

PHASE 1 GEO-ENVIRONMENTAL PRELIMINARY RISK ASSESSMENT

Land at Alchemy Way, Knowsley Industrial Park, Kirby, L33 7AQ –
Parcel I – Land to North and West of Alchemy



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EXECUTIVE SUMMARY

Section	Summary
Background	RPS Consulting Services Ltd (RPS) was commissioned by Network Space to undertake a Phase 1 Geo-environmental Preliminary Risk Assessment of Land at Alchemy Way, Knowsley Industrial Park, Kirby, L33 7AQ. The report has been commissioned prior to the proposed redevelopment of the site. This Phase 1 Geo-environmental Preliminary Risk Assessment relates only to 'Land Parcel I' – Land to North and West of Alchemy Way.
Site Details	Site area: 3.55ha National Grid Reference: SJ 42558 97058 Current site use: The site currently comprises an area of undeveloped land covered by grass and vegetation. Proposed site use: The proposed development on the land to the north and west of Alchemy Way (Land Parcel I) is understood to comprise of two large light industrial buildings with external yard and car parking areas. This will form two development plots which are understood to form part of a larger development site that is intended to progress in phases. Surrounding land use: The site is located in an area predominantly comprising industrial land uses in Alchemy Business Park which has light industrial units including: Royal Mail and Amazon, Mercedes-Benz Truck and Van Servicing, and Parts and JJ Smith Woodworking Machinery is present.
Site Inspection	A site inspection was undertaken on 25th May 2022. The land to the north and west of Alchemy Way (Land Parcel I) comprised vacant land that is covered in rough vegetation. The southern portion of land was noted to be more densely vegetated than the north. There is an area of semi mature trees in the northeast corner of the site and along the edge of the earth bund in the east. Newly planted trees are present along the southwestern boundary. With the exception of earth bunds situated along the northern and eastern site boundaries the site was noted to be relatively flat. The earth bund in the north contains a small platform before dropping down the north. Vehicular access onto the site from Alchemy Way is not possible due to the presence of the earth bund located along the site's eastern boundary, however, pedestrian access is possible.
Previous Reports	A Phase I Geo-environmental Desk Study report was carried out by White Young Green (WYG) in June 2016. A further review of various phases of site investigations was also included in this report from 2001 and 2002. WYG report indicates that ground conditions comprise Made Ground and reworked Glacial Till to a depth of 2.70m bgl, which in turn is underlain by Glacial Till which was underlain by the Sherwood Sandstone Formation. Hydrocarbon odours were identified in the south-western portion of the site associated with black ash and clinker. It is understood that Japanese Knotweed was encountered on the wider development area and that as part of the treatment the soil arising generate were transferred to the existing bund on the northern boundary of the 'Land Parcel I' site, which consisted of unclassified general fill (arisings). These works should have been completed when the area to the south of the 'Land Parcel I' site was developed, however, no information is currently unavailable to confirm that the proposed encapsulation works have been completed in accordance with the proposed strategy and to the satisfaction of the local authority.
Site History	A review of historical maps indicates that the site remained largely undeveloped until present day. Two streams were present between 1867 to 1956 but which were infilled by 1960. A pond was briefly present in the western portion of the site in 2022 and was infilled possibly within the same year. Off-site historical potential sources of contaminants of concern include: a dismantled tramway (adjacent south, 1959 to 1959), paper works (50m south-east, 1959 to 1974), engineering works (100m east, 1973 to 1974), electrical substation with associated tanks (100m south-east, pre. 1981 to 1994), food factory (200m west, 1966 to 1973), and tanks (200m west, 1984 to 2003). However, due to the time passed and their distance to the site, they are unlikely to pose a significant contaminative risk.

Section	Summary
Environmental Setting	The site is indicated to be underlain by a Secondary Undifferentiated Aquifer relating to the Devensian Glacial Till. The Glacial Till is underlain by the Chester Formation (Sandstone) at depth, classified as a Principal Aquifer. The site is indicated to be located in a groundwater Source Protection Zone (SPZ) relating to a Zone 3 (Total catchment), which is potentially related to the two potable abstractions 1160m east and 1588m west. There are no active sensitive groundwater abstractions in the immediate vicinity of the site. The nearest surface water feature is Knowsley Brook, partially culverted, located 250m to the south of the site.
Regulatory Consultation	Knowsley Council was consulted regarding any known contamination issues at the site, however no environmentally pertinent information was provided outside the suggestion that a site-specific environmental data search is procured via the Council (which is unlikely to provide any additional information over and above that already provided by the Groundsure Report.
Preliminary Risk Assessment	Made Ground deposits are known to be present across the site and is indicated by previous investigations to be of thicknesses up to 2.70 m bgl. It is considered that these deposits may represent a potential source of contaminants and, where putrescible, ground gas. Potentially hydrocarbon impacted perched groundwater in the north west, were encountered during the previous investigation. In areas of the site covered by buildings or hardstanding the risks to future on site human health receptors via the pathways of dermal contact and ingestion will be mitigated. However, in areas of soft landscaping, the pathways of dermal contact and ingestion could still be active. In addition, there would be potential for the airborne migration of soil/dust from these areas. The presence of buildings and hardstanding are also likely to reduce post-development surface water infiltrators reducing the potential for the leaching of any mobile soil contaminants. There is potential for ground gases to be generated beneath the site associated with the former uses and Made Ground. Where present however, there is potential for ingress and build-up within indoor areas
Conclusions and Recommendations	The outline CSM produced upon completion of the desk study assessment has identified a limited number of potential pollutant linkages that may be active upon completion of the proposed redevelopment. These are primarily associated with the presence of Made Ground beneath the site (including potentially hydrocarbon impacted perched groundwater in the north west identified during historical investigation) that may impact future site users via the dermal contact/ingestion pathways and through the generation of ground gas, where putrescible, to impact human health receptors via the inhalation pathway to indoor areas. It is therefore recommended that the potential for these linkages to be active is assessed through an intrusive Phase 2 Site Investigation. It is likely, if active, that the pollutant linkages will be such that they could be mitigated by the use of typical measures such as a surface cover system, gas protection measures and 'barrier' water supply pipe. There may however be a requirement for a degree of remediation and increased soil/groundwater disposal cost may be realised. If excavated materials are to be reused on site a Materials Management Plan may be required and appropriate licenses/exemptions will be required. It is understood that Japanese knotweed impacted soils may have been encapsulated in the existing bunds in the north of the site. The Extended Phase 1 Habitat Survey undertaken by RPS indicates that Japanese Knotweed is present along the north site boundary within the dense vegetation along the bund. It is recommended that potential Japanese Knotweed treatment / removal options are considered. Also, confirmation be sought from that the encapsulation works were carried out, to determine the potential extent of impacted soils.

1 INTRODUCTION

1.1 Preamble

- 1.1.1 RPS Consulting Services Ltd (RPS) was commissioned by Network Space to undertake a Phase 1 Geo-environmental Preliminary Risk Assessment of Land at Alchemy Way, Knowsley Industrial Park, Kirby, L33 7AQ. The report has been commissioned prior to the proposed redevelopment of the site.
- 1.1.2 The development site currently comprises two plots of land that are separated by Alchemy Way. The larger development plot, known as 'Land Parcel 1', comprises the northern and western parts of the wider development site and covers an area of approximately 3.55ha. The smaller development plot, known as 'Land Parcel 2', comprises the south-eastern part of the wider development site and covers an area of approximately 1.22ha.
- 1.1.3 This Phase 1 Geo-Environmental report has been prepared for 'Land Parcel 1' only. A Phase 1 Geo-environmental report for the 'Land Parcel 2' site has been prepared separately.
- 1.1.4 The 'Land Parcel 1' site currently comprises vacant land that is covered by dense vegetation, including a number of small and semi-mature trees. A site location plan is presented as Figure 1.
- 1.1.5 The proposed development for the 'Land Parcel 1' site is understood to comprise the construction of two large light industrial buildings with external yard and car parking areas. The two development plots are understood to form part of a larger development site that is intended to be developed in phases. A proposed development plan is presented in Appendix A.
- 1.1.6 This assessment is required to support a planning application for the proposed redevelopment of the site.
- 1.1.7 The Desk Study assessment is based upon a review of published information available from local, regional, and national agencies. The desk study information is derived from an Enviro+Geo Insight Report provided by Groundsure, Ref. GS-8801217 which is presented as Appendix B Please note the terms and conditions attached to the supply of data from Groundsure.

1.2 Objectives

- 1.2.1 The principal objectives of this assessment were as follows:
- To assess potential sources of contamination at the site, associated with historical and current land uses both on site and in the surrounding area;
 - To review the environmental setting to assess the sensitivity of the surrounding area to contamination/pollution;
 - To produce an outline Conceptual Site Model (CSM) detailing how any contamination may impact the identified receptors via pollutant linkages; and
 - To conclude on the likely requirement for further assessment and investigation.
 - To produce a preliminary geotechnical risk register summarising the potential geotechnical hazards associated with the proposed development.

1.3 Legislation and Guidance

- 1.3.1 The assessment has been undertaken in general accordance with British Standard BS EN ISO 21365:2020 and is considered suitable to meet the initial requirements of planning as outlined within the National Planning Policy Framework (NPPF). The assessment also reflects the

recommendations of Environmental Agency guidance, Land Contamination: Risk management, (LCRM 2020).

1.3.2 This report has been produced in general accordance with:

- Contaminated Land (England) Regulations 2006 (as amended);
- DEFRA Environmental Protection Act 1990: Part 2A - Contaminated Land Statutory Guidance (2012);
- Environment Agency (2020) Land Contaminated: Risk Management (LCRM 2020);
- National Planning Policy Framework (2019);
- CIRIA Document C665: Assessing Risks Posed by Hazardous Ground Gases to Buildings;
- British Standard requirements for the 'Investigation of potentially contaminated sites - Code of practice' (ref. BS10175:2011+A2:2017);
- British Standard requirements for the 'Code of practice for ground investigations' (ref. BS5930:2015+A1:2020); and,
- British Standard requirements for the '*Code of practice for the design of protective measures for methane and carbon dioxide ground gases for new buildings*' (ref BS8485:2015+A1:2019).

1.3.3 Details of the limitations of this type of assessment are described in Appendix C.

2 SITE RECONNAISSANCE AND DESK STUDY

2.1 Site Reconnaissance

- 2.1.1 This section of the report is based upon observations made during a site visit carried out on 25th May 2022. A site boundary plan is provided as Figure 2. Selected photographs are shown in Appendix D.

The Site

Table 2-1 – Summary of on-site activities

Section	Description
Background:	The 'Land Parcel I' site is located to the northwest of Alchemy Business Park, which is situated to the southeast of Knowsley. The site centre is located at National Grid Reference SJ 42558 97058. It is roughly 'L' shaped and occupies an area of approximately 3.55 ha.
Site Layout:	The site comprises vacant land that is covered in rough vegetation. The southern portion of land was noted to be more densely vegetated than the north. With the exception of earth bunds situated along the northern and eastern site boundaries the site was noted to be relatively flat. The earth bund in the north contains a small platform before dropping down the north. Vehicular access onto the site from Alchemy Way is not possible due to the presence of the earth bund located along the site's eastern boundary, however, pedestrian access is possible. The land situated adjacent to the north of the site appears to be at a lower elevation, however this may be exaggerated by the presence of the earth bund on the site's northern boundary.
Activity / Operations:	The site is vacant, although there was evidence of tyre tracks across the site, suggestion that motor bike access to the site is being gained.
Building Structure(s):	No buildings on site.
Surface Cover:	The site is largely covered in shrub vegetation with land in the south being more densely vegetated. There is an area of semi mature trees in the northeast corner of the site and along the edge of the earth bund in the east. Newly planted trees are present along the southwestern boundary.
Drainage:	No drainage was noted and no drainage plans have been reviewed as part of this assessment. Two areas of boggy ground were noted in the south west and south eastern corners of the site.
Bulk Storage / Tanks:	None visible on site.
Waste:	There were small pockets of fly-tipped waste including tyres noted, largely in the northern extent of the site and some general litter. There was no significant fly-tipping evident on site.
Electricity Sub-Stations /Transformers:	No electricity sub stations were present on site or immediately adjacent to the site boundaries.
Visual Evidence of Contamination:	No evidence of contamination was noted on site.
Statutory Nuisance:	RPS are not aware of any statutory nuisances associated with the site.
Other Geo-Environmental Issues:	It is understood from information provided by the client that Japanese Knotweed is contained and encapsulated within the bund located along the northern site boundary. The Extended Phase 1 Habitat Survey undertaken by RPS indicates that Japanese Knotweed is present along the north site boundary within the dense vegetation along the bund. No other notable issues were identified during inspection.

The Surrounding Area

2.1.2 The 'Land Parcel I' site is located in an area predominantly comprising industrial land uses. At the time of the site inspection, neighbouring land consisted of the following:

Table 2-2 – Neighbouring Land Uses

Direction	Description
North:	Industrial units to the north west (JJ Smith Woodworking) and vacant land to the north east.
East:	Newly developed light industrial units associated with Alchemy Business Park, Hakaa and Platinum Court
South:	Newly developed light industrial units associated with Alchemy Business Park, Mercedes-Benzes truck and van servicing and amazon.
West:	Units associated with Alchemy Business Park.

2.2 Proposed Development

2.2.1 The proposed development within the 'Land Parcel I' site is understood to comprise the construction of two large commercial buildings, with external yard and car parking areas. The development plot is understood to form part of a larger development area that is intended to be developed in phases. A proposed development plan is provided as Appendix A.

2.3 Site History

Historical Map Review

2.3.1 The following review is based on past editions of readily available Ordnance Survey (OS) maps. These include scales of 1:1,250, 1:2,500 and 1:10,000 dated 1867 to 2022. Extracts from selected historical maps are provided in Appendix E.

Table 2-3 – Historical Site Uses

On-site Land Use and Features	Dates
Undeveloped agricultural land. Two streams are noted to flow through the northern and southern parts of the site.	1867 to 1956
The streams shown to be located on-site are no longer present and are presumed to have been infilled.	1960 - Present
A pond is shown to be present in the southern part of the site. (This may be associated with the boggy areas identified in south-western and south-eastern parts of the site during the site walkover)	2022 - Present

Table 2-4 – Historical Neighbouring Site Uses

Surrounding Land Uses (250m radius)	Orientation	Distance	Dates	
			From	To
East Lancashire Road	South	100m	1938	Present
Sports ground with associated pavilion, pond and drain. Then tennis courts developed in north-eastern portion	East	Adjacent	1966 1976	2001 2001
Ainsworth House	South-west	Adjacent	1892	1955
Dismantled tramway	South	Adjacent	1959	c. 1959

Surrounding Land Uses (250m radius)	Orientation	Distance	Dates	
			From	To
Paper works Then unnamed works building Then Knowsley Industrial Park Then industrial park containing Kammac, Reformation Logistics, Arra Distribution Ltd and Paper 4 Paper	South	150m	1976 1985 1993 1994	1981 c. 1985 1994 Present
Works Then Engineering Works Then industrial park	East	200m	1966 1973 c. 1993	1973 1974 Present
Drain Then land redeveloped into electrical substation and associated tanks	South-east	250m	1959 Pre. 1981	1975 1994
Unnamed factory Then Food Factory Then associated tanks and drain developed south-west of site Then industrial park	West	200m	1959 1966 1984 c. 2022	1959 1973 2003 Present
Unnamed industrial building with associated warehouse	North-west	250m	1966	Present
Briton Plantation with associated drains	North-east	250m	1966	Present

Site Planning History

- 2.3.2 Relevant and readily available planning records for the site, as obtained from Knowsley Council planning website are summarised as follows:
- 16/00506/SO: Environmental Impact Assessment Screening Opinion Request in Respect of a Hybrid Application for B1(b), B1(c), B2 & B8 Employment Uses with Ancillary B1(a) Office Space, decision date 24th August 2016.
 - 16/00567/HYB: Full application for the erection of 3 No. Units B1(B), (C) / B2 / B8 use (up to 9,707m), re-profiling of existing bunds and landscaping works, access, parking and ancillary works. Outline application for B1(B), (C) / B2 / B8 uses with ancillary B1(A) office space (up to 16351m, landscaping, parking and ancillary works, decision date 26th March 2018.
- 2.3.3 Planning application 16/00567/HYB included a planning condition (condition 7A), which related to contamination. Planning condition 7A states that:
- “No development of any phase shall take place until the additional assessment of the risks posed by any contamination of that phase as set out in the assessment and Remediation / Enabling Works Strategy (ref: 10-740 and dated July 2015) and as identified by the Environment Agency in their consultation memo has been submitted to and approved in writing by the Local Planning Authority.”*
- 2.3.4 It should be noted that a copy of the Remediation / Enabling Works Strategy referenced within the planning condition was not available for review on the Knowsley Council planning portal. A Phase I Geo-environmental Desk Study report prepared by White Young Green (WYG) in June 2016 was available within the planning portal along with an undated Japanese Knotweed Encapsulation Strategy and plan. A summary of these documents in relation to the ‘Land Parcel I’ site is provided in the following sections

2.4 Previous Reports

- 2.4.1 RPS has obtained copies of the following reports that relate to the ‘Land Parcel I’ site:

- WYG: Phase I Geo-environmental Desk Study Report for Land at Alchemy, Knowsley, reference A094359). This report covers a wider site including the subject site.
- WYG: Alchemy, Knowsley – Japanese Knotweed Encapsulation Strategy and associated plan ref: A094359/JK001. This report covers a wider site including the subject site.

2.4.2 RPS cannot vouch for the accuracy or validity of the information provided within third party reports and the following opinion is based solely upon the reports. Legal reliance should be sought from the original authors of these reports where their content is considered material to the characterisation of the site.

WYG: Phase I Geo-environmental Desk Study Report, dated June 2016

- 2.4.3 The Phase I Geo-environmental Desk Study report, which was prepared by White Young Green (WYG) in June 2016 was undertaken for the wider development site. The report was prepared to support potential planning application.
- 2.4.4 From a review of the information contained within the WYG report it is understood that the 'Land Parcel 1' site formerly comprised undeveloped open land with two streams intersecting the northern and southern sections from circa 1850. By 1959, both streams were shown to have been infilled and were no longer present. The site remained unchanged in subsequent maps.
- 2.4.5 Information included within the WYG report indicate that the 'Land Parcel 1' site is underlain by Glacial Till, which is subsequently underlain by the Sherwood Sandstone Formation.
- 2.4.6 The WYG report also includes a review of various phases of site investigation works that had been undertaken across the wider development site between 2001 and 2002 which included exploratory holes within the 'Land Parcel 2' site. During these investigations Made Ground deposits comprising gravel ash and clinker and re-worked Glacial Till were recorded within the 'Land Parcel 1' site to a maximum depth of 2.7m bgl.
- 2.4.7 A slight hydrocarbon film was observed on perched water encountered in the north-western part of the 'Land Parcel 2' Site.
- 2.4.8 WYG considered that potential contaminative sources had been primarily identified in association with Made Ground from historical infilling, of the wider site area, which includes 'Land Parcel 2' site.
- 2.4.9 On the basis of the available information WYG considered that the contamination risk posed by the site would be low to moderate.
- 2.4.10 Although previous site investigation works had been completed at the site, WYG recommended that a comprehensive ground investigation is undertaken at the site in order to establish the extent of any contamination issues that may be present and to assess geotechnical conditions and land stability.

WYG: Japanese Knotweed Encapsulation Strategy

- 2.4.11 It is understood that Japanese Knotweed was encountered on the wider development area and that as part of the treatment the soil arising generate were transferred to the existing bund on the northern boundary of the 'Land Parcel 1' site, which consisted of unclassified general fill (arisings). These works should have been completed when the area to the south of the 'Land Parcel 1' site was developed, however, no information is currently unavailable to confirm that the proposed encapsulation works have been completed in accordance with the proposed strategy and to the satisfaction of the local authority.

2.5 Environmental Setting

Geology

- 2.5.1 Based on British Geological Survey (BGS) mapping (1:50,000-scale) and the Environment Agency (EA) Groundwater Vulnerability mapping (1:100,000-scale), the stratigraphic sequence and aquifer classifications beneath the site are indicated to be as follows:

Table 2-5 – Descriptions of Geological Strata

Strata	Description & approximate thickness	Aquifer Classification
Made Ground	Made Ground is an area where the pre-existing (natural or artificial) land surface is raised by artificial deposits. The purpose of the Made Ground is unspecified with variable composition.	N/A
Devensian Till	It consists of a heterogenous mixture of clay, sand, gravel, and boulders varying widely in size and shape (diamicton). Thickness approximately up to 7m.	Secondary Undifferentiated Aquifer
Chester Formation - Sandstone	Generally comprises conglomerates and reddish brown, cross-bedded, pebbly sandstones with subordinate beds of red-brown mudstone. Thickness approximately up to 220m	Principal Aquifer

- 2.5.2 Made Ground is mapped as present beneath the site by the BGS. The Investigation undertaken by WYG confirms the present of Made Ground across the site up to a depth of 2.70m bgl.
- 2.5.3 BGS borehole logs (ref. SJ49NW1075 and SJ49NW1077 located to the east of the site) advance in the vicinity of the site indicates that Made Ground is present to depths of 1.50 to 3.40m bgl, overlying the Devensian Till to depths of 5.00 to 6.00m bgl, and is underlain by the Chester Formation – Sandstone (depths not proven).

Hydrogeology

- 2.5.4 The site is located above a Secondary Undifferentiated Aquifer relating to the Devensian Till. These formations have varying characteristics in different locations. A Principal Aquifer is present within the bedrock relating to the Chester Formation – Sandstone. These formations provide a high level of water storage and may support water supply and / or river base flow on a strategic scale.
- 2.5.5 According to EA data, the site is located in a groundwater Source Protection Zone (SPZ). This relates to a Zone 3 (Total catchment) - The total catchment is the total area needed to support removal of water from the borehole, and to support any discharge from the borehole. The Source Protection Zone 3 potentially relates to both potable drinking water abstractions, located 1160m east and 1588m west, detailed in Table 2.6 below.
- 2.5.6 Under the Water Framework Directive, the Environment Agency's local River Basin Management Plan classifies groundwater chemical quality beneath the site as poor quality.
- 2.5.7 Information provided by the EA indicates that there are records of seven active licensed groundwater abstractions within 2km of the site which are associated with three companies. These are detailed in the table below:

Table 2-6 – Licensed Groundwater Abstractions

Licence Holder	Distance and Direction	Source	Use
----------------	------------------------	--------	-----

United Utilities Water Ltd Licence No: 2569031016 Licence No: 2569031024	1160m east 1588m west	Groundwater	Potable Water Supply - Direct
Liverpool Football Club & Athletic Grounds Limited Licence No: 2569031131	1510m north	Groundwater	Spray Irrigation - Direct
Baker Hughes Limited Licence No: 2569031090	1759m north-east	Groundwater	Drinking, Cooking, Sanitary, Washing, (Small Garden) - Commercial/Industrial/Public Services. Process Water. Boiler Feed.

Surface Water

- 2.5.8 There is one watercourse within 1km of the site which are classified within a River Basin Management Plan published by the EA under the European Water Framework Directive (2000). The Knowsley Brook, which is partially culverted, is located approximately 250m south of the 'Land Parcel I' site and has an overall quality classification as moderate.
- 2.5.9 Information provided by the EA indicates that there are no records of active licensed surface water abstractions within 2km of the site.

Ecologically Sensitive Sites

- 2.5.10 Natural England data indicates that there are no ecologically sensitive sites, that constitute environmental receptors as defined within Table 1 of the DEFRA Environmental Protection Act 1990: Part 2A - Contaminated Land Statutory Guidance (2012), located within a 1km radius of the site.

Radon

- 2.5.11 According to the Indicative Atlas of Radon in England and Wales published by the Health Protection Agency (part of Public Health England) and the British Geological Survey, the site is not located in an area at risk from radon gas.
- 2.5.12 The estimated probability of the property being above the Action Level for radon is less than 1%.

Coal Authority

- 2.5.13 The Interactive Map Viewer on the Coal Authority website indicates that the site is not located in a coal mining reporting area. In addition, the site is not located in an area of known or probably underground works and there are no nearby mine entries. On this basis, further consideration of risk associated with Coal Mining is not considered necessary.

Non-Coal Mining

- 2.5.14 The site is not located in an area affected by non-coal mining.

BGS Ground Stability Hazard Ratings

- 2.5.15 British Geological Survey Ground Stability Hazard ratings for the site are summarised as follows

Table 2-7 – BGS Ground Stability Hazard Ratings

Ground Stability Hazard	BGS Risk rating
Collapsible ground	Very low
Compressible ground	Very low
Ground dissolution	Negligible
Landslide	Very low
Running sand	Very low
Shrinking or swelling clay	Very low

2.6 Authorised Processes and Pollution Incidents

Landfills and Waste Sites

- 2.6.1 Data provided by the EA, Local Authority and BGS indicates that there are no recorded licensed or known historical landfill sites located within 250m of the site.

Environmental Permits

- 2.6.2 EA and Local Authority data indicates that there are five processes regulated by an Environmental Permit (under the Environmental Permitting Regulations 2010) within 500m of the subject site. These are outlined in the table below:

Table 2-8 – Environmental Permits

Licence Holder	Approx. Distance and Direction from Site	Permitted Activity
Contract chemicals (Knowsley) Ltd Permit number: BL8619IA Permit number: CP3439EV Permit number: JP3233JC Permit number: XP3930WQ Permit number: SP3007PM Permit number: BP3409LR	253m south-east	Inorganic chemicals; using halogens
Knowsley Redevelopments Ltd	253m south-east	Inorganic chemicals; salts eg Ammonium chloride
Knowsley Energy Recovery Limited Permit number: ZP3339FN	359m south-east	Process: incineration of non-hazardous waste >1t/hr. The incineration of non-hazardous waste in an incineration or co-incineration plant with a capacity exceeding 3 tonnes per hour.
Dairy Crest Limited Permit number: MP3706PH Permit number: VP3234NX	407m west	Treatment and processing (other than packaging) of animal or vegetable raw materials (other than milk only) with finished product capacity greater than formula shown in regs. Associated process. Disposal of > 50 t/d non-hazardous Waste (> 100 t/d if only ad) involving physicochemical treatment
Factory Services UK Ltd Permit number: MP3809PA	440m north	Animal vegetable and food; treating etc vegetable raw materials for food >300t/d

COMAH Sites

- 2.6.3 There is one record of an operation under the Control of Major Accident Hazards (COMAH) Regulations 1999, located within 500m of the site. This is Knowsley Redevelopments Limited located 49m south of the site and is a COMAH Upper Tier Operator.

Pollution Incidents

- 2.6.4 Environment Agency data indicates that there are three records of 'major' or 'significant' pollution incidents within 500m of the site. These are outlined in the following table:

Table 2-9 – Pollution Incidents on site and significant incidents within 500m

Location/Address	Approx. Distance and Direction from Site	Receiving Medium and Date	Severity of Incident and Type
Incident Identification: 310446	114m north-east	Land Impact Incident Date: 06/05/2005	Category 2 (Significant) Pollutant Description: Other Inert Material or Waste
Incident Identification: 1147204	352m south	Air Impact Incident Date: 13/08/2013	Category 2 (Significant) Pollutant Description: Other Organic Chemical or Product
Incident Identification: 187956	474m north-east	Land Impact Incident Date: 06/09/2003	Category 2 (Significant) Pollutant Description: Acids

2.7 Unexploded Ordnance

- 2.7.1 CIRIA Report C681 (stone et al 2009) outlines recommendations for dealing with the potential risk associated with the legacy of Unexploded Ordnance Risk, largely relating the WWII bombing and military sites.
- 2.7.2 Reference to the Zetica Unexploded Bomb Risk mapping indicates that the site is in an area of low potential risk from Unexploded Bombs. As the site is not within an area of known military history, in general accordance with CIRIA Report no further consideration of Unexploded Ordnance is considered necessary.

2.8 Regulatory Consultations

- 2.8.1 The Environmental Health Department at Knowsley Council was consulted regarding any known contamination issues at the site, however no environmentally pertinent information was provided outside the suggestion that a site-specific environmental data search is procured via the Council (which is unlikely to provide any additional information over and above that already provided by the Groundsure Report (purchased by RPS).
- 2.8.2 The Petroleum Officer at London Fire and Emergency Planning Authority (LFEPA) /Trading Standards Officer at Knowsley Council has been contacted for information on any records of flammable storage / bulk underground storage tanks at the site. A response is still awaited.

3 OUTLINE CONCEPTUAL SITE MODEL

3.1 Background

- 3.1.1 An outline conceptual site model (CSM) consists of an appraisal of the *source-pathway-receptor* 'contaminant linkages' which is central to the approach used to determine the existence of 'contaminated land' according to the definition set out under Part 2A of the Environmental Protection Act 1990. For a risk to exist (under Part 2A), all three of the following components must be present to facilitate a potential 'pollutant linkage'.
- **Source** referring to the source of contamination (Hazard).
 - **Pathway** for the contaminant to move/migrate to receptor(s).
 - **Receptor** (Target) that could be affected by the contaminant(s).
- 3.1.2 Receptors include human beings, controlled waters and buildings / structures. The National Planning Policy Framework, used to address contaminated land through the planning process, follows the same principles as those set out under Part 2A. Further details on the Part 2A regime are presented within Appendix F.
- 3.1.3 As part of the assessment the potential risks to receptors for potential source is given one of the following classification:
- **Low risk** - it is considered unlikely that issues within the category will give rise to significant harm to identified receptors
 - **Moderate risk** - it is possible, but not certain that issues within the category will give rise to significant harm to receptors
 - **High risk** - there is a high potential that issues within the category will give rise to significant harm to identified receptors

3.2 Potential Pollutant Linkages

- 3.2.1 Each stage of the potential pollutant linkage sequence has been assessed individually on the basis of information obtained during the site reconnaissance and desk study exercise and are discussed in the following section.

Potential Contaminant Sources

On Site – Current

- 3.2.2 Made Ground deposits are known to be present across the site and is indicated by previous investigations to be of thicknesses up to 2.70 m bgl. It is considered that these deposits may also represent a potential source of contaminants and, where putrescible, ground gas.
- 3.2.3 A slight hydrocarbon film was observed on perched water encountered in the north-western part of the 'Land Parcel 2' Site, during previous investigations.

On Site – Historical

- 3.2.4 No historical potentially contaminative land uses have been identified on site.

Off-site – Current

- 3.2.5 There are several current off-site potential sources of contaminants of concern. As the site is located in an industrial park there are several warehouses and factories with uses that include:

Mercedes Benz Truck and Van Servicing (adjacent south), a Royal Mail depot (100m east) and JJ Smith Woodworking Machinery (250m north-west).

Off-Site – Historical

- 3.2.6 Historical maps indicate that the following are potential sources of contaminants of concern: a dismantled tramway (adjacent south), a paper works (50m south-east), an engineering works (100m east), an electrical substation with associated tanks (100m south-east), a food factory (200m west) and tanks (200m west). Given the time and/or distance since these sources were operational, they are considered unlikely to be a significant source of contamination.

Potential Pathways

- 3.2.7 In areas of the site covered by buildings or hardstanding the risks to future on site human health receptors via the pathways of dermal contact and ingestion will be mitigated. However, in areas of soft landscaping, the pathways of dermal contact and ingestion could still be active. In addition, there would be potential for the airborne migration of soil/dust from these areas.
- 3.2.8 There is the potential for ground gas and volatile contaminants of concern in soil and/or groundwater (if present) beneath the site to impact future site users via the inhalation pathway in indoor areas. However, no potentially significant on site current or historical sources of volatile contaminants of concern have been identified.
- 3.2.9 There is only considered to be limited potential for contaminants of concern (if present) beneath the site to migrate on or off-site via granular horizons of the Made Ground (if present) and the superficial deposits. The borehole logs within the previous investigation and the BGS boreholes indicate that the Made Ground is underlain by a firm to stiff clay (Glacial Till) and no groundwater was encountered. The largely cohesive nature of the superficial deposits will limit vertical and lateral migration.

Potential Receptors

- 3.2.10 Potential post development human health receptors include future site users and off-site human health receptors.
- 3.2.11 The Secondary Undifferentiated Aquifer present within the Glacial Till Deposits is considered to represent a low sensitivity receptor, particularly given the industrial setting. The Principal Aquifer present within the Chester Formation Sandstone bedrock represents a potential sensitive receptor and is located within a groundwater SPZ 3 (total catchment). However, there are no active drinking water abstractions recorded within close proximity to the site (i.e. within 1km). The presence of cohesive superficial deposits above the bedrock strata will act as an aquitard, limiting vertical migration and therefore protecting the bedrock aquifer.
- 3.2.12 The nearest surface water feature is the Knowsley Brook, which is located approximately 250m south of the site. Given the distance from the site and its part culverted nature, the pollutant linkage from contaminants originating from on site is not considered to be active.
- 3.2.13 The assessment does not consider the risk to construction/demolition workers during redevelopment. These risks will be managed through appropriate H&S legislation include H&S at Works Act and CDM Regulations.

3.3 Outline Conceptual Site Model

- 3.3.1 An outline CSM has been developed on the basis of the site reconnaissance and desk study. The CSM is used to identify potential sources, pathways and receptors (i.e. potential pollutant linkages) on site post development and is summarised in the table below.

Table 3-1 – Outline Conceptual Site Mode

Potential Source	Contaminants of Concern	Via	Potential Pathways	Linkage Potentially Active?	Receptors	Qualitative Risk Rating	Notes
On site – current: Made Ground, and localised hydrocarbon impacted shallow perched water.	Metals, hydrocarbons, solvents and asbestos		Direct contact/ingestion	✓	Future site users	Low	No significant sources of contamination identified. Post development risks minimised by buildings, hardstanding and manged landscaping. Residual risk in areas of soft landscaping, if soils are exposed or disturbed.
On site – historical: N/A			Inhalation of volatiles	✗		N/A	No sources of volatile contaminants identified.
			Airborne migration of soil or dust	✓ ✓	Future site users Off-site users	Low	No significant sources of contamination identified. Post development risks minimised by buildings, hardstanding and manged landscaping. Residual risk in areas of soft landscaping, if soils are exposed or disturbed
			Leaching of mobile contaminants	✓	Secondary Undifferentiated Aquifer	Low	Potential for soils leaching and verical and lateral migration of contaminant if present in shallow groundwater. However, migration will be reduced by the largely cohesive nature of the superficial deposits. Following developmnet the presence of hardstanding and building cover which reduce infiltration.
		Soil	Direct contact/ingestion	✓ ✓	Future site users Off-site users	Low	Very shallow groundwater unlikely to be present.
		Groundwater	Inhalation of volatiles	✗ ✗	Future site users Off-site users	N/A	No sources of volatile contaminants identified, however, localised potentially impacted perched groundwater was encountered during the previous site investigations.

Potential Source	Contaminants of Concern	Via	Potential Pathways	Linkage Potentially Active?	Receptors	Qualitative Risk Rating	Notes
			Vertical and lateral migration in permeable strata	✓ ✓	Principal Aquifer Knowsley Brook	Low	There is limited potential for significant contamination and no shallow groundwater encountered as part of previous investigation. The presence of cohesive superficial deposits will limited vertical and lateral migration of any contaminant offering some protection to the deeper underlying principal aquifer.
Off-site – current: Industrial parks with vehicle servicing and a woodworking machinery factory Off site – historical: Dismantled tramway, paper works, engineering works, electrical substation, food factory, several tanks	Metals, hydrocarbons, solvent and Polychlorinated biphenyls (PCBs)	Groundwater	Direct contact/ingestion	✗	Future site users	Low	There is a potential for contaminants to migrate beneath the site from off-site sources in any shallow groundwater present in the Made Ground or granular soils within the superficial deposits. However, the largely cohesive nature of the superficial deposits will limit migration.
			Inhalation of volatiles	✓	Future site users	Low	
On and off-site – Made Ground	Carbon dioxide and methane	Ground Gas	Inhalation of ground gas	✓ ✓	Future site users Off-site users	Low	No significant ground gas sources identified other than potential for localised Made ground.
			Explosive risks	✓ ✓	Future site users Off-site users Future and off-site Structures	Low	
Note	The Qualitative Risk Rating does not consider the potential for the pathway to be active. In the event that a Moderate or High Qualitative Risk Rating is identified further assessment is recommended.						
3.3.2	Based on the identified potential sources and the site setting there is not considered to be a significant risk to ecological receptors, crops/vegetation or archaeological receptors.						

4 PRELIMINARY GEOTECHNICAL RISK REGISTER

4.1 Introduction

- 4.1.1 It is understood that the proposed development within the 'Land Parcel I' site is understood to comprise the construction of two large commercial buildings, with external yard and car parking areas. The development plot is understood to form part of a larger development area that is intended to be developed in phases. A proposed development plan is provided as Appendix A.

4.2 Preliminary Geotechnical Risk Register

- 4.2.1 The following table summarises the potential geotechnical hazards associated with the proposed development based on freely available published information.
- 4.2.2 The potential risks are given one of the following classifications:
- **Low risk** - it is considered unlikely that issues within the category will give rise to significant damage in relation to the proposed development.
 - **Moderate risk** - it is possible, but not certain that issues within the category will give rise to significant damage in relation to the proposed development.
 - **High risk** - there is a high potential that issues within the category will give rise to significant damage in relation to the proposed development.
 - **N/A** - The anticipated ground conditions are not consistent with this hazard.
- 4.2.3 Preliminary information relating to the hazard and associated engineering considerations are provided.

Table 4-1 - Preliminary Geotechnical Risk Register

Hazard Description	Potential for Hazard	Comments / Possible Engineering Requirements
Sudden lateral / vertical changes in ground conditions	Moderate	The available BGS information and historical reports indicates that the ground conditions across the site are likely to be variable. Made Ground is present across the site to a maximum recorded depth of 2.70m bgl, which is shown to be underlain by Glacial Till. The Made Ground anticipated across the site may vary in composition and thickness. Variation in the nature and distribution of soils may result in excessive differential and total settlement. Site investigation works will be required to confirm the ground conditions across the site, identifying any potential changes in strata and softer zones. A good conceptual model of the ground conditions will allow for foundations to be designed to account for any onerous differential or total settlement.
Highly compressible / low bearing capacity soils, (including peat and soft clay)	Low	The presence of low strength strata could result in excessive differential and total settlement of buildings and infrastructure. Site investigation works comprising in-situ and ex-situ testing will be required to determine the presence of any compressible materials, the extent of such materials and assist foundation design.
Ground dissolution features / natural cavities	Low	Ground conditions beneath the site are not consistent with these conditions.
Shrinking and swelling clays	Moderate	Clays within the near surface have to the potential to be of moderate volume change potential (this should be confirmed via geotechnical laboratory testing), which could result in settlement / heave of

Hazard Description	Potential for Hazard	Comments / Possible Engineering Requirements
		foundations and earthworks in particular when located within the influence of trees and vegetation. To mitigate the effects of potential heave or shrinkage, formation levels within these strata should be protected and their exposure time kept to a minimum prior to casting any buried concrete. Mature trees have been identified adjacent to the site. The potential effect of these on the depth required for the foundation should be assessed in accordance with the NHBC Manual guidelines.
Slope stability issues	Low to moderate	Whilst no significant slopes are present on site, any temporary created as part of the development should be subject to appropriate geotechnical design based on site-specific site investigation information. The bunds present around the site do not show any sign of movement, however, a full assessment is recommended if these are to remain in place post development.
High groundwater table (including waterlogged ground)	Low to Moderate	Based on the anticipated ground conditions, there is the potential for shallow perched groundwater to be present within any granular Made Ground or granular superficial deposits. However, it is not anticipated that this groundwater would be widespread. Groundwater control/exclusion measures may be required to enable formation of any excavations required at the site depending on localised conditions. This may include sump and pumping, dewatering or sheet piled cofferdams in extreme circumstances. However, requirements for this should be confirmed via intrusive investigation and subsequent groundwater level monitoring.
Obstructions (including foundations, services, basements, tunnels and adjacent sub-structures)	Low	The site has had a limited development history. However, relic structures could be encountered within the footprint of former structures, which may require removal to enable the construction of the proposed development. It is likely these obstructions, if encountered may be removed using standard construction plant.
Underground mining	Low	Ground conditions beneath the site are not consistent with these conditions.
Radon	Low	According to the Indicative Atlas of Radon in England and Wales the site is not in an area affected by Radon and no radon protection measures are required.
Concrete classification	Low to moderate	The superficial deposits and the Made Ground may contain sulphate bearing soils. Chemical laboratory analysis should be undertaken on soil samples collected from each stratum encountered beneath the site to determine a Design Sulphate Class and an Aggressive Chemical Environment for Concrete (ACEC) Classification for proposed buried structures as part of the development.

5 CONCLUSIONS AND RECOMMENDATIONS

5.1 Conclusions

- 5.1.1 The outline CSM produced upon completion of the desk study assessment has identified a limited number of potential pollutant linkages that may be active upon completion of the proposed redevelopment. These are primarily associated with the presence of Made Ground beneath the site (including potentially hydrocarbon impacted perched groundwater in the north west identified during historical investigation) that may impact future site users via the dermal contact/ingestion pathways and through the generation of ground gas, where putrescible, to impact human health receptors via the inhalation pathway to indoor areas.
- 5.1.2 It is therefore recommended that the potential for these linkages to be active is assessed through an intrusive Phase 2 Site Investigation.
- 5.1.3 It is likely, if active, that the pollutant linkages will be such that they could be mitigated by the use of typical measures such as a surface cover system, gas protection measures and 'barrier' water supply pipe. There may however be a requirement for a degree of remediation and increased soil/groundwater disposal cost may be realised. If excavated materials are to be reused on site a Materials Management Plan may be required and appropriate licenses/exemptions will be required.
- 5.1.4 It is often cost efficient to combine any site investigation undertaken for geo-environmental purposes with geotechnical testing, to facilitate preliminary foundation and pavement design. It may also be beneficial to incorporate soil permeability testing to inform preliminary SUDS design – low permeability soils could prevent the use of soakaways.

5.2 Other Considerations

- 5.2.1 It is understood that Japanese knotweed impacted soils may have been encapsulated in the existing bunds in the north of the site. The Extended Phase 1 Habitat Survey undertaken by RPS indicates that Japanese Knotweed is present along the north site boundary within the dense vegetation along the bund.
- 5.2.2 In addition, it is understood that Japanese Knotweed was encountered on the wider development area and that as part of the treatment the soil arising generated were transferred to the existing bund on the northern boundary of the 'Land Parcel I' site, which consisted of unclassified general fill (arising). These works should have been completed when the area to the south of the 'Land Parcel I' site was developed, however, no information is currently available to confirm that the proposed encapsulation works have been completed in accordance with the proposed strategy and to the satisfaction of the local authority.
- 5.2.3 During the site investigation a 7m stand off zone around the bund will be maintained to ensure that the site investigation does not disturb the potential encapsulated Japanese Knotweed.
- 5.2.4 It is recommended that potential Japanese Knotweed treatment / removal options are considered. Also, confirmation be sought from that the encapsulation works were carried out, to determine the potential extent of impacted soils.

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BGS. British Geological Survey Onshore GeoIndex. [online] Available at: <http://www.bgs.ac.uk/geoindex/> [Accessed 22nd June 2020].

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British Standards Institution (2019): Soil quality — Conceptual site models for potentially contaminated sites. BS EN ISO 21365:2019.

Environment Agency 2020): Land Contamination: Risk Management (LCRM 2020).

<https://magic.defra.gov.uk/>

<https://zeticauxo.com/downloads-and-resources/risk-maps/>

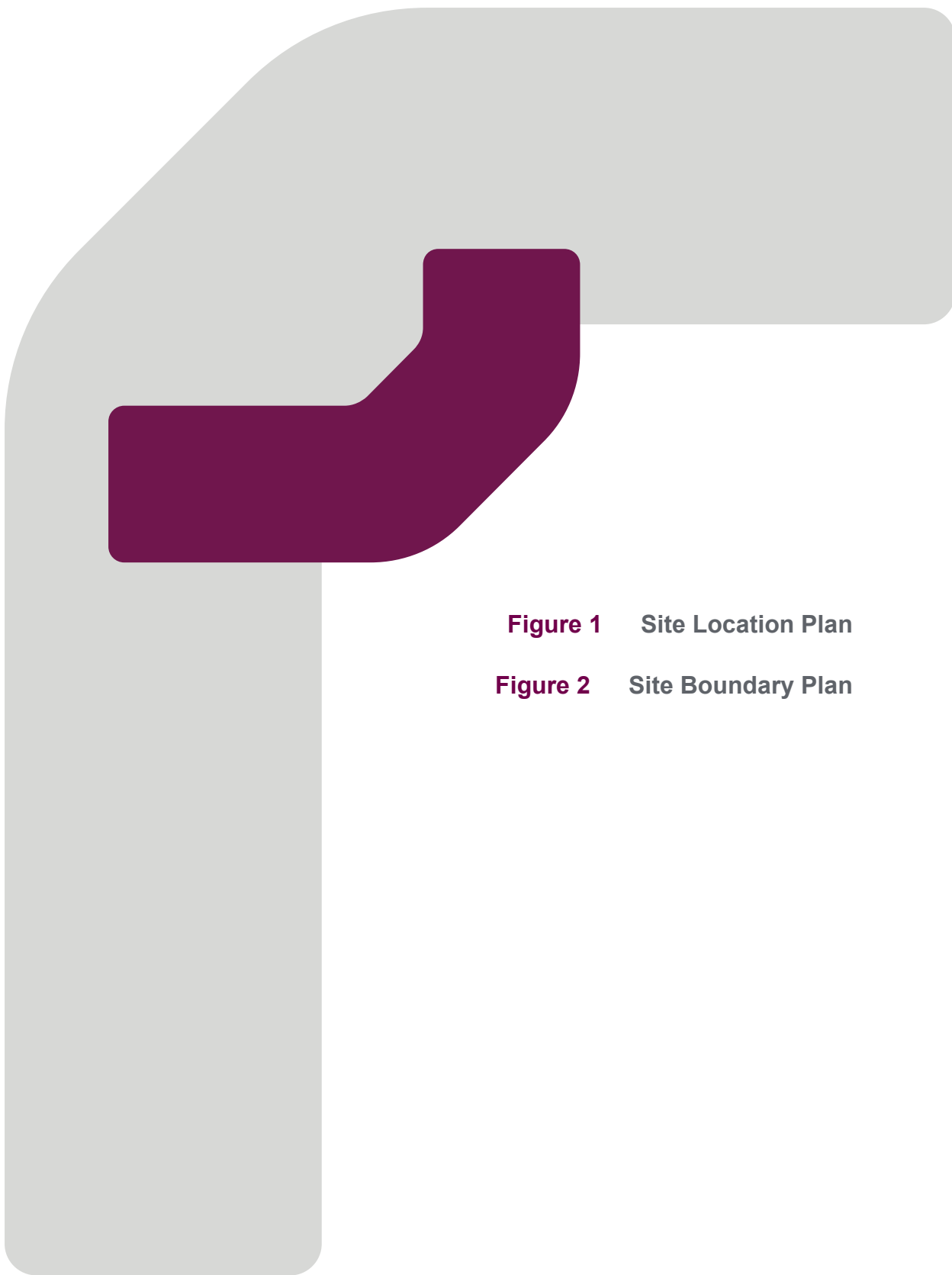
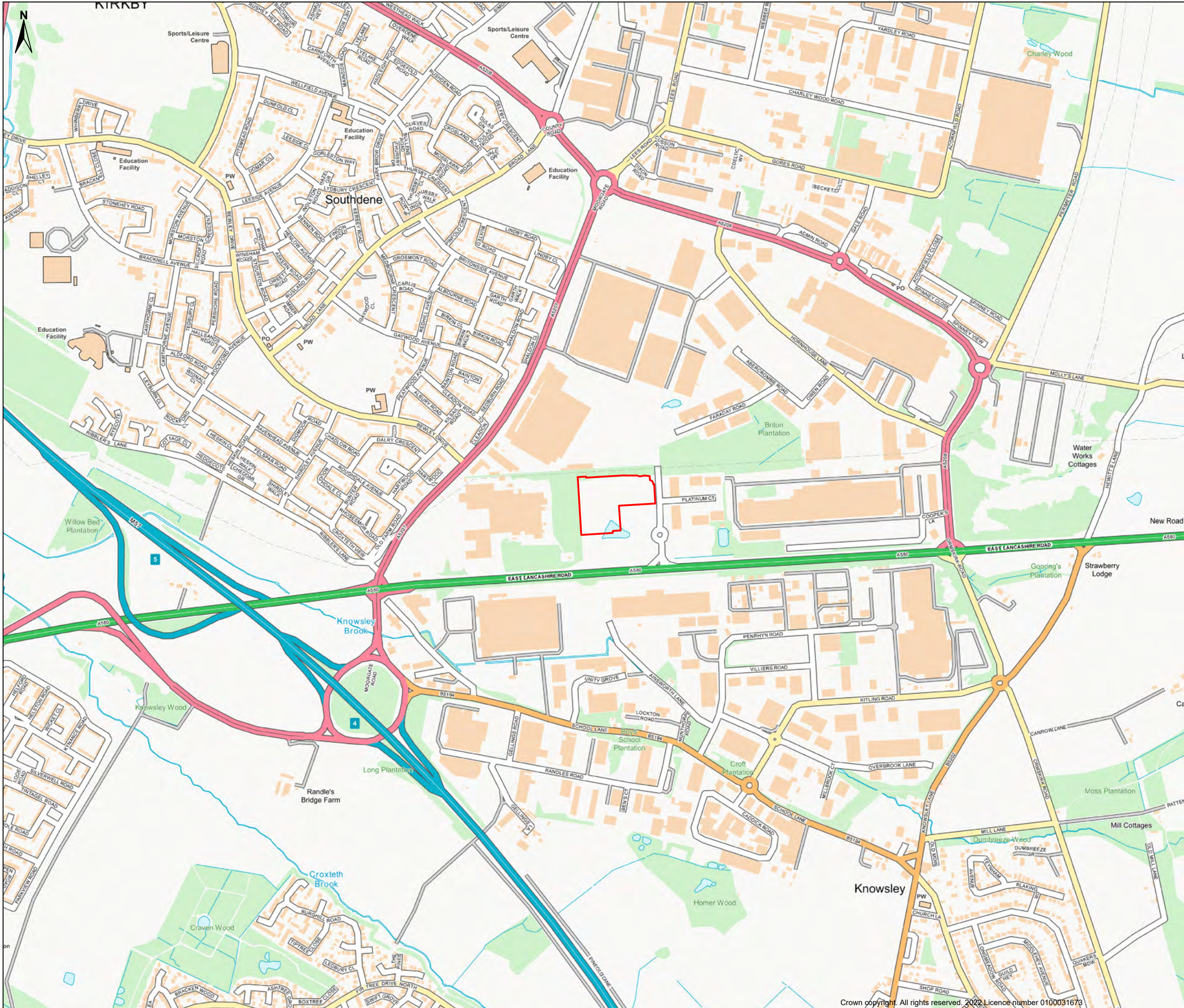


Figure 1 Site Location Plan

Figure 2 Site Boundary Plan



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Legend:

Site Boundary



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COMPLEX
EASY

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Client Network Space

Project Alchemy Land Parcel I Site

Title Site Location Plan

Status	Drawn By	PM/Checked by
Final	TF	KD
Job Ref	Scale @ A3	Date Created
JER9563	NTS	JUL 2022
Figure Number		Rev
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Site Boundary



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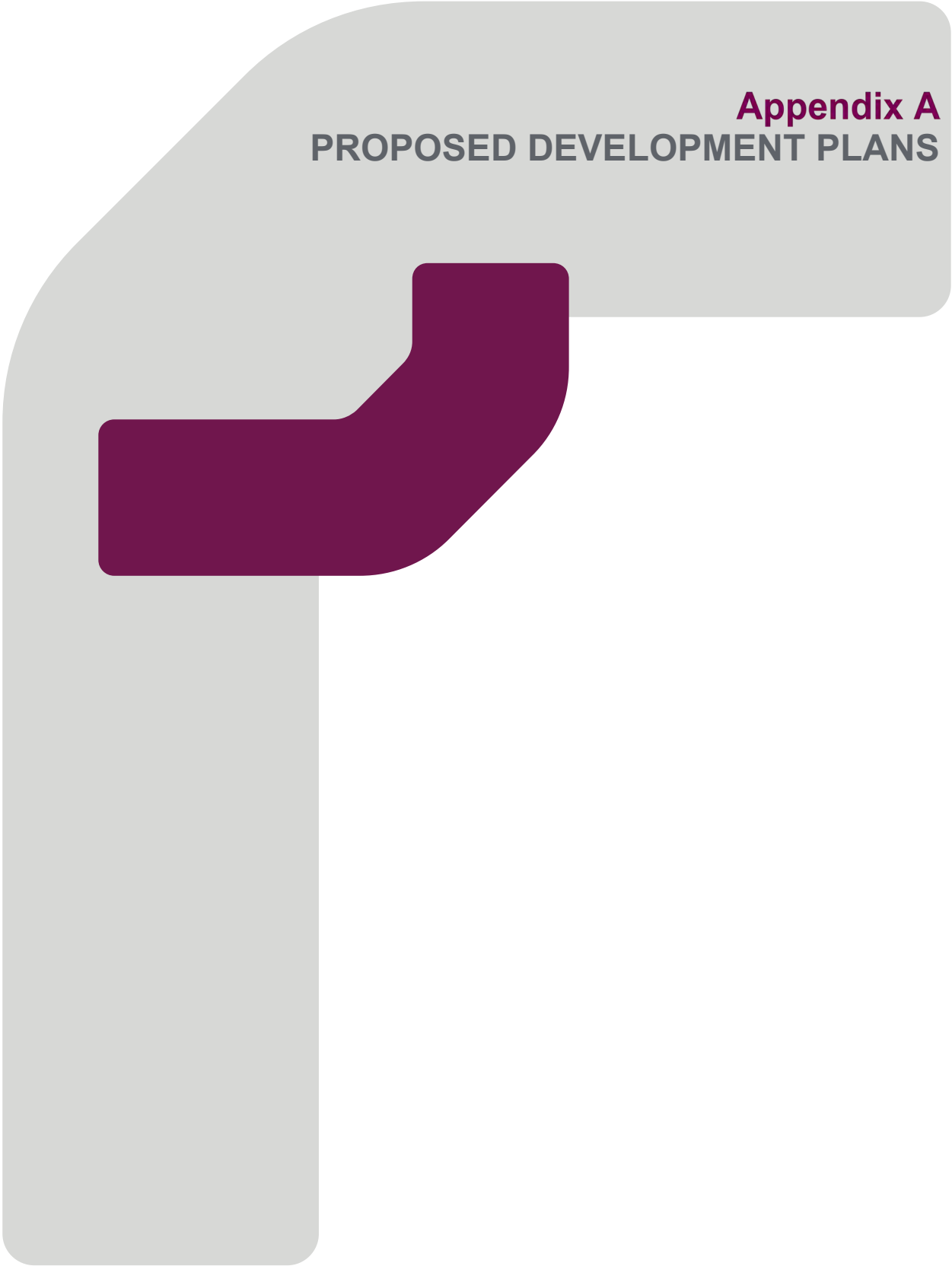
Client Network Space

Project Alchemy Land Parcel I Site

Title Site Boundary Plan

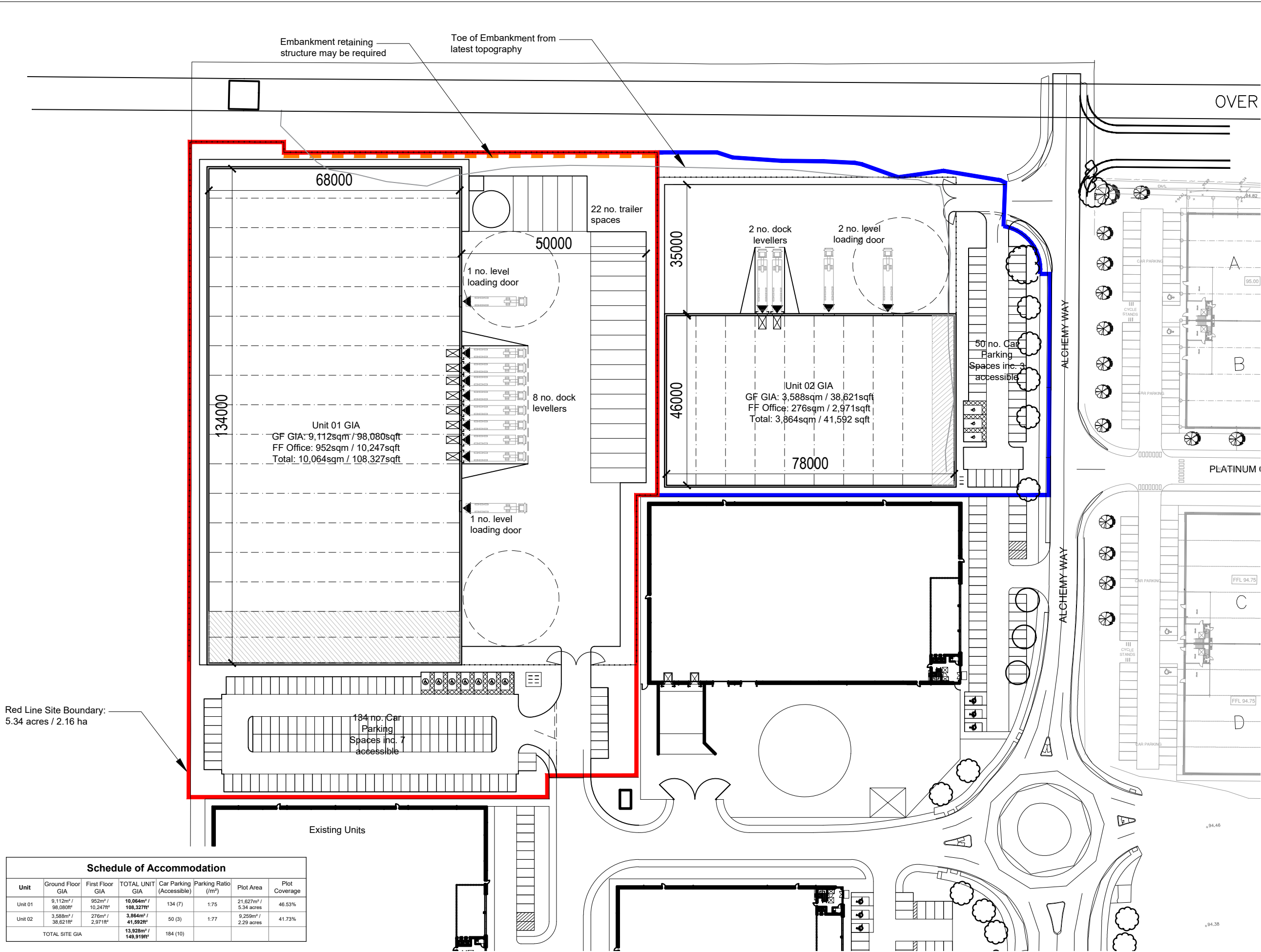
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JER9563	NTS	JUL 2022
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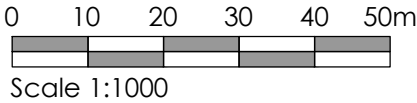
Appendix A

PROPOSED DEVELOPMENT PLANS



Red Line Site Boundary:
5.34 acres / 2.16 ha

Schedule of Accommodation							
Unit	Ground Floor GIA	First Floor GIA	TOTAL UNIT GIA	Car Parking (Accessible)	Parking Ratio (/m²)	Plot Area	Plot Coverage
Unit 01	9,112m² / 98,080ft²	952m² / 10,247ft²	10,064m² / 108,327ft²	134 (7)	1:75	21,627m² / 5.34 acres	46.53%
Unit 02	3,588m² / 38,621ft²	276m² / 2,971ft²	3,864m² / 41,592ft²	50 (3)	1:77	9,259m² / 2.29 acres	41.73%
TOTAL SITE GIA			13,928m² / 149,919ft²	184 (10)			

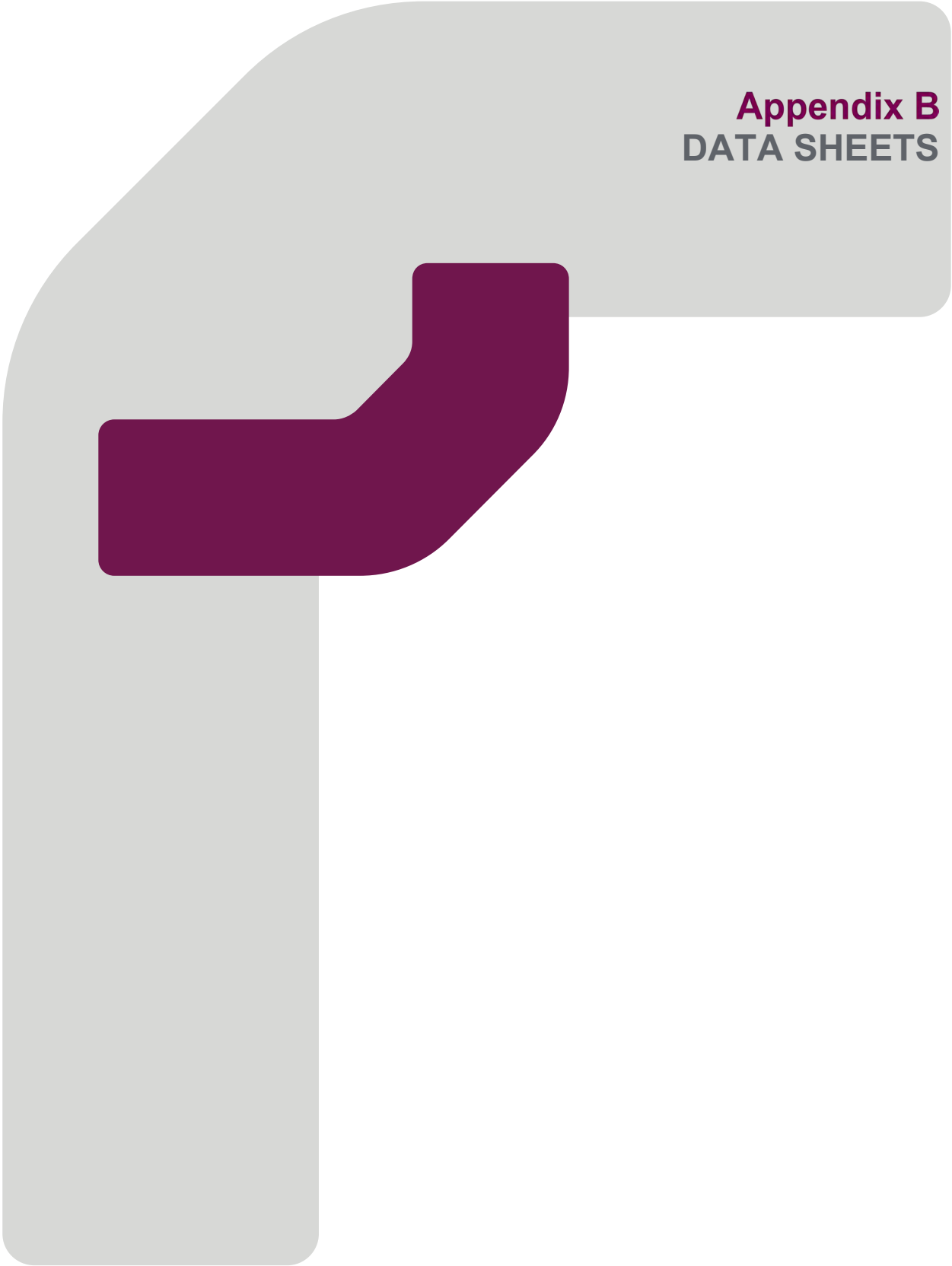


- NOTES**
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CDM 2015

Client notified of duties:
Principal Designer:
Unless noted below, all known hazards have been highlighted on the drawing:

P02	28/02/22	CF	AL
Externals amended			
P01	21/02/22	MB	AL
Initial Issue			
REV	Date	Drawn by: -	Checked by: -
Status	Purpose of Issue		
S2	For Information		
drawing stage	Feasibility		
client			
Network Space			
project			
Alchemy, Western Plot			
drawing title			
Proposed Site Plan Residual Plot - Land Parcel I			
date	21/02/22	drawn	MB
scale@A3	1:1000	checked	AL



Appendix B **DATA SHEETS**

VACANT LAND AT, ALCHEMY WAY, KNOWSLEY INDUSTRIAL PARK, KIRKBY, L33 7AQ

Order Details

Date: 07/06/2022

Your ref: JER9563

Our Ref: GS-8801217

Site Details

Location: 342648 396938

Area: 4.29 ha

Authority: [Knowsley Metropolitan Borough Council](#)



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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	3	1	36	19	-
16	1.2	Historical tanks	0	0	27	18	-
18	1.3	Historical energy features	0	0	3	18	-
19	1.4	Historical petrol stations	0	0	0	0	-
19	1.5	Historical garages	0	0	1	3	-
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	3	1	47	23	-
24	2.2	Historical tanks	0	0	58	27	-
28	2.3	Historical energy features	0	0	6	26	-
29	2.4	Historical petrol stations	0	0	0	0	-
29	2.5	Historical garages	0	0	2	5	-
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	1	5	16	-
Page	Section	Current industrial land use	On site	0-50m	50-250m	250-500m	500-2000m
35	4.1	Recent industrial land uses	0	4	47	-	-
39	4.2	Current or recent petrol stations	0	0	0	0	-
39	4.3	Electricity cables	0	0	0	0	-
39	4.4	Gas pipelines	0	0	0	0	-
39	4.5	Sites determined as Contaminated Land	0	0	0	0	-



39	4.6	<u>Control of Major Accident Hazards (COMAH)</u>	0	1	1	0	-
40	4.7	Regulated explosive sites	0	0	0	0	-
40	4.8	<u>Hazardous substance storage/usage</u>	0	0	1	2	-
41	4.9	<u>Historical licensed industrial activities (IPC)</u>	0	0	0	37	-
46	4.10	<u>Licensed industrial activities (Part A(1))</u>	0	0	0	67	-
57	4.11	<u>Licensed pollutant release (Part A(2)/B)</u>	0	0	1	2	-
58	4.12	Radioactive Substance Authorisations	0	0	0	0	-
58	4.13	<u>Licensed Discharges to controlled waters</u>	0	0	0	2	-
59	4.14	Pollutant release to surface waters (Red List)	0	0	0	0	-
59	4.15	Pollutant release to public sewer	0	0	0	0	-
59	4.16	List 1 Dangerous Substances	0	0	0	0	-
59	4.17	List 2 Dangerous Substances	0	0	0	0	-
59	4.18	<u>Pollution Incidents (EA/NRW)</u>	0	0	1	4	-
60	4.19	<u>Pollution inventory substances</u>	0	0	0	1	-
61	4.20	<u>Pollution inventory waste transfers</u>	0	0	0	2	-
63	4.21	Pollution inventory radioactive waste	0	0	0	0	-
Page	Section	Hydrogeology	On site	0-50m	50-250m	250-500m	500-2000m
64	5.1	<u>Superficial aquifer</u>	Identified (within 500m)				
66	5.2	<u>Bedrock aquifer</u>	Identified (within 500m)				
67	5.3	<u>Groundwater vulnerability</u>	Identified (within 50m)				
68	5.4	Groundwater vulnerability- soluble rock risk	None (within 0m)				
68	5.5	Groundwater vulnerability- local information	None (within 0m)				
69	5.6	<u>Groundwater abstractions</u>	0	0	4	0	27
77	5.7	Surface water abstractions	0	0	0	0	0
77	5.8	<u>Potable abstractions</u>	0	0	0	0	8
79	5.9	<u>Source Protection Zones</u>	1	0	0	0	-
79	5.10	Source Protection Zones (confined aquifer)	0	0	0	0	-
Page	Section	Hydrology	On site	0-50m	50-250m	250-500m	500-2000m
80	6.1	<u>Water Network (OS MasterMap)</u>	1	1	3	-	-



81	6.2	<u>Surface water features</u>	1	1	2	-	-
81	6.3	<u>WFD Surface water body catchments</u>	1	-	-	-	-
82	6.4	<u>WFD Surface water bodies</u>	0	0	1	-	-
82	6.5	<u>WFD Groundwater bodies</u>	1	-	-	-	-
Page	Section	River and coastal flooding	On site	0-50m	50-250m	250-500m	500-2000m
83	7.1	Risk of flooding from rivers and the sea	None (within 50m)				
83	7.2	Historical Flood Events	0	0	0	-	-
83	7.3	Flood Defences	0	0	0	-	-
84	7.4	Areas Benefiting from Flood Defences	0	0	0	-	-
84	7.5	Flood Storage Areas	0	0	0	-	-
85	7.6	Flood Zone 2	None (within 50m)				
85	7.7	Flood Zone 3	None (within 50m)				
Page	Section	Surface water flooding					
86	8.1	<u>Surface water flooding</u>	1 in 30 year, 0.3m - 1.0m (within 50m)				
Page	Section	Groundwater flooding					
88	9.1	<u>Groundwater flooding</u>	High (within 50m)				
Page	Section	Environmental designations	On site	0-50m	50-250m	250-500m	500-2000m
89	10.1	Sites of Special Scientific Interest (SSSI)	0	0	0	0	0
90	10.2	Conserved wetland sites (Ramsar sites)	0	0	0	0	0
90	10.3	Special Areas of Conservation (SAC)	0	0	0	0	0
90	10.4	Special Protection Areas (SPA)	0	0	0	0	0
90	10.5	National Nature Reserves (NNR)	0	0	0	0	0
91	10.6	<u>Local Nature Reserves (LNR)</u>	0	0	0	0	2
91	10.7	Designated Ancient Woodland	0	0	0	0	0
91	10.8	Biosphere Reserves	0	0	0	0	0
91	10.9	Forest Parks	0	0	0	0	0
92	10.10	Marine Conservation Zones	0	0	0	0	0
92	10.11	<u>Green Belt</u>	0	0	0	0	3
92	10.12	Proposed Ramsar sites	0	0	0	0	0



92	10.13	Possible Special Areas of Conservation (pSAC)	0	0	0	0	0
93	10.14	Potential Special Protection Areas (pSPA)	0	0	0	0	0
93	10.15	Nitrate Sensitive Areas	0	0	0	0	0
93	10.16	<u>Nitrate Vulnerable Zones</u>	1	0	0	0	3
94	10.17	SSSI Impact Risk Zones	0	-	-	-	-
94	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
95	11.1	World Heritage Sites	0	0	0	-	-
95	11.2	Area of Outstanding Natural Beauty	0	0	0	-	-
95	11.3	National Parks	0	0	0	-	-
95	11.4	Listed Buildings	0	0	0	-	-
96	11.5	Conservation Areas	0	0	0	-	-
96	11.6	Scheduled Ancient Monuments	0	0	0	-	-
96	11.7	Registered Parks and Gardens	0	0	0	-	-
Page	Section	Agricultural designations	On site	0-50m	50-250m	250-500m	500-2000m
97	12.1	<u>Agricultural Land Classification</u>	Urban (within 250m)				
98	12.2	Open Access Land	0	0	0	-	-
98	12.3	Tree Felling Licences	0	0	0	-	-
98	12.4	Environmental Stewardship Schemes	0	0	0	-	-
98	12.5	Countryside Stewardship Schemes	0	0	0	-	-
Page	Section	Habitat designations	On site	0-50m	50-250m	250-500m	500-2000m
99	13.1	<u>Priority Habitat Inventory</u>	1	1	2	-	-
100	13.2	Habitat Networks	0	0	0	-	-
100	13.3	<u>Open Mosaic Habitat</u>	0	1	0	-	-
100	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
101	14.1	<u>10k Availability</u>	Identified (within 500m)				
102	14.2	Artificial and made ground (10k)	0	0	0	0	-
103	14.3	Superficial geology (10k)	0	0	0	0	-



103	14.4	Landslip (10k)	0	0	0	0	-
104	14.5	Bedrock geology (10k)	0	0	0	0	-
104	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>105</u>	<u>15.1</u>	<u>50k Availability</u>	Identified (within 500m)				
<u>106</u>	<u>15.2</u>	<u>Artificial and made ground (50k)</u>	1	0	2	1	-
<u>107</u>	<u>15.3</u>	<u>Artificial ground permeability (50k)</u>	1	0	-	-	-
<u>108</u>	<u>15.4</u>	<u>Superficial geology (50k)</u>	1	0	1	1	-
<u>109</u>	<u>15.5</u>	<u>Superficial permeability (50k)</u>	Identified (within 50m)				
109	15.6	Landslip (50k)	0	0	0	0	-
109	15.7	Landslip permeability (50k)	None (within 50m)				
<u>110</u>	<u>15.8</u>	<u>Bedrock geology (50k)</u>	1	0	0	0	-
<u>111</u>	<u>15.9</u>	<u>Bedrock permeability (50k)</u>	Identified (within 50m)				
111	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>112</u>	<u>16.1</u>	<u>BGS Boreholes</u>	2	3	30	-	-
Page	Section	Natural ground subsidence					
<u>115</u>	<u>17.1</u>	<u>Shrink swell clays</u>	Very low (within 50m)				
<u>116</u>	<u>17.2</u>	<u>Running sands</u>	Very low (within 50m)				
<u>117</u>	<u>17.3</u>	<u>Compressible deposits</u>	Very low (within 50m)				
<u>119</u>	<u>17.4</u>	<u>Collapsible deposits</u>	Very low (within 50m)				
<u>120</u>	<u>17.5</u>	<u>Landslides</u>	Very low (within 50m)				
<u>121</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
123	18.1	Natural cavities	0	0	0	0	-
<u>124</u>	<u>18.2</u>	<u>BritPits</u>	0	0	0	1	-
<u>124</u>	<u>18.3</u>	<u>Surface ground workings</u>	0	3	14	-	-
125	18.4	Underground workings	0	0	0	0	0
125	18.5	Historical Mineral Planning Areas	0	0	0	0	-



125	18.6	Non-coal mining	0	0	0	0	0
126	18.7	Mining cavities	0	0	0	0	0
126	18.8	JPB mining areas	None (within 0m)				
126	18.9	Coal mining	None (within 0m)				
126	18.10	Brine areas	None (within 0m)				
126	18.11	Gypsum areas	None (within 0m)				
127	18.12	Tin mining	None (within 0m)				
127	18.13	Clay mining	None (within 0m)				
Page	Section	Radon					
128	19.1	<u>Radon</u>	Less than 1% (within 0m)				
Page	Section	Soil chemistry	On site	0-50m	50-250m	250-500m	500-2000m
129	20.1	<u>BGS Estimated Background Soil Chemistry</u>	6	0	-	-	-
129	20.2	BGS Estimated Urban Soil Chemistry	0	0	-	-	-
130	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
131	21.1	Underground railways (London)	0	0	0	-	-
131	21.2	Underground railways (Non-London)	0	0	0	-	-
132	21.3	Railway tunnels	0	0	0	-	-
132	21.4	<u>Historical railway and tunnel features</u>	0	1	7	-	-
132	21.5	Royal Mail tunnels	0	0	0	-	-
133	21.6	Historical railways	0	0	0	-	-
133	21.7	Railways	0	0	0	-	-
133	21.8	Crossrail 1	0	0	0	0	-
133	21.9	Crossrail 2	0	0	0	0	-
133	21.10	HS2	0	0	0	0	-



Recent aerial photograph



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Capture Date: 22/04/2019

Site Area: 4.29ha



Recent site history - 2015 aerial photograph



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Capture Date: 11/06/2015

Site Area: 4.29ha



Recent site history - 2001 aerial photograph



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Capture Date: 01/05/2001

Site Area: 4.29ha



Recent site history - 2000 aerial photograph



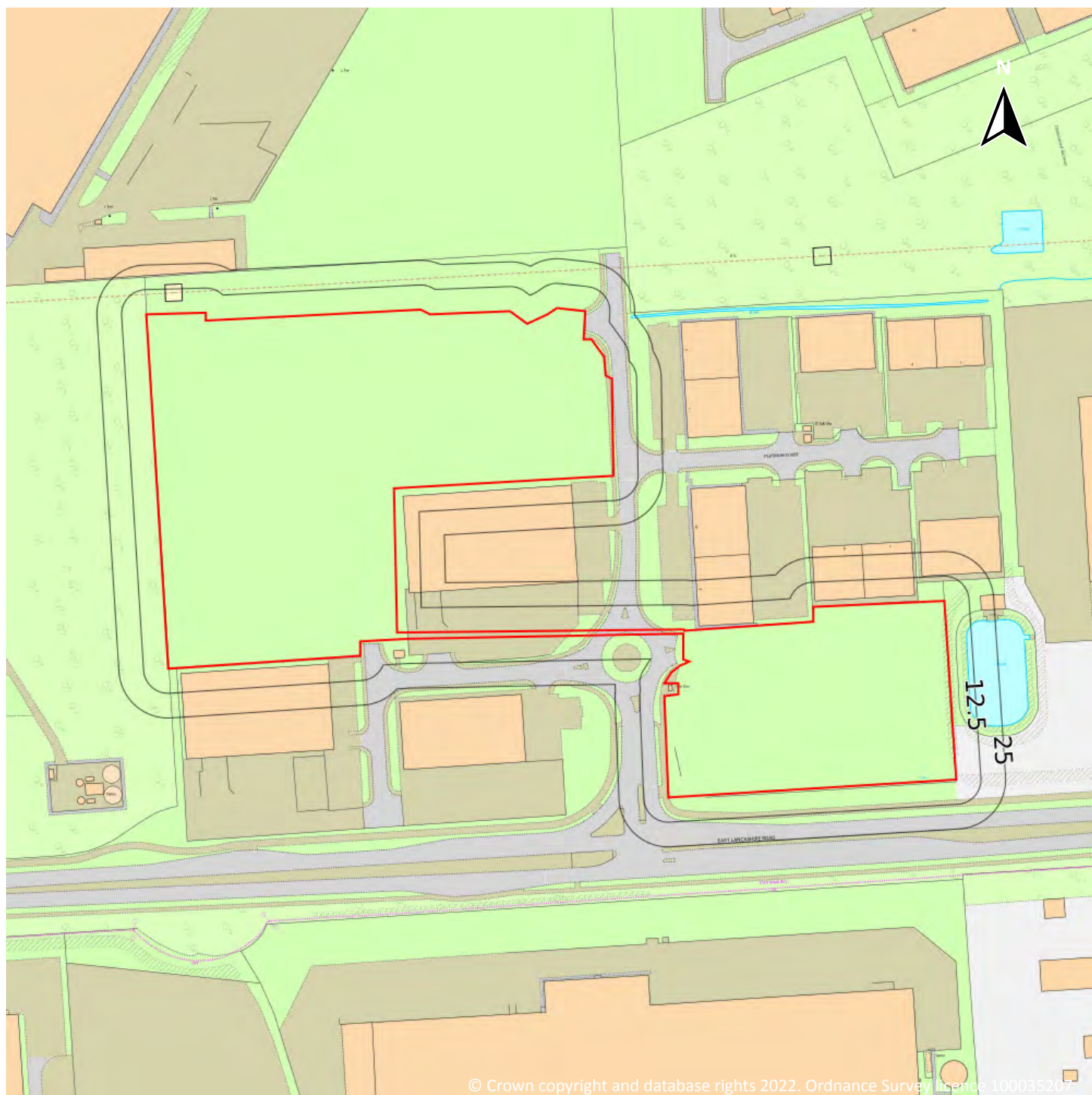
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Capture Date: 21/07/2000

Site Area: 4.29ha



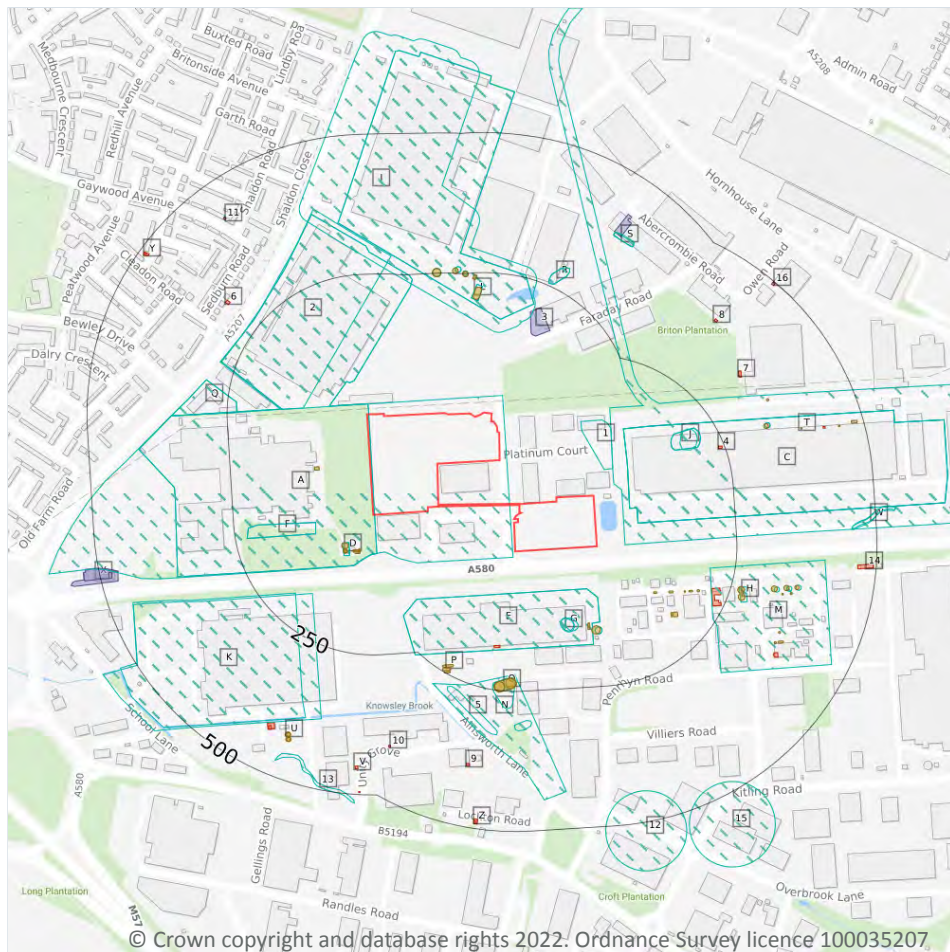
OS MasterMap site plan



Site Area: 4.29ha



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

59

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	Unspecified Commercial/Industrial	1976	857010



ID	Location	Land use	Dates present	Group ID
A	On site	Unspecified Commercial/Industrial	1988	929760
B	On site	Unspecified Factory	1966	972653
C	42m NE	Railway Sidings	1955 - 1976	2367747
1	51m N	Unspecified Heap	1966	803308
C	63m E	Unspecified Works	1966	830264
C	63m E	Unspecified Commercial/Industrial	1988	894106
C	63m E	Unspecified Commercial/Industrial	1976	946675
D	66m SW	Unspecified Tanks	1976	853071
D	66m SW	Unspecified Tanks	1988	927296
E	74m S	Unspecified Commercial/Industrial	1976	871597
E	74m S	Unspecified Commercial/Industrial	1988	977766
F	104m W	Unspecified Heap	1988	845240
F	104m W	Unspecified Heap	1966 - 1976	925576
2	105m NW	Unspecified Factory	1966	970619
G	124m S	Unspecified Pit	1907 - 1938	913070
G	125m S	Unspecified Pit	1955	865811
G	125m S	Unspecified Pit	1925	968394
G	144m S	Unspecified Tank	1988	886196
G	144m S	Unspecified Tank	1976	927139
I	145m N	Unspecified Factory	1966	920677
J	164m NE	Unspecified Heap	1988	872565
J	164m NE	Unspecified Heap	1976	909027
I	169m N	Unspecified Commercial/Industrial	1988	882698
I	169m N	Unspecified Commercial/Industrial	1976	962662
K	177m SW	Unspecified Commercial/Industrial	1988	894513
J	179m NE	Unspecified Heap	1966	877140
K	197m SW	Unspecified Commercial/Industrial	1976	979930
L	200m N	Unspecified Tanks	1966 - 1976	864660



ID	Location	Land use	Dates present	Group ID
L	200m N	Unspecified Tanks	1988	925558
M	206m E	Unspecified Commercial/Industrial	1988	796636
N	220m S	Unspecified Works	1966	830272
O	225m S	Unspecified Tanks	1966	886732
O	226m S	Unspecified Tanks	1955	925990
Q	233m W	Telephone Exchange	1988	861787
Q	233m W	Telephone Exchange	1966 - 1976	945616
L	244m N	Unspecified Tank	1988	950658
L	244m N	Unspecified Tank	1966 - 1976	968188
L	246m N	Unspecified Tank	1988	975596
L	246m N	Unspecified Tank	1966 - 1976	987430
L	252m N	Unspecified Tank	1988	877304
L	252m N	Unspecified Tank	1976	965001
R	254m NE	Unspecified Heap	1966 - 1976	875665
R	254m NE	Unspecified Heap	1988	972264
H	264m E	Unspecified Tanks	1988	815155
5	266m SW	Unspecified Heap	1966	803307
N	303m S	Unspecified Heap	1966	803302
M	326m E	Unspecified Tank	1988	824625
C	330m E	Unspecified Tank	1976	896520
C	330m E	Unspecified Tank	1988	928411
M	347m E	Unspecified Tank	1988	824626
M	363m E	Unspecified Tank	1988	824627
S	385m NE	Refuse Heap	1925	946589
S	386m NE	Refuse Heap	1938	848112
12	444m S	Unspecified Disused Pits	1892	822547
13	450m S	Delph	1925	967307
W	456m E	Unspecified Ground Workings	1925	852993



ID	Location	Land use	Dates present	Group ID
W	457m E	Unspecified Ground Workings	1938	971516
15	475m SE	Unspecified Pits	1938	885796

This data is sourced from Ordnance Survey / Groundsure.

1.2 Historical tanks

Records within 500m

45

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
D	65m S	Tanks	1974	146982
D	65m S	Tanks	1984	139738
D	67m S	Tanks	1993	135478
D	69m SW	Unspecified Tank	1974 - 1993	137954
D	78m SW	Unspecified Tank	1993	125409
D	79m SW	Unspecified Tank	1974 - 1984	138990
B	91m W	Tanks	1996	105718
H	130m SE	Unspecified Tank	1994	113153
G	136m S	Tanks	1974 - 1994	129539
G	141m S	Tanks	1974 - 1994	149251
H	152m SE	Tanks	1994	105773
H	175m SE	Tanks	1991	105774
H	178m SE	Tanks	1994	105776
H	180m SE	Tanks	1994	105777
H	183m SE	Tanks	1991	105775
H	195m SE	Tanks	1991	105770



ID	Location	Land use	Dates present	Group ID
L	202m N	Tanks	1959 - 1993	141421
O	226m S	Unspecified Tank	1959	113151
O	227m S	Tanks	1959 - 1974	142814
P	231m SW	Unspecified Tank	1985 - 1994	127384
O	234m S	Unspecified Tank	1959	113150
P	237m SW	Unspecified Tank	1985 - 1994	137022
L	238m N	Unspecified Tank	1976 - 1993	141933
L	244m N	Unspecified Tank	1959 - 1993	149392
P	244m SW	Unspecified Tank	1994	113152
L	244m N	Unspecified Tank	1959 - 1993	128615
L	250m N	Unspecified Tank	1968 - 1993	132693
H	263m E	Tanks	1991	105778
M	320m E	Unspecified Tank	1991	113154
C	328m E	Unspecified Tank	1975 - 1997	147915
M	341m E	Tanks	1991	105781
M	342m E	Unspecified Tank	1991	113155
C	353m NE	Unspecified Tank	1959 - 1997	148189
M	355m E	Tanks	1991	105782
M	359m SE	Unspecified Tank	1991	113159
M	360m SE	Tanks	1991	105780
M	361m E	Unspecified Tank	1991	113156
M	365m SE	Tanks	1991	105779
T	388m E	Unspecified Tank	1968	113140
U	416m S	Unspecified Tank	1974 - 1984	135919
U	417m S	Unspecified Tank	1993	126200
U	424m S	Unspecified Tank	1974 - 1984	124423
U	425m S	Unspecified Tank	1993	124085
T	455m E	Unspecified Tank	1968	113139

ID	Location	Land use	Dates present	Group ID
T	479m E	Unspecified Tank	1975 - 1997	128400

This data is sourced from Ordnance Survey / Groundsure.

1.3 Historical energy features

Records within 500m	21
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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
E	170m S	Electricity Substation	1974 - 1994	70245
H	218m E	Electricity Substations	1991	59868
4	239m E	Electricity Substation	1997	61365
6	316m NW	Electricity Substation	1984	61363
7	335m NE	Electricity Substation	1997	61356
M	369m SE	Electricity Substation	1991	61367
8	379m NE	Electricity Substation	1975 - 1997	85424
9	387m S	Electricity Substation	1988 - 1996	84781
U	411m SW	Electricity Substation	1974 - 1984	68652
10	412m SW	Electricity Substation	1993	61369
U	418m SW	Electricity Substation	1993	68870
T	427m E	Electricity Substation	1997	61364
11	430m NW	Electricity Substation	1996	61358
V	449m S	Electricity Substation	1993	61368
14	467m E	Electricity Substation	1991	61366
Y	483m NW	Electricity Substation	1996	72660
Z	483m S	Electricity Substation	1988 - 1996	66141

ID	Location	Land use	Dates present	Group ID
Z	486m S	Electricity Substation	1981	74453
Y	487m NW	Electricity Substation	1967 - 1968	81992
16	494m NE	Electricity Substation	1975 - 1997	72592
V	494m S	Gas Meter House	1993	63665

This data is sourced from Ordnance Survey / Groundsure.

1.4 Historical petrol stations

Records within 500m	0
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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	4
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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
3	158m NE	Vehicle Repair Depot	1976	25257
S	391m NE	Body Repair Works	1976	24918
X	467m W	Garage	1958	24173
X	467m W	Garage	1959 - 1975	25018

This data is sourced from Ordnance Survey / Groundsure.

1.6 Historical military land

Records within 500m

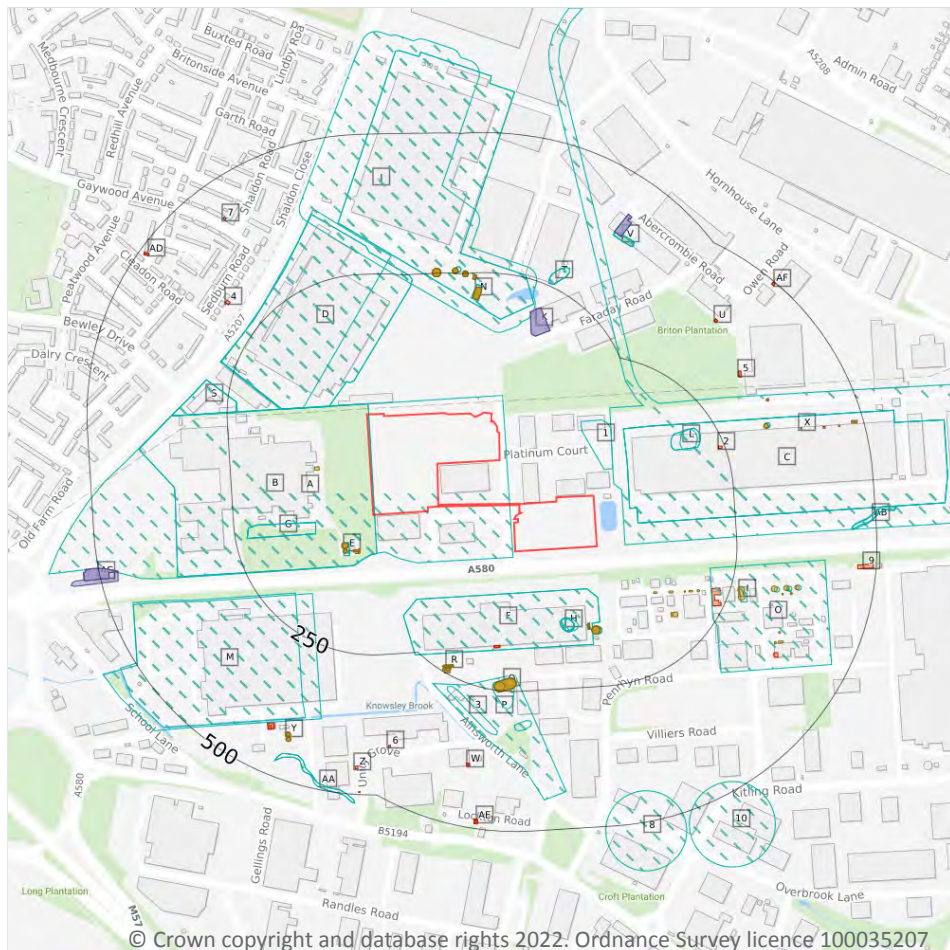
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Areas of military land digitised from multiple sources including the National Archives, local records, MOD records and verified other sources, intelligently grouped into contiguous features.

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

74

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	Unspecified Factory	1966	972653
B	On site	Unspecified Commercial/Industrial	1976	857010
B	On site	Unspecified Commercial/Industrial	1988	929760



ID	Location	Land Use	Date	Group ID
C	42m NE	Railway Sidings	1966	2367747
1	51m N	Unspecified Heap	1966	803308
C	63m E	Unspecified Works	1966	830264
C	63m E	Unspecified Commercial/Industrial	1976	946675
C	63m E	Unspecified Commercial/Industrial	1988	894106
D	64m NW	Unspecified Commercial/Industrial	1976	857010
D	64m NW	Unspecified Commercial/Industrial	1988	929760
E	66m SW	Unspecified Tanks	1976	853071
E	66m SW	Unspecified Tanks	1988	927296
F	74m S	Unspecified Commercial/Industrial	1976	871597
F	74m S	Unspecified Commercial/Industrial	1988	977766
G	104m W	Unspecified Heap	1966	925576
G	104m W	Unspecified Heap	1976	925576
G	104m W	Unspecified Heap	1988	845240
D	105m NW	Unspecified Factory	1966	970619
H	124m S	Unspecified Pit	1938	913070
H	124m S	Unspecified Pit	1925	913070
H	124m S	Unspecified Pit	1907	913070
H	124m S	Unspecified Pit	1938	913070
H	125m S	Unspecified Pit	1955	865811
H	125m S	Unspecified Pit	1925	968394
H	125m S	Unspecified Pit	1925	968394
H	144m S	Unspecified Tank	1976	927139
H	144m S	Unspecified Tank	1988	886196
J	145m N	Unspecified Factory	1966	920677
L	164m NE	Unspecified Heap	1976	909027
L	164m NE	Unspecified Heap	1988	872565
J	169m N	Unspecified Commercial/Industrial	1976	962662



ID	Location	Land Use	Date	Group ID
J	169m N	Unspecified Commercial/Industrial	1988	882698
M	177m SW	Unspecified Commercial/Industrial	1988	894513
L	179m NE	Unspecified Heap	1966	877140
M	197m SW	Unspecified Commercial/Industrial	1976	979930
N	200m N	Unspecified Tanks	1966	864660
N	200m N	Unspecified Tanks	1976	864660
N	200m N	Unspecified Tanks	1988	925558
O	206m E	Unspecified Commercial/Industrial	1988	796636
P	220m S	Unspecified Works	1966	830272
Q	225m S	Unspecified Tanks	1966	886732
Q	226m S	Unspecified Tanks	1955	925990
S	233m W	Telephone Exchange	1966	945616
S	233m W	Telephone Exchange	1976	945616
S	233m W	Telephone Exchange	1988	861787
N	244m N	Unspecified Tank	1966	968188
N	244m N	Unspecified Tank	1976	968188
N	244m N	Unspecified Tank	1988	950658
N	246m N	Unspecified Tank	1966	987430
N	246m N	Unspecified Tank	1976	987430
N	246m N	Unspecified Tank	1988	975596
N	252m N	Unspecified Tank	1976	965001
N	252m N	Unspecified Tank	1988	877304
T	254m NE	Unspecified Heap	1966	875665
T	254m NE	Unspecified Heap	1976	875665
T	254m NE	Unspecified Heap	1988	972264
I	264m E	Unspecified Tanks	1988	815155
3	266m SW	Unspecified Heap	1966	803307
P	303m S	Unspecified Heap	1966	803302

ID	Location	Land Use	Date	Group ID
O	326m E	Unspecified Tank	1988	824625
C	330m E	Unspecified Tank	1976	896520
C	330m E	Unspecified Tank	1988	928411
O	347m E	Unspecified Tank	1988	824626
O	363m E	Unspecified Tank	1988	824627
V	385m NE	Refuse Heap	1925	946589
V	386m NE	Refuse Heap	1938	848112
V	386m NE	Refuse Heap	1938	848112
8	444m S	Unspecified Disused Pits	1892	822547
AA	450m S	Delph	1925	967307
AA	450m S	Delph	1925	967307
AB	456m E	Unspecified Ground Workings	1925	852993
AB	457m E	Unspecified Ground Workings	1938	971516
AB	457m E	Unspecified Ground Workings	1938	971516
10	475m SE	Unspecified Pits	1938	885796

This data is sourced from Ordnance Survey / Groundsure.

2.2 Historical tanks

Records within 500m

85

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
E	65m S	Tanks	1974	146982
E	65m S	Tanks	1984	139738
E	67m S	Tanks	1993	135478
E	69m SW	Unspecified Tank	1993	137954
E	70m SW	Unspecified Tank	1974	137954



ID	Location	Land Use	Date	Group ID
E	70m SW	Unspecified Tank	1984	137954
E	78m SW	Unspecified Tank	1993	125409
E	79m SW	Unspecified Tank	1974	138990
E	79m SW	Unspecified Tank	1984	138990
A	91m W	Tanks	1996	105718
I	130m SE	Unspecified Tank	1994	113153
H	136m S	Tanks	1974	129539
H	137m S	Tanks	1994	129539
H	137m S	Tanks	1985	129539
H	141m S	Tanks	1994	149251
H	142m S	Tanks	1974	149251
H	142m S	Tanks	1974	149251
H	142m S	Tanks	1985	149251
I	152m SE	Tanks	1994	105773
I	175m SE	Tanks	1991	105774
I	178m SE	Tanks	1994	105776
I	180m SE	Tanks	1994	105777
I	183m SE	Tanks	1991	105775
I	195m SE	Tanks	1991	105770
N	202m N	Tanks	1959	141421
N	202m N	Tanks	1968	141421
N	202m N	Tanks	1993	141421
N	203m N	Tanks	1960	141421
N	203m N	Tanks	1976	141421
N	203m N	Tanks	1976	141421
Q	226m S	Unspecified Tank	1959	113151
Q	227m S	Tanks	1959	142814
Q	227m S	Tanks	1974	142814

ID	Location	Land Use	Date	Group ID
Q	227m S	Tanks	1974	142814
R	231m SW	Unspecified Tank	1994	127384
R	232m SW	Unspecified Tank	1985	127384
Q	234m S	Unspecified Tank	1959	113150
R	237m SW	Unspecified Tank	1994	137022
N	238m N	Unspecified Tank	1993	141933
N	238m N	Unspecified Tank	1976	141933
N	238m N	Unspecified Tank	1976	141933
R	239m SW	Unspecified Tank	1985	137022
N	244m N	Unspecified Tank	1993	149392
R	244m SW	Unspecified Tank	1994	113152
N	244m N	Unspecified Tank	1959	149392
N	244m N	Unspecified Tank	1960	149392
N	244m N	Unspecified Tank	1976	149392
N	244m N	Unspecified Tank	1976	149392
N	244m N	Unspecified Tank	1976	149392
N	244m N	Unspecified Tank	1968	149392
N	244m N	Unspecified Tank	1959	128615
N	244m N	Unspecified Tank	1968	128615
N	244m N	Unspecified Tank	1960	128615
N	244m N	Unspecified Tank	1976	128615
N	244m N	Unspecified Tank	1976	128615
N	244m N	Unspecified Tank	1993	128615
N	250m N	Unspecified Tank	1976	132693
N	250m N	Unspecified Tank	1976	132693
N	250m N	Unspecified Tank	1993	132693
N	251m N	Unspecified Tank	1968	132693
I	263m E	Tanks	1991	105778
O	320m E	Unspecified Tank	1991	113154

ID	Location	Land Use	Date	Group ID
C	328m E	Unspecified Tank	1997	147915
C	328m E	Unspecified Tank	1975	147915
O	341m E	Tanks	1991	105781
O	342m E	Unspecified Tank	1991	113155
C	353m NE	Unspecified Tank	1997	148189
C	353m NE	Unspecified Tank	1959	148189
C	353m NE	Unspecified Tank	1975	148189
C	353m NE	Unspecified Tank	1959	148189
C	353m NE	Unspecified Tank	1968	148189
O	355m E	Tanks	1991	105782
O	359m SE	Unspecified Tank	1991	113159
O	360m SE	Tanks	1991	105780
O	361m E	Unspecified Tank	1991	113156
O	365m SE	Tanks	1991	105779
X	388m E	Unspecified Tank	1968	113140
Y	416m S	Unspecified Tank	1984	135919
Y	417m S	Unspecified Tank	1974	135919
Y	417m S	Unspecified Tank	1993	126200
Y	424m S	Unspecified Tank	1984	124423
Y	425m S	Unspecified Tank	1974	124423
Y	425m S	Unspecified Tank	1993	124085
X	455m E	Unspecified Tank	1968	113139
X	479m E	Unspecified Tank	1997	128400
X	479m E	Unspecified Tank	1975	128400

This data is sourced from Ordnance Survey / Groundsure.



2.3 Historical energy features

Records within 500m

32

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
F	170m S	Electricity Substation	1994	70245
F	170m S	Electricity Substation	1974	70245
F	170m S	Electricity Substation	1974	70245
F	170m S	Electricity Substation	1985	70245
I	218m E	Electricity Substations	1991	59868
2	239m E	Electricity Substation	1997	61365
4	316m NW	Electricity Substation	1984	61363
5	335m NE	Electricity Substation	1997	61356
O	369m SE	Electricity Substation	1991	61367
U	379m NE	Electricity Substation	1997	85424
U	379m NE	Electricity Substation	1975	85424
W	387m S	Electricity Substation	1996	84781
W	387m S	Electricity Substation	1994	84781
W	388m S	Electricity Substation	1988	84781
Y	411m SW	Electricity Substation	1984	68652
6	412m SW	Electricity Substation	1993	61369
Y	412m SW	Electricity Substation	1974	68652
Y	418m SW	Electricity Substation	1993	68870
X	427m E	Electricity Substation	1997	61364
7	430m NW	Electricity Substation	1996	61358
Z	449m S	Electricity Substation	1993	61368
9	467m E	Electricity Substation	1991	61366
AD	483m NW	Electricity Substation	1996	72660



ID	Location	Land Use	Date	Group ID
AE	483m S	Electricity Substation	1988	66141
AE	484m S	Electricity Substation	1996	66141
AE	484m S	Electricity Substation	1994	66141
AE	486m S	Electricity Substation	1981	74453
AD	487m NW	Electricity Substation	1968	81992
AD	487m NW	Electricity Substation	1967	81992
AF	494m NE	Electricity Substation	1997	72592
AF	494m NE	Electricity Substation	1975	72592
Z	494m S	Gas Meter House	1993	63665

This data is sourced from Ordnance Survey / Groundsure.

2.4 Historical petrol stations

Records within 500m

0

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

This data is sourced from Ordnance Survey / Groundsure.

2.5 Historical garages

Records within 500m

7

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

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

ID	Location	Land Use	Date	Group ID
K	158m NE	Vehicle Repair Depot	1976	25257
K	158m NE	Vehicle Repair Depot	1976	25257
V	391m NE	Body Repair Works	1976	24918
V	391m NE	Body Repair Works	1976	24918



ID	Location	Land Use	Date	Group ID
AC	467m W	Garage	1958	24173
AC	467m W	Garage	1959	25018
AC	467m W	Garage	1975	25018

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

22

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
1	32m NE	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

ID	Location	Site	Reference	Category	Sub-Category	Description
A	64m E	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
A	64m E	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
B	193m NE	25, FARADAY ROAD, KNOWSLEY INDUSTRIAL PARK, LIVERPOOL, L33 7UT	WEX148902	Storing waste exemption	Not on a farm	Storage of waste in a secure place
B	193m NE	25, FARADAY ROAD, KNOWSLEY INDUSTRIAL PARK, LIVERPOOL, L33 7UT	WEX148902	Treating waste exemption	Not on a farm	Treatment of waste food
B	193m NE	25, FARADAY ROAD, KNOWSLEY INDUSTRIAL PARK, LIVERPOOL, L33 7UT	WEX148902	Storing waste exemption	Not on a farm	Storage of waste in secure containers
2	304m E	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
3	338m SW	Saturn Business Park School Lane Prescot Merseyside L34 9GJ	EPR/GF0603N R/A001	Treating waste exemption	Non-Agricultural Waste Only	Preparatory treatments (baling, sorting, shredding etc)
4	366m N	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
C	402m NE	-	WEX262120	Storing waste exemption	Not on a farm	Storage of waste in a secure place
C	402m NE	HORNHOUSE LANE, KNOWSLEY INDUSTRIAL PARK, LIVERPOOL, L33 7YQ	WEX119395	Storing waste exemption	Not on a farm	Storage of waste in a secure place
C	405m NE	Makro Limited Hornhouse Lane LIVERPOOL L33 7YQ	EPR/GE5587Y Q/A001	Treating waste exemption	Non-Agricultural Waste Only	Crushing waste fluorescent tubes
D	463m N	-	WEX225999	Using waste exemption	Not on a farm	Use of waste in construction
D	463m N	-	WEX225999	Treating waste exemption	Not on a farm	Preparatory treatments (baling, sorting, shredding etc)

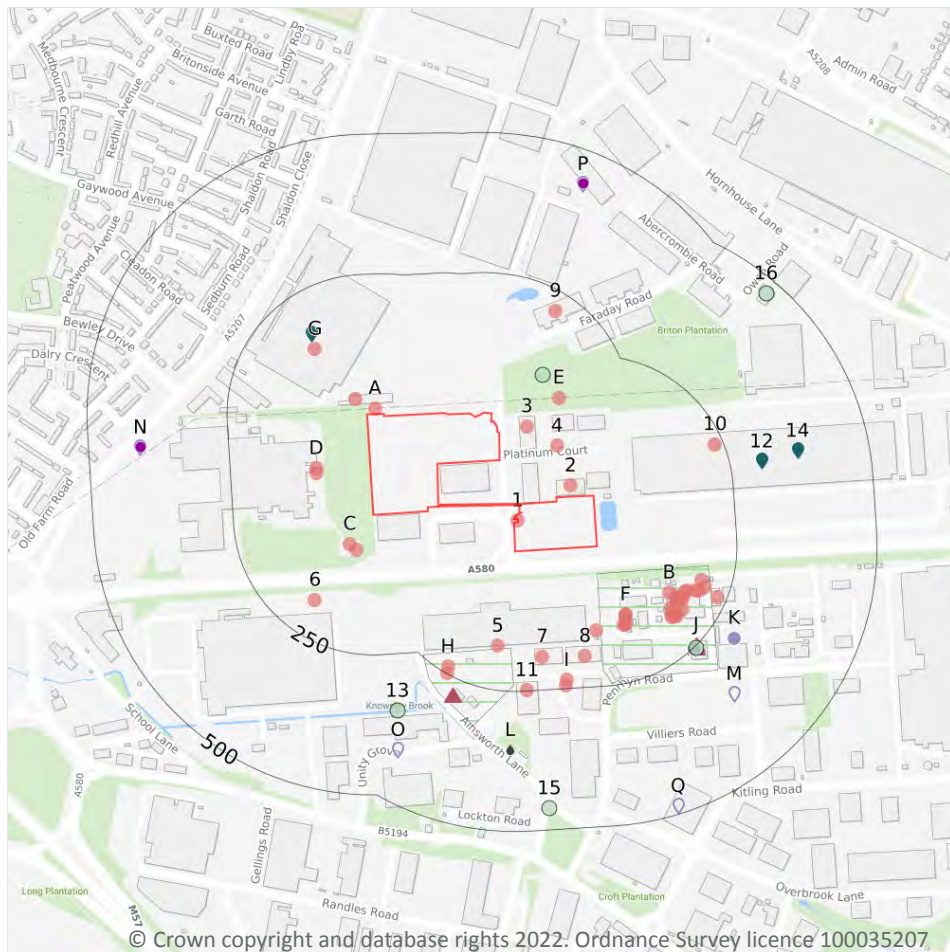


ID	Location	Site	Reference	Category	Sub-Category	Description
D	463m N	-	WEX225999	Storing waste exemption	Not on a farm	Storage of waste in secure containers
5	474m NE	Nagel Langdons Ltd, 2 Owen Road, Knowsley Industrial Park, Kirkby, L33 7YP	WEX159189	Treating waste exemption	Not on a Farm	Treatment of waste food
E	484m S	Avanti Recycling Centre Kitling Road Merseyside L34 9HL	EPR/FH0171BL /A001	Storing waste exemption	Non-Agricultural Waste Only	Storage of waste in a secure place
E	484m S	Avanti Recycling Centre Kitling Road Merseyside L34 9HL	EPR/FH0171BL /A001	Treating waste exemption	Non-Agricultural Waste Only	Cleaning, washing, spraying or coating relevant waste
E	484m S	Avanti Recycling Centre Kitling Road Merseyside L34 9HL	EPR/FH0171BL /A001	Treating waste exemption	Non-Agricultural Waste Only	Preparatory treatments (baling, sorting, shredding etc)
D	490m N	DEACON PARK MOORGATE ROAD MERSEYSIDE L33 7RX	EPR/NF0200F M/A001	Storing waste exemption	Non-Agricultural Waste Only	Storage of waste in secure containers
D	490m N	DEACON PARK MOORGATE ROAD MERSEYSIDE L33 7RX	EPR/NF0200F M/A001	Storing waste exemption	Non-Agricultural Waste Only	Storage of waste in a secure place
D	490m N	DEACON PARK MOORGATE ROAD MERSEYSIDE L33 7RX	EPR/NF0200F M/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
- 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)
- Licensed Discharges to controlled waters
- Pollution Incidents (EA/NRW)
- Pollution inventory substances
- Pollution inventory waste transfers

4.1 Recent industrial land uses

Records within 250m

51

Current potentially contaminative industrial sites.

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

ID	Location	Company	Address	Activity	Category
1	1m W	Gas Governor	Merseyside, L33	Gas Features	Infrastructure and Facilities
A	10m N	Pylon	Merseyside, L33	Electrical Features	Infrastructure and Facilities



ID	Location	Company	Address	Activity	Category
2	20m N	Lombard Shipping Plc	7-8 Platinum Court, Alchemy Way, Knowsley Industrial Park, Liverpool, Merseyside, L33 7XN	Distribution and Haulage	Transport, Storage and Delivery
A	35m NW	Muni-serv Hire	Moorgate Road, Knowsley Industrial Park, Liverpool, Merseyside, L33 7XW	Vehicle Repair, Testing and Servicing	Repair and Servicing
3	51m E	Northern Print	2 Platinum Court, Alchemy Way, Knowsley Industrial Park, Liverpool, Merseyside, L33 7XN	Published Goods	Industrial Products
C	67m SW	Tank	Merseyside, L33	Tanks (Generic)	Industrial Features
C	69m SW	Tank	Merseyside, L33	Tanks (Generic)	Industrial Features
4	92m N	Electricity Sub Station	Merseyside, L33	Electrical Features	Infrastructure and Facilities
D	97m W	Tank	Merseyside, L33	Tanks (Generic)	Industrial Features
D	97m W	Tank	Merseyside, L33	Tanks (Generic)	Industrial Features
E	122m NE	Pylon	Merseyside, L33	Electrical Features	Infrastructure and Facilities
F	132m SE	Tank	Merseyside, L34	Tanks (Generic)	Industrial Features
F	132m SE	Tanks	Merseyside, L34	Tanks (Generic)	Industrial Features
F	138m S	Tank	Merseyside, L34	Tanks (Generic)	Industrial Features
F	143m S	Tank	Merseyside, L34	Tanks (Generic)	Industrial Features
F	147m S	Tank	Merseyside, L34	Tanks (Generic)	Industrial Features
F	149m S	Tank	Merseyside, L34	Tanks (Generic)	Industrial Features
F	149m S	Tank	Merseyside, L34	Tanks (Generic)	Industrial Features

ID	Location	Company	Address	Activity	Category
G	149m NW	J J Smith & Company Woodworking Machinery Ltd	Moorgate Point, Moorgate Road, Knowsley Industrial Park, Liverpool, Merseyside, L33 7DR	Tools Including Machine Shops	Industrial Products
B	153m SE	Tank	Merseyside, L34	Tanks (Generic)	Industrial Features
B	167m SE	Tank	Merseyside, L34	Tanks (Generic)	Industrial Features
B	170m SE	Tank	Merseyside, L34	Tanks (Generic)	Industrial Features
B	171m SE	Tank	Merseyside, L34	Tanks (Generic)	Industrial Features
5	172m S	Electricity Sub Station	Merseyside, L34	Electrical Features	Infrastructure and Facilities
B	173m SE	Tank	Merseyside, L34	Tanks (Generic)	Industrial Features
B	173m SE	Tank	Merseyside, L34	Tanks (Generic)	Industrial Features
B	176m SE	Tank	Merseyside, L34	Tanks (Generic)	Industrial Features
B	176m SE	Tank	Merseyside, L34	Tanks (Generic)	Industrial Features
B	179m SE	Tank	Merseyside, L34	Tanks (Generic)	Industrial Features
B	179m SE	Tank	Merseyside, L34	Tanks (Generic)	Industrial Features
B	180m SE	Tank	Merseyside, L34	Tanks (Generic)	Industrial Features
B	184m SE	Tank	Merseyside, L34	Tanks (Generic)	Industrial Features
6	184m SW	Tank	Merseyside, L34	Tanks (Generic)	Industrial Features
B	186m SE	Tank	Merseyside, L34	Tanks (Generic)	Industrial Features
B	186m SE	Tank	Merseyside, L34	Tanks (Generic)	Industrial Features



ID	Location	Company	Address	Activity	Category
B	190m SE	Tank	Merseyside, L34	Tanks (Generic)	Industrial Features
B	190m SE	Tank	Merseyside, L34	Tanks (Generic)	Industrial Features
7	190m S	M I Healthcare	Unit D/1 Penrhyn Court, Penrhyn Road, Knowsley Business Park, Prescot, Merseyside, L34 9AB	X-Ray Services	Health Support Services
B	193m SE	Tank	Merseyside, L34	Tanks (Generic)	Industrial Features
8	194m S	Direct Vehicle Glass	Unit E2 Penrhyn Court, Penrhyn Road, Knowsley Business Park, Prescot, Merseyside, L34 9AB	Vehicle Repair, Testing and Servicing	Repair and Servicing
B	196m E	Tank	Merseyside, L34	Tanks (Generic)	Industrial Features
B	198m SE	Tank	Merseyside, L34	Tanks (Generic)	Industrial Features
B	206m E	Electricity Sub Station	Merseyside, L34	Electrical Features	Infrastructure and Facilities
9	216m NE	M T Truck & Trailer Repairs Ltd	23, Faraday Road, Knowsley Industrial Park, Liverpool, Merseyside, L33 7UT	Vehicle Repair, Testing and Servicing	Repair and Servicing
B	234m SE	Electricity Sub Station	Merseyside, L34	Electrical Features	Infrastructure and Facilities
I	235m S	Electricity Sub Station	Merseyside, L34	Electrical Features	Infrastructure and Facilities
10	236m NE	Electricity Sub Station	Merseyside, L33	Electrical Features	Infrastructure and Facilities
H	238m SW	Tank	Merseyside, L34	Tanks (Generic)	Industrial Features
I	244m S	Beverston Engineering Ltd	Unit B Penrhyn Court, Penrhyn Road, Knowsley Business Park, Prescot, Merseyside, L34 9AB	Precision Engineers	Engineering Services
H	248m SW	Tank	Merseyside, L34	Tanks (Generic)	Industrial Features
11	249m S	Paper 4 Print	Unit C2 Penrhyn Court, Penrhyn Road, Knowsley Business Park, Prescot, Merseyside, L34 9AB	Wood Products Including Charcoal, Paper, Card and Board	Industrial Products

This data is sourced from Ordnance Survey.



4.2 Current or recent petrol stations

Records within 500m**0**

Open, closed, under development and obsolete petrol stations.

This data is sourced from Experian.

4.3 Electricity cables

Records within 500m**0**

High voltage underground electricity transmission cables.

This data is sourced from National Grid.

4.4 Gas pipelines

Records within 500m**0**

High pressure underground gas transmission pipelines.

This data is sourced from National Grid.

4.5 Sites determined as Contaminated Land

Records within 500m**0**

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

This data is sourced from Local Authority records.

4.6 Control of Major Accident Hazards (COMAH)

Records within 500m**2**

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
B	49m S	Knowsley Redevelopments Limited	Knowsley Redevelopments Limited, Prescott, Knowsley Industrial Estate, Penrhyn Road, Liverpool, Merseyside, L34 9HY	Current COMAH Site	COMAH Upper Tier Operator



ID	Location	Company	Address	Operational status	Tier
H	172m 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

3

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	
J	249m SE	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
J	252m SE	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
H	280m SW	Application reference number: 95/00644/HSC Application status: Approved Application date: 18/12/1995 Address: Flogas Britain Ltd, Knowsley Business Park, Ainsworth Lane, Knowsley, Merseyside, England, L34 9EU	Details: Proposal to increase storage of LPG (commercial and butane) Enforcement: No Enforcement Notified Date of enforcement: No Enforcement Notified Comment: No Enforcement Notified

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	
J	253m 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: AF9650	Original Permit Number: IPCAPP Date Approved: 2-11-1992 Effective Date: 2-11-1992 Status: Superseded By Variation
J	253m SE	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
J	253m 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: AQ8123	Original Permit Number: IPCMINVAR Date Approved: 6-4-1995 Effective Date: 13-4-1995 Status: Superseded By Variation
J	253m SE	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
J	253m SE	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
J	253m SE	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
J	253m SE	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



ID	Location	Details	
J	253m SE	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
J	253m SE	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
J	253m SE	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
J	253m SE	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
J	253m 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: BD1130	Original Permit Number: IPCMINVAR Date Approved: 24-11-1998 Effective Date: 30-11-1998 Status: Revoked
J	253m SE	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
J	253m SE	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
J	253m SE	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

ID	Location	Details	
J	253m SE	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
J	253m SE	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
J	253m SE	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
J	253m SE	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
J	253m SE	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
J	253m SE	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
J	253m SE	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
K	294m 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



ID	Location	Details	
K	294m 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: AL9220	Original Permit Number: IPCAPP Date Approved: 14-7-1994 Effective Date: 21-7-1994 Status: Superseded By Variation
K	294m 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
K	294m 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
K	294m 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
K	294m 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
K	294m 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
K	294m 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

ID	Location	Details	
K	294m 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
K	294m 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: BH6800	Original Permit Number: IPCMAJVAR Date Approved: 23-2-2000 Effective Date: 25-2-2000 Status: Superseded By Variation
K	294m 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: BH6818	Original Permit Number: IPCMAJVAR Date Approved: 25-5-2000 Effective Date: 25-5-2000 Status: Superseded By Variation
K	294m 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: BH9302	Original Permit Number: IPCMINVAR Date Approved: 22-2-2000 Effective Date: 23-2-2000 Status: Superseded By Variation
K	294m 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: BI9537	Original Permit Number: IPCMINVAR Date Approved: 29-6-2001 Effective Date: 4-7-2001 Status: Superseded By Variation
K	294m 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: BJ8715	Original Permit Number: IPCMAJVAR Date Approved: 10-4-2001 Effective Date: 16-4-2001 Status: Revoked - Now Ippc
K	294m 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: BM2152	Original Permit Number: IPCMINVAR Date Approved: 5-12-2001 Effective Date: 5-12-2001 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

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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	
J	253m SE	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: 01/01/2022 Status: SUPERCEDED
J	253m SE	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: 01/01/2022 Status: SUPERCEDED
J	253m SE	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: 01/01/2022 Status: SUPERCEDED
J	253m SE	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: 01/01/2022 Status: SUPERCEDED



ID	Location	Details	
J	253m SE	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: 01/01/2022 Status: SUPERCEDED
J	253m SE	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: 01/01/2022 Status: SUPERCEDED
J	253m SE	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: 01/01/2022 Status: SUPERCEDED
J	253m SE	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: 01/01/2022 Status: SUPERCEDED
J	253m SE	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: 01/01/2022 Status: SUPERCEDED
J	253m SE	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: 01/01/2022 Status: SUPERCEDED



ID	Location	Details	
J	253m SE	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: 01/01/2022 Status: SUPERCEDED
J	253m SE	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: 01/01/2022 Status: SUPERCEDED
J	253m SE	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: 01/01/2022 Status: SUPERCEDED
J	253m SE	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: 01/01/2022 Status: SUPERCEDED
J	253m SE	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: 01/01/2022 Status: TRANSFER EFFECTIVE
J	253m SE	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: 01/01/2022 Status: TRANSFER EFFECTIVE



ID	Location	Details	
J	253m SE	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: 01/01/2022 Status: TRANSFER EFFECTIVE
J	253m SE	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: 01/01/2022 Status: TRANSFER EFFECTIVE
J	253m SE	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: 01/01/2022 Status: TRANSFER EFFECTIVE
J	253m SE	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: 01/01/2022 Status: TRANSFER EFFECTIVE
J	253m SE	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: 01/01/2022 Status: SUPERCEDED
J	253m SE	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: 01/01/2022 Status: SUPERCEDED



ID	Location	Details	
J	253m SE	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: 01/01/2022 Status: SUPERCEDED
J	253m SE	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: 01/01/2022 Status: SUPERCEDED
J	253m SE	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: 01/01/2022 Status: SUPERCEDED
J	253m SE	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: 01/01/2022 Status: SUPERCEDED
J	253m SE	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: 01/01/2022 Status: SUPERCEDED



ID	Location	Details	
J	253m SE	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: 01/01/2022 Status: SUPERCEDED
J	253m SE	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: 01/01/2022 Status: TRANSFER EFFECTIVE
J	253m SE	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: 01/01/2022 Status: SUPERCEDED
J	253m SE	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: 01/01/2022 Status: SUPERCEDED
J	253m SE	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: 01/01/2022 Status: SUPERCEDED
J	253m SE	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: 01/01/2022 Status: SUPERCEDED



ID	Location	Details	
J	253m SE	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: 01/01/2022 Status: SUPERCEDED
J	253m SE	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: 01/01/2022 Status: SUPERCEDED
J	253m SE	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: 01/01/2022 Status: SUPERCEDED
J	253m SE	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: 01/01/2022 Status: SUPERCEDED
J	253m SE	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: 01/01/2022 Status: SUPERCEDED
J	253m SE	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: 01/01/2022 Status: SUPERCEDED



ID	Location	Details	
J	253m SE	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: 01/01/2022 Status: SUPERCEDED
J	253m SE	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: 01/01/2022 Status: SUPERCEDED
J	253m SE	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: 01/01/2022 Status: SUPERCEDED
J	253m SE	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: 01/01/2022 Status: SUPERCEDED
J	253m SE	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: 01/01/2022 Status: SUPERCEDED
J	253m SE	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: 01/01/2022 Status: SUPERCEDED



ID	Location	Details	
J	253m SE	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: 01/01/2022 Status: SUPERCEDED
J	253m SE	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: 01/01/2022 Status: SUPERCEDED
J	253m SE	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: 01/01/2022 Status: TRANSFER EFFECTIVE
M	359m SE	Operator: KNOWSLEY ENERGY RECOVERY LIMITED Installation Name: KNOWSLEY EFW FACILITY EPR/ZP3339FN Process: INCINERATION OF NON HAZARDOUS WASTE >1T/HR Permit Number: ZP3339FN Original Permit Number: ZP3339FN	EPR Reference: - Issue Date: 12/11/2012 Effective Date: 12/11/2012 Last date noted as effective: 01/01/2022 Status: EFFECTIVE
M	359m SE	Operator: KNOWSLEY ENERGY RECOVERY LIMITED Installation Name: KNOWSLEY EFW FACILITY EPR/ZP3339FN Process: THE INCINERATION OF NON-HAZARDOUS WASTE IN AN INCINERATION OR CO-INCINERATION PLANT WITH A CAPACITY EXCEEDING 3 TONNES PER HOUR. Permit Number: ZP3339FN Original Permit Number: ZP3339FN	EPR Reference: - Issue Date: 12/11/2012 Effective Date: 12/11/2012 Last date noted as effective: 01/01/2022 Status: EFFECTIVE
N	407m W	Operator: DAIRY CREST LIMITED Installation Name: KIRKBY CREAMERY - EPR/VP3234NX Process: CREATED BY IED - TREATMENT AND PROCESSING (OTHER THAN PACKAGING) OF ANIMAL OR VEGETABLE RAW MATERIALS (OTHER THAN MILK ONLY) WITH FINISHED PRODUCT CAPACITY GREATER THAN FORMULA SHOWN IN REGS Permit Number: MP3706PH Original Permit Number: VP3234NX	EPR Reference: - Issue Date: 12/07/2019 Effective Date: 12/07/2019 Last date noted as effective: 01/01/2022 Status: EFFECTIVE



ID	Location	Details	
N	407m W	Operator: DAIRY CREST LIMITED Installation Name: KIRKBY CREAMERY - EPR/VP3234NX Process: DISPOSAL OF > 50 T/D NON-HAZARDOUS WASTE (> 100 T/D IF ONLY AD) INVOLVING PHYSICO- CHEMICAL TREATMENT Permit Number: MP3706PH Original Permit Number: VP3234NX	EPR Reference: - Issue Date: 12/07/2019 Effective Date: 12/07/2019 Last date noted as effective: 01/01/2022 Status: EFFECTIVE
N	407m W	Operator: DAIRY CREST LIMITED Installation Name: KIRKBY CREAMERY Process: ASSOCIATED PROCESS Permit Number: VP3234NX Original Permit Number: VP3234NX	EPR Reference: - Issue Date: 02/06/2014 Effective Date: 02/06/2014 Last date noted as effective: 01/01/2022 Status: SUPERCEDED
N	407m W	Operator: DAIRY CREST LIMITED Installation Name: KIRKBY CREAMERY Process: DISPOSAL OF > 50 T/D NON-HAZARDOUS WASTE (> 100 T/D IF ONLY AD) INVOLVING PHYSICO- CHEMICAL TREATMENT Permit Number: VP3234NX Original Permit Number: VP3234NX	EPR Reference: - Issue Date: 02/06/2014 Effective Date: 02/06/2014 Last date noted as effective: 01/01/2022 Status: SUPERCEDED
N	407m W	Operator: DAIRY CREST LIMITED Installation Name: KIRKBY CREAMERY - EPR/VP3234NX Process: ASSOCIATED PROCESS Permit Number: AP3332JL Original Permit Number: VP3234NX	EPR Reference: - Issue Date: 14/05/2018 Effective Date: 14/05/2018 Last date noted as effective: 01/01/2022 Status: SUPERCEDED
N	407m W	Operator: DAIRY CREST LIMITED Installation Name: KIRKBY CREAMERY - EPR/VP3234NX Process: ASSOCIATED PROCESS Permit Number: MP3706PH Original Permit Number: VP3234NX	EPR Reference: - Issue Date: 12/07/2019 Effective Date: 12/07/2019 Last date noted as effective: 01/01/2022 Status: EFFECTIVE
N	407m W	Operator: DAIRY CREST LIMITED Installation Name: KIRKBY CREAMERY - EPR/VP3234NX Process: DISPOSAL OF > 50 T/D NON-HAZARDOUS WASTE (> 100 T/D IF ONLY AD) INVOLVING PHYSICO- CHEMICAL TREATMENT Permit Number: AP3332JL Original Permit Number: VP3234NX	EPR Reference: - Issue Date: 14/05/2018 Effective Date: 14/05/2018 Last date noted as effective: 01/01/2022 Status: SUPERCEDED

ID	Location	Details	
N	407m W	Operator: DAIRY CREST LIMITED Installation Name: KIRKBY CREAMERY Process: CREATED BY IED - TREATMENT AND PROCESSING (OTHER THAN PACKAGING) OF ANIMAL OR VEGETABLE RAW MATERIALS (OTHER THAN MILK ONLY) WITH FINISHED PRODUCT CAPACITY GREATER THAN FORMULA SHOWN IN REGS Permit Number: VP3234NX Original Permit Number: VP3234NX	EPR Reference: - Issue Date: 02/06/2014 Effective Date: 02/06/2014 Last date noted as effective: 01/01/2022 Status: SUPERCEDED
N	407m W	Operator: DAIRY CREST LIMITED Installation Name: KIRKBY CREAMERY - EPR/VP3234NX Process: CREATED BY IED - TREATMENT AND PROCESSING (OTHER THAN PACKAGING) OF ANIMAL OR VEGETABLE RAW MATERIALS (OTHER THAN MILK ONLY) WITH FINISHED PRODUCT CAPACITY GREATER THAN FORMULA SHOWN IN REGS Permit Number: AP3332JL Original Permit Number: VP3234NX	EPR Reference: - Issue Date: 14/05/2018 Effective Date: 14/05/2018 Last date noted as effective: 01/01/2022 Status: SUPERCEDED
O	411m SW	Operator: DEMETAL LTD Installation Name: KNOWSLEY METAL RECOVERY Process: INORGANIC CHEMICALS; USING ETC OF ANTIMONY ETC (UNLESS OTHERWISE PRESCRINED) (UNLESS GLAZING ETC) Permit Number: SP3738LR Original Permit Number: SP3738LR	EPR Reference: - Issue Date: 07/07/2006 Effective Date: 07/07/2006 Last date noted as effective: 01/01/2022 Status: SUPERCEDED
O	411m SW	Operator: DEMETAL LTD Installation Name: KNOWSLEY METAL RECOVERY Process: INORGANIC CHEMICALS; USING ETC OF ANTIMONY ETC (UNLESS OTHERWISE PRESCRINED) (UNLESS GLAZING ETC) Permit Number: WP3339KV Original Permit Number: SP3738LR	EPR Reference: - Issue Date: - Effective Date: 20/01/2010 Last date noted as effective: 01/01/2022 Status: SURRENDER EFFECTIVE
P	440m 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: - Effective Date: - Last date noted as effective: 01/01/2022 Status: DETERMINATION
P	440m 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: 01/01/2022 Status: EFFECTIVE

ID	Location	Details	
P	440m 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: 01/01/2022 Status: SUPERCEDED
Q	485m S	Operator: SRCL LIMITED Installation Name: KITLING ROAD RECYCLING CENTRE EPR/TP3335JM Process: RECOVERY OR A MIX OF RECOVERY AND DISPOSAL OF > 50 T/D NON-HAZARDOUS WASTE (> 100 T/D IF ONLY AD) INVOLVING PRE-TREATMENT OF WASTE FOR INCINERATION OR CO-INCINERATION Permit Number: MP3806LK Original Permit Number: TP3335JM	EPR Reference: - Issue Date: - Effective Date: 26/03/2021 Last date noted as effective: 01/01/2022 Status: SURRENDER EFFECTIVE
Q	485m S	Operator: SRCL LIMITED Installation Name: KITLING ROAD RECYCLING CENTRE EPR/TP3335JM Process: RECOVERY OR A MIX OF RECOVERY AND DISPOSAL OF > 50 T/D NON-HAZARDOUS WASTE (> 100 T/D IF ONLY AD) INVOLVING PRE-TREATMENT OF WASTE FOR INCINERATION OR CO-INCINERATION Permit Number: TP3335JM Original Permit Number: TP3335JM	EPR Reference: - Issue Date: 11/12/2017 Effective Date: 31/12/2017 Last date noted as effective: 01/01/2022 Status: SUPERCEDED
Q	485m S	Operator: AVANTI ENVIRONMENTAL GROUP LIMITED Installation Name: AVANTI RECYCLING CENTRE EPR/DP3437AT Process: RECOVERY OR A MIX OF RECOVERY AND DISPOSAL OF > 50 T/D NON-HAZARDOUS WASTE (> 100 T/D IF ONLY AD) INVOLVING PRE-TREATMENT OF WASTE FOR INCINERATION OR CO-INCINERATION Permit Number: DP3437AT Original Permit Number: DP3437AT	EPR Reference: - Issue Date: 12/02/2016 Effective Date: 12/02/2016 Last date noted as effective: 01/01/2022 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

3

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	
G	173m NW	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
12	306m E	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
14	372m E	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

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

2

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

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

ID	Location	Address	Details	
L	354m S	MERSEYSIDE POLYMER PROCESSING LTD, CADDICK ROAD, KNOWSLEY BUSINESS PARK, MERSEYSIDE, L34 9HP	Effluent Type: TRADE DISCHARGES - COOLING WATER Permit Number: 016990269 Permit Version: 1 Receiving Water: TRIB 69-50-101- 101-5-20	Status: SURRENDERED UNDER EPR 2010 Issue date: - Effective Date: 05/12/1977 Revocation Date: 22/07/2013
L	354m S	MERSEYSIDE POLYMER PROCESSING LTD, CADDICK ROAD, KNOWSLEY BUSINESS PARK, MERSEYSIDE, L34 9HP	Effluent Type: TRADE DISCHARGES - COOLING WATER Permit Number: 016990269 Permit Version: 1 Receiving Water: TRIB 69-50-101- 101-5-20	Status: SURRENDERED UNDER EPR 2010 Issue date: - Effective Date: 05/12/1977 Revocation Date: 22/07/2013



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
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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
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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
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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
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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	5
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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	
E	114m NE	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)
J	253m SE	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)
13	352m S	Incident Date: 13/08/2013 Incident Identification: 1147204 Pollutant: Organic Chemicals/Products Pollutant Description: Other Organic Chemical or Product	Water Impact: Category 3 (Minor) Land Impact: Category 4 (No Impact) Air Impact: Category 2 (Significant)
15	461m S	Incident Date: 11/02/2003 Incident Identification: 136144 Pollutant: Specific Waste Materials Pollutant Description: Household Waste	Water Impact: Category 4 (No Impact) Land Impact: Category 3 (Minor) Air Impact: Category 4 (No Impact)
16	474m 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)

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

4.19 Pollution inventory substances

Records within 500m

1

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

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

ID: N, Location: 408m W, Permit: VP3234NX
 Operator: Dairy Crest Limited
 Activity: CREATED BY IED - TREATMENT AND PROCESSING (OTHER THAN PACKAGING) OF ANIMAL OR VEGETABLE RAW MATERIALS (OTHER THAN MILK ONLY) WITH FINISHED PRODUCT CAPACITY GREATER THAN FORMULA SHOWN IN REGS
 Address: Kirkby Creamery Moorgate Road Kirkby Liverpool L33 7XW
 Sector: Food & Drink, Sub-sector: Food & Drink
 Releases:



Route	Substance	Reporting threshold (kg)	Quantity (kg)
Wastewater	Chlorides - as Cl	2000000kg	Below Reporting Threshold
Wastewater	Nitrogen - as total N	50000kg	Below Reporting Threshold
Wastewater	Phosphorus - as total P	5000kg	Below Reporting Threshold
Wastewater	Total organic carbon (TOC)	50000kg	Below Reporting Threshold
Air	Carbon dioxide	10000000kg	Below Reporting Threshold
Air	Carbon monoxide	100000kg	Below Reporting Threshold
Air	Nitrous oxide	10000kg	Below Reporting Threshold
Air	Methane	10000kg	Below Reporting Threshold
Air	Nitrogen oxides (NO and NO2) as NO2	100000kg	Below Reporting Threshold

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

4.20 Pollution inventory waste transfers

Records within 500m

2

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: N, Location: 408m W, Permit: VP3234NX
 Operator: Dairy Crest Limited
 Activity: CREATED BY IED - TREATMENT AND PROCESSING (OTHER THAN PACKAGING) OF ANIMAL OR VEGETABLE RAW MATERIALS (OTHER THAN MILK ONLY) WITH FINISHED PRODUCT CAPACITY GREATER THAN FORMULA SHOWN IN REGS
 Address: Kirkby Creamery Moorgate Road Kirkby Liverpool L33 7XW
 Sector: Food & Drink, Sub-sector: Food & Drink
 Releases:

Route	Route description	Quantity (tonnes)	Release level	EWC code	EWC description	Hazardous waste
R13	Storage of wastes pending any of the operations numbered R1 to R12 (excluding temporary storage, pending collection, on the site where it is produced)	1	Absolute Value	15 01 02	plastic packaging	0



Route	Route description	Quantity (tonnes)	Release level	EWC code	EWC description	Hazardous waste
R13	Storage of wastes pending any of the operations numbered R1 to R12 (excluding temporary storage, pending collection, on the site where it is produced)	11	Absolute Value	15 01 04	metallic packaging	0
R13	Storage of wastes pending any of the operations numbered R1 to R12 (excluding temporary storage, pending collection, on the site where it is produced)	1	Absolute Value	16 02 14	discarded equipment other than those mentioned in 16 02 09 to 16 02 13	0
R13	Storage of wastes pending any of the operations numbered R1 to R12 (excluding temporary storage, pending collection, on the site where it is produced)	0.001	Absolute Value	20 01 21	fluorescent tubes and other mercury-containing waste	1
R13	Storage of wastes pending any of the operations numbered R1 to R12 (excluding temporary storage, pending collection, on the site where it is produced)	3.05	Absolute Value	15 01 10	packaging containing residues of or contaminated by dangerous substances	1
R13	Storage of wastes pending any of the operations numbered R1 to R12 (excluding temporary storage, pending collection, on the site where it is produced)	4	Absolute Value	20 01 27	paint, inks, adhesives and resins containing dangerous substances	1
R13	Storage of wastes pending any of the operations numbered R1 to R12 (excluding temporary storage, pending collection, on the site where it is produced)	1	Absolute Value	20 01 02	glass	0
R10	Land treatment resulting in benefit to agriculture or ecological improvement	4027	Absolute Value	02 05 02	sludges from on-site effluent treatment	0
R3	Recycling/Reclamation of organic substances which are not used as solvents (including composting and other biological transformation processes)	206	Absolute Value	15 01 01	paper and cardboard packaging	0
R3	Recycling/Reclamation of organic substances which are not used as solvents (including composting and other biological transformation processes)	43	Absolute Value	15 01 06	mixed packaging	0

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	2309	Absolute Value	20 01 25	edible oil and fat	0
R3	Recycling/Reclamation of organic substances which are not used as solvents (including composting and other biological transformation processes)	2	Absolute Value	20 01 38	wood other than that mentioned in 20 01 37	0
R1	Use principally as a fuel or other means to generate energy	62	Absolute Value	20 03 01	mixed municipal waste	0

ID: P, Location: 440m 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 numbered 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.

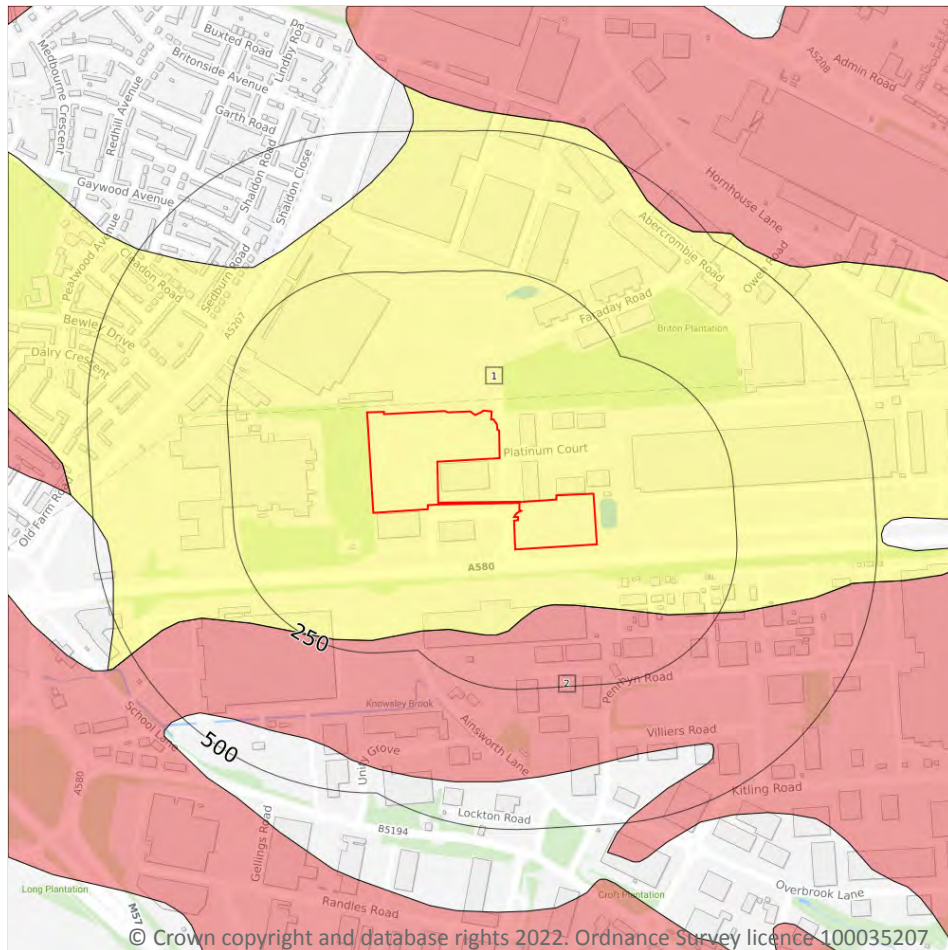
4.21 Pollution inventory radioactive waste

Records within 500m	0
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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 64**

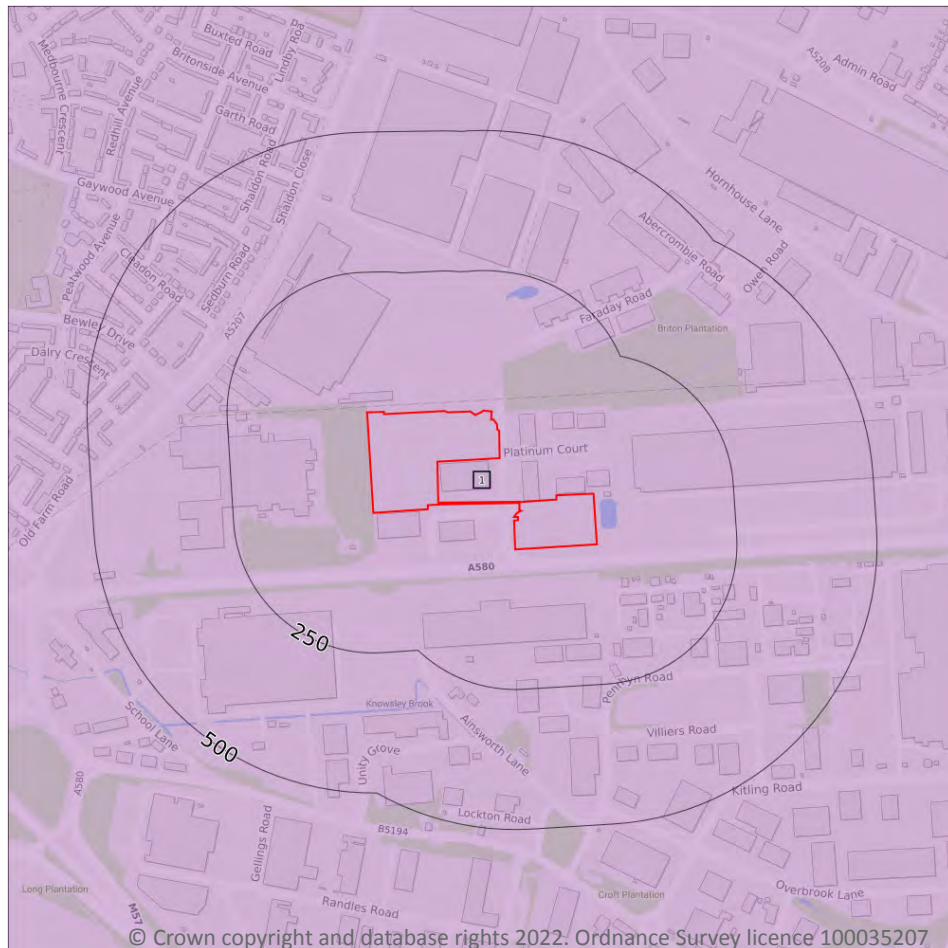
ID	Location	Designation	Description
1	On site	Secondary Undifferentiated	Assigned where it is not possible to attribute either category A or B to a rock type. In general these layers have previously been designated as both minor and non-aquifer in different locations due to the variable characteristics of the rock type
2	103m S	Secondary A	Permeable layers capable of supporting water supplies at a local rather than strategic scale, and in some cases forming an important source of base flow to rivers. These are generally aquifers formerly classified as minor aquifers



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.

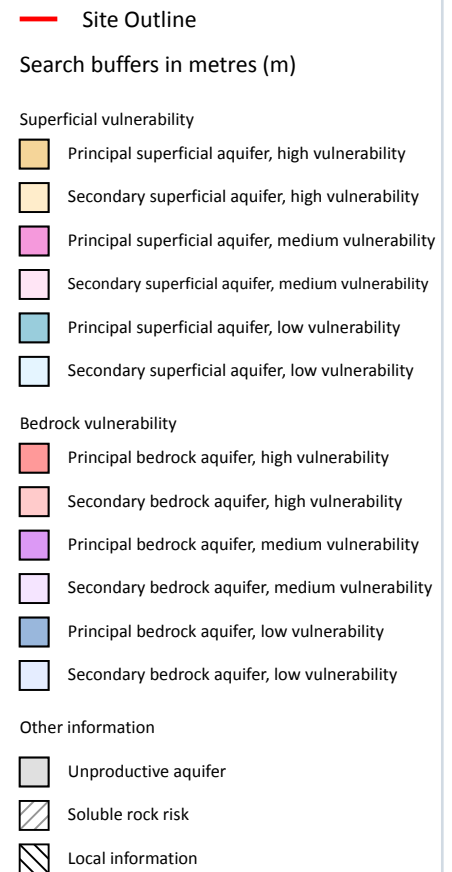
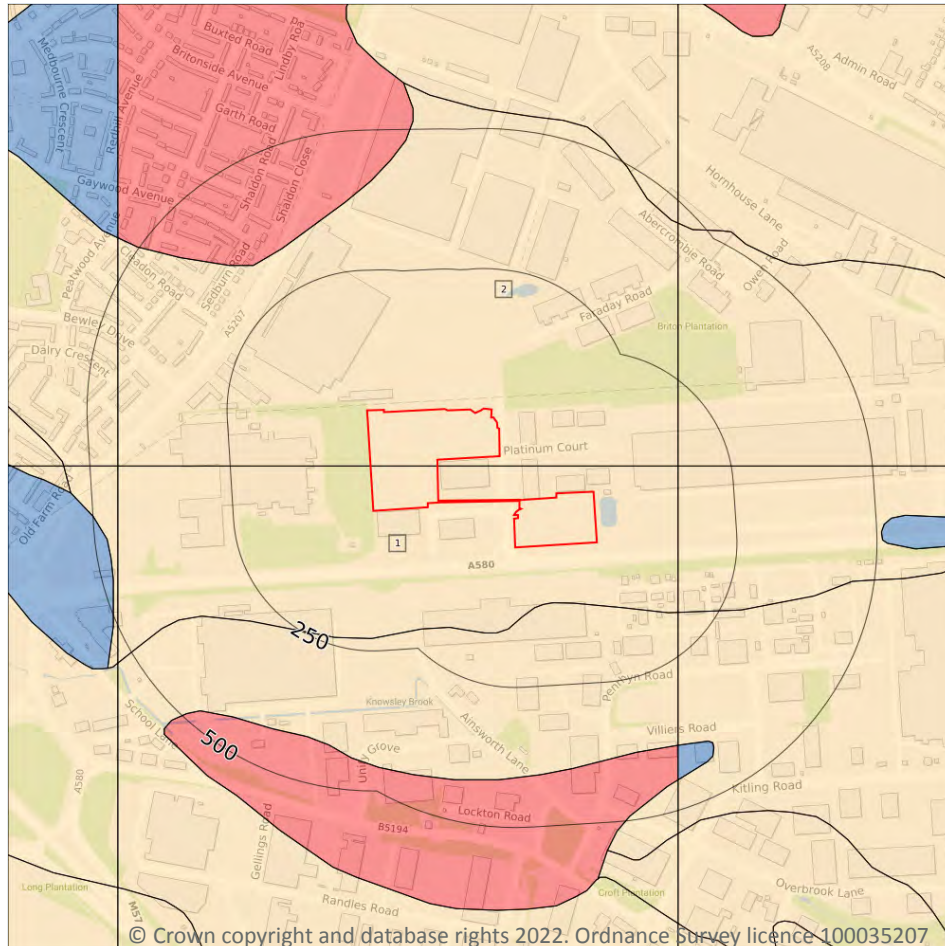
Features are displayed on the Bedrock aquifer map on [page 66](#)

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 67**

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: 3-10m Patchiness value: <90% Recharge potential: High	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: <3m Patchiness value: <90% Recharge potential: Low	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

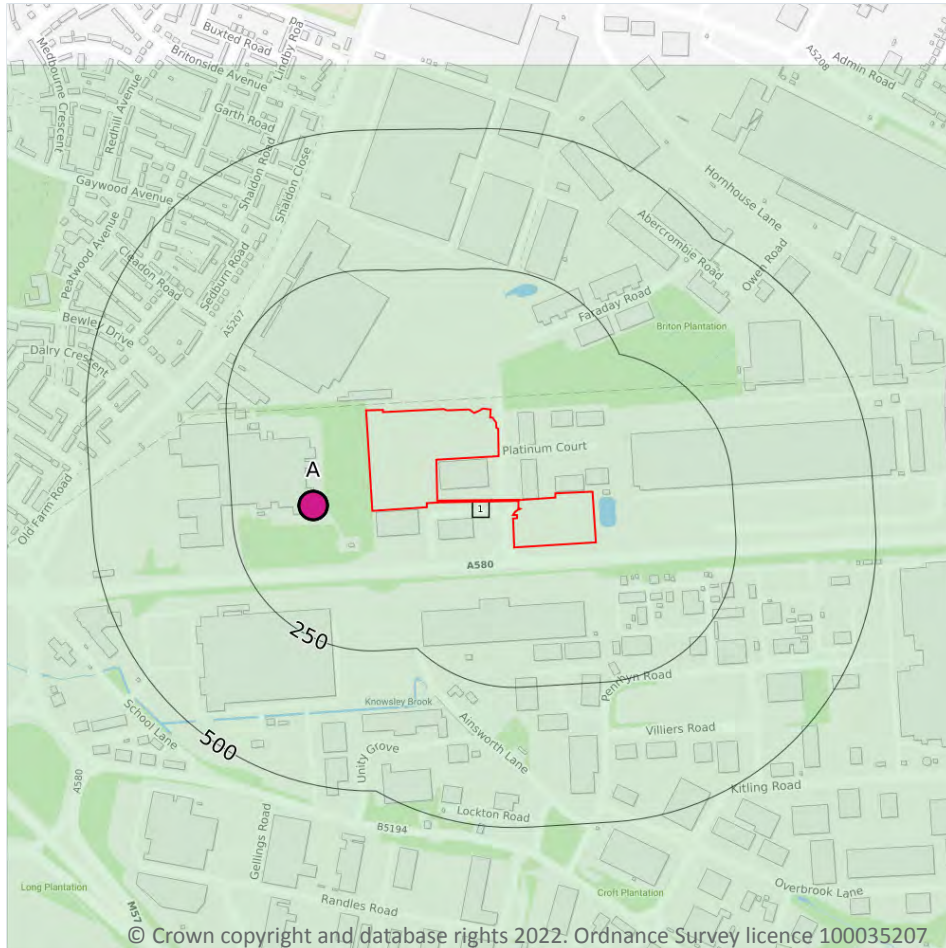
Records on site

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

31

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 69**

ID	Location	Details	
A	105m W	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	105m W	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	105m W	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	105m W	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: -
-	1160m 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	
-	1160m 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: -
-	1160m 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: -
-	1470m 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: -
-	1470m 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	
-	1470m 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: -
-	1470m 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: -
-	1470m 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: -
-	1470m 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: -
-	1480m 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	
-	1480m 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: -
-	1480m 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: -
-	1480m 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: -
-	1480m 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: -
-	1480m 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	
-	1510m 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: -
-	1510m 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: -
-	1510m 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: -
-	1510m 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	
-	1510m 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: -
-	1588m 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: -
-	1588m 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: -
-	1588m 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	
-	1588m 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: -
-	1759m NE	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: -
-	1759m NE	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: -
-	1759m NE	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: -

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 69**

ID	Location	Details	
-	1160m 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: -
-	1160m 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	
-	1160m 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: -
-	1588m 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: -
-	1588m 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: -
-	1588m 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	
-	1588m 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: -
-	1759m NE	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: -

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

5.9 Source Protection Zones

Records within 500m	1
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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 69**

ID	Location	Type	Description
1	On site	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
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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

5

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 80**

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
3	23m NE	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
5	79m S	Inland river not influenced by normal tidal action.	Underground	Watercourse contains water year round (in normal circumstances)	Knowsley Brook
B	203m NE	Lake, loch or reservoir.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
B	222m 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

4

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 80**

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 80**

ID	Location	Type	Water body catchment	Water body ID	Operational catchment	Management catchment
A	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 80**

ID	Location	Type	Name	Water body ID	Overall rating	Chemical rating	Ecological rating	Year
4	80m 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 80**

ID	Location	Name	Water body ID	Overall rating	Chemical rating	Quantitative	Year
1	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



— Site Outline

Search buffers in metres (m)

1 in 1000 return period

- Depth between 0.1m - 0.3m
- Depth between 0.3m - 1.0m
- Depth greater than 1.0m

1 in 250 return period

- Depth between 0.1m - 0.3m
- Depth between 0.3m - 1.0m
- Depth greater than 1.0m

1 in 100 return period

- Depth between 0.1m - 0.3m
- Depth between 0.3m - 1.0m
- Depth greater than 1.0m

1 in 30 return period

- Depth between 0.1m - 0.3m
- Depth between 0.3m - 1.0m
- Depth greater than 1.0m

8.1 Surface water flooding

Highest risk on site

1 in 30 year, 0.1m - 0.3m

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 86**

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.

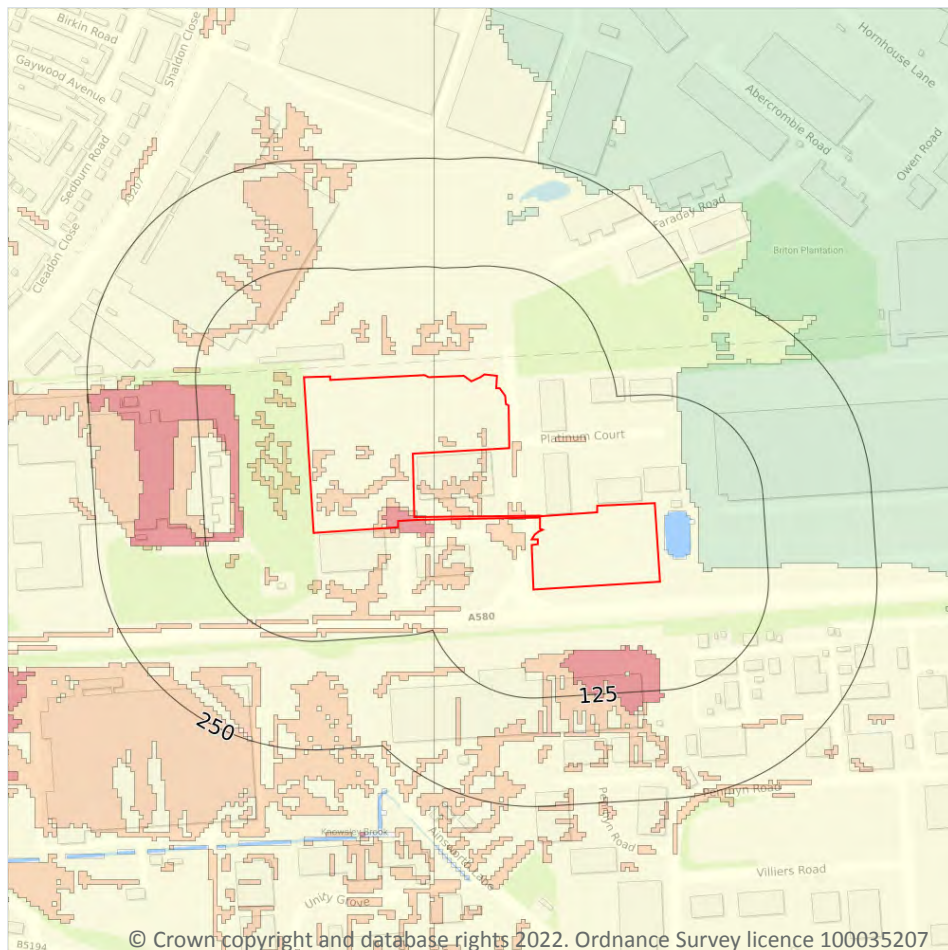
The table below shows the maximum flood depths for a range of return periods for the site.

Return period	Maximum modelled depth
1 in 1000 year	Greater than 1.0m
1 in 250 year	Between 0.3m and 1.0m
1 in 100 year	Between 0.3m and 1.0m
1 in 30 year	Between 0.1m and 0.3m

This data is sourced from Ambiental Risk Analytics.



9 Groundwater flooding



— Site Outline
Search buffers in metres (m)

- High
- Moderate - High
- Moderate
- Low
- Negligible

9.1 Groundwater flooding

Highest risk on site

High

Highest risk within 50m

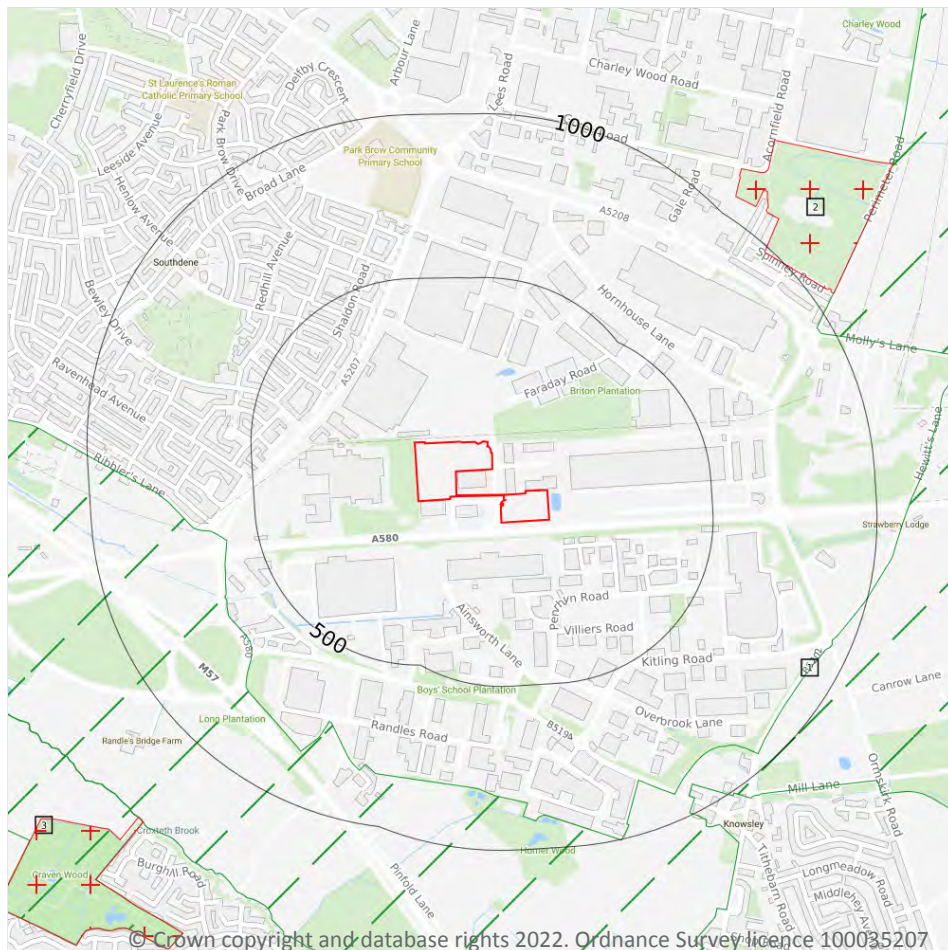
High

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 88**

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 89**

ID	Location	Name	Data source
2	983m NE	Acornfield Plantation	Natural England
4	1288m 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

3

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

Features are displayed on the Environmental designations map on **page 89**

ID	Location	Name	Local Authority name
1	597m W	Merseyside and Greater Manchester	Knowsley
3	1286m SW	Merseyside and Greater Manchester	Liverpool
-	1870m S	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
873m SW	ALT NVZ	Surface Water	642	Existing
1237m NE	ALT NVZ	Surface Water	642	Existing
1519m 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

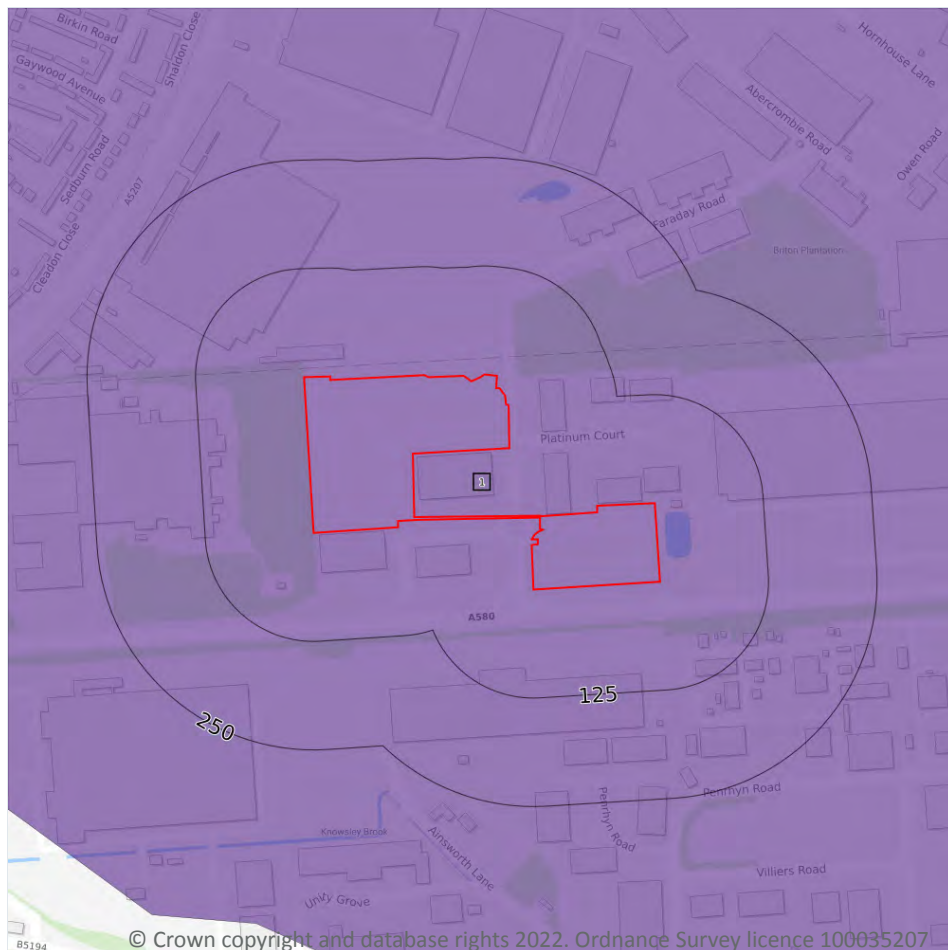
0

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 97**

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.

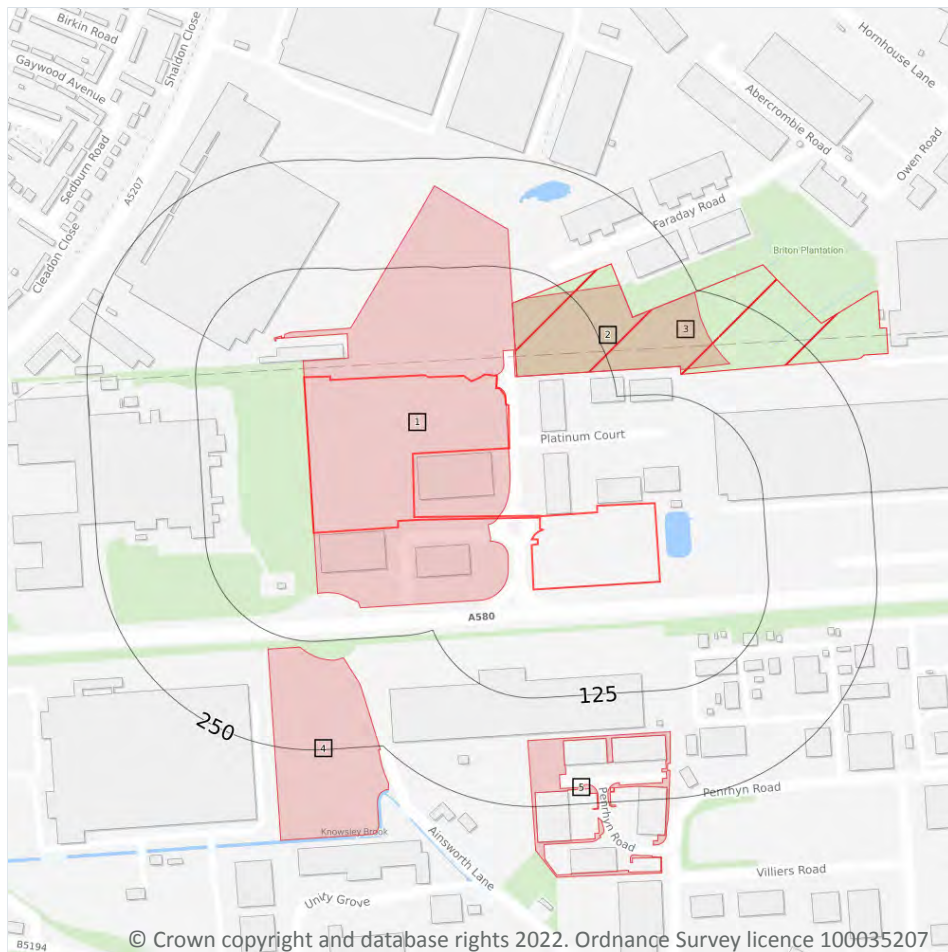
12.5 Countryside Stewardship Schemes

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

4

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 99**

ID	Location	Main Habitat	Other habitats
1	On site	Good quality semi-improved grassland	Main habitat: GQSIG (INV > 50%)
2	23m E	Good quality semi-improved grassland	Main habitat: GQSIG (INV > 50%)
4	133m S	Deciduous woodland	Main habitat: DWOOD (INV > 50%)
5	173m S	No main habitat but additional habitats present	Additional: DWOOD (INV 50%)

This data is sourced from Natural England.

13.2 Habitat Networks

Records within 250m

0

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

This data is sourced from Natural England.

13.3 Open Mosaic Habitat

Records within 250m

1

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

Features are displayed on the Habitat designations map on **page 99**

ID	Location	Site reference	Identification confidence	Primary source	Secondary source	Tertiary source
3	23m E	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

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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 101**

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)

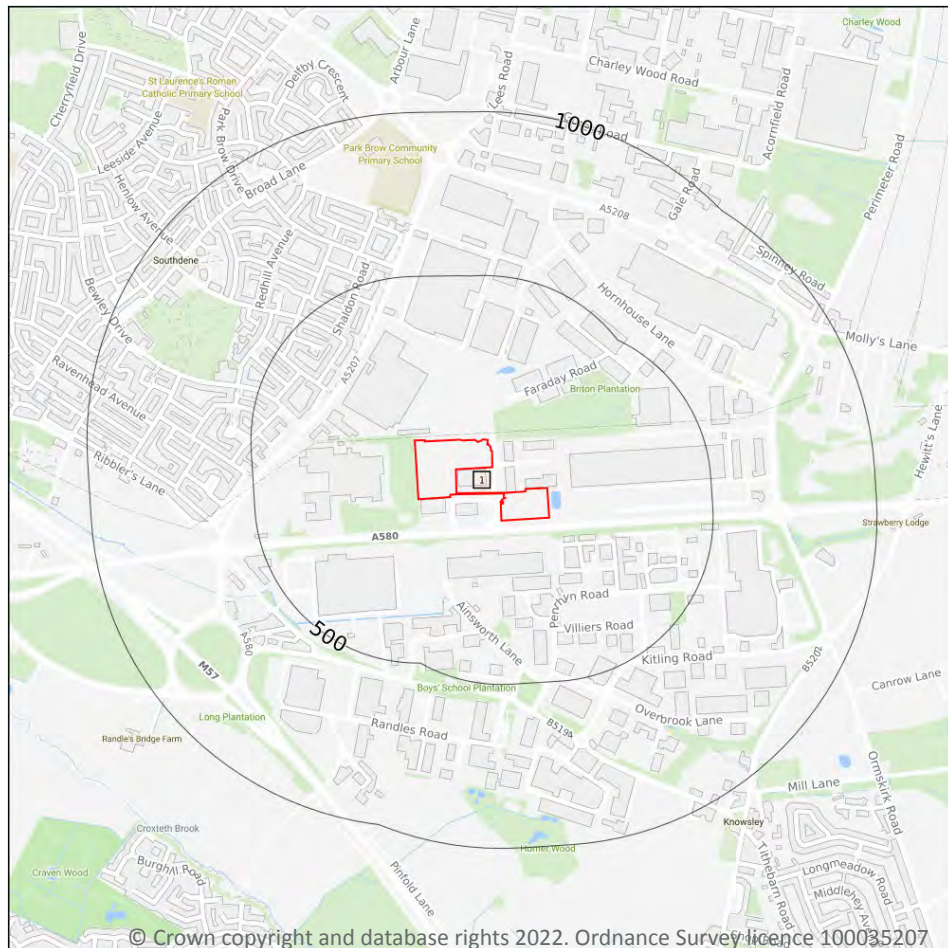
Records within 500m

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

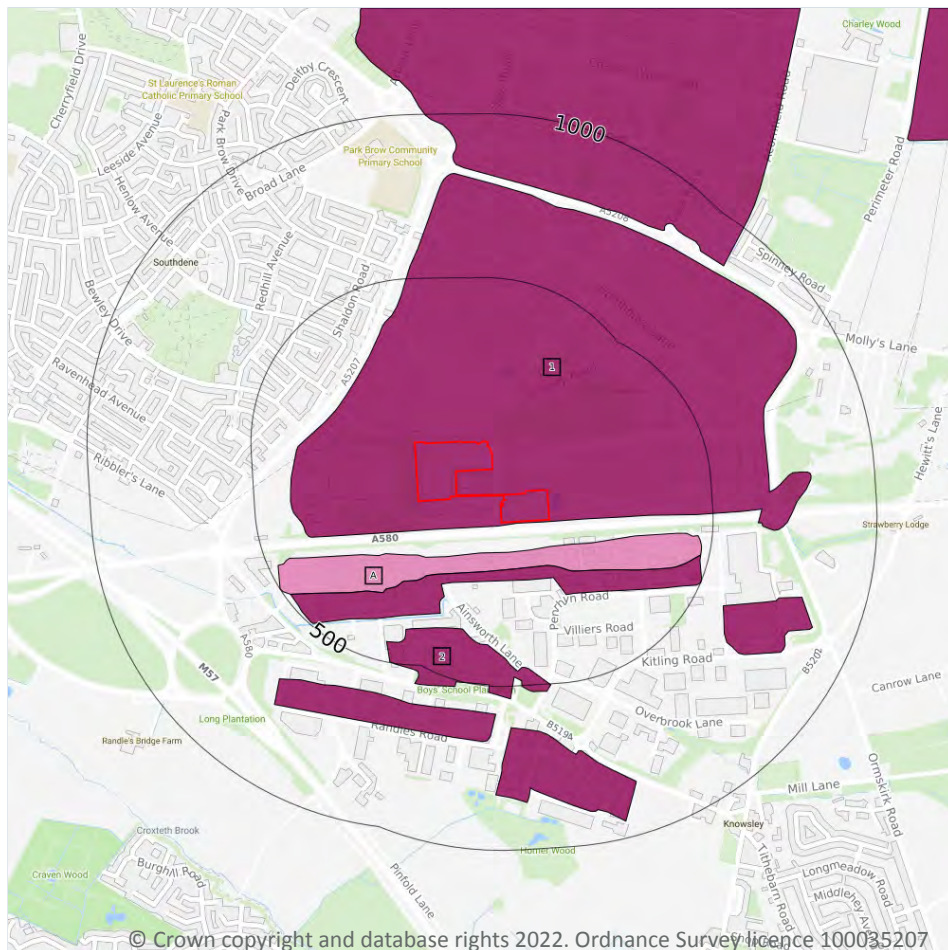
An indication on the coverage of 1:50,000 scale geology data for the site. Either 'Full' or 'No coverage' for each geological theme.

Features are displayed on the Geology 1:50,000 scale - Availability map on **page 105**

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

4

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 106**

ID	Location	LEX Code	Description	Rock description
1	On site	MGR-ARTDP	MADE GROUND (UNDIVIDED)	ARTIFICIAL DEPOSIT
A	82m S	WGR-VOID	WORKED GROUND (UNDIVIDED)	VOID
A	139m S	MGR-ARTDP	MADE GROUND (UNDIVIDED)	ARTIFICIAL DEPOSIT
2	346m 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

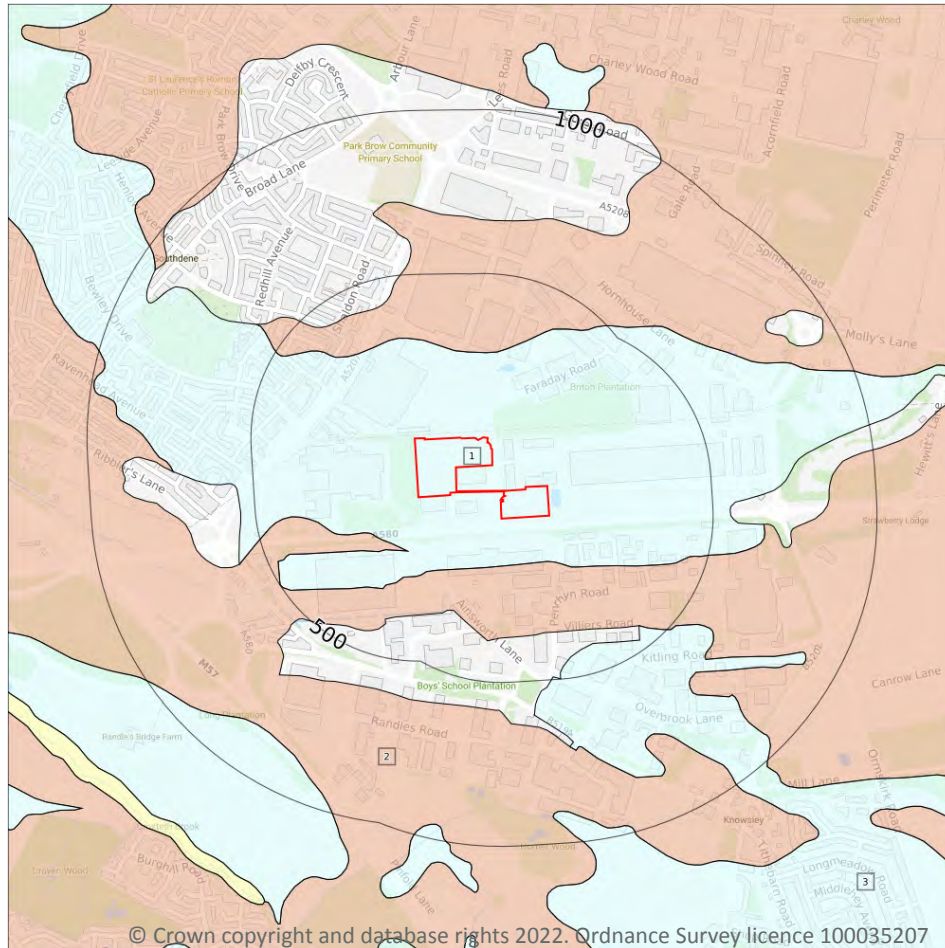
A qualitative classification of estimated rates of vertical movement of water from the ground surface through the unsaturated zone of any artificial deposits (the zone between the land surface and the water table).

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

3

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 108**

ID	Location	LEX Code	Description	Rock description
1	On site	TILLD-DMTN	TILL, DEVANSIAN	DIAMICTON
2	139m S	SSA-S	SHIRDLEY HILL SAND FORMATION	SAND
3	412m S	TILLD-CSVL	TILL, DEVANSIAN	CLAY, SANDY, GRAVELLY, COBBLY

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

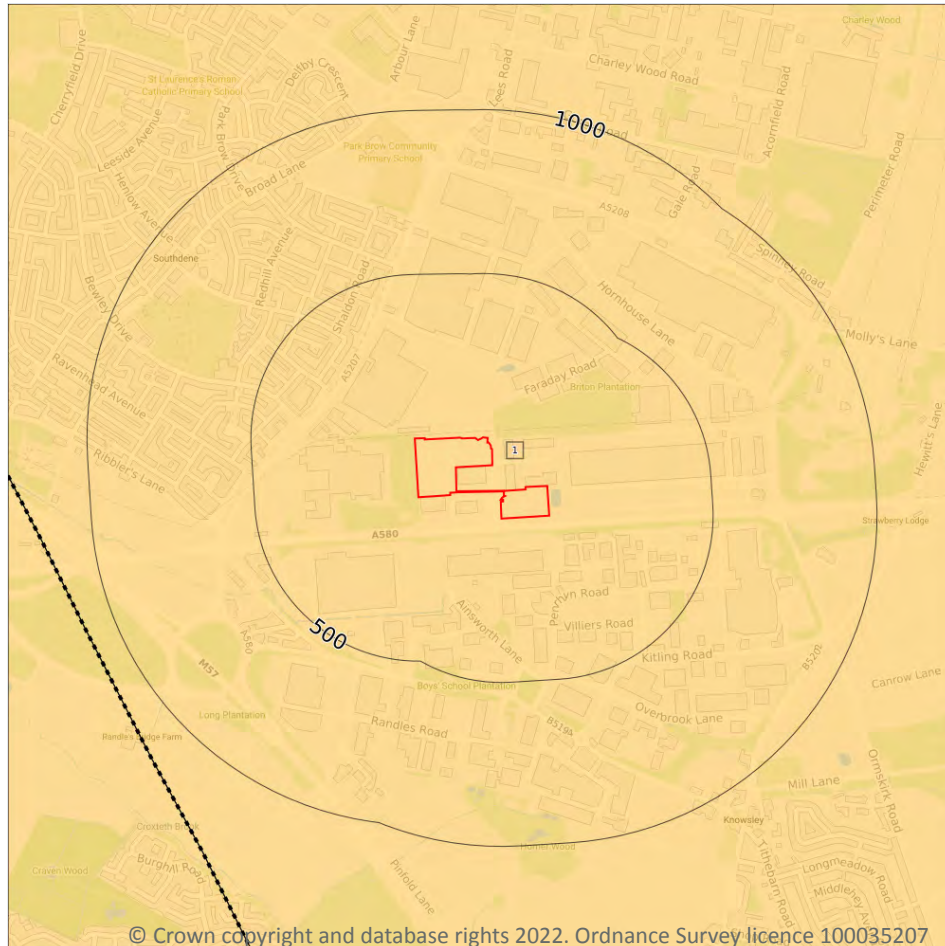
0

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 110**

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)

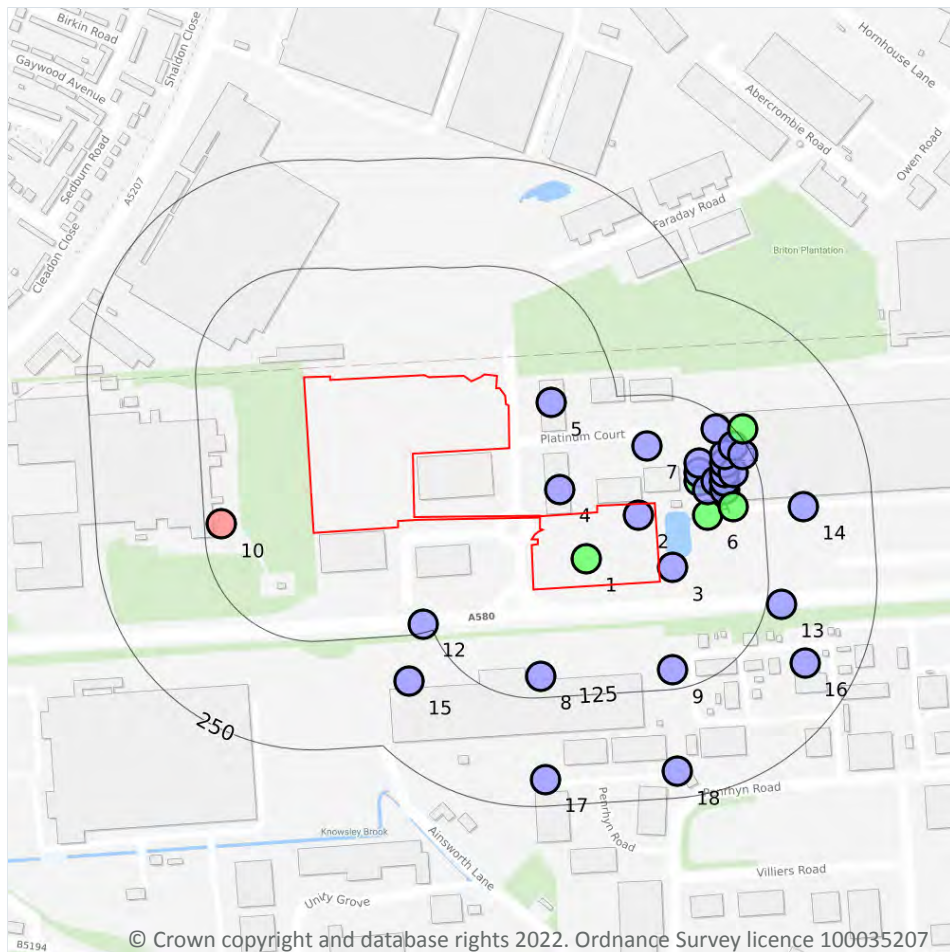
Records within 500m**0**

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

35

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 112**

ID	Location	Grid reference	Name	Length	Confidential	Web link
1	On site	342770 396890	LANGTREE DEVELOPMENT KNOWSLEY 5	10.5	N	17561917
2	On site	342830 396940	LANGTREE DEVELOPMENT KNOWSLEY 4	5.0	N	17561916



ID	Location	Grid reference	Name	Length	Confidential	Web link
3	16m E	342870 396880	YORKSHIRE COPPER TUBE LTD PHASE II INVESTIGATION 101	6.2	N	17561950
4	29m N	342740 396970	LANGTREE DEVELOPMENT KNOWSLEY 3	6.5	N	17561915
5	49m E	342730 397070	LANGTREE DEVELOPMENT KNOWSLEY 1	6.0	N	17561913
A	57m NE	342900 396980	YORKSHIRE COPPER TUBE LTD PHASE IIB CONTAMINATION ASSESSMENT 206	18.0	N	17561970
6	60m E	342910 396940	YORKSHIRE COPPER TUBE LTD PHASE IIB CONTAMINATION ASSESSMENT 204	14.5	N	17561968
A	62m NE	342900 396990	YORKSHIRE COPPER TUBE LTD PHASE IIC SITE INVESTIGATION 310	8.1	N	17561987
A	63m E	342910 396970	YORKSHIRE COPPER TUBE LTD PHASE II INVESTIGATION 102	6.0	N	17561951
7	66m N	342840 397020	LANGTREE DEVELOPMENT KNOWSLEY 2	5.8	N	17561914
A	69m NE	342900 397000	YORKSHIRE COPPER TUBE LTD PHASE IIC SITE INVESTIGATION 309	7.6	N	17561981
A	76m E	342920 396980	YORKSHIRE COPPER TUBE LTD PHASE IIB CONTAMINATION ASSESSMENT 201	5.0	N	17561963
A	82m E	342930 396970	YORKSHIRE COPPER TUBE LTD PHASE IIC SITE INVESTIGATION 308	7.2	N	17561980
A	85m E	342930 396980	YORKSHIRE COPPER TUBE LTD REMEDIAL TRIALS MW313	5.1	N	17561990
A	85m E	342930 396980	YORKSHIRE COPPER TUBE LTD REMEDIAL TRIALS MW315	5.1	N	17561992
A	85m E	342930 396980	YORKSHIRE COPPER TUBE LTD PHASE IIB CONTAMINATION ASSESSMENT 207	6.0	N	17561971
A	89m NE	342930 396990	YORKSHIRE COPPER TUBE LTD PHASE IIC SITE INVESTIGATION 306	6.6	N	17561978
A	90m E	342940 396950	YORKSHIRE COPPER TUBE LTD PHASE IIB CONTAMINATION ASSESSMENT 203	16.0	N	17561967
A	93m NE	342930 397000	YORKSHIRE COPPER TUBE LTD REMEDIAL TRIALS MW314	5.0	N	17561991
A	98m E	342940 396990	YORKSHIRE COPPER TUBE LTD PHASE IIC SITE INVESTIGATION 307	6.6	N	17561979
A	98m NE	342930 397010	YORKSHIRE COPPER TUBE LTD REMEDIAL TRIALS MW311	5.1	N	17561988
8	100m S	342718 396755	KNOWSLEY IND ESTATE 2	4.57	N	165097

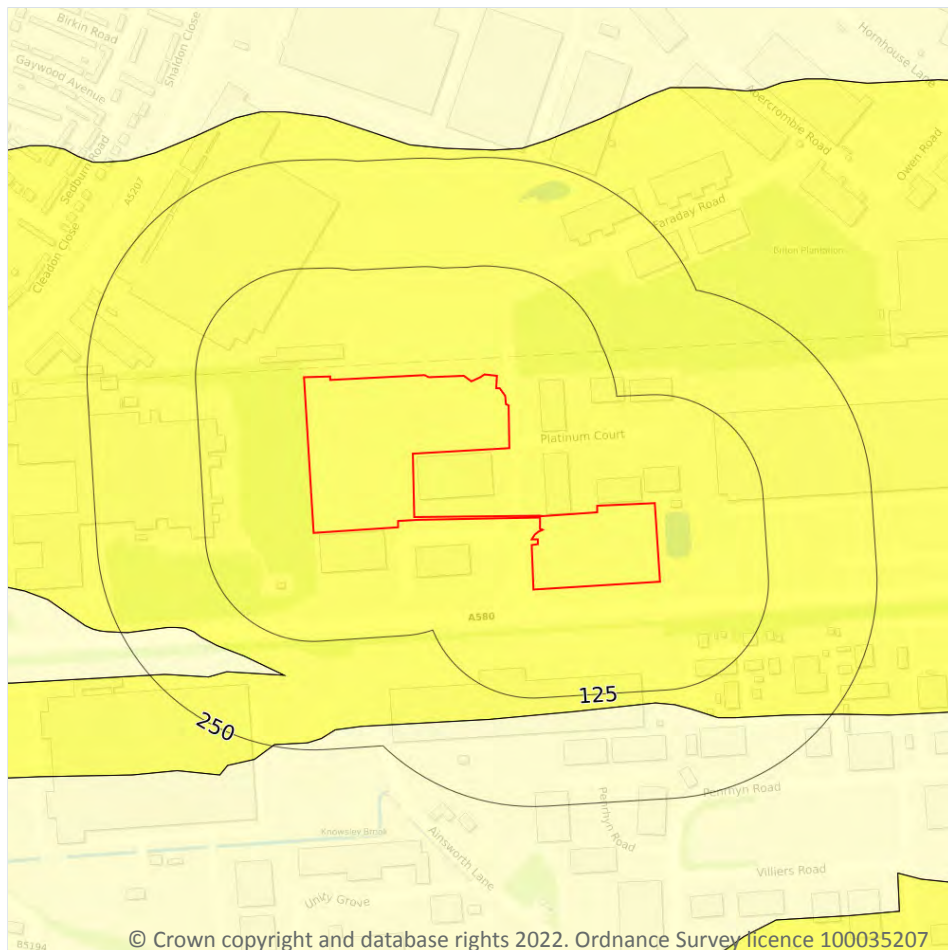


ID	Location	Grid reference	Name	Length	Confidential	Web link
9	103m S	342870 396762	KNOWSLEY IND ESTATE 3	6.1	N	165098
10	105m W	342350 396930	DAIRY CREST, MOORGATE ROAD, KIRKBY	80.0	N	13208438
11	111m NE	342920 397040	YORKSHIRE COPPER TUBE LTD PHASE IIC SITE INVESTIGATION 304	7.6	N	17561976
A	112m NE	342940 397020	YORKSHIRE COPPER TUBE LTD PHASE IIC SITE INVESTIGATION 305	7.0	N	17561977
12	115m S	342582 396815	LIVERPOOL CORP. SHALLOW BORES	3.2	N	164968
A	115m NE	342950 397010	YORKSHIRE COPPER TUBE LTD REMEDIAL TRIALS MW312	4.2	N	17561989
A	133m NE	342950 397040	YORKSHIRE COPPER TUBE LTD PHASE IIB CONTAMINATION ASSESSMENT 205	21.5	N	17561969
13	142m E	342995 396838	LIVERPOOL CORP. SHALLOW BORES	4.47	N	164969
14	170m E	343020 396950	YORKSHIRE COPPER TUBE LTD PHASE II INVESTIGATION 103	6.0	N	17561952
15	178m S	342566 396749	KNOWSLEY IND ESTATE 1	6.1	N	165096
16	191m SE	343022 396770	KNOWSLEY IND ESTATE 4	6.1	N	165099
17	219m S	342723 396636	KNOWSLEY IND ESTATE 10	4.57	N	165106
18	220m S	342875 396645	KNOWSLEY IND ESTATE 11	5.49	N	165107

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).

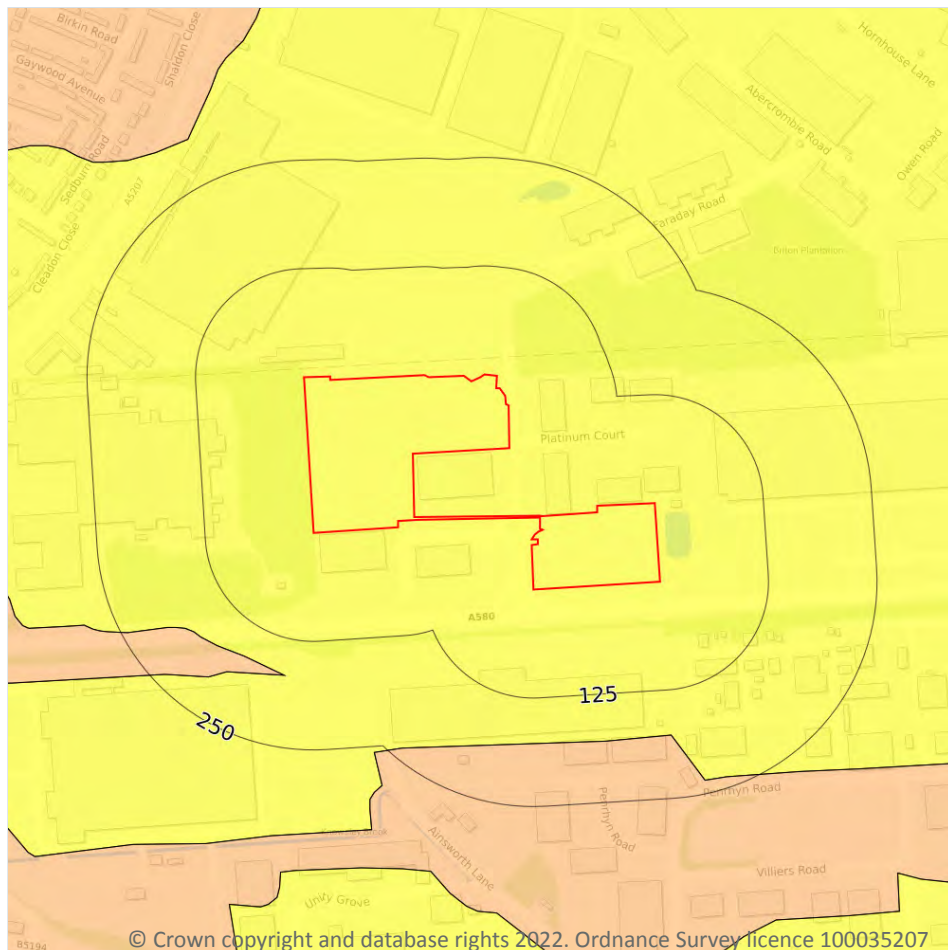
Features are displayed on the Natural ground subsidence - Shrink swell clays map on **page 115**

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

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.

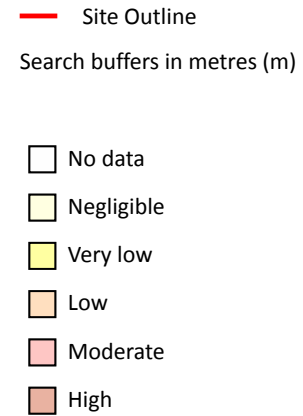
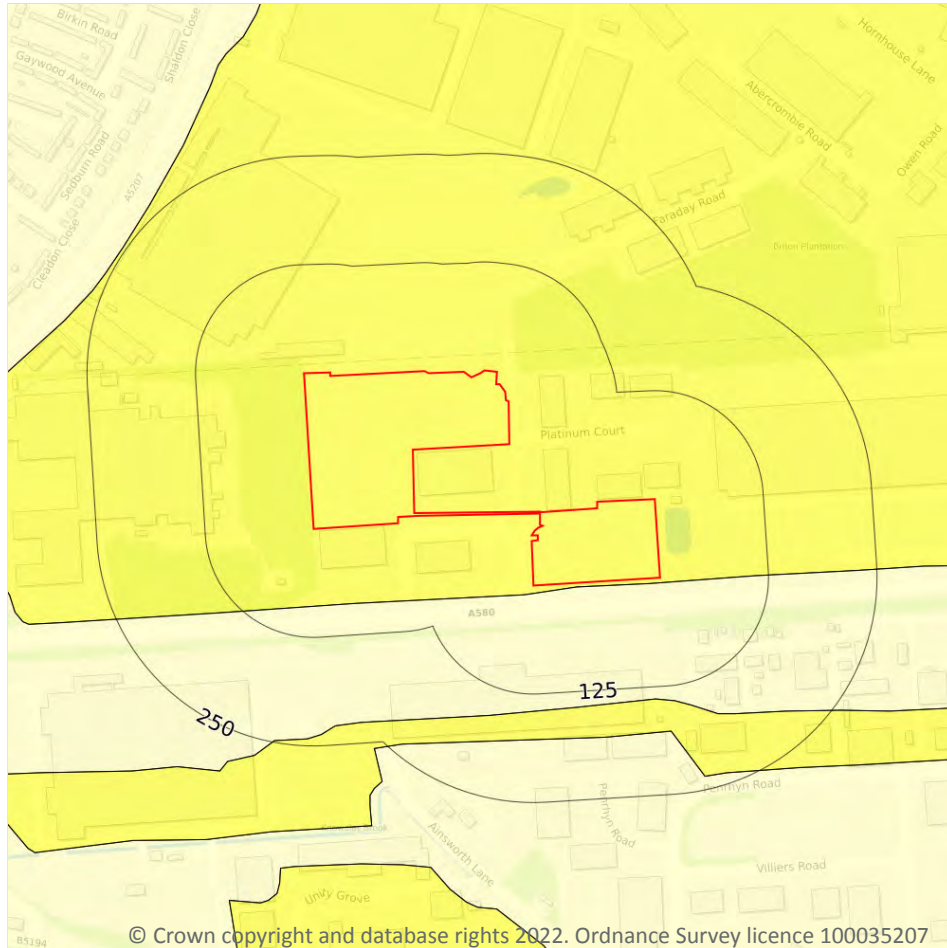
Features are displayed on the Natural ground subsidence - Running sands map on **page 116**

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



17.3 Compressible deposits

Records within 50m

2

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.

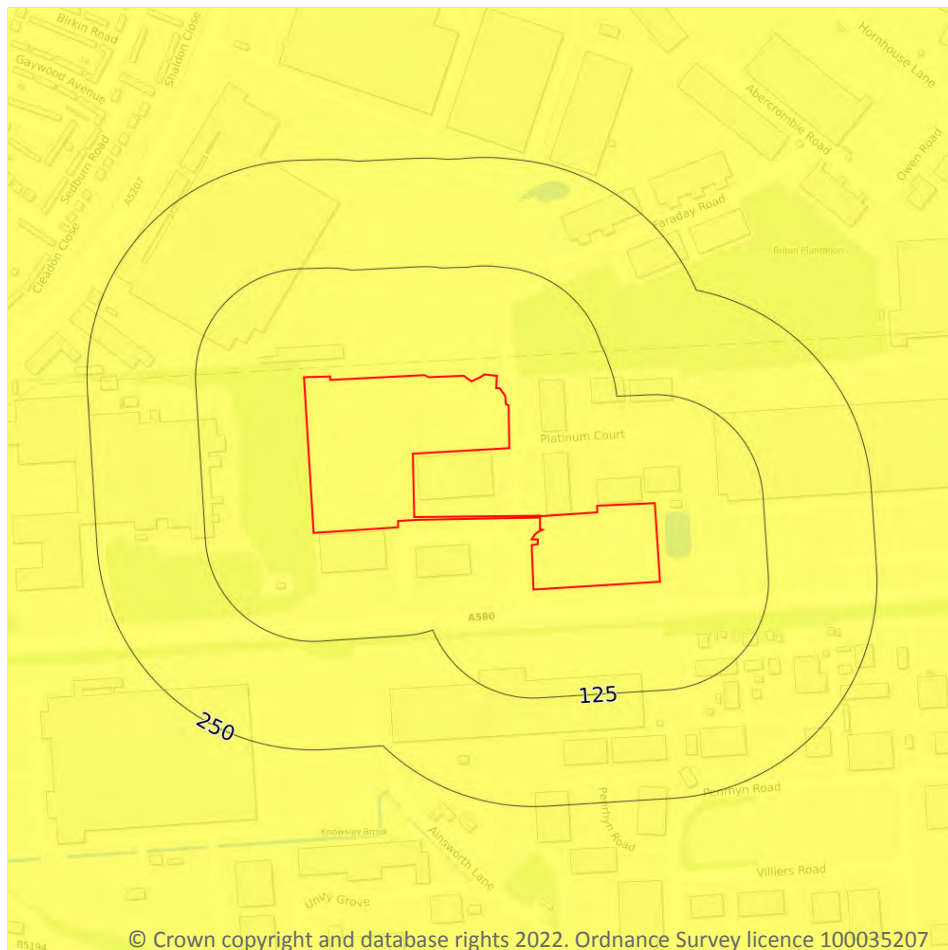
Features are displayed on the Natural ground subsidence - Compressible deposits map on **page 117**

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.
5m S	Negligible	Compressible strata are not thought to occur.

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.

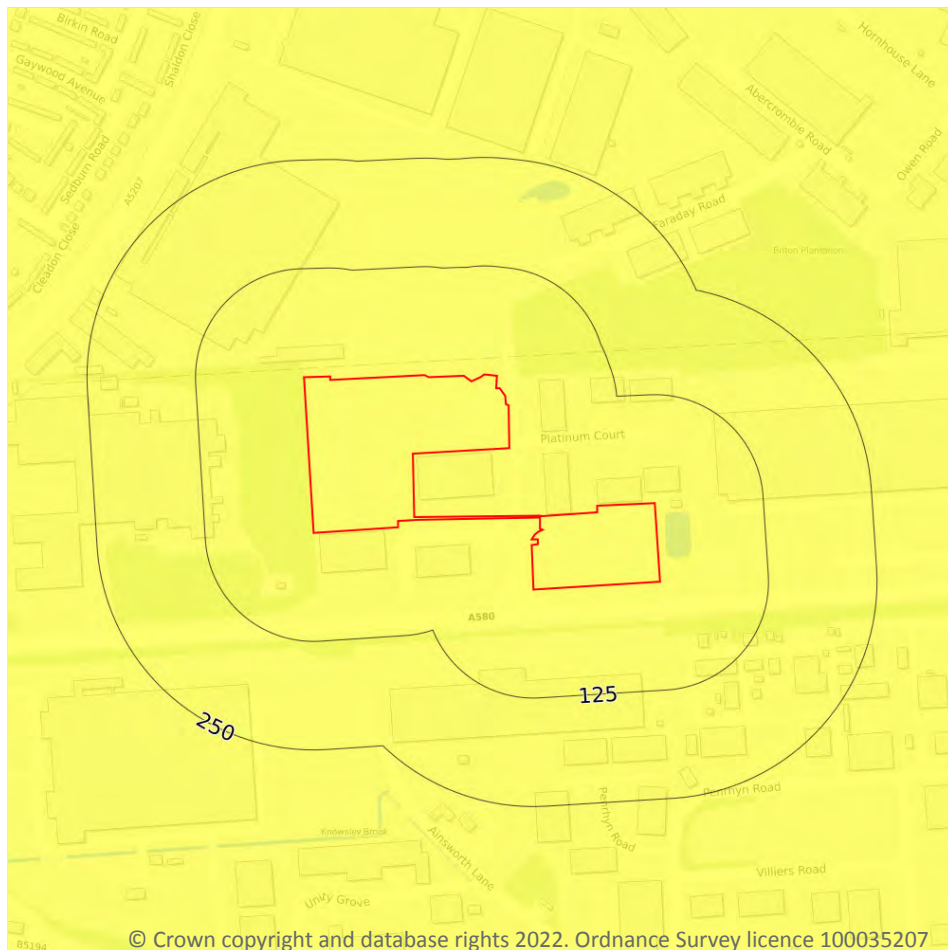
Features are displayed on the Natural ground subsidence - Collapsible deposits map on **page 119**

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.

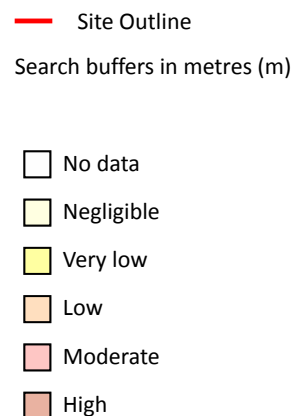
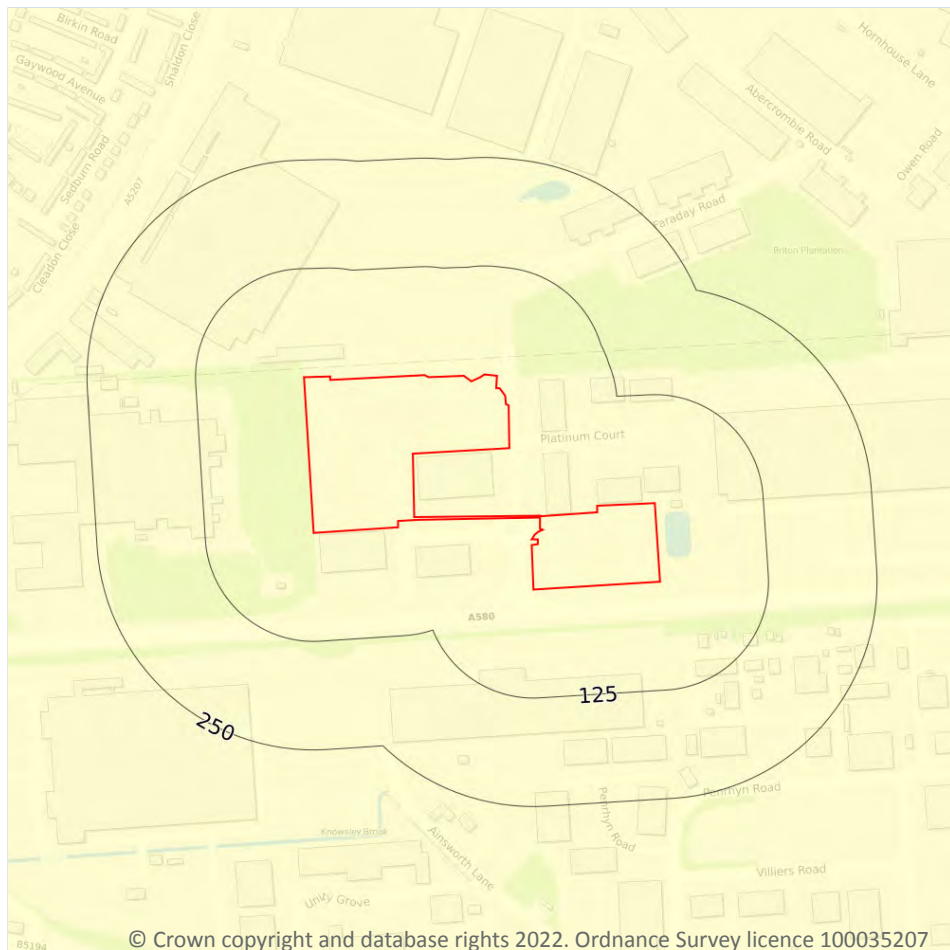
Features are displayed on the Natural ground subsidence - Landslides map on **page 120**

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



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.

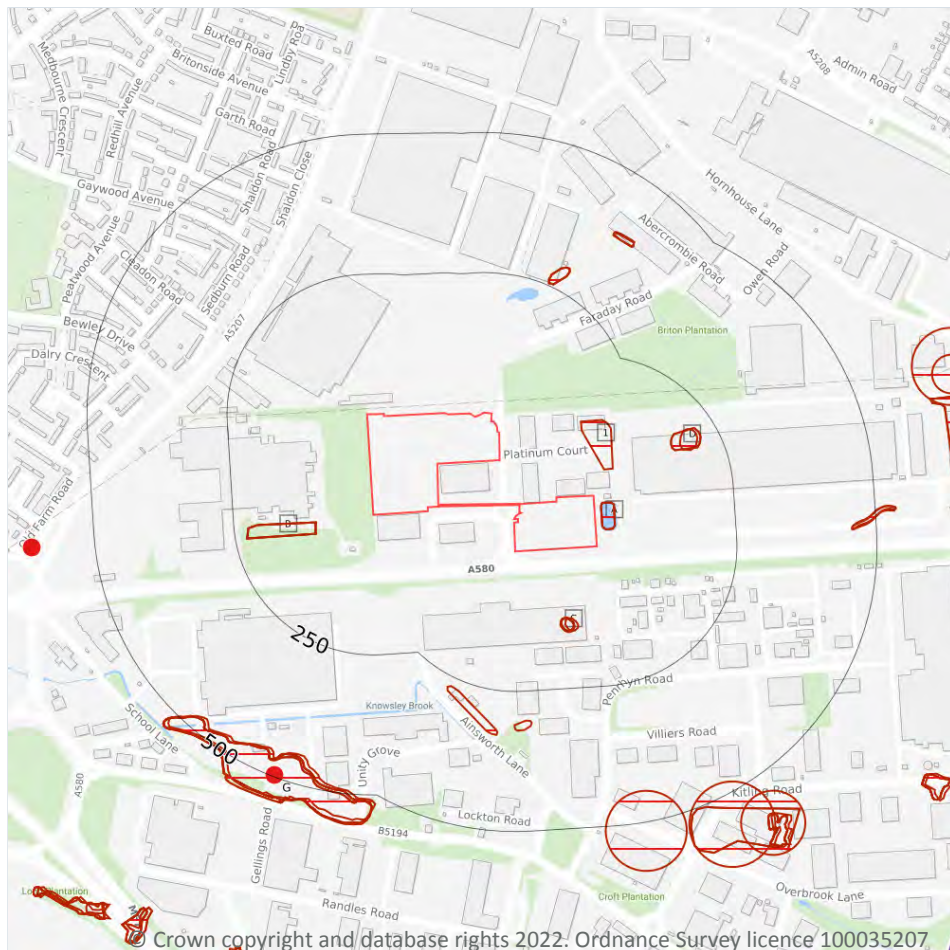
Features are displayed on the Natural ground subsidence - Ground dissolution of soluble rocks map on **page 121**

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

1

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

Features are displayed on the Mining, ground workings and natural cavities map on **page 123**

ID	Location	Details	Description
G	497m S	Name: Knowsley Delph Address: Knowsley, KIRKBY, Merseyside Commodity: Sandstone Status: Ceased	Type: A surface mineral working. It may be termed Quarry, Sand Pit, Clay Pit or Opencast Coal Site Status description: Site which, at date of entry, has ceased to extract minerals. May be considered as Closed by operator. May be considered to have Active, Dormant or Expired planning permissions by Mineral Planning Authority

This data is sourced from the British Geological Survey.

18.3 Surface ground workings

Records within 250m

17

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 123**

ID	Location	Land Use	Year of mapping	Mapping scale
A	12m E	Pond	1966	1:10560
A	12m E	Pond	1976	1:10000
A	12m E	Pond	1988	1:10000
1	51m N	Unspecified Heap	1966	1:10560
B	104m W	Unspecified Heap	1966	1:10560
B	104m W	Unspecified Heap	1976	1:10000
B	104m W	Unspecified Heap	1988	1:10000
C	124m S	Unspecified Pit	1938	1:10560
C	124m S	Unspecified Pit	1925	1:10560
C	124m S	Unspecified Pit	1907	1:10560



ID	Location	Land Use	Year of mapping	Mapping scale
C	124m S	Unspecified Pit	1938	1:10560
C	125m S	Unspecified Pit	1955	1:10560
C	125m S	Unspecified Pit	1925	1:10560
C	125m S	Unspecified Pit	1925	1:10560
D	164m NE	Unspecified Heap	1976	1:10000
D	164m NE	Unspecified Heap	1988	1:10000
D	179m NE	Unspecified Heap	1966	1:10560

This 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

0

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.

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
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Generalised areas that may be affected by historical tin mining.

This data is sourced from Groundsure.

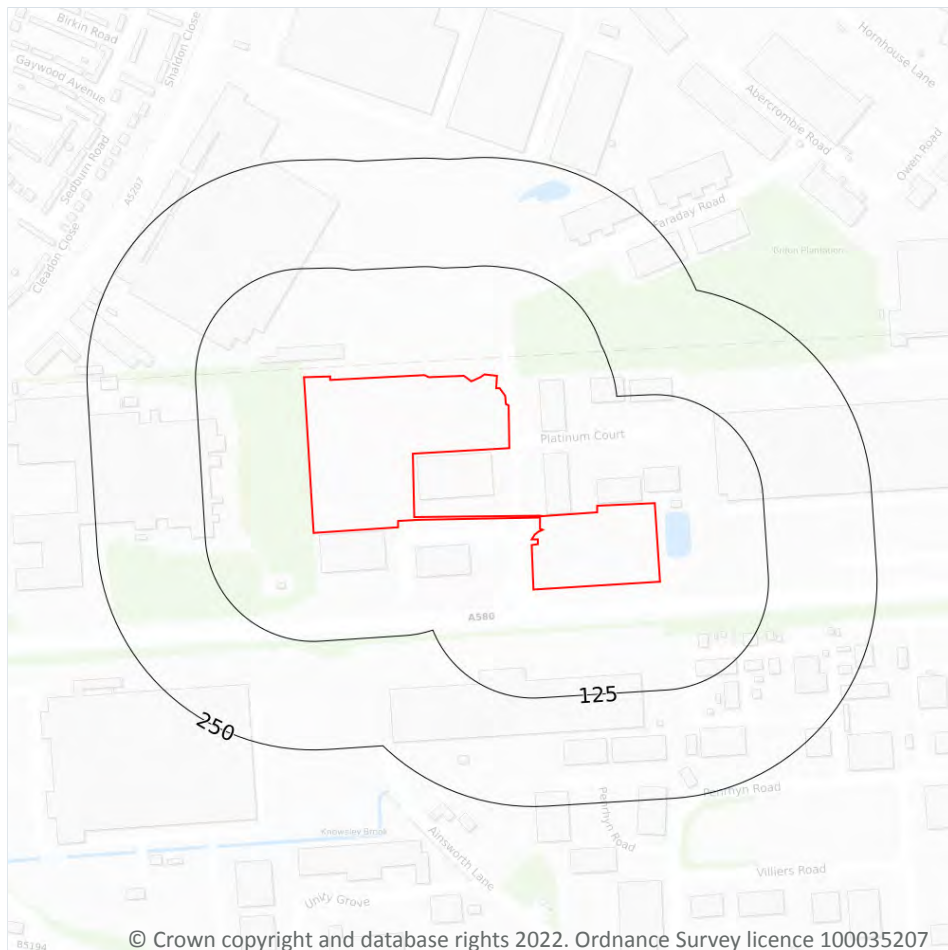
18.13 Clay mining

Records on site	0
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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



- Site Outline**
- Search buffers in metres (m)**
- Greater than 30%
 - Between 10% and 30%
 - Between 5% and 10%
 - Between 3% and 5%
 - Between 1% and 3%
 - Less than 1%

19.1 Radon

Records on site

1

Estimated percentage of dwellings exceeding the Radon Action Level. This data is the highest resolution radon dataset available for the UK and is produced to a 75m level of accuracy to allow for geological data accuracy and a 'residential property' buffer. The findings of this section should supersede any estimations derived from the Indicative Atlas of Radon in Great Britain. The data was derived from both geological assessments and long term measurements of radon in more than 479,000 households.

Features are displayed on the Radon map on **page 128**

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

This data is sourced from the British Geological Survey and Public Health England.



20 Soil chemistry

20.1 BGS Estimated Background Soil Chemistry

Records within 50m

6

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
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
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

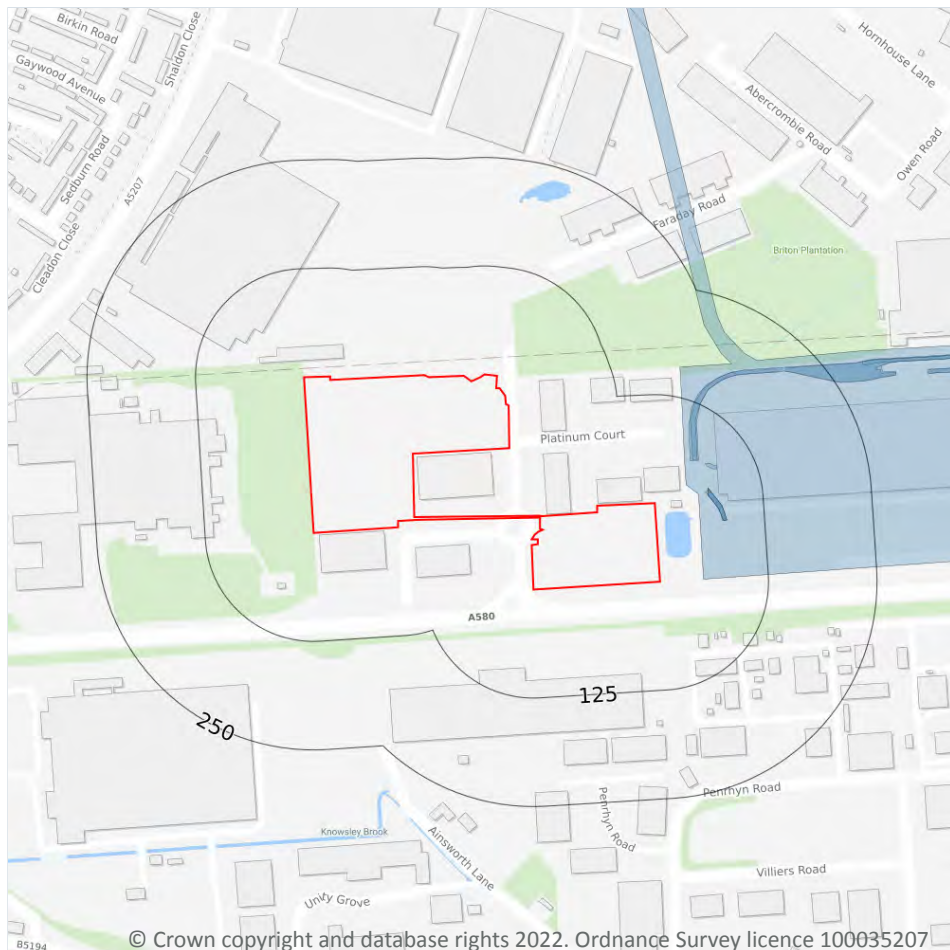
0

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
- Crossrail 1 Worksites
- 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

8

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 131**

Location	Land Use	Year of mapping	Mapping scale
42m NE	Railway Sidings	1966	10560
60m E	Railway Sidings	1985	-
62m E	Railway Sidings	1959	1250
62m E	Railway Sidings	1974	1250
64m NE	Railway Sidings	1960	1250
66m NE	Railway Sidings	1959	2500
74m NE	Railway Sidings	1974	1250
214m NE	Railway Sidings	1959	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.

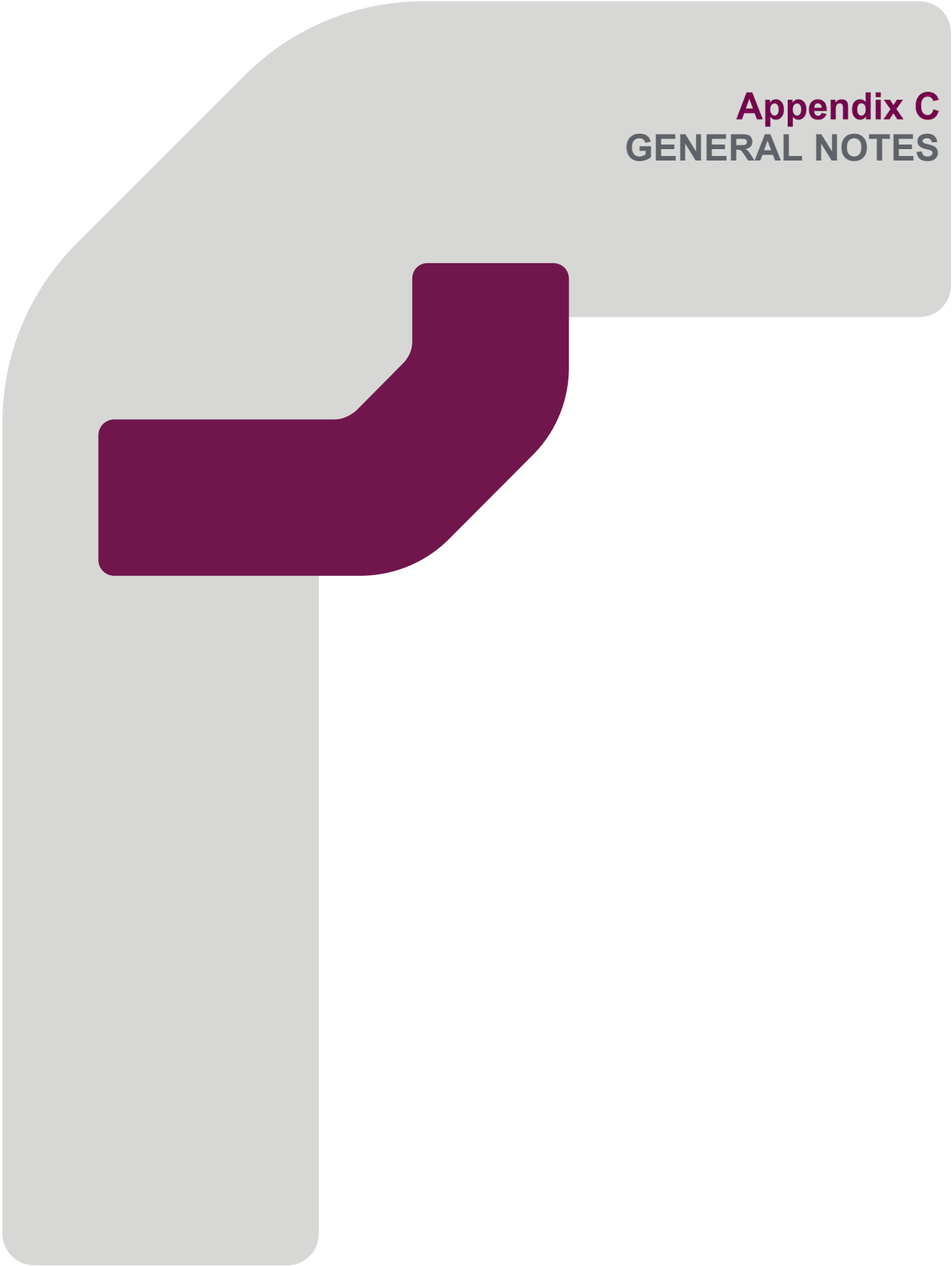
Data providers

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/>.





Appendix C

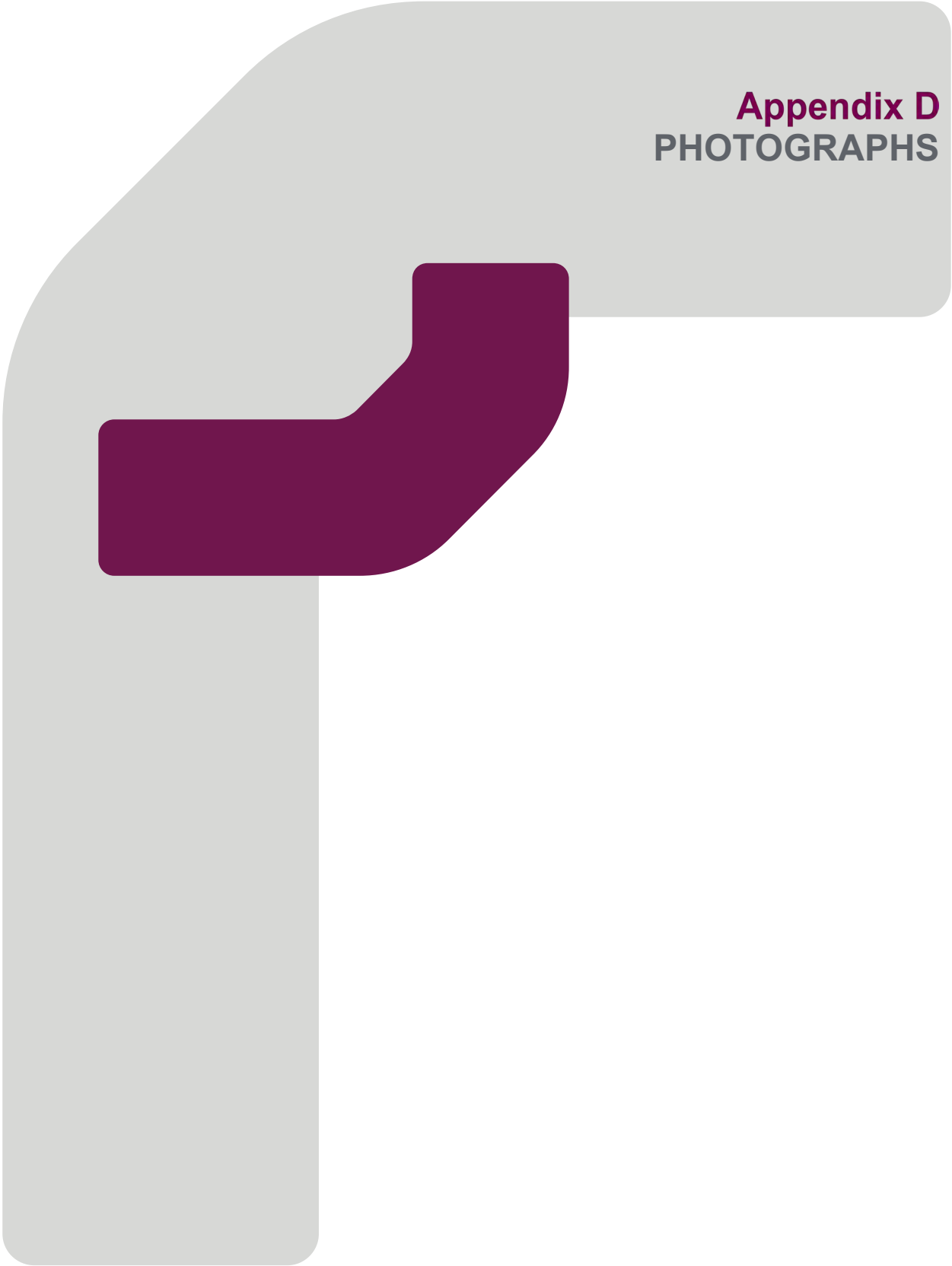
GENERAL NOTES

General Notes

RPS Consulting Services Ltd

Phase 1 - Environmental Risk Assessment / Desk Study Environmental Review

1. A "desk study" means that no site visits have been carried out as any part thereof, unless otherwise specified.
2. This report provides available factual data for the site obtained only from the sources described in the text and related to the site on the basis of the location information provided by the Client.
3. The desk study information is not necessarily exhaustive and further information relevant to the site may be available from other sources.
4. The accuracy of maps cannot be guaranteed and it should be recognised that different conditions on site may have existed between and subsequent to the various map surveys.
5. No sampling or analysis has been undertaken in relation to this desk study.
6. Any borehole data from British Geological Survey sources is included on the basis that: "The British Geological Survey accept no responsibility for omissions or misinterpretation of the data from their Data Bank as this may be old or obtained from non-BGS sources and may not represent current interpretation".
7. Where any data supplied by the Client or from other sources, including that from previous site investigations, have been used it has been assumed that the information is correct. No responsibility can be accepted by RPS for inaccuracies in the data supplied by any other party.
8. This report is prepared and written in the context of an agreed scope of work and should not be used in a different context. Furthermore, new information, improved practices and changes in legislation may necessitate a re-interpretation of the report in whole or in part after its original submission.
9. The copyright in the written materials shall remain the property of the RPS Company but with a royalty-free perpetual licence to the Client deemed to be granted on payment in full to the RPS Company by the Client of the outstanding amounts.
10. The report is provided for sole use by the Client and is confidential to them, their professional advisors, no responsibility whatsoever for the contents of the report will be accepted to any person other than the Client. [Unless otherwise agreed]
11. These terms apply in addition to the RPS "Standard Terms & Conditions" (or in addition to another written contract which may be in place instead thereof) unless specifically agreed in writing. (In the event of a conflict between these terms and the said Standard Terms & Conditions the said Standard Terms & Conditions shall prevail.) In the absence of such a written contract the Standard Terms & Conditions will apply.



Appendix D **PHOTOGRAPHS**



Photo 01: Vegetated Earth bund blocking vehicle access:



Photo 02: Vegetation bund along the eastern site boundary, showing evidence of vehicle access onto site.



Photo 03: Showing rutting near site entrance and earth bund along northern boundary



Photo 04: Looking west along top of earth bund in the north



Photo 05: General view of eastern part of site from earth bund in north.



Photo 06: Showing denser vegetation in north west corner of site.



Photo 07: General litter / fly tipping seen across the site



Photo 08: Fly tipping by site access points.



Photo 09: General view looking south, further vehicle ruts can be seen.



Photo 10: evidence of surface water pooling in the east of the site



Photo 11: Heras fencing on site, separating the north and south portion of the site



Photo 12: Grass vegetation in the south



Photo 13: Reeds and moss, slightly boggy ground in the south western corner of the site



Photo 14: Grass vegetation in the south east of the site



Photo 15: Water logged ruts along the south eastern site boundary



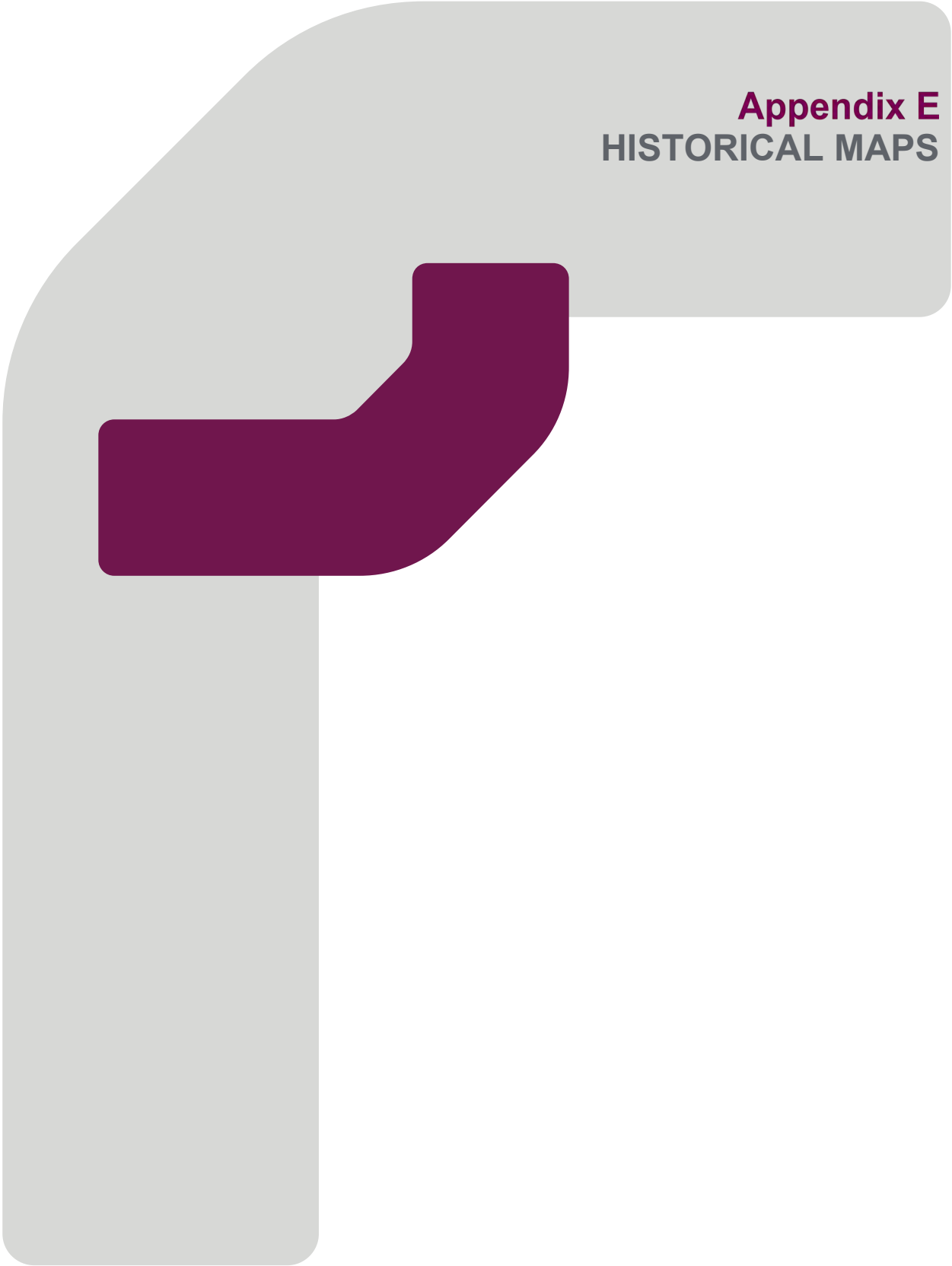
Photo 16: Area of boggy ground in the south east



Photo 17: General view looking north from south east corner of the site



Photo 18: grassed and vegetated bund forming the eastern site boundary.



Appendix E **HISTORICAL MAPS**

Site Details:

VACANT LAND AT, ALCHEMY WAY, KNOWSLEY INDUSTRIAL PARK, KIRKBY, L33 7AQ

Client Ref: JER9563
Report Ref: GS-8801216
Grid Ref: 342650, 396978

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

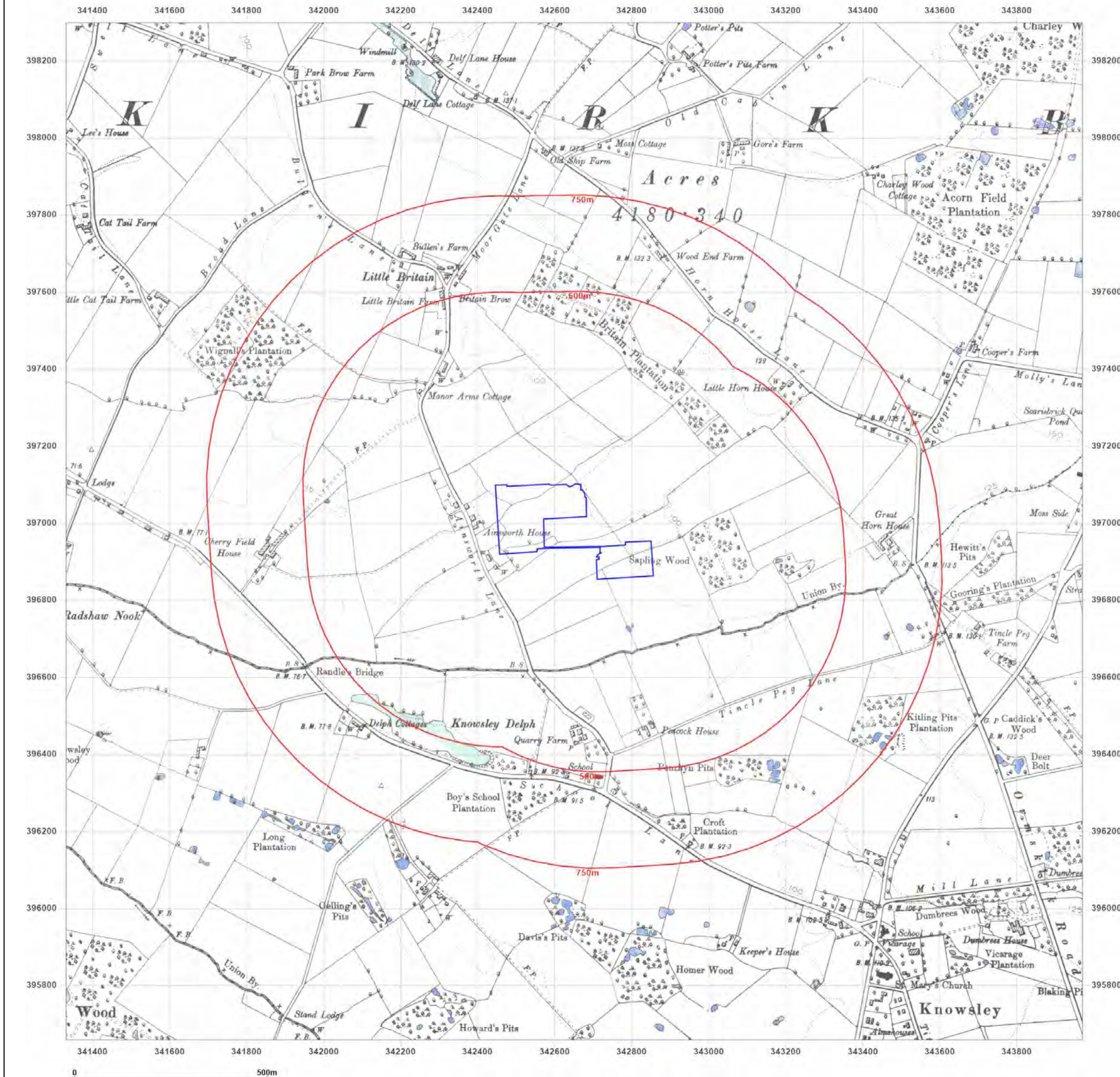


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Site Details:

VACANT LAND AT, ALCHEMY WAY, KNOWSLEY INDUSTRIAL PARK, KIRKBY, L33 7AQ

Client Ref: JER9563
Report Ref: GS-8801216
Grid Ref: 342650, 396978

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

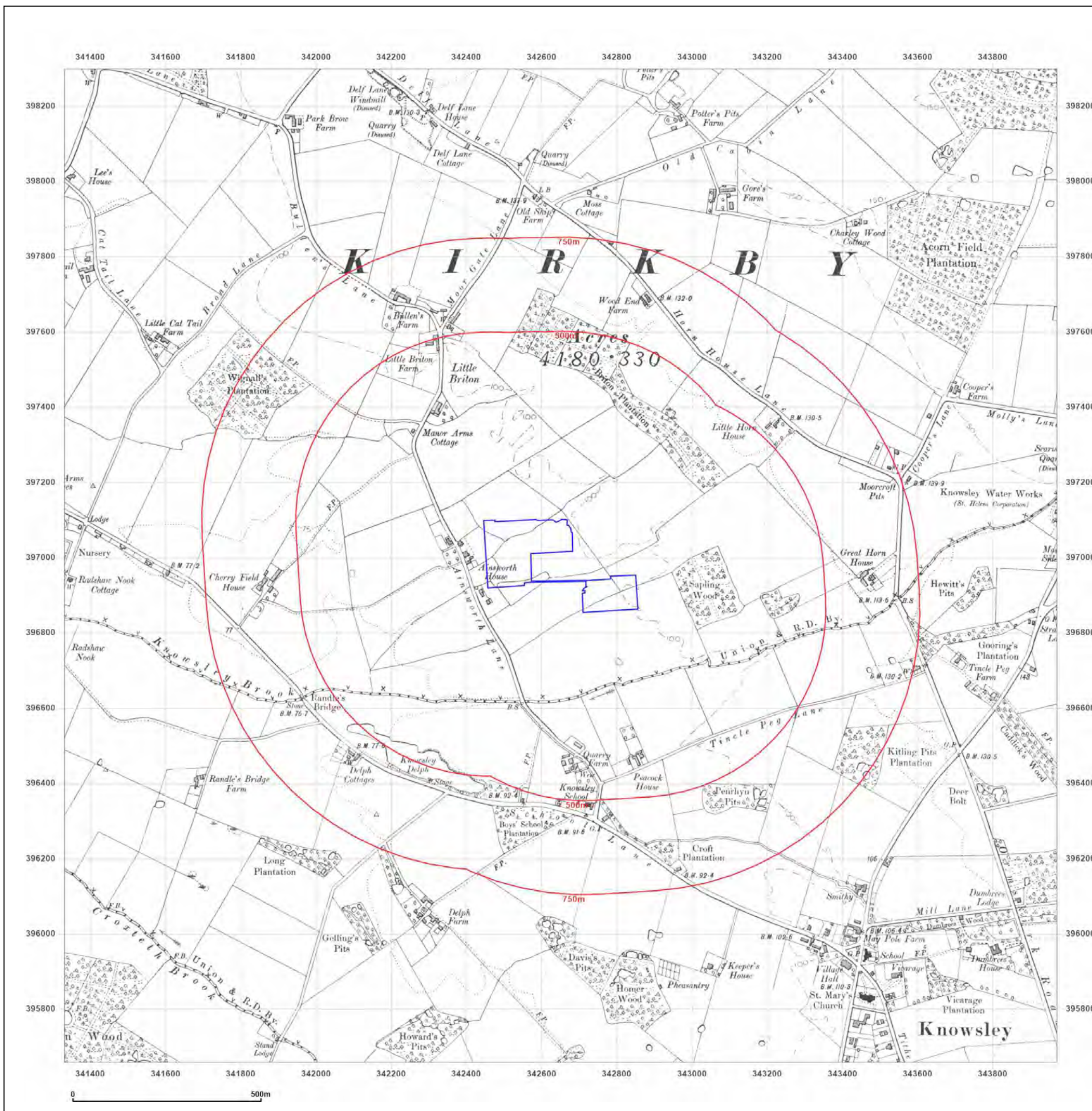


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Site Details:

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Client Ref: JER9563
Report Ref: GS-8801216
Grid Ref: 342650, 396978

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

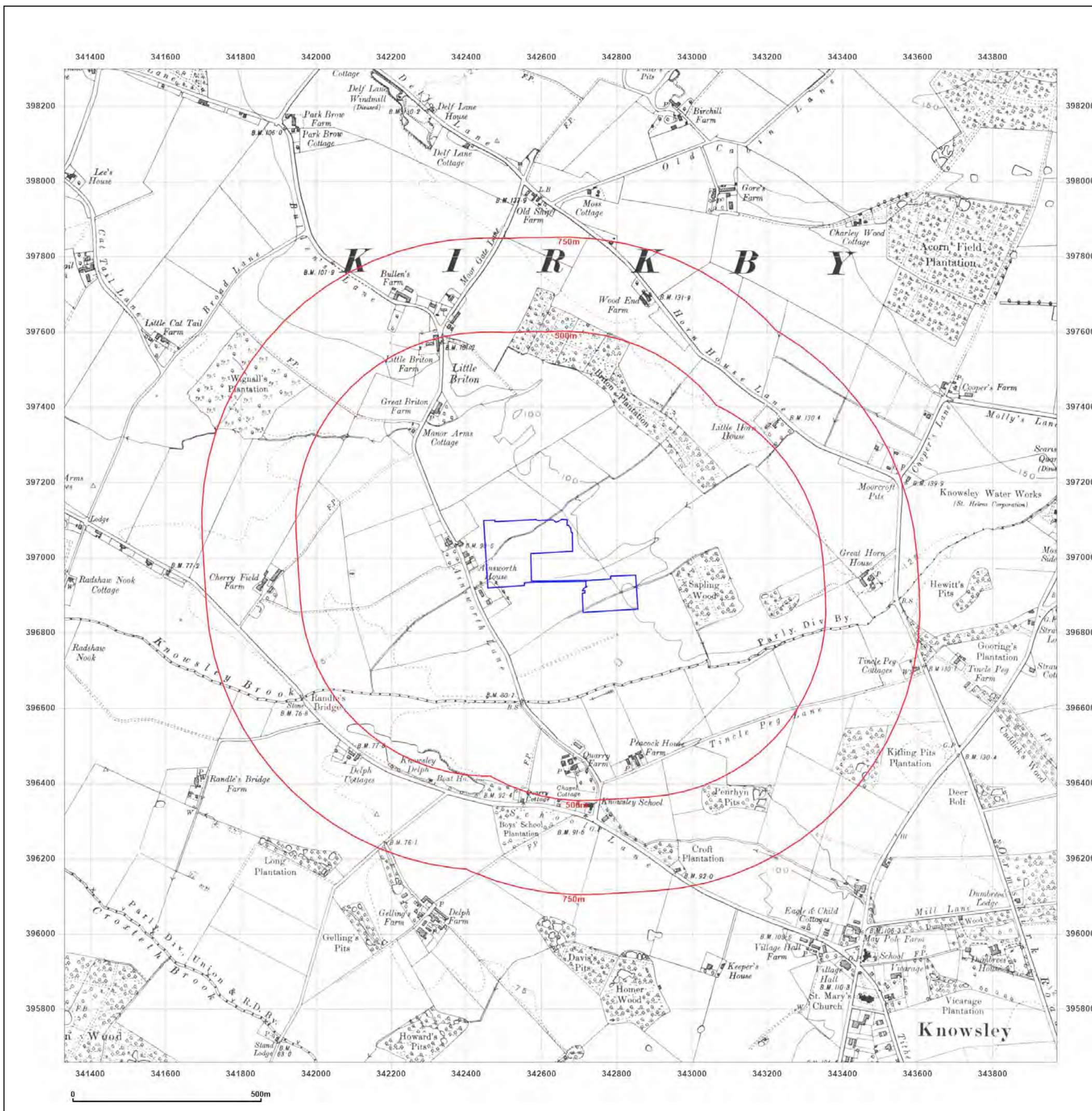


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Site Details:

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Client Ref: JER9563
Report Ref: GS-8801216
Grid Ref: 342650, 396978

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

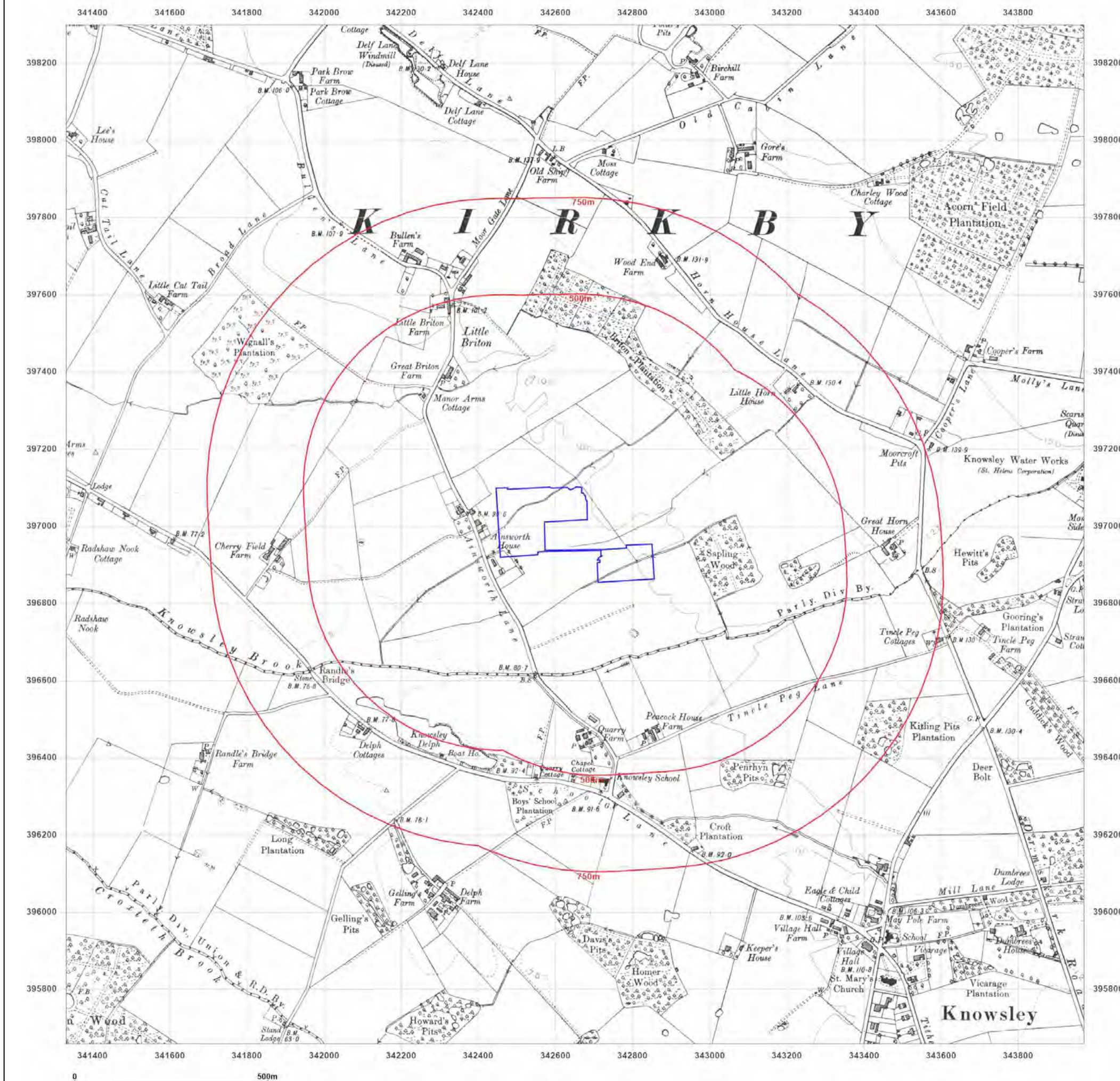


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Site Details:

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Client Ref: JER9563
Report Ref: GS-8801216
Grid Ref: 342650, 396978

Map Name: County Series

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

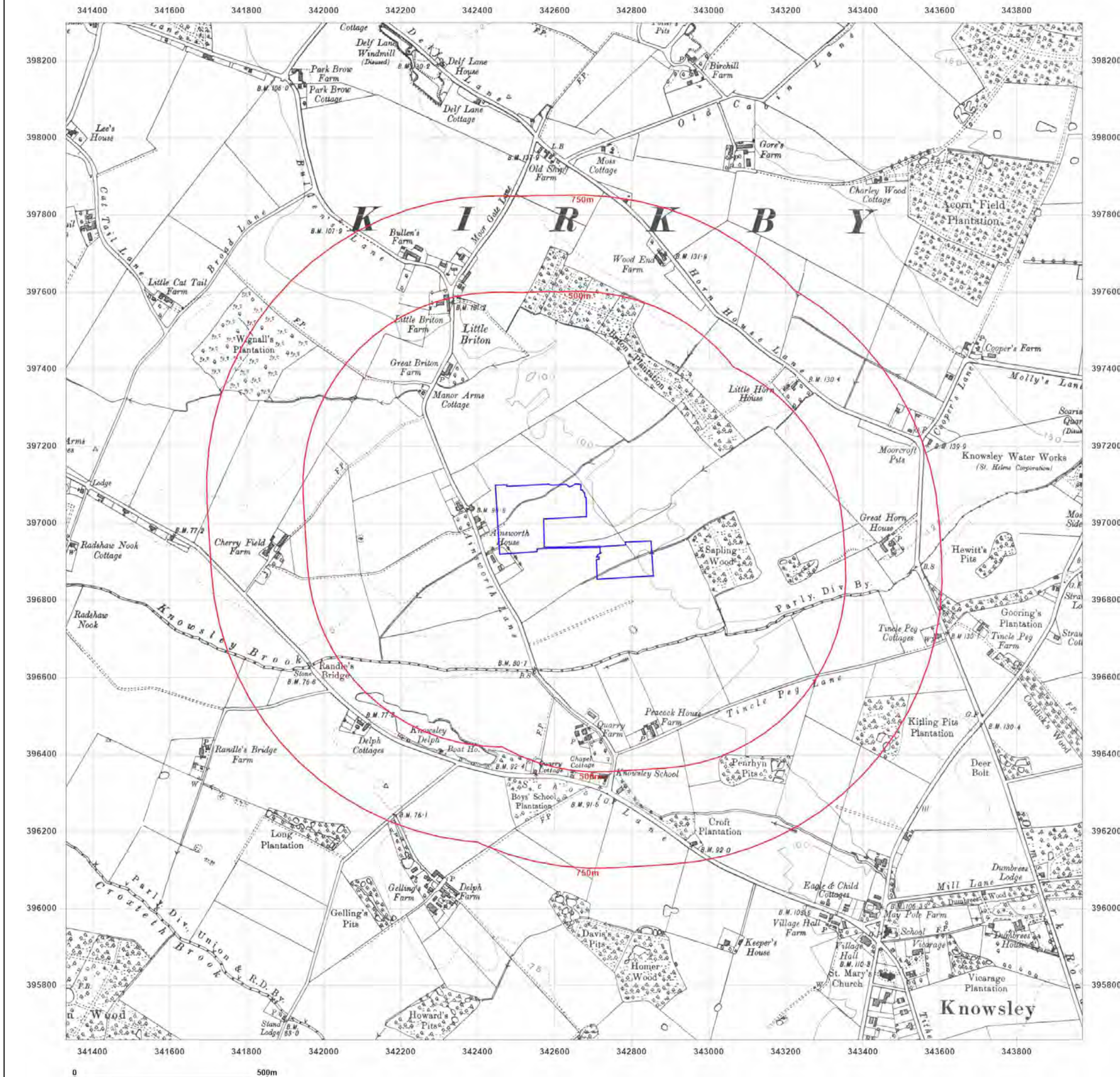


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Site Details:

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KNOWSLEY INDUSTRIAL PARK,
KIRKBY, L33 7AQ

Client Ref: JER9563
Report Ref: GS-8801216
Grid Ref: 342650, 396978

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

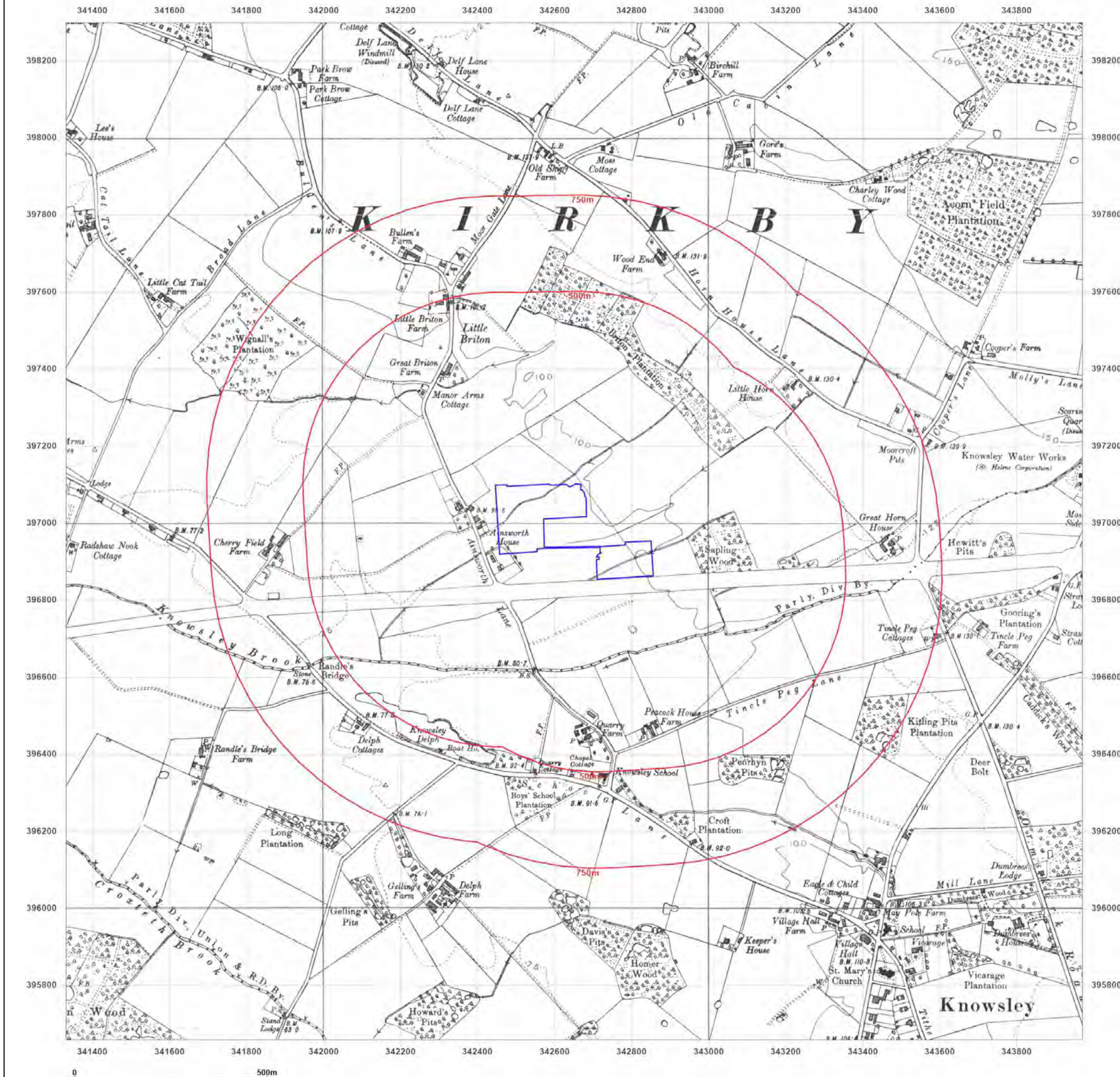


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Site Details:

VACANT LAND AT, ALCHEMY WAY, KNOWSLEY INDUSTRIAL PARK, KIRKBY, L33 7AQ

Client Ref: JER9563
Report Ref: GS-8801216
Grid Ref: 342650, 396978

Map Name: Provisional

Map date: 1956

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Printed at: 1:10,560



Surveyed N/A
Revised 1955
Edition N/A
Copyright 1956
Levelled N/A

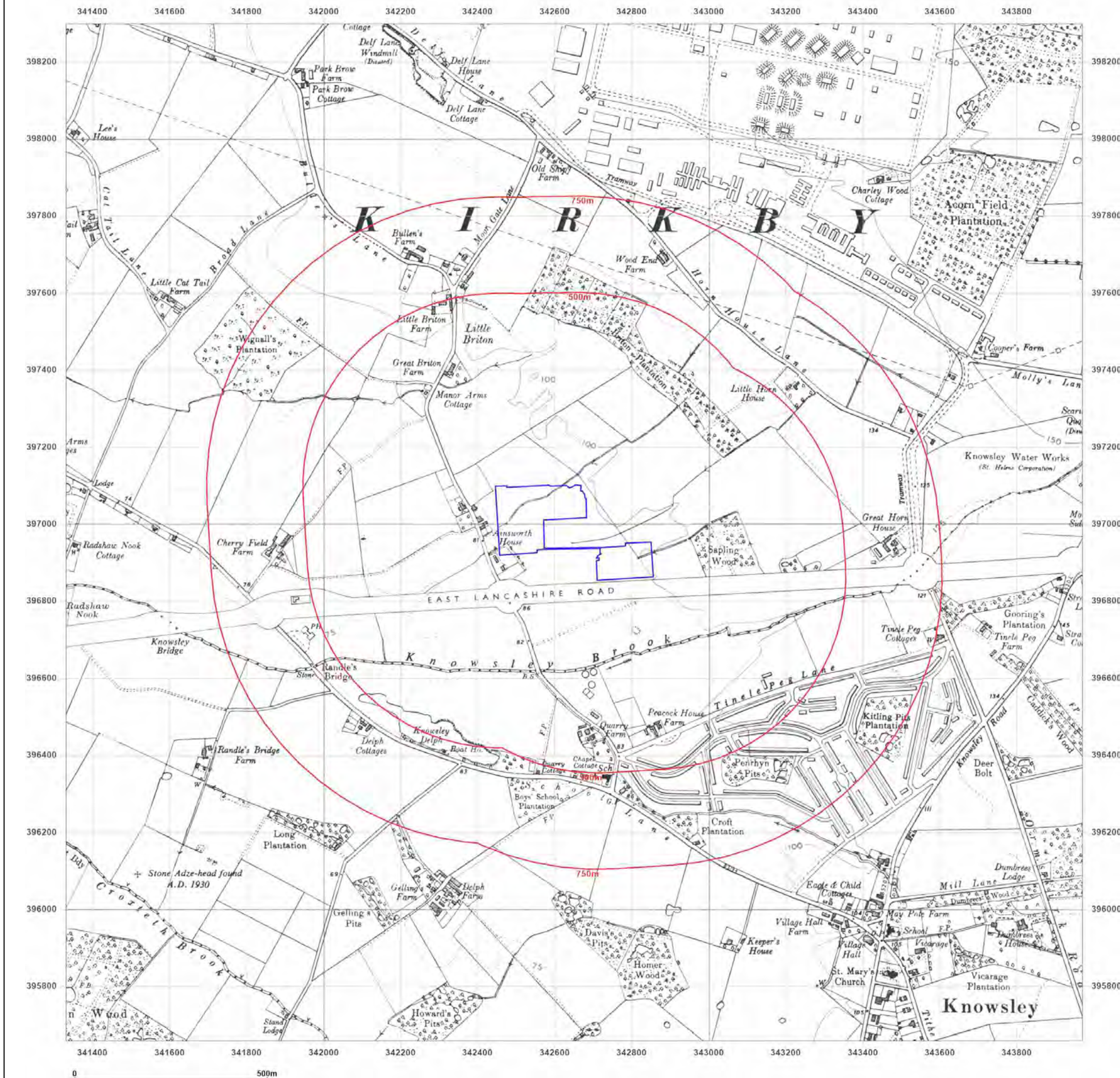


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Site Details:

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KNOWSLEY INDUSTRIAL PARK, KIRKBY, L33 7AQ

Client Ref: JER9563
Report Ref: GS-8801216
Grid Ref: 342650, 396978

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

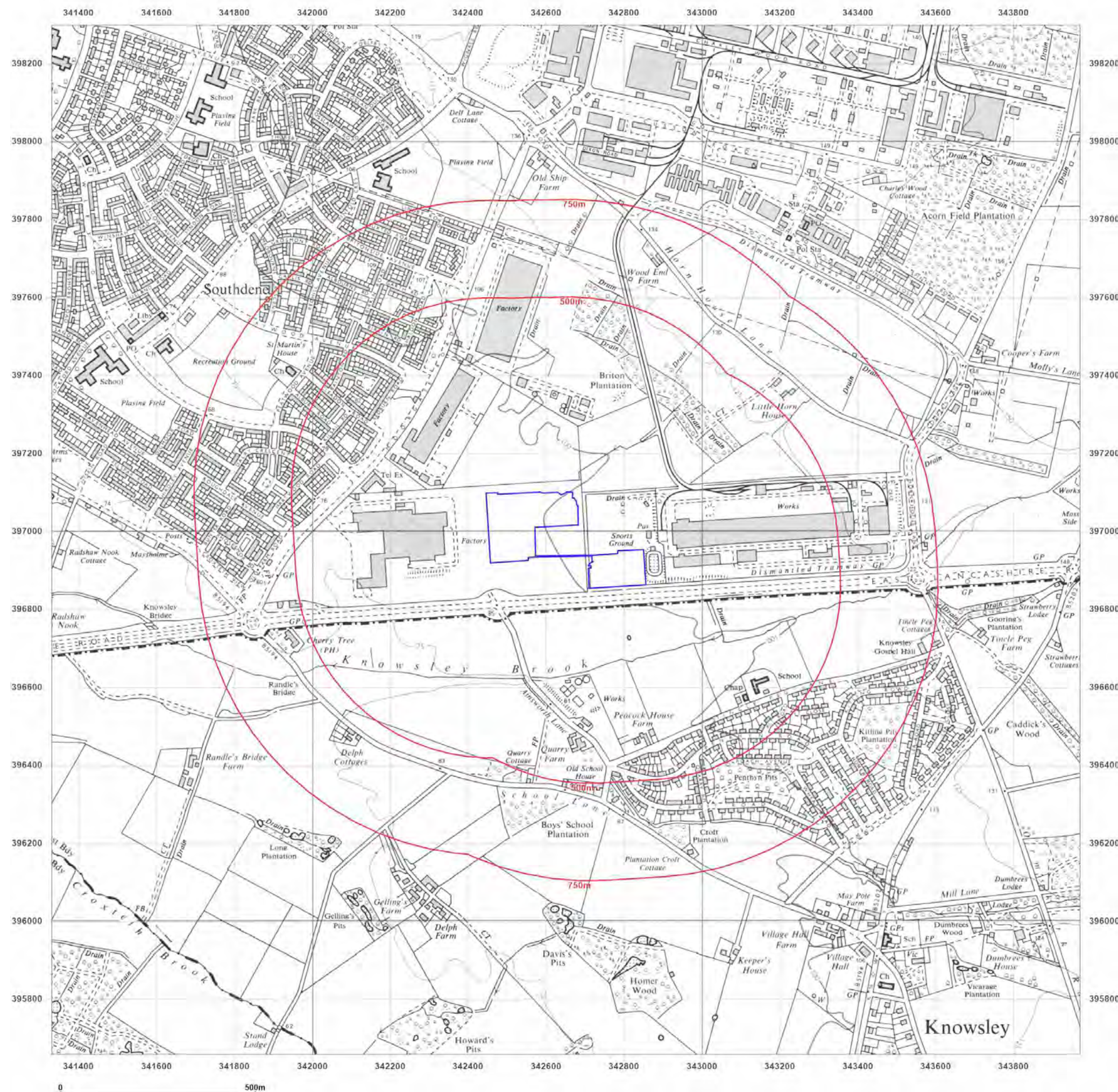


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Site Details:

VACANT LAND AT, ALCHEMY WAY, KNOWSLEY INDUSTRIAL PARK, KIRKBY, L33 7AQ

Client Ref: JER9563
Report Ref: GS-8801216
Grid Ref: 342650, 396978

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 1964

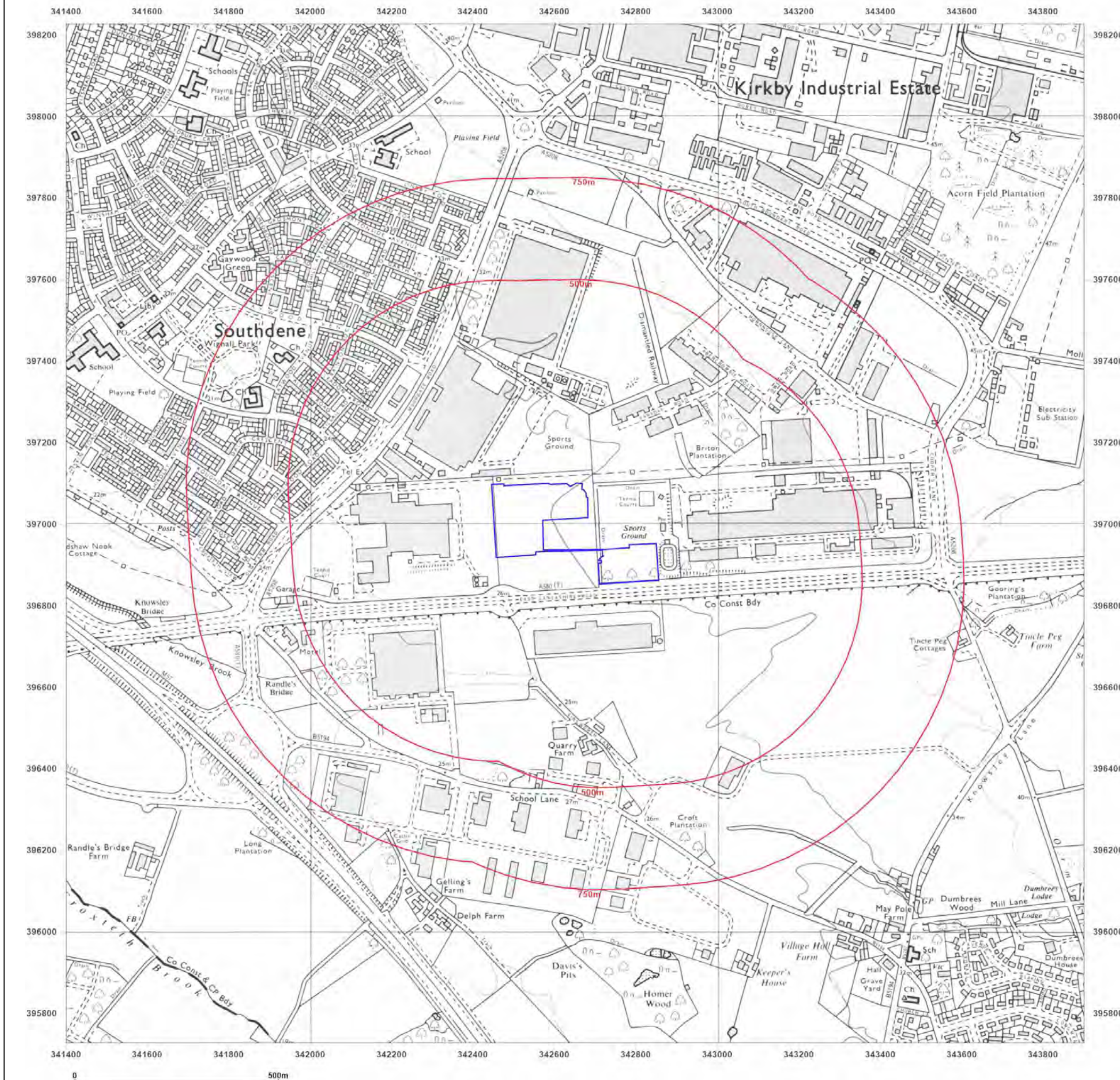


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Client Ref: JER9563
Report Ref: GS-8801216
Grid Ref: 342650, 396978

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

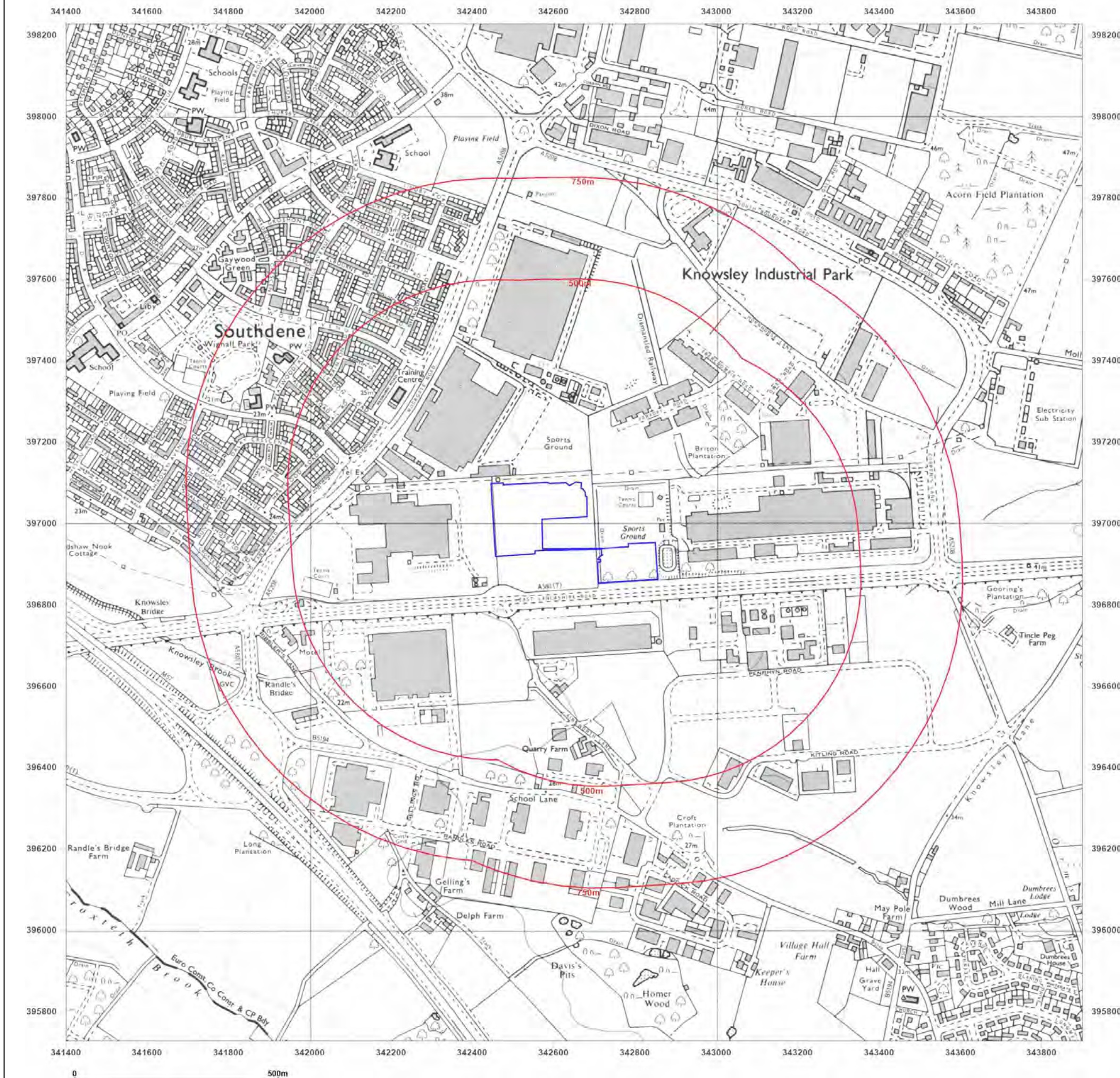


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Site Details:

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PARK, KIRKBY, L33 7AQ

Client Ref: JER9563
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Grid Ref: 342650, 396978

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Map date: 2001

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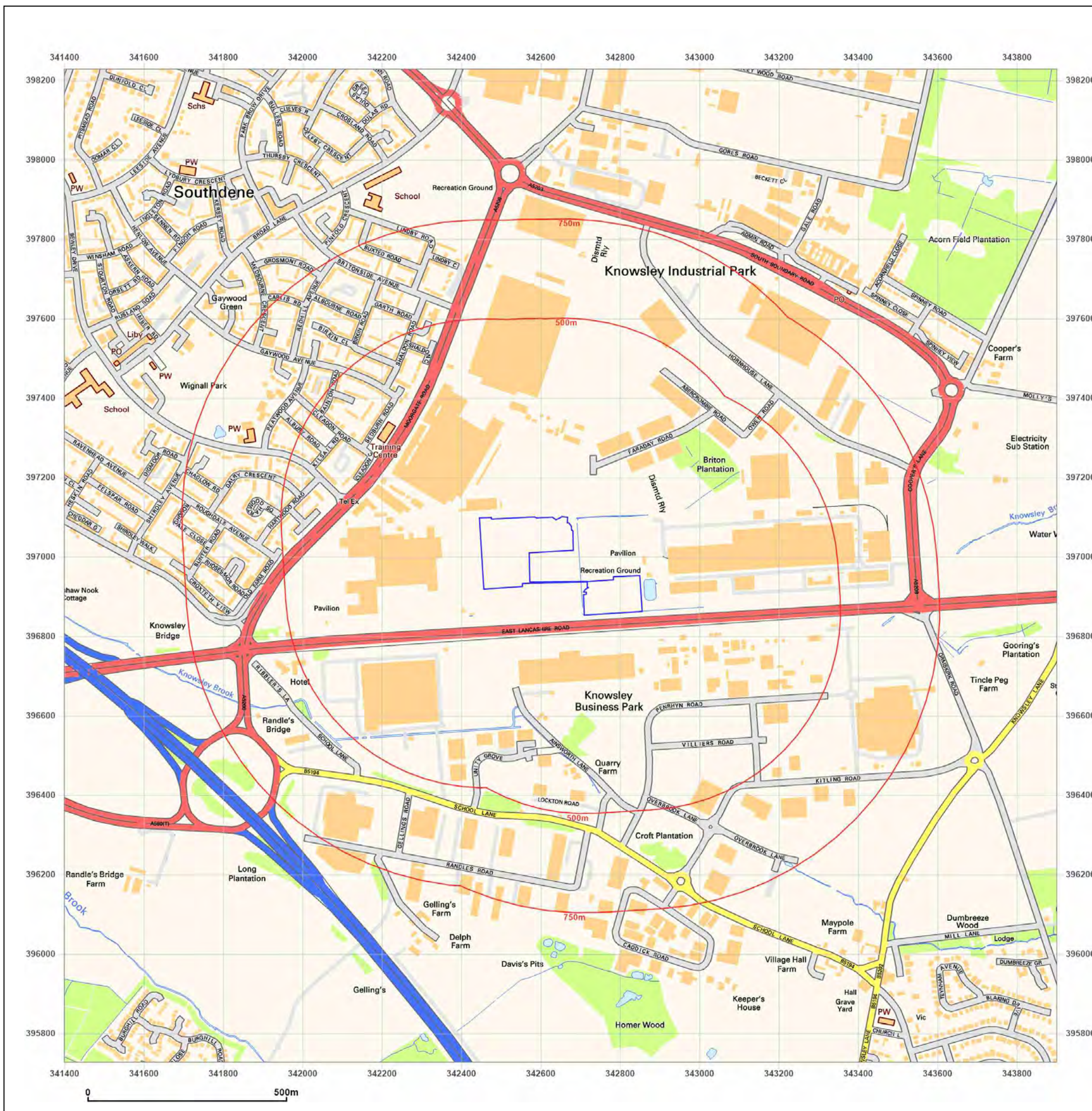


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Site Details:

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Client Ref: JER9563
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Grid Ref: 342650, 396978

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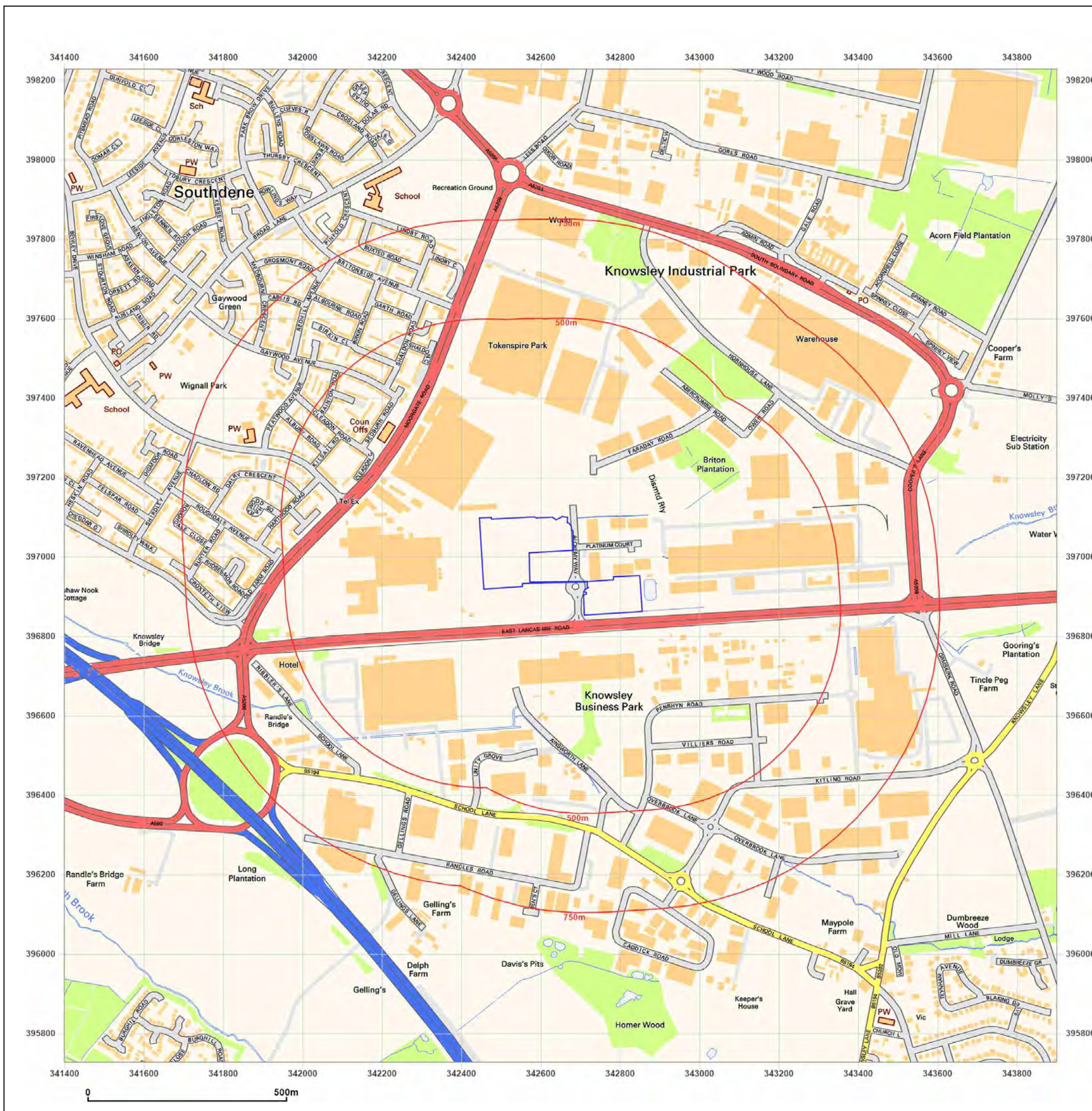


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Site Details:

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Client Ref: JER9563
Report Ref: GS-8801216
Grid Ref: 342650, 396978

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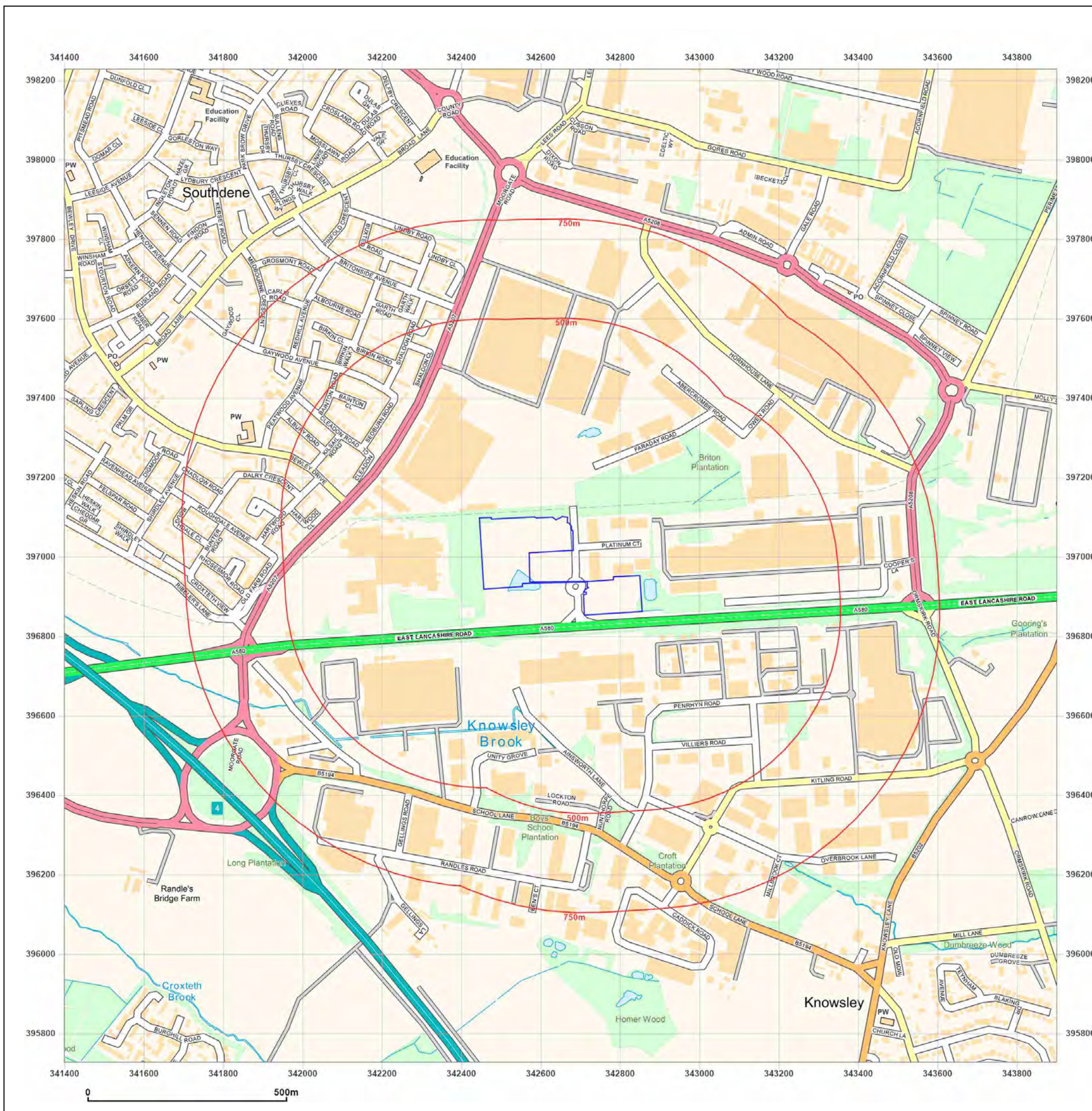


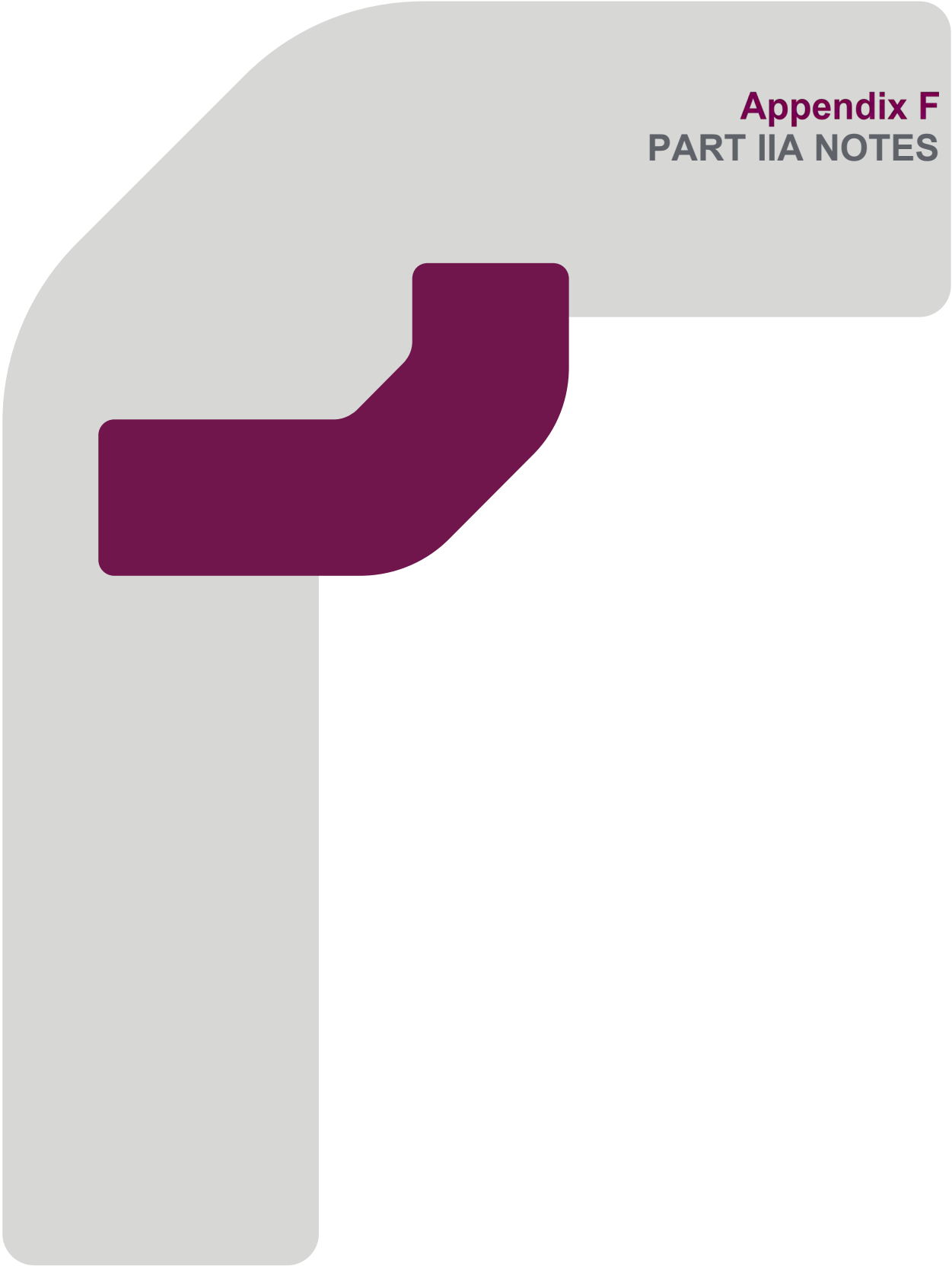
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Appendix F

PART IIA NOTES

Contaminated Land Definition

Under Section 57 of the Environmental Act 1995, Part 2A was inserted into the Environmental Protection Act 1990 to include provisions for the management of contaminated land.

Subsequent regulations were first implemented in England in April 2000, Scotland in July 2000 and Wales in July 2001¹, providing a definition of 'contaminated land' and setting out the nature of liabilities that can be incurred by owners of contaminated land and groundwater.

According to the Act, contaminated land is defined as 'any land which appears to the local authority in whose area the land is situated to be in such a condition, by reason of substances in, on or under the land that:

12. *significant harm* is being caused or there is a *significant possibility* of such harm being caused; or
13. *significant pollution* of controlled waters² is being caused or there is a significant possibility of such pollution being caused³

The guidance on determining whether a particular possibility is significant is based on the principles of risk assessment and in particular on considerations of the magnitude or consequences of the different types of significant harm caused. The term 'possibility of significant harm being caused' should be taken, as referring to a measure of the probability, or frequency, of the occurrence of circumstances that could lead to significant harm being caused.

The following situations are defined where harm is to be regarded as significant:

1. Chronic or acute toxic effect, serious injury or death to humans
2. Irreversible or other adverse harm to the ecological system
3. Substantial damage to, or failure of, buildings
4. Disease, other physical damage or death of livestock or crops
5. The pollution of controlled waters⁴.

With regard to radioactivity, contaminated land is defined as 'any land which appears to be in such a condition, by reason of substances in, on or under the land that harm is being caused, or there is a *significant possibility of such harm being caused*⁵'.

The Risk Assessment Methodology

Risk assessment is the process of collating known information on a hazard or set of hazards in order to estimate actual or potential risks to receptors. The receptor may be humans, a water resource, a sensitive local ecosystem or future construction materials. Receptors can be connected with the hazard via one or several exposure pathways (e.g. the pathway of direct contact). Risks are generally managed by isolating or removing the hazard, isolating the receptor, or by intercepting the exposure pathway. Without the three

¹ In England by The Contaminated Land (England) Regulations 2000, updated by The Contaminated Land (England) (Amendment) Regulations 2012; in Scotland by The Contaminated Land (Scotland) Regulations 2000, updated by the Contaminated Land (Scotland) Regulations 2005; and in Wales by The Contaminated Land (Wales) Regulations 2001, updated by the Contaminated Land (Wales) Regulations 2006.

² In Scotland the term "controlled water" has been updated to "water environment" under the Contaminated Land (Scotland) Regulations 2005 in line with the Water Environment and Water Services (Scotland) Act 2003.

³ The definition was amended in 2012 by implementation of the Water Act 2003.

⁴ Groundwater in this context does not include waters within underground strata but above the saturated zone.

⁵ The Radioactive Contaminated Land (Modification of Enactments) (England) Regulations 2006 and Contaminated Land (Wales) Regulations 2006.

essential components of a source (hazard), pathway and receptor, there can be no risk. Thus, the mere presence of a hazard at a site does not mean that there will necessarily be attendant risks.

The Risk Assessment

By considering where a viable pathway exists which connects a source with a receptor, this assessment will identify where pollutant linkages may exist. A pollutant linkage is the term used by the DEFRA in their standard procedure on risk assessment. If there is no pollutant linkage, then there is no risk. Therefore, only where a viable pollutant linkage is established does this assessment go on to consider the level of risk. Risk should be based on a consideration of both:

- The likelihood of an event (probability) - takes into account both the presence of the hazard and receptor and the integrity of the pathway.
- The severity of the potential consequence - takes into account both the potential severity of the hazard and the sensitivity of the receptor.

For further information please see the Contaminated Land section on the DEFRA website (www.defra.gov.uk).

PHASE 1 GEO-ENVIRONMENTAL PRELIMINARY RISK ASSESSMENT

Alchemy Way, Knowsley

2022-06-28

JER9563

V2

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