

Seqirus Site 6, Speke

Phase 1 Geo-Environmental Desk Study





Tetra Tech

Quay West at MediaCityUK,
Trafford Wharf Road,
Trafford Park,
Manchester
M17 1HH
0161 872 3223

tetrattech.com

Phase 1 Geo-environmental Desk Study

B033528.DTS.1
April 2022

PRESENTED TO

Seqirus UK Limited

Point, Level 3,
29 Market Street,
Maidenhead,
SL6 8AA

PRESENTED BY

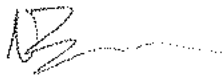
Tetra Tech EPT Ltd

Quay West at
MediaCityUK,
Trafford Wharf Road,
Trafford Park,
Manchester
M17 1HH

0161 872 3223

tetratecheurope.com

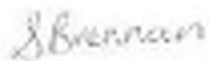
Prepared by:



Nick Brook BSc (Hons) FGS
Senior Geo-Environmental
Consultant

April 2022

Reviewed by:



Sara Brennan MSc BSc (Hon) FGS
Principal Consultant

April 2022

Authorized by:



Andrew Moore
Technical Director
BSc MSc FGS CGeol MICE CEng
SiLC QP

April 2022

EXECUTIVE SUMMARY

Brief	Tetra Tech EPT Ltd (Tetra Tech EPT) was commissioned by Seqirus UK Limited, to provide a Phase 1 Geo-environmental Desk Study report to support future development of the existing site.
The Site	The site is located off Renaissance Way, Speke, Liverpool, L24 9PL and comprises a warehouse with associated soft and hard landscaping.
Proposed Development	The proposed development is to comprise an extension to an existing warehouse structure.
Surrounding Site Information	The area to the north comprises a railway with a pharmaceutical works beyond. To east, south and west are commercial units comprising of a bus depot, Seqirus Vaccines warehousing and Land Rover manufacturer.
Geology	Anticipated geology comprises: • Made Ground of unknown thickness associated with current and historic landuse. • Superficial strata of Glacial Till. • Bedrock Strata of the Chester Formation.
Hydrogeology & Hydrology	The superficial strata is described as a Secondary Undifferentiated Aquifer and bedrock strata as a Principal Aquifer.
Site History	• The site has comprised of fields with a pond to the centre of site until 1966-67. • North Road is shown as present onsite between 1966-67 and 2001. • The site appears as existing from 2003.
Environmental database search	The site is designated as a Nitrate Vulnerable Zone and a SSSI Impact Zone. Land within 250m of the site has historically been used for agricultural purposes and latterly with industrial uses including Biochemical works, railway sidings and industrial development. Current industrial land uses within 250m of the site include electrical substations, Works, tanks and a Biochemicals Plant.
Preliminary Geotechnical Assessment	The geotechnical issues at this site relate the following: • Infilled pond of unknown backfill. • Natural deposits of unknown competence and thickness
Preliminary ground contamination assessment	• The risk from ground contamination to human health is Moderate/Low from asbestos and other potential sources of contamination and locally High to construction workers. • The risk to aquifers is considered to be Moderate/Low. • The risk from ground gas to both future site users and buildings and services which is considered to be Moderate. • The risk to building infrastructure, supply pipes and adjacent properties is considered to be low. • A Moderate risk to groundwater is posed from offsite sources.
Conclusions and Recommendations	Recommended further works include: Ground investigation to: • Determine the likely environmental risks. • To inform foundation design. • Gas and groundwater monitoring.

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DRAWINGS

B033528-TTE-00-XX-DR-U-0001 Site Location Plan

B033528-TTE-00-XX-DR-U-0002 Proposed Development Plan

06-600-02-0019-Model (1) (Phasing Options Constructability PIU Incubator Replacement Site 6)

23799_100_J Foundation General Arrangement by Curtins dated May 2000

PLATES

Photo Plates – Site Walkover Photographic Record

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ACRONYMS/ABBREVIATIONS

Acronyms/Abbreviations	Definition
aOD	above Ordnance Datum
bgl	below ground level
BGS	British Geological Survey
BTEX	Benzene, Toluene, Ethylbenzene and Xylenes
C4SL	Category 4 Screening Levels
CIEH	Chartered Institute of Environmental Health
CLEA	Contaminated Land Exposure Assessment
CoC	Constituent of Concern
CSM	Conceptual Site Model
DEFRA	Department of Environment, Food and Rural Affairs
DQRA	Detailed Quantitative Risk Assessment
DTS	Desk Top Study
DRO	Diesel Range Organics
DWS	Drinking Water Standard
EA	Environment Agency (England)
EPH	Extractable Petroleum Hydrocarbons
EQS	Environmental Quality Standards
FOC	Fraction Organic Carbon
GPR	Ground Penetrating Radar
LOD	Limit Of Detection
LQM	Land Quality Management
NRW	Natural Resources Wales
OS	Ordnance Survey
PAH	Polycyclic Aromatic Hydrocarbons
PCB	Poly Chlorinated Biphenyl
PPE	Personal Protective Equipment
ppm	parts per million
PRO	Petroleum Range Organics
SGV	Soil Guideline Values
SOM	Soil Organic Matter
SVOC	Semi-Volatile Organic Compounds
TPH	Total Petroleum Hydrocarbons
TSV	Tier 1 Screening Values
VOC	Volatile Organic Compounds
VPH	Volatile Petroleum Hydrocarbons

1.0 INTRODUCTION

1.1 INSTRUCTION

Tetra Tech Environment Planning Transport Ltd (Tetra Tech EPT) was commissioned by Seqirus UK Limited (the Client) to undertake a Geo Environmental Desk Study for Seqirus Site 6, Speke (known hereafter as “the site”).

The location of the site is shown on Drawing No. B033528-TTE-00-XX-DR-U-0001 Site Location Plan.

1.2 BRIEF

The brief was to provide a Phase 1 Geo-environmental Desk Study and Ground Investigation Report (undertaken separately) including a preliminary qualitative geotechnical and contamination risk assessment to assess the potential geo-environmental constraints at the aforementioned site.

The report has been written in general accordance and with reference to Environment Agency (2020) Land Contamination Risk Management, Version 3, <https://www.gov.uk/government/publications/land-contamination-risk-management-lcrm>.

1.3 PROPOSED DEVELOPMENT

It is understood that the existing warehouse is to be extended with a single storey extension on the eastern side of the building as detailed by the Phasing Options Constructability PIU Incubator Replacement Site 6 plan Drawing No. 06-600-02-0019-Model (1) dated August 2021 by Seqirus UK Limited and provided to Tetra Tech EPT by the client.

1.4 REPORT SCOPE

This report includes the following key elements:

- A record of the site visit and visual inspection .
- An historical site and local area review, primarily referring to past editions of Ordnance Survey Maps.
- A discussion of the general expected ground and groundwater conditions within the site referring to published geological and hydrogeological maps.
- Details of an Environmental database search (Groundsure report) of key relevant agencies, including Local and Statutory Authorities such as the Environment Agency.
- A geotechnical and ground contamination assessment discussing the results of the research above not only concerning potential on-site conditions/constraints and contamination but also an overview of the potential for migration onto or off-site with respect to the surrounding neighbouring sites.
- A baseline UXO risk assessment using on-line databases to classify the site with regards to UXO risk.
- A preliminary conceptual site model (CSM).
- A preliminary geotechnical hazard assessment.
- A Qualitative Risk Assessment for ground contamination (compliant with CIRIA 552 (CIRIA, 2001) methodology).
- An executive summary of the report to allow a rapid, layman’s overview.

1.5 LIMITATIONS

The recommendations and opinions expressed in this report are based on information obtained as part of the desk study or provided by others. Information provided from other sources is taken in good faith and Tetra Tech EPT cannot guarantee its accuracy.

This report is subject to the report conditions presented in Appendix A.

The information contained in this report is intended for the use of the Client (Seqirus) and Tetra Tech EPT can take no responsibility for the use of this information by any third party or for uses other than that described in this report or detailed within the terms of our engagement.

2.0 SITE INFORMATION

2.1 LOCATION

The site is located off Renaissance Way, Speke, Liverpool, L24 9PL. The site currently comprises a warehouse with associated soft and hard landscaping.

The site is approximately 1.52ha in area and is centered upon National Grid Reference (NGR) SJ438843.

A site location plan is presented in Drawing No. B033528-TTE-00-XX-DR-U-0001.

2.2 GENERAL AREA CONTEXT

Table 2-1 – Surrounding land uses

Direction	Description
North	Garston and Warrington railway line, pharmaceutical works beyond.
East	Commercial units.
South	Commercial units.
West	Commercial units.

2.3 SITE DESCRIPTION

The site description has been comprised from a site walkover undertaken by Tetra Tech EPT on the 20th December 2021 and a review of online sources dated December 2021.

Site photographs are included as Photo Plates in the Appendices.

2.3.1 Current Site Usage

The site currently comprises of a warehouse unit with associated soft and hard landscaping and is operated by Seqirus vaccines. The proposed development area is located in an area that currently comprises of a carpark constructed of asphalt and concrete and the proposed development is shown on the Drawing 06-600-02-0019-Model (1) dated August 2021 by Seqirus UK Limited and located as per Drawing B033528-TTE-00-XX-DR-U-0002 (Proposed Development Plan).

2.3.2 Access and Boundaries

The site is accessed via Renaissance Way to the southwest of the site through electronic gates. All boundaries comprise palisade fencing with significant semi mature to mature vegetation present along the western and northern boundaries with more sparse semi mature vegetation located along the eastern and southern boundaries.

Garston and Warrington railway line is located beyond the vegetation to the north.

2.3.3 Topography

The site is generally level at approximately 31m Above Ordnance Datum (m AOD) as indicated by Google Earth.

2.3.4 On-Site Structures and Fuel Tanks

The current Seqirus warehouse is located at the centre of site. Electric plant rooms and pump house were noted as being located to the northwest onsite. A cylindrical tank was noted as being present to the northwest adjacent to the pump house. Refuse bins were also located on the western boundaries.

2.3.5 Electricity Substations

An electrical substation is located just beyond the northeastern boundary offsite.

2.3.6 Asbestos Containing Materials

There are no obvious signs of Asbestos Containing Materials (ACMs).

2.3.7 Signs of Contamination

No significant areas of obvious contamination have been identified during the site walkover.

3.0 SITE HISTORY

3.1 INTRODUCTION

The historical development of the site and surrounding area has been assessed using information available from historical Ordnance Survey (OS) maps within the Groundsure Report for the site which are presented in Appendix C of this report.

In the context of the summary of historical development of the surrounding area, the descriptions are limited to within approximately 250m of the site boundary, unless specified in the following section.

3.2 SITE HISTORY

3.2.1 Site History

Table 3-1 below provides a summary of the review of available OS mapping coverage and historical aerial imagery for the site dating back to 1849.

Table 3-1 – Summary of Site Historical Data

Feature	Map Years	Notes
Open fields	1849 to 1966-67	There are two fields are separated by a drainage ditch running northwest to southeast and pond in the centre of the site.
North Road	1966/67 to 2001	Runs from southwest onsite to northeast, infills the onsite pond.
L Tower	1971 to 2001	Unknown use.
Seqirus Warehouse	2003 to present	Site appears as existing from now.

3.2.2 Surrounding History

There are a few potentially contaminative land uses near to the site; the main ones within 250m of the site boundary are listed in Table 3.2 below.

Table 3-2 – Summary of Surrounding Historical Data within 250m

Feature	Map Years	Location	Notes
Railway	1849 to Present	Approximately 20m north	
Two Ponds	1849 to 1955	Approximately 67m east	Potentially infilled
Pond	1849 to 1907	Approximately 150m north	Potentially infilled
Pond	1849 to 1955	Approximately 200m southeast	Potentially infilled
Pond	1849 to 1936	Approximately 200m southwest	Potentially infilled
Biochemicals Plant with associated tanks	1953 to Present	Approximately 100m - 125m northwest	Referred to as works from 1980

Engineering Works	1954 to 1991	Approximately 200 – 500m south	No longer annotated from 2001
Omnibus depot with associated tanks	1962 to Present	Just beyond the western boundary	Structure is extended in 1993 renamed Bus Depot. Structure is reduced in 2012.
Factory	1962 to present	Approximately 100m southwest	The factory area is extended to the south in 1971 and relabelled Medical Supplies Factory. Site redeveloped with Espack Eurologistica.
Electrical Substation	2003 to present	Just beyond north-eastern boundary	
Boulevard Industrial Park	2003 to Present	Approximately 50m to 250m east / south and west	Significant development around the site to the south.

4.0 GEOLOGY, HYDROGEOLOGY, HYDROLOGY, RADON AND UXO

4.1 GEOLOGY

Details of the geology underlying the site have been obtained from the following sources:

- British Geological Survey (BGS) Sheet No. 97 (Runcorn) Solid 1:50 000 dated 1980 and Drift 1:50 000 dated 1977;
- BGS website (British Geological Survey, 2021), accessed December 2021.
- Environmental database (Groundsure, GS-8397721) presented in Appendix B.

4.1.1 Made Ground

The published data suggests that Made Ground is not present onsite however, it is considered that Made Ground is likely to be present associated with the historic landuse.

4.1.2 Superficial Geology

The geological mapping indicates that superficial deposits of glacial till underlays the site. This is anticipated to be clay as indicated by the historic borehole logs (section 4.1.5).

4.1.3 Solid Geology

The site is underlain by the Chester Formation. This is comprised of Triassic gravelly sandstone, typically derived from fluvial settings. These are detrital deposits, ranging from fine to coarse grained and forming features such as beds and lenses. The Chester Formation is up to 220m beneath the site.

No faults are indicated within 250m of site.

4.1.4 Mining

The Coal Authority interactive viewer indicates that the site does not fall within a Coal Mining Reporting Area and as such, shallow mining with respect to shallow coal is not considered to pose a risk to the proposed development.

The presence of BGS registered sites and cavities at or within 250m of the site boundary have been summarised in Table 4.1 below.

Table 4-1 – Summary of BGS Features / Cavities

Feature	On Site	Off Site (within 250m)
BGS Mineral Sites	No	No
Recorded Man Made Cavities	No	No
Recorded Natural Cavities	No	No

4.1.5 Historical Borehole Logs

British Geological Survey (BGS) logs have been referred to for information only one BGS logs have been identified within 100m of the site boundary and have been summarised in Table 4-2 below. Further detail is provided in Table 4-3.

Table 4-2 – Summary of BGS Borehole Logs

Presence	On Site	Off Site
BGS Borehole Logs	No	Yes

Table 4-3 – Details of BGS Logs

Reference Number (Hole Type and Depth) – Off Site	Distance and Direction	Details
SJ48SW242 to 42.30m bgl). (Dated 1986)	Approximately 6m southwest	Red/brown boulder clay to 38.65m; Rockhead – Chester Pebble Beds to 42.30m. Backfilled.

4.1.6 BGS Soil Chemistry

The Groundsure Report also provides Urban Soil Chemistry Averages for the site (source: Urban Soil and Soil Chemistry data provided by the British Geological Survey). The information is summarised in the Table 4-4.

Table 4-4 – Urban Soil Chemistry Averages

Determinand	Soil Concentration Range	
	Minimum (mg/kg)	Max (mg.kg)
Arsenic	15	25
Cadmium	1.8	1.8
Total Chromium	90	120
Lead	100	100
Nickel	15	30

4.2 HYDROGEOLOGY

4.2.1 Aquifer Classification

The superficial glacial till deposits are classified as a Secondary Undifferentiated Aquifer. This has been assigned in cases where it has not been possible to attribute either a Secondary A or B aquifer to the soil type due to the variable characteristics. In most cases, this means that the layer in question has previously been designated as both minor and non-aquifer in different locations due to the variable characteristics of the soil type.

The Chester Formation is designated as a Principal Aquifer. These are layers of rock that have high intergranular and/or fracture permeability - meaning they usually provide a high level of water storage. They may support water supply and/or river base flow on a strategic scale.

4.2.2 Groundwater Vulnerability

Guidance released by the EA (Environment Agency, March 2017) states that activities that have the potential to affect the quality or quantity of groundwater must prevent groundwater pollution. All groundwater is vulnerable to pollution, and some geological formations are more vulnerable than others. The risks of groundwater pollution from any given activity depend in part on:

- The physical, chemical and biological properties of the underlying soil and rocks;

- Depth and quality of soil;
- The presence of glacial sediment and other materials – known as ‘Superficial’ deposits; and,
- Depth of the unsaturated zone.

All of the above affect how groundwater is more or less vulnerable to pollution, with type of vulnerability generally one of the following:

- Intrinsic vulnerability – this relates to the physical characteristics, it includes soil type, presence of superficial soils, or rock type; and,
- Specific vulnerability – this relates to the effect of the proposed activity including any contaminant and consequent risk to groundwater.

The Environmental Database indicates that both the superficial strata are categorized as low vulnerability with a low infiltration value <40% and a mixed flow mechanism.

4.2.3 Groundwater Source Protection Zones

The site is not shown to be situated within an EA defined groundwater Source Protection Zone (SPZ).

4.2.4 Groundwater Abstractions

The absence or presence of groundwater abstraction wells at or within 1km of the site boundary have been summarised in Table 4-5 below. Further detail is given in Table 4-6.

Table 4-5 – Summary of Groundwater Abstraction Wells

Feature	On Site	Off Site
Abstraction Well	No	Yes

Table 4-6 – Details of Active Groundwater Abstraction Wells

Location – Off Site	Distance and Direction	Details
Borehole 3 at LH's Premises, Fleming Road, Speke	185m northwest	Operator: Elanco UK AH Ltd Abstraction: Original Start Date: 16/02/1966, Version Start Date: 22/03/2019 Groundwater direct source – boiler feed Groundwater direct source – Evaporative cooling Groundwater direct source – process water
Borehole 2 at LH's Premises, Fleming Road, Speke	185m northwest	Operator: Elanco UK AH Ltd Abstraction: Original Start Date: 16/02/1966, Version Start Date: 22/03/2019 Groundwater direct source – boiler feed Groundwater direct source – Evaporative cooling Groundwater direct source – process water
Borehole 1 at LH's Premises, Fleming Road, Speke	185m northwest	Operator: Elanco UK AH Ltd

		Abstraction: Original Start Date: 16/02/1966, Version Start Date: 22/03/2019 Groundwater direct source – boiler feed Groundwater direct source – Evaporative cooling Groundwater direct source – process water
Borehole 4 at LH's Premises, Fleming Road, Speke	185m northwest	Operator: Elanco UK AH Ltd Abstraction: Original Start Date: 16/02/1966, Version Start Date: 22/03/2019 Groundwater direct source – boiler feed Groundwater direct source – Evaporative cooling Groundwater direct source – process water

4.3 HYDROLOGY

Details of the hydrology of the area have been obtained from the following sources:

- Environmental database – GS-8397721 (Groundsure™).
- MAGIC interactive mapping website.

4.3.1 Watercourses

The absence or presence of watercourses at or within 100m of the site boundary have been summarised in Table 4-7 below.

Table 4-7 – Summary of Watercourses

Feature	On Site	Off Site
Watercourses	No	No

4.3.2 Surface Water Abstractions

The absence or presence of surface water abstractions at or within 250m of the site boundary have been summarised in Table 4-8 below.

Table 4-8 – Summary of Surface Water Abstractions

Feature	On Site	Off Site
Surface Water Abstractions	No	No

4.3.3 Discharge to Controlled Waters including Pollution Incidents

The absence or presence of licenced discharge to controlled waters including pollution incidents at or within 250m of the site boundary have been summarised in Table 4-10 below. Further details are presented in Table 4-11.

Table 4-10 – Summary of Discharge to Controlled Waters and Pollution Incidents

Feature	On Site	Off Site
License of Discharge to Controlled Waters	No	No
Pollutant Release to Surface Waters	No	No
Pollutant Release to Surface Water (Red List)	No	No
Pollutant Release to Public Sewer	No	No
List 1 Dangerous Substances	No	No
List 2 Dangerous Substances	No	No
Pollution Incidents (EA/NRW)	No	Yes
Pollution Inventory Substances	No	Yes
Pollution Waste Transfers	No	Yes
Pollution Inventory Radioactive Waste	No	No

Table 4-11 – Details of Discharge to Controlled Waters and Pollution Incidents

Location – Off Site	Distance and Direction	Details
Incident Date: 17/05/2002 Incident Identification: 79364	232m southwest	Pollution Incident Pollutant – Waste materials of Tyres, Minor impact to land
Seqirus Vaccines Limited Permit: BS5401IK Gaskill Road Speke Liverpool L24 9GR	119m south	Pollution Inventory Substances Wastewater – Mercury (0.1kg) / Nonylphenols and nonylphenol ethoxylates (1kg); Controlled Waters – Mercury (0.1kg) / Nonylphenols and nonylphenol ethoxylates (1kg); Air – Nitrogen Oxides (NO and NO ₂) as NO ₂ (100000kg) / Sulphur Oxides (SO ₂ and SO ₃) as SO ₂ (100000kg) The above are all below reporting threshold. Air – Carbon Dioxide (1000000kg) quantity 9278600kg
Seqirus Vaccines Limited Permit: BS5401IK Gaskill Road Speke Liverpool L24 9GR	119m south	Pollution Inventory Waste Transfers – Hazardous Waste notes only Chemicals consisting of or containing dangerous substances.

		• Paint, inks, adhesives and resins containing dangerous substances. • Mineral-based non-chlorinated insulating and heat transmission oils. • Oily water from oil/water separators. • Packaging containing residues of or contaminated by dangerous substances. • Gases in pressure containers (including halons) containing dangerous substances. • Discarded equipment containing chlorofluorocarbons. • Discarded electrical and electronic equipment other than those mentioned in 20 01 21 and 20 01 23 containing hazardous components (6). • Wastes whose collection and disposal is subject to special requirements in order to prevent infection. • Sulphuric acid and sulphurous acid. • Phosphoric and phosphorous acid. • Other acids. • Sodium and potassium hydroxide. • Organic halogenated solvents, washing liquids and mother liquors. • Other organic solvents, washing liquids and mother liquors. • Synthetic engine, gear and lubricating oils. • Absorbents, filter materials (including oil filters not otherwise specified), wiping cloths, protective clothing contaminated by dangerous substances. • Inorganic wastes containing dangerous substances. • Organic wastes containing dangerous substances. • Laboratory chemicals, consisting of or containing dangerous substances, including mixtures of laboratory chemicals.
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		• Discarded inorganic chemicals consisting of or containing dangerous substances. • Discarded organic chemicals consisting of or containing dangerous substances. • Aqueous liquid wastes containing dangerous substances.
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4.4 RADON

Both the Groundsure environmental database and the Radon interactive viewer, indicate that the site is in a low probability radon area where between <1% of homes are estimated to be above the action level. Building control measures suggest that radon protection measures are not required for properties in England and Wales.

4.5 UNEXPLODED ORDNANCE (UXO)

Based on freely available mapping data from Zetica UXO (Zetica UXO, 2008), the site is located within a low-risk area which borders a high-risk area with regards to Unexploded Ordnance (UXO).

A Preliminary Desk Study Assessment (PDSA) was commissioned from Zetica which detailed the site is at low risk from the presence of UXO. No further works are considered necessary. The PDSA is included in Appendix D.

5.0 ENVIRONMENTAL DATABASE SEARCH

5.1 INTRODUCTION

Regulatory authority information relevant to the site and its surroundings has been obtained from the undertaking of an environmental database search (Groundsure™). The information is summarised below, and the environmental database records are enclosed in Appendix B. Distances stated are approximate and are taken from the boundary of the site to the database recorded entries.

The following summary is generally limited to locations within 250m of the site boundaries unless it is considered that installations or activities beyond that range could potentially have an impact on the site or be affected by the redevelopment of the site.

5.2 INFILLED FEATURES

The absence or presence of infilled features at or within 250m of the wider site boundary have been summarised in Table 5.1 below and further details provided in Table 5-2.

Table 5-1 – Summary of Infilled Features

Facility Type	On Site	Off Site
Made, worked, infilled, disturbed ground	Yes	Yes

Table 5-2 – Detail of Infilled Features

Name – On Site	Location on Site	Detail
Cuttings - Highways	Southwest to northeast	1966 – 1991 associated with the construction of North Road
Pond	Centre west	1849 - 1966

Name – Off Site	Distance and Direction	Detail
Cuttings - Railways	4m north to 36m west	1851 – 1991 associated with railway
Ponds	67m east	1891
Pond	167m south	1925 - 1938

5.3 WASTE

The absence or presence of waste facilities at or within 250m of the site boundary have been summarised in Table 5-3 below and detailed in 5-4.

Table 5-3 – Summary of Waste Facilities

Facility Type	On Site	Off Site
Active or Recent Landfill	No	No
Historical Landfill (BGS records)	No	No
Historical Landfill (LA/mapping records)	No	No
Historical Landfill (EA/NRW records)	No	No

Historical Waste Sites	No	Yes
Licensed Waste Sites	No	No
Waste Exemptions	No	Yes

Table 5-4 – Detail of Waste Facilities

Facility Type – On Site	Site Name & Location	Detail
Historical Waste Site	231m southwest MCS House, Shaw Road, Liverpool, Merseyside, L24 9JT	Type of Site: Waste Transfer Station Planning application reference: 11F/0726 Description: Scheme comprises use site as a waste transfer station for clinical waste in addition to the current site uses of storage/distribution and vehicular servicing. An application (ref: 11F/0726) for detailed planning permission was granted by Liverpool C.C. Data source: Historic Planning Application 9 th October 2011
	234m southwest Site Address: Shaw Road, Speke Industrial Estate, St Mary's, Liverpool, Merseyside, L24 9JT	Type of Site: Waste Transfer Station Planning application reference: 92/2600 Description: An application (ref: 92/2600) for Detailed Planning permission was submitted to Liverpool C.C. on 4th January 1993. Construction - brick cladding, steel cladding walls; pitched, steel cladding roof; roller shutter industrial doors; steel frame, portal frame. Data source: Historic Planning Application 1 st September 1993
Waste Exemption	199m southeast 6, Renaissance Way, Liverpool, L24 9PL	Reference: WEX140405 Category: Storing Waste Exemption Sub-category: Not on a farm Description: Storage of waste in a secure Place. Reference: WEX140405 Category: Treating Waste Exemption Sub-category: Not on a farm Description: Preparatory treatments (baling, sorting, shredding etc).
	209m southeast 6, Renaissance Way, Liverpool, L24 9PL	Reference: EPR / AF0004FR / A001 Category: Storing Waste Exemption Sub-category: Non agricultural waste only Description: Storage of waste in a secure Place. Reference: EPR / AF0004FR / A001 Category: Treating Waste Exemption Sub-category: Non agricultural waste only Description: Preparatory treatments (baling, sorting, shredding etc).

5.4 HAZARDOUS SUBSTANCES AND HEALTH & SAFETY

The absence or presence of sites subject to restrictions in relation to Health & Safety within 500m of the site boundary has been summarised in Table 5-5 below.

Table 5-5 – Summary of Facilities Subject to Active Consents within 500m of the Site

Facility Type	On Site	Off Site
Regulated Explosive Sites	No	No
Hazardous Substance Storage/Usage	No	Yes
Historical Licenced Industrial Activities	No	Yes
Licensed Industrial Activities (Part A(1))	No	Yes
Licenced Pollutant Release (Part A(2)/B)	No	Yes
Registered Radioactive Substances Consents	No	No
Control of Major Accident Hazard sites (COMAH)	Yes	Yes

Facility Type – On Site	Location	Location	Details
COMAH Site	Ford Motor Co Ltd, Halewood, Liverpool, L24 9LE	Eastern boundary	Historical NIHHS Site

Facility Type – Off Site	Location	Distance (Direction)	Details
Hazardous substance storage/usage	Elanco UK AH Ltd, Fleming Road, Speke, Liverpool, Merseyside, England, L24 9LN	435m west	Application reference number: No Details Application status: Approved Application date: 02/07/2010

(Approved / Pending)			Details: Application for Hazardous Substance Consent for the storage of substances within Category R50 (toxic to aquatic organisms). Comment: No Enforcement Notified
	Eli Lilly & Co Ltd, Speke Operations, Fleming Road, Speke, Liverpool, Merseyside, England, L24 9LN	441m west	Application reference number:08HZ/1803 Application status: Approved Application date: 26/07/2008 Details: Application for Hazardous Substance Consent for the storage of substances within Category R50 (toxic to aquatic organisms). Comment: No Enforcement Notified
	Eli Lilly And Company, Fleming Road, Halewood, Knowsley, L24 9LN	449m west	Application reference number: 10/00372/HAZ Application status: Pending Application date: 21/06/2010 Details: Storage and use of R50 very toxic to aquatic organisms substances). Comment: No Enforcement Notified
Historical Licensed Industrial Activities	Operator: Apph Ltd Address: PO Box 1, Shaw Road, Speke, Liverpool, Merseyside, L24 9JY	248m south	Process: Inorganic Chemical Processes Permit Number: AN9174 Original Permit Number: IPCAPP Date Approved: 30-11-1994 Effective Date: 8-12-1994 Status: Revoked
	Operator: Novartis Vaccines and Diagnostics Ltd Address: Gaskill Road, Speke, Liverpool, Merseyside, L24 9GR	439m southwest	Process: Pharmaceutical Production Permit Number: AO0768 Original Permit Number: IPCAPP / IPCMINVAR Date Approved: 21-12-1994 Latest Permit Number: BR9332 Effective Date: 1-8-2002 Status: Revoked - now lppc
	Operator: Eli Lilly and Co Ltd Address: Fleming Road, Liverpool, Merseyside, L24 9LN	441m west	Process: Combustion Processes Permit Number: AA3875 Original Permit Number: IPCAPP / IPCMINVAR Date Approved: 31-10-1991 Latest Permit Number: BL6225 Effective Date: 4-10-2005 Status: Revoked – now lppc
Licensed Industrial Activities (Part A(1))	Operator: SEQIRUS VACCINES LIMITED Installation Name: Seqirus Vaccines EPR/BS5401IK Process: Disposal of >50 T/D Non Hazardous Waste (> 100 T/D If	119m south	Issue Date: 06/02/2019 Effective Date: 06/02/2019 Last date noted as effective: 01/07/2021 Status: EFFECTIVE

only AD) Involving Physicochemical Treatment Process: Animal, Vegetable and Food, Disposing etc. Animal Carcasses etc. >10 T/Day Process: Pharmaceuticals; Producing pharmaceuticals using chemical/biological processes Permit Number: PP3932QZ Original Permit Number: BS5401IK		
Operator: SRCL LIMITED Installation Name: Speke Clinical Waste Transfer Station Process: Disposal or recovery of hazardous waste with a capacity exceeding 10 tonnes per day involving biological treatment.	260m southwest	EPR Reference: - Issue Date: - Effective Date: 26/02/2015 Last date noted as effective: 01/07/2016 Status: SURRENDER EFFECTIVE
Operator: SRCL LIMITED Installation Name: Speke Clinical Waste Transfer Station Process: Disposal or recovery of hazardous waste with a capacity exceeding 10 tonnes per day involving biological treatment. Process: Disposal or recovery of Haz Waste waste with a capacity exceeding 10 tonnes per day involving repackaging prior to submission to any of the of the other activities in this section. Process: Other waste disposal: Hazardous >10T/D Permit Number: ZP3733AU Original Permit Number: HP3737ZD	260m southwest	EPR Reference: - Issue Date: - Effective Date: 26/02/2015 Last date noted as effective: 01/07/2021 Status: SURRENDER EFFECTIVE
Operator: MEDIMMUNE UK LTD Installation Name: Renaissance Way, Speke Pharmaceuticals EPR/BL6241IR Process: Pharmaceuticals producing pharmaceuticals using chemical / biological processes Process: Animal vegetable and food: disposing etc animal carcasses etc >10 T/D Permit Number: XP3335YQ Original Permit Number: BL6241IR	290m southwest	EPR Reference: - Issue Date: - Effective Date: 26/02/2015 Last date noted as effective: 01/07/2016 Status: SURRENDER EFFECTIVE
Operator: B TICKLE & SONS LTD Installation Name: INVINCIBLE WORKS - EPR/KP3839DG	301 – 330m southwest	EPR Reference: - Issue Date: 30/06/2017 Effective Date: 30/06/2017

Process: Animal Vegetable and food treating etc Permit Number: KP3839DG Original Permit Number: KP3839DG		Last date noted as effective: 01/07/2021 Status: SUPERCEDED
Operator: DUGDALE NUTRITION LIMITED Installation Name: SPEKE MILL EPR/QP3500PJ Process: Animal vegetable and food treating etc Permit Number: RP3802PT Original Permit Number: QP3500PJ	335 – 395m southwest	EPR Reference: - Issue Date: 08/05/2019 Effective Date: 08/05/2019 Last date noted as effective: 01/07/2021 Status: EFFECTIVE
Operator: CHIRON VACCINES LIMITED Installation Name: SPEKE VACCINE MANUFACTURE Process: Pharmaceuticals producing pharmaceuticals using chemical / biological processes Permit Number: KP3330LF Original Permit Number: KP3330LF	377m south	EPR Reference: - Issue Date: 06/04/2006 Effective Date: 20/12/2006 Last date noted as effective: 01/07/2021 Status: REVOKED
Operator: ELANCO UK AH LIMITED Installation Name: ELANCO AH UK LIMITED Process: Combustion; Any Fuel = >50MW Process: Pharmaceuticals using Chemical / Biological Processes Permit Number: FP3300LL Original Permit Number: MP3603PS	441m west	EPR Reference: - Issue Date: 06/10/2020 Effective Date: 06/10/2020 Last date noted as effective: 01/07/2021 Status: EFFECTIVE
Operator: NOVARTIS VACCINES AND DIAGNOSTICS LIMITED Installation Name: NOVARTIS VACCINES AND DIAGNOSTICS Process: Pharmaceuticals using Chemical / Biological Processes Permit Number: EP3534EH Original Permit Number: BS5401IK	442m south	EPR Reference: - Issue Date: 10/02/2014 Effective Date: 10/02/2014 Last date noted as effective: 01/04/2014 Status: EFFECTIVE
Operator: JAGUAR LAND ROVER LIMITED Installation Name: HALEWOOD COMBUSTION PLANT EPR/BS5673IQ Process: Combustion; Any Fuel = >50MW Permit Number: PP3234EE	466m southeast	EPR Reference: - Issue Date: 12/12/2013 Effective Date: 12/12/2013 Last date noted as effective: 01/07/2021 Status: EFFECTIVE

	Original Permit Number: BS5673IQ		
Licensed pollutant release (Part A(2)/B)	Decoma-Merplas, 6 Renaissance Way, Boulevard Industrial Park, Halewood, L24 9PL	257m southeast	Process: Coating Processes Status: Current Permit Permit Type: Part A2 Comment: No Enforcements Notified
	B Tickle & Sons Limited, Woodend Avenue, Speke, Liverpool, L24 9NB	344m southwest	Process: Animal Feed Compound Status: Historical Permit Permit Type: Part B Comment: No Enforcements Notified
	A P Hydraulics	398m south	Process: Metal Decontamination Status: Historical Permit Permit Type: Part B Comment: No Enforcements Notified
	ELANCO UK AH Limited, Fleming Road, Speke, L24 9LN	428m west	Process: Animal Feed Compound Status: Current Permit Permit Type: Part B Comment: No Enforcements Notified
	Dista Products Ltd, Fleming Rd, L24 9LS	434m northwest	Process: Pet Food Manufacture Status: Historical Permit Permit Type: Part B Comment: No Enforcement Notified
	Eli Lilly & Co Ltd	436m west	Process: Animal Feed Compound Status: Historical Permit Permit Type: Part B Comment: No Enforcement Notified
	Jaguar Cars Ltd, PFS, Speke Boulevard, Halewood, L24 9LE	491m east	Process: Unloading of Petrol into Storage at Service Stations Status: Current Permit Permit Type: Part B Comment: No Enforcements Notified
	Jaguar Cars Ltd, PFS, Speke Boulevard, Halewood, L24 9LE	491m east	Process: Respraying of Road Vehicles Status: Current Permit Permit Type: Part A2 Comment: No Enforcements Notified
Control of Major Accident Hazards	Elanco UK AH Limited, Liverpool, Fleming Road, Speke, Liverpool, Merseyside, L24 9LN	52m north	Current COMAH Site COMAH - Upper Tier Operator
	Medeva Pharma Ltd, Gaskill Road, Speke, L24 9GR	390m south	Historical NIHHS Site
	Glaxo Wellcome Ltd, Speke Boulevard, Liverpool, L24 9JD	484m southwest	Historical NIHHS Site

5.5 ENVIRONMENTAL DESIGNATIONS

The absence or presence of Environmental Designations at or within 250m of the site boundary have been summarised in Table 5-6 below. Full details are provided in Table 5-7 below.

Table 5-6 – Summary of Environmental Designations

	On Site	Off Site
Environmental Designated Areas	No	Yes

Table 5-7 – Detail of Environmental Designations

Facility Type	Location	Distance (Direction)	Details
Nitrate Vulnerable Zone	Dittton Brook (Halewood to Mersey Estuary) NVZ	50m north	Surface water – NVZ ID 5640, Existing
Nitrate Vulnerable Zone	Dittton Brook (Halewood to Mersey Estuary) NVZ	153m east	Surface water – NVZ ID 5640, Existing
SSSI Impact Zone	On site and surrounding area	Site and its surrounding area are located within a SSSI Impact Zone.	See Appendix B for types of developments requiring consultation.

5.6 FLOODING

The absence or presence of flooding potential at the site is summarised in Table 5-8 below.

Table 5-8 – Summary of Flooding Potential

Designation	On Site	Detail
Risk of Flooding from Rivers and Sea	No	No
Historical Flood Events	No	No
Flood Defences	No	No
Area Benefiting from Flood Defences	No	No
Flood Storage Areas	No	No
Flood Zone 2	No	No
Flood Zone 3	No	No
Groundwater Flooding	Low	Highest risk within 50m: Low
Surface Water Flooding	Negligible	Highest risk within 50m: 1 in 30 years, 0.30m – 1.00m

5.7 HISTORICAL LAND USES

The absence or presence of Historical Land Uses at or within 250m of the wider site boundary have been summarised in Table 5-9 below. Further detail is given in Table 5-10.

Table 5-9 – Summary of Industrial Land Uses

Feature	On Site	Off Site
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Historical Industrial Land Uses	Yes	Yes
Historical Tanks	No	Yes
Historical Energy Features	No	Yes
Historical Petrol Stations	No	No
Historical Garages	No	Yes
Historical Military Land	No	No

Table 5-10 – Detail of Historical Land Uses

Type	Entry	Distance (Direction)	Mapping Date
Historical Industrial Land Uses	Cuttings	Onsite to 36m north / west	1851 - 1991
	Unspecified Factory	12m southwest	1966 - 1991
	Bus Depot / Unspecified Depot	13m southwest	1966 - 1991
	Bio-Chemicals Factory	66m northwest	1956
	Unspecified Commercial / industrial	70m northwest	1966
		177m southwest	
	Unspecified Works	70m northwest	1980 - 1991
		84m south	
		146m southwest	
		148m southwest	1966
		187m east	1980 - 1991
	Engineering Works	85m south	1956 - 1966
	Garage	106m west	1980 – 1991
		109m west	1966
	Unspecified tanks	111m northwest	1980 - 1991
		121m northwest	
		129m northwest	1966 - 1991
		191m northwest	1980 - 1991
		194m northwest	
		199m northwest	1966 - 1991
	Motor Car Works	187m east	1966
	Railway Sidings	187m east	1966 – 1991
Historical Tanks	Tanks	11m southwest	1962 - 1993

		82m southwest	1971 - 1992
Historical Tanks	Unspecified Tanks	18m southwest	1971 - 1993
		91m south	1971 - 1992
Historical Energy Features	Electricity Substation	202m southwest	1971 - 1993
		206m southwest	1971 - 1993
		214m northwest	1993
		226m southwest	1971 - 1993
		241m southwest	1971 - 1993
		249m northwest	1953
Historical Garages	Garage	13m southwest	1993
		107m west	1992
		108m west	1971

5.8 CURRENT INDUSTRIAL LAND USES

The absence or presence of Current Industrial Land Uses at or within 250m of the wider site boundary have been summarised in Table 5-11 below. Further detail is given in Table 5-12.

Table 5-11 – Summary of Points of Interest

Entry	On Site	Off Site
Recent Industrial Land Uses	Yes	Yes
Current or Recent Petrol Stations	No	No
Electricity Cables	No	No
Gas Pipelines	No	No
Sites Determined as Contaminated Land	No	No

Table 5-12 – Detail of Current Industrial Land Uses

Type	Entry	Distance (Direction)	Details
Recent Industrial Land Uses	Electricity Sub-Station	Onsite	Electrical Features
		4m Northeast	
		73m North	
		81m East	
		82m South	
		127m Southeast	
		146m West	
		150m Southwest	
		190m Southwest	
		208m Southwest	
		221m Southwest	
		228m South	

		231m Northwest	
	Pylon	45m Northeast	
	Bus Depot / Arriva Plc	42 - 101m Southwest	Bus and Coach Stations, Depots and Companies
	Tank	123m Northwest	Tanks Generic
		131m Northwest	
		132m Northwest	
		144m Northwest	
		156m Northwest	
		160m Northwest	
		165m Northwest	
		196m West	
		200m Northwest	
		208m Northwest	
		213m West	
		219m West	
	Espack Eurologistica	138m Southwest	Container and Storage
	Auto Renew Ltd	173m Southwest	Vehicle Repair, Testing and Servicing
	Magna	199m Southeast	Vehicle Components
	Sarah's Steels	208m Southwest	Metalworkers Including Blacksmiths
	M C & C Motor Engineers	222m Southwest	Vehicle Repair, Testing and Servicing
	S N S Autos	224m Southwest	Vehicle Repair, Testing and Servicing

6.0 CONCEPTUAL SITE MODEL AND PRELIMINARY GROUND CONTAMINATION RISK ASSESSMENT

6.1 OVERVIEW

The information presented in the previous sections of this report have been collated and evaluated to establish an initial qualitative risk assessment for the site. A conceptual model of the site has been generated based on information derived from this Phase 1 Geo-environmental Assessment, supplemented by information attained during the Tetra Tech site walkover.

The site has been considered with regard to current UK legislation and guidance, namely Part 2A of the Environmental Protection Act 1990 and the Contaminated Land (England) Regulations 2006, as amended, and in accordance with current UK good practice guidelines (for example BS10175:2011).

In general, ground contamination can occur through several causes, particularly from historical operations and activities. Contamination can result from either on-site sources or from on-site migration from off-site sources, leading to long term liabilities under recent legislation for any site owner.

For a risk of pollution or environmental harm to occur as a result of ground contamination, all of the following elements must be present:

- Source, i.e. a substance that is capable of causing pollution or harm;
- Pathway, i.e. a route by which the contaminant can reach a target; and
- Receptor (target), i.e. something which could be adversely affected by the contaminant.

If one of these elements is absent there can be no significant risk. If all are present then the magnitude of the risk is a function of the magnitude and mobility of the source, the sensitivity of the receptor and the nature of the migration pathway.

6.2 CURRENT SITE USAGE AND PROPOSED DEVELOPMENT

The site currently comprises of an existing warehouse with areas of hardstanding utilised as carparking which is to be extended with a single storey extension on the eastern side of the building.

It is understood that the development is for a proposed extension to the existing eastern side of the structure.

6.3 CONCEPTUAL SITE MODEL

The key source, pathways and receptor model is outlined below within the context of potential development of the site.

6.3.1 Potential Sources of Contamination

Potential sources within the proposed development area include the following:

On-site Sources

- Made Ground – potential contaminants associated with the infilled pond and historic landuse at the site including historical NIHHS Site (COMAH) – Ford Motor Co.
- Made Ground – potential ground gas associated with the likely infilled pond and historic landuse;
- Asbestos associated with unknown nature of underlying Made Ground.

Off-site Sources

- Potential contamination associated with historic land use surrounding the site including Biochemicals Plant, historical waste sites, engineering works, factory, railway, electricity substations and tanks;

- Made Ground – potential ground gas associated with the likely infilled ponds and historic landuses.

6.3.2 Potential Contaminant Pathways

The following contaminant pathways are considered to potentially be active based on the current site use and proposed development:

Human Exposure Pathways

- Direct dermal contact or ingestion of soils, or inhalation of dust and/or vapours (i.e. human interaction with surface and sub-surface materials).

Environmental Pathways

- Leaching and horizontal or vertical migration through the unsaturated ground, either through permeable sub-surface materials and/or preferential pathways.
- Lateral and vertical migration of groundwater through permeable sub-surface materials and/ or preferential pathways.
- Leaching to surface water run-off/drainage.
- The migration and accumulation of gases or vapours through permeable sub-surface materials and/ or preferential pathways.

6.3.3 Potential Receptors at Risk

The following potential receptors have been identified:

Human Health

- Future site users (commercial).
- Construction / Maintenance Workers (during construction).
- Adjacent site users (commercial).

Wider Environment

- Building Infrastructure and supply pipes.
- Adjacent Properties.
- Underlying Secondary Undifferentiated Aquifer (Glacial Till).
- Underlying Principal Aquifer (Chester Formation).

6.4 GROUND CONDITIONS RISK ASSESSMENT

The source, pathway, receptor linkages identified in the previous section are outlined and a qualitative risk assessment shown in the following tables.

The risk assessment considers the site within an area context and assesses potential risks to identified receptors in relation to the existing site setting and the proposed development. CIRIA C552 has been used to define the risk rating presented in the Qualitative Risk Assessment matrix, the methodology for which is presented in Appendix E.

Table 6-1 – CIRIA C552 Qualitative Risk Assessment (On Site Sources)

This matrix is based on CIRIA C552 risk evaluation methodology, definitions for risk ratings is presented in Appendix E						
Source	Pathway	Receptor	Consequence of risk being realised	Probability of risk being realised	Risk Classification	Justification & Potential Risk Management (if required)
Ground Conditions – Asbestos within the Made Ground	Dermal contact, ingestion and/or inhalation of or dusts	Human Health – Future site users (commercial)	Severe	Unlikely	Moderate/Low	Hard standing associated with the proposed development will act as an impermeable barrier and break the source pathway receptor linkage. Ground conditions to be confirmed however, through site investigation.
		Human Health (Construction and Maintenance Workers with PPE)		Unlikely	Moderate/Low	Risk reduced to low through the use of appropriate site practices and PPE.
Ground Conditions – Made Ground contaminants associated with infilled ground and former and current landuse	Dermal contact, ingestion and/or inhalation of or dusts	Human Health – Future site users (Commercial)	Severe	Unlikely	Moderate/Low	Hard standing associated with the proposed development will act as an impermeable barrier and break the source pathway receptor linkage. Ground conditions to be confirmed however, through site investigation.
		Human Health (Construction and Maintenance Workers with PPE)	Severe	Likely	High	Risk reduced to low through the use of appropriate site practices and PPE.
	Leaching to groundwater, drainage and lateral / vertical migration.	Adjacent properties and land users	Medium	Unlikely	Low	Made Ground is anticipated and underlain by cohesive strata under the proposed development area. To be confirmed through appropriate ground investigation.
		Secondary Undifferentiated Aquifer	Medium	Unlikely	Low	The site does not fall within a SPZ. The superficial strata is considered to be low sensitivity due to its cohesive nature and providing adequate cover to the underlying principal aquifer and due to the thickness of the cohesive strata (based on local borehole logs) it is considered that there is no significant pathway to the underlying strata. To be confirmed through appropriate ground investigation.
		Principal Aquifer	Severe	Unlikely	Low/Moderate	

	Migration along/into service ducts and pipework	Buildings and Services	Medium	Unlikely	Low	Potential risk to be determined through appropriate ground investigation to identify underlying ground conditions and presence/absence of hydrocarbons.
Ground Gas and vapours associated with infilled ground	Generation and migration / accumulation of ground gases	Human Health – Future Site Users	Severe (Asphyxiation & Explosion)	Low	Moderate	Ground gas generation for the majority is considered low, except for the infilled pond where a localised moderate risk may be present. To be clarified through ground gas monitoring.

Table 6-2 – CIRIA C552 Qualitative Risk Assessment (Off Site Sources)

This matrix is based on CIRIA C552 risk evaluation methodology, definitions for risk ratings is presented in Appendix E						
Source	Pathway	Receptor	Consequence of risk being realised	Probability of risk being realised	Risk Classification	Potential risk management requirements
Made Ground associated with surrounding uses including biochemicals plant, electricity substations (pre 1970), railway and tanks etc.	Leaching to groundwater, drainage and lateral / vertical migration.	Groundwater beneath the site	Medium	Unlikely	Low	There is potential for hydrocarbons from historical and active adjacent land uses. Potential contaminative sources are a significant distance away from the site. The presence of low permeability cohesive soils underlying the site provide an unlikely pathway for off-site contaminants to migrate to the site area. To be determined through appropriate ground investigation.
	Dermal contact, ingestion and/or	Human Health – Future site users (Commercial)	Severe	Unlikely	Moderate/Low	There is potential for vapours / dusts to migrate onto site from off site sources and as such would need to be determined through appropriate investigation.

	inhalation of or dusts	Human Health (Construction and Maintenance Workers with PPE)	Severe	Unlikely	Moderate/Low	
Ground Gas and vapours associated with infilled ground	Generation and migration / accumulation of ground gases	Human Health – Future Site Users	Severe (Asphyxiation & Explosion)	Unlikely	Moderate/Low	Localised infilled ponds within 250m however, low permeability of cohesive layers within superficial deposits will limit the vertical and lateral migration pathways for ground gas.
		Buildings and Services	Severe (Explosion)	Unlikely	Moderate/Low	

7.0 PRELIMINARY GEOTECHNICAL ASSESSMENT

Based on the information identified in the preceding sections, the table below summarises the anticipated ground conditions and associated geotechnical assessment for the site, including highlighting the potential constraints for future development. Actual ground conditions will need to be confirmed through ground investigation in due course.

7.1 ANTICIPATED GROUND CONDITIONS

The following ground conditions are anticipated underlying the site:

- Made Ground of unknown composition and thickness associated with the historic and current land use.
- Superficial Strata of Glacial Till located across the site anticipated to be approximately 38m thick based on historic borehole data.
- Bedrock Strata of Chester Formation is anticipated to be present at an unknown depth beneath the Glacial Till.
- Groundwater is potentially present in the glacial till and underlying bedrock.

7.1.1 Ground Stability

Table 7-1 indicates the potential ground stability hazards on site, as obtained from the environmental database:

Table 7-1 – Ground Stability Hazards.

Ground Stability Hazard	Risk
Collapsible Ground	Very Low
Compressible Ground	Negligible
Ground Dissolution	Negligible
Landslide	Very Low
Running Sand	Very Low
Shrinking or Swelling Clay	Very Low

7.2 SLOPE STABILITY

The site was noted to be level during the site walkover at approximately at approximately 31m Above Ordnance Datum (m AOD) and as such no issues in relation to slope stability are anticipated.

7.3 ENABLING WORKS

7.3.1 Anticipated Cut and Fill

The site is level and as such no significant cut and fill is considered likely to be required to facilitate the proposed development.

Imported Made Ground may have been brought onto site to infill the pond located to the centre of site associated with the construction of North Road in 1966. Following the redevelopment of the site, the infilled Made Ground is anticipated to be present beneath the existing commercial development and was likely to have been remediated as part of those works.

7.3.2 Existing Foundations

The existing foundation plan of the site has been provided by the client, referenced 23799 dated May 2000 undertaken by Curtins appended in Drawings, which details the use of a combined pad and pile foundation solution. The piled foundations were adopted due to the deepening of Made Ground in the location of an infilled road cutting beneath the existing structure

7.4 DRAINAGE

The soils are anticipated to be of low permeability and therefore soakaway drainage is not considered to be suitable and alternative drainage should be utilised.

7.5 POTENTIAL CONSTRAINTS

Within the context of this geotechnical assessment and based on the information above, the following potential constraints have been identified with respect to the proposed development:

- Unknown depths of superficial soils onsite.
- Potential localised areas of deeper made ground associated with infilled pond onsite.

It should, however, be noted that the actual ground conditions will need to be confirmed through intrusive investigation and laboratory testing in due course to inform any potential foundation design.

8.0 CONCLUSIONS AND RECOMMENDATIONS

8.1 CONCLUSIONS

8.1.1 Geotechnical Assessment

The geotechnical issues at this site relate the following:

- Made Ground of unknown thickness across much of the site.
- Infilled pond of unknown backfill.
- Natural deposits of unknown competence and thickness

8.1.2 Ground Contamination

The risk from ground contamination at the site is considered to be as follows:

- Construction / maintenance workers, the risk is considered to be **High** from asbestos and **Moderate/Low** from all other potential sources of contamination which will be lowered to **low** through the use of PPE and other appropriate working procedures.
- Building infrastructure and supply pipes, specifically water supply pipes, the risk is considered to be **Low** in the absence of mitigation.
- Future site users / maintenance workers, the risk is considered to be **Moderate/Low** from asbestos and other potential sources of contamination.
- Adjacent properties and Aquifers, the risk is considered to be **Low** from the Made Ground presently on site.
- Aquifers, the risk is considered to be **Moderate/Low** from the Made Ground presently on site.

The risk from ground gas is considered to be as follows:

- A **Moderate** rating related to the potential for gases generated from the unknown composition of the infilled pond onsite and local areas of infilled land of site including infilled ground.

The risk to groundwater from off and onsite sources impacting the site is considered to be as follows:

- A **Moderate** risk is posed to groundwater beneath the site.

8.2 RECOMMENDATIONS

Ground investigation should be undertaken to determine whether the potential risks identified for the site are present. The ground investigation should:

- Assess ground conditions to determine contamination status at the site beneath proposed development area.
- Carry out ground gas monitoring to refine risk assessment beneath proposed development area.
- Assess ground conditions to inform foundation design.
- Assess presence/absence of shallow groundwater.
- Undertake chemical characterization of soils in the event that they are to be re-used/disposed off-site (e.g. foundation arisings).

9.0 REFERENCES

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DRAWINGS



- KEY:
- PHASE 1 - 16 INCUBATORS & EXTEND BUILDING
 - PHASE 2 - 10 INCUBATORS
 - PHASE 3 - 10 INCUBATORS
 - PHASE 4 - 8 INCUBATORS
- KEY:
- RED LINES DENOTE TEMPORARY DEMARCATION FOR CONSTRUCTION AREAS
 - PHASE 2 - TEMPORARY WALL
 - NEW CORRIDOR WALL TO ACCESS EXTENSION
 - PHASE 3 - TEMPORARY WALL
 - PHASE 4 - TEMPORARY WALL
 - PHASE 5 - TEMPORARY WALL

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Seqirus
A CSL COMPANY

Engineering Department
Renaissance Way
Liverpool
L24 9JW
UK

Tel : +44(0)151 705 5000
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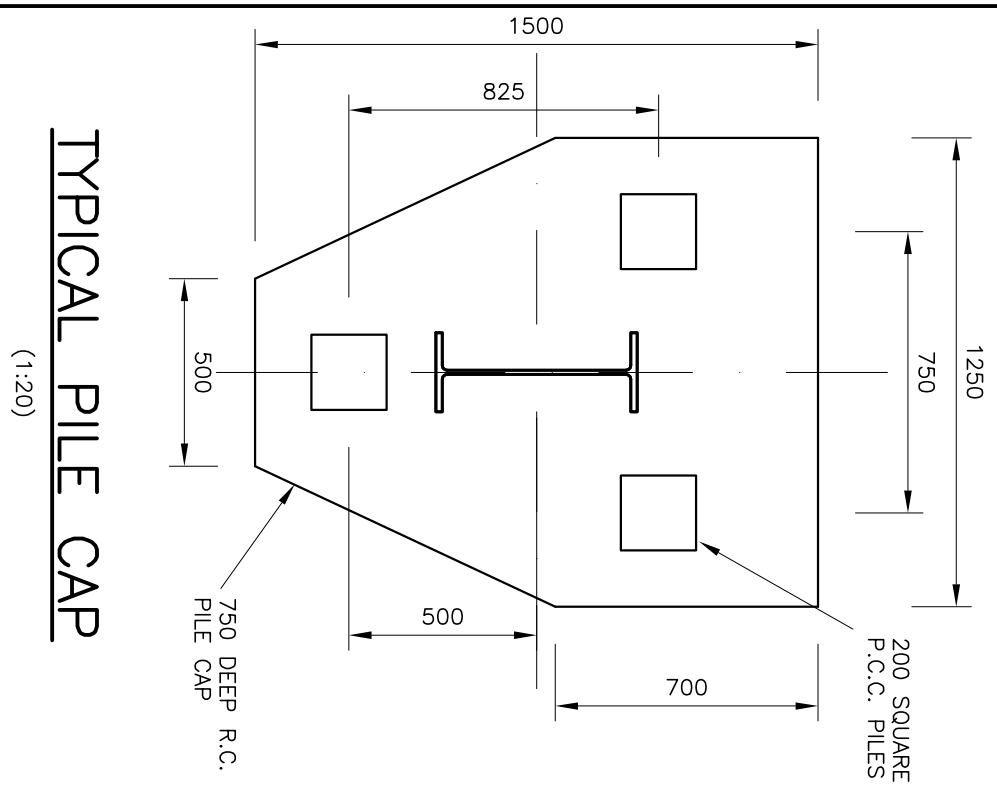
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- 4MM EXISTING DIMS NOTED ON THIS DRAWING ARE TO BE CHECKED BY THE CONSTRUCTION PRIMER TO DETERMINE OF WORKS.
- CONCRETE COVER TO BE 30mm TOP AND BOTTOM.
- REINFORCEMENT IS TO COMPLY WITH BS4443 & BS4446.
- TOTAL WORKS TO BE CARRIED OUT STRICT ACCORDANCE WITH THE ENGINEERS SPECIFICATIONS, RELEVANT BRITISH STANDARDS AND WHERE APPLICABLE LOCAL AUTHORITY REQUIREMENTS.
- ARCHITECTS LATEST DRAWINGS. REFER TO DRGS 23799/005 AND 012.
- 9.4.1. REINFORCEMENT IS TO BE DONE COT.
- TOTAL CONCRETE TO BE DONE COT. ATMINUM 300mm³ STRENGTH AT 28 DAYS CLASS 2 TO BE DONE COT.
- MINIMUM AGGREGATE CONTENT TO BE 1300kg/m³
- MINIMUM AGGREGATE SIZE TO BE 20mm
- MINIMUM FREE WATER/CEMENT RATIO TO BE 0.55.
- 11.1.1. ALL PAD FOUNDATIONS ARE TO BE FORMED IN THE SOULDER CAP. AT MINIMUM 200mm STRENGTH.
- 12.1.1. ALL PAD FOUNDATIONS ARE TO BE FORMED IN THE SOULDER CAP. THE PADS HAS BEEN DETERMINED AS 1000kg/m³
- 13.1.1. ALL PAD FOUNDATIONS ARE TO BE FORMED IN THE SOULDER CAP. THE PADS HAS BEEN DETERMINED AS 1000kg/m³
- 14.1.1. ALL PAD FOUNDATIONS ARE TO BE FORMED IN THE SOULDER CAP. THE PADS HAS BEEN DETERMINED AS 1000kg/m³
- 15.1.1. ALL PAD FOUNDATIONS ARE TO BE FORMED IN THE SOULDER CAP. THE PADS HAS BEEN DETERMINED AS 1000kg/m³
- 16.1.1. ALL PAD FOUNDATIONS ARE TO BE FORMED IN THE SOULDER CAP. THE PADS HAS BEEN DETERMINED AS 1000kg/m³

FOUNDATION DETAILS

PAD TYPE	PAD DIMENSIONS
A	3000 x 3000 x 1400 DEEP (MIN.)
B	2700 x 2700 x 1100 DEEP (MIN.)
C	1800 x 1800 x 800 DEEP (MIN.)
D	1500 x 1500 x 650 DEEP (MIN.)
E	1700 x 1700 x 750 DEEP (MIN.)
F	2500 x 2500 x 1200 DEEP (MIN.)
G	2250 x 2250 x 1000 DEEP (MIN.)
H	2800 x 2800 x 1200 DEEP (MIN.)
I	1800 x 1800 x 800 DEEP (MIN.)
J	1000 x 1000 x 500 DEEP (MIN.)

TYPICAL PILE CAP



J	GROUND BEAM BETWEEN OFFICE AND	6/12/00	LC	IN
I	GROUND BEAM BETWEEN OFFICE AND	6/12/00	LC	IN
H	GROUND BEAM BETWEEN OFFICE AND	6/12/00	LC	IN
G	GROUND BEAM BETWEEN OFFICE AND	6/12/00	LC	IN
F	GROUND BEAM BETWEEN OFFICE AND	6/12/00	LC	IN
E	GROUND BEAM BETWEEN OFFICE AND	6/12/00	LC	IN
D	GROUND BEAM BETWEEN OFFICE AND	6/12/00	LC	IN
C	GROUND BEAM BETWEEN OFFICE AND	6/12/00	LC	IN
B	GROUND BEAM BETWEEN OFFICE AND	6/12/00	LC	IN
A	GROUND BEAM BETWEEN OFFICE AND	6/12/00	LC	IN

FOUNDATION GENERAL ARRANGEMENT

BOULEVARD
INDUSTRY PARK
STADCO
PLOT 4

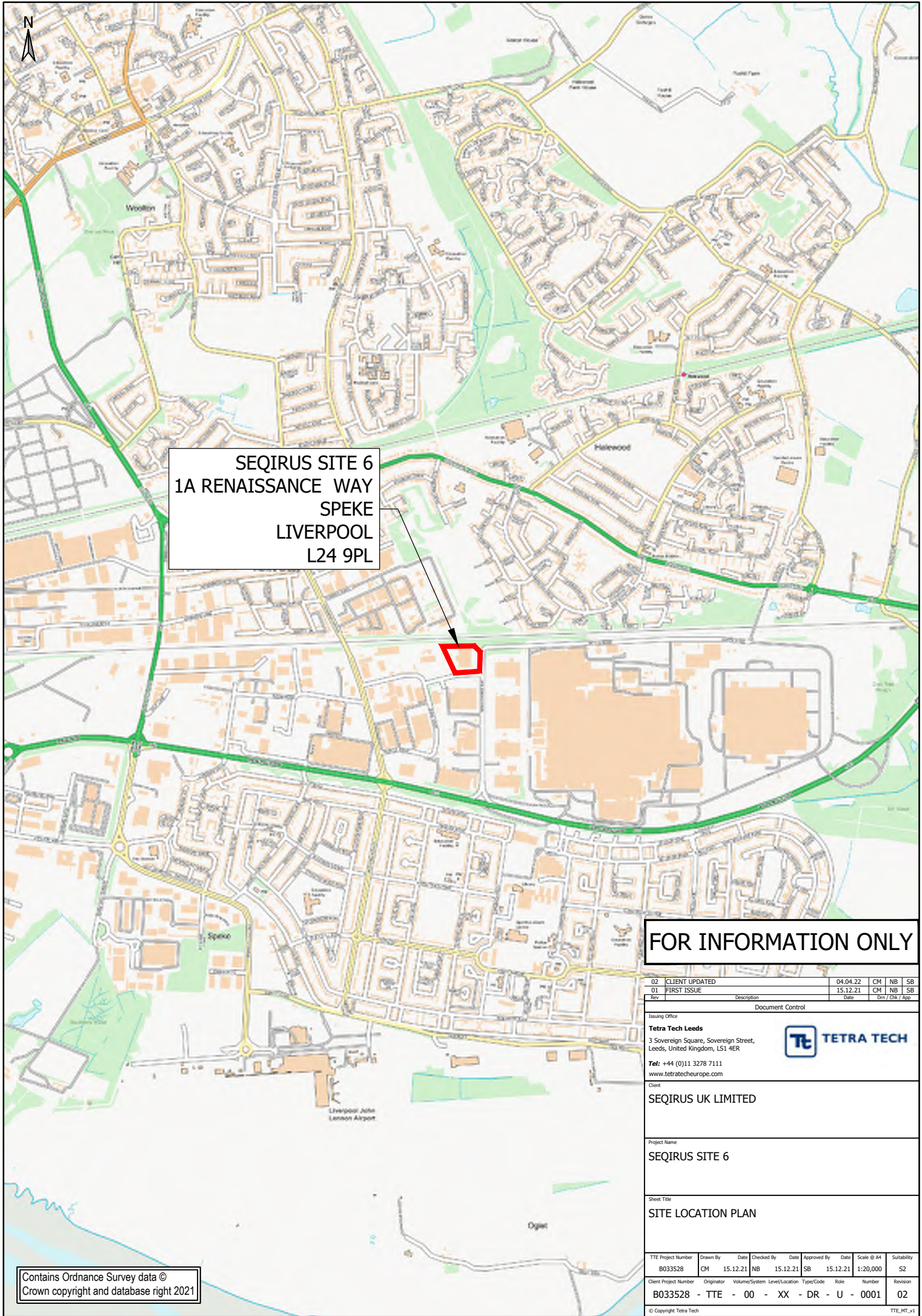
Curtins

Curtins House
Columbus Quay, Riverside Drive
Liverpool L3 0UB

Telephone 0151 728 2000
Fax 0151 728 2000
E-mail hyperpool@curtins.com

This Office is Birmingham, Bristol, Cardiff, Glasgow, Manchester, London, Leeds, Newcastle, Nottingham, Oxford, Southampton, Stoke-on-Trent, Swansea, Telford, Walsley, Wolverhampton.

Scale: 1:100
Drawn By: L. CARROLL
Checked By: IW
First Issue: MAY 2000



SEQIRUS SITE 6
1A RENAISSANCE WAY
SPEKE
LIVERPOOL
L24 9PL

FOR INFORMATION ONLY

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01	FIRST ISSUE	15.12.21	CM	NB	SB
Rev	Description	Date	Drn	Chk	App

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Issuing Office
Tetra Tech Leeds
3 Sovereign Square, Sovereign Street,
Leeds, United Kingdom, LS1 4ER
Tel: +44 (0)11 3278 7111
www.tetrateteurope.com

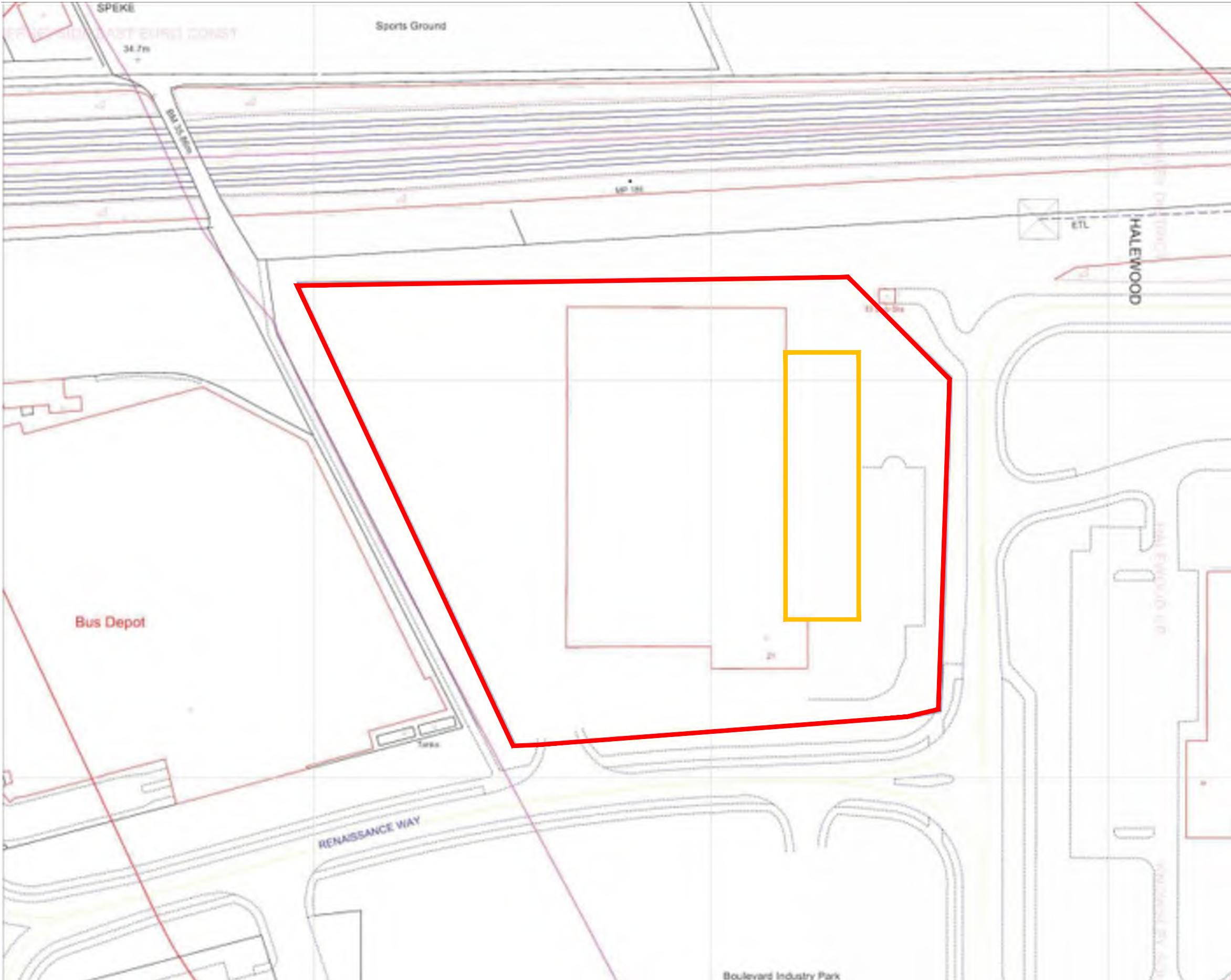


Client
SEQIRUS UK LIMITED

Project Name
SEQIRUS SITE 6

Sheet Title
SITE LOCATION PLAN

TTE Project Number	Drawn By	Date	Checked By	Date	Approved By	Date	Scale @ A4	Suitability
B033528	CM	15.12.21	NB	15.12.21	SB	15.12.21	1:20,000	S2
Client Project Number	Originator	Volume/System	Level/Location	Type/Code	Role	Number	Revision	
B033528	- TTE	- 00	- XX	- DR	- U	- 0001	02	



KEY



SITE BOUNDARY



PROPOSED
EXTENSION

FOR INFORMATION ONLY

02	CLIENT UPDATED	04.04.22	CM	NB	SB
01	FIRST ISSUE	15.12.21	CM	NB	SB
Rev	Description	Date	Rev	Rev	Rev

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Issuing Office:
Tetra Tech Manchester
Quay West at Media City UK,
Trafford Wharf Road, Trafford Park,
Manchester, M17 1HH
Tel: +44 (0)161 872 3223
www.tetrateteurope.com



Client:

SEQIRUS UK LIMITED

Project Name:

SEQIRUS SITE 6

Sheet Title:

PROPOSED DEVELOPMENT PLAN

TTE Project Number	Drawn By	Date	Checked By	Date	Approved By	Date	Scale @ A3	Suitability
B033528	CM	15.12.21	NB	15.12.21	SB	15.12.21	1:1,000	S2
Client Project Number	Originator	Volume/System	Level/Location	Type/Code	Role	Number	Revision	
B033528	- TTE	- 00	- XX	- DR	- U	- 0002	02	

PHOTO PLATES



Photo Plate No. 01: View of northern site boundary and plant connecting to northern side of building (Looking West).



Photo Plate No. 02: View of car parking to the east onsite (Looking South).

**Quay West at MediaCityUK,
Trafford Wharf Road,
Trafford Park,
Manchester M17 1HH**

**Tel: 0161 872 3223
Fax: 0161 872 3192
E-mail WYG.Enquiries@tetrattech.com**

**Environmental Consultancy
Ground Technologies & Investigation**



Project: Seqirus Site 6, Speke

Client: Seqirus UK Limited

Site Walkover Photo Plates

Project No.: B033528

Date: April 2022



Photo Plate No. 03: View of southern side of building (Looking Northwest).



Photo Plate No. 04: View of western side of the building (Looking Northeast).

**Quay West at MediaCityUK,
Trafford Wharf Road,
Trafford Park,
Manchester M17 1HH**

**Tel: 0161 872 3223
Fax: 0161 872 3192
E-mail WYG.Enquiries@tetrattech.com**

**Environmental Consultancy
Ground Technologies & Investigation**



Project: Seqirus Site 6, Speke

Client: Seqirus UK Limited

Site Walkover Photo Plates

Project No.: B033528

Date: April 2022



Photo Plate No. 05: View of western side of building (Looking Southeast).



Photo Plate No. 06: Tank and pump house located in Northwest corner of the site.

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Trafford Park,
Manchester M17 1HH**

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Ground Technologies & Investigation**



Project: Seqirus Site 6, Speke

Client: Seqirus UK Limited

Site Walkover Photo Plates

Project No.: B033528

Date: April 2022



Photo Plate No. 07: Refuse area in the Western part of the site.



Photo Plate No. 08: Structure housing electrical plant in the Western part of the site.

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Manchester M17 1HH**

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Ground Technologies & Investigation**



Project: Seqirus Site 6, Speke

Client: Seqirus UK Limited

Site Walkover Photo Plates

Project No.: B033528

Date: April 2022



Photo Plate No. 09: Site entrance in the Southwest corner of the site (Looking South).



Photo Plate No. 10: Electricity sub-station adjacent to the Northeast boundary of the site.

**Quay West at MediaCityUK,
Trafford Wharf Road,
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Manchester M17 1HH**

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Site Walkover Photo Plates

Project No.: B033528

Date: April 2022

APPENDICES

APPENDIX A – REPORT CONDITIONS

APPENDIX A - REPORT CONDITIONS

GEO-ENVIRONMENTAL DESK STUDY REVIEW

This report is produced solely for the benefit of Seqirus UK Limited and no liability is accepted for any reliance placed on it by any other party unless specifically agreed in writing otherwise.

This report refers, within the limitations stated, to the condition of the site at the time of the inspections. No warranty is given as to the possibility of future changes in the condition of the site.

This report is based on a study of readily accessible referenced historical records. Some of the opinions are based on unconfirmed data and information and are presented in good faith without exhaustive clarification. Where ground conditions are discussed but no physical site test results are available to confirm this, the report must be regarded as initial advice only, and further assessment should be undertaken prior to detailed activities related to the site. Where test results undertaken by others have been made available these can only be regarded as a limited sample.

Whilst confident in the findings detailed within this report because there are no exact UK definitions of these matters, we are unable to give categorical assurances that they will be accepted by Authorities or Funds etc. without question, as such bodies may have unpublished, often more stringent objectives. This report is prepared for the proposed uses stated in the report and should not be used in a different context without reference to Tetra Tech. In time improved practices or amended guidance may necessitate a re-assessment. The opinions expressed cannot be absolute due to the limitations of time and resources within the context of the agreed brief and the possibility of unrecorded previous use and abuse of the site and adjacent sites. The report concentrates on the site as defined in the report and provides an opinion on surrounding sites.

APPENDIX B – GROUNDSURE REPORT

1A IAC, RENAISSANCE WAY, HALEWOOD, L24 9PL

Order Details

Date: 13/12/2021
Your ref: B033528
Our Ref: GS-8397721
Client: Tetra Tech Archaeology

Site Details

Location: 343900 384375
Area: 1.52 ha
Authority: [Knowsley Metropolitan Borough Council](#)



Summary of findings

p. 2

Aerial image

p. 8

OS MasterMap site plan

p.13

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
<u>14</u>	<u>1.1</u>	<u>Historical industrial land uses</u>	1	14	23	35	-
<u>17</u>	<u>1.2</u>	<u>Historical tanks</u>	0	3	44	48	-
<u>21</u>	<u>1.3</u>	<u>Historical energy features</u>	0	0	8	28	-
23	1.4	Historical petrol stations	0	0	0	0	-
<u>23</u>	<u>1.5</u>	<u>Historical garages</u>	0	1	2	1	-
23	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
<u>24</u>	<u>2.1</u>	<u>Historical industrial land uses</u>	3	22	36	51	-
<u>29</u>	<u>2.2</u>	<u>Historical tanks</u>	0	8	82	79	-
<u>35</u>	<u>2.3</u>	<u>Historical energy features</u>	0	0	15	48	-
37	2.4	Historical petrol stations	0	0	0	0	-
<u>38</u>	<u>2.5</u>	<u>Historical garages</u>	0	1	2	1	-
Page	Section	Waste and landfill	On site	0-50m	50-250m	250-500m	500-2000m
39	3.1	Active or recent landfill	0	0	0	0	-
39	3.2	Historical landfill (BGS records)	0	0	0	0	-
40	3.3	Historical landfill (LA/mapping records)	0	0	0	0	-
40	3.4	Historical landfill (EA/NRW records)	0	0	0	0	-
<u>40</u>	<u>3.5</u>	<u>Historical waste sites</u>	0	0	2	4	-
<u>42</u>	<u>3.6</u>	<u>Licensed waste sites</u>	0	0	0	4	-
<u>43</u>	<u>3.7</u>	<u>Waste exemptions</u>	0	0	4	12	-
Page	Section	Current industrial land use	On site	0-50m	50-250m	250-500m	500-2000m
<u>45</u>	<u>4.1</u>	<u>Recent industrial land uses</u>	1	3	32	-	-
47	4.2	Current or recent petrol stations	0	0	0	0	-
48	4.3	Electricity cables	0	0	0	0	-
48	4.4	Gas pipelines	0	0	0	0	-
48	4.5	Sites determined as Contaminated Land	0	0	0	0	-



48	4.6	<u>Control of Major Accident Hazards (COMAH)</u>	1	0	1	2	-
49	4.7	Regulated explosive sites	0	0	0	0	-
49	4.8	<u>Hazardous substance storage/usage</u>	0	0	0	4	-
50	4.9	<u>Historical licensed industrial activities (IPC)</u>	0	0	1	24	-
53	4.10	<u>Licensed industrial activities (Part A(1))</u>	0	0	3	51	-
61	4.11	<u>Licensed pollutant release (Part A(2)/B)</u>	0	0	0	8	-
63	4.12	<u>Radioactive Substance Authorisations</u>	0	0	0	3	-
63	4.13	<u>Licensed Discharges to controlled waters</u>	0	0	0	1	-
64	4.14	Pollutant release to surface waters (Red List)	0	0	0	0	-
64	4.15	<u>Pollutant release to public sewer</u>	0	0	0	1	-
64	4.16	<u>List 1 Dangerous Substances</u>	0	0	0	2	-
65	4.17	<u>List 2 Dangerous Substances</u>	0	0	0	1	-
65	4.18	<u>Pollution Incidents (EA/NRW)</u>	0	0	1	4	-
66	4.19	<u>Pollution inventory substances</u>	0	0	2	9	-
70	4.20	<u>Pollution inventory waste transfers</u>	0	0	1	4	-
87	4.21	Pollution inventory radioactive waste	0	0	0	0	-
Page	Section	Hydrogeology	On site	0-50m	50-250m	250-500m	500-2000m
88	5.1	<u>Superficial aquifer</u>	Identified (within 500m)				
89	5.2	<u>Bedrock aquifer</u>	Identified (within 500m)				
90	5.3	<u>Groundwater vulnerability</u>	Identified (within 50m)				
91	5.4	Groundwater vulnerability- soluble rock risk	None (within 0m)				
91	5.5	Groundwater vulnerability- local information	None (within 0m)				
92	5.6	<u>Groundwater abstractions</u>	0	0	20	32	0
106	5.7	Surface water abstractions	0	0	0	0	0
106	5.8	Potable abstractions	0	0	0	0	0
106	5.9	Source Protection Zones	0	0	0	0	-
106	5.10	Source Protection Zones (confined aquifer)	0	0	0	0	-
Page	Section	Hydrology	On site	0-50m	50-250m	250-500m	500-2000m
107	6.1	Water Network (OS MasterMap)	0	0	0	-	-



107	6.2	Surface water features	0	0	0	-	-
108	6.3	<u>WFD Surface water body catchments</u>	1	-	-	-	-
108	6.4	WFD Surface water bodies	0	0	0	-	-
108	6.5	<u>WFD Groundwater bodies</u>	1	-	-	-	-
Page	Section	River and coastal flooding	On site	0-50m	50-250m	250-500m	500-2000m
110	7.1	Risk of flooding from rivers and the sea	None (within 50m)				
110	7.2	Historical Flood Events	0	0	0	-	-
110	7.3	Flood Defences	0	0	0	-	-
111	7.4	Areas Benefiting from Flood Defences	0	0	0	-	-
111	7.5	Flood Storage Areas	0	0	0	-	-
112	7.6	Flood Zone 2	None (within 50m)				
112	7.7	Flood Zone 3	None (within 50m)				
Page	Section	Surface water flooding					
113	8.1	<u>Surface water flooding</u>	1 in 30 year, 0.3m - 1.0m (within 50m)				
Page	Section	Groundwater flooding					
115	9.1	<u>Groundwater flooding</u>	Low (within 50m)				
Page	Section	Environmental designations	On site	0-50m	50-250m	250-500m	500-2000m
116	10.1	Sites of Special Scientific Interest (SSSI)	0	0	0	0	0
117	10.2	Conserved wetland sites (Ramsar sites)	0	0	0	0	0
117	10.3	Special Areas of Conservation (SAC)	0	0	0	0	0
117	10.4	Special Protection Areas (SPA)	0	0	0	0	0
117	10.5	National Nature Reserves (NNR)	0	0	0	0	0
118	10.6	<u>Local Nature Reserves (LNR)</u>	0	0	0	0	1
118	10.7	<u>Designated Ancient Woodland</u>	0	0	0	0	3
118	10.8	Biosphere Reserves	0	0	0	0	0
119	10.9	Forest Parks	0	0	0	0	0
119	10.10	Marine Conservation Zones	0	0	0	0	0
119	10.11	<u>Green Belt</u>	0	0	0	0	4
119	10.12	Proposed Ramsar sites	0	0	0	0	0



120	10.13	Possible Special Areas of Conservation (pSAC)	0	0	0	0	0
120	10.14	Potential Special Protection Areas (pSPA)	0	0	0	0	0
120	10.15	Nitrate Sensitive Areas	0	0	0	0	0
120	10.16	<u>Nitrate Vulnerable Zones</u>	0	1	1	0	2
122	10.17	<u>SSSI Impact Risk Zones</u>	1	-	-	-	-
123	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
124	11.1	World Heritage Sites	0	0	0	-	-
124	11.2	Area of Outstanding Natural Beauty	0	0	0	-	-
124	11.3	National Parks	0	0	0	-	-
124	11.4	Listed Buildings	0	0	0	-	-
125	11.5	Conservation Areas	0	0	0	-	-
125	11.6	Scheduled Ancient Monuments	0	0	0	-	-
125	11.7	Registered Parks and Gardens	0	0	0	-	-
Page	Section	Agricultural designations	On site	0-50m	50-250m	250-500m	500-2000m
126	12.1	<u>Agricultural Land Classification</u>	Urban (within 250m)				
127	12.2	Open Access Land	0	0	0	-	-
127	12.3	Tree Felling Licences	0	0	0	-	-
127	12.4	Environmental Stewardship Schemes	0	0	0	-	-
127	12.5	Countryside Stewardship Schemes	0	0	0	-	-
Page	Section	Habitat designations	On site	0-50m	50-250m	250-500m	500-2000m
128	13.1	<u>Priority Habitat Inventory</u>	0	0	4	-	-
129	13.2	Habitat Networks	0	0	0	-	-
129	13.3	Open Mosaic Habitat	0	0	0	-	-
129	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
130	14.1	<u>10k Availability</u>	Identified (within 500m)				
131	14.2	Artificial and made ground (10k)	0	0	0	0	-
132	14.3	<u>Superficial geology (10k)</u>	1	0	0	0	-

133	14.4	Landslip (10k)	0	0	0	0	-
<u>134</u>	<u>14.5</u>	<u>Bedrock geology (10k)</u>	1	0	1	0	-
135	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>136</u>	<u>15.1</u>	<u>50k Availability</u>	Identified (within 500m)				
137	15.2	Artificial and made ground (50k)	0	0	0	0	-
137	15.3	Artificial ground permeability (50k)	0	0	-	-	-
<u>138</u>	<u>15.4</u>	<u>Superficial geology (50k)</u>	1	0	0	0	-
<u>139</u>	<u>15.5</u>	<u>Superficial permeability (50k)</u>	Identified (within 50m)				
139	15.6	Landslip (50k)	0	0	0	0	-
139	15.7	Landslip permeability (50k)	None (within 50m)				
<u>140</u>	<u>15.8</u>	<u>Bedrock geology (50k)</u>	1	0	1	0	-
<u>141</u>	<u>15.9</u>	<u>Bedrock permeability (50k)</u>	Identified (within 50m)				
141	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>142</u>	<u>16.1</u>	<u>BGS Boreholes</u>	0	1	4	-	-
Page	Section	Natural ground subsidence					
<u>144</u>	<u>17.1</u>	<u>Shrink swell clays</u>	Very low (within 50m)				
<u>145</u>	<u>17.2</u>	<u>Running sands</u>	Very low (within 50m)				
<u>146</u>	<u>17.3</u>	<u>Compressible deposits</u>	Negligible (within 50m)				
<u>147</u>	<u>17.4</u>	<u>Collapsible deposits</u>	Very low (within 50m)				
<u>148</u>	<u>17.5</u>	<u>Landslides</u>	Very low (within 50m)				
<u>149</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
151	18.1	Natural cavities	0	0	0	0	-
152	18.2	BritPits	0	0	0	0	-
<u>152</u>	<u>18.3</u>	<u>Surface ground workings</u>	3	16	3	-	-
153	18.4	Underground workings	0	0	0	0	0
153	18.5	Historical Mineral Planning Areas	0	0	0	0	-



153	18.6	<u>Non-coal mining</u>	0	0	0	0	2
154	18.7	Mining cavities	0	0	0	0	0
154	18.8	JPB mining areas	None (within 0m)				
154	18.9	Coal mining	None (within 0m)				
154	18.10	Brine areas	None (within 0m)				
155	18.11	Gypsum areas	None (within 0m)				
155	18.12	Tin mining	None (within 0m)				
155	18.13	Clay mining	None (within 0m)				
Page	Section	Radon					
156	19.1	<u>Radon</u>	Less than 1% (within 0m)				
Page	Section	Soil chemistry	On site	0-50m	50-250m	250-500m	500-2000m
157	20.1	<u>BGS Estimated Background Soil Chemistry</u>	1	2	-	-	-
157	20.2	BGS Estimated Urban Soil Chemistry	0	0	-	-	-
157	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
158	21.1	Underground railways (London)	0	0	0	-	-
158	21.2	Underground railways (Non-London)	0	0	0	-	-
159	21.3	Railway tunnels	0	0	0	-	-
159	21.4	<u>Historical railway and tunnel features</u>	0	1	8	-	-
159	21.5	Royal Mail tunnels	0	0	0	-	-
160	21.6	Historical railways	0	0	0	-	-
160	21.7	<u>Railways</u>	0	6	3	-	-
160	21.8	Crossrail 1	0	0	0	0	-
161	21.9	Crossrail 2	0	0	0	0	-
161	21.10	HS2	0	0	0	0	-



Recent aerial photograph



Capture Date: 22/04/2019

Site Area: 1.52ha



Recent site history - 2016 aerial photograph



Capture Date: 21/04/2016

Site Area: 1.52ha



Recent site history - 2005 aerial photograph



Capture Date: 15/05/2005

Site Area: 1.52ha



Recent site history - 2001 aerial photograph



Capture Date: 01/05/2001

Site Area: 1.52ha



Recent site history - 2000 aerial photograph

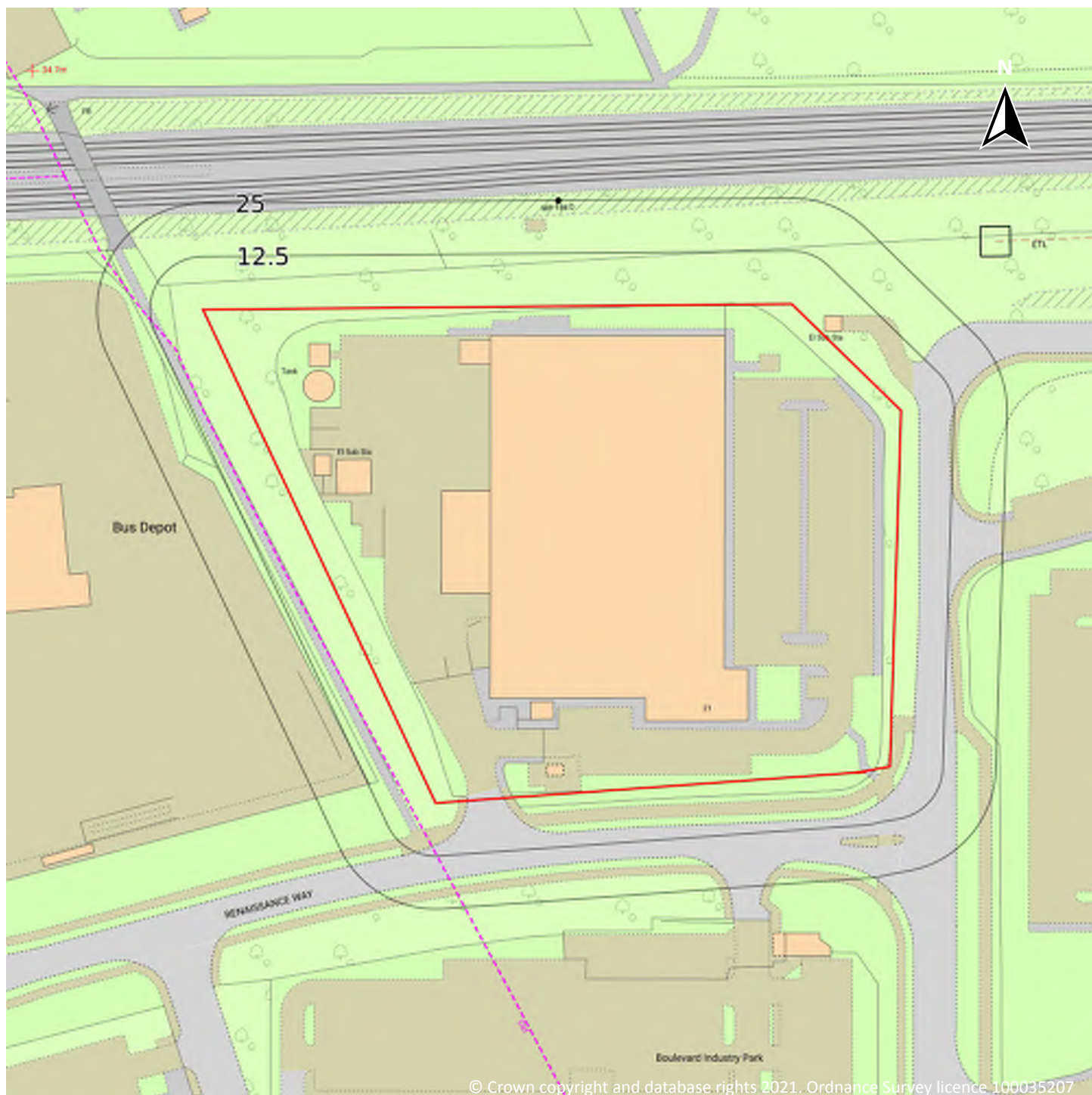


Capture Date: 21/07/2000

Site Area: 1.52ha



OS MasterMap site plan



Site Area: 1.52ha



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

73

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 14**

ID	Location	Land use	Dates present	Group ID
1	On site	Cuttings	1966 - 1991	930971



ID	Location	Land use	Dates present	Group ID
A	4m N	Cuttings	1904 - 1925	888422
B	5m N	Cuttings	1891 - 1938	877707
C	7m N	Cuttings	1925	964866
C	7m N	Cuttings	1904	984473
B	8m N	Cuttings	1925	956595
E	12m SW	Unspecified Factory	1966 - 1991	900689
B	12m N	Cuttings	1851	918325
F	13m SW	Bus Depot	1966	832314
F	13m SW	Unspecified Depot	1980 - 1991	859284
A	15m N	Cuttings	1938	923783
B	15m N	Cuttings	1956	921909
B	21m N	Cuttings	1980	888739
B	21m N	Cuttings	1991	934305
B	21m N	Cuttings	1966	934984
B	66m NW	Bio-Chemicals Factory	1956	822019
B	70m NW	Unspecified Commercial/Industrial	1966	796536
B	70m NW	Unspecified Works	1980 - 1991	978539
2	84m S	Unspecified Works	1980 - 1991	901815
3	85m S	Engineering Works	1956 - 1966	979726
B	106m W	Garage	1980 - 1991	956869
B	109m W	Garage	1966	901458
B	111m NW	Unspecified Tank	1980 - 1991	944348
B	121m NW	Unspecified Tank	1980 - 1991	910816
B	129m NW	Unspecified Tank	1966 - 1991	861475
5	146m SW	Unspecified Works	1980 - 1991	982736
G	146m SW	Unspecified Depot	1991	818261
G	148m SW	Unspecified Works	1966	945648
6	177m SW	Unspecified Commercial/Industrial	1966	961753



ID	Location	Land use	Dates present	Group ID
I	187m E	Motor Car Works	1966	794080
I	187m E	Unspecified Works	1991	929666
I	187m E	Unspecified Works	1980 - 1982	967692
J	187m E	Railway Sidings	1966	853736
J	187m E	Railway Sidings	1991	858670
J	187m E	Railway Sidings	1980	923136
B	191m NW	Unspecified Tanks	1980 - 1991	932649
B	194m NW	Unspecified Tank	1980 - 1991	883669
B	199m NW	Unspecified Tank	1966 - 1991	985897
B	251m NW	Unspecified Tanks	1956	815259
M	261m W	Unspecified Works	1991	830164
O	269m W	Railway Station	1925	862509
8	276m SW	Unspecified Heap	1956	803188
9	276m SW	Unspecified Foundry	1956	809963
K	292m SW	Unspecified Works	1966	885709
10	293m S	Cuttings	1966 - 1991	896068
K	295m SW	Engineering Works	1956	811608
O	357m W	Railway Station	1904 - 1938	870735
O	358m W	Railway Station	1891	908273
O	359m W	Railway Station	1925	853184
O	395m W	Railway Station	1851	893807
R	397m NW	Engineering Works	1956	811607
R	398m NW	Carton Factory	1966	822592
R	398m NW	Unspecified Factory	1980 - 1991	886116
T	401m SW	Unspecified Commercial/Industrial	1980	796549
T	401m SW	Unspecified Factory	1991	821304
13	415m NW	Bakery	1956	810092
14	422m SW	Unspecified Factory	1980 - 1991	849395



ID	Location	Land use	Dates present	Group ID
15	426m SW	Unspecified Commercial/Industrial	1956 - 1966	906517
W	427m W	Cuttings	1904 - 1925	900936
W	427m W	Cuttings	1938	892029
W	429m W	Cuttings	1891	898023
W	430m W	Cuttings	1925	908153
X	433m NW	Unspecified Commercial/Industrial	1991	796537
X	433m NW	Unspecified Works	1966 - 1980	931243
W	439m W	Cuttings	1956	889610
W	447m W	Cuttings	1925	889827
X	449m NW	Electrical Engineering Works	1956	809936
Y	462m W	Steel Safe Factory	1956	835876
Y	465m W	Car Factory	1966	841933
Y	465m W	Unspecified Factory	1980 - 1991	854796
18	471m SW	Medical Supplies Factory	1956 - 1966	901050
Z	473m E	Unspecified Tanks	1966 - 1991	902969
19	482m NW	Clock Factory	1956	811077

This data is sourced from Ordnance Survey / Groundsure.

1.2 Historical tanks

Records within 500m

95

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 14**

ID	Location	Land use	Dates present	Group ID
D	11m SW	Tanks	1962 - 1993	131399
D	11m SW	Tanks	1962 - 1971	129439



ID	Location	Land use	Dates present	Group ID
D	18m SW	Unspecified Tank	1971 - 1993	141660
E	82m SW	Tanks	1971 - 1992	129510
4	91m S	Unspecified Tank	1971 - 1992	130794
B	107m NW	Tanks	1992	129675
B	109m NW	Tanks	1993	138460
B	117m NW	Unspecified Tank	1979 - 1993	133950
B	124m NW	Tanks	1993	105518
B	125m NW	Tanks	1987 - 1993	127453
B	129m NW	Unspecified Tank	1971	112401
B	132m NW	Unspecified Tank	1966 - 1993	144969
B	133m NW	Unspecified Tank	1979 - 1987	124680
B	142m NW	Unspecified Tank	1987 - 1993	127858
B	158m NW	Unspecified Tank	1979 - 1993	135149
B	163m NW	Tanks	1979 - 1993	145632
B	166m NW	Unspecified Tank	1979	112402
H	184m SW	Unspecified Tank	1992	112382
B	191m NW	Unspecified Tank	1979 - 1993	147643
B	191m W	Tanks	1971 - 1992	131173
B	192m W	Tanks	1971	128418
B	192m W	Tanks	1993	141409
B	192m NW	Unspecified Tank	1979 - 1993	125877
B	199m NW	Unspecified Tank	1993	122305
B	199m NW	Unspecified Tank	1979 - 1987	136763
B	205m NW	Tanks	1979 - 1993	138269
B	209m NW	Tanks	1979	105517
B	219m NW	Unspecified Tank	1953	127296
B	219m NW	Tanks	1979	105516
B	220m NW	Unspecified Tank	1953 - 1966	133592

ID	Location	Land use	Dates present	Group ID
B	226m NW	Unspecified Tank	1953	140111
B	226m W	Tanks	1992 - 1993	145642
B	227m NW	Unspecified Tank	1979 - 1987	136140
B	233m NW	Tanks	1953	146067
B	235m NW	Tanks	1953 - 1993	149236
B	235m NW	Tanks	1966	137110
B	236m NW	Tanks	1979 - 1987	134164
B	237m NW	Tanks	1966	137896
B	238m W	Unspecified Tank	1962 - 1971	149114
B	238m W	Unspecified Tank	1992	128855
B	242m NW	Unspecified Tank	1953 - 1979	148974
B	245m NW	Tanks	1953 - 1993	125203
L	246m S	Unspecified Tank	1993	125333
L	246m S	Unspecified Tank	1971 - 1992	125798
B	246m NW	Tanks	1966	132303
B	247m NW	Tanks	1979 - 1987	127682
B	249m NW	Unspecified Tank	1953 - 1979	128751
7	251m SE	Unspecified Tank	1989 - 1993	136193
B	252m NW	Tanks	1953 - 1993	132527
B	252m NW	Tanks	1966	146318
B	255m NW	Tanks	1966	134841
B	256m NW	Tanks	1993	105554
B	259m NW	Tanks	1966	127480
B	262m NW	Tanks	1953 - 1993	124072
B	263m NW	Tanks	1966	142916
B	266m NW	Tanks	1966	105555
B	266m NW	Tanks	1966 - 1979	148642
N	272m S	Tanks	1971 - 1992	136679



ID	Location	Land use	Dates present	Group ID
B	298m NW	Tanks	1966	105556
B	317m NW	Tanks	1966 - 1979	133917
B	321m NW	Unspecified Tank	1953	142549
B	321m NW	Tanks	1966	105553
B	324m NW	Tanks	1987 - 1993	149285
K	325m SW	Unspecified Tank	1971 - 1993	133936
B	327m NW	Tanks	1993	143869
B	327m NW	Tanks	1966 - 1979	144786
B	329m NW	Tanks	1953 - 1966	138365
B	335m NW	Tanks	1979	105552
B	337m NW	Unspecified Tank	1979 - 1993	147512
P	340m SE	Tanks	1989 - 1993	148773
P	345m SE	Tanks	1965 - 1967	144414
P	362m SE	Tanks	1989 - 1993	124047
P	370m SE	Tanks	1967	125738
P	370m SE	Tanks	1965	137087
P	373m SE	Tanks	1965	133480
P	383m SE	Unspecified Tank	1989	112376
S	397m NW	Tanks	1983	105551
P	398m SE	Unspecified Tank	1989	112379
Q	398m NW	Unspecified Tank	1953	135307
U	410m SW	Tanks	1971	105515
S	413m NW	Unspecified Tank	1983	112400
V	420m W	Unspecified Tank	1993	124524
S	421m NW	Tanks	1993	146118
V	421m W	Unspecified Tank	1983	137606
S	422m NW	Unspecified Tank	1983	147793
S	430m NW	Tanks	1983	141897



ID	Location	Land use	Dates present	Group ID
V	432m W	Unspecified Tank	1983	112399
16	443m W	Unspecified Tank	1893 - 1907	133510
V	448m W	Unspecified Tank	1983 - 1993	144823
T	466m SW	Tanks	1976 - 1999	126753
Z	470m E	Unspecified Tank	1989	128713
Z	471m E	Unspecified Tank	1965 - 1967	132664
Z	471m E	Unspecified Tank	1993	133366
20	496m SW	Tanks	1971 - 1993	133441
21	497m NW	Tanks	1983 - 1993	146502

This data is sourced from Ordnance Survey / Groundsure.

1.3 Historical energy features

Records within 500m

36

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 14**

ID	Location	Land use	Dates present	Group ID
K	202m SW	Electricity Substation	1971 - 1993	76706
K	206m SW	Electricity Substation	1971 - 1993	77065
B	214m NW	Electricity Substation	1993	60625
H	226m SW	Electricity Substation	1992	71248
H	226m SW	Electricity Substation	1971 - 1993	76135
K	241m SW	Electricity Substation	1971 - 1992	78807
K	241m SW	Electricity Substation	1993	78811
B	249m NW	Electricity Substation	1953	67935
B	251m NW	Electricity Substation	1953	78371



ID	Location	Land use	Dates present	Group ID
B	251m NW	Electricity Substation	1993	80988
B	261m NW	Electricity Substation	1979 - 1987	85067
N	262m S	Electricity Substation	1992	83650
N	263m S	Electricity Substation	1971 - 1993	76496
K	272m SW	Electricity Substation	1992 - 1993	83324
K	273m SW	Electricity Substation	1971	71790
K	281m SW	Electricity Substation	1971 - 1993	84240
M	331m SW	Electricity Substation	1971 - 1993	69238
11	337m NW	Electricity Substation	1987	60624
O	349m W	Electricity Substation	1971 - 1993	81835
O	373m W	Electricity Substations	1953	66503
K	382m SW	Electricity Substation	1953 - 1993	84989
Q	385m NW	Electricity Substation	1979 - 1987	80456
12	386m NE	Electricity Substation	1971 - 1993	67246
O	387m W	Electricity Substation	1971	79053
Q	387m NW	Electricity Substation	1993	78397
Q	409m NW	Electricity Substation	1953	76001
O	414m W	Electricity Substation	1993	67158
U	436m SW	Electricity Substation	1993 - 1999	79580
X	456m NW	Industrial Gas Factory	1953	81054
T	459m SW	Electricity Substation	1999	60626
17	465m NE	Electricity Substation	1971 - 1993	76800
W	473m W	Electricity Substation	1953	76305
W	473m W	Electricity Substation	1971	71903
T	477m SW	Electricity Substation	1976 - 1993	78948
W	489m W	Electricity Substation	1993	68401
T	499m SW	Electricity Substation	1999	60627

This data is sourced from Ordnance Survey / Groundsure.



1.4 Historical petrol stations

Records within 500m

0

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

This data is sourced from Ordnance Survey / Groundsure.

1.5 Historical garages

Records within 500m

4

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 14**

ID	Location	Land use	Dates present	Group ID
B	13m SW	Garage	1993	23251
B	107m W	Garage	1992	23736
B	108m W	Garage	1971	24024
O	350m W	Garage	1971	20061

This data is sourced from Ordnance Survey / Groundsure.

1.6 Historical military land

Records within 500m

0

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

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



2 Past land use - un-grouped



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

2.1 Historical industrial land uses

Records within 500m

112

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 24**

ID	Location	Land Use	Date	Group ID
A	On site	Cuttings	1966	930971
A	On site	Cuttings	1980	930971
A	On site	Cuttings	1991	930971



ID	Location	Land Use	Date	Group ID
B	4m N	Cuttings	1925	888422
B	4m N	Cuttings	1904	888422
C	5m N	Cuttings	1891	877707
D	7m N	Cuttings	1925	964866
D	7m N	Cuttings	1904	984473
C	8m N	Cuttings	1925	956595
C	8m N	Cuttings	1925	956595
F	12m SW	Unspecified Factory	1966	900689
F	12m SW	Unspecified Factory	1980	900689
F	12m SW	Unspecified Factory	1991	900689
C	12m N	Cuttings	1851	918325
G	13m SW	Bus Depot	1966	832314
G	13m SW	Unspecified Depot	1980	859284
G	13m SW	Unspecified Depot	1991	859284
B	15m N	Cuttings	1938	923783
C	15m N	Cuttings	1956	921909
C	21m N	Cuttings	1966	934984
C	21m N	Cuttings	1980	888739
C	21m N	Cuttings	1991	934305
C	36m W	Cuttings	1938	877707
C	36m W	Cuttings	1925	877707
C	36m W	Cuttings	1904	877707
C	66m NW	Bio-Chemicals Factory	1956	822019
C	70m NW	Unspecified Commercial/Industrial	1966	796536
C	70m NW	Unspecified Works	1980	978539
C	70m NW	Unspecified Works	1991	978539
H	84m S	Unspecified Works	1980	901815
H	84m S	Unspecified Works	1991	901815



ID	Location	Land Use	Date	Group ID
I	85m S	Engineering Works	1966	979726
I	85m S	Engineering Works	1956	979726
C	106m W	Garage	1980	956869
C	106m W	Garage	1991	956869
C	109m W	Garage	1966	901458
C	111m NW	Unspecified Tank	1980	944348
C	111m NW	Unspecified Tank	1991	944348
C	121m NW	Unspecified Tank	1980	910816
C	121m NW	Unspecified Tank	1991	910816
C	129m NW	Unspecified Tank	1966	861475
C	129m NW	Unspecified Tank	1980	861475
C	129m NW	Unspecified Tank	1991	861475
K	146m SW	Unspecified Depot	1991	818261
L	146m SW	Unspecified Works	1980	982736
L	146m SW	Unspecified Works	1991	982736
K	148m SW	Unspecified Works	1966	945648
1	177m SW	Unspecified Commercial/Industrial	1966	961753
N	187m E	Motor Car Works	1966	794080
N	187m E	Unspecified Works	1980	967692
N	187m E	Unspecified Works	1991	929666
O	187m E	Railway Sidings	1966	853736
O	187m E	Railway Sidings	1980	923136
O	187m E	Railway Sidings	1991	858670
C	191m NW	Unspecified Tanks	1980	932649
C	191m NW	Unspecified Tanks	1991	932649
C	194m NW	Unspecified Tank	1991	883669
C	195m NW	Unspecified Tank	1980	883669
C	199m NW	Unspecified Tank	1966	985897

ID	Location	Land Use	Date	Group ID
C	199m NW	Unspecified Tank	1980	985897
C	199m NW	Unspecified Tank	1991	985897
C	251m NW	Unspecified Tanks	1956	815259
S	261m W	Unspecified Works	1991	830164
U	269m W	Railway Station	1925	862509
V	272m SW	Unspecified Commercial/Industrial	1966	961753
2	276m SW	Unspecified Heap	1956	803188
V	276m SW	Unspecified Foundry	1956	809963
P	292m SW	Unspecified Works	1966	885709
W	293m S	Cuttings	1966	896068
W	293m S	Cuttings	1980	896068
W	293m S	Cuttings	1991	896068
P	295m SW	Engineering Works	1956	811608
U	357m W	Railway Station	1938	870735
U	357m W	Railway Station	1925	870735
U	357m W	Railway Station	1904	870735
U	358m W	Railway Station	1891	908273
U	359m W	Railway Station	1925	853184
U	395m W	Railway Station	1851	893807
AA	397m NW	Engineering Works	1956	811607
AA	398m NW	Carton Factory	1966	822592
AA	398m NW	Unspecified Factory	1980	886116
AA	398m NW	Unspecified Factory	1991	886116
AC	401m SW	Unspecified Commercial/Industrial	1980	796549
AC	401m SW	Unspecified Factory	1991	821304
4	415m NW	Bakery	1956	810092
AF	422m SW	Unspecified Factory	1980	849395
AF	422m SW	Unspecified Factory	1991	849395



ID	Location	Land Use	Date	Group ID
AF	426m SW	Unspecified Commercial/Industrial	1966	906517
AF	426m SW	Unspecified Commercial/Industrial	1956	906517
AG	427m W	Cuttings	1925	900936
AG	427m W	Cuttings	1938	892029
AG	429m W	Cuttings	1891	898023
AG	430m W	Cuttings	1925	908153
AH	433m NW	Unspecified Works	1980	931243
AH	433m NW	Unspecified Commercial/Industrial	1991	796537
AG	439m W	Cuttings	1956	889610
AH	446m NW	Unspecified Works	1966	931243
AG	447m W	Cuttings	1925	889827
AH	449m NW	Electrical Engineering Works	1956	809936
AJ	462m W	Steel Safe Factory	1956	835876
AJ	465m W	Car Factory	1966	841933
AJ	465m W	Unspecified Factory	1980	854796
AJ	465m W	Unspecified Factory	1991	854796
AL	466m SW	Unspecified Factory	1980	849395
AL	466m SW	Unspecified Factory	1991	849395
AL	471m SW	Medical Supplies Factory	1966	901050
AL	471m SW	Medical Supplies Factory	1956	901050
AM	473m E	Unspecified Tanks	1966	902969
AM	473m E	Unspecified Tanks	1980	902969
AM	473m E	Unspecified Tanks	1991	902969
AG	480m W	Cuttings	1904	900936
AH	482m NW	Clock Factory	1956	811077

This data is sourced from Ordnance Survey / Groundsure.



2.2 Historical tanks

Records within 500m

169

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 24**

ID	Location	Land Use	Date	Group ID
E	11m SW	Tanks	1992	131399
E	11m SW	Tanks	1971	129439
E	11m SW	Tanks	1962	129439
E	11m SW	Tanks	1962	131399
E	12m SW	Tanks	1993	131399
E	18m SW	Unspecified Tank	1992	141660
E	18m SW	Unspecified Tank	1971	141660
E	19m SW	Unspecified Tank	1993	141660
F	82m SW	Tanks	1992	129510
F	83m SW	Tanks	1971	129510
J	91m S	Unspecified Tank	1992	130794
J	92m S	Unspecified Tank	1971	130794
C	107m NW	Tanks	1992	129675
C	109m NW	Tanks	1993	138460
C	117m NW	Unspecified Tank	1993	133950
C	118m NW	Unspecified Tank	1979	133950
C	118m NW	Unspecified Tank	1987	133950
C	124m NW	Tanks	1993	105518
C	125m NW	Tanks	1987	127453
C	127m NW	Tanks	1993	127453
C	129m NW	Unspecified Tank	1971	112401
C	132m NW	Unspecified Tank	1993	144969
C	132m NW	Unspecified Tank	1966	144969



ID	Location	Land Use	Date	Group ID
C	133m NW	Unspecified Tank	1979	124680
C	133m NW	Unspecified Tank	1987	124680
C	142m NW	Unspecified Tank	1993	127858
C	143m NW	Unspecified Tank	1987	127858
C	158m NW	Unspecified Tank	1993	135149
C	159m NW	Unspecified Tank	1979	135149
C	159m NW	Unspecified Tank	1987	135149
C	163m NW	Tanks	1993	145632
C	164m NW	Tanks	1979	145632
C	164m NW	Tanks	1987	145632
C	166m NW	Unspecified Tank	1979	112402
M	184m SW	Unspecified Tank	1992	112382
C	191m NW	Unspecified Tank	1979	147643
C	191m NW	Unspecified Tank	1987	147643
C	191m W	Tanks	1992	131173
C	191m NW	Unspecified Tank	1993	147643
C	192m W	Tanks	1971	128418
C	192m W	Tanks	1993	141409
C	192m NW	Unspecified Tank	1993	125877
C	193m NW	Unspecified Tank	1979	125877
C	194m NW	Unspecified Tank	1987	125877
C	199m NW	Unspecified Tank	1993	122305
C	199m NW	Unspecified Tank	1979	136763
C	199m NW	Unspecified Tank	1987	136763
C	203m W	Tanks	1971	131173
C	205m NW	Tanks	1993	138269
C	206m NW	Tanks	1979	138269
C	206m NW	Tanks	1987	138269



ID	Location	Land Use	Date	Group ID
C	209m NW	Tanks	1979	105517
C	219m NW	Unspecified Tank	1953	127296
C	219m NW	Unspecified Tank	1953	127296
C	219m NW	Tanks	1979	105516
C	220m NW	Unspecified Tank	1966	133592
C	220m NW	Unspecified Tank	1953	133592
C	220m NW	Unspecified Tank	1953	133592
C	226m NW	Unspecified Tank	1953	140111
C	226m NW	Unspecified Tank	1953	140111
C	226m W	Tanks	1992	145642
C	227m W	Tanks	1993	145642
C	227m NW	Unspecified Tank	1979	136140
C	227m NW	Unspecified Tank	1987	136140
C	233m NW	Tanks	1953	146067
C	235m NW	Tanks	1953	149236
C	235m NW	Tanks	1993	149236
C	235m NW	Tanks	1966	137110
C	236m NW	Tanks	1979	134164
C	236m NW	Tanks	1987	134164
C	237m NW	Tanks	1966	137896
C	238m W	Unspecified Tank	1962	149114
C	238m W	Unspecified Tank	1992	128855
C	239m W	Unspecified Tank	1971	149114
C	239m W	Unspecified Tank	1962	149114
C	242m NW	Unspecified Tank	1966	148974
C	242m NW	Unspecified Tank	1953	148974
C	242m NW	Unspecified Tank	1953	148974
C	243m NW	Unspecified Tank	1979	148974

ID	Location	Land Use	Date	Group ID
C	245m NW	Tanks	1953	125203
C	246m NW	Tanks	1993	125203
Q	246m S	Unspecified Tank	1993	125333
Q	246m S	Unspecified Tank	1992	125798
C	246m NW	Tanks	1966	132303
Q	246m S	Unspecified Tank	1971	125798
C	247m NW	Tanks	1979	127682
C	247m NW	Tanks	1987	127682
C	249m NW	Unspecified Tank	1953	128751
C	250m NW	Unspecified Tank	1966	128751
C	250m NW	Unspecified Tank	1953	128751
C	251m NW	Unspecified Tank	1979	128751
R	251m SE	Unspecified Tank	1989	136193
C	252m NW	Tanks	1953	132527
C	252m NW	Tanks	1966	146318
R	253m SE	Unspecified Tank	1993	136193
C	253m NW	Tanks	1993	132527
C	255m NW	Tanks	1966	134841
C	256m NW	Tanks	1993	105554
C	259m NW	Tanks	1966	127480
C	262m NW	Tanks	1953	124072
C	262m NW	Tanks	1993	124072
C	263m NW	Tanks	1966	142916
C	266m NW	Tanks	1966	105555
C	266m NW	Tanks	1966	148642
C	267m NW	Tanks	1979	148642
T	272m S	Tanks	1992	136679
T	273m S	Tanks	1971	136679



ID	Location	Land Use	Date	Group ID
C	298m NW	Tanks	1966	105556
C	317m NW	Tanks	1966	133917
C	318m NW	Tanks	1979	133917
C	321m NW	Unspecified Tank	1953	142549
C	321m NW	Unspecified Tank	1953	142549
C	321m NW	Tanks	1966	105553
C	324m NW	Tanks	1993	149285
P	325m SW	Unspecified Tank	1992	133936
P	325m SW	Unspecified Tank	1993	133936
P	325m SW	Unspecified Tank	1971	133936
C	326m NW	Tanks	1987	149285
C	327m NW	Tanks	1993	143869
C	327m NW	Tanks	1966	144786
C	328m NW	Tanks	1979	144786
C	329m NW	Tanks	1966	138365
C	329m NW	Tanks	1953	138365
C	329m NW	Tanks	1953	138365
C	335m NW	Tanks	1979	105552
C	337m NW	Unspecified Tank	1993	147512
C	339m NW	Unspecified Tank	1979	147512
C	339m NW	Unspecified Tank	1987	147512
X	340m SE	Tanks	1989	148773
X	341m SE	Tanks	1993	148773
X	345m SE	Tanks	1967	144414
X	346m SE	Tanks	1965	144414
X	362m SE	Tanks	1989	124047
X	364m SE	Tanks	1993	124047
X	370m SE	Tanks	1967	125738



ID	Location	Land Use	Date	Group ID
X	370m SE	Tanks	1965	137087
X	373m SE	Tanks	1965	133480
X	383m SE	Unspecified Tank	1989	112376
AB	397m NW	Tanks	1983	105551
X	398m SE	Unspecified Tank	1989	112379
Y	398m NW	Unspecified Tank	1953	135307
Y	398m NW	Unspecified Tank	1953	135307
AD	410m SW	Tanks	1971	105515
AB	413m NW	Unspecified Tank	1983	112400
AE	420m W	Unspecified Tank	1993	124524
AB	421m NW	Tanks	1993	146118
AE	421m W	Unspecified Tank	1983	137606
AE	421m W	Unspecified Tank	1983	137606
AB	422m NW	Unspecified Tank	1983	147793
AB	422m NW	Unspecified Tank	1983	147793
AB	430m NW	Tanks	1983	141897
AB	430m NW	Tanks	1983	141897
AE	432m W	Unspecified Tank	1983	112399
AI	443m W	Unspecified Tank	1893	133510
AI	443m W	Unspecified Tank	1907	133510
AE	448m W	Unspecified Tank	1993	144823
AE	449m W	Unspecified Tank	1983	144823
AC	466m SW	Tanks	1976	126753
AC	467m SW	Tanks	1999	126753
AC	467m SW	Tanks	1993	126753
AM	470m E	Unspecified Tank	1989	128713
AM	471m E	Unspecified Tank	1967	132664
AM	471m E	Unspecified Tank	1993	133366



ID	Location	Land Use	Date	Group ID
AM	472m E	Unspecified Tank	1965	132664
AN	496m SW	Tanks	1971	133441
AO	497m NW	Tanks	1993	146502
AN	497m SW	Tanks	1993	133441
AO	497m NW	Tanks	1983	146502
AO	497m NW	Tanks	1983	146502

This data is sourced from Ordnance Survey / Groundsure.

2.3 Historical energy features

Records within 500m

63

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 24**

ID	Location	Land Use	Date	Group ID
P	202m SW	Electricity Substation	1992	76706
P	203m SW	Electricity Substation	1971	76706
P	204m SW	Electricity Substation	1993	76706
P	206m SW	Electricity Substation	1992	77065
P	207m SW	Electricity Substation	1971	77065
P	207m SW	Electricity Substation	1993	77065
C	214m NW	Electricity Substation	1993	60625
M	226m SW	Electricity Substation	1992	71248
M	226m SW	Electricity Substation	1971	76135
M	227m SW	Electricity Substation	1993	76135
P	241m SW	Electricity Substation	1992	78807
P	241m SW	Electricity Substation	1993	78811
P	242m SW	Electricity Substation	1971	78807
C	249m NW	Electricity Substation	1953	67935



ID	Location	Land Use	Date	Group ID
C	249m NW	Electricity Substation	1953	67935
C	251m NW	Electricity Substation	1953	78371
C	251m NW	Electricity Substation	1993	80988
C	251m NW	Electricity Substation	1953	78371
C	261m NW	Electricity Substation	1979	85067
C	261m NW	Electricity Substation	1987	85067
T	262m S	Electricity Substation	1992	83650
T	263m S	Electricity Substation	1993	76496
T	263m S	Electricity Substation	1971	76496
P	272m SW	Electricity Substation	1992	83324
P	273m SW	Electricity Substation	1971	71790
P	273m SW	Electricity Substation	1993	83324
P	281m SW	Electricity Substation	1992	84240
P	281m SW	Electricity Substation	1971	84240
P	282m SW	Electricity Substation	1993	84240
S	331m SW	Electricity Substation	1971	69238
S	332m SW	Electricity Substation	1993	69238
3	337m NW	Electricity Substation	1987	60624
U	349m W	Electricity Substation	1971	81835
U	350m W	Electricity Substation	1993	81835
U	373m W	Electricity Substations	1953	66503
U	373m W	Electricity Substations	1953	66503
P	382m SW	Electricity Substation	1953	84989
P	382m SW	Electricity Substation	1971	84989
P	383m SW	Electricity Substation	1953	84989
P	383m SW	Electricity Substation	1993	84989
Y	385m NW	Electricity Substation	1979	80456
Y	385m NW	Electricity Substation	1987	80456

ID	Location	Land Use	Date	Group ID
Z	386m NE	Electricity Substation	1971	67246
Z	386m NE	Electricity Substation	1993	67246
U	387m W	Electricity Substation	1971	79053
Y	387m NW	Electricity Substation	1993	78397
Y	409m NW	Electricity Substation	1953	76001
Y	409m NW	Electricity Substation	1953	76001
U	414m W	Electricity Substation	1993	67158
AD	436m SW	Electricity Substation	1999	79580
AD	436m SW	Electricity Substation	1993	79580
AH	456m NW	Industrial Gas Factory	1953	81054
AH	457m NW	Industrial Gas Factory	1953	81054
AC	459m SW	Electricity Substation	1999	60626
AK	465m NE	Electricity Substation	1971	76800
AK	466m NE	Electricity Substation	1993	76800
AG	473m W	Electricity Substation	1953	76305
AG	473m W	Electricity Substation	1971	71903
AG	473m W	Electricity Substation	1953	76305
AC	477m SW	Electricity Substation	1976	78948
AC	477m SW	Electricity Substation	1993	78948
AG	489m W	Electricity Substation	1993	68401
AC	499m SW	Electricity Substation	1999	60627

This data is sourced from Ordnance Survey / Groundsure.

2.4 Historical petrol stations

Records within 500m

0

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

This data is sourced from Ordnance Survey / Groundsure.



2.5 Historical garages

Records within 500m

4

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

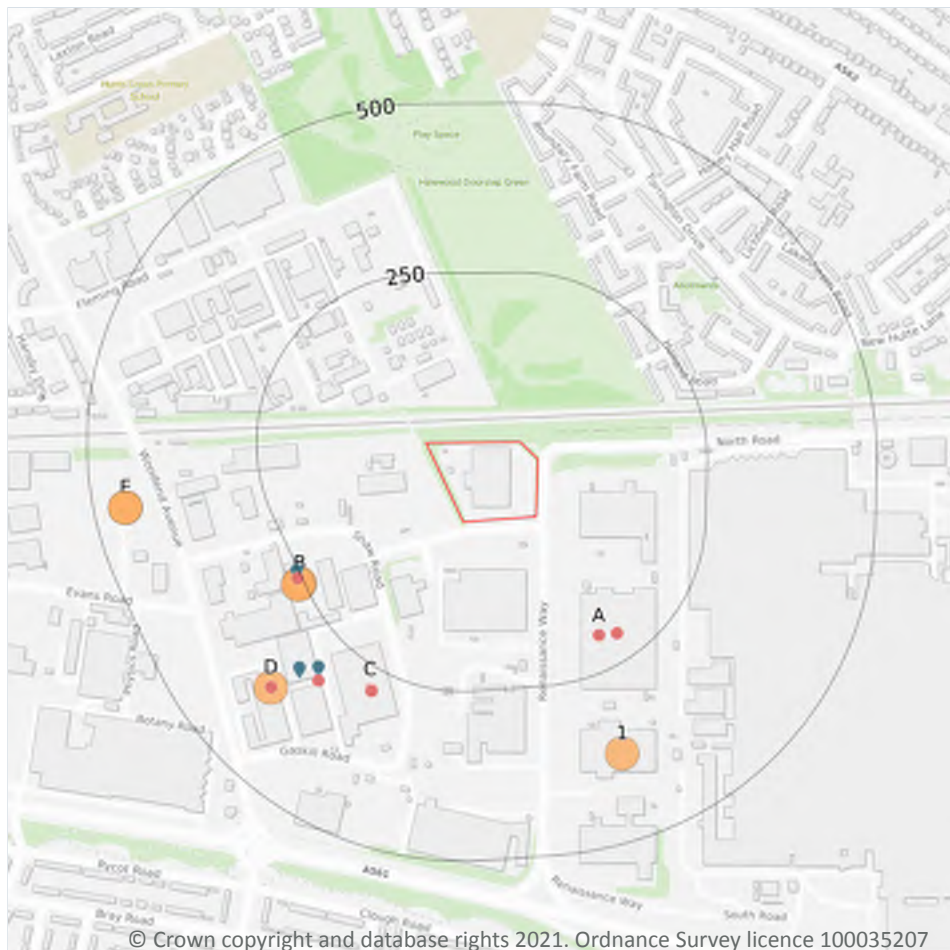
Features are displayed on the Past land use - un-grouped map on **page 24**

ID	Location	Land Use	Date	Group ID
C	13m SW	Garage	1993	23251
C	107m W	Garage	1992	23736
C	108m W	Garage	1971	24024
U	350m W	Garage	1971	20061

This data is sourced from Ordnance Survey / Groundsure.



3 Waste and landfill



- Site Outline
- Search buffers in metres (m)
- Historical waste sites
- ◆ Licensed waste sites
- 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

6

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

Features are displayed on the Waste and landfill map on **page 39**

ID	Location	Address	Further Details	Date
B	231m SW	Site Address: MCS House, Shaw Road, LIVERPOOL, Merseyside, L24 9JT	Type of Site: Waste Transfer Station Planning application reference: 11F/0726 Description: Scheme comprises use site as a waste transfer station for clinical waste in addition to the current site uses of storage/distribution and vehicular servicing. An application (ref: 11F/0726) for detailed planning permission was granted by Liverpool C.C. A detailed planning application has been granted. Data source: Historic Planning Application Data Type: Point	09/10/2011
B	234m SW	Site Address: Shaw Road, Speke Industrial Estate, St Mary's, LIVERPOOL, Merseyside, L24 9JT	Type of Site: Waste Transfer Station Planning application reference: 92/2600 Description: An application (ref: 92/2600) for Detailed Planning permission was submitted to Liverpool C.C. on 4th January 1993. Construction - brick cladding, steel cladding walls; pitched, steel cladding roof; roller shutter industrial doors; steel frame, portal frame. Data source: Historic Planning Application Data Type: Point	01/09/1993



ID	Location	Address	Further Details	Date
1	347m S	Site Address: Novartis Vaccines Site 4, Renaissance Way, LIVERPOOL, Merseyside, L24 9PY	Type of Site: Waste Storage Facility Planning application reference: 11F/0724 Description: Scheme comprises installation of provide new waste storage facility to store chemicals. Construction - hardcore site works. An application (ref: 11F/0724) for detailed planning permission was granted by Liverpool C.C. A detailed planning application has been granted. Data source: Historic Planning Application Data Type: Point	18/09/2011
D	349m SW	Site Address: Viscount Centre, Unit 12 & 13, Gaskill Road, LIVERPOOL, Merseyside, L24 9GS	Type of Site: Waste Transfer Station Planning application reference: 05F/0104 Description: Scheme comprises to use warehouse units as waste transfer station for electrical and electronic equipment. An application (ref: 05F/0104) for Detailed Planning permission was submitted to Liverpool C.C. on 9th February 2005. Data source: Historic Planning Application Data Type: Point	-
E	428m W	Site Address: Venture Point Business Park, Evans Road, LIVERPOOL, Merseyside, L24 9PB	Type of Site: Waste Recycling Centre Planning application reference: 08F/1858 Description: Scheme comprises use of site as a waste recycling centre (for treatment off site) and construction of covered loading bay, concrete boundary walls and hardstanding. Construction - concrete walls; hardcore site works. An application (ref: 08F/1858) for detailed planning permission was granted by Liverpool C.C. Planning decision obtained Data source: Historic Planning Application Data Type: Point	01/06/2009
E	428m W	Site Address: Venture Point Business Park, Evans Road, LIVERPOOL, Merseyside, L24 9PB	Type of Site: Waste Recycling Centre Planning application reference: 08F/1858 Description: Scheme comprises use of site as a waste recycling centre (for treatment off site) and construction of covered loading bay, concrete boundary walls and hardstanding. Construction - concrete walls; hardcore site works. An application (ref: 08F/1858) for detailed planning permission was granted by Liverpool C.C. Planning decision obtained Data source: Historic Planning Application Data Type: Point	01/06/2009

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



3.6 Licensed waste sites

Records within 500m

4

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

Features are displayed on the Waste and landfill map on **page 39**

ID	Location	Details		
B	254m SW	Site Name: Speke Clinical Waste Transfer Station Site Address: M C S House, Shaw Road, Speke, Liverpool, Merseyside, L24 9JT Correspondence Address: -	Type of Site: Clinical Waste Transfer Station Size: 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: SRC005 EPR reference: EA/EPR/SP3990VQ/S003 Operator: S R C L Ltd Waste Management licence No: 102384 Annual Tonnage: 0	Issue Date: 11/03/2011 Effective Date: - Modified: 13/06/2013 Surrendered Date: Feb 26 2015 12:00AM Expiry Date: - Cancelled Date: - Status: Surrendered
D	304m SW	Site Name: Create Site Address: Vicount Centre, Unit 12, Gaskill Road, Speke, Liverpool, Merseyside, L24 9GS Correspondence Address: -	Type of Site: Physical Treatment Facility Size: 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: CRE002 EPR reference: EA/EPR/ZP3694CZ/A001 Operator: Create Liverpool Ltd Waste Management licence No: 50377 Annual Tonnage: 24999	Issue Date: 14/03/2005 Effective Date: - Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Expired
D	325m SW	Site Name: Unit 12 The Viscount Centre Site Address: Unit 12 The Viscount Centre, Gaskill Road, Speke, Liverpool, Merseyside, L24 9GS Correspondence Address: -	Type of Site: 75kte WEEE Treatment Facility Size: 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: LOC031 EPR reference: EA/EPR/JB3737RH/V002 Operator: Lockbox Storage.com Ltd Waste Management licence No: 104524 Annual Tonnage: 74999	Issue Date: 06/08/2012 Effective Date: - Modified: 30/09/2013 Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Modified



ID	Location	Details		
D	325m SW	Site Name: Unit 12 The Viscount Centre Site Address: Unit 12 The Viscount Centre, Gaskill Road, Speke, Liverpool, Merseyside, L24 9GS Correspondence Address: -	Type of Site: 75kte WEEE Treatment Facility Size: >= 25000 tonnes 75000 tonnes Environmental Permitting Regulations (Waste) Licence Number: LOC031 EPR reference: EA/EPR/JB3737RH/V002 Operator: Lockbox Storage.com Ltd Waste Management licence No: 104524 Annual Tonnage: 74999	Issue Date: 06/08/2012 Effective Date: - Modified: 30/09/2013 Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Modified

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

3.7 Waste exemptions

Records within 500m	16
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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 39**

ID	Location	Site	Reference	Category	Sub-Category	Description
A	199m SE	6, RENAISSANCE WAY, LIVERPOOL, L24 9PL	WEX140405	Storing waste exemption	Not on a farm	Storage of waste in a secure place
A	199m SE	6, RENAISSANCE WAY, LIVERPOOL, L24 9PL	WEX140405	Treating waste exemption	Not on a farm	Preparatory treatments (baling, sorting, shredding etc)
A	209m SE	6 Renaissance Way LIVERPOOL L24 9PL	EPR/AF0004FR /A001	Storing waste exemption	Non-Agricultural Waste Only	Storage of waste in a secure place
A	209m SE	6 Renaissance Way LIVERPOOL L24 9PL	EPR/AF0004FR /A001	Treating waste exemption	Non-Agricultural Waste Only	Preparatory treatments (baling, sorting, shredding etc)
B	257m SW	Colas Ltd, Shaw Raod, Speke, L24 9JT	WEX239850	Storing waste exemption	Not on a farm	Storage of waste in a secure place
C	283m SW	The Viscount Centre, Unit 12-13 Gaskill Road, Speke, Liverpool, L24 9GS	EA/EPR/VP394 8RT/A001	Treating waste exemption	Not on a farm	Repair or refurbishment of WEEE

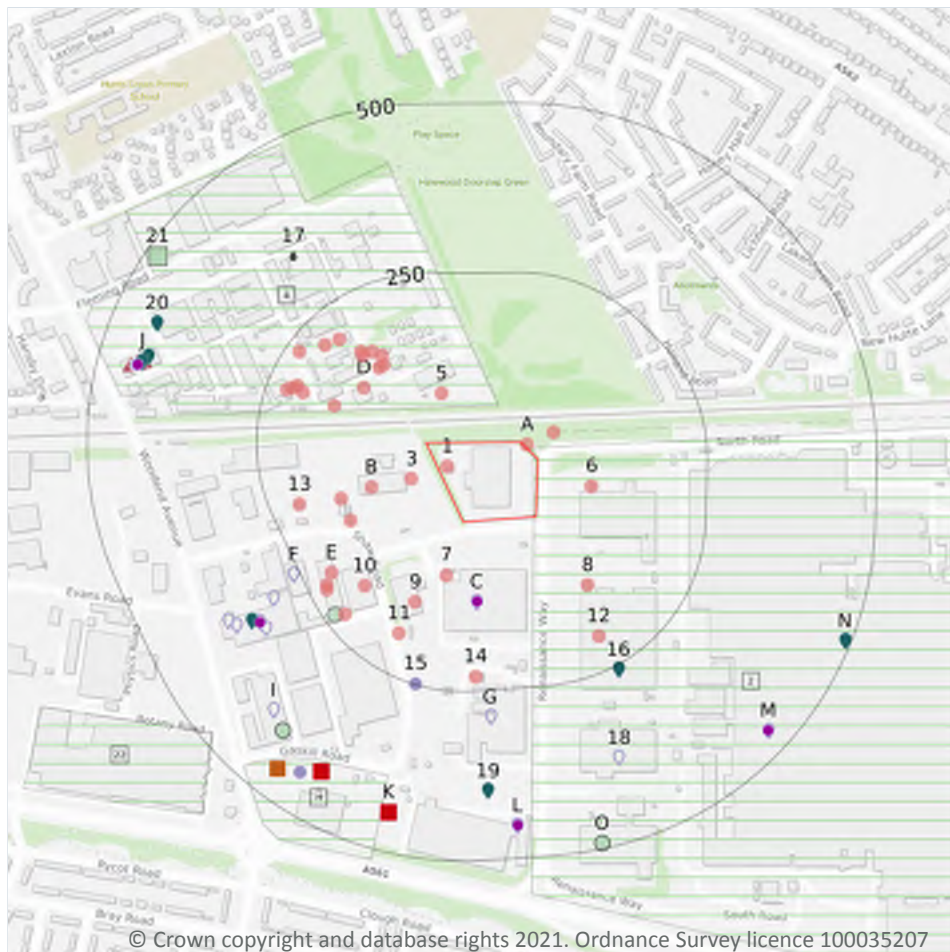


ID	Location	Site	Reference	Category	Sub-Category	Description
C	283m SW	Unit 12-13 Viscount Centre, Gaskill Road, Speke, Liverpool, L24 9GS	EA/EPR/VP384 2GK/A001	Treating waste exemption	Non-Agricultural waste only	Repair or refurbishment of WEEE
C	285m SW	VISCOUNT CENTRE, UNIT 12, GASKILL ROAD, LIVERPOOL, L24 9GS	WEX166882	Storing waste exemption	Not on a farm	Storage of waste in a secure place
C	285m SW	VISCOUNT CENTRE, UNIT 12, GASKILL ROAD, LIVERPOOL, L24 9GS	WEX166882	Storing waste exemption	Not on a farm	Storage of waste in secure containers
C	285m SW	VISCOUNT CENTRE, UNIT 13, GASKILL ROAD, LIVERPOOL, L24 9GS	WEX032538	Storing waste exemption	Not on a farm	Storage of waste in secure containers
C	285m SW	VISCOUNT CENTRE, UNIT 13, GASKILL ROAD, LIVERPOOL, L24 9GS	WEX032538	Storing waste exemption	Not on a farm	Storage of waste in a secure place
C	285m SW	VISCOUNT CENTRE, UNIT 13, GASKILL ROAD, LIVERPOOL, L24 9GS	WEX032538	Treating waste exemption	Not on a farm	Recovery of textiles
C	285m SW	VISCOUNT CENTRE, UNIT 13, GASKILL ROAD, LIVERPOOL, L24 9GS	WEX032538	Treating waste exemption	Not on a farm	Preparatory treatments (baling, sorting, shredding etc)
D	318m SW	The Viscount Centre Unit 13 Gaskill Road Liverpool L24 9GS	EPR/AE5581P D/A001	Storing waste exemption	Non-Agricultural Waste Only	Storage of waste in a secure place
D	318m SW	The Viscount Centre Unit 13 Gaskill Road Liverpool L24 9GS	EPR/AE5581P D/A001	Treating waste exemption	Non-Agricultural Waste Only	Preparatory treatments (baling, sorting, shredding etc)
D	374m SW	Unit 12-13 The Viscount Centre Gaskill Road Speke Liverpool L24 9GS	EA/EPR/VP368 5BT/A001	Treating waste exemption	Non-Agricultural Waste Only	Repair or refurbishment of WEEE

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)
- Radioactive Substance Authorisations
- Licensed Discharges to controlled waters
- Pollutant release to public sewer
- List 1 Dangerous Substances
- List 2 Dangerous Substances
- Pollution Incidents (EA/NRW)
- Pollution inventory substances
- Pollution inventory waste transfers

4.1 Recent industrial land uses

Records within 250m

36

Current potentially contaminative industrial sites.

Features are displayed on the Current industrial land use map on **page 45**

ID	Location	Company	Address	Activity	Category
1	On site	Electricity Sub Station	Merseyside, L24	Electrical Features	Infrastructure and Facilities
A	4m NE	Electricity Sub Station	Merseyside, L24	Electrical Features	Infrastructure and Facilities

ID	Location	Company	Address	Activity	Category
3	42m SW	Bus Depot	Merseyside, L24	Bus and Coach Stations, Depots and Companies	Public Transport, Stations and Infrastructure
A	45m NE	Pylon	Merseyside, L24	Electrical Features	Infrastructure and Facilities
5	73m N	Electricity Sub Stations	Merseyside, L24	Electrical Features	Infrastructure and Facilities
6	81m E	Electricity Sub Station	Merseyside, L24	Electrical Features	Infrastructure and Facilities
7	82m S	Electricity Sub Station	Merseyside, L24	Electrical Features	Infrastructure and Facilities
B	101m SW	Arriva Plc	Unit 5 South Liverpool Garage, Shaw Road, Liverpool, Merseyside, L24 9JT	Bus and Coach Stations, Depots and Companies	Public Transport, Stations and Infrastructure
D	123m NW	Tank	Merseyside, L24	Tanks (Generic)	Industrial Features
8	127m SE	Electricity Sub Station	Merseyside, L24	Electrical Features	Infrastructure and Facilities
D	131m NW	Tank	Merseyside, L24	Tanks (Generic)	Industrial Features
D	132m NW	Tank	Merseyside, L24	Tanks (Generic)	Industrial Features
9	138m SW	Espack Eurologistica	Renaissance Way, Liverpool, Merseyside, L24 9JW	Container and Storage	Transport, Storage and Delivery
D	144m NW	Tank	Merseyside, L24	Tanks (Generic)	Industrial Features
D	146m W	Electricity Sub Stations	Merseyside, L24	Electrical Features	Infrastructure and Facilities
B	148m SW	Works	Merseyside, L24	Unspecified Works Or Factories	Industrial Features
B	150m SW	Electricity Sub Station	Merseyside, L24	Electrical Features	Infrastructure and Facilities
D	156m NW	Tank	Merseyside, L24	Tanks (Generic)	Industrial Features
D	160m NW	Tank	Merseyside, L24	Tanks (Generic)	Industrial Features
D	165m NW	Tank	Merseyside, L24	Tanks (Generic)	Industrial Features
10	173m SW	Auto Renew Ltd	Unit 1, Shaw Road, Liverpool, Merseyside, L24 9JT	Vehicle Repair, Testing and Servicing	Repair and Servicing
11	190m SW	Electricity Sub Station	Merseyside, L24	Electrical Features	Infrastructure and Facilities



ID	Location	Company	Address	Activity	Category
D	196m W	Tank	Merseyside, L24	Tanks (Generic)	Industrial Features
12	199m SE	Magna	6, Renaissance Way, Liverpool, Merseyside, L24 9PL	Vehicle Components	Industrial Products
D	200m NW	Tank	Merseyside, L24	Tanks (Generic)	Industrial Features
13	208m SW	Electricity Sub Station	Merseyside, L24	Electrical Features	Infrastructure and Facilities
D	208m NW	Tank	Merseyside, L24	Tanks (Generic)	Industrial Features
D	208m NW	Tank	Merseyside, L24	Tanks (Generic)	Industrial Features
E	208m SW	Sarah's Steels	Unit 9, Shaw Road, Liverpool, Merseyside, L24 9JT	Metalworkers Including Blacksmiths	Construction Services
D	213m W	Tank	Merseyside, L24	Tanks (Generic)	Industrial Features
D	219m W	Tank	Merseyside, L24	Tanks (Generic)	Industrial Features
E	221m SW	Electricity Sub Station	Merseyside, L24	Electrical Features	Infrastructure and Facilities
E	222m SW	M C & C Motor Engineers	Unit 6a, Shaw Road, Liverpool, Merseyside, L24 9JT	Vehicle Repair, Testing and Servicing	Repair and Servicing
E	224m SW	S N S Autos	Unit 6a, Shaw Road, Liverpool, Merseyside, L24 9JT	Vehicle Repair, Testing and Servicing	Repair and Servicing
14	228m S	Electricity Sub Station	Merseyside, L24	Electrical Features	Infrastructure and Facilities
D	231m NW	Electricity Sub Station	Merseyside, L24	Electrical Features	Infrastructure and Facilities

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

4

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 45**

ID	Location	Company	Address	Operational status	Tier
2	On site	Ford Motor Co Ltd	Ford Motor Co Ltd, Halewood, Liverpool, L24 9LE	Historical NIHHS Site	-
4	52m N	Elanco UK AH Limited	Elanco UK AH Limited, Liverpool, Fleming Road, Speke, Liverpool, Merseyside, L24 9LN	Current COMAH Site	COMAH Upper Tier Operator
H	390m S	Medeva Pharma Ltd	Medeva Pharma Ltd, Gaskill Road, Speke, L24 9GR	Historical NIHHS Site	-
22	484m SW	Glaxo Welcome Ltd	Glaxo Welcome Ltd, Speke Boulevard, Liverpool, L24 9JD	Historical NIHHS Site	-

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

4

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 45**

ID	Location	Details	
J	435m W	Application reference number: No Details Application status: Approved Application date: 02/07/2010 Address: Elanco UK AH Ltd, Fleming Road, Speke, Liverpool, Merseyside, England, L24 9LN	Details: Application for Hazardous Substance Consent for the storage of substances within Category R50 (toxic to aquatic organisms). Enforcement: No Enforcement Notified Date of enforcement: No Enforcement Notified Comment: No Enforcement Notified
J	441m W	Application reference number: 08HZ/1803 Application status: Approved Application date: 26/07/2008 Address: Eli Lilly & Co Ltd, Speke Operations, Fleming Road, Speke, Liverpool, Merseyside, England, L24 9LN	Details: Application for Hazardous Substance Consent for storage of substances within Category R50 (toxic to aquatic organisms) Enforcement: No Enforcement Notified Date of enforcement: No Enforcement Notified Comment: No Enforcement Notified
J	449m W	Application reference number: 10/00372/HAZ Application status: Pending Application date: 21/06/2010 Address: Eli Lilly And Company, Fleming Road, Halewood, Knowsley, L24 9LN	Details: Storage and use of R50 very toxic to aquatic organisms substances Enforcement: No Enforcement Notified Date of enforcement: No Enforcement Notified Comment: No Enforcement Notified
J	449m W	Application reference number: 08/00476/HAZ Application status: Historical Consent Application date: 08/07/2008 Address: Eli Lilly And Company, Speke Operations, Fleming Road, Halewood, Knowsley, L26 9LN	Details: Storage and use of R50 very toxic to aquatic organisms substances 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

25

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 45**

ID	Location	Details	
15	248m S	Operator: Apph Ltd Address: PO Box 1, Shaw Road, Speke, Liverpool, Merseyside, L24 9JY Process: Inorganic Chemical Processes Permit Number: AN9174	Original Permit Number: IPCAPP Date Approved: 30-11-1994 Effective Date: 8-12-1994 Status: Revoked
H	439m SW	Operator: Novartis Vaccines and Diagnostics Ltd Address: Gaskill Road, Speke, Liverpool, Merseyside, L24 9GR Process: Pharmaceutical Production Permit Number: AO0768	Original Permit Number: IPCAPP Date Approved: 21-12-1994 Effective Date: 9-1-1995 Status: Superseded By Variation
H	439m SW	Operator: Novartis Vaccines and Diagnostics Ltd Address: Gaskill Road, Speke, Liverpool, Merseyside, L24 9GR Process: Pharmaceutical Production Permit Number: AV8887	Original Permit Number: IPCMINVAR Date Approved: 6-8-1996 Effective Date: 13-8-1996 Status: Superseded By Variation
H	439m SW	Operator: Novartis Vaccines and Diagnostics Ltd Address: Gaskill Road, Speke, Liverpool, Merseyside, L24 9GR Process: Pharmaceutical Production Permit Number: AY6473	Original Permit Number: IPCMINVAR Date Approved: 30-4-1997 Effective Date: 7-5-1997 Status: Superseded By Variation
H	439m SW	Operator: Novartis Vaccines and Diagnostics Ltd Address: Gaskill Road, Speke, Liverpool, Merseyside, L24 9GR Process: Pharmaceutical Production Permit Number: BD9416	Original Permit Number: IPCMINVAR Date Approved: 24-11-1998 Effective Date: 30-11-1998 Status: Superseded By Variation
H	439m SW	Operator: Novartis Vaccines and Diagnostics Ltd Address: Gaskill Road, Speke, Liverpool, Merseyside, L24 9GR Process: Pharmaceutical Production Permit Number: BH2472	Original Permit Number: IPCMINVAR Date Approved: 29-2-2000 Effective Date: 6-3-2000 Status: Superseded By Variation
H	439m SW	Operator: Novartis Vaccines and Diagnostics Ltd Address: Gaskill Road, Speke, Liverpool, Merseyside, L24 9GR Process: Pharmaceutical Production Permit Number: BI2818	Original Permit Number: IPCMINVAR Date Approved: 2-5-2000 Effective Date: 10-5-2000 Status: Superseded By Variation



ID	Location	Details	
H	439m SW	Operator: Novartis Vaccines and Diagnostics Ltd Address: Gaskill Road, Speke, Liverpool, Merseyside, L24 9GR Process: Pharmaceutical Production Permit Number: BI9065	Original Permit Number: IPCMINVAR Date Approved: 7-9-2000 Effective Date: 14-9-2000 Status: Superseded By Variation
H	439m SW	Operator: Novartis Vaccines and Diagnostics Ltd Address: Gaskill Road, Speke, Liverpool, Merseyside, L24 9GR Process: Pharmaceutical Production Permit Number: BR9332	Original Permit Number: IPCMINVAR Date Approved: 16-5-2002 Effective Date: 1-8-2002 Status: Revoked - Now Ippc
J	441m W	Operator: Eli Lilly and Co Ltd Address: Fleming Road, Liverpool, Merseyside, L24 9LN Process: Combustion Processes Permit Number: AA3875	Original Permit Number: IPCAPP Date Approved: 31-10-1991 Effective Date: 31-10-1991 Status: Surrendered
J	441m W	Operator: Eli Lilly and Co Ltd Address: Fleming Road, Liverpool, Merseyside, L24 9LN Process: Manufacture And Use Of Organic Chemicals Permit Number: AI5928	Original Permit Number: IPCAIRAPP Date Approved: 27-8-1993 Effective Date: 27-8-1993 Status: Revoked
J	441m W	Operator: Eli Lilly and Co Ltd Address: Fleming Road, Liverpool, Merseyside, L24 9LN Process: Manufacture And Use Of Organic Chemicals Permit Number: AJ5754	Original Permit Number: IPCAPP Date Approved: 5-10-1993 Effective Date: 5-10-1993 Status: Superseded By Variation
J	441m W	Operator: Eli Lilly and Co Ltd Address: Fleming Road, Liverpool, Merseyside, L24 9LN Process: Manufacture And Use Of Organic Chemicals Permit Number: AK5156	Original Permit Number: IPCAPP Date Approved: 24-2-1994 Effective Date: 24-2-1994 Status: Superseded By Variation
J	441m W	Operator: Eli Lilly and Co Ltd Address: Fleming Road, Liverpool, Merseyside, L24 9LN Process: Manufacture And Use Of Organic Chemicals Permit Number: AK9666	Original Permit Number: IPCAPP Date Approved: 24-3-1994 Effective Date: 1-4-1994 Status: Superseded By Variation
J	441m W	Operator: Eli Lilly and Co Ltd Address: Fleming Road, Liverpool, Merseyside, L24 9LN Process: Manufacture And Use Of Organic Chemicals Permit Number: AS0880	Original Permit Number: IPCMINVAR Date Approved: 4-7-1995 Effective Date: 11-7-1995 Status: Superseded By Variation
J	441m W	Operator: Eli Lilly and Co Ltd Address: Fleming Road, Liverpool, Merseyside, L24 9LN Process: Manufacture And Use Of Organic Chemicals Permit Number: AV2323	Original Permit Number: IPCMAJVAR Date Approved: 13-5-1996 Effective Date: 20-5-1996 Status: Superseded By Variation



ID	Location	Details	
J	441m W	Operator: Eli Lilly and Co Ltd Address: Fleming Road, Liverpool, Merseyside, L24 9LN Process: Manufacture And Use Of Organic Chemicals Permit Number: AY1994	Original Permit Number: IPCMINVAR Date Approved: 8-4-1997 Effective Date: 15-4-1997 Status: Superseded By Variation
J	441m W	Operator: Eli Lilly and Co Ltd Address: Fleming Road, Liverpool, Merseyside, L24 9LN Process: Manufacture And Use Of Organic Chemicals Permit Number: AZ0926	Original Permit Number: IPCMINVAR Date Approved: 14-8-1997 Effective Date: 21-8-1997 Status: Superseded By Variation
J	441m W	Operator: Eli Lilly and Co Ltd Address: Fleming Road, Liverpool, Merseyside, L24 9LN Process: Manufacture And Use Of Organic Chemicals Permit Number: BB3271	Original Permit Number: IPCMINVAR Date Approved: 5-8-1998 Effective Date: 12-8-1998 Status: Superseded By Variation
J	441m W	Operator: Eli Lilly and Co Ltd Address: Fleming Road, Liverpool, Merseyside, L24 9LN Process: Manufacture And Use Of Organic Chemicals Permit Number: BB9997	Original Permit Number: IPCMINVAR Date Approved: 2-10-1998 Effective Date: 9-10-1998 Status: Superseded By Variation
J	441m W	Operator: Eli Lilly and Co Ltd Address: Fleming Road, Liverpool, Merseyside, L24 9LN Process: Manufacture And Use Of Organic Chemicals Permit Number: BC6144	Original Permit Number: IPCMINVAR Date Approved: 24-11-1998 Effective Date: 30-11-1998 Status: Revoked
J	441m W	Operator: Eli Lilly and Co Ltd Address: Fleming Road, Liverpool, Merseyside, L24 9LN Process: Manufacture And Use Of Organic Chemicals Permit Number: BC6683	Original Permit Number: IPCMINVAR Date Approved: 24-11-1998 Effective Date: 30-11-1998 Status: Superseded By Variation
J	441m W	Operator: Eli Lilly and Co Ltd Address: Fleming Road, Liverpool, Merseyside, L24 9LN Process: Manufacture And Use Of Organic Chemicals Permit Number: BE6170	Original Permit Number: IPCMINVAR Date Approved: 24-11-1998 Effective Date: 30-11-1998 Status: Revoked - Now Ippc
J	441m W	Operator: Eli Lilly and Co Ltd Address: Fleming Road, Liverpool, Merseyside, L24 9LN Process: Manufacture And Use Of Organic Chemicals Permit Number: BH4777	Original Permit Number: IPCMINVAR Date Approved: 11-1-2000 Effective Date: 18-1-2000 Status: Superseded By Variation
J	441m W	Operator: Eli Lilly and Co Ltd Address: Fleming Road, Liverpool, Merseyside, L24 9LN Process: Manufacture And Use Of Organic Chemicals Permit Number: BL6225	Original Permit Number: IPCMINVAR Date Approved: 3-10-2005 Effective Date: 4-10-2005 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

54

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 45**

ID	Location	Details	
C	119m S	Operator: SEQIRUS VACCINES LIMITED Installation Name: SEQIRUS VACCINES EPR/BS5401IK Process: DISPOSAL OF > 50 T/D NON-HAZARDOUS WASTE (> 100 T/D IF ONLY AD) INVOLVING PHYSICO-CHEMICAL TREATMENT Permit Number: PP3932QZ Original Permit Number: BS5401IK	EPR Reference: - Issue Date: 06/02/2019 Effective Date: 06/02/2019 Last date noted as effective: 01/07/2021 Status: EFFECTIVE
C	119m S	Operator: SEQIRUS VACCINES LIMITED Installation Name: SEQIRUS VACCINES EPR/BS5401IK Process: ANIMAL, VEGETABLE AND FOOD; DISPOSING ETC ANIMAL CARCASSES ETC >10 T/DAY Permit Number: PP3932QZ Original Permit Number: BS5401IK	EPR Reference: - Issue Date: 06/02/2019 Effective Date: 06/02/2019 Last date noted as effective: 01/07/2021 Status: EFFECTIVE
C	119m S	Operator: SEQIRUS VACCINES LIMITED Installation Name: SEQIRUS VACCINES EPR/BS5401IK Process: PHARMACEUTICALS; PRODUCING PHARMACEUTICALS USING CHEMICAL/BIOLOGICAL PROCESSES Permit Number: PP3932QZ Original Permit Number: BS5401IK	EPR Reference: - Issue Date: 06/02/2019 Effective Date: 06/02/2019 Last date noted as effective: 01/07/2021 Status: EFFECTIVE
F	260m SW	Operator: SRCL LIMITED Installation Name: SPEKE CLINICAL WASTE TRANSFER STATION Process: DISPOSAL OR RECOVERY OF HAZARDOUS WASTE WITH A CAPACITY EXCEEDING 10 TONNES PER DAY INVOLVING BIOLOGICAL TREATMENT Permit Number: ZP3733AU Original Permit Number: HP3737ZD	EPR Reference: - Issue Date: - Effective Date: 26/02/2015 Last date noted as effective: 01/07/2016 Status: SURRENDER EFFECTIVE



ID	Location	Details	
F	260m SW	Operator: SRCL LIMITED Installation Name: SPEKE CLINICAL WASTE TRANSFER STATION Process: DISPOSAL OR RECOVERY OF HAZ WASTE WITH CAPACITY EXCEEDING 10 TONNES PER DAY INVOLVING REPACKAGING PRIOR TO SUBMISSION TO ANY OF THE OTHER ACTIVITIES LISTED IN THIS SECTION OR IN SECTION 5.1 Permit Number: ZP3733AU Original Permit Number: HP3737ZD	EPR Reference: - Issue Date: - Effective Date: 26/02/2015 Last date noted as effective: 01/07/2021 Status: SURRENDER EFFECTIVE
F	260m SW	Operator: SRCL LIMITED Installation Name: SPEKE CLINICAL WASTE TRANSFER STATION Process: DISPOSAL OR RECOVERY OF HAZARDOUS WASTE WITH A CAPACITY EXCEEDING 10 TONNES PER DAY INVOLVING BIOLOGICAL TREATMENT Permit Number: ZP3733AU Original Permit Number: HP3737ZD	EPR Reference: - Issue Date: - Effective Date: 26/02/2015 Last date noted as effective: 01/07/2021 Status: SURRENDER EFFECTIVE
F	260m SW	Operator: SRCL LIMITED Installation Name: SPEKE CLINICAL WASTE TRANSFER STATION Process: OTHER WASTE DISPOSAL; HAZARDOUS WASTE >10T/D Permit Number: ZP3733AU Original Permit Number: HP3737ZD	EPR Reference: - Issue Date: - Effective Date: 26/02/2015 Last date noted as effective: 01/07/2021 Status: SURRENDER EFFECTIVE
F	260m SW	Operator: SRCL LIMITED Installation Name: SPEKE CLINICAL WASTE TRANSFER STATION Process: OTHER WASTE DISPOSAL; HAZARDOUS WASTE >10T/D Permit Number: HP3737ZD Original Permit Number: HP3737ZD	EPR Reference: - Issue Date: 01/07/2013 Effective Date: 01/07/2013 Last date noted as effective: 01/07/2021 Status: SUPERCEDED
G	290m S	Operator: MEDIMMUNE UK LTD Installation Name: RENAISSANCE WAY, SPEKE PHARMACEUTICALS EPR/BL6241IR Process: PHARMACEUTICALS; PRODUCING PHARMACEUTICALS USING CHEMICAL/BIOLOGICAL PROCESSES Permit Number: XP3335YQ Original Permit Number: BL6241IR	EPR Reference: - Issue Date: 01/12/2017 Effective Date: 01/12/2017 Last date noted as effective: 01/07/2021 Status: EFFECTIVE
G	290m S	Operator: MEDIMMUNE UK LTD Installation Name: RENAISSANCE WAY, SPEKE PHARMACEUTICALS EPR/BL6241IR Process: ANIMAL, VEGETABLE AND FOOD; DISPOSING ETC ANIMAL CARCASSES ETC >10 T/DAY Permit Number: XP3335YQ Original Permit Number: BL6241IR	EPR Reference: - Issue Date: 01/12/2017 Effective Date: 01/12/2017 Last date noted as effective: 01/07/2021 Status: EFFECTIVE



ID	Location	Details	
F	301m SW	Operator: B TICKLE & SONS LTD Installation Name: INVINCIBLE WORKS - EPR/KP3839DG Process: ANIMAL VEGETABLE AND FOOD TREATING ETC VEGETABLE Permit Number: KP3839DG Original Permit Number: KP3839DG	EPR Reference: - Issue Date: 30/06/2017 Effective Date: 30/06/2017 Last date noted as effective: 30/01/2020 Status: SUPERCEDED
F	330m SW	Operator: B TICKLE & SONS LTD Installation Name: INVINCIBLE WORKS - EPR/KP3839DG Process: ANIMAL VEGETABLE AND FOOD TREATING ETC VEGETABLE Permit Number: KP3839DG Original Permit Number: KP3839DG	EPR Reference: - Issue Date: 30/06/2017 Effective Date: 30/06/2017 Last date noted as effective: 01/07/2021 Status: SUPERCEDED
F	335m SW	Operator: DUGDALE NUTRITION LIMITED Installation Name: SPEKE MILL EPR/QP3500PJ Process: ANIMAL VEGETABLE AND FOOD TREATING ETC VEGETABLE Permit Number: RP3802PT Original Permit Number: QP3500PJ	EPR Reference: - Issue Date: 03/12/2019 Effective Date: 03/12/2019 Last date noted as effective: 30/01/2020 Status: EFFECTIVE
F	368m SW	Operator: DUGDALE NUTRITION LIMITED Installation Name: SPEKE MILL EPR/QP3500PJ Process: ANIMAL VEGETABLE AND FOOD TREATING ETC VEGETABLE Permit Number: QP3500PJ Original Permit Number: QP3500PJ	EPR Reference: - Issue Date: 08/05/2019 Effective Date: 08/05/2019 Last date noted as effective: 30/01/2020 Status: SUPERCEDED
18	377m S	Operator: CHIRON VACCINES LIMITED Installation Name: SPEKE VACCINE MANUFACTURE Process: PHARMACEUTICALS; PRODUCING PHARMACEUTICALS USING CHEMICAL/BIOLOGICAL PROCESSES Permit Number: KP3330LF Original Permit Number: KP3330LF	EPR Reference: - Issue Date: 06/04/2006 Effective Date: 20/12/2006 Last date noted as effective: 01/07/2021 Status: REVOKED
F	377m SW	Operator: DUGDALE NUTRITION LIMITED Installation Name: SPEKE MILL EPR/QP3500PJ Process: ANIMAL VEGETABLE AND FOOD TREATING ETC VEGETABLE Permit Number: QP3500PJ Original Permit Number: QP3500PJ	EPR Reference: - Issue Date: 08/05/2019 Effective Date: 08/05/2019 Last date noted as effective: 01/07/2021 Status: SUPERCEDED
I	395m SW	Operator: DUGDALE NUTRITION LIMITED Installation Name: SPEKE MILL EPR/QP3500PJ Process: ANIMAL VEGETABLE AND FOOD TREATING ETC VEGETABLE Permit Number: RP3802PT Original Permit Number: QP3500PJ	EPR Reference: - Issue Date: 03/12/2019 Effective Date: 03/12/2019 Last date noted as effective: 01/07/2021 Status: EFFECTIVE

ID	Location	Details	
J	441m W	Operator: ELI LILLY AND CO LTD Installation Name: SPEKE PHARMACEUTICAL WORKS EPR/BS5622IV Process: COMBUSTION; ANY FUEL =>50MW Permit Number: QP3237RF Original Permit Number: BS5622IV	EPR Reference: - Issue Date: 31/08/2016 Effective Date: 31/08/2016 Last date noted as effective: 01/07/2021 Status: SUPERCEDED
J	441m W	Operator: ELI LILLY AND CO LTD Installation Name: SPEKE PHARMACEUTICAL WORKS EPR/BS5622IV Process: PHARMACEUTICALS; PRODUCING PHARMACEUTICALS USING CHEMICAL/BIOLOGICAL PROCESSES Permit Number: QP3237RF Original Permit Number: BS5622IV	EPR Reference: - Issue Date: 31/08/2016 Effective Date: 31/08/2016 Last date noted as effective: 01/07/2021 Status: SUPERCEDED
J	441m W	Operator: ELANCO UK AH LIMITED Installation Name: SPEKE PHARMACEUTICAL WORKS - EPR/MP3603PS Process: COMBUSTION; ANY FUEL =>50MW Permit Number: MP3603PS Original Permit Number: MP3603PS	EPR Reference: - Issue Date: 07/03/2019 Effective Date: 07/03/2019 Last date noted as effective: 01/07/2021 Status: SUPERCEDED
J	441m W	Operator: ELI LILLY AND CO LTD Installation Name: SPEKE PHARMACEUTICAL WORKS Process: COMBUSTION; ANY FUEL =>50MW Permit Number: BS5622IV Original Permit Number: BS5622IV	EPR Reference: - Issue Date: 21/02/2007 Effective Date: 21/02/2007 Last date noted as effective: 01/07/2021 Status: SUPERCEDED
J	441m W	Operator: ELI LILLY AND CO LTD Installation Name: SPEKE PHARMACEUTICAL WORKS Process: COMBUSTION; ANY FUEL =>50MW Permit Number: AP3036FB Original Permit Number: BS5622IV	EPR Reference: - Issue Date: 17/05/2012 Effective Date: 17/05/2012 Last date noted as effective: 01/07/2021 Status: SUPERCEDED
J	441m W	Operator: ELI LILLY AND CO LTD Installation Name: SPEKE PHARMACEUTICAL WORKS Process: PHARMACEUTICALS; PRODUCING PHARMACEUTICALS USING CHEMICAL/BIOLOGICAL PROCESSES Permit Number: AP3036FB Original Permit Number: BS5622IV	EPR Reference: - Issue Date: 17/05/2012 Effective Date: 17/05/2012 Last date noted as effective: 01/07/2021 Status: SUPERCEDED
J	441m W	Operator: ELI LILLY AND CO LTD Installation Name: SPEKE PHARMACEUTICAL WORKS Process: PHARMACEUTICALS; PRODUCING PHARMACEUTICALS USING CHEMICAL/BIOLOGICAL PROCESSES Permit Number: BS5622IV Original Permit Number: BS5622IV	EPR Reference: - Issue Date: 21/02/2007 Effective Date: 21/02/2007 Last date noted as effective: 01/07/2021 Status: SUPERCEDED

ID	Location	Details	
J	441m W	Operator: ELI LILLY AND CO LTD Installation Name: SPEKE PHARMACEUTICAL WORKS Process: COMBUSTION; ANY FUEL =>50MW Permit Number: CP3131XZ Original Permit Number: BS5622IV	EPR Reference: - Issue Date: 02/02/2009 Effective Date: 02/02/2009 Last date noted as effective: 01/07/2021 Status: SUPERCEDED
J	441m W	Operator: ELI LILLY AND CO LTD Installation Name: SPEKE PHARMACEUTICAL WORKS Process: COMBUSTION; ANY FUEL =>50MW Permit Number: JP3135VS Original Permit Number: BS5622IV	EPR Reference: - Issue Date: 20/06/2014 Effective Date: 20/06/2014 Last date noted as effective: 01/07/2021 Status: SUPERCEDED
J	441m W	Operator: ELI LILLY AND CO LTD Installation Name: SPEKE PHARMACEUTICAL WORKS Process: PHARMACEUTICALS; PRODUCING PHARMACEUTICALS USING CHEMICAL/BIOLOGICAL PROCESSES Permit Number: CP3131XZ Original Permit Number: BS5622IV	EPR Reference: - Issue Date: 02/02/2009 Effective Date: 02/02/2009 Last date noted as effective: 01/07/2021 Status: SUPERCEDED
J	441m W	Operator: ELI LILLY AND CO LTD Installation Name: SPEKE PHARMACEUTICAL WORKS Process: PHARMACEUTICALS; PRODUCING PHARMACEUTICALS USING CHEMICAL/BIOLOGICAL PROCESSES Permit Number: JP3135VS Original Permit Number: BS5622IV	EPR Reference: - Issue Date: 20/06/2014 Effective Date: 20/06/2014 Last date noted as effective: 01/07/2021 Status: SUPERCEDED
J	441m W	Operator: ELANCO UK AH LIMITED Installation Name: ELANCO AH UK LIMITED Process: COMBUSTION; ANY FUEL =>50MW Permit Number: FP3300LL Original Permit Number: MP3603PS	EPR Reference: - Issue Date: 06/10/2020 Effective Date: 06/10/2020 Last date noted as effective: 01/07/2021 Status: EFFECTIVE
J	441m W	Operator: ELANCO UK AH LIMITED Installation Name: SPEKE PHARMACEUTICAL WORKS - EPR/MP3603PS Process: DISPOSAL OF > 50 T/D NON-HAZARDOUS WASTE (> 100 T/D IF ONLY AD) INVOLVING PHYSICO-CHEMICAL TREATMENT Permit Number: MP3603PS Original Permit Number: MP3603PS	EPR Reference: - Issue Date: 07/03/2019 Effective Date: 07/03/2019 Last date noted as effective: 01/07/2021 Status: SUPERCEDED
J	441m W	Operator: ELANCO UK AH LIMITED Installation Name: ELANCO AH UK LIMITED Process: COMBUSTION; ANY FUEL =>50MW Permit Number: MP3705PK Original Permit Number: MP3603PS	EPR Reference: - Issue Date: 13/08/2019 Effective Date: 13/08/2019 Last date noted as effective: 01/07/2021 Status: SUPERCEDED

ID	Location	Details	
J	441m W	Operator: ELANCO UK AH LIMITED Installation Name: ELANCO AH UK LIMITED Process: PHARMACEUTICALS; PRODUCING PHARMACEUTICALS USING CHEMICAL/BIOLOGICAL PROCESSES Permit Number: MP3705PK Original Permit Number: MP3603PS	EPR Reference: - Issue Date: 13/08/2019 Effective Date: 13/08/2019 Last date noted as effective: 01/07/2021 Status: SUPERCEDED
J	441m W	Operator: ELANCO UK AH LIMITED Installation Name: ELANCO AH UK LIMITED Process: PHARMACEUTICALS; PRODUCING PHARMACEUTICALS USING CHEMICAL/BIOLOGICAL PROCESSES Permit Number: FP3300LL Original Permit Number: MP3603PS	EPR Reference: - Issue Date: 06/10/2020 Effective Date: 06/10/2020 Last date noted as effective: 01/07/2021 Status: EFFECTIVE
J	441m W	Operator: ELANCO UK AH LIMITED Installation Name: SPEKE PHARMACEUTICAL WORKS - EPR/MP3603PS Process: PHARMACEUTICALS; PRODUCING PHARMACEUTICALS USING CHEMICAL/BIOLOGICAL PROCESSES Permit Number: MP3603PS Original Permit Number: MP3603PS	EPR Reference: - Issue Date: 07/03/2019 Effective Date: 07/03/2019 Last date noted as effective: 01/07/2021 Status: SUPERCEDED
K	442m S	Operator: NOVARTIS VACCINES AND DIAGNOSTICS LIMITED Installation Name: NOVARTIS VACCINES AND DIAGNOSTICS Process: PHARMACEUTICALS; PRODUCING PHARMACEUTICALS USING CHEMICAL/BIOLOGICAL PROCESSES Permit Number: EP3534EH Original Permit Number: BS5401IK	EPR Reference: - Issue Date: 10/02/2014 Effective Date: 10/02/2014 Last date noted as effective: 01/04/2014 Status: EFFECTIVE
K	442m S	Operator: NOVARTIS GRIMSBY LTD Installation Name: SEQIRUS VACCINES EPR/BS5401IK Process: PHARMACEUTICALS; PRODUCING PHARMACEUTICALS USING CHEMICAL/BIOLOGICAL PROCESSES Permit Number: BS5401IK Original Permit Number: BS5401IK	EPR Reference: - Issue Date: 21/12/2006 Effective Date: 21/12/2006 Last date noted as effective: 01/07/2021 Status: SUPERCEDED
K	442m S	Operator: NOVARTIS VACCINES AND DIAGNOSTICS LIMITED Installation Name: SEQIRUS VACCINES EPR/BS5401IK Process: PHARMACEUTICALS; PRODUCING PHARMACEUTICALS USING CHEMICAL/BIOLOGICAL PROCESSES Permit Number: AP3131HR Original Permit Number: BS5401IK	EPR Reference: - Issue Date: 05/05/2011 Effective Date: 05/05/2011 Last date noted as effective: 01/07/2021 Status: SUPERCEDED



ID	Location	Details	
K	442m S	Operator: NOVARTIS VACCINES AND DIAGNOSTICS LIMITED Installation Name: SEQIRUS VACCINES EPR/BS5401IK Process: PHARMACEUTICALS; PRODUCING PHARMACEUTICALS USING CHEMICAL/BIOLOGICAL PROCESSES Permit Number: BP3937KL Original Permit Number: BS5401IK	EPR Reference: - Issue Date: 09/04/2010 Effective Date: 09/04/2010 Last date noted as effective: 01/07/2021 Status: SUPERCEDED
K	442m S	Operator: NOVARTIS VACCINES AND DIAGNOSTICS LIMITED Installation Name: SEQIRUS VACCINES EPR/BS5401IK Process: PHARMACEUTICALS; PRODUCING PHARMACEUTICALS USING CHEMICAL/BIOLOGICAL PROCESSES Permit Number: CP3032FR Original Permit Number: BS5401IK	EPR Reference: - Issue Date: 21/10/2011 Effective Date: 21/10/2011 Last date noted as effective: 01/07/2021 Status: SUPERCEDED
K	442m S	Operator: NOVARTIS VACCINES AND DIAGNOSTICS LIMITED Installation Name: SEQIRUS VACCINES EPR/BS5401IK Process: PHARMACEUTICALS; PRODUCING PHARMACEUTICALS USING CHEMICAL/BIOLOGICAL PROCESSES Permit Number: YP3531UV Original Permit Number: BS5401IK	EPR Reference: - Issue Date: 21/12/2007 Effective Date: 21/12/2007 Last date noted as effective: 01/07/2021 Status: SUPERCEDED
K	442m S	Operator: SEQIRUS VACCINES LIMITED Installation Name: SEQIRUS VACCINES EPR/BS5401IK Process: PHARMACEUTICALS; PRODUCING PHARMACEUTICALS USING CHEMICAL/BIOLOGICAL PROCESSES Permit Number: PP3535YR Original Permit Number: BS5401IK	EPR Reference: - Issue Date: - Effective Date: - Last date noted as effective: 30/11/2017 Status: DETERMINATION
K	442m S	Operator: NOVARTIS VACCINES AND DIAGNOSTICS LIMITED Installation Name: SEQIRUS VACCINES EPR/BS5401IK Process: PHARMACEUTICALS; PRODUCING PHARMACEUTICALS USING CHEMICAL/BIOLOGICAL PROCESSES Permit Number: QP3839HW Original Permit Number: BS5401IK	EPR Reference: - Issue Date: 05/10/2010 Effective Date: 05/10/2010 Last date noted as effective: 01/07/2021 Status: SUPERCEDED
K	442m S	Operator: NOVARTIS VACCINES AND DIAGNOSTICS LIMITED Installation Name: SEQIRUS VACCINES EPR/BS5401IK Process: PHARMACEUTICALS; PRODUCING PHARMACEUTICALS USING CHEMICAL/BIOLOGICAL PROCESSES Permit Number: CP3131VF Original Permit Number: BS5401IK	EPR Reference: - Issue Date: 10/02/2014 Effective Date: 10/02/2014 Last date noted as effective: 01/07/2021 Status: SUPERCEDED



ID	Location	Details	
K	442m S	Operator: SEQIRUS VACCINES LIMITED Installation Name: SEQIRUS VACCINES EPR/BS5401IK Process: PHARMACEUTICALS; PRODUCING PHARMACEUTICALS USING CHEMICAL/BIOLOGICAL PROCESSES Permit Number: GP3234RR Original Permit Number: BS5401IK	EPR Reference: - Issue Date: 16/02/2016 Effective Date: 16/02/2016 Last date noted as effective: 01/07/2021 Status: SUPERCEDED
K	442m S	Operator: SEQIRUS VACCINES LIMITED Installation Name: SEQIRUS VACCINES EPR/BS5401IK Process: PHARMACEUTICALS; PRODUCING PHARMACEUTICALS USING CHEMICAL/BIOLOGICAL PROCESSES Permit Number: PP3235YZ Original Permit Number: BS5401IK	EPR Reference: - Issue Date: 28/11/2017 Effective Date: 28/11/2017 Last date noted as effective: 01/07/2021 Status: SUPERCEDED
L	452m S	Operator: MEDIMMUNE UK LTD Installation Name: RENAISSANCE WAY, SPEKE PHARMACEUTICALS Process: PHARMACEUTICALS; PRODUCING PHARMACEUTICALS USING CHEMICAL/BIOLOGICAL PROCESSES Permit Number: BL6241IR Original Permit Number: BL6241IR	EPR Reference: - Issue Date: 01/02/2006 Effective Date: 01/02/2006 Last date noted as effective: 01/07/2021 Status: SUPERCEDED
L	452m S	Operator: MEDIMMUNE UK LTD Installation Name: RENAISSANCE WAY, SPEKE PHARMACEUTICALS Process: PHARMACEUTICALS; PRODUCING PHARMACEUTICALS USING CHEMICAL/BIOLOGICAL PROCESSES Permit Number: TP3030GT Original Permit Number: BL6241IR	EPR Reference: - Issue Date: 26/01/2009 Effective Date: 30/01/2009 Last date noted as effective: 01/07/2021 Status: SUPERCEDED
L	452m S	Operator: MEDIMMUNE UK LTD Installation Name: RENAISSANCE WAY, SPEKE PHARMACEUTICALS Process: PHARMACEUTICALS; PRODUCING PHARMACEUTICALS USING CHEMICAL/BIOLOGICAL PROCESSES Permit Number: AP3839FQ Original Permit Number: BL6241IR	EPR Reference: - Issue Date: 20/07/2011 Effective Date: 20/07/2011 Last date noted as effective: 01/07/2021 Status: SUPERCEDED
L	452m S	Operator: MEDIMMUNE UK LTD Installation Name: RENAISSANCE WAY, SPEKE PHARMACEUTICALS Process: PHARMACEUTICALS; PRODUCING PHARMACEUTICALS USING CHEMICAL/BIOLOGICAL PROCESSES Permit Number: BP3837TH Original Permit Number: BL6241IR	EPR Reference: - Issue Date: 19/10/2010 Effective Date: 19/10/2010 Last date noted as effective: 01/07/2021 Status: SUPERCEDED



ID	Location	Details	
L	452m S	Operator: MEDIMMUNE UK LTD Installation Name: RENAISSANCE WAY, SPEKE PHARMACEUTICALS Process: PHARMACEUTICALS; PRODUCING PHARMACEUTICALS USING CHEMICAL/BIOLOGICAL PROCESSES Permit Number: TP3239EU Original Permit Number: BL6241IR	EPR Reference: - Issue Date: 29/11/2013 Effective Date: 29/11/2013 Last date noted as effective: 01/07/2021 Status: SUPERCEDED
L	452m S	Operator: MEDIMMUNE UK LTD Installation Name: RENAISSANCE WAY, SPEKE PHARMACEUTICALS Process: PHARMACEUTICALS; PRODUCING PHARMACEUTICALS USING CHEMICAL/BIOLOGICAL PROCESSES Permit Number: TP3339ZM Original Permit Number: BL6241IR	EPR Reference: - Issue Date: 23/11/2012 Effective Date: 23/11/2012 Last date noted as effective: 01/07/2021 Status: SUPERCEDED
L	452m S	Operator: MEDIMMUNE UK LTD Installation Name: RENAISSANCE WAY, SPEKE PHARMACEUTICALS Process: PHARMACEUTICALS; PRODUCING PHARMACEUTICALS USING CHEMICAL/BIOLOGICAL PROCESSES Permit Number: YP3830WJ Original Permit Number: BL6241IR	EPR Reference: - Issue Date: 25/02/2015 Effective Date: 25/02/2015 Last date noted as effective: 01/07/2021 Status: SUPERCEDED
M	466m SE	Operator: JAGUAR CARS LTD Installation Name: HALEWOOD COMBUSTION PLANT Process: COMBUSTION; ANY FUEL =>50MW Permit Number: BS5673IQ Original Permit Number: BS5673IQ	EPR Reference: - Issue Date: 29/06/2007 Effective Date: 29/06/2007 Last date noted as effective: 01/07/2021 Status: SUPERCEDED
M	466m SE	Operator: JAGUAR LAND ROVER LIMITED Installation Name: HALEWOOD COMBUSTION PLANT EPR/BS5673IQ Process: COMBUSTION; ANY FUEL =>50MW Permit Number: PP3234EE Original Permit Number: BS5673IQ	EPR Reference: - Issue Date: 12/12/2013 Effective Date: 12/12/2013 Last date noted as effective: 01/07/2021 Status: EFFECTIVE

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

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

Records within 500m

8

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 45**



ID	Location	Address	Details	
16	257m SE	Decoma-Merplas, 6 Renaissance Way, Boulevard Industrial Park, Halewood, L24 9PL	Process: Coating Processes Status: Current Permit Permit Type: Part A2	Enforcement: No Enforcements Notified Date of enforcement: No Enforcements Notified Comment: No Enforcements Notified
F	344m SW	B Tickle & Sons Limited, Woodend Avenue, Speke, Liverpool, L24 9NB	Process: Animal Feed Compound Status: Historical Permit Permit Type: Part B	Enforcement: No Enforcement Notified Date of enforcement: No Enforcement Notified Comment: No Enforcement Notified
19	398m S	A P Hydraulics	Process: Metal Decontamination Status: Historical Permit Permit Type: Part B	Enforcement: No Enforcement Notified Date of enforcement: No Enforcement Notified Comment: No Enforcement Notified
J	428m W	ELANCO UK AH Limited, Fleming Road, Speke, L24 9LN	Process: Animal Feed Compound Status: Current Permit Permit Type: Part B	Enforcement: No Enforcements Notified Date of enforcement: No Enforcements Notified Comment: No Enforcements Notified
20	434m NW	Dista Products Ltd, Fleming Rd, L24 9LS	Process: Pet Food Manufacture Status: Historical Permit Permit Type: Part B	Enforcement: No Enforcement Notified Date of enforcement: No Enforcement Notified Comment: No Enforcement Notified
J	436m W	Eli Lilly & Co Ltd	Process: Animal Feed Compound Status: Historical Permit Permit Type: Part B	Enforcement: No Enforcement Notified Date of enforcement: No Enforcement Notified Comment: No Enforcement Notified
N	491m E	Jaguar Cars Ltd, PFS, Speke Boulevard, Halewood, L24 9LE	Process: Unloading of Petrol into Storage at Service Stations Status: Current Permit Permit Type: Part B	Enforcement: No Enforcements Notified Date of enforcement: No Enforcements Notified Comment: No Enforcements Notified
N	491m E	Jaguar Cars Ltd, Speke Boulevard, Halewood, L24 9LE	Process: Respraying of Road Vehicles Status: Current Permit Permit Type: Part A2	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

3

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

Features are displayed on the Current industrial land use map on **page 45**

ID	Location	Address	Details	
H	439m SW	Novartis Vaccines And Diagnostics Ltd, Gaskill Road, Speke, Liverpool, Merseyside, L24 9GR	Operator: Novartis Vaccines And Diagnostics Ltd Type: Keeping And Use Of Radioactive Materials (was Rsa60 Section 1). Permission number: AY1196 Date of approval: 22/03/2001	Effective from: 22/03/2001 Last date of update: 01/01/2015 Status: Revoked/cancelled
H	439m SW	Novartis Vaccines And Diagnostics Ltd, Gaskill Road, Speke, Liverpool, Merseyside, L24 9GR	Operator: Novartis Vaccines And Diagnostics Ltd Type: Disposal Of Radioactive Waste (was Rsa60 Section 6). Permission number: AY1218 Date of approval: 08/04/1997	Effective from: 28/04/1997 Last date of update: 01/01/2015 Status: Superseded By New Application
H	439m SW	Novartis Vaccines And Diagnostics Ltd, Gaskill Road, Speke, Liverpool, Merseyside, L24 9GR	Operator: Novartis Vaccines And Diagnostics Ltd Type: Disposal Of Radioactive Waste (was Rsa60 Section 6). Permission number: AY1218 Date of approval: 22/03/2001	Effective from: 22/03/2001 Last date of update: 01/01/2015 Status: Revoked/cancelled

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

4.13 Licensed Discharges to controlled waters

Records within 500m

1

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 45**

ID	Location	Address	Details	
17	337m NW	DISTA PRODUCTS, FLEMING ROAD, SPEKE, LIVERPOOL, MERSEYSIDE, L24 9LW	Effluent Type: MISCELLANEOUS DISCHARGES - SURFACE WATER Permit Number: 016990401 Permit Version: 1 Receiving Water: KINGSTHORNE CULVERT	Status: REVOKED - UNSPECIFIED Issue date: - Effective Date: 30/12/1982 Revocation Date: 22/08/1990

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	1
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Discharges of Special Category Effluents to the public sewer.

Features are displayed on the Current industrial land use map on **page 45**

ID	Location	Address	Details	
H	454m SW	EVANS MEDICAL LTD (DISSOLVED), GASKILL ROAD, GASKILL ROAD, SPEKE, LIVERPOOL, L24 9GR	Permission reference: AO7223 Local Authority: LIVERPOOL CITY COUNCIL First received date: 01/06/2001	Last received date: 01/01/2018 Status: RECEIVED

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

4.16 List 1 Dangerous Substances

Records within 500m	2
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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.

Features are displayed on the Current industrial land use map on **page 45**

ID	Location	Name	Status	Receiving Water	Authorised Substances
H	424m SW	Novartis Vaccines & Diagnostics	Active	Mersey Estuary	Mercury (other)
K	442m S	Novartis Vaccines And Diagnostics Limited, L24 9gr	Active	Mersey Estuary	Mercury (other)

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

4.17 List 2 Dangerous Substances

Records within 500m

1

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.

Features are displayed on the Current industrial land use map on **page 45**

ID	Location	Name	Status	Receiving Water	Authorised Substances
21	482m NW	Dista Products Ltd, Fleming Road	Not Active	-	Zinc

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

4.18 Pollution Incidents (EA/NRW)

Records within 500m

5

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 45**

ID	Location	Details	
E	232m SW	Incident Date: 17/05/2002 Incident Identification: 79364 Pollutant: Specific Waste Materials Pollutant Description: Tyres	Water Impact: Category 4 (No Impact) Land Impact: Category 3 (Minor) Air Impact: Category 4 (No Impact)
I	406m SW	Incident Date: 10/04/2001 Incident Identification: 2070 Pollutant: Pollutant Not Identified Pollutant Description: Not Identified	Water Impact: Category 3 (Minor) Land Impact: Category 3 (Minor) Air Impact: Category 4 (No Impact)
I	406m SW	Incident Date: 10/04/2001 Incident Identification: 2070 Pollutant: Pollutant Not Identified Pollutant Description: Not Identified	Water Impact: Category 3 (Minor) Land Impact: Category 3 (Minor) Air Impact: Category 4 (No Impact)
O	492m S	Incident Date: 20/01/2003 Incident Identification: 132261 Pollutant: Inorganic Chemicals/Products Pollutant Description: Acids	Water Impact: Category 3 (Minor) Land Impact: Category 4 (No Impact) Air Impact: Category 4 (No Impact)
O	492m S	Incident Date: 20/01/2003 Incident Identification: 132261 Pollutant: Inorganic Chemicals/Products Pollutant Description: Acids	Water Impact: Category 3 (Minor) Land Impact: Category 4 (No Impact) Air Impact: Category 4 (No Impact)

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



4.19 Pollution inventory substances

Records within 500m

11

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 45**

ID: C, Location: 119m S, Permit: BS5401IK
 Operator: Seqirus Vaccines Limited
 Activity: PHARMACEUTICALS; PRODUCING PHARMACEUTICALS USING CHEMICAL/BIOLOGICAL PROCESSES
 Address: Gaskill Road Speke Liverpool L24 9GR
 Sector: Chemicals, Sub-sector: Chemicals
 Releases:

Route	Substance	Reporting threshold (kg)	Quantity (kg)
Wastewater	Mercury	0.1kg	Below Reporting Threshold
Controlled Waters	Mercury	0.1kg	Below Reporting Threshold
Air	Nitrogen oxides (NO and NO2) as NO2	100000kg	Below Reporting Threshold
Controlled Waters	Nonylphenols and nonylphenol ethoxylates	1kg	Below Reporting Threshold
Wastewater	Nonylphenols and nonylphenol ethoxylates	1kg	Below Reporting Threshold
Air	Sulphur oxides (SO2 and SO3) as SO2	100000kg	Below Reporting Threshold

ID: C, Location: 119m S, Permit: BS5401IK
 Operator: Seqirus Vaccines Limited
 Activity: PHARMACEUTICALS; PRODUCING PHARMACEUTICALS USING CHEMICAL/BIOLOGICAL PROCESSES
 Address: Gaskill Road Speke Liverpool L24 9GR
 Sector: Chemicals, Sub-sector: Chemicals
 Releases:

Route	Substance	Reporting threshold (kg)	Quantity (kg)
Air	Carbon dioxide	10000000kg	9278600kg



ID: F, Location: 335m SW, Permit: QP3500PJ
 Operator: Dugdale Nutrition Limited
 Activity: INTENSIVE FARMING; > 2,000 PIGS (PRODUCTION PIGS)
 Address: Speke Mill Woodend Avenue Woodend Industrial Estate Speke L24 9NB
 Sector: Food & Drink, Sub-sector: Food & Drink
 Releases:

Route	Substance	Reporting threshold (kg)	Quantity (kg)
Air	Carbon dioxide	10000000kg	Below Reporting Threshold
Air	Carbon monoxide	100000kg	Below Reporting Threshold
Air	Chlorine and inorganic chlorine compounds - as HCl	10000kg	Below Reporting Threshold
Air	Nitrogen oxides (NO and NO2) as NO2	100000kg	Below Reporting Threshold
Air	Nitrous oxide	10000kg	Below Reporting Threshold
Air	Particulate matter - PM10	1000kg	Below Reporting Threshold
Air	Particulate matter - total	10000kg	Below Reporting Threshold
Air	Sulphur oxides (SO2 and SO3) as SO2	100000kg	Below Reporting Threshold

ID: J, Location: 441m W, Permit: MP3603PS
 Operator: Elanco UK AH Limited
 Activity: PHARMACEUTICALS; PRODUCING PHARMACEUTICALS USING CHEMICAL/BIOLOGICAL PROCESSES
 Address: Speke Pharmaceutical Works FLEMING ROAD MERSEYSIDE L24 9LN
 Sector: Chemicals, Sub-sector: Chemicals
 Releases:

Route	Substance	Reporting threshold (kg)	Quantity (kg)
Air	Carbon dioxide	10000000kg	47200000kg

ID: J, Location: 441m W, Permit: MP3603PS
 Operator: Elanco UK AH Limited
 Activity: PHARMACEUTICALS; PRODUCING PHARMACEUTICALS USING CHEMICAL/BIOLOGICAL PROCESSES
 Address: Speke Pharmaceutical Works FLEMING ROAD MERSEYSIDE L24 9LN
 Sector: Chemicals, Sub-sector: Chemicals
 Releases:

Route	Substance	Reporting threshold (kg)	Quantity (kg)
Air	Ammonia	1000kg	Below Reporting Threshold
Wastewater	Cadmium	1kg	Below Reporting Threshold
Air	Carbon monoxide	100000kg	Below Reporting Threshold
Wastewater	Chlorides - as Cl	2000000kg	Below Reporting Threshold
Wastewater	Chromium	20kg	Below Reporting Threshold
Air	Hydrofluorocarbons (HFCs)	100kg	Below Reporting Threshold
Wastewater	Iron	1000kg	Below Reporting Threshold
Wastewater	Mercury	0.1kg	Below Reporting Threshold
Wastewater	Nickel	20kg	Below Reporting Threshold
Wastewater	Nitrogen - as total N	50000kg	Below Reporting Threshold
Air	Nitrogen oxides (NO and NO2) as NO2	100000kg	Below Reporting Threshold
Air	Non-methane volatile organic compounds (NMVOCs)	10000kg	Below Reporting Threshold
Air	Particulate matter - total	10000kg	Below Reporting Threshold
Wastewater	Phosphorus - as total P	5000kg	Below Reporting Threshold
Air	Sulphur oxides (SO2 and SO3) as SO2	100000kg	Below Reporting Threshold

ID: J, Location: 441m W, Permit: MP3603PS
 Operator: Elanco UK AH Limited
 Activity: PHARMACEUTICALS; PRODUCING PHARMACEUTICALS USING CHEMICAL/BIOLOGICAL PROCESSES
 Address: Speke Pharmaceutical Works FLEMING ROAD MERSEYSIDE L24 9LN
 Sector: Chemicals, Sub-sector: Chemicals
 Releases:

Route	Substance	Reporting threshold (kg)	Quantity (kg)
Wastewater	Zinc	100kg	446kg

ID: J, Location: 441m W, Permit: MP3603PS
 Operator: Elanco UK AH Limited
 Activity: PHARMACEUTICALS; PRODUCING PHARMACEUTICALS USING CHEMICAL/BIOLOGICAL PROCESSES
 Address: Speke Pharmaceutical Works FLEMING ROAD MERSEYSIDE L24 9LN
 Sector: Chemicals, Sub-sector: Chemicals



Releases:

Route	Substance	Reporting threshold (kg)	Quantity (kg)
Wastewater	Copper	20kg	59.1kg

ID: J, Location: 441m W, Permit: MP3603PS
 Operator: Elanco UK AH Limited
 Activity: PHARMACEUTICALS; PRODUCING PHARMACEUTICALS USING CHEMICAL/BIOLOGICAL PROCESSES
 Address: Speke Pharmaceutical Works FLEMING ROAD MERSEYSIDE L24 9LN
 Sector: Chemicals, Sub-sector: Chemicals
 Releases:

Route	Substance	Reporting threshold (kg)	Quantity (kg)
Wastewater	Total organic carbon (TOC)	50000kg	366000kg

ID: L, Location: 453m S, Permit: BL6241IR
 Operator: Medimmune UK Ltd
 Activity: PHARMACEUTICALS; PRODUCING PHARMACEUTICALS USING CHEMICAL/BIOLOGICAL PROCESSES
 Address: Renaissance Way, Speke Pharmaceuticals PLOT 6 BOULEVARD INDUSTRIAL PARK LIVERPOOL MERSEYSIDE L24 9JW
 Sector: Chemicals, Sub-sector: Chemicals
 Releases:

Route	Substance	Reporting threshold (kg)	Quantity (kg)
Air	Carbon dioxide	10000000kg	Below Reporting Threshold
Air	Carbon monoxide	100000kg	Below Reporting Threshold
Air	Hydrofluorocarbons (HFCs)	100kg	Below Reporting Threshold
Air	Nitrogen oxides (NO and NO2) as NO2	100000kg	Below Reporting Threshold
Air	Non-methane volatile organic compounds (NMVOCs)	10000kg	Below Reporting Threshold
Air	Particulate matter - PM10	1000kg	Below Reporting Threshold
Air	Particulate matter - total	10000kg	Below Reporting Threshold
Air	Sulphur oxides (SO2 and SO3) as SO2	100000kg	Below Reporting Threshold
Wastewater	Total organic carbon (TOC)	50000kg	Below Reporting Threshold

ID: M, Location: 466m SE, Permit: BS5673IQ
 Operator: Jaguar Land Rover Limited
 Activity: COMBUSTION; ANY FUEL =>50MW
 Address: Halewood Combustion Plant Speke Boulevard Liverpool Merseyside L24 9BJ
 Sector: Combustion, Sub-sector: Power
 Releases:

Route	Substance	Reporting threshold (kg)	Quantity (kg)
Air	Carbon dioxide	10000000kg	14812000kg

ID: M, Location: 466m SE, Permit: BS5673IQ
 Operator: Jaguar Land Rover Limited
 Activity: COMBUSTION; ANY FUEL =>50MW
 Address: Halewood Combustion Plant Speke Boulevard Liverpool Merseyside L24 9BJ
 Sector: Combustion, Sub-sector: Power
 Releases:

Route	Substance	Reporting threshold (kg)	Quantity (kg)
Air	Nitrogen oxides (NO and NO2) as NO2	100000kg	Below Reporting Threshold
Air	Particulate matter - PM10	1000kg	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

5

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 45**

ID: C, Location: 119m S, Permit: BS5401IK
 Operator: Seqirus Vaccines Limited
 Activity: PHARMACEUTICALS; PRODUCING PHARMACEUTICALS USING CHEMICAL/BIOLOGICAL PROCESSES
 Address: Gaskill Road Speke Liverpool L24 9GR
 Sector: Chemicals, Sub-sector: Chemicals
 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)	0.7	Absolute Value	08 03 18	waste printing toner other than those mentioned in 08 03 17	No
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)	16.18	Absolute Value	15 01 07	glass packaging	No
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)	26.76	Absolute Value	20 01 01	paper and cardboard	No
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)	9.98	Absolute Value	20 01 38	wood other than that mentioned in 20 01 37	No
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)	0.55	Absolute Value	20 01 39	plastics	No
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)	18.76	Absolute Value	20 01 40	metals	No
R1	Use principally as a fuel or other means to generate energy	96.63	Absolute Value	20 03 01	mixed municipal waste	No
D10	Incineration on Land	0.334	Absolute Value	18 01 01	sharps (except 18 01 03)	No
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)	229.92	Absolute Value	20 03 01	mixed municipal waste	No
R1	Use principally as a fuel or other means to generate energy	17.22	Absolute Value	20 01 08	biodegradable kitchen and canteen waste	No



Route	Route description	Quantity (tonnes)	Release level	EWC code	EWC description	Hazardous waste
D10	Incineration on Land	2898.96	Absolute Value	07 05 14	solid wastes other than those mentioned in 07 05 13	No
D15	Storage pending any of the operations numbered D1 to D14 (excluding temporary storage pending collection, on the site where it is produced)	5.45	Absolute Value	18 01 01	sharps (except 18 01 03)	No
D10	Incineration on Land	24.086	Absolute Value	18 01 04	wastes whose collection and disposal is not subject to special requirements in order to prevent infection (for example dressings, plaster casts, linen, disposable clothing, diapers)	No
D10	Incineration on Land	6.7	Absolute Value	18 01 09	medicines other than those mentioned in 18 01 08	No
D15	Storage pending any of the operations numbered D1 to D14 (excluding temporary storage pending collection, on the site where it is produced)	11.718	Absolute Value	16 03 04	inorganic wastes other than those mentioned in 16 03 03	No
D15	Storage pending any of the operations numbered D1 to D14 (excluding temporary storage pending collection, on the site where it is produced)	0.851	Absolute Value	16 03 06	organic wastes other than those mentioned in 16 03 05	No
D15	Storage pending any of the operations numbered D1 to D14 (excluding temporary storage pending collection, on the site where it is produced)	8414.424	Absolute Value	16 10 02	aqueous liquid wastes other than those mentioned in 16 10 01	No
D15	Storage pending any of the operations numbered D1 to D14 (excluding temporary storage pending collection, on the site where it is produced)	0.416	Absolute Value	18 01 07	chemicals other than those mentioned in 18 01 06	No
D15	Storage pending any of the operations numbered D1 to D14 (excluding temporary storage pending collection, on the site where it is produced)	0.2	Absolute Value	17 01 01	concrete	No



Route	Route description	Quantity (tonnes)	Release level	EWC code	EWC description	Hazardous waste
D15	Storage pending any of the operations numbered D1 to D14 (excluding temporary storage pending collection, on the site where it is produced)	0.072	Absolute Value	18 01 06	chemicals consisting of or containing dangerous substances	Yes
D15	Storage pending any of the operations numbered D1 to D14 (excluding temporary storage pending collection, on the site where it is produced)	0.31	Absolute Value	20 01 27	paint, inks, adhesives and resins containing dangerous substances	Yes
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)	0.03	Absolute Value	13 03 07	mineral-based non-chlorinated insulating and heat transmission oils	Yes
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)	6.91	Absolute Value	13 05 07	oily water from oil/water separators	Yes
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)	11.632	Absolute Value	15 01 10	packaging containing residues of or contaminated by dangerous substances	Yes
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)	0.211	Absolute Value	16 05 04	gases in pressure containers (including halons) containing dangerous substances	Yes
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)	0.2	Absolute Value	20 01 23	discarded equipment containing chlorofluorocarbons	Yes
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)	2.7	Absolute Value	20 01 35	discarded electrical and electronic equipment other than those mentioned in 20 01 21 and 20 01 23 containing hazardous components (6)	Yes
D10	Incineration on Land	149.775	Absolute Value	18 01 03	wastes whose collection and disposal is subject to special requirements in order to prevent infection	Yes



Route	Route description	Quantity (tonnes)	Release level	EWC code	EWC description	Hazardous waste
D15	Storage pending any of the operations numbered D1 to D14 (excluding temporary storage pending collection, on the site where it is produced)	0.05	Absolute Value	06 01 01	sulphuric acid and sulphurous acid	Yes
D15	Storage pending any of the operations numbered D1 to D14 (excluding temporary storage pending collection, on the site where it is produced)	0.175	Absolute Value	06 01 04	phosphoric and phosphorous acid	Yes
D15	Storage pending any of the operations numbered D1 to D14 (excluding temporary storage pending collection, on the site where it is produced)	15	Absolute Value	06 01 06	other acids	Yes
D15	Storage pending any of the operations numbered D1 to D14 (excluding temporary storage pending collection, on the site where it is produced)	40.4	Absolute Value	06 02 04	sodium and potassium hydroxide	Yes
D15	Storage pending any of the operations numbered D1 to D14 (excluding temporary storage pending collection, on the site where it is produced)	0.255	Absolute Value	07 05 03	organic halogenated solvents, washing liquids and mother liquors	Yes
D15	Storage pending any of the operations numbered D1 to D14 (excluding temporary storage pending collection, on the site where it is produced)	25.49	Absolute Value	07 05 04	other organic solvents, washing liquids and mother liquors	Yes
D15	Storage pending any of the operations numbered D1 to D14 (excluding temporary storage pending collection, on the site where it is produced)	1.125	Absolute Value	13 02 06	synthetic engine, gear and lubricating oils	Yes
D15	Storage pending any of the operations numbered D1 to D14 (excluding temporary storage pending collection, on the site where it is produced)	2.8	Absolute Value	15 02 02	absorbents, filter materials (including oil filters not otherwise specified), wiping cloths, protective clothing contaminated by dangerous substances	Yes



Route	Route description	Quantity (tonnes)	Release level	EWC code	EWC description	Hazardous waste
D15	Storage pending any of the operations numbered D1 to D14 (excluding temporary storage pending collection, on the site where it is produced)	7.294	Absolute Value	16 03 03	inorganic wastes containing dangerous substances	Yes
D15	Storage pending any of the operations numbered D1 to D14 (excluding temporary storage pending collection, on the site where it is produced)	3.974	Absolute Value	16 03 05	organic wastes containing dangerous substances	Yes
D15	Storage pending any of the operations numbered D1 to D14 (excluding temporary storage pending collection, on the site where it is produced)	0.25	Absolute Value	16 05 06	laboratory chemicals, consisting of or containing dangerous substances, including mixtures of laboratory chemicals	Yes
D15	Storage pending any of the operations numbered D1 to D14 (excluding temporary storage pending collection, on the site where it is produced)	0.25	Absolute Value	16 05 07	discarded inorganic chemicals consisting of or containing dangerous substances	Yes
D15	Storage pending any of the operations numbered D1 to D14 (excluding temporary storage pending collection, on the site where it is produced)	0.508	Absolute Value	16 05 08	discarded organic chemicals consisting of or containing dangerous substances	Yes
D15	Storage pending any of the operations numbered D1 to D14 (excluding temporary storage pending collection, on the site where it is produced)	0.846	Absolute Value	16 10 01	aqueous liquid wastes containing dangerous substances	Yes

ID: F, Location: 335m SW, Permit: QP3500PJ
 Operator: Dugdale Nutrition Limited
 Activity: INTENSIVE FARMING; > 2,000 PIGS (PRODUCTION PIGS)
 Address: Speke Mill Woodend Avenue Woodend Industrial Estate Speke L24 9NB
 Sector: Food & Drink, Sub-sector: Food & Drink
 Releases:

Route	Route description	Quantity (tonnes)	Release level	EWC code	EWC description	Hazardous waste
R4	Recycling/reclamation of metals and metal compounds	12.26	Absolute Value	20 01 40	metals	No



Route	Route description	Quantity (tonnes)	Release level	EWC code	EWC description	Hazardous waste
D1	Deposit into or onto land (eg landfill, etc.)	32.36	Absolute Value	20 03 01	mixed municipal waste	No
R5	Recycling/reclamation of other inorganic materials	4.35	Absolute Value	15 01 01	paper and cardboard packaging	No
R10	Land treatment resulting in benefit to agriculture or ecological improvement	20.82	Absolute Value	02 03 04	materials unsuitable for consumption or processing	No
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)	0.02	Absolute Value	20 01 21	fluorescent tubes and other mercury-containing waste	Yes
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	13 02 05	mineral-based non-chlorinated engine, gear and lubricating oils	Yes

ID: J, Location: 441m W, Permit: MP3603PS
 Operator: Elanco UK AH Limited
 Activity: PHARMACEUTICALS; PRODUCING PHARMACEUTICALS USING CHEMICAL/BIOLOGICAL PROCESSES
 Address: Speke Pharmaceutical Works FLEMING ROAD MERSEYSIDE L24 9LN
 Sector: Chemicals, Sub-sector: Chemicals
 Releases:

Route	Route description	Quantity (tonnes)	Release level	EWC code	EWC description	Hazardous waste
D10	Incineration on Land	-	Below Reporting Threshold	02 03 04	materials unsuitable for consumption or processing	No
D10	Incineration on Land	-	Below Reporting Threshold	07 05 14	solid wastes other than those mentioned in 07 05 13	No
D15	Storage pending any of the operations numbered D1 to D14 (excluding temporary storage pending collection, on the site where it is produced)	-	Below Reporting Threshold	07 05 14	solid wastes other than those mentioned in 07 05 13	No



Route	Route description	Quantity (tonnes)	Release level	EWC code	EWC description	Hazardous waste
D15	Storage pending any of the operations numbered D1 to D14 (excluding temporary storage pending collection, on the site where it is produced)	-	Below Reporting Threshold	15 01 05	composite packaging	No
D10	Incineration on Land	-	Below Reporting Threshold	15 02 03	absorbents, filter materials, wiping cloths and protective clothing other than those mentioned in 15 02 02	No
D15	Storage pending any of the operations numbered D1 to D14 (excluding temporary storage pending collection, on the site where it is produced)	-	Below Reporting Threshold	15 02 03	absorbents, filter materials, wiping cloths and protective clothing other than those mentioned in 15 02 02	No
D10	Incineration on Land	-	Below Reporting Threshold	16 03 04	inorganic wastes other than those mentioned in 16 03 03	No
D15	Storage pending any of the operations numbered D1 to D14 (excluding temporary storage pending collection, on the site where it is produced)	-	Below Reporting Threshold	16 03 04	inorganic wastes other than those mentioned in 16 03 03	No
D10	Incineration on Land	-	Below Reporting Threshold	16 03 06	organic wastes other than those mentioned in 16 03 05	No
D15	Storage pending any of the operations numbered D1 to D14 (excluding temporary storage pending collection, on the site where it is produced)	-	Below Reporting Threshold	16 03 06	organic wastes other than those mentioned in 16 03 05	No
D15	Storage pending any of the operations numbered D1 to D14 (excluding temporary storage pending collection, on the site where it is produced)	-	Below Reporting Threshold	16 05 09	discarded chemicals other than those mentioned in 16 05 06, 16 05 07 or 16 05 08	No
D10	Incineration on Land	-	Below Reporting Threshold	18 02 01	sharps (except 18 02 02)	No
D15	Storage pending any of the operations numbered D1 to D14 (excluding temporary storage pending collection, on the site where it is produced)	-	Below Reporting Threshold	18 02 08	medicines other than those mentioned in 18 02 07	No



Route	Route description	Quantity (tonnes)	Release level	EWC code	EWC description	Hazardous waste
D10	Incineration on Land	-	Below Reporting Threshold	19 09 04	spent activated carbon	No
D10	Incineration on Land	5.43	Absolute Value	19 09 05	saturated or spent ion exchange resins	No
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)	-	Below Reporting Threshold	20 01 36	discarded electrical and electronic equipment other than those mentioned in 20 01 21, 20 01 23 and 20 01 35	No
R12	Exchange of wastes obtained from any of the operations numbered R1 to R11	462	Absolute Value	20 03 01	mixed municipal waste	No
R3	Recycling/Reclamation of organic substances which are not used as solvents (including composting and other biological transformatin processes)	72.5	Absolute Value	20 01 01	paper and cardboard	No
R12	Exchange of wastes obtained from any of the operations numberd R1 to R11	9.88	Absolute Value	20 01 38	wood other than that mentioned in 20 01 37	No
R3	Recycling/Reclamation of organic substances which are not used as solvents (including composting and other biological transformatin processes)	8.16	Absolute Value	17 08 02	gypsum-based construction materials other than those mentioned in 17 08 01	No
R5	Recycling/reclamation of other inorganic materials	7.84	Absolute Value	20 01 02	glass	No
R5	Recycling/reclamation of other inorganic materials	1816	Absolute Value	17 09 04	mixed construction and demolition wastes other than those mentioned in 17 09 01, 17 09 02 and 17 09 03	No
R5	Recycling/reclamation of other inorganic materials	41.5	Absolute Value	17 01 07	mixtures of concrete, bricks, tiles and ceramics other than those mentioned in 17 01 06	No
R4	Recycling/reclamation of metals and metal compounds	163.2	Absolute Value	15 01 03	wooden packaging	No



Route	Route description	Quantity (tonnes)	Release level	EWC code	EWC description	Hazardous waste
R3	Recycling/Reclamation of organic substances which are not used as solvents (including composting and other biological transformatin processes)	629	Absolute Value	17 05 04	soil and stones other than those mentioned in 17 05 03	No
R3	Recycling/Reclamation of organic substances which are not used as solvents (including composting and other biological transformatin processes)	2.08	Absolute Value	15 01 02	plastic packaging	No
R9	Oil e-refining or other reuses of oil	-	Below Reporting Threshold	20 01 25	edible oil and fat	No
D15	Storage pending any of the operations numbered D1 to D14 (excluding temporary storage pending collection, on the site where it is produced)	0.125	Absolute Value	06 01 01	sulphuric acid and sulphurous acid	Yes
D15	Storage pending any of the operations numbered D1 to D14 (excluding temporary storage pending collection, on the site where it is produced)	0.6	Absolute Value	06 01 02	hydrochloric acid	Yes
D15	Storage pending any of the operations numbered D1 to D14 (excluding temporary storage pending collection, on the site where it is produced)	0.45	Absolute Value	06 01 05	nitric acid and nitrous acid	Yes
D15	Storage pending any of the operations numbered D1 to D14 (excluding temporary storage pending collection, on the site where it is produced)	6.4	Absolute Value	06 02 04	sodium and potassium hydroxide	Yes
D15	Storage pending any of the operations numbered D1 to D14 (excluding temporary storage pending collection, on the site where it is produced)	0.014	Absolute Value	06 04 04	wastes containing mercury	Yes
R3	Recycling/Reclamation of organic substances which are not used as solvents (including composting and other biological transformatin processes)	0.005	Absolute Value	06 04 04	wastes containing mercury	Yes



Route	Route description	Quantity (tonnes)	Release level	EWC code	EWC description	Hazardous waste
D10	Incineration on Land	29.8	Absolute Value	07 05 01	aqueous washing liquids and mother liquors	Yes
D15	Storage pending any of the operations numbered D1 to D14 (excluding temporary storage pending collection, on the site where it is produced)	47.8	Absolute Value	07 05 01	aqueous washing liquids and mother liquors	Yes
D10	Incineration on Land	3.69	Absolute Value	07 05 03	organic halogenated solvents, washing liquids and mother liquors	Yes
D15	Storage pending any of the operations numbered D1 to D14 (excluding temporary storage pending collection, on the site where it is produced)	1.4	Absolute Value	07 05 03	organic halogenated solvents, washing liquids and mother liquors	Yes
D10	Incineration on Land	719.9	Absolute Value	07 05 04	other organic solvents, washing liquids and mother liquors	Yes
D10	Incineration on Land	0.37	Absolute Value	07 05 10	other filter cakes and spent absorbents	Yes
D10	Incineration on Land	352.6	Absolute Value	07 05 13	solid wastes containing dangerous substances	Yes
D15	Storage pending any of the operations numbered D1 to D14 (excluding temporary storage pending collection, on the site where it is produced)	75.05	Absolute Value	07 05 13	solid wastes containing dangerous substances	Yes
R1	Use principally as a fuel or other means to generate energy	4.24	Absolute Value	07 05 13	solid wastes containing dangerous substances	Yes
R3	Recycling/Reclamation of organic substances which are not used as solvents (including composting and other biological transformatin processes)	2.4	Absolute Value	13 02 05	mineral-based non-chlorinated engine, gear and lubricating oils	Yes
D10	Incineration on Land	0.3	Absolute Value	13 02 06	synthetic engine, gear and lubricating oils	Yes
D15	Storage pending any of the operations numbered D1 to D14 (excluding temporary storage pending collection, on the site where it is produced)	0.4	Absolute Value	13 02 06	synthetic engine, gear and lubricating oils	Yes



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)	3.2	Absolute Value	13 02 06	synthetic engine, gear and lubricating oils	Yes
D15	Storage pending any of the operations numbered D1 to D14 (excluding temporary storage pending collection, on the site where it is produced)	1	Absolute Value	13 07 01	fuel oil and diesel	Yes
D15	Storage pending any of the operations numbered D1 to D14 (excluding temporary storage pending collection, on the site where it is produced)	0.07	Absolute Value	14 06 03	other solvents and solvent mixtures	Yes
D10	Incineration on Land	0.39	Absolute Value	15 01 10	packaging containing residues of or contaminated by dangerous substances	Yes
D15	Storage pending any of the operations numbered D1 to D14 (excluding temporary storage pending collection, on the site where it is produced)	0.003	Absolute Value	15 01 10	packaging containing residues of or contaminated by dangerous substances	Yes
D10	Incineration on Land	5.77	Absolute Value	15 02 02	absorbents, filter materials (including oil filters not otherwise specified), wiping cloths, protective clothing contaminated by dangerous substances	Yes
D15	Storage pending any of the operations numbered D1 to D14 (excluding temporary storage pending collection, on the site where it is produced)	1.31	Absolute Value	15 02 02	absorbents, filter materials (including oil filters not otherwise specified), wiping cloths, protective clothing contaminated by dangerous substances	Yes
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)	1.63	Absolute Value	16 02 13	discarded equipment containing hazardous components (2) other than those mentioned in 16 02 09 to 16 02 12	Yes



Route	Route description	Quantity (tonnes)	Release level	EWC code	EWC description	Hazardous waste
D15	Storage pending any of the operations numbered D1 to D14 (excluding temporary storage pending collection, on the site where it is produced)	23	Absolute Value	16 03 03	inorganic wastes containing dangerous substances	Yes
D10	Incineration on Land	32.1	Absolute Value	16 03 05	organic wastes containing dangerous substances	Yes
D15	Storage pending any of the operations numbered D1 to D14 (excluding temporary storage pending collection, on the site where it is produced)	5.7	Absolute Value	16 03 05	organic wastes containing dangerous substances	Yes
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)	0.48	Absolute Value	16 03 05	organic wastes containing dangerous substances	Yes
D15	Storage pending any of the operations numbered D1 to D14 (excluding temporary storage pending collection, on the site where it is produced)	0.37	Absolute Value	16 05 06	laboratory chemicals, consisting of or containing dangerous substances, including mixtures of laboratory chemicals	Yes
D10	Incineration on Land	0.14	Absolute Value	16 05 07	discarded inorganic chemicals consisting of or containing dangerous substances	Yes
D15	Storage pending any of the operations numbered D1 to D14 (excluding temporary storage pending collection, on the site where it is produced)	0.51	Absolute Value	16 05 07	discarded inorganic chemicals consisting of or containing dangerous substances	Yes
D15	Storage pending any of the operations numbered D1 to D14 (excluding temporary storage pending collection, on the site where it is produced)	0.97	Absolute Value	16 05 08	discarded organic chemicals consisting of or containing dangerous substances	Yes
D15	Storage pending any of the operations numbered D1 to D14 (excluding temporary storage pending collection, on the site where it is produced)	0.005	Absolute Value	16 09 03	peroxides, for example hydrogen peroxide	Yes



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)	7.2	Absolute Value	16 10 01	aqueous liquid wastes containing dangerous substances	Yes
D10	Incineration on Land	17.17	Absolute Value	18 02 02	wastes whose collection and disposal is subject to special requirements in order to prevent infection	Yes
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)	0.06	Absolute Value	20 01 23	discarded equipment containing chlorofluorocarbons	Yes
R4	Recycling/reclamation of metals and metal compounds	1	Absolute Value	20 01 21	fluorescent tubes and other mercury-containing waste	Yes
D1	Deposit into or onto land (eg landfill, etc.)	11.2	Absolute Value	17 06 05	construction materials containing asbestos	Yes
D15	Storage pending any of the operations numbered D1 to D14 (excluding temporary storage pending collection, on the site where it is produced)	0.221	Absolute Value	06 01 04	phosphoric and phosphorous acid	Yes
D9	Physio-chemical treatment not specified elsewhere in this Table which results in final compounds or mixtures which are discarded by means of any of the operations numbers D1 to D12 (eg evaporation, drying, calcination, etc.)	0.55	Absolute Value	06 01 01	sulphuric acid and sulphurous acid	Yes
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)	0.02	Absolute Value	16 05 08	discarded organic chemicals consisting of or containing dangerous substances	Yes

ID: L, Location: 453m S, Permit: BL6241IR
 Operator: Medimmune UK Ltd
 Activity: PHARMACEUTICALS; PRODUCING PHARMACEUTICALS USING CHEMICAL/BIOLOGICAL PROCESSES
 Address: Renaissance Way, Speke Pharmaceuticals PLOT 6 BOULEVARD INDUSTRIAL PARK LIVERPOOL MERSEYSIDE L24 9JW



Sector Chemicals, Sub-sector: Chemicals
 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	14.89	Absolute Value	15 01 06	mixed packaging	No
D10	Incineration on Land	7.78	Absolute Value	15 02 03	absorbents, filter materials, wiping cloths and protective clothing other than those mentioned in 15 02 02	No
R5	Recycling/reclamation of other inorganic materials	0.76	Absolute Value	16 02 14	discarded equipment other than those mentioned in 16 02 09 to 16 02 13	No
D10	Incineration on Land	0.6	Absolute Value	16 02 16	components removed from discarded equipment other than those mentioned in 16 02 15	No
D10	Incineration on Land	28.02	Absolute Value	16 03 04	inorganic wastes other than those mentioned in 16 03 03	No
R1	Use principally as a fuel or other means to generate energy	4	Absolute Value	16 03 04	inorganic wastes other than those mentioned in 16 03 03	No
D10	Incineration on Land	0.15	Absolute Value	16 03 06	organic wastes other than those mentioned in 16 03 05	No
D10	Incineration on Land	0.36	Absolute Value	07 05 14	solid wastes other than those mentioned in 07 05 13	No
R1	Use principally as a fuel or other means to generate energy	112.115	Absolute Value	07 05 14	solid wastes other than those mentioned in 07 05 13	No
R3	Recycling/Reclamation of organic substances which are not used as solvents (including composting and other biological transformatin processes)	16.84	Absolute Value	15 01 01	paper and cardboard packaging	No
R3	Recycling/Reclamation of organic substances which are not used as solvents (including composting and other biological transformatin processes)	50.33	Absolute Value	20 01 01	paper and cardboard	No
R5	Recycling/reclamation of other inorganic materials	0.01	Absolute Value	20 01 36	discarded electrical and electronic equipment other than those mentioned in 20 01 21, 20 01 23 and 20 01 35	No



Route	Route description	Quantity (tonnes)	Release level	EWC code	EWC description	Hazardous waste
R3	Recycling/Reclamation of organic substances which are not used as solvents (including composting and other biological transformatin processes)	5.96	Absolute Value	20 01 38	wood other than that mentioned in 20 01 37	No
R1	Use principally as a fuel or other means to generate energy	68.84	Absolute Value	20 03 01	mixed municipal waste	No
R4	Recycling/reclamation of metals and metal compounds	6.53	Absolute Value	20 01 40	metals	No
R4	Recycling/reclamation of metals and metal compounds	0.05	Absolute Value	16 06 04	alkaline batteries (except 16 06 03)	No
R9	Oil e-refining or other reuses of oil	0.34	Absolute Value	20 01 25	edible oil and fat	No
D10	Incineration on Land	9.58	Absolute Value	15 01 10	packaging containing residues of or contaminated by dangerous substances	Yes
D10	Incineration on Land	0.3	Absolute Value	15 02 02	absorbents, filter materials (including oil filters not otherwise specified), wiping cloths, protective clothing contaminated by dangerous substances	Yes
D10	Incineration on Land	0.2	Absolute Value	16 03 03	inorganic wastes containing dangerous substances	Yes
D10	Incineration on Land	0.02	Absolute Value	16 03 05	organic wastes containing dangerous substances	Yes
D10	Incineration on Land	0.005	Absolute Value	16 05 04	gases in pressure containers (including halons) containing dangerous substances	Yes
D10	Incineration on Land	0.132	Absolute Value	06 02 04	sodium and potassium hydroxide	Yes
D10	Incineration on Land	16.37	Absolute Value	06 02 05	other bases	Yes
D10	Incineration on Land	0.05	Absolute Value	08 01 11	waste paint and varnish containing organic solvents or other dangerous substances	Yes
D10	Incineration on Land	0.06	Absolute Value	08 04 09	waste adhesives and sealants containing organic solvents or other dangerous substances	Yes



Route	Route description	Quantity (tonnes)	Release level	EWC code	EWC description	Hazardous waste
D10	Incineration on Land	0.02	Absolute Value	11 01 11	aqueous rinsing liquids containing dangerous substances	Yes
D10	Incineration on Land	2.3	Absolute Value	14 06 03	other solvents and solvent mixtures	Yes
D10	Incineration on Land	0.153	Absolute Value	16 05 07	discarded inorganic chemicals consisting of or containing dangerous substances	Yes
D10	Incineration on Land	0.182	Absolute Value	16 05 08	discarded organic chemicals consisting of or containing dangerous substances	Yes
D10	Incineration on Land	10.85	Absolute Value	16 09 04	oxidising substances, not otherwise specified	Yes
D10	Incineration on Land	120.12	Absolute Value	18 01 03	wastes whose collection and disposal is subject to special requirements in order to prevent infection	Yes
R5	Recycling/reclamation of other inorganic materials	0.03	Absolute Value	20 01 35	discarded electrical and electronic equipment other than those mentioned in 20 01 21 and 20 01 23 containing hazardous components (6)	Yes
R4	Recycling/reclamation of metals and metal compounds	0.05	Absolute Value	20 01 33	batteries and accumulators included in 16 06 01, 16 06 02 or 16 06 03 and unsorted batteries and accumulators containing these batteries	Yes
D10	Incineration on Land	0.2	Absolute Value	20 01 15	alkalines	Yes

ID: M, Location: 466m SE, Permit: BS5673IQ
 Operator: Jaguar Land Rover Limited
 Activity: COMBUSTION; ANY FUEL =>50MW
 Address: Halewood Combustion Plant Speke Boulevard Liverpool Merseyside L24 9BJ
 Sector: Combustion, Sub-sector: Power
 Releases:



Route	Route description	Quantity (tonnes)	Release level	EWC code	EWC description	Hazardous waste
R4	Recycling/reclamation of metals and metal compounds	0.007	Absolute Value	15 01 10	packaging containing residues of or contaminated by dangerous substances	Yes
R9	Oil e-refining or other reuses of oil	0.38	Absolute Value	13 01 13	other hydraulic oils	Yes
R3	Recycling/Reclamation of organic substances which are not used as solvents (including composting and other biological transformation processes)	0.025	Absolute Value	16 03 05	organic wastes containing dangerous substances	Yes

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

4.21 Pollution inventory radioactive waste

Records within 500m

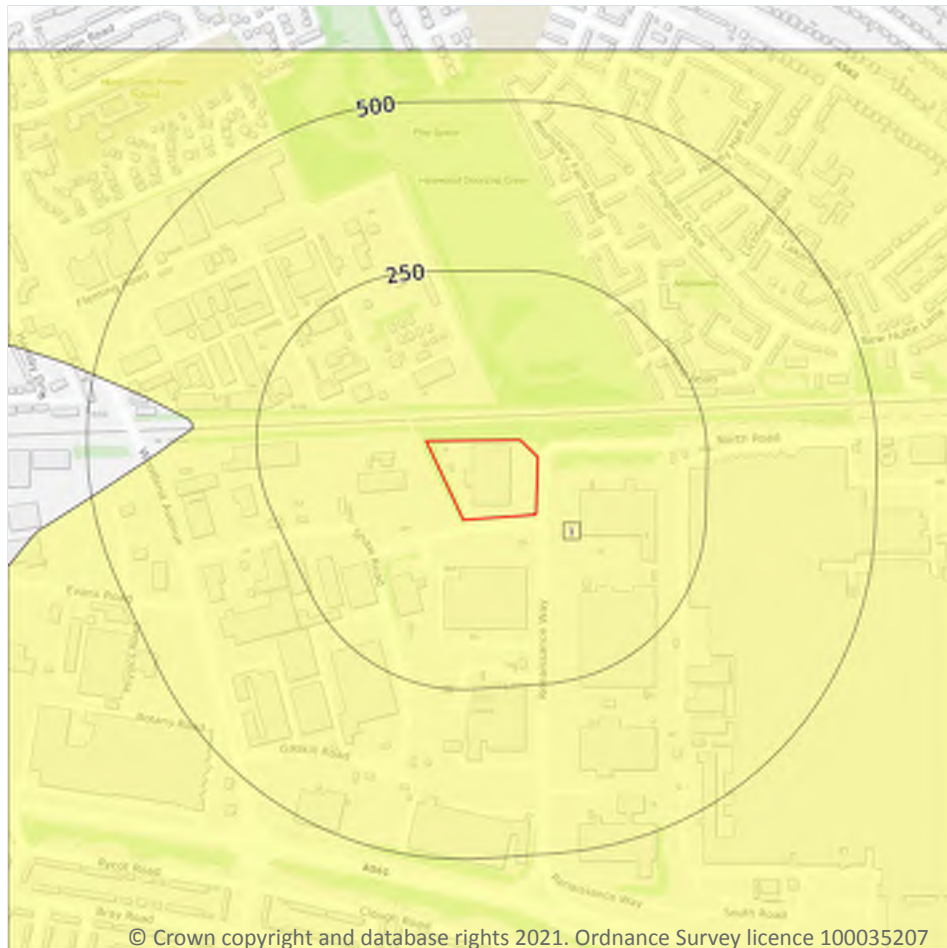
0

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

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



5 Hydrogeology - Superficial aquifer



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

5.1 Superficial aquifer

Records within 500m

1

Aquifer status of groundwater held within superficial geology.

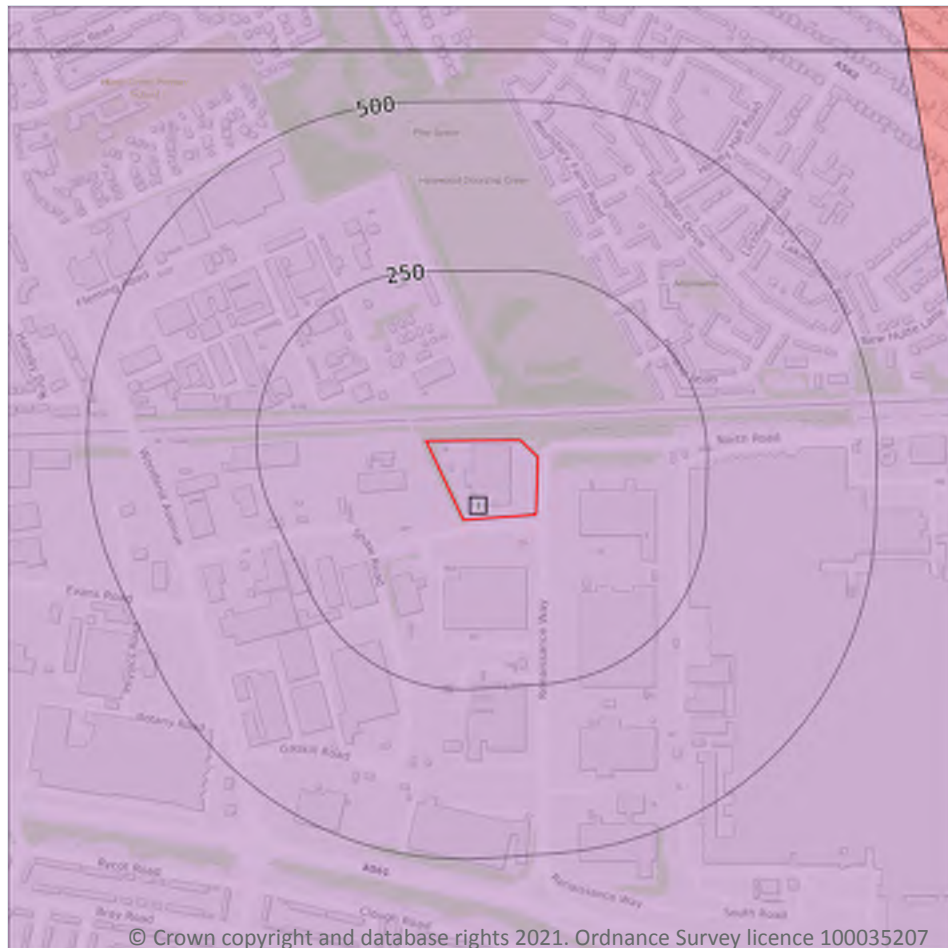
Features are displayed on the Hydrogeology map on **page 88**

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

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.

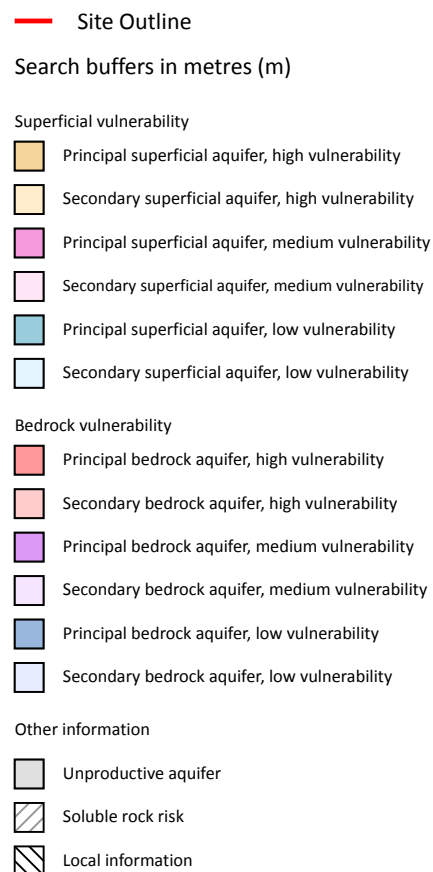
Features are displayed on the Bedrock aquifer map on **page 89**

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 90**

ID	Location	Summary	Soil / surface	Superficial geology	Bedrock geology
1	On site	Summary Classification: Secondary superficial aquifer - Low Vulnerability Combined classification: Productive Bedrock Aquifer, Productive Superficial Aquifer	Leaching class: Low Infiltration value: <40% Dilution value: 300- 550mm/year	Vulnerability: Low Aquifer type: Secondary Thickness: 3-10m Patchiness value: <90% Recharge potential: Low	Vulnerability: Low Aquifer type: Principal Flow mechanism: Mixed
2	39m E	Summary Classification: Secondary superficial aquifer - Low Vulnerability Combined classification: Productive Bedrock Aquifer, Productive Superficial Aquifer	Leaching class: Low Infiltration value: <40% Dilution value: 300- 550mm/year	Vulnerability: Low Aquifer type: Secondary Thickness: >10m Patchiness value: >90% Recharge potential: Low	Vulnerability: Low Aquifer type: Principal Flow mechanism: Well connected fractures

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

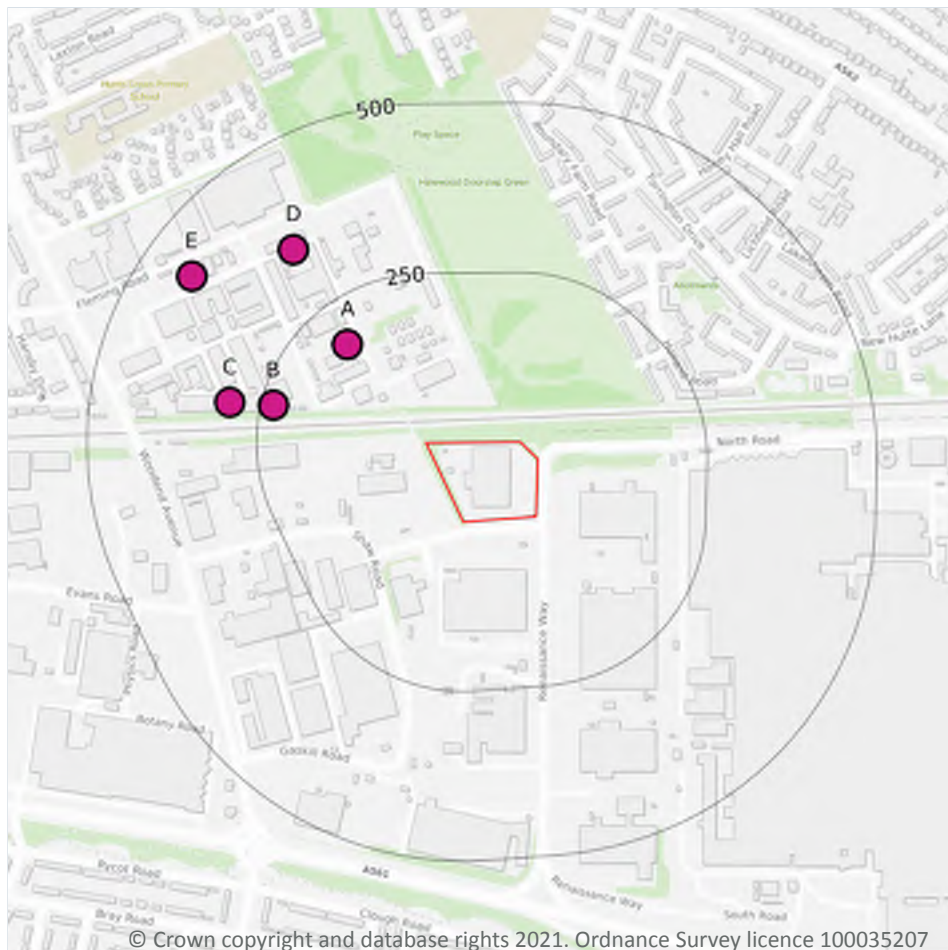
0

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
Point features
- 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

52

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 92**

ID	Location	Details	
A	185m NW	Status: Historical Licence No: 2569030023 Details: General Cooling (Existing Licences Only) (Low Loss) Direct Source: Ground Water - North West Region Point: "B/HOLE 'C' AT LH'S PREMESIS, FLEMING RD, SPEKE, L'POOL" Data Type: Point Name: ELI LILLY & CO LTD Easting: 343680 Northing: 384570	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 16/02/1966 Expiry Date: - Issue No: 101 Version Start Date: 17/12/1999 Version End Date: -
A	185m NW	Status: Historical Licence No: 2569030023 Details: Process water Direct Source: Ground Water - North West Region Point: "B/HOLE 'C' AT LH'S PREMESIS, FLEMING RD, SPEKE, L'POOL" Data Type: Point Name: ELI LILLY & CO LTD Easting: 343680 Northing: 384570	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 16/02/1966 Expiry Date: - Issue No: 101 Version Start Date: 17/12/1999 Version End Date: -
A	185m NW	Status: Historical Licence No: 2569030023 Details: Boiler Feed Direct Source: Ground Water - North West Region Point: "B/HOLE 'C' AT LH'S PREMESIS, FLEMING RD, SPEKE, L'POOL" Data Type: Point Name: ELI LILLY & CO LTD Easting: 343680 Northing: 384570	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 16/02/1966 Expiry Date: - Issue No: 101 Version Start Date: 17/12/1999 Version End Date: -
A	185m NW	Status: Historical Licence No: 2569030023 Details: Process Water Direct Source: Ground Water - North West Region Point: B/HOLE 'C' AT LH'S PREMESIS, FLEMING RD, SPEKE, L'POOL Data Type: Point Name: ELI LILLY & CO LTD Easting: 343680 Northing: 384570	Annual Volume (m ³): 1,500,000 Max Daily Volume (m ³): 45000 Original Application No: - Original Start Date: 16/02/1966 Expiry Date: - Issue No: 102 Version Start Date: 22/12/2004 Version End Date: -



ID	Location	Details	
A	185m NW	Status: Historical Licence No: 2569030023 Details: Boiler Feed Direct Source: Ground Water - North West Region Point: B/HOLE 'C' AT LH'S PREMESIS, FLEMING RD, SPEKE, L'POOL Data Type: Point Name: ELI LILLY & CO LTD Easting: 343680 Northing: 384570	Annual Volume (m ³): 1,500,000 Max Daily Volume (m ³): 45000 Original Application No: - Original Start Date: 16/02/1966 Expiry Date: - Issue No: 102 Version Start Date: 22/12/2004 Version End Date: -
A	185m NW	Status: Historical Licence No: 2569030023 Details: General Cooling (Existing Licences Only) (Low Loss) Direct Source: Ground Water - North West Region Point: B/HOLE 'C' AT LH'S PREMESIS, FLEMING RD, SPEKE, L'POOL Data Type: Point Name: ELI LILLY & CO LTD Easting: 343680 Northing: 384570	Annual Volume (m ³): 1,500,000 Max Daily Volume (m ³): 45000 Original Application No: - Original Start Date: 16/02/1966 Expiry Date: - Issue No: 102 Version Start Date: 22/12/2004 Version End Date: -
A	185m NW	Status: Historical Licence No: 2569030023 Details: General Cooling (Existing Licences Only) (Low Loss) Direct Source: Ground Water - North West Region Point: B/HOLE 3 AT LH'S PREMESIS, FLEMING RD, SPEKE, L'POOL Data Type: Point Name: ELI LILLY & CO LTD Easting: 343680 Northing: 384570	Annual Volume (m ³): 1,500,000 Max Daily Volume (m ³): 45000 Original Application No: - Original Start Date: 16/02/1966 Expiry Date: - Issue No: 102 Version Start Date: 22/12/2004 Version End Date: -
A	185m NW	Status: Historical Licence No: 2569030023 Details: Non-Evaporative Cooling Direct Source: Ground Water - North West Region Point: B/HOLE 3 AT LH'S PREMESIS, FLEMING RD, SPEKE, L'POOL Data Type: Point Name: ELI LILLY & CO LTD Easting: 343680 Northing: 384570	Annual Volume (m ³): 1,500,000 Max Daily Volume (m ³): 4500 Original Application No: - Original Start Date: 16/02/1966 Expiry Date: - Issue No: 103 Version Start Date: 18/03/2015 Version End Date: -



ID	Location	Details	
A	185m NW	Status: Active Licence No: 2569030023 Details: Process Water Direct Source: Ground Water - North West Region Point: B/HOLE 3 AT LH'S PREMESIS, FLEMING RD, SPEKE, L'POOL Data Type: Point Name: Elanco UK AH Ltd Easting: 343680 Northing: 384570	Annual Volume (m ³): 1,500,000 Max Daily Volume (m ³): 4,500 Original Application No: - Original Start Date: 16/02/1966 Expiry Date: - Issue No: 105 Version Start Date: 22/03/2019 Version End Date: -
A	185m NW	Status: Active Licence No: 2569030023 Details: Boiler Feed Direct Source: Ground Water - North West Region Point: B/HOLE 3 AT LH'S PREMESIS, FLEMING RD, SPEKE, L'POOL Data Type: Point Name: Elanco UK AH Ltd Easting: 343680 Northing: 384570	Annual Volume (m ³): 1,500,000 Max Daily Volume (m ³): 4,500 Original Application No: - Original Start Date: 16/02/1966 Expiry Date: - Issue No: 105 Version Start Date: 22/03/2019 Version End Date: -
A	185m NW	Status: Active Licence No: 2569030023 Details: Evaporative Cooling Direct Source: Ground Water - North West Region Point: B/HOLE 3 AT LH'S PREMESIS, FLEMING RD, SPEKE, L'POOL Data Type: Point Name: Elanco UK AH Ltd Easting: 343680 Northing: 384570	Annual Volume (m ³): 1,500,000 Max Daily Volume (m ³): 4,500 Original Application No: - Original Start Date: 16/02/1966 Expiry Date: - Issue No: 105 Version Start Date: 22/03/2019 Version End Date: -
B	232m W	Status: Historical Licence No: 2569030023 Details: Process water Direct Source: Ground Water - North West Region Point: "B/HOLE 'B' AT LH'S PREMISES, FLEMING RD, SPEKE, L'POOL" Data Type: Point Name: ELI LILLY & CO LTD Easting: 343570 Northing: 384480	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 16/02/1966 Expiry Date: - Issue No: 101 Version Start Date: 17/12/1999 Version End Date: -

ID	Location	Details	
B	232m W	Status: Historical Licence No: 2569030023 Details: Boiler Feed Direct Source: Ground Water - North West Region Point: "B/HOLE 'B' AT LH'S PREMISES, FLEMING RD, SPEKE, L'POOL" Data Type: Point Name: ELI LILLY & CO LTD Easting: 343570 Northing: 384480	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 16/02/1966 Expiry Date: - Issue No: 101 Version Start Date: 17/12/1999 Version End Date: -
B	232m W	Status: Historical Licence No: 2569030023 Details: General Cooling (Existing Licences Only) (Low Loss) Direct Source: Ground Water - North West Region Point: "B/HOLE 'B' AT LH'S PREMISES, FLEMING RD, SPEKE, L'POOL" Data Type: Point Name: ELI LILLY & CO LTD Easting: 343570 Northing: 384480	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 16/02/1966 Expiry Date: - Issue No: 101 Version Start Date: 17/12/1999 Version End Date: -
B	232m W	Status: Historical Licence No: 2569030023 Details: Process Water Direct Source: Ground Water - North West Region Point: B/HOLE 'B' AT LH'S PREMISES, FLEMING RD, SPEKE, L'POOL Data Type: Point Name: ELI LILLY & CO LTD Easting: 343570 Northing: 384480	Annual Volume (m ³): 1,500,000 Max Daily Volume (m ³): 45000 Original Application No: - Original Start Date: 16/02/1966 Expiry Date: - Issue No: 102 Version Start Date: 22/12/2004 Version End Date: -
B	232m W	Status: Historical Licence No: 2569030023 Details: Boiler Feed Direct Source: Ground Water - North West Region Point: B/HOLE 'B' AT LH'S PREMISES, FLEMING RD, SPEKE, L'POOL Data Type: Point Name: ELI LILLY & CO LTD Easting: 343570 Northing: 384480	Annual Volume (m ³): 1,500,000 Max Daily Volume (m ³): 45000 Original Application No: - Original Start Date: 16/02/1966 Expiry Date: - Issue No: 102 Version Start Date: 22/12/2004 Version End Date: -

ID	Location	Details	
B	232m W	Status: Historical Licence No: 2569030023 Details: General Cooling (Existing Licences Only) (Low Loss) Direct Source: Ground Water - North West Region Point: B/HOLE 'B' AT LH'S PREMISES, FLEMING RD, SPEKE, L'POOL Data Type: Point Name: ELI LILLY & CO LTD Easting: 343570 Northing: 384480	Annual Volume (m ³): 1,500,000 Max Daily Volume (m ³): 45000 Original Application No: - Original Start Date: 16/02/1966 Expiry Date: - Issue No: 102 Version Start Date: 22/12/2004 Version End Date: -
B	232m W	Status: Historical Licence No: 2569030023 Details: Boiler Feed Direct Source: Ground Water - North West Region Point: B/HOLE2 AT LH'S PREMISES, FLEMING RD, SPEKE, L'POOL Data Type: Point Name: ELI LILLY & CO LTD Easting: 343570 Northing: 384480	Annual Volume (m ³): 1,500,000 Max Daily Volume (m ³): 45000 Original Application No: - Original Start Date: 16/02/1966 Expiry Date: - Issue No: 102 Version Start Date: 22/12/2004 Version End Date: -
B	232m W	Status: Historical Licence No: 2569030023 Details: General Cooling (Existing Licences Only) (Low Loss) Direct Source: Ground Water - North West Region Point: B/HOLE2 AT LH'S PREMISES, FLEMING RD, SPEKE, L'POOL Data Type: Point Name: ELI LILLY & CO LTD Easting: 343570 Northing: 384480	Annual Volume (m ³): 1,500,000 Max Daily Volume (m ³): 45000 Original Application No: - Original Start Date: 16/02/1966 Expiry Date: - Issue No: 102 Version Start Date: 22/12/2004 Version End Date: -
B	232m W	Status: Historical Licence No: 2569030023 Details: Process Water Direct Source: Ground Water - North West Region Point: B/HOLE2 AT LH'S PREMISES, FLEMING RD, SPEKE, L'POOL Data Type: Point Name: ELI LILLY & CO LTD Easting: 343570 Northing: 384480	Annual Volume (m ³): 1,500,000 Max Daily Volume (m ³): 45000 Original Application No: - Original Start Date: 16/02/1966 Expiry Date: - Issue No: 102 Version Start Date: 22/12/2004 Version End Date: -



ID	Location	Details	
C	295m W	Status: Historical Licence No: 2569030023 Details: Non-Evaporative Cooling Direct Source: Ground Water - North West Region Point: B/HOLE2 AT LH'S PREMISES, FLEMING RD, SPEKE, L'POOL Data Type: Point Name: ELI LILLY & CO LTD Easting: 343506 Northing: 384484	Annual Volume (m ³): 1,500,000 Max Daily Volume (m ³): 4500 Original Application No: - Original Start Date: 16/02/1966 Expiry Date: - Issue No: 103 Version Start Date: 18/03/2015 Version End Date: -
C	295m W	Status: Active Licence No: 2569030023 Details: Evaporative Cooling Direct Source: Ground Water - North West Region Point: B/HOLE2 AT LH'S PREMISES, FLEMING RD, SPEKE, L'POOL Data Type: Point Name: Elanco UK AH Ltd Easting: 343506 Northing: 384484	Annual Volume (m ³): 1,500,000 Max Daily Volume (m ³): 4,500 Original Application No: - Original Start Date: 16/02/1966 Expiry Date: - Issue No: 105 Version Start Date: 22/03/2019 Version End Date: -
C	295m W	Status: Active Licence No: 2569030023 Details: Boiler Feed Direct Source: Ground Water - North West Region Point: B/HOLE2 AT LH'S PREMISES, FLEMING RD, SPEKE, L'POOL Data Type: Point Name: Elanco UK AH Ltd Easting: 343506 Northing: 384484	Annual Volume (m ³): 1,500,000 Max Daily Volume (m ³): 4,500 Original Application No: - Original Start Date: 16/02/1966 Expiry Date: - Issue No: 105 Version Start Date: 22/03/2019 Version End Date: -
C	295m W	Status: Active Licence No: 2569030023 Details: Process Water Direct Source: Ground Water - North West Region Point: B/HOLE2 AT LH'S PREMISES, FLEMING RD, SPEKE, L'POOL Data Type: Point Name: Elanco UK AH Ltd Easting: 343506 Northing: 384484	Annual Volume (m ³): 1,500,000 Max Daily Volume (m ³): 4,500 Original Application No: - Original Start Date: 16/02/1966 Expiry Date: - Issue No: 105 Version Start Date: 22/03/2019 Version End Date: -

ID	Location	Details	
D	346m NW	Status: Historical Licence No: 2569030023 Details: Boiler Feed Direct Source: Ground Water - North West Region Point: "B/HOLE 'A' AT LH'S PREMESIS, FLEMING RD, SPEKE, L'POOL" Data Type: Point Name: ELI LILLY & CO LTD Easting: 343600 Northing: 384710	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 16/02/1966 Expiry Date: - Issue No: 101 Version Start Date: 17/12/1999 Version End Date: -
D	346m NW	Status: Historical Licence No: 2569030023 Details: General Cooling (Existing Licences Only) (Low Loss) Direct Source: Ground Water - North West Region Point: "B/HOLE 'A' AT LH'S PREMESIS, FLEMING RD, SPEKE, L'POOL" Data Type: Point Name: ELI LILLY & CO LTD Easting: 343600 Northing: 384710	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 16/02/1966 Expiry Date: - Issue No: 101 Version Start Date: 17/12/1999 Version End Date: -
D	346m NW	Status: Historical Licence No: 2569030023 Details: Process water Direct Source: Ground Water - North West Region Point: "B/HOLE 'A' AT LH'S PREMESIS, FLEMING RD, SPEKE, L'POOL" Data Type: Point Name: ELI LILLY & CO LTD Easting: 343600 Northing: 384710	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 16/02/1966 Expiry Date: - Issue No: 101 Version Start Date: 17/12/1999 Version End Date: -
D	346m NW	Status: Historical Licence No: 2569030023 Details: Boiler Feed Direct Source: Ground Water - North West Region Point: B/HOLE 'A' AT LH'S PREMESIS, FLEMING RD, SPEKE, L'POOL Data Type: Point Name: ELI LILLY & CO LTD Easting: 343600 Northing: 384710	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 16/02/1966 Expiry Date: - Issue No: 102 Version Start Date: 22/12/2004 Version End Date: -



ID	Location	Details	
D	346m NW	Status: Historical Licence No: 2569030023 Details: General Cooling (Existing Licences Only) (Low Loss) Direct Source: Ground Water - North West Region Point: B/HOLE 'A' AT LH'S PREMESIS, FLEMING RD, SPEKE, L'POOL Data Type: Point Name: ELI LILLY & CO LTD Easting: 343600 Northing: 384710	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 16/02/1966 Expiry Date: - Issue No: 102 Version Start Date: 22/12/2004 Version End Date: -
D	346m NW	Status: Historical Licence No: 2569030023 Details: Process water Direct Source: Ground Water - North West Region Point: B/HOLE 'A' AT LH'S PREMESIS, FLEMING RD, SPEKE, L'POOL Data Type: Point Name: ELI LILLY & CO LTD Easting: 343600 Northing: 384710	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 16/02/1966 Expiry Date: - Issue No: 102 Version Start Date: 22/12/2004 Version End Date: -
D	346m NW	Status: Historical Licence No: 2569030023 Details: Process Water Direct Source: Ground Water - North West Region Point: BOREHOLE A AT LH S PREMISES FLEMING ROAD SPEKE Data Type: Point Name: ELI LILLY & CO LTD Easting: 343600 Northing: 384710	Annual Volume (m ³): 1,500,000 Max Daily Volume (m ³): 45000 Original Application No: - Original Start Date: 16/02/1966 Expiry Date: - Issue No: 102 Version Start Date: 22/12/2004 Version End Date: -
D	346m NW	Status: Historical Licence No: 2569030023 Details: Boiler Feed Direct Source: Ground Water - North West Region Point: BOREHOLE A AT LH S PREMISES FLEMING ROAD SPEKE Data Type: Point Name: ELI LILLY & CO LTD Easting: 343600 Northing: 384710	Annual Volume (m ³): 1,500,000 Max Daily Volume (m ³): 45000 Original Application No: - Original Start Date: 16/02/1966 Expiry Date: - Issue No: 102 Version Start Date: 22/12/2004 Version End Date: -



ID	Location	Details	
D	346m NW	Status: Historical Licence No: 2569030023 Details: General Cooling (Existing Licences Only) (Low Loss) Direct Source: Ground Water - North West Region Point: BOREHOLE A AT LH S PREMISES FLEMING ROAD SPEKE Data Type: Point Name: ELI LILLY & CO LTD Easting: 343600 Northing: 384710	Annual Volume (m ³): 1,500,000 Max Daily Volume (m ³): 45000 Original Application No: - Original Start Date: 16/02/1966 Expiry Date: - Issue No: 102 Version Start Date: 22/12/2004 Version End Date: -
D	346m NW	Status: Historical Licence No: 2569030023 Details: General Cooling (Existing Licences Only) (Low Loss) Direct Source: Ground Water - North West Region Point: BOREHOLE 1 AT LH S PREMISES FLEMING ROAD SPEKE Data Type: Point Name: ELI LILLY & CO LTD Easting: 343600 Northing: 384710	Annual Volume (m ³): 1,500,000 Max Daily Volume (m ³): 45000 Original Application No: - Original Start Date: 16/02/1966 Expiry Date: - Issue No: 102 Version Start Date: 22/12/2004 Version End Date: -
D	346m NW	Status: Historical Licence No: 2569030023 Details: Non-Evaporative Cooling Direct Source: Ground Water - North West Region Point: BOREHOLE 1 AT LH S PREMISES FLEMING ROAD SPEKE Data Type: Point Name: ELI LILLY & CO LTD Easting: 343600 Northing: 384710	Annual Volume (m ³): 1,500,000 Max Daily Volume (m ³): 4500 Original Application No: - Original Start Date: 16/02/1966 Expiry Date: - Issue No: 103 Version Start Date: 18/03/2015 Version End Date: -
D	346m NW	Status: Active Licence No: 2569030023 Details: Evaporative Cooling Direct Source: Ground Water - North West Region Point: BOREHOLE 1 AT LH S PREMISES FLEMING ROAD SPEKE Data Type: Point Name: Elanco UK AH Ltd Easting: 343600 Northing: 384710	Annual Volume (m ³): 1,500,000 Max Daily Volume (m ³): 4,500 Original Application No: - Original Start Date: 16/02/1966 Expiry Date: - Issue No: 105 Version Start Date: 22/03/2019 Version End Date: -

ID	Location	Details	
D	346m NW	Status: Active Licence No: 2569030023 Details: Boiler Feed Direct Source: Ground Water - North West Region Point: BOREHOLE 1 AT LH S PREMISES FLEMING ROAD SPEKE Data Type: Point Name: Elanco UK AH Ltd Easting: 343600 Northing: 384710	Annual Volume (m ³): 1,500,000 Max Daily Volume (m ³): 4,500 Original Application No: - Original Start Date: 16/02/1966 Expiry Date: - Issue No: 105 Version Start Date: 22/03/2019 Version End Date: -
D	346m NW	Status: Active Licence No: 2569030023 Details: Process Water Direct Source: Ground Water - North West Region Point: BOREHOLE 1 AT LH S PREMISES FLEMING ROAD SPEKE Data Type: Point Name: Elanco UK AH Ltd Easting: 343600 Northing: 384710	Annual Volume (m ³): 1,500,000 Max Daily Volume (m ³): 4,500 Original Application No: - Original Start Date: 16/02/1966 Expiry Date: - Issue No: 105 Version Start Date: 22/03/2019 Version End Date: -
E	424m NW	Status: Historical Licence No: 2569030023 Details: Boiler Feed Direct Source: Ground Water - North West Region Point: "B/HOLE 'D' AT LH'S PREMESIS, FLEMING RD, SPEKE, L'POOL" Data Type: Point Name: ELI LILLY & CO LTD Easting: 343450 Northing: 384670	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 16/02/1966 Expiry Date: - Issue No: 101 Version Start Date: 17/12/1999 Version End Date: -
E	424m NW	Status: Historical Licence No: 2569030023 Details: General Cooling (Existing Licences Only) (Low Loss) Direct Source: Ground Water - North West Region Point: "B/HOLE 'D' AT LH'S PREMESIS, FLEMING RD, SPEKE, L'POOL" Data Type: Point Name: ELI LILLY & CO LTD Easting: 343450 Northing: 384670	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 16/02/1966 Expiry Date: - Issue No: 101 Version Start Date: 17/12/1999 Version End Date: -



ID	Location	Details	
E	424m NW	Status: Historical Licence No: 2569030023 Details: Process water Direct Source: Ground Water - North West Region Point: "B/HOLE 'D' AT LH'S PREMESIS, FLEMING RD, SPEKE, L'POOL" Data Type: Point Name: ELI LILLY & CO LTD Easting: 343450 Northing: 384670	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 16/02/1966 Expiry Date: - Issue No: 101 Version Start Date: 17/12/1999 Version End Date: -
E	424m NW	Status: Historical Licence No: 2569030023 Details: Process water Direct Source: Ground Water - North West Region Point: B/HOLE 'D' AT LH'S PREMESIS, FLEMING RD, SPEKE, L'POOL Data Type: Point Name: ELI LILLY & CO LTD Easting: 343450 Northing: 384670	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 16/02/1966 Expiry Date: - Issue No: 102 Version Start Date: 22/12/2004 Version End Date: -
E	424m NW	Status: Historical Licence No: 2569030023 Details: Boiler Feed Direct Source: Ground Water - North West Region Point: B/HOLE 'D' AT LH'S PREMESIS, FLEMING RD, SPEKE, L'POOL Data Type: Point Name: ELI LILLY & CO LTD Easting: 343450 Northing: 384670	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 16/02/1966 Expiry Date: - Issue No: 102 Version Start Date: 22/12/2004 Version End Date: -
E	424m NW	Status: Historical Licence No: 2569030023 Details: General Cooling (Existing Licences Only) (Low Loss) Direct Source: Ground Water - North West Region Point: B/HOLE 'D' AT LH'S PREMESIS, FLEMING RD, SPEKE, L'POOL Data Type: Point Name: ELI LILLY & CO LTD Easting: 343450 Northing: 384670	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 16/02/1966 Expiry Date: - Issue No: 102 Version Start Date: 22/12/2004 Version End Date: -



ID	Location	Details	
E	424m NW	Status: Historical Licence No: 2569030023 Details: Boiler Feed Direct Source: Ground Water - North West Region Point: BOREHOLE D AT LH S PREMISES FLEMING ROAD SPEKE Data Type: Point Name: ELI LILLY & CO LTD Easting: 343450 Northing: 384670	Annual Volume (m ³): 1,500,000 Max Daily Volume (m ³): 45000 Original Application No: - Original Start Date: 16/02/1966 Expiry Date: - Issue No: 102 Version Start Date: 22/12/2004 Version End Date: -
E	424m NW	Status: Historical Licence No: 2569030023 Details: General Cooling (Existing Licences Only) (Low Loss) Direct Source: Ground Water - North West Region Point: BOREHOLE D AT LH S PREMISES FLEMING ROAD SPEKE Data Type: Point Name: ELI LILLY & CO LTD Easting: 343450 Northing: 384670	Annual Volume (m ³): 1,500,000 Max Daily Volume (m ³): 45000 Original Application No: - Original Start Date: 16/02/1966 Expiry Date: - Issue No: 102 Version Start Date: 22/12/2004 Version End Date: -
E	424m NW	Status: Historical Licence No: 2569030023 Details: Process Water Direct Source: Ground Water - North West Region Point: BOREHOLE D AT LH S PREMISES FLEMING ROAD SPEKE Data Type: Point Name: ELI LILLY & CO LTD Easting: 343450 Northing: 384670	Annual Volume (m ³): 1,500,000 Max Daily Volume (m ³): 45000 Original Application No: - Original Start Date: 16/02/1966 Expiry Date: - Issue No: 102 Version Start Date: 22/12/2004 Version End Date: -
E	424m NW	Status: Historical Licence No: 2569030023 Details: General Cooling (Existing Licences Only) (Low Loss) Direct Source: Ground Water - North West Region Point: BOREHOLE 4 AT LH S PREMISES FLEMING ROAD SPEKE Data Type: Point Name: ELI LILLY & CO LTD Easting: 343450 Northing: 384670	Annual Volume (m ³): 1,500,000 Max Daily Volume (m ³): 45000 Original Application No: - Original Start Date: 16/02/1966 Expiry Date: - Issue No: 102 Version Start Date: 22/12/2004 Version End Date: -

ID	Location	Details	
E	424m NW	Status: Historical Licence No: 2569030023 Details: Non-Evaporative Cooling Direct Source: Ground Water - North West Region Point: BOREHOLE 4 AT LH S PREMISES FLEMING ROAD SPEKE Data Type: Point Name: ELI LILLY & CO LTD Easting: 343450 Northing: 384670	Annual Volume (m ³): 1,500,000 Max Daily Volume (m ³): 4500 Original Application No: - Original Start Date: 16/02/1966 Expiry Date: - Issue No: 103 Version Start Date: 18/03/2015 Version End Date: -
E	424m NW	Status: Active Licence No: 2569030023 Details: Boiler Feed Direct Source: Ground Water - North West Region Point: BOREHOLE 4 AT LH S PREMISES FLEMING ROAD SPEKE Data Type: Point Name: Elanco UK AH Ltd Easting: 343450 Northing: 384670	Annual Volume (m ³): 1,500,000 Max Daily Volume (m ³): 4,500 Original Application No: - Original Start Date: 16/02/1966 Expiry Date: - Issue No: 105 Version Start Date: 22/03/2019 Version End Date: -
E	424m NW	Status: Active Licence No: 2569030023 Details: Evaporative Cooling Direct Source: Ground Water - North West Region Point: BOREHOLE 4 AT LH S PREMISES FLEMING ROAD SPEKE Data Type: Point Name: Elanco UK AH Ltd Easting: 343450 Northing: 384670	Annual Volume (m ³): 1,500,000 Max Daily Volume (m ³): 4,500 Original Application No: - Original Start Date: 16/02/1966 Expiry Date: - Issue No: 105 Version Start Date: 22/03/2019 Version End Date: -
E	424m NW	Status: Active Licence No: 2569030023 Details: Process Water Direct Source: Ground Water - North West Region Point: BOREHOLE 4 AT LH S PREMISES FLEMING ROAD SPEKE Data Type: Point Name: Elanco UK AH Ltd Easting: 343450 Northing: 384670	Annual Volume (m ³): 1,500,000 Max Daily Volume (m ³): 4,500 Original Application No: - Original Start Date: 16/02/1966 Expiry Date: - Issue No: 105 Version Start Date: 22/03/2019 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**0**

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.

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

5.9 Source Protection Zones

Records within 500m**0**

Source Protection Zones define the sensitivity of an area around a potable abstraction site to contamination.

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

5.10 Source Protection Zones (confined aquifer)

Records within 500m**0**

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

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

6 Hydrology



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

6.1 Water Network (OS MasterMap)

Records within 250m

0

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

This data is sourced from the Ordnance Survey.

6.2 Surface water features

Records within 250m

0

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.

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 107**

ID	Location	Type	Water body catchment	Water body ID	Operational catchment	Management catchment
1	On site	Coastal Catchment	Not part of a river WB catchment	167	Ditton	Lower Mersey

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

6.4 WFD Surface water bodies

Records identified	0
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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.

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 107**

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

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



7 River and coastal flooding

7.1 Risk of flooding from rivers and the sea

Records within 50m**0**

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

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

7.2 Historical Flood Events

Records within 250m**0**

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

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

7.3 Flood Defences

Records within 250m**0**

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

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

7.4 Areas Benefiting from Flood Defences

Records within 250m

0

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

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

7.5 Flood Storage Areas

Records within 250m

0

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

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



River and coastal flooding - Flood Zones

7.6 Flood Zone 2

Records within 50m

0

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

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

7.7 Flood Zone 3

Records within 50m

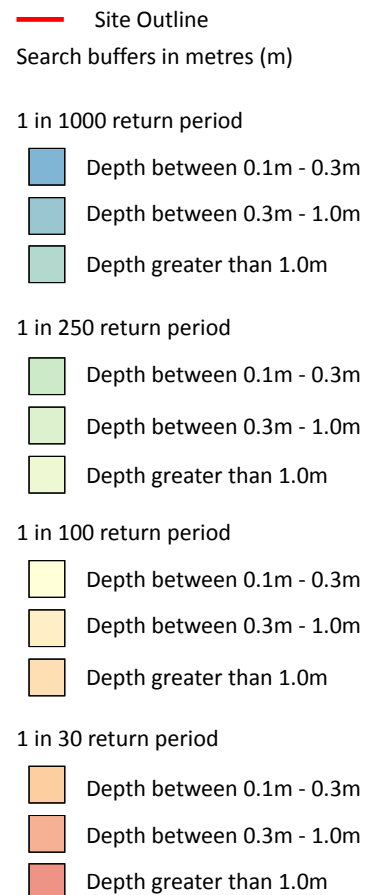
0

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

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



8 Surface water flooding



8.1 Surface water flooding

Highest risk on site

Negligible

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 113**

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	Negligible
1 in 250 year	Negligible
1 in 100 year	Negligible
1 in 30 year	Negligible

This data is sourced from Ambiantal 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

Low

Highest risk within 50m

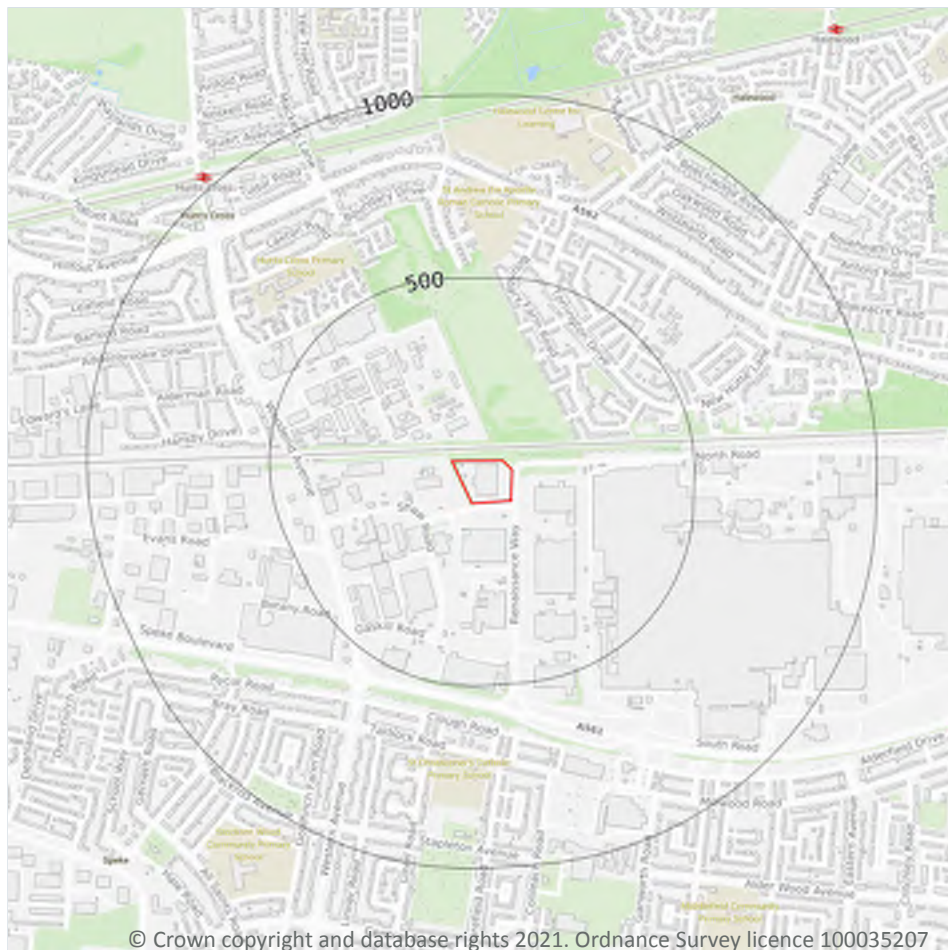
Low

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 115**

This data is sourced from Ambiantal Risk Analytics.

10 Environmental designations



- Site Outline
- Search buffers in metres (m)
- + Local Nature Reserves (LNR)
- X Designated Ancient Woodland
- X 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

1

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 116**

ID	Location	Name	Data source
-	1467m SE	Millwood & Alder Wood	Natural England

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

10.7 Designated Ancient Woodland

Records within 2000m

3

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.

Features are displayed on the Environmental designations map on **page 116**

ID	Location	Name	Woodland Type
-	1540m SE	Mill Wood	Ancient & Semi-Natural Woodland
-	1912m E	Hop Yard Wood	Ancient & Semi-Natural Woodland
-	1978m SW	Stockton's Wood	Ancient & Semi-Natural Woodland

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**4**

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

Features are displayed on the Environmental designations map on **page 116**

ID	Location	Name	Local Authority name
1	1356m SE	Merseyside and Greater Manchester	Liverpool
-	1476m E	Merseyside and Greater Manchester	Knowsley
-	1721m E	Merseyside and Greater Manchester	Halton
-	1934m SE	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
50m N	Ditton Brook (Halewood to Mersey Estuary) NVZ	Surface Water	S640	Existing

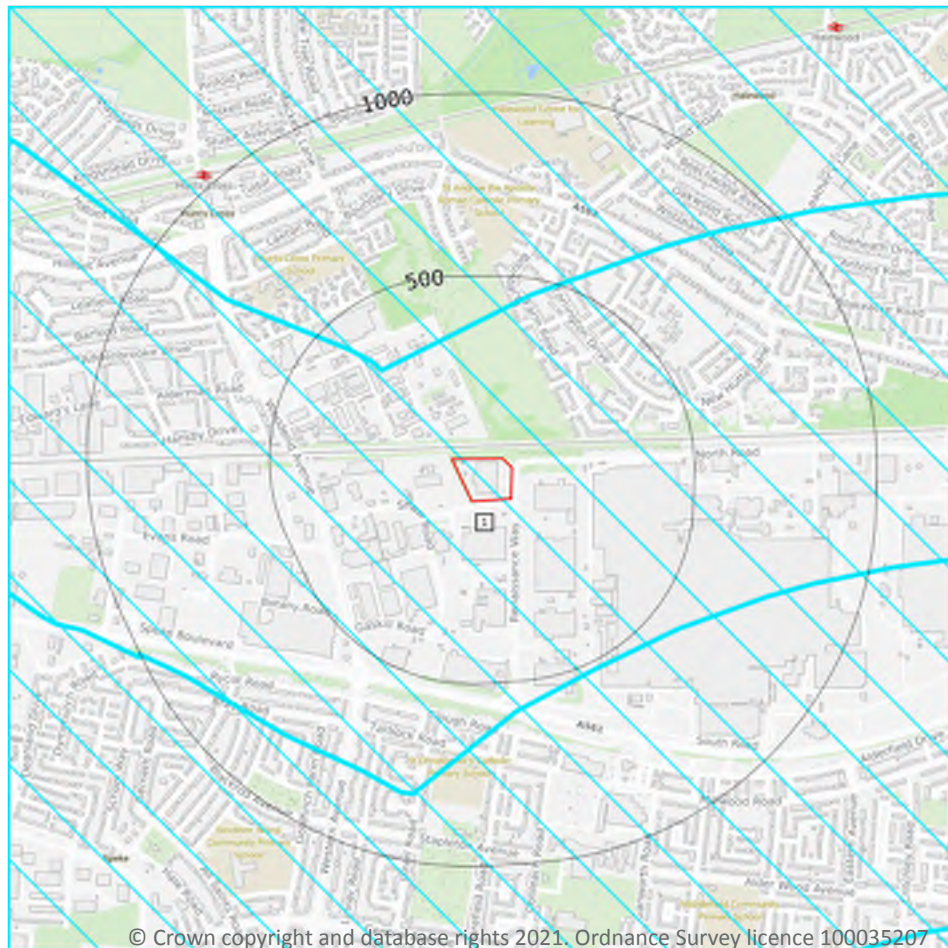


Location	Name	Type	NVZ ID	Status
153m E	Dittton Brook (Halewood to Mersey Estuary) NVZ	Surface Water	S640	Existing
1557m N	Dittton Brook (Halewood to Mersey Estuary) NVZ	Surface Water	S640	Existing
1565m NE	Dittton Brook (Halewood to Mersey Estuary) NVZ	Surface Water	S640	Existing

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



SSSI Impact Zones and Units



- Site Outline
- Search buffers in metres (m)
- SSSI Impact Risk Zones
- SSSI Units
- Not recorded
- Favourable
- Unfavourable - Recovering
- Unfavourable - No change
- Unfavourable - Declining
- Partially destroyed
- Destroyed

10.17 SSSI Impact Risk Zones

Records on site

1

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.

Features are displayed on the SSSI Impact Zones and Units map on **page 122**

ID	Location	Type of developments requiring consultation
1	On site	Infrastructure - Pipelines, pylons and overhead cables. any transport proposal including road, rail and by water (excluding routine maintenance). airports, helipads and other aviation proposals. Wind and Solar - Solar schemes with footprint > 0.5ha, all wind turbines. Minerals, Oil and Gas - Planning applications for quarries: new proposals or extensions, outside or extending outside existing settlements/urban areas affecting greenspace, farmland or semi natural habitats. oil & gas exploration/extraction. Rural non-residential - Large non residential developments outside existing settlements/urban areas where footprint exceeds 1ha. Rural residential - Any residential development of 50 or more houses outside existing settlements/urban areas. Air pollution - Any industrial/agricultural development that could cause air pollution (incl: industrial processes, livestock & poultry units with floorspace > 500m², slurry lagoons & digestate stores > 750m², manure stores > 3500t). Combustion - General combustion processes >50mw energy input. incl: energy from waste incineration, other incineration, landfill gas generation plant, pyrolysis/gasification, anaerobic digestion, sewage treatment works, other incineration/ combustion. Waste - Landfill. incl: inert landfill, non-hazardous landfill, hazardous landfill. Discharges - Any discharge of water or liquid waste of more than 5m³/day to ground (ie to seep away) or to surface water, such as a beck or stream. Notes: New residential developments in this area should consider recreational disturbance impacts on the coastal designated sites. please consider this issue in the hra screening.

This data is sourced from Natural England.

10.18 SSSI Units

Records within 2000m	0
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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 126**

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 128**

ID	Location	Main Habitat	Other habitats
1	54m N	Deciduous woodland	Main habitat: DWOOD (INV > 50%)
2	55m N	Deciduous woodland	Main habitat: DWOOD (INV > 50%)
3	98m N	Deciduous woodland	Main habitat: DWOOD (INV > 50%)
4	137m N	Deciduous woodland	Main habitat: 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

0

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.

This data is sourced from Natural England.

13.4 Limestone Pavement Orders

Records within 250m

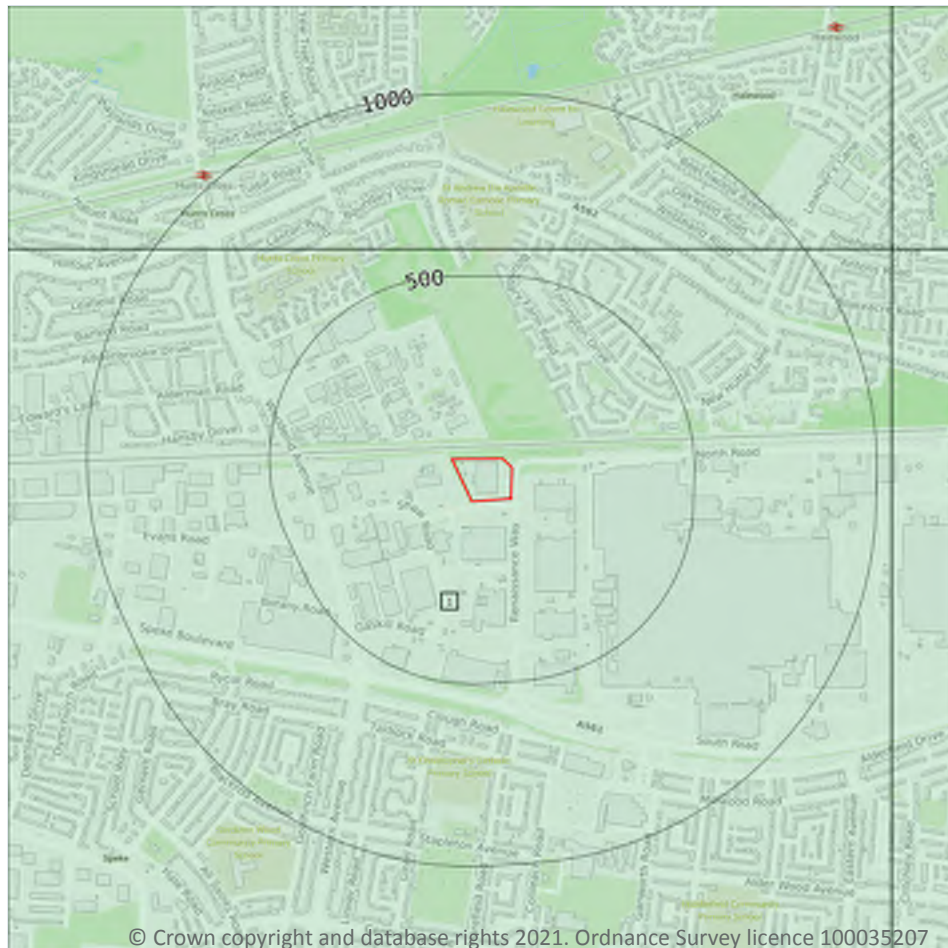
0

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

This data is sourced from Natural England.



14 Geology 1:10,000 scale - Availability



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

14.1 10k Availability

Records within 500m

1

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

Features are displayed on the Geology 1:10,000 scale - Availability map on **page 130**

ID	Location	Artificial	Superficial	Bedrock	Mass movement	Sheet No.
1	On site	No coverage	Full	Full	No coverage	SJ48SW

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

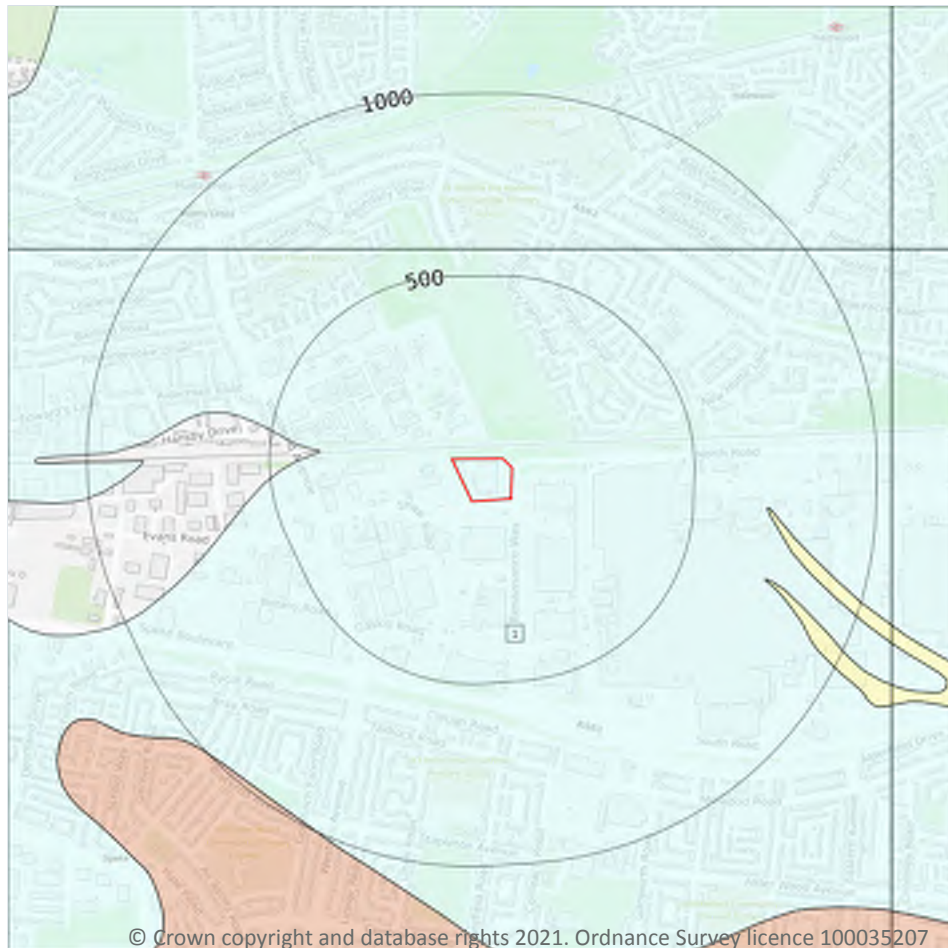
0

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



— Site Outline

Search buffers in metres (m)

Landslip (10k)

Superficial geology (10k)
Please see table for more details.

14.3 Superficial geology (10k)

Records within 500m

1

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.

Features are displayed on the Geology 1:10,000 scale - Superficial map on **page 132**

ID	Location	LEX Code	Description	Rock description
1	On site	TILLD-DMTN	Till, Devensian - Diamicton	Diamicton

This data is sourced from the British Geological Survey.



14.4 Landslip (10k)

Records within 500m

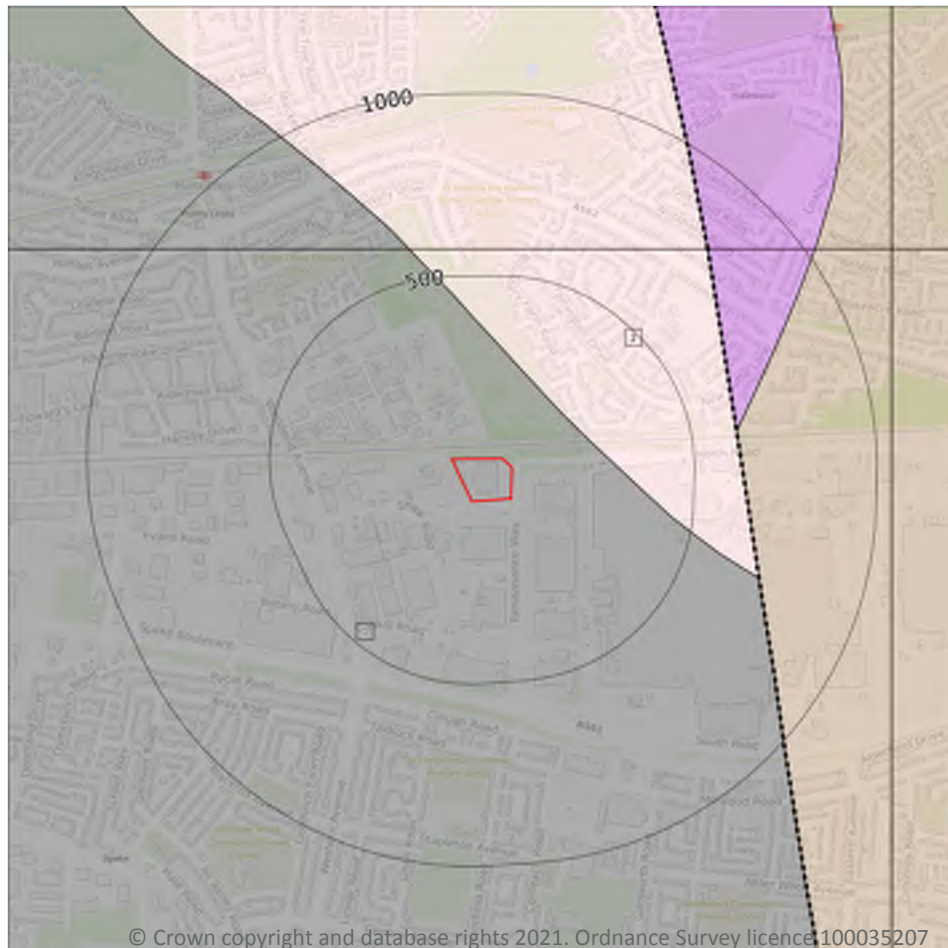
0

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



— Site Outline

Search buffers in metres (m)

.... Bedrock faults and other linear features (10k)

Bedrock geology (10k)
Please see table for more details.

14.5 Bedrock geology (10k)

Records within 500m

2

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.

Features are displayed on the Geology 1:10,000 scale - Bedrock map on **page 134**

ID	Location	LEX Code	Description	Rock age
1	On site	CPB-SDST	Chester Pebble Beds Formation - Sandstone	Early Triassic Epoch
2	202m NE	WLSF-SDST	Wilmslow Sandstone Formation - Sandstone	Early Triassic Epoch

This data is sourced from the British Geological Survey.



14.6 Bedrock faults and other linear features (10k)

Records within 500m

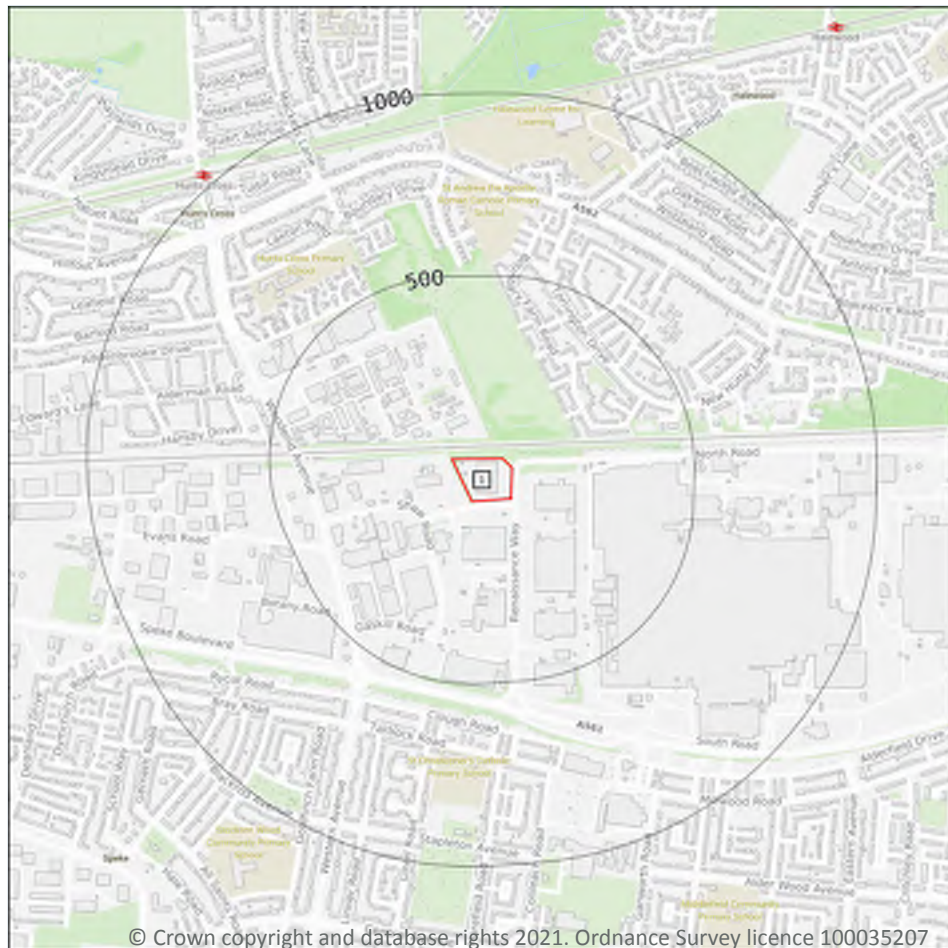
0

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 136**

ID	Location	Artificial	Superficial	Bedrock	Mass movement	Sheet No.
1	On site	No coverage	Full	Full	No coverage	EW097_runcorn_v4

This data is sourced from the British Geological Survey.

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

15.2 Artificial and made ground (50k)

Records within 500m

0

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.

This data is sourced from the British Geological Survey.

15.3 Artificial ground permeability (50k)

Records within 50m

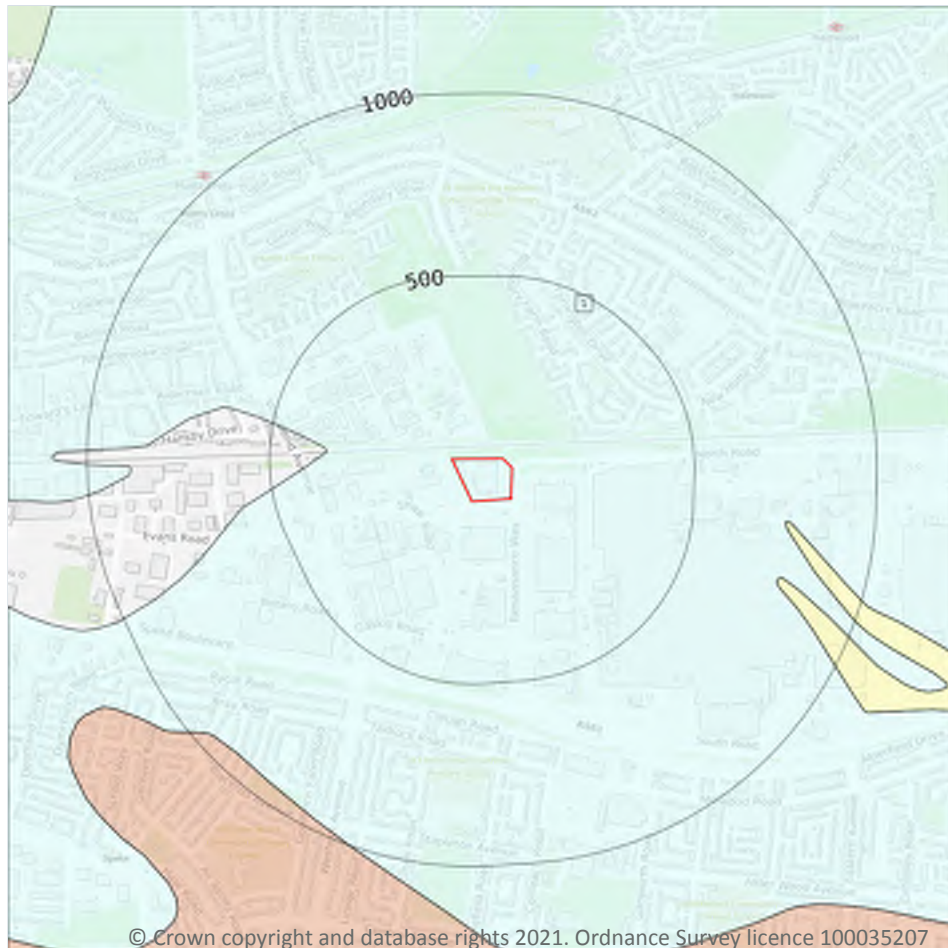
0

A qualitative classification of estimated rates of vertical movement of water from the ground surface through the unsaturated zone of any artificial 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 - 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

1

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 138**

ID	Location	LEX Code	Description	Rock description
1	On site	TILLD-DMTN	TILL, DEVANSIAN	DIAMICTON

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

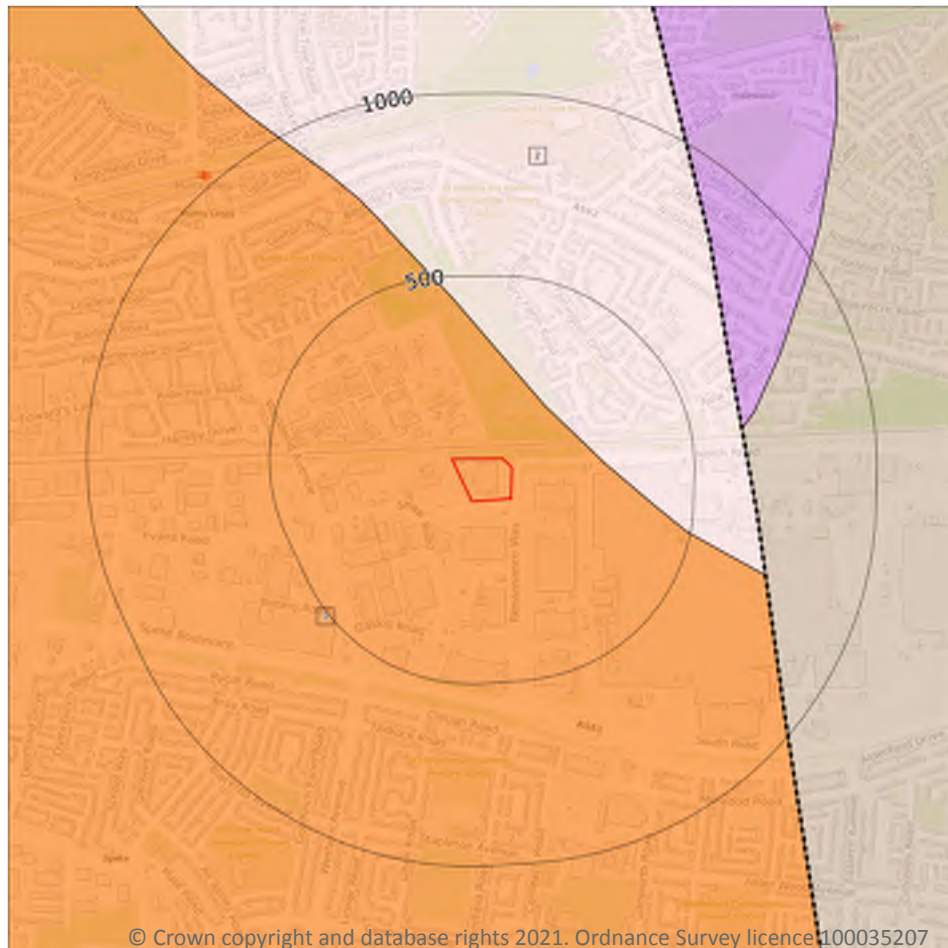
0

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

2

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 140**

ID	Location	LEX Code	Description	Rock age
1	On site	CHES-PESST	CHESTER FORMATION - SANDSTONE, PEBBLY (GRAVELLY)	OLENEKIAN
2	185m NE	WLSF-SDST	WILMSLOW SANDSTONE FORMATION - SANDSTONE	-

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

5

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 142**

ID	Location	Grid reference	Name	Length	Confidential	Web link
1	6m SW	343820 384360	FORD OBH, HALEWOOD	42.3	N	164882
2	185m NW	343670 384560	DISTA PRODUCTS NO. 3	-2.0	N	164883
3	201m E	344160 384360	FORD OBH, HALEWOOD	181.0	N	164881

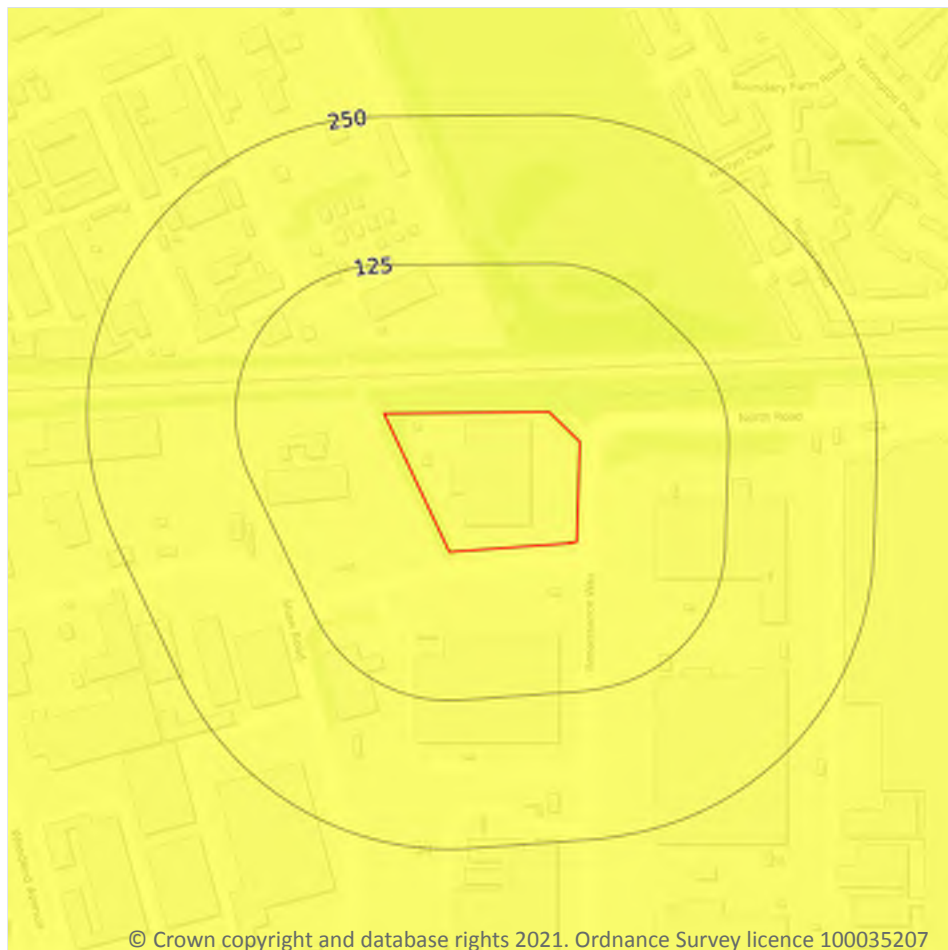


ID	Location	Grid reference	Name	Length	Confidential	Web link
4	224m W	343580 384486	DISTILLERS LTD 2 FLEMING ROAD SPEKE	213.36	N	164645
5	236m NW	343590 384540	DISTA FLEMING RD SPEKE L24.9LN 4	13.6	N	164865

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).

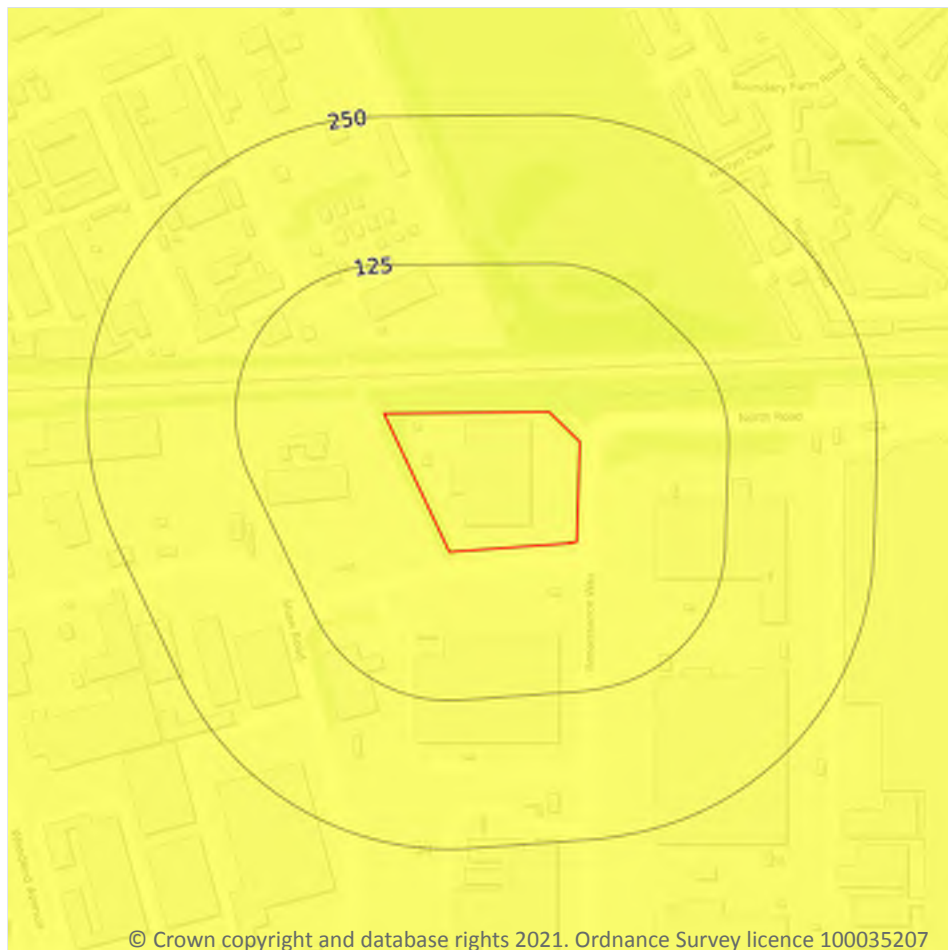
Features are displayed on the Natural ground subsidence - Shrink swell clays map on **page 144**

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 145**

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



— Site Outline
Search buffers in metres (m)

- ☐ No data
- ☐ Negligible
- ☐ Very low
- ☐ Low
- ☐ Moderate
- ☐ High

17.3 Compressible deposits

Records within 50m

1

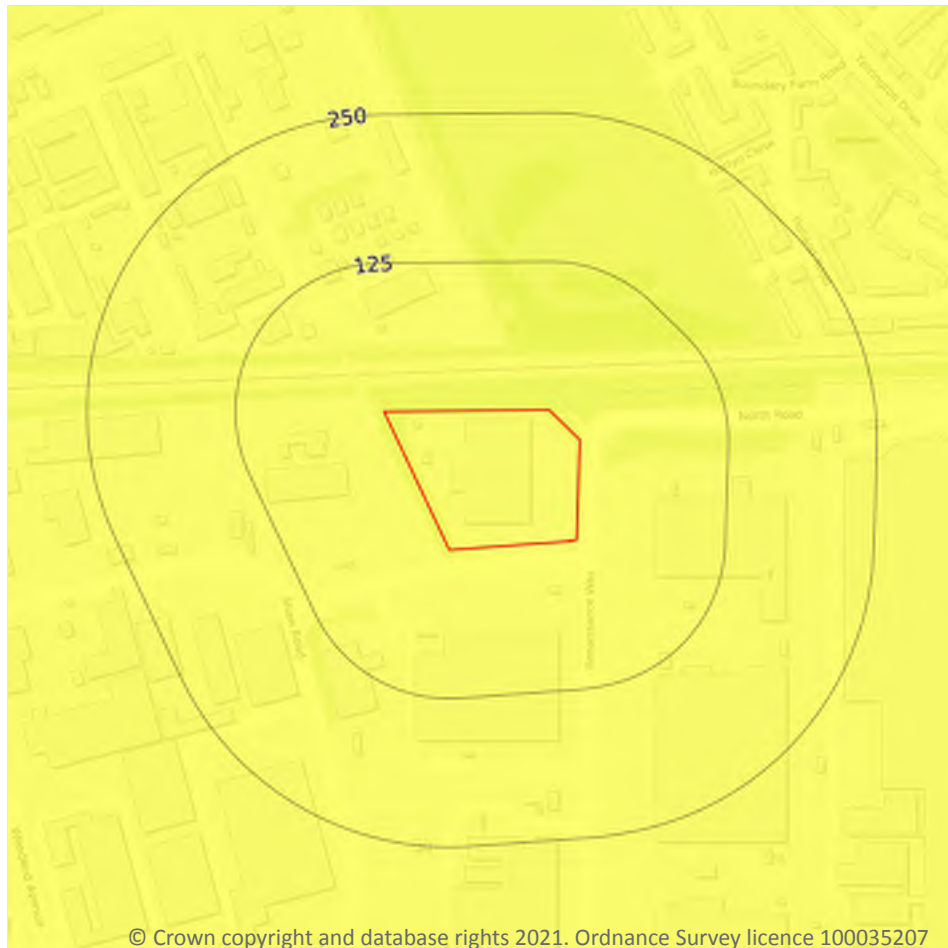
The potential hazard presented by types of ground that may contain layers of very soft materials like clay or peat and may compress if loaded by overlying structures, or if the groundwater level changes, potentially resulting in depression of the ground and disturbance of foundations.

Features are displayed on the Natural ground subsidence - Compressible deposits map on **page 146**

Location	Hazard rating	Details
On site	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.

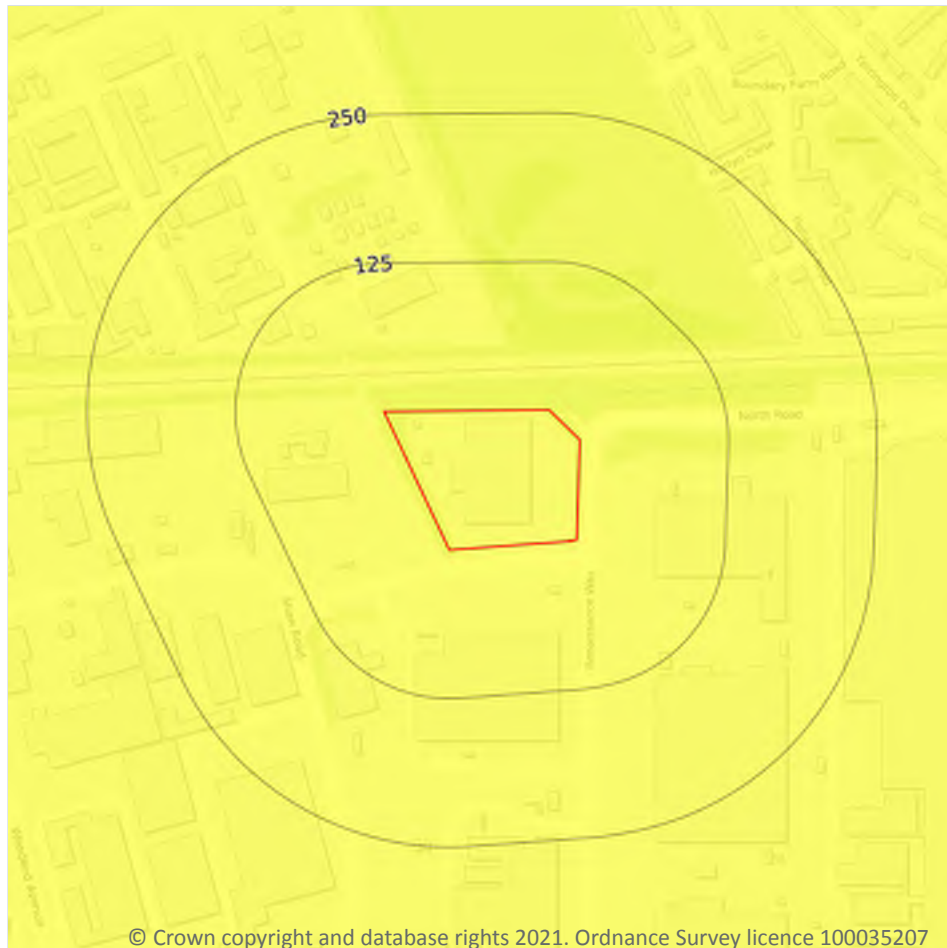
Features are displayed on the Natural ground subsidence - Collapsible deposits map on **page 147**

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 148**

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



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

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.

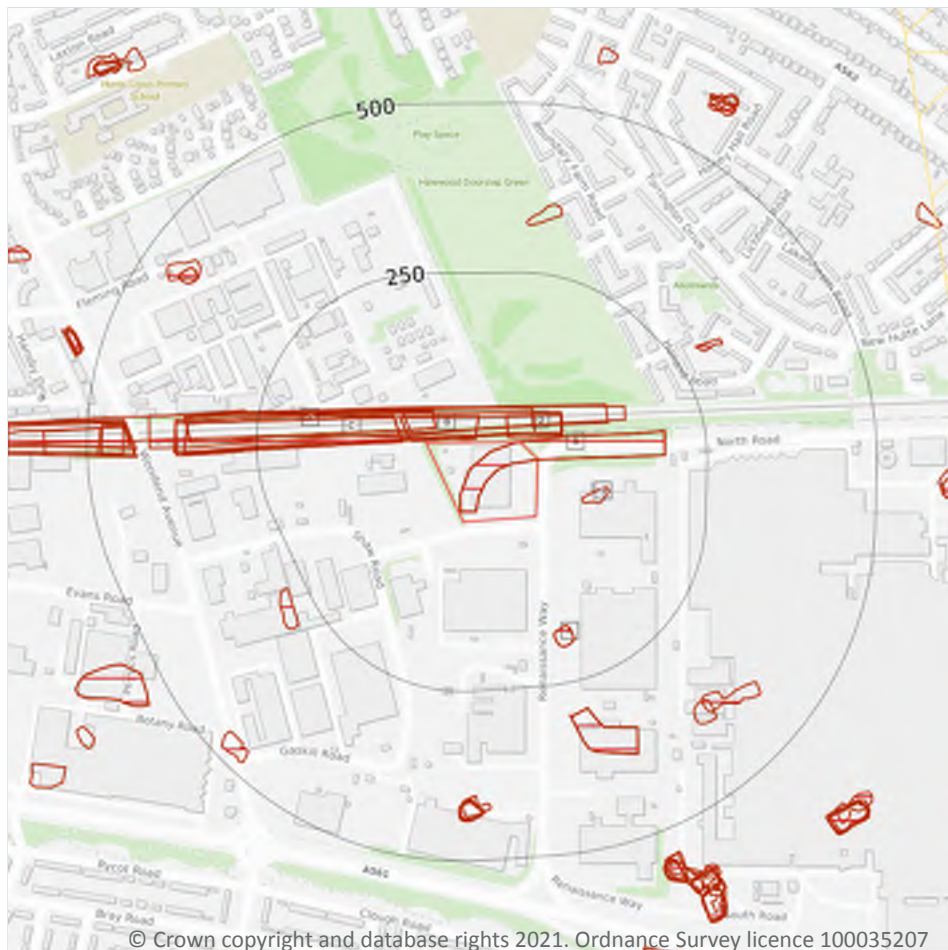
Features are displayed on the Natural ground subsidence - Ground dissolution of soluble rocks map on **page 149**

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

This data is sourced from the British Geological Survey.



18 Mining, ground workings and natural cavities



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

18.1 Natural cavities

Records within 500m

0

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

This data is sourced from Stantec UK Ltd.

18.2 BritPits

Records within 500m

0

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

This data is sourced from the British Geological Survey.

18.3 Surface ground workings

Records within 250m

22

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 151**

ID	Location	Land Use	Year of mapping	Mapping scale
A	On site	Cuttings	1966	1:10560
A	On site	Cuttings	1980	1:10000
A	On site	Cuttings	1991	1:10000
B	4m N	Cuttings	1925	1:10560
B	4m N	Cuttings	1904	1:10560
C	5m N	Cuttings	1891	1:10560
D	7m N	Cuttings	1925	1:10560
D	7m N	Cuttings	1904	1:10560
C	8m N	Cuttings	1925	1:10560
C	8m N	Cuttings	1925	1:10560
E	12m N	Cuttings	1851	1:10560
B	15m N	Cuttings	1938	1:10560
C	15m N	Cuttings	1956	1:10560
E	21m N	Cuttings	1966	1:10560
E	21m N	Cuttings	1980	1:10000
E	21m N	Cuttings	1991	1:10000
E	36m W	Cuttings	1938	1:10560



ID	Location	Land Use	Year of mapping	Mapping scale
E	36m W	Cuttings	1925	1:10560
E	36m W	Cuttings	1904	1:10560
1	67m E	Ponds	1891	1:10560
F	167m S	Pond	1938	1:10560
F	167m S	Pond	1925	1:10560

This is data is sourced from Ordnance Survey/Groundsure.

18.4 Underground workings

Records within 1000m

0

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

This is 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

2

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).

Features are displayed on the Mining, ground workings and natural cavities map on **page 151**

ID	Location	Name	Commodity	Class	Likelihood
8	638m E	Not available	Vein Mineral	A	Sporadic underground mining of restricted extent may have occurred. Potential for difficult ground conditions are unlikely and localised and are at a level where they need not be considered



ID	Location	Name	Commodity	Class	Likelihood
12	810m NE	Not available	Vein Mineral	A	Sporadic underground mining of restricted extent may have occurred. Potential for difficult ground conditions are unlikely and localised and are at a level where they need not be considered

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
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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.

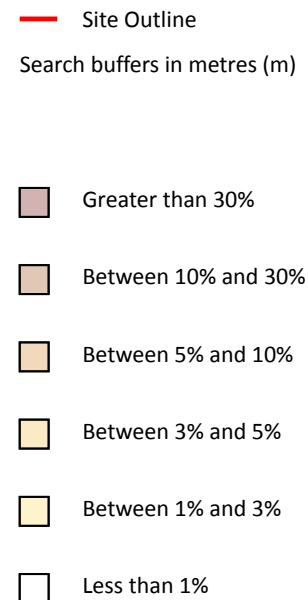
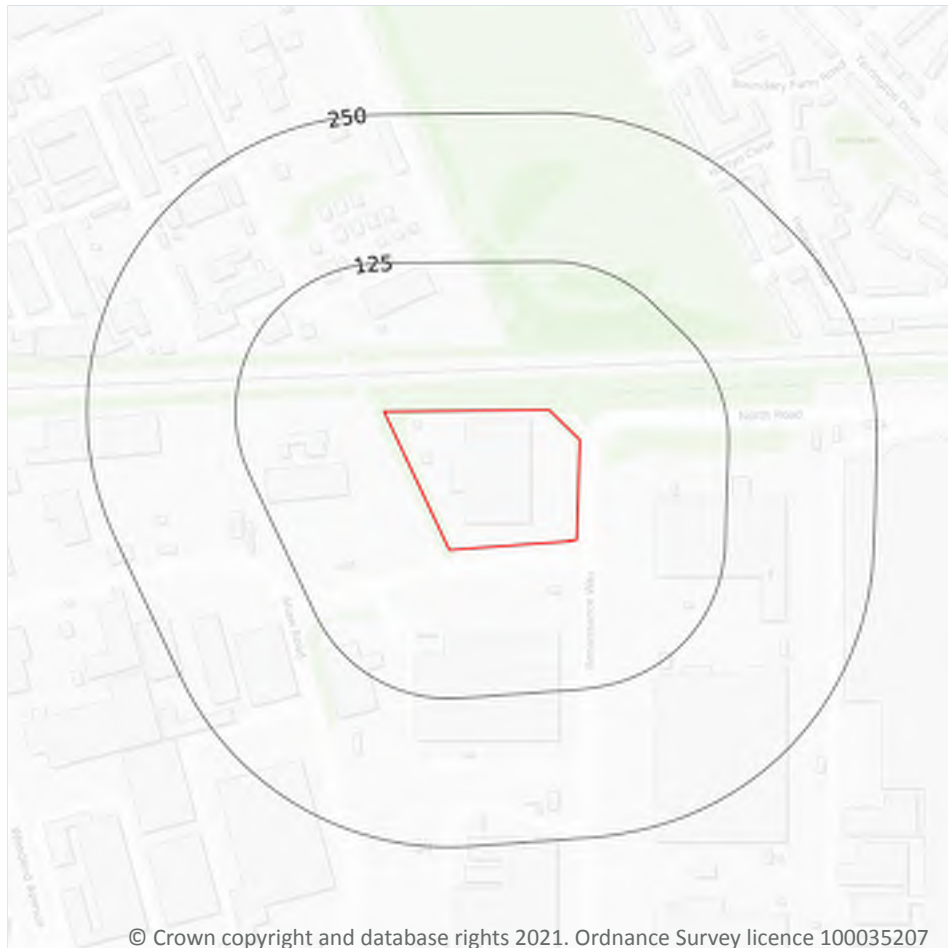
18.13 Clay mining

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

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

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

19 Radon



19.1 Radon

Records on site

1

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 156**

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

3

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	90 - 120 mg/kg	15 - 30 mg/kg
40m SE	15 - 25 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	90 - 120 mg/kg	15 - 30 mg/kg
40m SE	15 - 25 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	90 - 120 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

9

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 158**

Location	Land Use	Year of mapping	Mapping scale
5m N	Railway	1891	-
93m NE	Railway Sidings	1965	1250
187m E	Railway Sidings	1966	10560
187m E	Railway Sidings	1980	10000
187m E	Railway Sidings	1991	10000
202m E	Railway Sidings	1989	1250
203m E	Railway Sidings	1967	2500
203m E	Railway Sidings	1965	1250
204m E	Railway Sidings	1993	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**9**

Currently existing railway lines, including standard railways, narrow gauge, funicular, trams and light railways. Features are displayed on the Railway infrastructure and projects map on **page 158**

Location	Name	Type
27m N	Down Slow	rail
31m N	Up Slow	rail
32m N	Not given	Multi Track
37m N	Down Fast	rail
41m N	Up Fast	rail
42m NW	Not given	Multi Track
195m E	Not given	Multi Track
202m E	Up Fast	rail
223m E	Not given	Multi Track

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>.

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APPENDIX C – HISTORICAL MAPS

Site Details:

1A IAC, RENAISSANCE WAY,
HALEWOOD, L24 9PL

Client Ref: B033528
Report Ref: GS-8397720
Grid Ref: 343878, 384367

Map Name: County Series

Map date: 1893

Scale: 1:2,500

Printed at: 1:2,500



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

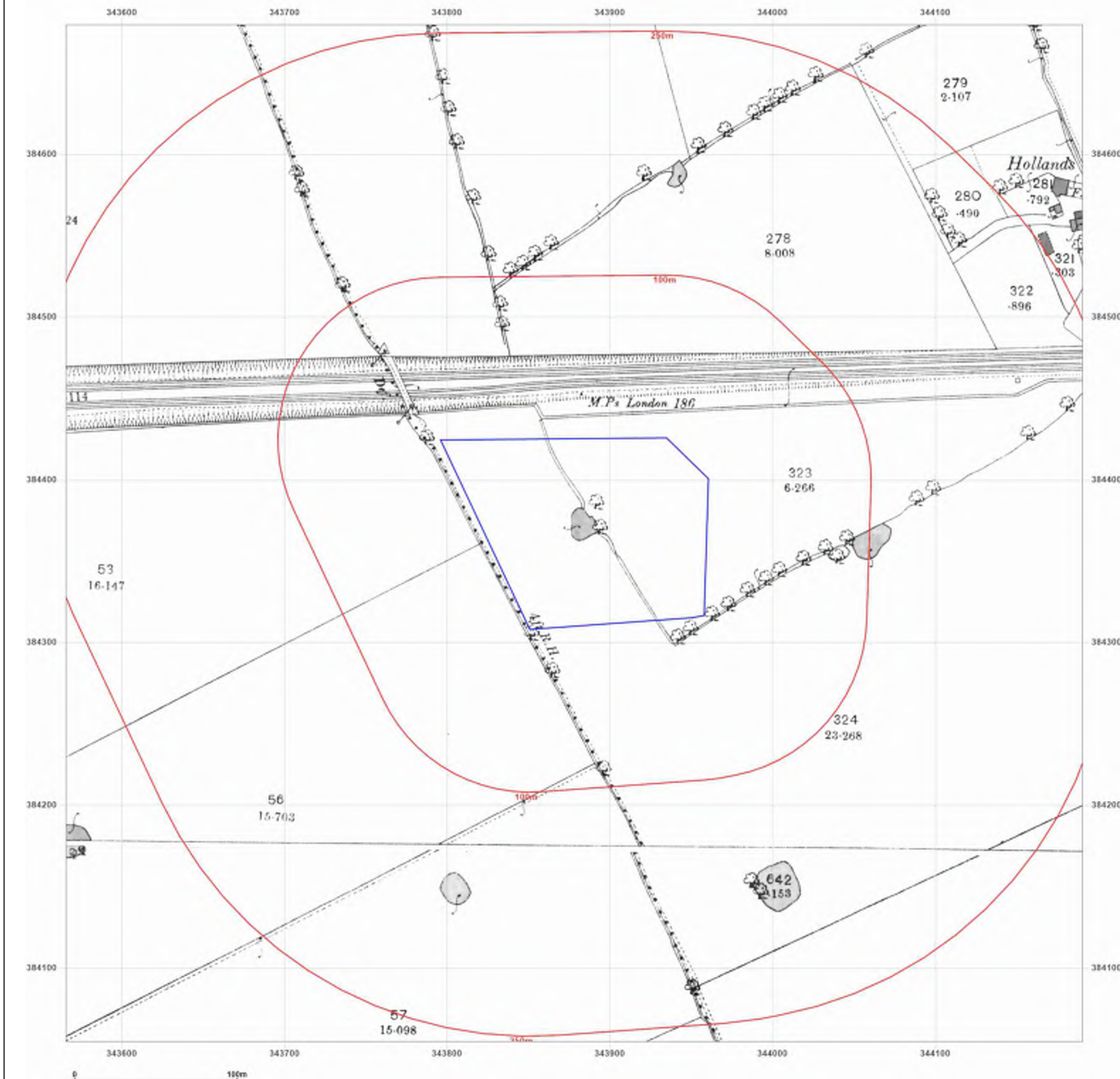


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Site Details:

1A IAC, RENAISSANCE WAY,
HALEWOOD, L24 9PL

Client Ref: B033528
Report Ref: GS-8397720
Grid Ref: 343878, 384367

Map Name: County Series

Map date: 1907

Scale: 1:2,500

Printed at: 1:2,500



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

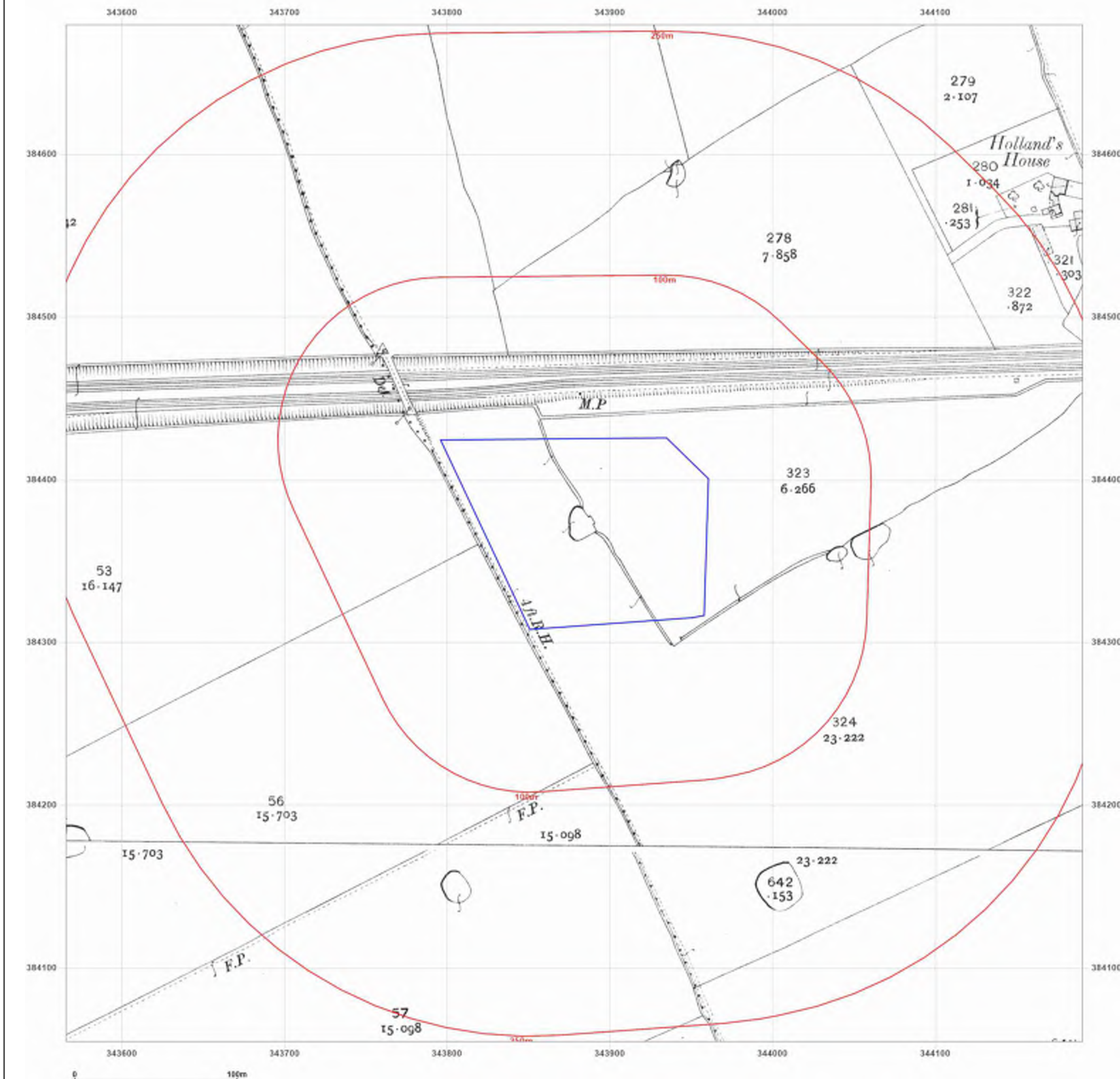


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Site Details:

1A IAC, RENAISSANCE WAY,
HALEWOOD, L24 9PL

Client Ref: B033528
Report Ref: GS-8397720
Grid Ref: 343878, 384367

Map Name: County Series

Map date: 1927

Scale: 1:2,500

Printed at: 1:2,500



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Edition N/A
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Surveyed 1927
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Edition N/A
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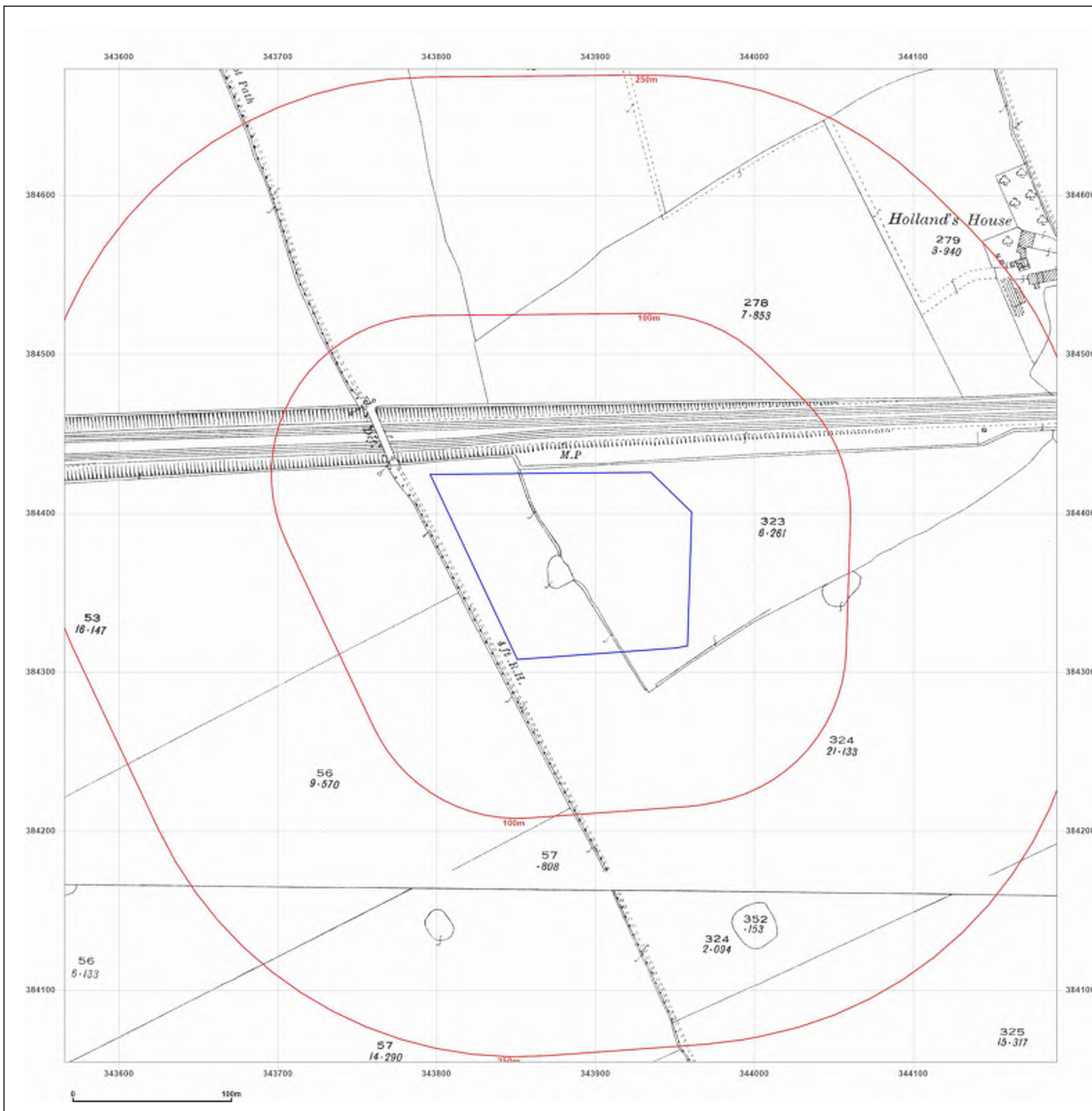


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Site Details:

1A IAC, RENAISSANCE WAY,
HALEWOOD, L24 9PL

Client Ref: B033528
Report Ref: GS-8397720
Grid Ref: 343878, 384367

Map Name: County Series

Map date: 1936

Scale: 1:2,500

Printed at: 1:2,500



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Surveyed 1936
Revised N/A
Edition N/A
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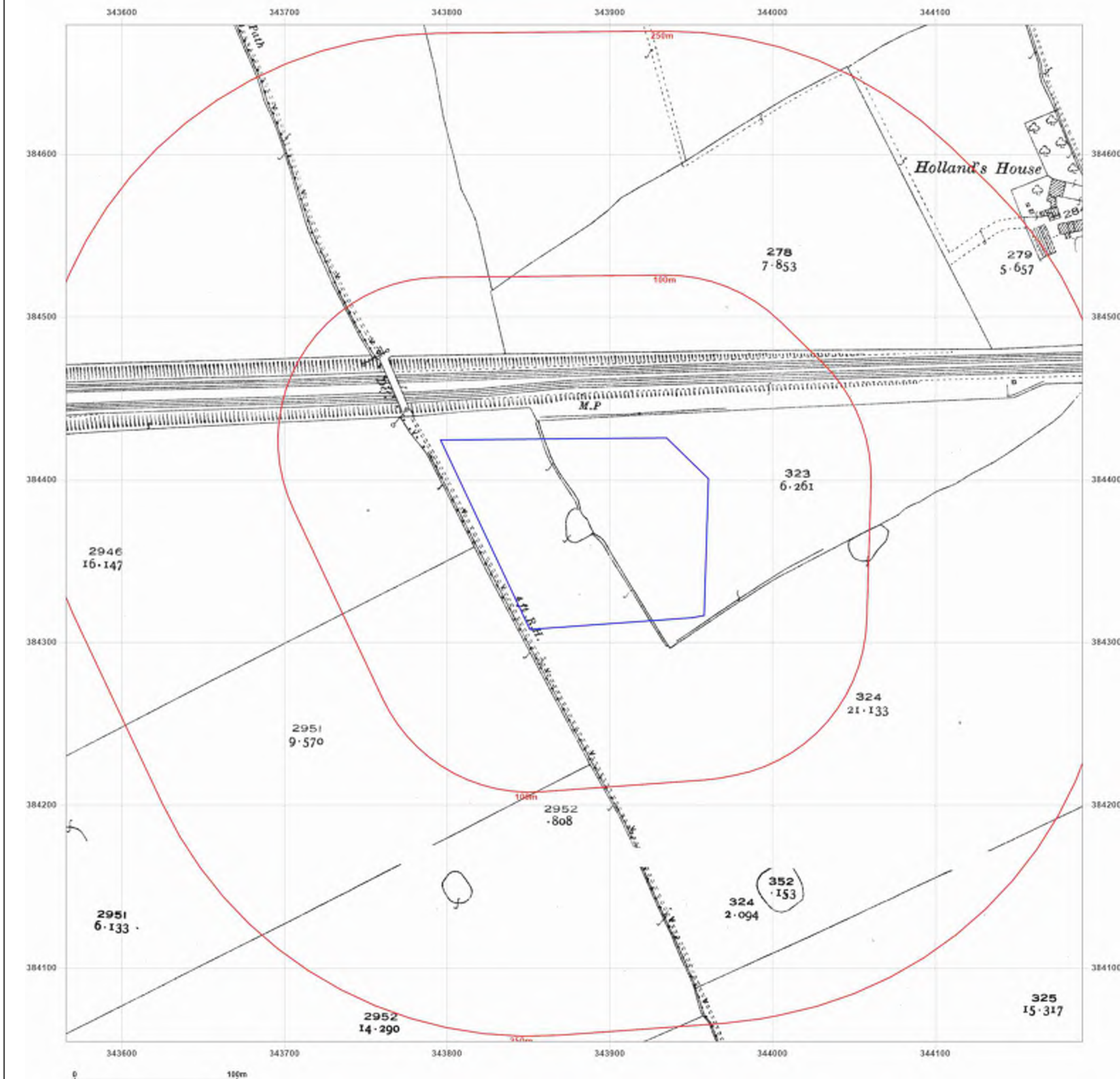


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Site Details:

1A IAC, RENAISSANCE WAY,
HALEWOOD, L24 9PL

Client Ref: B033528
Report Ref: GS-8397720
Grid Ref: 343878, 384367

Map Name: National Grid

Map date: 1953

Scale: 1:1,250

Printed at: 1:2,000



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Edition N/A
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Surveyed 1953
Revised 1953
Edition N/A
Copyright N/A
Levelled 1947

Surveyed 1953
Revised 1953
Edition N/A
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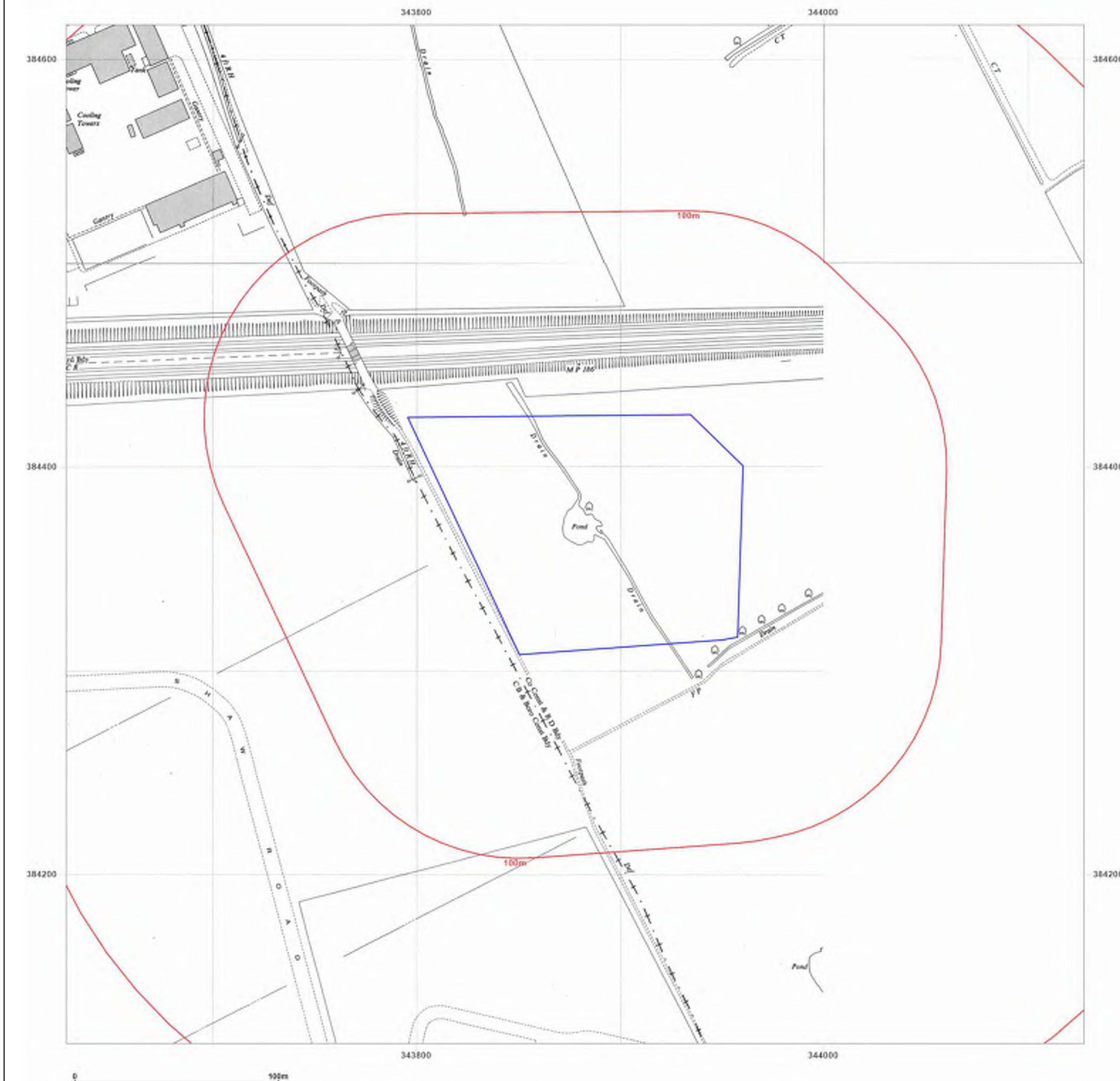


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Site Details:

1A IAC, RENAISSANCE WAY,
HALEWOOD, L24 9PL

Client Ref: B033528
Report Ref: GS-8397720
Grid Ref: 343878, 384367

Map Name: National Grid

Map date: 1954

Scale: 1:1,250

Printed at: 1:2,000



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Revised N/A
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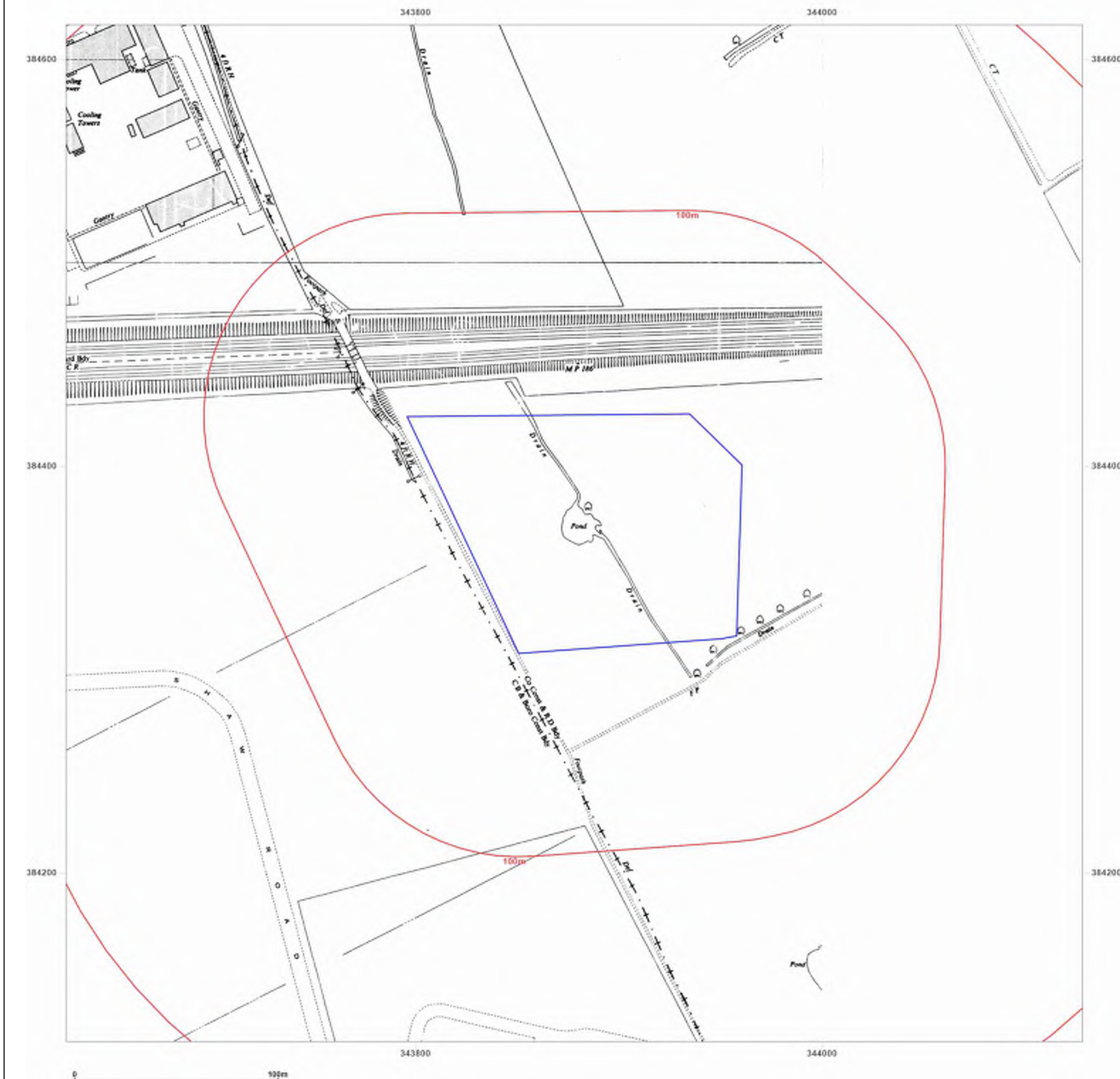


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HALEWOOD, L24 9PL

Client Ref: B033528
Report Ref: GS-8397720
Grid Ref: 343878, 384367

Map Name: National Grid

Map date: 1955

Scale: 1:2,500

Printed at: 1:2,500



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Surveyed 1953
Revised 1953
Edition 1955
Copyright N/A
Levelled 1947

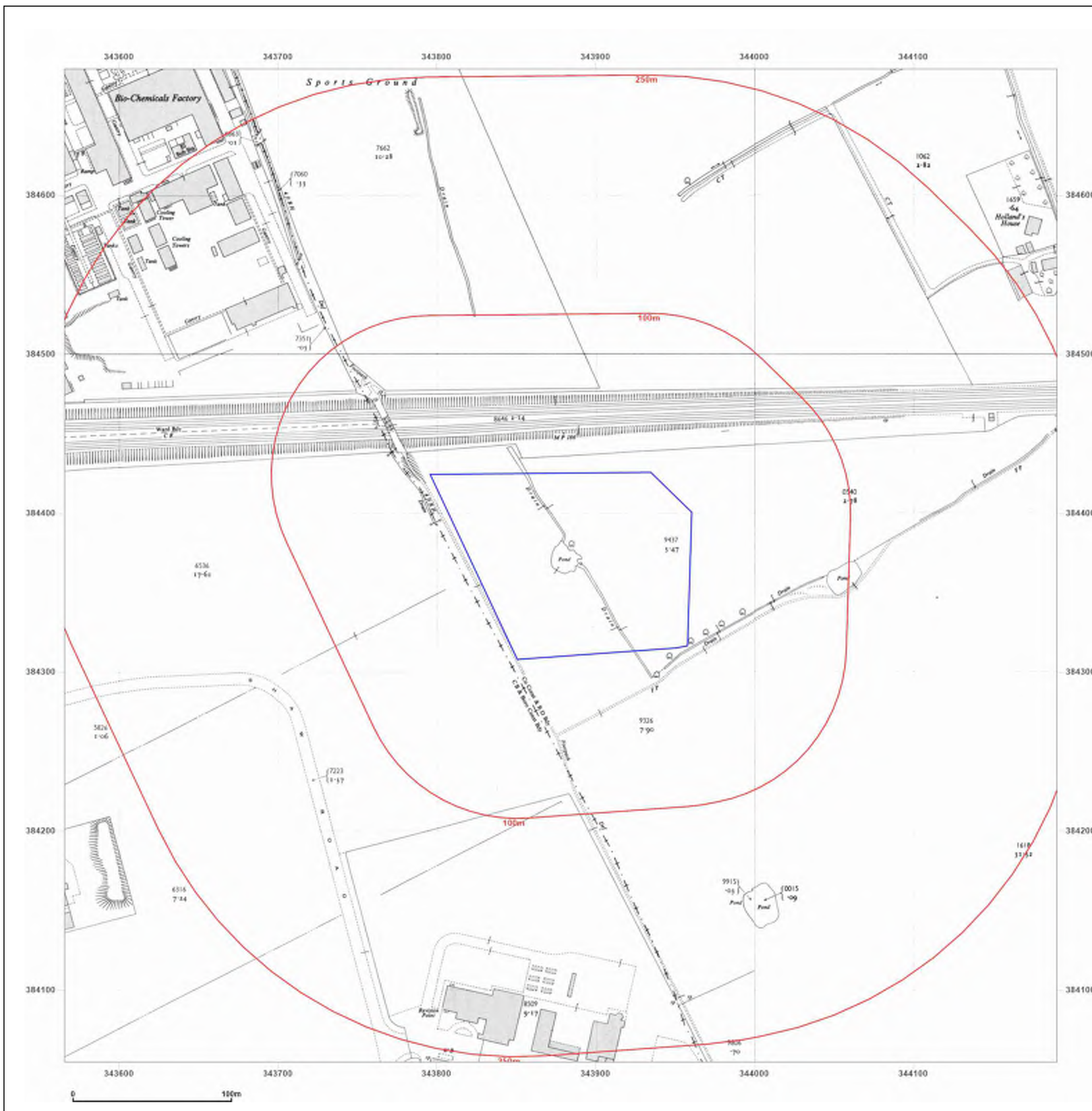


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1A IAC, RENAISSANCE WAY,
HALEWOOD, L24 9PL

Client Ref: B033528
Report Ref: GS-8397720
Grid Ref: 343878, 384367

Map Name: National Grid

Map date: 1962-1966

Scale: 1:1,250

Printed at: 1:2,000



Surveyed 1953
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Edition N/A
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Surveyed 1953
Revised 1964
Edition N/A
Copyright 1965
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Surveyed 1953
Revised 1961
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Copyright 1962
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Surveyed 1953
Revised 1964
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HALEWOOD, L24 9PL

Client Ref: B033528
Report Ref: GS-8397720
Grid Ref: 343878, 384367

Map Name: National Grid

Map date: 1964-1968

Scale: 1:2,500

Printed at: 1:2,500



Surveyed 1962
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Edition N/A
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Levelled 1960

Surveyed 1967
Revised 1967
Edition N/A
Copyright 1968
Levelled 1960

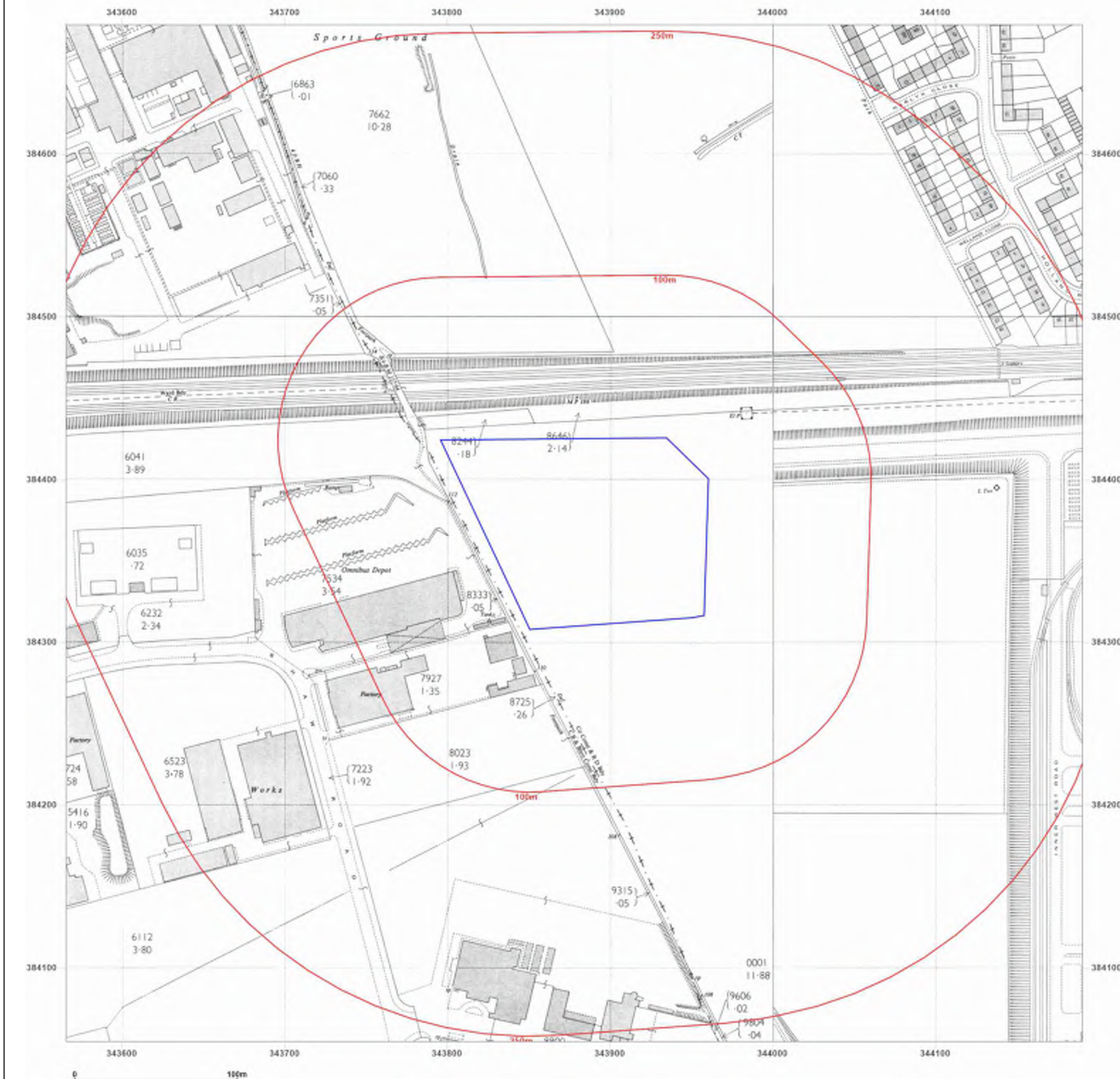


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Client Ref: B033528
Report Ref: GS-8397720
Grid Ref: 343878, 384367

Map Name: National Grid

Map date: 1971

Scale: 1:1,250

Printed at: 1:2,000



Surveyed 1953
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Edition N/A
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Revised 1971
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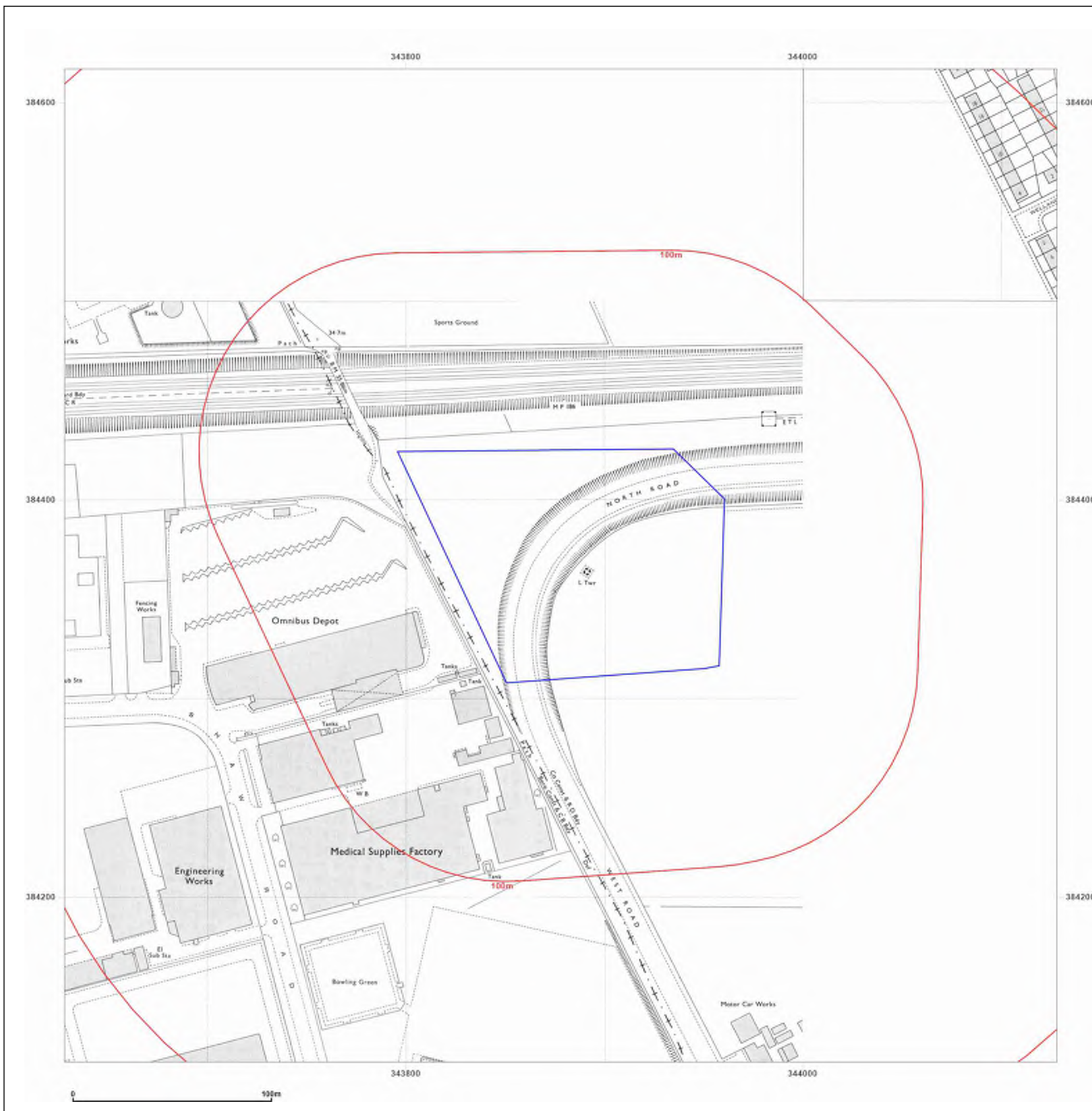


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HALEWOOD, L24 9PL

Client Ref: B033528
Report Ref: GS-8397720
Grid Ref: 343878, 384367

Map Name: National Grid

Map date: 1987-1992

Scale: 1:1,250

Printed at: 1:2,000



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Client Ref: B033528
Report Ref: GS-8397720
Grid Ref: 343878, 384367

Map Name: National Grid

Map date: 1993

Scale: 1:1,250

Printed at: 1:2,000



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Edition N/A
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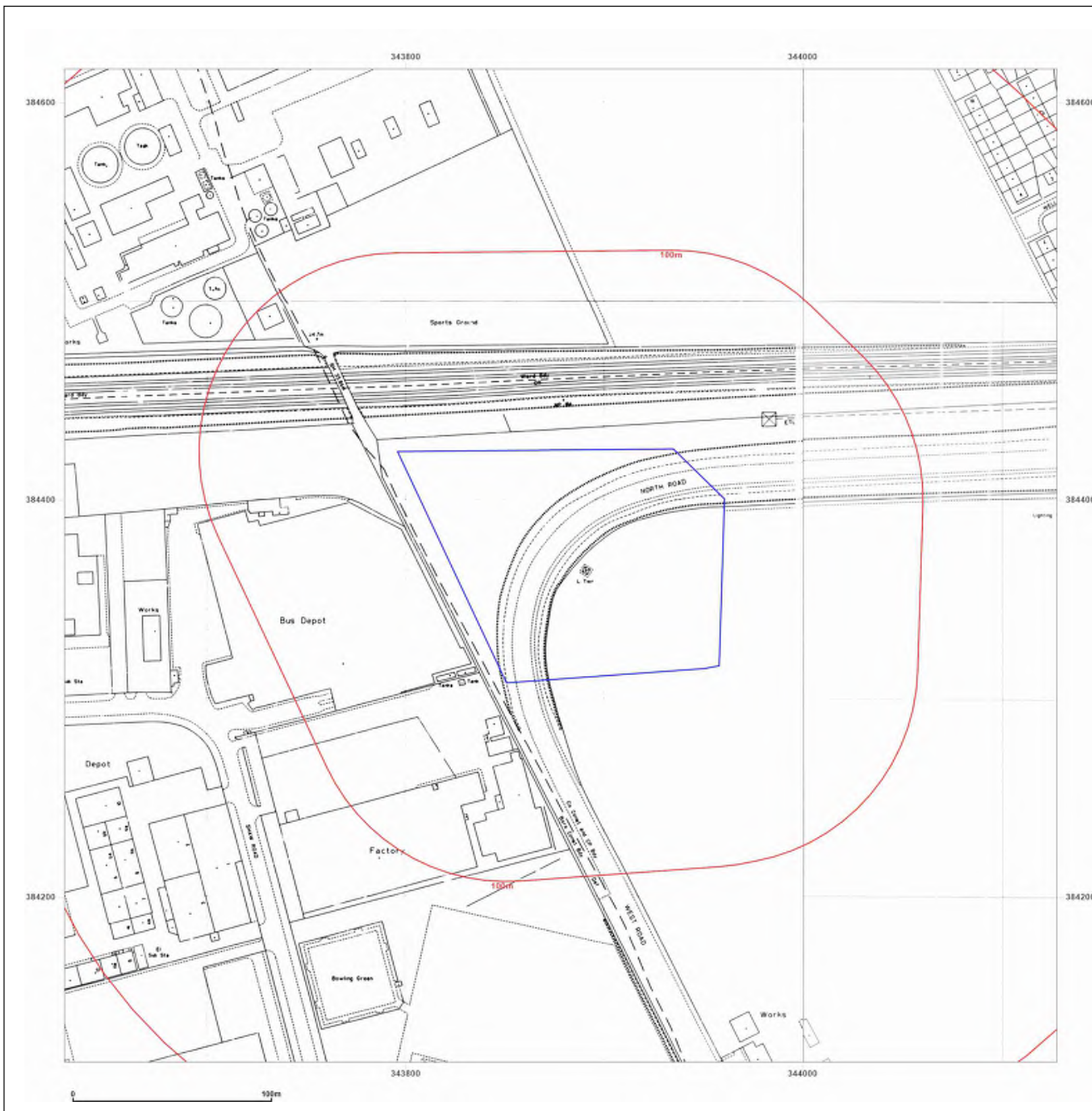


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Client Ref: B033528
Report Ref: GS-8397720
Grid Ref: 343878, 384367

Map Name: National Grid

Map date: 1993

Scale: 1:1,250

Printed at: 1:2,000



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Edition N/A
Copyright 1993
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Revised N/A
Edition N/A
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Revised N/A
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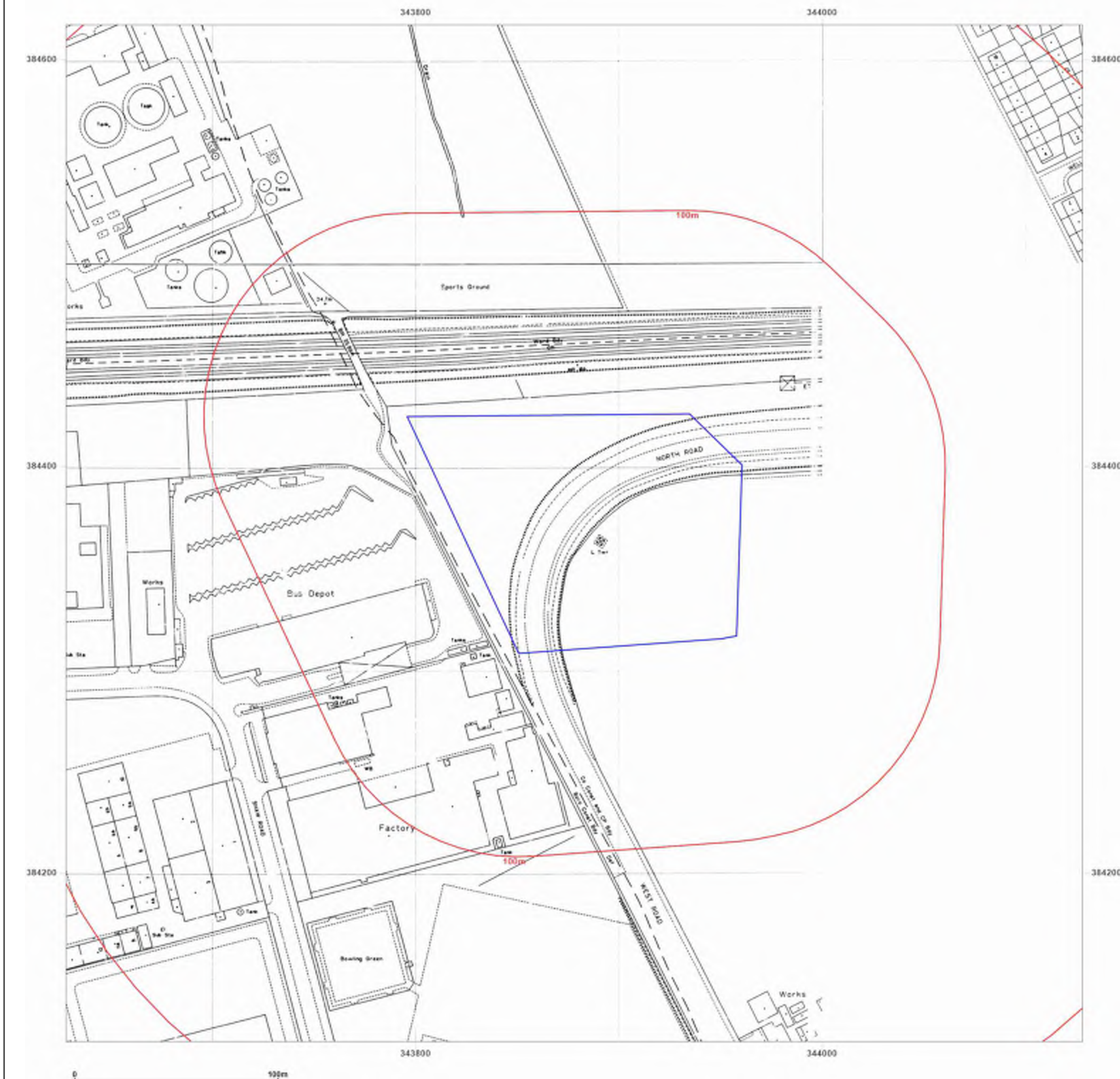


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Client Ref: B033528
Report Ref: GS-8397720
Grid Ref: 343878, 384367

Map Name: National Grid

Map date: 1993

Scale: 1:1,250

Printed at: 1:2,000



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Revised N/A
Edition N/A
Copyright 1993
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Revised N/A
Edition N/A
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Revised N/A
Edition N/A
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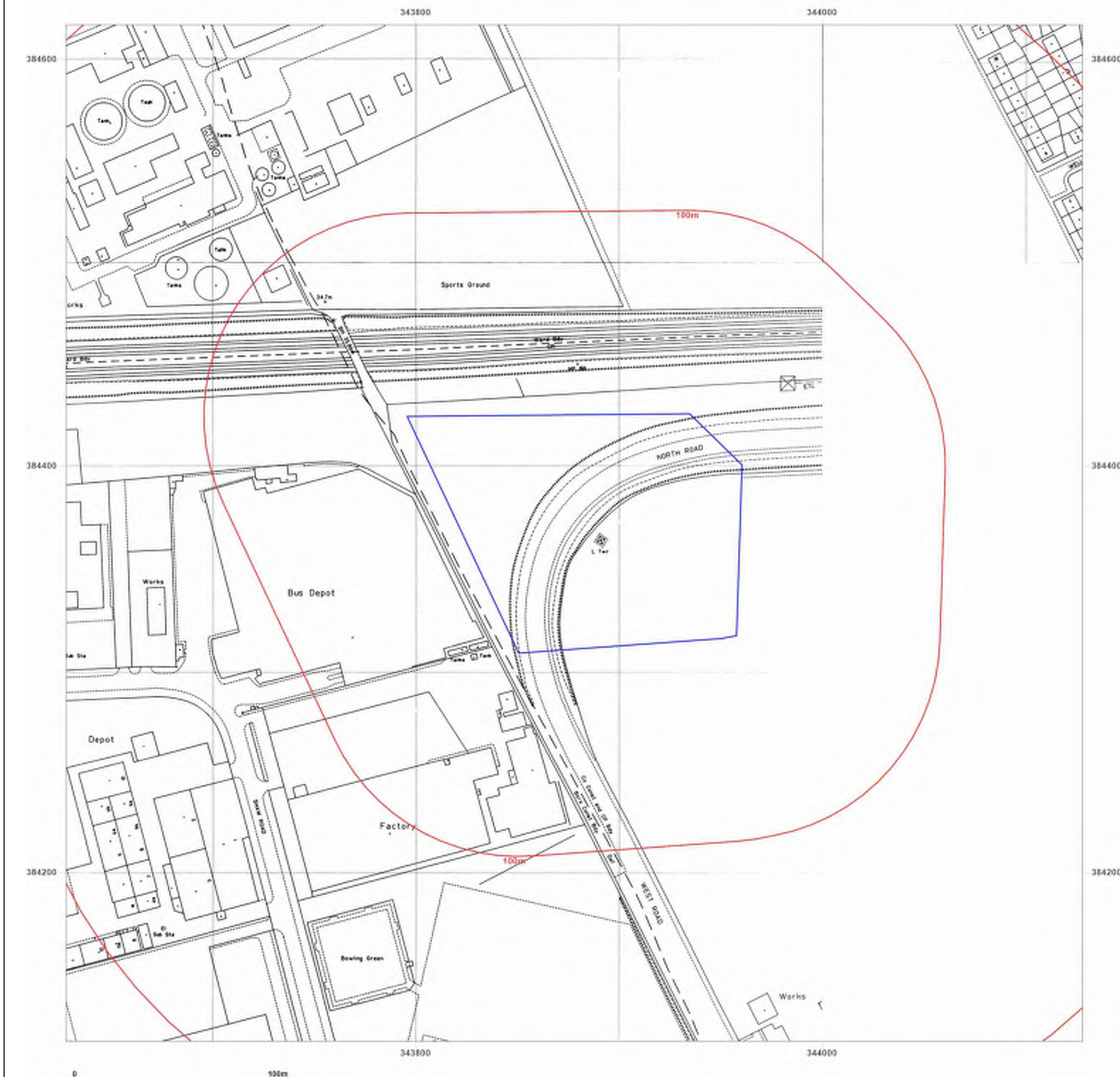


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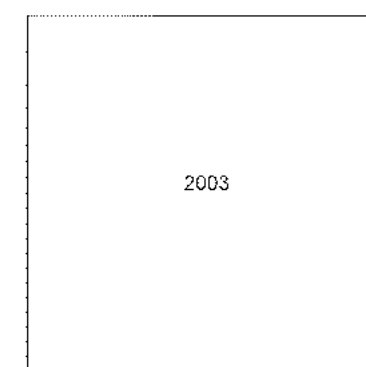
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Report Ref: GS-8397720
Grid Ref: 343878, 384367

Map Name: LandLine

Map date: 2003

Scale: 1:1,250

Printed at: 1:1,250

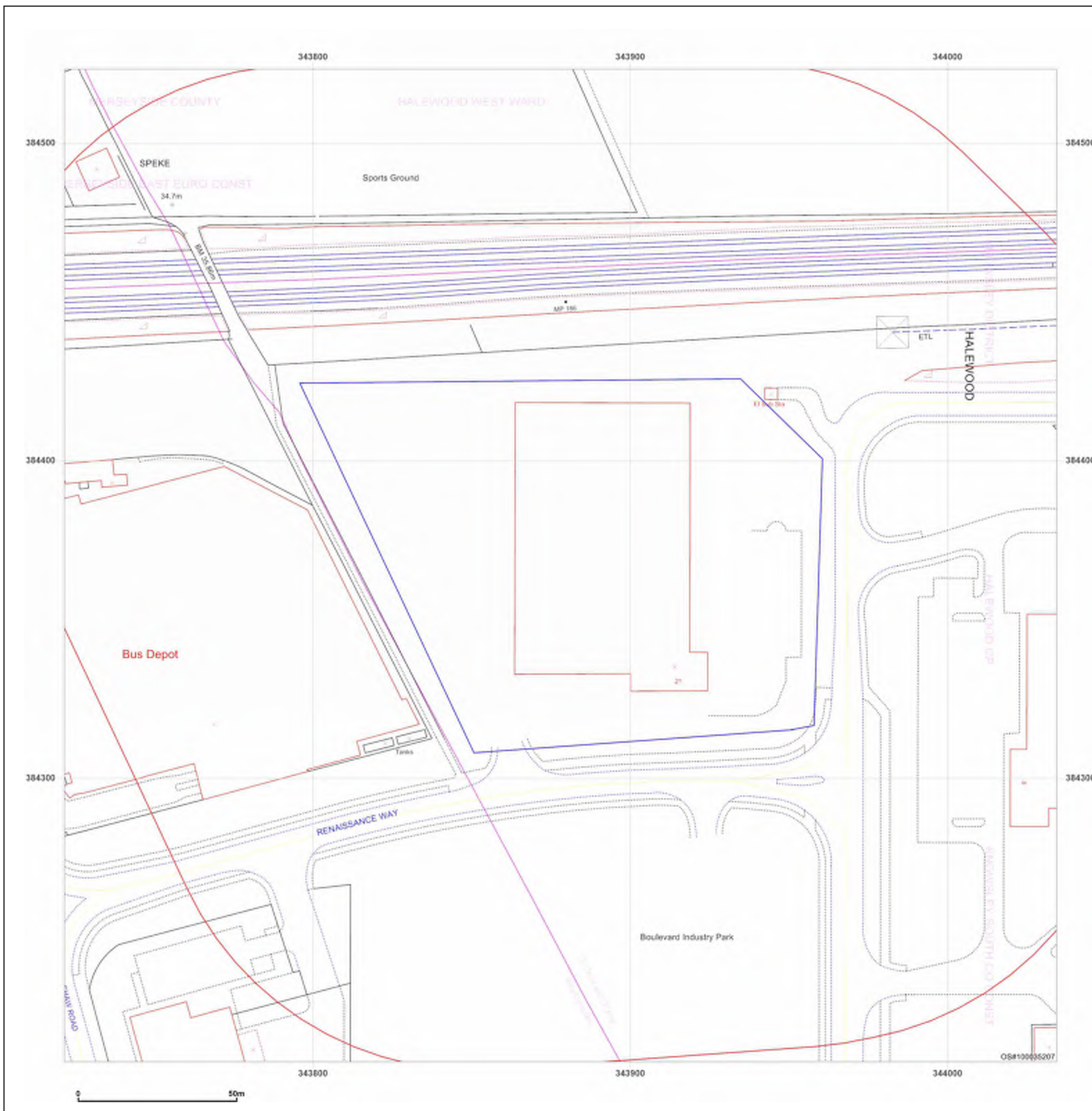


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HALEWOOD, L24 9PL

Client Ref: B033528
Report Ref: GS-8397720
Grid Ref: 343878, 384367

Map Name: County Series

Map date: 1849

Scale: 1:10,560

Printed at: 1:10,560



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

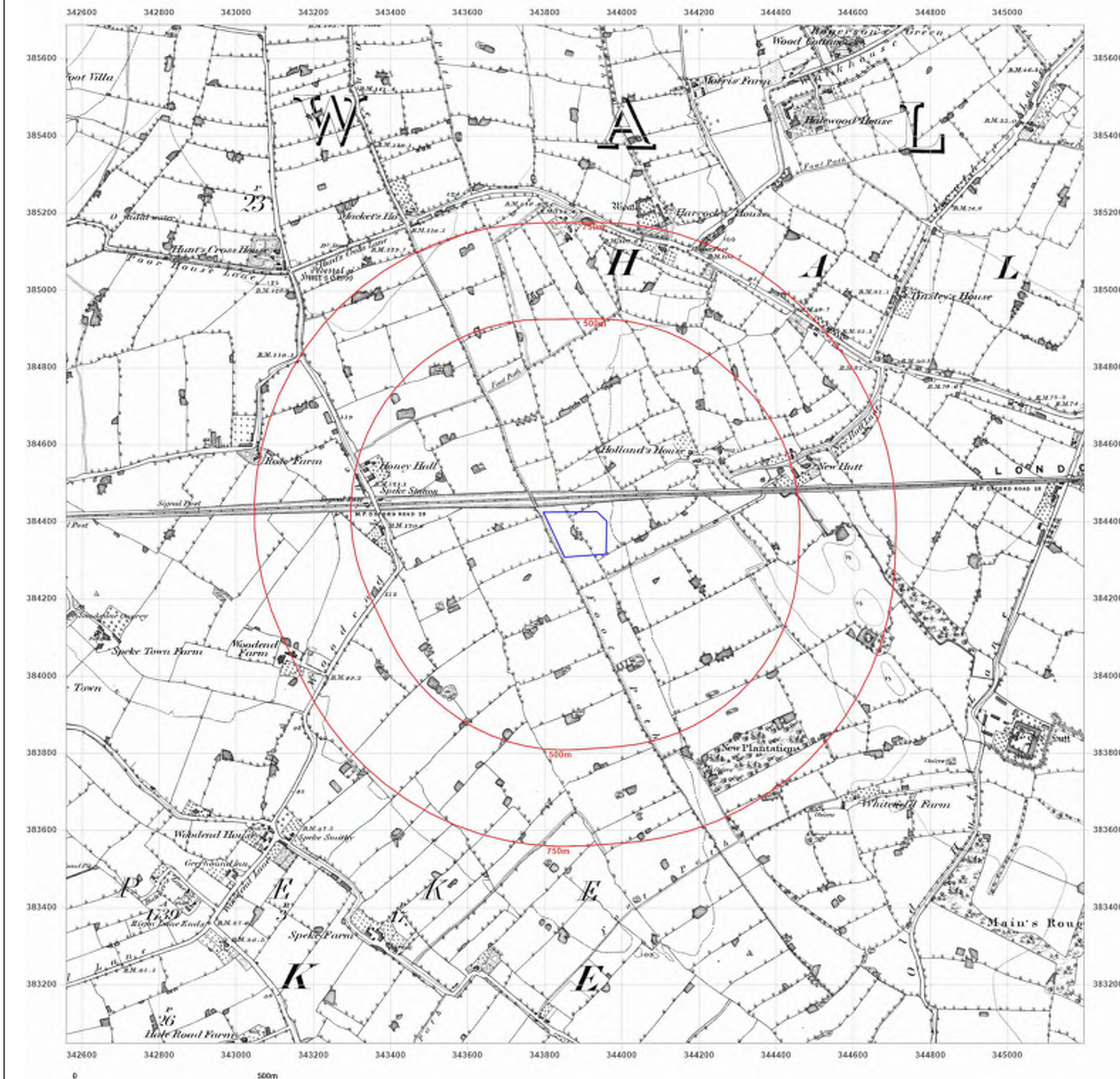


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Site Details:

1A IAC, RENAISSANCE WAY,
HALEWOOD, L24 9PL

Client Ref: B033528
Report Ref: GS-8397720
Grid Ref: 343878, 384367

Map Name: County Series

Map date: 1891

Scale: 1:10,560

Printed at: 1:10,560



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

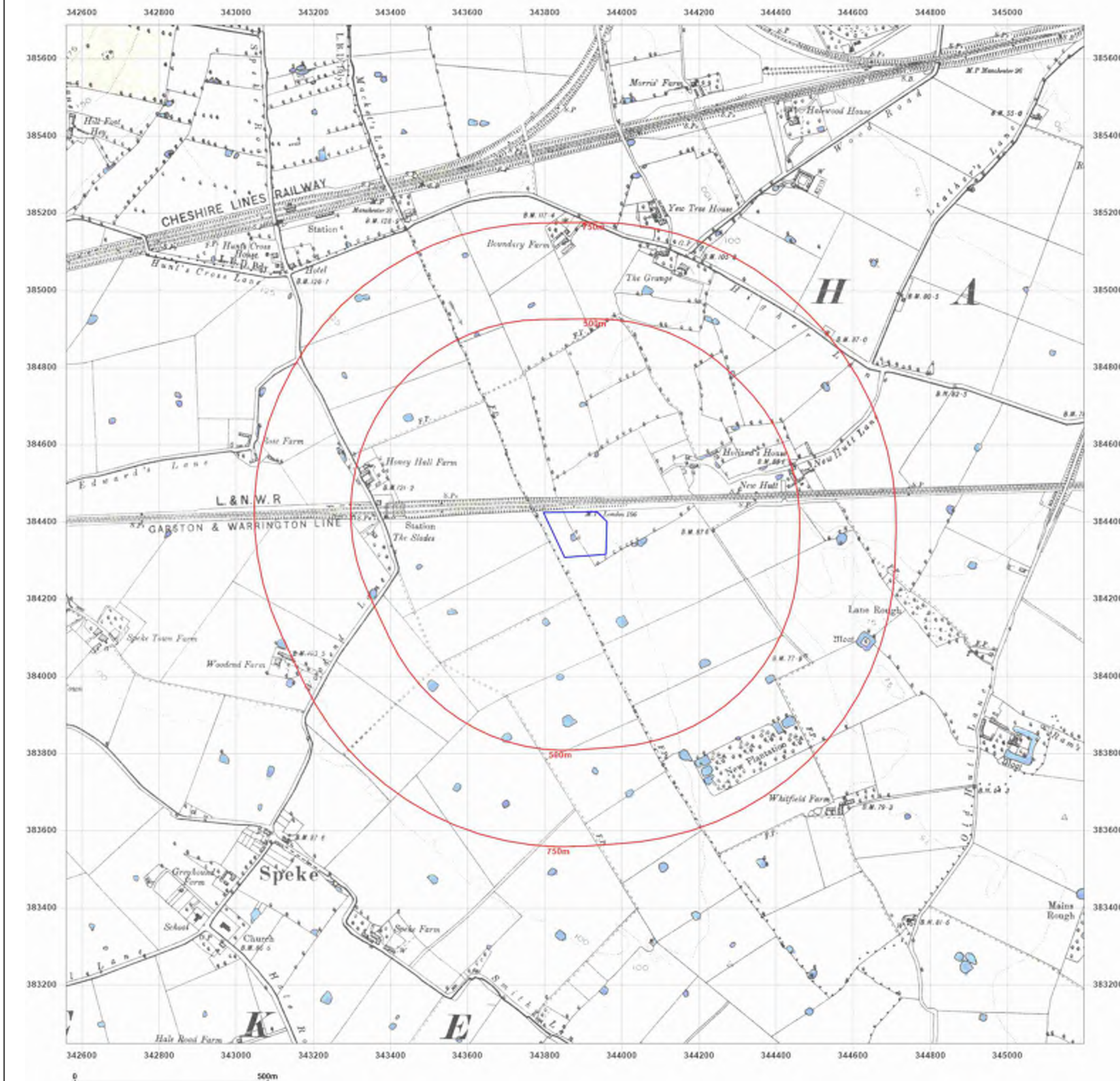


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Client Ref: B033528
Report Ref: GS-8397720
Grid Ref: 343878, 384367

Map Name: County Series

Map date: 1904

Scale: 1:10,560

Printed at: 1:10,560



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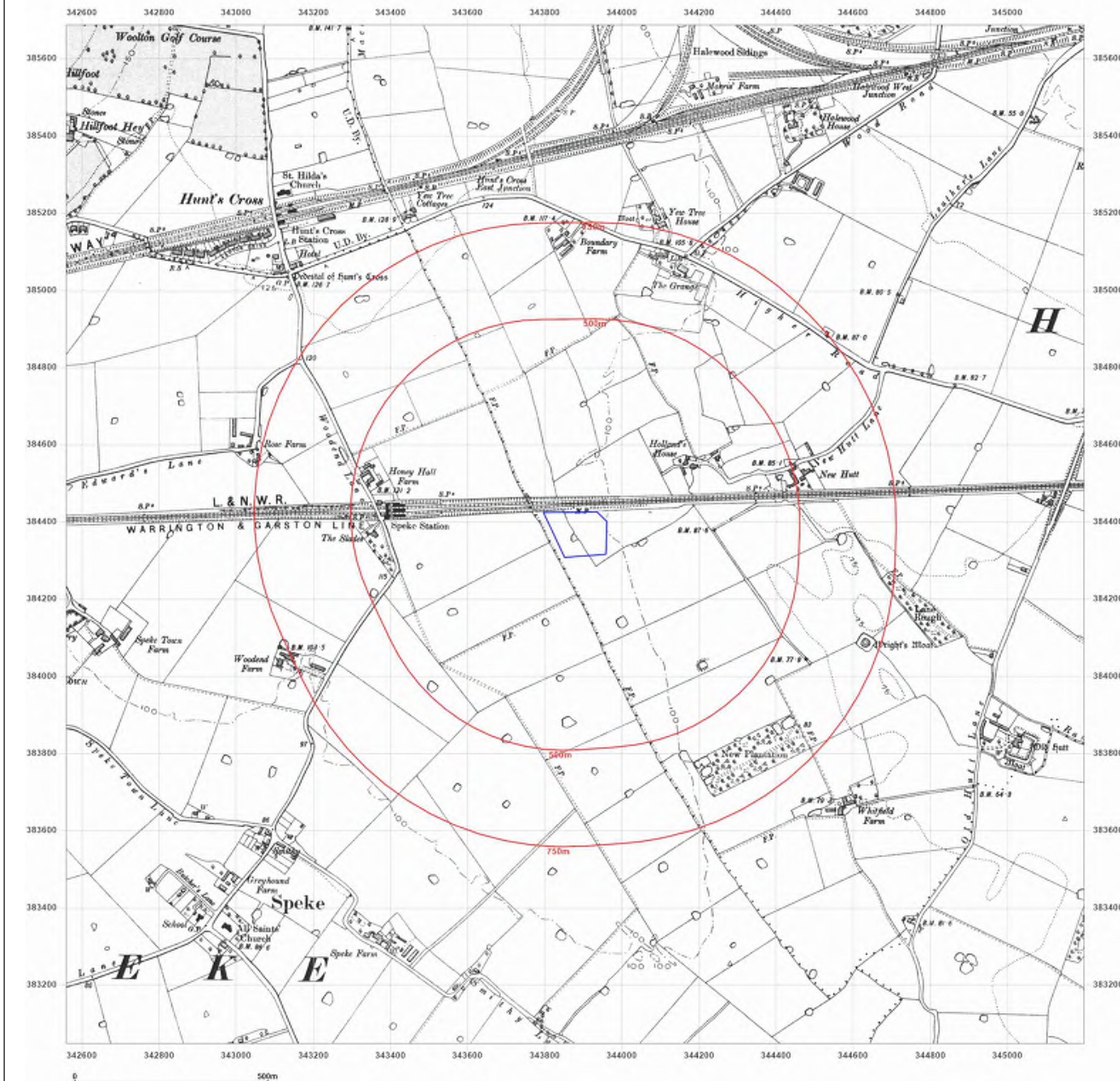


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HALEWOOD, L24 9PL

Client Ref: B033528
Report Ref: GS-8397720
Grid Ref: 343878, 384367

Map Name: County Series

Map date: 1925

Scale: 1:10,560

Printed at: 1:10,560



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

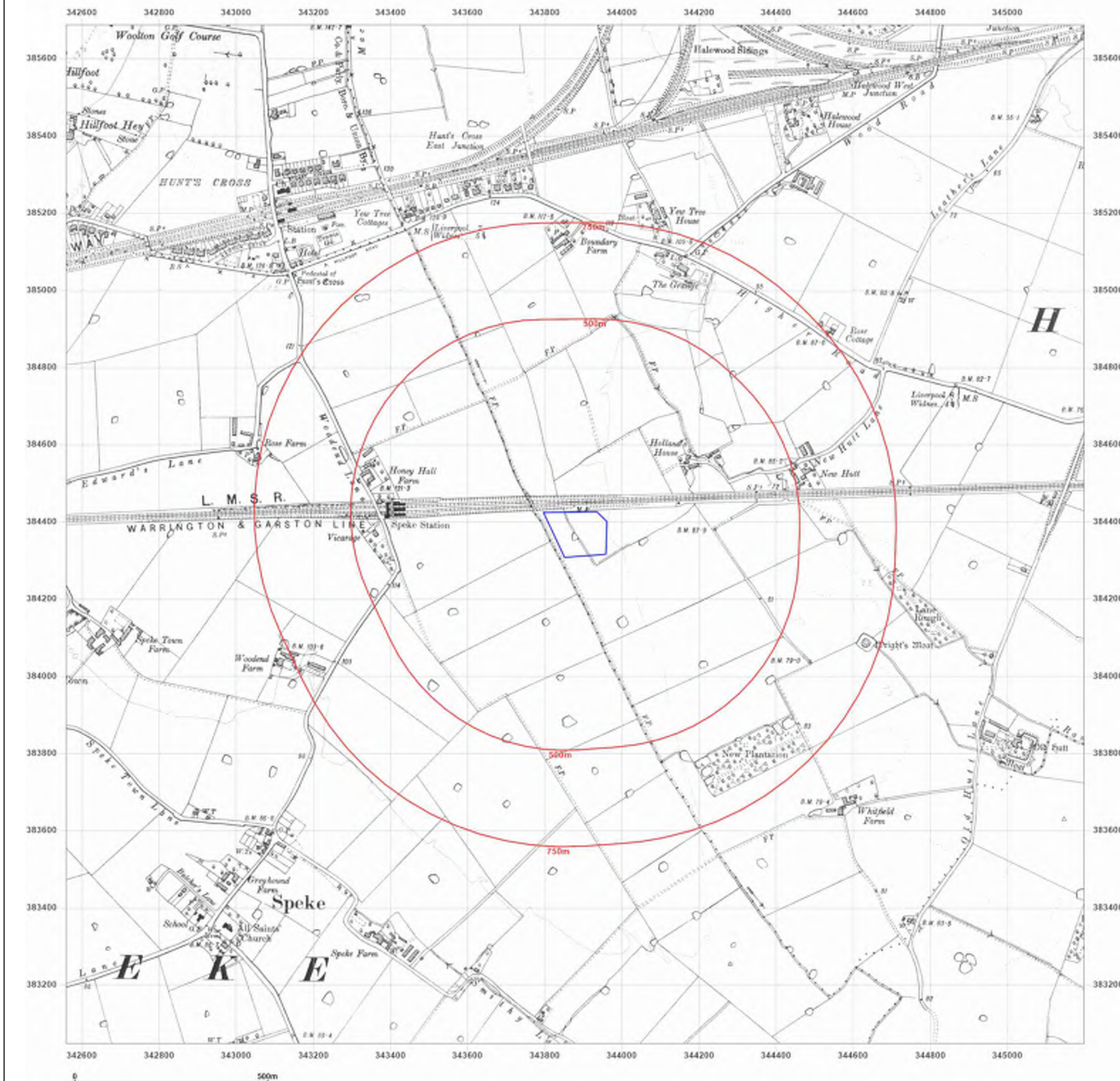


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Site Details:

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HALEWOOD, L24 9PL

Client Ref: B033528
Report Ref: GS-8397720
Grid Ref: 343878, 384367

Map Name: County Series

Map date: 1925

Scale: 1:10,560

Printed at: 1:10,560



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

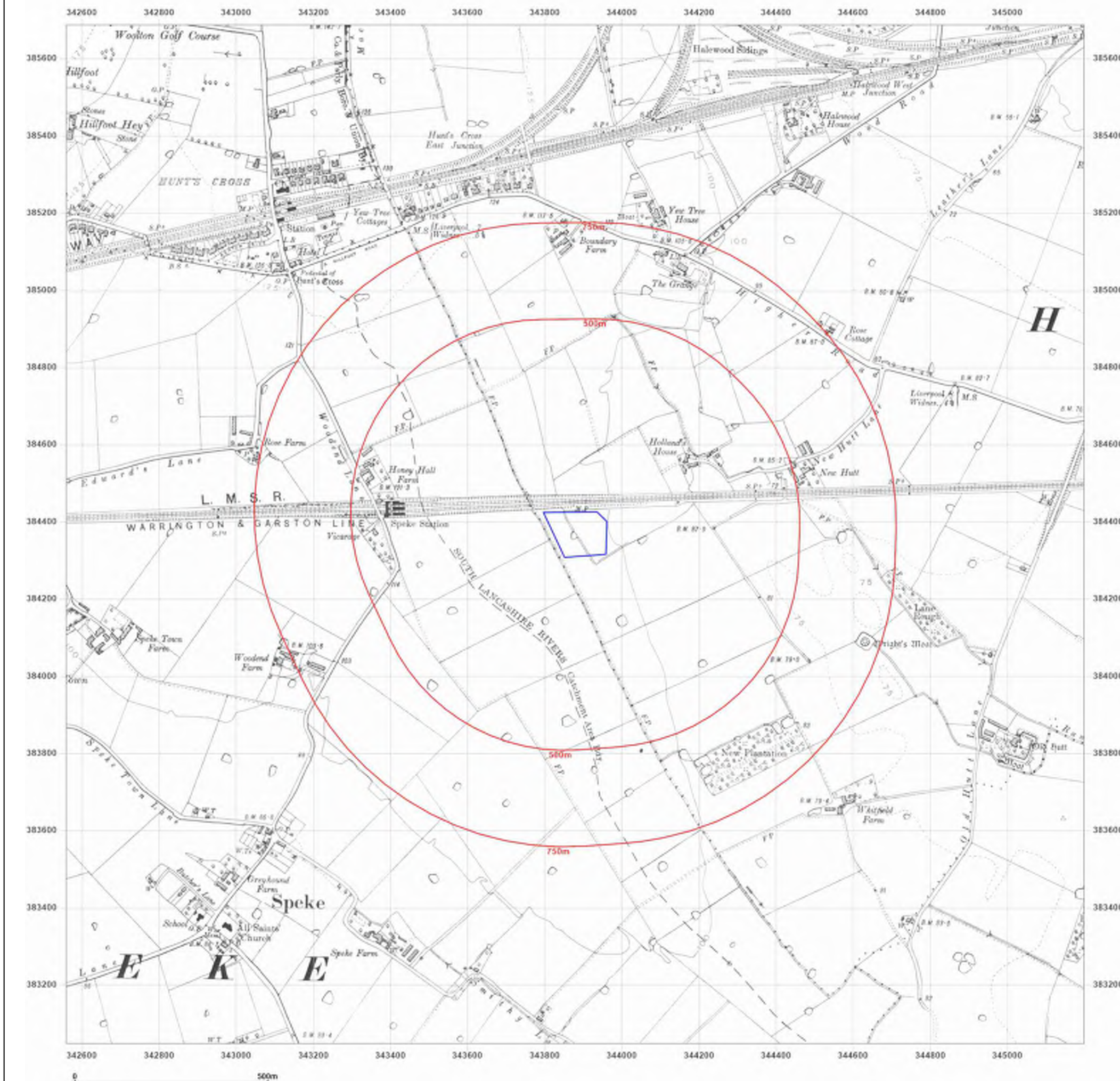


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Site Details:

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HALEWOOD, L24 9PL

Client Ref: B033528
Report Ref: GS-8397720
Grid Ref: 343878, 384367

Map Name: County Series

Map date: 1938

Scale: 1:10,560

Printed at: 1:10,560



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

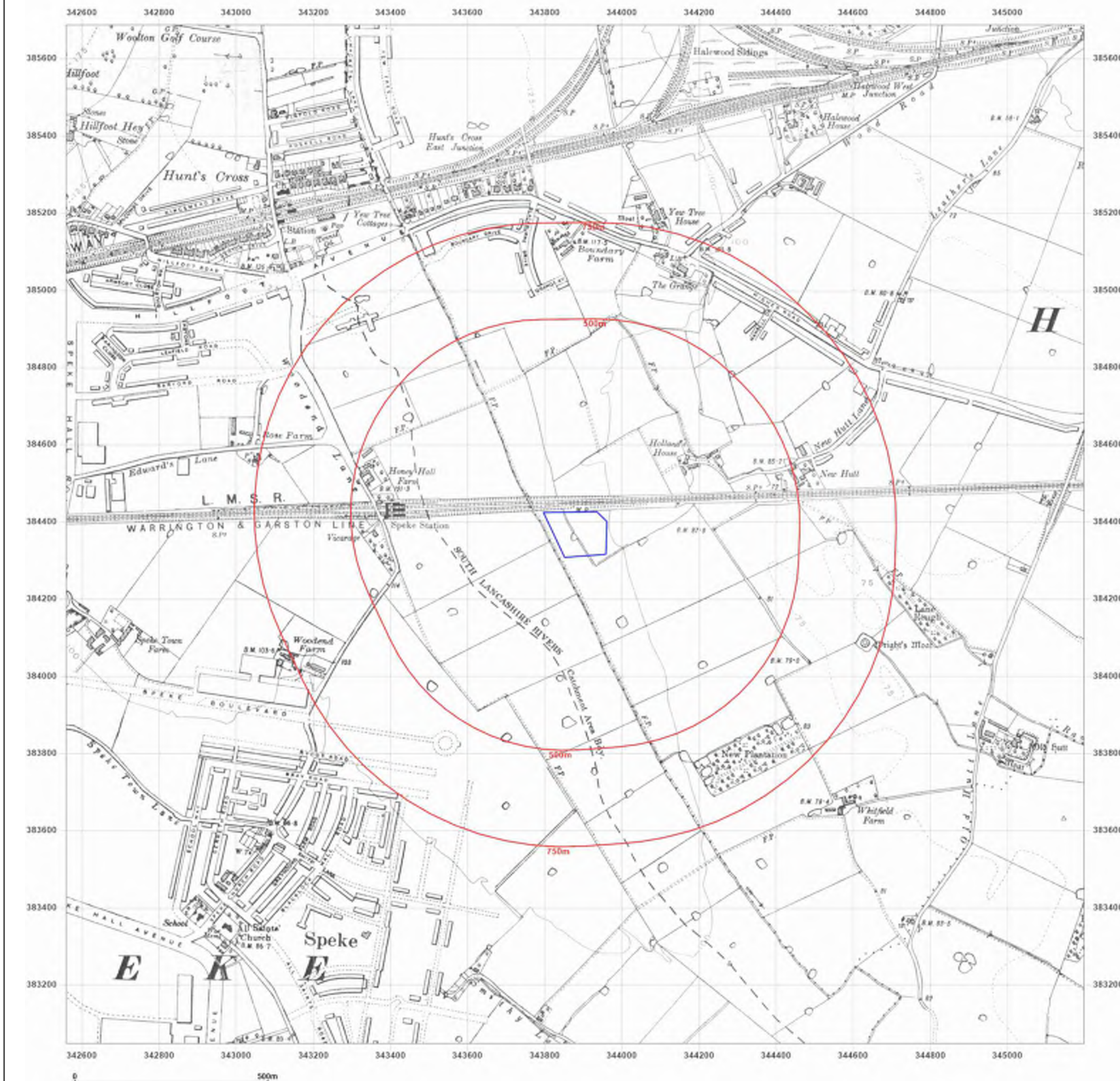


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HALEWOOD, L24 9PL

Client Ref: B033528
Report Ref: GS-8397720
Grid Ref: 343878, 384367

Map Name: County Series

Map date: 1938

Scale: 1:10,560

Printed at: 1:10,560



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

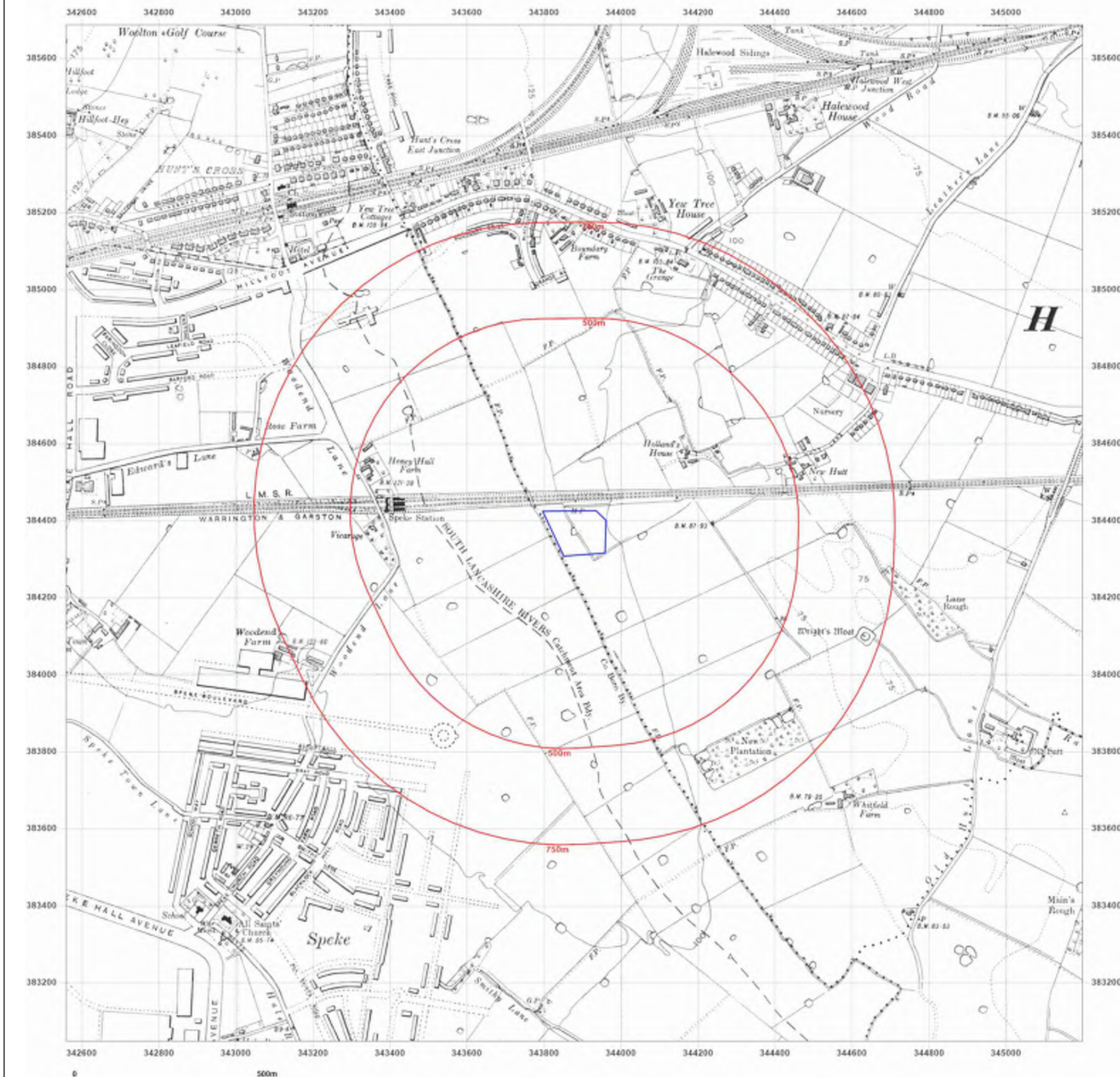


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Site Details:

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HALEWOOD, L24 9PL

Client Ref: B033528
Report Ref: GS-8397720
Grid Ref: 343878, 384367

Map Name: Provisional

Map date: 1954-1956

Scale: 1:10,560

Printed at: 1:10,560



Surveyed 1954
Revised 1955
Edition N/A
Copyright 1956
Levelled N/A

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

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

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

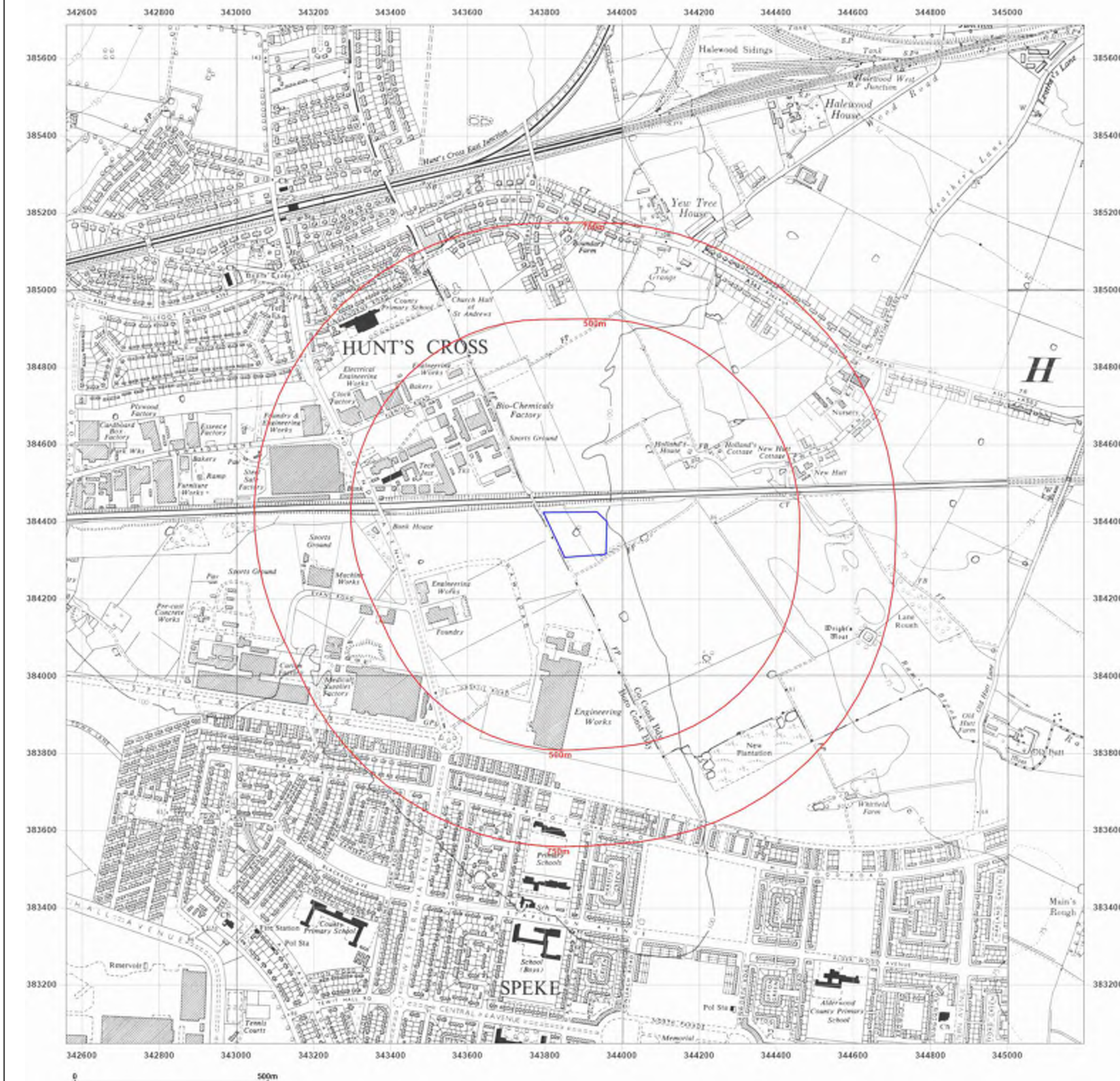


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Site Details:

1A IAC, RENAISSANCE WAY,
HALEWOOD, L24 9PL

Client Ref: B033528
Report Ref: GS-8397720
Grid Ref: 343878, 384367

Map Name: National Grid

Map date: 1980-1982

Scale: 1:10,000

Printed at: 1:10,000



Surveyed 1979
Revised 1980
Edition N/A
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Surveyed 1976
Revised 1980
Edition N/A
Copyright N/A
Levelled N/A

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

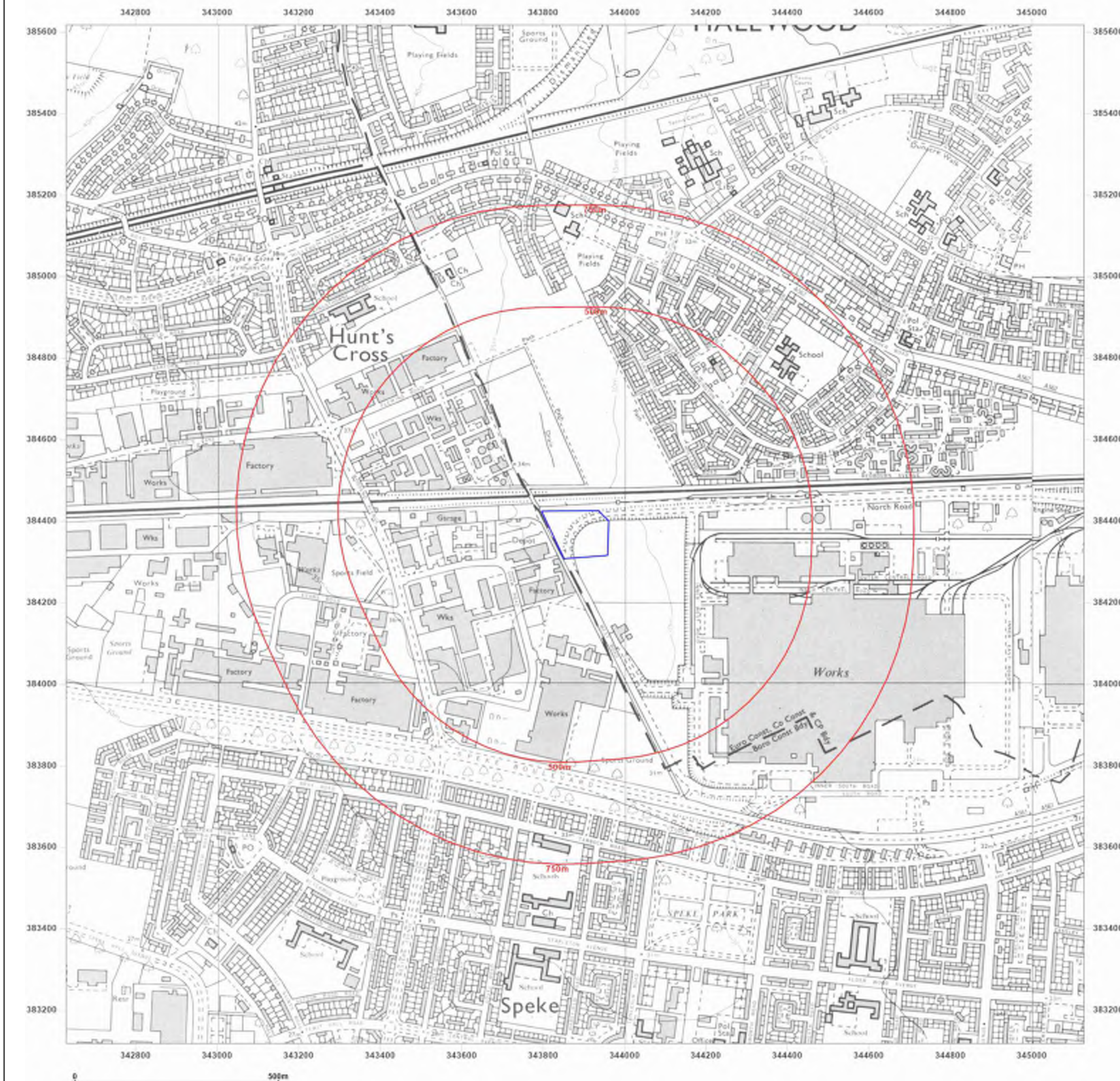


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Site Details:

1A IAC, RENAISSANCE WAY,
HALEWOOD, L24 9PL

Client Ref: B033528
Report Ref: GS-8397720
Grid Ref: 343878, 384367

Map Name: National Grid

Map date: 1989-1991

Scale: 1:10,000

Printed at: 1:10,000



Surveyed 1986
Revised 1989
Edition N/A
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Surveyed 1989
Revised 1991
Edition N/A
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Levelled N/A

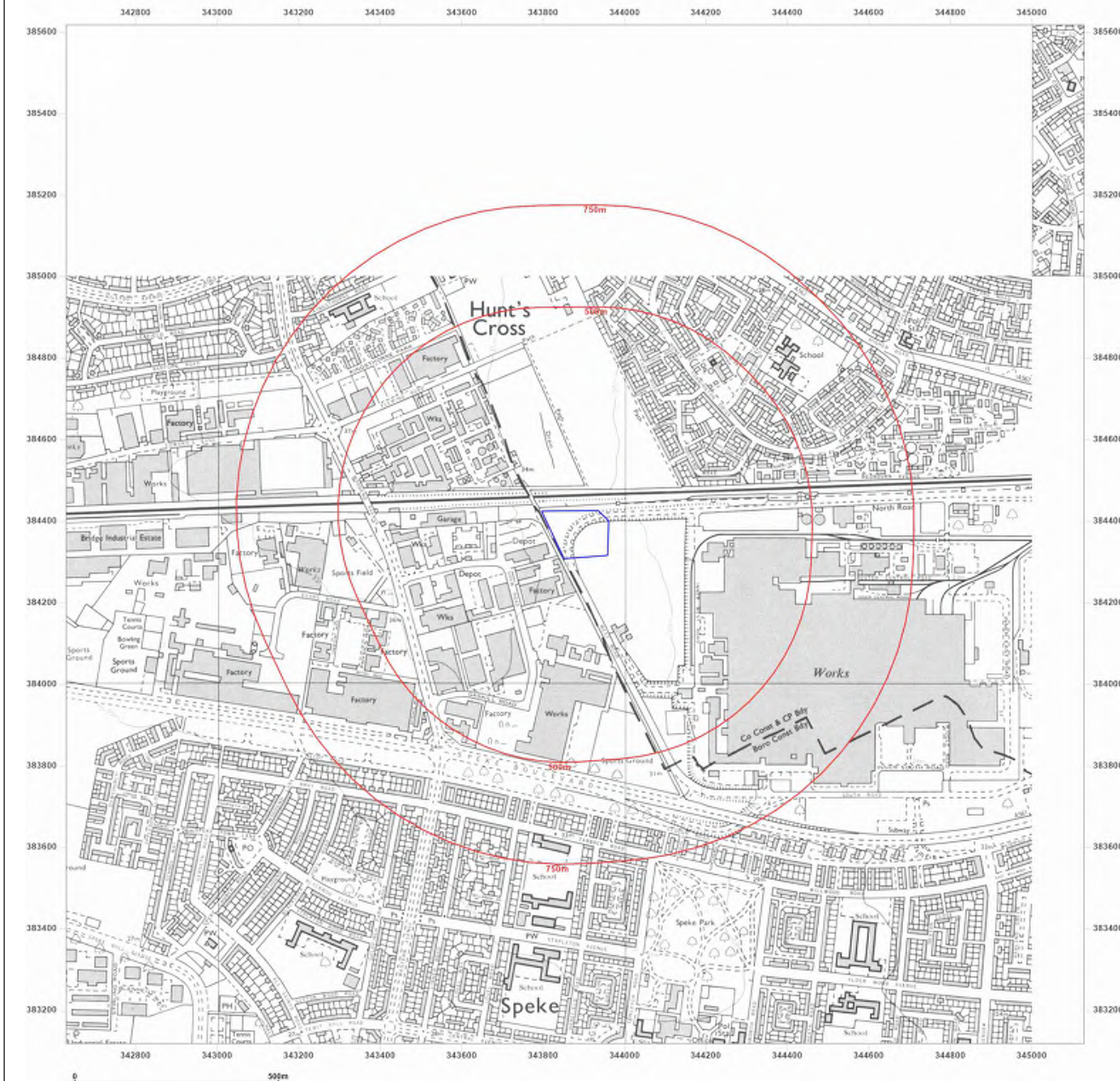


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Site Details:

1A IAC, RENAISSANCE WAY,
HALEWOOD, L24 9PL

Client Ref: B033528
Report Ref: GS-8397720
Grid Ref: 343878, 384367

Map Name: National Grid

Map date: 2001

Scale: 1:10,000

Printed at: 1:10,000



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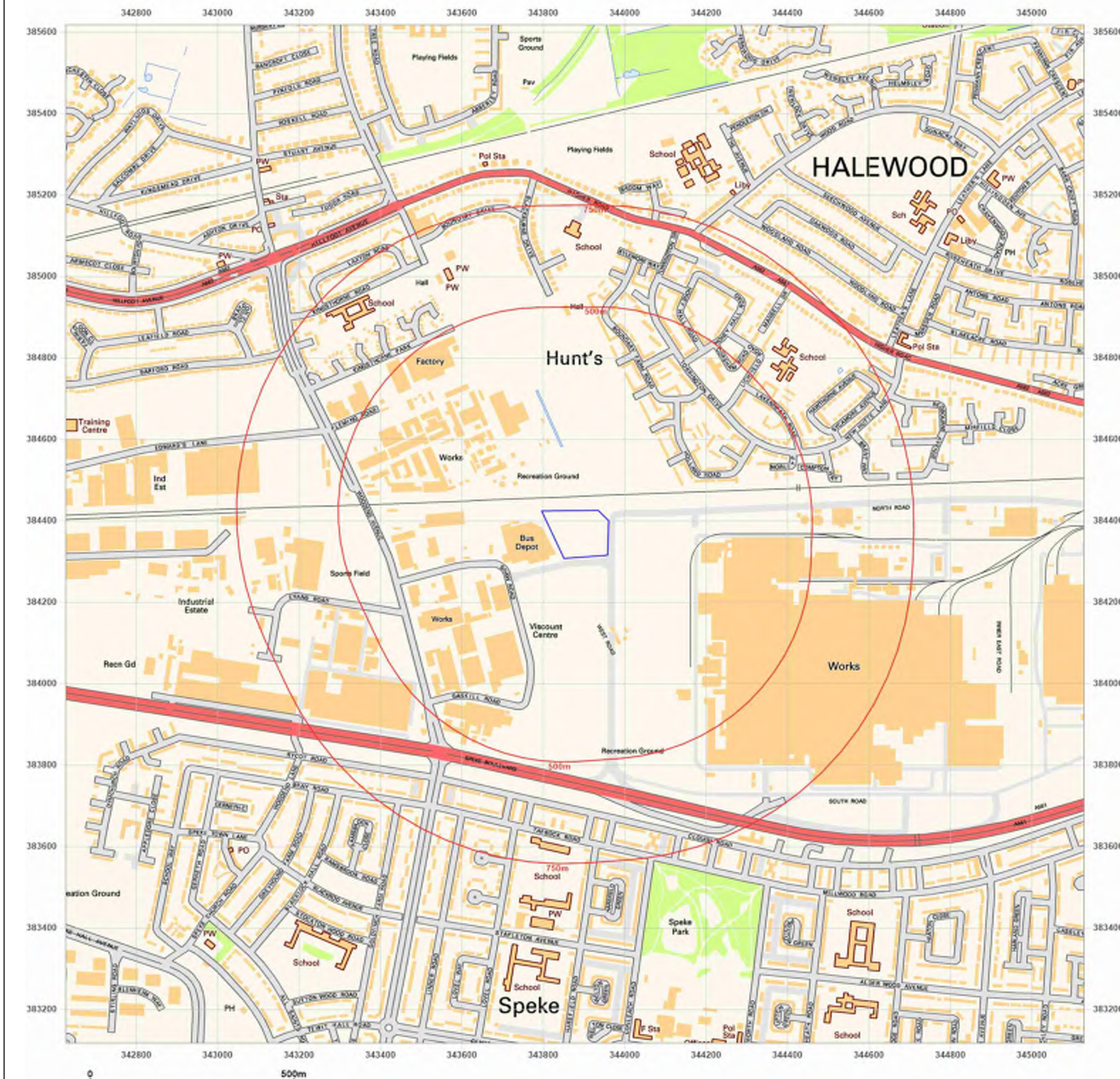


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Site Details:

1A IAC, RENAISSANCE WAY,
HALEWOOD, L24 9PL

Client Ref: B033528
Report Ref: GS-8397720
Grid Ref: 343878, 384367

Map Name: National Grid

Map date: 2010

Scale: 1:10,000

Printed at: 1:10,000



2010

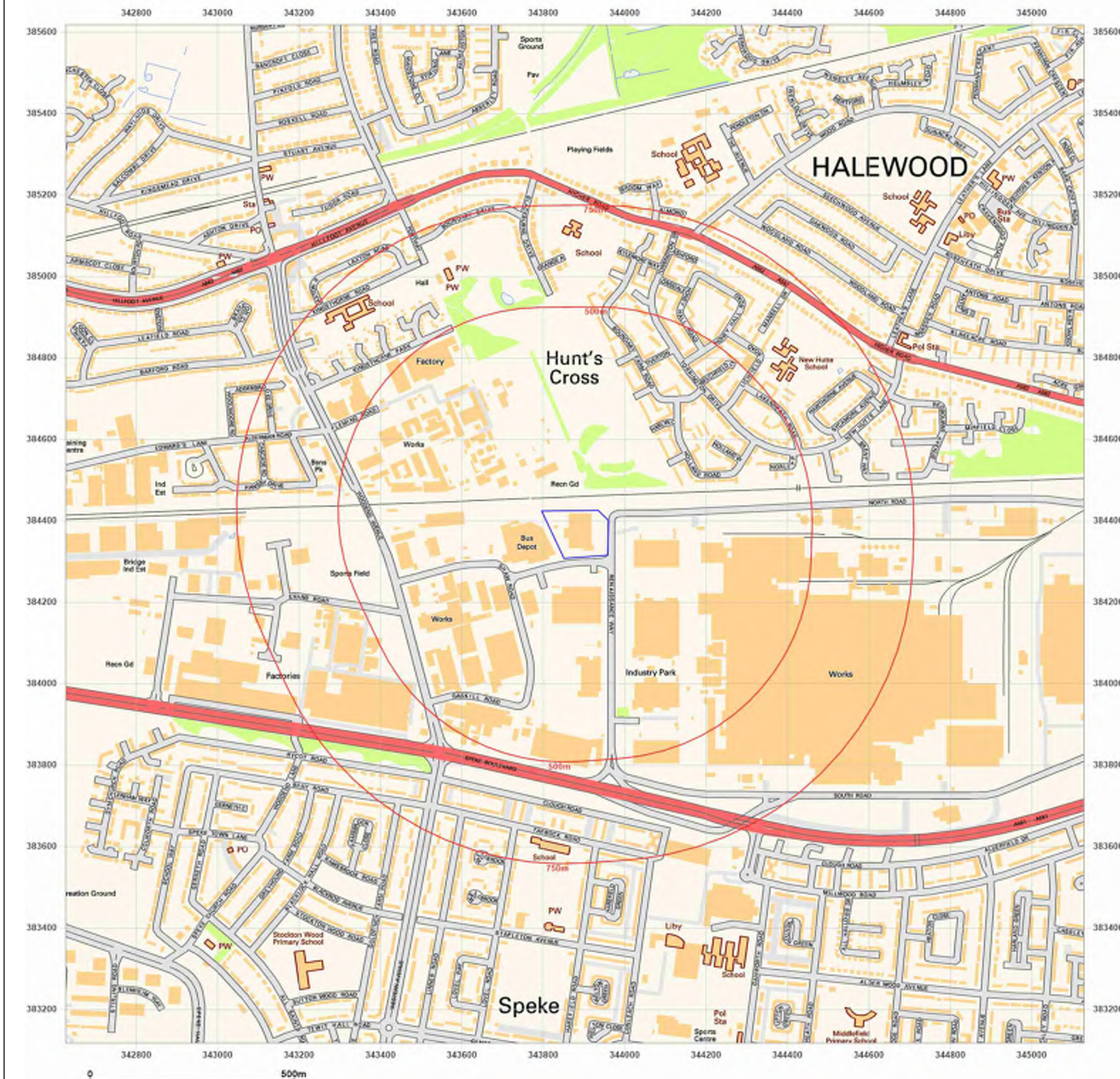


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Site Details:

1A IAC, RENAISSANCE WAY,
HALEWOOD, L24 9PL

Client Ref: B033528
Report Ref: GS-8397720
Grid Ref: 343878, 384367

Map Name: National Grid

Map date: 2021

Scale: 1:10,000

Printed at: 1:10,000



2021

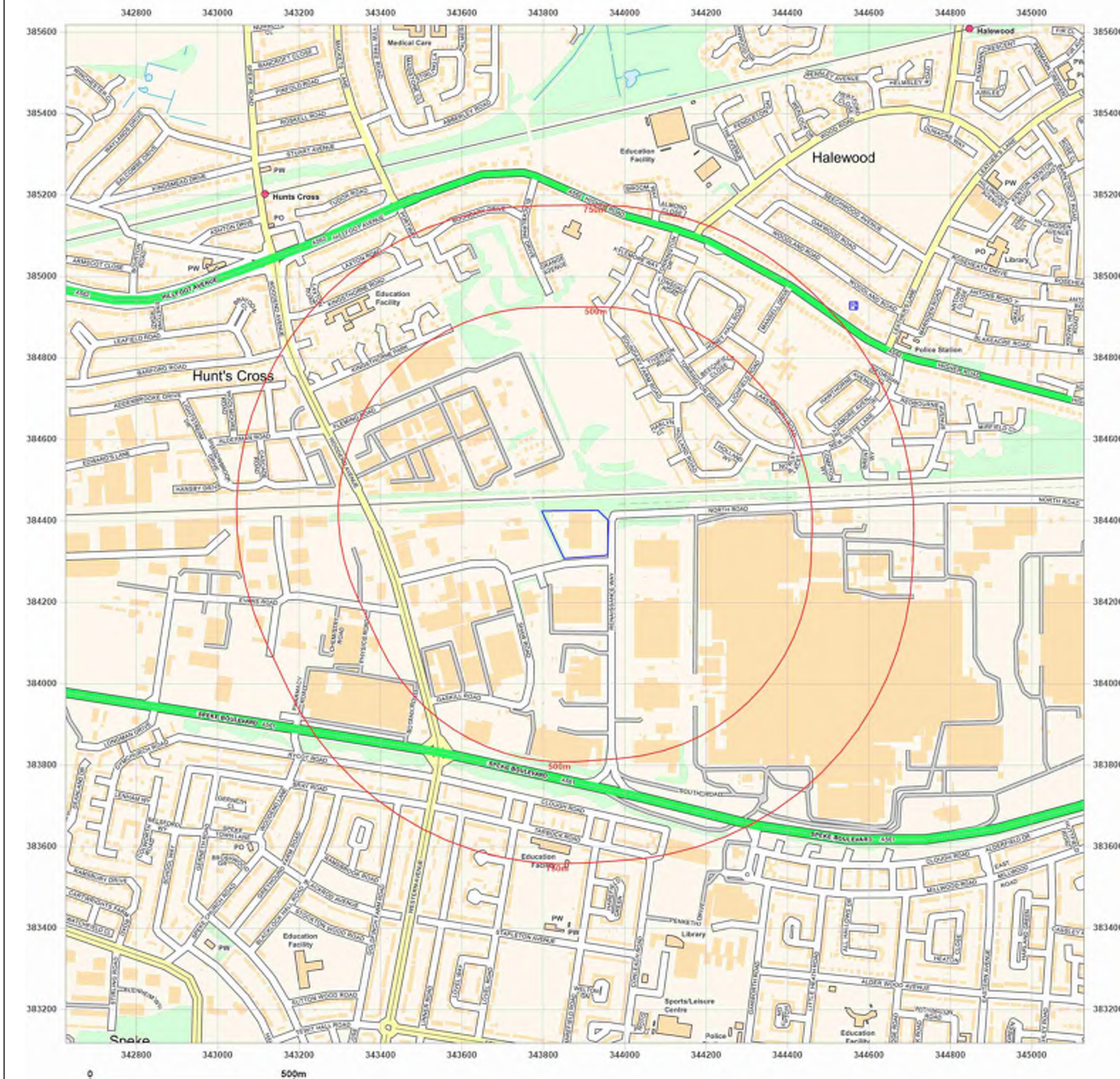


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APPENDIX D – UNEXPLODED ORDNANCE (UXO)



Pre-Desk Study Assessment

Site:	1a Renaissance Way, Speke, Merseyside
Client:	Tetra Tech
Contact:	Nicholas Brook
Date:	16 th November 2021
Pre-WWI Military Activity on or Affecting the Site	None identified.
WWI Military Activity on or Affecting the Site	None identified.
WWI Strategic Targets (within 5km of Site)	The following strategic targets were located in the vicinity of the Site: ■ Liverpool Docks, and associated warehouses and shipbuilding yards. ■ Transport infrastructure and public utilities. ■ Industries important to the war effort, including metal works.
WWI Bombing	None identified on the Site.
Interwar Military Activity on or Affecting the Site	None identified.
WWII Military Activity on or Affecting the Site	None identified.
WWII Strategic Targets (within 5km of Site)	The following strategic targets were located in the vicinity of the Site: ■ Liverpool Docks, and associated warehouses and shipbuilding yards. ■ Transport infrastructure and public utilities. ■ Industries important to the war effort, including aircraft manufacturing and metal works. ■ Royal Air Force (RAF) Speke ■ Military barracks. ■ Anti-Aircraft (AA) and anti-invasion defences.
WWII Bombing Decoys (within 5km of Site)	None.
WWII Bombing	During WWII the Site was located in the Rural District (RD) of Whiston, the adjacent to the County Borough (CB) of Liverpool.

	Whiston RD officially recorded 280No. High Explosive (HE) bombs with a bombing density of 9.5 bombs per 405 ha. Liverpool CB officially recorded 2,499No. HE bombs with a bombing density of 91.5 bombs per 405ha. The heaviest Liverpool bombing occurred during the 'May Blitz' in 1941 when 870 tonnes of HE bombs and over 112,000No. Incendiary Bombs (IBs) fell across the region. Bombing in Liverpool was concentrated on the city centre and the docks, more than 8km from the Site. No readily available records have been found to indicate that the Site was bombed.
Post-WWII Military Activity on or Affecting the Site	None identified.
Recommendation	A detailed desk study, whilst always prudent, is not considered essential in this instance.
Further information	For information about Zetica's detailed UXO desk studies and other UXO services, please visit our website: www.zeticauxo.com. Details and downloadable resources covering the most common sources of UXO hazard affecting sites in the UK can be found here. If you have any further queries, please don't hesitate to get in contact with us at uxo@zetica.com or 01993 886 682.
This summary is based on a cursory review of readily available records. Caution is advised if you plan to action work based on this summary. It should be noted that where a potentially significant source of UXO hazard has been identified on the Site, the requirement for a detailed desk study and risk assessment has been confirmed and no further research will be undertaken at this stage. It is possible that further in-depth research as part of a detailed UXO desk study and risk assessment may identify other potential sources of UXO hazard on the Site.	

APPENDIX E – CIRIA C552 RISK METHODOLOGY

The following tables are derived from CIRIA C552 and have been used to define the risk rating presented in the Qualitative Risk Assessment matrix.

Classification of consequence

Classification	Definition
Severe	Short term (acute) risk to human health likely to result in 'significant harm' as defined by the Environment Protection Act 1990, Part IIA. Short term risk of pollution (note; Water Resources Act contains no scope for considering significant pollution) of sensitive water resource. Catastrophic damage to building/property. A short-term risk to a particular ecosystem, or organism forming part of such ecosystem. (Note the definitions of ecological systems within the Draft Circular on Contaminated Land DETR, 2000).
Medium	Chronic damage to human health ('significant harm', as defined In DETR, 2000). Pollution of sensitive water resources (note; Water Resources Act contains no scope for considering significant pollution). A significant change in a particular ecosystem, or an organism forming part of such an ecosystem. (Note the definitions of ecological systems within the Draft Circular on Contaminated Land DETR, 2000).
Mild	Pollution of non-sensitive water resources. Significant damage to crops, buildings, structures and services ('significant harm', as defined In DETR, 2000). Damage to sensitive buildings/structures/services or the environment.
Minor	Harm, although not necessarily significant harm, which may result in a financial loss, or expenditure to resolve. Non-permanent health effects to human health (easily prevented by means such as personal protective clothing etc). Easily repairable effects of damage to buildings, structures and services.

Classification of probability

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

Matrix of consequence against probability to gain a risk classification

		Consequence			
		Severe	Medium	Mild	Minor
Probability	High Likelihood	Very High Risk	High Risk	Moderate Risk	Moderate/Low Risk
	Likely	High Risk	Moderate Risk	Moderate/Low Risk	Low Risk
	Low likelihood	Moderate Risk	Moderate/Low Risk	Low Risk	Very Low Risk
	Unlikely	Moderate/Low Risk	Low Risk	Very Low Risk	Very Low Risk