



Network Space

LAND OFF FARADAY ROAD, KNOWSLEY

Geo-Environmental Preliminary Risk Assessment





Network Space

LAND OFF FARADAY ROAD, KNOWSLEY

Geo-Environmental Preliminary Risk Assessment

PROJECT NO. 70105889

OUR REF. NO. 70105889/12054(R1)

DATE: MARCH 2023

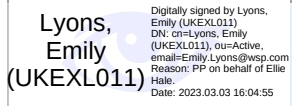
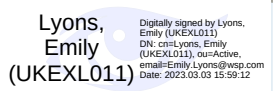
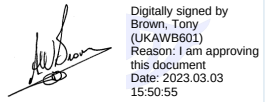
WSP

1st Floor Station House
Tithebarn Street, Exchange Station
Liverpool
L2 2QP

Phone: +44 151 331 8100

WSP.com

QUALITY CONTROL

Issue/revision	First issue	Second Issue	Third Issue	Fourth Issue
Remarks	Version 1	Version 2	Version 3	Version 4
Date	20 July 2020	28 July 2020	27 January 2023	3 March 2023
Prepared by	J. Kinchington / R. Crookes	J. Kinchington / R. Crookes	E. Hale	E. Hale
Signature				
Checked by	P. Gallagher	P. Gallagher	E. Lyons	E. Lyons
Signature				
Authorised by	A McCusker	A McCusker	T. Brown	T. Brown
Signature				
Project number	70073657	70073657	70105889	70105889
Report number	70073657/11638	70073657/11638(1)	70105889/12054	70105889/12054(R1)

CONTENTS

	EXECUTIVE SUMMARY	1
1	INTRODUCTION	3
1.1	AUTHORISATION	3
1.2	OBJECTIVES	3
1.3	SOURCES OF INFORMATION	4
1.4	CONFIDENTIALITY STATEMENT & LIMITATIONS	4
2	SITE INFORMATION	5
2.1	SITE DETAILS	5
2.2	SITE DESCRIPTION	5
3	SITE SETTING AND HISTORY	7
3.1	GEOLOGY	7
3.2	HYDROGEOLOGY	8
3.3	HYDROLOGY	8
3.4	GROUND STABILITY	9
3.5	MINING AND MINERAL SITES	9
3.6	LANDFILLS AND WASTE MANAGEMENT SITES	9
3.7	SITE HISTORY	9
3.8	OTHER REGULATORY INFORMATION	10
3.9	UNEXPLODED ORDNANCE (UXO)	11
4	PRELIMINARY CONCEPTUAL MODEL	12
4.1	INTRODUCTION	12
4.2	PRELIMINARY GROUND MODEL	12
4.3	POTENTIAL CONTAMINANT SOURCES	12

4.4	POTENTIAL RECEPTORS	13
4.5	POTENTIAL EXPOSURE PATHWAYS	13
4.6	POTENTIALLY COMPLETE CONTAMINANT LINKAGES	13
4.7	OTHER CONSIDERATIONS	14
4.8	PRELIMINARY RISK CLASSIFICATION FOR THE SITE	14
5	CONCLUSIONS AND RECOMMENDATIONS	15
5.1	CONCLUSIONS	15
5.2	RECOMMENDATIONS	15

APPENDICES

APPENDIX A - FIGURES

APPENDIX B - PHOTOLOG

APPENDIX C - TOPOGRAPHICAL SURVEY

APPENDIX D - BGS LOGS

APPENDIX E - GROUNDSURE REPORT

APPENDIX F - ZETICA UXO RISK ASSESSMENT

APPENDIX G - CIRIA C5662 INFORMATION

APPENDIX H - LIMITATIONS

EXECUTIVE SUMMARY

Aspect	Summary
Authorisation	WSP UK Ltd (WSP) was initially commissioned on 08 June 2020, by Gleave Partnership, to provide contaminated land services to inform a Planning Application for the development of land off Faraday Road, Knowsley (the application site). However, due to revisions to the site boundary, the report has been re-issued (version 3) following instruction by Network Space in January 2023.
Project Aim	The principal aim of this report is to provide an initial appraisal of potential environmental risks and provide preliminary commentary on ground related development constraints in the context of the proposed use of the application site for an operational vehicle storage facility.
The Site	The site is currently vacant comprising undeveloped shrubland. The site visit in 2020 identified a stockpile of sand with inclusions of concrete and brick in the south of the site, possibly associated with former development onsite. A drainage ditch is present in the southeast which trends in a south-westerly direction before running offsite but remaining parallel to the southern site boundary. It should be noted the site has not been revisited since the completion of the ground investigation follow-up gas and groundwater monitoring in February 2021.
Site History	Development onsite was limited to a railway line associated with the wider surrounding industrial land use, which was present in the centre of site trending in a north-south trajectory from 1959 until 1974. The area around the site became industrial from the mid-1950s and is still used for industry in 2023. An area of potentially infilled land associated with a former ditch is present in the northwest of the site.
Environmental Setting	Geology Made Ground is indicated to be present at the site. Superficial deposits are anticipated to comprise Till overlying the Chester Formation. Hydrogeology The underlying Till is classified as a Secondary Undifferentiated Aquifer whilst the underlying Chester Formation is classified as a Principal Aquifer. Hydrology A drainage ditch bisects the site in the southeast which trends in a south-westerly direction before running offsite but adjacent and parallel to the southern site boundary. The ditch forms part of a wider drainage network in the surrounding area. A canalised tributary of Knowsley Brook is located 330m south of the site.
Conclusions	Based on the contaminant linkage assessment for proposed future use as a commercial development, the following risk classifications have been determined: - With respect to Human Health, the risks have been assessed as Low. - With respect to surface waters, the risks from the site have been assessed as Low; and

Aspect	Summary
	With respect to groundwater (superficial and bedrock aquifers), the risks from the site have been assessed as Low to Moderate.
Recommendations	It was recommended in 2020 that an intrusive ground investigation be undertaken to; - Assess the ground conditions and enable the assessment of potential risks associated with contamination; and - Obtain suitable data to assess engineering properties of the ground. Following recommendations, a preliminary Ground Investigation was conducted by Tetra Tech between December 2020 and January 2021, with follow-up gas and groundwater monitoring of exploratory hole installations between January and February 2021. A further supplementary ground investigation was undertaken by WSP in August 2021. Further information on the completed ground investigation and follow-up gas and groundwater monitoring is provided in the Generic Quantitative Risk Assessment (GQRA) Ref: 70087211 / 11868, dated October 2021. Note that the GQRA provides an assessment of site information related to the former site boundary as reported in Version 1 and 2 of the Preliminary Risk Assessment.

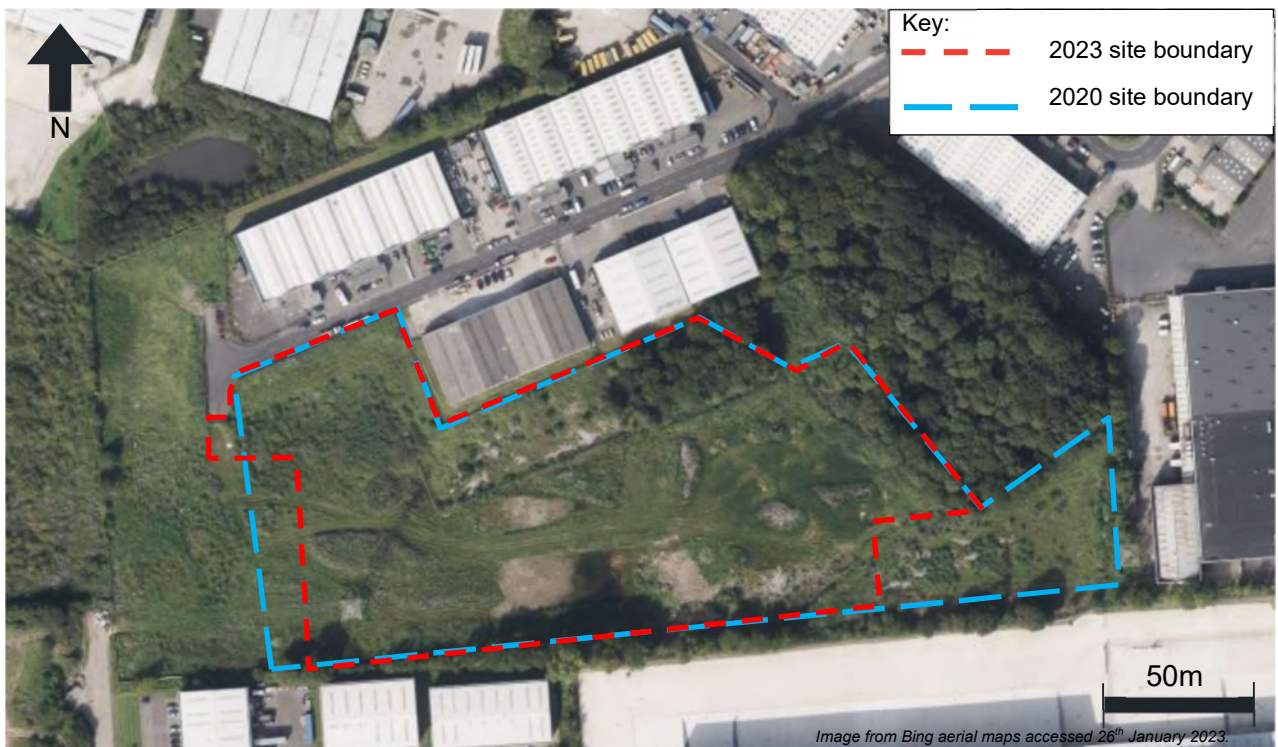
1 INTRODUCTION

1.1 AUTHORISATION

WSP UK Ltd (WSP) was initially commissioned on 8th June 2020, by Gleave Partnership and is now working for Network Space to provide contaminated land services to inform a Planning Application for the development of a site for the storage of operational vehicles, including resurfacing, ancillary parking and ancillary infrastructure at Faraday Road, Knowsley, L33 7UT. A Preliminary Risk Assessment was developed in 2020 (reference 70073657/11638(1)) however there have since been changes to the site red line boundary, therefore this new preliminary risk assessment has been produced in 2023 (reference 70105889/12054). Figure 1 below shows the change from the 2020 boundary and the new 2023 site boundary. The application site (henceforth following the 2023 red line boundary) is approximately 2.71 hectares in size and located at central OS Grid Reference: SJ 42865 97192 (hereafter also referred to as 'the Proposed Development'). The site referred to within this report is the Application Boundary presented in drawing Location Plan (23013-ASA-00EX-SI-D-A-P01_(S2-P1)), Appendix A.

A Proposed Site Plan for the development is presented in in Appendix A in drawing titled Proposed Site Plan (23013-ASA-00-EX-SI-D-A-P03_(S2-P2)).

Figure 1: Site boundary from 2020 and 2023.



1.2

The objectives of the report are to identify potential geo-environmental constraints associated with contaminated land that could affect the redevelopment of the site and to support an application for planning permission.

1.3 SOURCES OF INFORMATION

The information presented in this report has been collated from the following sources:

Table 1-1 - Sources of Information

Source	Report
WSP Obtained Information	- Site walkover completed on 13 July 2020. - Groundsure Report ref GS-9308690 dated 20 January 2023.
Public Information	- British Geological Society (BGS) 1:50,000 Series Geological Map Sheet 84 'Wigan' (Solid & Drift ed). - BGS 'Geoindex Onshore' online viewer accessed on 20 January 2023. - BGS Logs SJ49NW986, SJ49NW1075, SJ49NW1095 and SJ49NW1100 accessed online 20th January 2023. - The Coal Authority Interactive Map Viewer available online, accessed 23rd January 2023. - MAGIC (Defra) environmental data available online, accessed on 15 July 2020. - Knowsley Planning Portal, accessed 23rd January 2023.
Third Party	- Survey Operations, Topographical Survey (ref: 19K155/001) dated January 2020. - Site Location and Layout Plans from Smalley Marsey Rispin (SMR) Architects, dated 2022. Provided in Appendix A.

1.4 CONFIDENTIALITY STATEMENT & LIMITATIONS

This report is addressed to and may be relied upon by the following party:

- Network Space

This assessment has been prepared for the sole use and reliance of the above named party. This report shall not be relied upon or transferred to any other parties without the express written authorisation of WSP. No responsibility will be accepted where this report is used, either in its entirety or in part, by any other party. Note that where this report summarises information provided from external sources, WSP cannot offer any guarantees or warranties for the completeness or accuracy of information relied upon, including previous historical reporting as discussed herein.

The general limitations to the nature of the assessment are outlined in Appendix H.

2 SITE INFORMATION

2.1 SITE DETAILS

A summary of the site details is provided in Table 2 below. A photographic record from the site walkover in 2020 is included in Appendix B. Some superficial features of the site may have changed since the walkover in 2020 however any changes are not expected to change the overall assessment of the site. A site location plan and a site layout plan are provided in Appendix A.

Table 2-1 - Site Details

Item	Details
Site address	Land off Faraday Road, Knowsley, L33 7UT
National Grid Reference	42865, 97192 (approximate centre of the site)
Site Use	The site is currently vacant and comprises undeveloped shrubland. A detailed site description is included in Section 2.2.
Application Site Area	Approximately 2.71 Ha
Site Setting and Surrounding Area	The site is located within the administrative boundary of Knowsley within the centre of Knowsley Industrial Park in a mixed commercial and industrial setting. The site is surrounded by the following land uses: - North - Industrial units forming part of the wider Knowsley Industrial Park including engineering services, hydraulic repair service and motor vehicle dealers. Briton Plantation, a small, forested area accessible to the public, is present adjacent to the northwest. - East – Undeveloped shrubland and the edge of Briton Plantation is directly adjacent to the east. Beyond is a wholesaler with external parking. - South - Industrial units with the East Lancashire Road present approximately 250m south. A commercial development known as Knowsley Business Park is located 400m beyond. - West – Overgrown, rough grassland with commercial / industrial units present beyond. Low rise residential housing associated with the town of Southdene exists 500m west.
Topography	The site generally slopes towards the east of the site from approximately 31m above ordnance datum (AOD) to 34m AOD. A topographical plan from Survey Operations (ref: 19K155/005) is presented in Appendix C (this uses the 2020 red line boundary but the 2023 boundary can be approximated within this).

2.2 SITE DESCRIPTION

The site description presented herein is of the Application Site, based on the site walkover completed on 13 July 2020. A site layout plan is presented in Appendix A and a photographic record from 2020 is presented in Appendix B (note these use the 2020 red line boundary).

The site is irregular in shape and currently comprises rough overgrown grassland with moderately sized pools of standing water observed locally in the central portions of the site. Vegetation clearance is assumed to have been undertaken in 2020, evident by the lack of dense vegetation

along the perimeter noted during the walkover, as indicated by the topographical plan (Appendix C) and stockpiles of tree trunks / presence of wood chippings in localised areas on the surface.

The site is not in current use and no structures were observed to be present; however, a stockpile of sand approximately 1,200m³ in volume with cobbles and boulders of concrete and brick was located in the centre south (this may no-longer be present in 2023). An area of Japanese knotweed was noted approximately 60m southeast of the 2023 red line boundary (within the 2020 boundary), this has the potential to spread onto the subject site.

A large drainage ditch bisects the southeast of the site trending in a south-westerly direction turning offsite and running parallel and adjacent to the southern boundary. This ditch appears to have been recently modified (in 2020), as indicated by the lack of vegetation along the route and the symmetrical ditch dimensions (approximately 1.5m wide and 0.8m deep). A minimal amount of surface water was observed to be flowing in a south / south westerly direction along the length of the drainage route. The ditch appears to be part of a wider drainage network in the surrounding area including the Briton Plantation located adjacent in the northeast.

A high voltage electricity pylon is present in the southwest corner of the site which connects an overhead line in an easterly direction to a second pylon located offsite in the east.

No visual or olfactory evidence of contamination or asbestos containing materials (ACM) was observed during the walkover.

3 SITE SETTING AND HISTORY

3.1 GEOLOGY

Published BGS mapping indicates that the site is within an area of artificial deposits, i.e. Made Ground. Superficial deposits are indicated to comprise Glacial Till (clay, sand, gravel, and boulders varying widely in size and shape) over solid geology of the Chester Formation (conglomerates and reddish brown, cross-bedded, pebbly sandstones with subordinate beds of red-brown mudstone). There are no geological faults within 1km of the site.

The permeability of the Made Ground is recorded by the BGS as low to very high with a mixed flow type. The permeability of the superficial Glacial Till is low to high with a mixed flow type. The bedrock permeability is moderate to high with a mixed flow type.

A number of BGS logs are available for boreholes located in the vicinity, including logs referenced SJ49NW1075, SJ49NW1095, SJ49NW1100 and SJ49NW986 which are presented in Appendix D. The strata recorded in the borehole logs is summarised in Table 3.1 below, which generally confirms geological mapping (i.e. bands of cohesive and granular deposits over sandstone).

Table 3-1 - Historical borehole records (* m bgl = Metres below ground level)

Borehole	Location	Strata recorded	Description
SJ49NW1075	60m southwest	Made Ground: 0.0 - 1.6m bgl*	Firm very sandy very silty organic clay
		Superficial deposits: 1.6 – 5.0m bgl	Very stiff sandy silty slightly gravelly clay
		Bedrock: 5.0 – 6.0m bgl	Brown/yellow completely weathered clayey sandstone
SJ49NW1095	90m southeast	Made Ground: 0.0 - 1.6m bgl	Clayey gravel
		Superficial deposits: 1.6 – 4.0m bgl	Clayey slightly gravelly sand
		Bedrock: 4.0m	Refusal on sandstone
SJ49NW1100	90m south	Made Ground: 0.0 – 3.9m bgl	Silty clays and clayey gravel
		Superficial deposits: 3.9 – 5.3m bgl	Firm silty clay and stiff clay
		Bedrock: 5.3 – 5.5m bgl 5.5 – 7.5m bgl 7.5 – 21.45m bgl	Hard red fissile weathered mudstone Weak red weathered fine sandstone Strong red fine sandstone
SJ49NW986	295m northeast	Made Ground: 0.0 – 0.4m bgl	Hardstanding, gravel and cobbles
		Superficial deposits: 0.4 – 0.65m bgl 0.65 – 1.9m bgl 1.9 – 2.2m bgl	Grey slightly clayey organic sand Firm brown slightly sandy clay Red slightly gravelly fine-medium sand
		Bedrock: 2.20 – 2.30m bgl	Weak red fine sandstone

3.2 HYDROGEOLOGY

Information included within the Groundsure Report (presented in Appendix E) indicates the following:

- The underlying Till is classified as a Secondary Undifferentiated Aquifer, indicating it has variable groundwater characteristics. The underlying Chester Formation is classified as a Principal Aquifer, indicating it has high intergranular and / or fracture permeability and usually provides high level of water storage and may support river base flow on a strategic scale.
- The groundwater vulnerability across the site is classified as high due to a high soil leaching class and infiltration value of >70%, a high superficial geology vulnerability and a high bedrock vulnerability.
- The site lies within a Type 3 Source Protection Zone (Total Catchment). Less than 500m offsite is a Type 2 (Outer catchment) and a Type 3 (Total catchment) Source Protection Zone.
- Four groundwater abstraction licence records are located 450m southwest which all relate to Dairy Crest Limited for evaporative cooling and process water procedures. The licence expiry date is 2015 for two of the records and 2028 for the other two records. Three potable groundwater abstraction licences are located 950m east which were operated by United Utilities. The licences share the same number and are reported as historical although no expiry date has been listed.

BGS borehole log SJ49NW1100, located 90m south of site, indicates groundwater resting at 7.9m bgl in the sandstone bedrock. Based on the local topography, it is considered that groundwater flow will be generally west / southwest towards Knowsley Brook.

There is a moderate potential for groundwater flooding to occur at the surface in the centre and west of the site whilst there is a low potential for groundwater flooding in the east of the site.

The site lies above the Lower Mersey Basin and North Merseyside Permo-Triassic Sandstone Aquifers which have an overall rating of poor due to poor chemical and quantitative ratings (2019).

3.3 HYDROLOGY

A large drainage ditch bisects the southeast of the site trending in a south-westerly direction. It then turns offsite and runs adjacent and parallel to the southern boundary. During the 2020 walkover, the ditch contained a minimal amount of surface water, which appeared to be flowing in a south / south westerly direction along the length of the drainage route. The ditch appears to be part of a wider drainage network in the surrounding area, including a drain adjacent to the northeast site boundary in the Briton Plantation.

A partially canalised tributary of the Knowsley Brook flows east to west approximately 330m south of the site. According to the Water Framework Directive (2019) Knowsley Brook has an overall water quality rating of moderate due to a failed chemical rating and moderate ecological rating.

The site lies within the water body catchment of the Croxteth/Knowsley Brook, the operational catchment of the river Alt and the management catchment of the Alt and Crossens.

The Groundsure report indicates that the site is not within areas that may flood from rivers or from coastal waters. The highest risk from surface water flooding on site and within 50m of the site is 0.3m to 1.0m deep floods with a 1 in 30 year return period.

There are no surface water abstractions within 1km of the site.

3.4 GROUND STABILITY

The Groundsure report classifies the onsite potential for shrink swell clays, running sands, compressible deposits, collapsible deposits and landslides as very low and the risk of ground dissolution of soluble rocks as negligible.

3.5 MINING AND MINERAL SITES

According to the Coal Authority website, the site does not lie within an area affected by coal mining, mining instability or brine compensation.

According to the Groundsure a number of historical surface workings are present in the area surrounding the site; unspecified heaps are located 30m south (1966), 75m southeast (1966-1988) and 85m northwest (1966-1988), a refuse heap is recorded 150m north (1925-1938) and a pond 180m south (1966-1988).

An historical mineral planning area is present 480m east which relates to the surface mineral working of sand.

3.6 LANDFILLS AND WASTE MANAGEMENT SITES

The Groundsure report contains the following information on landfills and waste treatment sites:

- No BGS recorded landfill sites, historical or local authority landfill sites, integrated pollution control registered waste sites or licenced waste management facilities are located within 1km of the site boundary.
- Two waste transfer sites are located within 500m; the closest of which is 260m north and relates to the treatment and processing of vegetable raw materials within the food and drink sector.
- A number of waste exemptions are located within 250m of the site and include:
 - 40m northwest at Faraday Road relating to storage of waste in a secure place/container and treatment of waste food.
 - 110m southwest at Alchemy Way relating to treating waste-screening and blending and using waste in construction.
 - 135m east at Hornhouse Lane relating to storage of waste in a secure place and treatment-crushing of fluorescent tubes.
 - 140m south at Platinum Court relating to treating waste through repair and refurbishment of waste electrical and electronic equipment (WEEE).
 - 190m northeast at Langdons Ltd relating to the treatment of waste food.
 - 195m southeast at Coopers Lane relating to treating waste-crushing fluorescent tubes.

3.7 SITE HISTORY

A review of historical Ordnance Survey (OS) maps has been undertaken to identify potential former sources of contamination. The historical OS maps reviewed are provided within the Groundsure Report in Appendix E with pertinent findings summarised below.

The Site

The earliest mapping from 1867 shows the site as undeveloped rural land forming part of a series of fields separated by fence lines and mature trees. Two ditches are shown bisecting the north-western and south-eastern corners of the site, both trending in a south westerly direction.

No development is shown until 1959 when a railway line on an embankment is seen running through the centre of the site from the north to sidings in the industrial development / works south of the site. At this time, additional earthworks are indicated adjacent to the southern boundary associated with drainage features including a 'sink' which is now labelled at the termination of the southern ditch.

By 1974 the north-western ditch is no longer shown (potentially infilled) and the railway line is labelled as 'dismantled'. The site stays in this configuration until 2003 when the embankment is no longer shown. By 2023 mapping the dismantled railway is no longer labelled.

Surrounding Area

Early mapping shows from the late 19th century shows the site in a rural setting with a number of farms and tree plantations in the area including the (then named) Britain Plantation adjacent in the northeast.

By the late 1930s the surrounding area has been developed and the present-day East Lancashire Road has been constructed. By the mid-1950s industrial land use associated with Knowsley Industrial Park is now located 500m north. Industrial land in the area gradually expands and by 1966 a network of railway sidings has been constructed connecting the industrial cluster located 500m north to an unspecified works now located adjacent to the site in the south. Factories are located within 500m northwest and residential development associated with the town of Southdene is now present 500m northwest.

By the late 1970s industrial land surrounds the majority of the site, now replacing much of the Britain / Briton Plantation which has decreased in size. Two sports grounds are present within 50m to the south and west. The surrounding area continues to gradually develop until 2010 at which point the current 2023 configuration has been reached.

3.8 OTHER REGULATORY INFORMATION

3.8.1 GROUNDSURE REPORT

Additional Regulatory information contained within the Groundsure Report is summarised in Table 3.2 below.

Table 3-2 – Regulatory Information Summary

Groundsure Feature	Details
Control of Major Accident Hazards (COMAH)	One historical COMAH site relating to Euroliters Ltd is located 295m east of the site. Two current COMAH sites; Knowsley Redevelopments Ltd 305m south and Flogas Britain Ltd 440m south.
Licensed Pollutant Release	Five historical licensed pollutant releases are located within 500m of the site; release for surface cleaning process 170m southeast of the site, for coating processes 200m southeast, mineral processes 290m east, unloading of petrol into service station storage 370m southeast and coating processes 384m west.

Groundsure Feature	Details
Pollution Incidents to Controlled Waters (PICW)	One pollution incident is recorded on the site in 2005. The pollutant was inert materials and wastes and it is recorded as having no impact on water or air quality and a significant impact on land. Another incident is recorded in 2003, located 190m northeast of the site involving inorganic chemicals / products which had a minor impact on water and air quality and a significant impact on land. A third incident located 450m south of the site occurred in 2001. The incident involved release of organic chemicals / products which had no impact on water and land and a minor impact on air quality.
Hazardous Substances Storage / Usage Consents	Two consents are located within 500m of the site. Both are located 450m south of the site. Only one gives details indicating it relates to the historical storage of bromine and sodium.
Licensed Industrial Activities	There are many records of licensed industrial activities located within 500m which relate to superseded licences for two activities: an animal and vegetable facility (Knowsley Feed Mill) located 260m north and a chemical manufacturing facility (Contract Chemicals) located 455m south.

3.8.2 KNOWSLEY COUNCIL

The Contaminated Land Officer (CLO) officer was contacted on the 13 July 2020 to enquire about ground conditions within the area and any potential contaminative issues associated with the site. A response has not been received.

3.8.3 KNOWSLEY PLANNING PORTAL

A review of Knowsley Council Planning Portal indicates a number of planning applications in the surrounding area relating to refurbishment of warehouses, erection of warehouse units and reprofiling of bunds. As part of these applications, no pertinent information on ground conditions was available for review.

3.9 UNEXPLODED ORDNANCE (UXO)

The Zetica UXO Risk Map (Appendix F) indicates the site is located in an area at low risk from unexploded ordnances.

A Pre-Desk Study Unexploded Ordnance (UXO) Assessment from Zetica (presented in Appendix F) was undertaken to further assess potential UXO hazard from past military activity. The study showed that there were no records of past military activity on site and no readily available records were found to indicate that the site was bombed, concluding that “a detailed desk study, whilst always prudent, is not considered essential in this instance”.

4 PRELIMINARY CONCEPTUAL MODEL

4.1 INTRODUCTION

The potential risks associated with potential contamination within soil and groundwater are assessed according to the environmental setting / ground model, likely potential sources of contamination and proposed end use of the site.

The source-pathway-receptor model forms the basis of the risk assessment; potential risks are only considered to exist if there is a credible source (e.g. a chemical substance capable of causing harm); a pathway for migration from the source to a receptor; and a sensitive receptor that could be affected (e.g. nearby river or site user). A source-pathway-receptor contaminant linkage assessment is termed a conceptual site model (CSM). A preliminary CSM is produced prior to intrusive ground investigation and is refined following collection of site-specific data.

4.2 PRELIMINARY GROUND MODEL

The ground conditions across the site are anticipated to comprise varying thicknesses of Made Ground with possible deeper Made Ground likely present within the former railway track and embankment footprint and the infilled ditch in the northwest. Underlying the Made Ground, Till (a Secondary Undifferentiated Aquifer) is anticipated likely comprising sand and clays to approximately 5m bgl over the Chester Formation (a Principal Aquifer).

The presence of granular deposits underlying the site has the potential to enable the migration of mobile contamination. The likely presence of low permeability strata between granular soils, as indicated by BGS historical logs will reduce the vertical and lateral migration of contaminants in groundwater however due to the anticipated shallow bedrock and the limited thickness of the cohesive deposits, the afforded protection will be limited.

Based on the available information, perched water may be present at relatively shallow depths within the superficial deposits with the main groundwater body anticipated to lie within the deeper sandstone. Based on the local topography, it is considered that groundwater flow will generally be west / southwest.

4.3 POTENTIAL CONTAMINANT SOURCES

A number of areas of potential concern (APCs) have been identified both onsite and in the immediate surrounds in relation to potential for historical/contemporary ground contamination. The table below provides a summary of the APCs and the potential contamination sources in each APC. The areas of potential concern (APC) are indicated in Appendix A (note the 2020 red line boundary and site visit was used in these figures however the APC areas are still relevant to the new 2023 red line boundary).

Table 4-1 - Areas of Potential Concern / Contamination Sources

ACP No.	APC Description	Potential Source / Example contaminants of concern
Onsite		
APC1	Route of former embankment and railway line	Total petroleum hydrocarbons (TPH), Polyaromatic hydrocarbons (PAH), metals, asbestos containing material (ACM) / asbestos fibres.
APC2	Potentially infilled ditch in the northwest.	TPH, PAH, metals, asbestos or asbestos containing material (ACM), ground gas
APC3	Made Ground at the site (including stockpile, if still present)	TPH, PAH, metals, asbestos or ACM, ground gas
Offsite		
APC4	Former and current areas of industry adjacent to the site	TPH, PAH, metals, volatile organic compounds (VOCs) asbestos or ACM, ground gas

4.4 POTENTIAL RECEPTORS

Based on current site use, intended future use (commercial) and the surrounding environment, the potential receptors are considered to include the following:

Human Health Receptors

- Construction workers during redevelopment.
- Neighbouring site users during redevelopment.
- Future site users.
- Future maintenance workers.

Controlled Waters Receptors

- Onsite drainage ditches in the southeast and south.
- Knowsley Brook 330m south.
- Groundwater within the Secondary Undifferentiated Aquifer (Glacial Till).
- Groundwater within the Principal Aquifer (sandstone bedrock).

4.5 POTENTIAL EXPOSURE PATHWAYS

Relevant potential pathways are considered to include the following.

- Direct contact, ingestion and inhalation of soil bound contaminants / dust.
- Inhalation of vapours associated with volatile soil / groundwater contamination or ground gas.
- Migration of leachable / mobile contamination through soil, groundwater and surface water.
- Accumulation of ground gas resulting in a potentially explosive / asphyxiating atmosphere.

4.6 POTENTIALLY COMPLETE CONTAMINANT LINKAGES

Given the above sources, pathways and receptors, the following contaminant linkages are considered to be potentially viable:

1. Direct contact, ingestion or inhalation of soil-bound contamination during redevelopment by construction workers and neighbouring site users.
2. Direct contact, ingestion or inhalation of soil-bound contamination by future site users and maintenance workers in areas of soft landscaping, following redevelopment.
3. Migration of mobile contamination to the wider surface water / groundwater environment

The following may not be ruled out at this stage but are considered less likely to be viable:

4. Inhalation of vapours associated with ground contamination by construction workers, future site users and neighbouring site users following development (i.e. low potential for volatile contamination at the site).
5. Inhalation of ground gases by construction workers during development and future site users following redevelopment (i.e. open nature of the proposed development).

4.7 OTHER CONSIDERATIONS

It will be necessary to demonstrate the following during redevelopment:

- Any materials imported to site are suitable for use.
- Excess soils generated by the redevelopment (e.g. the stockpiled soils) destined for landfill have been appropriately classified for disposal.
- Material being re-used within the development (e.g. excavated soil) is suitable for use, preferably via the use of a CL:AIRE Definition of Waste Code of Practice-compliant Materials Management Plan (MMP).

4.8 PRELIMINARY RISK CLASSIFICATION FOR THE SITE

Based on the contaminant linkage assessment completed for the site in consideration of its proposed future use for a commercial end use the following CIRIA C552 risk classifications have been determined:

- With respect to Human Health, the risks have been assessed as Low.
- With respect to surface waters, the risks from the site have been assessed as Low; and
- With respect to groundwater (superficial and bedrock aquifers), the risks from the site have been assessed as Low to Moderate.

Information on the CIRIA C552 Risk Assessment classification tables is included in Appendix G.

5 CONCLUSIONS AND RECOMMENDATIONS

5.1 CONCLUSIONS

Widespread gross contamination is not anticipated to be present beneath the site. There is potential for localised soil and / or groundwater contamination at the site associated with the former railway track and embankment, potentially infilled ditch in the northwest, stockpile in the south (assuming still present – identified during 2020 walkover and site not revisited in 2023) and Made Ground deposits which are indicated to be present across the site. Adjacent land uses (current and historical) also represent a potential source of contamination.

The presence of granular deposits has the potential to enable the migration of mobile contamination in the upper superficial deposits easily and potentially into the underlying bedrock which has been recorded at shallow depths (approximately 5m bgl). The underlying Principal Aquifer may be offered some protection from shallow mobile contamination given the presence of cohesive low permeability deposits.

Whilst the proposed end-use of the site has a relatively low sensitivity in relation to human health, a number of potentially complete contaminant linkages have been identified, predominantly in relation to construction workers during redevelopment and future users in areas of soft landscaping along with potential risks to controlled waters, which require further consideration.

5.2 RECOMMENDATIONS

It was recommended in 2020 that an intrusive ground investigation be undertaken to;

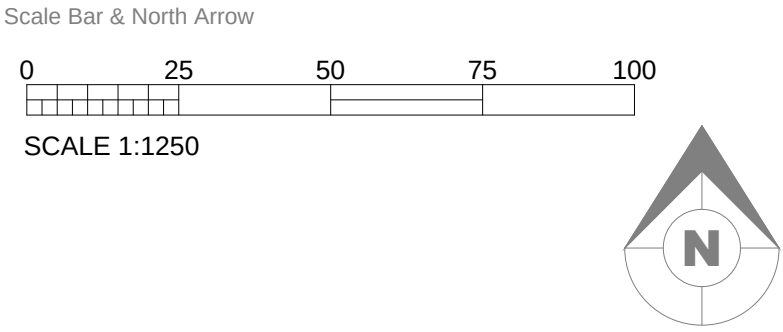
- Assess the ground conditions and enable the assessment of potential risks associated with contamination; and
- Obtain suitable data to assess engineering properties of the ground.

Following recommendations, a preliminary Ground Investigation was conducted by Tetra Tech between December 2020 and January 2021, with follow-up gas and groundwater monitoring of exploratory hole installations between January and February 2021. A further supplementary ground investigation was undertaken by WSP in August 2021.

Further information on the completed ground investigation and follow-up gas and groundwater monitoring is provided in the Generic Quantitative Risk Assessment (GQRA) Ref: 70087211 / 11868, dated October 2021. Note that the GQRA provides an assessment of site information related to the former site boundary (from 2020) as reported in Version 1 and 2 of the Preliminary Risk Assessment.

Appendix A

FIGURES **wsp**



IMAGES TAKEN FROM GOOGLE EARTH SHOWING LOCATION OF SITE



LOCATION PLAN
1:1250

LOCATION PLAN:

NOTES:

- APPLICATION BOUNDARY (Acres/Hectares) 5.80 Acres / 2.35 Ha
- OWNERSHIP BOUNDARY (Acres/Hectares) 14.28 Acres / 5.78 Ha

© Crown copyright and database rights 2020 Ordnance Survey 0100031673

PROJECT TITLE
VAN STORAGE AREA
FARADAY ROAD, KNOWSLEY

DRAWING TITLE
LOCATION PLAN

RIBA STAGE N/A	STATUS PLANNING	DRAWN BY LF	CHECKED BY KN
SHEET A1	SCALE 1 : 1250	DATE 24/01/2023	SUITABILITY S2
		REVISION P1	

DRAWING NO.
23013 - ASA - 00 - EX - SI - D - A - P01_ (S2 - P1)

CUSTOMER
network
space

AshtonSmith
Beyond Design

Ashton Smith, Belvedere House, 2 Victoria Avenue, Harringale, North Yorkshire, HG1 3EL
Tel: 01423 522882 Fax: 01423 565104
www.ashtonsmith.co.uk

31032

100





Key

- Application Site Boundary
- - - Drainage Ditches

Existing and historical areas of potential concern (indicative locations only)

APC1 - Former railway sidings
 APC2 - Potentially infilled ditch
 APC3 - Made Ground
 APC4 - Former and current offsite industry



TITLE:

70073657 Land of Faraday Road

FIGURE No:

Figure 3 - Areas of Potential Concern

Appendix B

PHOTOLOG **wsp**



Photo 1: West facing - high voltage electricity pylon located in the south-western corner.



Photo 2: Localised area of exposed bare ground in the southwest.



Photo 3: Stockpile of predominantly granular material with inclusions of brick and concrete cobbles / boulder located in the south.



Photo 4: Offsite drainage ditch located to the northeast trending in a south easterly direction.



Photo 5: West facing - overgrown scrubland with wood chippings in foreground indicating vegetation clearance.



Photo 6: South facing - stockpile in the background.



Photo 7: Modified onsite drainage channel along the southern site boundary. Water observed to be flowing in a south-westerly direction.



Photo 8: Onsite drainage channel redirected offsite in the south.



Photo 9: North facing - overgrown vegetation with adjacent industrial units beyond.



Photo 10: North facing - small stockpile of tree trunks.

Appendix C

TOPOGRAPHICAL SURVEY 

Appendix D

BGS LOGS **wsp**



**British
Geological Survey**

NATURAL ENVIRONMENT RESEARCH COUNCIL

Version 2.0.6

BGS ID: 17560183 : BGS Reference: SJ49NW986

British National Grid (27700) : 343210,397450

[Report an issue with this borehole](#)

<<

< Prev

Page 1 of 2

Next >

>>

CAPITA SYMMONDS (Structures) Ltd		Project : GVO Earthworks		Borehole Hole No. DS05	
J20 Number : 00000000		J20 Number : 00000000		J20 Number : 00000000	
J20 Number : 00000000		J20 Number : 00000000		J20 Number : 00000000	
J20 Number : 00000000		J20 Number : 00000000		J20 Number : 00000000	
SAMPLING DATA					
Depth (m)	Type	Test Result	Depth (m)	Test Result	Test Result
0.00			0.00		
0.50			0.50		
1.00			1.00		
1.50			1.50		
2.00			2.00		
2.50			2.50		
3.00			3.00		
3.50			3.50		
4.00			4.00		
4.50			4.50		
5.00			5.00		
5.50			5.50		
6.00			6.00		
6.50			6.50		
7.00			7.00		
7.50			7.50		
8.00			8.00		
8.50			8.50		
9.00			9.00		
9.50			9.50		
10.00			10.00		
10.50			10.50		
11.00			11.00		
11.50			11.50		
12.00			12.00		
12.50			12.50		
13.00			13.00		
13.50			13.50		
14.00			14.00		
14.50			14.50		
15.00			15.00		
15.50			15.50		
16.00			16.00		
16.50			16.50		
17.00			17.00		
17.50			17.50		
18.00			18.00		
18.50			18.50		
19.00			19.00		
19.50			19.50		
20.00			20.00		
20.50			20.50		
21.00			21.00		
21.50			21.50		
22.00			22.00		
22.50			22.50		
23.00			23.00		
23.50			23.50		
24.00			24.00		
24.50			24.50		
25.00			25.00		
25.50			25.50		
26.00			26.00		
26.50			26.50		
27.00			27.00		
27.50			27.50		
28.00			28.00		
28.50			28.50		
29.00			29.00		
29.50			29.50		
30.00			30.00		
30.50			30.50		
31.00			31.00		
31.50			31.50		
32.00			32.00		
32.50			32.50		
33.00			33.00		
33.50			33.50		
34.00			34.00		
34.50			34.50		
35.00			35.00		
35.50			35.50		
36.00			36.00		
36.50			36.50		
37.00			37.00		
37.50			37.50		
38.00			38.00		
38.50			38.50		
39.00			39.00		
39.50			39.50		
40.00			40.00		
40.50			40.50		
41.00			41.00		
41.50			41.50		
42.00			42.00		
42.50			42.50		
43.00			43.00		
43.50			43.50		
44.00			44.00		
44.50			44.50		
45.00			45.00		
45.50			45.50		
46.00			46.00		
46.50			46.50		
47.00			47.00		
47.50			47.50		
48.00			48.00		
48.50			48.50		
49.00			49.00		
49.50			49.50		
50.00			50.00		
50.50			50.50		
51.00			51.00		
51.50			51.50		
52.00			52.00		
52.50			52.50		
53.00			53.00		
53.50			53.50		
54.00			54.00		
54.50			54.50		
55.00			55.00		
55.50			55.50		
56.00			56.00		
56.50			56.50		
57.00			57.00		
57.50			57.50		
58.00			58.00		
58.50			58.50		
59.00			59.00		
59.50			59.50		
60.00			60.00		
60.50			60.50		
61.00			61.00		
61.50			61.50		
62.00			62.00		
62.50			62.50		
63.00			63.00		
63.50			63.50		
64.00			64.00		
64.50			64.50		
65.00			65.00		
65.50			65.50		
66.00			66.00		
66.50			66.50		
67.00			67.00		
67.50			67.50		
68.00			68.00		
68.50			68.50		
69.00			69.00		
69.50			69.50		
70.00			70.00		
70.50			70.50		
71.00			71.00		
71.50			71.50		
72.00			72.00		
72.50			72.50		
73.00			73.00		
73.50			73.50		
74.00			74.00		
74.50			74.50		
75.00			75.00		
75.50			75.50		
76.00			76.00		
76.50			76.50		
77.00			77.00		
77.50			77.50		
78.00			78.00		
78.50			78.50		
79.00			79.00		
79.50			79.50		
80.00			80.00		
80.50			80.50		
81.00			81.00		
81.50			81.50		
82.00			82.00		
82.50			82.50		
83.00			83.00		
83.50			83.50		
84.00			84.00		
84.50			84.50		
85.00			85.00		
85.50			85.50		
86.00			86.00		
86.50			86.50		
87.00			87.00		
87.50			87.50		
88.00			88.00		
88.50			88.50		
89.00			89.00		
89.50			89.50		
90.00			90.00		
90.50			90.50		
91.00			91.00		
91.50			91.50		
92.00			92.00		
92.50			92.50		
93.00			93.00		
93.50			93.50		
94.00			94.00		
94.50			94.50		
95.00			95.00		
95.50			95.50		
96.00			96.00		
96.50			96.50		
97.00			97.00		
97.50			97.50		
98.00			98.00		
98.50			98.50		
99.00			99.00		
99.50			99.50		
100.00			100.00		

CAPITA SYMMONDS (Structures) Ltd		Project : GVO Earthworks		Borehole Hole No. DS06	
J20 Number : 00000000		J20 Number : 00000000		J20 Number : 00000000	
J20 Number : 00000000		J20 Number : 00000000		J20 Number : 00000000	
J20 Number : 00000000		J20 Number : 00000000		J20 Number : 00000000	
SAMPLING DATA					
Depth (m)	Type	Test Result	Depth (m)	Test Result	Test Result
0.00			0.00		
0.50			0.50		
1.00			1.00		
1.50			1.50		
2.00			2.00		
2.50			2.50		
3.00			3.00		
3.50			3.50		
4.00			4.00		
4.50			4.50		
5.00			5.00		
5.50			5.50		
6.00			6.00		
6.50			6.50		
7.00			7.00		
7.50			7.50		
8.00			8.00		
8.50			8.50		
9.00			9.00		
9.50			9.50		
10.00			10.00		
10.50			10.50		
11.00			11.00		
11.50			11.50		

CC Geotechnical		Tel: 0151-523-0202 Fax: 0151-523-0252		BOREHOLE LOG		HOLE NO. BH1 Sheet 1 of 1	
CLIENT White Young Green				SITE Langtree Development, Knowsley			
DATE OF FIELDWORK 14/03/05-14/03/05		SCALE 1:50	LEVEL/POSITION SEE LOCATION PLAN		OPERATOR C TURNER	LOGGED BY WF	JOB NO. 05/2408
SAMPLE RECORD DEPTH	RECORD TYPE	SPT N (Blows/m)	Stamp/ Face	DESCRIPTION OF STRATUM (thickness)		DEPTH	REDUCED LEVEL
0.55 - 1.50	SOIL			MADE GROUND comprising firm very sandy very silty clay with organic traces (1.50)			
1.00 - 1.45	SPT	13					
1.50 - 1.50	SOIL					1.40	
2.00 - 2.40	SPT	22		Very stiff sandy silty slightly gravelly CLAY (3.40)			
2.50 - 2.50	SOIL						
3.00 - 3.45	SPT	23					
3.50 - 3.50	SOIL						
4.00 - 4.45	SPT	77					
4.50 - 4.50	SOIL						
5.00 - 5.45	SPT	100		Brown / yellow completely weathered clayey SANDSTONE		5.00	
6.00 - 6.00	SPT	62/000		BOREHOLE TERMINATED		6.00	
GROUNDWATER AND CASING INFORMATION				BORING METHOD AND REMARKS			
DEPTH STRUCK	DEPTH CAGED	ELAPSED TIME	WATER LEVEL	DEPTH SEALED	REMARKS ON GROUNDWATER AND CASING		1 hour on 3.10m service pit 2 hours chiselling on rock
0.55					BOREHOLE ID#		
1.50					RWL - 14/3/05		
2.50					RWL - 19/3/05		
3.40					RWL - 4/10/05		
3.32					RWL - 10/10/05		
2.96					RWL - 26/10/05		

BOREHOLE CONSTRUCTION	SAMPLE		SOIL VAPOUR (ppm)	GROUNDWATER DEPTH (m)	GEOLOGY	BOREHOLE NUMBER: BH113		PAGE 1	
	NUMBER	TYPE				DRILLING DATES: 8/8/02		DRILLING METHODS : Hollow Stem	
						DRILLER : Geotron UK		BOREHOLE DIAMETER : 220 mm	
LOGGED BY : GVS						SCREEN TYPE & DIAM: 50mm uPVC			
CHECKED BY :						SCREEN SLOT SIZE: 1mm			
						DESCRIPTION	COMMENTS		
						MADE GROUND: Concrete		0.0	
						MADE GROUND: Clayey Gravel, orange brown, angular gravel with brick and concrete fragments in silty clay matrix.		0.5	
						becoming wet at 1.5m		1.5	
						Clayey SAND; orange brown, fine to coarse grained sand with minor firm silty clay and minor subrounded gravel		2.0	
						End of Borehole at 4.0m due to refusal on Sandstone		4.0	
LOCATION / NOTES: NVD = No visual or olfactory evidence of contamination						LEGEND Disturbed Sample Undisturbed Sample Headspace Analysis Down Borehole Analysis Groundwater Table Perched Water Table		BOREHOLE LOG Job Title: Phase II Investigation Location: Kirkby, Merseyside UK Client: IM Yorkshire Copper Tube Ltd App'd: _____ Date: 12/8/03 Drawn: GVS Ref: _____ Scale: 1:50 Job No: 37352-SHG-187 Dwg. Size: A4 BOREHOLE LOG	

BOREHOLE CONSTRUCTION	SAMPLE		SOIL VAPOUR (ppm)	GROUNDWATER DEPTH (m)	GEOLOGY	BOREHOLE NUMBER BH205		PAGE 1 of 2	
	NUMBER	TYPE				DRILLING DATES: 12/02/04		DRILLING METHODS: Shell & Auger	
						DRILLER: PBD LM		BOREHOLE DIAMETER: 200mm	
						LOGGED BY: M Logan		SCREEN TYPE & DIAM: HDPE 50mm	
						CHECKED BY: J Clay		SCREEN SLOT SIZE: 2mm	
						DESCRIPTION	COMMENTS		
						Made Ground: loose, dark gray/brown, fine gravel of ash, clinker, orange brick fragments and silty topsoil with rootlets		0.0	
						Made Ground: firm, dark brown silty clay with occasional fine and medium gravel and rare coarse gravel		0.5	
						0.3-0.4m with much fine-coarse grey gravel of limestone	Damp, NVO	1.0	
						Made Ground: loose, red-brown silt and fine and medium gravel of weathered sandstone, rare grey fine gravel of limestone		1.5	
						1.1-1.2m pocket of firm dark brown silty clay with occasional fine gravel and black coal fine gravel	Damp, slight diesel odour	2.0	
						2.0-2.65m pocket of soft mottled grey and orange silty clay		2.5	
						2.6-3.3m with some orange and yellow coarse gravel/small cobbles of sandstone	Damp, slight diesel odour	3.0	
						Made Ground: loose, red-brown, sandy silt and medium gravel of weathered sandstone	3.8-4.0m wet, slight/moderate diesel odour, grey staining	3.5	
						Firm to stiff, orange-brown, silty CLAY with occasional grains of fine sand		4.0	
						4.5-4.8m with light yellow silt mottling	Dry, NVO	4.5	
						Soft, red-brown marly CLAY, occasional grains of fine sand, occasional black speckling		5.0	
						5.0-5.3m becoming slightly fissile	Dry, NVO	5.5	
						Hard, fissile, red-brown, weathered MARL with rare grains of fine sand		6.0	
						Slightly weak, red-brown, slightly weathered, fine grained marly SANDSTONE		6.5	
								7.0	
								7.5	
						Strong, red-brown, fresh, well cemented, fine grained SANDSTONE	Water rest level at 7.5m bgl	8.0	
								8.5	
								9.0	
								9.5	
								10.0	
								10.5	
								11.0	

LOCATION / NOTES: NVO = No visual or olfactory evidence of contamination		LEGEND [X] Disturbed Sample [] Undisturbed Sample * Headspace Analysis + Down Borehole Analysis ~ Groundwater Table ~ Perched Water Table		BOREHOLE LOG Job Title: Phase 1B Contaminant Assessment Location: Kelly, Riverside Client: M P & YCF	
				App'd: JC Drawn: ME Scale: As shown Date: April 2004 Rev: MUMCH Job No: 27347-052-167 BOREHOLE LOG	

2/2

Appendix E

GROUNDSURE REPORT 

FARADAY ROAD, KNOWSLEY INDUSTRIAL PARK, Liverpool, L33 7UT

Order Details

Date: 20/01/2023

Your ref: 20156722

Our Ref: GS-9308690

Site Details

Location: 342865 397192

Area: 2.71 ha

Authority: [Knowsley Metropolitan Borough Council](#)



Summary of findings

p. 2

Aerial image

p. 8

OS MasterMap site plan

p.12

groundsure.com/insightuserguide

Contact us with any questions at:

info@groundsure.com

08444 159 000

Summary of findings

Page	Section	Past land use	On site	0-50m	50-250m	250-500m	500-2000m
13	1.1	Historical industrial land uses	1	5	22	28	-
16	1.2	Historical tanks	0	0	9	50	-
18	1.3	Historical energy features	0	0	5	9	-
19	1.4	Historical petrol stations	0	0	0	0	-
19	1.5	Historical garages	0	1	1	0	-
20	1.6	Historical military land	0	0	0	0	-
Page	Section	Past land use - un-grouped	On site	0-50m	50-250m	250-500m	500-2000m
21	2.1	Historical industrial land uses	1	5	27	38	-
24	2.2	Historical tanks	0	0	34	70	-
28	2.3	Historical energy features	0	0	7	14	-
29	2.4	Historical petrol stations	0	0	0	0	-
29	2.5	Historical garages	0	2	2	0	-
Page	Section	Waste and landfill	On site	0-50m	50-250m	250-500m	500-2000m
31	3.1	Active or recent landfill	0	0	0	0	-
31	3.2	Historical landfill (BGS records)	0	0	0	0	-
32	3.3	Historical landfill (LA/mapping records)	0	0	0	0	-
32	3.4	Historical landfill (EA/NRW records)	0	0	0	0	-
32	3.5	Historical waste sites	0	0	0	0	-
32	3.6	Licensed waste sites	0	0	0	0	-
32	3.7	Waste exemptions	0	3	10	8	-
Page	Section	Current industrial land use	On site	0-50m	50-250m	250-500m	500-2000m
35	4.1	Recent industrial land uses	1	2	20	-	-
37	4.2	Current or recent petrol stations	0	0	0	1	-
37	4.3	Electricity cables	0	0	0	0	-
38	4.4	Gas pipelines	0	0	0	0	-
38	4.5	Sites determined as Contaminated Land	0	0	0	0	-



38	4.6	<u>Control of Major Accident Hazards (COMAH)</u>	0	0	0	3	-
38	4.7	Regulated explosive sites	0	0	0	0	-
39	4.8	<u>Hazardous substance storage/usage</u>	0	0	0	2	-
39	4.9	<u>Historical licensed industrial activities (IPC)</u>	0	0	0	37	-
44	4.10	<u>Licensed industrial activities (Part A(1))</u>	0	0	0	51	-
54	4.11	<u>Licensed pollutant release (Part A(2)/B)</u>	0	0	2	3	-
54	4.12	Radioactive Substance Authorisations	0	0	0	0	-
55	4.13	Licensed Discharges to controlled waters	0	0	0	0	-
55	4.14	Pollutant release to surface waters (Red List)	0	0	0	0	-
55	4.15	Pollutant release to public sewer	0	0	0	0	-
55	4.16	List 1 Dangerous Substances	0	0	0	0	-
55	4.17	List 2 Dangerous Substances	0	0	0	0	-
56	4.18	<u>Pollution Incidents (EA/NRW)</u>	1	0	1	1	-
56	4.19	Pollution inventory substances	0	0	0	0	-
56	4.20	<u>Pollution inventory waste transfers</u>	0	0	0	1	-
57	4.21	Pollution inventory radioactive waste	0	0	0	0	-
Page	Section	Hydrogeology	On site	0-50m	50-250m	250-500m	500-2000m
58	5.1	<u>Superficial aquifer</u>	Identified (within 500m)				
60	5.2	<u>Bedrock aquifer</u>	Identified (within 500m)				
61	5.3	<u>Groundwater vulnerability</u>	Identified (within 50m)				
62	5.4	Groundwater vulnerability- soluble rock risk	None (within 0m)				
62	5.5	Groundwater vulnerability- local information	None (within 0m)				
63	5.6	<u>Groundwater abstractions</u>	0	0	0	4	34
72	5.7	Surface water abstractions	0	0	0	0	0
73	5.8	<u>Potable abstractions</u>	0	0	0	0	8
75	5.9	<u>Source Protection Zones</u>	1	0	0	2	-
75	5.10	Source Protection Zones (confined aquifer)	0	0	0	0	-
Page	Section	Hydrology	On site	0-50m	50-250m	250-500m	500-2000m
76	6.1	<u>Water Network (OS MasterMap)</u>	1	5	0	-	-



77	6.2	<u>Surface water features</u>	1	3	2	-	-
77	6.3	<u>WFD Surface water body catchments</u>	1	-	-	-	-
78	6.4	<u>WFD Surface water bodies</u>	0	0	0	-	-
78	6.5	<u>WFD Groundwater bodies</u>	1	-	-	-	-
Page	Section	River and coastal flooding	On site	0-50m	50-250m	250-500m	500-2000m
79	7.1	Risk of flooding from rivers and the sea	None (within 50m)				
79	7.2	Historical Flood Events	0	0	0	-	-
79	7.3	Flood Defences	0	0	0	-	-
80	7.4	Areas Benefiting from Flood Defences	0	0	0	-	-
80	7.5	Flood Storage Areas	0	0	0	-	-
81	7.6	Flood Zone 2	None (within 50m)				
81	7.7	Flood Zone 3	None (within 50m)				
Page	Section	Surface water flooding					
82	8.1	<u>Surface water flooding</u>	1 in 30 year, 0.3m - 1.0m (within 50m)				
Page	Section	Groundwater flooding					
84	9.1	<u>Groundwater flooding</u>	Moderate (within 50m)				
Page	Section	Environmental designations	On site	0-50m	50-250m	250-500m	500-2000m
85	10.1	Sites of Special Scientific Interest (SSSI)	0	0	0	0	0
86	10.2	Conserved wetland sites (Ramsar sites)	0	0	0	0	0
86	10.3	Special Areas of Conservation (SAC)	0	0	0	0	0
86	10.4	Special Protection Areas (SPA)	0	0	0	0	0
86	10.5	National Nature Reserves (NNR)	0	0	0	0	0
87	10.6	<u>Local Nature Reserves (LNR)</u>	0	0	0	0	2
87	10.7	Designated Ancient Woodland	0	0	0	0	0
87	10.8	Biosphere Reserves	0	0	0	0	0
87	10.9	Forest Parks	0	0	0	0	0
88	10.10	Marine Conservation Zones	0	0	0	0	0
88	10.11	<u>Green Belt</u>	0	0	0	0	2
88	10.12	Proposed Ramsar sites	0	0	0	0	0



88	10.13	Possible Special Areas of Conservation (pSAC)	0	0	0	0	0
89	10.14	Potential Special Protection Areas (pSPA)	0	0	0	0	0
89	10.15	Nitrate Sensitive Areas	0	0	0	0	0
89	10.16	<u>Nitrate Vulnerable Zones</u>	1	0	0	0	3
90	10.17	SSSI Impact Risk Zones	0	-	-	-	-
90	10.18	SSSI Units	0	0	0	0	0
Page	Section	Visual and cultural designations	On site	0-50m	50-250m	250-500m	500-2000m
91	11.1	World Heritage Sites	0	0	0	-	-
91	11.2	Area of Outstanding Natural Beauty	0	0	0	-	-
91	11.3	National Parks	0	0	0	-	-
91	11.4	Listed Buildings	0	0	0	-	-
92	11.5	Conservation Areas	0	0	0	-	-
92	11.6	Scheduled Ancient Monuments	0	0	0	-	-
92	11.7	Registered Parks and Gardens	0	0	0	-	-
Page	Section	Agricultural designations	On site	0-50m	50-250m	250-500m	500-2000m
93	12.1	<u>Agricultural Land Classification</u>	Urban (within 250m)				
94	12.2	Open Access Land	0	0	0	-	-
94	12.3	Tree Felling Licences	0	0	0	-	-
94	12.4	Environmental Stewardship Schemes	0	0	0	-	-
94	12.5	Countryside Stewardship Schemes	0	0	0	-	-
Page	Section	Habitat designations	On site	0-50m	50-250m	250-500m	500-2000m
95	13.1	<u>Priority Habitat Inventory</u>	2	1	0	-	-
96	13.2	Habitat Networks	0	0	0	-	-
96	13.3	<u>Open Mosaic Habitat</u>	1	0	0	-	-
96	13.4	Limestone Pavement Orders	0	0	0	-	-
Page	Section	Geology 1:10,000 scale	On site	0-50m	50-250m	250-500m	500-2000m
97	14.1	<u>10k Availability</u>	Identified (within 500m)				
98	14.2	Artificial and made ground (10k)	0	0	0	0	-
99	14.3	Superficial geology (10k)	0	0	0	0	-

99	14.4	Landslip (10k)	0	0	0	0	-
100	14.5	Bedrock geology (10k)	0	0	0	0	-
100	14.6	Bedrock faults and other linear features (10k)	0	0	0	0	-
Page	Section	Geology 1:50,000 scale	On site	0-50m	50-250m	250-500m	500-2000m
<u>101</u>	<u>15.1</u>	<u>50k Availability</u>	Identified (within 500m)				
<u>102</u>	<u>15.2</u>	<u>Artificial and made ground (50k)</u>	1	0	0	2	-
<u>103</u>	<u>15.3</u>	<u>Artificial ground permeability (50k)</u>	1	0	-	-	-
<u>104</u>	<u>15.4</u>	<u>Superficial geology (50k)</u>	1	0	1	0	-
<u>105</u>	<u>15.5</u>	<u>Superficial permeability (50k)</u>	Identified (within 50m)				
105	15.6	Landslip (50k)	0	0	0	0	-
105	15.7	Landslip permeability (50k)	None (within 50m)				
<u>106</u>	<u>15.8</u>	<u>Bedrock geology (50k)</u>	1	0	0	0	-
<u>107</u>	<u>15.9</u>	<u>Bedrock permeability (50k)</u>	Identified (within 50m)				
107	15.10	Bedrock faults and other linear features (50k)	0	0	0	0	-
Page	Section	Boreholes	On site	0-50m	50-250m	250-500m	500-2000m
<u>108</u>	<u>16.1</u>	<u>BGS Boreholes</u>	0	0	31	-	-
Page	Section	Natural ground subsidence					
<u>111</u>	<u>17.1</u>	<u>Shrink swell clays</u>	Very low (within 50m)				
<u>112</u>	<u>17.2</u>	<u>Running sands</u>	Very low (within 50m)				
<u>113</u>	<u>17.3</u>	<u>Compressible deposits</u>	Very low (within 50m)				
<u>114</u>	<u>17.4</u>	<u>Collapsible deposits</u>	Very low (within 50m)				
<u>115</u>	<u>17.5</u>	<u>Landslides</u>	Very low (within 50m)				
<u>116</u>	<u>17.6</u>	<u>Ground dissolution of soluble rocks</u>	Negligible (within 50m)				
Page	Section	Mining, ground workings and natural cavities	On site	0-50m	50-250m	250-500m	500-2000m
118	18.1	Natural cavities	0	0	0	0	-
119	18.2	BritPits	0	0	0	0	-
<u>119</u>	<u>18.3</u>	<u>Surface ground workings</u>	0	1	12	-	-
120	18.4	Underground workings	0	0	0	0	0
<u>120</u>	<u>18.5</u>	<u>Historical Mineral Planning Areas</u>	0	0	0	1	-



120	18.6	Non-coal mining	0	0	0	0	0
120	18.7	Mining cavities	0	0	0	0	0
121	18.8	JPB mining areas	None (within 0m)				
121	18.9	Coal mining	None (within 0m)				
121	18.10	Brine areas	None (within 0m)				
121	18.11	Gypsum areas	None (within 0m)				
121	18.12	Tin mining	None (within 0m)				
122	18.13	Clay mining	None (within 0m)				
Page	Section	Radon					
123	19.1	Radon	Less than 1% (within 0m)				
Page	Section	Soil chemistry	On site	0-50m	50-250m	250-500m	500-2000m
125	20.1	BGS Estimated Background Soil Chemistry	2	0	-	-	-
125	20.2	BGS Estimated Urban Soil Chemistry	0	0	-	-	-
125	20.3	BGS Measured Urban Soil Chemistry	0	0	-	-	-
Page	Section	Railway infrastructure and projects	On site	0-50m	50-250m	250-500m	500-2000m
126	21.1	Underground railways (London)	0	0	0	-	-
126	21.2	Underground railways (Non-London)	0	0	0	-	-
127	21.3	Railway tunnels	0	0	0	-	-
127	21.4	Historical railway and tunnel features	1	3	6	-	-
127	21.5	Royal Mail tunnels	0	0	0	-	-
128	21.6	Historical railways	0	0	0	-	-
128	21.7	Railways	0	0	0	-	-
128	21.8	Crossrail 1	0	0	0	0	-
128	21.9	Crossrail 2	0	0	0	0	-
128	21.10	HS2	0	0	0	0	-

Recent aerial photograph



Aerial photography supplied by Getmapping PLC. © Copyright Getmapping PLC 2023. All Rights Reserved.

Capture Date: 22/04/2019

Site Area: 2.71ha



Recent site history - 2015 aerial photograph



Aerial photography supplied by Getmapping PLC. © Copyright Getmapping PLC 2023. All Rights Reserved.

Capture Date: 11/06/2015

Site Area: 2.71ha



Recent site history - 2001 aerial photograph



Capture Date: 01/05/2001

Site Area: 2.71ha



Recent site history - 2000 aerial photograph



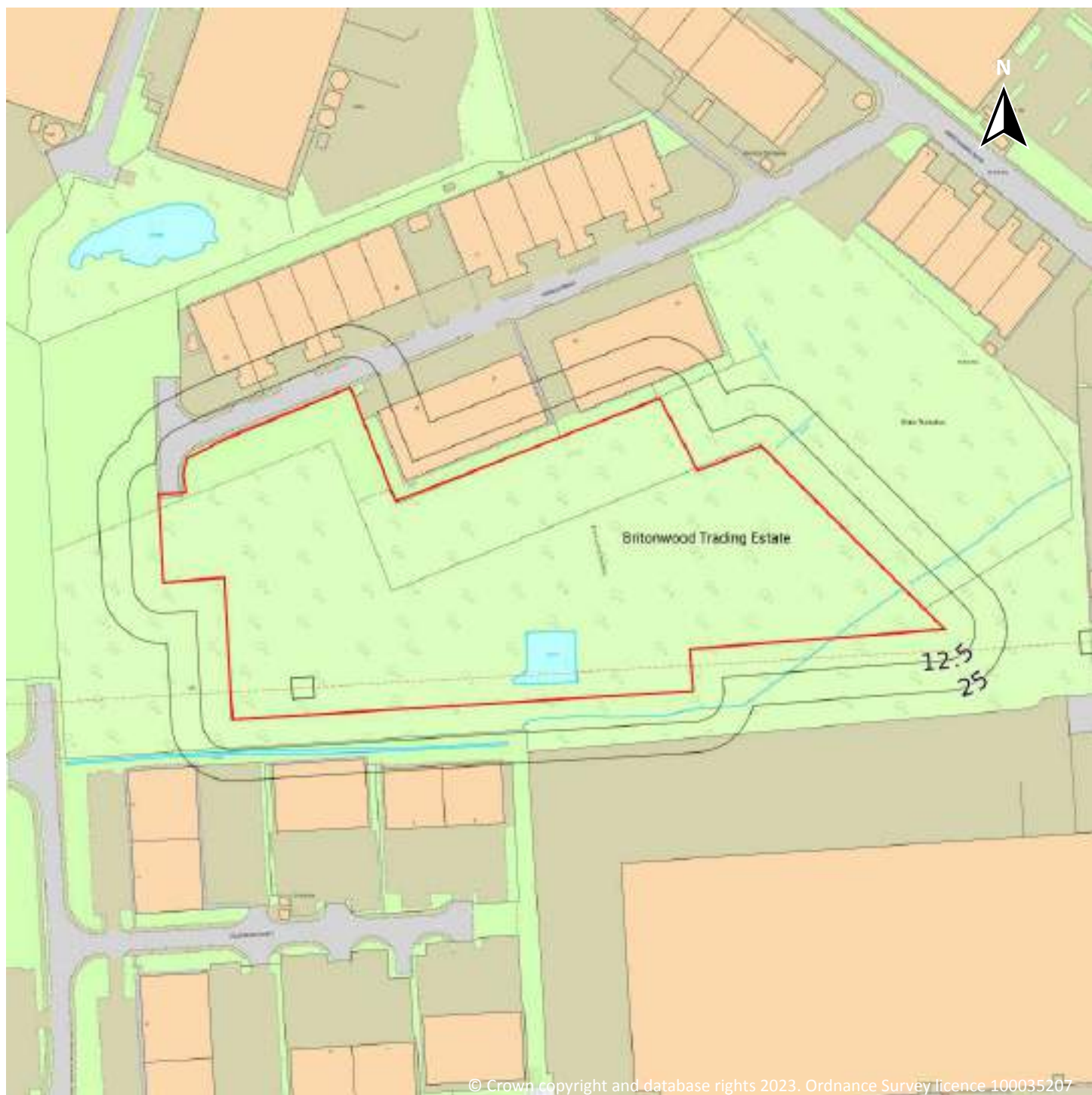
Aerial photography supplied by Getmapping PLC. © Copyright Getmapping PLC 2023. All Rights Reserved.

Capture Date: 21/07/2000

Site Area: 2.71ha



OS MasterMap site plan



Site Area: 2.71ha



1 Past land use



- Site Outline
- Search buffers in metres (m)
- Historical industrial land uses
- Historical tanks
- Historical energy features
- Historical garages

1.1 Historical industrial land uses

Records within 500m

56

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

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

ID	Location	Land use	Dates present	Group ID
A	On site	Railway Sidings	1955 - 1976	2367747



ID	Location	Land use	Dates present	Group ID
2	33m S	Unspecified Heap	1966	803308
B	44m NW	Unspecified Factory	1966	920677
C	49m SE	Unspecified Works	1966	830264
C	49m SE	Unspecified Commercial/Industrial	1988	894106
C	49m SE	Unspecified Commercial/Industrial	1976	946675
3	59m W	Unspecified Factory	1966	972653
B	65m NW	Unspecified Commercial/Industrial	1988	882698
B	65m NW	Unspecified Commercial/Industrial	1976	962662
D	76m SE	Unspecified Heap	1988	872565
D	76m SE	Unspecified Heap	1976	909027
D	77m SE	Unspecified Heap	1966	877140
E	85m NW	Unspecified Heap	1966 - 1976	875665
E	85m NW	Unspecified Heap	1988	972264
G	126m NW	Unspecified Tanks	1966 - 1976	864660
G	126m NW	Unspecified Tanks	1988	925558
F	128m E	Unspecified Tank	1976	896520
F	128m E	Unspecified Tank	1988	928411
H	152m N	Refuse Heap	1925	946589
H	153m N	Refuse Heap	1938	848112
G	172m NW	Unspecified Tank	1988	975596
G	172m NW	Unspecified Tank	1966 - 1976	987430
G	184m NW	Unspecified Tank	1988	877304
G	184m NW	Unspecified Tank	1976	965001
G	208m NW	Unspecified Tank	1988	950658
G	208m NW	Unspecified Tank	1966 - 1976	968188
J	238m NW	Unspecified Commercial/Industrial	1976	857010
J	238m NW	Unspecified Commercial/Industrial	1988	929760
7	295m NE	Unspecified Commercial/Industrial	1976	796637



ID	Location	Land use	Dates present	Group ID
8	296m NW	Unspecified Factory	1966	970619
M	322m SE	Unspecified Commercial/Industrial	1988	796636
N	332m S	Unspecified Commercial/Industrial	1976	871597
N	332m S	Unspecified Commercial/Industrial	1988	977766
Q	365m SE	Unspecified Ground Workings	1938	971516
Q	365m SE	Unspecified Ground Workings	1925	852993
O	367m SE	Unspecified Tanks	1988	815155
R	369m E	Unspecified Pits	1925 - 1938	882991
S	382m S	Unspecified Pit	1907 - 1938	913070
S	382m S	Unspecified Pit	1955	865811
S	382m S	Unspecified Pit	1925	968394
M	383m SE	Unspecified Tank	1988	824625
M	390m SE	Unspecified Tank	1988	824626
M	394m SE	Unspecified Tank	1988	824627
S	401m S	Unspecified Tank	1988	886196
S	401m S	Unspecified Tank	1976	927139
U	402m E	Unspecified Pits	1966 - 1976	875850
U	402m E	Unspecified Pits	1988	989114
V	424m SW	Unspecified Tanks	1976	853071
V	424m SW	Unspecified Tanks	1988	927296
U	454m E	Tramway Sidings	1955	821557
X	456m SW	Unspecified Heap	1988	845240
X	456m SW	Unspecified Heap	1966 - 1976	925576
W	471m NE	Unspecified Tanks	1976	815154
14	484m S	Unspecified Works	1966	830272
Y	490m S	Unspecified Tanks	1966	886732
Y	491m S	Unspecified Tanks	1955	925990

This data is sourced from Ordnance Survey / Groundsure.



1.2 Historical tanks

Records within 500m

59

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

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

ID	Location	Land use	Dates present	Group ID
F	112m E	Unspecified Tank	1959 - 1997	148189
F	127m E	Unspecified Tank	1975 - 1997	147915
G	127m NW	Tanks	1959 - 1993	141421
G	155m NW	Unspecified Tank	1976 - 1993	141933
G	170m NW	Unspecified Tank	1959 - 1993	128615
G	186m NW	Unspecified Tank	1968 - 1993	132693
I	186m E	Unspecified Tank	1968	113140
G	207m NW	Unspecified Tank	1959 - 1993	149392
I	248m E	Unspecified Tank	1968	113139
I	268m E	Unspecified Tank	1975 - 1997	128400
K	301m NE	Tanks	1975	105771
K	313m NE	Unspecified Tank	1975	113144
K	314m NE	Unspecified Tank	1977	113141
O	345m S	Unspecified Tank	1994	113153
O	346m S	Tanks	1994	105773
O	349m S	Tanks	1991	105774
O	350m S	Tanks	1991	105775
P	351m E	Unspecified Tank	1968 - 1975	143854
P	352m E	Unspecified Tank	1997	138287
O	352m SE	Tanks	1991	105770
P	359m E	Unspecified Tank	1997	126855



ID	Location	Land use	Dates present	Group ID
P	360m E	Unspecified Tank	1968 - 1975	133934
O	366m SE	Tanks	1991	105778
M	380m SE	Unspecified Tank	1991	113154
O	384m S	Tanks	1994	105776
O	384m S	Tanks	1994	105777
P	384m E	Unspecified Tank	1968	113157
M	386m SE	Unspecified Tank	1991	113155
S	393m S	Tanks	1974 - 1994	129539
M	393m SE	Unspecified Tank	1991	113156
T	395m NE	Unspecified Tank	1965 - 1977	133933
P	397m E	Tanks	1997	133699
P	397m E	Tanks	1975	134317
M	397m SE	Tanks	1991	105781
P	398m E	Tanks	1991	105783
S	399m S	Tanks	1974 - 1994	149251
P	402m E	Tanks	1991	105789
M	402m SE	Tanks	1991	105782
11	407m W	Tanks	1996	105718
T	408m NE	Unspecified Tank	1965 - 1977	129487
V	415m SW	Tanks	1984	139738
V	416m SW	Tanks	1974	146982
V	417m SW	Tanks	1993	135478
R	418m E	Tanks	1997	105790
W	426m NE	Unspecified Tank	1977	113142
V	428m SW	Unspecified Tank	1974 - 1993	137954
V	435m SW	Unspecified Tank	1993	125409
V	435m SW	Unspecified Tank	1974 - 1984	138990
W	458m NE	Unspecified Tank	1968	113138



ID	Location	Land use	Dates present	Group ID
W	458m NE	Tanks	1965 - 1977	128688
M	460m SE	Unspecified Tank	1991	113159
W	467m NE	Tanks	1968	128135
M	475m SE	Tanks	1991	105780
M	476m SE	Tanks	1991	105779
Z	490m SW	Unspecified Tank	1985 - 1994	127384
Y	491m S	Unspecified Tank	1959	113151
Y	491m S	Tanks	1959 - 1974	142814
Z	497m SW	Unspecified Tank	1985 - 1994	137022
Y	500m S	Unspecified Tank	1959	113150

This data is sourced from Ordnance Survey / Groundsure.

1.3 Historical energy features

Records within 500m

14

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

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

ID	Location	Land use	Dates present	Group ID
A	61m E	Electricity Substation	1997	61356
4	91m NE	Electricity Substation	1975 - 1997	85424
5	112m SE	Electricity Substation	1997	61365
6	210m NE	Electricity Substation	1975 - 1997	72592
I	223m E	Electricity Substation	1997	61364
L	302m E	Electricity Substation	1997	61355
L	324m E	Electricity Substation	1997	84765
9	345m E	Electricity Substation	1997	61353



ID	Location	Land use	Dates present	Group ID
O	358m SE	Electricity Substations	1991	59868
10	395m NE	Electricity Substation	1977	61357
12	417m NE	Electricity Substation	1975 - 1997	73738
13	422m SE	Electricity Substation	1991	61366
N	436m S	Electricity Substation	1974 - 1994	70245
M	494m SE	Electricity Substation	1991	61367

This data is sourced from Ordnance Survey / Groundsure.

1.4 Historical petrol stations

Records within 500m	0
----------------------------	----------

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

This data is sourced from Ordnance Survey / Groundsure.

1.5 Historical garages

Records within 500m	2
----------------------------	----------

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

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

ID	Location	Land use	Dates present	Group ID
1	11m NW	Vehicle Repair Depot	1976	25257
H	173m N	Body Repair Works	1976	24918

This data is sourced from Ordnance Survey / Groundsure.

1.6 Historical military land

Records within 500m

0

Areas of military land digitised from multiple sources including the National Archives, local records, MOD records and verified other sources, intelligently grouped into contiguous features.

This data is sourced from Ordnance Survey / Groundsure / other sources.



2 Past land use - un-grouped



- Site Outline
- Search buffers in metres (m)
- Historical industrial land uses
- Historical tanks
- Historical energy features
- Historical garages

2.1 Historical industrial land uses

Records within 500m

71

Potentially contaminative land use features digitised from historical Ordnance Survey mapping at 1:10,000 and 10,560 scale. Any records shown are available intelligently grouped in section 1. Grouped and the original un-grouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

Features are displayed on the Past land use - un-grouped map on **page 21**

ID	Location	Land Use	Date	Group ID
A	On site	Railway Sidings	1966	2367747
1	33m S	Unspecified Heap	1966	803308
C	44m NW	Unspecified Factory	1966	920677



ID	Location	Land Use	Date	Group ID
D	49m SE	Unspecified Works	1966	830264
D	49m SE	Unspecified Commercial/Industrial	1976	946675
D	49m SE	Unspecified Commercial/Industrial	1988	894106
2	59m W	Unspecified Factory	1966	972653
C	65m NW	Unspecified Commercial/Industrial	1976	962662
C	65m NW	Unspecified Commercial/Industrial	1988	882698
E	76m SE	Unspecified Heap	1976	909027
E	76m SE	Unspecified Heap	1988	872565
E	77m SE	Unspecified Heap	1966	877140
F	85m NW	Unspecified Heap	1966	875665
F	85m NW	Unspecified Heap	1976	875665
F	85m NW	Unspecified Heap	1988	972264
I	126m NW	Unspecified Tanks	1966	864660
I	126m NW	Unspecified Tanks	1976	864660
I	126m NW	Unspecified Tanks	1988	925558
H	128m E	Unspecified Tank	1976	896520
H	128m E	Unspecified Tank	1988	928411
J	152m N	Refuse Heap	1925	946589
J	153m N	Refuse Heap	1938	848112
J	153m N	Refuse Heap	1938	848112
I	172m NW	Unspecified Tank	1966	987430
I	172m NW	Unspecified Tank	1976	987430
I	172m NW	Unspecified Tank	1988	975596
I	184m NW	Unspecified Tank	1976	965001
I	184m NW	Unspecified Tank	1988	877304
I	208m NW	Unspecified Tank	1966	968188
I	208m NW	Unspecified Tank	1976	968188
I	208m NW	Unspecified Tank	1988	950658



ID	Location	Land Use	Date	Group ID
M	238m NW	Unspecified Commercial/Industrial	1976	857010
M	238m NW	Unspecified Commercial/Industrial	1988	929760
N	289m W	Unspecified Commercial/Industrial	1976	857010
N	289m W	Unspecified Commercial/Industrial	1988	929760
4	295m NE	Unspecified Commercial/Industrial	1976	796637
M	296m NW	Unspecified Factory	1966	970619
Q	322m SE	Unspecified Commercial/Industrial	1988	796636
R	332m S	Unspecified Commercial/Industrial	1976	871597
R	332m S	Unspecified Commercial/Industrial	1988	977766
U	365m SE	Unspecified Ground Workings	1938	971516
U	365m SE	Unspecified Ground Workings	1938	971516
U	365m SE	Unspecified Ground Workings	1925	852993
S	367m SE	Unspecified Tanks	1988	815155
V	369m E	Unspecified Pits	1938	882991
W	382m S	Unspecified Pit	1938	913070
W	382m S	Unspecified Pit	1925	913070
W	382m S	Unspecified Pit	1907	913070
W	382m S	Unspecified Pit	1938	913070
W	382m S	Unspecified Pit	1955	865811
W	382m S	Unspecified Pit	1925	968394
W	382m S	Unspecified Pit	1925	968394
Q	383m SE	Unspecified Tank	1988	824625
Q	390m SE	Unspecified Tank	1988	824626
Q	394m SE	Unspecified Tank	1988	824627
W	401m S	Unspecified Tank	1976	927139
W	401m S	Unspecified Tank	1988	886196
Y	402m E	Unspecified Pits	1966	875850
Y	402m E	Unspecified Pits	1976	875850



ID	Location	Land Use	Date	Group ID
Y	402m E	Unspecified Pits	1988	989114
V	405m E	Unspecified Pits	1925	882991
Z	424m SW	Unspecified Tanks	1976	853071
Z	424m SW	Unspecified Tanks	1988	927296
Y	454m E	Tramway Sidings	1955	821557
AC	456m SW	Unspecified Heap	1966	925576
AC	456m SW	Unspecified Heap	1976	925576
AC	456m SW	Unspecified Heap	1988	845240
AB	471m NE	Unspecified Tanks	1976	815154
9	484m S	Unspecified Works	1966	830272
AD	490m S	Unspecified Tanks	1966	886732
AD	491m S	Unspecified Tanks	1955	925990

This data is sourced from Ordnance Survey / Groundsure.

2.2 Historical tanks

Records within 500m

104

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

Features are displayed on the Past land use - un-grouped map on **page 21**

ID	Location	Land Use	Date	Group ID
H	112m E	Unspecified Tank	1997	148189
H	112m E	Unspecified Tank	1959	148189
H	112m E	Unspecified Tank	1968	148189
H	112m E	Unspecified Tank	1959	148189
H	112m E	Unspecified Tank	1975	148189
H	127m E	Unspecified Tank	1975	147915
H	127m E	Unspecified Tank	1997	147915
I	127m NW	Tanks	1959	141421



ID	Location	Land Use	Date	Group ID
I	127m NW	Tanks	1968	141421
I	127m NW	Tanks	1993	141421
I	128m NW	Tanks	1960	141421
I	128m NW	Tanks	1976	141421
I	128m NW	Tanks	1976	141421
I	155m NW	Unspecified Tank	1993	141933
I	156m NW	Unspecified Tank	1976	141933
I	156m NW	Unspecified Tank	1976	141933
I	170m NW	Unspecified Tank	1959	128615
I	170m NW	Unspecified Tank	1968	128615
I	170m NW	Unspecified Tank	1993	128615
I	170m NW	Unspecified Tank	1960	128615
I	170m NW	Unspecified Tank	1976	128615
I	170m NW	Unspecified Tank	1976	128615
I	186m NW	Unspecified Tank	1993	132693
K	186m E	Unspecified Tank	1968	113140
I	187m NW	Unspecified Tank	1976	132693
I	187m NW	Unspecified Tank	1976	132693
I	187m NW	Unspecified Tank	1968	132693
I	207m NW	Unspecified Tank	1993	149392
I	207m NW	Unspecified Tank	1959	149392
I	207m NW	Unspecified Tank	1968	149392
I	208m NW	Unspecified Tank	1960	149392
I	208m NW	Unspecified Tank	1976	149392
I	208m NW	Unspecified Tank	1976	149392
K	248m E	Unspecified Tank	1968	113139
K	268m E	Unspecified Tank	1997	128400
K	268m E	Unspecified Tank	1975	128400

ID	Location	Land Use	Date	Group ID
O	301m NE	Tanks	1975	105771
O	313m NE	Unspecified Tank	1975	113144
O	314m NE	Unspecified Tank	1977	113141
S	345m S	Unspecified Tank	1994	113153
S	346m S	Tanks	1994	105773
S	349m S	Tanks	1991	105774
S	350m S	Tanks	1991	105775
T	351m E	Unspecified Tank	1968	143854
T	352m E	Unspecified Tank	1997	138287
T	352m E	Unspecified Tank	1975	143854
S	352m SE	Tanks	1991	105770
T	359m E	Unspecified Tank	1997	126855
T	360m E	Unspecified Tank	1968	133934
T	360m E	Unspecified Tank	1975	133934
S	366m SE	Tanks	1991	105778
Q	380m SE	Unspecified Tank	1991	113154
S	384m S	Tanks	1994	105776
S	384m S	Tanks	1994	105777
T	384m E	Unspecified Tank	1968	113157
Q	386m SE	Unspecified Tank	1991	113155
W	393m S	Tanks	1974	129539
Q	393m SE	Unspecified Tank	1991	113156
W	394m S	Tanks	1994	129539
W	395m S	Tanks	1985	129539
X	395m NE	Unspecified Tank	1968	133933
X	395m NE	Unspecified Tank	1965	133933
X	395m NE	Unspecified Tank	1977	133933
T	397m E	Tanks	1997	133699



ID	Location	Land Use	Date	Group ID
T	397m E	Tanks	1975	134317
Q	397m SE	Tanks	1991	105781
T	398m E	Tanks	1991	105783
W	399m S	Tanks	1994	149251
W	399m S	Tanks	1974	149251
W	399m S	Tanks	1974	149251
W	400m S	Tanks	1985	149251
T	402m E	Tanks	1991	105789
Q	402m SE	Tanks	1991	105782
7	407m W	Tanks	1996	105718
X	408m NE	Unspecified Tank	1968	129487
X	408m NE	Unspecified Tank	1965	129487
X	408m NE	Unspecified Tank	1977	129487
Z	415m SW	Tanks	1984	139738
Z	416m SW	Tanks	1974	146982
Z	417m SW	Tanks	1993	135478
V	418m E	Tanks	1997	105790
AB	426m NE	Unspecified Tank	1977	113142
Z	428m SW	Unspecified Tank	1993	137954
Z	428m SW	Unspecified Tank	1974	137954
Z	428m SW	Unspecified Tank	1984	137954
Z	435m SW	Unspecified Tank	1993	125409
Z	435m SW	Unspecified Tank	1974	138990
Z	435m SW	Unspecified Tank	1984	138990
AB	458m NE	Unspecified Tank	1968	113138
AB	458m NE	Tanks	1965	128688
AB	458m NE	Tanks	1977	128688
Q	460m SE	Unspecified Tank	1991	113159



ID	Location	Land Use	Date	Group ID
AB	467m NE	Tanks	1968	128135
Q	475m SE	Tanks	1991	105780
Q	476m SE	Tanks	1991	105779
AE	490m SW	Unspecified Tank	1994	127384
AD	491m S	Unspecified Tank	1959	113151
AD	491m S	Tanks	1959	142814
AD	491m S	Tanks	1974	142814
AD	491m S	Tanks	1974	142814
AE	491m SW	Unspecified Tank	1985	127384
AE	497m SW	Unspecified Tank	1994	137022
AE	498m SW	Unspecified Tank	1985	137022
AD	500m S	Unspecified Tank	1959	113150

This data is sourced from Ordnance Survey / Groundsure.

2.3 Historical energy features

Records within 500m

21

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

Features are displayed on the Past land use - un-grouped map on **page 21**

ID	Location	Land Use	Date	Group ID
A	61m E	Electricity Substation	1997	61356
G	91m NE	Electricity Substation	1997	85424
G	92m NE	Electricity Substation	1975	85424
3	112m SE	Electricity Substation	1997	61365
L	210m NE	Electricity Substation	1997	72592
L	210m NE	Electricity Substation	1975	72592
K	223m E	Electricity Substation	1997	61364
P	302m E	Electricity Substation	1997	61355



ID	Location	Land Use	Date	Group ID
P	324m E	Electricity Substation	1997	84765
P	325m E	Electricity Substation	1997	84765
5	345m E	Electricity Substation	1997	61353
S	358m SE	Electricity Substations	1991	59868
6	395m NE	Electricity Substation	1977	61357
AA	417m NE	Electricity Substation	1997	73738
AA	419m NE	Electricity Substation	1975	73738
8	422m SE	Electricity Substation	1991	61366
R	436m S	Electricity Substation	1994	70245
R	436m S	Electricity Substation	1974	70245
R	436m S	Electricity Substation	1974	70245
R	436m S	Electricity Substation	1985	70245
Q	494m SE	Electricity Substation	1991	61367

This data is sourced from Ordnance Survey / Groundsure.

2.4 Historical petrol stations

Records within 500m

0

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

This data is sourced from Ordnance Survey / Groundsure.

2.5 Historical garages

Records within 500m

4

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

Features are displayed on the Past land use - un-grouped map on **page 21**



ID	Location	Land Use	Date	Group ID
B	11m NW	Vehicle Repair Depot	1976	25257
B	11m NW	Vehicle Repair Depot	1976	25257
J	173m N	Body Repair Works	1976	24918
J	173m N	Body Repair Works	1976	24918

This data is sourced from Ordnance Survey / Groundsure.



3 Waste and landfill



- Site Outline
- Search buffers in metres (m)
- Waste exemptions

3.1 Active or recent landfill

Records within 500m

0

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

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

3.2 Historical landfill (BGS records)

Records within 500m

0

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

This data is sourced from the British Geological Survey.

3.3 Historical landfill (LA/mapping records)

Records within 500m**0**

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

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

3.4 Historical landfill (EA/NRW records)

Records within 500m**0**

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

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

3.5 Historical waste sites

Records within 500m**0**

Waste site records derived from Local Authority planning records and high detail historical mapping.

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

3.6 Licensed waste sites

Records within 500m**0**

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

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

3.7 Waste exemptions

Records within 500m**21**

Activities involving the storage, treatment, use or disposal of waste that are exempt from needing a permit. Exemptions have specific limits and conditions that must be adhered to.

Features are displayed on the Waste and landfill map on **page 31**

ID	Location	Site	Reference	Category	Sub-Category	Description
A	40m NW	25, FARADAY ROAD, KNOWSLEY INDUSTRIAL PARK, LIVERPOOL, L33 7UT	WEX148902	Storing waste exemption	Not on a farm	Storage of waste in a secure place



ID	Location	Site	Reference	Category	Sub-Category	Description
A	40m NW	25, FARADAY ROAD, KNOWSLEY INDUSTRIAL PARK, LIVERPOOL, L33 7UT	WEX148902	Treating waste exemption	Not on a farm	Treatment of waste food
A	40m NW	25, FARADAY ROAD, KNOWSLEY INDUSTRIAL PARK, LIVERPOOL, L33 7UT	WEX148902	Storing waste exemption	Not on a farm	Storage of waste in secure containers
B	108m SW	Land Development (Caddick Construction /DGS Ltd), Alchemy Way, Knowsley Industrial Estate, Knowsley, L33 7XN	WEX138809	Treating waste exemption	Not on a farm	Screening and blending of waste
B	108m SW	Land Development (Caddick Construction /DGS Ltd), Alchemy Way, Knowsley Industrial Estate, Knowsley, L33 7XN	WEX138809	Using waste exemption	Not on a farm	Use of waste in construction
C	135m E	-	WEX262120	Storing waste exemption	Not on a farm	Storage of waste in a secure place
C	135m E	HORNHOUSE LANE, KNOWSLEY INDUSTRIAL PARK, LIVERPOOL, L33 7YQ	WEX119395	Storing waste exemption	Not on a farm	Storage of waste in a secure place
C	139m E	Makro Limited Hornhouse Lane LIVERPOOL L33 7YQ	EPR/GE5587Y Q/A001	Treating waste exemption	Non- Agricultural Waste Only	Crushing waste fluorescent tubes
1	139m S	Unit 6, Platinum Court, Alchemy Way, Knowsley, L33 7XN	EA/EPR/VP398 3AH/A001	Treating waste exemption	Not on a farm	Repair or refurbishment of WEEE
D	191m NE	STEF Langdons Ltd, 2 Owen Road, Knowsley Industrial Park, Liverpool, L33 7YP	WEX309837	Treating waste exemption	Not on a Farm	Treatment of waste food
D	191m NE	STEF Langdons Ltd, 2 Owen Road, Knowsley Industrial Park, Liverpool, L33 7YP	WEX309868	Treating waste exemption	Not on a Farm	Treatment of waste food
D	191m NE	Nagel Langdons Ltd, 2 Owen Road, Knowsley Industrial Park, Kirkby, L33 7YP	WEX159189	Treating waste exemption	Not on a Farm	Treatment of waste food
2	194m SE	Yorkshire Copper Tube Ltd Coopers Lane East Kirkby Merseyside L33 7TU	EPR/AF0601TE /A001	Treating waste exemption	Non- Agricultural Waste Only	Crushing waste fluorescent tubes
E	282m N	-	WEX225999	Using waste exemption	Not on a farm	Use of waste in construction



ID	Location	Site	Reference	Category	Sub-Category	Description
E	282m N	-	WEX225999	Treating waste exemption	Not on a farm	Preparatory treatments (baling, sorting, shredding etc)
E	282m N	-	WEX225999	Storing waste exemption	Not on a farm	Storage of waste in secure containers
3	289m NE	2, OWEN ROAD, KNOWSLEY INDUSTRIAL PARK, LIVERPOOL, L33 7YP	WEX215825	Treating waste exemption	Not on a farm	Treatment of waste food
4	310m NW	CGL- Knowsley Integrated Recovery Service, Unit 7, Deacon Park, Moorgate Road, Kirkby, L33 7RX	WEX172604	Treating waste exemption	Not on a farm	Sorting and de-naturing of controlled drugs for disposal
E	313m N	DEACON PARK MOORGATE ROAD MERSEYSIDE L33 7RX	EPR/NF0200FM/A001	Storing waste exemption	Non-Agricultural Waste Only	Storage of waste in secure containers
E	313m N	DEACON PARK MOORGATE ROAD MERSEYSIDE L33 7RX	EPR/NF0200FM/A001	Storing waste exemption	Non-Agricultural Waste Only	Storage of waste in a secure place
E	313m N	DEACON PARK MOORGATE ROAD MERSEYSIDE L33 7RX	EPR/NF0200FM/A001	Treating waste exemption	Non-Agricultural Waste Only	Preparatory treatments (baling, sorting, shredding etc)

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



4 Current industrial land use



- Site Outline
- Search buffers in metres (m)
- Recent industrial land uses
- ▲ Current or recent petrol stations
- Control of Major Accident Hazards
- ▲ Hazardous substance storage/usage
- Historical licensed industrial activities
- Part A(1) industrial activities
- Licensed pollutant release (Part A(2)/B)
- Pollution Incidents (EA/NRW)
- Pollution inventory waste transfers

4.1 Recent industrial land uses

Records within 250m

23

Current potentially contaminative industrial sites.

Features are displayed on the Current industrial land use map on **page 35**

ID	Location	Company	Address	Activity	Category
A	On site	Pylon	Merseyside, L33	Electrical Features	Infrastructure and Facilities
1	40m NW	M T Truck & Trailer Repairs Ltd	Frw Northwest Ltd 23, Faraday Road, Knowsley Industrial Park, Kirkby, Merseyside, L33 7UT	Vehicle Repair, Testing and Servicing	Repair and Servicing



ID	Location	Company	Address	Activity	Category
2	48m SW	Northern Print	Northern Print 2 Platinum Court, Alchemy Way, Knowsley Industrial Park, Kirkby, Merseyside, L33 7XN	Published Goods	Industrial Products
B	60m E	Pylon	Merseyside, L33	Electrical Features	Infrastructure and Facilities
B	71m E	Electricity Sub Station	Merseyside, L33	Electrical Features	Infrastructure and Facilities
3	74m SW	Electricity Sub Station	Merseyside, L33	Electrical Features	Infrastructure and Facilities
C	81m NE	Electricity Sub Station	Merseyside, L33	Electrical Features	Infrastructure and Facilities
4	91m N	Armstrong Lyon Hydraulics Ltd	Hydraulic Engineering 13, Faraday Road, Knowsley Industrial Park, Kirkby, Merseyside, L33 7UT	Industrial Repairs and Servicing	Repair and Servicing
5	105m NE	Electricity Sub Station	Merseyside, L33	Electrical Features	Infrastructure and Facilities
6	108m SE	Electricity Sub Station	Merseyside, L33	Electrical Features	Infrastructure and Facilities
C	118m NE	Solidtek Ltd	Autofix 2, Abercrombie Road, Knowsley Industrial Park, Kirkby, Merseyside, L33 7YN	Colours, Chemicals and Water Softeners and Supplies	Industrial Products
C	126m NE	Autofix North West Ltd	Cumfybus Ltd 1, Abercrombie Road, Knowsley Industrial Park, Kirkby, Merseyside, L33 7YN	Vehicle Repair, Testing and Servicing	Repair and Servicing
7	138m E	Tank	Merseyside, L33	Tanks (Generic)	Industrial Features
8	147m S	Lombard Shipping Plc	7-8 Platinum Court, Alchemy Way, Knowsley Industrial Park, Kirkby, Merseyside, L33 7XN	Distribution and Haulage	Transport, Storage and Delivery
C	147m NE	Electricity Sub Station	Merseyside, L33	Electrical Features	Infrastructure and Facilities
C	149m NE	Gas Governor	Merseyside, L33	Gas Features	Infrastructure and Facilities
9	160m NW	Movianto UK	Unit H3deacon Park Moorgate Road, Knowsley Industrial Park, Liverpool, Merseyside, L33 7RX	Distribution and Haulage	Transport, Storage and Delivery



ID	Location	Company	Address	Activity	Category
D	167m N	H & J Toughened Glass Ltd	H and J Glass Ltd 7-8, Abercrombie Road, Knowsley Industrial Park, Kirkby, Merseyside, L33 7YN	Glass	Industrial Products
C	171m NE	Electricity Sub Station	Merseyside, L33	Electrical Features	Infrastructure and Facilities
D	182m N	Arch Window Company	Arch Window Company 9, Abercrombie Road, Knowsley Industrial Park, Kirkby, Merseyside, L33 7YN	General Construction Supplies	Industrial Products
12	211m SW	Gas Governor	Merseyside, L33	Gas Features	Infrastructure and Facilities
C	212m NE	Electricity Sub Station	Merseyside, L33	Electrical Features	Infrastructure and Facilities
13	234m NE	Electricity Sub Station	Merseyside, L33	Electrical Features	Infrastructure and Facilities

This data is sourced from Ordnance Survey.

4.2 Current or recent petrol stations

Records within 500m

1

Open, closed, under development and obsolete petrol stations.

Features are displayed on the Current industrial land use map on **page 35**

ID	Location	Company	Address	LPG	Status
F	402m SE	SHELL	Coopers Lane, East Lancashire Road, Knowsley, Knowsley Industrial Park, Liverpool, Merseyside, L33 7UA	No	Open

This data is sourced from Experian.

4.3 Electricity cables

Records within 500m

0

High voltage underground electricity transmission cables.

This data is sourced from National Grid.



4.4 Gas pipelines

Records within 500m	0
---------------------	---

High pressure underground gas transmission pipelines.

This data is sourced from National Grid.

4.5 Sites determined as Contaminated Land

Records within 500m	0
---------------------	---

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

This data is sourced from Local Authority records.

4.6 Control of Major Accident Hazards (COMAH)

Records within 500m	3
---------------------	---

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

Features are displayed on the Current industrial land use map on **page 35**

ID	Location	Company	Address	Operational status	Tier
15	294m E	Euroliters Ltd	Euroliters Ltd, Horn House Lane, Knowsley Ind Park, Liverpool, L33 7YQ	Historical NIHHS Site	-
16	305m S	Knowsley Redevelopments Limited	Knowsley Redevelopments Limited, Prescot, Knowsley Industrial Estate, Penrhyn Road, Liverpool, Merseyside, L34 9HY	Current COMAH Site	COMAH Upper Tier Operator
18	437m S	Flogas Britain Limited	Flogas Britain Limited, Liverpool, Knowsley Business Park, Ainsworth Lane, Prescot, Merseyside, L34 9EU	Current COMAH Site	COMAH Lower Tier Operator

This data is sourced from the Health and Safety Executive.

4.7 Regulated explosive sites

Records within 500m	0
---------------------	---

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

This data is sourced from the Health and Safety Executive.

4.8 Hazardous substance storage/usage

Records within 500m

2

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

Features are displayed on the Current industrial land use map on **page 35**

ID	Location	Details	
G	447m S	Application reference number: 99/00694/HSC Application status: Historical Consent Application date: 18/10/1999 Address: CP Kelco pka Contract Chemicals Ltd, Penrhyn Road, Knowsley Business Park, Knowsley, L34 9HY	Details: Deemed consent for the storage of bromine and sodium. Enforcement: No Enforcement Notified Date of enforcement: No Enforcement Notified Comment: No Enforcement Notified
G	452m S	Application reference number: No Details Application status: Approved Application date: No Details Address: Knowsley Redevelopment Ltd, Knowsley Industrial Park South, Penrhyn Road, Prescot, Liverpool, Merseyside, England, L34 9HY	Details: No Details Enforcement: No Details Date of enforcement: No Details Comment: No Details

This data is sourced from Local Authority records.

4.9 Historical licensed industrial activities (IPC)

Records within 500m

37

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

Features are displayed on the Current industrial land use map on **page 35**

ID	Location	Details	
H	454m SE	Operator: Contract Chemicals (knowsley) Ltd Address: Knowsley Industrial Park, Penrhyn Road, Knowsley Industrial Park South, Prescot, Merseyside, L34 9HY Process: Processes Involving Halogens Permit Number: AF7096	Original Permit Number: IPCAPP Date Approved: 17-10-1992 Effective Date: 17-10-1992 Status: Superseded By Variation
H	454m SE	Operator: Contract Chemicals (knowsley) Ltd Address: Knowsley Industrial Park, Penrhyn Road, Knowsley Industrial Park South, Prescot, Merseyside, L34 9HY Process: Manufacture And Use Of Organic Chemicals Permit Number: AL9220	Original Permit Number: IPCAPP Date Approved: 14-7-1994 Effective Date: 21-7-1994 Status: Superseded By Variation



ID	Location	Details	
H	454m SE	Operator: Contract Chemicals (knowsley) Ltd Address: Knowsley Industrial Park, Penrhyn Road, Knowsley Industrial Park South, Prescott, Merseyside, L34 9HY Process: Processes Involving Halogens Permit Number: AM7940	Original Permit Number: IPCMINVAR Date Approved: 5-4-1994 Effective Date: 5-4-1994 Status: Superseded By Variation
H	454m SE	Operator: Contract Chemicals (knowsley) Ltd Address: Knowsley Industrial Park, Penrhyn Road, Knowsley Industrial Park South, Prescott, Merseyside, L34 9HY Process: Processes Involving Halogens Permit Number: AQ4772	Original Permit Number: IPCMINVAR Date Approved: 28-2-1995 Effective Date: 6-3-1995 Status: Superseded By Variation
H	454m SE	Operator: Contract Chemicals (knowsley) Ltd Address: Knowsley Industrial Park, Penrhyn Road, Knowsley Industrial Park South, Prescott, Merseyside, L34 9HY Process: Processes Involving Halogens Permit Number: AR0748	Original Permit Number: IPCMINVAR Date Approved: 24-4-1995 Effective Date: 28-4-1995 Status: Superseded By Variation
H	454m SE	Operator: Contract Chemicals (knowsley) Ltd Address: Knowsley Industrial Park, Penrhyn Road, Knowsley Industrial Park South, Prescott, Merseyside, L34 9HY Process: Manufacture And Use Of Organic Chemicals Permit Number: AV0568	Original Permit Number: IPCMINVAR Date Approved: 8-3-1996 Effective Date: 14-3-1996 Status: Superseded By Variation
H	454m SE	Operator: Contract Chemicals (knowsley) Ltd Address: Knowsley Industrial Park, Penrhyn Road, Knowsley Industrial Park South, Prescott, Merseyside, L34 9HY Process: Manufacture And Use Of Organic Chemicals Permit Number: AW0458	Original Permit Number: IPCMINVAR Date Approved: 2-7-1996 Effective Date: 8-7-1996 Status: Superseded By Variation
H	454m SE	Operator: Contract Chemicals (knowsley) Ltd Address: Knowsley Industrial Park, Penrhyn Road, Knowsley Industrial Park South, Prescott, Merseyside, L34 9HY Process: Processes Involving Halogens Permit Number: BD1326	Original Permit Number: IPCMINVAR Date Approved: 24-11-1998 Effective Date: 30-11-1998 Status: Superseded By Variation
H	454m SE	Operator: Contract Chemicals (knowsley) Ltd Address: Knowsley Industrial Park, Penrhyn Road, Knowsley Industrial Park South, Prescott, Merseyside, L34 9HY Process: Manufacture And Use Of Organic Chemicals Permit Number: BD6379	Original Permit Number: IPCMINVAR Date Approved: 24-11-1998 Effective Date: 30-11-1998 Status: Superseded By Variation



ID	Location	Details	
H	454m SE	Operator: Contract Chemicals (knowsley) Ltd Address: Knowsley Industrial Park, Penrhyn Road, Knowsley Industrial Park South, Prescot, Merseyside, L34 9HY Process: Manufacture And Use Of Organic Chemicals Permit Number: BH6800	Original Permit Number: IPCMAJVAR Date Approved: 23-2-2000 Effective Date: 25-2-2000 Status: Superseded By Variation
H	454m SE	Operator: Contract Chemicals (knowsley) Ltd Address: Knowsley Industrial Park, Penrhyn Road, Knowsley Industrial Park South, Prescot, Merseyside, L34 9HY Process: Processes Involving Halogens Permit Number: BH6818	Original Permit Number: IPCMAJVAR Date Approved: 25-5-2000 Effective Date: 25-5-2000 Status: Superseded By Variation
H	454m SE	Operator: Contract Chemicals (knowsley) Ltd Address: Knowsley Industrial Park, Penrhyn Road, Knowsley Industrial Park South, Prescot, Merseyside, L34 9HY Process: Processes Involving Halogens Permit Number: BH9302	Original Permit Number: IPCMINVAR Date Approved: 22-2-2000 Effective Date: 23-2-2000 Status: Superseded By Variation
H	454m SE	Operator: Contract Chemicals (knowsley) Ltd Address: Knowsley Industrial Park, Penrhyn Road, Knowsley Industrial Park South, Prescot, Merseyside, L34 9HY Process: Manufacture And Use Of Organic Chemicals Permit Number: BI9537	Original Permit Number: IPCMINVAR Date Approved: 29-6-2001 Effective Date: 4-7-2001 Status: Superseded By Variation
H	454m SE	Operator: Contract Chemicals (knowsley) Ltd Address: Knowsley Industrial Park, Penrhyn Road, Knowsley Industrial Park South, Prescot, Merseyside, L34 9HY Process: Processes Involving Halogens Permit Number: BJ8715	Original Permit Number: IPCMAJVAR Date Approved: 10-4-2001 Effective Date: 16-4-2001 Status: Revoked - Now Ippc
H	454m SE	Operator: Contract Chemicals (knowsley) Ltd Address: Knowsley Industrial Park, Penrhyn Road, Knowsley Industrial Park South, Prescot, Merseyside, L34 9HY Process: Manufacture And Use Of Organic Chemicals Permit Number: BM2152	Original Permit Number: IPCMINVAR Date Approved: 5-12-2001 Effective Date: 5-12-2001 Status: Revoked - Now Ippc
G	455m S	Operator: Contract Chemicals (knowsley) Ltd Address: Knowsley Industrial Park, Penrhyn Road, Knowsley Industrial Park South, Prescot, Merseyside, L34 9HY Process: Manufacture And Use Of Organic Chemicals Permit Number: AF9650	Original Permit Number: IPCAPP Date Approved: 2-11-1992 Effective Date: 2-11-1992 Status: Superseded By Variation



ID	Location	Details	
G	455m S	Operator: Contract Chemicals (knowsley) Ltd Address: Penryhn Road, Knowsley Business Park, Prescot, Merseyside, L34 9HY Process: Manufacture And Use Of Organic Chemicals Permit Number: AK3129	Original Permit Number: IPCAIRAPP Date Approved: 23-12-1993 Effective Date: 23-12-1993 Status: Superseded By Variation
G	455m S	Operator: Contract Chemicals (knowsley) Ltd Address: Knowsley Industrial Park, Penrhyn Road, Knowsley Industrial Park South, Prescot, Merseyside, L34 9HY Process: Manufacture And Use Of Organic Chemicals Permit Number: AQ8123	Original Permit Number: IPCMINVAR Date Approved: 6-4-1995 Effective Date: 13-4-1995 Status: Superseded By Variation
G	455m S	Operator: Contract Chemicals (knowsley) Ltd Address: Penryhn Road, Knowsley Business Park, Prescot, Merseyside, L34 9HY Process: Manufacture And Use Of Organic Chemicals Permit Number: AS0871	Original Permit Number: IPCMINVAR Date Approved: 28-6-1995 Effective Date: 6-7-1995 Status: Superseded By Variation
G	455m S	Operator: Contract Chemicals (knowsley) Ltd Address: Penryhn Road, Knowsley Business Park, Prescot, Merseyside, L34 9HY Process: Manufacture And Use Of Organic Chemicals Permit Number: AT5496	Original Permit Number: IPCMINVAR Date Approved: 21-9-1995 Effective Date: 25-9-1995 Status: Superseded By Variation
G	455m S	Operator: Contract Chemicals (knowsley) Ltd Address: Penryhn Road, Knowsley Business Park, Prescot, Merseyside, L34 9HY Process: Manufacture And Use Of Organic Chemicals Permit Number: AW0440	Original Permit Number: IPCMINVAR Date Approved: 2-7-1996 Effective Date: 9-7-1996 Status: Superseded By Variation
G	455m S	Operator: Contract Chemicals (knowsley) Ltd Address: Penryhn Road, Knowsley Business Park, Prescot, Merseyside, L34 9HY Process: Inorganic Chemical Processes Permit Number: AZ7505	Original Permit Number: IPCAPP Date Approved: 19-12-1997 Effective Date: 1-1-1998 Status: Superseded By Variation
G	455m S	Operator: Contract Chemicals (knowsley) Ltd Address: Penryhn Road, Knowsley Business Park, Prescot, Merseyside, L34 9HY Process: Manufacture And Use Of Organic Chemicals Permit Number: BA6119	Original Permit Number: IPCAPP Date Approved: 2-2-2000 Effective Date: 2-2-2000 Status: Superseded By Variation
G	455m S	Operator: Contract Chemicals (knowsley) Ltd Address: Penryhn Road, Knowsley Business Park, Prescot, Merseyside, L34 9HY Process: Inorganic Chemical Processes Permit Number: BA9509	Original Permit Number: IPCMAJVAR Date Approved: 16-7-1999 Effective Date: 19-7-1999 Status: Revoked - Now Ippc



ID	Location	Details	
G	455m S	Operator: Contract Chemicals (knowsley) Ltd Address: Penryhn Road, Knowsley Business Park, Prescot, Merseyside, L34 9HY Process: Manufacture And Use Of Organic Chemicals Permit Number: BA9827	Original Permit Number: IPCAPP Date Approved: 5-8-1998 Effective Date: 5-8-1998 Status: Superseded By Variation
G	455m S	Operator: Contract Chemicals (knowsley) Ltd Address: Penryhn Road, Knowsley Business Park, Prescot, Merseyside, L34 9HY Process: Processes Involving Halogens Permit Number: BC2149	Original Permit Number: IPCAPP Date Approved: 25-2-1999 Effective Date: 1-3-1999 Status: Superseded By Variation
G	455m S	Operator: Contract Chemicals (knowsley) Ltd Address: Knowsley Industrial Park, Penrhyn Road, Knowsley Industrial Park South, Prescot, Merseyside, L34 9HY Process: Manufacture And Use Of Organic Chemicals Permit Number: BD1130	Original Permit Number: IPCMINVAR Date Approved: 24-11-1998 Effective Date: 30-11-1998 Status: Revoked
G	455m S	Operator: Contract Chemicals (knowsley) Ltd Address: Penryhn Road, Knowsley Business Park, Prescot, Merseyside, L34 9HY Process: Manufacture And Use Of Organic Chemicals Permit Number: BD6352	Original Permit Number: IPCMINVAR Date Approved: 24-11-1998 Effective Date: 30-11-1998 Status: Superseded By Variation
G	455m S	Operator: Contract Chemicals (knowsley) Ltd Address: Penryhn Road, Knowsley Business Park, Prescot, Merseyside, L34 9HY Process: Inorganic Chemical Processes Permit Number: BE1259	Original Permit Number: IPCMINVAR Date Approved: 24-11-1998 Effective Date: 30-11-1998 Status: Superseded By Variation
G	455m S	Operator: Contract Chemicals (knowsley) Ltd Address: Penryhn Road, Knowsley Business Park, Prescot, Merseyside, L34 9HY Process: Manufacture And Use Of Organic Chemicals Permit Number: BE4088	Original Permit Number: IPCMINVAR Date Approved: 24-11-1998 Effective Date: 30-11-1998 Status: Revoked - Now Ippc
G	455m S	Operator: Contract Chemicals (knowsley) Ltd Address: Penryhn Road, Knowsley Business Park, Prescot, Merseyside, L34 9HY Process: Processes Involving Halogens Permit Number: BG6715	Original Permit Number: IPCMINVAR Date Approved: 6-8-1999 Effective Date: 9-8-1999 Status: Superseded By Variation
G	455m S	Operator: Contract Chemicals (knowsley) Ltd Address: Penryhn Road, Knowsley Business Park, Prescot, Merseyside, L34 9HY Process: Manufacture And Use Of Organic Chemicals Permit Number: BH6125	Original Permit Number: IPCMINVAR Date Approved: 22-12-1999 Effective Date: 22-12-1999 Status: Superseded By Variation



ID	Location	Details	
G	455m S	Operator: Contract Chemicals (knowsley) Ltd Address: Penryhn Road, Knowsley Business Park, Prescot, Merseyside, L34 9HY Process: Processes Involving Halogens Permit Number: BI5892	Original Permit Number: IPCMINVAR Date Approved: 31-5-2000 Effective Date: 2-6-2000 Status: Superseded By Variation
G	455m S	Operator: Contract Chemicals (knowsley) Ltd Address: Penryhn Road, Knowsley Business Park, Prescot, Merseyside, L34 9HY Process: Manufacture And Use Of Organic Chemicals Permit Number: BI9553	Original Permit Number: IPCMINVAR Date Approved: 29-6-2001 Effective Date: 4-7-2001 Status: Revoked - Now Ippc
G	455m S	Operator: Contract Chemicals (knowsley) Ltd Address: Penryhn Road, Knowsley Business Park, Prescot, Merseyside, L34 9HY Process: Processes Involving Halogens Permit Number: BK5398	Original Permit Number: IPCMAJVAR Date Approved: 13-6-2001 Effective Date: 17-6-2001 Status: Superseded By Variation
G	455m S	Operator: Contract Chemicals (knowsley) Ltd Address: Penryhn Road, Knowsley Business Park, Prescot, Merseyside, L34 9HY Process: Manufacture And Use Of Organic Chemicals Permit Number: BM7375	Original Permit Number: IPCMINVAR Date Approved: 22-5-2002 Effective Date: 23-5-2002 Status: Revoked - Now Ippc
G	455m S	Operator: Contract Chemicals (knowsley) Ltd Address: Penryhn Road, Knowsley Business Park, Prescot, Merseyside, L34 9HY Process: Processes Involving Halogens Permit Number: BQ2863	Original Permit Number: IPCMINVAR Date Approved: 10-5-2002 Effective Date: 10-5-2002 Status: Revoked - Now Ippc

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

4.10 Licensed industrial activities (Part A(1))

Records within 500m

51

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

Features are displayed on the Current industrial land use map on **page 35**

ID	Location	Details	
E	259m N	Operator: FACTORY SERVICES UK LTD Installation Name: KNOWSLEY FEED MILL Process: ANIMAL VEGETABLE AND FOOD; TREATING ETC VEGETABLE RAW MATERIALS FOR FOOD >300T/D Permit Number: MP3809PA Original Permit Number: LP3837FX	EPR Reference: - Issue Date: 06/11/2019 Effective Date: 06/11/2019 Last date noted as effective: 02/11/2022 Status: SUPERCEDED



ID	Location	Details	
E	259m N	Operator: FACTORY SERVICES UK LTD Installation Name: KNOWSLEY FEED MILL - EPR/LP3837FX Process: ANIMAL VEGETABLE AND FOOD; TREATING ETC VEGETABLE RAW MATERIALS FOR FOOD >300T/D Permit Number: JP3008MA Original Permit Number: LP3837FX	EPR Reference: - Issue Date: 06/09/2022 Effective Date: 13/09/2022 Last date noted as effective: 02/11/2022 Status: EFFECTIVE
E	259m N	Operator: FACTORY SERVICES UK LTD Installation Name: KNOWSLEY FEED MILL - EPR/LP3837FX Process: ANIMAL VEGETABLE AND FOOD; TREATING ETC VEGETABLE RAW MATERIALS FOR FOOD >300T/D Permit Number: LP3837FX Original Permit Number: LP3837FX	EPR Reference: - Issue Date: 04/05/2012 Effective Date: 04/05/2012 Last date noted as effective: 02/11/2022 Status: SUPERCEDED
G	455m S	Operator: KNOWSLEY REDEVELOPMENTS LTD Installation Name: CONTRACT CHEMICALS EPR/SP3007PM Process: ORGANIC CHEMICALS; HALOGEN CONTAINING COMPOUNDS EG HALOCARBONS Permit Number: BP3409LR Original Permit Number: BP3409LR	EPR Reference: - Issue Date: 04/02/2021 Effective Date: 04/02/2021 Last date noted as effective: 02/11/2022 Status: SUPERCEDED
G	455m S	Operator: KNOWSLEY REDEVELOPMENTS LTD Installation Name: CONTRACT CHEMICALS EPR/SP3007PM Process: ASSOCIATED PROCESS Permit Number: BP3409LR Original Permit Number: BP3409LR	EPR Reference: - Issue Date: 04/02/2021 Effective Date: 04/02/2021 Last date noted as effective: 02/11/2022 Status: SUPERCEDED
G	455m S	Operator: CONTRACT CHEMICALS (KNOWSLEY) LIMITED Installation Name: KNOWSLEY CONTRACT CHEMICALS EPR/BL8619IA Process: INORGANIC CHEMICALS; USING HALOGENS ETC IF RELEASE TO AIR/WATER (UNLESS OTHERWISE PRESCRIBED) (UNLESS CHLORINATION OF WATER) Permit Number: JP3233JC Original Permit Number: BL8619IA	EPR Reference: - Issue Date: 28/09/2017 Effective Date: 28/09/2017 Last date noted as effective: 02/11/2022 Status: SUPERCEDED
G	455m S	Operator: KNOWSLEY REDEVELOPMENTS LTD Installation Name: CONTRACT CHEMICALS EPR/SP3007PM Process: INORGANIC CHEMICALS; ACIDS EG CHROMIC ACID Permit Number: BP3409LR Original Permit Number: BP3409LR	EPR Reference: - Issue Date: 04/02/2021 Effective Date: 04/02/2021 Last date noted as effective: 02/11/2022 Status: SUPERCEDED



ID	Location	Details	
G	455m S	Operator: KNOWSLEY REDEVELOPMENTS LTD Installation Name: CONTRACT CHEMICALS EPR/SP3007PM Process: INORGANIC CHEMICALS; SALTS EG AMMONIUM CHLORIDE Permit Number: BP3409LR Original Permit Number: BP3409LR	EPR Reference: - Issue Date: 04/02/2021 Effective Date: 04/02/2021 Last date noted as effective: 02/11/2022 Status: SUPERCEDED
G	455m S	Operator: KNOWSLEY REDEVELOPMENTS LTD Installation Name: CONTRACT CHEMICALS EPR/SP3007PM Process: ORGANIC CHEMICALS; NITROGEN CONTAINING COMPOUNDS EG AMINES Permit Number: BP3409LR Original Permit Number: BP3409LR	EPR Reference: - Issue Date: 04/02/2021 Effective Date: 04/02/2021 Last date noted as effective: 02/11/2022 Status: SUPERCEDED
G	455m S	Operator: CONTRACT CHEMICALS (KNOWSLEY) LIMITED Installation Name: KNOWSLEY CONTRACT CHEMICALS EPR/BL8619IA Process: ASSOCIATED PROCESS Permit Number: BL8619IA Original Permit Number: BL8619IA	EPR Reference: - Issue Date: 13/08/2004 Effective Date: 13/08/2004 Last date noted as effective: 02/11/2022 Status: SUPERCEDED
G	455m S	Operator: CONTRACT CHEMICALS (KNOWSLEY) LIMITED Installation Name: KNOWSLEY CONTRACT CHEMICALS EPR/BL8619IA Process: INORGANIC CHEMICALS; USING HALOGENS ETC IF RELEASE TO AIR/WATER (UNLESS OTHERWISE PRESCRIBED) (UNLESS CHLORINATION OF WATER) Permit Number: BL8619IA Original Permit Number: BL8619IA	EPR Reference: - Issue Date: 13/08/2004 Effective Date: 13/08/2004 Last date noted as effective: 02/11/2022 Status: SUPERCEDED
G	455m S	Operator: CONTRACT CHEMICALS (KNOWSLEY) LIMITED Installation Name: KNOWSLEY CONTRACT CHEMICALS EPR/BL8619IA Process: ORGANIC CHEMICALS; NITROGEN CONTAINING COMPOUNDS EG AMINES Permit Number: BL8619IA Original Permit Number: BL8619IA	EPR Reference: - Issue Date: 13/08/2004 Effective Date: 13/08/2004 Last date noted as effective: 02/11/2022 Status: SUPERCEDED
G	455m S	Operator: CONTRACT CHEMICALS (KNOWSLEY) LIMITED Installation Name: KNOWSLEY CONTRACT CHEMICALS EPR/BL8619IA Process: ASSOCIATED PROCESS Permit Number: CP3439EV Original Permit Number: BL8619IA	EPR Reference: - Issue Date: 11/11/2013 Effective Date: 11/11/2013 Last date noted as effective: 02/11/2022 Status: SUPERCEDED



ID	Location	Details	
G	455m S	Operator: CONTRACT CHEMICALS (KNOWSLEY) LIMITED Installation Name: KNOWSLEY CONTRACT CHEMICALS EPR/BL8619IA Process: ASSOCIATED PROCESS Permit Number: JP3233JC Original Permit Number: BL8619IA	EPR Reference: - Issue Date: 28/09/2017 Effective Date: 28/09/2017 Last date noted as effective: 02/11/2022 Status: SUPERCEDED
G	455m S	Operator: CONTRACT CHEMICALS (KNOWSLEY) LIMITED Installation Name: KNOWSLEY CONTRACT CHEMICALS EPR/BL8619IA Process: ORGANIC CHEMICALS; SULPHUR CONTAINING COMPOUNDS EG SULPHIDES Permit Number: JP3233JC Original Permit Number: BL8619IA	EPR Reference: - Issue Date: 28/09/2017 Effective Date: 28/09/2017 Last date noted as effective: 02/11/2022 Status: SUPERCEDED
G	455m S	Operator: CONTRACT CHEMICALS (KNOWSLEY) LIMITED Installation Name: KNOWSLEY CONTRACT CHEMICALS EPR/BL8619IA Process: ORGANIC CHEMICALS; NITROGEN CONTAINING COMPOUNDS EG AMINES Permit Number: XP3930WQ Original Permit Number: BL8619IA	EPR Reference: - Issue Date: 06/10/2014 Effective Date: 06/10/2014 Last date noted as effective: 02/11/2022 Status: SUPERCEDED
G	455m S	Operator: CONTRACT CHEMICALS (KNOWSLEY) LIMITED Installation Name: KNOWSLEY CONTRACT CHEMICALS EPR/BL8619IA Process: ORGANIC CHEMICALS; OXYGEN CONTAINING COMPOUNDS EG ALCOHOLS Permit Number: XP3930WQ Original Permit Number: BL8619IA	EPR Reference: - Issue Date: 06/10/2014 Effective Date: 06/10/2014 Last date noted as effective: 02/11/2022 Status: SUPERCEDED
G	455m S	Operator: CONTRACT CHEMICALS LIMITED Installation Name: CONTRACT CHEMICALS EPR/SP3007PM Process: ASSOCIATED PROCESS Permit Number: SP3007PM Original Permit Number: SP3007PM	EPR Reference: - Issue Date: 23/08/2019 Effective Date: 23/08/2019 Last date noted as effective: 02/11/2022 Status: SUPERCEDED
G	455m S	Operator: CONTRACT CHEMICALS LIMITED Installation Name: CONTRACT CHEMICALS EPR/SP3007PM Process: INORGANIC CHEMICALS; ACIDS EG CHROMIC ACID Permit Number: SP3007PM Original Permit Number: SP3007PM	EPR Reference: - Issue Date: 23/08/2019 Effective Date: 23/08/2019 Last date noted as effective: 02/11/2022 Status: SUPERCEDED



ID	Location	Details	
G	455m S	Operator: CONTRACT CHEMICALS LIMITED Installation Name: CONTRACT CHEMICALS EPR/SP3007PM Process: INORGANIC CHEMICALS; USING HALOGENS ETC IF RELEASE TO AIR/WATER (UNLESS OTHERWISE PRESCRIBED) (UNLESS CHLORINATION OF WATER) Permit Number: SP3007PM Original Permit Number: SP3007PM	EPR Reference: - Issue Date: 23/08/2019 Effective Date: 23/08/2019 Last date noted as effective: 02/11/2022 Status: SUPERCEDED
G	455m S	Operator: CONTRACT CHEMICALS (KNOWSLEY) LIMITED Installation Name: KNOWSLEY CONTRACT CHEMICALS EPR/BL8619IA Process: ORGANIC CHEMICALS; HALOGEN CONTAINING COMPOUNDS EG HALOCARBONS Permit Number: JP3233JC Original Permit Number: BL8619IA	EPR Reference: - Issue Date: 28/09/2017 Effective Date: 28/09/2017 Last date noted as effective: 02/11/2022 Status: SUPERCEDED
G	455m S	Operator: CONTRACT CHEMICALS (KNOWSLEY) LIMITED Installation Name: KNOWSLEY CONTRACT CHEMICALS EPR/BL8619IA Process: ASSOCIATED PROCESS Permit Number: XP3930WQ Original Permit Number: BL8619IA	EPR Reference: - Issue Date: 06/10/2014 Effective Date: 06/10/2014 Last date noted as effective: 02/11/2022 Status: SUPERCEDED
G	455m S	Operator: CONTRACT CHEMICALS (KNOWSLEY) LIMITED Installation Name: KNOWSLEY CONTRACT CHEMICALS EPR/BL8619IA Process: INORGANIC CHEMICALS; SALTS EG AMMONIUM CHLORIDE Permit Number: XP3930WQ Original Permit Number: BL8619IA	EPR Reference: - Issue Date: 06/10/2014 Effective Date: 06/10/2014 Last date noted as effective: 02/11/2022 Status: SUPERCEDED
G	455m S	Operator: CONTRACT CHEMICALS (KNOWSLEY) LIMITED Installation Name: KNOWSLEY CONTRACT CHEMICALS EPR/BL8619IA Process: INORGANIC CHEMICALS; USING HALOGENS ETC IF RELEASE TO AIR/WATER (UNLESS OTHERWISE PRESCRIBED) (UNLESS CHLORINATION OF WATER) Permit Number: XP3930WQ Original Permit Number: BL8619IA	EPR Reference: - Issue Date: 06/10/2014 Effective Date: 06/10/2014 Last date noted as effective: 02/11/2022 Status: SUPERCEDED



ID	Location	Details	
G	455m S	Operator: CONTRACT CHEMICALS (KNOWSLEY) LIMITED Installation Name: KNOWSLEY CONTRACT CHEMICALS EPR/BL8619IA Process: ORGANIC CHEMICALS; HALOGEN CONTAINING COMPOUNDS EG HALOCARBONS Permit Number: XP3930WQ Original Permit Number: BL8619IA	EPR Reference: - Issue Date: 06/10/2014 Effective Date: 06/10/2014 Last date noted as effective: 02/11/2022 Status: SUPERCEDED
G	455m S	Operator: CONTRACT CHEMICALS (KNOWSLEY) LIMITED Installation Name: KNOWSLEY CONTRACT CHEMICALS EPR/BL8619IA Process: INORGANIC CHEMICALS; ACIDS EG CHROMIC ACID Permit Number: BL8619IA Original Permit Number: BL8619IA	EPR Reference: - Issue Date: 13/08/2004 Effective Date: 13/08/2004 Last date noted as effective: 02/11/2022 Status: SUPERCEDED
G	455m S	Operator: CONTRACT CHEMICALS (KNOWSLEY) LIMITED Installation Name: KNOWSLEY CONTRACT CHEMICALS EPR/BL8619IA Process: INORGANIC CHEMICALS; SALTS EG AMMONIUM CHLORIDE Permit Number: CP3439EV Original Permit Number: BL8619IA	EPR Reference: - Issue Date: 11/11/2013 Effective Date: 11/11/2013 Last date noted as effective: 02/11/2022 Status: SUPERCEDED
G	455m S	Operator: CONTRACT CHEMICALS (KNOWSLEY) LIMITED Installation Name: KNOWSLEY CONTRACT CHEMICALS EPR/BL8619IA Process: ORGANIC CHEMICALS; NITROGEN CONTAINING COMPOUNDS EG AMINES Permit Number: CP3439EV Original Permit Number: BL8619IA	EPR Reference: - Issue Date: 11/11/2013 Effective Date: 11/11/2013 Last date noted as effective: 02/11/2022 Status: SUPERCEDED
G	455m S	Operator: CONTRACT CHEMICALS (KNOWSLEY) LIMITED Installation Name: KNOWSLEY CONTRACT CHEMICALS EPR/BL8619IA Process: INORGANIC CHEMICALS; ACIDS EG CHROMIC ACID Permit Number: JP3233JC Original Permit Number: BL8619IA	EPR Reference: - Issue Date: 28/09/2017 Effective Date: 28/09/2017 Last date noted as effective: 02/11/2022 Status: SUPERCEDED



ID	Location	Details	
G	455m S	Operator: CONTRACT CHEMICALS (KNOWSLEY) LIMITED Installation Name: KNOWSLEY CONTRACT CHEMICALS EPR/BL8619IA Process: ORGANIC CHEMICALS; SULPHUR CONTAINING COMPOUNDS EG SULPHIDES Permit Number: CP3439EV Original Permit Number: BL8619IA	EPR Reference: - Issue Date: 11/11/2013 Effective Date: 11/11/2013 Last date noted as effective: 02/11/2022 Status: SUPERCEDED
G	455m S	Operator: CONTRACT CHEMICALS (KNOWSLEY) LIMITED Installation Name: KNOWSLEY CONTRACT CHEMICALS EPR/BL8619IA Process: ORGANIC CHEMICALS; NITROGEN CONTAINING COMPOUNDS EG AMINES Permit Number: JP3233JC Original Permit Number: BL8619IA	EPR Reference: - Issue Date: 28/09/2017 Effective Date: 28/09/2017 Last date noted as effective: 02/11/2022 Status: SUPERCEDED
G	455m S	Operator: CONTRACT CHEMICALS (KNOWSLEY) LIMITED Installation Name: KNOWSLEY CONTRACT CHEMICALS EPR/BL8619IA Process: ORGANIC CHEMICALS; OXYGEN CONTAINING COMPOUNDS EG ALCOHOLS Permit Number: JP3233JC Original Permit Number: BL8619IA	EPR Reference: - Issue Date: 28/09/2017 Effective Date: 28/09/2017 Last date noted as effective: 02/11/2022 Status: SUPERCEDED
G	455m S	Operator: CONTRACT CHEMICALS (KNOWSLEY) LIMITED Installation Name: KNOWSLEY CONTRACT CHEMICALS EPR/BL8619IA Process: INORGANIC CHEMICALS; ACIDS EG CHROMIC ACID Permit Number: XP3930WQ Original Permit Number: BL8619IA	EPR Reference: - Issue Date: 06/10/2014 Effective Date: 06/10/2014 Last date noted as effective: 02/11/2022 Status: SUPERCEDED
G	455m S	Operator: CONTRACT CHEMICALS (KNOWSLEY) LIMITED Installation Name: KNOWSLEY CONTRACT CHEMICALS EPR/BL8619IA Process: ORGANIC CHEMICALS; SULPHUR CONTAINING COMPOUNDS EG SULPHIDES Permit Number: XP3930WQ Original Permit Number: BL8619IA	EPR Reference: - Issue Date: 06/10/2014 Effective Date: 06/10/2014 Last date noted as effective: 02/11/2022 Status: SUPERCEDED
G	455m S	Operator: CONTRACT CHEMICALS LIMITED Installation Name: CONTRACT CHEMICALS EPR/SP3007PM Process: INORGANIC CHEMICALS; SALTS EG AMMONIUM CHLORIDE Permit Number: SP3007PM Original Permit Number: SP3007PM	EPR Reference: - Issue Date: 23/08/2019 Effective Date: 23/08/2019 Last date noted as effective: 02/11/2022 Status: SUPERCEDED



ID	Location	Details	
G	455m S	Operator: CONTRACT CHEMICALS LIMITED Installation Name: CONTRACT CHEMICALS EPR/SP3007PM Process: ORGANIC CHEMICALS; HALOGEN CONTAINING COMPOUNDS EG HALOCARBONS Permit Number: SP3007PM Original Permit Number: SP3007PM	EPR Reference: - Issue Date: 23/08/2019 Effective Date: 23/08/2019 Last date noted as effective: 02/11/2022 Status: SUPERCEDED
G	455m S	Operator: CONTRACT CHEMICALS LIMITED Installation Name: CONTRACT CHEMICALS EPR/SP3007PM Process: ORGANIC CHEMICALS; NITROGEN CONTAINING COMPOUNDS EG AMINES Permit Number: SP3007PM Original Permit Number: SP3007PM	EPR Reference: - Issue Date: 23/08/2019 Effective Date: 23/08/2019 Last date noted as effective: 02/11/2022 Status: SUPERCEDED
G	455m S	Operator: CONTRACT CHEMICALS LIMITED Installation Name: CONTRACT CHEMICALS EPR/SP3007PM Process: ORGANIC CHEMICALS; OXYGEN CONTAINING COMPOUNDS EG ALCOHOLS Permit Number: SP3007PM Original Permit Number: SP3007PM	EPR Reference: - Issue Date: 23/08/2019 Effective Date: 23/08/2019 Last date noted as effective: 02/11/2022 Status: SUPERCEDED
G	455m S	Operator: CONTRACT CHEMICALS LIMITED Installation Name: CONTRACT CHEMICALS EPR/SP3007PM Process: ORGANIC CHEMICALS; SULPHUR CONTAINING COMPOUNDS EG SULPHIDES Permit Number: SP3007PM Original Permit Number: SP3007PM	EPR Reference: - Issue Date: 23/08/2019 Effective Date: 23/08/2019 Last date noted as effective: 02/11/2022 Status: SUPERCEDED
G	455m S	Operator: KNOWSLEY REDEVELOPMENTS LTD Installation Name: CONTRACT CHEMICALS EPR/SP3007PM Process: INORGANIC CHEMICALS; USING HALOGENS ETC IF RELEASE TO AIR/WATER (UNLESS OTHERWISE PRESCRIBED) (UNLESS CHLORINATION OF WATER) Permit Number: BP3409LR Original Permit Number: BP3409LR	EPR Reference: - Issue Date: 04/02/2021 Effective Date: 04/02/2021 Last date noted as effective: 02/11/2022 Status: SUPERCEDED
G	455m S	Operator: KNOWSLEY REDEVELOPMENTS LTD Installation Name: CONTRACT CHEMICALS EPR/SP3007PM Process: ORGANIC CHEMICALS; OXYGEN CONTAINING COMPOUNDS EG ALCOHOLS Permit Number: BP3409LR Original Permit Number: BP3409LR	EPR Reference: - Issue Date: 04/02/2021 Effective Date: 04/02/2021 Last date noted as effective: 02/11/2022 Status: SUPERCEDED



ID	Location	Details	
G	455m S	Operator: KNOWSLEY REDEVELOPMENTS LTD Installation Name: CONTRACT CHEMICALS EPR/SP3007PM Process: ORGANIC CHEMICALS; SULPHUR CONTAINING COMPOUNDS EG SULPHIDES Permit Number: BP3409LR Original Permit Number: BP3409LR	EPR Reference: - Issue Date: 04/02/2021 Effective Date: 04/02/2021 Last date noted as effective: 02/11/2022 Status: SUPERCEDED
G	455m S	Operator: CONTRACT CHEMICALS (KNOWSLEY) LIMITED Installation Name: KNOWSLEY CONTRACT CHEMICALS EPR/BL8619IA Process: ORGANIC CHEMICALS; HALOGEN CONTAINING COMPOUNDS EG HALOCARBONS Permit Number: BL8619IA Original Permit Number: BL8619IA	EPR Reference: - Issue Date: 13/08/2004 Effective Date: 13/08/2004 Last date noted as effective: 02/11/2022 Status: SUPERCEDED
G	455m S	Operator: CONTRACT CHEMICALS (KNOWSLEY) LIMITED Installation Name: KNOWSLEY CONTRACT CHEMICALS EPR/BL8619IA Process: ORGANIC CHEMICALS; SULPHUR CONTAINING COMPOUNDS EG SULPHIDES Permit Number: BL8619IA Original Permit Number: BL8619IA	EPR Reference: - Issue Date: 13/08/2004 Effective Date: 13/08/2004 Last date noted as effective: 02/11/2022 Status: SUPERCEDED
G	455m S	Operator: CONTRACT CHEMICALS (KNOWSLEY) LIMITED Installation Name: KNOWSLEY CONTRACT CHEMICALS EPR/BL8619IA Process: INORGANIC CHEMICALS; ACIDS EG CHROMIC ACID Permit Number: CP3439EV Original Permit Number: BL8619IA	EPR Reference: - Issue Date: 11/11/2013 Effective Date: 11/11/2013 Last date noted as effective: 02/11/2022 Status: SUPERCEDED
G	455m S	Operator: CONTRACT CHEMICALS (KNOWSLEY) LIMITED Installation Name: KNOWSLEY CONTRACT CHEMICALS EPR/BL8619IA Process: INORGANIC CHEMICALS; USING HALOGENS ETC IF RELEASE TO AIR/WATER (UNLESS OTHERWISE PRESCRIBED) (UNLESS CHLORINATION OF WATER) Permit Number: CP3439EV Original Permit Number: BL8619IA	EPR Reference: - Issue Date: 11/11/2013 Effective Date: 11/11/2013 Last date noted as effective: 02/11/2022 Status: SUPERCEDED



ID	Location	Details	
G	455m S	Operator: CONTRACT CHEMICALS (KNOWSLEY) LIMITED Installation Name: KNOWSLEY CONTRACT CHEMICALS EPR/BL8619IA Process: INORGANIC CHEMICALS; SALTS EG AMMONIUM CHLORIDE Permit Number: JP3233JC Original Permit Number: BL8619IA	EPR Reference: - Issue Date: 28/09/2017 Effective Date: 28/09/2017 Last date noted as effective: 02/11/2022 Status: SUPERCEDED
G	455m S	Operator: CONTRACT CHEMICALS (KNOWSLEY) LIMITED Installation Name: KNOWSLEY CONTRACT CHEMICALS EPR/BL8619IA Process: INORGANIC CHEMICALS; SALTS EG AMMONIUM CHLORIDE Permit Number: BL8619IA Original Permit Number: BL8619IA	EPR Reference: - Issue Date: 13/08/2004 Effective Date: 13/08/2004 Last date noted as effective: 02/11/2022 Status: SUPERCEDED
G	455m S	Operator: CONTRACT CHEMICALS (KNOWSLEY) LIMITED Installation Name: KNOWSLEY CONTRACT CHEMICALS EPR/BL8619IA Process: ORGANIC CHEMICALS; OXYGEN CONTAINING COMPOUNDS EG ALCOHOLS Permit Number: BL8619IA Original Permit Number: BL8619IA	EPR Reference: - Issue Date: 13/08/2004 Effective Date: 13/08/2004 Last date noted as effective: 02/11/2022 Status: SUPERCEDED
G	455m S	Operator: CONTRACT CHEMICALS (KNOWSLEY) LIMITED Installation Name: KNOWSLEY CONTRACT CHEMICALS EPR/BL8619IA Process: ORGANIC CHEMICALS; HALOGEN CONTAINING COMPOUNDS EG HALOCARBONS Permit Number: CP3439EV Original Permit Number: BL8619IA	EPR Reference: - Issue Date: 11/11/2013 Effective Date: 11/11/2013 Last date noted as effective: 02/11/2022 Status: SUPERCEDED
G	455m S	Operator: CONTRACT CHEMICALS (KNOWSLEY) LIMITED Installation Name: KNOWSLEY CONTRACT CHEMICALS EPR/BL8619IA Process: ORGANIC CHEMICALS; OXYGEN CONTAINING COMPOUNDS EG ALCOHOLS Permit Number: CP3439EV Original Permit Number: BL8619IA	EPR Reference: - Issue Date: 11/11/2013 Effective Date: 11/11/2013 Last date noted as effective: 02/11/2022 Status: SUPERCEDED

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



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

Records within 500m

5

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

Features are displayed on the Current industrial land use map on **page 35**

ID	Location	Address	Details	
10	170m SE	KME Yorkshire Ltd, Kirkby Works, East Lancs Road, L33 7TU	Process: Surface Cleaning Status: Historical Permit Permit Type: Part B	Enforcement: No Enforcements Notified Date of enforcement: No Enforcements Notified Comment: No Enforcements Notified
11	202m SE	Metal Architektur, Kirkby Works, East Lancs Road, L33 7TU	Process: Coating Processes Status: Historical Permit Permit Type: Part B	Enforcement: No Enforcements Notified Date of enforcement: No Enforcements Notified Comment: No Enforcements Notified
14	290m E	Tilcon Perlite, Hornhouse Lane, Knowsley Industrial Park, Liverpool, L33 7YQ	Process: Other Mineral Processes Status: Historical Permit Permit Type: Part B	Enforcement: No Enforcements Notified Date of enforcement: No Enforcements Notified Comment: No Enforcements Notified
F	368m SE	EuroGarages – Coopers Lane, Coopers Lane, Knowsley, L33 7TU	Process: Unloading of Petrol into Storage at Service Stations Status: Current Permit Permit Type: Part B	Enforcement: No Enforcements Notified Date of enforcement: No Enforcements Notified Comment: No Enforcements Notified
17	384m W	Otis, Moorgate Rd, Knowsley Industrial Park, Liverpool, L33 7XW	Process: Coating Processes Status: Historical Permit Permit Type: Part B	Enforcement: No Enforcements Notified Date of enforcement: No Enforcements Notified Comment: No Enforcements Notified

This data is sourced from Local Authority records.

4.12 Radioactive Substance Authorisations

Records within 500m

0

Records of the storage, use, accumulation and disposal of radioactive substances regulated under the Radioactive Substances Act 1993.

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



4.13 Licensed Discharges to controlled waters

Records within 500m**0**

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

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

4.14 Pollutant release to surface waters (Red List)

Records within 500m**0**

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

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

4.15 Pollutant release to public sewer

Records within 500m**0**

Discharges of Special Category Effluents to the public sewer.

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

4.16 List 1 Dangerous Substances

Records within 500m**0**

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

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

4.17 List 2 Dangerous Substances

Records within 500m**0**

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

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

4.18 Pollution Incidents (EA/NRW)

Records within 500m

3

Records of substantiated pollution incidents. Since 2006 this data has only included category 1 (major) and 2 (significant) pollution incidents.

Features are displayed on the Current industrial land use map on **page 35**

ID	Location	Details	
A	On site	Incident Date: 06/05/2005 Incident Identification: 310446 Pollutant: Inert Materials and Wastes Pollutant Description: Other Inert Material or Waste	Water Impact: Category 4 (No Impact) Land Impact: Category 2 (Significant) Air Impact: Category 4 (No Impact)
C	191m NE	Incident Date: 06/09/2003 Incident Identification: 187956 Pollutant: Inorganic Chemicals/Products Pollutant Description: Acids	Water Impact: Category 3 (Minor) Land Impact: Category 2 (Significant) Air Impact: Category 3 (Minor)
G	453m S	Incident Date: 24/05/2001 Incident Identification: 6634 Pollutant: Organic Chemicals/Products Pollutant Description: Other Organic Chemical or Product	Water Impact: Category 4 (No Impact) Land Impact: Category 4 (No Impact) Air Impact: Category 3 (Minor)

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

4.19 Pollution inventory substances

Records within 500m

0

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

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

4.20 Pollution inventory waste transfers

Records within 500m

1

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

Features are displayed on the Current industrial land use map on **page 35**



ID: E, Location: 260m N, Permit: LP3837FX
 Operator: Factory Services UK Ltd
 Activity: Animal vegetable and food treating etc vegetable
 Address: Knowsley Feed Mill Deacon Park Moorgate Road Knowsley Industrial Park Merseyside L33 7RX
 Sector: Food & Drink, Sub-sector: Food & Drink
 Releases:

Route	Route description	Quantity (tonnes)	Release level	EWC code	EWC description	Hazardous waste
R1	Use principally as a fuel or other means to generate energy	1406	Absolute Value	20 03 01	mixed municipal waste	0
R12	Exchange of wastes obtained from any of the operations numberd R1 to R11	296	Absolute Value	15 01 01	paper and cardboard packaging	0

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

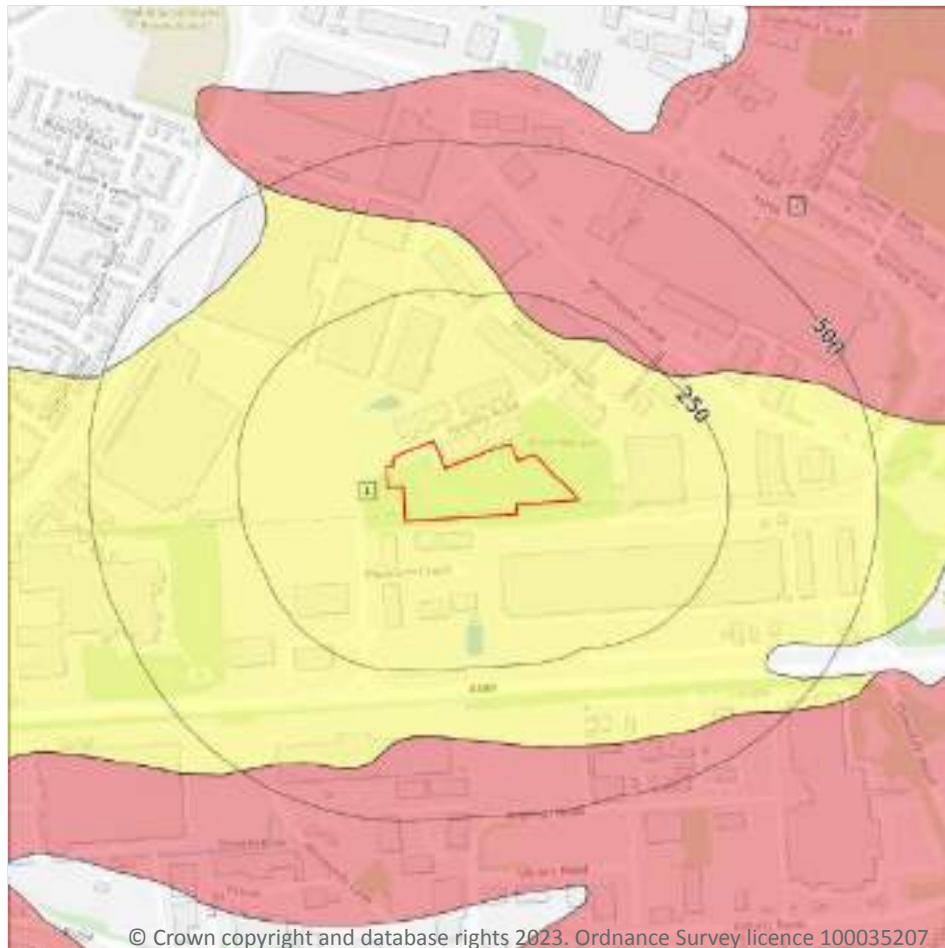
4.21 Pollution inventory radioactive waste

Records within 500m	0
----------------------------	----------

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

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

5 Hydrogeology - Superficial aquifer



- Site Outline
- Search buffers in metres (m)
- Principal
 - Secondary A
 - Secondary B
 - Secondary Undifferentiated
 - Unproductive
 - Unknown

5.1 Superficial aquifer

Records within 500m

2

Aquifer status of groundwater held within superficial geology.

Features are displayed on the Hydrogeology map on **page 58**

ID	Location	Designation	Description
1	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
2	198m NE	Secondary A	Permeable layers capable of supporting water supplies at a local rather than strategic scale, and in some cases forming an important source of base flow to rivers. These are generally aquifers formerly classified as minor aquifers

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



Bedrock aquifer



- Site Outline
- Search buffers in metres (m)
- Principal
 - Secondary A
 - Secondary B
 - Secondary Undifferentiated
 - Unproductive

5.2 Bedrock aquifer

Records within 500m

1

Aquifer status of groundwater held within bedrock geology.

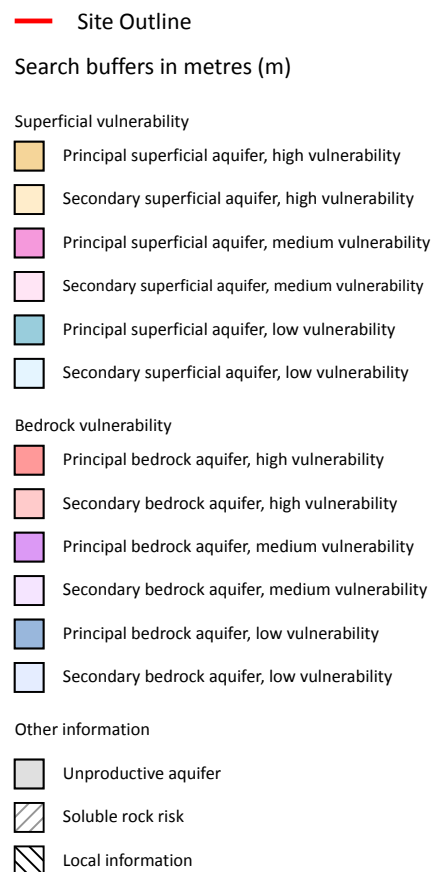
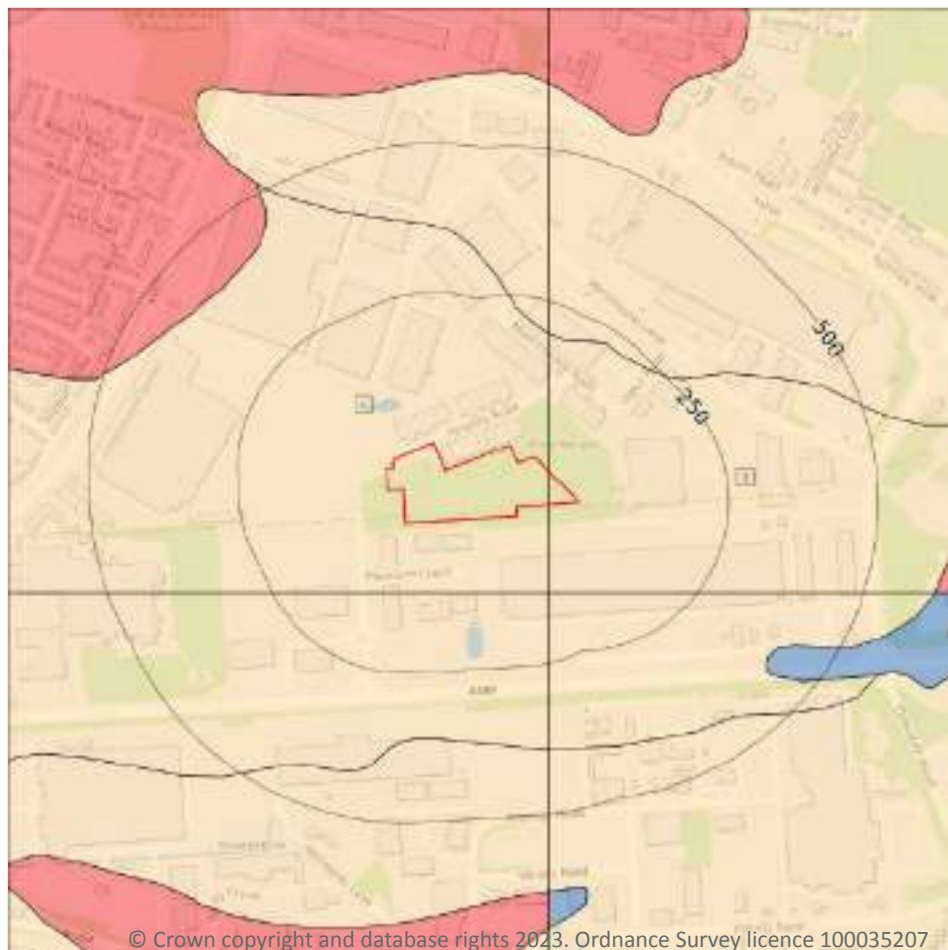
Features are displayed on the Bedrock aquifer map on **page 60**

ID	Location	Designation	Description
1	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

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



Groundwater vulnerability



5.3 Groundwater vulnerability

Records within 50m

2

An assessment of the vulnerability of groundwater to a pollutant discharged at ground level based on the hydrological, geological, hydrogeological and soil properties within a one kilometre square grid. Groundwater vulnerability is described as High, Medium or Low as follows:

- High - Areas able to easily transmit pollution to groundwater. They are likely to be characterised by high leaching soils and the absence of low permeability superficial deposits.
- Medium - Intermediate between high and low vulnerability.
- Low - Areas that provide the greatest protection from pollution. They are likely to be characterised by low leaching soils and/or the presence of superficial deposits characterised by a low permeability.

Features are displayed on the Groundwater vulnerability map on **page 61**

ID	Location	Summary	Soil / surface	Superficial geology	Bedrock geology
1	On site	Summary Classification: Secondary superficial aquifer - High Vulnerability Combined classification: Productive Bedrock Aquifer, Productive Superficial Aquifer	Leaching class: High Infiltration value: >70% Dilution value: 300-550mm/year	Vulnerability: High Aquifer type: Secondary Thickness: <3m Patchiness value: <90% Recharge potential: Low	Vulnerability: High Aquifer type: Principal Flow mechanism: Mixed
2	On site	Summary Classification: Secondary superficial aquifer - High Vulnerability Combined classification: Productive Bedrock Aquifer, Productive Superficial Aquifer	Leaching class: High Infiltration value: >70% Dilution value: 300-550mm/year	Vulnerability: High Aquifer type: Secondary Thickness: 3-10m Patchiness value: <90% Recharge potential: High	Vulnerability: High Aquifer type: Principal Flow mechanism: Mixed

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

5.4 Groundwater vulnerability- soluble rock risk

Records on site

0

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

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

5.5 Groundwater vulnerability- local information

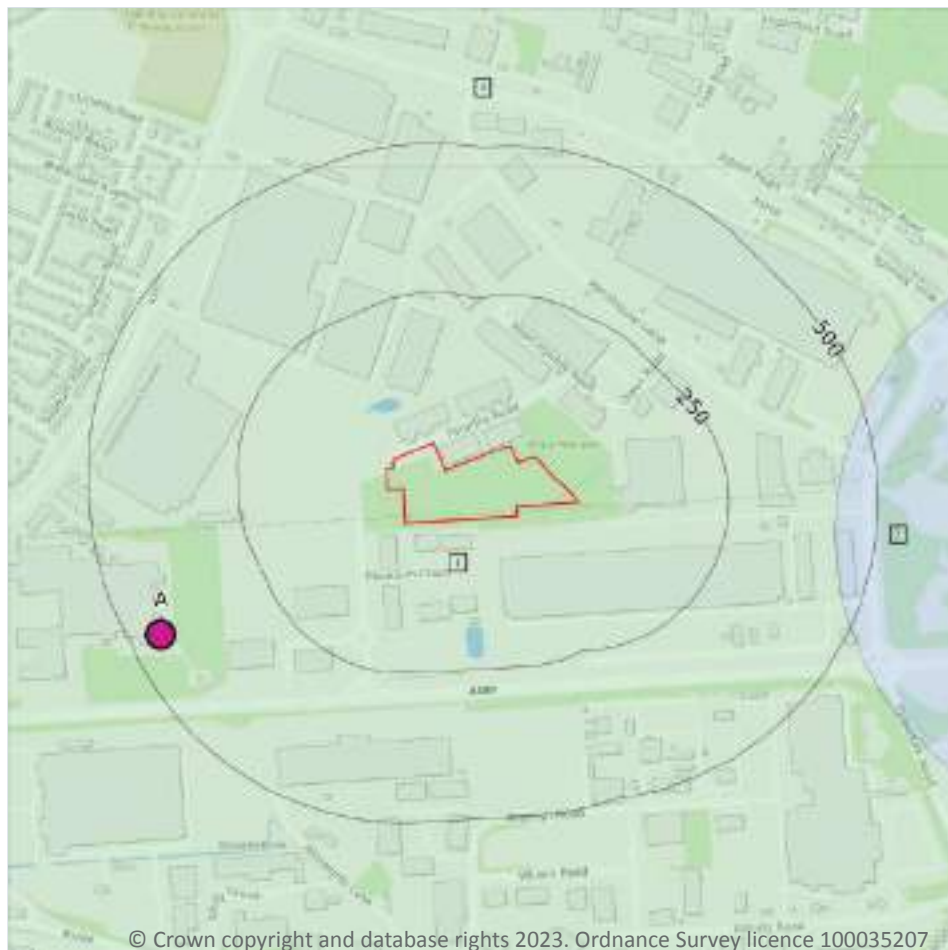
Records on site

0

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

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

Abstractions and Source Protection Zones



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

5.6 Groundwater abstractions

Records within 2000m

38

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

Features are displayed on the Abstractions and Source Protection Zones map on **page 63**

ID	Location	Details	
A	448m SW	Status: Historical Licence No: 2569031142 Details: Evaporative Cooling Direct Source: Ground Water - North West Region Point: LAND @ DAIRY CREST, KIRKBY Data Type: Point Name: DAIRY CREST LTD Easting: 342350 Northing: 396930	Annual Volume (m ³): 219000 Max Daily Volume (m ³): 600 Original Application No: - Original Start Date: 11/08/2004 Expiry Date: 31/03/2015 Issue No: 1 Version Start Date: 11/08/2004 Version End Date: -
A	448m SW	Status: Historical Licence No: 2569031142 Details: Process Water Direct Source: Ground Water - North West Region Point: LAND @ DAIRY CREST, KIRKBY Data Type: Point Name: DAIRY CREST LTD Easting: 342350 Northing: 396930	Annual Volume (m ³): 219000 Max Daily Volume (m ³): 600 Original Application No: - Original Start Date: 11/08/2004 Expiry Date: 31/03/2015 Issue No: 1 Version Start Date: 11/08/2004 Version End Date: -
A	448m SW	Status: Historical Licence No: 2569031142R01 Details: Evaporative Cooling Direct Source: Ground Water - North West Region Point: LAND @ DAIRY CREST, KIRKBY Data Type: Point Name: DAIRY CREST LTD Easting: 342350 Northing: 396930	Annual Volume (m ³): 219000 Max Daily Volume (m ³): 600 Original Application No: - Original Start Date: 01/04/2015 Expiry Date: 31/03/2028 Issue No: 2 Version Start Date: 13/06/2019 Version End Date: -
A	448m SW	Status: Historical Licence No: 2569031142R01 Details: Process Water Direct Source: Ground Water - North West Region Point: LAND @ DAIRY CREST, KIRKBY Data Type: Point Name: DAIRY CREST LTD Easting: 342350 Northing: 396930	Annual Volume (m ³): 219000 Max Daily Volume (m ³): 600 Original Application No: - Original Start Date: 01/04/2015 Expiry Date: 31/03/2028 Issue No: 2 Version Start Date: 13/06/2019 Version End Date: -
-	952m E	Status: Historical Licence No: 2569031016 Details: Potable Water Supply - Direct Direct Source: Ground Water - North West Region Point: "WELL, BOREHOLE AND WELLS AND BOREHOLES (2) AT KNOWSLEY" Data Type: Point Name: UNITED UTILITIES WATER PLC Easting: 344000 Northing: 397100	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 16/03/1966 Expiry Date: - Issue No: 100 Version Start Date: 16/03/1966 Version End Date: -



ID	Location	Details	
-	952m E	Status: Historical Licence No: 2569031016 Details: Potable Water Supply - Direct Direct Source: Ground Water - North West Region Point: WELL, BOREHOLE AND WELLS AND BOREHOLES (2) AT KNOWSLEY Data Type: Point Name: UNITED UTILITIES WATER PLC Easting: 344000 Northing: 397100	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 16/03/1966 Expiry Date: - Issue No: 100 Version Start Date: 16/03/1966 Version End Date: -
-	952m E	Status: Active Licence No: 2569031016 Details: Potable Water Supply - Direct Direct Source: Ground Water - North West Region Point: WELL BOREHOLE AND WELLS AND BOREHOLES X 2 AT KNOWSLEY Data Type: Point Name: United Utilities Water Ltd Easting: 344000 Northing: 397100	Annual Volume (m ³): 2,074,000 Max Daily Volume (m ³): 7,500 Original Application No: NPS/WR/026423 Original Start Date: 16/03/1966 Expiry Date: - Issue No: 102 Version Start Date: 26/11/2018 Version End Date: -
-	1363m N	Status: Historical Licence No: 2569031131 Details: Spray Irrigation - Direct Direct Source: Ground Water - North West Region Point: "BOREHOLE ""B"" AT KIRKBY" Data Type: Point Name: LIVERPOOL FOOTBALL CLUB SOCCER ACADEMY Easting: 342460 Northing: 398570	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: - Expiry Date: - Issue No: 1 Version Start Date: 28/09/1999 Version End Date: -
-	1363m N	Status: Historical Licence No: 2569031131 Details: General use relating to Secondary Category (Medium Loss) Direct Source: Ground Water - North West Region Point: "BOREHOLE ""B"" AT KIRKBY" Data Type: Point Name: LIVERPOOL FOOTBALL CLUB SOCCER ACADEMY Easting: 342460 Northing: 398570	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: - Expiry Date: - Issue No: 1 Version Start Date: 28/09/1999 Version End Date: -



ID	Location	Details	
-	1363m N	Status: Historical Licence No: 2569031131 Details: General use relating to Secondary Category (Medium Loss) Direct Source: Ground Water - North West Region Point: BOREHOLE "B" AT KIRKBY Data Type: Point Name: LIVERPOOL FOOTBALL CLUB SOCCER ACADEMY Easting: 342460 Northing: 398570	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: - Expiry Date: - Issue No: 1 Version Start Date: 28/09/1999 Version End Date: -
-	1363m N	Status: Historical Licence No: 2569031131 Details: Spray Irrigation - Direct Direct Source: Ground Water - North West Region Point: BOREHOLE "B" AT KIRKBY Data Type: Point Name: LIVERPOOL FOOTBALL CLUB SOCCER ACADEMY Easting: 342460 Northing: 398570	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: - Expiry Date: - Issue No: 1 Version Start Date: 28/09/1999 Version End Date: -
-	1363m N	Status: Historical Licence No: 2569031131 Details: General Use Relating To Secondary Category (Medium Loss) Direct Source: Ground Water - North West Region Point: BOREHOLE B AT KIRKBY Data Type: Point Name: LIVERPOOL FOOTBALL CLUB SOCCER ACADEMY Easting: 342460 Northing: 398570	Annual Volume (m ³): 150000 Max Daily Volume (m ³): 600 Original Application No: - Original Start Date: 28/09/1999 Expiry Date: - Issue No: 1 Version Start Date: 28/09/1999 Version End Date: -
-	1363m N	Status: Historical Licence No: 2569031131 Details: Spray Irrigation - Direct Direct Source: Ground Water - North West Region Point: BOREHOLE B AT KIRKBY Data Type: Point Name: LIVERPOOL FOOTBALL CLUB SOCCER ACADEMY Easting: 342460 Northing: 398570	Annual Volume (m ³): 150000 Max Daily Volume (m ³): 600 Original Application No: - Original Start Date: 28/09/1999 Expiry Date: - Issue No: 1 Version Start Date: 28/09/1999 Version End Date: -
-	1375m N	Status: Historical Licence No: 2569031131 Details: General use relating to Secondary Category (Medium Loss) Direct Source: Ground Water - North West Region Point: "BOREHOLE ""A"" AT KIRKBY" Data Type: Point Name: LIVERPOOL FOOTBALL CLUB SOCCER ACADEMY Easting: 342450 Northing: 398580	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: - Expiry Date: - Issue No: 1 Version Start Date: 28/09/1999 Version End Date: -



ID	Location	Details	
-	1375m N	Status: Historical Licence No: 2569031131 Details: Spray Irrigation - Direct Direct Source: Ground Water - North West Region Point: "BOREHOLE ""A""AT KIRKBY" Data Type: Point Name: LIVERPOOL FOOTBALL CLUB SOCCER ACADEMY Easting: 342450 Northing: 398580	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: - Expiry Date: - Issue No: 1 Version Start Date: 28/09/1999 Version End Date: -
-	1375m N	Status: Historical Licence No: 2569031131 Details: Spray Irrigation - Direct Direct Source: Ground Water - North West Region Point: BOREHOLE "A"AT KIRKBY Data Type: Point Name: LIVERPOOL FOOTBALL CLUB SOCCER ACADEMY Easting: 342450 Northing: 398580	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: - Expiry Date: - Issue No: 1 Version Start Date: 28/09/1999 Version End Date: -
-	1375m N	Status: Historical Licence No: 2569031131 Details: General use relating to Secondary Category (Medium Loss) Direct Source: Ground Water - North West Region Point: BOREHOLE "A"AT KIRKBY Data Type: Point Name: LIVERPOOL FOOTBALL CLUB SOCCER ACADEMY Easting: 342450 Northing: 398580	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: - Expiry Date: - Issue No: 1 Version Start Date: 28/09/1999 Version End Date: -
-	1375m N	Status: Historical Licence No: 2569031131 Details: General Use Relating To Secondary Category (Medium Loss) Direct Source: Ground Water - North West Region Point: BOREHOLE A AT KIRKBY Data Type: Point Name: LIVERPOOL FOOTBALL CLUB SOCCER ACADEMY Easting: 342450 Northing: 398580	Annual Volume (m ³): 150000 Max Daily Volume (m ³): 600 Original Application No: - Original Start Date: 28/09/1999 Expiry Date: - Issue No: 1 Version Start Date: 28/09/1999 Version End Date: -
-	1375m N	Status: Historical Licence No: 2569031131 Details: Spray Irrigation - Direct Direct Source: Ground Water - North West Region Point: BOREHOLE A AT KIRKBY Data Type: Point Name: LIVERPOOL FOOTBALL CLUB SOCCER ACADEMY Easting: 342450 Northing: 398580	Annual Volume (m ³): 150000 Max Daily Volume (m ³): 600 Original Application No: - Original Start Date: 28/09/1999 Expiry Date: - Issue No: 1 Version Start Date: 28/09/1999 Version End Date: -



ID	Location	Details	
-	1405m N	Status: Historical Licence No: 2569031131 Details: Spray Irrigation - Direct Direct Source: Ground Water - North West Region Point: BOREHOLE AT KIRKBY Data Type: Point Name: Liverpool Football Club & Athletic Grounds Limited Easting: 342445 Northing: 398610	Annual Volume (m ³): 150000 Max Daily Volume (m ³): 432 Original Application No: - Original Start Date: 28/09/1999 Expiry Date: - Issue No: 2 Version Start Date: 23/10/2014 Version End Date: -
-	1405m N	Status: Historical Licence No: 2569031131 Details: Spray Irrigation - Direct Direct Source: Ground Water - North West Region Point: BOREHOLE AT KIRKBY Data Type: Point Name: Liverpool Football Club & Athletic Grounds Limited Easting: 342445 Northing: 398610	Annual Volume (m ³): 150,000 Max Daily Volume (m ³): 792 Original Application No: - Original Start Date: 28/09/1999 Expiry Date: - Issue No: 3 Version Start Date: 19/11/2019 Version End Date: -
-	1405m N	Status: Historical Licence No: 2569031131 Details: Spray Irrigation - Direct Direct Source: Ground Water - North West Region Point: BOREHOLE AT KIRKBY Data Type: Point Name: Liverpool Football Club & Athletic Grounds Limited Easting: 342445 Northing: 398610	Annual Volume (m ³): 150,000 Max Daily Volume (m ³): 792 Original Application No: - Original Start Date: 28/09/1999 Expiry Date: - Issue No: 3 Version Start Date: 19/11/2019 Version End Date: -
-	1405m N	Status: Active Licence No: 2569031131 Details: Spray Irrigation - Direct Direct Source: Ground Water - North West Region Point: BOREHOLE AT KIRKBY Data Type: Point Name: Liverpool Football Club & Athletic Grounds Limited Easting: 342445 Northing: 398610	Annual Volume (m ³): 150,000 Max Daily Volume (m ³): 792 Original Application No: NPS/WR/027992 Original Start Date: 28/09/1999 Expiry Date: - Issue No: 3 Version Start Date: 19/11/2019 Version End Date: -

ID	Location	Details	
-	1405m N	Status: Active Licence No: 2569031131 Details: Spray Irrigation - Direct Direct Source: Ground Water - North West Region Point: BOREHOLE AT KIRKBY Data Type: Point Name: Liverpool Football Club & Athletic Grounds Limited Easting: 342445 Northing: 398610	Annual Volume (m ³): 150,000 Max Daily Volume (m ³): 792 Original Application No: NPS/WR/027992 Original Start Date: 28/09/1999 Expiry Date: - Issue No: 3 Version Start Date: 19/11/2019 Version End Date: -
-	1526m N	Status: Active Licence No: 2569031090 Details: Boiler Feed Direct Source: Ground Water - North West Region Point: BOREHOLE AT KIRKBY INDUSTRIAL ESTATE Data Type: Point Name: Baker Hughes Limited Easting: 343400 Northing: 398700	Annual Volume (m ³): 250,030 Max Daily Volume (m ³): 818.28 Original Application No: NPS/WR/006045 Original Start Date: 20/01/1989 Expiry Date: - Issue No: 101 Version Start Date: 18/03/2011 Version End Date: -
-	1526m N	Status: Active Licence No: 2569031090 Details: Drinking, Cooking, Sanitary, Washing, (Small Garden) - Commercial/Industrial/Public Services Direct Source: Ground Water - North West Region Point: BOREHOLE AT KIRKBY INDUSTRIAL ESTATE Data Type: Point Name: Baker Hughes Limited Easting: 343400 Northing: 398700	Annual Volume (m ³): 250,030 Max Daily Volume (m ³): 818.28 Original Application No: NPS/WR/006045 Original Start Date: 20/01/1989 Expiry Date: - Issue No: 101 Version Start Date: 18/03/2011 Version End Date: -
-	1526m N	Status: Active Licence No: 2569031090 Details: Process Water Direct Source: Ground Water - North West Region Point: BOREHOLE AT KIRKBY INDUSTRIAL ESTATE Data Type: Point Name: Baker Hughes Limited Easting: 343400 Northing: 398700	Annual Volume (m ³): 250,030 Max Daily Volume (m ³): 818.28 Original Application No: NPS/WR/006045 Original Start Date: 20/01/1989 Expiry Date: - Issue No: 101 Version Start Date: 18/03/2011 Version End Date: -



ID	Location	Details	
-	1776m NE	Status: Historical Licence No: 2569031089 Details: General Use Relating To Secondary Category (Medium Loss) Direct Source: Ground Water - North West Region Point: BOREHOLE AT KIRKBY Data Type: Point Name: AMES GOLDSMITH UK LTD Easting: 343800 Northing: 398800	Annual Volume (m ³): 90920 Max Daily Volume (m ³): 340.95 Original Application No: - Original Start Date: 01/07/1988 Expiry Date: - Issue No: 101 Version Start Date: 10/11/2006 Version End Date: -
-	1776m NE	Status: Active Licence No: 2569031089 Details: General Cooling (Existing Licences Only) (Low Loss) Direct Source: Ground Water - North West Region Point: BOREHOLE AT KIRKBY Data Type: Point Name: AMES GOLDSMITH UK LTD Easting: 343800 Northing: 398800	Annual Volume (m ³): 90,920 Max Daily Volume (m ³): 340.95 Original Application No: NPS/WR/023235 Original Start Date: 01/07/1988 Expiry Date: - Issue No: 102 Version Start Date: 26/07/2016 Version End Date: -
-	1917m W	Status: Historical Licence No: 2569031024 Details: Potable Water Supply - Direct Direct Source: Ground Water - North West Region Point: B/HOLES, WELLS, ADITS & HEADINGS@KNOWSLEY RANGLES BRIDGE215 Data Type: Point Name: NORTH WEST WATER LTD Easting: 340900 Northing: 396600	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 02/11/1966 Expiry Date: - Issue No: 100 Version Start Date: 10/02/1995 Version End Date: -
-	1917m W	Status: Historical Licence No: 2569031024 Details: Potable Water Supply - Direct Direct Source: Ground Water - North West Region Point: "B/HOLES, WELLS, ADITS & HEADINGS@KNOWSLEY RANGLES BRIDGE \$215" Data Type: Point Name: UNITED UTILITIES WATER PLC Easting: 340900 Northing: 396600	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 02/11/1966 Expiry Date: - Issue No: 100 Version Start Date: 10/02/1995 Version End Date: -



ID	Location	Details	
-	1917m W	Status: Historical Licence No: 2569031024 Details: Potable Water Supply - Direct Direct Source: Ground Water - North West Region Point: B/HOLES, WELLS,ADITS & HEADINGS@KNOWSLEY RANGLES BRIDGE \$215 Data Type: Point Name: UNITED UTILITIES WATER PLC Easting: 340900 Northing: 396600	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 02/11/1966 Expiry Date: - Issue No: 100 Version Start Date: 10/02/1995 Version End Date: -
-	1917m W	Status: Active Licence No: 2569031024 Details: Potable Water Supply - Direct Direct Source: Ground Water - North West Region Point: B/HOLES, WELLS,ADITS & HEADINGS AT KNOWSLEY RANGLES BRIDGE Data Type: Point Name: United Utilities Water Ltd Easting: 340900 Northing: 396600	Annual Volume (m ³): 2,905,000 Max Daily Volume (m ³): 9,092.18 Original Application No: NPS/WR/026426 Original Start Date: 02/11/1966 Expiry Date: - Issue No: 102 Version Start Date: 26/11/2018 Version End Date: -
-	1917m N	Status: Active Licence No: 2569031131 Details: Spray Irrigation - Direct Direct Source: Ground Water - North West Region Point: BOREHOLE AT KIRKBY 2 Data Type: Point Name: Liverpool Football Club & Athletic Grounds Limited Easting: 342734 Northing: 399168	Annual Volume (m ³): 150,000 Max Daily Volume (m ³): 792 Original Application No: NPS/WR/027992 Original Start Date: 28/09/1999 Expiry Date: - Issue No: 3 Version Start Date: 19/11/2019 Version End Date: -
-	1999m NE	Status: Historical Licence No: 2569031011 Details: Process water Direct Source: Ground Water - North West Region Point: "BOREHOLE AT KIRKBY INDUSTRIAL ESTATEKIRKBY, MERSEYSIDE" Data Type: Point Name: PILKINGTON BROTHERS LTD Easting: 343900 Northing: 399000	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 28/01/1966 Expiry Date: - Issue No: 100 Version Start Date: 28/01/1966 Version End Date: -

ID	Location	Details	
-	1999m NE	Status: Historical Licence No: 2569031011 Details: General Cooling (Existing Licences Only) (Low Loss) Direct Source: Ground Water - North West Region Point: "BOREHOLE AT KIRKBY INDUSTRIAL ESTATE KIRKBY, MERSEYSIDE" Data Type: Point Name: PILKINGTON BROTHERS LTD Easting: 343900 Northing: 399000	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 28/01/1966 Expiry Date: - Issue No: 100 Version Start Date: 28/01/1966 Version End Date: -
-	1999m NE	Status: Historical Licence No: 2569031011 Details: General Cooling (Existing Licences Only) (Low Loss) Direct Source: Ground Water - North West Region Point: BOREHOLE AT KIRKBY INDUSTRIAL ESTATE KIRKBY, MERSEYSIDE Data Type: Point Name: PILKINGTON BROTHERS LTD Easting: 343900 Northing: 399000	Annual Volume (m ³): 1,591,135 Max Daily Volume (m ³): 5237.11 Original Application No: - Original Start Date: 28/01/1966 Expiry Date: - Issue No: 100 Version Start Date: 28/01/1966 Version End Date: -
-	1999m NE	Status: Historical Licence No: 2569031011 Details: Process Water Direct Source: Ground Water - North West Region Point: BOREHOLE AT KIRKBY INDUSTRIAL ESTATE KIRKBY, MERSEYSIDE Data Type: Point Name: PILKINGTON BROTHERS LTD Easting: 343900 Northing: 399000	Annual Volume (m ³): 1,591,135 Max Daily Volume (m ³): 5237.11 Original Application No: - Original Start Date: 28/01/1966 Expiry Date: - Issue No: 100 Version Start Date: 28/01/1966 Version End Date: -

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

5.7 Surface water abstractions

Records within 2000m

0

Licensed surface water abstractions for sites extracting more than 20 cubic metres of water a day and includes active and historical records. The data may be for a single abstraction point, a stretch of watercourse or a larger area.

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



5.8 Potable abstractions

Records within 2000m

8

Licensed potable water abstractions for sites extracting more than 20 cubic metres of water a day and includes active and historical records. The data may be for a single abstraction point, a stretch of watercourse or a larger area.

Features are displayed on the Abstractions and Source Protection Zones map on **page 63**

ID	Location	Details	
-	952m E	Status: Historical Licence No: 2569031016 Details: Potable Water Supply - Direct Direct Source: Ground Water - North West Region Point: "WELL, BOREHOLE AND WELLS AND BOREHOLES (2) AT KNOWSLEY" Data Type: Point Name: UNITED UTILITIES WATER PLC Easting: 344000 Northing: 397100	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 16/03/1966 Expiry Date: - Issue No: 100 Version Start Date: 16/03/1966 Version End Date: -
-	952m E	Status: Historical Licence No: 2569031016 Details: Potable Water Supply - Direct Direct Source: Ground Water - North West Region Point: WELL, BOREHOLE AND WELLS AND BOREHOLES (2) AT KNOWSLEY Data Type: Point Name: UNITED UTILITIES WATER PLC Easting: 344000 Northing: 397100	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 16/03/1966 Expiry Date: - Issue No: 100 Version Start Date: 16/03/1966 Version End Date: -
-	952m E	Status: Active Licence No: 2569031016 Details: Potable Water Supply - Direct Direct Source: Ground Water - North West Region Point: WELL BOREHOLE AND WELLS AND BOREHOLES X 2 AT KNOWSLEY Data Type: Point Name: United Utilities Water Ltd Easting: 344000 Northing: 397100	Annual Volume (m ³): 2,074,000 Max Daily Volume (m ³): 7,500 Original Application No: NPS/WR/026423 Original Start Date: 16/03/1966 Expiry Date: - Issue No: 102 Version Start Date: 26/11/2018 Version End Date: -



ID	Location	Details	
-	1526m N	Status: Active Licence No: 2569031090 Details: Drinking, Cooking, Sanitary, Washing, (Small Garden) - Commercial/Industrial/Public Services Direct Source: Ground Water - North West Region Point: BOREHOLE AT KIRKBY INDUSTRIAL ESTATE Data Type: Point Name: Baker Hughes Limited Easting: 343400 Northing: 398700	Annual Volume (m ³): 250,030 Max Daily Volume (m ³): 818.28 Original Application No: NPS/WR/006045 Original Start Date: 20/01/1989 Expiry Date: - Issue No: 101 Version Start Date: 18/03/2011 Version End Date: -
-	1917m W	Status: Historical Licence No: 2569031024 Details: Potable Water Supply - Direct Direct Source: Ground Water - North West Region Point: B/HOLES, WELLS,ADITS & HEADINGS@KNOWSLEY RANGLES BRIDGE215 Data Type: Point Name: NORTH WEST WATER LTD Easting: 340900 Northing: 396600	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 02/11/1966 Expiry Date: - Issue No: 100 Version Start Date: 10/02/1995 Version End Date: -
-	1917m W	Status: Historical Licence No: 2569031024 Details: Potable Water Supply - Direct Direct Source: Ground Water - North West Region Point: "B/HOLES, WELLS,ADITS & HEADINGS@KNOWSLEY RANGLES BRIDGE \$215" Data Type: Point Name: UNITED UTILITIES WATER PLC Easting: 340900 Northing: 396600	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 02/11/1966 Expiry Date: - Issue No: 100 Version Start Date: 10/02/1995 Version End Date: -
-	1917m W	Status: Historical Licence No: 2569031024 Details: Potable Water Supply - Direct Direct Source: Ground Water - North West Region Point: B/HOLES, WELLS,ADITS & HEADINGS@KNOWSLEY RANGLES BRIDGE \$215 Data Type: Point Name: UNITED UTILITIES WATER PLC Easting: 340900 Northing: 396600	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 02/11/1966 Expiry Date: - Issue No: 100 Version Start Date: 10/02/1995 Version End Date: -



ID	Location	Details	
-	1917m W	Status: Active Licence No: 2569031024 Details: Potable Water Supply - Direct Direct Source: Ground Water - North West Region Point: B/HOLES, WELLS, ADITS & HEADINGS AT KNOWSLEY RANGLES BRIDGE Data Type: Point Name: United Utilities Water Ltd Easting: 340900 Northing: 396600	Annual Volume (m ³): 2,905,000 Max Daily Volume (m ³): 9,092.18 Original Application No: NPS/WR/026426 Original Start Date: 02/11/1966 Expiry Date: - Issue No: 102 Version Start Date: 26/11/2018 Version End Date: -

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

5.9 Source Protection Zones

Records within 500m	3
----------------------------	----------

Source Protection Zones define the sensitivity of an area around a potable abstraction site to contamination. Features are displayed on the Abstractions and Source Protection Zones map on **page 63**

ID	Location	Type	Description
1	On site	3	Total catchment
2	430m E	2	Outer catchment
3	464m N	3	Total catchment

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

5.10 Source Protection Zones (confined aquifer)

Records within 500m	0
----------------------------	----------

Source Protection Zones in the confined aquifer define the sensitivity around a deep groundwater abstraction to contamination. A confined aquifer would normally be protected from contamination by overlying geology and is only considered a sensitive resource if deep excavation/drilling is taking place.

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

6 Hydrology



- Site Outline
- Search buffers in metres (m)
- Water Network (OS MasterMap)
- Surface water features (wider than 5m)
- Surface water features (narrower than 5m)
- ⋯ WFD River, canal and surface water transfer water bodies
- WFD Lake water bodies
- WFD Transitional and coastal water bodies
- WFD Surface water body catchments boundaries
- WFD Groundwater body boundaries

6.1 Water Network (OS MasterMap)

Records within 250m

6

Detailed water network of Great Britain showing the flow and precise central course of every river, stream, lake and canal.

Features are displayed on the Hydrology map on **page 76**

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

ID	Location	Type of water feature	Ground level	Permanence	Name
B	3m E	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
C	3m NE	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
3	14m SW	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
A	15m E	Lake, loch or reservoir.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
C	27m NE	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-

This data is sourced from the Ordnance Survey.

6.2 Surface water features

Records within 250m	6
----------------------------	----------

Covering rivers, streams and lakes (some overlap with OS MasterMap Water Network data in previous section) but additionally covers smaller features such as ponds. Rivers and streams narrower than 5m are represented as a single line. Lakes, ponds and rivers or streams wider than 5m are represented as polygons.

Features are displayed on the Hydrology map on **page 76**

This data is sourced from the Ordnance Survey.

6.3 WFD Surface water body catchments

Records on site	1
------------------------	----------

The Water Framework Directive is an EU-led framework for the protection of inland surface waters, estuaries, coastal waters and groundwater through river basin-level management planning. In terms of surface water, these basins are broken down into smaller units known as management, operational and water body catchments.

Features are displayed on the Hydrology map on **page 76**

ID	Location	Type	Water body catchment	Water body ID	Operational catchment	Management catchment
1	On site	River	Croxteth/Knowsley Brook	GB112069060610	Alt	Alt and Crossens



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

6.4 WFD Surface water bodies

Records identified

1

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

Features are displayed on the Hydrology map on **page 76**

ID	Location	Type	Name	Water body ID	Overall rating	Chemical rating	Ecological rating	Year
8	333m S	River	Croxteth/Knowsley Brook	GB112069060610	Moderate	Fail	Moderate	2019

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

6.5 WFD Groundwater bodies

Records on site

1

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

Features are displayed on the Hydrology map on **page 76**

ID	Location	Name	Water body ID	Overall rating	Chemical rating	Quantitative	Year
2	On site	Lower Mersey Basin and North Merseyside Permo-Triassic Sandstone Aquifers	GB41201G101700	Poor	Poor	Poor	2019

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



7 River and coastal flooding

7.1 Risk of flooding from rivers and the sea

Records within 50m**0**

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

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

7.2 Historical Flood Events

Records within 250m**0**

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

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

7.3 Flood Defences

Records within 250m**0**

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

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

7.4 Areas Benefiting from Flood Defences

Records within 250m

0

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

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

7.5 Flood Storage Areas

Records within 250m

0

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

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



River and coastal flooding - Flood Zones

7.6 Flood Zone 2

Records within 50m

0

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

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

7.7 Flood Zone 3

Records within 50m

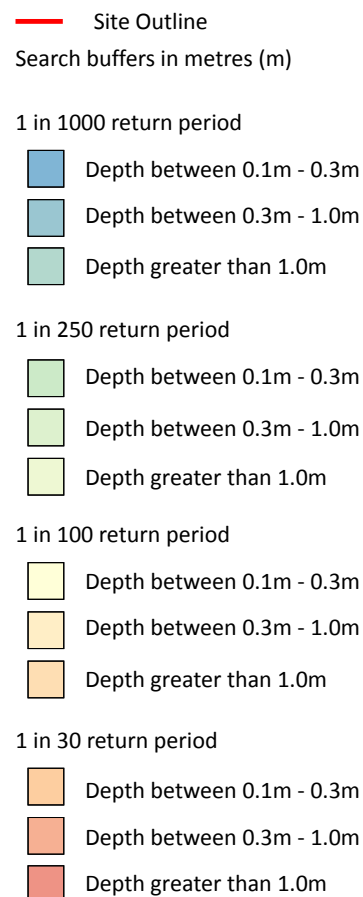
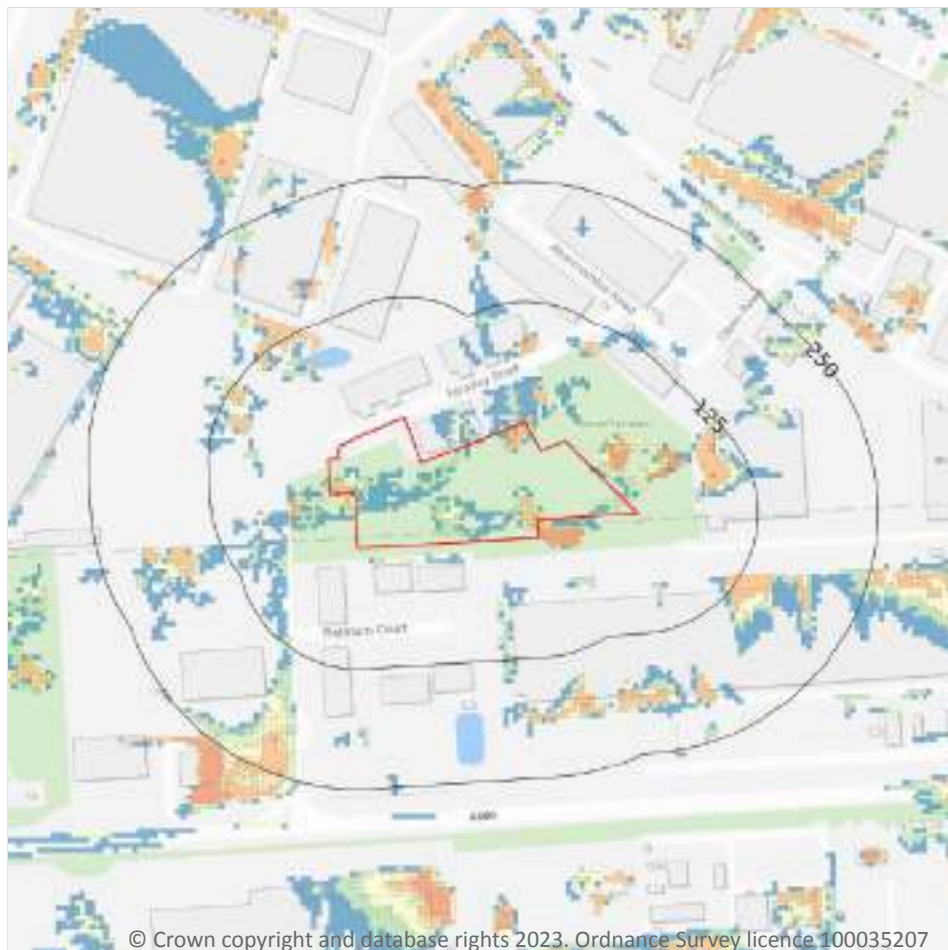
0

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

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



8 Surface water flooding



8.1 Surface water flooding

Highest risk on site

1 in 30 year, 0.3m - 1.0m

Highest risk within 50m

1 in 30 year, 0.3m - 1.0m

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

Features are displayed on the Surface water flooding map on **page 82**

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

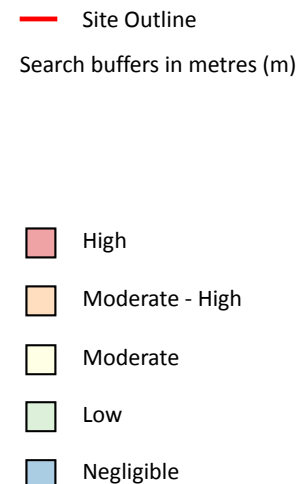
The table below shows the maximum flood depths for a range of return periods for the site.

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

This data is sourced from Ambiantal Risk Analytics.



9 Groundwater flooding



9.1 Groundwater flooding

Highest risk on site

Moderate

Highest risk within 50m

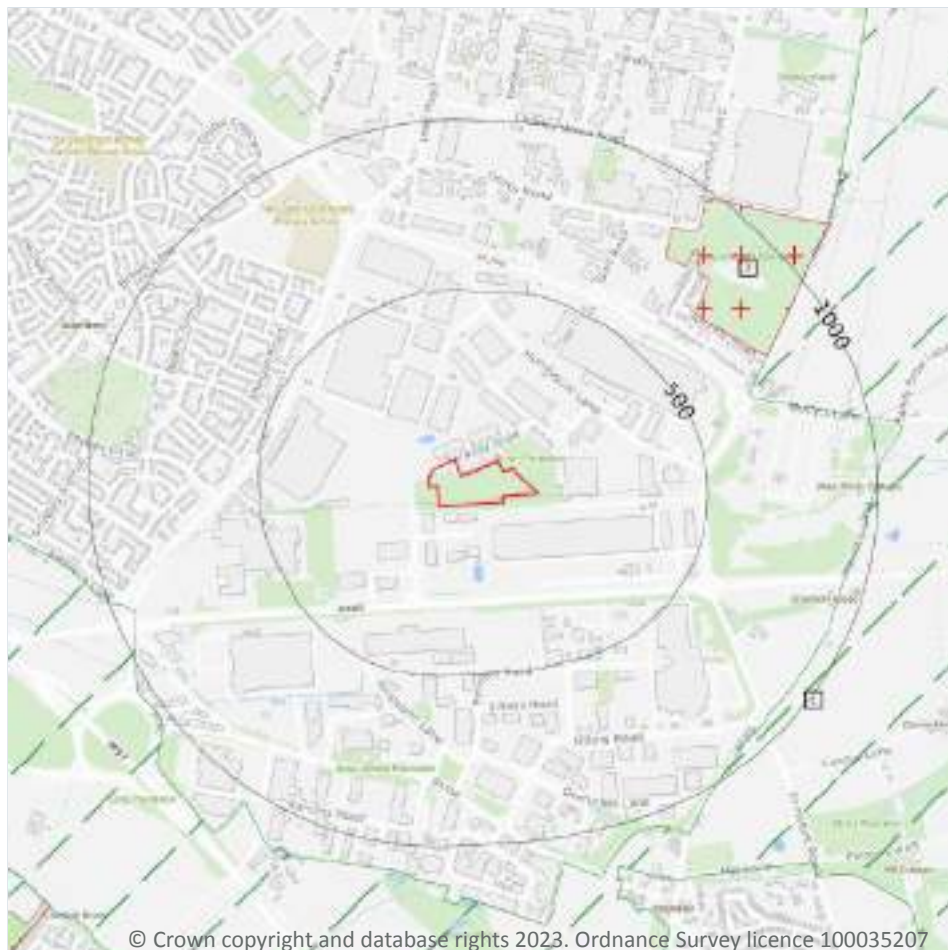
Moderate

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

Features are displayed on the Groundwater flooding map on **page 84**

This data is sourced from Ambiantal Risk Analytics.

10 Environmental designations



- Site Outline
- Search buffers in metres (m)
- + Local Nature Reserves (LNR)
- / Green Belt

10.1 Sites of Special Scientific Interest (SSSI)

Records within 2000m

0

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

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

10.2 Conserved wetland sites (Ramsar sites)

Records within 2000m**0**

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

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

10.3 Special Areas of Conservation (SAC)

Records within 2000m**0**

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

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

10.4 Special Protection Areas (SPA)

Records within 2000m**0**

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

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

10.5 National Nature Reserves (NNR)

Records within 2000m**0**

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

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

10.6 Local Nature Reserves (LNR)

Records within 2000m**2**

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

Features are displayed on the Environmental designations map on **page 85**

ID	Location	Name	Data source
2	701m NE	Acornfield Plantation	Natural England
4	1638m SW	Croxteth	Natural England

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

10.7 Designated Ancient Woodland

Records within 2000m**0**

Ancient woodlands are classified as areas which have been wooded continuously since at least 1600 AD. This includes semi-natural woodland and plantations on ancient woodland sites. 'Wooded continuously' does not mean there is or has previously been continuous tree cover across the whole site, and not all trees within the woodland have to be old.

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

10.8 Biosphere Reserves

Records within 2000m**0**

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

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

10.9 Forest Parks

Records within 2000m**0**

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

This data is sourced from the Forestry Commission.



10.10 Marine Conservation Zones

Records within 2000m

0

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

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

10.11 Green Belt

Records within 2000m

2

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

Features are displayed on the Environmental designations map on **page 85**

ID	Location	Name	Local Authority name
1	690m E	Merseyside and Greater Manchester	Knowsley
3	1637m SW	Merseyside and Greater Manchester	Liverpool

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

10.12 Proposed Ramsar sites

Records within 2000m

0

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

This data is sourced from Natural England.

10.13 Possible Special Areas of Conservation (pSAC)

Records within 2000m

0

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

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

10.14 Potential Special Protection Areas (pSPA)

Records within 2000m

0

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

This data is sourced from Natural England.

10.15 Nitrate Sensitive Areas

Records within 2000m

0

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

This data is sourced from Natural England.

10.16 Nitrate Vulnerable Zones

Records within 2000m

4

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

Location	Name	Type	NVZ ID	Status
On site	ALT NVZ	Surface Water	642	Existing
1043m E	ALT NVZ	Surface Water	642	Existing
1134m S	ALT NVZ	Surface Water	642	Existing
1568m SE	ALT NVZ	Surface Water	642	Existing

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



SSSI Impact Zones and Units

10.17 SSSI Impact Risk Zones

Records on site	0
-----------------	---

Developed to allow rapid initial assessment of the potential risks to SSSIs posed by development proposals. They define zones around each SSSI which reflect the particular sensitivities of the features for which it is notified and indicate the types of development proposal which could potentially have adverse impacts.

This data is sourced from Natural England.

10.18 SSSI Units

Records within 2000m	0
----------------------	---

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

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



11 Visual and cultural designations

11.1 World Heritage Sites

Records within 250m

0

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

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

11.2 Area of Outstanding Natural Beauty

Records within 250m

0

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

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

11.3 National Parks

Records within 250m

0

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

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

11.4 Listed Buildings

Records within 250m

0

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



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

11.5 Conservation Areas

Records within 250m

0

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

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

11.6 Scheduled Ancient Monuments

Records within 250m

0

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

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

11.7 Registered Parks and Gardens

Records within 250m

0

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

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



12 Agricultural designations



- Site Outline
- Search buffers in metres (m)
- Grade 1 - excellent quality
- Grade 2 - very good quality
- Grade 3 - good to moderate quality
- Grade 3a - good quality
- Grade 3b - moderate quality
- Grade 4 - poor quality
- Grade 5 - very poor quality
- Non-agricultural land
- Urban land
- Exclusion land
- Tree felling licences
- Open Access land

12.1 Agricultural Land Classification

Records within 250m

1

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

Features are displayed on the Agricultural designations map on **page 93**

ID	Location	Classification	Description
1	On site	Urban	-

This data is sourced from Natural England.



12.2 Open Access Land

Records within 250m

0

The Countryside and Rights of Way Act 2000 (CROW Act) gives a public right of access to land without having to use paths. Access land includes mountains, moors, heaths and downs that are privately owned. It also includes common land registered with the local council and some land around the England Coast Path. Generally permitted activities on access land are walking, running, watching wildlife and climbing.

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

12.3 Tree Felling Licences

Records within 250m

0

Felling Licence Application (FLA) areas approved by Forestry Commission England. Anyone wishing to fell trees must ensure that a licence or permission under a grant scheme has been issued by the Forestry Commission before any felling is carried out or that one of the exceptions apply.

This data is sourced from the Forestry Commission.

12.4 Environmental Stewardship Schemes

Records within 250m

0

Environmental Stewardship covers a range of schemes that provide financial incentives to farmers, foresters and land managers to look after and improve the environment. The schemes identified may be historical schemes that have now expired, or may still be active.

This data is sourced from Natural England.

12.5 Countryside Stewardship Schemes

Records within 250m

0

Countryside Stewardship covers a range of schemes that provide financial incentives to farmers, foresters and land managers to look after and improve the environment. Main objectives are to improve the farmed environment for wildlife and to reduce diffuse water pollution.

This data is sourced from Natural England.

13 Habitat designations



- Site Outline
- Search buffers in metres (m)
- Priority Habitat Inventory
- Open Mosaic Habitat
- Limestone Pavement Orders
- Habitat Networks
- Primary Habitat
- Restorable Habitat
- Associated Habitats
- Habitat Restoration-Creation
- Network Enhancement Zone 1
- Network Enhancement Zone 2

13.1 Priority Habitat Inventory

Records within 250m

3

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

Features are displayed on the Habitat designations map on **page 95**

ID	Location	Main Habitat	Other habitats
1	On site	Deciduous woodland	Main habitat: DWOOD (INV > 50%)
2	On site	Good quality semi-improved grassland	Main habitat: GQSIG (INV > 50%)
4	45m W	Good quality semi-improved grassland	Main habitat: GQSIG (INV > 50%)

This data is sourced from Natural England.



13.2 Habitat Networks

Records within 250m

0

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

This data is sourced from Natural England.

13.3 Open Mosaic Habitat

Records within 250m

1

Sites verified as Open Mosaic Habitat. Mosaic habitats are brownfield sites that are identified under the UK Biodiversity Action Plan as a priority habitat due to the habitat variation within a single site, supporting an array of invertebrates.

Features are displayed on the Habitat designations map on **page 95**

ID	Location	Site reference	Identification confidence	Primary source	Secondary source	Tertiary source
3	On site	NLUD Ref: 430500230	Low	National Land Use Database - Previously Developed Land	UK Perspectives Aerial Photography	-

This data is sourced from Natural England.

13.4 Limestone Pavement Orders

Records within 250m

0

Limestone pavements are outcrops of limestone where the surface has been worn away by natural means over millennia. These rocks have the appearance of paving blocks, hence their name. Not only do they have geological interest, they also provide valuable habitats for wildlife. These habitats are threatened due to their removal for use in gardens and water features. Many limestone pavements have been designated as SSSIs which affords them some protection. In addition, Section 34 of the Wildlife and Countryside Act 1981 gave them additional protection via the creation of Limestone Pavement Orders, which made it a criminal offence to remove any part of the outcrop. The associated Limestone Pavement Priority Habitat is part of the UK Biodiversity Action Plan priority habitat in England.

This data is sourced from Natural England.



14 Geology 1:10,000 scale - Availability



- Site Outline
- Search buffers in metres (m)
- Full coverage
 - Partial coverage
 - No coverage

14.1 10k Availability

Records within 500m

1

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

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

ID	Location	Artificial	Superficial	Bedrock	Mass movement	Sheet No.
1	On site	No coverage	No coverage	No coverage	No coverage	NoCov

This data is sourced from the British Geological Survey.

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

14.2 Artificial and made ground (10k)

Records within 500m

0

Details of made, worked, infilled, disturbed and landscaped ground at 1:10,000 scale. Artificial ground can be associated with potentially contaminated material, unpredictable engineering conditions and instability.

This data is sourced from the British Geological Survey.



Geology 1:10,000 scale - Superficial

14.3 Superficial geology (10k)

Records within 500m

0

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

This data is sourced from the British Geological Survey.

14.4 Landslip (10k)

Records within 500m

0

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

This data is sourced from the British Geological Survey.



Geology 1:10,000 scale - Bedrock

14.5 Bedrock geology (10k)

Records within 500m

0

Bedrock geology at 1:10,000 scale. The main mass of rocks forming the Earth and present everywhere, whether exposed at the surface in outcrops or concealed beneath superficial deposits or water.

This data is sourced from the British Geological Survey.

14.6 Bedrock faults and other linear features (10k)

Records within 500m

0

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

This data is sourced from the British Geological Survey.



15 Geology 1:50,000 scale - Availability



— Site Outline

Search buffers in metres (m)

□ Geological map tile

15.1 50k Availability

Records within 500m

1

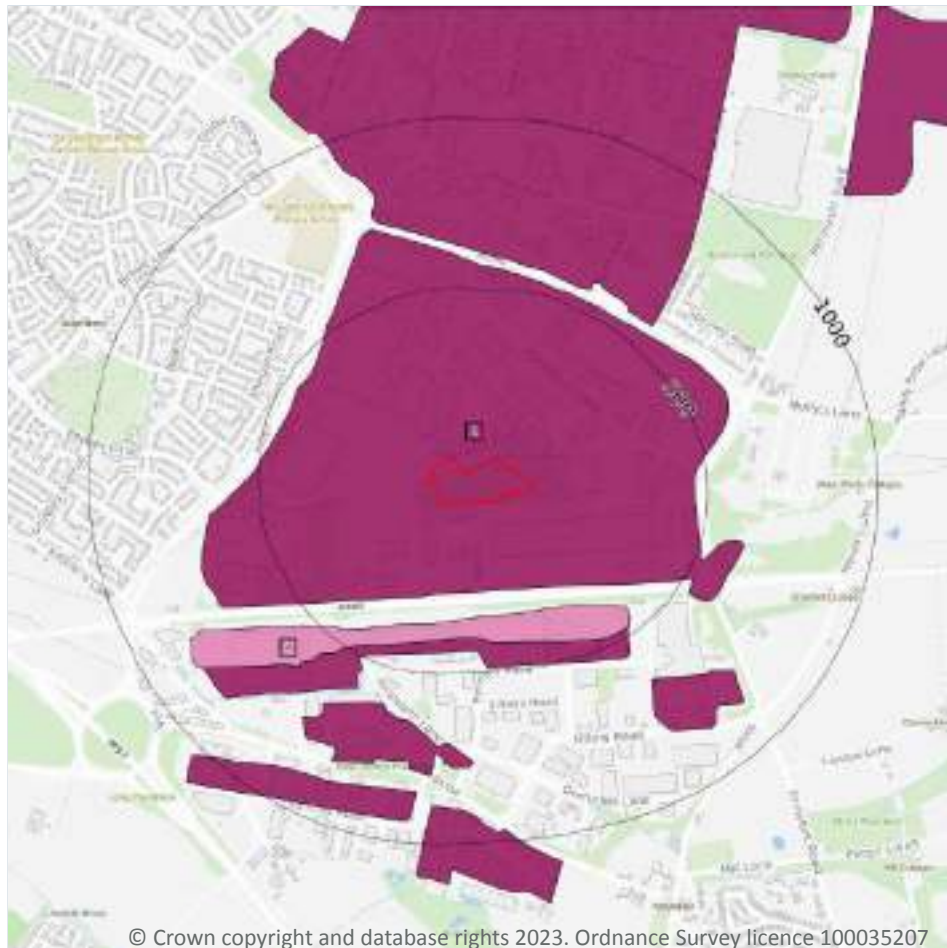
An indication on the coverage of 1:50,000 scale geology data for the site. Either 'Full' or 'No coverage' for each geological theme.

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

ID	Location	Artificial	Superficial	Bedrock	Mass movement	Sheet No.
1	On site	No coverage	Full	Full	No coverage	EW084_wigan_v4

This data is sourced from the British Geological Survey.

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



- Site Outline
- Search buffers in metres (m)
- Made ground
 - Worked ground
 - Infilled ground
 - Disturbed ground
 - Landscaped ground

15.2 Artificial and made ground (50k)

Records within 500m

3

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

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

ID	Location	LEX Code	Description	Rock description
1	On site	MGR-ARTDP	MADE GROUND (UNDIVIDED)	ARTIFICIAL DEPOSIT
A	337m S	WGR-VOID	WORKED GROUND (UNDIVIDED)	VOID
A	397m S	MGR-ARTDP	MADE GROUND (UNDIVIDED)	ARTIFICIAL DEPOSIT

This data is sourced from the British Geological Survey.



15.3 Artificial ground permeability (50k)

Records within 50m**1**

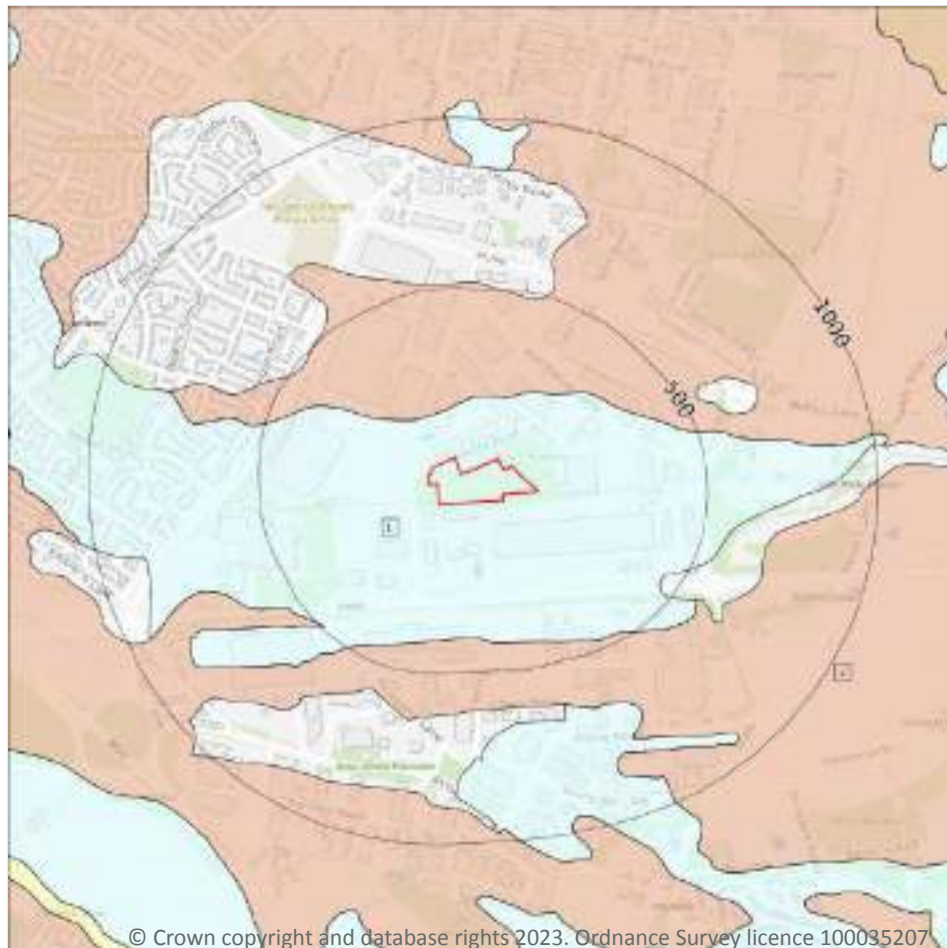
A qualitative classification of estimated rates of vertical movement of water from the ground surface through the unsaturated zone of any artificial deposits (the zone between the land surface and the water table).

Location	Flow type	Maximum permeability	Minimum permeability
On site	Mixed	Very High	Low

This data is sourced from the British Geological Survey.



Geology 1:50,000 scale - Superficial



- Site Outline
- Search buffers in metres (m)
- Landslip (50k)
- Superficial geology (50k)
Please see table for more details.

15.4 Superficial geology (50k)

Records within 500m

2

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

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

ID	Location	LEX Code	Description	Rock description
1	On site	TILLD-DMTN	TILL, DEVANSIAN	DIAMICTON
2	143m NW	SSA-S	SHIRDLEY HILL SAND FORMATION	SAND

This data is sourced from the British Geological Survey.



15.5 Superficial permeability (50k)

Records within 50m**1**

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

Location	Flow type	Maximum permeability	Minimum permeability
On site	Mixed	High	Low

This data is sourced from the British Geological Survey.

15.6 Landslip (50k)

Records within 500m**0**

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

This data is sourced from the British Geological Survey.

15.7 Landslip permeability (50k)

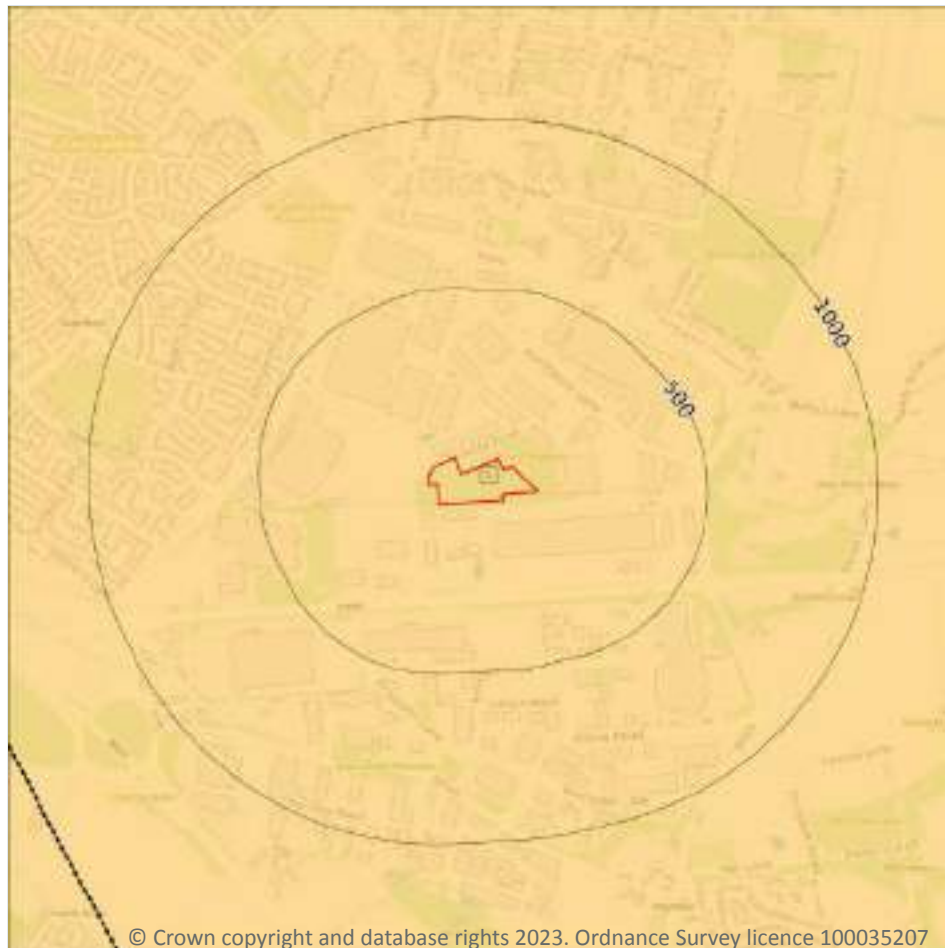
Records within 50m**0**

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

This data is sourced from the British Geological Survey.



Geology 1:50,000 scale - Bedrock



— Site Outline

Search buffers in metres (m)

.... Bedrock faults and other linear features (50k)

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

15.8 Bedrock geology (50k)

Records within 500m

1

Bedrock geology at 1:50,000 scale. The main mass of rocks forming the Earth and present everywhere, whether exposed at the surface in outcrops or concealed beneath superficial deposits or water.

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

ID	Location	LEX Code	Description	Rock age
1	On site	CHES-SDST	CHESTER FORMATION - SANDSTONE	OLENEKIAN

This data is sourced from the British Geological Survey.

15.9 Bedrock permeability (50k)

Records within 50m

1

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

Location	Flow type	Maximum permeability	Minimum permeability
On site	Mixed	High	Moderate

This data is sourced from the British Geological Survey.

15.10 Bedrock faults and other linear features (50k)

Records within 500m

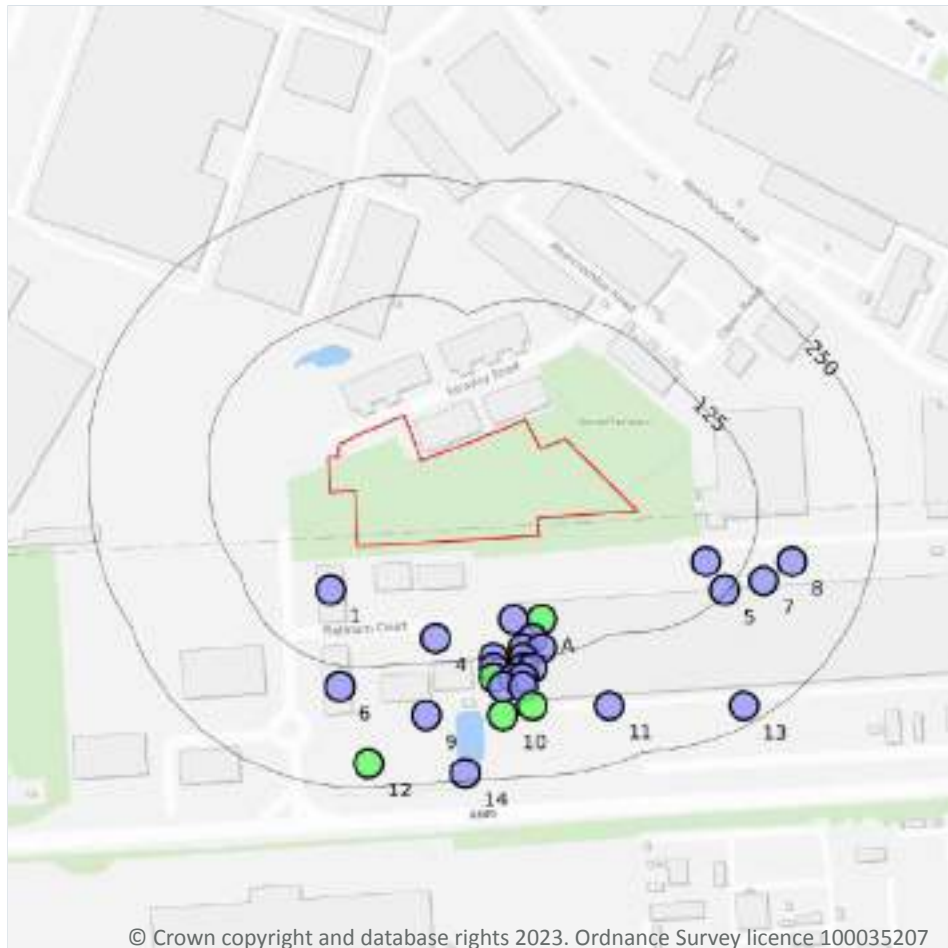
0

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

This data is sourced from the British Geological Survey.



16 Boreholes



— Site Outline
Search buffers in metres (m)

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

16.1 BGS Boreholes

Records within 250m

31

The Single Onshore Boreholes Index (SOBI); an index of over one million records of boreholes, shafts and wells from all forms of drilling and site investigation work held by the British Geological Survey. Covering onshore and nearshore boreholes dating back to at least 1790 and ranging from one to several thousand metres deep.

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

ID	Location	Grid reference	Name	Length	Confidential	Web link
1	54m SW	342730 397070	LANGTREE DEVELOPMENT KNOWSLEY 1	6.0	N	17561913
2	86m S	342920 397040	YORKSHIRE COPPER TUBE LTD PHASE IIC SITE INVESTIGATION 304	7.6	N	17561976



ID	Location	Grid reference	Name	Length	Confidential	Web link
A	88m SE	342950 397040	YORKSHIRE COPPER TUBE LTD PHASE IIB CONTAMINATION ASSESSMENT 205	21.5	N	17561969
3	88m E	343120 397100	YORKSHIRE COPPER TUBE LTD PHASE II INVESTIGATION 113	4.0	N	17561962
4	101m S	342840 397020	LANGTREE DEVELOPMENT KNOWSLEY 2	5.8	N	17561914
A	107m SE	342940 397020	YORKSHIRE COPPER TUBE LTD PHASE IIC SITE INVESTIGATION 305	7.0	N	17561977
A	116m S	342930 397010	YORKSHIRE COPPER TUBE LTD REMEDIAL TRIALS MW311	5.1	N	17561988
A	118m SE	342950 397010	YORKSHIRE COPPER TUBE LTD REMEDIAL TRIALS MW312	4.2	N	17561989
5	123m E	343140 397070	YORKSHIRE COPPER TUBE LTD PHASE II INVESTIGATION 112	6.0	N	17561961
A	124m S	342900 397000	YORKSHIRE COPPER TUBE LTD PHASE IIC SITE INVESTIGATION 309	7.6	N	17561981
A	126m S	342930 397000	YORKSHIRE COPPER TUBE LTD REMEDIAL TRIALS MW314	5.0	N	17561991
A	134m S	342900 396990	YORKSHIRE COPPER TUBE LTD PHASE IIC SITE INVESTIGATION 310	8.1	N	17561987
A	136m S	342930 396990	YORKSHIRE COPPER TUBE LTD PHASE IIC SITE INVESTIGATION 306	6.6	N	17561978
A	137m S	342940 396990	YORKSHIRE COPPER TUBE LTD PHASE IIC SITE INVESTIGATION 307	6.6	N	17561979
A	144m S	342900 396980	YORKSHIRE COPPER TUBE LTD PHASE IIB CONTAMINATION ASSESSMENT 206	18.0	N	17561970
A	146m S	342920 396980	YORKSHIRE COPPER TUBE LTD PHASE IIB CONTAMINATION ASSESSMENT 201	5.0	N	17561963
A	146m S	342930 396980	YORKSHIRE COPPER TUBE LTD REMEDIAL TRIALS MW313	5.1	N	17561990
A	146m S	342930 396980	YORKSHIRE COPPER TUBE LTD REMEDIAL TRIALS MW315	5.1	N	17561992
A	146m S	342930 396980	YORKSHIRE COPPER TUBE LTD PHASE IIB CONTAMINATION ASSESSMENT 207	6.0	N	17561971
6	147m SW	342740 396970	LANGTREE DEVELOPMENT KNOWSLEY 3	6.5	N	17561915
7	150m E	343180 397080	YORKSHIRE COPPER TUBE LTD PHASE II INVESTIGATION 111	6.0	N	17561960



ID	Location	Grid reference	Name	Length	Confidential	Web link
A	155m S	342910 396970	YORKSHIRE COPPER TUBE LTD PHASE II INVESTIGATION 102	6.0	N	17561951
A	156m S	342930 396970	YORKSHIRE COPPER TUBE LTD PHASE IIC SITE INVESTIGATION 308	7.2	N	17561980
8	169m E	343210 397100	YORKSHIRE COPPER TUBE LTD PHASE II INVESTIGATION 110	6.0	N	17561959
A	177m S	342940 396950	YORKSHIRE COPPER TUBE LTD PHASE IIB CONTAMINATION ASSESSMENT 203	16.0	N	17561967
9	180m S	342830 396940	LANGTREE DEVELOPMENT KNOWSLEY 4	5.0	N	17561916
10	185m S	342910 396940	YORKSHIRE COPPER TUBE LTD PHASE IIB CONTAMINATION ASSESSMENT 204	14.5	N	17561968
11	192m SE	343020 396950	YORKSHIRE COPPER TUBE LTD PHASE II INVESTIGATION 103	6.0	N	17561952
12	226m S	342770 396890	LANGTREE DEVELOPMENT KNOWSLEY 5	10.5	N	17561917
13	231m SE	343160 396950	KNOWSLEY YORKSHIRE COPPER TUBE RC10	4.0	N	17529498
14	242m S	342870 396880	YORKSHIRE COPPER TUBE LTD PHASE II INVESTIGATION 101	6.2	N	17561950

This data is sourced from the British Geological Survey.



17 Natural ground subsidence - Shrink swell clays



- Site Outline
- Search buffers in metres (m)
- ☐ No data
 - ☐ Negligible
 - ☐ Very low
 - ☐ Low
 - ☐ Moderate
 - ☐ High

17.1 Shrink swell clays

Records within 50m

1

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

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

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

This data is sourced from the British Geological Survey.



Natural ground subsidence - Running sands



- Site Outline
- Search buffers in metres (m)
- ☐ No data
 - ☐ Negligible
 - ☒ Very low
 - ☐ Low
 - ☐ Moderate
 - ☐ High

© Crown copyright and database rights 2023. Ordnance Survey licence 100035207

17.2 Running sands

Records within 50m

1

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

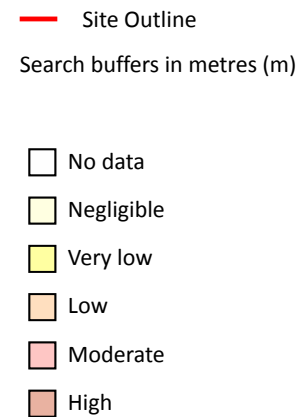
Features are displayed on the Natural ground subsidence - Running sands map on **page 112**

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

This data is sourced from the British Geological Survey.



Natural ground subsidence - Compressible deposits



© Crown copyright and database rights 2023. Ordnance Survey licence 100035207

17.3 Compressible deposits

Records within 50m

1

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

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

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

This data is sourced from the British Geological Survey.



Natural ground subsidence - Collapsible deposits



- Site Outline
- Search buffers in metres (m)
- ☐ No data
 - ☐ Negligible
 - ☐ Very low
 - ☐ Low
 - ☐ Moderate
 - ☐ High

17.4 Collapsible deposits

Records within 50m

1

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

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

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

This data is sourced from the British Geological Survey.



Natural ground subsidence - Landslides



- Site Outline
- Search buffers in metres (m)
- ☐ No data
 - ☐ Negligible
 - ☐ Very low
 - ☐ Low
 - ☐ Moderate
 - ☐ High

17.5 Landslides

Records within 50m

1

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

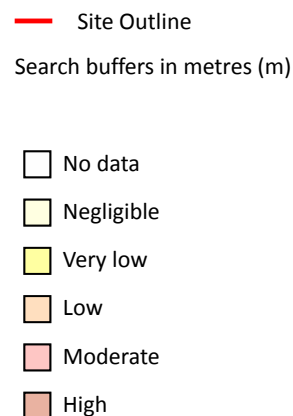
Features are displayed on the Natural ground subsidence - Landslides map on **page 115**

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

This data is sourced from the British Geological Survey.



Natural ground subsidence - Ground dissolution of soluble rocks



© Crown copyright and database rights 2023. Ordnance Survey licence 100035207

17.6 Ground dissolution of soluble rocks

Records within 50m

1

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

Features are displayed on the Natural ground subsidence - Ground dissolution of soluble rocks map on **page 116**

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



This data is sourced from the British Geological Survey.



18 Mining, ground workings and natural cavities



- Site Outline
- Search buffers in metres (m)
- Natural cavities (Area)
- Natural cavities (Point)
- BritPits
- Surface ground workings
- Underground workings
- Historical Mineral Planning Areas
- Mining Cavities
- Non Coal Mining
- Sporadic underground mining of restricted extent possible
- Localised small scale underground mining possible
- Small scale mining possible
- Underground mining known or likely within or in close proximity
- Underground mining known within or in very close proximity

18.1 Natural cavities

Records within 500m

0

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

This data is sourced from Stantec UK Ltd.

18.2 BritPits

Records within 500m

0

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

This data is sourced from the British Geological Survey.

18.3 Surface ground workings

Records within 250m

13

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

Features are displayed on the Mining, ground workings and natural cavities map on **page 118**

ID	Location	Land Use	Year of mapping	Mapping scale
1	33m S	Unspecified Heap	1966	1:10560
A	76m SE	Unspecified Heap	1976	1:10000
A	76m SE	Unspecified Heap	1988	1:10000
A	77m SE	Unspecified Heap	1966	1:10560
B	85m NW	Unspecified Heap	1966	1:10560
B	85m NW	Unspecified Heap	1976	1:10000
B	85m NW	Unspecified Heap	1988	1:10000
C	152m N	Refuse Heap	1925	1:10560
C	153m N	Refuse Heap	1938	1:10560
C	153m N	Refuse Heap	1938	1:10560
D	181m S	Pond	1966	1:10560
D	181m S	Pond	1976	1:10000
D	181m S	Pond	1988	1:10000

This is data is sourced from Ordnance Survey/Groundsure.



18.4 Underground workings

Records within 1000m**0**

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

This data is sourced from Ordnance Survey/Groundsure.

18.5 Historical Mineral Planning Areas

Records within 500m**1**

Boundaries of mineral planning permissions for England and Wales. This data was collated between the 1940s (and retrospectively to the 1930s) and the mid 1980s. The data includes permitted, withdrawn and refused permissions.

Features are displayed on the Mining, ground workings and natural cavities map on **page 118**

ID	Location	Site Name	Mineral	Type	Planning Status	Planning Status Date
2	477m E	Rainford Road	Sand	Surface mineral working	Valid	10/3/47

This data is sourced from the British Geological Survey.

18.6 Non-coal mining

Records within 1000m**0**

The potential for historical non-coal mining to have affected an area. The assessment is drawn from expert knowledge and literature in addition to the digital geological map of Britain. Mineral commodities may be divided into seven general categories - vein minerals, chalk, oil shale, building stone, bedded ores, evaporites and 'other' commodities (including ball clay, jet, black marble, graphite and chert).

This data is sourced from the British Geological Survey.

18.7 Mining cavities

Records within 1000m**0**

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

This data is sourced from Stantec UK Ltd.



18.8 JPB mining areas

Records on site	0
-----------------	---

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

This data is sourced from Johnson Poole and Bloomer.

18.9 Coal mining

Records on site	0
-----------------	---

Areas which could be affected by past, current or future coal mining.

This data is sourced from the Coal Authority.

18.10 Brine areas

Records on site	0
-----------------	---

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

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

18.11 Gypsum areas

Records on site	0
-----------------	---

Generalised areas that may be affected by gypsum extraction.

This data is sourced from British Gypsum.

18.12 Tin mining

Records on site	0
-----------------	---

Generalised areas that may be affected by historical tin mining.

This data is sourced from Groundsure.



18.13 Clay mining

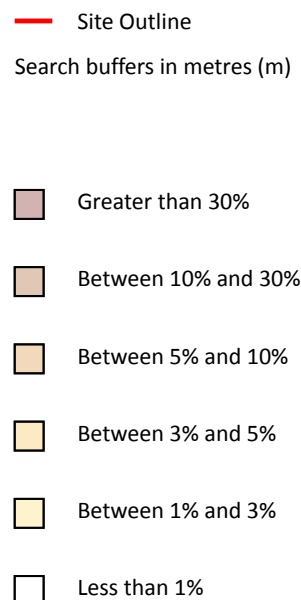
Records on site	0
-----------------	---

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

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



19 Radon



19.1 Radon

Records on site

1

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

Features are displayed on the Radon map on **page 123**

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



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



20 Soil chemistry

20.1 BGS Estimated Background Soil Chemistry

Records within 50m

2

The estimated values provide the likely background concentration of the potentially harmful elements Arsenic, Cadmium, Chromium, Lead and Nickel in topsoil. The values are estimated primarily from rural topsoil data collected at a sample density of approximately 1 per 2 km². In areas where rural soil samples are not available, estimation is based on stream sediment data collected from small streams at a sampling density of 1 per 2.5 km²; this is the case for most of Scotland, Wales and southern England. The stream sediment data are converted to soil-equivalent concentrations prior to the estimation.

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

This data is sourced from the British Geological Survey.

20.2 BGS Estimated Urban Soil Chemistry

Records within 50m

0

Estimated topsoil chemistry of Arsenic, Cadmium, Chromium, Copper, Nickel, Lead, Tin and Zinc and bioaccessible Arsenic and Lead in 23 urban centres across Great Britain. These estimates are derived from interpolation of the measured urban topsoil data referred to above and provide information across each city between the measured sample locations (4 per km²).

This data is sourced from the British Geological Survey.

20.3 BGS Measured Urban Soil Chemistry

Records within 50m

0

The locations and measured total concentrations (mg/kg) of Arsenic, Cadmium, Chromium, Copper, Nickel, Lead, Tin and Zinc in urban topsoil samples from 23 urban centres across Great Britain. These are collected at a sample density of 4 per km².

This data is sourced from the British Geological Survey.



21 Railway infrastructure and projects



- Site Outline
- Search buffers in metres (m)
- C1 Crossrail 1 Stations
- Crossrail 1 Route
- C2 Crossrail 2 Stations
- Crossrail 2 Route
- Crossrail 2 Worksites
- Crossrail 2 Safeguarding
- Crossrail 2 Headhouses
- Railway stations
- Active railways
- Active tunnels
- Abandoned railways
- Historic railways
- Historic tunnels
- Underground stations
- Underground Lines
- Royal Mail tunnels
- HS2 optimised route
- HS2 Stations
- HS2 Depots
- HS2 Surface Safeguarding
- HS2 Subsurface Safeguarding

21.1 Underground railways (London)

Records within 250m

0

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

This data is sourced from publicly available information by Groundsure.

21.2 Underground railways (Non-London)

Records within 250m

0

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



This data is sourced from publicly available information by Groundsure.

21.3 Railway tunnels

Records within 250m

0

Railway tunnels taken from contemporary Ordnance Survey mapping.

This data is sourced from the Ordnance Survey.

21.4 Historical railway and tunnel features

Records within 250m

10

Railways and tunnels digitised from historical Ordnance Survey mapping as scales of 1:1,250, 1:2,500, 1:10,000 and 1:10,560.

Features are displayed on the Railway infrastructure and projects map on **page 126**

Location	Land Use	Year of mapping	Mapping scale
On site	Railway Sidings	1966	10560
20m SE	Railway Sidings	1959	2500
21m SE	Railway Sidings	1960	1250
39m SE	Railway Sidings	1959	1250
52m E	Railway Sidings	1975	1250
125m S	Railway Sidings	1974	1250
153m S	Railway Sidings	1959	1250
153m S	Railway Sidings	1974	1250
155m S	Railway Sidings	1985	-
235m E	Railway Sidings	1997	1250

This data is sourced from Ordnance Survey/Groundsure.

21.5 Royal Mail tunnels

Records within 250m

0

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



This data is sourced from Groundsure/the Postal Museum.

21.6 Historical railways

Records within 250m

0

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

This data is sourced from OpenStreetMap.

21.7 Railways

Records within 250m

0

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

This data is sourced from Ordnance Survey and OpenStreetMap.

21.8 Crossrail 1

Records within 500m

0

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

This data is sourced from publicly available information by Groundsure.

21.9 Crossrail 2

Records within 500m

0

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

This data is sourced from publicly available information by Groundsure.

21.10 HS2

Records within 500m

0

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

This data is sourced from HS2 Ltd.



Data providers

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

Terms and conditions

Groundsure's Terms and Conditions can be accessed at this link: <https://www.groundsure.com/terms-and-conditions-jan-2020/>.



Site Details:

FARADAY ROAD, KNOWSLEY
INDUSTRIAL PARK, Liverpool,
L33 7UT

Client Ref: 20156722
Report Ref: GS-9308689
Grid Ref: 342889, 397184

Map Name: County Series

Map date: 1892

Scale: 1:10,560

Printed at: 1:10,560



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

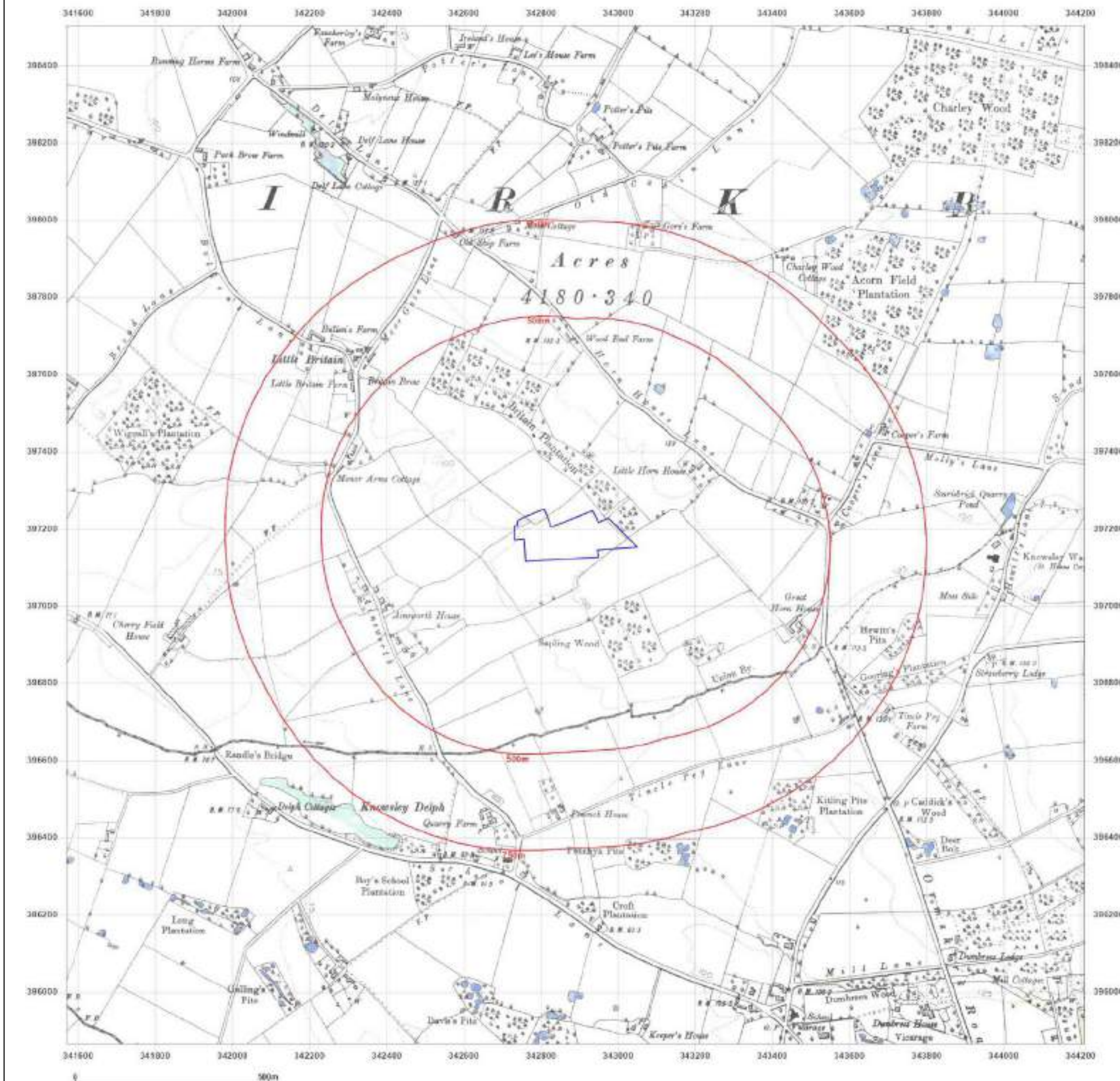


Produced by
Groundsure Insights
T: 08444 159000
E: info@groundsure.com
W: www.groundsure.com

© Crown copyright and database rights 2018 Ordnance Survey 100035207

Production date: 20 January 2023

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



Site Details:

FARADAY ROAD, KNOWSLEY
INDUSTRIAL PARK, Liverpool,
L33 7UT

Client Ref: 20156722
Report Ref: GS-9308689
Grid Ref: 342889, 397184

Map Name: County Series

Map date: 1907

Scale: 1:10,560

Printed at: 1:10,560



Surveyed 1892
Revised 1907
Edition N/A
Copyright N/A
Levelled N/A

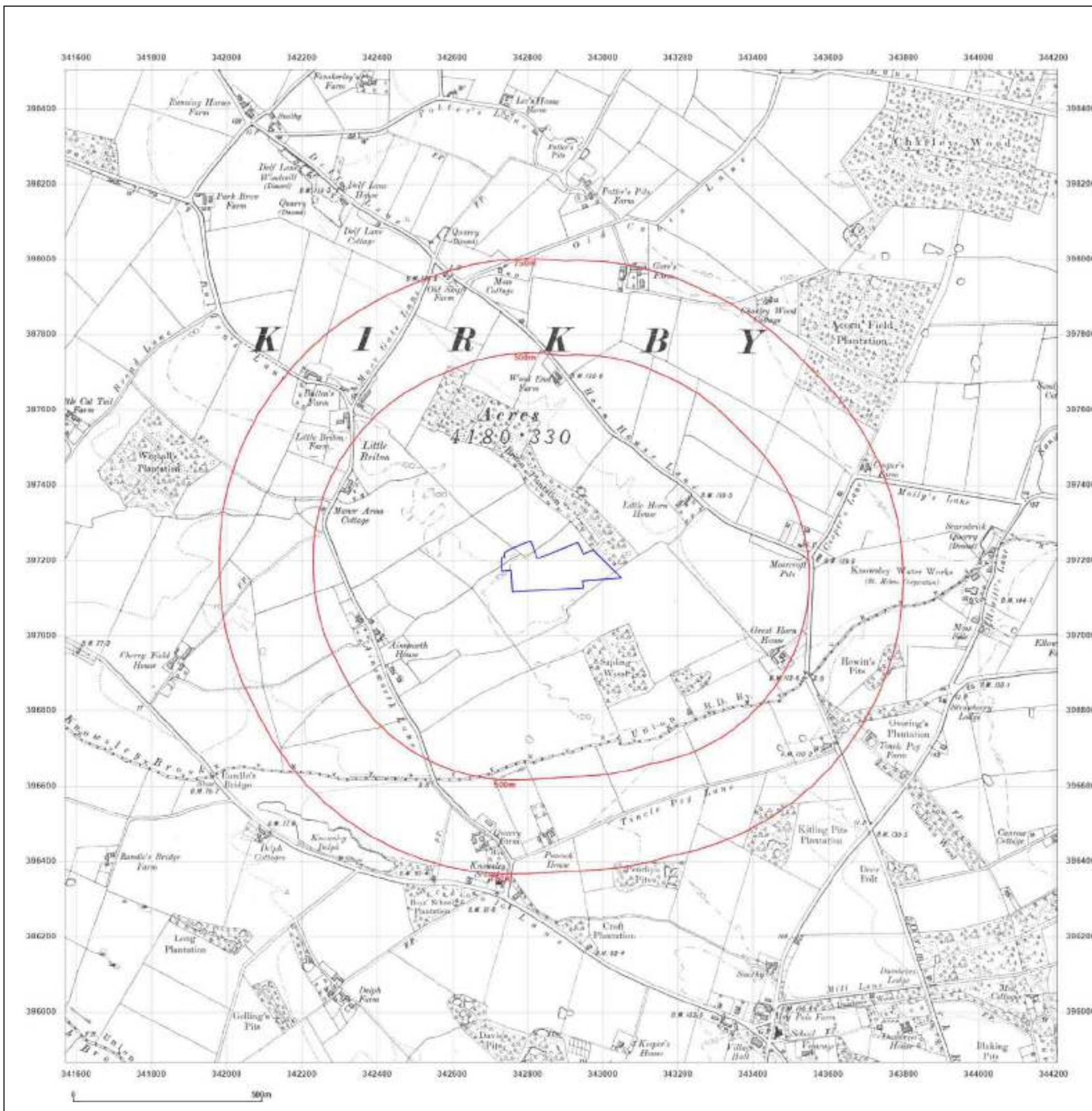


Produced by
Groundsure Insights
T: 08444 159000
E: info@groundsure.com
W: www.groundsure.com

© Crown copyright and database rights 2018 Ordnance Survey 100035207

Production date: 20 January 2023

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



Site Details:

FARADAY ROAD, KNOWSLEY
INDUSTRIAL PARK, Liverpool,
L33 7UT

Client Ref: 20156722
Report Ref: GS-9308689
Grid Ref: 342889, 397184

Map Name: County Series

Map date: 1925

Scale: 1:10,560

Printed at: 1:10,560



Surveyed 1847
Revised 1925
Edition N/A
Copyright N/A
Levelled N/A

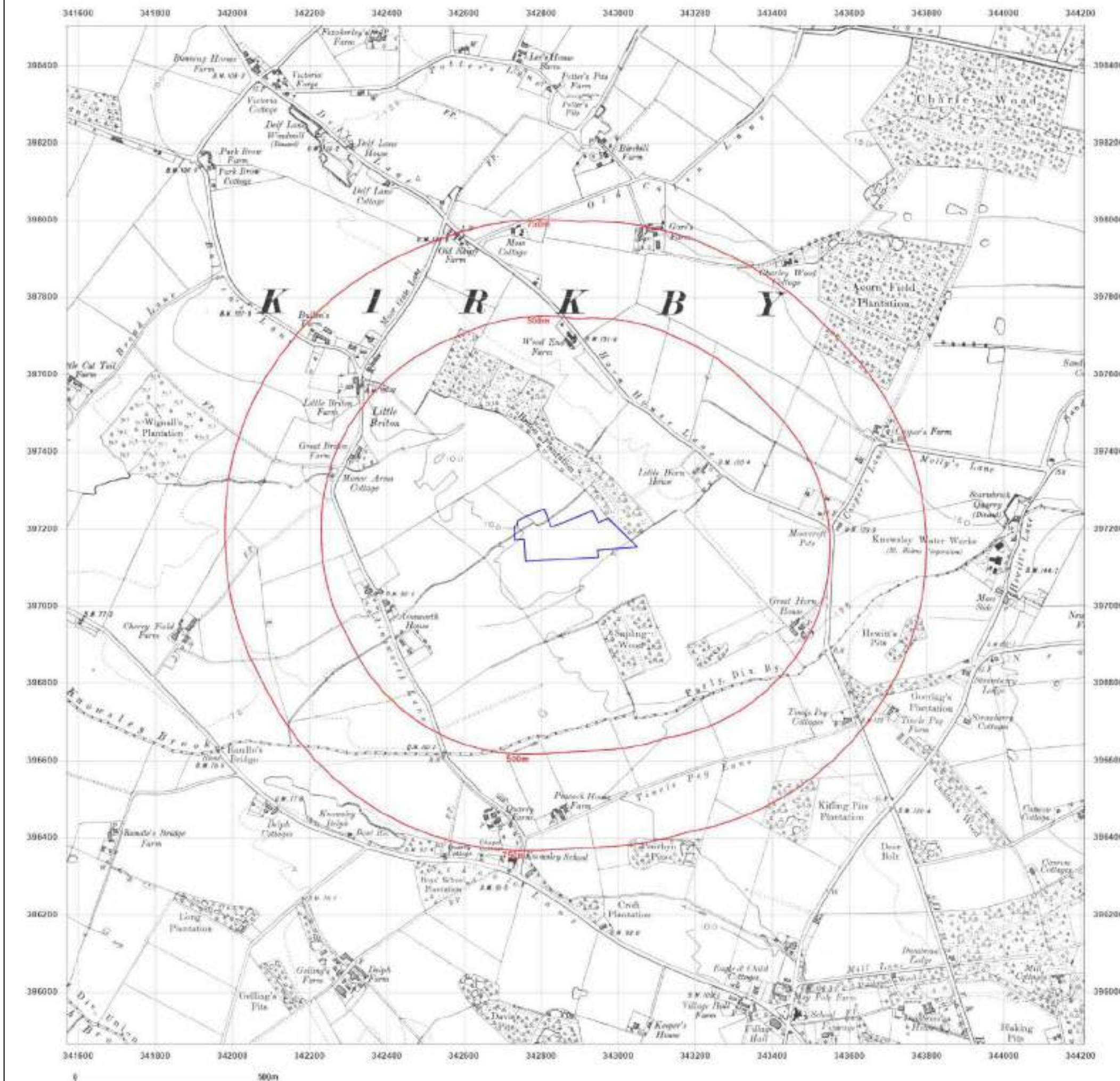


Produced by
Groundsure Insights
T: 08444 159000
E: info@groundsure.com
W: www.groundsure.com

© Crown copyright and database rights 2018 Ordnance Survey 100035207

Production date: 20 January 2023

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



Site Details:

FARADAY ROAD, KNOWSLEY
INDUSTRIAL PARK, Liverpool,
L33 7UT

Client Ref: 20156722
Report Ref: GS-9308689
Grid Ref: 342889, 397184

Map Name: County Series

Map date: 1925

Scale: 1:10,560

Printed at: 1:10,560



Surveyed 1847
Revised 1925
Edition N/A
Copyright N/A
Levelled N/A

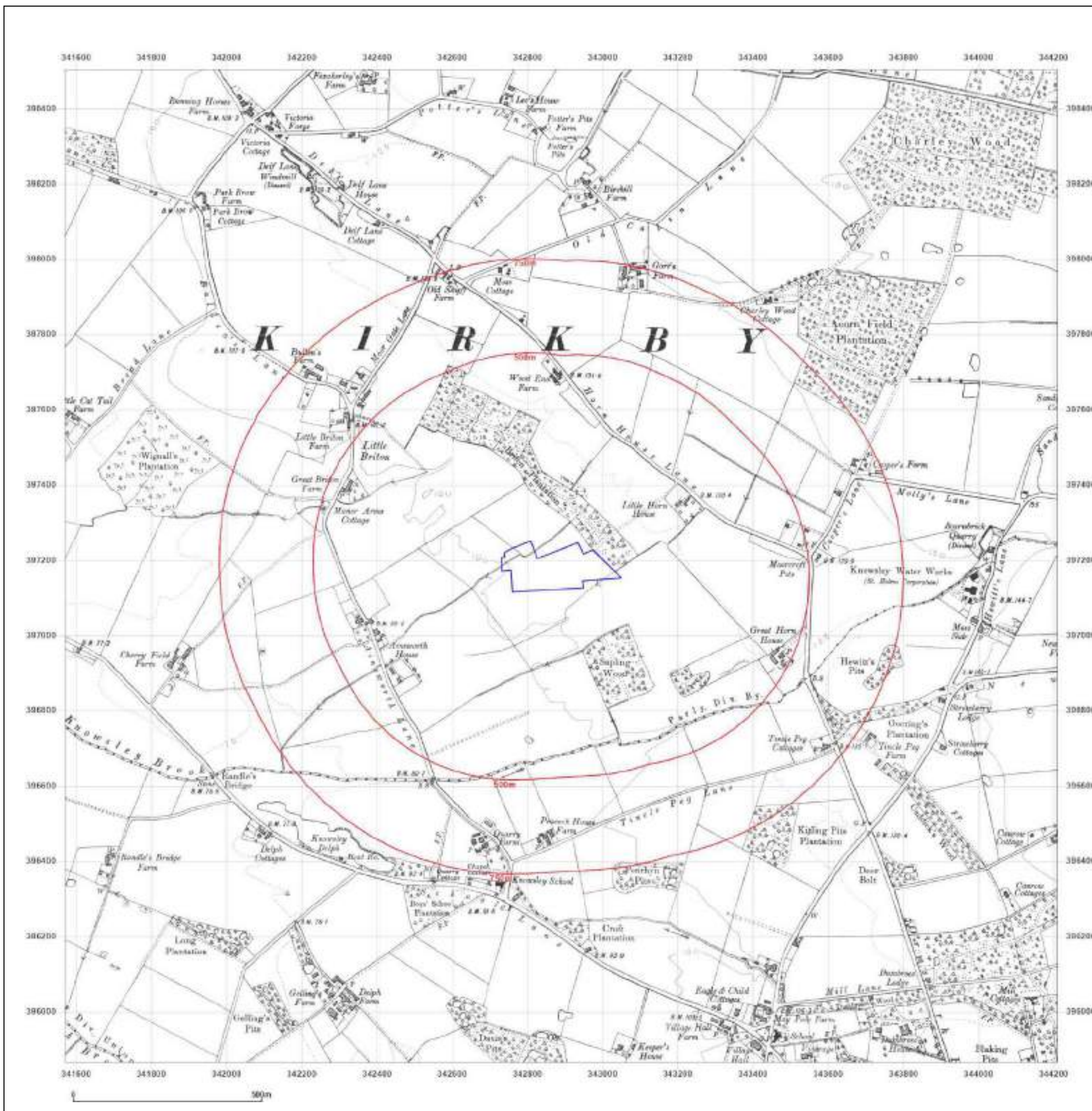


Produced by
Groundsure Insights
T: 08444 159000
E: info@groundsure.com
W: www.groundsure.com

© Crown copyright and database rights 2018 Ordnance Survey 100035207

Production date: 20 January 2023

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



Site Details:

FARADAY ROAD, KNOWSLEY
INDUSTRIAL PARK, Liverpool,
L33 7UT

Client Ref: 20156722
Report Ref: GS-9308689
Grid Ref: 342889, 397184

Map Name: County Series

Map date: 1925

Scale: 1:10,560

Printed at: 1:10,560



Surveyed 1847
Revised 1925
Edition N/A
Copyright N/A
Levelled N/A

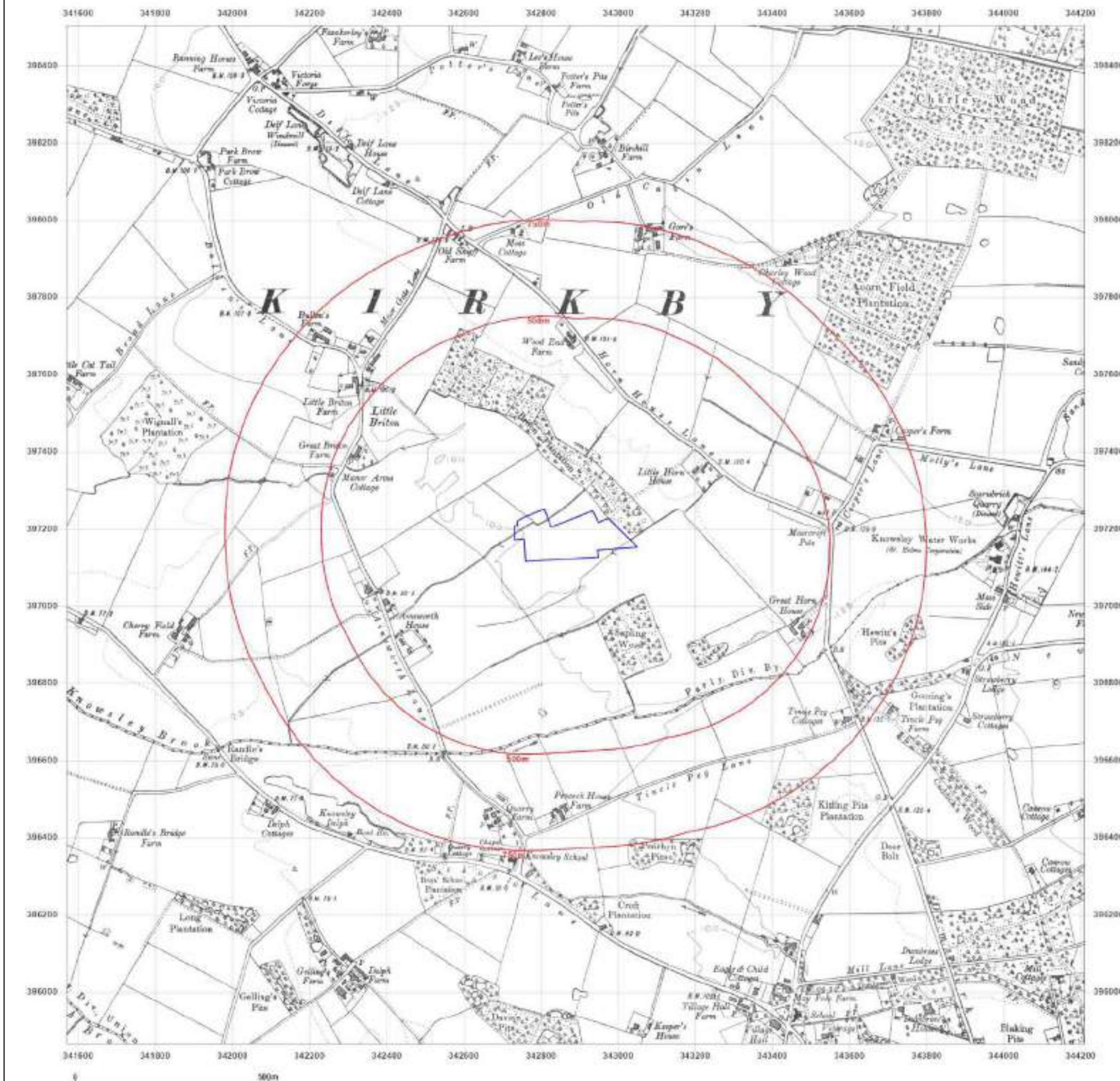


Produced by
Groundsure Insights
T: 08444 159000
E: info@groundsure.com
W: www.groundsure.com

© Crown copyright and database rights 2018 Ordnance Survey 100035207

Production date: 20 January 2023

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



Site Details:

FARADAY ROAD, KNOWSLEY
INDUSTRIAL PARK, Liverpool,
L33 7UT

Client Ref: 20156722
Report Ref: GS-9308689
Grid Ref: 342889, 397184

Map Name: County Series

Map date: 1938

Scale: 1:10,560

Printed at: 1:10,560



Surveyed 1847
Revised 1938
Edition N/A
Copyright N/A
Levelled 1926

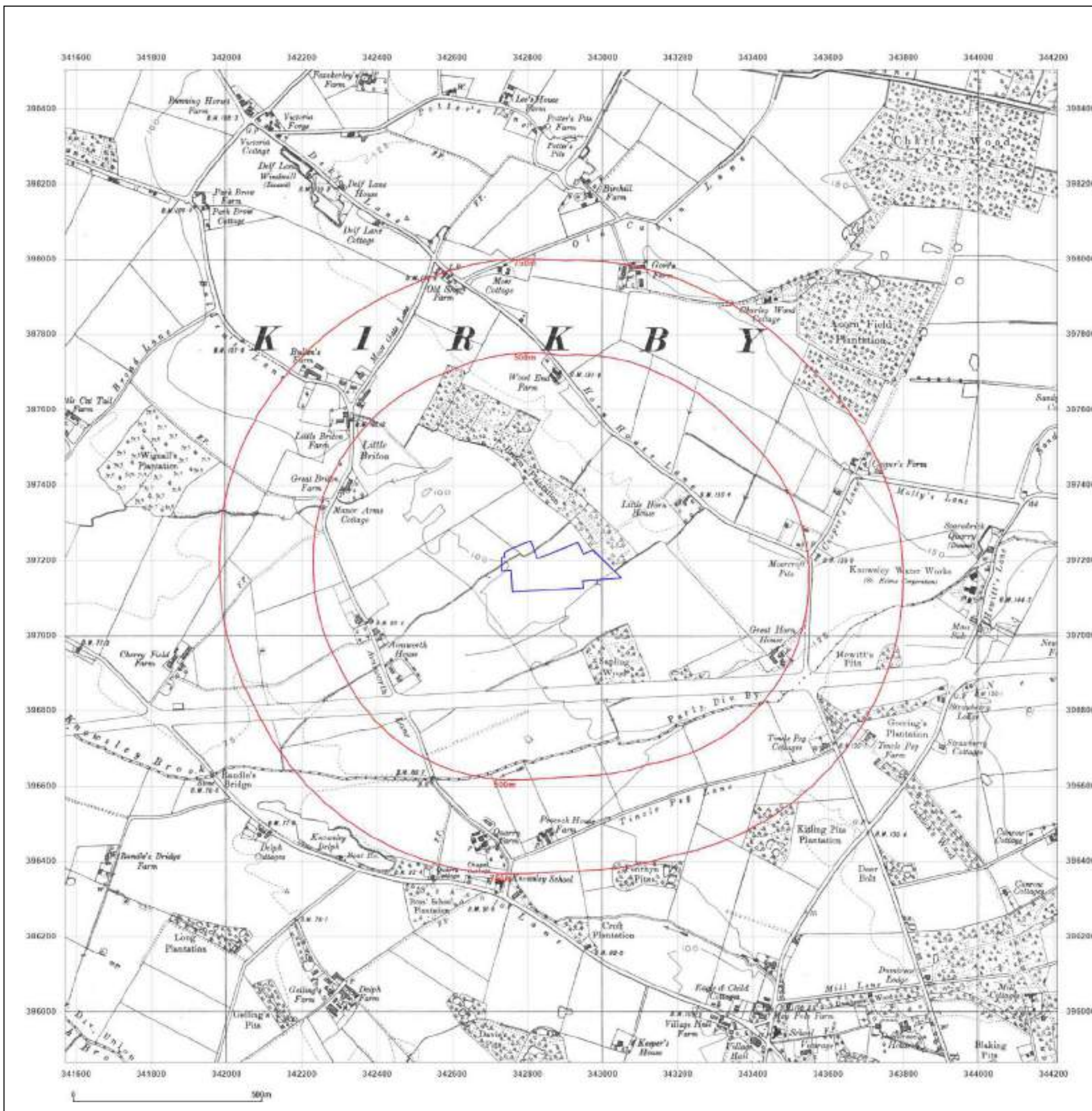


Produced by
Groundsure Insights
T: 08444 159000
E: info@groundsure.com
W: www.groundsure.com

© Crown copyright and database rights 2018 Ordnance Survey 100035207

Production date: 20 January 2023

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



Site Details:

FARADAY ROAD, KNOWSLEY
INDUSTRIAL PARK, Liverpool,
L33 7UT

Client Ref: 20156722
Report Ref: GS-9308689
Grid Ref: 342889, 397184

Map Name: County Series

Map date: 1938

Scale: 1:10,560

Printed at: 1:10,560



Surveyed 1847
Revised 1938
Edition N/A
Copyright N/A
Levelled N/A

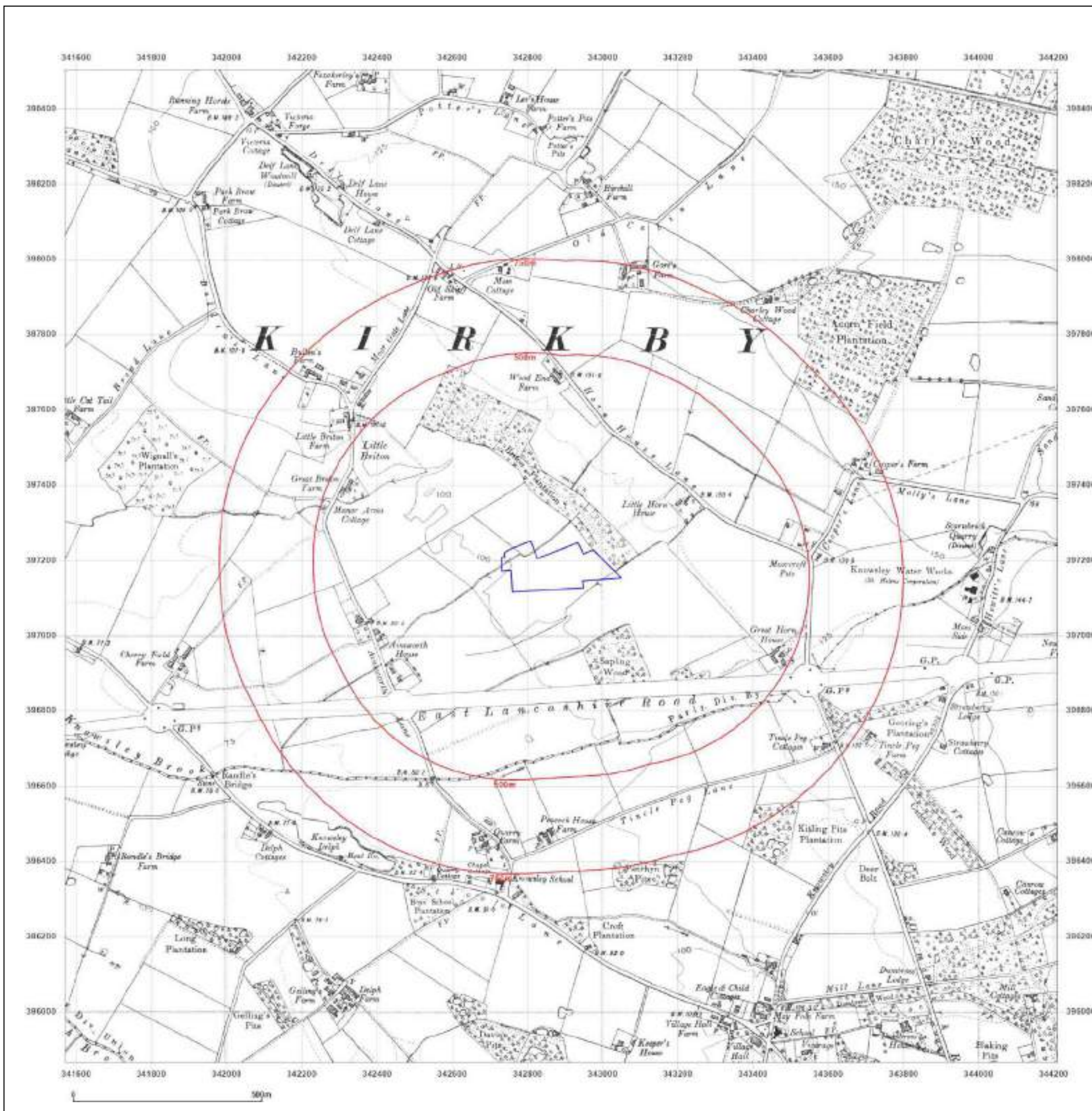


Produced by
Groundsure Insights
T: 08444 159000
E: info@groundsure.com
W: www.groundsure.com

© Crown copyright and database rights 2018 Ordnance Survey 100035207

Production date: 20 January 2023

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



Site Details:

FARADAY ROAD, KNOWSLEY
INDUSTRIAL PARK, Liverpool,
L33 7UT

Client Ref: 20156722
Report Ref: GS-9308689
Grid Ref: 342889, 397184

Map Name: Provisional

Map date: 1966

Scale: 1:10,560

Printed at: 1:10,560



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

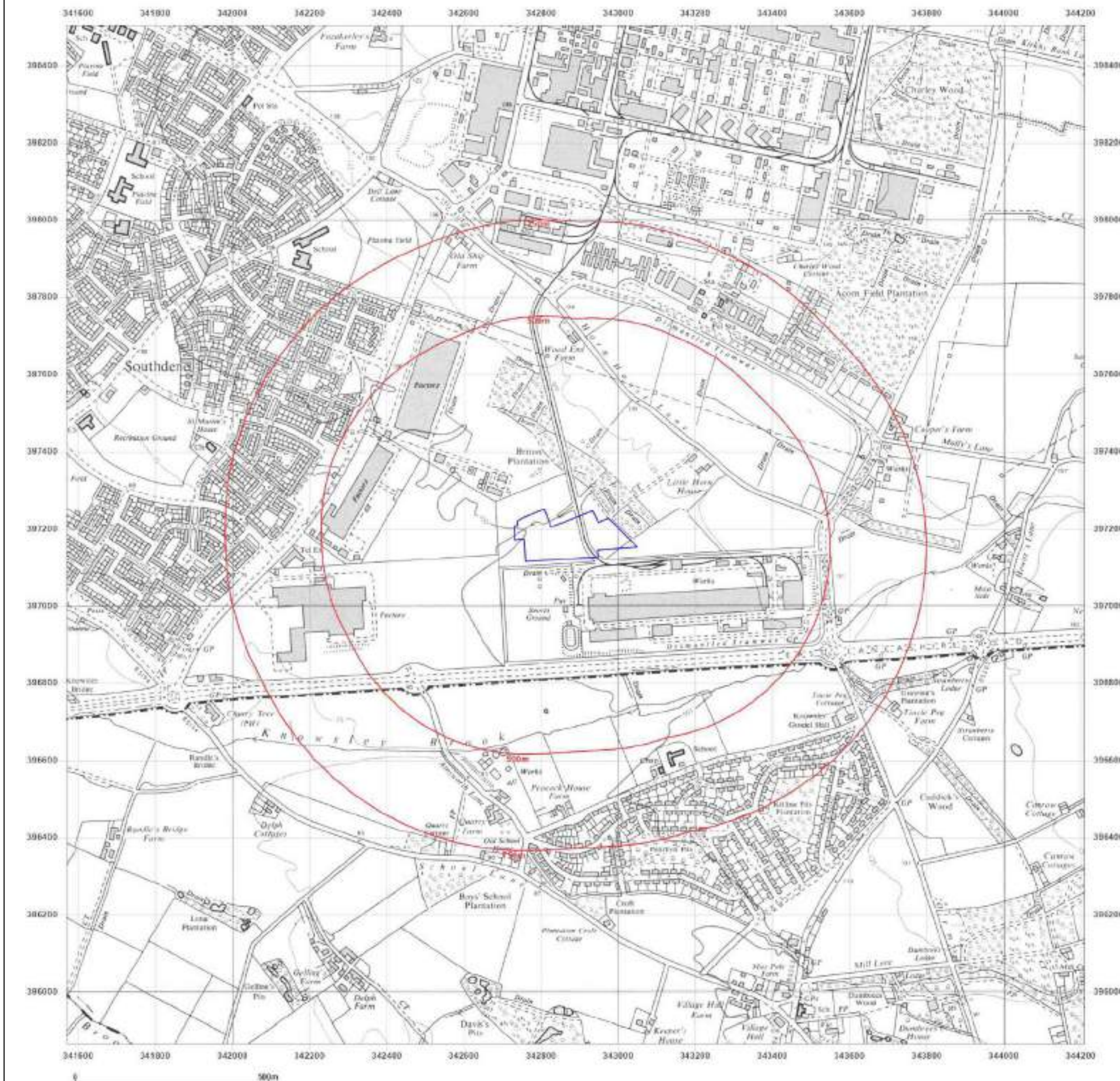


Produced by
Groundsure Insights
T: 08444 159000
E: info@groundsure.com
W: www.groundsure.com

© Crown copyright and database rights 2018 Ordnance Survey 100035207

Production date: 20 January 2023

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



Site Details:

FARADAY ROAD, KNOWSLEY
INDUSTRIAL PARK, Liverpool,
L33 7UT

Client Ref: 20156722
Report Ref: GS-9308689
Grid Ref: 342889, 397184

Map Name: National Grid

Map date: 1978

Scale: 1:10,000

Printed at: 1:10,000



Surveyed 1975
Revised 1977
Edition N/A
Copyright 1978
Levelled 1984

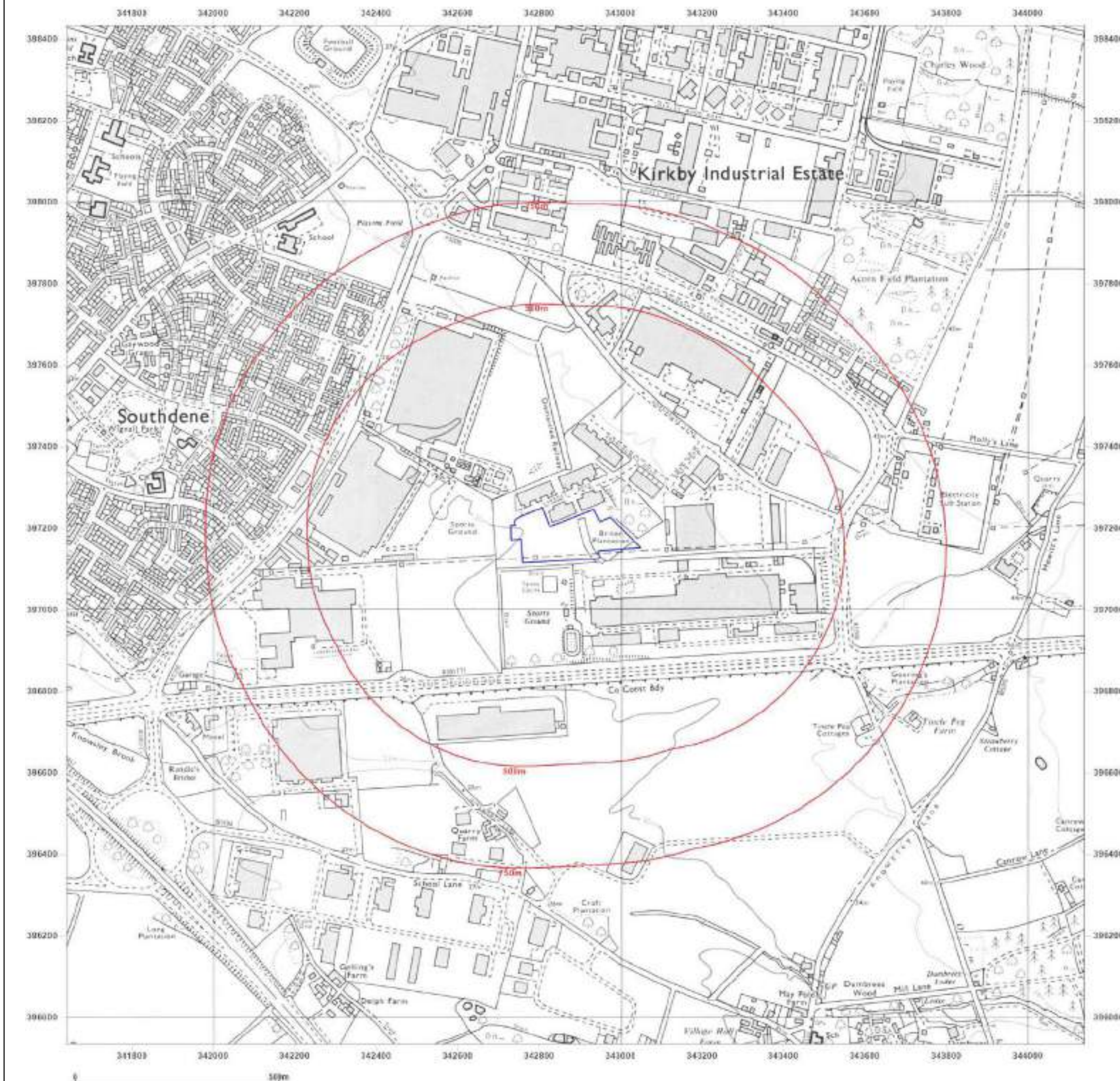


Produced by
Groundsure Insights
T: 08444 159000
E: info@groundsure.com
W: www.groundsure.com

© Crown copyright and database rights 2018 Ordnance Survey 100035207

Production date: 20 January 2023

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



Site Details:

FARADAY ROAD, KNOWSLEY
INDUSTRIAL PARK, Liverpool,
L33 7UT

Client Ref: 20156722
Report Ref: GS-9308689
Grid Ref: 342889, 397184

Map Name: National Grid

Map date: 1988

Scale: 1:10,000

Printed at: 1:10,000



Surveyed 1987
Revised 1988
Edition N/A
Copyright N/A
Levelled N/A

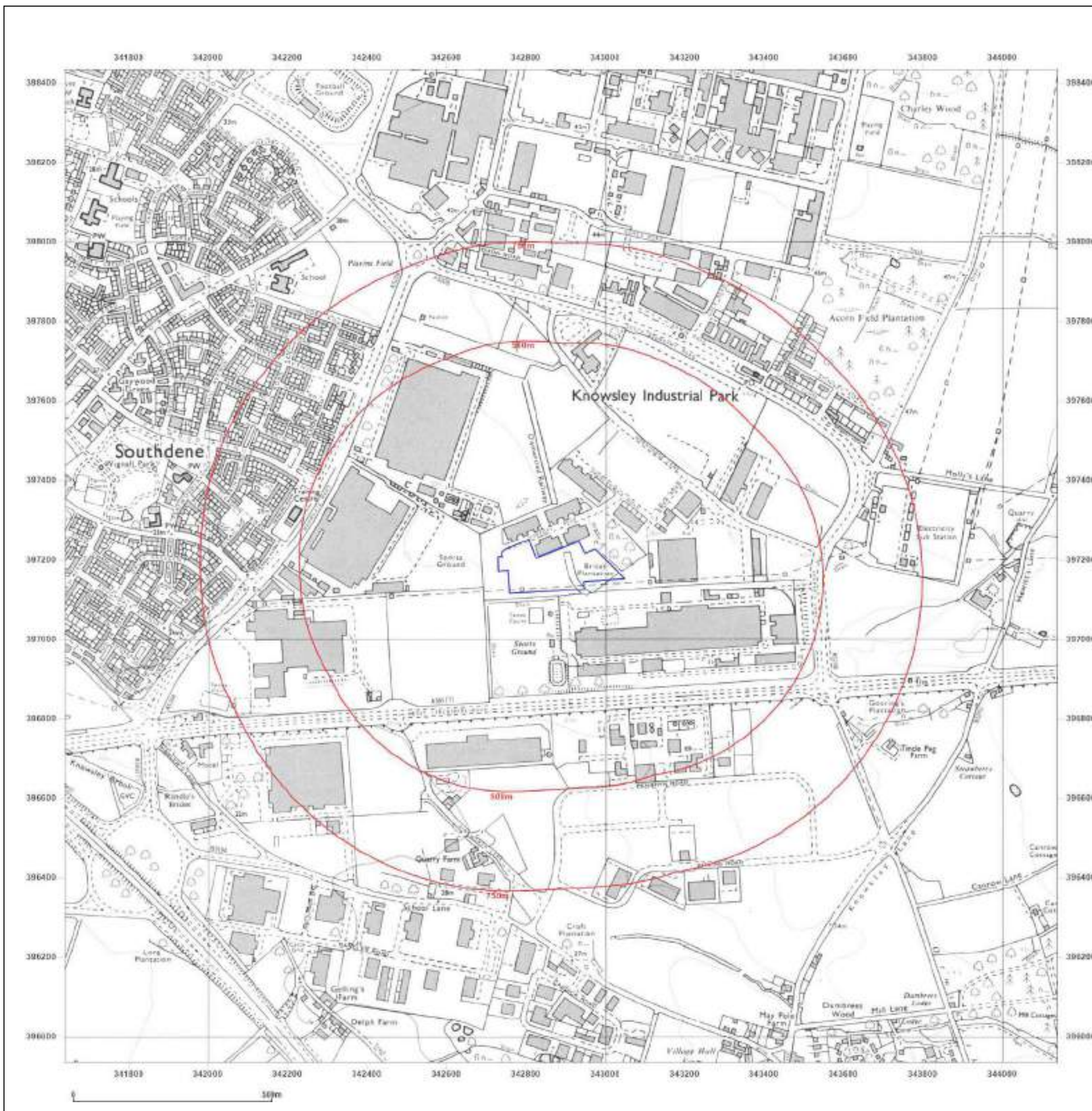


Produced by
Groundsure Insights
T: 08444 159000
E: info@groundsure.com
W: www.groundsure.com

© Crown copyright and database rights 2018 Ordnance Survey 100035207

Production date: 20 January 2023

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



Site Details:

FARADAY ROAD, KNOWSLEY
INDUSTRIAL PARK, Liverpool,
L33 7UT

Client Ref: 20156722
Report Ref: GS-9308689
Grid Ref: 342889, 397184

Map Name: National Grid

Map date: 2001

Scale: 1:10,000

Printed at: 1:10,000

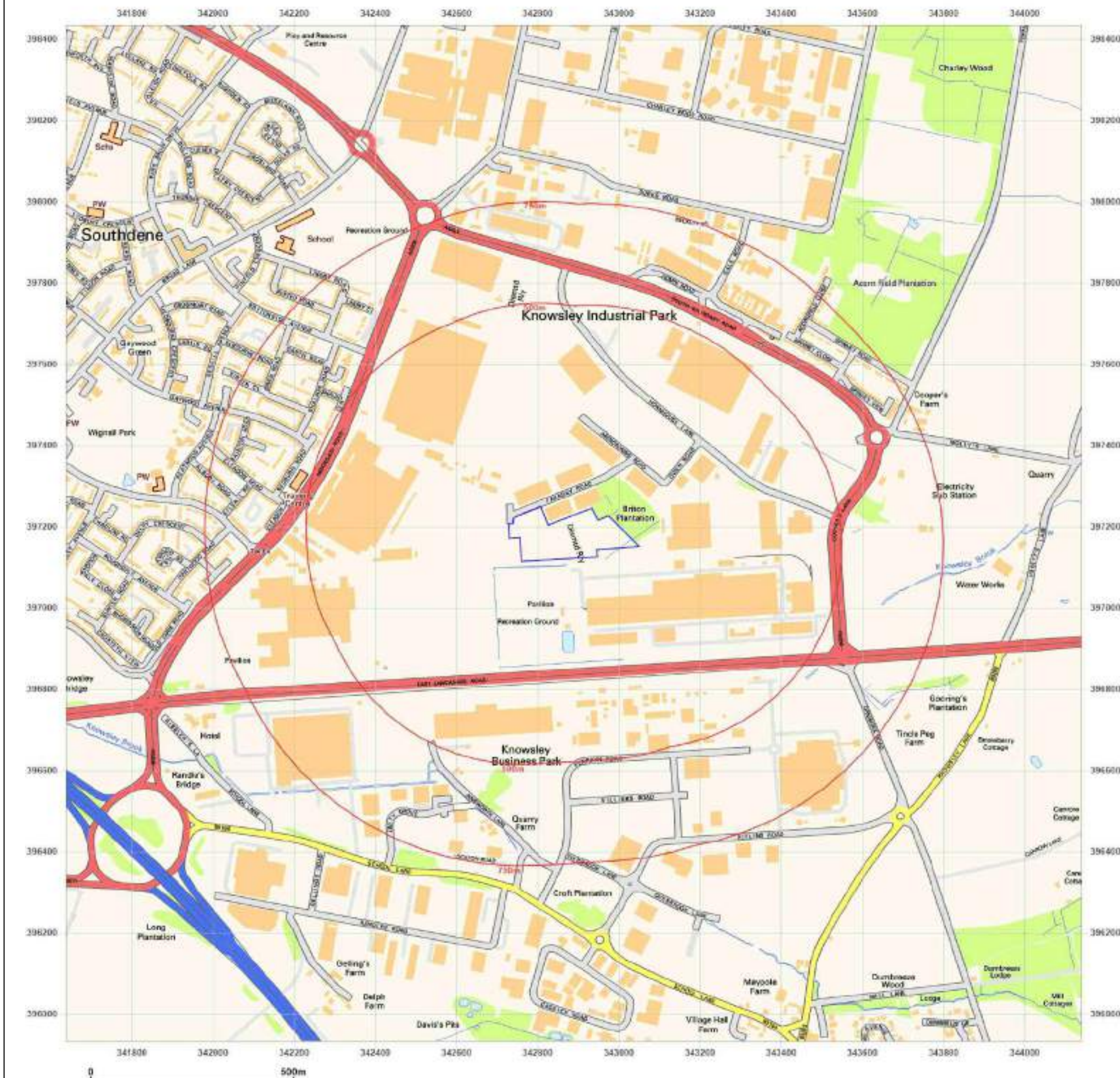


Produced by
Groundsure Insights
T: 08444 159000
E: info@groundsure.com
W: www.groundsure.com

© Crown copyright and database rights 2018 Ordnance Survey 100035207

Production date: 20 January 2023

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



Site Details:

FARADAY ROAD, KNOWSLEY
INDUSTRIAL PARK, Liverpool,
L33 7UT

Client Ref: 20156722
Report Ref: GS-9308689
Grid Ref: 342889, 397184

Map Name: National Grid

Map date: 2010

Scale: 1:10,000

Printed at: 1:10,000

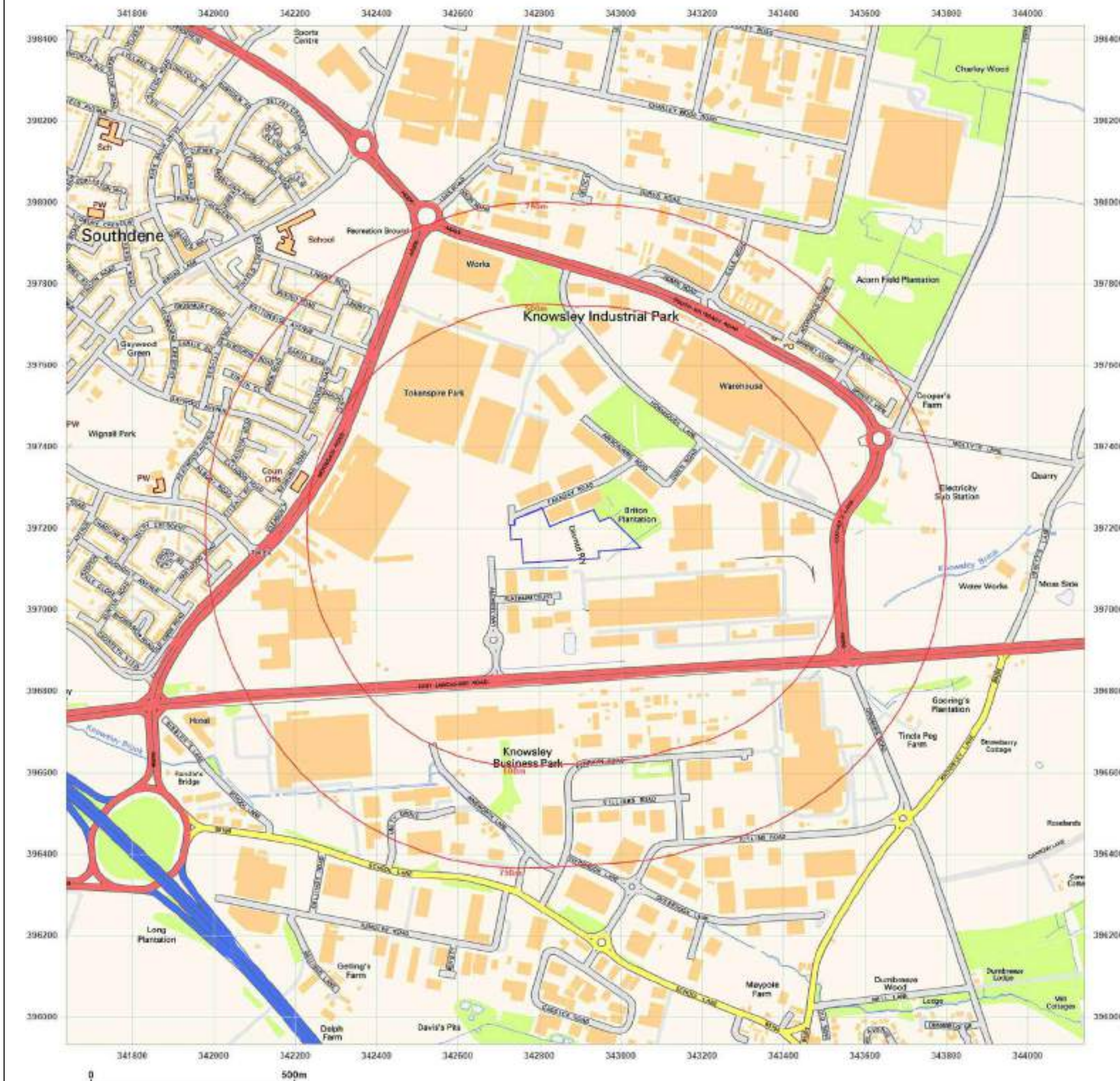


Produced by
Groundsure Insights
T: 08444 159000
E: info@groundsure.com
W: www.groundsure.com

© Crown copyright and database rights 2018 Ordnance Survey 100035207

Production date: 20 January 2023

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



Site Details:

FARADAY ROAD, KNOWSLEY
INDUSTRIAL PARK, Liverpool,
L33 7UT

Client Ref: 20156722
Report Ref: GS-9308689
Grid Ref: 342889, 397184

Map Name: National Grid

Map date: 2023

Scale: 1:10,000

Printed at: 1:10,000

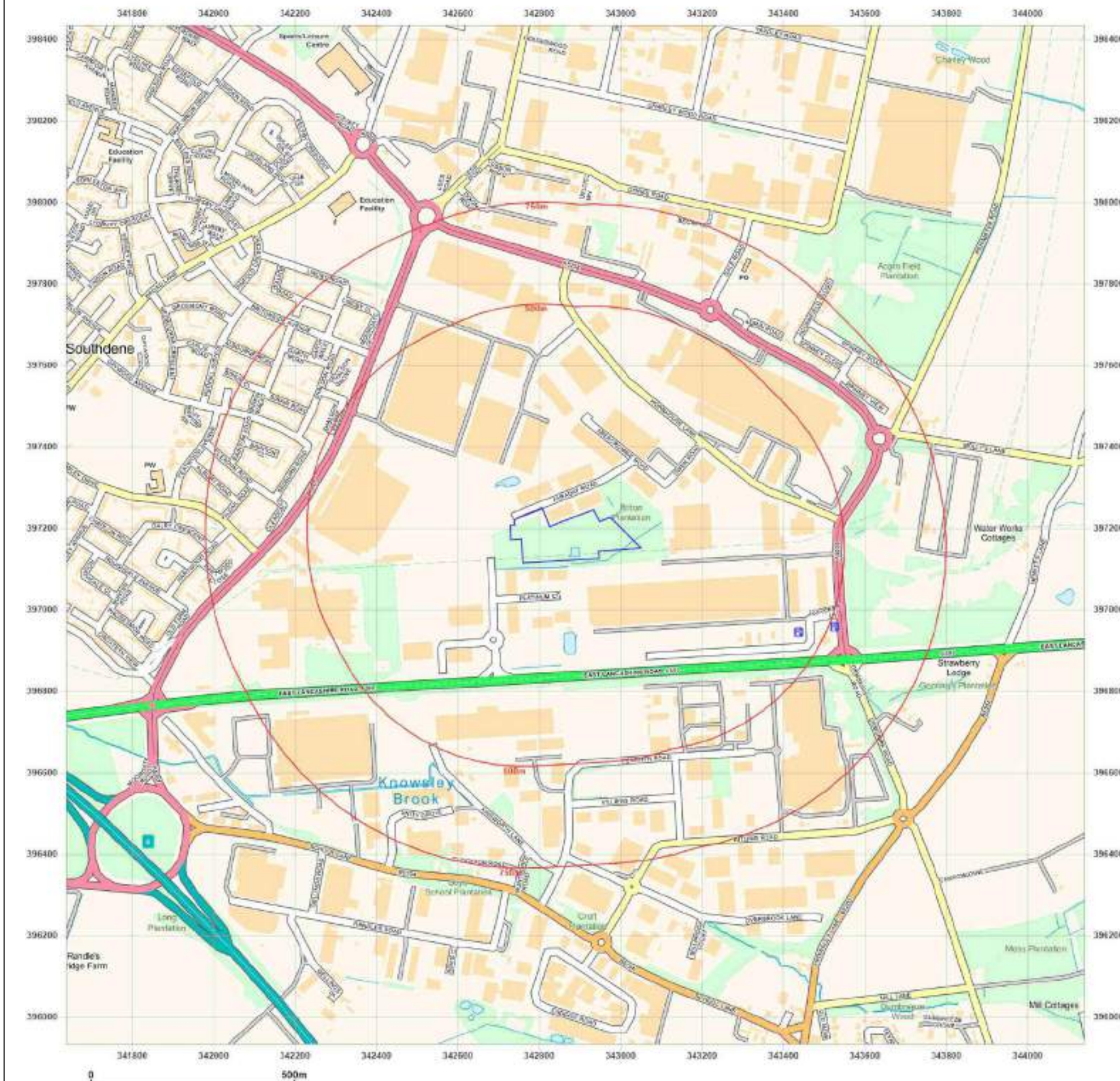


Produced by
Groundsure Insights
T: 08444 159000
E: info@groundsure.com
W: www.groundsure.com

© Crown copyright and database rights 2018 Ordnance Survey 100035207

Production date: 20 January 2023

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



Site Details:

FARADAY ROAD, KNOWSLEY
INDUSTRIAL PARK, Liverpool,
L33 7UT

Client Ref: 20156722
Report Ref: GS-9308689_2500
Grid Ref: 342888, 397183

Map Name: County Series

Map date: 1867

Scale: 1:2,500

Printed at: 1:2,500



Surveyed 1867
Revised 1867
Edition N/A
Copyright N/A
Levelled N/A

Surveyed 1867
Revised 1867
Edition N/A
Copyright N/A
Levelled N/A

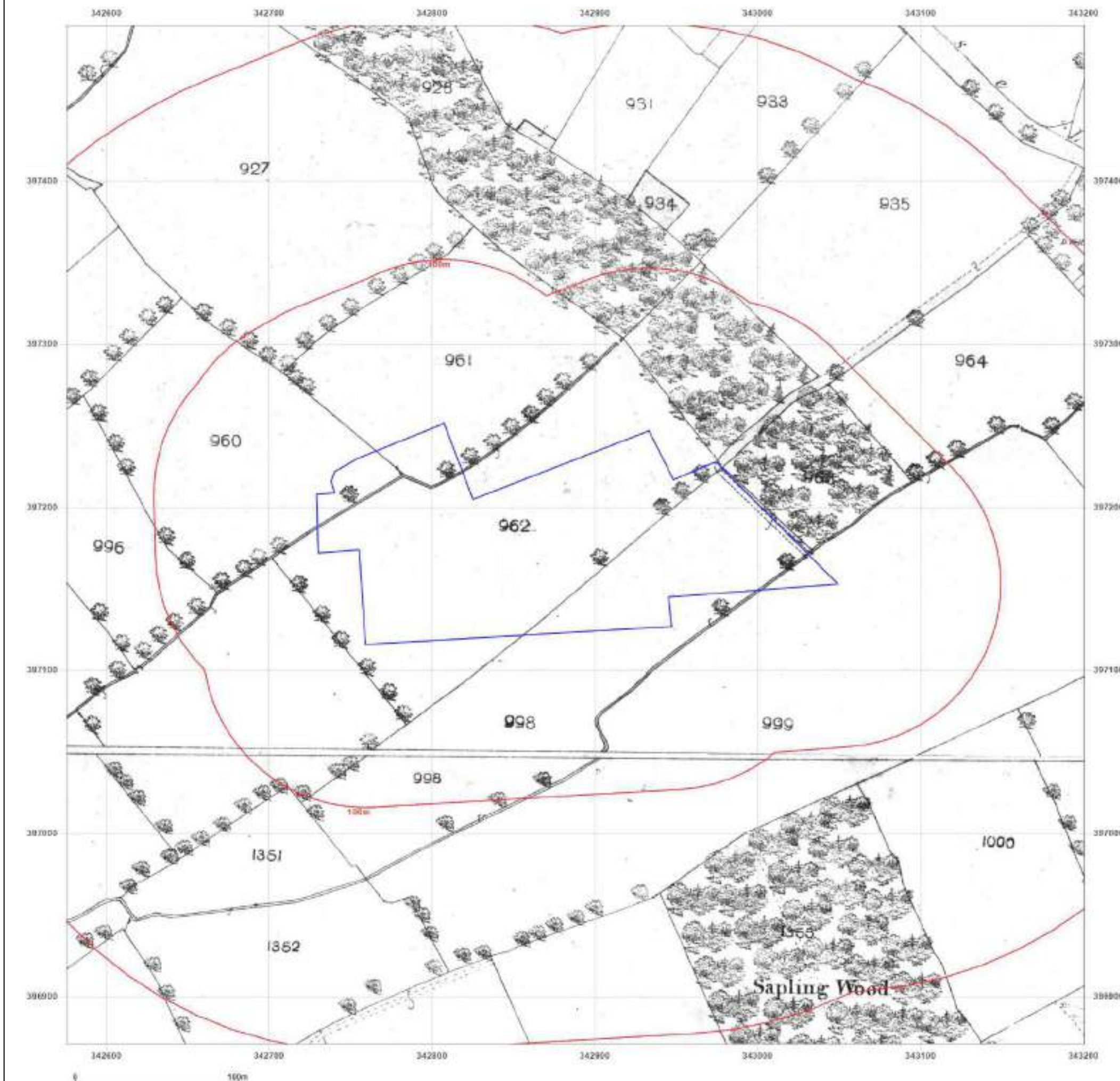


Produced by
Groundsure Insights
T: 08444 159000
E: info@groundsure.com
W: www.groundsure.com

© Crown copyright and database rights 2018 Ordnance Survey 100035207

Production date: 20 January 2023

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



Site Details:

FARADAY ROAD, KNOWSLEY
INDUSTRIAL PARK, Liverpool,
L33 7UT

Client Ref: 20156722
Report Ref: GS-9308689_2500
Grid Ref: 342888, 397183

Map Name: County Series

Map date: 1893

Scale: 1:2,500

Printed at: 1:2,500



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



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

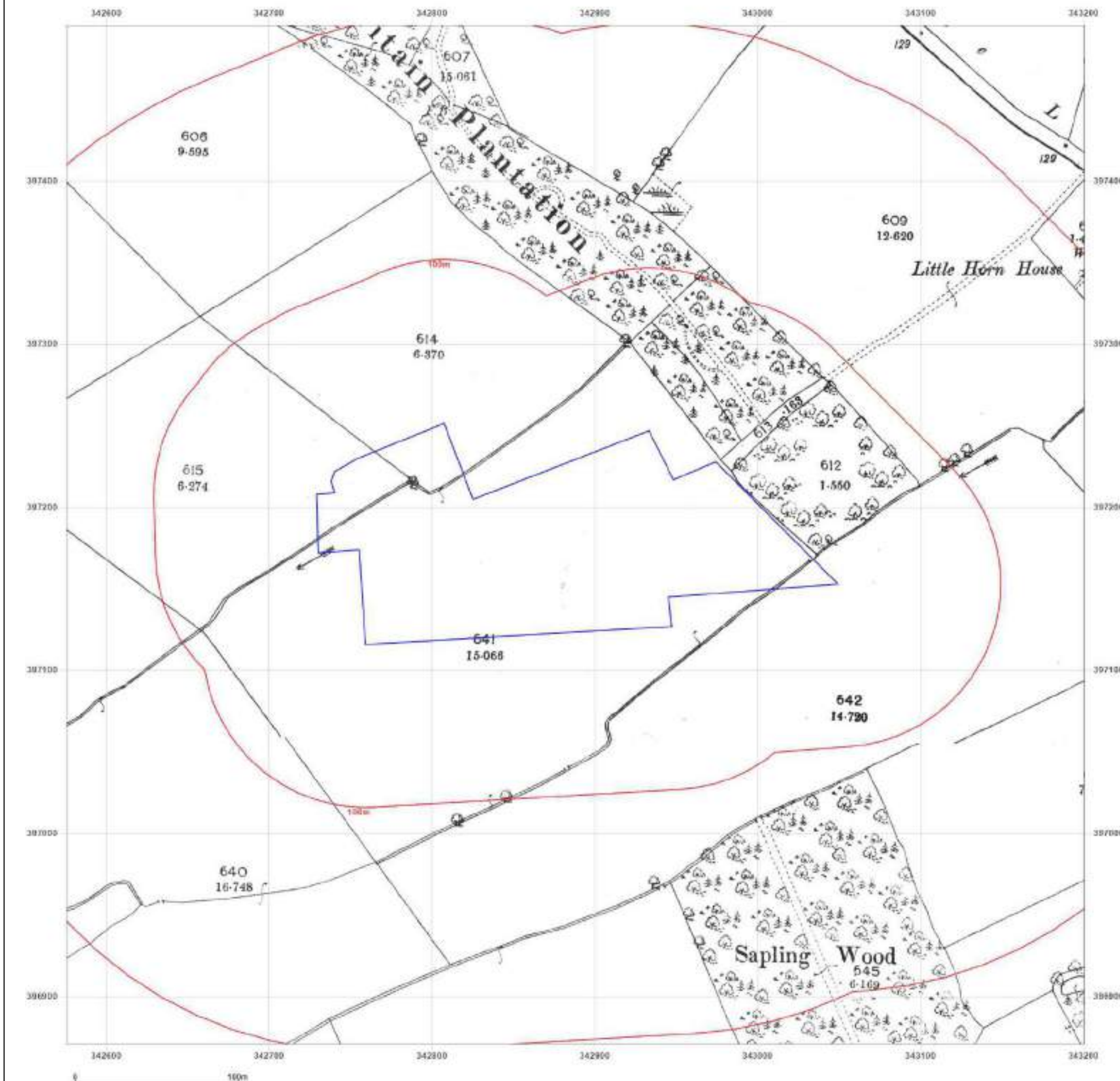


Produced by
Groundsure Insights
T: 08444 159000
E: info@groundsure.com
W: www.groundsure.com

© Crown copyright and database rights 2018 Ordnance Survey 100035207

Production date: 20 January 2023

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



Site Details:

FARADAY ROAD, KNOWSLEY
INDUSTRIAL PARK, Liverpool,
L33 7UT

Client Ref: 20156722
Report Ref: GS-9308689_2500
Grid Ref: 342888, 397183

Map Name: County Series

Map date: 1908

Scale: 1:2,500

Printed at: 1:2,500



Surveyed 1908
Revised 1909
Edition N/A
Copyright N/A
Levelled N/A



Surveyed 1908
Revised 1909
Edition N/A
Copyright N/A
Levelled N/A

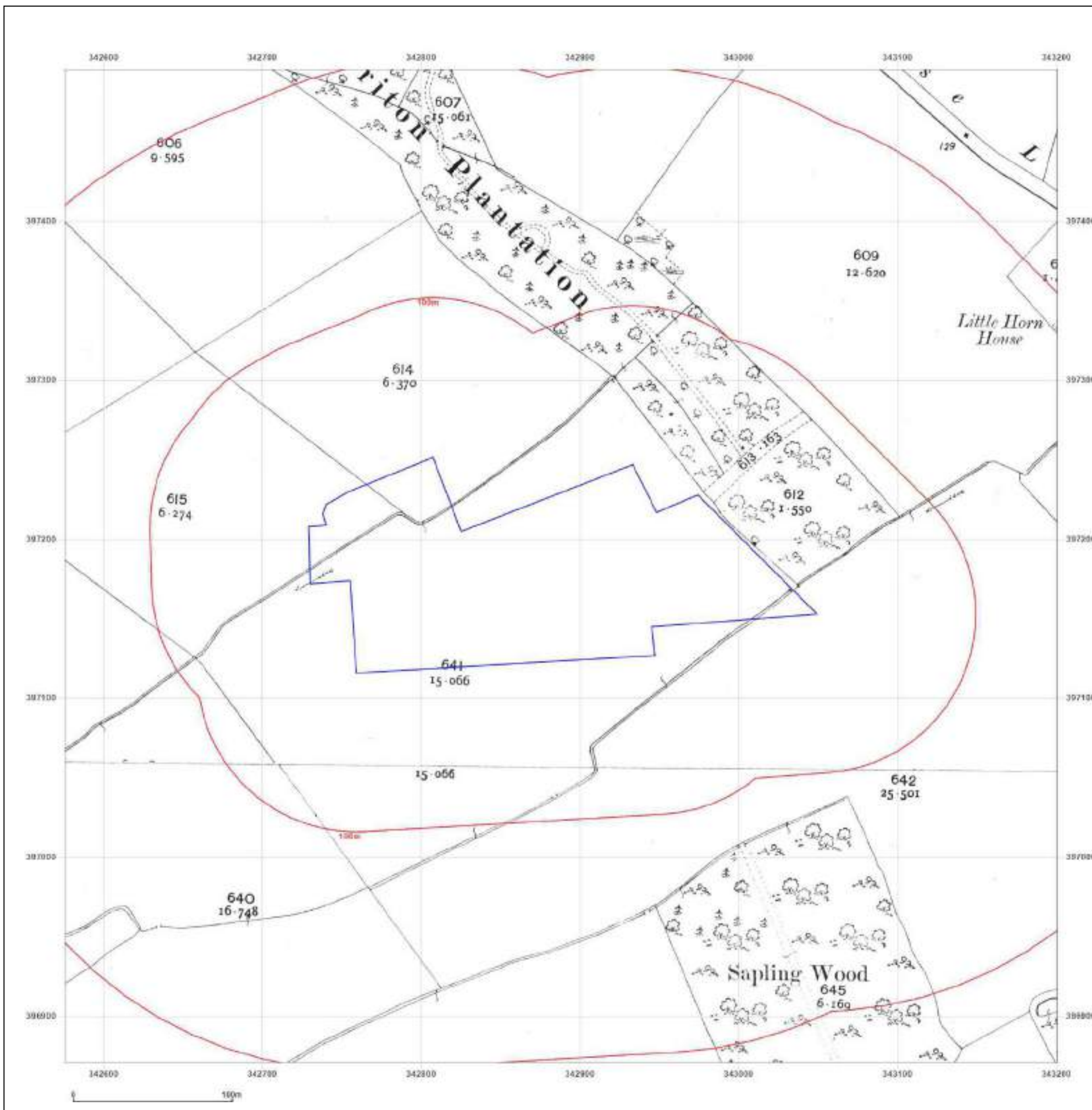


Produced by
Groundsure Insights
T: 08444 159000
E: info@groundsure.com
W: www.groundsure.com

© Crown copyright and database rights 2018 Ordnance Survey 100035207

Production date: 20 January 2023

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



Site Details:

FARADAY ROAD, KNOWSLEY
INDUSTRIAL PARK, Liverpool,
L33 7UT

Client Ref: 20156722
Report Ref: GS-9308689_2500
Grid Ref: 342888, 397183

Map Name: County Series

Map date: 1927

Scale: 1:2,500

Printed at: 1:2,500



Surveyed 1927
Revised 1927
Edition N/A
Copyright N/A
Levelled N/A



Surveyed 1927
Revised 1927
Edition N/A
Copyright N/A
Levelled N/A

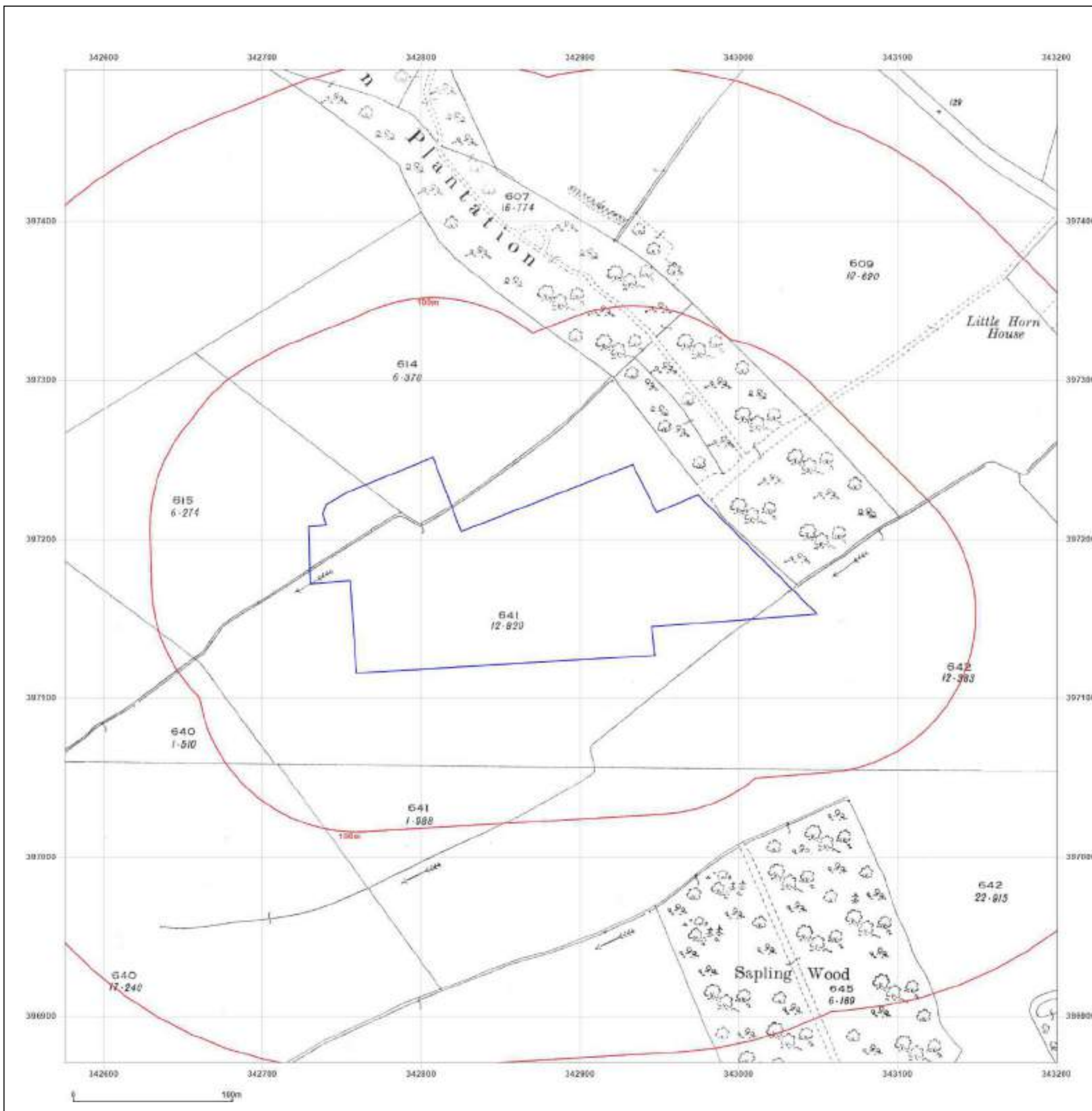


Produced by
Groundsure Insights
T: 08444 159000
E: info@groundsure.com
W: www.groundsure.com

© Crown copyright and database rights 2018 Ordnance Survey 100035207

Production date: 20 January 2023

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



Site Details:

FARADAY ROAD, KNOWSLEY
INDUSTRIAL PARK, Liverpool,
L33 7UT

Client Ref: 20156722
Report Ref: GS-9308689_2500
Grid Ref: 342888, 397183

Map Name: County Series

Map date: 1937

Scale: 1:2,500

Printed at: 1:2,500



Surveyed 1937
Revised 1937
Edition N/A
Copyright N/A
Levelled N/A

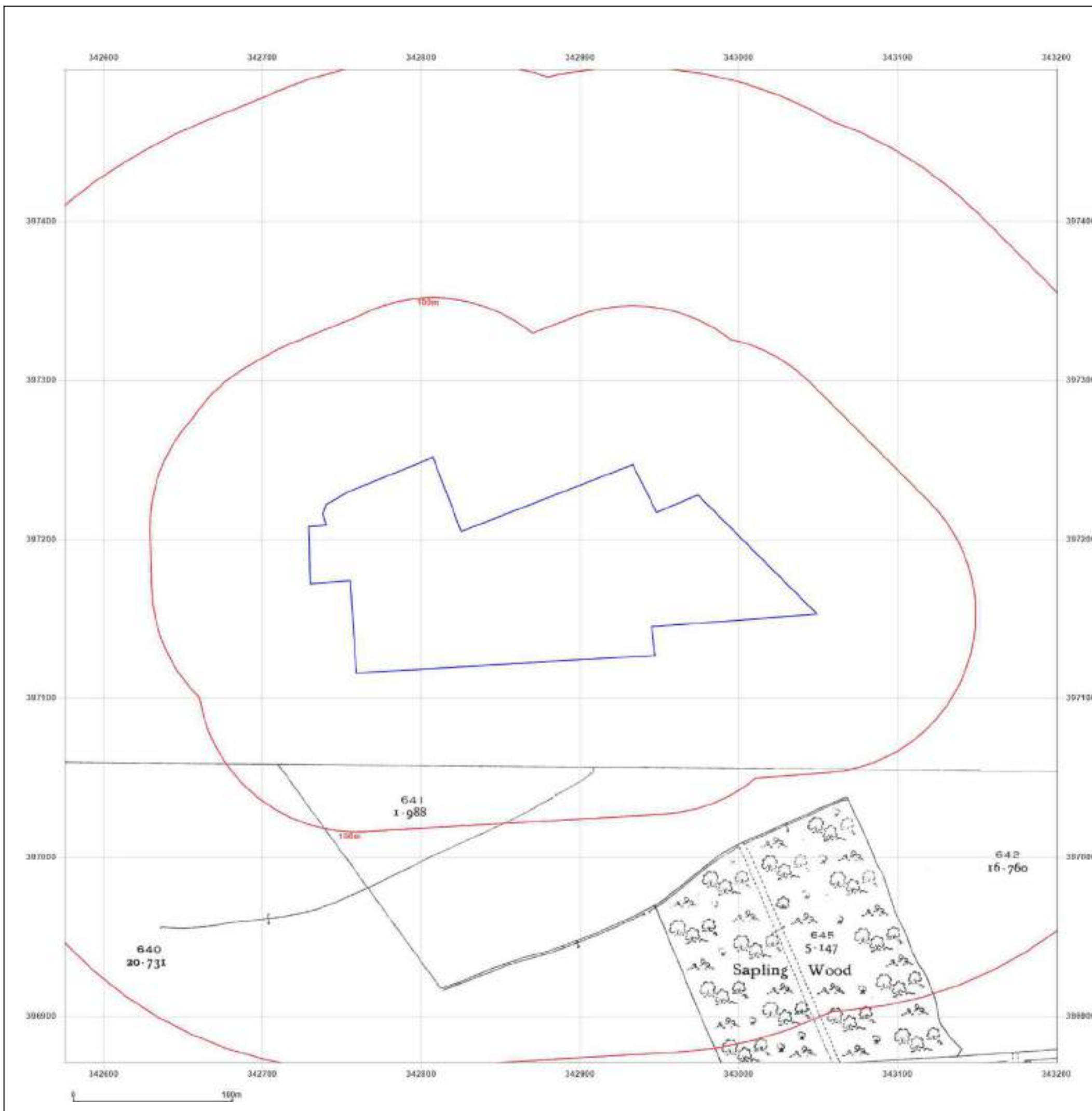


Produced by
Groundsure Insights
T: 08444 159000
E: info@groundsure.com
W: www.groundsure.com

© Crown copyright and database rights 2018 Ordnance Survey 100035207

Production date: 20 January 2023

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



Site Details:

FARADAY ROAD, KNOWSLEY
INDUSTRIAL PARK, Liverpool,
L33 7UT

Client Ref: 20156722
Report Ref: GS-9308689_2500
Grid Ref: 342888, 397183

Map Name: National Grid

Map date: 1970

Scale: 1:2,500

Printed at: 1:2,500



Surveyed 1968
Revised 1968
Edition N/A
Copyright 1970
Levelled 1960

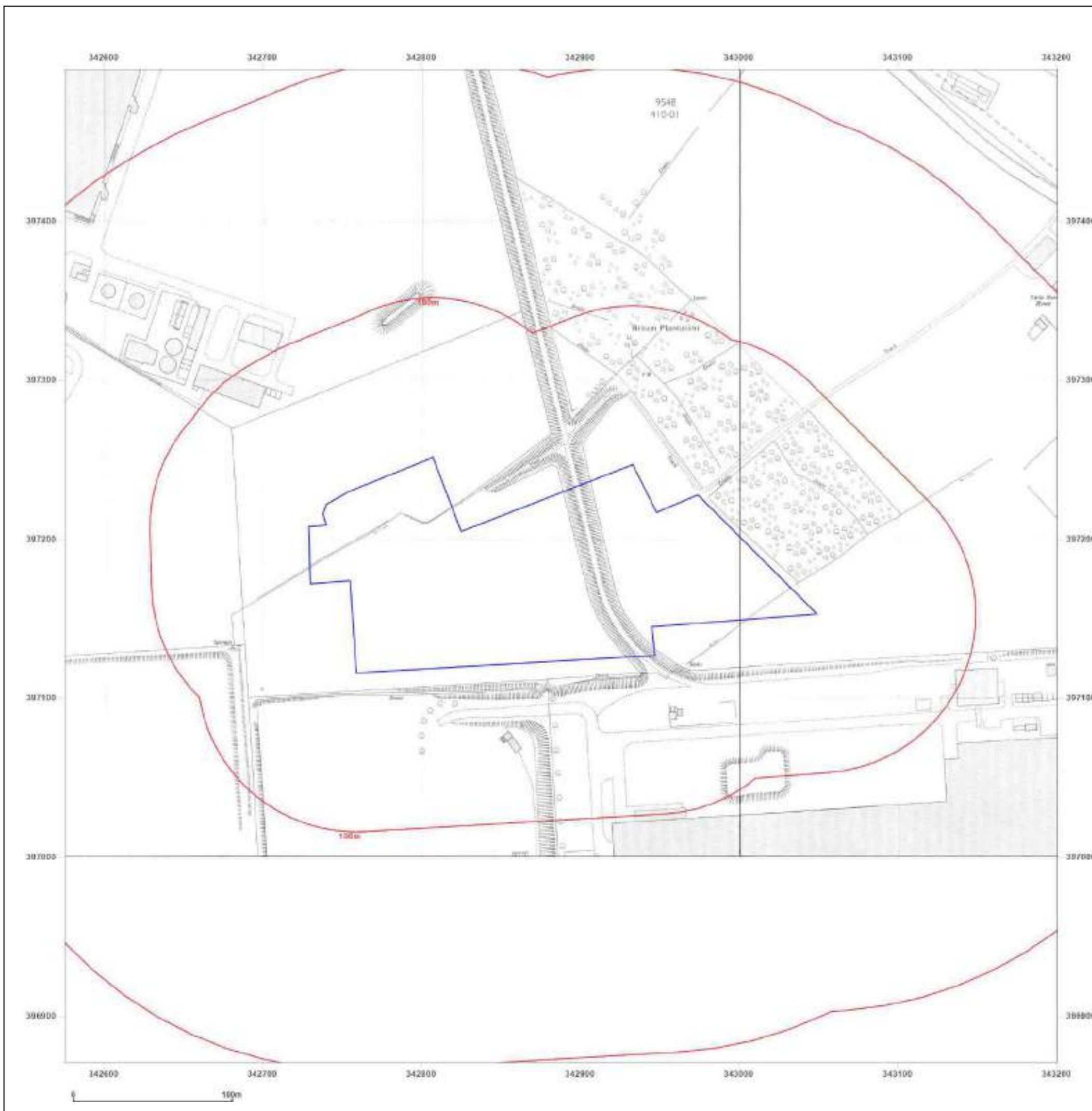


Produced by
Groundsure Insights
T: 08444 159000
E: info@groundsure.com
W: www.groundsure.com

© Crown copyright and database rights 2018 Ordnance Survey 100035207

Production date: 20 January 2023

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



Site Details:

FARADAY ROAD, KNOWSLEY
INDUSTRIAL PARK, Liverpool,
L33 7UT

Client Ref: 20156722
Report Ref: GS-9308689_1250_1_1
Grid Ref: 342639, 397183

Map Name: National Grid

Map date: 1959-1960

Scale: 1:1,250

Printed at: 1:2,000



Surveyed 1959
Revised 1959
Edition N/A
Copyright 1960
Levelled 1946

Surveyed 1959
Revised 1959
Edition N/A
Copyright 1960
Levelled 1946

Surveyed 1959
Revised 1959
Edition N/A
Copyright 1959
Levelled 1946

Surveyed 1959
Revised 1959
Edition N/A
Copyright 1959
Levelled 1946



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

© Crown copyright and database rights 2018 Ordnance Survey 100035207

Production date: 20 January 2023

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



Site Details:

FARADAY ROAD, KNOWSLEY
INDUSTRIAL PARK, Liverpool,
L33 7UT

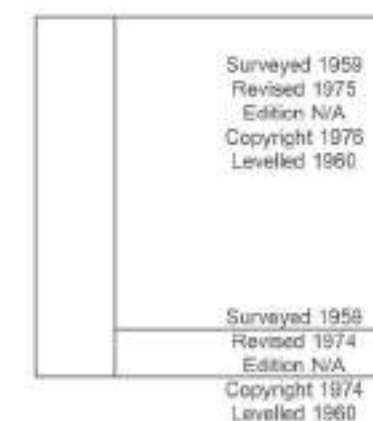
Client Ref: 20156722
Report Ref: GS-9308689_1250_1_1
Grid Ref: 342639, 397183

Map Name: National Grid

Map date: 1974-1976

Scale: 1:1,250

Printed at: 1:2,000



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

© Crown copyright and database rights 2018 Ordnance Survey 100035207

Production date: 20 January 2023

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



Site Details:

FARADAY ROAD, KNOWSLEY
INDUSTRIAL PARK, Liverpool,
L33 7UT

Client Ref: 20156722
Report Ref: GS-9308689_1250_1_1
Grid Ref: 342639, 397183

Map Name: National Grid

Map date: 1993

Scale: 1:1,250

Printed at: 1:2,000



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

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

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

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



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

© Crown copyright and database rights 2018 Ordnance Survey 100035207

Production date: 20 January 2023

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



Site Details:

FARADAY ROAD, KNOWSLEY
INDUSTRIAL PARK, Liverpool,
L33 7UT

Client Ref: 20156722
Report Ref: GS-9308689_1250_2_1
Grid Ref: 343139, 397183

Map Name: National Grid

Map date: 1959-1960

Scale: 1:1,250

Printed at: 1:2,000



Surveyed 1959
Revised 1959
Edition N/A
Copyright 1960
Levelled 1946

Surveyed 1959
Revised 1959
Edition N/A
Copyright 1960
Levelled 1956

Surveyed 1959
Revised 1959
Edition N/A
Copyright 1959
Levelled 1946

Surveyed 1959
Revised 1959
Edition N/A
Copyright 1960
Levelled 1946

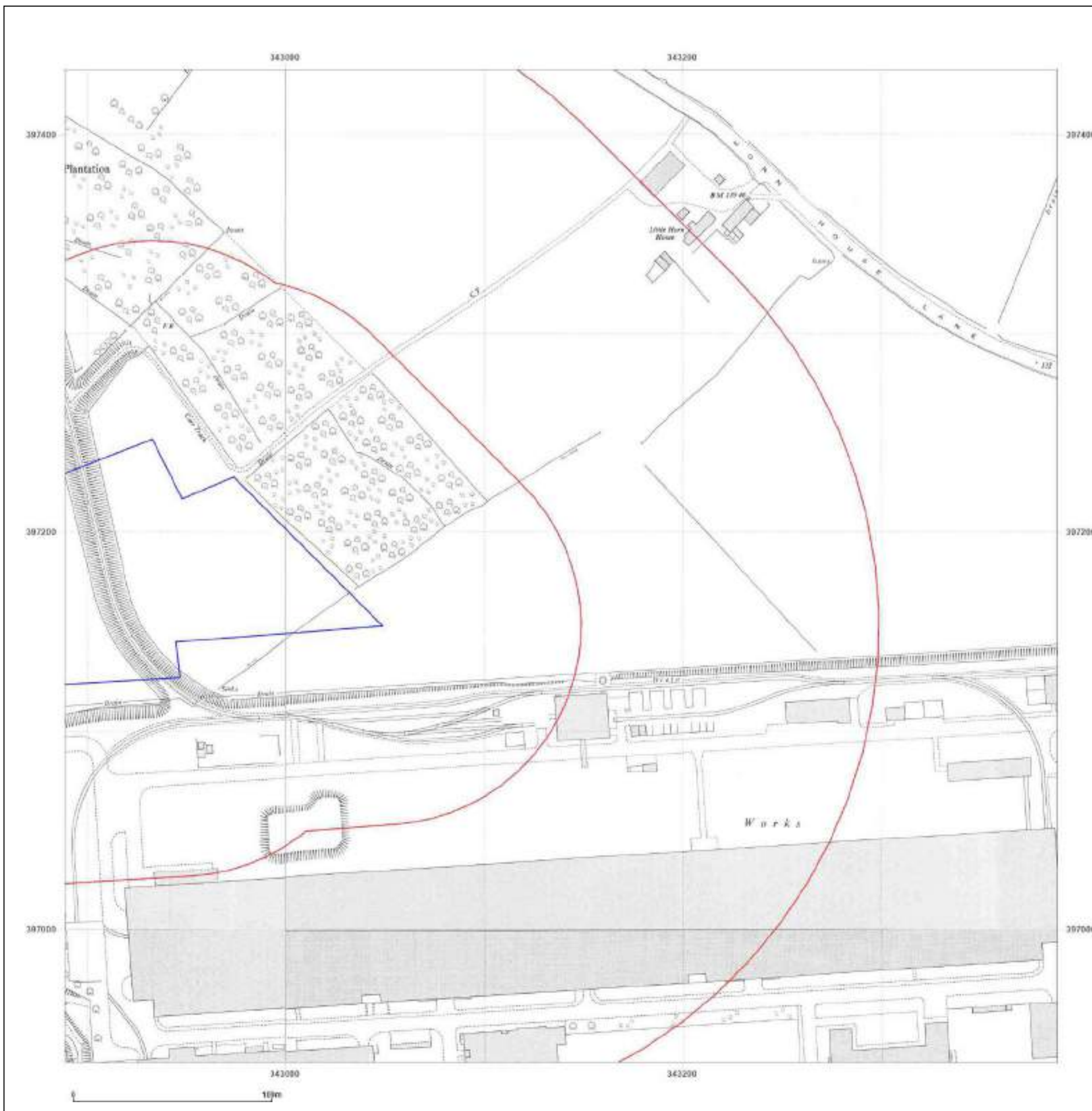


Produced by
Groundsure Insights
T: 08444 159000
E: info@groundsure.com
W: www.groundsure.com

© Crown copyright and database rights 2018 Ordnance Survey 100035207

Production date: 20 January 2023

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



Site Details:

FARADAY ROAD, KNOWSLEY
INDUSTRIAL PARK, Liverpool,
L33 7UT

Client Ref: 20156722
Report Ref: GS-9308689_1250_2_1
Grid Ref: 343139, 397183

Map Name: National Grid

Map date: 1974-1976

Scale: 1:1,250

Printed at: 1:2,000



Surveyed 1959
Revised 1975
Edition N/A
Copyright 1976
Levelled 1960

Surveyed 1959
Revised 1975
Edition N/A
Copyright 1975
Levelled 1956

Surveyed 1959
Revised 1973
Edition N/A
Copyright 1974
Levelled 1960

Surveyed 1959
Revised 1975
Edition 1975
Copyright 1969
Levelled 1946

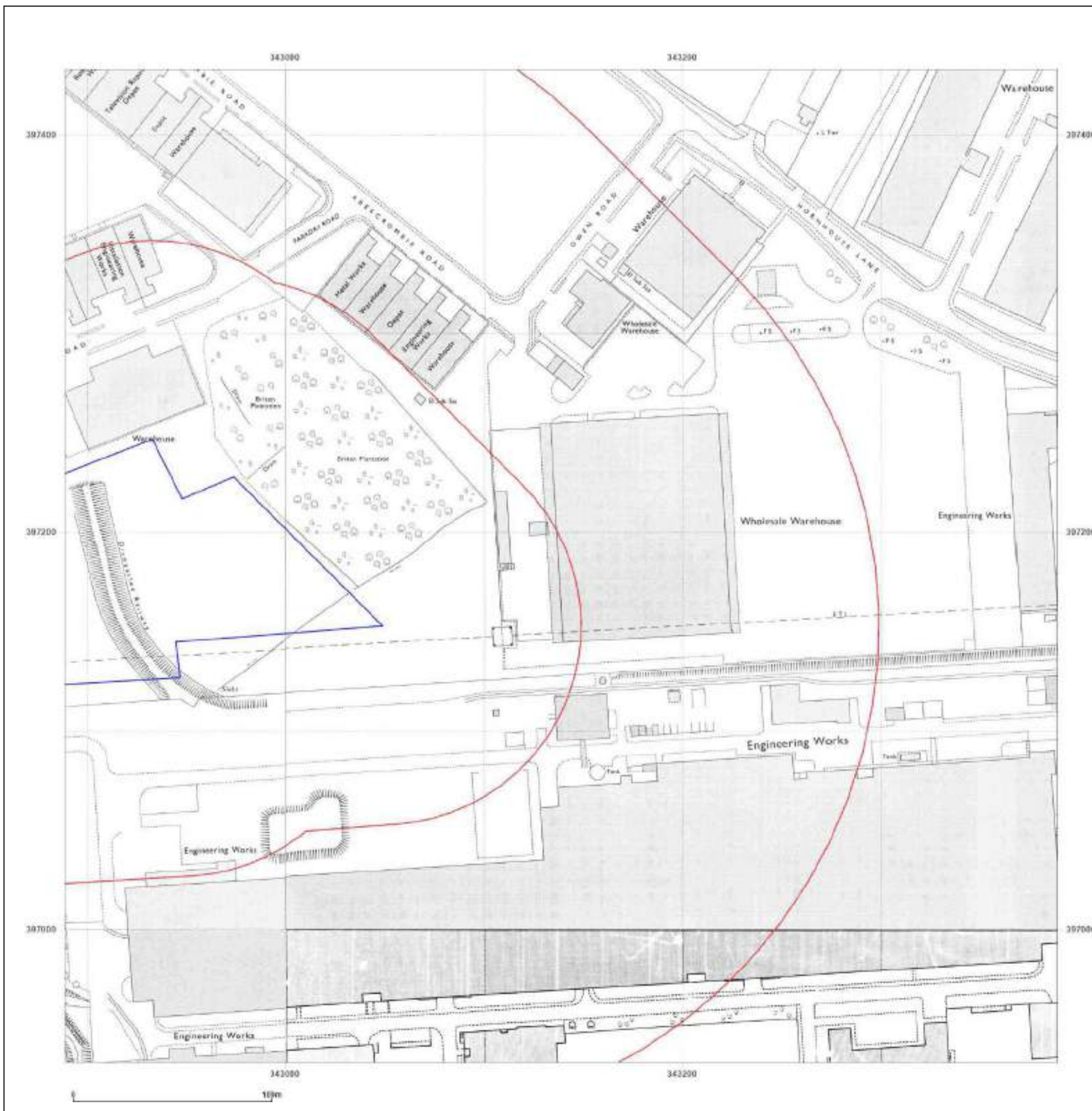


Produced by
Groundsure Insights
T: 08444 159000
E: info@groundsure.com
W: www.groundsure.com

© Crown copyright and database rights 2018 Ordnance Survey 100035207

Production date: 20 January 2023

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



Site Details:

FARADAY ROAD, KNOWSLEY
INDUSTRIAL PARK, Liverpool,
L33 7UT

Client Ref: 20156722
Report Ref: GS-9308689_Landline_1_1
Grid Ref: 342739, 397184

Map Name: LandLine

Map date: 2003

Scale: 1:1,250

Printed at: 1:1,250



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

© Crown copyright and database rights 2018 Ordnance Survey 100035207

Production date: 20 January 2023

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



Site Details:

FARADAY ROAD, KNOWSLEY
INDUSTRIAL PARK, Liverpool,
L33 7UT

Client Ref: 20156722
Report Ref: GS-9308689_Landline_2_1
Grid Ref: 343039, 397184

Map Name: LandLine

Map date: 2003

Scale: 1:1,250

Printed at: 1:1,250

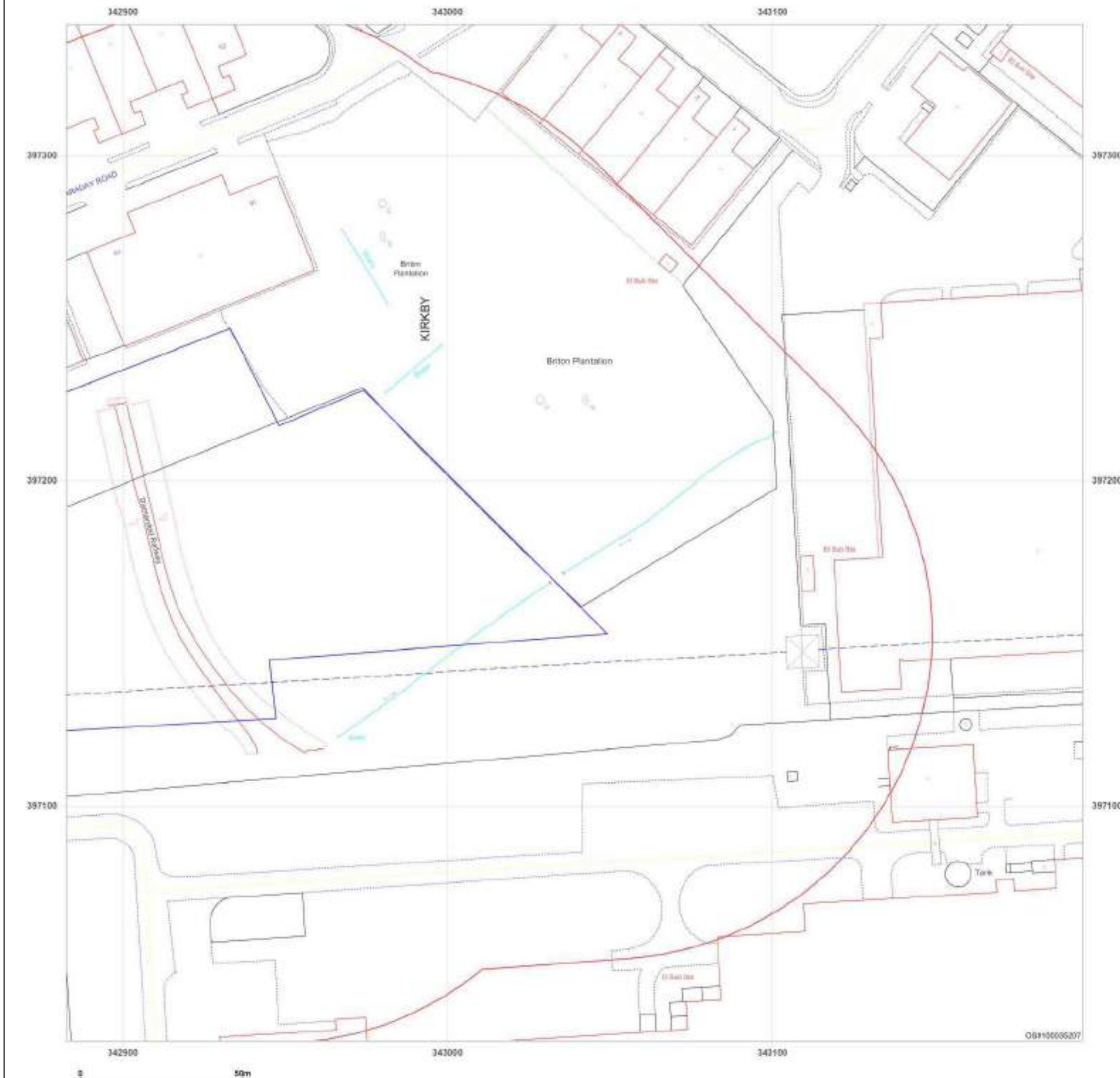


Produced by
Groundsure Insights
T: 08444 159000
E: info@groundsure.com
W: www.groundsure.com

© Crown copyright and database rights 2018 Ordnance Survey 100035207

Production date: 20 January 2023

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



Appendix F

ZETICA UXO RISK ASSESSMENT 

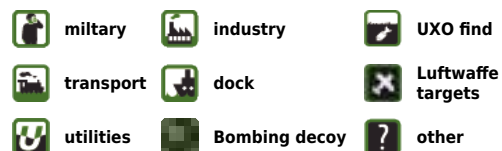
Location: L33 7UT,
Map Centre: 342868,397321



High: Areas indicated as having a bombing density of 50 bombs per 1000acre or higher.

Moderate: Areas indicated as having a bombing density of 15 to 49 bombs per 1000acre.

Low: Areas indicated as having 15 bombs per 1000acre or less.



*Preliminary and detailed UXO risk assessments are advocated as good practice by industry guidance such as CIRIA C681 'Unexploded Ordnance (UXO), a guide for the construction industry'.



Pre-Desk Study Assessment

Site:	Faraday Road, Knowsley, Merseyside
Client:	WSP
Contact:	Jess Kinchington/Robert Crookes
Date:	20 th July 2020
Pre-WWI Military Activity on or Affecting the Site	None identified.
WWI Military Activity on or Affecting the Site	None identified.
WWI Strategic Targets (within 5km of Site)	The following strategic targets were located in the vicinity of the Site: ■ Transport infrastructure and public utilities. ■ Minor industries. ■ Anti-Aircraft (AA) guns.
WWI Bombing	None identified on the Site.
Interwar Military Activity on or Affecting the Site	None identified.
WWII Military Activity on or Affecting the Site	None identified.
WWII Strategic Targets (within 5km of Site)	The following strategic targets were located in the vicinity of the Site: ■ Royal Ordnance Factory (ROF) Kirkby. ■ Transport infrastructure and public utilities. ■ 1No. military airfield. ■ Military camps and training areas. ■ AA and anti-invasion defences.
WWII Bombing Decoys (within 5km of Site)	1No. located approximately 1.7km south-southwest of the Site.
WWII Bombing	During WWII the Site was located in the Rural District (RD) of Whiston, which officially recorded 280No. High Explosive (HE) bombs with a bombing density of 9.5 bombs per 405 hectares (ha). No readily available records have been found to indicate that the Site was bombed.
Post-WWII Military Activity on or Affecting the Site	None identified.
Recommendation	A detailed desk study, whilst always prudent, is not considered essential in this instance.

This summary is based on a cursory review of readily available records. Caution is advised if you plan to action work based on this summary.

It should be noted that where a potentially significant source of UXO hazard has been identified on the Site, the requirement for a detailed desk study and risk assessment has been confirmed and no further research will be undertaken at this stage. It is possible that further in-depth research as part of a detailed UXO desk study and risk assessment may identify other potential sources of UXO hazard on the Site.

Appendix G

CIRIA C5662 INFORMATION 

CIRIA C552 RISK ASSESSMENT

The identification of potential pollutant linkages is a key aspect of the evaluation of potentially contaminated land. An approach based on the UK CIRIA 552 report C552 (Contaminated Land Risk Assessment: A Guide to Good Practice, 2001) has been adopted within this report. The assessment considers which source – pathway – receptor pollutant linkages are likely to be plausible and potentially complete, and the potential risk they represent. For each of the pollutant linkages, an estimate of:

- the potential severity (consequence) of the risk, and
- the probability (likelihood) of the risk occurring

has been undertaken to assess the potential risk associated with a complete pollutant linkage.

Table 1 – Classification of consequence (CIRIA C552, 2001)

Classification	Category	Definition	Examples
Severe Short term (acute) risks only	Humans	Short term (acute) risk to human health likely to result in “significant harm” as defined by the Environmental Protection Act 1990, Part 2a	High concentrations of cyanide on the surface of an informal recreation area
	Controlled Waters	Short term risk of pollution of sensitive water resource	Major spillage of contaminants from site into controlled waters
	Property	Catastrophic damage to buildings / property	Explosion causing building collapse
	Ecological Systems	Short term risk to a particular ecosystem or organism forming part of such ecosystem	
Medium Chronic (long term) risks; ‘significant harm’	Humans	Chronic damage to human health (“significant harm” as defined in DEFRA, 2006)	Concentrations of a contaminant from a site exceed the generic or site-specific assessment criteria
	Controlled Waters	Pollution of sensitive water resources	Leaching of contaminants from a site into a Principal or Secondary A aquifer
	Ecological Systems	Significant change in a particular ecosystem or organism forming part of such ecosystem	Death of a species within a designated nature reserve
Mild Chronic (long term) risks; less sensitive receptors	Controlled Waters	Pollution of non-sensitive water resources	Pollution of non-classified surface watercourse
	Property	Significant damage to buildings, structures, crops and services (“significant harm” as defined in DEFRA, 2006) and damage to sensitive buildings / structures and services	Foundation damage to a building rendering it unsafe to occupy due to instability
	Ecological Systems	Damage to the environment	
Minor Chronic (long term) risk; mild	Humans	Non-permanent health effects to human health that are easily prevented by the use of PPE	Presence of contaminants at such concentrations that protective equipment is required during site works
	Property	Easily repairable effects of damage to buildings, structures and services	Discoloration of concrete
	Financial / Project	Harm, although not necessarily significant harm, which may result in a financial loss, or expenditure to resolve	

Table 2 – Classification of probability (CIRIA C552, 2001)

Classification	Definition
High likelihood	There is a pollutant linkage and an event that either appears very likely in the short term and almost inevitable over the long term, or there is evidence at the receptor of harm or pollution.
Likely	There is a pollutant linkage and all the elements are present and in the right place, which means that it is probable that an event will occur. Circumstances are such that an event is not inevitable, but possible in the short term and likely over the long term.
Low likelihood	There is a pollutant linkage and circumstances are possible under which an event could occur. However, it is by no means certain that even over a longer period such an event would take place, and is less likely in the shorter term.
Unlikely	There is a pollutant linkage but circumstances are such that it is improbable that an event would occur even in the very long term.

Table 3 – Comparison of consequence against probability (CIRIA C552, 2001)

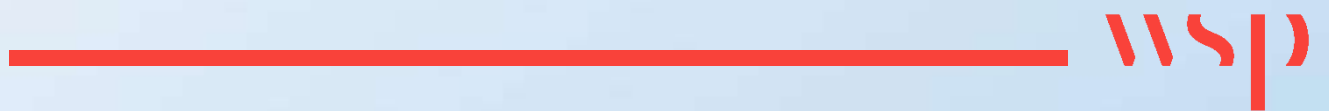
	Severe	Medium	Mild	Minor
High Likelihood	Very High Risk	High Risk	Moderate Risk	Low / Moderate Risk
Likely	High Risk	Moderate Risk	Low to Moderate Risk	Low Risk
Low Likelihood	Moderate Risk	Low / Moderate Risk	Low Risk	Very Low Risk
Unlikely	Low / Moderate Risk	Low Risk	Very Low Risk	Very Low Risk

Table 4 - Risk classification descriptions (CIRIA C552, 2001)

Risk Classification	Definition
Very high risk	There is a high probability that severe harm could arise to a designated receptor from an identified hazard, OR, there is evidence that severe harm to a designated receptor is currently happening. This risk, if realised, is likely to result in a substantial liability. Urgent investigation (if not undertaken already) and remediation are likely to be required.
High risk	Harm is likely to arise to a designated receptor from an identified hazard. Realisation of the risk is likely to present a substantial liability. Urgent investigation (if not undertaken already) is required and remedial works may be necessary in the short term and are likely over the longer term.
Moderate risk	It is possible that harm could arise to a designated receptor from an identified hazard. However, it is either relatively unlikely that such harm would be severe, or if any harm were to occur it is more likely that the harm would be relatively mild. Investigation (if not undertaken already) is normally required to clarify the risk and to determine the potential liability. Some remedial works may be required in the longer term.
Low risk	It is possible that harm could arise to a designated receptor from an identified hazard, but it is likely that this harm, if realised, would at worst normally be mild.
Very low risk	There is a low possibility that harm could arise to a receptor. In the event of such harm being realised it is not likely to be severe.

Appendix H

LIMITATIONS



REPORT LIMITATIONS - GROUND AND WATER

GENERAL

1. WSP UK Limited has prepared this report solely for the use of the Client and those parties with whom a warranty agreement has been executed, or with whom an assignment has been agreed and outlined in the body of the report.
2. Unless explicitly agreed otherwise, in writing, this report has been prepared under WSP UK Limited standard Terms and Conditions as included within our proposal to the Client.
3. Project specific appointment documents may be agreed at our discretion and a charge may be levied for both the time to review and finalise appointments documents and also for associated changes to the appointment terms. WSP UK Limited reserves the right to amend the fee should any changes to the appointment terms create an increase risk to WSP UK Limited.
4. The report needs to be considered in the light of the WSP UK Limited proposal and associated limitations of scope. The report needs to be read in full and isolated sections cannot be used without full reference to other elements of the report and any previous works referenced within the report.

PHASE 1 GEO ENVIRONMENTAL AND PRELIMINARY RISK ASSESSMENTS

Coverage: *This section covers reports with the following titles or combination of titles: phase 1; desk top study; geo environmental assessment; development appraisal; preliminary environmental risk assessment; constraints report; due diligence report; geotechnical development review; environmental statement; environmental chapter; project scope summary report (PSSR), program environmental impact report (PEIR), geotechnical development risk register; and, baseline environmental assessment.*

5. The works undertaken to prepare this report comprised a study of available and easily documented information from a variety of sources (including the Client), together with (where appropriate) a brief walk over inspection of the Site and correspondence with relevant authorities and other interested parties. Due to the short timescales associated with these projects responses may not have been received from all parties. WSP UK Limited cannot be held responsible for any disclosures that are provided post production of our report and will not automatically update our report.
6. The opinions given in this report have been dictated by the finite data on which they are based and are relevant only for the purpose for which the report was commissioned. The information reviewed should not be considered exhaustive and has been accepted in good faith as providing true and representative data pertaining to site conditions. Should additional information become available which may affect the opinions expressed in this report, WSP UK Limited reserves the right to review such information and, if warranted, to modify the opinions accordingly.
7. It should be noted that any risks identified in this report are perceived risks based on the information reviewed. Actual risks can only be assessed following intrusive investigations of the site.
8. WSP UK Limited does not warrant work / data undertaken / provided by others.



REPORT LIMITATIONS - GROUND RISK AND REMEDIATION

INTRUSIVE INVESTIGATION REPORTS

Coverage: *The following report titles (or combination) may cover this category of work: geo environmental site investigation; geotechnical assessment; GIR (Ground Investigation reports); preliminary environmental and geotechnical risk assessment; and, geotechnical risk register.*

9. The investigation has been undertaken to provide information concerning either:
 - i. The type and degree of contamination present at the site in order to allow a generic quantitative risk assessment to be undertaken; or
 - ii. Information on the soil properties present at the site to allow for geotechnical development constraints to be considered.
10. The scope of the investigation was selected on the basis of the specific development and land use scenario proposed by the Client and may be inappropriate to another form of development or scheme. If the development layout was not known at the time of the investigation the report findings may need revisiting once the development layout is confirmed.
11. For contamination purposes, the objectives of the investigation are limited to establishing the risks associated with potential contamination sources with the potential to cause harm to human health, building materials, the environment (including adjacent land), or controlled waters.
12. For geotechnical investigations the purpose is to broadly consider potential development constraints associated with the physical property of the soils underlying the site within the context of the proposed future or continued use of the site, as stated within the report.
13. The amount of exploratory work, soil property testing and chemical testing undertaken has necessarily been restricted by various factors which may include accessibility, the presence of services; existing buildings; current site usage or short timescales. The exploratory holes completed assess only a small percentage of the area in relation to the overall size of the Site, and as such can only provide a general indication of conditions.
14. The number of sampling points and the methods of sampling and testing do not preclude the possible existence of contamination where concentrations may be significantly higher than those actually encountered or ground conditions that vary from those identified. In addition, there may be exceptional ground conditions elsewhere on the site which have not been disclosed by this investigation and which have therefore not been taken into account in this report.
15. The inspection, testing and monitoring records relate specifically to the investigation points and the timeframe that the works were undertaken. They will also be limited by the techniques employed. As part of this assessment, WSP UK Limited has used reasonable skill and care to extrapolate conditions between these points based upon assumptions to develop our interpretation and conclusions. The assumption made in forming our conclusions is that the ground and groundwater conditions (both chemically and physically) are the same as have been encountered during the works undertaken at the specific points of investigation. Conditions can change between investigation points and these interpretations should be considered indicative.
16. The risk assessment and opinions provided are based on currently available guidance relating to acceptable contamination concentrations; no liability can be accepted for the retrospective effects of any future changes or amendments to these values. Specific assumptions associated



REPORT LIMITATIONS - GROUND RISK AND REMEDIATION

with the WSP UK Limited risk assessment process have been outlined within the body or associated appendix of the report.

17. Additional investigations may be required in order to satisfy relevant planning conditions or to resolve any engineering and environmental issues.
18. Where soil contamination concentrations recorded as part of this investigation are used for commentary on potential waste classification of soils for disposal purposes, these should be classed as indicative only. Due consideration should be given to the variability of contaminant concentrations taken from targeted samples versus bulk excavated soils and the potential variability of contaminant concentrations between sampling locations. Where major waste disposal operations are considered, targeted waste classification investigations should be designed.
19. The results of the asbestos testing are factually reported and interpretation given as to how this relates to the previous use of the site, the types of ground encountered and site conceptualisation. This does not however constitute a formal asbestos assessment. These results should be treated cautiously and should not be relied upon to provide detailed and representative information on the delineation, type and extent of bulk ACMs and / or trace loose asbestos fibres within the soil matrix at the site.
20. If costs have been included in relation to additional site works, and / or site remediation works these must be considered as indicative only and must be confirmed by a qualified quantity surveyor.

EUROCODE 7: GEOTECHNICAL DESIGN

21. On 1st April 2010, BS EN 1997-1:2004 (Eurocode 7: Geotechnical Design – Part 1) became the mandatory baseline standard for geotechnical ground investigations.
22. In terms of geotechnical design for foundations, slopes, retaining walls and earthworks, EC7 sets guidance on design procedures including specific guidance on the numbers and spacings of boreholes for geotechnical design, there are limits to methods of ground investigation and the quality of data obtained and there are also prescriptive methods of assessing soil strengths and methods of design. Unless otherwise explicitly stated, the work has not been undertaken in accordance with EC7. A standard geotechnical interpretative report will not meet the requirements of the Geotechnical Design Report (GDR) under Eurocode 7. The GDR can only be prepared following confirmation of all structural loads and serviceability requirements. The report is likely to represent a Ground Investigation Report (GIR) under the Eurocode 7 guidance.

DETAILED QUANTITATIVE RISK ASSESSMENTS AND REMEDIAL STRATEGY REPORTS

23. These reports build upon previous report versions and associated notes. The scope of the investigation, further testing and monitoring and associated risk assessments were selected on the basis of the specific development and land use scenario proposed by the Client and may not be appropriate to another form of development or scheme layout. The risk assessment and opinions provided are based on currently available approaches in the generation of Site Specific Assessment Criteria relating to contamination concentrations and are not considered to represent a risk in a specific land use scenario to a specific receptor. No liability can be accepted for the retrospective effects of any future changes or amendments to these values, associated models or associated guidance.



REPORT LIMITATIONS - GROUND RISK AND REMEDIATION

- 24. The outputs of the Detailed Quantitative Risk Assessments are based upon WSP UK Limited manipulation of standard risk assessment models. These are our interpretation of the risk assessment criteria.
- 25. Prior to adoption on site they will need discussing and agreeing with the Regulatory Authorities prior to adoption on site. The regulatory discussion and engagement process may result in an alternative interpretation being determined and agreed. The process and timescales associated with the Regulatory Authority engagement are not within the control of WSP UK Limited. All costs and programmes presented as a result of this process should be validated by a quantity surveyor and should be presumed to be indicative.

GEOTECHNICAL DESIGN REPORT (GDR)

- 26. The GDR can only be prepared following confirmation of all structural loads and serviceability requirements. All the relevant information needs to be provided to allow for a GDR to be produced.

MONITORING (INCLUDING REMEDIATION MONITORING REPORTS)

- 27. These reports are factual in nature and comprise monitoring, normally groundwater and ground gas and data provided by contractors as part of an earthworks or remedial works.
- 28. The data is presented and will be compared with assessment criteria.



1st Floor Station House
Tithebarn Street, Exchange Station
Liverpool
L2 2QP

wsp.com