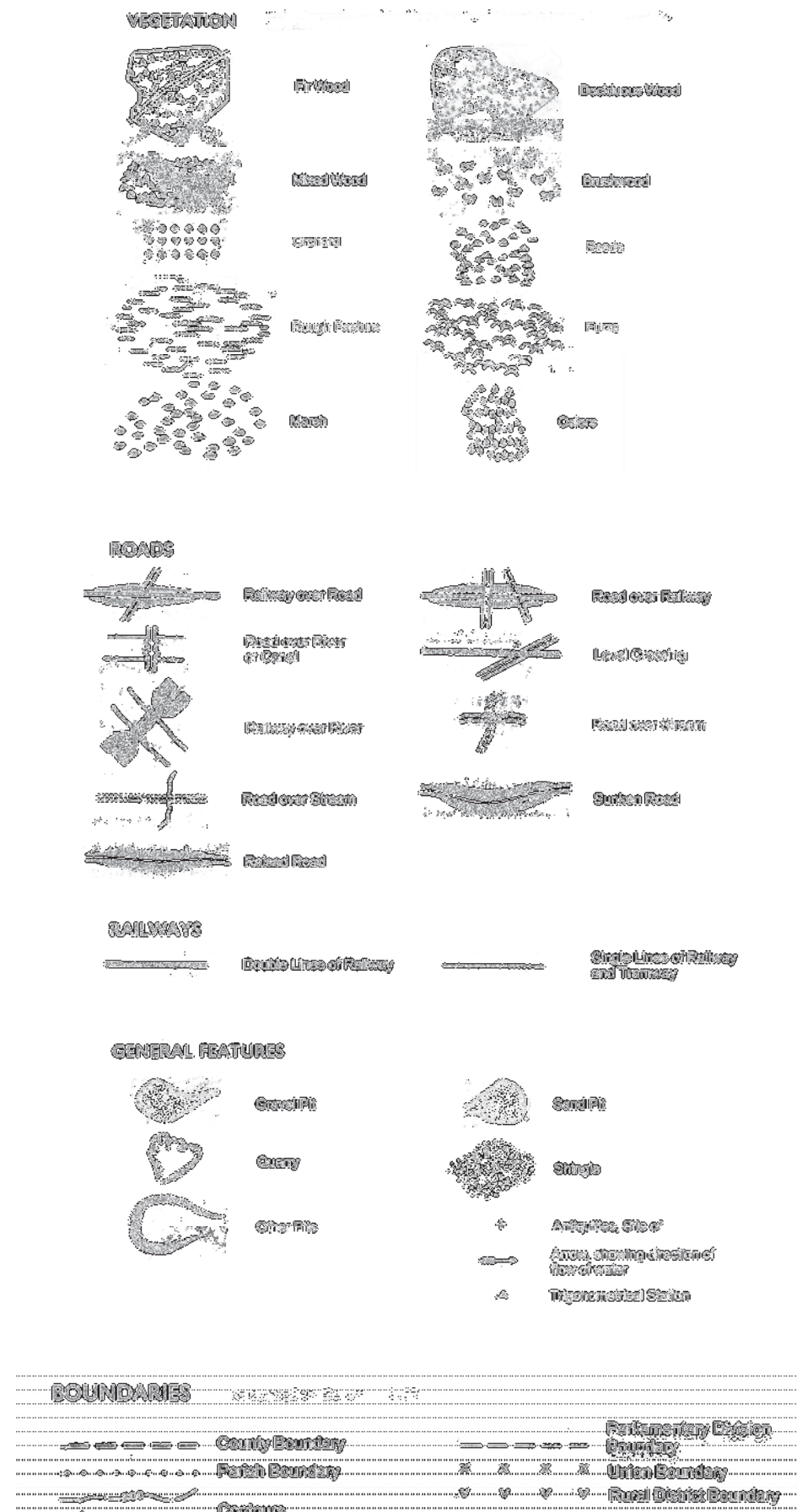
Information present on these legends is sourced from the same Ordnance Survey mapping as the maps used in this product.

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.

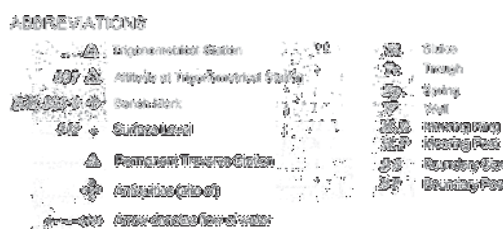
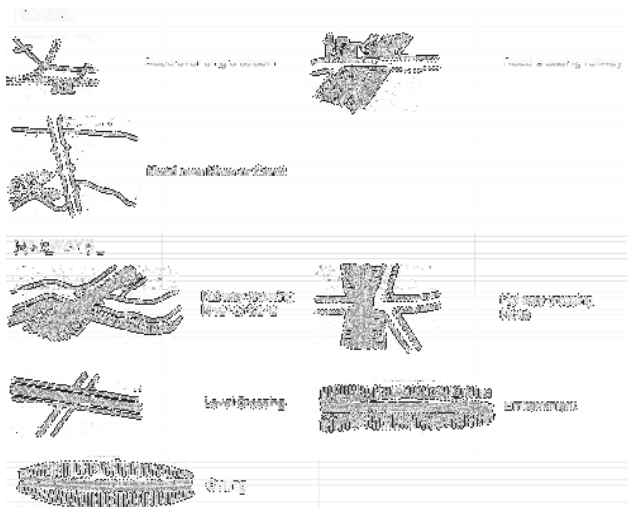
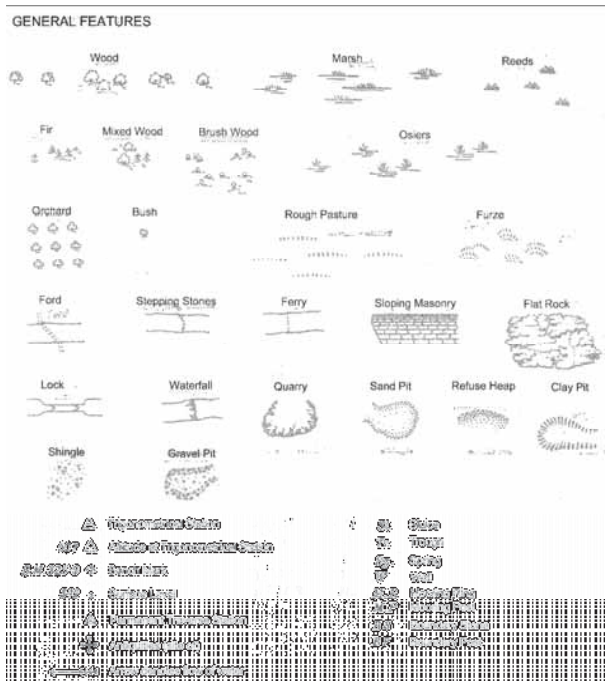
Technical Helpline
Tel 08444159000
groundsureinsight@groundsure.com
www.groundsure.com

Technical Helpline
Tel 08444159000
groundsureinsight@groundsure.com
www.groundsure.com

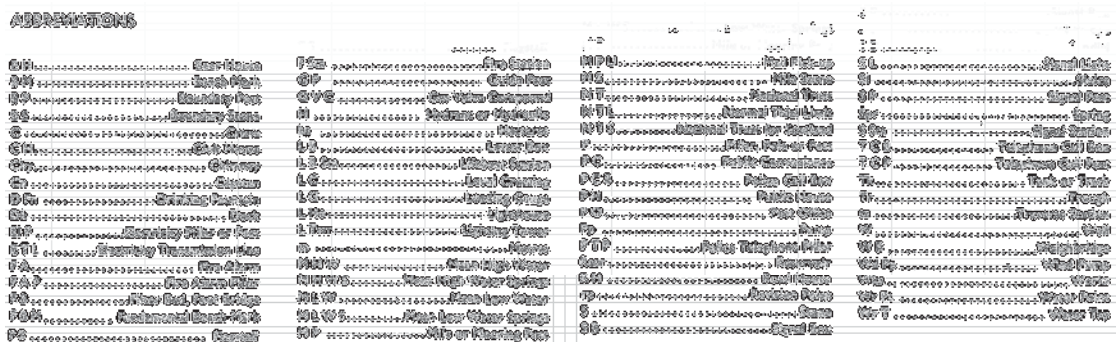
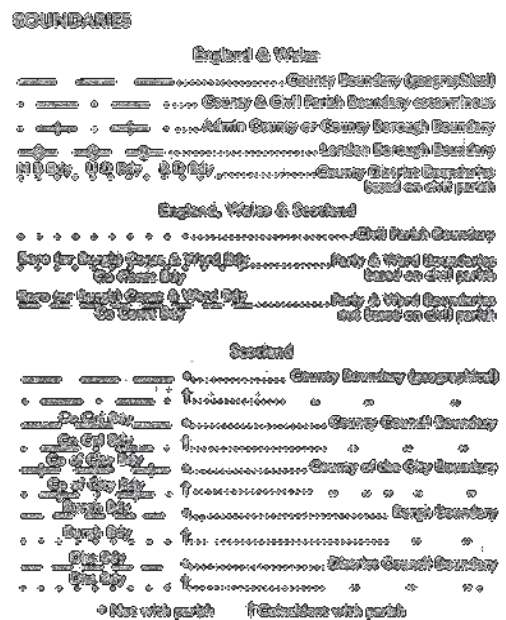
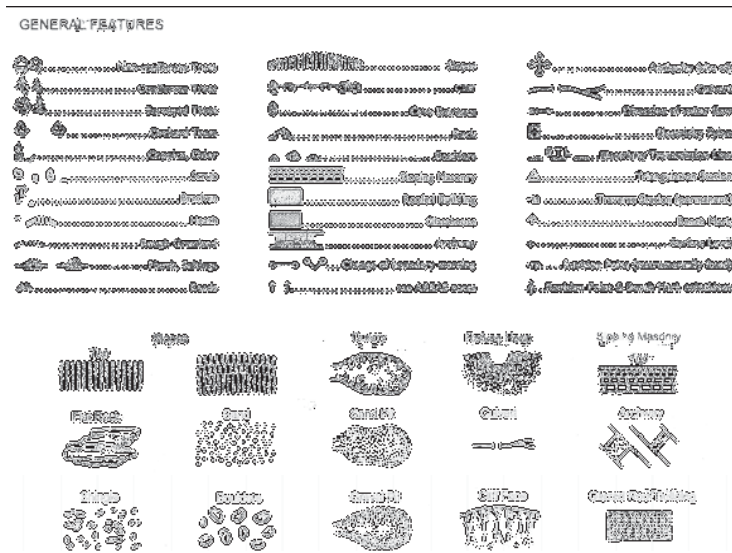
Technical Helpline
Tel 08444159000
groundsureinsight@groundsure.com
www.groundsure.com



County Series 1:2,500 scale



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



Historical Map Pack Legend

County Series

1:1,250 scale



County Series & National Grid

1:2,500 scale

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

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

Technical Helpline:

Tel 08444159000

groundsureinsight@groundsure.com
www.groundsure.com