

OAK ROAD, WREXHAM

Report No F9042-19/1

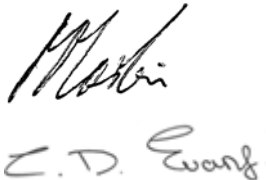
VOLUME 01: PHASE 1 REPORT : DESK STUDY AND SITE RECONNAISSANCE

June 2020

Issue No 01

Carried out for:
Conrad Energy Limited
Units D and E, Windrush Court
Blacklands Way
Abingdon
OX14 1SY

Report No F9042-19/1

ISSUE No DATE	STATUS	PREPARED BY	CHECKED BY	APPROVED BY
1 Sept 2019	Draft report	NAME and QUALIFICATIONS Melody Wareing BSc FGS	NAME and QUALIFICATIONS Miles Martin BSc MSc MIScT CGeol EurGeol FGS Chris Evans BSc Hons MSc	NAME and QUALIFICATIONS Miles Martin BSc MSc MIScT CGeol EurGeol FGS
		SIGNATURE 	SIGNATURE 	SIGNATURE 
1 June 2020	Final report	NAME and QUALIFICATIONS Melody Wareing BSc FGS	NAME and QUALIFICATIONS Miles Martin BSc MSc MIScT CGeol EurGeol FGS	NAME and QUALIFICATIONS Miles Martin BSc MSc MIScT CGeol EurGeol FGS
		SIGNATURE 	SIGNATURE 	SIGNATURE 

This Report has been prepared by SOCOTEC UK Limited ("SOCOTEC") with all reasonable skill and care, within the terms and conditions of the contract between SOCOTEC and the Client ("Contract") and within the limitations of the resources devoted to it by agreement with the Client.

This Report shall not be used for engineering or contractual purposes unless the Report status is 'Final' and signed by the author, checker and the approver for and on behalf of SOCOTEC.

Whilst every effort has been made to ensure the accuracy of the data supplied and any analysis interpretation derived from it, the possibility exists of variations in the ground and groundwater conditions around and between the exploratory positions. SOCOTEC shall not be liable for any use of the Report for any purpose other than that for which it was originally prepared. No liability can be accepted for any such variations in these conditions. Furthermore, any recommendations are specific to the development as detailed in this Report and no liability will be accepted should they be used for the design of alternative schemes without prior consultant with SOCOTEC.

This Report is confidential between the Client and SOCOTEC. Any reliance upon the Report is subject to the Contract terms and conditions.

SOCOTEC accepts no responsibility whatsoever to third parties to whom this document, or any part thereof, is made known. Any such party relies upon the Report at their own risk. The Contracts (Rights of Third Parties) Act 1999 does not apply to this Report nor the Contract and the provisions of the said Act are hereby excluded.

Unless specifically assigned or transferred within the terms and conditions of the Contract, SOCOTEC asserts and retains all Copyright and other Intellectual Property Rights in and over the Report and its contents. The Report may not be copied or reproduced, in whole or in part, without the written authorisation from SOCOTEC. SOCOTEC UK Limited was formerly known as Environmental Scientifics Group Limited. The Certificate of Incorporation on Change of Name was filed on 16 October 2017.

**SOCOTEC****REPORT STRUCTURE**

DATE	TITLE	REPORT No
June 2020	PHASE 1 REPORT: DESK STUDY AND SITE RECONNAISSANCE	F9042-19/1
June 2020	PHASE 2 REPORT : CONTAMINATED LAND ASSESSMENT FACTUAL AND INTERPRETATIVE REPORT	F9042-19/2
June 2020	PHASE 2 REPORT : GEOTECHNICAL ASSESSMENT FACTUAL AND INTERPRETATIVE REPORT	F9042-19/3

**C O N T E N T S**

Page

1	INTRODUCTION.....	1
2	SOURCES OF INFORMATION	1
3	SITE LOCATION AND DESCRIPTION	2
	3.1 Site Location.....	2
	3.2 Site Description and Reconnaissance.....	2
4	PROPOSED DEVELOPMENT	3
5	PHYSICAL AND HISTORICAL SETTING.....	4
	5.1 Historical Land Usage	4
	5.2 Published Geology	5
	5.3 Geological Hazards	6
	5.4 Ground Workings	6
	5.5 Mining, Extraction and Natural Cavities	6
	5.6 Hydrogeology and Groundwater Abstraction	6
	5.7 Hydrology, Flooding and Surface Water Abstraction	7
6	Ground Gas	8
	6.1 Radon.....	8
	6.2 Made Ground	8
	6.3 Landfill	8
	6.4 Archaeology / Ecology.....	8
	6.5 Utilities.....	8
	6.6 Unexploded Ordnance (UXO)	9
7	ENVIRONMENTAL SETTING	9
	7.1 Designated Environmentally Sensitive Sites	9
	7.2 Environmental Permits, Incidents and Registers Map.....	9
	7.3 Landfill and Other Waste Sites.....	11
	7.4 Current Land Uses	12
8	INITIAL CONCEPTUAL SITE MODEL.....	13
	8.1 General.....	13
	8.2 Potential Sources of Contamination	14
	8.3 Potential Migration Pathways	15
	8.4 Potential Receptors	15
	8.5 Summary	16
9	PRELIMINARY RISK ASSESSMENT	17
	9.1 Assessment of Environmental Risks Methodology	17
	9.2 Preliminary Risk Assessment.....	19
10	GEOTECHNICAL ASPECTS	21
	10.1 Anticipated Ground Model and Potential Hazards	21
	10.2 Possible Foundation Options	21
	10.3 Excavations	21
	10.4 Pavements / Hardstandings	21
	10.5 Drainage.....	21



11	CONCLUSIONS AND RECOMMENDATIONS	22
12	REFERENCES.....	23

APPENDIX A FIGURES AND DRAWINGS

APPENDIX B HISTORICAL ORDNANCE SURVEY MAP EXTRACTS

APPENDIX C GROUNDSURE ENVIROINSIGHT

APPENDIX D GROUNDSURE GEOINSIGHT

APPENDIX E WALKOVER SURVEY PHOTOGRAPHS



1 INTRODUCTION

SOCOTEC UK Limited was commissioned in August 2019 by Conrad Energy Limited (Conrad Energy), to carry out a Desk Study and Site Reconnaissance and contamination assessment at Oak Road, Wrexham. This was required to obtain geotechnical and geoenvironmental information for a proposed small scale flexible fuelled power generation project. The contamination assessment is preliminary to assist with the planning conditions. A geotechnical site investigation is pending approval.

This report comprises the desk study and has been prepared in accordance with British Standards BS 5930 (2015) and BS 10175:2011+A2 (2017) and all normative references, including Environment Agency guidance report CLR 11, *Model Procedures for the Management of Land Contamination*.

The desk study which incorporates a site reconnaissance (walkover survey), see Appendix E, presents and discusses the available data obtained for the site and surrounding area regarding its physical, historical and environmental setting. It identifies the potential issues at the site, develops an initial conceptual site model (CSM) for geoenvironmental considerations and provides an assessment of geotechnical aspects and other pertinent ground hazards that could affect the development.

The principal objective of this investigation and the context of the CSM developed within this report is to provide an assessment of potential significant risks in order to:

- conduct a Preliminary Contamination Risk Assessment.
- assess the potential requirements for further mitigation or investigation of land contamination risks to ensure that the proposed development will be 'suitable for use'.
- give an account of the anticipated ground conditions at the site based upon published geological and hydrogeological information.
- provide information for detailed scoping of intrusive investigations.

2 SOURCES OF INFORMATION

The following sources of information have been used in preparation of this report:



- Extracts of available historical Ordnance Survey (OS) maps covering the period from 1872 to 2014 which are presented in Appendix B.
- A GroundSure EnviroInsight (EnviroInsight report) produced by GroundSure for an area up to 1 km from the centre of the site which is reproduced in Appendix C. The EnviroInsight report is compiled from the database of information maintained by various statutory bodies listed within Appendix C.
- A GroundSure GeoInsight (GeoInsight report) produced by GroundSure for an area up to 1 km from the centre of the site which is reproduced in Appendix D. The GeoInsight report is compiled from the database of information maintained by various statutory bodies listed within Appendix D. It included a series of maps showing the approximate position of the listed data together with details on geology, ground workings, mining and extraction, borehole records and estimated background soil chemistry.
- The British Geological Survey (BGS) websites.
- A site walkover undertaken on 21 August 2019.

3 SITE LOCATION AND DESCRIPTION

3.1 Site Location

The site is located approximately 5 km east of Wrexham, to the south east of the Wrexham Industrial Estate, at National Grid reference SJ386495, see Site Location Plan in Appendix A.

3.2 Site Description and Reconnaissance

The notes made during the site walkover undertaken on 21 August 2019 together with photographs taken are presented in Appendix E.

The site comprises a roughly rectangular shaped plot covering an area of approximately 0.3 hectares [photo 2]. The ground surface was in the process of being cleared by a backhoe excavator and as such was primarily topsoil and small ground level plants. Some stockpiles of cleared vegetation was present within the site, including evidence that mature trees had been felled [photo 9 and 10]. From information provided by Conrad Energy the intention was to place all cleared vegetation along the eastern boundary once clearance was completed.



The site boundary comprised a wooden bar fence along the west and south, a palisade fence along the northern boundary and palisade fencing and mature trees on the east boundary [photo 1]. The site is bounded by Oak Road to the south, Abbey Road South to the west, and industrial units to the north and east.

The site is generally level, with a gully (approximately 1.5 m deep [photo 3]) running roughly north west –south east from a roughly central location towards the south east corner of the site. At the west end of the gully there is a concrete service chamber cover, with a pipe exit on the eastern side [photo 6]. A pipe entry is shown on the north bank of the gully [photo 5] several metres away and these may have once been a single pipe but are now no longer connected. A rusted drum is located on the north side of the concrete service chamber [photo 4]. No identifying marks were apparent to indicate origin.

An electrical overhead line (OHL) crosses the site from north to south in the eastern part of the site, with an OHL tower located on site.

4 PROPOSED DEVELOPMENT

From information and the most recent development plan provided by Conrad Energy it is understood that the proposed development will comprise a small scale flexible fuelled power generation project.

This will include but is not limited to the following:

- Gas engines
- Oil Tanks
- Amenity Buildings
- Gas Kiosk
- Ecological mitigation area along the route of the OHL across the site.

On the current version of the plan, WXM-GA-01 Rev E presented in Appendix A, all of the proposed development is on the west side of the OHL route.

5 PHYSICAL AND HISTORICAL SETTING

5.1 Historical Land Usage

The development of the site and surrounding area has been reviewed by reference to the historical maps and is summarised in Table 1 below.

TABLE 1 : SUMMARY OF SITE HISTORY

DATE AND MAP SCALE	ON SITE DEVELOPMENT	NEARBY DEVELOPMENT
1872 / 1873	The earliest maps reviewed record the site to be fields with an unnamed road running east to west central to the site area. A small pond is shown on the north west corner of the site.	The surrounding area generally comprises open land separated but field boundaries and minor roads. The Redwither Brook is shown approximately 300 m to the south, with River Clywedog 500 m to the south. Several small ponds are recorded within 250 m of the site boundary, the closest is approximately 100 m to the south.
1897 / 1899 / 1909 / 1912 / 1938	Small pond no longer shown by 1897.	1912 map records a well approximately 50 m east of the site.
1949 / 1959	Road alignment on site now covers south west corner only. Railway siding indicated as extending into the west of the site (1949 map only)	Considerable development off site up to site boundary and named as Wrexham Trading Estate. This would appear to be the redevelopment of the ROF Wrexham site which was operating during WWII. Redwither Brook has been possibly culverted as the path of the brook is smooth and no longer meandering. Several hydrants and structures within 250 m to the south and west. Works are noted to west. Electrical OHL shown 100 m east. Trigonometrical Station approx. 60 m north of the site.
1960-64	No significant changes	Single track railway terminating approximately 200 m north of the site, extends to north circling the Wrexham Industrial Estate and various works.
1971 / 1972	OHL line shown running north south through east of the site	1971 map shows two electrical substations : approximately 150 m north east and 240 m north



1979-1982	No significant changes	Wrexham Industrial Estate extends to cover area to west of the site.
1982	Road alignment now shows Oak Road along southern site boundary	Works on northern site boundary. Trigonometrical Station no longer shown.
1991-1992	No significant changes	Wrexham Industrial Estate extends to cover area to east of the site. 1991 map electrical substation approximately 80 m west
1994 / 2012	No significant changes	No significant changes

Not shown on the historical maps (due to security reasons) is an historic military site which is identified as including the site area. This was Royal Ordnance Factory (ROF) Wrexham and, between construction in January 1940 until the end of WWII when it was decommissioned, the site produced cordite. The site appears to have covered a large area, including the current Industrial Estate and surrounding area. Detailed maps of the site have not been located but there is no current indication that any structures were present within the site boundary. Many of the structures were demolished however anecdotal evidence indicates some buildings are still extant in the undeveloped local areas to the south of the site. These were not visited as part of the walkover.

Selected historical on site features – pond, previous road alignments and railway siding – are shown on the Historical Features Plan, A2, in Appendix A.

5.2 Published Geology

The published geological map for the area, (BGS Sheet 122, 1967), and the BGS GeoIndex Onshore online viewer (2019) show the site located on Till comprising diamicton which is a unsorted and unstratified generally overconsolidated material deposited by glacial processes and consists of clay, sand, gravel and boulders. The underlying solid geology comprises Triassic Kinnerton Sandstone Formation (sandstone) on the east of the site and Permian and Carboniferous Salop Formation (mudstone, sandstone, conglomerate) on the west of the site.

Local BGS boreholes between 90 and 190 m to south and east record clay (Till) to a maximum depth of 32 m, overlying a sand layer proven to 34 m. Rockhead was not shown in any of the available BGS logs.



Localised areas of Made Ground are possible due to the development in the surrounding area and the realignment of the road, although a significant depth is not anticipated.

5.3 Geological Hazards

Information on various geological hazards are contained within the GroundSure GeolInsight report where the risks are classified between no data being supplied to a high risk geological hazard. Based on this information the site is categorised as follows.

TABLE 2 : SUMMARY OF POTENTIAL GEOLOGICAL HAZARDS

HAZARD	RISK CATEGORY
Shrink Swell Clay	Very low
Landslides	Very low
Ground Dissolution of Soluble Rocks	Negligible
Compressible Deposits	Negligible
Collapsible Deposits	Very low
Running Sand	Very low
Ground Workings – on site	No
Mining, Extraction and Natural Cavities – on site	No
Artificial Ground	No

5.4 Ground Workings

The GeolInsight indicates no historical surface ground working features on site.

5.5 Mining, Extraction and Natural Cavities

The available data does not indicate any past or present mining and/or quarrying within 1 km of the site.

5.6 Hydrogeology and Groundwater Abstraction

The hydrogeological characteristics of the site are summarised below:

TABLE 3 : SUMMARY OF HYDROGEOLOGICAL CHARACTERISTICS

HAZARD	REMARKS
Aquifer Classification within Superficial Geology	Secondary Aquifer – Undifferentiated.
Aquifer Classification within Bedrock	Kinnerton Sandstone – Secondary A Aquifer Salop Formation - Unproductive
Groundwater/ Potable Water Licence Abstraction	There is on groundwater abstraction licence 429 m south west from a 144m deep borehole for Calypso Drinks. (noted multiple times, 429 m nearest location) There are no potable water licence abstractions within 1 km of the site.
Source Protection Zones	A source protection zone 3 is shown 33 m south west and a source protection zone 2 is shown 85 m south west.

5.7 Hydrology, Flooding and Surface Water Abstraction

Information on the hydrological characteristics of the site are summarised below:

TABLE 4 : SUMMARY OF HYDROGEOLOGICAL CHARACTERISTICS

HAZARD	REMARKS
Surface Water Features / River Network	Watercourse/ditch 65 m south, 324 m south Redwith Brook, 445m south River Clywedog
River Quality (Biological and Chemical)	River Clywedog Biological quality B, 480 m south, Chemical quality C
Surface Water Abstractions	There are no surface water abstraction licences within 1.0 km of the site.
Flood Plain Risk	None identified / very low risk (<1 in 1000 chance of flooding)
Flood Defences / Groundwater Flooding / Susceptibility and Confidence Areas	The BGS groundwater flood risk map suggests the site is within an area susceptible to the risk of superficial deposits flooding.



6 GROUND GAS

6.1 Radon

According to the GeoInsight report the site is not within a radon affected area, and therefore radon protection measures are not required.

6.2 Made Ground

Artificial or Made Ground is not recorded to underlie the site. However, localised areas of Made Ground can be expected due the development in the surrounding area and the realignment of the road, although a significant amount is not anticipated.

Historical mapping records several offsite unspecified pits or heaps within 250 m of the site which could be a potential source of ground gas. The closest feature was located on site, dated 1872.

6.3 Landfill

There are 10 records of landfills or other waste sites within 1 km of the site. The closest site is 170 m north for incineration of clinical waste; this has been historically noted as a landfill location also with variable distances from site up to 250 m north. This could be a potential source of ground gas.

6.4 Archaeology / Ecology

No archaeological or ecological consultation has been undertaken for this study.

6.5 Utilities

Information from the client and salient observations made during the site walkover, record a gas main and drain underlying or in close proximity to the site. A utility survey will be carried out and the report will be made available under separate cover prior to any intrusive works on site.



6.6 Unexploded Ordnance (UXO)

The available online UXO risk mapping indicates a low risk for the site and wider area; no special precautions are required. A Luftwaffe target is noted approximately 500 m west of the site and is likely to be indicating the ROF Wrexham site as a whole as a target.

7 ENVIRONMENTAL SETTING

7.1 Designated Environmentally Sensitive Sites

In the context of this report sensitive land usage covered by the EnviroInsight report includes the following:

- Sites of Special Scientific Interest (SSSI) and Ramsar.
- Local and National Nature Reserves (LNR, NNR,).
- Special Protection Areas (SPA) and Special Areas of Conservation (SAC).
- World Heritage Sites and Ancient Woodlands.
- Areas of Outstanding Natural Beauty (AONB) and Environmentally Sensitive Areas (ESA).
- Forest and National Parks.
- Nitrate Sensitive Areas and Nitrate Vulnerable Zones (NSA, NVZ).

The proposed development site does not lie within or close to any sensitive land uses as defined by the EnviroInsight report.

7.2 Environmental Permits, Incidents and Registers Map

From the information provided in the EnviroInsight report, there are

- Five Integrated Pollution Prevention and Control (IPPC) sites within 500 m
- No water industry referrals (potentially harmful discharges to the sewer) within 500 m of the site
- One record of Licenced Discharge Consent within 250m of the site.
- No Red or List 1 dangerous or hazardous sites (including COMAH and NIHHS sites) within 500 m of the site.



- Two List 2 dangerous substance inventory sites are recorded within 500 m.
- Four Part B permits within 500 m.
- One Radioactive substance authorisation within 500 m.
- Seven pollution incidents on the National Incidents Recording System (NIRS) within 250 m of the site. Only one incident was noted as category 2 (significant) impact, the others are all minor or no impact.
- An fire occurred at a local site – Village Bakery 1.20 km west – on 19 August 2019. This was after the date of the EnviroInsight report and is not included within the dataset. At present the impact of the fire on the site is not known, but due to the distance is assumed to be low impact.

These records are summarised in the table below in distance order from site.

TABLE 5 : SUMMARY OF ENVIRONMENTAL PERMITS, INCIDENTS AND REGISTERS

SITE	LOCATION	TYPE	DETAILS
RC MOTORS	138 m, west	Part B permit (new legislation applies)	Waste oil burner, no enforcement notified
N/A	148 m, west	Pollution incident	Incident date 14-07-2002. Pollutant: smoke. Water impact: minor Land impact : no impact Air impact : significant
TRADEBE HEALTHCARE	170 m, north	IPPC Authorised Activities	Incineration of Hazardous Waste Effective as 30-04-2019
POLKACREST WALES	222 m, north	Part B permit (historical)	Combustion & incineration, no enforcement notified
TRINCO	222 m, north	Disposal of Radioactive Waste (was Rda60 Section 6)	Revoked/cancelled, Last updated 01-01-2015
MARCHWIEL ABBEY	224 m, north west	Licensed discharge consent	33 kV substation unnamed tributary of Redwither Brook Issue date 16-04-1963
TRADEBE HEALTHCARE	229 m, north	IPPC Authorised Activities	Clinical Waste Treatment Facility Effective as 30-04-2019



LLOYDS ANIMAL FEEDS	334 m, north west	IPPC Authorised Activities	Treatment and processing Effective as 30-04-2019
WASTE RECYCLING	359 m, north	IPPC Authorised Activities	Recovery and Disposal of Non Hazardous Waste Effective as 30-04-2019
PRYSMIAN CABLES	364 m, east	IPPC Authorised Activities Part B permit (historical)	Melting of non -ferrous metals, wood processing. Effective as 30-04-2019 Date of enforcement 30-03-2006
TRITECH PRECISION PRODUCTS	413 m, west	Part B permit (current)	Other metal process Date of enforcement 12-03-2007
BLUESTONE CHEMICALS	457 m, west	List 2 Dangerous Substances Inventory	Authorised substances : Chromium, Copper Not active
WELSH DEVELOPMENT AGENCY PCB CELL 283	495 m, west	List 2 Dangerous Substances Inventory	Authorised substance : Biphenyl

7.3 Landfill and Other Waste Sites

7.3.1 Landfill Sites

According to the information provided in the EnviroInsight report there are three landfills within 1 km of the site. These are summarised in the table below.

TABLE 6 : SUMMARY OF LANDFILL SITES

NAME	LOCATION	WASTES	STATUS
Marlborough Road	250 m, north west	A2 Other landfill site taking Special Waste	Operator: Welsh Assembly Government. No status given – same location as IPPC Tradebe.
BICC Cables	445 m, north east	Inert, liquid sludge	Last recorded 31-12-1977



British Celanese	600 to 673 m, north west	Industrial, liquid sludge	Last recorded 31-12-1983
------------------	--------------------------	---------------------------	--------------------------

7.3.2 Other Waste Sites

In addition to the landfills listed in Section 7.3.1, the EnviroInsight report indicates that there are eight licensed waste management facilities and registered waste transfer sites within 1 km of the site. These are summarised in the table below.

TABLE 7 : LICENSED WASTE MANAGEMENT FACILITIES AND REGISTERED WASTE TRANSFER SITES

SITE	LOCATION	WASTES	STATUS
Marlborough Road	183 to 250 m, north	Clinical waste incineration plant	Historic planning application and transfer of licence to IPPC (Tradebe)
Unit 2 Redwith Road	307 m, west	Tyre recycling	Historic planning application
Bluestone Chemicals	311 m, west	Chemical treatment facility	Expired 13-09-1999
Redwith Road	333 m, west	Waste transfer station	Historic planning application
Bryn Lane	359 m, north	Biological Treatment Facility	Issued
ASH Wrexham Recycling	378 to 417 m, south west	Household, commercial & industrial waste transfer station	Not given
Entrec	402 m, west	Metal recycling site (vehicle dismantler)	Effective
Unit 1 Redwith Road	503 m, west	Special Waste Transfer Station	Expired 01-05-2012

7.4 Current Land Uses

The EnviroInsight report covers other potential contamination sources close to the site including:

- Current Industrial Data
- Petrol and Fuel Stations
- Underground High Pressure Oil and Gas Pipelines



According to the EnviroInsight report, the proposed development site is recorded to be within 250 m of the following potentially contaminative industrial sites:

- OHL tower on site, plus one tower 143 m north and two towers south at 172 and 244 m
- Electrical substation 78 m west, 157 m north east and 241 m north
- Motoring or vehicle related
 - o RC Motors 137 m west, vehicle breakdown and recovery services
 - o JB Auto Clinic, 201 m south east vehicle parts and accessories
 - o TRW, 202 m west, vehicle parts and accessories
 - o KTC offroad supplies, 210 m south east vehicle components
 - o Brake Engineering, 241 m west vehicle components
- Tradebe Healthcare, 215 m, west, recycling services

Based on the data within the EnviroInsight report the site does not lie within 500 m of a petrol or fuel site, high voltage underground electricity cables or high pressure gas pipelines. However, from information provided by Conrad Energy a gas main underlies the site. A utility survey is scheduled to be undertaken to confirm the location of any buried services.

8 INITIAL CONCEPTUAL SITE MODEL

8.1 General

In line with existing legislation and the current regime for the management of contaminated land, assessments are undertaken using a risk based approach. It is necessary to define a Conceptual Site Model (CSM) for the site which identifies the potential sources of contamination, the receptors and the pathways that can connect them. In order for there to be a risk from contamination, one or more relevant pollutant linkages must exist, connecting a contamination source, a receptor (an entity which might be affected by the contamination) and a pathway (or mechanism) by which the receptor can be exposed to the contaminant.

A discussion of potential sources, pathways and receptors and a tabulated summary of the CSM indicating potential pollutant linkages follows. The criteria used for assessing the relevance of identified potential pollutant linkages are based on the objectives stated above. The site the construction of new industrial units/generators, including associated hardstanding, helping to reduce



the pathway for any potential contamination derived from new on site activities. The end use for the site as such classed as an industrial site with the users including workers, visitors and site maintenance staff. Selected areas of the site are to be retained in situ as an ecological mitigation area, but no soft landscaping development is currently included as part of the scheme, further minimising any environmental receptors.

8.2 Potential Sources of Contamination

Potential sources of contamination are usually associated with current and former industrial activities, where the processing, storage, use, transportation and disposal of raw materials, products and wastes often leads to the contamination of underlying ground and groundwater. In addition, natural processes can also give rise to contamination such as hazardous gases.

Based on the information presented above, potential sources of contamination from current and historical site uses and from potentially significant off site sources have been assessed. Potential sources of contamination and contaminants at and within the site boundary are summarised in the table below. These are based in the desk study data obtained and published guidance.

TABLE 8 : POTENTIAL SOURCES OF CONTAMINATION

SITE USE / ACTIVITY AND AREA	SOURCES	TYPICAL CONTAMINANTS
Underlying services and other general Made Ground; small historical pond on site; former ROF cordite factory	Potential for localised made ground.	Heavy metals and metalloids, oil/fuel, hydrocarbons, polycyclic aromatic hydrocarbons (PAHs), asbestos
Offsite infilled ponds located within 250 of the perimeter of the site.	Organic rich infill potentially generating ground gases.	Gases including methane and carbon dioxide.
Electrical substation located approximately 78 m to the west.	Leaching and migration of contaminants.	PCB's.
On site historic railway sidings	Potential for localised made ground.	Heavy metals and metalloids, oil/fuel, hydrocarbons, polycyclic aromatic hydrocarbons (PAHs), asbestos
On site OHL tower	Leaching of contaminants.	PCB's.
Unidentified drum on site	Leaching of contaminants.	Unknown.



Offsite industrial sites and landfills within 250 m of the perimeter of the site	Potential for localised made ground.	Heavy metals and metalloids, oil/fuel, solvents, hydrocarbons, polycyclic aromatic hydrocarbons (PAHs), asbestos
--	--------------------------------------	--

8.3 Potential Migration Pathways

The following potential pathways have been identified as potential migration pathways:

- Direct soil, soil dust and/or water ingestion.
- Inhalation of soil dust, soil vapour and/or water vapour.
- Dermal contact with contaminated soil, soil dust and/or water.
- Lateral and vertical migration of gases and/or vapours through permeable strata.
- Permeable ground conditions/rainfall infiltration.
- Leaching of contaminants from soils into soil pore water and shallow groundwater.
- Downward migration of soil pore water and shallow groundwater.
- Lateral groundwater flow.
- Preferential pathways including existing and proposed service trenches.
- Surface water runoff into drains.

8.4 Potential Receptors

Potential receptors have been identified and categorised as follows:

8.4.1 Human Health

- Construction workers
- Future site users including site staff or visitors
- Neighbouring site occupants
- Maintenance workers



8.4.2 Controlled Waters

- Superficial deposits (Till) are noted as a Secondary Unproductive Aquifer, the Kinnerton Sandstone bedrock is classed as a Secondary A Aquifer, while the Salop Formation bedrock is classed as Unproductive.
- Nearest groundwater abstraction licence is at least 429 m south west from a deep borehole (144 m).
- Zone III Source Protection Zone 33 m south west and Zone II 85 m south west.
- Unnamed brook 65 m to the south, and may be in a culvert; Redwither Brook 324 m south; River Clywedog 445 m south. Unnamed brook is a potential receptor.

8.4.3 Environmental Receptors

- No significant environmental receptors have been identified and as such are not being considered.

8.4.4 Built Environment

- Potential risk to buried concrete, potable water pipes or any new services. New buildings could be potentially be affected by ground gas

8.5 Summary

The relevant pollutant linkages based on the potential sources, pathways and receptors outlined above are tabulated below:

TABLE 9 : INITIAL CONCEPTUAL SITE MODEL

SOURCE	PATHWAY	RECEPTOR
Potential localised areas of Made Ground, Underlying services and other general Made Ground; small historical pond on site; former ROF cordite factory	Ingestion, direct contact, inhalation of dust	Construction site workers Future users
	Lateral Groundwater Migration	Unnamed brook to the south and underlying aquifers
	Direct contact with soil / groundwater	Built environment and services
Offsite infilled ponds within 250 m of the site boundary.	Lateral and vertical migration of ground gas.	Future users and built environment
Offsite landfill within 250 m of the site boundary		

There are currently a series of uncertainties and assumptions in the CSM presented above as this is based on desk study information only:

- Ground conditions have been conceptualised based on BGS geological maps and other primarily desk based information.
- The presence and extent of any suspected contamination is unknown in the absence of site investigation data.
- The presence and depth of any groundwater bodies at the site is currently unknown.
- The ground gas regime within the site has not been characterised.

9 PRELIMINARY RISK ASSESSMENT

9.1 Assessment of Environmental Risks Methodology

The identification of potential pollutant linkages is a key aspect of the evaluation of potentially contaminated land. An approach based on CIRIA report C552 has been adopted. For each of the pollutant linkages, an estimate is made of:

- The potential severity of the risk; and
- The likelihood of the risk occurring.

Table 10 below presents the classification of the severity of the risk:

TABLE 10 : SEVERITY OF RISK

RISK FACTOR	TYPICAL EXAMPLES
Severe	Acute risks to human health; Major pollution of controlled waters (<<the water environment>>)
Medium	Chronic (long-term) risk to human health; Pollution of controlled waters (<<the water environment>>)
Minor	Damage to non-sensitive species or ecosystems, buildings or services

The probability of the risk occurring is classified according to the criteria provided in Table 11 below:

TABLE 11 : PROBABILITY OF RISK OCCURRING

PROBABILITY RATING	DESCRIPTION
High Likelihood	Pollutant linkage may be present, and risk is almost certain to occur in the long term, or there is evidence of harm to the receptor.
Likely	Pollutant linkage may be present, and it is probable that the risk will occur over the long term.
Low Likelihood	Pollutant linkage may be present and there is a possibility of the risk occurring, although there is no certainty that it will do so.
Unlikely	Pollutant linkage may be present but the circumstances under which harm would occur are improbable.

An overall qualitative evaluation of the level of risk is gained from a comparison of the severity and probability as presented in Table 12 below:

TABLE 12 : RISK RATING EVALUATION

	SEVERITY		
	SEVERE	MEDIUM	MINOR



PROBABILITY	HIGH LIKELIHOOD	Very high risk	High Risk	Moderate / low risk
	LIKELY	High risk	Moderate risk	Low risk
	LOW LIKELIHOOD	Moderate risk	Moderate/ low risk	Very low risk
	UNLIKELY	Moderate / low risk	Low risk	Very low risk

9.2 Preliminary Risk Assessment

Table 13 below details the potential risks associated with the various potential pollutant linkages identified through the assessment of the data collated in this report. The risk category should be reviewed if further information is made available or the environmental setting of the site changes, for example through a proposed change in the development layout or end use.

TABLE 13 : PRELIMINARY RISK ASSESSMENT

SOURCE	PATHWAY	RECEPTOR	SEVERITY	PROBABILITY	RISK RATING	COMMENTS
Potential localised areas of Made Ground, Underlying services and other general Made Ground; small historical pond on site; former ROF cordite factory	Soil ingestion Dermal contact Inhalation of soil dust / vapours	Construction site workers Future site users Built environment	Medium	Unlikely based on low sensitivity end use and future hardstanding provision	Low Risk	Soil samples to be recovered during site investigation. Reassess after completion of ground investigation. Full PPE to be worn by construction workers to reduce any risks.
	Lateral Groundwater Migration	Minor watercourse/ drainage ditch	Medium	Unlikely based on low sensitivity end use and future hardstanding provision	Low Risk	Soil and water samples to be recovered during site investigation.
	Leaching of contaminants and vertical migration to the groundwater	Underlying Secondary Aquifer and unnamed brook	Medium	Unlikely based on low sensitivity end use and future hardstanding provision	Low Risk	Due to predominantly cohesive strata anticipated.
Offsite electrical sub-station (approximately 78 m to the west)	Leaching of PCB contaminants and vertical migration to the groundwater.	Future site users	Medium	Low Likelihood based on low sensitivity end use and future hardstanding provision	Low Risk	Due to predominantly cohesive strata anticipated.
Offsite infilled ponds and landfill within 250 m of the site boundary.	Lateral and vertical migration of ground gas.	Future site users	Medium	Unlikely based on low sensitivity end use and future hardstanding provision	Low Risk	Given the distance from the site and the underlying cohesive strata limiting migration of ground gases to the site.



10 GEOTECHNICAL ASPECTS

10.1 Anticipated Ground Model and Potential Hazards

The anticipated ground conditions are expected to comprise a thin layer of Made Ground overlying Till, with bedrock likely to be in excess of 30 m. The groundwater table is expected to be within any granular lenses within the Till deposits.

10.2 Possible Foundation Options

Prior to detailed intrusive works it is assumed that traditional spread foundations are likely to be suitable for the structures of the proposed development, founding within the Till deposits. However, if the Till deposits are dominated by clays, and the cleared vegetation includes some substantial trees, then foundation depths may need to be increased to ensure foundations are not adversely effected by swelling of the clays as a consequence of the tree removal.

10.3 Excavations

Based on the anticipated ground conditions and the absence of underlying obstructions (including historical footings), excavation of the underlying soils should be easily achieved during the ground investigation using conventional drilling techniques.

It is considered unlikely that dewatering will be required. However, an allowance for simple dewatering techniques (i.e groundwater pumping from sumps) should be made.

10.4 Pavements / Hardstandings

To be considered following the information obtained from intrusive ground investigation.

10.5 Drainage

Drainage is to be designed following the provision of final layout plans provided by the designer. The Till deposits are likely to contain a significant proportion of clay, and so are unlikely to be suitable for the use of soakaways.



11 CONCLUSIONS AND RECOMMENDATIONS

It should be appreciated that the desk study can only give only give indications of the likely geotechnical and geoenvironmental conditions. Review of the information and the initial CSM highlights potential pollutant linkages. The Preliminary Risk Assessment shows risk ratings of Low, and in order to investigate the risks presented by these, an intrusive investigation is recommended and subsequently will be able to provide further information on actual contaminants present and viable pathways to sensitive receptors. The investigation should provide information to allow for the assessment of geotechnical parameters along with an assessment of potential contamination on site and should include:

- Geotechnical and Chemical analysis of the soils.
- Clarify the Initial Conceptual Site Model
- Clarify the Preliminary Risk Assessment
- Provide data for the design of any remedial works that may be required
- Benchmark the contamination status of the site
- Develop a Final Conceptual Site Model and Risk Assessment
- Provide geotechnical parameters for foundations
- Provide groundwater and gas information for the site
- Waste classification for re-use or off site disposal

To achieve these objectives, a ground investigation is proposed which will comprise 2 no. cable percussion boreholes and a minimum of 5 no. dynamically sampled boreholes.



12 REFERENCES

- BGS England and Wales Sheet 122 : 1967 : Nantwich. 1:63360 geological map (drift). British Geological Survey.
- BGS England and Wales Sheet 122 : 1967 : Nantwich. 1:63360 geological map (solid). British Geological Survey.
- BGS GeoIndex Onshore : 2019. www.bgs.ac.uk. British Geological Survey.
- BS 10175:2011+A2:2017 : Investigation of potentially contaminated sites – Code of practice.
- BS 1377 : 1990 : Methods of test for soils for civil engineering purposes. British Standards Institution.
- BS 5930 : 2015 : Code of practice for ground investigations. British Standards Institution.
- BS EN 1997-2 : 2007 : Eurocode 7 - Geotechnical design - Part 2 Ground investigation and testing. British Standards Institution.



SOCOTEC

APPENDIX A

FIGURES AND DRAWINGS

Site Location Plan

A1

Historic Features Plan

A2

Proposed Layout Plan

WXM-GA-01 Rev E

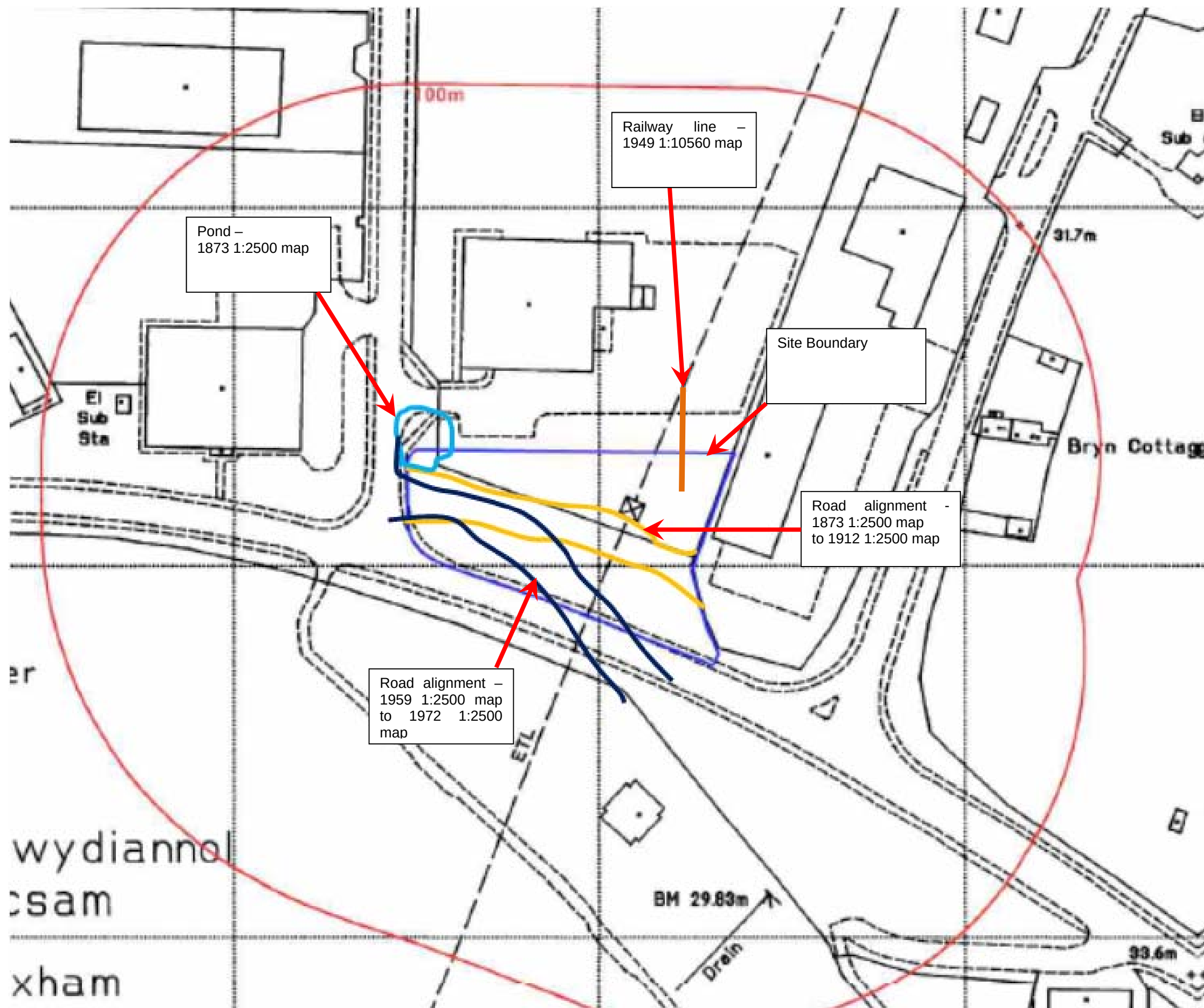
Site Location Plan



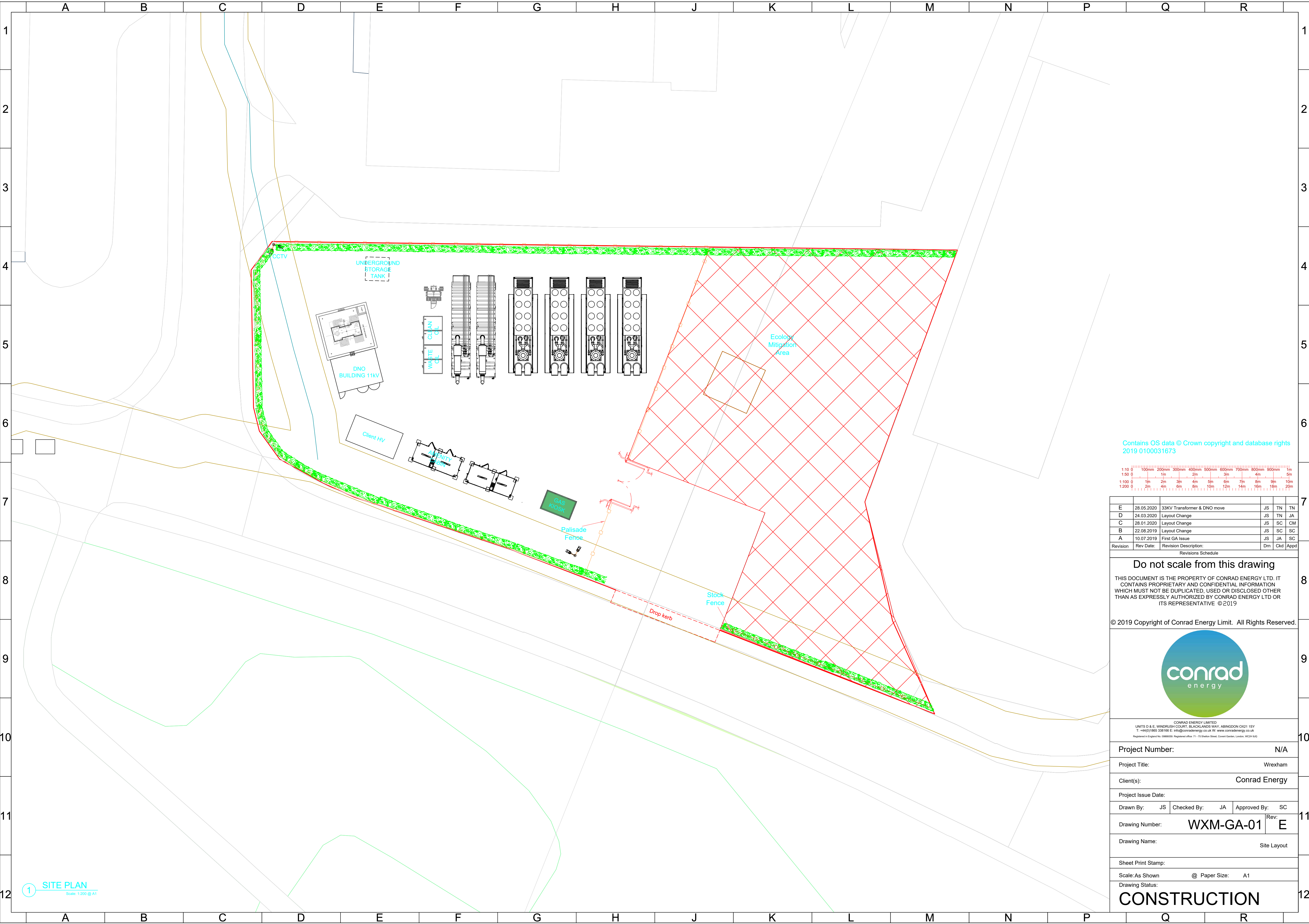
THE
SITE

Reproduced from the 2016 Ordnance Survey 1:50 000 scale Landranger map No 117 by permission of Ordnance Survey on behalf of The Controller of Her Majesty's Stationery Office, © Crown copyright, SOCOTEC UK Limited. All rights reserved. Licence Number 100006060

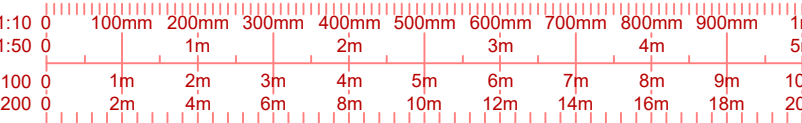
Notes: Scale 1:50 000	Project Wrexham SI Project No. F9042-19 Carried out for Conrad Energy	Figure A1
----------------------------------	--	--------------------------------



Title	
HISTORIC FEATURES PLAN	
Project	
Wrexham Industrial Estate	
Client	
Conrad Energy	
Notes: Features are approximate only based on historical map locations.	
Scale	
NTS	
 SOCOTEC	
Project No	Figure No
F9042-19	A2



Contains OS data © Crown copyright and database rights
2019 0100031673



E	28.05.2020	33KV Transformer & DNO move	JS	TN	TN
D	24.03.2020	Layout Change	JS	TN	JA
C	28.01.2020	Layout Change	JS	SC	CM
B	22.08.2019	Layout Change	JS	SC	SC
A	10.07.2019	First GA Issue	JS	JA	SC
Revision	Rev Date:	Revision Description:	Drm	Ckd	Appd

Revisions Schedule

Do not scale from this drawing

THIS DOCUMENT IS THE PROPERTY OF CONRAD ENERGY LTD. IT CONTAINS PROPRIETARY AND CONFIDENTIAL INFORMATION WHICH MUST NOT BE DUPLICATED, USED OR DISCLOSED OTHER THAN AS EXPRESSLY AUTHORIZED BY CONRAD ENERGY LTD OR ITS REPRESENTATIVE ©2019

© 2019 Copyright of Conrad Energy Limit. All Rights Reserved.



CONRAD ENERGY LIMITED
UNITS D & E, WINDRUSH COURT, BLACKLANDS WAY, ABRINGDON OX21 1SY
T: +44(0)1865 338160 E: info@conradenergy.co.uk W: www.conradenergy.co.uk
Registered in England No. 08880055 Registered Office: T1 - 75 Shafes Street, Covent Garden, London, WC2H 9UD

Project Number:			N/A					
Project Title:			Wrexham					
Client(s):			Conrad Energy					
Project Issue Date:								
Drawn By:		JS	Checked By:		JA	Approved By:		SC
Drawing Number:			WXM-GA-01			Rev:		E
Drawing Name:						Site Layout		

Sheet Print Stamp:	
Scale:As Shown	@ Paper Size: A1
Drawing Status:	CONSTRUCTION



SOCOTEC

APPENDIX B

HISTORICAL ORDNANCE SURVEY MAP EXTRACTS

Historical Mapping Legends

GS-6237863 Large Scale

GS-6237863 Small Scale

Site Details:

WREXHAM INDUSTRIAL
ESTATE, WREXHAM, LL13 9RG

Client Ref: A9008-19
Report Ref: GS-6237863
Grid Ref: 338692, 349504

Map Name: County Series

Map date: 1873

Scale: 1:2,500

Printed at: 1:2,500



Surveyed 1873
Revised 1873
Edition N/A
Copyright N/A
Levelled N/A

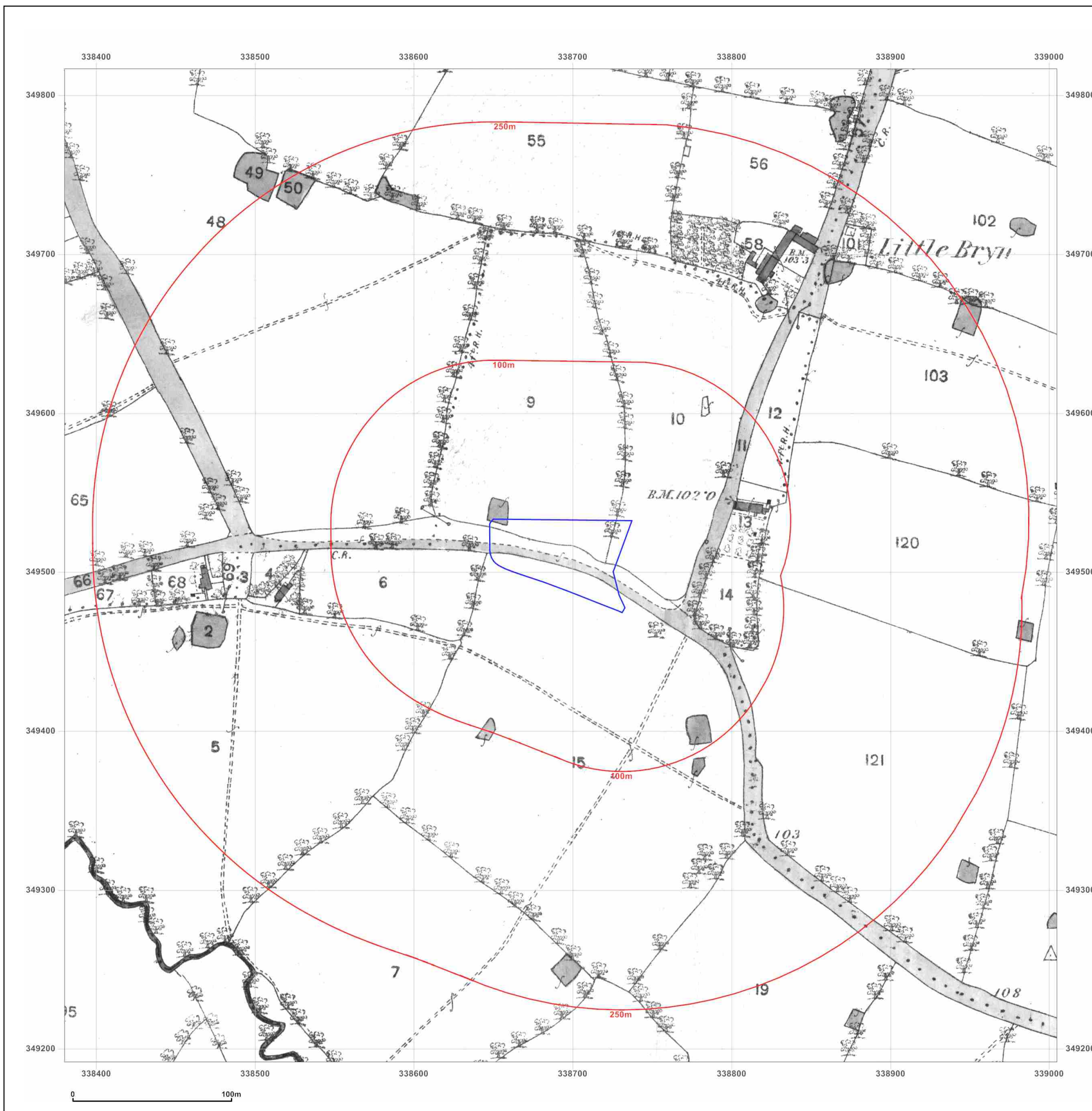


Produced by
Groundsure Insights
T: 08444 159000
E: info@groundsure.com
W: www.groundsure.com

© Crown copyright and database rights 2018 Ordnance Survey 100035207

Production date: 12 August 2019

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



Site Details:

WREXHAM INDUSTRIAL
ESTATE, WREXHAM, LL13 9RG

Client Ref: A9008-19
Report Ref: GS-6237863
Grid Ref: 338692, 349504

Map Name: County Series

Map date: 1899

Scale: 1:2,500

Printed at: 1:2,500



Surveyed 1899
Revised 1899
Edition N/A
Copyright N/A
Levelled N/A

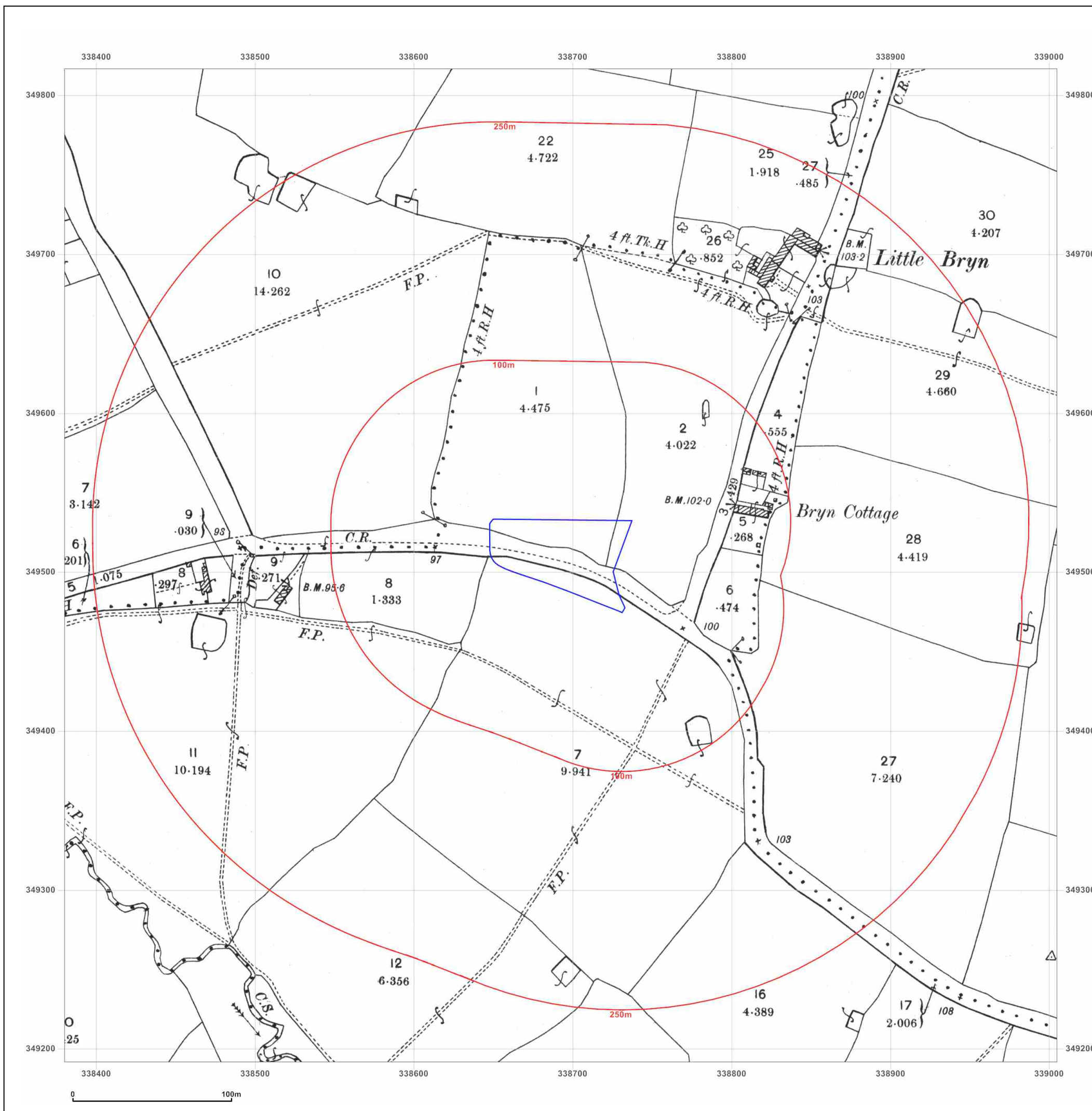


Produced by
Groundsure Insights
T: 08444 159000
E: info@groundsure.com
W: www.groundsure.com

© Crown copyright and database rights 2018 Ordnance Survey 100035207

Production date: 12 August 2019

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



Site Details:

WREXHAM INDUSTRIAL
ESTATE, WREXHAM, LL13 9RG

Client Ref: A9008-19
Report Ref: GS-6237863
Grid Ref: 338692, 349504

Map Name: National Grid

Map date: 1959

Scale: 1:2,500

Printed at: 1:2,500



Surveyed 1959
Revised 1959
Edition N/A
Copyright 1961
Levelled 1950

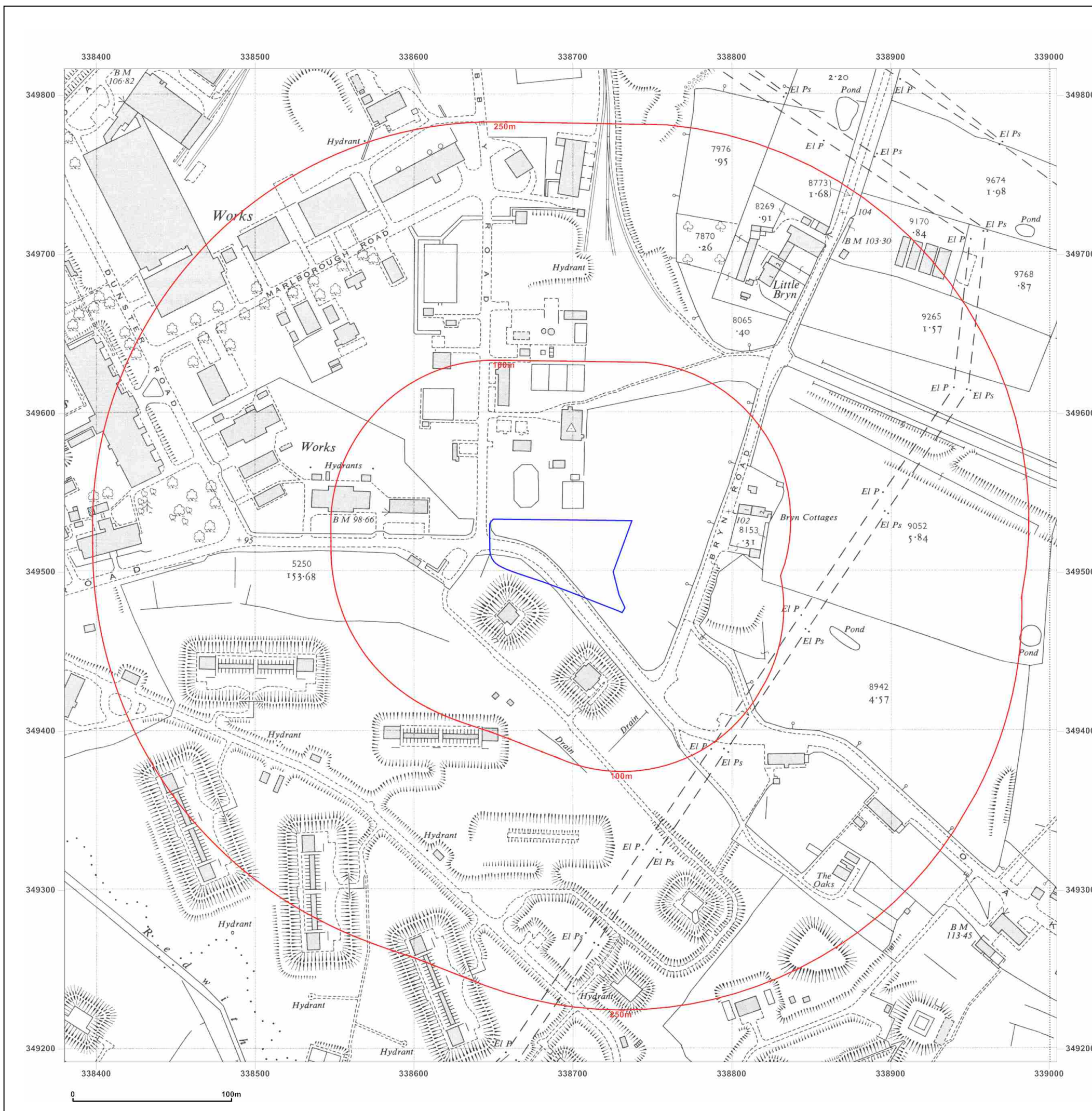


Produced by
Groundsure Insights
T: 08444 159000
E: info@groundsure.com
W: www.groundsure.com

© Crown copyright and database rights 2018 Ordnance Survey 100035207

Production date: 12 August 2019

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



Site Details:

WREXHAM INDUSTRIAL
ESTATE, WREXHAM, LL13 9RG

Client Ref: A9008-19
Report Ref: GS-6237863
Grid Ref: 338692, 349504

Map Name: National Grid

Map date: 1971

Scale: 1:2,500

Printed at: 1:2,500



Surveyed 1971
Revised 1971
Edition N/A
Copyright 1972
Levelled 1959

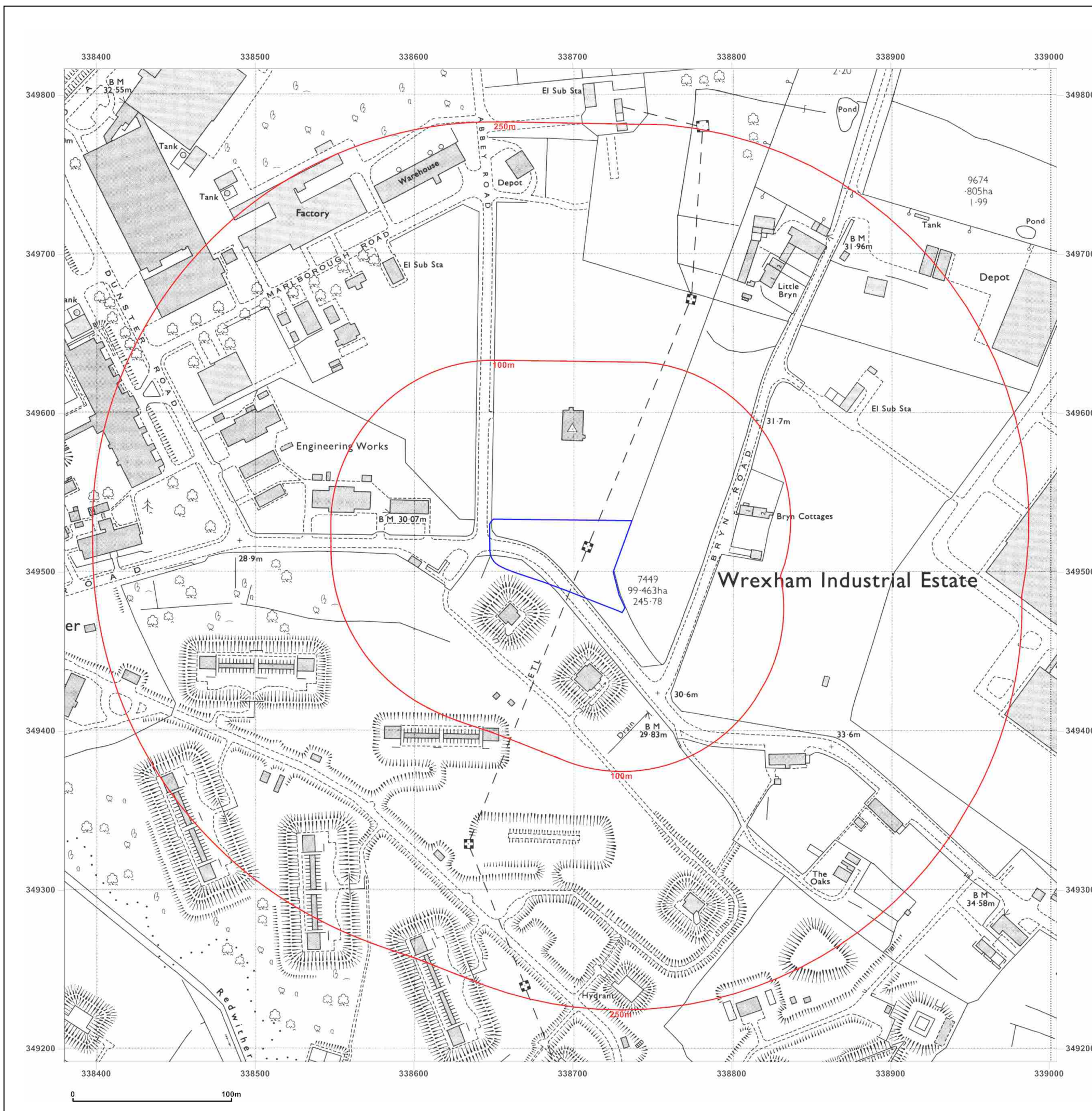


Produced by
Groundsure Insights
T: 08444 159000
E: info@groundsure.com
W: www.groundsure.com

© Crown copyright and database rights 2018 Ordnance Survey 100035207

Production date: 12 August 2019

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



Site Details:

WREXHAM INDUSTRIAL
ESTATE, WREXHAM, LL13 9RG

Client Ref: A9008-19
Report Ref: GS-6237863
Grid Ref: 338692, 349504

Map Name: National Grid

Map date: 1972

Scale: 1:2,500

Printed at: 1:2,500



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

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

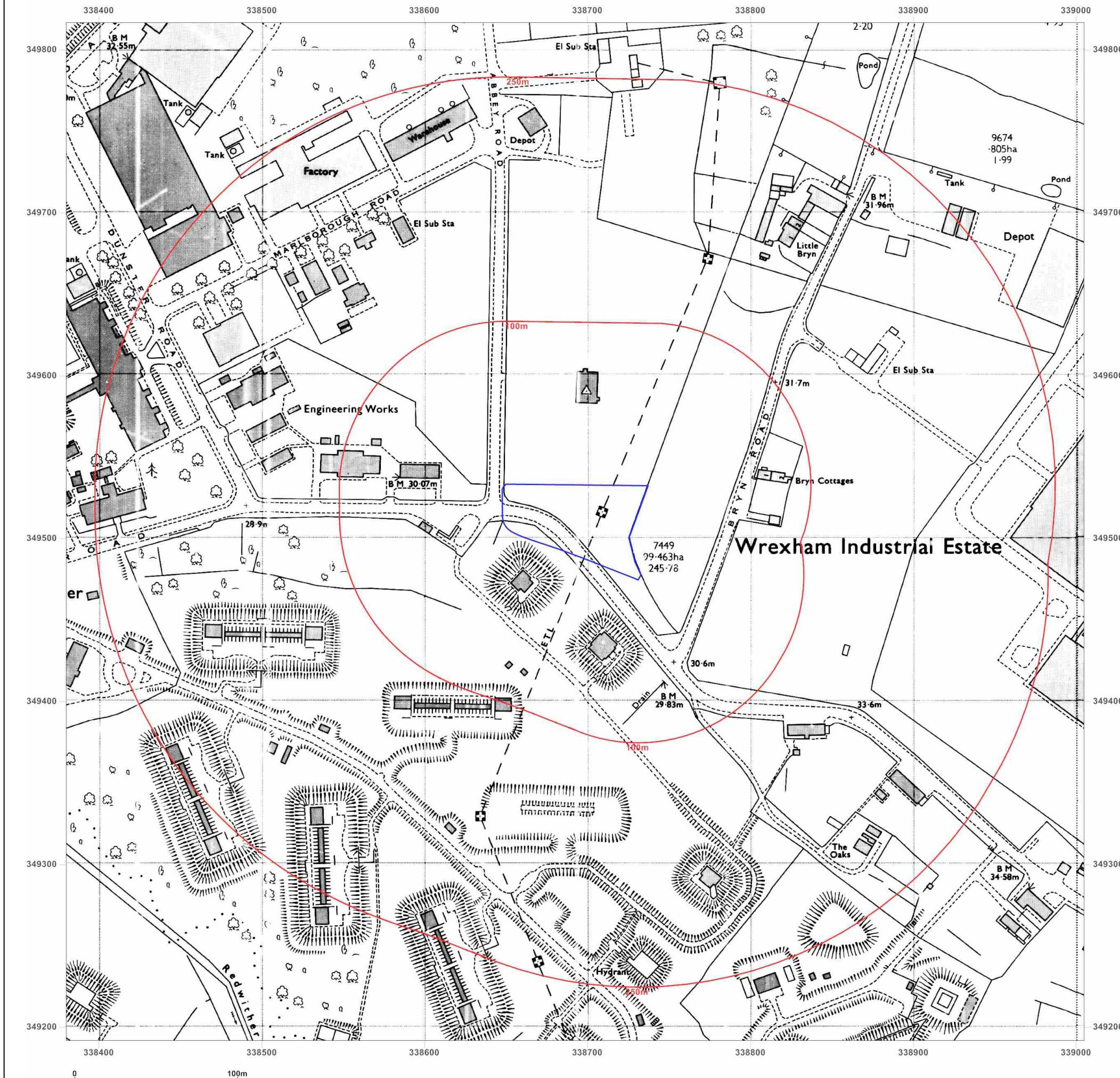


Produced by
Groundsure Insights
T: 08444 159000
E: info@groundsure.com
W: www.groundsure.com

© Crown copyright and database rights 2018 Ordnance Survey 100035207

Production date: 12 August 2019

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



Site Details:

WREXHAM INDUSTRIAL
ESTATE, WREXHAM, LL13 9RG

Client Ref: A9008-19
Report Ref: GS-6237863
Grid Ref: 338692, 349504

Map Name: National Grid

Map date: 1982

Scale: 1:2,500

Printed at: 1:2,500



Surveyed 1959
Revised 1982
Edition N/A
Copyright 1982
Levelled 1959



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

© Crown copyright and database rights 2018 Ordnance Survey 100035207

Production date: 12 August 2019

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



Site Details:

WREXHAM INDUSTRIAL
ESTATE, WREXHAM, LL13 9RG

Client Ref: A9008-19
Report Ref: GS-6237863
Grid Ref: 338692, 349504

Map Name: National Grid

Map date: 1986-1988

Scale: 1:2,500

Printed at: 1:2,500



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

Surveyed 1959
Revised 1986
Edition N/A
Copyright 1986
Levelled 1959

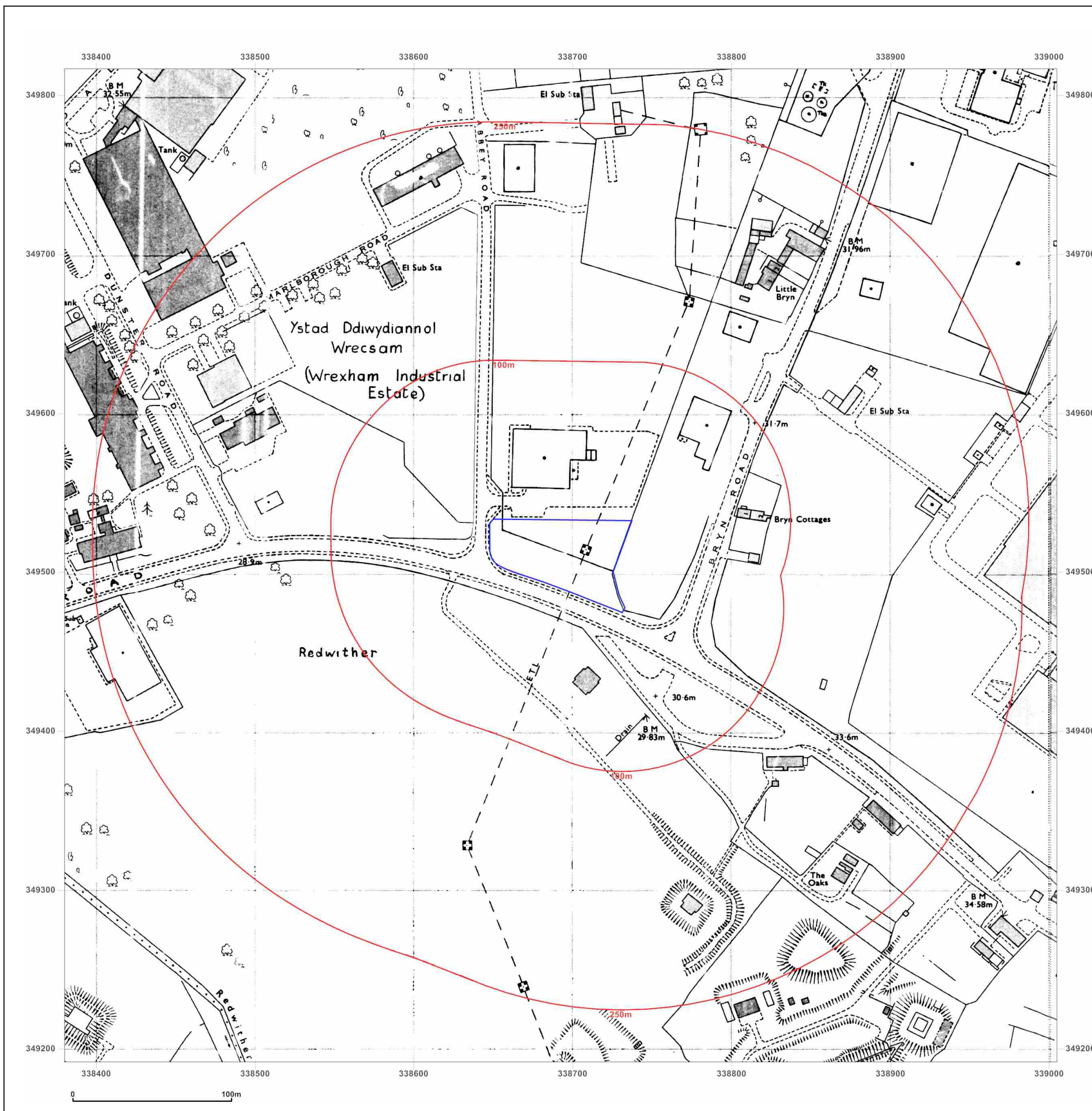


Produced by
Groundsure Insights
T: 08444 159000
E: info@groundsure.com
W: www.groundsure.com

© Crown copyright and database rights 2018 Ordnance Survey 100035207

Production date: 12 August 2019

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



Site Details:

WREXHAM INDUSTRIAL
ESTATE, WREXHAM, LL13 9RG

Client Ref: A9008-19
Report Ref: GS-6237863
Grid Ref: 338692, 349504

Map Name: National Grid

Map date: 1988-1990

Scale: 1:2,500

Printed at: 1:2,500



Surveyed 1959
Revised 1988
Edition N/A
Copyright 1988
Levelled 1959

Surveyed N/A
Revised N/A
Edition N/A
Copyright 1990
Levelled 1959



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

© Crown copyright and database rights 2018 Ordnance Survey 100035207

Production date: 12 August 2019

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



Site Details:

WREXHAM INDUSTRIAL
ESTATE, WREXHAM, LL13 9RG

Client Ref: A9008-19
Report Ref: GS-6237863
Grid Ref: 338692, 349504

Map Name: National Grid

Map date: 1991

Scale: 1:2,500

Printed at: 1:2,500



Surveyed 1991
Revised 1991
Edition N/A
Copyright 1992
Levelled N/A

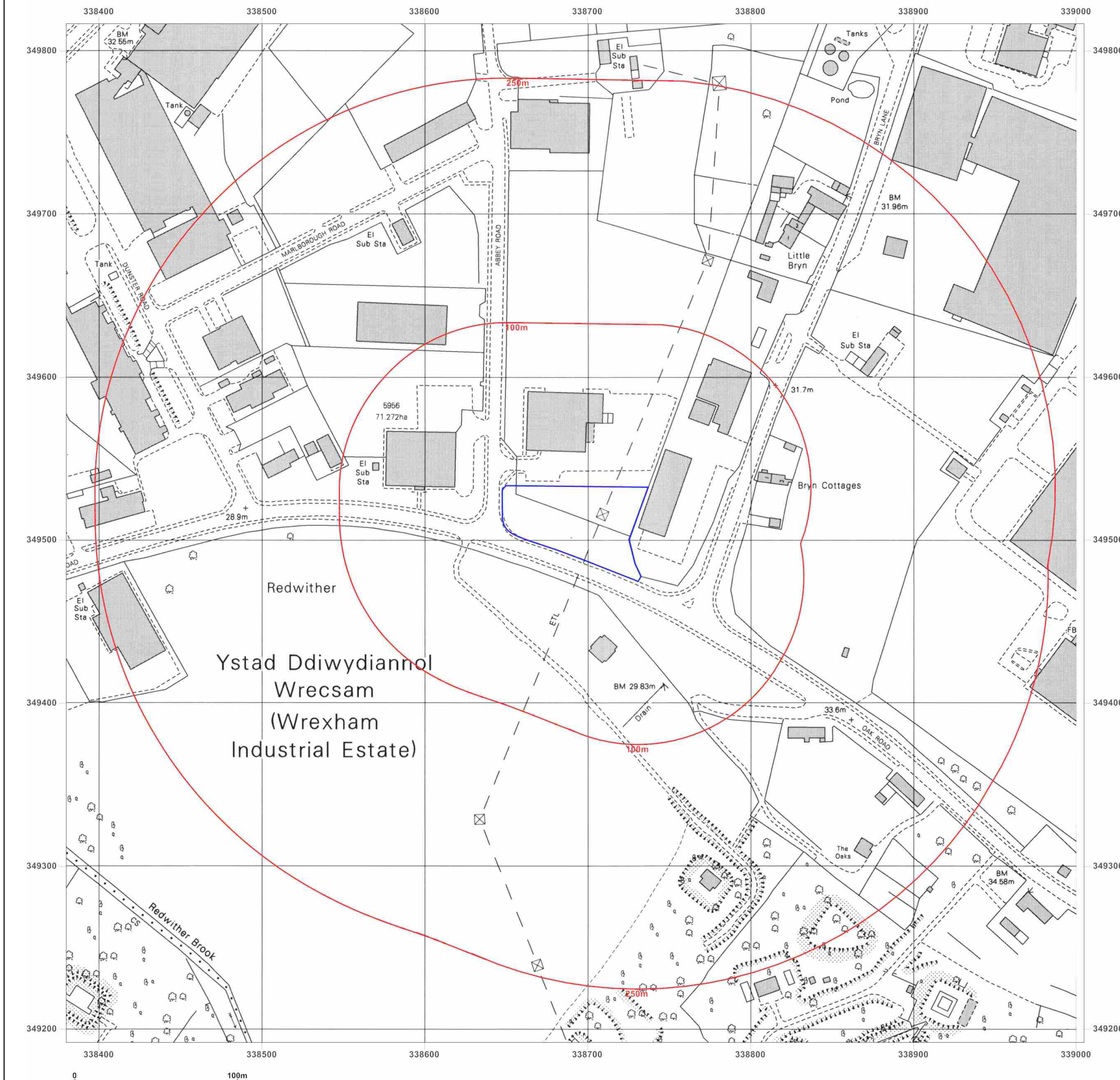


Produced by
Groundsure Insights
T: 08444 159000
E: info@groundsure.com
W: www.groundsure.com

© Crown copyright and database rights 2018 Ordnance Survey 100035207

Production date: 12 August 2019

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



Site Details:

WREXHAM INDUSTRIAL
ESTATE, WREXHAM, LL13 9RG

Client Ref: A9008-19
Report Ref: GS-6237863
Grid Ref: 338692, 349504

Map Name: National Grid

Map date: 1989-1991

Scale: 1:2,500

Printed at: 1:2,500



Surveyed 1959
Revised 1989
Edition N/A
Copyright 1989
Levelled 1959

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

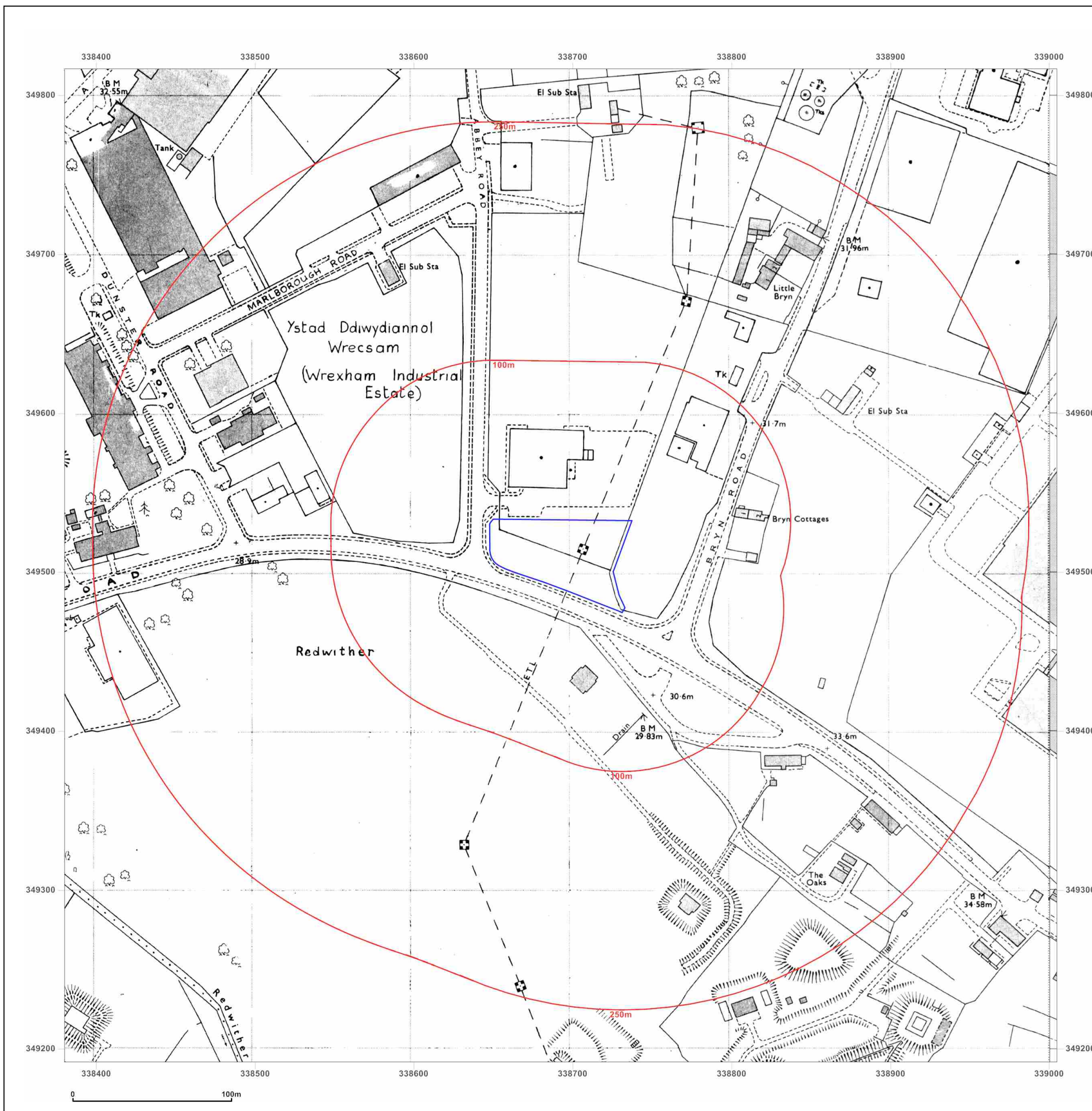


Produced by
Groundsure Insights
T: 08444 159000
E: info@groundsure.com
W: www.groundsure.com

© Crown copyright and database rights 2018 Ordnance Survey 100035207

Production date: 12 August 2019

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



Site Details:

WREXHAM INDUSTRIAL
ESTATE, WREXHAM, LL13 9RG

Client Ref: A9008-19
Report Ref: GS-6237863
Grid Ref: 338692, 349504

Map Name: National Grid

Map date: 1990-1992

Scale: 1:2,500

Printed at: 1:2,500



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

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

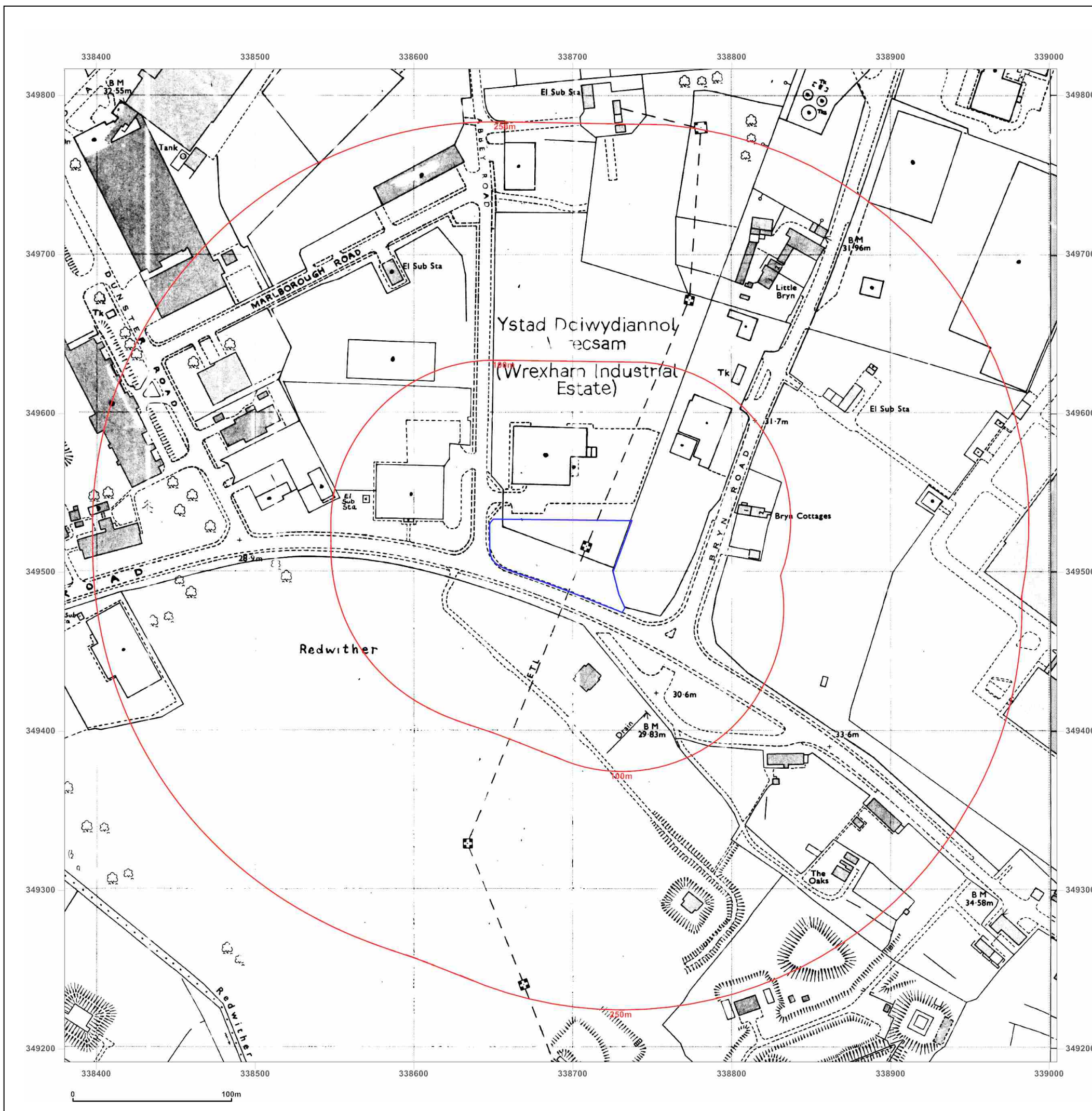


Produced by
Groundsure Insights
T: 08444 159000
E: info@groundsure.com
W: www.groundsure.com

© Crown copyright and database rights 2018 Ordnance Survey 100035207

Production date: 12 August 2019

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



Site Details:

WREXHAM INDUSTRIAL
ESTATE, WREXHAM, LL13 9RG

Client Ref: A9008-19
Report Ref: GS-6237863
Grid Ref: 338692, 349504

Map Name: National Grid

Map date: 1990-1992

Scale: 1:2,500

Printed at: 1:2,500



Surveyed 1959
Revised 1990
Edition N/A
Copyright 1990
Levelled 1959

Surveyed N/A
Revised N/A
Edition N/A
Copyright 1992
Levelled N/A

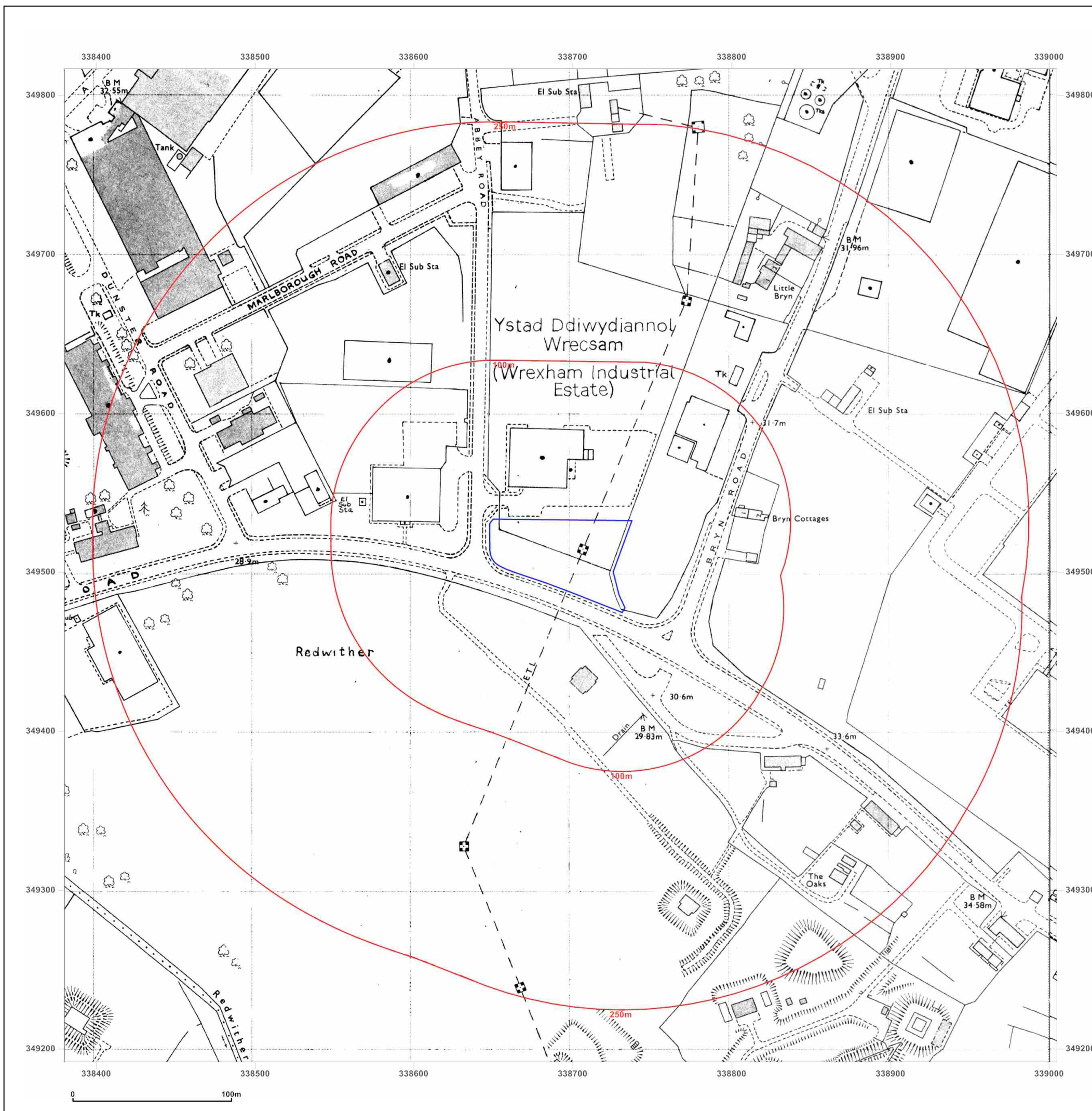


Produced by
Groundsure Insights
T: 08444 159000
E: info@groundsure.com
W: www.groundsure.com

© Crown copyright and database rights 2018 Ordnance Survey 100035207

Production date: 12 August 2019

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



Site Details:

WREXHAM INDUSTRIAL
ESTATE, WREXHAM, LL13 9RG

Client Ref: A9008-19
Report Ref: GS-6237863
Grid Ref: 338692, 349504

Map Name: National Grid

Map date: 1992

Scale: 1:2,500

Printed at: 1:2,500



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

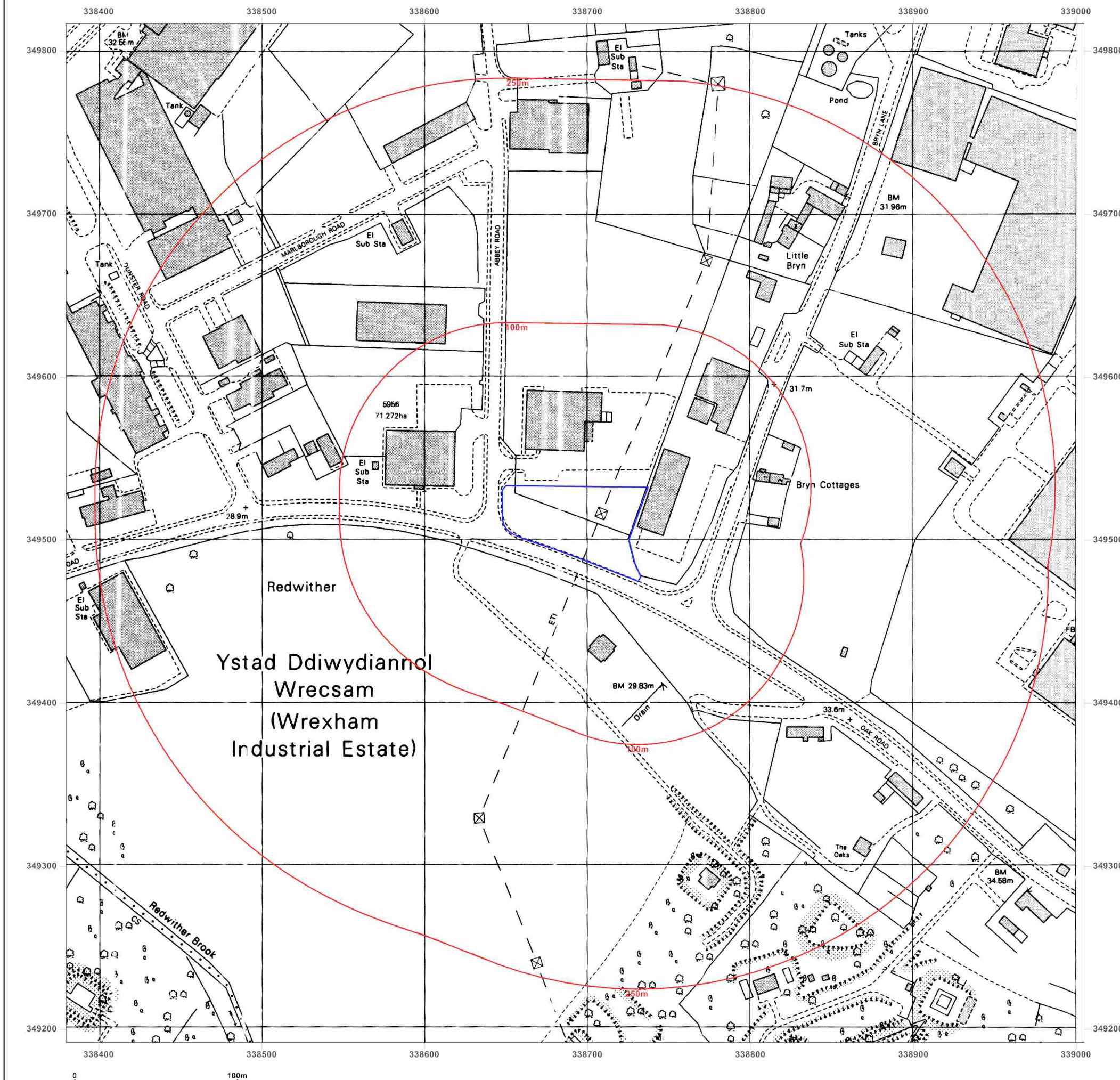


Produced by
Groundsure Insights
T: 08444 159000
E: info@groundsure.com
W: www.groundsure.com

© Crown copyright and database rights 2018 Ordnance Survey 100035207

Production date: 12 August 2019

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



Site Details:

WREXHAM INDUSTRIAL
ESTATE, WREXHAM, LL13 9RG

Client Ref: A9008-19
Report Ref: GS-6237863
Grid Ref: 338692, 349504

Map Name: National Grid

Map date: 1992

Scale: 1:2,500

Printed at: 1:2,500



Surveyed N/A
Revised N/A
Edition N/A
Copyright 1992
Levelled N/A

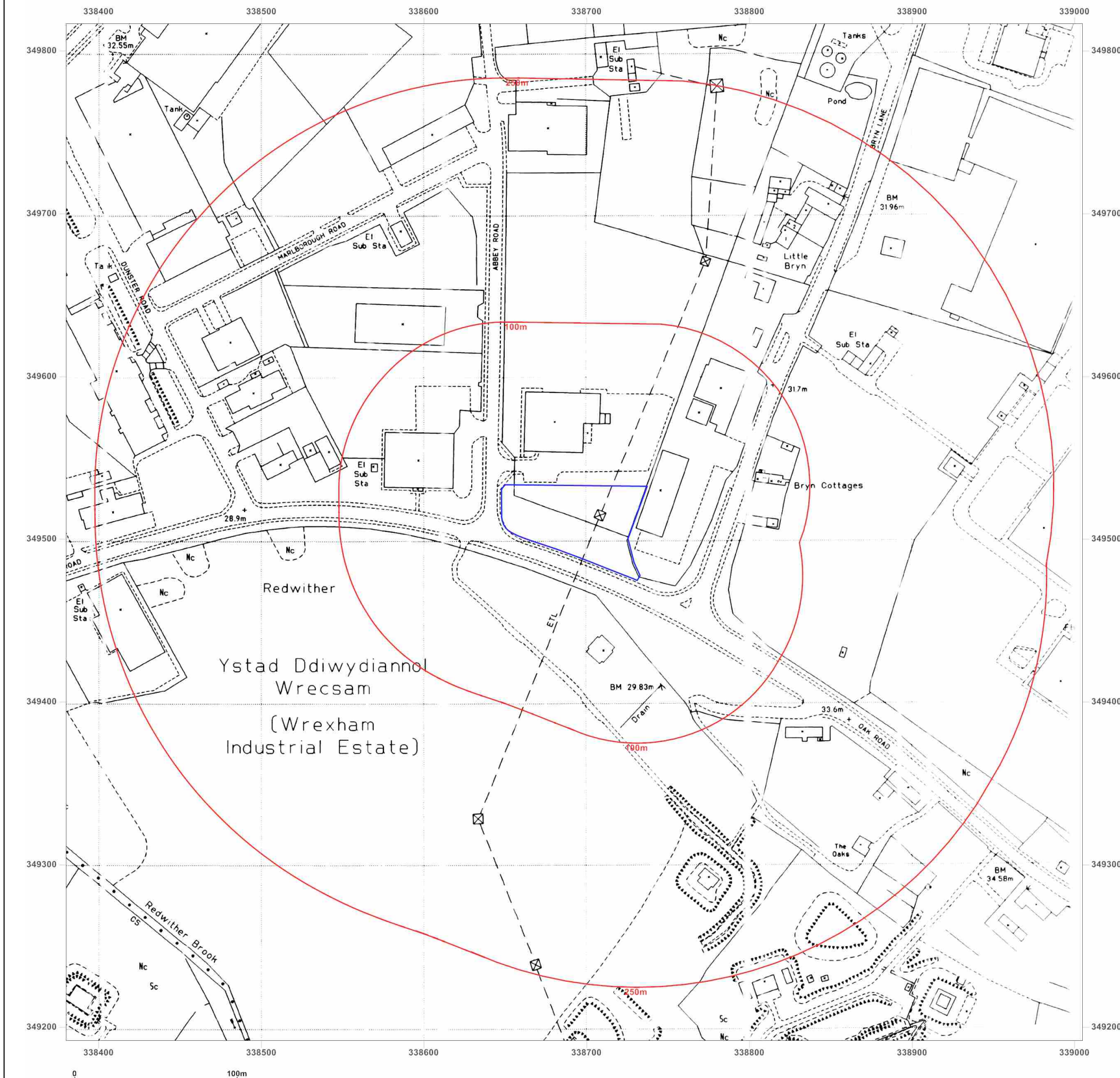


Produced by
Groundsure Insights
T: 08444 159000
E: info@groundsure.com
W: www.groundsure.com

© Crown copyright and database rights 2018 Ordnance Survey 100035207

Production date: 12 August 2019

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



Site Details:

WREXHAM INDUSTRIAL
ESTATE, WREXHAM, LL13 9RG

Client Ref: A9008-19
Report Ref: GS-6237863
Grid Ref: 338692, 349504

Map Name: National Grid

Map date: 1994

Scale: 1:2,500

Printed at: 1:2,500



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

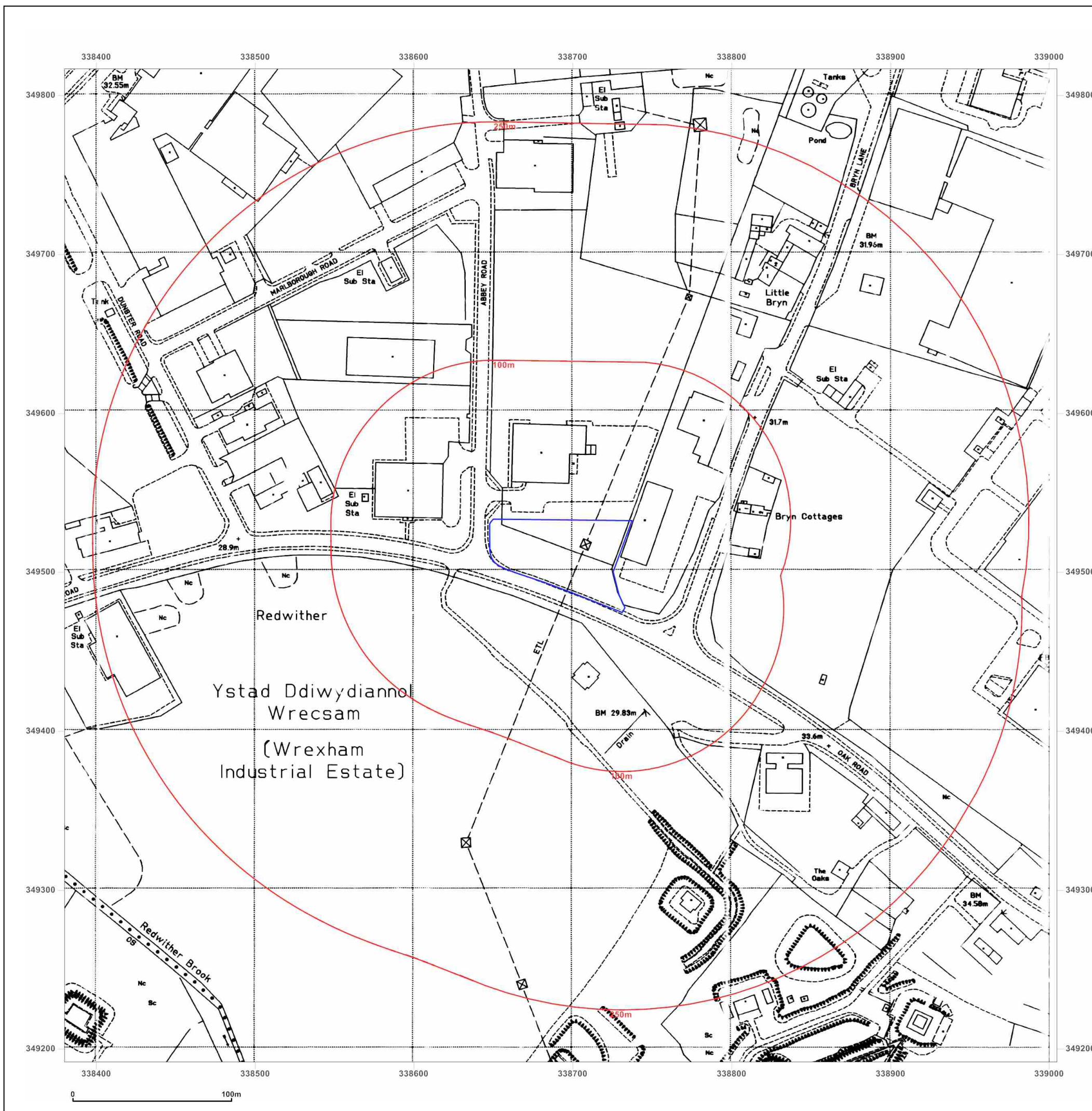


Produced by
Groundsure Insights
T: 08444 159000
E: info@groundsure.com
W: www.groundsure.com

© Crown copyright and database rights 2018 Ordnance Survey 100035207

Production date: 12 August 2019

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



Site Details:

WREXHAM INDUSTRIAL
ESTATE, WREXHAM, LL13 9RG

Client Ref: A9008-19
Report Ref: GS-6237863
Grid Ref: 338692, 349504

Map Name: National Grid

Map date: 1994

Scale: 1:2,500

Printed at: 1:2,500



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

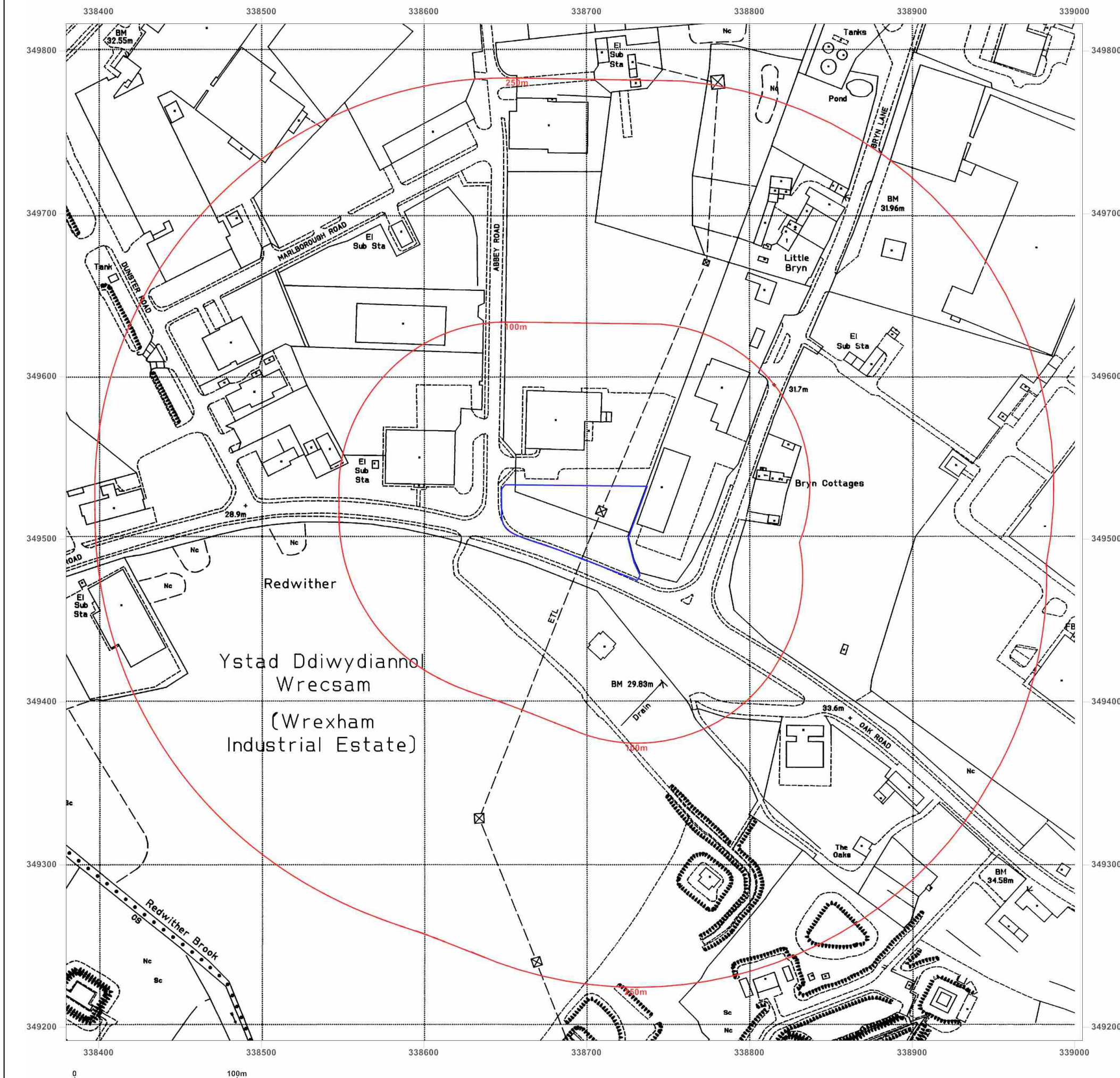


Produced by
Groundsure Insights
T: 08444 159000
E: info@groundsure.com
W: www.groundsure.com

© Crown copyright and database rights 2018 Ordnance Survey 100035207

Production date: 12 August 2019

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



Site Details:

WREXHAM INDUSTRIAL
ESTATE, WREXHAM, LL13 9RG

Client Ref: A9008-19
Report Ref: GS-6237863
Grid Ref: 338692, 349504

Map Name: County Series

Map date: 1872

Scale: 1:10,560

Printed at: 1:10,560



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

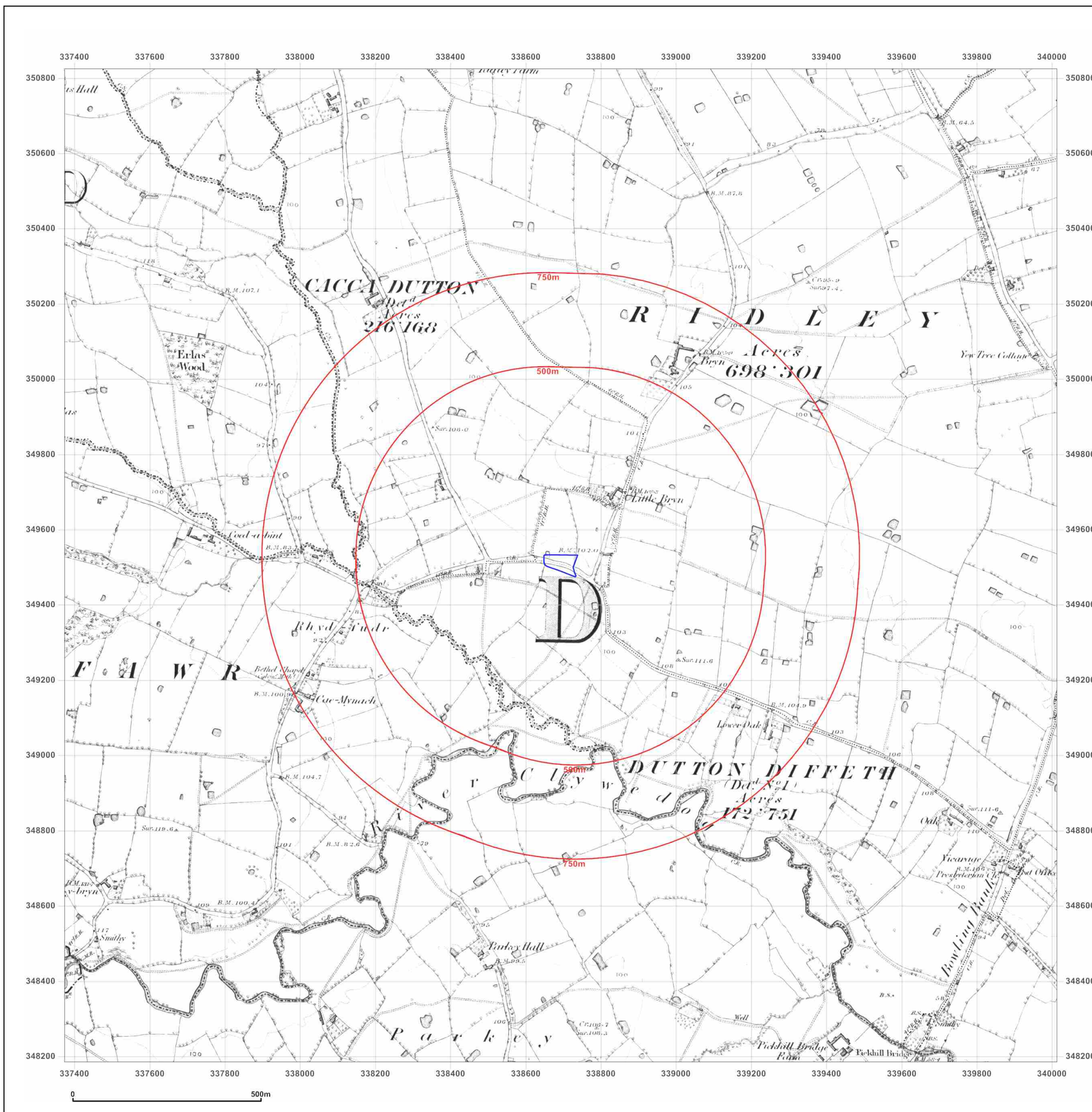


Produced by
Groundsure Insights
T: 08444 159000
E: info@groundsure.com
W: www.groundsure.com

© Crown copyright and database rights 2018 Ordnance Survey 100035207

Production date: 12 August 2019

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



Site Details:

WREXHAM INDUSTRIAL
ESTATE, WREXHAM, LL13 9RG

Client Ref: A9008-19
Report Ref: GS-6237863
Grid Ref: 338692, 349504

Map Name: County Series

Map date: 1897-1900

Scale: 1:10,560

Printed at: 1:10,560



Surveyed 1872
Revised 1900
Edition N/A
Copyright N/A
Levelled N/A

Surveyed 1872
Revised 1898
Edition N/A
Copyright N/A
Levelled N/A

Surveyed 1874
Revised 1897
Edition N/A
Copyright N/A
Levelled N/A

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

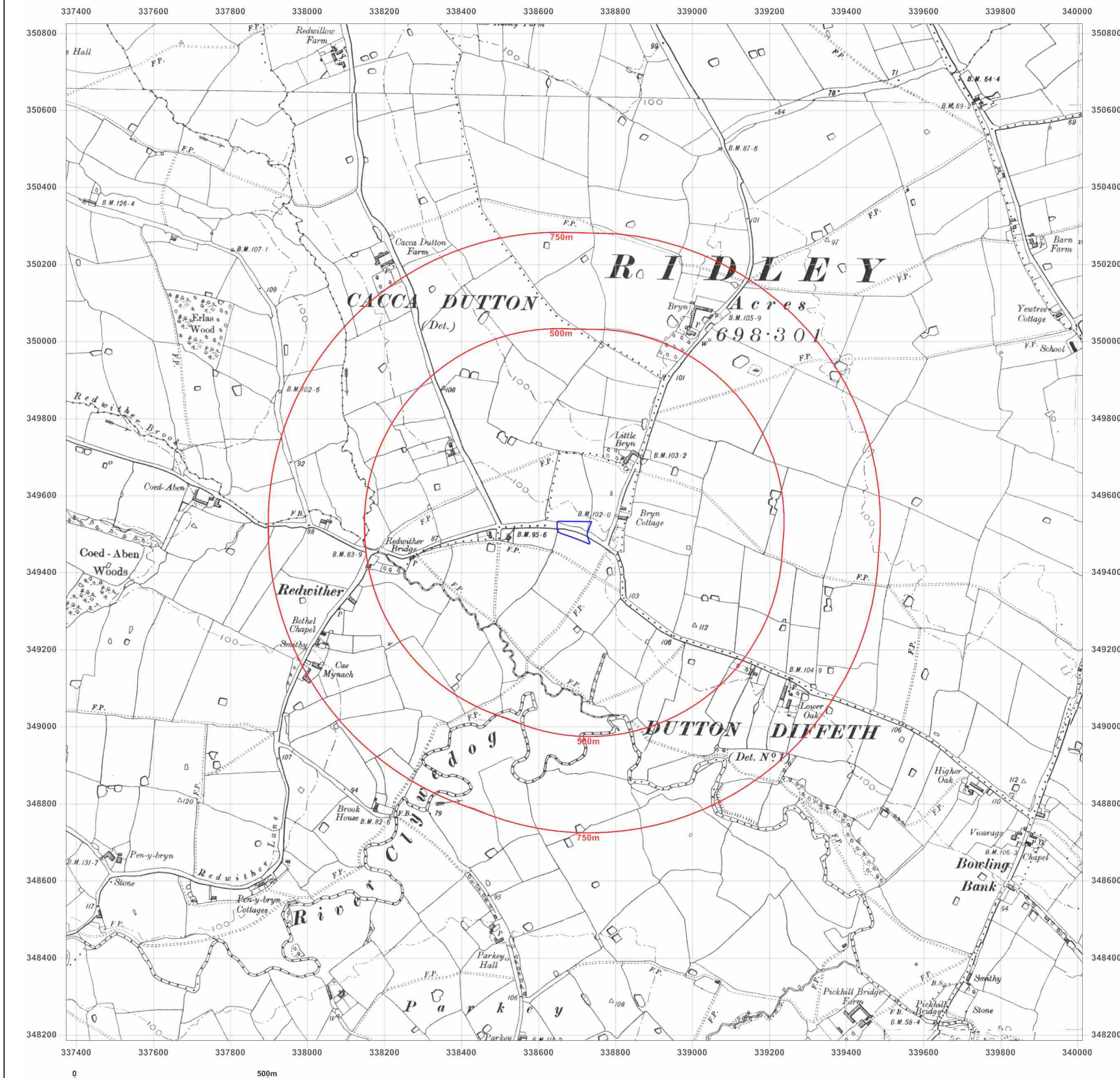


Produced by
Groundsure Insights
T: 08444 159000
E: info@groundsure.com
W: www.groundsure.com

© Crown copyright and database rights 2018 Ordnance Survey 100035207

Production date: 12 August 2019

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



Site Details:

WREXHAM INDUSTRIAL
ESTATE, WREXHAM, LL13 9RG

Client Ref: A9008-19
Report Ref: GS-6237863
Grid Ref: 338692, 349504

Map Name: County Series

Map date: 1909-1914

Scale: 1:10,560

Printed at: 1:10,560



Surveyed 1871
Revised 1914
Edition 1914
Copyright N/A
Levelled N/A

Surveyed 1872
Revised 1909
Edition N/A
Copyright N/A
Levelled N/A

Surveyed 1874
Revised 1913
Edition N/A
Copyright N/A
Levelled N/A

Surveyed 1874
Revised 1914
Edition N/A
Copyright N/A
Levelled N/A

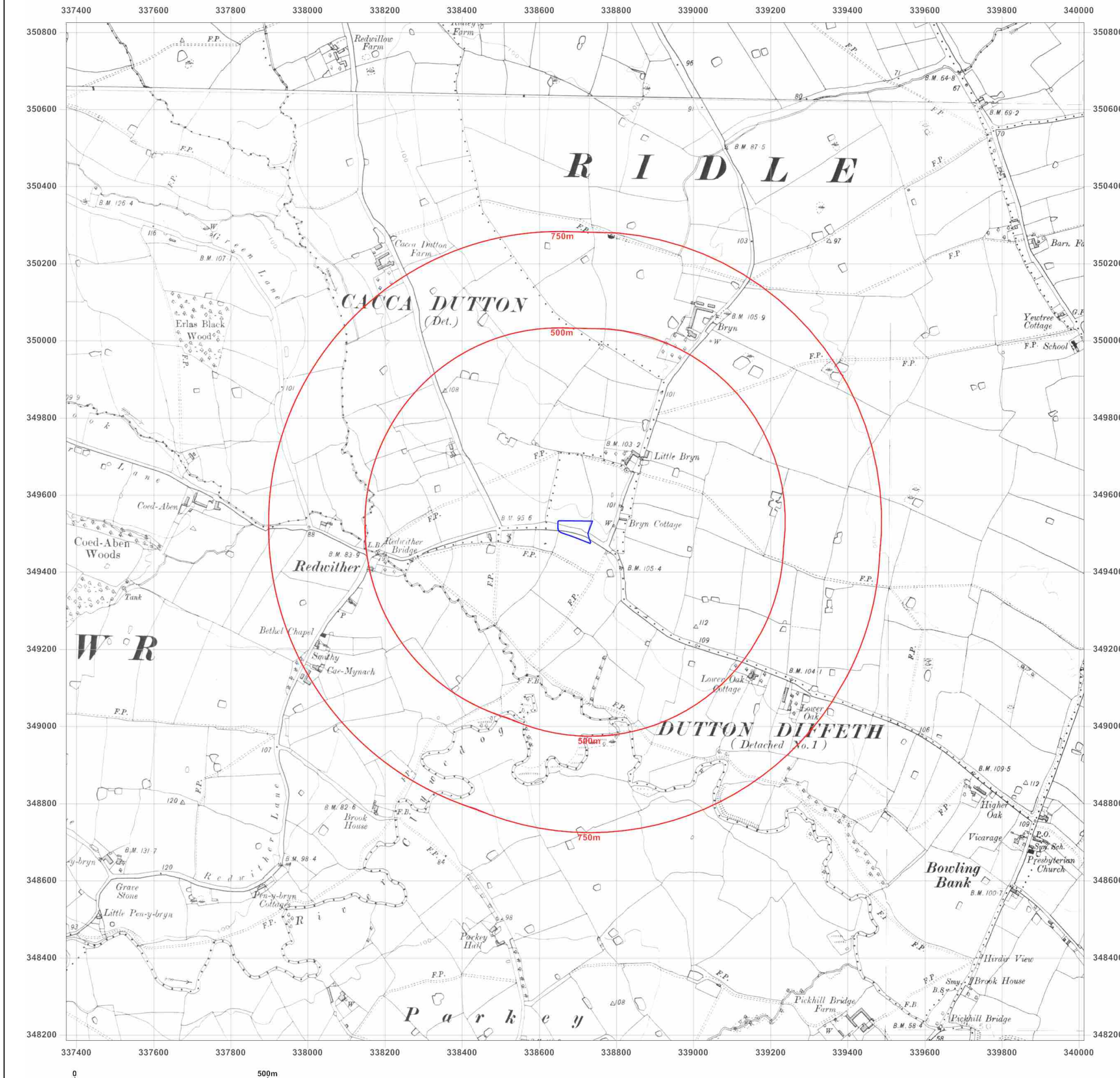


Produced by
Groundsure Insights
T: 08444 159000
E: info@groundsure.com
W: www.groundsure.com

© Crown copyright and database rights 2018 Ordnance Survey 100035207

Production date: 12 August 2019

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



Site Details:

WREXHAM INDUSTRIAL
ESTATE, WREXHAM, LL13 9RG

Client Ref: A9008-19
Report Ref: GS-6237863
Grid Ref: 338692, 349504

Map Name: County Series

Map date: 1938

Scale: 1:10,560

Printed at: 1:10,560



Surveyed 1872
Revised 1938
Edition 1938
Copyright N/A
Levelled N/A

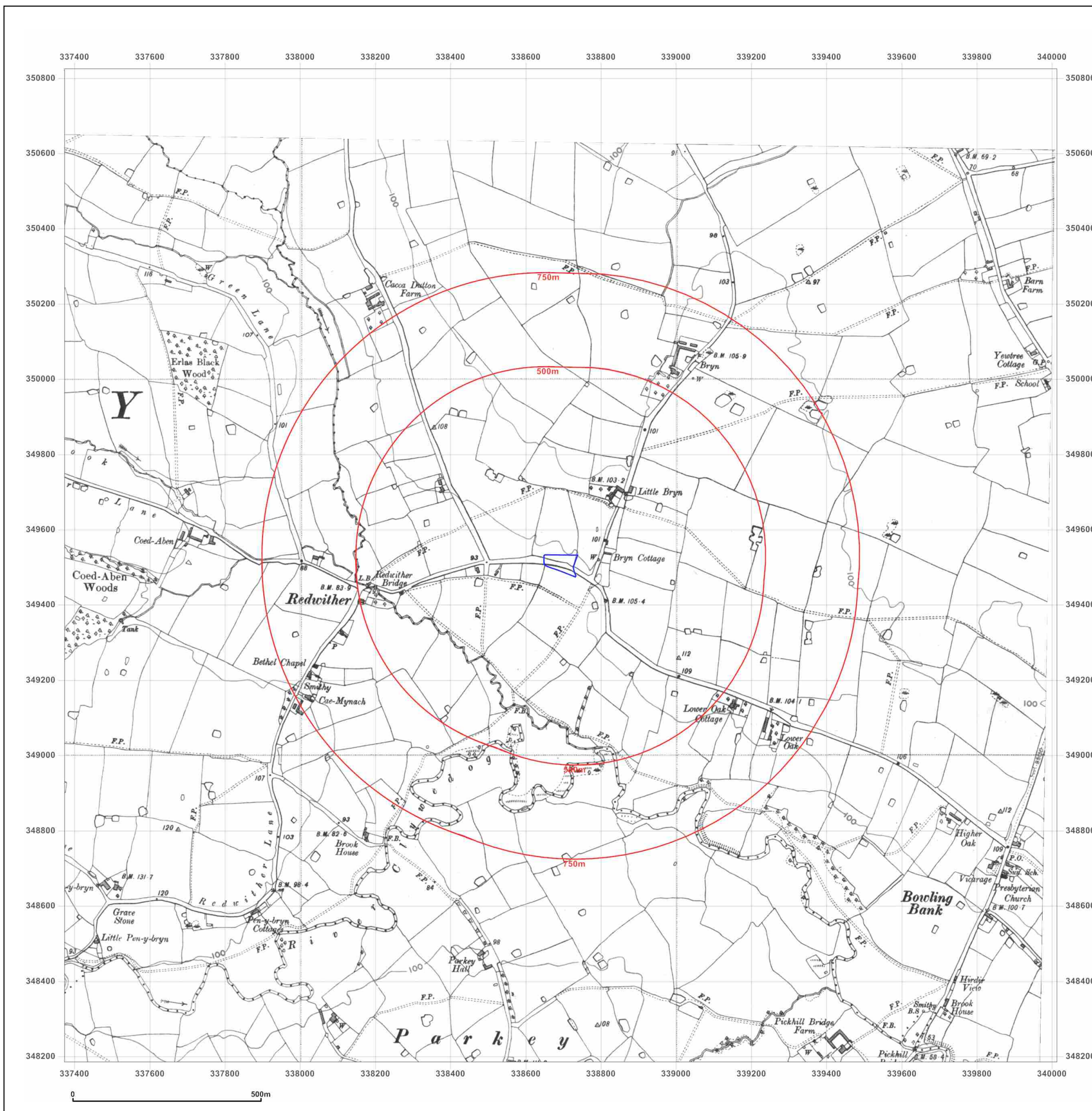


Produced by
Groundsure Insights
T: 08444 159000
E: info@groundsure.com
W: www.groundsure.com

© Crown copyright and database rights 2018 Ordnance Survey 100035207

Production date: 12 August 2019

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



Site Details:

WREXHAM INDUSTRIAL
ESTATE, WREXHAM, LL13 9RG

Client Ref: A9008-19
Report Ref: GS-6237863
Grid Ref: 338692, 349504

Map Name: County Series

Map date: 1949

Scale: 1:10,560

Printed at: 1:10,560



Surveyed 1871
Revised 1949
Edition N/A
Copyright N/A
Levelled N/A

Surveyed 1872
Revised 1949
Edition N/A
Copyright N/A
Levelled N/A

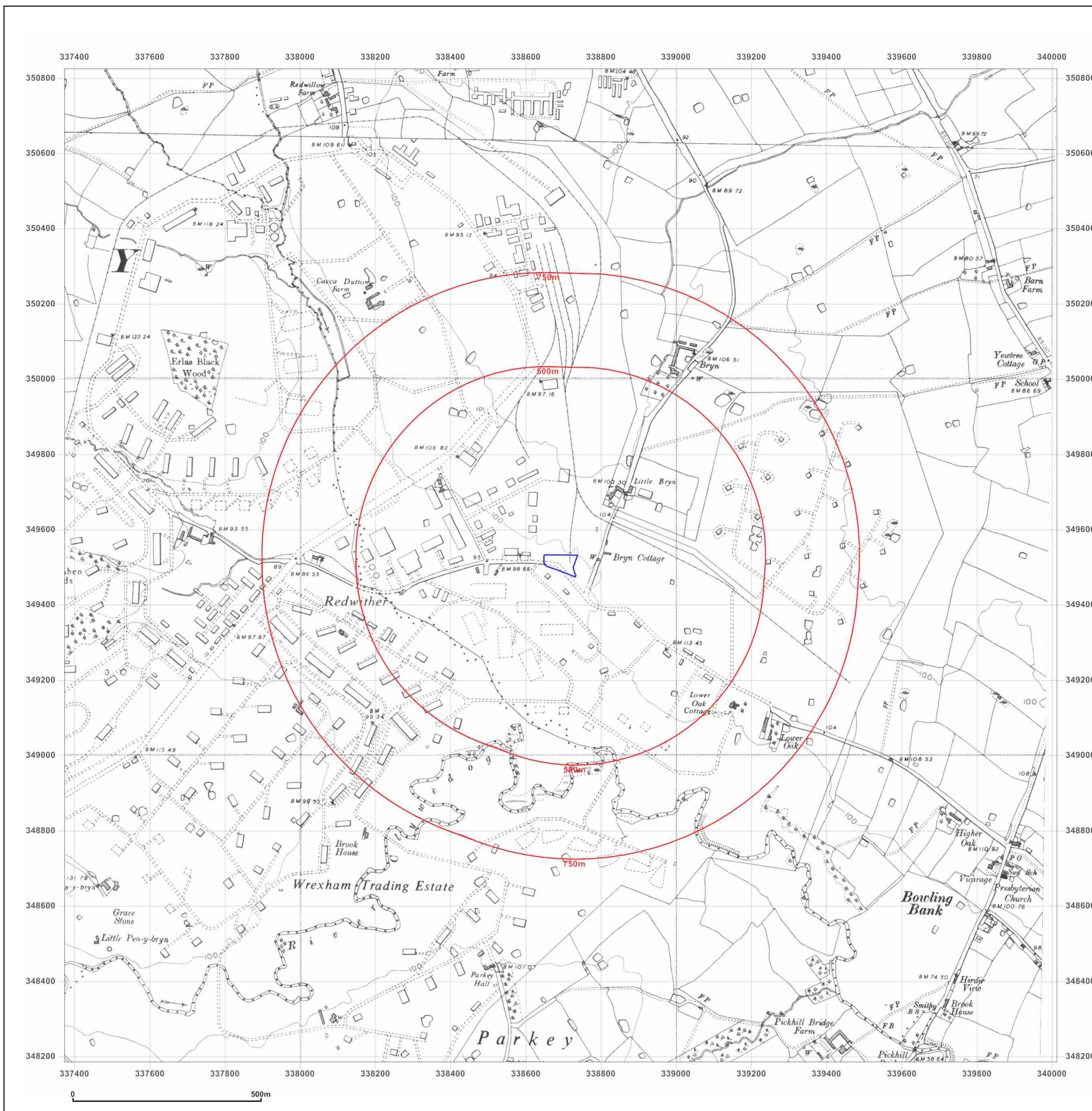


Produced by
Groundsure Insights
T: 08444 159000
E: info@groundsure.com
W: www.groundsure.com

© Crown copyright and database rights 2018 Ordnance Survey 100035207

Production date: 12 August 2019

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



Site Details:

WREXHAM INDUSTRIAL
ESTATE, WREXHAM, LL13 9RG

Client Ref: A9008-19
Report Ref: GS-6237863
Grid Ref: 338692, 349504

Map Name: Provisional

Map date: 1960-1964

Scale: 1:10,560

Printed at: 1:10,560



Surveyed 1874
Revised 1960
Edition N/A
Copyright N/A
Levelled N/A

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

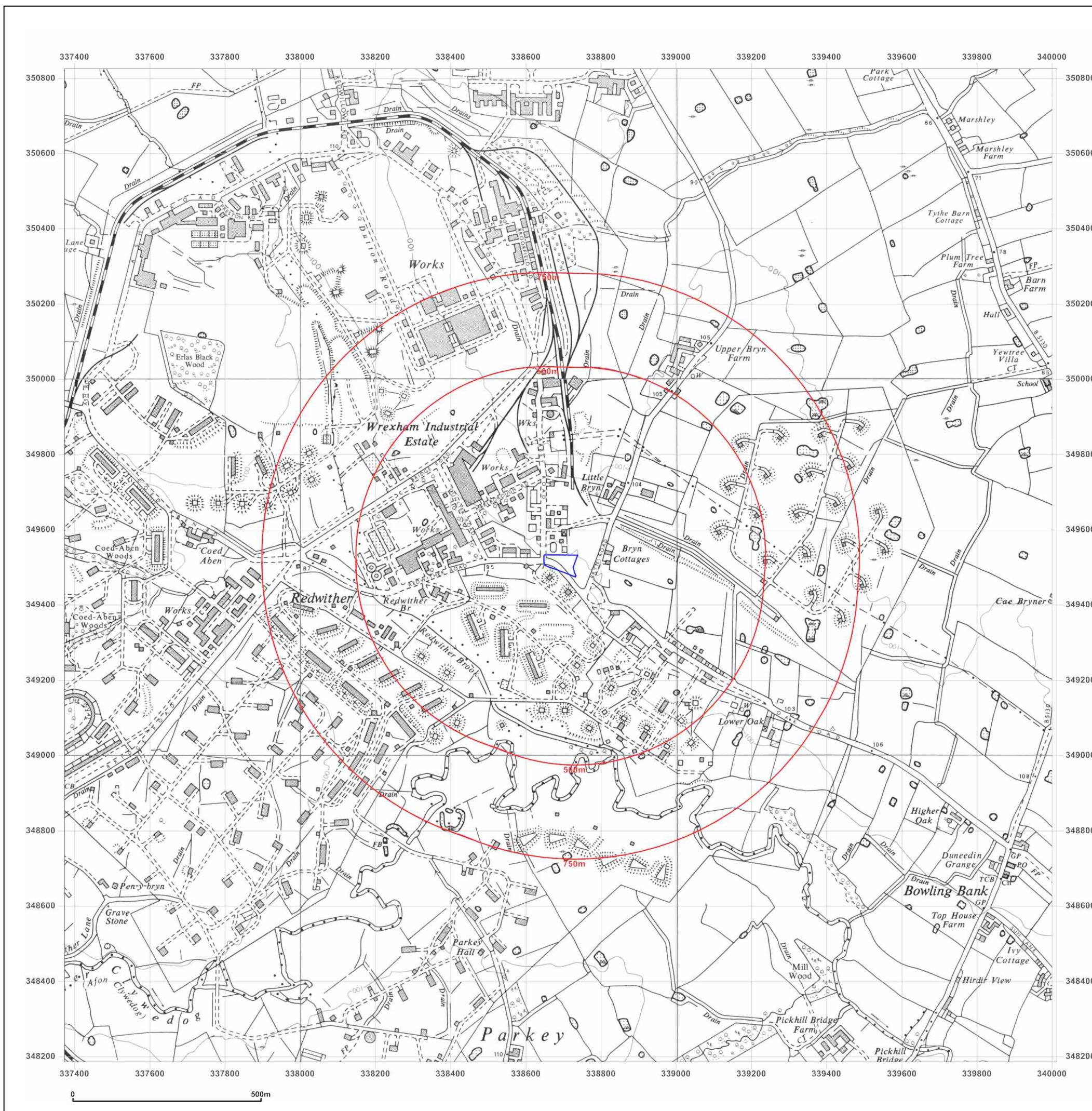


Produced by
Groundsure Insights
T: 08444 159000
E: info@groundsure.com
W: www.groundsure.com

© Crown copyright and database rights 2018 Ordnance Survey 100035207

Production date: 12 August 2019

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



Site Details:

WREXHAM INDUSTRIAL
ESTATE, WREXHAM, LL13 9RG

Client Ref: A9008-19
Report Ref: GS-6237863
Grid Ref: 338692, 349504

Map Name: Provisional

Map date: 1968-1970

Scale: 1:10,560

Printed at: 1:10,560



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

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

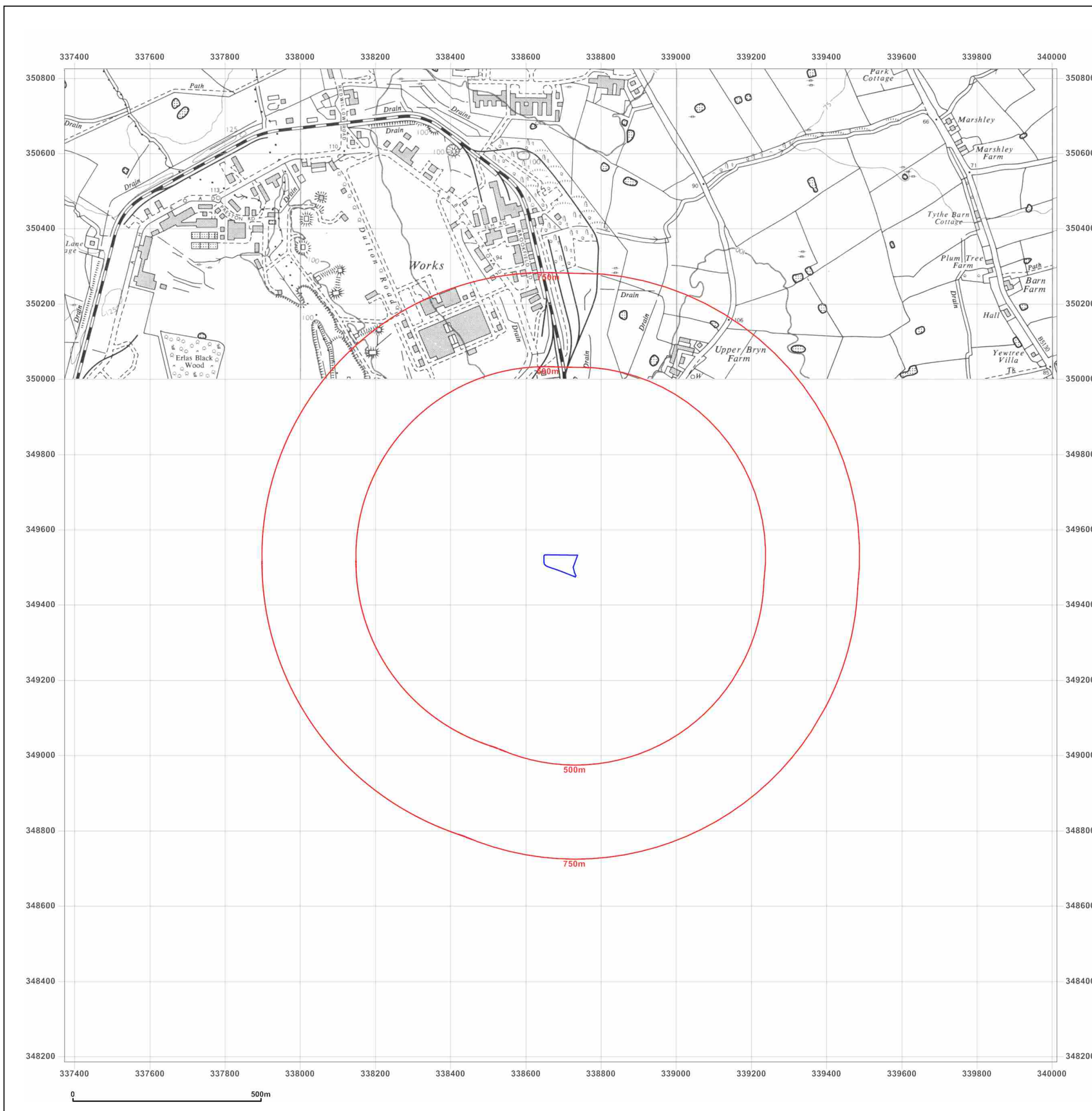


Produced by
Groundsure Insights
T: 08444 159000
E: info@groundsure.com
W: www.groundsure.com

© Crown copyright and database rights 2018 Ordnance Survey 100035207

Production date: 12 August 2019

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



Site Details:

WREXHAM INDUSTRIAL
ESTATE, WREXHAM, LL13 9RG

Client Ref: A9008-19
Report Ref: GS-6237863
Grid Ref: 338692, 349504

Map Name: National Grid

Map date: 1979-1982

Scale: 1:10,000

Printed at: 1:10,000



Surveyed 1970
Revised 1982
Edition N/A
Copyright N/A
Levelled N/A

Surveyed 1975
Revised 1978
Edition N/A
Copyright 1979
Levelled 1969

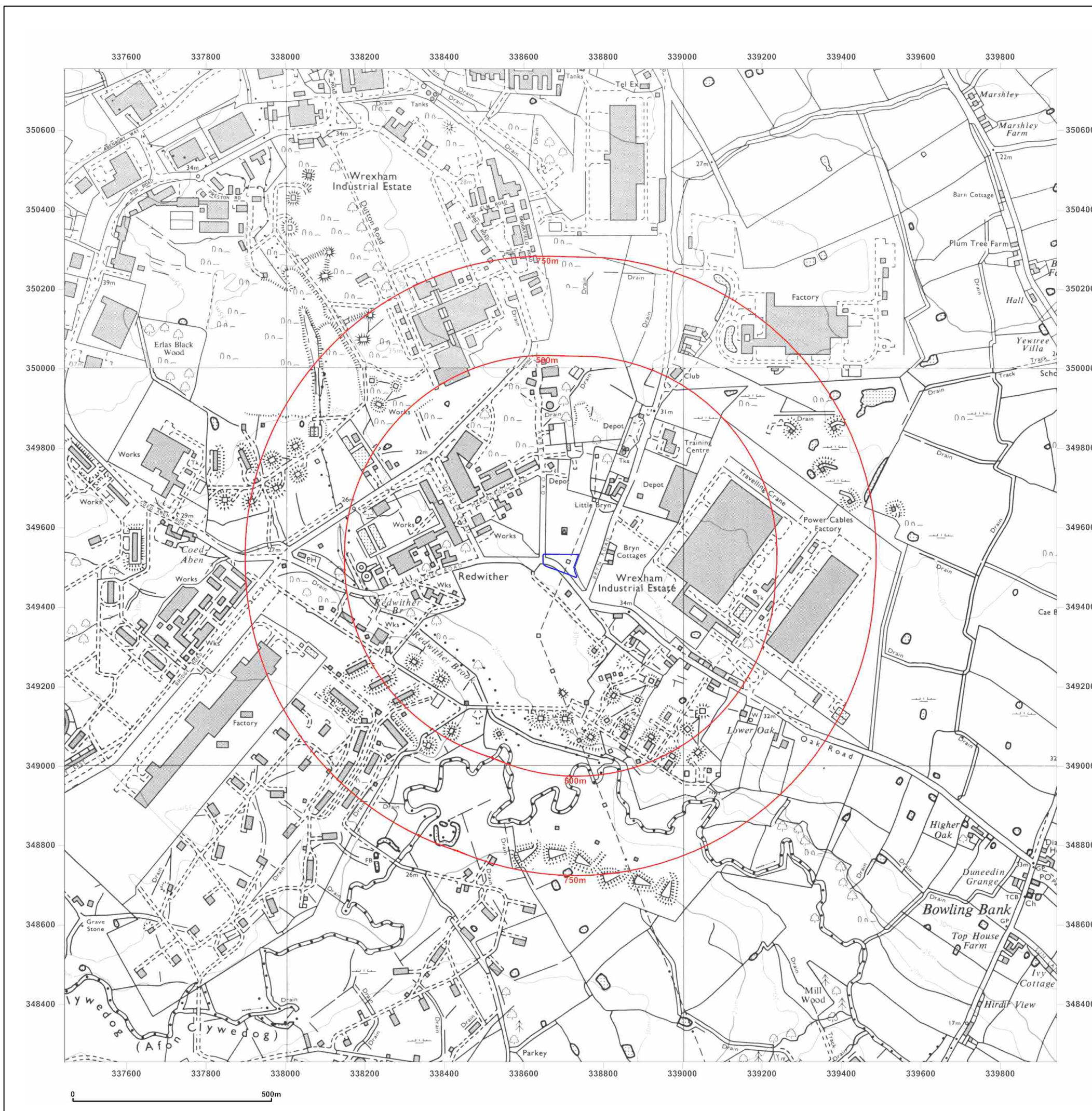


Produced by
Groundsure Insights
T: 08444 159000
E: info@groundsure.com
W: www.groundsure.com

© Crown copyright and database rights 2018 Ordnance Survey 100035207

Production date: 12 August 2019

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



Site Details:

WREXHAM INDUSTRIAL
ESTATE, WREXHAM, LL13 9RG

Client Ref: A9008-19
Report Ref: GS-6237863
Grid Ref: 338692, 349504

Map Name: National Grid

Map date: 1992

Scale: 1:10,000

Printed at: 1:10,000



Surveyed 1990
Revised 1992
Edition N/A
Copyright N/A
Levelled N/A

Surveyed 1983
Revised 1992
Edition N/A
Copyright N/A
Levelled N/A

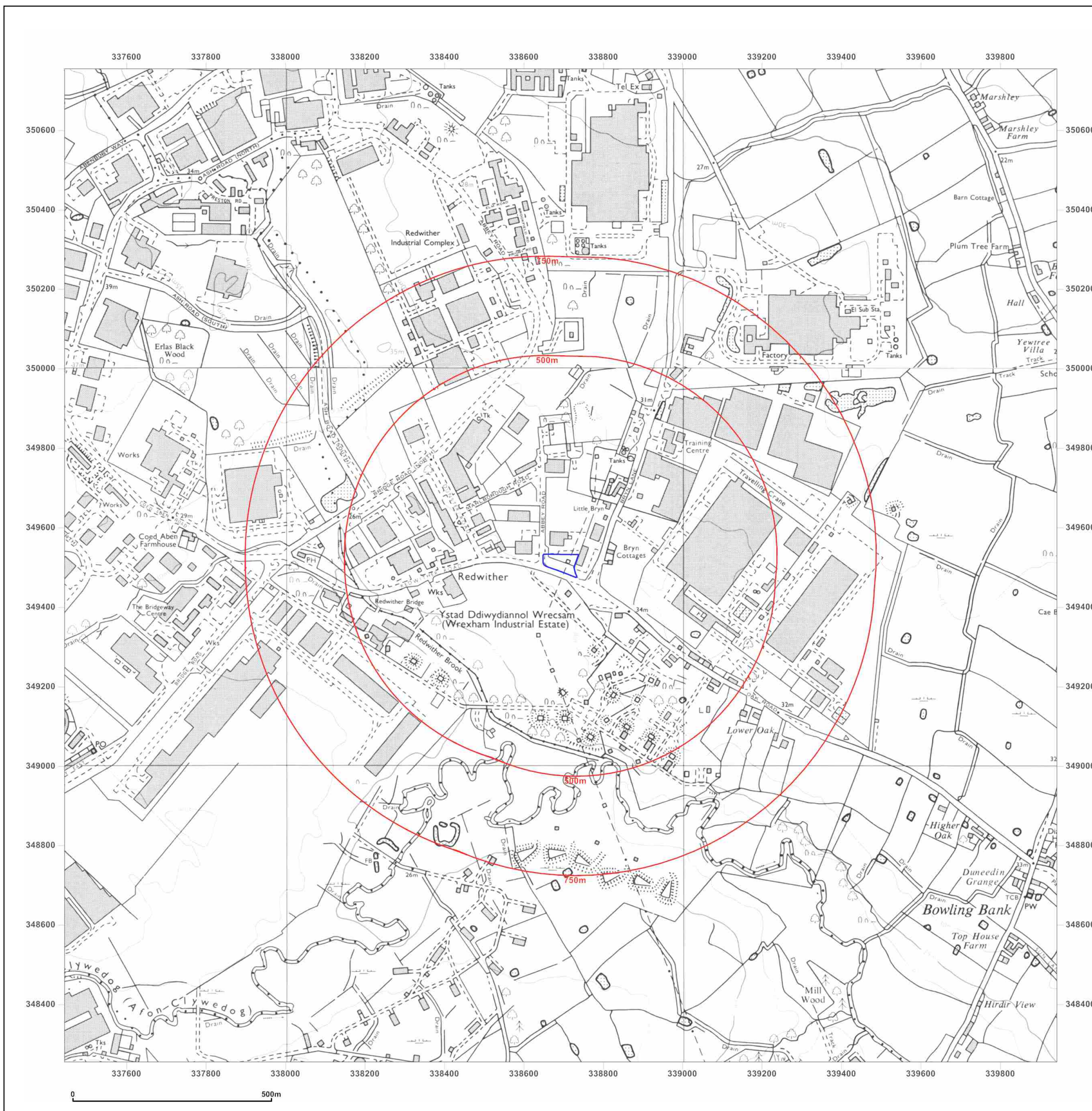


Produced by
Groundsure Insights
T: 08444 159000
E: info@groundsure.com
W: www.groundsure.com

© Crown copyright and database rights 2018 Ordnance Survey 100035207

Production date: 12 August 2019

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



Site Details:

WREXHAM INDUSTRIAL
ESTATE, WREXHAM, LL13 9RG

Client Ref: A9008-19
Report Ref: GS-6237863
Grid Ref: 338692, 349504

Map Name: 1:10,000 Raster

Map date: 2002

Scale: 1:10,000

Printed at: 1:10,000



2002

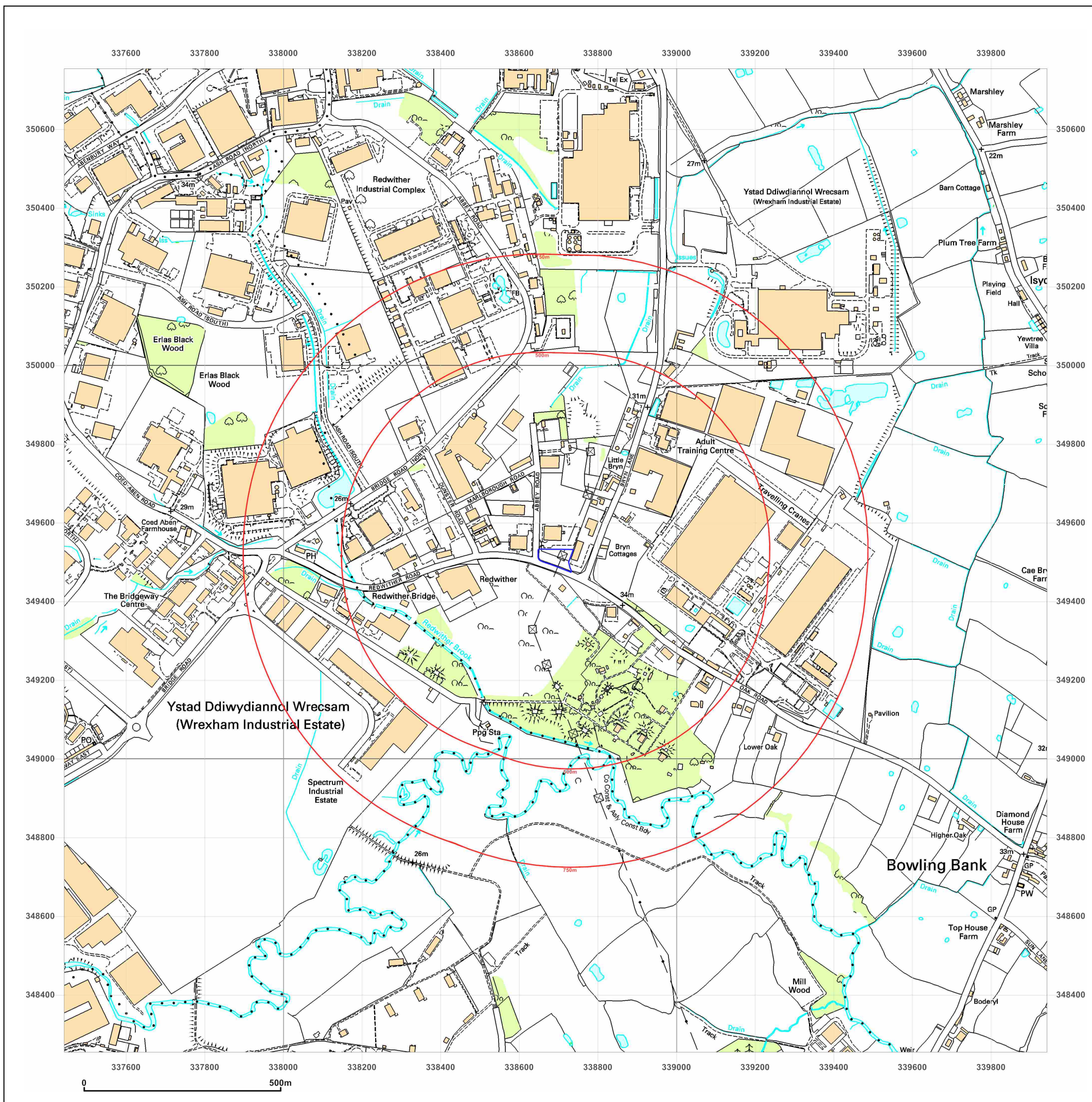


Produced by
Groundsure Insights
T: 08444 159000
E: info@groundsure.com
W: www.groundsure.com

© Crown copyright and database rights 2018 Ordnance Survey 100035207

Production date: 12 August 2019

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



Site Details:

WREXHAM INDUSTRIAL
ESTATE, WREXHAM, LL13 9RG

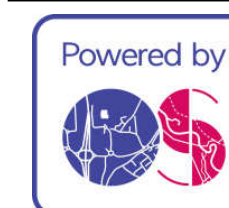
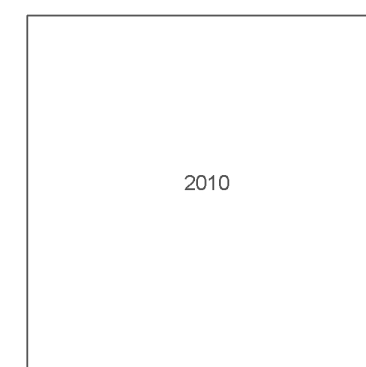
Client Ref: A9008-19
Report Ref: GS-6237863
Grid Ref: 338692, 349504

Map Name: National Grid

Map date: 2010

Scale: 1:10,000

Printed at: 1:10,000

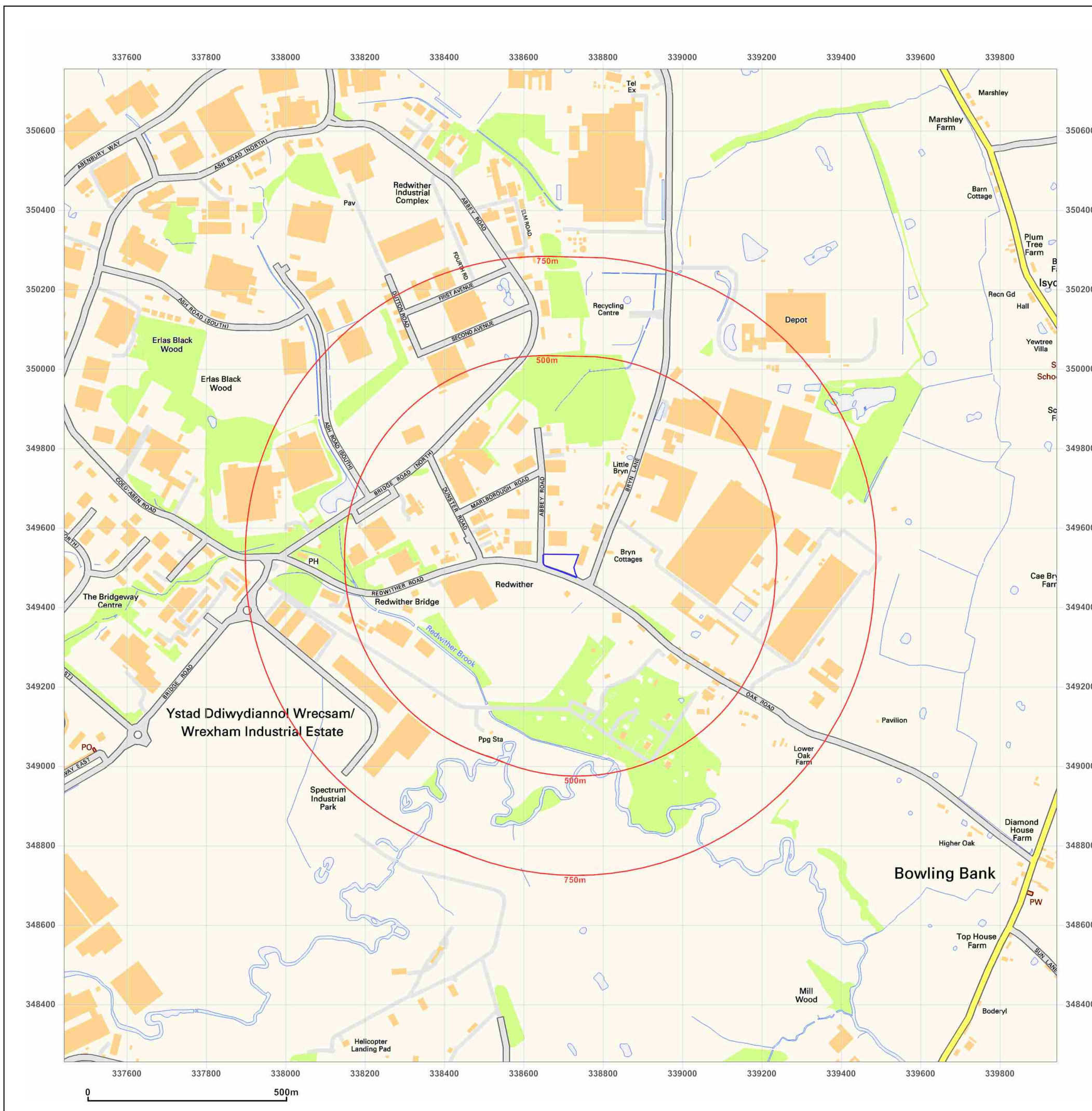


Produced by
Groundsure Insights
T: 08444 159000
E: info@groundsure.com
W: www.groundsure.com

© Crown copyright and database rights 2018 Ordnance Survey 100035207

Production date: 12 August 2019

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



Site Details:

WREXHAM INDUSTRIAL
ESTATE, WREXHAM, LL13 9RG

Client Ref: A9008-19
Report Ref: GS-6237863
Grid Ref: 338692, 349504

Map Name: National Grid

Map date: 2014

Scale: 1:10,000

Printed at: 1:10,000



2014

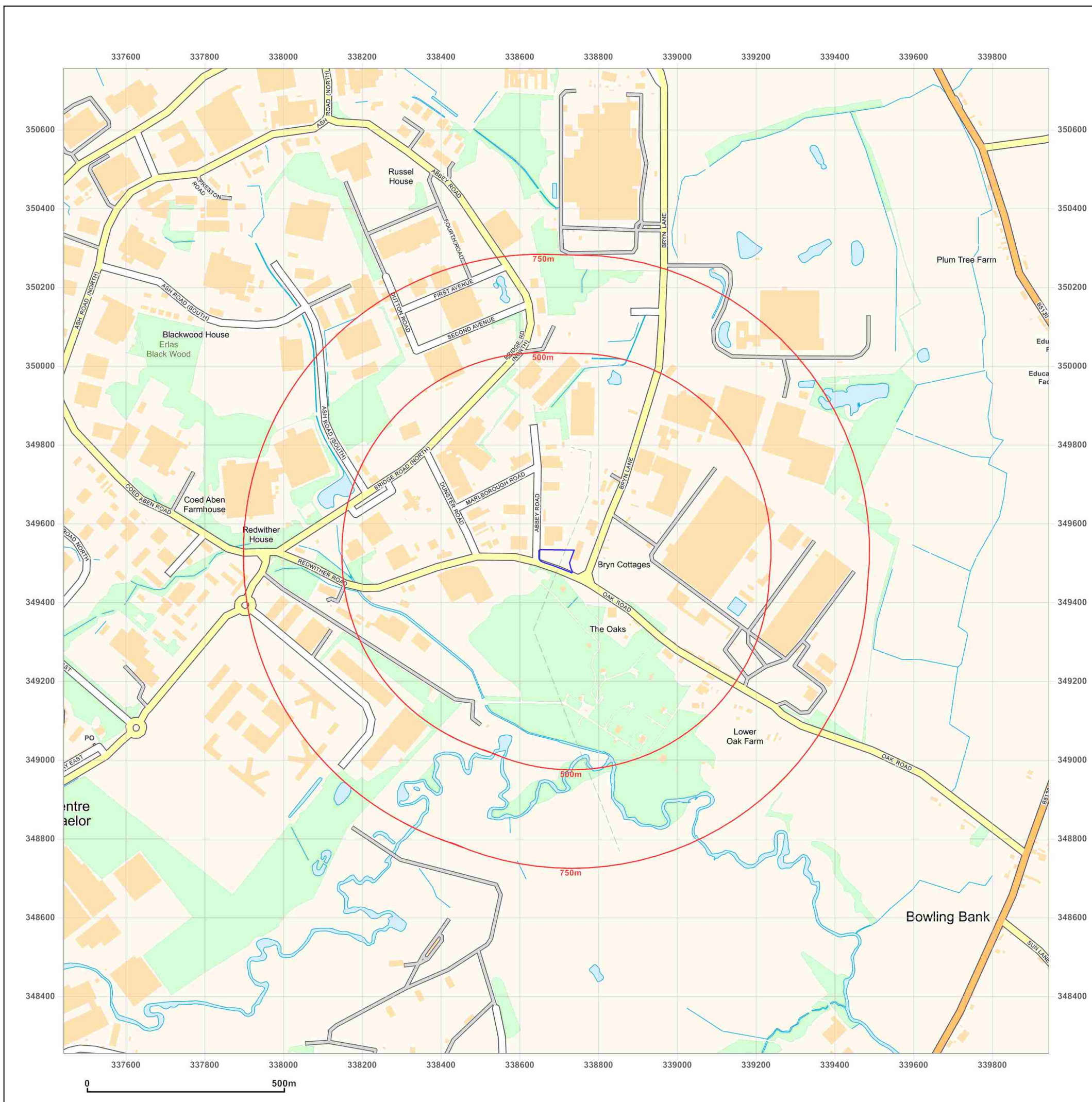


Produced by
Groundsure Insights
T: 08444 159000
E: info@groundsure.com
W: www.groundsure.com

© Crown copyright and database rights 2018 Ordnance Survey 100035207

Production date: 12 August 2019

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





SOCOTEC

APPENDIX C
OUNDSURE ENVIROINSIGHT

GroundSure EnviroInsight Report

GS-6237861

Address: WREXHAM INDUSTRIAL ESTATE, WREXHAM, LL13 9RG
Date: 12 Aug 2019
Reference: GS-6237861
Client: SOCOTEC UK Limited



Aerial Photograph Capture date: 07-May-2017
Grid Reference: 338696,349515
Site Size: 0.3474ha

Report Reference: GS-6237861
Client Reference: A9008-19

Contents Page

Contents Page	3
Overview of Findings	6
Using this report	10
1. Historical Land Use	11
1. Historical Industrial Sites	12
1.1 Potentially Contaminative Uses identified from 1:10,000 scale Mapping	12
1.2 Additional Information – Historical Tank Database	14
1.3 Additional Information – Historical Energy Features Database	15
1.4 Additional Information – Historical Petrol and Fuel Site Database	17
1.5 Additional Information – Historical Garage and Motor Vehicle Repair Database	17
1.6 Historical military sites	17
1.7 Potentially Infilled Land	18
2. Environmental Permits, Incidents and Registers Map	20
2. Environmental Permits, Incidents and Registers	21
2.1 Industrial Sites Holding Licences and/or Authorisations	21
2.1.1 Records of historic IPC Authorisations within 500m of the study site	21
2.1.2 Records of Part A(1) and IPPC Authorised Activities within 500m of the study site	21
2.1.3 Records of Red List Discharge Consents (potentially harmful discharges to controlled waters) within 500m of the study site	27
2.1.4 Records of List 1 Dangerous Substances Inventory Sites within 500m of the study site	27
2.1.5 Records of List 2 Dangerous Substance Inventory Sites within 500m of the study site	27
2.1.6 Records of Part A(2) and Part B Activities and Enforcements within 500m of the study site	27
2.1.7 Records of Category 3 or 4 Radioactive Substances Authorisations	28
2.1.8 Records of Licensed Discharge Consents within 500m of the study site	29
2.1.9 Records of Water Industry Referrals (potentially harmful discharges to the public sewer) within 500m of the study site	30
2.1.10 Records of Planning Hazardous Substance Consents and Enforcements within 500m of the study site	30
2.2 Dangerous or Hazardous Sites	30
2.3 Environment Agency/Natural Resources Wales Recorded Pollution Incidents	30
2.3.1 Records of National Incidents Recording System, List 2 within 500m of the study site	30
2.3.2 Records of National Incidents Recording System, List 1 within 500m of the study site	35
2.4 Sites Determined as Contaminated Land under Part 2A EPA 1990	35
3. Landfill and Other Waste Sites Map	36
3. Landfill and Other Waste Sites	37
3.1 Landfill Sites	37
3.1.1 Records from Environment Agency/Natural Resources Wales landfill data within 1000m of the study site	37
3.1.2 Records of Environment Agency/Natural Resources Wales historic landfill sites within 1500m of the study site	37
3.1.3 Records of BGS/DoE non-operational landfill sites within 1500m of the study site	38
3.1.4 Records of Landfills from Local Authority and Historical Mapping Records within 1500m of the study site	38
3.2 Other Waste Sites	38
3.2.1 Records of waste treatment, transfer or disposal sites within 500m of the study site	38
3.2.2 Records of Environment Agency/Natural Resources Wales licensed waste sites within 1500m of the study site	40
4. Current Land Use Map	61
4. Current Land Uses	62
4.1 Current Industrial Data	62
4.2 Petrol and Fuel Sites	63
4.3 National Grid High Voltage Underground Electricity Transmission Cables	63
4.4 National Grid High Pressure Gas Transmission Pipelines	63

5. Geology	64
5.1 Artificial Ground and Made Ground.....	64
5.2 Superficial Ground and Drift Geology	64
5.3 Bedrock and Solid Geology	64
6 Hydrogeology and Hydrology	65
6a. Aquifer Within Superficial Geology	65
6b. Aquifer Within Bedrock Geology and Abstraction Licences	66
6c. Hydrogeology – Source Protection Zones and Potable Water Abstraction Licences	67
6d. Hydrogeology – Source Protection Zones within confined aquifer	68
6e. Hydrology – Watercourse Network and River Quality	69
6.Hydrogeology and Hydrology	70
6.1 Aquifer within Superficial Deposits.....	70
6.2 Aquifer within Bedrock Deposits.....	70
6.3 Groundwater Abstraction Licences.....	71
6.4 Surface Water Abstraction Licences.....	72
6.5 Potable Water Abstraction Licences.....	73
6.6 Source Protection Zones.....	73
6.7 Source Protection Zones within Confined Aquifer.....	73
6.8 Groundwater Vulnerability and Soil Leaching Potential.....	74
6.9 River Quality.....	74
6.9.1 Biological Quality:.....	74
6.9.2 Chemical Quality:.....	75
6.10 Ordnance Survey MasterMap Water Network.....	75
6.11 Surface Water Features.....	79
7a. Environment Agency/Natural Resources Wales Flood Map for Planning (from rivers and the sea)	80
7b. Environment Agency/Natural Resources Wales Risk of Flooding from Rivers and the Sea (RoFRaS) Map	81
7 Flooding	82
7.1 River and Coastal Zone 2 Flooding.....	82
7.2 River and Coastal Zone 3 Flooding.....	82
7.3 Risk of Flooding from Rivers and the Sea (RoFRaS) Flood Rating.....	82
7.4 Flood Defences.....	82
7.5 Areas benefiting from Flood Defences.....	82
7.6 Areas benefiting from Flood Storage.....	83
7.7 Groundwater Flooding Susceptibility Areas.....	83
7.8 Groundwater Flooding Confidence Areas.....	83
8. Designated Environmentally Sensitive Sites Map	84
8. Designated Environmentally Sensitive Sites	85
8.1 Records of Sites of Special Scientific Interest (SSSI) within 2000m of the study site:.....	85
8.2 Records of National Nature Reserves (NNR) within 2000m of the study site:.....	85
8.3 Records of Special Areas of Conservation (SAC) within 2000m of the study site:.....	85
8.4 Records of Special Protection Areas (SPA) within 2000m of the study site:.....	85
8.5 Records of Ramsar sites within 2000m of the study site:.....	85
8.6 Records of Ancient Woodland within 2000m of the study site:	86
8.7 Records of Local Nature Reserves (LNR) within 2000m of the study site:.....	86
8.8 Records of World Heritage Sites within 2000m of the study site:.....	86
8.9 Records of Environmentally Sensitive Areas within 2000m of the study site:	86
8.10 Records of Areas of Outstanding Natural Beauty (AONB) within 2000m of the study site:	87
8.11 Records of National Parks (NP) within 2000m of the study site:	87
8.12 Records of Nitrate Sensitive Areas within 2000m of the study site:.....	87
8.13 Records of Nitrate Vulnerable Zones within 2000m of the study site:.....	87

8.14 Records of Green Belt land within 2000m of the study site:.....	87
9. Natural Hazards Findings.....	88
9.1 Detailed BGS GeoSure Data.....	88
9.1.1 Shrink Swell.....	88
9.1.2 Landslides.....	88
9.1.3 Soluble Rocks.....	88
9.1.4 Compressible Ground.....	89
9.1.5 Collapsible Rocks.....	89
9.1.6 Running Sand.....	89
9.2 Radon.....	90
9.2.1 Radon Affected Areas.....	90
9.2.2 Radon Protection.....	90
10. Mining.....	91
10.1 Coal Mining.....	91
10.2 Non-Coal Mining.....	91
10.3 Brine Affected Areas	91
Contact Details.....	92
Standard Terms and Conditions.....	94

Overview of Findings

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

Section 1: Historical Industrial Sites	On-site	0-50	51-250	251-500
1.1 Potentially Contaminative Uses identified from 1:10,000 scale mapping	3	1	24	36
1.2 Additional Information – Historical Tank Database	0	0	13	62
1.3 Additional Information – Historical Energy Features Database	0	0	18	33
1.4 Additional Information – Historical Petrol and Fuel Site Database	0	0	0	0
1.5 Additional Information – Historical Garage and Motor Vehicle Repair Database	0	0	0	0
1.6 Historical military sites	1	0	0	0
1.7 Potentially Infilled Land	0	0	10	33
Section 2: Environmental Permits, Incidents and Registers	On-site	0-50m	51-250	251-500
2.1 Industrial Sites Holding Environmental Permits and/or Authorisations				
2.1.1 Records of historic IPC Authorisations	0	0	2	0
2.1.2 Records of Part A(1) and IPPC Authorised Activities	0	0	29	11
2.1.3 Records of Red List Discharge Consents	0	0	0	0
2.1.4 Records of List 1 Dangerous Substances Inventory sites	0	0	0	0
2.1.5 Records of List 2 Dangerous Substances Inventory sites	0	0	0	2
2.1.6 Records of Part A(2) and Part B Activities and Enforcements	0	0	2	2
2.1.7 Records of Category 3 or 4 Radioactive Substances Authorisations	0	0	4	0
2.1.8 Records of Licensed Discharge Consents	0	0	1	6
2.1.9 Records of Water Industry Referrals	0	0	0	0
2.1.10 Records of Planning Hazardous Substance Consents and Enforcements within 500m of the study site	0	0	0	0
2.2 Records of COMAH and NIHHS sites	0	0	0	0
2.3 Environment Agency/Natural Resources Wales Recorded Pollution Incidents				
2.3.1 National Incidents Recording System, List 2	0	0	9	45
2.3.2 National Incidents Recording System, List 1	0	0	0	2
2.4 Sites Determined as Contaminated Land under Part 2A EPA 1990	0	0	0	0

Section 3: Landfill and Other Waste Sites	On-site	0-50m	51-250	251-500	501-1000	1000-1500
3.1 Landfill Sites						
3.1.1 Environment Agency/Natural Resources Wales Registered Landfill Sites	0	0	2	0	0	Not searched
3.1.2 Environment Agency/Natural Resources Wales Historic Landfill Sites	0	0	0	1	4	0
3.1.3 BGS/DoE Landfill Site Survey	0	0	0	0	0	0
3.1.4 Records of Landfills in Local Authority and Historical Mapping Records	0	0	0	0	0	0
3.2 Landfill and Other Waste Sites Findings						
3.2.1 Operational and Non-Operational Waste Treatment, Transfer and Disposal Sites	0	0	1	4	Not searched	Not searched
3.2.2 Environment Agency/Natural Resources Wales Licensed Waste Sites	0	0	30	55	15	10

Section 4: Current Land Use	On-site	0-50m	51-250	251-500
4.1 Current Industrial Sites Data	1	0	16	Not searched
4.2 Records of Petrol and Fuel Sites	0	0	0	0
4.3 National Grid Underground Electricity Cables	0	0	0	0
4.4 National Grid Gas Transmission Pipelines	0	0	0	0

Section 5: Geology	
5.1 Records of Artificial Ground and Made Ground present beneath the study site	None identified
5.2 Records of Superficial Ground and Drift Geology present beneath the study site	Identified
5.3 For records of Bedrock and Solid Geology beneath the study site see the detailed findings section.	

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

Section 6: Hydrogeology and Hydrology

0-500m

	On-site	0-50m	51-250	251-500	501-1000	1000-1500
6.9 Environment Agency/Natural Resources Wales information on river quality within 1500m of the study site	No	No	No	Yes	No	No
6.10 Ordnance Survey MasterMap Water Network entries within 500m of the site	0	0	2	42	Not searched	Not searched
6.11 Surface water features within 250m of the study site	No	No	Yes	Not searched	Not searched	Not searched

Section 7: Flooding

7.1 Environment Agency Zone 2 floodplains within 250m of the study site	None identified					
7.2 Environment Agency/Natural Resources Wales Zone 3 floodplains within 250m of the study site	None identified					
7.3 Risk of flooding from Rivers and the Sea (RoFRaS) rating for the study site	Very Low					
7.4 Flood Defences within 250m of the study site	None identified					
7.5 Areas benefiting from Flood Defences within 250m of the study site	None identified					
7.6 Areas used for Flood Storage within 250m of the study site	None identified					
7.7 Maximum BGS Groundwater Flooding susceptibility within 50m of the study site	Potential below Surface					
7.8 BGS confidence rating for the Groundwater Flooding susceptibility areas	High					

Section 8: Designated Environmentally Sensitive Sites

	On-site	0-50m	51-250	251-500	501-1000	1000-2000
8.1 Records of Sites of Special Scientific Interest (SSSI)	0	0	0	0	0	0
8.2 Records of National Nature Reserves (NNR)	0	0	0	0	0	0
8.3 Records of Special Areas of Conservation (SAC)	0	0	0	0	0	0
8.4 Records of Special Protection Areas (SPA)	0	0	0	0	0	0
8.5 Records of Ramsar sites	0	0	0	0	0	0
8.6 Records of Ancient Woodlands	0	0	0	0	1	9
8.7 Records of Local Nature Reserves (LNR)	0	0	0	0	0	0
8.8 Records of World Heritage Sites	0	0	0	0	0	0
8.9 Records of Environmentally Sensitive Areas	0	0	0	0	0	0

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

Section 9: Natural Hazards	
9.1 Maximum risk of natural ground subsidence	Very Low
9.1.1 Maximum Shrink-Swell hazard rating identified on the study site	Very Low
9.1.2 Maximum Landslides hazard rating identified on the study site	Very Low
9.1.3 Maximum Soluble Rocks hazard rating identified on the study site	Negligible
9.1.4 Maximum Compressible Ground hazard rating identified on the study site	Negligible
9.1.5 Maximum Collapsible Rocks hazard rating identified on the study site	Very Low
9.1.6 Maximum Running Sand hazard rating identified on the study site	Very Low
9.2 Radon	
9.2.1 Is the property in a Radon Affected Area as defined by the Health Protection Agency (HPA) and if so what percentage of homes are above the Action Level?	The site is not in a Radon Affected Area, as less than 1% of properties are above the Action Level.
9.2.2 Is the property in an area where Radon Protection are required for new properties or extensions to existing ones as described in publication BR211 by the Building Research Establishment?	No radon protective measures are necessary.

Section 10: Mining	
10.1 Coal mining areas within 75m of the study site	None identified
10.2 Non-Coal Mining areas within 50m of the study site boundary	None identified
10.3 Brine affected areas within 75m of the study site	None identified

Using this report

The following report is designed by Environmental Consultants for Environmental Professionals bringing together the most up-to-date market leading environmental data. This report is provided under and subject to the Terms & Conditions agreed between Groundsure and the Client. The document contains the following sections:

1. Historical Industrial Sites

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

2. Environmental Permits, Incidents and Registers

Provides information on Regulated Industrial Activities and Pollution Incidents as recorded by Regulatory Authorities, and sites determined as Contaminated Land. This search is conducted using radii up to 500m.

3. Landfills and Other Waste Sites

Provides information on landfills and other waste sites that may pose a risk to the study site. This search is conducted using radii up to 1500m.

4. Current Land Uses

Provides information on current land uses that may pose a risk to the study site in terms of potential contamination from activities or processes. These searches are conducted using radii of up to 500m. This includes information on potentially contaminative industrial sites, petrol stations and fuel sites as well as high pressure gas pipelines and underground electricity transmission lines.

5. Geology

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

6. Hydrogeology and Hydrology

Provides information on productive strata within the bedrock and superficial geological layers, abstraction licences, Source Protection Zones (SPZs) and river quality. These searches are conducted using radii of up to 2000m.

7. Flooding

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

8. Designated Environmentally Sensitive Sites

Provides information on the Sites of Special Scientific Interest (SSSI), National Nature Reserves (NNR), Special Areas of Conservation (SAC), Special Protection Areas (SPA), Ramsar sites, Local Nature Reserves (LNR), Areas of Outstanding Natural Beauty (AONB), National Parks (NP), Environmentally Sensitive Areas, Nitrate Sensitive Areas, Nitrate Vulnerable Zones and World Heritage Sites and Scheduled Ancient Woodland. These searches are conducted using radii of up to 2000m.

9. Natural Hazards

Provides information on a range of natural hazards that may pose a risk to the study site. These factors include natural ground subsidence and radon..

10. Mining

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

11. Contacts

This section of the report provides contact points for statutory bodies and data providers that may be able to provide further information on issues raised within this report. Alternatively, Groundsure provide a free Technical Helpline (08444 159000) for further information and guidance.

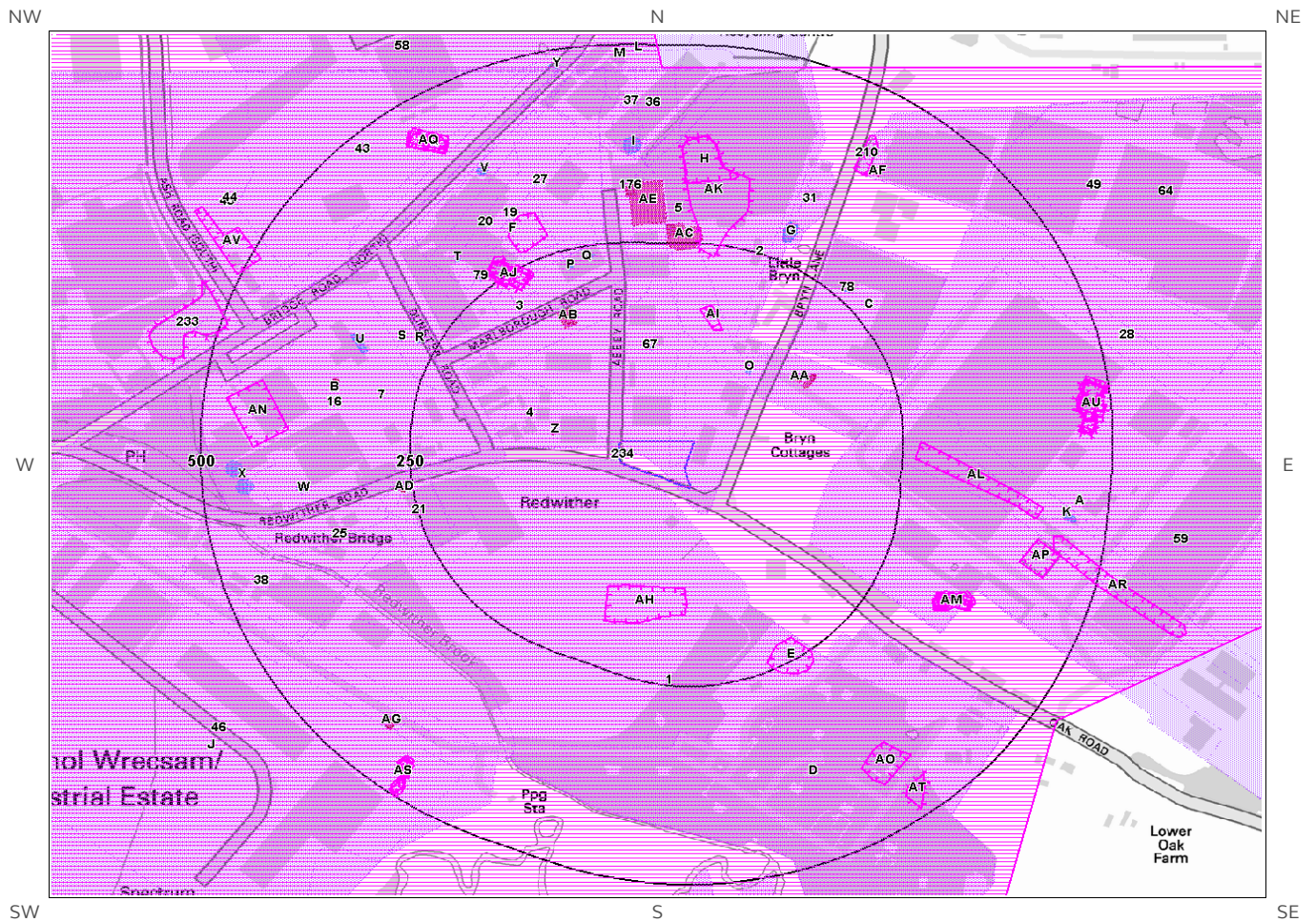
Note: Maps

Only certain features are placed on the maps within the report. All features represented on maps found within this search are given an identification number. This number identifies the feature on the mapping and correlates it to the additional information provided below. This identification number precedes all other information and takes the following format -Id: 1, Id: 2, etc. Where numerous features on the same map are in such close proximity that the numbers would obscure each other a letter identifier is used instead to represent the features. (e.g. Three features which overlap may be given the identifier "A" on the map and would be identified separately as features 1A, 3A, 10A on the data tables provided).

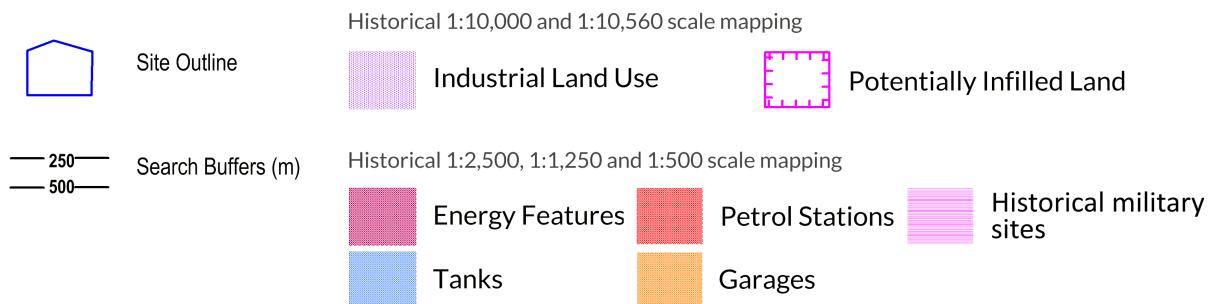
Where a feature is reported in the data tables to a distance greater than the map area, it is noted in the data table as "Not Shown".

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

1. Historical Land Use



© Crown copyright and database rights 2019.
Ordnance Survey licence 100035207.



1. Historical Industrial Sites

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

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

Records of sites with a potentially contaminative past land use within 500m of the search boundary: 64

ID	Distance [m]	Direction	Use	Date
1	0	On Site	Unspecified Commercial/Industrial	1964
2	0	On Site	Railway Sidings	1949
3	0	On Site	Industrial Estate	1964
4	10	W	Unspecified Works	1977
5	108	N	Railway Sidings	1964
6AH	127	S	Unspecified Pit	1964
7	135	W	Industrial Estate	1992
8B	140	W	Unspecified Disused Works	1964
9AI	143	N	Unspecified Pit	1964
10F	147	NW	Unspecified Depot	1977
11A	153	E	Industrial Estate	1977
12A	156	E	Unspecified Commercial/Industrial	1992
13B	163	W	Unspecified Works	1977
14C	164	NE	Unspecified Depot	1977
15C	164	NE	Unspecified Commercial/Industrial	1992
16	164	W	Unspecified Commercial/Industrial	1992
17D	196	SE	Unspecified Commercial/Industrial	1992
18D	196	SE	Unspecified Commercial/Industrial	1977
19	200	NW	Unspecified Works	1964
20	205	NW	Unspecified Commercial/Industrial	1992
21	214	SW	Unspecified Works	1992
22E	223	SE	Unspecified Heap	1992
23E	223	SE	Unspecified Heap	1977
24E	223	SE	Unspecified Heap	1964
25	231	SW	Unspecified Works	1977
26AK	234	N	Unspecified Heap	1964
27	241	N	Railway Sidings	1964
28	246	E	Unspecified Commercial/Industrial	1964

29F	264	NW	Unspecified Heap	1964
30AL	265	E	Unspecified Pit	1964
31	272	NE	Unspecified Depot	1977
32G	274	NE	Unspecified Tanks	1992
33G	274	NE	Unspecified Tanks	1977
34H	326	N	Unspecified Heap	1977
35H	326	N	Unspecified Heap	1992
36	357	N	Unspecified Works	1964
37	357	N	Unspecified Commercial/Industrial	1977
38	358	SW	Unspecified Works	1977
39I	364	N	Unspecified Tank	1964
40I	364	N	Unspecified Tank	1977
41V	374	NW	Unspecified Tank	1992
42W	375	W	Unspecified Tank	1992
43	378	NW	Unspecified Works	1977
44	378	NW	Unspecified Commercial/Industrial	1977
45	381	NW	Unspecified Commercial/Industrial	1964
46	391	SW	Unspecified Commercial/Industrial	1992
47J	391	SW	Unspecified Commercial/Industrial	1964
48J	391	SW	Unspecified Commercial/Industrial	1977
49	393	NE	Unspecified Commercial/Industrial	1992
50AO	396	SE	Unspecified Pit	1992
51AR	439	E	Unspecified Heap	1964
52X	439	W	Unspecified Tanks	1949
53K	446	E	Unspecified Tank	1977
54K	446	E	Unspecified Tanks	1992
55AT	457	SE	Unspecified Heap	1992
56L	468	N	Railway Sidings	1960
57L	468	N	Railway Sidings	1968
58	471	N	Industrial Estate	1982
59	474	E	Unspecified Factory	1977
60M	477	N	Railway Building	1960
61M	477	N	Railway Building	1968
62N	481	S	Unspecified Commercial/Industrial	1977
63N	481	S	Unspecified Commercial/Industrial	1964
64	499	NE	Unspecified Commercial/Industrial	1977

1.2 Additional Information – Historical Tank Database

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

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

75

ID	Distance (m)	Direction	Use	Date
65O	106	NE	Unspecified Tank	1989
66O	106	NE	Unspecified Tank	1990
67	116	N	Tanks	1959
68P	225	N	Unspecified Tank	1982
69P	225	N	Unspecified Tank	1988
70P	226	N	Unspecified Tank	1959
71P	226	N	Unspecified Tank	1971
72Q	232	N	Unspecified Tank	1982
73Q	232	N	Unspecified Tank	1988
74Q	232	N	Tanks	1971
75Q	232	N	Tanks	1959
76Q	234	N	Unspecified Tank	1982
77Q	234	N	Unspecified Tank	1988
78	261	NE	Unspecified Tank	1971
79	262	NW	Unspecified Tank	1971
80R	269	NW	Unspecified Tank	1994
81R	269	NW	Unspecified Tank	1991
82R	271	NW	Unspecified Tank	1990
83R	271	NW	Unspecified Tank	1989
84G	274	NE	Tanks	1982
85G	274	NE	Tanks	1989
86G	274	NE	Tanks	1988
87G	274	NE	Tanks	1990
88G	275	NE	Tanks	1991
89G	276	NE	Tanks	1994
90S	290	NW	Unspecified Tank	1971
91S	290	NW	Unspecified Tank	1988
92S	290	NW	Unspecified Tank	1982
93G	295	NE	Unspecified Tank	1988
94G	295	NE	Unspecified Tank	1982
95G	295	NE	Unspecified Tank	1990
96G	295	NE	Unspecified Tank	1989
97G	297	NE	Tanks	1991
98T	298	NW	Unspecified Tank	1991
99T	299	NW	Unspecified Tank	1971
100T	299	NW	Unspecified Tank	1982
101T	299	NW	Unspecified Tank	1988

102T	299	NW	Unspecified Tank	1990
103T	299	NW	Unspecified Tank	1989
104U	323	W	Tanks	1991
105U	323	W	Tanks	1994
106U	325	W	Tanks	1988
107U	325	W	Tanks	1989
108U	325	W	Tanks	1990
109I	363	N	Unspecified Tank	1959
110I	363	N	Unspecified Tank	1971
111I	364	N	Unspecified Tank	1989
112I	364	N	Unspecified Tank	1988
113I	364	N	Unspecified Tank	1982
114I	364	N	Unspecified Tank	1990
115V	373	NW	Unspecified Tank	1991
116V	374	NW	Unspecified Tank	1989
117V	374	NW	Unspecified Tank	1990
118V	375	NW	Unspecified Tank	1994
119W	379	W	Unspecified Tank	1994
120W	380	W	Unspecified Tank	1991
121W	381	W	Unspecified Tank	1988
122W	381	W	Unspecified Tank	1989
123W	381	W	Unspecified Tank	1990
124X	439	W	Unspecified Tank	1982
125X	446	W	Unspecified Tank	1959
126X	446	W	Unspecified Tank	1971
127K	448	E	Tanks	1986
128K	448	E	Tanks	1990
129K	448	E	Tanks	1991
130K	448	E	Unspecified Tank	1971
131X	451	W	Unspecified Tank	1982
132X	457	W	Unspecified Tank	1959
133X	457	W	Unspecified Tank	1971
134Y	476	N	Unspecified Tank	1974
135Y	476	N	Unspecified Tank	1960
136Y	477	N	Unspecified Tank	1982
137Y	477	N	Unspecified Tank	1987
138Y	480	N	Unspecified Tank	1989
139Y	480	N	Unspecified Tank	1989

1.3 Additional Information – Historical Energy Features Database

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

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

51

ID	Distance (m)	Direction	Use	Date
140Z	77	W	Electricity Substation	1991
141Z	77	W	Electricity Substation	1994
142Z	79	W	Electricity Substation	1990
143AA	143	NE	Electricity Substation	1991
144AA	143	NE	Electricity Substation	1994
145AA	147	NE	Electricity Substation	1982
146AA	147	NE	Electricity Substation	1989
147AA	147	NE	Electricity Substation	1990
148AA	147	NE	Electricity Substation	1988
149AA	148	NE	Electricity Substation	1971
150AB	157	NW	Electricity Substation	1991
151AB	158	NW	Electricity Substation	1994
152AB	160	NW	Electricity Substation	1988
153AB	160	NW	Electricity Substation	1990
154AB	160	NW	Electricity Substation	1989
155AB	160	NW	Electricity Substation	1982
156AB	160	NW	Electricity Substation	1971
157AC	242	N	Electricity Substation	1994
158AC	258	N	Electricity Substation	1990
159AC	258	N	Electricity Substation	1988
160AC	258	N	Electricity Substation	1989
161AC	258	N	Electricity Substation	1982
162AC	259	N	Electricity Substation	1971
163AC	259	N	Electricity Substation	1991
164AD	259	W	Electricity Substation	1994
165AD	260	W	Electricity Substation	1991
166AD	260	W	Electricity Substation	1988
167AD	260	W	Electricity Substation	1990
168AD	260	W	Electricity Substation	1982
169AD	260	W	Electricity Substation	1989
170AE	272	N	Electricity Substation	1982
171AE	272	N	Electricity Substation	1989
172AE	272	N	Electricity Substation	1990
173AE	272	N	Electricity Substation	1988
174AE	309	N	Electricity Substation	1991
175AE	309	N	Electricity Substation	1971
176	312	N	Electricity Substation	1994
177B	343	W	Electricity Substation	1994
178B	344	W	Electricity Substation	1991
179B	346	W	Electricity Substation	1988
180B	346	W	Electricity Substation	1990

181B	346	W	Electricity Substation	1989
182AF	399	NE	Electricity Substation	1991
183AF	400	NE	Electricity Substation	1994
184AG	422	SW	Electricity Substation	1994
185AG	424	SW	Electricity Substation	1991
186AG	424	SW	Electricity Substation	1971
187AG	424	SW	Electricity Substation	1988
188AG	424	SW	Electricity Substation	1990
189AG	424	SW	Electricity Substation	1982
190AG	424	SW	Electricity Substation	1989

1.4 Additional Information – Historical Petrol and Fuel Site Database

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

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

Database searched and no data found.

1.5 Additional Information – Historical Garage and Motor Vehicle Repair Database

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

Records of historical garage and motor vehicle repair sites within 500m of the search boundary: 0

Database searched and no data found.

1.6 Historical military sites

Certain military installations were not noted on historic mapping for security reasons. Whilst not all military land is necessarily of concern, Groundsure has researched and digitised a number of Ordnance Factories and other military industrial features (e.g. Ordnance Depots, Munitions Testing Grounds) which may be of contaminative concern. This research was drawn from a number of different sources, and should not be regarded as a definitive or exhaustive database of potentially contaminative military installations. The boundaries of sites within this database have been estimated from the best evidence available to Groundsure at the time of compilation.

Records of historical military sites within 500m of the search boundary: 1

ID	Distance (m)	Direction	Site Name	Date of operation	Activities
23 4	0	On Site	ROF Wrexham	c.1938 - 1988	c. WW2: Produced cordite, post WW2: Cordite production ceased in 1945 an the area was used as an industrial estate by the Welsh Development Agency to boost the local economy Explosives Factory

1.7 Potentially Infilled Land

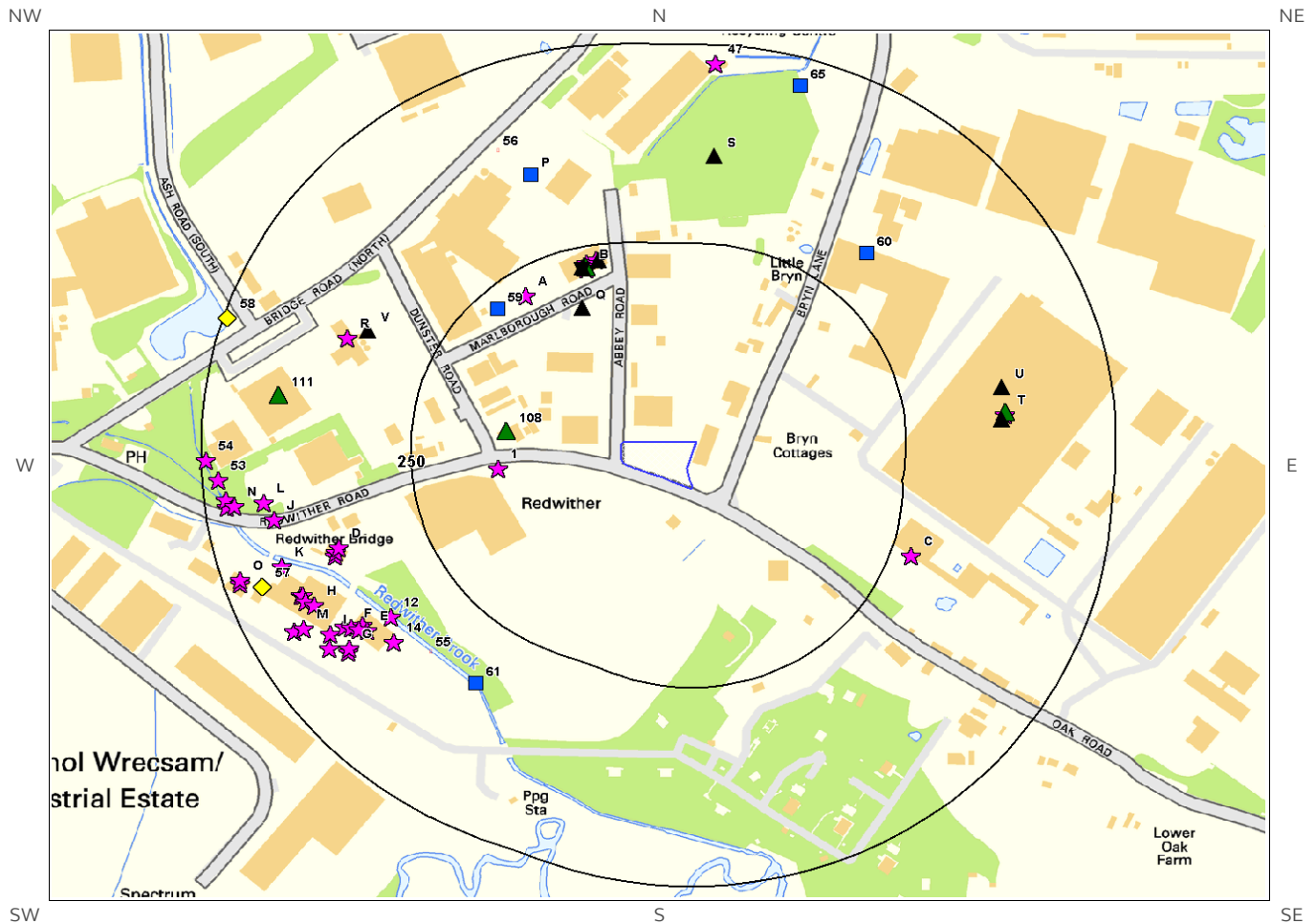
Records of Potentially Infilled Features from 1:10,000 scale mapping within 500m of the study site: 43

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

ID	Distance(m)	Direction	Use	Date
191AH	127	S	Unspecified Pit	1964
192AI	143	N	Unspecified Pit	1964
193E	223	SE	Unspecified Heap	1964
194E	223	SE	Unspecified Heap	1992
195E	223	SE	Unspecified Heap	1977
196AJ	224	NW	Pond	1909
197AJ	225	NW	Pond	1938
198AJ	225	NW	Ponds	1872
199AJ	230	NW	Ponds	1898
200AK	234	N	Unspecified Heap	1964
201F	264	NW	Unspecified Heap	1964
202AL	265	E	Unspecified Pit	1964
203AM	322	SE	Ponds	1938
204AM	323	SE	Pond	1964
205AM	324	SE	Ponds	1872
206AM	324	SE	Ponds	1949
207AM	324	SE	Ponds	1898
208H	326	N	Unspecified Heap	1992
209H	326	N	Unspecified Heap	1977
210	393	NE	Pond	1992
211AN	396	W	Ponds	1977
212AN	396	W	Ponds	1964
213AO	396	SE	Unspecified Pit	1992
214AP	404	E	Ponds	1992
215AP	404	E	Ponds	1977
216AQ	419	NW	Ponds	1938
217AQ	422	NW	Ponds	1949
218AQ	422	NW	Ponds	1898
219AQ	422	NW	Ponds	1872
220AR	439	E	Unspecified Heap	1964
221AS	449	SW	Ponds	1898
222AS	452	SW	Ponds	1872
223AS	455	SW	Ponds	1938
224AT	457	SE	Unspecified Heap	1992
225AU	458	E	Pond	1909
226AU	459	E	Pond	1964
227AU	460	E	Pond	1938
228AU	460	E	Pond	1872

229AU	462	E	Pond	1949
230AU	462	E	Pond	1898
231AV	488	NW	Ponds	1977
232AV	488	NW	Ponds	1964
233	491	W	Pond	1992

2. Environmental Permits, Incidents and Registers Map



© Crown copyright and database rights 2019.
Ordnance Survey licence 100035207.

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

2. Environmental Permits, Incidents and Registers

2.1 Industrial Sites Holding Licences and/or Authorisations

Searches of information provided by the Environment Agency/Natural Resources Wales and Local Authorities reveal the following information:

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

2

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

ID	Distance (m)	Direction	NGR	Details
156B	222	N	338600 349750	Operator: Sterile Technologies (newcastle) Ltd Address: Wrexham Plant, Marlborough Road, Wrexham Industrial Estate, Wrexham, Clwyd, LL13 9RJ Process: Incineration Permit Number: BI1595 Original Permit Number: IPCAPP Date Approved: 19-9-2000 Effective Date: 20-9-2000 Status: Superseded By Variation
157B	222	N	338600 349750	Operator: Sterile Technologies (newcastle) Ltd Address: Wrexham Plant, Marlborough Road, Wrexham Industrial Estate, Wrexham, Clwyd, LL13 9RJ Process: Incineration Permit Number: BM2349 Original Permit Number: IPCMINVAR Date Approved: 19-5-2004 Effective Date: 19-5-2004 Status: Revoked - Now Ippc

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

40

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

ID	Distance (m)	Direction	NGR	Details
116Q	174	N	338600 349700	Operator: POLKACREST LIMITED Installation Name: WREXHAM CLINICAL WASTE TREATMENT FACILITY (INCINERATOR) Process: INCINERATION OF HAZARDOUS WASTE Permit Number: WP3836ZF Original Permit Number: WP3836ZF EPR Reference: - Issue Date: 04/03/2013 Effective Date: 04/03/2013 Last date noted as effective: 2015-11-17 Status: SUPERCEDED

ID	Distance (m)	Direction	NGR	Details	
117Q	174	N	338600 349700	Operator: SITA HEALTHCARE LIMITED Installation Name: WREXHAM CLINICAL WASTE (INCINERATOR) EPR/WP3836ZF Process: INCINERATION OF HAZARDOUS WASTE	Permit Number: QP3933NZ Original Permit Number: WP3836ZF EPR Reference: - Issue Date: 22/04/2013 Effective Date: 22/04/2013 Last date noted as effective: 2015-11-17 Status: EFFECTIVE
118Q	174	N	338600 349700	Operator: TRADEBE HEALTHCARE NATIONAL LIMITED Installation Name: WREXHAM CLINICAL WASTE TREATMENT FACILITY (INCINERATOR) Process: -	Permit Number: WP3836ZF Original Permit Number: QP3933NZ EPR Reference: - Issue Date: 14/01/2015 Effective Date: 14/01/2015 Last date noted as effective: 2016-12-01 Status: EFFECTIVE
119Q	174	N	338600 349700	Operator: POLKACREST LIMITED Installation Name: WREXHAM CLINICAL WASTE INCINERATOR Process: INCINERATION OF HAZARDOUS WASTE	Permit Number: VP3739XC Original Permit Number: AP3538SM EPR Reference: - Issue Date: 21/01/2008 Effective Date: 21/01/2008 Last date noted as effective: 2015-11-17 Status: SUPERCEDED
120Q	174	N	338600 349700	Operator: POLKACREST WALES LIMITED Installation Name: WREXHAM CLINICAL WASTE INCINERATOR Process: INCINERATION OF HAZARDOUS WASTE	Permit Number: AP3538SM Original Permit Number: AP3538SM EPR Reference: - Issue Date: 14/12/2005 Effective Date: 14/12/2005 Last date noted as effective: 2015-11-17 Status: SUPERCEDED
121Q	174	N	338600 349700	Operator: SITA UK LIMITED Installation Name: WREXHAM CLINICAL WASTE INCINERATOR Process: INCINERATION OF HAZARDOUS WASTE	Permit Number: MP3239FQ Original Permit Number: MP3239FQ EPR Reference: - Issue Date: 12/05/2011 Effective Date: 12/05/2011 Last date noted as effective: 2015-11-17 Status: SUPERCEDED
122Q	174	N	338600 349700	Operator: SITA UK LIMITED Installation Name: WREXHAM CLINICAL WASTE INCINERATOR Process: INCINERATION OF HAZARDOUS WASTE	Permit Number: MP3635FQ Original Permit Number: MP3239FQ EPR Reference: - Issue Date: 20/10/2011 Effective Date: 20/10/2011 Last date noted as effective: 2015-11-17 Status: SUPERCEDED
123Q	174	N	338600 349700	Operator: ATTERO SERVICES LTD Installation Name: WREXHAM CLINICAL WASTE INCINERATOR Process: INCINERATION OF HAZARDOUS WASTE	Permit Number: GP3335MA Original Permit Number: AP3538SM EPR Reference: - Issue Date: 15/12/2006 Effective Date: 15/12/2006 Last date noted as effective: 2015-11-17 Status: SUPERCEDED
124Q	174	N	338600 349700	Operator: TRADEBE HEALTHCARE NATIONAL LIMITED Installation Name: WREXHAM CLINICAL WASTE TREATMENT FACILITY (INCINERATOR) Process: THE INCINERATION OF HAZARDOUS WASTE IN AN INCINERATION OR CO-INCINERATION PLANT...	Permit Number: WP3836ZF Original Permit Number: QP3933NZ EPR Reference: - Issue Date: 28/06/2017 Effective Date: 26/06/2017 Last date noted as effective: 2018-04-01 Status: EFFECTIVE

ID	Distance (m)	Direction	NGR	Details	
125Q	174	N	338600 349700	Operator: TRADEBE HEALTHCARE NATIONAL LIMITED Installation Name: WREXHAM CLINICAL WASTE TREATMENT FACILITY (INCINERATOR) Process: THE INCINERATION OF HAZARDOUS WASTE IN AN INCINERATION OR CO-INCINERATION PLANT...	Permit Number: WP3836ZF Original Permit Number: QP3933NZ EPR Reference: - Issue Date: 28/06/2017 Effective Date: 26/06/2017 Last date noted as effective: 2019-04-30 Status: EFFECTIVE
126B	229	N	338620 349760	Operator: POLKACREST WALES LIMITED Installation Name: WREXHAM CLINICAL WASTE TREATMENT PLANT AND TRANSFER STATION Process: ASSOCIATED PROCESS	Permit Number: RP3237SZ Original Permit Number: RP3237SZ EPR Reference: - Issue Date: 23/06/2006 Effective Date: 23/06/2006 Last date noted as effective: 2015-11-17 Status: SUPERCEDED
127B	229	N	338620 349760	Operator: STERILE TECHNOLOGIES (NEWCASTLE) LIMITED Installation Name: WREXHAM CLINICAL WASTE TREATMENT PLANT AND TRANSFER STATION Process: WASTE LANDFILLING; >10 T/D WITH CAPACITY >25,000T EXCLUDING INERT WASTE	Permit Number: RP3237SZ Original Permit Number: RP3237SZ EPR Reference: - Issue Date: - Effective Date: - Last date noted as effective: 2006-04-04 Status: DETERMINATION
128B	229	N	338620 349760	Operator: SITA UK LIMITED Installation Name: WREXHAM CLINICAL WASTE TREATMENT PLANT AND TRANSFER STATION Process: ASSOCIATED PROCESS	Permit Number: UP3137FB Original Permit Number: UP3137FB EPR Reference: - Issue Date: 04/11/2011 Effective Date: 04/11/2011 Last date noted as effective: 2015-11-17 Status: SUPERCEDED
129B	229	N	338620 349760	Operator: POLKACREST WALES LIMITED Installation Name: WREXHAM CLINICAL WASTE TREATMENT PLANT AND TRANSFER STATION Process: ASSOCIATED PROCESS	Permit Number: RP3035FV Original Permit Number: RP3237SZ EPR Reference: - Issue Date: 27/10/2011 Effective Date: 27/10/2011 Last date noted as effective: 2015-11-17 Status: SUPERCEDED
130B	229	N	338620 349760	Operator: SITA UK LIMITED Installation Name: WREXHAM CLINICAL WASTE TREATMENT PLANT AND TRANSFER STATION Process: OTHER WASTE DISPOSAL; HAZARDOUS WASTE >10T/D	Permit Number: UP3137FB Original Permit Number: UP3137FB EPR Reference: - Issue Date: 04/11/2011 Effective Date: 04/11/2011 Last date noted as effective: 2015-11-17 Status: SUPERCEDED
131B	229	N	338620 349760	Operator: SITA HEALTHCARE LIMITED Installation Name: WREXHAM CLINICAL WASTE TREATMENT FACILITY (HDU & TS) Process: ASSOCIATED PROCESS	Permit Number: PP3230NV Original Permit Number: WP3636ZG EPR Reference: - Issue Date: 25/03/2013 Effective Date: 25/03/2013 Last date noted as effective: 2015-11-17 Status: SUPERCEDED
132B	229	N	338620 349760	Operator: SITA HEALTHCARE LIMITED Installation Name: WREXHAM CLINICAL WASTE (HDU & TS) EPR/WP3636ZG Process: ASSOCIATED PROCESS	Permit Number: UP3133AC Original Permit Number: WP3636ZG EPR Reference: - Issue Date: 05/06/2015 Effective Date: 14/01/2015 Last date noted as effective: 2015-11-17 Status: EFFECTIVE

ID	Distance (m)	Direction	NGR	Details	
133B	229	N	338620 349760	Operator: TRADEBE HEALTHCARE NATIONAL LIMITED Installation Name: WREXHAM CLINICAL WASTE TREATMENT FACILITY (HDU & TS) Process: -	Permit Number: WP3636ZG Original Permit Number: UP3133AC EPR Reference: - Issue Date: 14/01/2015 Effective Date: 14/01/2015 Last date noted as effective: 2019-04-30 Status: EFFECTIVE
134B	229	N	338620 349760	Operator: POLKACREST WALES LIMITED Installation Name: WREXHAM CLINICAL WASTE TREATMENT PLANT AND TRANSFER STATION Process: OTHER WASTE DISPOSAL; HAZARDOUS WASTE >10T/D	Permit Number: RP3035FV Original Permit Number: RP3237SZ EPR Reference: - Issue Date: 27/10/2011 Effective Date: 27/10/2011 Last date noted as effective: 2015-11-17 Status: SUPERCEDED
135B	229	N	338620 349760	Operator: SITA HEALTHCARE LIMITED Installation Name: WREXHAM CLINICAL WASTE (HDU & TS) EPR/WP3636ZG Process: DISPOSAL OR RECOVERY OF HAZARDOUS WASTE WITH A CAPACITY EXCEEDING 10 TONNES PER DAY INVOLVING PHYSICO-CHEMICAL TREATMENT	Permit Number: UP3133AC Original Permit Number: WP3636ZG EPR Reference: - Issue Date: 05/06/2015 Effective Date: 14/01/2015 Last date noted as effective: 2015-11-17 Status: EFFECTIVE
136B	229	N	338620 349760	Operator: SITA HEALTHCARE LIMITED Installation Name: WREXHAM CLINICAL WASTE TREATMENT FACILITY (HDU & TS) Process: DISPOSAL OR RECOVERY OF HAZARDOUS WASTE WITH A CAPACITY EXCEEDING 10 TONNES PER DAY INVOLVING PHYSICO-CHEMICAL TREATMENT	Permit Number: PP3230NV Original Permit Number: WP3636ZG EPR Reference: - Issue Date: 25/03/2013 Effective Date: 25/03/2013 Last date noted as effective: 2015-11-17 Status: SUPERCEDED
137B	229	N	338620 349760	Operator: TRADEBE HEALTHCARE NATIONAL LIMITED Installation Name: WREXHAM CLINICAL WASTE TREATMENT FACILITY (HDU & TS) Process: DISPOSAL OR RECOVERY OF HAZARDOUS WASTE WITH A CAPACITY EXCEEDING 10 TONNES PER ...	Permit Number: WP3636ZG Original Permit Number: UP3133AC EPR Reference: - Issue Date: 14/01/2015 Effective Date: 14/01/2015 Last date noted as effective: 2019-04-30 Status: EFFECTIVE
138B	229	N	338620 349760	Operator: POLKACREST WALES LIMITED Installation Name: WREXHAM CLINICAL WASTE TREATMENT PLANT AND TRANSFER STATION Process: OTHER WASTE DISPOSAL; HAZARDOUS WASTE >10T/D	Permit Number: RP3237SZ Original Permit Number: RP3237SZ EPR Reference: - Issue Date: 23/06/2006 Effective Date: 23/06/2006 Last date noted as effective: 2015-11-17 Status: SUPERCEDED
139B	229	N	338620 349760	Operator: STERILE TECHNOLOGIES (NEWCASTLE) LIMITED Installation Name: WREXHAM CLINICAL WASTE TREATMENT PLANT AND TRANSFER STATION Process: WASTE LANDFILLING; >10 T/D WITH CAPACITY >25,000T EXCLUDING INERT WASTE	Permit Number: RP3237SZ Original Permit Number: RP3237SZ EPR Reference: - Issue Date: - Effective Date: - Last date noted as effective: 2006-04-04 Status: DETERMINATION
140B	229	N	338620 349760	Operator: POLKACREST LIMITED Installation Name: WREXHAM CLINICAL WASTE TREATMENT FACILITY (HDU & TS) Process: OTHER WASTE DISPOSAL; HAZARDOUS WASTE >10T/D	Permit Number: WP3636ZG Original Permit Number: WP3636ZG EPR Reference: - Issue Date: 04/03/2013 Effective Date: 04/03/2013 Last date noted as effective: 2015-11-

ID	Distance (m)	Direction	NGR	Details	
				17 Status: SUPERCEDED	
141B	229	N	338620 349760	Operator: TRADEBE HEALTHCARE NATIONAL LIMITED Installation Name: WREXHAM CLINICAL WASTE TREATMENT FACILITY (HDU & TS) Process: -	Permit Number: WP3636ZG Original Permit Number: UP3133AC EPR Reference: - Issue Date: 14/01/2015 Effective Date: 14/01/2015 Last date noted as effective: 2016-12-01 Status: EFFECTIVE
142B	229	N	338620 349760	Operator: TRADEBE HEALTHCARE NATIONAL LIMITED Installation Name: WREXHAM CLINICAL WASTE TREATMENT FACILITY (HDU & TS) Process: DISPOSAL OR RECOVERY OF HAZARDOUS WASTE WITH A CAPACITY EXCEEDING 10 TONNES PER ...	Permit Number: WP3636ZG Original Permit Number: UP3133AC EPR Reference: - Issue Date: 14/01/2015 Effective Date: 14/01/2015 Last date noted as effective: 2018-04-01 Status: EFFECTIVE
143B	229	N	338620 349760	Operator: TRADEBE HEALTHCARE NATIONAL LIMITED Installation Name: WREXHAM CLINICAL WASTE TREATMENT FACILITY (HDU & TS) Process: DISPOSAL OR RECOVERY OF HAZARDOUS WASTE WITH A CAPACITY EXCEEDING 10 TONNES PER ...	Permit Number: WP3636ZG Original Permit Number: UP3133AC EPR Reference: - Issue Date: 14/01/2015 Effective Date: 14/01/2015 Last date noted as effective: 2018-04-01 Status: EFFECTIVE
144B	229	N	338620 349760	Operator: SITA HEALTHCARE LIMITED Installation Name: WREXHAM CLINICAL WASTE TREATMENT FACILITY (HDU & TS) Process: CREATED BY IED - DISPOSAL OR RECOVERY OF HAZARDOUS WASTE WITH A CAPACITY EXCEEDING 10 TONNES PER DAY INVOLVING PHYSICO-CHEMICAL TREATMENT	Permit Number: PP3230NV Original Permit Number: WP3636ZG EPR Reference: - Issue Date: 25/03/2013 Effective Date: 25/03/2013 Last date noted as effective: 2013-07-01 Status: EFFECTIVE
145V	334	NW	338345 349671	Operator: LLOYDS ANIMAL FEEDS (WESTERN) LTD Installation Name: WREXHAM MILL Process: TREATMENT AND PROCESSING, OTHER THAN EXCLUSIVELY PACKAGING, OF THE FOLLOWING RAW...	Permit Number: AB3492ZQ Original Permit Number: - EPR Reference: - Issue Date: 17/05/2017 Effective Date: 17/05/2017 Last date noted as effective: 2019-04-30 Status: EFFECTIVE
146V	334	NW	338345 349671	Operator: LLOYDS ANIMAL FEEDS (WESTERN) LTD Installation Name: WREXHAM MILL Process: -	Permit Number: AB3492ZQ Original Permit Number: - EPR Reference: - Issue Date: 17/05/2017 Effective Date: 17/05/2017 Last date noted as effective: 2018-04-01 Status: EFFECTIVE
147S	359	N	338758 349891	Operator: WASTE RECYCLING LIMITED Installation Name: PHASE 2 WREXHAM RECYCLING PARK Process: RECOVERY OR A MIX OF RECOVERY AND DISPOSAL OR NON-HAZARDOUS WASTE WITH A CAPACIT...	Permit Number: BB3436RA Original Permit Number: 103238 EPR Reference: - Issue Date: 10/12/2015 Effective Date: 10/12/2015 Last date noted as effective: 2018-04-01 Status: EFFECTIVE
148S	359	N	338758 349891	Operator: WASTE RECYCLING LIMITED Installation Name: PHASE 2	Permit Number: BB3436RA Original Permit Number: 103238

ID	Distance (m)	Direction	NGR	Details	
				WREXHAM RECYCLING PARK Process: RECOVERY OR A MIX OF RECOVERY AND DISPOSAL OR NON-HAZARDOUS WASTE WITH A CAPACIT...	EPR Reference: - Issue Date: 10/12/2015 Effective Date: 10/12/2015 Last date noted as effective: 2019-04-30 Status: EFFECTIVE
149T	364	E	339100 349560	Operator: PRYSMIAN CABLES AND SYSTEMS LTD Installation Name: WREXHAM CABLE WORKS Process: -	Permit Number: YP3732LZ Original Permit Number: DP3338MY EPR Reference: - Issue Date: 22/11/2006 Effective Date: 22/11/2006 Last date noted as effective: 2016-12-01 Status: EFFECTIVE
150T	364	E	339100 349560	Operator: PRYSMIAN CABLES AND SYSTEMS LTD Installation Name: WREXHAM CABLE WORKS EPR/YP3732LZ Process: NON-FERROUS METALS; MELTING WITH CAPACITY => 5T	Permit Number: DP3338MY Original Permit Number: YP3732LZ EPR Reference: - Issue Date: 22/11/2006 Effective Date: 22/11/2006 Last date noted as effective: 2015-11-17 Status: EFFECTIVE
151T	364	E	339100 349560	Operator: PRYSMIAN CABLES AND SYSTEMS LTD Installation Name: WREXHAM CABLE WORKS Process: MELTING, INCLUDING MAKING ALLOYS, OF NON-FERROUS METALS, INCLUDING RECOVERED PRO...	Permit Number: YP3732LZ Original Permit Number: DP3338MY EPR Reference: - Issue Date: 01/06/2017 Effective Date: 01/06/2017 Last date noted as effective: 2018-04-01 Status: EFFECTIVE
152T	364	E	339100 349560	Operator: PRYSMIAN CABLES AND SYSTEMS LTD Installation Name: WREXHAM CABLE WORKS Process: MELTING, INCLUDING MAKING ALLOYS, OF NON-FERROUS METALS, INCLUDING RECOVERED PRO...	Permit Number: YP3732LZ Original Permit Number: DP3338MY EPR Reference: - Issue Date: 01/06/2017 Effective Date: 01/06/2017 Last date noted as effective: 2019-04-30 Status: EFFECTIVE
153U	369	E	339100 349600	Operator: PIRELLI CABLES LTD Installation Name: - Process: NON-FERROUS METALS; MELTING WITH CAPACITY => 5T	Permit Number: BM4848 Original Permit Number: BM4848 EPR Reference: - Issue Date: 14/03/2003 Effective Date: 14/03/2003 Last date noted as effective: 2004-10-01 Status: SUPERSEDED BY PAS
154U	369	E	339100 349600	Operator: PRYSMIAN CABLES AND SYSTEMS LTD Installation Name: WREXHAM CABLE WORKS Process: NON-FERROUS METALS; MELTING WITH CAPACITY => 5T	Permit Number: YP3732LZ Original Permit Number: YP3732LZ EPR Reference: - Issue Date: 20/06/2006 Effective Date: 20/06/2006 Last date noted as effective: 2015-11-17 Status: SUPERCEDED
155U	369	E	339100 349600	Operator: PIRELLI CABLES LTD. ROD ROLLERS UNIT Installation Name: WREXHAM CABLE WORKS Process: NON-FERROUS METALS; MELTING WITH CAPACITY => 5T	Permit Number: BM4848IY Original Permit Number: BM4848IY EPR Reference: - Issue Date: 14/03/2003 Effective Date: 14/03/2003 Last date noted as effective: 2015-11-17 Status: SUPERCEDED

2.1.3 Records of Red List Discharge Consents (potentially harmful discharges to controlled waters) within 500m of the study site:

0

Database searched and no data found.

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

0

Database searched and no data found.

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

2

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

ID	Distance (m)	Direction	NGR	Details
57	457	W	338220 349350	Name: Bluestone Chemicals Ltd, Redwither Road, Wrexham Ind Est Status: Not Active Receiving Water: - Authorised Substances: Chromium, Copper
58	495	W	338178 349688	Name: Welsh Development Agency Pcb Cell 283 Status: Active Receiving Water: - Authorised Substances: Biphenyl

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

4

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

ID	Distance (m)	Direction	NGR	Details
108	138	W	338510 349545	Address: R.C. Motors Wrexham Ltd, Redwither Road Garage, Wrexham Industrial Estate, LL13 9RD Process: Waste Oil Burner <0.4 MW Status: New Legislation Applies Permit Type: Part B Enforcement: No Enforcement Notified. Date of Enforcement: No Enforcement Notified. Comment: No Enforcement Notified.
109B	222	N	338605 349751	Address: Polkacrest Wales Limited, Polkacrest Limited, Sterile Technologies (Newcastle) Ltd, Wrexham Clinical Waste Treatment Plant and Transfer Station, Marlborough Road, Wrexham Industrial Estate, Wrexham, LL13 9RJ Process: Other waste disposal ; Enforcement: No Enforcement Notified. Date of Enforcement: No Enforcement Notified. Comment: No Enforcement Notified.

ID	Distance (m)	Direction	NGR	Details	
110T	370	E	339105 349569	Combustion & Incineration Status: Historical Permit Permit Type: Part B	
				Address: Prysmian Cables and Systems Ltd, Oak Road, Wrexham Industrial Estate, Wrexham, LL13 9PH Process: Non-ferrous Metal Foundry Processes Status: Historical Permit Permit Type: Part B	Enforcement: Enforcement Notified Date of Enforcement: 30/03/2006 Comment: Wood processing
111	413	W	338239 349590	Address: Trittech Precision Products Ltd, Bridge Road North, Wrexham Industrial Estate, Wrexham, LL13 9PS Process: Other Metal Processes Status: Current Permit Permit Type: Part B	Enforcement: Enforcement Notified Date of Enforcement: 12/03/2007 Comment: Not given

2.1.7 Records of Category 3 or 4 Radioactive Substances Authorisations:

4

The following RAS Licence (3 or 4) records are represented as points on the Environmental Permits, Incidents and Registers Map:

ID	Distance (m)	Direction	NGR	Address	Operator	Type	Permission Number	Dates	Status
158B	222	N	338600 349750	Eurocare Environmental Services Ltd (dissolved), Wrexham Plant, Marlborough Road, Wrexham Industrial Estate, Wrexham, Clwyd, LL13 9RJ	Eurocare Environmental Services Ltd (dissolved)	Disposal Of Radioactive Waste (was Rsa60 Section 6).	BW8615	Date of Approval: 25/11/2003 Effective from: 25/11/2003 Last date of update: 2015-01-01	Revoked/cancelled
159B	222	N	338600 349750	Onyx Clinical Ltd, Wrexham Plant, Marlborough Road, Wrexham Industrial Estate, Wrexham, Clwyd, LL13 9RJ	Onyx Clinical Ltd	Disposal Of Radioactive Waste (was Rsa60 Section 6).	BG6251	Date of Approval: 15/12/1999 Effective from: 17/12/1999 Last date of update: 2015-01-01	Revoked/cancelled
160B	222	N	338600 349750	Trinco Ltd, Wrexham Plant, Marlborough Road, Wrexham Industrial Estate, Wrexham, Clwyd, LL13 9RJ	Trinco Ltd	Disposal Of Radioactive Waste (was Rsa60 Section 6).	AW7886	Date of Approval: 24/6/1997 Effective from: 24/7/1997 Last date of update: 2015-01-01	Revoked/cancelled

ID	Distance (m)	Direction	NGR	Address	Operator	Type	Permission Number	Dates	Status
161B	222	N	338600 349750	Eurocare Environmental Services Ltd (dissolved), Wrexham Plant, Marlborough Road, Wrexham Industrial Estate, Wrexham, Clwyd, LL13 9RJ	Eurocare Environmental Services Ltd (dissolved)	Disposal Of Radioactive Waste (was Rsa60 Section 6).	BI3024	Date of Approval: 21/6/2000 Effective from: 19/7/2000 Last date of update: 2015-01-01	Superseded By Variation

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

7

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

ID	Distance (m)	Direction	NGR	Details
59	224	NW	338500 349700	Address: MARCHWIEL ABBEY RD 33KV SUB-STATION, MARCHWIEL ABBEY RD 33KV SUB-STAT, ABBEY RD 33KV SUB-STATION , , 33KV SUB-STATION , , , , Effluent Type: - Permit Number: CM0015701 Permit Version: 1 Receiving Water: UN-NAMED TRIB.OF REDWITHER BRO Status: Effective Issue date: 16/04/1963 Effective Date: 16-Apr-1963 Revocation Date: -
60	312	NE	338940 349770	Address: BRYN LANE TRAINING CENTRE WREXHAM I, BRYN LANE TRAINING CENTRE WREXHA, WREXHAM IND ESTATE Effluent Type: UNSPECIFIED Permit Number: CM0069501 Permit Version: 1 Receiving Water: UN-NAMED TRIB. OF ISYCOED DRAI Status: CONSENT EXPIRED - TIME LIMIT Issue date: 20/03/1972 Effective Date: 20-Mar-1972 Revocation Date: 21/11/1994
61	328	SW	338474 349230	Address: WREXHAM RECYCLING CENTRE REWITHER, WREXHAM RECYCLING CENTRE, REDWITHER ROAD, WREXHAM INDUSTRIAL ESTATE, Wrexham, LL13 9RD Effluent Type: TRADE DISCHARGES - SITE DRAINAGE Permit Number: CG0402201 Permit Version: 1 Receiving Water: THE REDWITHER BROOK Status: Effective Issue date: 31/10/2002 Effective Date: 31-Oct-2002 Revocation Date: -
62P	353	N	338540 349869	Address: STP SERVING UNIT 6 PACIFIC PARK, BRIDGE ROAD, WREXHAM INDUSTRIAL ESTATE, WREXHAM, CLWYD, LL13 9PN Effluent Type: SEWAGE DISCHARGES - FINAL/TREATED EFFLUENT - NOT WATER COMPANY Permit Number: MP3320GG Permit Version: 1 Receiving Water: GROUNDWATER VIA DRAINAGE MOUND Status: Effective Issue date: 02/12/2011 Effective Date: 02-Dec-2011 Revocation Date: -
63P	353	N	338540 349869	Address: STP SERVING UNIT 6 PACIFIC PARK, BRIDGE ROAD, WREXHAM INDUSTRIAL ESTATE, WREXHAM, CLWYD, LL13 9PN Effluent Type: SEWAGE DISCHARGES - FINAL/TREATED EFFLUENT - NOT WATER COMPANY Permit Number: EPRMP3320GG Permit Version: 1 Receiving Water: GROUNDWATER VIA DRAINAGE MOUND Status: NEW ISSUED UNDER EPR 2010 Issue date: 02/12/2011 Effective Date: 02-Dec-2011 Revocation Date: -
64P	353	N	338540 349869	Address: STP SERVING UNIT 6 PACIFIC PARK, BRIDGE ROAD, WREXHAM Receiving Water: GROUNDWATER VIA DRAINAGE MOUND

ID	Distance (m)	Direction	NGR	Details
				INDUSTRIAL ESTATE, WREXHAM, CLWYD, LL13 9PN Effluent Type: SEWAGE DISCHARGES - FINAL/TREATED EFFLUENT - NOT WATER COMPANY Permit Number: EPRMP3320GG Permit Version: 1 Status: NEW ISSUED UNDER EPR 2010 Issue date: 02/12/2011 Effective Date: 02-Dec-2011 Revocation Date: -
65	464	N	338860 349980	Address: CPL PETROLEUM BRYN LANE WREXHAM, CPL PETROLEUM, BRYN LANE, WREXHAM IND ESTATE, Wrexham, LL13 9UT Effluent Type: TRADE DISCHARGES - SITE DRAINAGE Permit Number: CG0382501 Permit Version: 1 Receiving Water: IS Y COED BROOK Status: Effective Issue date: 01/07/1999 Effective Date: 01-Jul-1999 Revocation Date: -

2.1.9 Records of Water Industry Referrals (potentially harmful discharges to the public sewer) within 500m of the study site:

0

Database searched and no data found.

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

0

Database searched and no data found.

2.2 Dangerous or Hazardous Sites

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

0

Database searched and no data found.

2.3 Environment Agency/Natural Resources Wales Recorded Pollution Incidents

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

54

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

ID	Distance (m)	Direction	NGR	Details
1	148	W	338500.0	Incident Date: 14-Jul-2002 Water Impact: Category 3 (Minor)

ID	Distance (m)	Direction	NGR	Details	
			349500.0	Incident Identification: 91450.0 Pollutant: Atmospheric Pollutants and Effects Pollutant Description: Smoke	Land Impact: Category 4 (No Impact) Air Impact: Category 2 (Significant)
2A	218	NW	338533.0 349717.0	Incident Date: 14-Jun-2016 Incident Identification: 1603273.0 Pollutant: Pollutant Description:	Water Impact: No Details Land Impact: No Details Air Impact: Category 4 (No Impact)
3A	218	NW	338533.0 349717.0	Incident Date: 14-Jun-2016 Incident Identification: 1603273.0 Pollutant: Atmospheric Pollutants and Effects Pollutant Description: Other Atmospheric Pollutant or Effect	Water Impact: No Details Land Impact: No Details Air Impact: Category 4 (No Impact)
4B	221	N	338605.0 349750.0	Incident Date: 27-Mar-2015 Incident Identification: 1323952.0 Pollutant: Atmospheric Pollutants and Effects Pollutant Description: Smoke	Water Impact: Land Impact: Category 4 (No Impact) Air Impact: Category 4 (No Impact)
5B	221	N	338605.0 349750.0	Incident Date: 02-May-2013 Incident Identification: 1108584.0 Pollutant: Atmospheric Pollutants and Effects Pollutant Description: Smoke	Water Impact: Land Impact: Category 4 (No Impact) Air Impact: Category 4 (No Impact)
6B	225	N	338603.0 349754.0	Incident Date: 29-Feb-2016 Incident Identification: 1415189.0 Pollutant: Atmospheric Pollutants and Effects Pollutant Description: Smoke	Water Impact: Land Impact: Category 4 (No Impact) Air Impact: Category 4 (No Impact)
7B	228	N	338605.0 349757.0	Incident Date: 04-Aug-2016 Incident Identification: 1604414.0 Pollutant: Pollutant Description:	Water Impact: No Details Land Impact: No Details Air Impact: Category 4 (No Impact)
8B	228	N	338605.0 349757.0	Incident Date: 04-Aug-2016 Incident Identification: 1604414.0 Pollutant: Atmospheric Pollutants and Effects Pollutant Description: Other Atmospheric Pollutant or Effect	Water Impact: No Details Land Impact: No Details Air Impact: Category 4 (No Impact)
9B	231	N	338616.0 349762.0	Incident Date: 26-Aug-2015 Incident Identification: 1368254.0 Pollutant: Atmospheric Pollutants and Effects Pollutant Description: Other Atmospheric Pollutant or Effect	Water Impact: Land Impact: Category 4 (No Impact) Air Impact: Category 4 (No Impact)
10C	274	E	338992.0 349390.0	Incident Date: 19-May-2017 Incident Identification: 1702650.0 Pollutant: Oils and Fuels Pollutant Description: Other Oil or Fuel	Water Impact: Category 3 (Minor) Land Impact: No Details Air Impact: No Details
11C	274	E	338992.0 349390.0	Incident Date: 19-May-2017 Incident Identification: 1702650.0 Pollutant: Pollutant Description:	Water Impact: Category 3 (Minor) Land Impact: No Details Air Impact: No Details
12	339	SW	338372.0 349313.0	Incident Date: 19-Dec-2013 Incident Identification: 1184723.0 Pollutant: Specific Waste Materials Pollutant Description: Commercial Waste	Water Impact: Land Impact: Category 4 (No Impact) Air Impact: Category 3 (Minor)
13R	354	W	338320.0 349664.0	Incident Date: 16-Feb-2016 Incident Identification: 1411660.0 Pollutant: Oils and Fuel Pollutant Description: Diesel	Water Impact: Land Impact: Category 4 (No Impact) Air Impact: Category 4 (No Impact)

ID	Distance (m)	Direction	NGR	Details	
14	354	SW	338376.0 349282.0	Incident Date: 27-Nov-2015 Incident Identification: 1390562.0 Pollutant: Atmospheric Pollutants and Effects Pollutant Description: Dust	Water Impact: Land Impact: Category 4 (No Impact) Air Impact: Category 3 (Minor)
15D	356	W	338310.0 349400.0	Incident Date: 26-Sep-2014 Incident Identification: 1281386.0 Pollutant: Atmospheric Pollutants and Effects Pollutant Description: Smoke	Water Impact: Land Impact: Category 4 (No Impact) Air Impact: Category 3 (Minor)
16D	360	W	338307.0 349395.0	Incident Date: 05-May-2016 Incident Identification: 1602189.0 Pollutant: Atmospheric Pollutants and Effects Pollutant Description: Dust	Water Impact: No Details Land Impact: No Details Air Impact: Category 3 (Minor)
17D	360	W	338307.0 349395.0	Incident Date: 05-May-2016 Incident Identification: 1602189.0 Pollutant: Pollutant Description:	Water Impact: No Details Land Impact: No Details Air Impact: Category 3 (Minor)
18D	364	W	338305.0 349390.0	Incident Date: 22-Apr-2014 Incident Identification: 1229280.0 Pollutant: Atmospheric Pollutants and Effects Pollutant Description: Smoke	Water Impact: Land Impact: Category 4 (No Impact) Air Impact: Category 3 (Minor)
19T	369	E	339104.0 349568.0	Incident Date: 15-Jul-2014 Incident Identification: 1256055.0 Pollutant: Contaminated Water Pollutant Description: Firefighting Run-Off	Water Impact: Land Impact: Category 4 (No Impact) Air Impact: Category 4 (No Impact)
20E	372	SW	338344.0 349296.0	Incident Date: 08-Dec-2014 Incident Identification: 1299978.0 Pollutant: Atmospheric Pollutants and Effects Pollutant Description: Steam	Water Impact: Land Impact: Category 4 (No Impact) Air Impact: Category 4 (No Impact)
21E	373	SW	338338.0 349303.0	Incident Date: 25-May-2007 Incident Identification: 497621.0 Pollutant: Contaminated Water Pollutant Description: Firefighting Run-Off	Water Impact: Category 2 (Significant) Land Impact: Category 4 (No Impact) Air Impact: Category 3 (Minor)
22E	379	SW	338334.0 349297.0	Incident Date: 04-Sep-2014 Incident Identification: 1274310.0 Pollutant: Atmospheric Pollutants and Effects Pollutant Description: Dust	Water Impact: Land Impact: Category 4 (No Impact) Air Impact: Category 4 (No Impact)
23F	385	SW	338325.0 349300.0	Incident Date: 01-Aug-2013 Incident Identification: 1142191.0 Pollutant: Atmospheric Pollutants and Effects Pollutant Description: Dust	Water Impact: Land Impact: Category 4 (No Impact) Air Impact: Category 4 (No Impact)
24F	391	SW	338317.0 349301.0	Incident Date: 06-Jun-2014 Incident Identification: 1242731.0 Pollutant: Atmospheric Pollutants and Effects Pollutant Description: Dust	Water Impact: Land Impact: Category 4 (No Impact) Air Impact: Category 4 (No Impact)
25G	402	SW	338322.0 349274.0	Incident Date: 11-Sep-2014 Incident Identification: 1276534.0 Pollutant: Atmospheric Pollutants and Effects Pollutant Description: Dust	Water Impact: Land Impact: Category 4 (No Impact) Air Impact: Category 4 (No Impact)
26G	406	SW	338321.0 349269.0	Incident Date: 05-Oct-2016 Incident Identification: 1606069.0 Pollutant: Atmospheric Pollutants and	Water Impact: Other Land Impact: Other Air Impact: Category 3 (Minor)

ID	Distance (m)	Direction	NGR	Details	
				Effects Pollutant Description: Dust	
27G	406	SW	338321.0 349269.0	Incident Date: 05-Oct-2016 Incident Identification: 1606069.0 Pollutant: Pollutant Description:	Water Impact: Other Land Impact: Other Air Impact: Category 3 (Minor)
28H	410	SW	338281.0 349328.0	Incident Date: 23-Oct-2014 Incident Identification: 1288936.0 Pollutant: Multiple Pollutants Pollutant Description: 2 Pollutants Including Other Odour	Water Impact: Land Impact: Category 4 (No Impact) Air Impact: Category 3 (Minor)
29I	411	SW	338300.0 349292.0	Incident Date: 30-Jun-2014 Incident Identification: 1250706.0 Pollutant: Atmospheric Pollutants and Effects Pollutant Description: Dust	Water Impact: Land Impact: Category 4 (No Impact) Air Impact: Category 3 (Minor)
30H	417	SW	338271.0 349332.0	Incident Date: 04-Jun-2015 Incident Identification: 1342283.0 Pollutant: Inert Materials and Wastes Pollutant Description: Other Inert Material or Waste	Water Impact: Land Impact: Category 4 (No Impact) Air Impact: Category 3 (Minor)
31H	417	SW	338267.0 349340.0	Incident Date: 03-Dec-2014 Incident Identification: 1298971.0 Pollutant: Atmospheric Pollutants and Effects Pollutant Description: Dust	Water Impact: Land Impact: Category 4 (No Impact) Air Impact: Category 4 (No Impact)
32H	419	SW	338265.0 349340.0	Incident Date: 25-Mar-2015 Incident Identification: 1323247.0 Pollutant: Atmospheric Pollutants and Effects Pollutant Description: Dust	Water Impact: Land Impact: Category 4 (No Impact) Air Impact: Category 3 (Minor)
33I	421	SW	338299.0 349274.0	Incident Date: 30-Sep-2015 Incident Identification: 1377056.0 Pollutant: Atmospheric Pollutants and Effects Pollutant Description: Dust	Water Impact: Land Impact: Category 4 (No Impact) Air Impact: Category 3 (Minor)
34J	422	W	338233.0 349435.0	Incident Date: 03-Aug-2016 Incident Identification: 1604640.0 Pollutant: Oils and Fuels Pollutant Description: Unidentified Oil	Water Impact: Category 3 (Minor) Land Impact: No Details Air Impact: No Details
35J	422	W	338233.0 349435.0	Incident Date: 03-Aug-2016 Incident Identification: 1604640.0 Pollutant: Pollutant Description:	Water Impact: Category 3 (Minor) Land Impact: No Details Air Impact: No Details
36K	428	W	338242.0 349376.0	Incident Date: 19-Jul-2006 Incident Identification: 418682.0 Pollutant: Contaminated Water Pollutant Description: Firefighting Run-Off	Water Impact: Category 1 (Major) Land Impact: Category 2 (Significant) Air Impact: Category 2 (Significant)
37K	428	W	338242.0 349376.0	Incident Date: 19-Jul-2006 Incident Identification: 418682.0 Pollutant: Atmospheric Pollutants and Effects Pollutant Description: Smoke	Water Impact: Category 1 (Major) Land Impact: Category 2 (Significant) Air Impact: Category 2 (Significant)
38L	430	W	338221.0 349457.0	Incident Date: 04-Aug-2016 Incident Identification: 1604395.0 Pollutant: Pollutant Description:	Water Impact: Category 3 (Minor) Land Impact: No Details Air Impact: No Details
39L	430	W	338221.0 349457.0	Incident Date: 04-Aug-2016 Incident Identification: 1604395.0 Pollutant: Oils and Fuels	Water Impact: Category 3 (Minor) Land Impact: No Details Air Impact: No Details

ID	Distance (m)	Direction	NGR	Details	
Pollutant Description: Unidentified Oil					
40M	435	SW	338268.0 349299.0	Incident Date: 17-Jul-2014 Incident Identification: 1256974.0 Pollutant: Atmospheric Pollutants and Effects Pollutant Description: Dust	Water Impact: Land Impact: Category 4 (No Impact) Air Impact: Category 3 (Minor)
41M	446	SW	338257.0 349295.0	Incident Date: 15-Oct-2014 Incident Identification: 1287009.0 Pollutant: Atmospheric Pollutants and Effects Pollutant Description: Dust	Water Impact: Land Impact: Category 4 (No Impact) Air Impact: Category 3 (Minor)
42N	466	W	338186.0 349452.0	Incident Date: 22-Nov-2016 Incident Identification: 1606987.0 Pollutant: Oils and Fuels Pollutant Description: Unidentified Oil	Water Impact: Category 3 (Minor) Land Impact: No Details Air Impact: No Details
43N	466	W	338186.0 349452.0	Incident Date: 22-Nov-2016 Incident Identification: 1606987.0 Pollutant: Pollutant Description:	Water Impact: Category 3 (Minor) Land Impact: No Details Air Impact: No Details
44N	475	W	338176.0 349460.0	Incident Date: 23-Jan-2017 Incident Identification: 1700388.0 Pollutant: Pollutant Not Identified Pollutant Description: Pollutant Not Identified	Water Impact: Category 3 (Minor) Land Impact: Other Air Impact: Other
45N	475	W	338176.0 349460.0	Incident Date: 23-Jan-2017 Incident Identification: 1700388.0 Pollutant: Pollutant Description:	Water Impact: Category 3 (Minor) Land Impact: Other Air Impact: Other
46N	475	W	338177.0 349451.0	Incident Date: 20-Apr-2002 Incident Identification: 73352.0 Pollutant: Oils and Fuel Pollutant Description: Diesel	Water Impact: Category 3 (Minor) Land Impact: Category 4 (No Impact) Air Impact: Category 4 (No Impact)
47	476	N	338759.0 350008.0	Incident Date: 13-Sep-2013 Incident Identification: 1158986.0 Pollutant: Oils and Fuel Pollutant Description: Mixed/Waste Oils	Water Impact: Land Impact: Category 3 (Minor) Air Impact: Category 4 (No Impact)
48O	479	W	338193.0 349360.0	Incident Date: 29-Sep-2014 Incident Identification: 1282155.0 Pollutant: Atmospheric Pollutants and Effects Pollutant Description: Dust	Water Impact: Land Impact: Category 4 (No Impact) Air Impact: Category 3 (Minor)
49O	480	W	338193.0 349359.0	Incident Date: 22-Sep-2014 Incident Identification: 1279895.0 Pollutant: Atmospheric Pollutants and Effects Pollutant Description: Dust	Water Impact: Land Impact: Category 4 (No Impact) Air Impact: Category 4 (No Impact)
50O	480	W	338193.0 349359.0	Incident Date: 16-Sep-2014 Incident Identification: 1278265.0 Pollutant: Atmospheric Pollutants and Effects Pollutant Description: Dust	Water Impact: Land Impact: Category 4 (No Impact) Air Impact: Category 4 (No Impact)
51O	480	W	338193.0 349359.0	Incident Date: 19-May-2014 Incident Identification: 1236658.0 Pollutant: Atmospheric Pollutants and Effects Pollutant Description: Dust	Water Impact: Land Impact: Category 4 (No Impact) Air Impact: Category 3 (Minor)
52O	481	W	338193.0 349355.0	Incident Date: 17-Apr-2015 Incident Identification: 1329614.0 Pollutant: Specific Waste Materials Pollutant Description: Other Specific Waste Material	Water Impact: Land Impact: Category 4 (No Impact) Air Impact: Category 3 (Minor)

ID	Distance (m)	Direction	NGR	Details
53	482	W	338166.0 349485.0	Incident Date: 20-Feb-2015 Incident Identification: 1315409.0 Pollutant: Inert Materials and Wastes Pollutant Description: Other Inert Material or Waste Water Impact: Land Impact: Category 3 (Minor) Air Impact: Category 4 (No Impact)
54	496	W	338152.0 349510.0	Incident Date: 26-Jun-2009 Incident Identification: 691429.0 Pollutant: Contaminated Water Pollutant Description: Vegetable Washings Water Impact: Category 2 (Significant) Land Impact: Category 4 (No Impact) Air Impact: Category 3 (Minor)

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

2

The following NIRS List 1 records are represented as points on the Environmental Permits, Incidents and Registers Map:

ID	Distance (m)	Direction	NGR	Details
55	330	SW		Incident Date: 22-Mar-2000 Incident Identification: 8071.0 Catchments Name: CLYWEDOG Water Description: RIVER STRETCH (FRESHWATER) Water Course: CLYWEDOG Incident Substantiated: Yes Priority Description: Immediate (2 Hours) Waste Description: Not Available Water Impact: Significant Impact Land Impact: No Impact Air Impact: No Impact Action Taken: Not Available
56	396	N		Incident Date: 29-Jun-1999 Incident Identification: 3170.0 Catchments Name: CLYWEDOG Water Description: RIVER STRETCH (FRESHWATER) Water Course: CLYWEDOG Incident Substantiated: Yes Priority Description: Immediate (2 Hours) Waste Description: Not Available Water Impact: Significant Impact Land Impact: No Impact Air Impact: No Impact Action Taken: Not Available

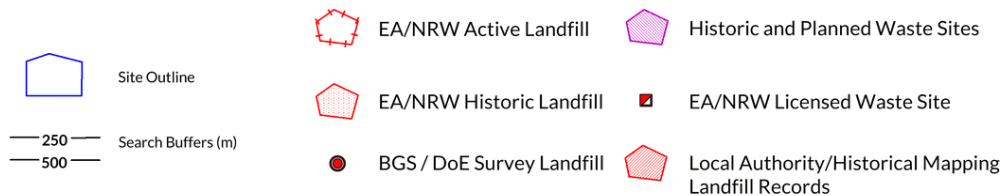
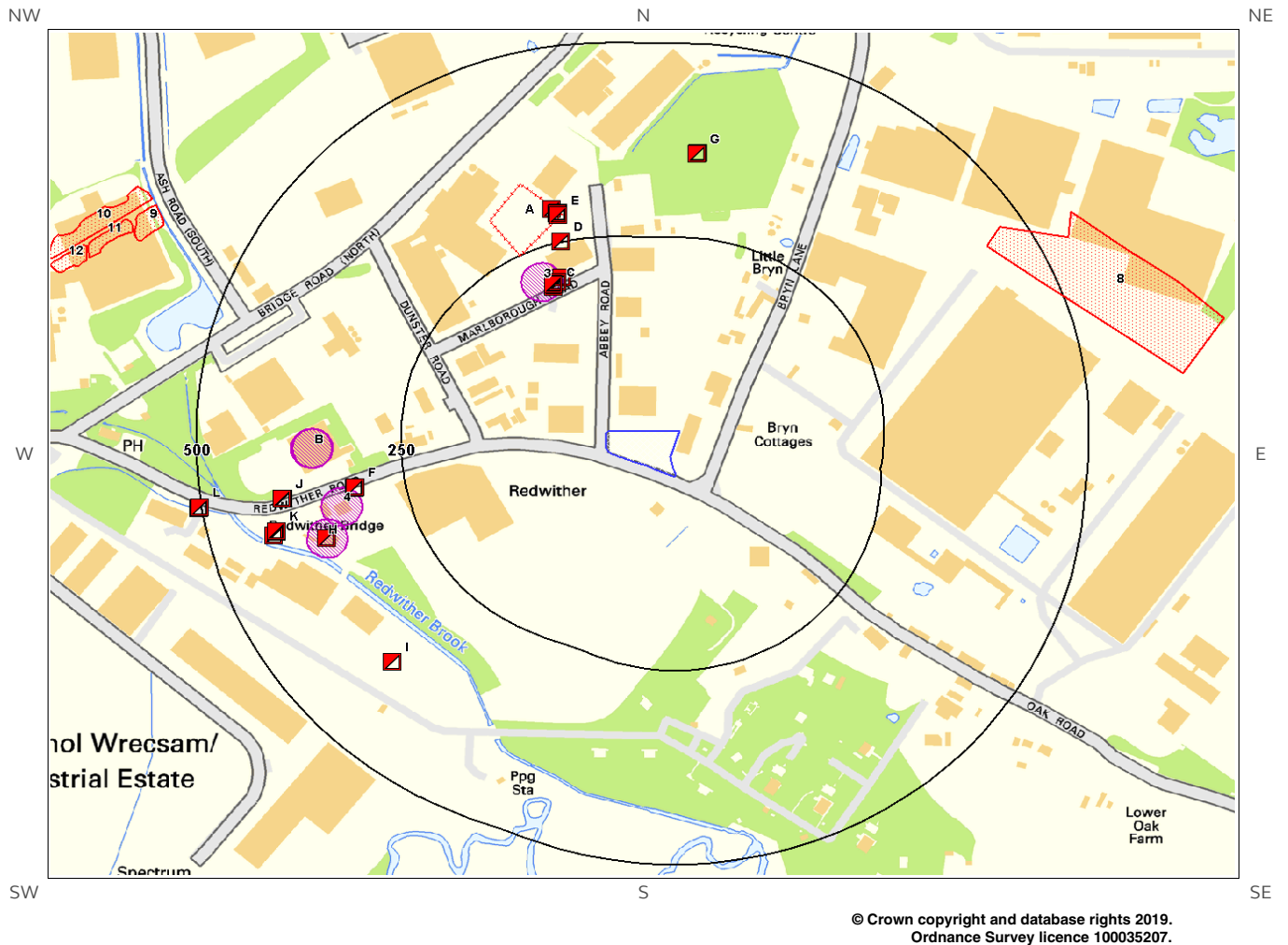
2.4 Sites Determined as Contaminated Land under Part 2A EPA 1990

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

0

Database searched and no data found.

3. Landfill and Other Waste Sites Map



3. Landfill and Other Waste Sites

3.1 Landfill Sites

3.1.1 Records from Environment Agency/Natural Resources Wales landfill data within 1000m of the study site:

2

The following Environment Agency/Natural Resources Wales landfill records are represented as polygons on the Landfill and Other Waste Sites map:

ID	Distance (m)	Direction	NGR	Details
1A	250	NW	338587 349814	Address: Marlborough Road, Wrexham Ind Est, Wrexham, Clwyd, LL13 9RJ Landfill Reference: 37009.0 Environmental Permitting Regulations (Waste) Reference: WDA001 Landfill Type: A2 : Other Landfill Site taking Special Waste Operator: Welsh Assembly Government Status: Closure IPPC Reference: EPR Reference:
2A	250	NW	338587 349814	Address: Marlborough Road, Wrexham Ind Est, Wrexham, Clwyd, LL13 9RJ Landfill Reference: 37011.0 Environmental Permitting Regulations (Waste) Reference: WDA002 Landfill Type: A2 : Other Landfill Site taking Special Waste Operator: Welsh Assembly Government Status: Closure IPPC Reference: EPR Reference:

3.1.2 Records of Environment Agency/Natural Resources Wales historic landfill sites within 1500m of the study site:

5

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

ID	Distance (m)	Direction	NGR	Details
8	445	NE		Site Address: B.I.C.C Cables Limited Waste Licence: - Site Reference: - Waste Type: Inert, Liquid sludge Environmental Permitting Regulations (Waste) Reference: - Licence Issue: Licence Surrendered: Licence Holder Address: - Operator: - Licence Holder: BICC Limited First Recorded: 01-Jan-1968 Last Recorded: 31-Dec-1977
9	603	NW		Site Address: British Celanese Waste Licence: Yes Site Reference: LB/2.3 Waste Type: Industrial, Liquid sludge Environmental Permitting Regulations Licence Issue: Licence Surrendered: Licence Holder Address: - Operator: - Licence Holder: British Celanese Limited

ID	Distance (m)	Direction	NGR	Details		
				(Waste) Reference: -	First Recorded: 31-Dec-1953 Last Recorded: 31-Dec-1983	
10	631	NW		Site Address: British Celanese Waste Licence: Yes Site Reference: LB/2.3 Waste Type: Industrial, Liquid sludge Environmental Permitting Regulations (Waste) Reference: -	Licence Issue: Licence Surrendered: Licence Holder Address: - Operator: - Licence Holder: British Celanese Limited First Recorded: 31-Dec-1953 Last Recorded: 31-Dec-1983	
11	633	NW		Site Address: British Celanese Waste Licence: Yes Site Reference: LB/2.3 Waste Type: Industrial, Liquid sludge Environmental Permitting Regulations (Waste) Reference: -	Licence Issue: Licence Surrendered: Licence Holder Address: - Operator: - Licence Holder: British Celanese Limited First Recorded: 31-Dec-1953 Last Recorded: 31-Dec-1983	
12	673	W		Site Address: British Celanese Waste Licence: Yes Site Reference: LB/2.3 Waste Type: Industrial, Liquid sludge Environmental Permitting Regulations (Waste) Reference: -	Licence Issue: Licence Surrendered: Licence Holder Address: - Operator: - Licence Holder: British Celanese Limited First Recorded: 31-Dec-1953 Last Recorded: 31-Dec-1983	

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

0

Database searched and no data found.

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

0

Database searched and no data found.

3.2 Other Waste Sites

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

5

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

ID	Distance (m)	Direction	NGR	Details		
3	183	N	338568 349724	Type of Site: Waste Incineration Plant (Extension) Site Address:	Planning Application Reference: 20600 Date: 01/06/1996	Further Details: Scheme comprises clinical waste incineration plant extension following demolition of existing

ID	Distance (m)	Direction	NGR	Details		
				Marlboough Road, Wrexham Industrial Estate, WREXHAM, Clwyd, LL13 9RJ		offices and erection of a 3 storey block of offices adjoining the incineration plant building. Construction - steel cladding walls; metal cladding roof; rolleshutter industrial doors; passenger lifts; steel frame, portal frame frame; pitched roof. Scheme comprises clinical waste incineration plant extension following demolition of existing offices and erection of a 3 storey block of offices adjoining the incineration plant building. An application (ref: 20600) for Detailed Planning permission was submitted to Wrexham B.C. on 4th August 1992. Data Source: Historic Planning Application Data Type: Point
4	307	W	338324 349435	Type of Site: Tyre Recycling Centre (Conversion) Site Address: Unit 2, Redwither Road, Wrexham Industrial Estate, WREXHAM, Clwyd, LL13 9RD	Planning Application Reference: P/2004/0617 Date: -	Further Details: Scheme comprises conversion to tyre recycling centre. An application (ref: P/2004/0617) for Detailed Planning permission was submitted to Wrexham B.C. on 28th May 2004. Data Source: Historic Planning Application Data Type: Point
5B	333	W	338289 349510	Type of Site: Waste Transfer Station Site Address: Redwither Road, Wrexham Industrial Estate, WREXHAM, Clwyd, LL13 9RD	Planning Application Reference: CB3184 Date: 01/07/1999	Further Details: Construction of a waste transfer station with associated access and car parking. Data Source: Historic Planning Application Data Type: Point
6B	335	W	338287 349510	Type of Site: Asbestos Waste Transfer Station Site Address: Redwither Road, Wrexham Industrial Estate, WREXHAM, Clwyd, LL13 9RD	Planning Application Reference: P/00/0555 Date: -	Further Details: Provision of a waste transfer station. Data Source: Historic Planning Application Data Type: Point
7H	335	W	338307 349394	Type of Site: Waste Transfer Station Site Address: Wrexham Recycling Centre, Redwither Road, Alan's Skip, Hire (Wales) Ltd, Wrexham, WREXHAM, Clwyd, LL13 9RD	Planning Application Reference: P/2007/1098 Date: -	Further Details: Scheme comprises waste sorting, segregation recycling, reprocessing and product storage/waste transfer and landscaping. Construction - planting site works. An application (ref: P/2007/1098) for detailed planning permission was submitted to Wrexham B.C Data Source: Historic Planning Application Data Type: Point

ID	Distance (m)	Direction	NGR	Details
----	--------------	-----------	-----	---------

3.2.2 Records of Environment Agency/Natural Resources Wales licensed waste sites within 1500m of the study site:

110

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

ID	Distance (m)	Direction	NGR	Details
13C	198	N	338582 349719	Site Address: Marlborough Road Clinical Waste, Wrexham Industrial Estate, Wrexham, LL13 9RJ Type: - Size: Unknown Environmental Permitting Regulations (Waste) Licence Number: MP3894FG EPR reference: - Operator: Sterile Technologies (Newcastle) Ltd Waste Management licence No: 0 Annual Tonnage: 0.0 Issue Date: 12/10/1992 Effective Date: 12/10/1992 Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Expired Site Name: - Correspondence Address: -
14C	198	N	338582 349719	Site Address: Marlborough Road Clinical Waste, Wrexham Industrial Estate, Wrexham, Clwyd, LL13 9RJ Type: Household, Commercial & Industrial Waste T Stn Size: Unknown Environmental Permitting Regulations (Waste) Licence Number: MP3894FG EPR reference: - Operator: - Waste Management licence No: 37043 Annual Tonnage: 0.0 Issue Date: 12/10/1992 Effective Date: 12/10/1992 Modified: - Surrendered Date: - Expiry Date: 09/02/2004 Cancelled Date: - Status: Expired Site Name: - Correspondence Address: -
15C	198	N	338582 349719	Site Address: Marlborough Road, Wrexham Industrial Estate, Wrexham, LL13 9RJ Type: Household, Commercial & Industrial Waste T Stn Size: < 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: TRI002 EPR reference: - Operator: Sterile Technology (Newcastle) Ltd Waste Management licence No: 37043 Annual Tonnage: 7739.0 Issue Date: 12/10/1992 Effective Date: - Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: IPPC Site Name: Marlborough Road Clinical Waste Correspondence Address: Marlborough Road, Wrexham Industrial Estate, Wrexham, LL13 9RJ
16C	198	N	338582 349719	Site Address: Trinco Ltd, Marlborough Road, Wrexham Industrial Estate, Wrexham, LL13 9RJ Type: Household, Commercial & Industrial Waste T Stn Size: < 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: TRI002 EPR reference: - Operator: Sterile Technology(newcastle) Limited Waste Management licence No: 37043 Annual Tonnage: 0.0 Issue Date: 12/10/1992 Effective Date: - Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: IPPC Site Name: Marlborough Road Clinical Waste Correspondence Address: Marlborough Road, Wrexham Industrial Estate, Wrexham, LL13 9RJ
17C	198	N	338582	Site Address: Marlborough Road Clinical Issue Date: 12/10/1992

ID	Distance (m)	Direction	NGR	Details
				Waste, Wrexham Industrial Estate, , , Wrexham, Clwyd, LL13 9RJ Type: Household, Commercial & Industrial Waste T Stn Size: - 349719 Environmental Permitting Regulations (Waste) Licence Number: MP3894FG EPR reference: - Operator: Sterile Technologies (Newcastle) Ltd Waste Management licence No: 37043 Annual Tonnage: 0.0 Effective Date: 12/10/1992 Modified: - Surrendered Date: - Expiry Date: 09/02/2004 Cancelled Date: - Status: Expired Site Name: - Correspondence Address: -
18C	198	N	338582 349719	Site Address: Marlborough Road Clinical Waste, Wrexham Industrial Estate, , , Wrexham, Clwyd, LL13 9RJ Type: Household, Commercial & Industrial Waste T Stn Size: - Environmental Permitting Regulations (Waste) Licence Number: MP3894FG EPR reference: - Operator: Sterile Technologies (Newcastle) Ltd Waste Management licence No: 37043 Annual Tonnage: 0.0 Issue Date: 12/10/1992 Effective Date: 12/10/1992 Modified: - Surrendered Date: - Expiry Date: 09/02/2004 Cancelled Date: - Status: Expired Site Name: - Correspondence Address: -
19C	198	N	338582 349719	Site Address: Marlborough Road Clinical Waste, Wrexham Industrial Estate, Clwyd, Wrexham, Wrexham, LL13 9RJ Type: - Size: Unknown Environmental Permitting Regulations (Waste) Licence Number: MP3894FG EPR reference: - Operator: Sterile Technologies (Newcastle) Ltd Waste Management licence No: 37043 Annual Tonnage: 0.0 Issue Date: 12/10/1992 Effective Date: 12/10/1992 Modified: - Surrendered Date: - Expiry Date: 09/02/2004 Cancelled Date: - Status: Expired Site Name: - Correspondence Address: -
20C	198	N	338583 349720	Site Address: Malborough Road, Wrexham Industrial Estate, Wrexham, Clwyd, LL13 9RJ Type: Household, Commercial & Industrial Waste T Stn Size: < 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: TRI002 EPR reference: MP3894FG/A001 Operator: Sterile Technologies (Newcastle) Ltd Waste Management licence No: 37043 Annual Tonnage: 7739.0 Issue Date: 12/10/1992 Effective Date: - Modified: - Surrendered Date: 0 Expiry Date: 0 Cancelled Date: 0 Status: To PPC Site Name: Marlborough Road Clinical Waste Correspondence Address: -
21C	200	N	338582 349722	Site Address: Wrexham Clinical Waste Treatment And Transfer Station, Land / Premises At, Marlborough Road, Wrexham Industrial Estate, Wrexham, Wrexham, LL13 9RJ Type: - Size: Unknown Environmental Permitting Regulations (Waste) Licence Number: AB3033RL EPR reference: - Operator: Sita U K Ltd Waste Management licence No: 0 Annual Tonnage: 0.0 Issue Date: 06/03/2001 Effective Date: 06/03/2001 Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Effective Site Name: - Correspondence Address: -
22C	200	N	338582 349722	Site Address: Marlborough Road, Wrexham Industrial Estate, Wrexham, Clwyd, LL13 9RJ Issue Date: 23/06/2006 Effective Date: - Modified: -

ID	Distance (m)	Direction	NGR	Details
				Type: Physical Treatment Facility Size: < 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: STE004 EPR reference: EA/EPR/PP3892FX/A001 Operator: Sterile Technologies (Newcastle) Ltd Waste Management licence No: 37305 Annual Tonnage: 0.0 Surrendered Date: - Expiry Date: - Cancelled Date: - Status: To PPC Site Name: Wrexham Clinical Waste Treatment Plant & Transfer Station Correspondence Address: -
23C	200	N	338582 349722	Site Address: Wrexham Clinical Waste Treatment And Transfer Station, Land / Premises At, Marlborough Road, Wrexham Industrial Estate, Wrexham, Clwyd, LL13 9RJ Type: Clinical Waste Transfer Station Size: Unknown Environmental Permitting Regulations (Waste) Licence Number: AB3033RL EPR reference: - Operator: - Waste Management licence No: 37223 Annual Tonnage: 0.0 Issue Date: 06/03/2001 Effective Date: 06/03/2001 Modified: - Surrendered Date: - Expiry Date: 15/03/2017 Cancelled Date: - Status: Expired Site Name: - Correspondence Address: -
24C	200	N	338582 349722	Site Address: Wrexham Clinical Waste Treatment Plant & Transfer Station, Wrexham Industrial Estate, Wrexham, Wrexham, LL13 9RJ Type: - Size: Unknown Environmental Permitting Regulations (Waste) Licence Number: PP3892FX EPR reference: - Operator: Sterile Technologies (Newcastle) Ltd Waste Management licence No: 0 Annual Tonnage: 0.0 Issue Date: 23/06/2006 Effective Date: 23/06/2006 Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Expired Site Name: - Correspondence Address: -
25C	200	N	338582 349722	Site Address: Land / Premises At, Marlborough Road, Wrexham Industrial Estate, Wrexham, Clwyd, LL13 9RJ Type: Physical Treatment Facility Size: < 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: STE003 EPR reference: EA/EPR/AB3033RL/V005 Operator: Sita Uk Ltd Waste Management licence No: 37223 Annual Tonnage: 16999.0 Issue Date: 06/03/2001 Effective Date: 10/02/2004 Modified: 27/10/2011 Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Modified Site Name: Wrexham Clinical Waste Treatment And Transfer Station Correspondence Address: -
26C	200	N	338582 349722	Site Address: Wrexham Clinical Waste Treatment Plant & Transfer Station, Wrexham Industrial Estate, Wrexham, Clwyd, LL13 9RJ Type: Physical Treatment Facility Size: Unknown Environmental Permitting Regulations (Waste) Licence Number: PP3892FX EPR reference: - Operator: - Waste Management licence No: 37305 Annual Tonnage: 0.0 Issue Date: 23/06/2006 Effective Date: 23/06/2006 Modified: - Surrendered Date: - Expiry Date: 23/06/2006 Cancelled Date: - Status: Expired Site Name: - Correspondence Address: -
27C	200	N	338582 349722	Site Address: Land / Premises At, Marlborough Road, Wrexham Industrial Estate, Wrexham, Clwyd, LL13 9RJ Type: Physical Treatment Facility Size: < 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: STE003 EPR reference: EA/EPR/AP3094FL/T004 Issue Date: 06/03/2001 Effective Date: 10/02/2004 Modified: 10/12/2003 Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Transferred Site Name: Clinical Waste Transfer Site

ID	Distance (m)	Direction	NGR	Details
				Operator: Polkacrest Wales Ltd Waste Management licence No: 37223 Annual Tonnage: 16999.0 Correspondence Address: -
28C	200	N	338582 349722	Site Address: Land / Premises At, Marlborough Road, Wrexham Industrial Estate, Wrexham, Clwyd, LL13 9RJ Type: Physical Treatment Facility Size: < 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: STE003 EPR reference: AB3033RL/V005 Operator: Sita U K Ltd Waste Management licence No: 37223 Annual Tonnage: 16999.0 Issue Date: 06/03/2001 Effective Date: 10/02/2004 Modified: 27/10/2011 Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Modified Site Name: Wrexham Clinical Waste Treatment And Transfer Station Correspondence Address: -
29C	200	N	338582 349722	Site Address: Wrexham Clinical Waste Treatment Plant And Transfer Station, Marlborough Road, Wrexham Industrial Estate, Wrexham, LL13 9RJ Type: Physical Treatment Facility Size: < 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: STE004 EPR reference: - Operator: Sterile Technologies (newcastle) Limited Waste Management licence No: 37305 Annual Tonnage: 0.0 Issue Date: 23/06/2006 Effective Date: - Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Issued Site Name: Wrexham Clinical Waste Treatment Plant And Transfer Station Correspondence Address: Wrexham Clinical Waste Treatment Plant And Transfer Station, Marlborough Road, Wrexham Industrial Estate, Wrexham, LL13 9RJ
30C	200	N	338582 349722	Site Address: Marlborough Road, Wrexham Industrial Estate, Wrexham, LL13 9RJ Type: Physical Treatment Facility Size: < 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: STE003 EPR reference: - Operator: Sterile Technologies (Newcastle) Ltd Waste Management licence No: 37223 Annual Tonnage: 16999.0 Issue Date: 06/03/2001 Effective Date: 10/02/2004 Modified: 10/12/2003 Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Transferred Site Name: Clinical Waste Treatment (H D S) & Transfer Site Correspondence Address: Marlborough Road, Wrexham Ind Est, Wrexham, LL13 9RJ
31C	200	N	338582 349722	Site Address: Wrexham Clinical Waste Treatment And Transfer Station, Land / Premises At, Marlborough Road, Clwyd, Wrexham, Wrexham, LL13 9RJ Type: - Size: Unknown Environmental Permitting Regulations (Waste) Licence Number: AB3033RL EPR reference: - Operator: Sita U K Ltd Waste Management licence No: 37223 Annual Tonnage: 0.0 Issue Date: 06/03/2001 Effective Date: 06/03/2001 Modified: - Surrendered Date: - Expiry Date: 15/03/2017 Cancelled Date: - Status: Expired Site Name: - Correspondence Address: -
32C	200	N	338582 349722	Site Address: Wrexham Clinical Waste Treatment Plant & Transfer Station, Wrexham Industrial Estate, , , Wrexham, Clwyd, LL13 9RJ Type: Physical Treatment Facility Size: - Environmental Permitting Regulations (Waste) Licence Number: PP3892FX EPR reference: - Operator: Sterile Technologies (Newcastle) Ltd Waste Management licence No: 37305 Annual Tonnage: 0.0 Issue Date: 23/06/2006 Effective Date: 23/06/2006 Modified: - Surrendered Date: - Expiry Date: 23/06/2006 Cancelled Date: - Status: Expired Site Name: - Correspondence Address: -

ID	Distance (m)	Direction	NGR	Details
33C	200	N	338582 349722	Site Address: Wrexham Clinical Waste Treatment And Transfer Station, Land / Premises At, Marlborough Road, Wrexham Industrial Estate, Wrexham, Clwyd, LL13 9RJ Type: Clinical Waste Transfer Station Size: - Environmental Permitting Regulations (Waste) Licence Number: AB3033RL EPR reference: - Operator: Sita U K Ltd Waste Management licence No: 37223 Annual Tonnage: 0.0 Issue Date: 06/03/2001 Effective Date: 06/03/2001 Modified: - Surrendered Date: - Expiry Date: 15/03/2017 Cancelled Date: - Status: Expired Site Name: - Correspondence Address: -
34C	200	N	338582 349722	Site Address: Wrexham Clinical Waste Treatment And Transfer Station, Land / Premises At, Marlborough Road, Wrexham Industrial Estate, Wrexham, Clwyd, LL13 9RJ Type: Clinical Waste Transfer Station Size: - Environmental Permitting Regulations (Waste) Licence Number: AB3033RL EPR reference: - Operator: Sita U K Ltd Waste Management licence No: 37223 Annual Tonnage: 0.0 Issue Date: 06/03/2001 Effective Date: 06/03/2001 Modified: - Surrendered Date: - Expiry Date: 15/03/2017 Cancelled Date: - Status: Expired Site Name: - Correspondence Address: -
35C	200	N	338582 349722	Site Address: Wrexham Clinical Waste Treatment Plant & Transfer Station, Wrexham Industrial Estate, Clwyd, Wrexham, Wrexham, LL13 9RJ Type: - Size: Unknown Environmental Permitting Regulations (Waste) Licence Number: PP3892FX EPR reference: - Operator: Sterile Technologies (Newcastle) Ltd Waste Management licence No: 37305 Annual Tonnage: 0.0 Issue Date: 23/06/2006 Effective Date: 23/06/2006 Modified: - Surrendered Date: - Expiry Date: 23/06/2006 Cancelled Date: - Status: Expired Site Name: - Correspondence Address: -
36C	200	N	338582 349722	Site Address: Wrexham Clinical Waste Treatment Plant & Transfer Station, Wrexham Industrial Estate, , , Wrexham, Clwyd, LL13 9RJ Type: Physical Treatment Facility Size: - Environmental Permitting Regulations (Waste) Licence Number: PP3892FX EPR reference: - Operator: Sterile Technologies (Newcastle) Ltd Waste Management licence No: 37305 Annual Tonnage: 0.0 Issue Date: 23/06/2006 Effective Date: 23/06/2006 Modified: - Surrendered Date: - Expiry Date: 23/06/2006 Cancelled Date: - Status: Expired Site Name: - Correspondence Address: -
37C	201	N	338583 349723	Site Address: Marlborough Road, Wrexham Industrial Estate, Wrexham, Clwyd, LL13 9RJ Type: Physical Treatment Facility Size: Unknown Environmental Permitting Regulations (Waste) Licence Number: STE004 EPR reference: PP3892FX/A001 Operator: Sterile Technologies (Newcastle) Ltd Waste Management licence No: 37305 Annual Tonnage: 0.0 Issue Date: 23/06/2006 Effective Date: - Modified: - Surrendered Date: 0 Expiry Date: 0 Cancelled Date: 0 Status: To PPC Site Name: Wrexham Clinical Waste Treatment Plant & Transfer Station Correspondence Address: -
38C	201	N	338583 349723	Site Address: Land / Premises At, Marlborough Road, Wrexham Industrial Issue Date: 06/03/2001 Effective Date: 10/02/2004

ID	Distance (m)	Direction	NGR	Details
				Estate, Wrexham, Clwyd, LL13 9RJ Type: Clinical Waste Transfer Station Size: < 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: STE003 EPR reference: AB3033RL/V005 Operator: Sita U K Ltd Waste Management licence No: 37223 Annual Tonnage: 16999.0 Modified: 27/10/2011 Surrendered Date: 0 Expiry Date: 0 Cancelled Date: 0 Status: Modified Site Name: Wrexham Clinical Waste Treatment And Transfer Station Correspondence Address: -
39C	203	N	338587 349726	Site Address: Malborough Road, Wrexham Industrial Estate, Wrexham, LL13 7YP Type: Household, Commercial & Industrial Waste T Stn Size: Unknown Environmental Permitting Regulations (Waste) Licence Number: TRI002 EPR reference: - Operator: Trinco Ltd Waste Management licence No: 37043 Annual Tonnage: 0.0 Issue Date: 12/10/1992 Effective Date: - Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: IPPC Site Name: Marlborough Road Clinical Waste Correspondence Address: Ambassador Place, 3, Stockport Road, Altrincham, Cheshire, WA15 8DB
40C	203	N	338587 349726	Site Address: Malborough Road, Wrexham Industrial Estate, Wrexham, LL13 7YP Type: Household, Commercial & Industrial Waste T Stn Size: < 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: TRI002 EPR reference: - Operator: Trinco Ltd Waste Management licence No: 37043 Annual Tonnage: 0.0 Issue Date: 12/10/1992 Effective Date: - Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: IPPC Site Name: Marlborough Road Clinical Waste Correspondence Address: Ambassador Place, 3, Stockport Road, Altrincham, Cheshire, WA15 8DB
41C	206	N	338593 349731	Site Address: Eurocare Environmental Services Ltd, Malborough Road, Wrexham Industrial Estate, Wrexham, LL13 9RJ Type: Physical Treatment Facility Size: < 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: EUR001 EPR reference: - Operator: Eurocare Environmental Services Ltd Waste Management licence No: 37223 Annual Tonnage: 16999.0 Issue Date: 06/03/2001 Effective Date: - Modified: 10/06/2002 Surrendered Date: - Expiry Date: 12/12/2001 Cancelled Date: - Status: Modified Site Name: Clinical Waste Treatment (hds) And Transfer Site Correspondence Address: Mailing Suite 1, St Peters Wharf, Newcastle-upon-tyne, NE6 1TZ
42C	206	N	338593 349731	Site Address: Eurocare Environmental Services Ltd, Malborough Road, Wrexham Industrial Estate, Wrexham, LL13 9RJ Type: Physical Treatment Facility Size: < 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: STE003 EPR reference: - Operator: Sterile Technologies (newcastle) Limited Waste Management licence No: 37223 Annual Tonnage: 16999.0 Issue Date: 06/03/2001 Effective Date: 10/02/2004 Modified: 10/12/2003 Surrendered Date: - Expiry Date: 12/12/2001 Cancelled Date: - Status: Transferred Site Name: Clinical Waste Treatment (hds) And Transfer Site Correspondence Address: Lindfield House, 1st Floor, Stuart Road, Gravesend, Kent, DA11 0BZ
43D	252	N	338591 349778	Site Address: Wrexham Clinical Waste Treatment And Transfer Station, Wrexham Industrial Estate, Wrexham, Wrexham, LL13 9RJ Type: - Size: Unknown Environmental Permitting Regulations (Waste) Licence Number: RP3237SZ EPR reference: - Issue Date: 06/03/2001 Effective Date: 06/03/2001 Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Expired Site Name: - Correspondence Address: -

ID	Distance (m)	Direction	NGR	Details
				Operator: Sita U K Ltd Waste Management licence No: 0 Annual Tonnage: 0.0
44D	252	N	338591 349778	Site Address: Wrexham Clinical Waste Treatment And Transfer Station, Wrexham Industrial Estate, Wrexham, Clwyd, LL13 9RJ Type: Physical Treatment Facility Size: Unknown Environmental Permitting Regulations (Waste) Licence Number: RP3237SZ EPR reference: - Operator: - Waste Management licence No: 37223 Annual Tonnage: 0.0 Issue Date: 06/03/2001 Effective Date: 06/03/2001 Modified: - Surrendered Date: - Expiry Date: 09/02/2004 Cancelled Date: - Status: Expired Site Name: - Correspondence Address: -
45D	252	N	338591 349778	Site Address: Wrexham Clinical Waste Treatment And Transfer Station, Wrexham Industrial Estate, , , Wrexham, Clwyd, LL13 9RJ Type: Physical Treatment Facility Size: - Environmental Permitting Regulations (Waste) Licence Number: RP3237SZ EPR reference: - Operator: Sita U K Ltd Waste Management licence No: 37223 Annual Tonnage: 0.0 Issue Date: 06/03/2001 Effective Date: 06/03/2001 Modified: - Surrendered Date: - Expiry Date: 09/02/2004 Cancelled Date: - Status: Expired Site Name: - Correspondence Address: -
46D	252	N	338591 349778	Site Address: Wrexham Clinical Waste Treatment And Transfer Station, Wrexham Industrial Estate, , , Wrexham, Clwyd, LL13 9RJ Type: Physical Treatment Facility Size: - Environmental Permitting Regulations (Waste) Licence Number: RP3237SZ EPR reference: - Operator: Sita U K Ltd Waste Management licence No: 37223 Annual Tonnage: 0.0 Issue Date: 06/03/2001 Effective Date: 06/03/2001 Modified: - Surrendered Date: - Expiry Date: 09/02/2004 Cancelled Date: - Status: Expired Site Name: - Correspondence Address: -
47D	252	N	338591 349778	Site Address: Wrexham Clinical Waste Treatment And Transfer Station, Wrexham Industrial Estate, Clwyd, Wrexham, Wrexham, LL13 9RJ Type: - Size: Unknown Environmental Permitting Regulations (Waste) Licence Number: RP3237SZ EPR reference: - Operator: Sita U K Ltd Waste Management licence No: 37223 Annual Tonnage: 0.0 Issue Date: 06/03/2001 Effective Date: 06/03/2001 Modified: - Surrendered Date: - Expiry Date: 09/02/2004 Cancelled Date: - Status: Expired Site Name: - Correspondence Address: -
48E	284	N	338588 349811	Site Address: Marlborough Road, Wrexham Ind Est, Wrexham, LL13 9RJ Type: Other Landfill Site taking Special Waste Size: >= 75000 tonnes Environmental Permitting Regulations (Waste) Licence Number: WDA001 EPR reference: - Operator: W D A Waste Management licence No: 37009 Annual Tonnage: 0.0 Issue Date: 02/03/1997 Effective Date: - Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Closure Site Name: W D A - Formerly Erie Electronic 1 Correspondence Address: Unit 7, St Asaph Business Park, Fford Richard Davies, St Asaph, Denbighshire, LL17 0LJ
49E	287	N	338587 349814	Site Address: Marlborough Road, Wrexham Ind Est, Wrexham, Clwyd, LL13 Issue Date: 02/03/1997 Effective Date: -

ID	Distance (m)	Direction	NGR	Details
				9RJ Type: Other Landfill Site taking Special Waste Size: < 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: WDA001 EPR reference: EA/EPR/BP3394FH/A001 Operator: Welsh Assembly Government Waste Management licence No: 37009 Annual Tonnage: 300000.0 Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Closure Site Name: W D A - Formerly Erie Electronic 1 Correspondence Address: -
50E	287	N	338587 349814	Site Address: W D A - Formerly Erie Electronic 1, Marlborough Road, Wrexham, Wrexham, LL13 9RJ Type: - Size: Unknown Environmental Permitting Regulations (Waste) Licence Number: BP3394FH EPR reference: - Operator: Welsh Assembly Government Waste Management licence No: 0 Annual Tonnage: 0.0 Issue Date: 02/03/1997 Effective Date: 02/03/1997 Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Effective Site Name: - Correspondence Address: -
51E	287	N	338587 349814	Site Address: W D A - Formerly Erie Electronic 2, Wrexham Ind Est, Wrexham, Wrexham, LL13 9RJ Type: - Size: Unknown Environmental Permitting Regulations (Waste) Licence Number: BP3994FJ EPR reference: - Operator: Welsh Assembly Government Waste Management licence No: 0 Annual Tonnage: 0.0 Issue Date: 02/03/1987 Effective Date: 02/03/1987 Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Effective Site Name: - Correspondence Address: -
52E	287	N	338587 349814	Site Address: W D A - Formerly Erie Electronic 2, Wrexham Ind Est, Wrexham, Clwyd, LL13 9RJ Type: Other Landfill Site taking Special Waste Size: Unknown Environmental Permitting Regulations (Waste) Licence Number: BP3994FJ EPR reference: - Operator: - Waste Management licence No: 37011 Annual Tonnage: 0.0 Issue Date: 02/03/1987 Effective Date: 02/03/1987 Modified: - Surrendered Date: - Expiry Date: 25/01/2002 Cancelled Date: - Status: Effective Site Name: - Correspondence Address: -
53E	287	N	338587 349814	Site Address: Marlborough Road, Wrexham Ind Est, Wrexham, LL13 9RJ Type: Other Landfill Site taking Special Waste Size: < 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: WDA002 EPR reference: - Operator: W D A Waste Management licence No: 37011 Annual Tonnage: 0.0 Issue Date: 02/03/1987 Effective Date: - Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Closure Site Name: W D A - Formerly Erie Electronic 2 Correspondence Address: Unit 7, St Asaph Business Park, Fford Richard Davies, St Asaph, Denbighshire, LL17 0LJ
54E	287	N	338587 349814	Site Address: Marlborough Road, Wrexham Ind Est, Wrexham, LL13 9RJ Type: Other Landfill Site taking Special Waste Size: < 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: WDA001 EPR reference: - Operator: W D A Waste Management licence No: 37009 Issue Date: 02/03/1997 Effective Date: - Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Closure Site Name: W D A - Formerly Erie Electronic 1 Correspondence Address: Unit 7, St Asaph

ID	Distance (m)	Direction	NGR	Details	
				Annual Tonnage: 0.0	Business Park, Fford Richard Davies, St Asaph, Denbighshire, LL17 0LJ
55E	287	N	338587 349814	Site Address: W D A - Formerly Erie Electronic 1, Marlborough Road, Wrexham, Clwyd, LL13 9RJ Type: Other Landfill Site taking Special Waste Size: Unknown Environmental Permitting Regulations (Waste) Licence Number: BP3394FH EPR reference: - Operator: - Waste Management licence No: 37009 Annual Tonnage: 0.0	Issue Date: 02/03/1997 Effective Date: 02/03/1997 Modified: - Surrendered Date: - Expiry Date: 25/01/2002 Cancelled Date: - Status: Effective Site Name: - Correspondence Address: -
56E	287	N	338587 349814	Site Address: Marlborough Road, Wrexham Ind Est, Wrexham, Clwyd, LL13 9RJ Type: Other Landfill Site taking Special Waste Size: < 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: WDA002 EPR reference: EA/EPR/BP3994FJ/A001 Operator: Welsh Assembly Government Waste Management licence No: 37011 Annual Tonnage: 300000.0	Issue Date: 02/03/1987 Effective Date: - Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Closure Site Name: W D A - Formerly Erie Electronic 2 Correspondence Address: -
57E	287	N	338587 349814	Site Address: W D A - Formerly Erie Electronic 1, Marlborough Road, , , Wrexham, Clwyd, LL13 9RJ Type: Other Landfill Site taking Special Waste Size: - Environmental Permitting Regulations (Waste) Licence Number: BP3394FH EPR reference: - Operator: Welsh Assembly Government Waste Management licence No: 37009 Annual Tonnage: 0.0	Issue Date: 02/03/1997 Effective Date: 02/03/1997 Modified: - Surrendered Date: - Expiry Date: 25/01/2002 Cancelled Date: - Status: Effective Site Name: - Correspondence Address: -
58E	287	N	338587 349814	Site Address: W D A - Formerly Erie Electronic 2, Wrexham Ind Est, , , Wrexham, Clwyd, LL13 9RJ Type: Other Landfill Site taking Special Waste Size: - Environmental Permitting Regulations (Waste) Licence Number: BP3994FJ EPR reference: - Operator: Welsh Assembly Government Waste Management licence No: 37011 Annual Tonnage: 0.0	Issue Date: 02/03/1987 Effective Date: 02/03/1987 Modified: - Surrendered Date: - Expiry Date: 25/01/2002 Cancelled Date: - Status: Effective Site Name: - Correspondence Address: -
59E	287	N	338587 349814	Site Address: W D A - Formerly Erie Electronic 1, Marlborough Road, Clwyd, Wrexham, Wrexham, LL13 9RJ Type: - Size: Unknown Environmental Permitting Regulations (Waste) Licence Number: BP3394FH EPR reference: - Operator: Welsh Assembly Government Waste Management licence No: 37009 Annual Tonnage: 0.0	Issue Date: 02/03/1997 Effective Date: 02/03/1997 Modified: - Surrendered Date: - Expiry Date: 25/01/2002 Cancelled Date: - Status: Effective Site Name: - Correspondence Address: -
60E	287	N	338587 349814	Site Address: W D A - Formerly Erie Electronic 2, Wrexham Ind Est, Clwyd, Wrexham, Wrexham, LL13 9RJ Type: -	Issue Date: 02/03/1987 Effective Date: 02/03/1987 Modified: - Surrendered Date: -

ID	Distance (m)	Direction	NGR	Details
				Size: Unknown Environmental Permitting Regulations (Waste) Licence Number: BP3994FJ EPR reference: - Operator: Welsh Assembly Government Waste Management licence No: 37011 Annual Tonnage: 0.0 Expiry Date: 25/01/2002 Cancelled Date: - Status: Effective Site Name: - Correspondence Address: -
61E	287	N	338587 349814	Site Address: W D A - Formerly Erie Electronic 1, Marlborough Road, , , Wrexham, Clwyd, LL13 9RJ Type: Other Landfill Site taking Special Waste Size: - Environmental Permitting Regulations (Waste) Licence Number: BP3394FH EPR reference: - Operator: Welsh Assembly Government Waste Management licence No: 37009 Annual Tonnage: 0.0 Issue Date: 02/03/1997 Effective Date: 02/03/1997 Modified: - Surrendered Date: - Expiry Date: 25/01/2002 Cancelled Date: - Status: Effective Site Name: - Correspondence Address: -
62E	287	N	338587 349814	Site Address: W D A - Formerly Erie Electronic 2, Wrexham Ind Est, , , Wrexham, Clwyd, LL13 9RJ Type: Other Landfill Site taking Special Waste Size: - Environmental Permitting Regulations (Waste) Licence Number: BP3994FJ EPR reference: - Operator: Welsh Assembly Government Waste Management licence No: 37011 Annual Tonnage: 0.0 Issue Date: 02/03/1987 Effective Date: 02/03/1987 Modified: - Surrendered Date: - Expiry Date: 25/01/2002 Cancelled Date: - Status: Effective Site Name: - Correspondence Address: -
63E	288	N	338588 349815	Site Address: Marlborough Road, Wrexham Ind Est, Wrexham, Clwyd, LL13 9RJ Type: Other Landfill Site taking Special Waste Size: >= 75000 tonnes Environmental Permitting Regulations (Waste) Licence Number: WDA002 EPR reference: BP3994FJ/A001 Operator: Welsh Assembly Government Waste Management licence No: 37011 Annual Tonnage: 300000.0 Issue Date: 02/03/1987 Effective Date: - Modified: - Surrendered Date: 0 Expiry Date: 0 Cancelled Date: 0 Status: Closure Site Name: W D A - Formerly Erie Electronic 2 Correspondence Address: -
64E	288	N	338588 349815	Site Address: Marlborough Road, Wrexham Ind Est, Wrexham, Clwyd, LL13 9RJ Type: Other Landfill Site taking Special Waste Size: >= 75000 tonnes Environmental Permitting Regulations (Waste) Licence Number: WDA001 EPR reference: BP3394FH/A001 Operator: Welsh Assembly Government Waste Management licence No: 37009 Annual Tonnage: 300000.0 Issue Date: 02/03/1997 Effective Date: - Modified: - Surrendered Date: 0 Expiry Date: 0 Cancelled Date: 0 Status: Closure Site Name: W D A - Formerly Erie Electronic 1 Correspondence Address: -
65E	294	N	338580 349819	Site Address: Marlborough Road, Wrexham Ind Est, Wrexham, LL13 9RJ Type: Other Landfill Site taking Special Waste Size: >= 75000 tonnes Environmental Permitting Regulations (Waste) Licence Number: WDA002 EPR reference: - Operator: W D A Waste Management licence No: 37011 Annual Tonnage: 0.0 Issue Date: 02/03/1987 Effective Date: - Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Closure Site Name: W D A - Formerly Erie Electronic 2 Correspondence Address: Unit 7, St Asaph Business Park, Fford Richard Davies, St

ID	Distance (m)	Direction	NGR	Details	
Asaph, Denbighshire, LL17 0LJ					
66F	311	W	338341 349461	Site Address: Bluestone Chemicals, Redwither Rd, Wrexham Industrial Estate, Wrexham, Clwyd, LL13 9RD Type: Chemical Treatment Facility Size: < 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: BLU003 EPR reference: TP3594FK/A001 Operator: Bluestone Chemicals Ltd Waste Management licence No: 37094 Annual Tonnage: 931.0	Issue Date: 17/01/1994 Effective Date: - Modified: - Surrendered Date: 0 Expiry Date: 0 Cancelled Date: 0 Status: Expired Site Name: Bluestone Chemicals Ltd Correspondence Address: -
67F	312	W	338340 349460	Site Address: Bluestone Chemicals Ltd, Wrexham Industrial Estate, , , Wrexham, Clwyd, LL13 9RD Type: Chemical Treatment Facility Size: - Environmental Permitting Regulations (Waste) Licence Number: TP3594FK EPR reference: - Operator: Bluestone Chemicals Ltd Waste Management licence No: 37094 Annual Tonnage: 0.0	Issue Date: 17/01/1994 Effective Date: 17/01/1994 Modified: - Surrendered Date: - Expiry Date: 13/09/1999 Cancelled Date: - Status: Expired Site Name: - Correspondence Address: -
68F	312	W	338340 349460	Site Address: Bluestone Chemicals Ltd, Wrexham Industrial Estate, Wrexham, Clwyd, LL13 9RD Type: Chemical Treatment Facility Size: Unknown Environmental Permitting Regulations (Waste) Licence Number: TP3594FK EPR reference: - Operator: - Waste Management licence No: 37094 Annual Tonnage: 0.0	Issue Date: 17/01/1994 Effective Date: 17/01/1994 Modified: - Surrendered Date: - Expiry Date: 13/09/1999 Cancelled Date: - Status: Expired Site Name: - Correspondence Address: -
69F	312	W	338340 349460	Site Address: Bluestone Chemicals, Redwither Rd, Wrexham Industrial Estate, Wrexham, LL13 9RD Type: Chemical Treatment Facility Size: Unknown Environmental Permitting Regulations (Waste) Licence Number: BLU003 EPR reference: - Operator: Bluestone Chemicals Ltd Waste Management licence No: 37094 Annual Tonnage: 0.0	Issue Date: 17/01/1994 Effective Date: - Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Expired Site Name: Bluestone Chemicals Ltd Correspondence Address: Bluestone Chemicals, Redwither Rd, Wrexham Industrial Estate, Wrexham, LL13 9RD
70F	312	W	338340 349460	Site Address: Bluestone Chemicals Ltd, Wrexham Industrial Estate, Wrexham, Wrexham, LL13 9RD Type: - Size: Unknown Environmental Permitting Regulations (Waste) Licence Number: TP3594FK EPR reference: - Operator: Bluestone Chemicals Ltd Waste Management licence No: 0 Annual Tonnage: 0.0	Issue Date: 17/01/1994 Effective Date: 17/01/1994 Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Expired Site Name: - Correspondence Address: -
71F	312	W	338340 349460	Site Address: Bluestone Chemicals Ltd, Wrexham Industrial Estate, , , Wrexham, Clwyd, LL13 9RD Type: Chemical Treatment Facility Size: - Environmental Permitting Regulations (Waste) Licence Number: TP3594FK EPR reference: - Operator: Bluestone Chemicals Ltd	Issue Date: 17/01/1994 Effective Date: 17/01/1994 Modified: - Surrendered Date: - Expiry Date: 13/09/1999 Cancelled Date: - Status: Expired Site Name: - Correspondence Address: -

ID	Distance (m)	Direction	NGR	Details	
				Waste Management licence No: 37094 Annual Tonnage: 0.0	
72F	312	W	338340 349460	Site Address: Bluestone Chemicals Ltd, Wrexham Industrial Estate, Clwyd, Wrexham, Wrexham, LL13 9RD Type: - Size: Unknown Environmental Permitting Regulations (Waste) Licence Number: TP3594FK EPR reference: - Operator: Bluestone Chemicals Ltd Waste Management licence No: 37094 Annual Tonnage: 0.0	Issue Date: 17/01/1994 Effective Date: 17/01/1994 Modified: - Surrendered Date: - Expiry Date: 13/09/1999 Cancelled Date: - Status: Expired Site Name: - Correspondence Address: -
73G	359	N	338758 349891	Site Address: Wrexham Recycling Park, Bryn Lane, Wrexham Industrial Estate, Wrexham, Clwyd, LL13 9UT Type: Biological Treatment Facility Size: >= 25000 tonnes < 75000 tonnes Environmental Permitting Regulations (Waste) Licence Number: WAS150 EPR reference: EA/EPR/BB3436RA/A001 Operator: Waste Recycling Limited Waste Management licence No: 103238 Annual Tonnage: 70000.0	Issue Date: 18/04/2012 Effective Date: - Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Issued Site Name: Phase 2 Wrexham Recycling Park Correspondence Address: -
74G	359	N	338758 349891	Site Address: Phase 2 Wrexham Recycling Park, Wrexham Recycling Park, Wrexham Industrial Estate, Wrexham, Clwyd, LL13 9UT Type: Biological Treatment Facility Size: Unknown Environmental Permitting Regulations (Waste) Licence Number: BB3436RA EPR reference: - Operator: - Waste Management licence No: 103238 Annual Tonnage: 70000.0	Issue Date: 18/04/2012 Effective Date: 18/04/2012 Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Effective Site Name: - Correspondence Address: -
75G	359	N	338758 349891	Site Address: Phase 2 Wrexham Recycling Park, Wrexham Recycling Park, Wrexham Industrial Estate, Wrexham, Wrexham, LL13 9UT Type: - Size: Unknown Environmental Permitting Regulations (Waste) Licence Number: BB3436RA EPR reference: - Operator: Waste Recycling Limited Waste Management licence No: 0 Annual Tonnage: 70000.0	Issue Date: 18/04/2012 Effective Date: 18/04/2012 Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Effective Site Name: - Correspondence Address: -
76G	360	N	338759 349892	Site Address: Wrexham Recycling Park, Bryn Lane, Wrexham Industrial Estate, Wrexham, Clwyd, LL13 9UT Type: Biological Treatment Facility Size: Unknown Environmental Permitting Regulations (Waste) Licence Number: WAS150 EPR reference: BB3436RA/A001 Operator: Waste Recycling Limited Waste Management licence No: 103238 Annual Tonnage: 0.0	Issue Date: 18/04/2012 Effective Date: - Modified: - Surrendered Date: 0 Expiry Date: 0 Cancelled Date: 0 Status: Issued Site Name: Phase 2 Wrexham Recycling Park Correspondence Address: -
77H	361	W	338306 349396	Site Address: A S H Wrexham Recycling Centre, Wrexham Industrial Estate, Wrexham, Clwyd, LL13 9RD Type: Household, Commercial & Industrial Waste T Stn Size: Unknown	Issue Date: 09/03/2000 Effective Date: 09/03/2000 Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: -

ID	Distance (m)	Direction	NGR	Details
				Environmental Permitting Regulations (Waste) Licence Number: WP3094FB EPR reference: - Operator: - Waste Management licence No: 37211 Annual Tonnage: 24999.0 Status: Effective Site Name: - Correspondence Address: -
78H	361	W	338306 349396	Site Address: A S H Wrexham Recycling Centre, Wrexham Industrial Estate, Wrexham, LL13 9RD Type: - Size: Unknown Environmental Permitting Regulations (Waste) Licence Number: WP3094FB EPR reference: - Operator: Alan's Skip Hire (Wales) Ltd Waste Management licence No: 0 Annual Tonnage: 24999.0 Issue Date: 09/03/2000 Effective Date: 09/03/2000 Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Effective Site Name: - Correspondence Address: -
79I	378	SW	338386 349236	Site Address: ASH Wrexham Recycling Centre, Site One, Redwither Road, Wrexham Industrial Estate, Wrexham, , LL13 9RD Type: Household, Commercial & Industrial Waste T Stn Size: - Environmental Permitting Regulations (Waste) Licence Number: WP3094FB EPR reference: - Operator: Alan's Skip Hire (Wales) Ltd Waste Management licence No: 37211 Annual Tonnage: 74999.0 Issue Date: 03/10/2017 Effective Date: 03/10/2017 Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Effective Site Name: - Correspondence Address: -
80I	378	SW	338386 349236	Site Address: ASH Wrexham Recycling Centre, Site One, Redwither Road, Wrexham Industrial Estate, Wrexham, , LL13 9RD Type: Physical Treatment Facility Size: - Environmental Permitting Regulations (Waste) Licence Number: WP3094FB EPR reference: - Operator: Alan's Skip Hire (Wales) Ltd Waste Management licence No: 37211 Annual Tonnage: 74999.0 Issue Date: 03/10/2017 Effective Date: 03/10/2017 Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Effective Site Name: - Correspondence Address: -
81I	378	SW	338386 349236	Site Address: ASH Wrexham Recycling Centre, Site One, Redwither Road, Wrexham Industrial Estate, Wrexham, , LL13 9RD Type: Household, Commercial & Industrial Waste T Stn Size: - Environmental Permitting Regulations (Waste) Licence Number: WP3094FB EPR reference: - Operator: Alan's Skip Hire (Wales) Ltd Waste Management licence No: 37211 Annual Tonnage: 74999.0 Issue Date: 03/10/2017 Effective Date: 03/10/2017 Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Effective Site Name: - Correspondence Address: -
82I	378	SW	338386 349236	Site Address: ASH Wrexham Recycling Centre, Site One, Redwither Road, Wrexham Industrial Estate, Wrexham, , LL13 9RD Type: Physical Treatment Facility Size: - Environmental Permitting Regulations (Waste) Licence Number: WP3094FB EPR reference: - Operator: Alan's Skip Hire (Wales) Ltd Waste Management licence No: 37211 Issue Date: 03/10/2017 Effective Date: 03/10/2017 Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Effective Site Name: - Correspondence Address: -

ID	Distance (m)	Direction	NGR	Details	
Annual Tonnage: 74999.0					
83I	378	SW	338386 349236	Site Address: ASH Wrexham Recycling Centre, Site One, Redwither Road, Wrexham, Wrexham, LL13 9RD Type: - Size: Unknown Environmental Permitting Regulations (Waste) Licence Number: WP3094FB EPR reference: - Operator: Alan's Skip Hire (Wales) Ltd Waste Management licence No: 37211 Annual Tonnage: 74999.0	Issue Date: 03/10/2017 Effective Date: 03/10/2017 Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Effective Site Name: - Correspondence Address: -
84I	378	SW	338386 349236	Site Address: ASH Wrexham Recycling Centre, Site One, Redwither Road, Wrexham, Wrexham, LL13 9RD Type: - Size: Unknown Environmental Permitting Regulations (Waste) Licence Number: WP3094FB EPR reference: - Operator: Alan's Skip Hire (Wales) Ltd Waste Management licence No: 37211 Annual Tonnage: 74999.0	Issue Date: 03/10/2017 Effective Date: 03/10/2017 Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Effective Site Name: - Correspondence Address: -
85J	401	W	338252 349447	Site Address: Entrec Ltd, Redwither Road, Wrexham Industrial Estate, Wrexham, LL13 9RD Type: Metal Recycling Site (Vehicle Dismantler) Size: >= 25000 tonnes < 75000 tonnes Environmental Permitting Regulations (Waste) Licence Number: ENT002 EPR reference: YP3994FY/V003 Operator: Entrec Ltd Waste Management licence No: 37267 Annual Tonnage: 25000.0	Issue Date: 08/09/2004 Effective Date: - Modified: 07/05/2014 Surrendered Date: 0 Expiry Date: 0 Cancelled Date: 0 Status: Modified Site Name: Entrec Ltd Correspondence Address: -
86J	402	W	338251 349446	Site Address: Entrec Ltd, Wrexham Industrial Estate, , Wrexham, , LL13 9RD Type: Metal Recycling Site (Vehicle Dismantler) Size: - Environmental Permitting Regulations (Waste) Licence Number: YP3994FY EPR reference: - Operator: Entrec Ltd Waste Management licence No: 37267 Annual Tonnage: 25000.0	Issue Date: 10/09/2004 Effective Date: 10/09/2004 Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Effective Site Name: - Correspondence Address: -
87J	402	W	338251 349446	Site Address: Land / Premises At, Redwither Road, Wrexham Industrial Estate, Wrexham, Clwyd, LL13 9RD Type: Material Recycling Treatment Facility Size: >= 25000 tonnes < 75000 tonnes Environmental Permitting Regulations (Waste) Licence Number: ENT002 EPR reference: EA/EPR/YP3994FY/A001 Operator: Entrec Ltd Waste Management licence No: 37267 Annual Tonnage: 25000.0	Issue Date: 08/09/2004 Effective Date: - Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Issued Site Name: Entrec Redwither Road Correspondence Address: -
88J	402	W	338251 349446	Site Address: Entrec Ltd, Wrexham Industrial Estate, , Wrexham, , LL13 9RD Type: Metal Recycling Site (Vehicle Dismantler) Size: - Environmental Permitting Regulations (Waste) Licence Number: YP3994FY	Issue Date: 10/09/2004 Effective Date: 10/09/2004 Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Effective

ID	Distance (m)	Direction	NGR	Details
				EPR reference: - Operator: Entrec Ltd Waste Management licence No: 37267 Annual Tonnage: 25000.0 Site Name: - Correspondence Address: -
89J	402	W	338251 349446	Site Address: Entrec Ltd, Wrexham Industrial Estate, Wrexham, Wrexham, LL13 9RD Type: - Size: Unknown Environmental Permitting Regulations (Waste) Licence Number: YP3994FY EPR reference: - Operator: Entrec Ltd Waste Management licence No: 0 Annual Tonnage: 25000.0 Issue Date: 10/09/2004 Effective Date: 10/09/2004 Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Effective Site Name: - Correspondence Address: -
90J	402	W	338251 349446	Site Address: Entrec Ltd, Entrec Ltd, Wrexham Industrial Estate, Wrexham, LL13 9RD Type: Metal Recycling Site (Vehicle Dismantler) Size: Unknown Environmental Permitting Regulations (Waste) Licence Number: YP3994FY EPR reference: - Operator: Entrec Ltd Waste Management licence No: 37267 Annual Tonnage: 25000.0 Issue Date: 10/09/2004 Effective Date: - Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Effective Site Name: Entrec Ltd Correspondence Address: -
91J	402	W	338251 349446	Site Address: - Type: Metal Recycling Site (Vehicle Dismantler) Size: Unknown Environmental Permitting Regulations (Waste) Licence Number: YP3994FY EPR reference: - Operator: - Waste Management licence No: 37267 Annual Tonnage: 25000.0 Issue Date: 10/09/2004 Effective Date: 10/09/2004 Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Effective Site Name: - Correspondence Address: -
92J	402	W	338251 349446	Site Address: Entrec Ltd, Wrexham Industrial Estate, Wrexham, Wrexham, LL13 9RD Type: - Size: Unknown Environmental Permitting Regulations (Waste) Licence Number: YP3994FY EPR reference: - Operator: Entrec Ltd Waste Management licence No: 37267 Annual Tonnage: 25000.0 Issue Date: 10/09/2004 Effective Date: 10/09/2004 Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Effective Site Name: - Correspondence Address: -
93K	417	W	338245 349405	Site Address: Site One, Redwither Road, Wrexham Industrial Estate, Wrexham, Clwyd, LL13 9RD Type: Household, Commercial & Industrial Waste T Stn Size: Unknown Environmental Permitting Regulations (Waste) Licence Number: ALA002 EPR reference: WP3094FB/V Operator: Alan's Skip Hire (Wales) Ltd Waste Management licence No: 37211 Annual Tonnage: 0.0 Issue Date: 09/03/2000 Effective Date: 01/06/2005 Modified: 15/04/2015 Surrendered Date: 0 Expiry Date: 0 Cancelled Date: 0 Status: Modified Site Name: A S H Wrexham Recycling Centre Correspondence Address: -
94K	418	W	338244 349404	Site Address: Site 1, Redwither Road, Wrexham Industrial Estate, Wrexham, Clwyd, LL13 9RD Type: Household, Commercial & Industrial Waste T Stn Issue Date: 09/03/2000 Effective Date: 01/06/2005 Modified: 10/12/2003 Surrendered Date: - Expiry Date: -

ID	Distance (m)	Direction	NGR	Details
				Size: < 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: ALA002 EPR reference: WP3094FB/T003 Operator: Alan's Skip Hire (Wales) Ltd. Waste Management licence No: 37211 Annual Tonnage: 54196.0 Cancelled Date: - Status: Transferred Site Name: Wrexham Recycling Centre Correspondence Address: -
95K	418	W	338244 349404	Site Address: Site One, Redwither Road, Wrexham Industrial Estate, Wrexham, Clwyd, LL13 9RD Type: Household, Commercial & Industrial Waste T Stn Size: < 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: ALA002 EPR reference: EA/EPR/WP3094FB/V002 Operator: Alan's Skip Hire (Wales) Ltd Waste Management licence No: 37211 Annual Tonnage: 24999.0 Issue Date: 09/03/2000 Effective Date: 01/06/2005 Modified: 22/03/2013 Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Modified Site Name: A S H Wrexham Recycling Centre Correspondence Address: -
96K	422	W	338241 349399	Site Address: Site 1, Redwither Road, Wrexham Industrial Estate, Wrexham, LL13 9RD Type: Household, Commercial & Industrial Waste T Stn Size: < 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: AMR001 EPR reference: - Operator: Alfa Environmental Management Ltd Waste Management licence No: 37211 Annual Tonnage: 0.0 Issue Date: 09/03/2000 Effective Date: - Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Issued Site Name: Wrexham Recycling Centre Correspondence Address: Site 1, Redwither Road, Wrexham Industrial Estate, Wrexham, LL13 9RD
97K	422	W	338241 349399	Site Address: Site 1, Redwither Road, Wrexham Industrial Estate, Wrexham, LL13 9RD Type: Household, Commercial & Industrial Waste T Stn Size: < 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: AMR001 EPR reference: - Operator: Alpha Environmental Management Ltd Waste Management licence No: 37211 Annual Tonnage: 0.0 Issue Date: 09/03/2000 Effective Date: - Modified: 10/12/2003 Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Modified Site Name: Wrexham Recycling Centre Correspondence Address: Site 1, Redwither Road, Wrexham Industrial Estate, Wrexham, LL13 9RD
98L	503	W	338151 349435	Site Address: Unit 1, Redwither Road, Wrexham Industrial Estate, Wrexham, Clwyd, LL13 9RD Type: Special Waste Transfer Station Size: < 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: REY001 EPR reference: AP3394FT/V003 Operator: North Western Insulation Ltd Waste Management licence No: 37221 Annual Tonnage: 4999.0 Issue Date: 19/02/2001 Effective Date: - Modified: 17/03/2006 Surrendered Date: 0 Expiry Date: 0 Cancelled Date: 0 Status: Expired Site Name: Redwither Road Transfer Station Correspondence Address: -
99L	504	W	338150 349434	Site Address: Redwither Road Transfer Station, Unit 1, Wrexham Industrial Estate, Wrexham, Clwyd, LL13 9RD Type: Special Waste Transfer Station Size: - Environmental Permitting Regulations (Waste) Licence Number: AP3394FT EPR reference: - Operator: North Western Insulation Ltd Waste Management licence No: 37221 Issue Date: 19/02/2001 Effective Date: 19/02/2001 Modified: - Surrendered Date: - Expiry Date: 01/05/2012 Cancelled Date: - Status: Expired Site Name: - Correspondence Address: -

ID	Distance (m)	Direction	NGR	Details	
Annual Tonnage: 0.0					
100L	504	W	338150 349434	Site Address: Redwither Road Transfer Station, Unit 1, Wrexham Industrial Estate, Wrexham, LL13 9RD Type: - Size: Unknown Environmental Permitting Regulations (Waste) Licence Number: AP3394FT EPR reference: - Operator: North Western Insulation Ltd Waste Management licence No: 0 Annual Tonnage: 0.0	Issue Date: 19/02/2001 Effective Date: 19/02/2001 Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Expired Site Name: - Correspondence Address: -
101L	504	W	338150 349434	Site Address: Redwither Road Transfer Station, Unit 1, Wrexham Industrial Estate, , Wrexham, Clwyd, LL13 9RD Type: Special Waste Transfer Station Size: - Environmental Permitting Regulations (Waste) Licence Number: AP3394FT EPR reference: - Operator: North Western Insulation Ltd Waste Management licence No: 37221 Annual Tonnage: 0.0	Issue Date: 19/02/2001 Effective Date: 19/02/2001 Modified: - Surrendered Date: - Expiry Date: 01/05/2012 Cancelled Date: - Status: Expired Site Name: - Correspondence Address: -
102L	504	W	338150 349434	Site Address: Redwither Road Transfer Station, Unit 1, Wrexham Industrial Estate, Clwyd, Wrexham, Wrexham, LL13 9RD Type: - Size: Unknown Environmental Permitting Regulations (Waste) Licence Number: AP3394FT EPR reference: - Operator: North Western Insulation Ltd Waste Management licence No: 37221 Annual Tonnage: 0.0	Issue Date: 19/02/2001 Effective Date: 19/02/2001 Modified: - Surrendered Date: - Expiry Date: 01/05/2012 Cancelled Date: - Status: Expired Site Name: - Correspondence Address: -
103L	504	W	338150 349434	Site Address: Unit 1, Redwither Road, Wrexham Industrial Estate, Wrexham, Clwyd, LL13 9RD Type: Special Waste Transfer Station Size: < 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: REY001 EPR reference: AP3394FT/V003 Operator: Reynolds Services North Western Insulation Ltd Waste Management licence No: 37221 Annual Tonnage: 4999.0	Issue Date: 19/02/2001 Effective Date: - Modified: 17/03/2006 Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Modified Site Name: Redwither Road Transfer Station Correspondence Address: -
104L	504	W	338150 349434	Site Address: Redwither Road Transfer Station, Unit 1, Wrexham Industrial Estate, Wrexham, Clwyd, LL13 9RD Type: Special Waste Transfer Station Size: Unknown Environmental Permitting Regulations (Waste) Licence Number: AP3394FT EPR reference: - Operator: - Waste Management licence No: 37221 Annual Tonnage: 0.0	Issue Date: 19/02/2001 Effective Date: 19/02/2001 Modified: - Surrendered Date: - Expiry Date: 01/05/2012 Cancelled Date: - Status: Expired Site Name: - Correspondence Address: -
Not shown	613	N	338898 350124	Site Address: Bryn Lane Civic Amenity Site, Land / Premises At, Bryn Lane, Wrexham Industrial Estate, Wrexham, Clwyd, LL13 9UT Type: Household Waste Amenity Site Size: Unknown Environmental Permitting Regulations	Issue Date: 30/06/2004 Effective Date: 30/06/2004 Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Effective

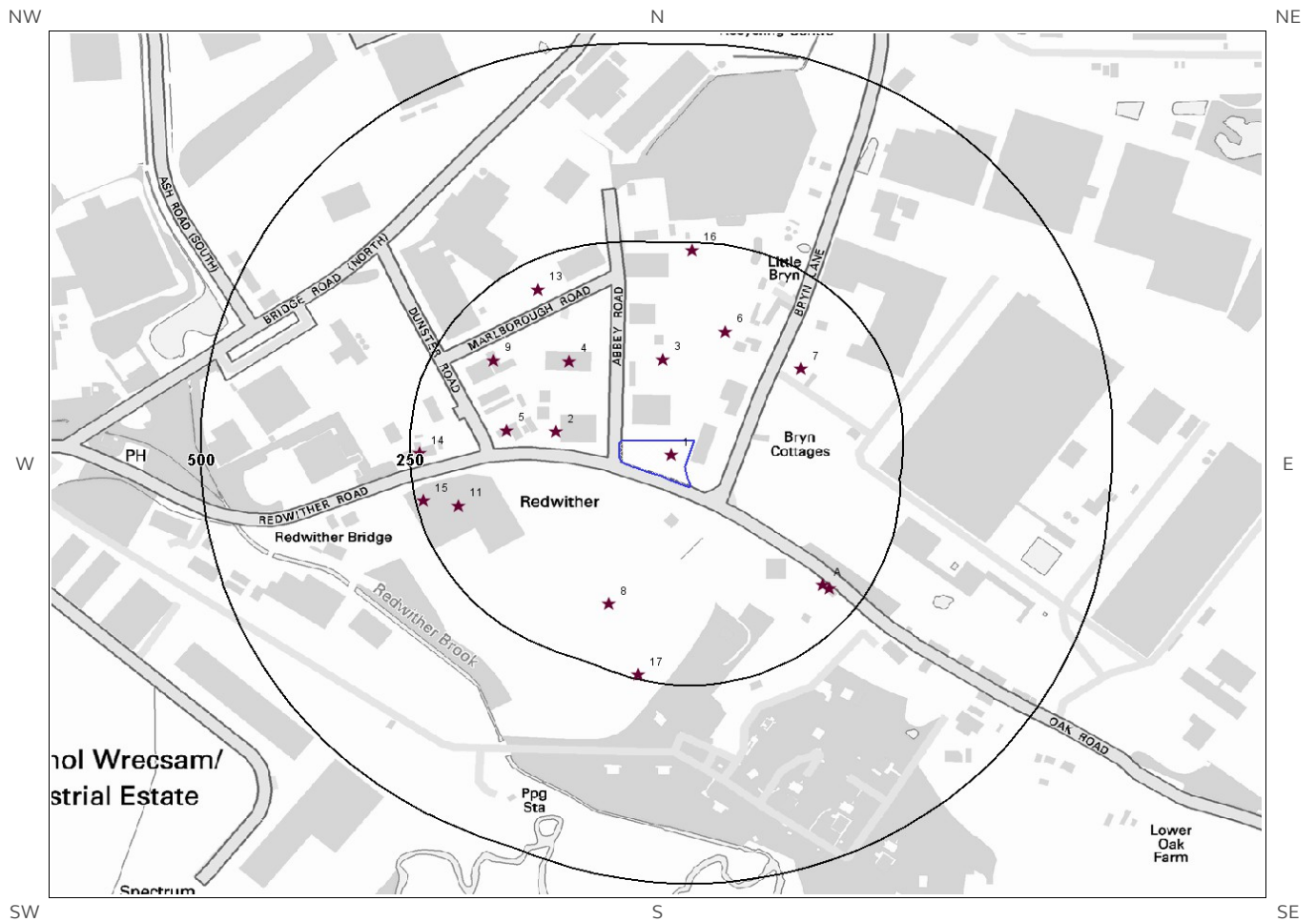
ID	Distance (m)	Direction	NGR	Details
				(Waste) Licence Number: DP3294FH EPR reference: - Operator: - Waste Management licence No: 37259 Annual Tonnage: 24999.0 Site Name: - Correspondence Address: -
Not shown	613	N	338898 350124	Site Address: Bryn Lane Civic Amenity Site, Land / Premises At, Bryn Lane, Wrexham Industrial Estate, Wrexham, Clwyd, LL13 9UT Type: Household Waste Amenity Site Size: - Environmental Permitting Regulations (Waste) Licence Number: DP3294FH EPR reference: - Operator: 3C Waste Limited Waste Management licence No: 37259 Annual Tonnage: 24999.0 Issue Date: 30/06/2004 Effective Date: 30/06/2004 Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Effective Site Name: - Correspondence Address: -
Not shown	613	N	338898 350124	Site Address: Bryn Lane Civic Amenity Site, Land / Premises At, Bryn Lane, Wrexham Industrial Estate, Wrexham, Clwyd, LL13 9UT Type: Household Waste Amenity Site Size: - Environmental Permitting Regulations (Waste) Licence Number: DP3294FH EPR reference: - Operator: 3C Waste Limited Waste Management licence No: 37259 Annual Tonnage: 24999.0 Issue Date: 30/06/2004 Effective Date: 30/06/2004 Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Effective Site Name: - Correspondence Address: -
Not shown	613	N	338898 350124	Site Address: Land / Premises At, Bryn Lane, Wrexham Industrial Estate, Wrexham, Clwyd, LL13 9UT Type: Special Waste Transfer Station Size: < 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: WRG002 EPR reference: EA/EPR/DP3294FH/V003 Operator: Waste Recycling Group Ltd Waste Management licence No: 37259 Annual Tonnage: 24999.0 Issue Date: 30/06/2004 Effective Date: - Modified: 08/03/2011 Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Modified Site Name: Bryn Lane Civic Amenity Site Correspondence Address: -
Not shown	613	N	338898 350124	Site Address: Bryn Lane Civic Amenity Site, Land / Premises At, Bryn Lane, Wrexham Industrial Estate, Wrexham, Wrexham, LL13 9UT Type: - Size: Unknown Environmental Permitting Regulations (Waste) Licence Number: DP3294FH EPR reference: - Operator: Waste Recycling Group Ltd Waste Management licence No: 0 Annual Tonnage: 24999.0 Issue Date: 30/06/2004 Effective Date: 30/06/2004 Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Effective Site Name: - Correspondence Address: -
Not shown	613	N	338898 350124	Site Address: Bryn Lane Civic Amenity Site, Land / Premises At, Bryn Lane, Clwyd, Wrexham, Wrexham, LL13 9UT Type: - Size: Unknown Environmental Permitting Regulations (Waste) Licence Number: DP3294FH EPR reference: - Operator: 3C Waste Limited Waste Management licence No: 37259 Annual Tonnage: 24999.0 Issue Date: 30/06/2004 Effective Date: 30/06/2004 Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Effective Site Name: - Correspondence Address: -
Not shown	614	N	338899 350125	Site Address: Land / Premises At, Bryn Lane, Wrexham Industrial Estate, Issue Date: 30/06/2004 Effective Date: -

ID	Distance (m)	Direction	NGR	Details
				Wrexham, Clwyd, LL13 9UT Type: Household Waste Amenity Site Size: < 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: WRG002 EPR reference: DP3294FH/V003 Operator: Waste Recycling Group Ltd Waste Management licence No: 37259 Annual Tonnage: 24999.0 Modified: 08/03/2011 Surrendered Date: 0 Expiry Date: 0 Cancelled Date: 0 Status: Modified Site Name: Bryn Lane Civic Amenity Site Correspondence Address: -
Not shown	851	N	338955 350355	Site Address: C A Site, Bryn Lane, Wrexham Industrial Estate, Wrexham Type: Household, Commercial & Industrial Waste T Stn Size: < 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: WRG002 EPR reference: - Operator: Waste Recycling Group Ltd Waste Management licence No: 37259 Annual Tonnage: 2450.0 Issue Date: 30/06/2004 Effective Date: - Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Issued Site Name: Bryn Lane Civic Amenity Site Correspondence Address: 3, Sidings Court, White Rose Way, Doncaster, DN4 5NU
Not shown	1205	N	338564 350735	Site Address: Land/ Premises At, Bryn Lane, Wrexham Industrial Estate, Wrexham, Clwyd, LL13 9UT Type: Material Recycling Treatment Facility Size: >= 75000 tonnes Environmental Permitting Regulations (Waste) Licence Number: WAS023 EPR reference: ZP3795ER/V002 Operator: Waste Recycling Group Ltd Waste Management licence No: 100079 Annual Tonnage: 0.0 Issue Date: 27/11/2007 Effective Date: - Modified: 16/04/2009 Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Modified Site Name: Bryn Lane Waste Recycling And Composting Facility Correspondence Address: -
Not shown	1205	N	338564 350735	Site Address: Land/ Premises At, Bryn Lane, Wrexham Industrial Estate, Wrexham, Clwyd, LL13 9UT Type: Material Recycling Treatment Facility Size: >= 75000 tonnes Environmental Permitting Regulations (Waste) Licence Number: WAS023 EPR reference: EA/EPR/ZP3795ER/V004 Operator: Waste Recycling Ltd Waste Management licence No: 100079 Annual Tonnage: 81444.0 Issue Date: 27/11/2007 Effective Date: - Modified: 05/05/2011 Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Modified Site Name: Bryn Lane Waste Recycling And Composting Facility Correspondence Address: -
Not shown	1205	N	338564 350735	Site Address: Bryn Lane Composting Facility, Bryn Lane, Wrexham Industrial Estate, Wrexham, Clwyd, LL13 9UT Type: Material Recycling Treatment Facility Size: >= 75000 tonnes Environmental Permitting Regulations (Waste) Licence Number: WAS023 EPR reference: ZP3795ER/V002 Operator: F C C Recycling (U K) Limited Waste Management licence No: 100079 Annual Tonnage: 81444.0 Issue Date: 27/11/2007 Effective Date: - Modified: 22/08/2012 Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Modified Site Name: Bryn Lane Composting Facility Correspondence Address: -
Not shown	1205	N	338564 350735	Site Address: Bryn Lane Composting Facility, Bryn Lane, Wrexham Industrial Estate, Wrexham, Clwyd, LL13 9UT Type: - Size: Unknown Environmental Permitting Regulations (Waste) Licence Number: ZP3795ER EPR reference: - Operator: F C C Recycling (U K) Limited Waste Management licence No: 0 Issue Date: 27/11/2007 Effective Date: 27/11/2007 Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Effective Site Name: - Correspondence Address: -

ID	Distance (m)	Direction	NGR	Details	
Annual Tonnage: 81444.0					
Not shown	1205	N	338564 350735	Site Address: Bryn Lane Composting Facility, Bryn Lane, Wrexham Industrial Estate, Wrexham, Clwyd, LL13 9UT Type: Material Recycling Treatment Facility Size: >= 75000 tonnes Environmental Permitting Regulations (Waste) Licence Number: WAS023 EPR reference: EA/EPR/ZP3795ER/V002 Operator: F C C Recycling (U K) Limited Waste Management licence No: 100079 Annual Tonnage: 81444.0	Issue Date: 27/11/2007 Effective Date: - Modified: 22/08/2012 Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Modified Site Name: Bryn Lane Composting Facility Correspondence Address: -
Not shown	1205	N	338564 350735	Site Address: Bryn Lane Composting Facility, Bryn Lane, Wrexham Industrial Estate, Wrexham, Clwyd, LL13 9UT Type: Material Recycling Treatment Facility Size: Unknown Environmental Permitting Regulations (Waste) Licence Number: ZP3795ER EPR reference: - Operator: - Waste Management licence No: 100079 Annual Tonnage: 81444.0	Issue Date: 27/11/2007 Effective Date: 27/11/2007 Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Effective Site Name: - Correspondence Address: -
Not shown	1205	N	338564 350735	Site Address: Bryn Lane Composting Facility, Bryn Lane, Wrexham Industrial Estate, , Wrexham, Clwyd, LL13 9UT Type: Material Recycling Treatment Facility Size: - Environmental Permitting Regulations (Waste) Licence Number: ZP3795ER EPR reference: - Operator: F C C Recycling (U K) Limited Waste Management licence No: 100079 Annual Tonnage: 81444.0	Issue Date: 27/11/2007 Effective Date: 27/11/2007 Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Effective Site Name: - Correspondence Address: -
Not shown	1205	N	338564 350735	Site Address: Bryn Lane Composting Facility, Bryn Lane, Wrexham Industrial Estate, , Wrexham, Clwyd, LL13 9UT Type: Material Recycling Treatment Facility Size: - Environmental Permitting Regulations (Waste) Licence Number: ZP3795ER EPR reference: - Operator: F C C Recycling (U K) Limited Waste Management licence No: 100079 Annual Tonnage: 81444.0	Issue Date: 27/11/2007 Effective Date: 27/11/2007 Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Effective Site Name: - Correspondence Address: -
Not shown	1205	N	338564 350735	Site Address: Bryn Lane Composting Facility, Bryn Lane, Wrexham Industrial Estate, Clwyd, Wrexham, Wrexham, LL13 9UT Type: - Size: Unknown Environmental Permitting Regulations (Waste) Licence Number: ZP3795ER EPR reference: - Operator: F C C Recycling (U K) Limited Waste Management licence No: 100079 Annual Tonnage: 81444.0	Issue Date: 27/11/2007 Effective Date: 27/11/2007 Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Effective Site Name: - Correspondence Address: -
Not shown	1206	N	338565 350736	Site Address: Bryn Lane Composting Facility, Bryn Lane, Wrexham Industrial Estate, Wrexham, Clwyd, LL13 9UT Type: Composting Facility	Issue Date: 27/11/2007 Effective Date: - Modified: 22/08/2012 Surrendered Date: 0

ID	Distance (m)	Direction	NGR	Details
				Size: >= 75000 tonnes Environmental Permitting Regulations (Waste) Licence Number: WAS023 EPR reference: ZP3795ER/V002 Operator: F C C Recycling (U K) Limited Waste Management licence No: 100079 Annual Tonnage: 81444.0 Expiry Date: 0 Cancelled Date: 0 Status: Modified Site Name: Bryn Lane Composting Facility Correspondence Address: -

4. Current Land Use Map



© Crown copyright and database rights 2019.
Ordnance Survey licence 100035207.



4. Current Land Uses

4.1 Current Industrial Data

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

17

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

ID	Distance (m)	Direction	Company	NGR	Address	Activity	Category
1	0	On Site	Pylon	338709 349516	Clwyd, LL13	Electrical Features	Infrastructure and Facilities
2	78	W	Electricity Sub Station	338571 349545	Clwyd, LL13	Electrical Features	Infrastructure and Facilities
3	103	N	Depot	338699 349636	Clwyd, LL13	Container and Storage	Transport, Storage and Delivery
4	119	NW	F Jones	338587 349634	Abbey Road, Wrexham Industrial Estate, Wrexham, Clwyd, LL13 9RF	Fish, Meat and Poultry Products	Foodstuffs
5	137	W	R C Motors Wrexham Ltd	338511 349546	Redwither Road, Wrexham Industrial Estate, Wrexham, Clwyd, LL13 9RD	Vehicle Breakdown and Recovery Services	Personal, Consumer and Other Services
6	143	N	Pylon	338773 349671	Clwyd, LL13	Electrical Features	Infrastructure and Facilities
7	157	NE	Electricity Sub Station	338864 349624	Clwyd, LL13	Electrical Features	Infrastructure and Facilities
8	172	S	Pylon	338634 349328	Clwyd, LL13	Electrical Features	Infrastructure and Facilities
9	184	NW	Water Clean Ltd	338496 349635	Unit 4, Marlborough Road, Wrexham, Clwyd, LL13 9RJ	Air and Water Filtration	Industrial Products
10A	201	SE	J B Auto Clinic	338889 349351	Unit 9, Oak Road, Wrexham Industrial Estate, Wrexham, Clwyd, LL13 9RG	Vehicle Parts and Accessories	Motoring
11	202	W	T R W Ltd	338455 349452	Redwither Road, Wrexham Industrial Estate, Wrexham, Clwyd, LL13 9RD	Vehicle Parts and Accessories	Motoring
12A	210	SE	K T C Offroad Supplies	338897 349347	Unit 9, Oak Road, Wrexham Industrial Estate, Wrexham, Clwyd, LL13 9RG	Vehicle Components	Industrial Products
13	215	NW	Tradebe Healthcare	338550 349724	Marlborough Road, Wrexham Industrial Estate, Wrexham, Clwyd, LL13 9RJ	Recycling, Reclamation and Disposal	Recycling Services
14	239	W	J R Webster & Co Ltd	338408 349517	Redwither Road, Wrexham Industrial Estate, Wrexham, Clwyd, LL13 9RD	General Construction Supplies	Industrial Products

ID	Distance (m)	Direction	Company	NGR	Address	Activity	Category
15	241	W	Brake Engineering	338413 349457	Redwither Road, Wrexham Industrial Estate, Wrexham, Clwyd, LL13 9RD	Vehicle Components	Industrial Products
16	241	N	Electricity Sub Station	338734 349774	Clwyd, LL13	Electrical Features	Infrastructure and Facilities
17	244	S	Pylon	338669 349239	Clwyd, LL13	Electrical Features	Infrastructure and Facilities

4.2 Petrol and Fuel Sites

Records of petrol or fuel sites within 500m of the study site: 0

Database searched and no data found.

4.3 National Grid High Voltage Underground Electricity Transmission Cables

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

Records of National Grid high voltage underground electricity transmission cables within 500m of the study site: 0

Database searched and no data found.

4.4 National Grid High Pressure Gas Transmission Pipelines

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

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

Database searched and no data found.

5. Geology

5.1 Artificial Ground and Made Ground

Database searched and no data found.

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

5.2 Superficial Ground and Drift Geology

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

Lex Code	Description	Rock Type
TILLD-DMTN	TILL, DEVENSIAN	DIAMICTON

5.3 Bedrock and Solid Geology

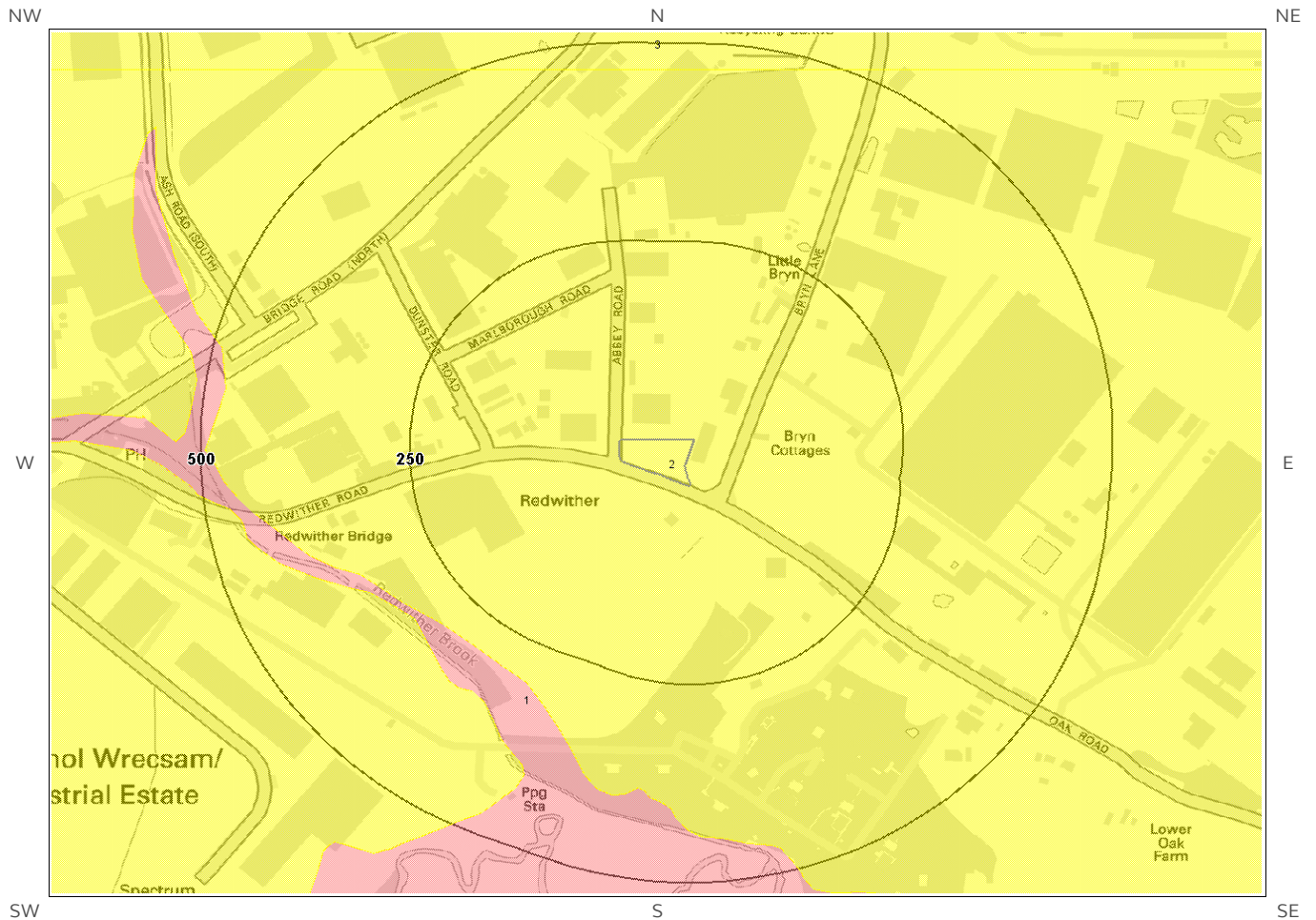
The database has been searched on site, including a 50m buffer.

Lex Code	Description	Rock Type
KNSF-SDST	KINNERTON SANDSTONE FORMATION	SANDSTONE
SAL-MDSC	SALOP FORMATION	MUDSTONE, SANDSTONE AND CONGLOMERATE

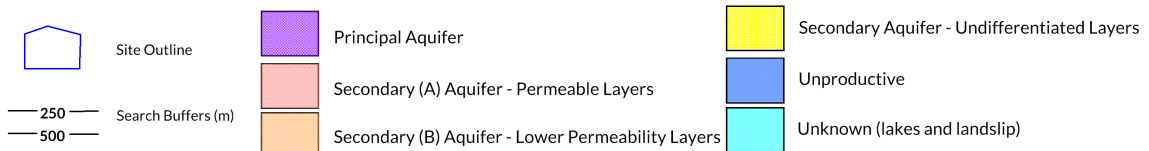
(Derived from the BGS 1:50,000 Digital Geological Map of Great Britain)

6 Hydrogeology and Hydrology

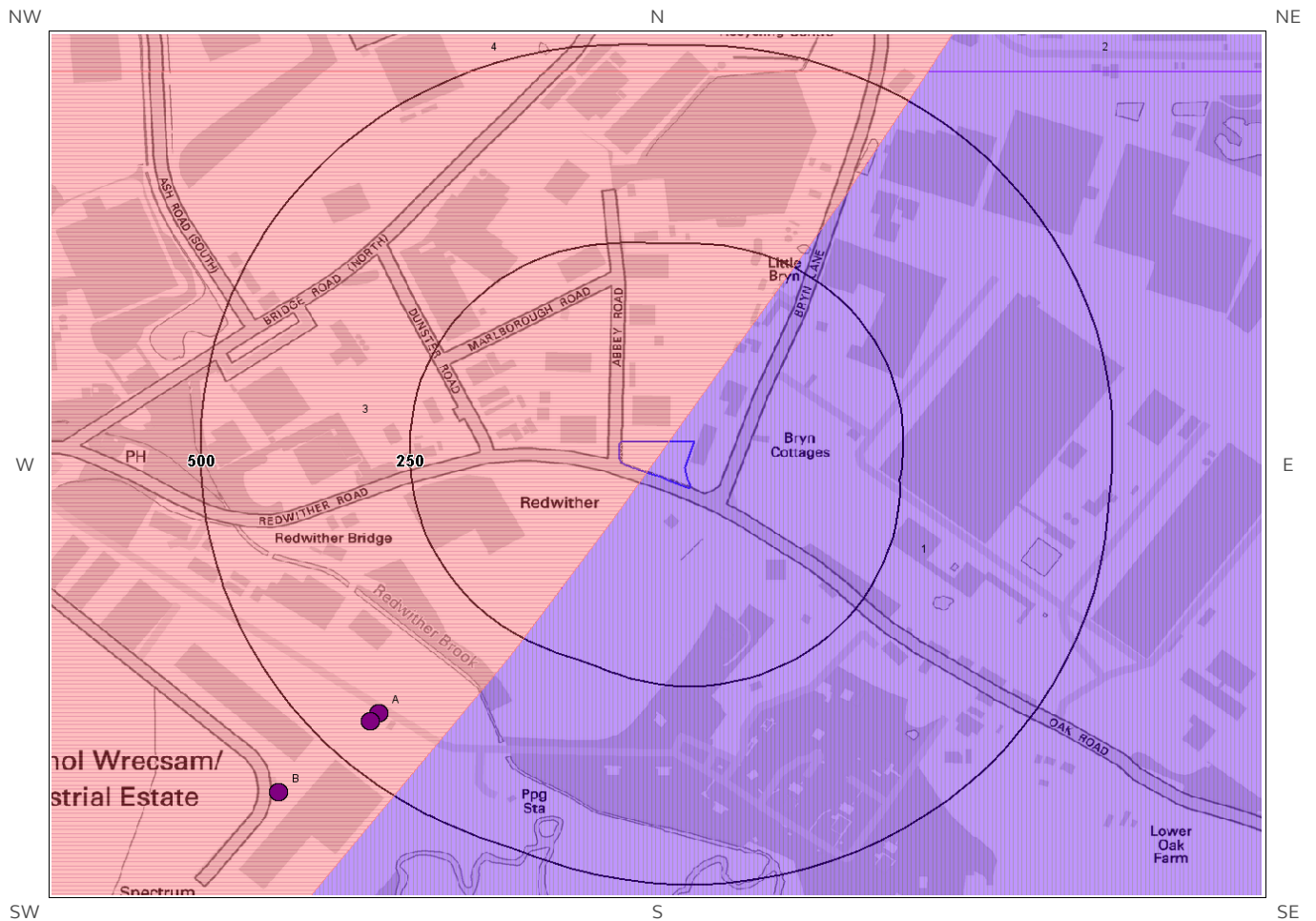
6a. Aquifer Within Superficial Geology



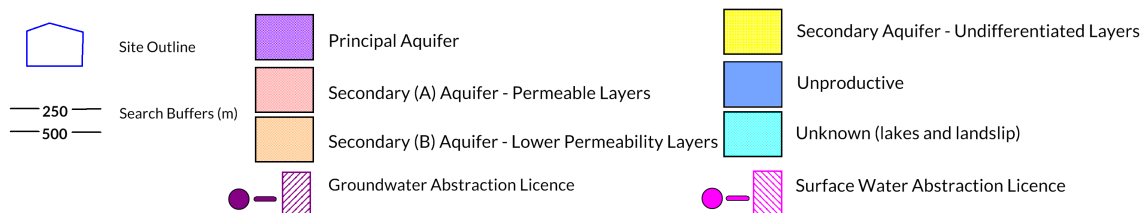
© Crown copyright and database rights 2019
Ordnance Survey licence 100035207.



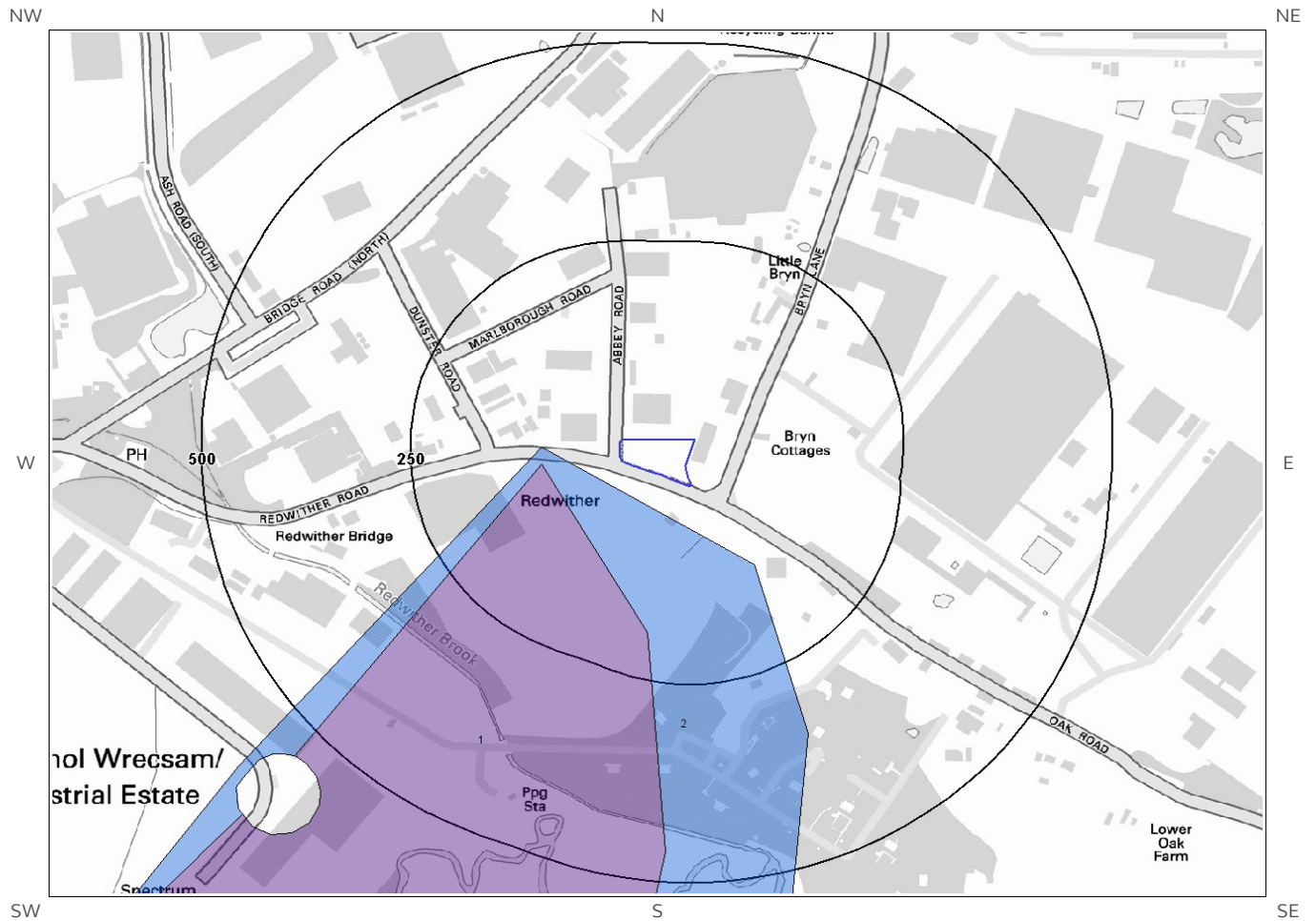
6b. Aquifer Within Bedrock Geology and Abstraction Licences



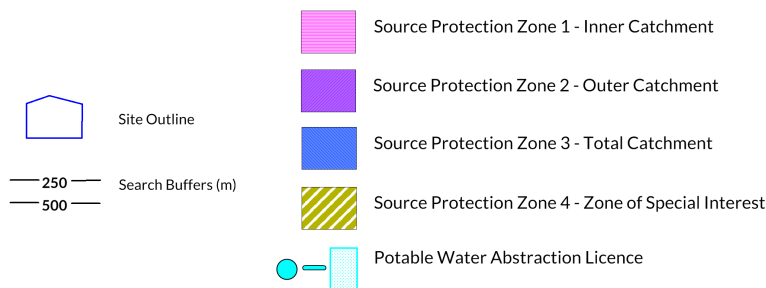
© Crown copyright and database rights 2019
Ordnance Survey licence 100035207.



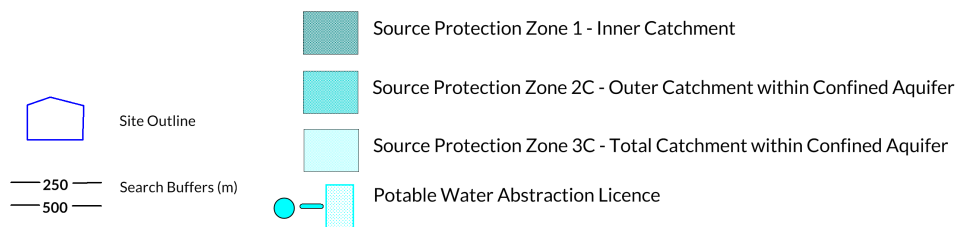
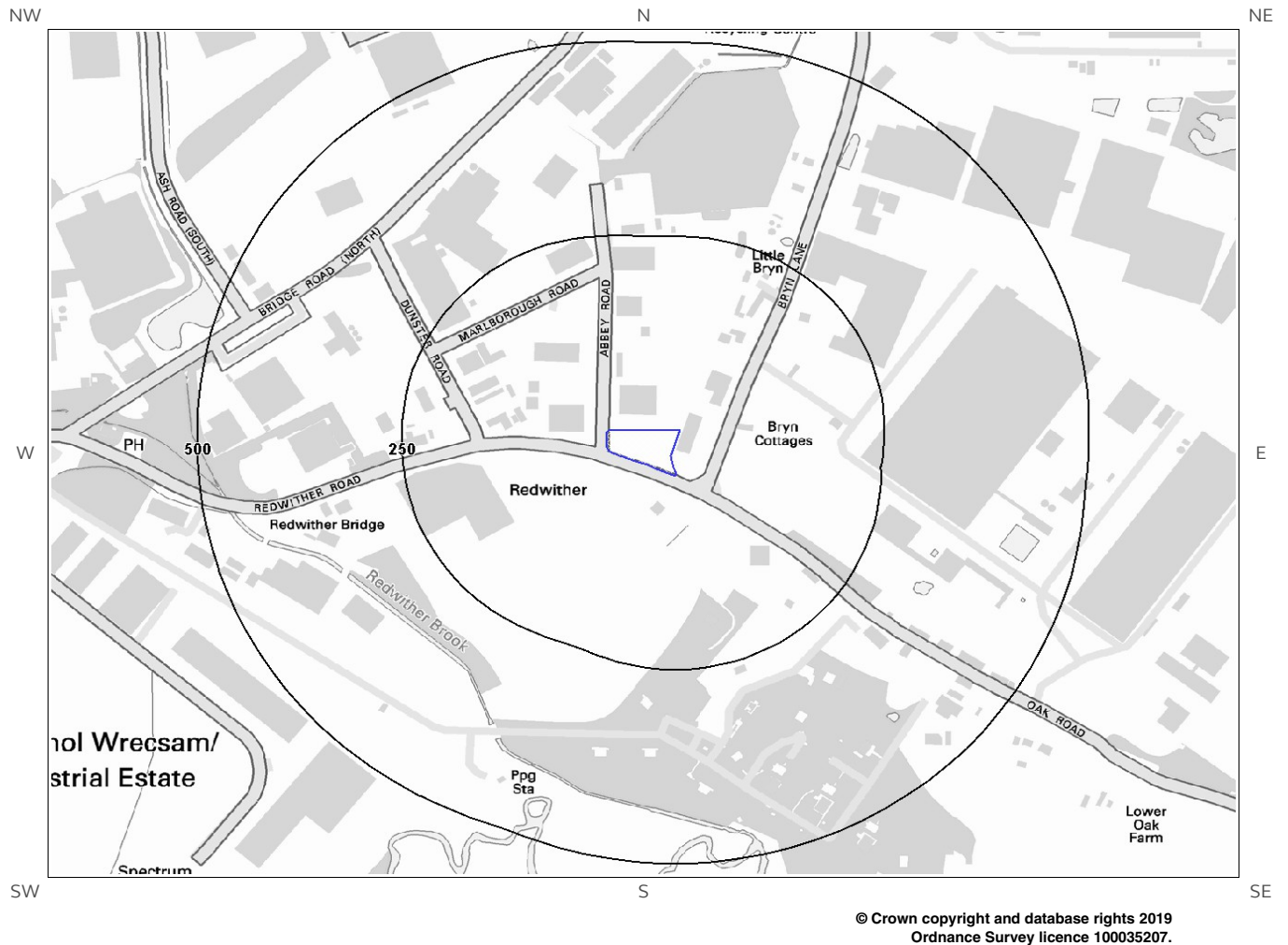
6c. Hydrogeology – Source Protection Zones and Potable Water Abstraction Licences



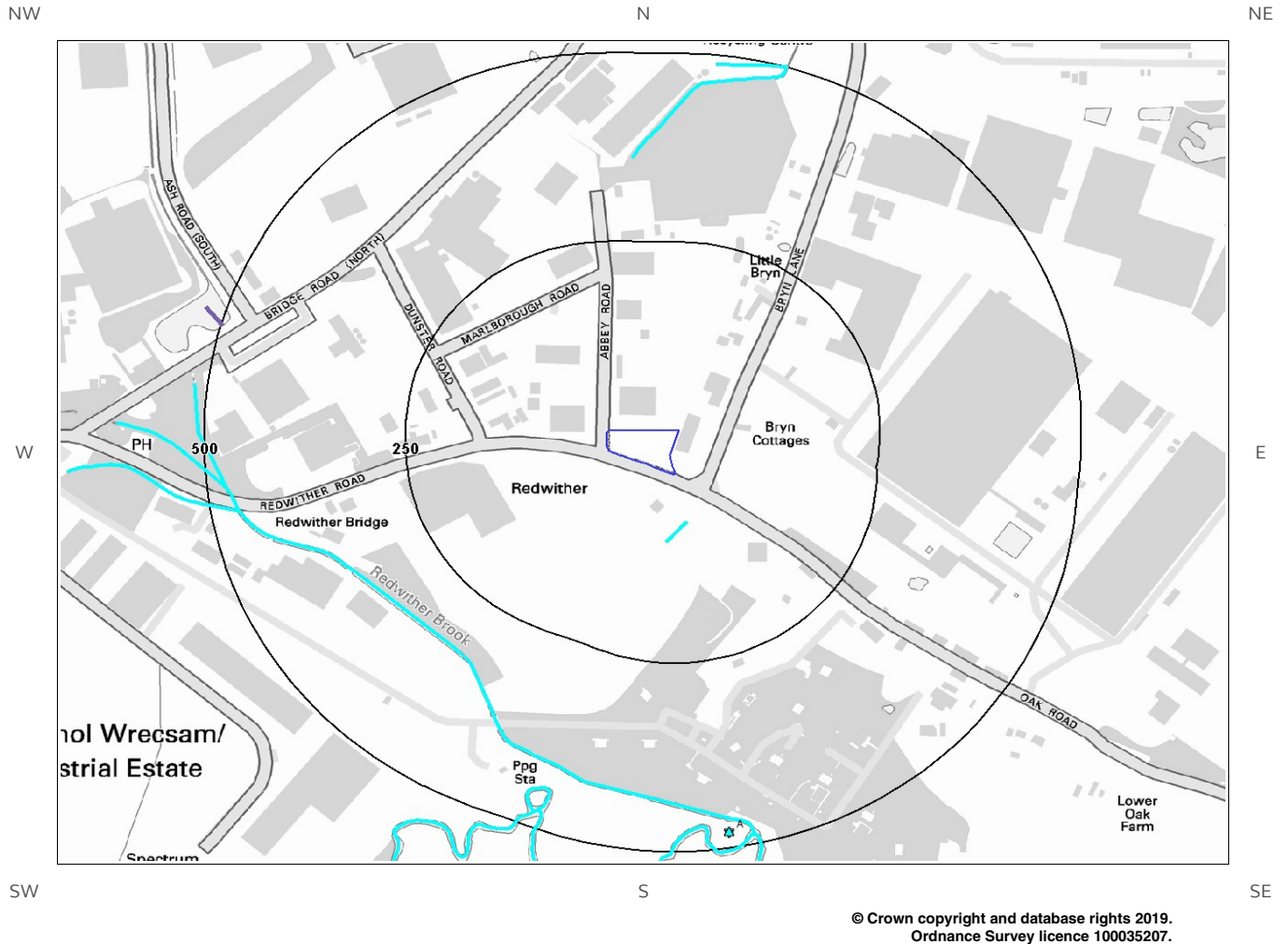
© Crown copyright and database rights 2019
Ordnance Survey licence 100035207.



6d. Hydrogeology – Source Protection Zones within confined aquifer



6e. Hydrology – Watercourse Network and River Quality



Watercourse type		Watercourse level	
	Tidal River		On ground surface
	Inland River		Underground or Elevated
	Canal		Level unknown
	Lock or Flight of Locks		General Quality Assessment: Biology
	Lake, Reservoir, or Marsh		General Quality Assessment: Chemistry
	Foreshore		
	Drain or Transfer		

6. Hydrogeology and Hydrology

6.1 Aquifer within Superficial Deposits

Records of strata classification within the superficial geology at or in proximity to the property Yes

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

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

ID	Distance (m)	Direction	Designation	Description
2	0	On Site	Secondary (undifferentiated)	Assigned where it is not possible to attribute either category A or B to a rock type. In general these layers have previously been designated as both minor and non-aquifer in different locations due to the variable characteristics of the rock type
1	292	SW	Secondary A	Permeable layers capable of supporting water supplies at a local rather than strategic scale, and in some cases forming an important source of base flow to rivers. These are generally aquifers formerly classified as minor aquifers
3	467	N	Secondary (undifferentiated)	Assigned where it is not possible to attribute either category A or B to a rock type. In general these layers have previously been designated as both minor and non-aquifer in different locations due to the variable characteristics of the rock type

6.2 Aquifer within Bedrock Deposits

Records of strata classification within the bedrock geology at or in proximity to the property Yes

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

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

ID	Distance (m)	Direction	Designation	Description
1	0	On Site	Principal	Geology of high intergranular and/or fracture permeability, usually providing a high level of water storage and may support water supply/river base flow on a strategic scale. Generally principal aquifers were previously major aquifers
3	0	On Site	Secondary A	Permeable layers capable of supporting water supplies at a local rather than strategic scale, and in some cases forming an important source of base flow to rivers. These are generally aquifers formerly classified as minor aquifers
4	467	N	Secondary A	Permeable layers capable of supporting water supplies at a local rather than strategic scale, and in some cases forming an important source of base flow to rivers. These are generally aquifers formerly classified as minor aquifers

6.3 Groundwater Abstraction Licences

Groundwater Abstraction Licences within 2000m of the study site

Identified

The following Abstraction Licences records are represented as points, lines and regions on the Aquifer within Bedrock Geology Map (6b):

ID	Distance (m)	Direction	NGR	Details
5A	429	SW	338360 349190	Status: Historical Licence No: 24/67/7/0213 Details: Process water Direct Source: EAW Groundwater Point: 144 M DEEP, 200MM DIA BH AW2 Data Type: Point Name: Calypso Soft Drinks Ltd Annual Volume (m³): - Max Daily Volume (m³): - Original Application No: - Original Start Date: 10/09/1998 Expiry Date: 10/09/2001 Issue No: 100 Version Start Date: 10/09/1998 Version End Date:
6A	429	SW	338360 349190	Status: Historical Licence No: 24/67/7/0222 Details: Process Water Direct Source: EAW Groundwater Point: 144 M DEEP, 200MM DIA BH AW2 Data Type: Point Name: Calypso Soft Drinks Ltd Annual Volume (m³): 131400 Max Daily Volume (m³): 600 Original Application No: - Original Start Date: 10/09/2001 Expiry Date: 31/03/2012 Issue No: 1 Version Start Date: 10/09/2001 Version End Date:
7A	444	SW	338350 349180	Status: Historical Licence No: WA/067/0007/006 Details: Process Water Direct Source: EAW Groundwater Point: SPECTRUM BUSINESS PARK BOREHOLE AW2 Data Type: Point Name: Calypso Soft Drinks Ltd Annual Volume (m³): 131400 Max Daily Volume (m³): 600 Original Application No: - Original Start Date: 01/04/2012 Expiry Date: 31/03/2022 Issue No: 1 Version Start Date: 01/04/2012 Version End Date:
8B	585	SW	338240 349090	Status: Historical Licence No: 24/67/7/0213 Details: Process water Direct Source: EAW Groundwater Point: 144M DEEP, 150MM DIA., OB1 Data Type: Point Name: Calypso Soft Drinks Ltd Annual Volume (m³): - Max Daily Volume (m³): - Original Application No: - Original Start Date: 10/09/1998 Expiry Date: 10/09/2001 Issue No: 100 Version Start Date: 10/09/1998 Version End Date:
9B	585	SW	338240 349090	Status: Historical Licence No: 24/67/7/0222 Details: Process Water Direct Source: EAW Groundwater Point: 144M DEEP, 150MM DIA., OB1 Data Type: Point Name: Calypso Soft Drinks Ltd Annual Volume (m³): 131400 Max Daily Volume (m³): 600 Original Application No: - Original Start Date: 10/09/2001 Expiry Date: 31/03/2012 Issue No: 1 Version Start Date: 10/09/2001 Version End Date:
10B	585	SW	338240 349090	Status: Historical Licence No: WA/067/0007/006 Details: Process Water Direct Source: EAW Groundwater Point: 144M DEEP, 150MM DIA., OB1 Data Type: Point Name: Calypso Soft Drinks Ltd Annual Volume (m³): 131400 Max Daily Volume (m³): 600 Original Application No: - Original Start Date: 01/04/2012 Expiry Date: 31/03/2022 Issue No: 1 Version Start Date: 01/04/2012 Version End Date:

ID	Distance (m)	Direction	NGR	Details	
Not shown	730	SW	338190 348940	Status: Historical Licence No: WA/067/0007/006 Details: Process Water Direct Source: EAW Groundwater Point: 144M DEEP, 150MM DIA. BOREHOLE AW1 Data Type: Point Name: Calypso Soft Drinks Ltd	Annual Volume (m³): 131400 Max Daily Volume (m³): 600 Original Application No: - Original Start Date: 01/04/2012 Expiry Date: 31/03/2022 Issue No: 1 Version Start Date: 01/04/2012 Version End Date:
Not shown	730	SW	338190 348940	Status: Historical Licence No: 24/67/7/0213 Details: Process water Direct Source: EAW Groundwater Point: 144M DEEP, 150MM DIA. BOREHOLE AW1 Data Type: Point Name: Calypso Soft Drinks Ltd	Annual Volume (m³): - Max Daily Volume (m³): - Original Application No: - Original Start Date: 10/09/1998 Expiry Date: 10/09/2001 Issue No: 100 Version Start Date: 10/09/1998 Version End Date:
Not shown	730	SW	338190 348940	Status: Historical Licence No: 24/67/7/0222 Details: Process Water Direct Source: EAW Groundwater Point: 144M DEEP, 150MM DIA. BOREHOLE AW1 Data Type: Point Name: Calypso Soft Drinks Ltd	Annual Volume (m³): 131400 Max Daily Volume (m³): 600 Original Application No: - Original Start Date: 10/09/2001 Expiry Date: 31/03/2012 Issue No: 1 Version Start Date: 10/09/2001 Version End Date:
Not shown	1824	N	337980 351230	Status: Historical Licence No: 24/67/9/0130 Details: General Farming & Domestic Direct Source: EAW Groundwater Point: WELL Data Type: Point Name: Taylor	Annual Volume (m³): - Max Daily Volume (m³): - Original Application No: - Original Start Date: 14/06/1968 Expiry Date: - Issue No: 100 Version Start Date: 14/06/1968 Version End Date:

6.4 Surface Water Abstraction Licences

Surface Water Abstraction Licences within 2000m of the study site

Identified

The following Surface Water Abstraction Licences records are represented as points, lines and regions on the Aquifer within Bedrock Geology Map (6b):

ID	Distance (m)	Direction	NGR	Details	
Not shown	1280	NW	337810 350500	Status: Historical Licence No: 24/67/7/0178 Details: Non-Evaporative Cooling Direct Source: EAW Surface Water Point: TRIBUTARY OF REDWITHER BROOK Data Type: Point Name: Caparo Wire Ltd	Annual Volume (m³): 9955.74 Max Daily Volume (m³): 27.276 Application No: - Original Start Date: 12/05/1972 Expiry Date: - Issue No: 100 Version Start Date: 01/04/2007 Version End Date:

6.5 Potable Water Abstraction Licences

Potable Water Abstraction Licences within 2000m of the study site

None identified

Database searched and no data found.

6.6 Source Protection Zones

Source Protection Zones within 500m of the study site

Identified

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

ID	Distance (m)	Direction	Zone	Description
2	33	SW	3	Total catchment
1	85	SW	2	Outer catchment

6.7 Source Protection Zones within Confined Aquifer

Source Protection Zones within the Confined Aquifer within 500m of the study site

None identified

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

Database searched and no data found.

6.8 Groundwater Vulnerability and Soil Leaching Potential

Environment Agency/Natural Resources Wales information on groundwater vulnerability and soil leaching potential within 500m of the study site Identified

Distance (m)	Direction	Classification	Soil Vulnerability Category	Description
0	On Site	Major Aquifer/High Leaching Potential	HU	Soil information for urban areas and restored mineral workings. These soils are therefore assumed to be highly permeable in the absence of site-specific information.
0	On Site	Minor Aquifer/High Leaching Potential	HU	Soil information for urban areas and restored mineral workings. These soils are therefore assumed to be highly permeable in the absence of site-specific information.

6.9 River Quality

Environment Agency/Natural Resources Wales information on river quality within 1500m of the study site Identified

6.9.1 Biological Quality:

Biological Quality data describes water quality in terms of 83 groups of macroinvertebrates, some of which are pollution sensitive. The results are graded from A ('Very Good') to F ('Bad').

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

ID	Distance (m)	Direction	NGR	River Quality Grade	Biological Quality Grade				
					2005	2006	2007	2008	2009
23A	480	S	338800 349000	River Name: Clywedog (dee) Reach: Conf.r.dee - Conf.red'r Bk. End/Start of Stretch: Start of Stretch NGR	A	A	A	B	B
24A	480	S	338800 349000	River Name: Clywedog (dee) Reach: Conf.redwither Bk. - O/f Five Fords Stw End/Start of Stretch: End of Stretch NGR	B	B	B	B	B

6.9.2 Chemical Quality:

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

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

ID	Distance (m)	Direction	NGR	River Quality Grade	Chemical Quality Grade				
					2005	2006	2007	2008	2009
25A	480	S	338800 349000	River Name: Clywedog Reach: Conf.r.dee - Conf.red'r Bk. End/Start of Stretch: Start of Stretch NGR	B	C	C	C	-
26A	480	S	338800 349000	River Name: Clywedog Reach: Conf.redwithr Bk. - O/f Five Fords Stw End/Start of Stretch: End of Stretch NGR	B	B	B	B	-

6.10 Ordnance Survey MasterMap Water Network

Ordnance Survey MasterMap Water Network entries within 500m of the study site

This watercourse information is provided by Ordnance Survey MasterMap Water Network. The data provides a detailed centre line following the curve of the waterway precisely, so all distances provided in the report should be understood as measurements to the centreline rather than a measurement to the nearest point of the watercourse. Underground watercourses are inferred from entry and exit points so caution is advised in using these to indicate precise locations of underground watercourses when planning site investigation and development.

The following Ordnance Survey MasterMap Water Network records are represented on the Hydrology Map (6e):

ID	Distance/Direction	Name	Type of Watercourse	Additional Details
1	65 S	-	Inland river not influenced by normal tidal action.	Catchment Area: Dee Relationship to Ground Level: On ground surface Permanence: Watercourse contains water year round (in normal conditions) Average Width in Watercourse Section (m): Not Provided
17	65 S	-	Inland river not influenced by normal tidal action.	Catchment Area: Dee Relationship to Ground Level: On ground surface Permanence: Watercourse contains water year round (in normal conditions) Average Width in Watercourse Section (m): Not Provided
2	324 SW	Redwither Brook	Inland river not influenced by normal tidal action.	Catchment Area: Dee Relationship to Ground Level: On ground surface Permanence: Watercourse contains water year round (in normal conditions) Average Width in Watercourse Section (m): 4.5
18	324 SW	Redwither Brook	Inland river not influenced by normal tidal action.	Catchment Area: Dee Relationship to Ground Level: On ground surface Permanence: Watercourse contains water year round (in normal conditions)

ID	Distance/ Direction	Name	Type of Watercourse	Additional Details
				Average Width in Watercourse Section (m): 4.5
3	360 SW	Redwither Brook	Inland river not influenced by normal tidal action.	Catchment Area: Dee Relationship to Ground Level: On ground surface Permanence: Watercourse contains water year round (in normal conditions) Average Width in Watercourse Section (m): 4.5
19	360 SW	Redwither Brook	Inland river not influenced by normal tidal action.	Catchment Area: Dee Relationship to Ground Level: On ground surface Permanence: Watercourse contains water year round (in normal conditions) Average Width in Watercourse Section (m): 4.5
4	361 N	-	Inland river not influenced by normal tidal action.	Catchment Area: Dee Relationship to Ground Level: On ground surface Permanence: Watercourse contains water year round (in normal conditions) Average Width in Watercourse Section (m): Not Provided
Not shown	361 N	-	Inland river not influenced by normal tidal action.	Catchment Area: Dee Relationship to Ground Level: On ground surface Permanence: Watercourse contains water year round (in normal conditions) Average Width in Watercourse Section (m): Not Provided
5	378 SW	Redwither Brook	Inland river not influenced by normal tidal action.	Catchment Area: Dee Relationship to Ground Level: On ground surface Permanence: Watercourse contains water year round (in normal conditions) Average Width in Watercourse Section (m): 3.8
Not shown	378 SW	Redwither Brook	Inland river not influenced by normal tidal action.	Catchment Area: Dee Relationship to Ground Level: On ground surface Permanence: Watercourse contains water year round (in normal conditions) Average Width in Watercourse Section (m): 3.8
6	445 S	Afon Clywedog Alternative Name: River Clywedog	Inland river not influenced by normal tidal action.	Catchment Area: Dee Relationship to Ground Level: On ground surface Permanence: Watercourse contains water year round (in normal conditions) Average Width in Watercourse Section (m): 7.0
Not shown	445 S	Afon Clywedog Alternative Name: River Clywedog	Inland river not influenced by normal tidal action.	Catchment Area: Dee Relationship to Ground Level: On ground surface Permanence: Watercourse contains water year round (in normal conditions) Average Width in Watercourse Section (m): 7.0
7	466 W	-	Inland river not influenced by normal tidal action.	Catchment Area: Dee Relationship to Ground Level: On ground surface Permanence: Watercourse contains water year round (in normal conditions) Average Width in Watercourse Section (m): Not Provided
8	466 W	Redwither Brook	Inland river not influenced by normal tidal action.	Catchment Area: Dee Relationship to Ground Level: On ground surface Permanence: Watercourse contains water year round (in normal conditions) Average Width in Watercourse Section (m): 3.6
Not shown	466 W	-	Inland river not influenced by normal tidal action.	Catchment Area: Dee Relationship to Ground Level: On ground surface Permanence: Watercourse contains water year round (in normal conditions) Average Width in Watercourse Section (m): Not Provided
Not shown	466 W	Redwither Brook	Inland river not influenced by normal tidal action.	Catchment Area: Dee Relationship to Ground Level: On ground surface Permanence: Watercourse contains water year round (in normal conditions) Average Width in Watercourse Section (m): 3.6

ID	Distance/ Direction	Name	Type of Watercourse	Additional Details
9	468 S	Afon Clywedog Alternative Name: River Clywedog	Inland river not influenced by normal tidal action.	Catchment Area: Dee Relationship to Ground Level: On ground surface Permanence: Watercourse contains water year round (in normal conditions) Average Width in Watercourse Section (m): 7.0
Not shown	468 S	Afon Clywedog Alternative Name: River Clywedog	Inland river not influenced by normal tidal action.	Catchment Area: Dee Relationship to Ground Level: On ground surface Permanence: Watercourse contains water year round (in normal conditions) Average Width in Watercourse Section (m): 7.0
10	474 S	Afon Clywedog Alternative Name: River Clywedog	Inland river not influenced by normal tidal action.	Catchment Area: Dee Relationship to Ground Level: On ground surface Permanence: Watercourse contains water year round (in normal conditions) Average Width in Watercourse Section (m): 7.0
11	474 S	Afon Clywedog Alternative Name: River Clywedog	Inland river not influenced by normal tidal action.	Catchment Area: Dee Relationship to Ground Level: On ground surface Permanence: Watercourse contains water year round (in normal conditions) Average Width in Watercourse Section (m): 7.0
Not shown	474 S	Afon Clywedog Alternative Name: River Clywedog	Inland river not influenced by normal tidal action.	Catchment Area: Dee Relationship to Ground Level: On ground surface Permanence: Watercourse contains water year round (in normal conditions) Average Width in Watercourse Section (m): 7.0
Not shown	474 S	Afon Clywedog Alternative Name: River Clywedog	Inland river not influenced by normal tidal action.	Catchment Area: Dee Relationship to Ground Level: On ground surface Permanence: Watercourse contains water year round (in normal conditions) Average Width in Watercourse Section (m): 7.0
12	477 W	Redwither Brook	Inland river not influenced by normal tidal action.	Catchment Area: Dee Relationship to Ground Level: On ground surface Permanence: Watercourse contains water year round (in normal conditions) Average Width in Watercourse Section (m): 2.4
13	477 W	-	Inland river not influenced by normal tidal action.	Catchment Area: Dee Relationship to Ground Level: On ground surface Permanence: Watercourse contains water year round (in normal conditions) Average Width in Watercourse Section (m): 4.7
Not shown	477 W	Redwither Brook	Inland river not influenced by normal tidal action.	Catchment Area: Dee Relationship to Ground Level: On ground surface Permanence: Watercourse contains water year round (in normal conditions) Average Width in Watercourse Section (m): 2.4
Not shown	477 W	-	Inland river not influenced by normal tidal action.	Catchment Area: Dee Relationship to Ground Level: On ground surface Permanence: Watercourse contains water year round (in normal conditions) Average Width in Watercourse Section (m): 4.7
14	479 S	Afon Clywedog Alternative Name: River Clywedog	Inland river not influenced by normal tidal action.	Catchment Area: Dee Relationship to Ground Level: On ground surface Permanence: Watercourse contains water year round (in normal conditions) Average Width in Watercourse Section (m): 7.0
Not shown	479 S	Afon Clywedog Alternative Name: River Clywedog	Inland river not influenced by normal tidal action.	Catchment Area: Dee Relationship to Ground Level: On ground surface Permanence: Watercourse contains water year round (in normal conditions) Average Width in Watercourse Section (m): 7.0
15	480	-	Inland river not influenced by normal tidal action.	Catchment Area: Dee Relationship to Ground Level: On ground surface

ID	Distance/ Direction	Name	Type of Watercourse	Additional Details
	W			Permanence: Watercourse contains water year round (in normal conditions) Average Width in Watercourse Section (m): Not Provided
Not shown	480 W	-	Inland river not influenced by normal tidal action.	Catchment Area: Dee Relationship to Ground Level: On ground surface Permanence: Watercourse contains water year round (in normal conditions) Average Width in Watercourse Section (m): Not Provided
16	483 N	-	Inland river not influenced by normal tidal action.	Catchment Area: Dee Relationship to Ground Level: On ground surface Permanence: Watercourse contains water year round (in normal conditions) Average Width in Watercourse Section (m): 1.8
Not shown	483 N	-	Inland river not influenced by normal tidal action.	Catchment Area: Dee Relationship to Ground Level: On ground surface Permanence: Watercourse contains water year round (in normal conditions) Average Width in Watercourse Section (m): 1.8
17	485 W	Redwither Brook	Inland river not influenced by normal tidal action.	Catchment Area: Dee Relationship to Ground Level: On ground surface Permanence: Watercourse contains water year round (in normal conditions) Average Width in Watercourse Section (m): Not Provided
Not shown	485 W	Redwither Brook	Inland river not influenced by normal tidal action.	Catchment Area: Dee Relationship to Ground Level: On ground surface Permanence: Watercourse contains water year round (in normal conditions) Average Width in Watercourse Section (m): Not Provided
18	487 S	Afon Clywedog Alternative Name: River Clywedog	Inland river not influenced by normal tidal action.	Catchment Area: Dee Relationship to Ground Level: On ground surface Permanence: Watercourse contains water year round (in normal conditions) Average Width in Watercourse Section (m): 7.0
Not shown	487 S	Afon Clywedog Alternative Name: River Clywedog	Inland river not influenced by normal tidal action.	Catchment Area: Dee Relationship to Ground Level: On ground surface Permanence: Watercourse contains water year round (in normal conditions) Average Width in Watercourse Section (m): 7.0
19	488 N	-	Inland river not influenced by normal tidal action.	Catchment Area: Dee Relationship to Ground Level: On ground surface Permanence: Watercourse contains water year round (in normal conditions) Average Width in Watercourse Section (m): 1.5
Not shown	488 N	-	Inland river not influenced by normal tidal action.	Catchment Area: Dee Relationship to Ground Level: On ground surface Permanence: Watercourse contains water year round (in normal conditions) Average Width in Watercourse Section (m): 1.5
20	498 W	-	Lake, loch or reservoir.	Catchment Area: Dee Relationship to Ground Level: On ground surface Permanence: Watercourse contains water year round (in normal conditions) Average Width in Watercourse Section (m): Not Provided
Not shown	498 W	-	Lake, loch or reservoir.	Catchment Area: Dee Relationship to Ground Level: On ground surface Permanence: Watercourse contains water year round (in normal conditions) Average Width in Watercourse Section (m): Not Provided
21	499 N	-	Inland river not influenced by normal tidal action.	Catchment Area: Dee Relationship to Ground Level: Underground Permanence: Watercourse contains water year round (in normal conditions)

ID	Distance/ Direction	Name	Type of Watercourse	Additional Details
				Average Width in Watercourse Section (m): Not Provided
22	499 N	-	Inland river not influenced by normal tidal action.	Catchment Area: Dee Relationship to Ground Level: On ground surface Permanence: Watercourse contains water year round (in normal conditions) Average Width in Watercourse Section (m): 1.8
Not shown	499 N	-	Inland river not influenced by normal tidal action.	Catchment Area: Dee Relationship to Ground Level: Underground Permanence: Watercourse contains water year round (in normal conditions) Average Width in Watercourse Section (m): Not Provided
Not shown	499 N	-	Inland river not influenced by normal tidal action.	Catchment Area: Dee Relationship to Ground Level: On ground surface Permanence: Watercourse contains water year round (in normal conditions) Average Width in Watercourse Section (m): 1.8

6.11 Surface Water Features

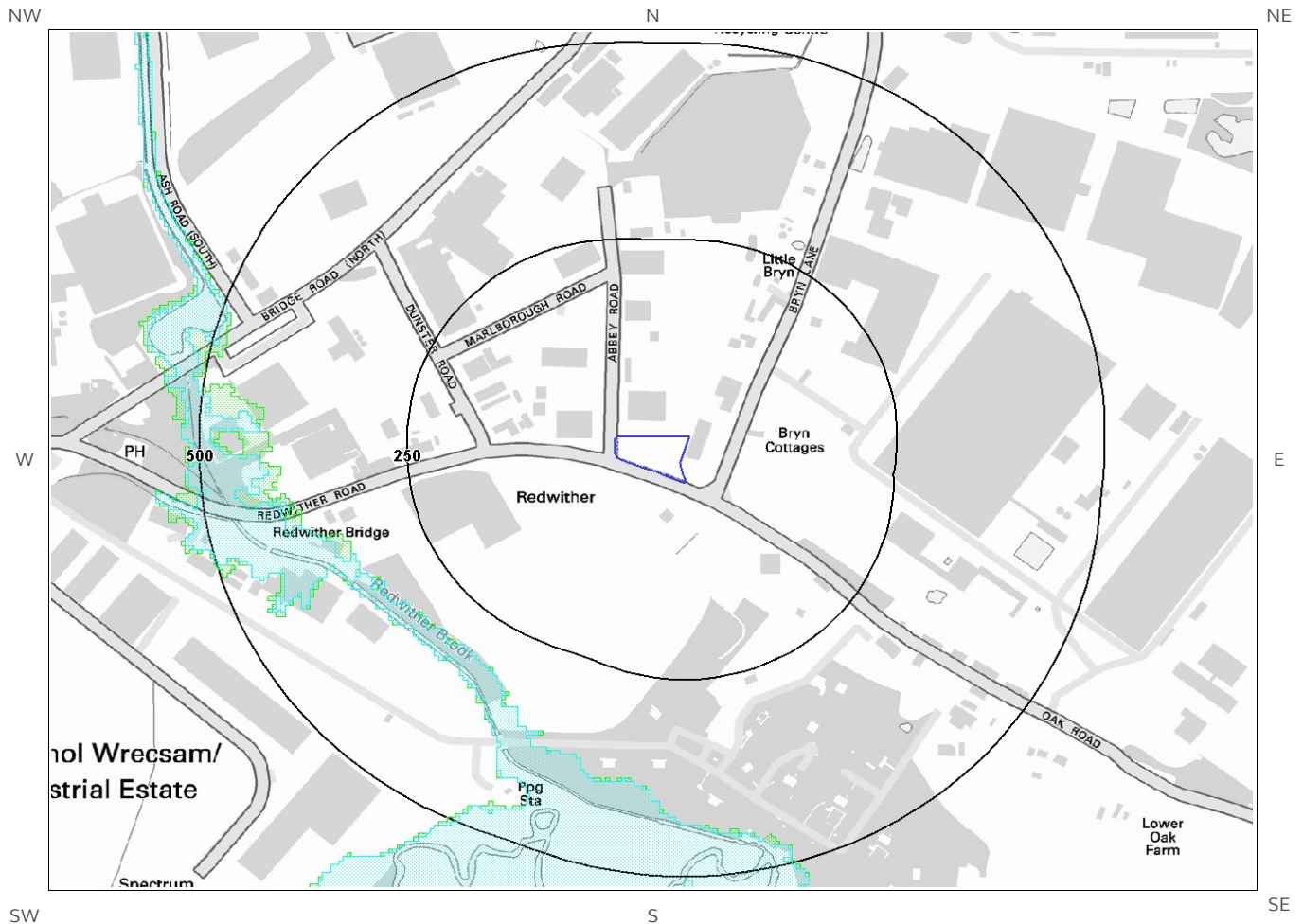
Surface water features within 250m of the study site

Identified

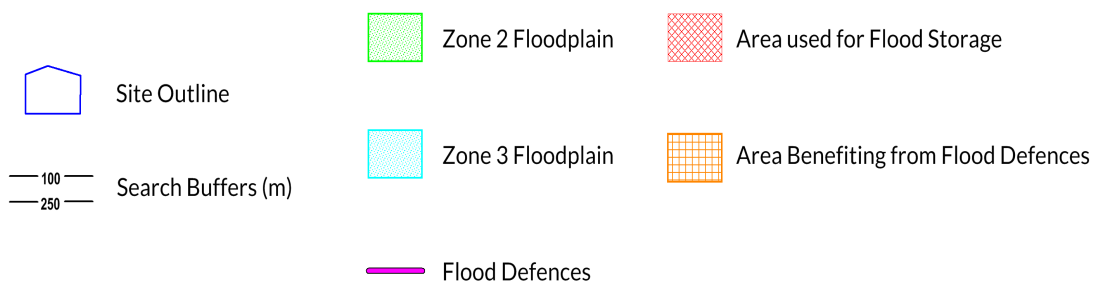
The following surface water records are not represented on mapping:

Distance (m)	Direction
65	S

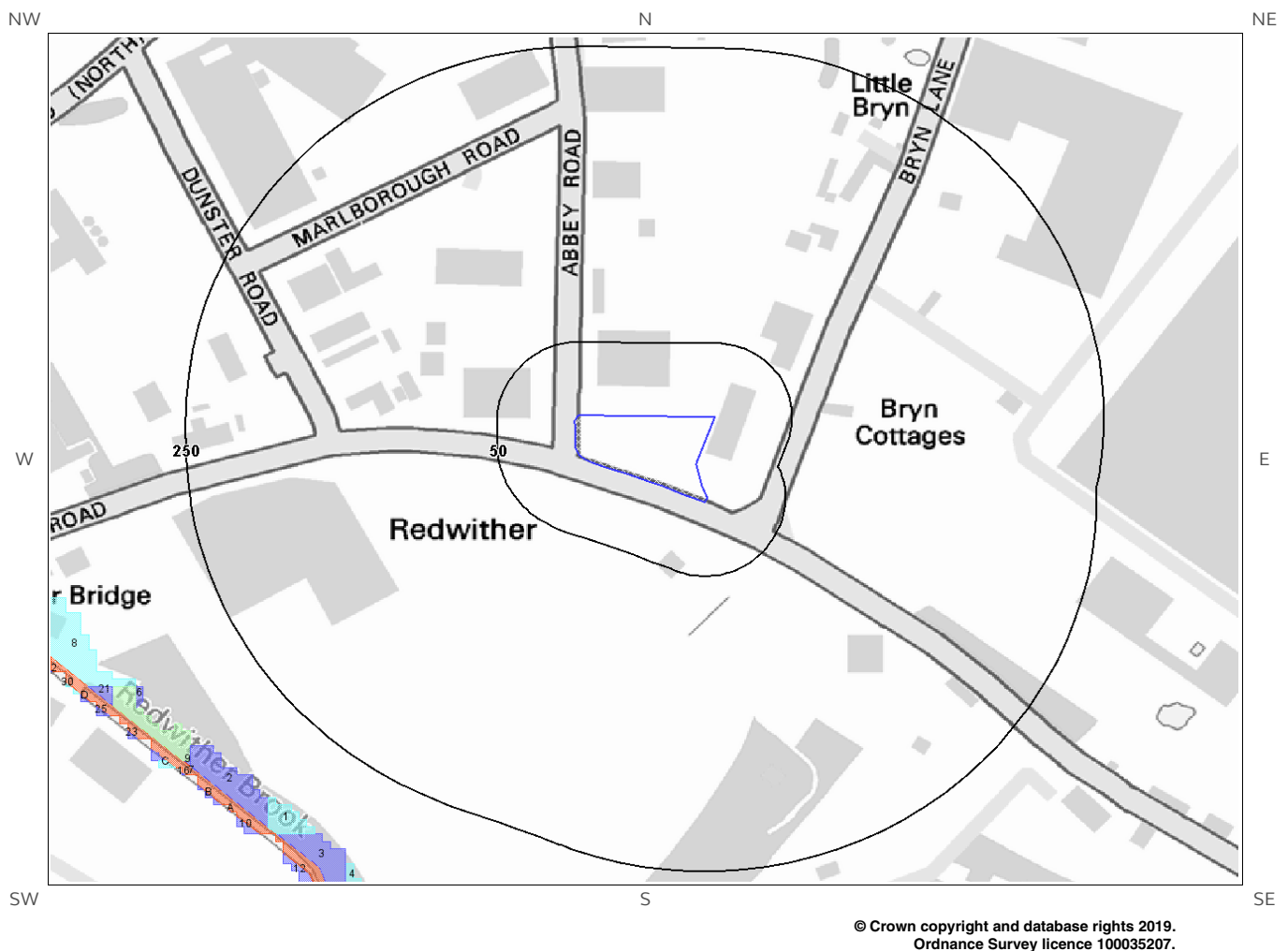
7a. Environment Agency/Natural Resources Wales Flood Map for Planning (from rivers and the sea)



© Crown copyright and database rights 2019.
Ordnance Survey licence 100035207.



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



 Site Outline

 100

 250 Search Buffers (m)

RoFRaS Rating

 Very Low

 Low

 Medium

 High

7 Flooding

7.1 River and Coastal Zone 2 Flooding

Environment Agency/Natural Resources Wales Zone 2 floodplain within 250m None identified

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

Database searched and no data found.

7.2 River and Coastal Zone 3 Flooding

Environment Agency/Natural Resources Wales Zone 3 floodplain within 250m None identified

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

Database searched and no data found.

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

Highest risk of flooding onsite Very Low

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

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

7.4 Flood Defences

Flood Defences within 250m of the study site None identified
Database searched and no data found.

7.5 Areas benefiting from Flood Defences

Areas benefiting from Flood Defences within 250m of the study site None identified

7.6 Areas benefiting from Flood Storage

Areas used for Flood Storage within 250m of the study site

None identified

7.7 Groundwater Flooding Susceptibility Areas

7.7.1 British Geological Survey groundwater flooding susceptibility areas within 50m of the boundary of the study site

Identified

Clearwater Flooding or Superficial Deposits Flooding

Superficial Deposits Flooding

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

7.7.2 Highest susceptibility to groundwater flooding in the search area based on the underlying geological conditions

Potential below Surface

Where potential for groundwater flooding of property situated below ground level is indicated, this means that given the geological conditions there may be a groundwater flooding hazard to basements and other below surface infrastructure. Unless other relevant information, e.g. records of previous flooding, suggests groundwater flooding has occurred before in this area you need take no further action in relation to groundwater flooding hazard. If there are records of previous incidences of groundwater flooding, then is recommended that other information e.g. rainfall history, property type, and land drainage information in addition to previous records of flooding be investigated in order to establish relative, but not absolute, risk of groundwater flooding.

7.8 Groundwater Flooding Confidence Areas

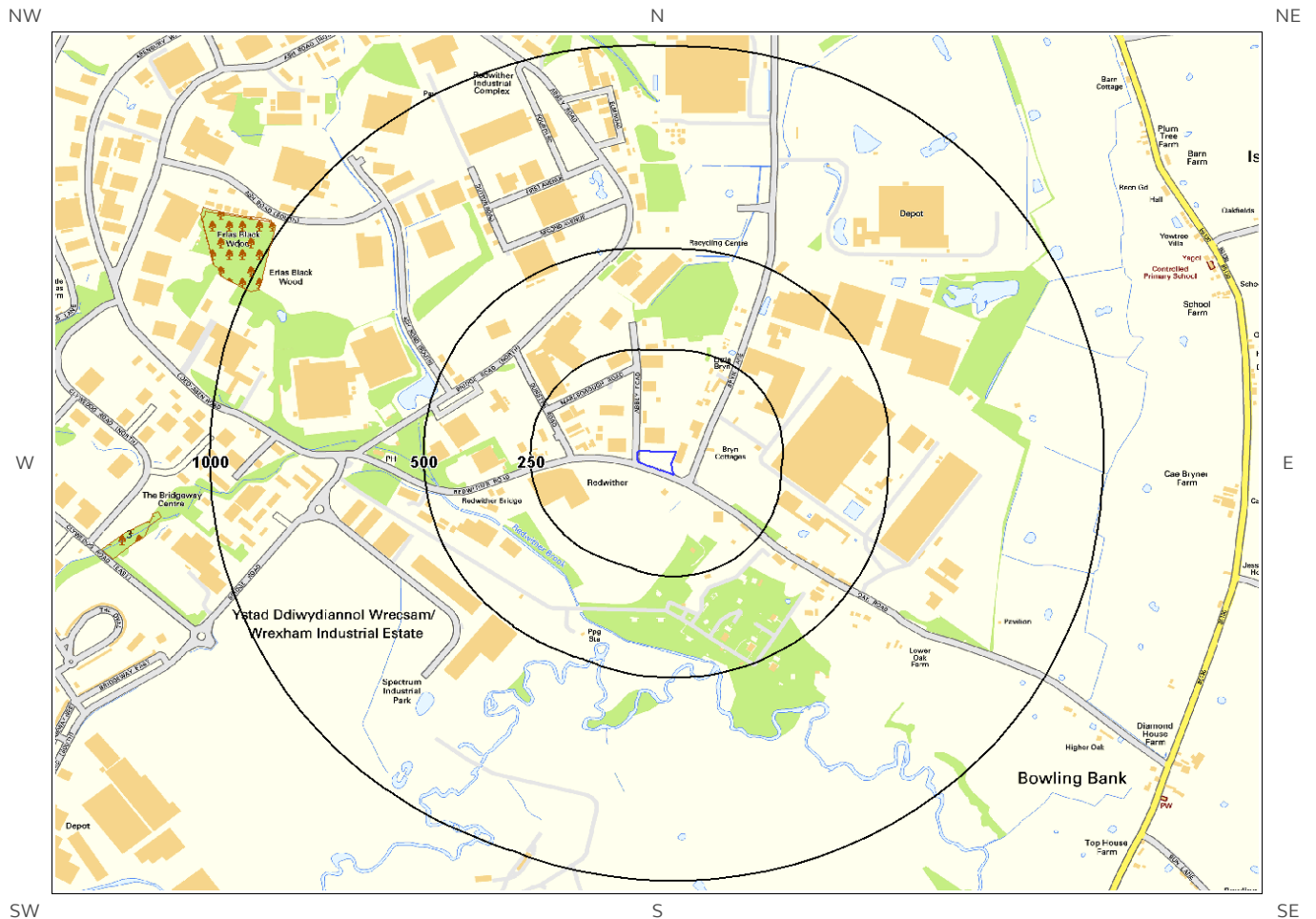
British Geological Survey confidence rating in this result

High

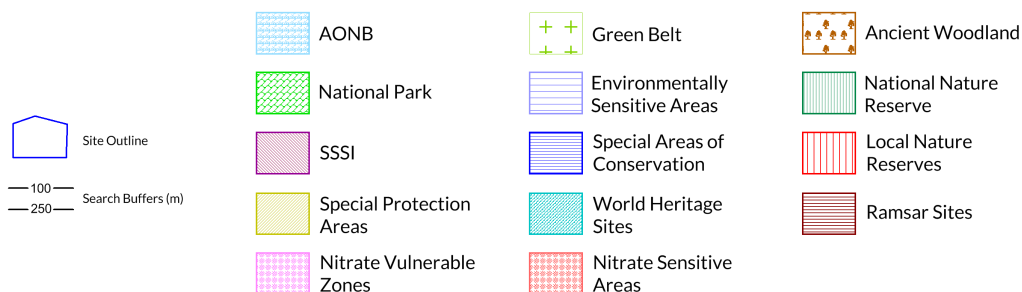
Notes: Groundwater flooding is defined as the emergence of groundwater at the ground surface or the rising of groundwater into man-made ground under conditions where the normal range of groundwater levels is exceeded.

The confidence rating is on a threefold scale - Low, Moderate and High. This provides a relative indication of the BGS confidence in the accuracy of the susceptibility result for groundwater flooding. This is based on the amount and precision of the information used in the assessment. In areas with a relatively lower level of confidence the susceptibility result should be treated with more caution. In other areas with higher levels of confidence the susceptibility result can be used with more confidence.

8. Designated Environmentally Sensitive Sites Map



© Crown copyright and database rights 2019.
Ordnance Survey licence 100035207.



8. Designated Environmentally Sensitive Sites

Designated Environmentally Sensitive Sites within 2000m of the study site	Identified
---	------------

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

0

Database searched and no data found.

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

0

Database searched and no data found.

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

0

Database searched and no data found.

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

0

Database searched and no data found.

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

0

Database searched and no data found.

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

10

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

ID	Distance (m)	Direction	Ancient Woodland Name	Data Source
1	971	NW	UNKNOWN	Restored Ancient Woodland Site
2	1021	NW	UNKNOWN	Restored Ancient Woodland Site
3	1124	W	UNKNOWN	Ancient and Semi-Natural Woodland
Not shown	1291	SE	UNKNOWN	Ancient and Semi-Natural Woodland
Not shown	1297	S	UNKNOWN	Ancient and Semi-Natural Woodland
Not shown	1478	S	UNKNOWN	Ancient and Semi-Natural Woodland
Not shown	1667	S	UNKNOWN	Ancient and Semi-Natural Woodland
Not shown	1694	W	UNKNOWN	Ancient and Semi-Natural Woodland
Not shown	1831	S	UNKNOWN	Ancient and Semi-Natural Woodland
Not shown	1974	NW	UNKNOWN	Ancient and Semi-Natural Woodland

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

0

Database searched and no data found.

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

0

Database searched and no data found.

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

0

Database searched and no data found.

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

0

Database searched and no data found.

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

0

Database searched and no data found.

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

0

Database searched and no data found.

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

0

Database searched and no data found.

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

0

Database searched and no data found.

9. Natural Hazards Findings

9.1 Detailed BGS GeoSure Data

BGS GeoSure Data has been searched to 50m. The data is included in tabular format. If you require further information on geology and ground stability, please obtain a **Groundsure Geo Insight**, available from our **website**. The following information has been found:

9.1.1 Shrink Swell

Maximum Shrink-Swell** hazard rating identified on the study site Very Low

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

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

9.1.2 Landslides

Maximum Landslide* hazard rating identified on the study site Very Low

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

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

9.1.3 Soluble Rocks

Maximum Soluble Rocks* hazard rating identified on the study site Negligible

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

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

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

9.1.4 Compressible Ground

Maximum Compressible Ground* hazard rating identified on the study site

Negligible

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

Hazard
No indicators for compressible deposits identified. No special actions required to avoid problems due to compressible deposits. No special ground investigation required, and increased construction costs or increased financial risks are unlikely due to potential problems with compressible deposits.

9.1.5 Collapsible Rocks

Maximum Collapsible Rocks* hazard rating identified on the study site

Very Low

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

Hazard
Deposits with potential to collapse when loaded and saturated are unlikely to be present. No special ground investigation required or increased construction costs or increased financial risk due to potential problems with collapsible deposits.

9.1.6 Running Sand

Maximum Running Sand** hazard rating identified on the study site

Very Low

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

Hazard
Very low potential for running sand problems if water table rises or if sandy strata are exposed to water. No special actions required, to avoid problems due to running sand. No special ground investigation required, and increased construction costs or increased financial risks are unlikely due to potential problems with running sand.

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

9.2 Radon

9.2.1 Radon Affected Areas

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

The radon data in this report is supplied by the BGS/Public Health England and is the definitive map of Radon Affected Areas in Great Britain and Northern Ireland. The dataset was created using long-term radon measurements in over 479,000 homes across Great Britain and 23,000 homes across Northern Ireland, combined with geological data. The dataset is considered accurate to 50m to allow for the margin of error in geological lines, and the findings of this report supercede any answer given in the less accurate Indicative Atlas of Radon in Great Britain, which simplifies the data to give the highest risk within any given 1km grid square. As such, the radon atlas is considered indicative, whereas the data given in this report is considered definitive.

9.2.2 Radon Protection

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

10. Mining

10.1 Coal Mining

Coal mining areas within 75m of the study site

None identified

Database searched and no data found.

10.2 Non-Coal Mining

Non-Coal Mining areas within 50m of the study site boundary

None identified

Database searched and no data found.

10.3 Brine Affected Areas

Brine affected areas within 75m of the study site

None identified

Guidance: No Guidance Required.

Contact Details

Groundsure Helpline
Telephone: 08444 159 000
info@groundsure.com

British Geological Survey Enquiries

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

Web: www.bgs.ac.uk

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

Natural Resources Wales

Ty Cambria
29 Newport Road
Cardiff
CF24 0TP
Tel: 0300 065 3000
Email: enquiries@naturalresourceswales.gov.uk

Public Health England

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

The Coal Authority

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

Ordnance Survey

Adanac Drive, Southampton
SO16 0AS
Tel: 08456 050505

Local Authority

Authority: Wrexham - Wrexham County Borough Council
Phone: 01978 292 000
Web: <http://www.wrexham.gov.uk/>
Address: 16 Lord Street, Wrexham, Wrexham, LL11 1LG



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



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

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

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

Standard Terms and Conditions

Groundsure's Terms and Conditions can be viewed online at this link:

<https://www.groundsure.com/terms-and-conditions-feb11-2019>



SOCOTEC

APPENDIX D
GROUNDSURE GEOINSIGHT

GroundSure GeoInsight

GS-6237862

Address: WREXHAM INDUSTRIAL ESTATE, WREXHAM, LL13 9RG
Date: 12 Aug 2019
Reference: GS-6237862
Client: SOCOTEC UK Limited



Aerial Photograph Capture date: 07-May-2017
Grid Reference: 338696,349515
Site Size: 0.3474ha

Contents Page

Contents Page.....	3
Overview of Findings.....	5
1:10,000 Scale Availability.....	8
Availability of 1:10,000 Scale Geology Mapping.....	9
1 Geology (1:10,000 scale).....	10
1.1 Artificial Ground map (1:10,000 scale).....	10
1. Geology 1:10,000 scale.....	11
1.1 Artificial Ground.....	11
1.2 Superficial Deposits and Landslips map (1:10,000 scale).....	12
1.2 Superficial Deposits and Landslips.....	13
1.2.1 Superficial Deposits/ Drift Geology.....	13
1.2.2 Landslip.....	13
1.3 Bedrock and linear features map (1:10,000 scale).....	14
1.3 Bedrock and linear features.....	15
1.3.1 Bedrock/ Solid Geology.....	15
1.3.2 Linear features.....	15
2 Geology 1:50,000 Scale.....	16
2.1 Artificial Ground map.....	16
2. Geology 1:50,000 scale.....	17
2.1 Artificial Ground.....	17
2.1.1 Artificial/ Made Ground	17
2.1.2 Permeability of Artificial Ground.....	17
2.2 Superficial Deposits and Landslips map (1:50,000 scale).....	18
2.2 Superficial Deposits and Landslips.....	19
2.2.1 Superficial Deposits/ Drift Geology.....	19
2.2.2 Permeability of Superficial Ground	19
2.2.3 Landslip.....	19
2.2.4 Landslip Permeability.....	20
2.3 Bedrock and linear features map (1:50,000 scale).....	21
2.3 Bedrock, Solid Geology & linear features.....	22
2.3.1 Bedrock/Solid Geology.....	22
2.3.2 Permeability of Bedrock Ground.....	22
2.3.3 Linear features.....	22
3 Radon Data.....	23
3.1 Radon Affected Areas.....	23
3.2 Radon Protection.....	23
4 Ground Workings map.....	24
4 Ground Workings.....	25
4.1 Historical Surface Ground Working Features derived from Historical Mapping.....	25
4.2 Historical Underground Working Features derived from Historical Mapping.....	25
4.3 Current Ground Workings.....	26
5 Mining, Extraction & Natural Cavities.....	28
5.1 Historical Mining.....	28
5.2 Coal Mining.....	28
5.3 Johnson Poole and Bloomer.....	28
5.4 Non-Coal Mining.....	28
5.5 Non-Coal Mining Cavities.....	29
5.6 Natural Cavities.....	29
5.7 Brine Extraction.....	29
5.8 Gypsum Extraction.....	29
5.9 Cornwall and Devon Metalliferous Mining.....	29
5.10 Clay Mining.....	30
6 Natural Ground Subsidence.....	31
6.1 Shrink-Swell Clay map.....	31
6.2 Landslides map.....	32
6.3 Ground Dissolution of Soluble Rocks map.....	33
6.4 Compressible Deposits map.....	34
6.5 Collapsible Deposits map.....	35
6.6 Running Sand map.....	36

6 Natural Ground Subsidence.....	37
6.1 Shrink-Swell Clays.....	37
6.2 Landslides.....	37
6.3 Ground Dissolution of Soluble Rocks.....	37
6.4 Compressible Deposits.....	38
6.5 Collapsible Deposits.....	38
6.6 Running Sands.....	38
7 Borehole Records.....	40
8 Estimated Background Soil Chemistry.....	42
9 Railways and Tunnels map.....	43
9 Railways and Tunnels.....	44
9.1 Tunnels	44
9.2 Historical Railway and Tunnel Features	44
9.3 Historical Railways.....	45
9.4 Active Railways.....	45
9.5 Railway Projects.....	45

Overview of Findings

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

The report is based on the BGS 1:50,000 and 1:10,000 Digital Geological Map of Great Britain, BGS Geosure data; BRITPITS database; Non-coal mining data and Borehole Records, Coal Authority data including brine extraction areas, PBA non-coal mining and natural cavities database, Johnson Poole and Bloomer mining data and Groundsure's unique database including historical surface ground and underground workings.

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

Section 1: Geology 1:10,000 Scale

1.1 Artificial Ground	1.1 Is there any Artificial Ground/ Made Ground present beneath the study site at 1:10,000 scale?	No
1.2 Superficial Geology and Landslips	1.2.1 Is there any Superficial Ground/Drift Geology present beneath the study site at 1:10,000 scale?*	Yes
	1.2.2 Are there any records of landslide within 500m of the study site boundary at 1:10,000 scale?	No
1.3 Bedrock, Solid Geology and linear features	1.3.1 For records of Bedrock and Solid Geology beneath the study site* see the detailed findings section.	
	1.3.2 Are there any records of linear features within 500m of the study site boundary at 1:10,000 scale?	No

Section 2: Geology 1:50,000 Scale

2.1 Artificial Ground	2.1.1 Is there any Artificial Ground/ Made Ground present beneath the study site?	No
	2.1.2 Are there any records relating to permeability of artificial ground within the study site*boundary?	No
2.2 Superficial Geology and Landslips	2.2.1 Is there any Superficial Ground/Drift Geology present beneath the study site?*	Yes
	2.2.2 Are there any records of permeability of superficial ground within 500m of the study site?	Yes
	2.2.3 Are there any records of landslide within 500m of the study site boundary?	No
	2.2.4 Are there any records relating to permeability of landslips within the study site* boundary?	No

Section 2: Geology 1:50,000 Scale

2.3 Bedrock, Solid Geology and linear features

2.3.1 For records of Bedrock and Solid Geology beneath the study site* see the detailed findings section.

2.3.2 Are there any records relating to permeability of bedrock ground within the study site boundary?

Yes

2.3.3 Are there any records of linear features within 500m of the study site boundary?

No

Section 3: Radon

3. Radon

3.1 Is the property in a Radon Affected Area as defined by the Health Protection Agency (HPA) and if so what percentage of homes are above the Action Level?

The property is not in a Radon Affected Area, as less than 1% of properties are above the Action Level.

3.2 Radon Protection

No radon protective measures are necessary.

Section 4: Ground Workings

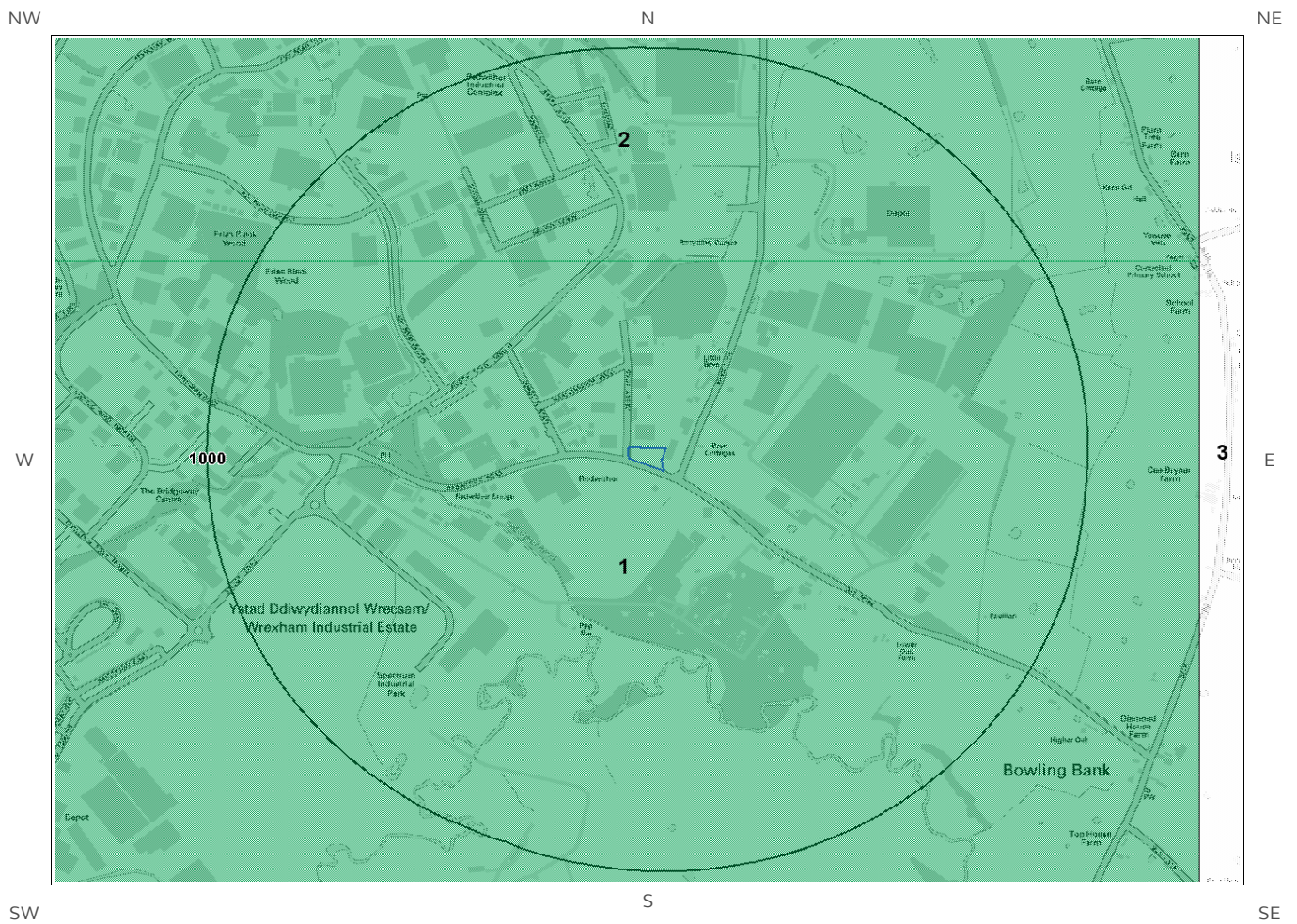
	On-site	0-50m	51-250	251-500	501-1000
4.1 Historical Surface Ground Working Features from Small Scale Mapping	0	0	10	Not Searched	Not Searched
4.2 Historical Underground Workings from Small Scale Mapping	0	0	0	0	0
4.3 Current Ground Workings	0	0	0	0	0

Section 5: Mining, Extraction & Natural Cavities

	On-site	0-50m	51-250	251-500	501-1000
5.1 Historical Mining	0	0	0	0	0
5.2 Coal Mining	0	0	0	1	0
5.3 Johnson Poole and Bloomer Mining Area	0	0	0	0	0
5.4 Non-Coal Mining*	0	0	0	0	0
5.5 Non-Coal Mining Cavities	0	0	0	0	0
5.5 Natural Cavities	0	0	0	0	0

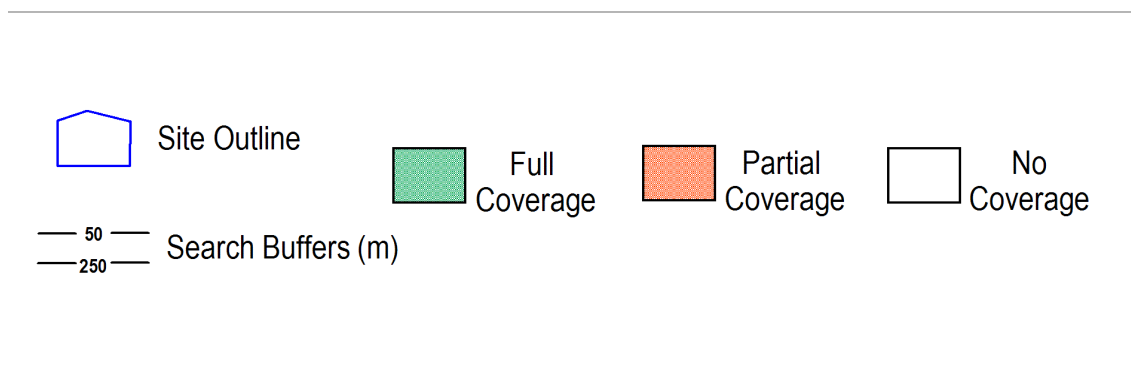
Section 5: Mining, Extraction & Natural Cavities	On-site	0-50m	51-250	251-500	501-1000
5.6 Brine Extraction	0	0	0	0	0
5.7 Gypsum Extraction	0	0	0	0	0
5.8 Cornwall and Devon Metalliferous Mining	0	0	0	0	0
5.9 Clay Mining	0	0	0	0	0
Section 6: Natural Ground Subsidence	On-site				
6.1 Shrink-Swell Clay	Very Low				
6.2 Landslides	Very Low				
6.3 Ground Dissolution of Soluble Rocks	Negligible				
6.4 Compressible Deposits	Negligible				
6.5 Collapsible Deposits	Very Low				
6.5 Running Sand	Very Low				
Section 7: Borehole Records	On-site	0-50m	51-250		
7 BGS Recorded Boreholes	0	1	12		
Section 8: Estimated Background Soil Chemistry	On-site	0-50m	51-250		
8 Records of Background Soil Chemistry	4	0	0		
Section 9: Railways and Tunnels	On-site	0-50m	51-250	250-500	
9.1 Tunnels	0	0	0	Not Searched	
9.2 Historical Railway and Tunnel Features	1	0	3	Not Searched	
9.3 Historical Railways	0	0	0	Not Searched	
9.4 Active Railways	0	0	0	Not Searched	
9.5 Railway Projects	0	0	0	0	

1:10,000 Scale Availability



1_10,000 Availability Legend

© Crown copyright and database rights 2019.
Ordnance Survey licence 100035207.



Availability of 1:10,000 Scale Geology Mapping

The following information represents the availability of the key components of the 1:10,000 scale geological data.

ID	Distance	Artificial Coverage	Superficial Coverage	Bedrock Coverage	Mass Movement Coverage
1	0.0	Some deposits are mapped	Full	Full	No coverage
2	467.0	Some deposits are mapped	Full	Full	No coverage
3	1263.0	No deposits are mapped	No coverage	No coverage	No coverage

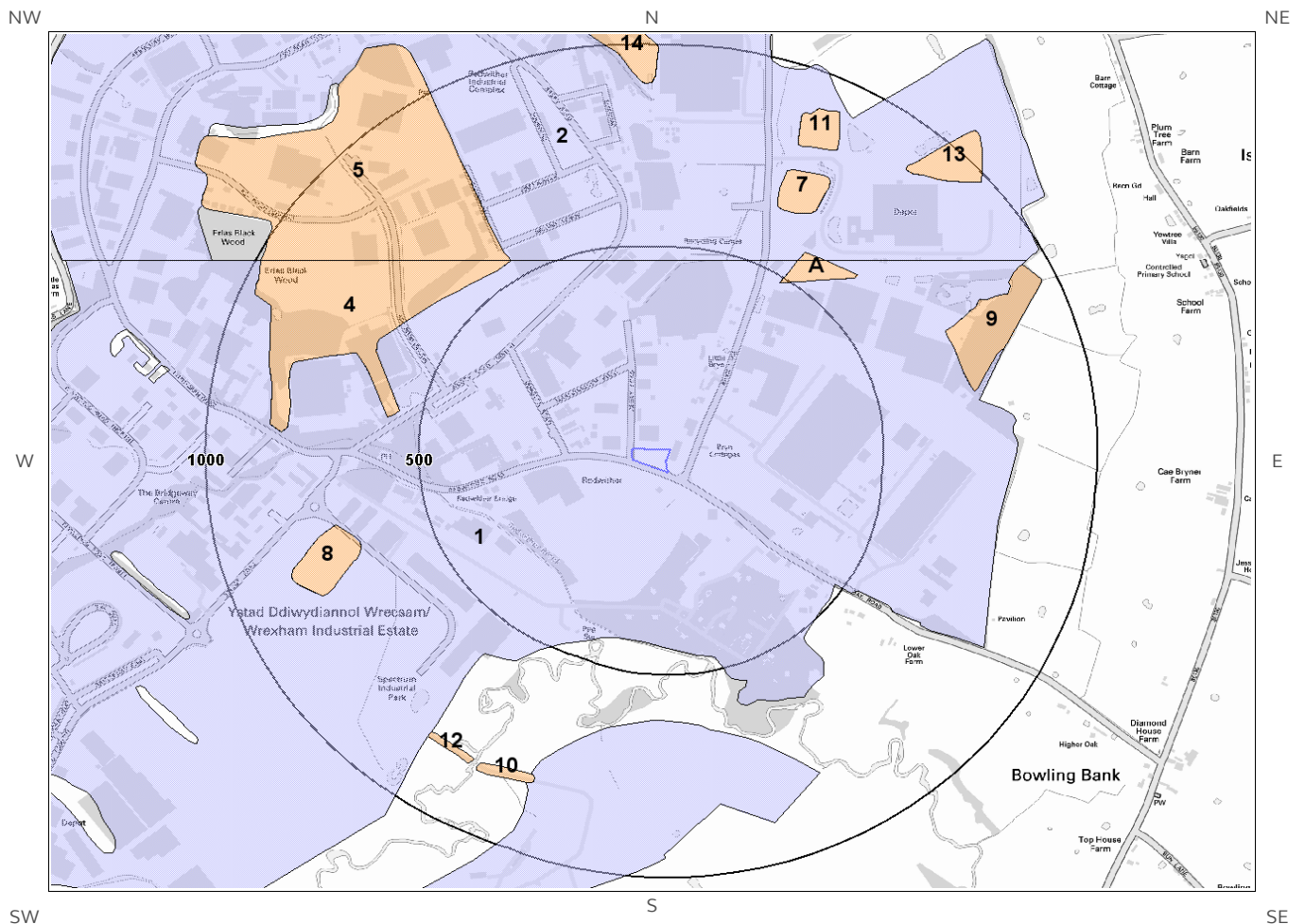
Guidance: The 1:10,000 scale geological interpretation is the most detailed generally available from BGS and is the scale at which most geological surveying is carried out in the field. The database is presented as four types of geology (artificial, mass movement, superficial and bedrock), although not all themes are mapped or available on every map sheet. Therefore a coverage layer showing the availability of the four themes is presented above.

The definitions of coverage are as follows:

Geology	Full Coverage	Partial Coverage	No Coverage
Bedrock	The whole tile has been mapped	Some but not all the tile has been mapped	No coverage
Superficial	The whole tile has been mapped	Some but not all of the tile has been mapped	No coverage
Artificial	Some deposits are mapped on this tile	-	No deposits are mapped
Mass Movement	Some deposits are mapped on this tile	-	No coverage

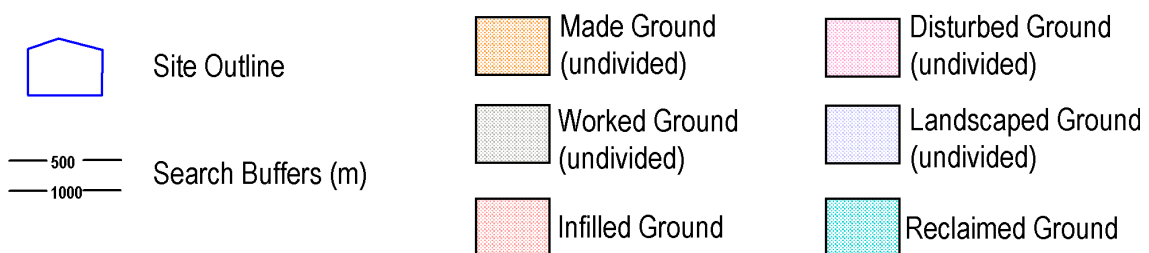
1 Geology (1:10,000 scale).

1.1 Artificial Ground map (1:10,000 scale)



Artificial Ground Legend

© Crown copyright and database rights 2019.
Ordnance Survey licence 100035207.



1. Geology 1:10,000 scale

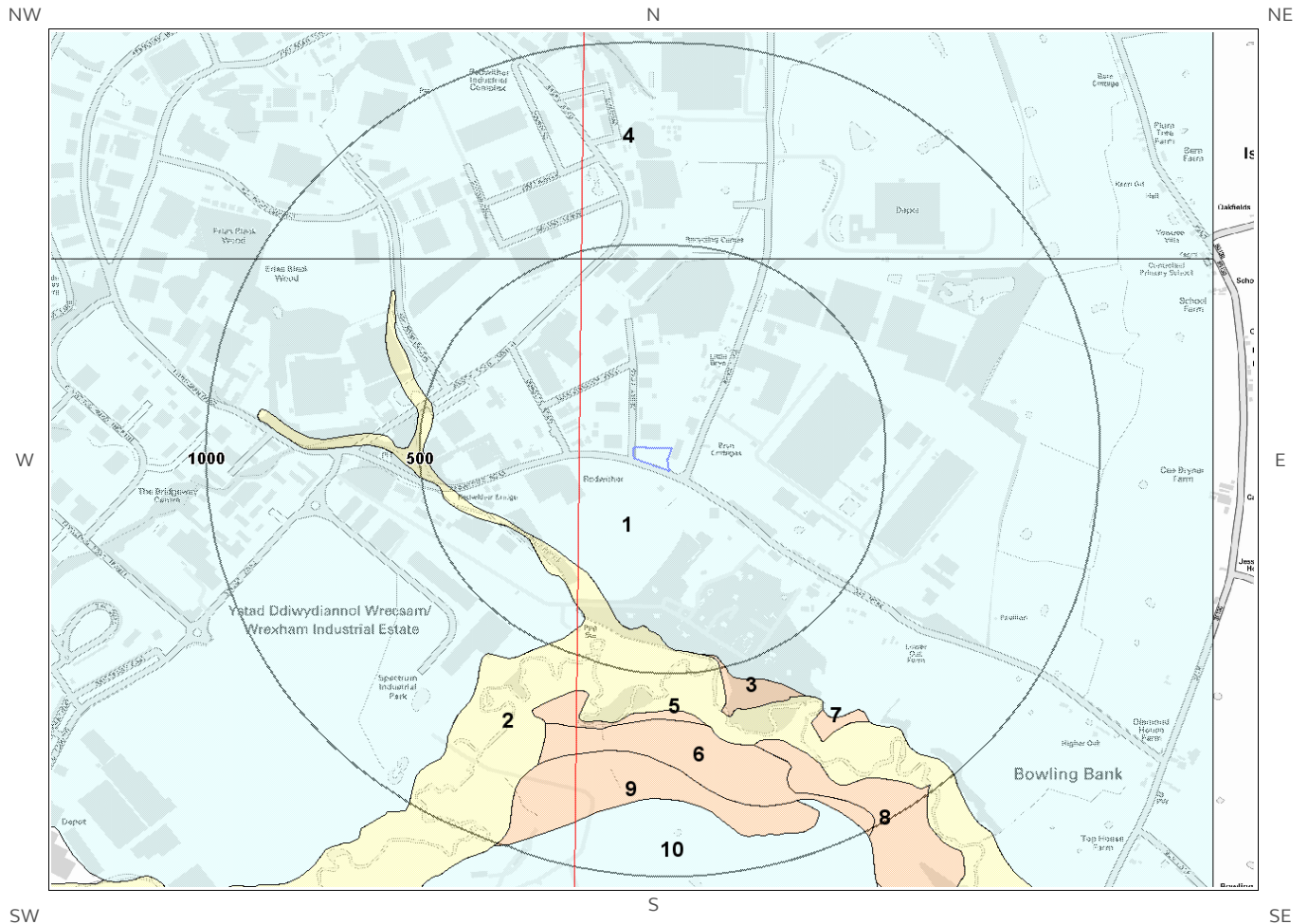
1.1 Artificial Ground

The following geological information represented on the mapping is derived from 1:10,000 scale BGS Geological mapping.

Are there any records of Artificial/ Made Ground within 500m of the study site boundary at 1:10,000 scale? Yes

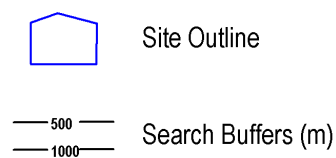
ID	Distance	Direction	LEX Code	Description	Rock Description
1	0.0	On Site	LSGR-UNKNOWN	Landscaped Ground (Undivided)	Unknown/unclassified Entry
2	467.0	N	LSGR-UNKNOWN	Landscaped Ground (Undivided)	Unknown/unclassified Entry
3A	485.0	NE	MGR-ARTDP	Made Ground (Undivided)	Artificial Deposit

1.2 Superficial Deposits and Landslips map (1:10,000 scale)



Artificial Ground Legend

© Crown copyright and database rights 2019.
Ordnance Survey licence 100035207.



1.2 Superficial Deposits and Landslips

The following geological information represented on the mapping is derived from 1:10,000 scale BGS Geological mapping

1.2.1 Superficial Deposits/ Drift Geology

Are there any records of Superficial Deposits/ Drift Geology within 500m of the study site boundary at 1:10,000 scale? Yes

ID	Distance (m)	Direction	LEX Code	Description	Rock Description
1	0.0	On Site	TILL-DMTN	Till - Diamicton	Diamicton
2	291.0	SW	ALV-C	Alluvium - Clay (unlithified Deposits Coding Scheme)	Clay
3	456.0	S	RTD1-XSV	River Terrace Deposits, 1 - Sand And Gravel	Sand And Gravel
4	467.0	N	TILL-DMTN	Till - Diamicton	Diamicton

1.2.2 Landslip

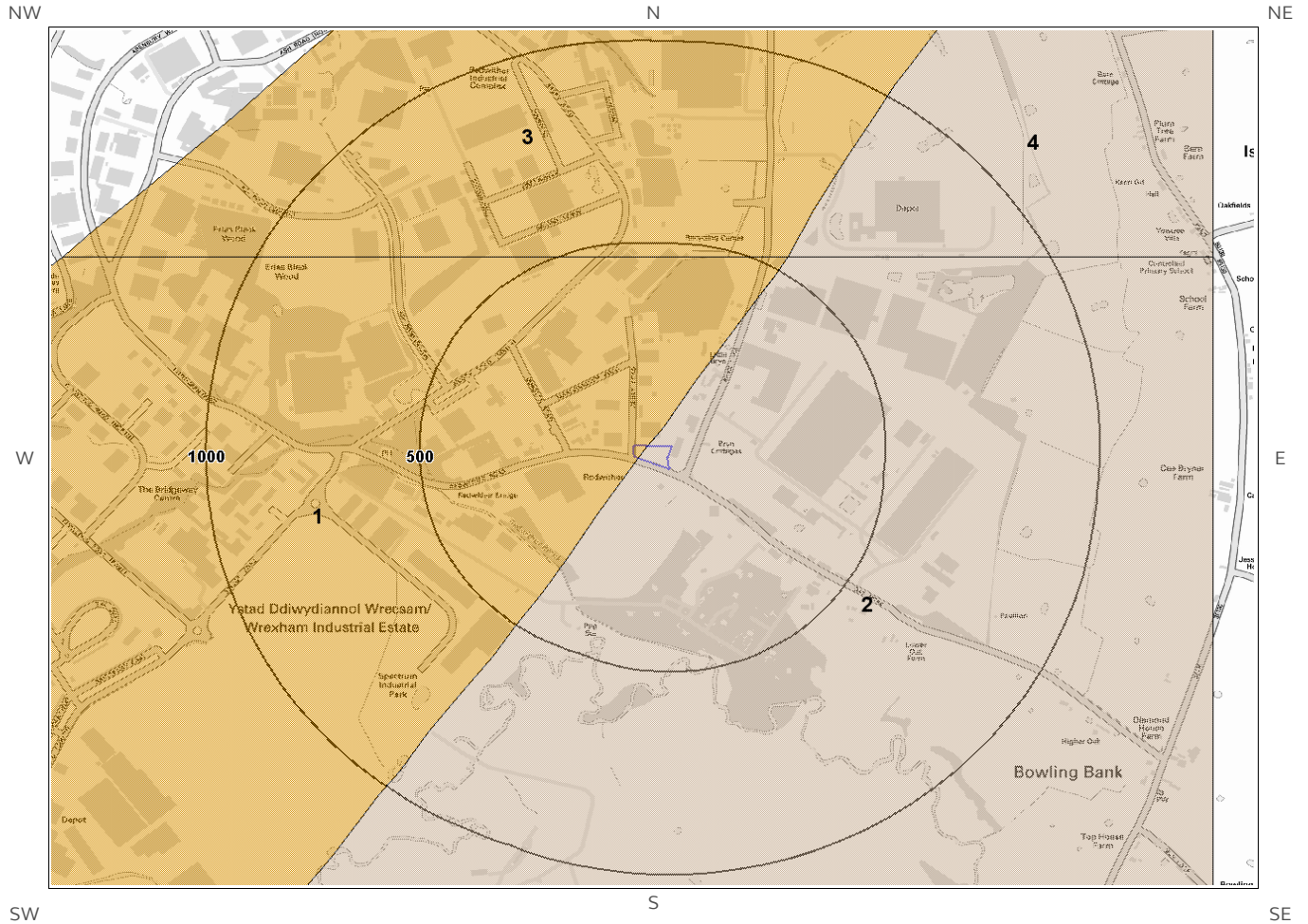
Are there any records of Landslip within 500m of the study site boundary at 1:10,000 scale? No

Database searched and no data found.

The geology map for the site and surrounding area are extracted from the BGS Digital Geological Map of Great Britain at 1:10,000 scale

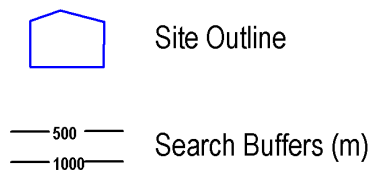
This Geology shows the main components as discrete layers, these are: Artificial / Made Ground, Superficial / Drift Geology and Landslips. These are all displayed with the BGS Lexicon code for the rock unit and BGS sheet number. Not all of the main geological components have nationwide coverage.

1.3 Bedrock and linear features map (1:10,000 scale)



Bedrock and linear features Legend

© Crown copyright and database rights 2019.
Ordnance Survey licence 100035207.



1.3 Bedrock and linear features

The following geological information represented on the mapping is derived from 1:10,000 scale BGS Geological mapping.

1.3.1 Bedrock/ Solid Geology

Records of Bedrock/Solid Geology within 500m of the study site boundary at 1:10,000 scale.

ID	Distance (m)	Direction	LEX Code	Description	Rock Age
1	0.0	On Site	SAL-CYCCM	Salop Formation - Sedimentary Rock Cycles, Coal Measure Type	Cisuralian Epoch - Westphalian D Sub-age
2	0.0	On Site	KNSF-SDST	Kinnerton Sandstone Formation - Sandstone	Early Triassic Epoch
3	467.0	N	SAL-MDST	Salop Formation - Mudstone	Cisuralian Epoch - Westphalian D Sub-age

1.3.2 Linear features

Are there any records of linear features within 500m of the study site boundary at 1:10,000 scale? No

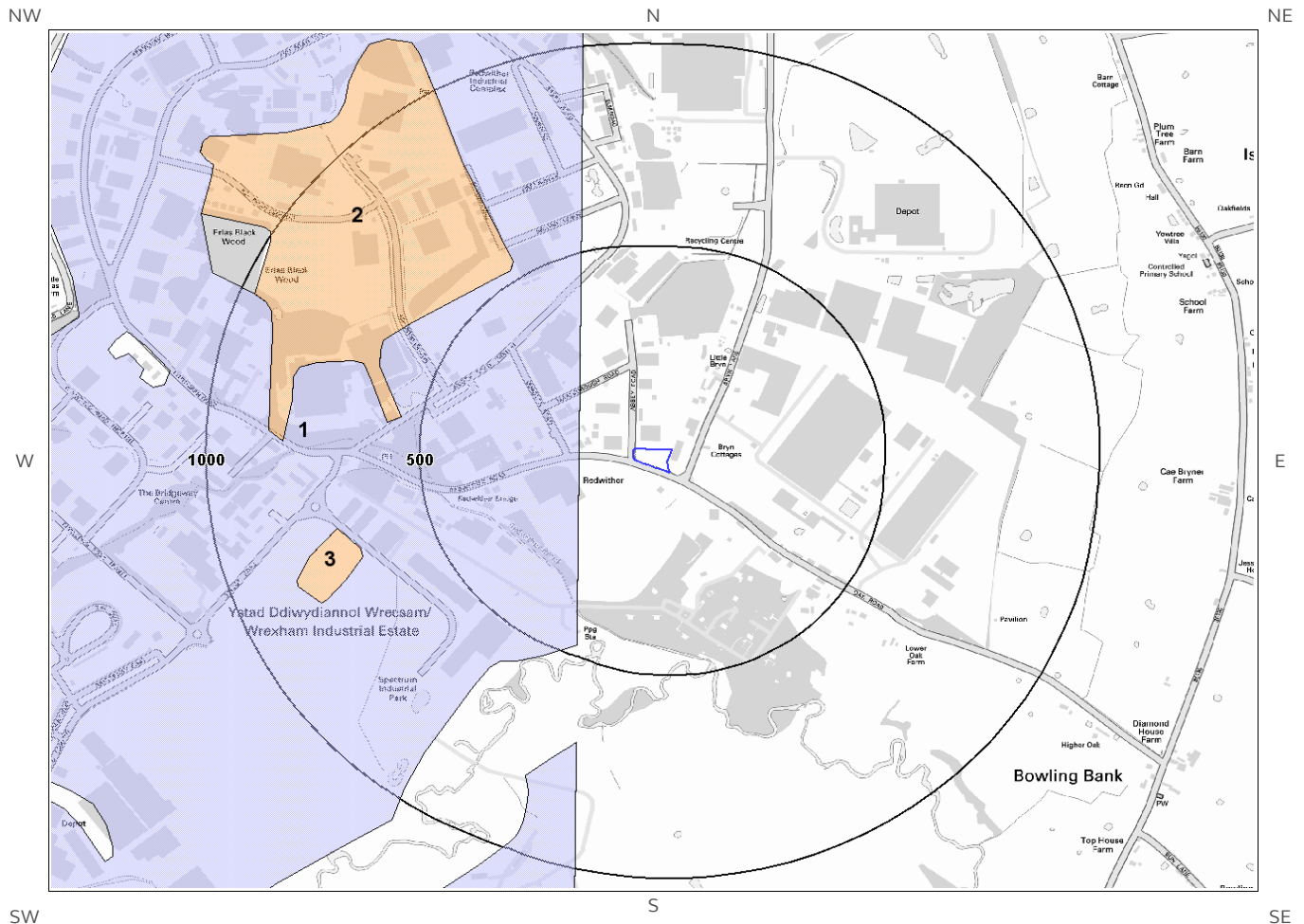
Database searched and no data found at this scale.

The geology map for the site and surrounding area are extracted from the BGS Digital Geological Map of great Britain at 1:10,000 scale.

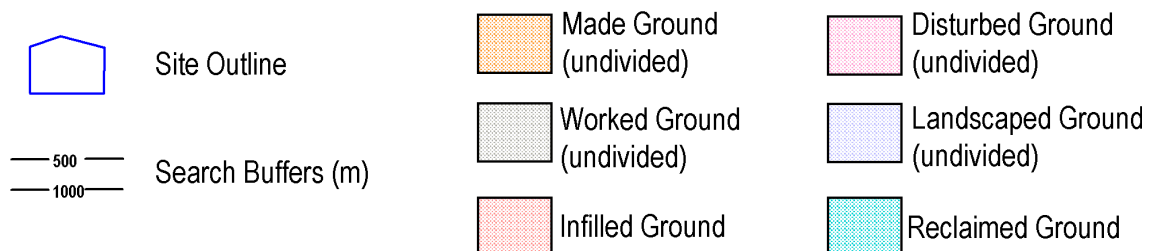
This Geology shows the main components as discrete layers, these are: Bedrock/ Solid Geology and linear features such as faults. These are all displayed with the BGS Lexicon code for the rock unit and BGS sheet number. Not all of the main geological components have nationwide coverage.

2 Geology 1:50,000 Scale

2.1 Artificial Ground map



© Crown copyright and database rights 2019.
Ordnance Survey licence 100035207.



2. Geology 1:50,000 scale

2.1 Artificial Ground

The following geological information represented on the mapping is derived from 1:50,000 scale BGS Geological mapping, Sheet No: 122

2.1.1 Artificial/ Made Ground

Are there any records of Artificial/ Made Ground within 500m of the study site boundary? Yes

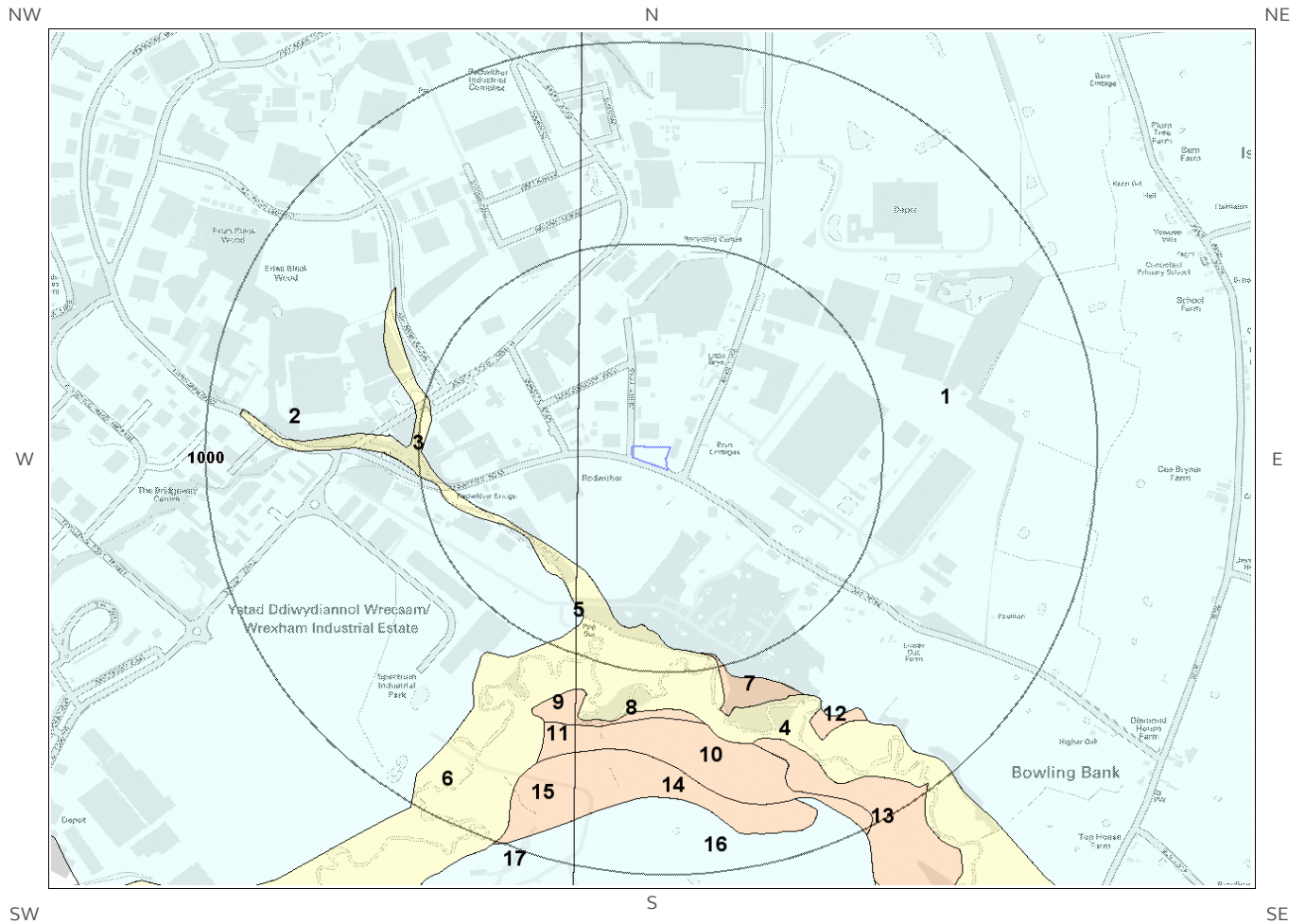
ID	Distance (m)	Direction	LEX Code	Description	Rock Description
1	127.0	W	LSGR-ARTGR	LANDSCAPED GROUND (UNDIVIDED)	ARTIFICIALLY MODIFIED GROUND

2.1.2 Permeability of Artificial Ground

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

Database searched and no data found.

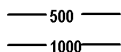
2.2 Superficial Deposits and Landslips map (1:50,000 scale)



© Crown copyright and database rights 2019.
Ordnance Survey licence 100035207.



Site Outline



Search Buffers (m)

2.2 Superficial Deposits and Landslips

2.2.1 Superficial Deposits/ Drift Geology

Are there any records of Superficial Deposits/ Drift Geology within 500m of the study site boundary? Yes

ID	Distance	Direction	LEX Code	Description	Rock Description
1	0.0	On Site	TILLD-DMTN	TILL, DEVENSIAN	DIAMICTON
2	127.0	W	TILLD-DMTN	TILL, DEVENSIAN	DIAMICTON
3	292.0	SW	ALV-XCZSV	ALLUVIUM	CLAY, SILT, SAND AND GRAVEL
4	296.0	SW	ALV-XCZSV	ALLUVIUM	CLAY, SILT, SAND AND GRAVEL
5	387.0	S	TILLD-DMTN	TILL, DEVENSIAN	DIAMICTON
6	438.0	S	ALV-XCZSV	ALLUVIUM	CLAY, SILT, SAND AND GRAVEL
7	456.0	S	RTD1-XSV	RIVER TERRACE DEPOSITS, 1	SAND AND GRAVEL

2.2.2 Permeability of Superficial Ground

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

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

2.2.3 Landslip

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

Database searched and no data found.

The geology map for the site and surrounding area are extracted from the BGS Digital Geological Map of Great Britain at 1:50,000 scale.

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

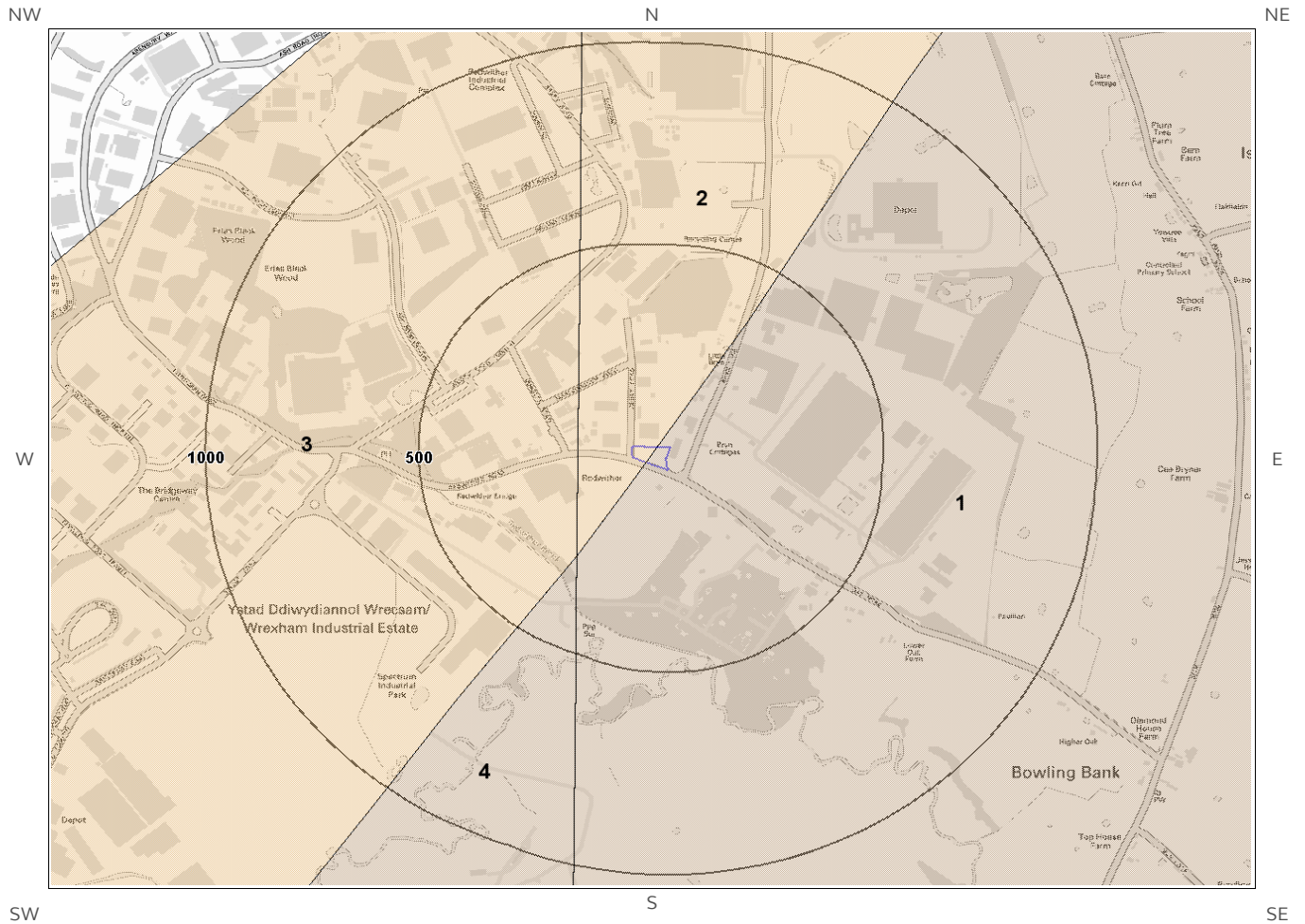
2.2.4 Landslip Permeability

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

No

Database searched and no data found.

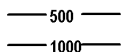
2.3 Bedrock and linear features map (1:50,000 scale)



© Crown copyright and database rights 2019.
Ordnance Survey licence 100035207.



Site Outline



Search Buffers (m)

2.3 Bedrock, Solid Geology & linear features

The following geological information represented on the mapping is derived from 1:50,000 scale BGS Geological mapping, Sheet No: 122

2.3.1 Bedrock/Solid Geology

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

ID	Distance	Direction	LEX Code	Rock Description	Rock Age
1	0.0	On Site	KNSF-SDST	KINNERTON SANDSTONE FORMATION - SANDSTONE	-
2	0.0	On Site	SAL-MDSC	SALOP FORMATION - MUDSTONE, SANDSTONE AND CONGLOMERATE	WESTPHALIAN
3	127.0	W	SAL-MDSC	SALOP FORMATION - MUDSTONE, SANDSTONE AND CONGLOMERATE	WESTPHALIAN
4	276.0	SW	KNSF-SDST	KINNERTON SANDSTONE FORMATION - SANDSTONE	-

2.3.2 Permeability of Bedrock Ground

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

Distance	Direction	Flow Type	Maximum Permeability	Minimum Permeability
0.0	On Site	Intergranular	High	High
0.0	On Site	Fracture	Moderate	Low

2.3.3 Linear features

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

Database searched and no data found.

The geology map for the site and surrounding area are extracted from the BGS Digital Geological Map of Great Britain at 1:50,000 scale.

This Geology shows the main components as discrete layers, these are: Bedrock/Solid Geology and linear features such as faults. These are all displayed with the BGS Lexicon code for the rock unit and BGS sheet number. Not all of the main geological components have nation wide coverage.

3 Radon Data

3.1 Radon Affected Areas

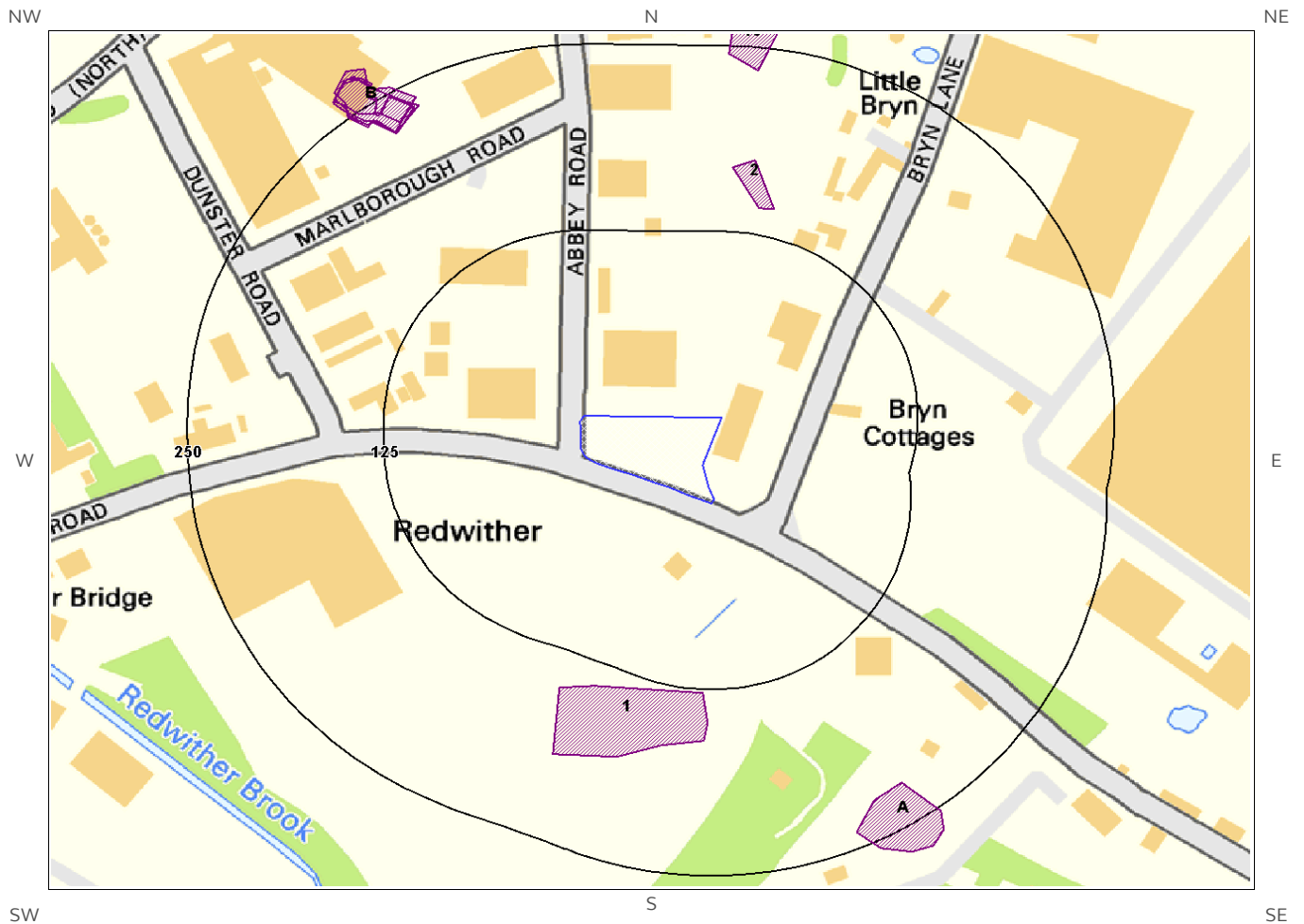
Is the property in a Radon Affected Area as defined by the Health Protection Agency (HPA) and if so what percentage of homes are above the Action Level? The property is not in a Radon Affected Area, as less than 1% of properties are above the Action Level.

The radon data in this report is supplied by the BGS/Public Health England and is the definitive map of Radon Affected Areas in Great Britain and Northern Ireland. The dataset was created using long-term radon measurements in over 479,000 homes across Great Britain and 23,000 homes across Northern Ireland, combined with geological data. The dataset is considered accurate to 50m to allow for the margin of error in geological lines, and the findings of this report supercede any answer given in the less accurate Indicative Atlas of Radon in Great Britain, which simplifies the data to give the highest risk within any given 1km grid square. As such, the radon atlas is considered indicative, whereas the data given in this report is considered definitive.

3.2 Radon Protection

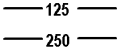
Is the property in an area where Radon Protection are required for new properties or extensions to existing ones as described in publication BR211 by the Building Research Establishment? No radon protective measures are necessary.

4 Ground Workings map



Ground Workings Legend

© Crown copyright and database rights 2019.
Ordnance Survey licence 100035207.

- | | | | |
|---|--------------------|---|----------------------------------|
|  | Site Outline |  | Historic Surface Ground Workings |
|  | Search Buffers (m) |  | Historic Underground Workings |
| | |  | Current Ground Workings |

4 Ground Workings

4.1 Historical Surface Ground Working Features derived from Historical Mapping

This dataset is based on Groundsure's unique Historical Land Use Database derived from 1:10,560 and 1:10,000 scale historical mapping

Are there any Historical Surface Ground Working Features within 250m of the study site boundary? Yes

ID	Distance (m)	Direction	NGR	Use	Date
1	127.0	S	338679 349328	Unspecified Pit	1964
2	143.0	N	338757 349689	Unspecified Pit	1964
3A	223.0	SE	338851 349264	Unspecified Heap	1964
4A	223.0	SE	338851 349264	Unspecified Heap	1977
5A	223.0	SE	338851 349264	Unspecified Heap	1992
6B	224.0	NW	338516 349741	Pond	1909
7B	225.0	NW	338507 349742	Pond	1938
8B	225.0	NW	338515 349743	Ponds	1872
9B	230.0	NW	338517 349749	Ponds	1898
10	234.0	N	338764 349841	Unspecified Heap	1964

4.2 Historical Underground Working Features derived from Historical Mapping

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

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

Database searched and no data found.

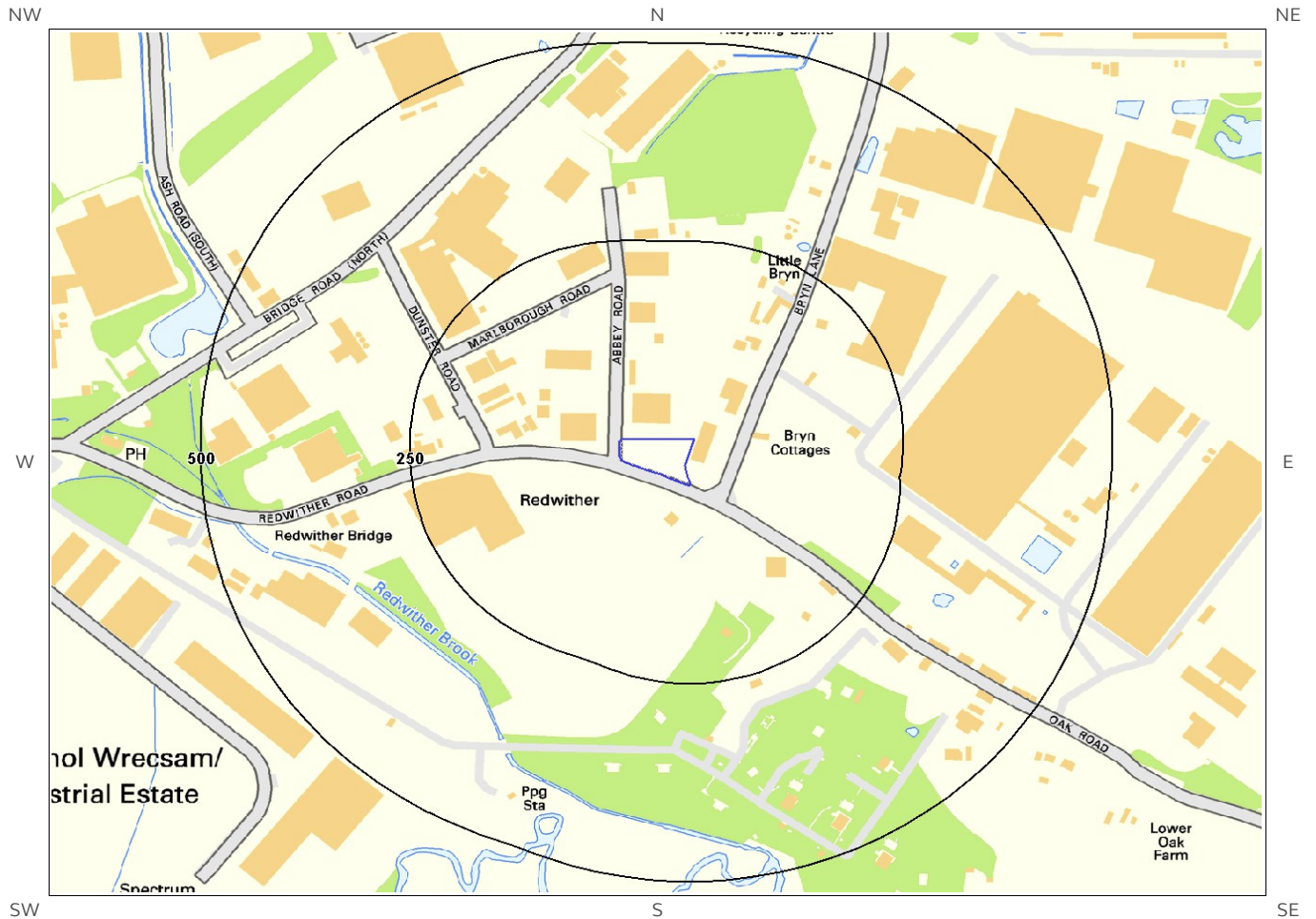
4.3 Current Ground Workings

This dataset is derived from the BGS BRITPITS database covering active; inactive mines; quarries; oil wells; gas wells and mineral wharves; and rail deposits throughout the British Isles.

Are there any BGS Current Ground Workings within 1000m of the study site boundary? No

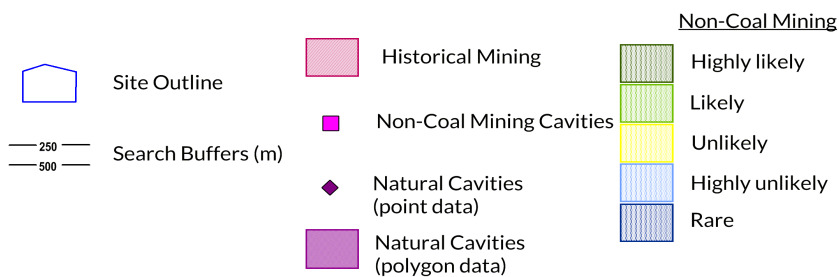
Database searched and no data found.

5 Mining, Extraction & Natural Cavities map



Mining, Extraction and Natural Cavities Legend

© Crown copyright and database rights 2019.
Ordnance Survey licence 100035207.



5 Mining, Extraction & Natural Cavities

5.1 Historical Mining

This dataset is derived from Groundsure unique Historical Land-use Database that are indicative of mining or extraction activities.

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

Database searched and no data found.

5.2 Coal Mining

This dataset provides information as to whether the study site lies within a known coal mining affected area as defined by the coal authority.

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

The following Coal Mining information provided by the Coal Authority is not represented on Mapping:

Distance (m)	Direction	Details
467.0	N	The site lies in or in proximity to the coal mining reporting area as defined by the Coal Authority

5.3 Johnson Poole and Bloomer

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

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

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

5.4 Non-Coal Mining

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

Are there any Non-Coal Mining areas within 1000m of the study site boundary? No

Database searched and no data found.

5.5 Non-Coal Mining Cavities

This dataset provides information from the Peter Brett Associates (PBA) mining cavities database (compiled for the national study entitled “Review of mining instability in Great Britain, 1990” PBA has also continued adding to this database) on mineral extraction by mining.

Are there any Non-Coal Mining cavities within 1000m of the study site boundary? No

Database searched and no data found.

5.6 Natural Cavities

This dataset provides information based on the Peter Brett Associates natural cavities database. The dataset is made up of points and polygons. Where polygons are used these represent an area in which it is expected the cavities could be found. It does not indicate that cavities are present everywhere within the polygon, and caution should be used in the interpretation of this data.

Are there any Natural Cavities within 1000m of the study site boundary? No

Database searched and no data found.

5.7 Brine Extraction

This data provides information from the Cheshire Brine Subsidence Compensation Board.

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

Database searched and no data found.

5.8 Gypsum Extraction

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

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

Database searched and no data found.

5.9 Cornwall and Devon Metalliferous Mining

This dataset provides information on metalliferous mining areas in Cornwall/Devon and is derived from records held by Mining Searches UK.

Are there any Cornwall and Devon Metalliferous Mining areas within 1000m of the study site boundary? No

Database searched and no data found.

5.10 Clay Mining

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

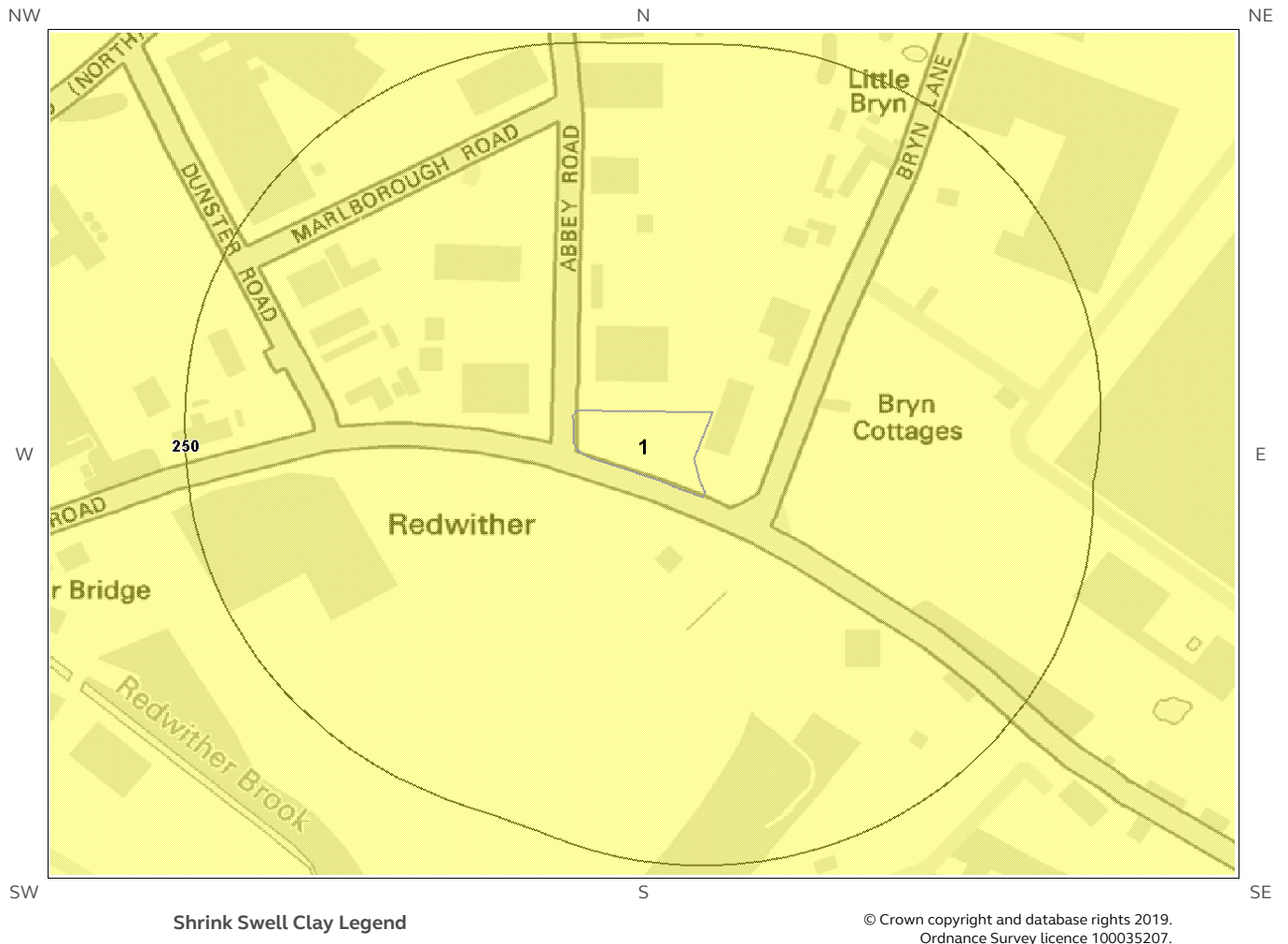
Are there any Clay Mining areas within 1000m of the study site boundary?

No

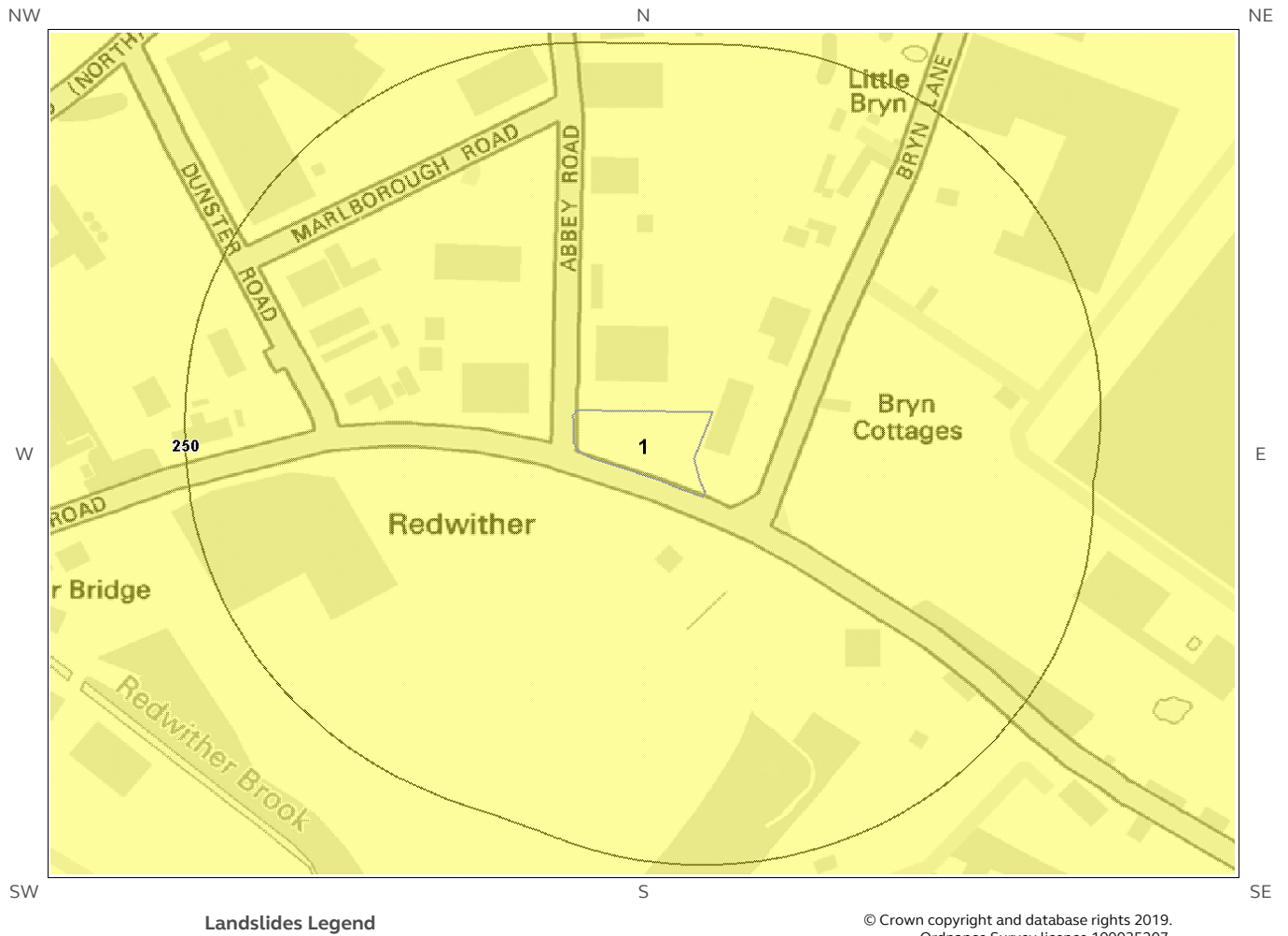
Database searched and no data found.

6 Natural Ground Subsidence

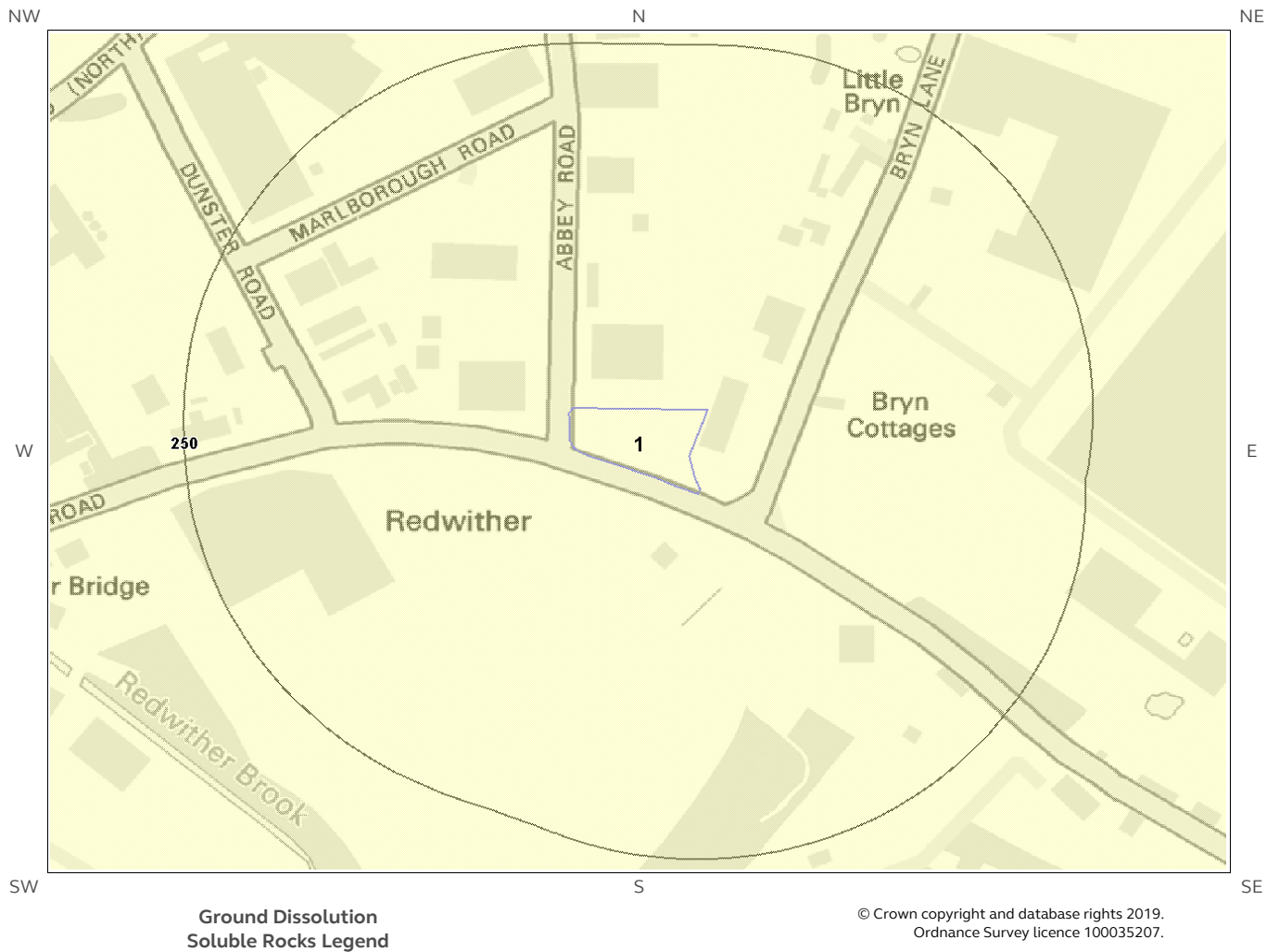
6.1 Shrink-Swell Clay map



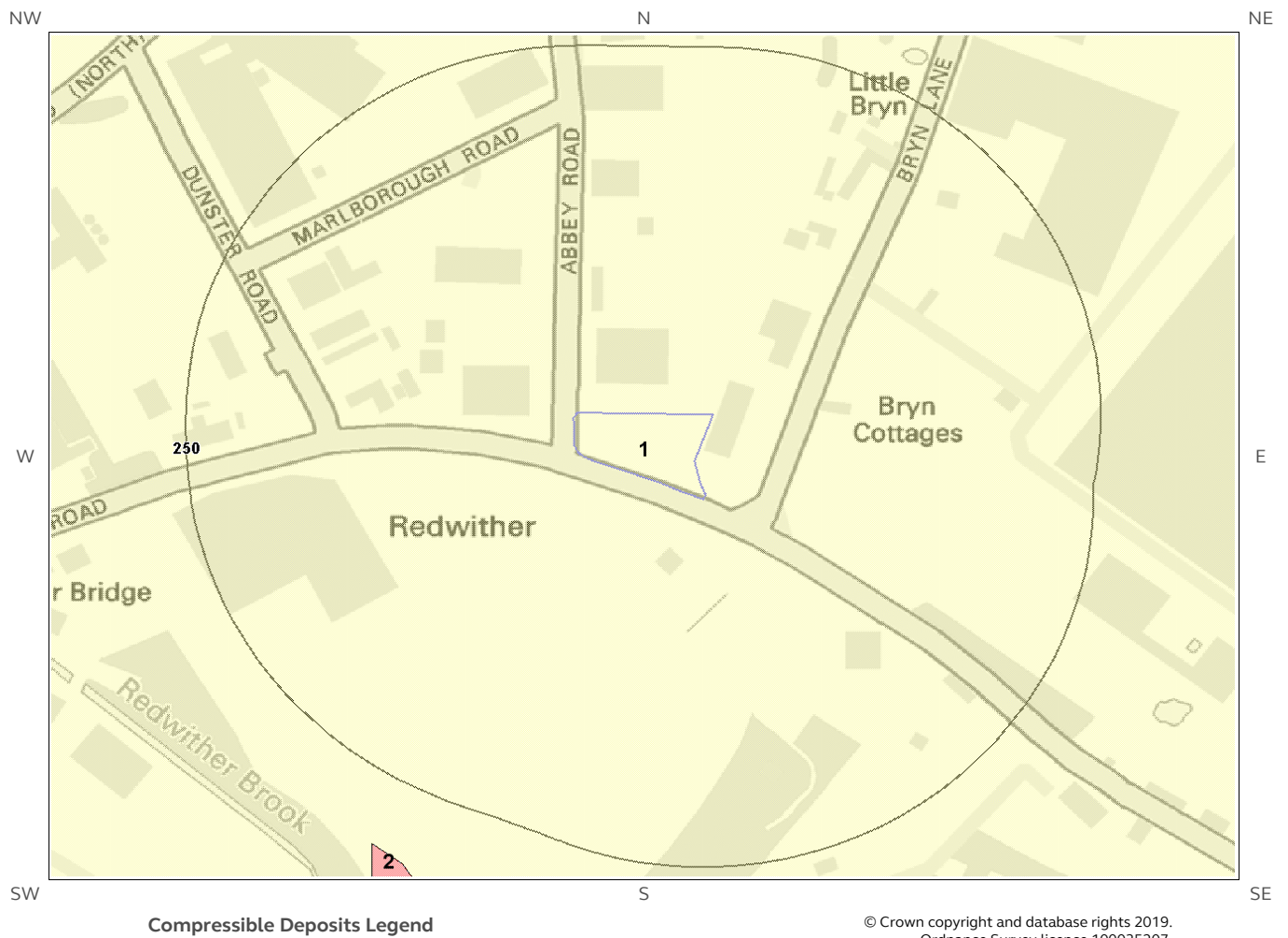
6.2 Landslides map



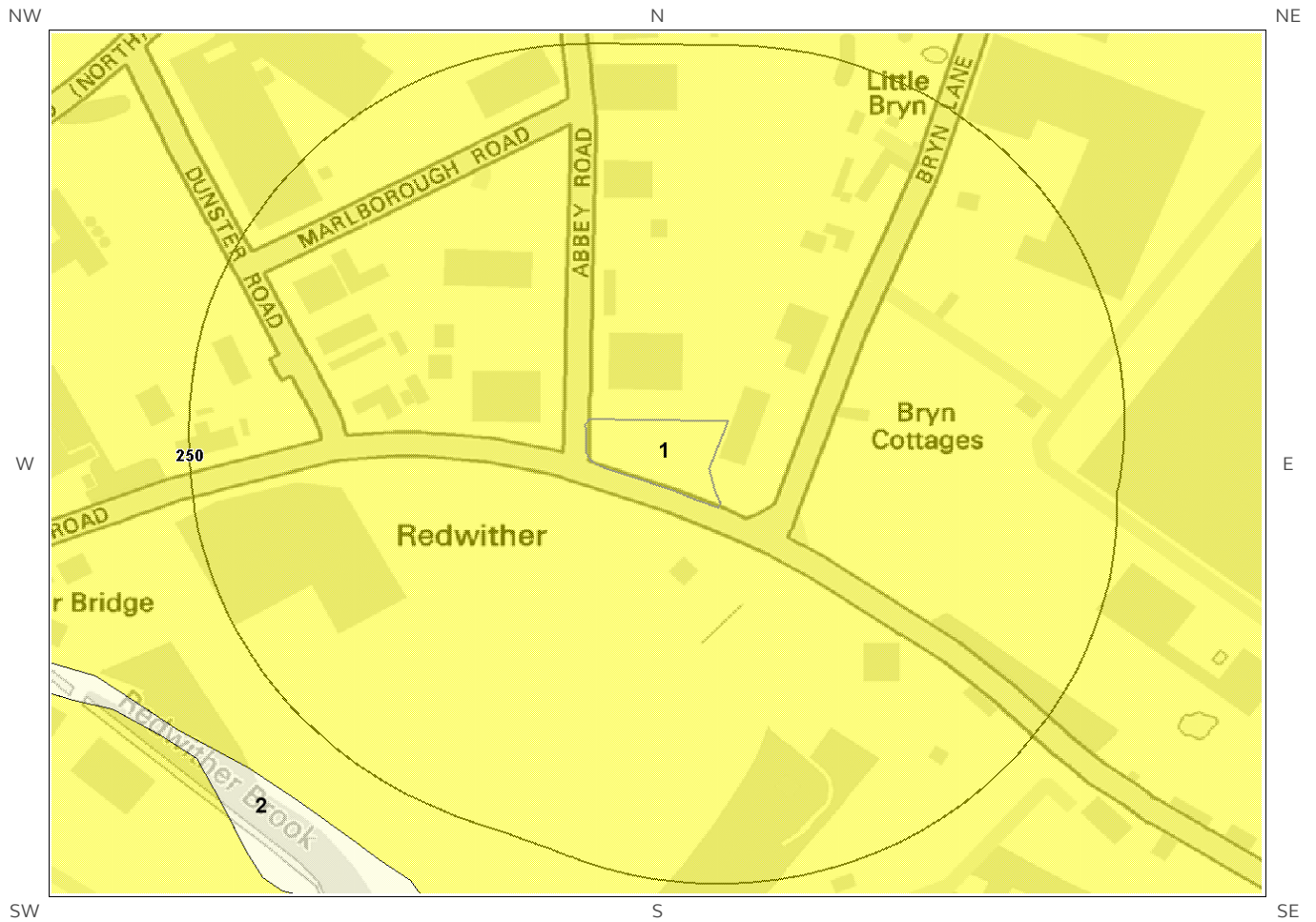
6.3 Ground Dissolution of Soluble Rocks map



6.4 Compressible Deposits map



6.5 Collapsible Deposits map

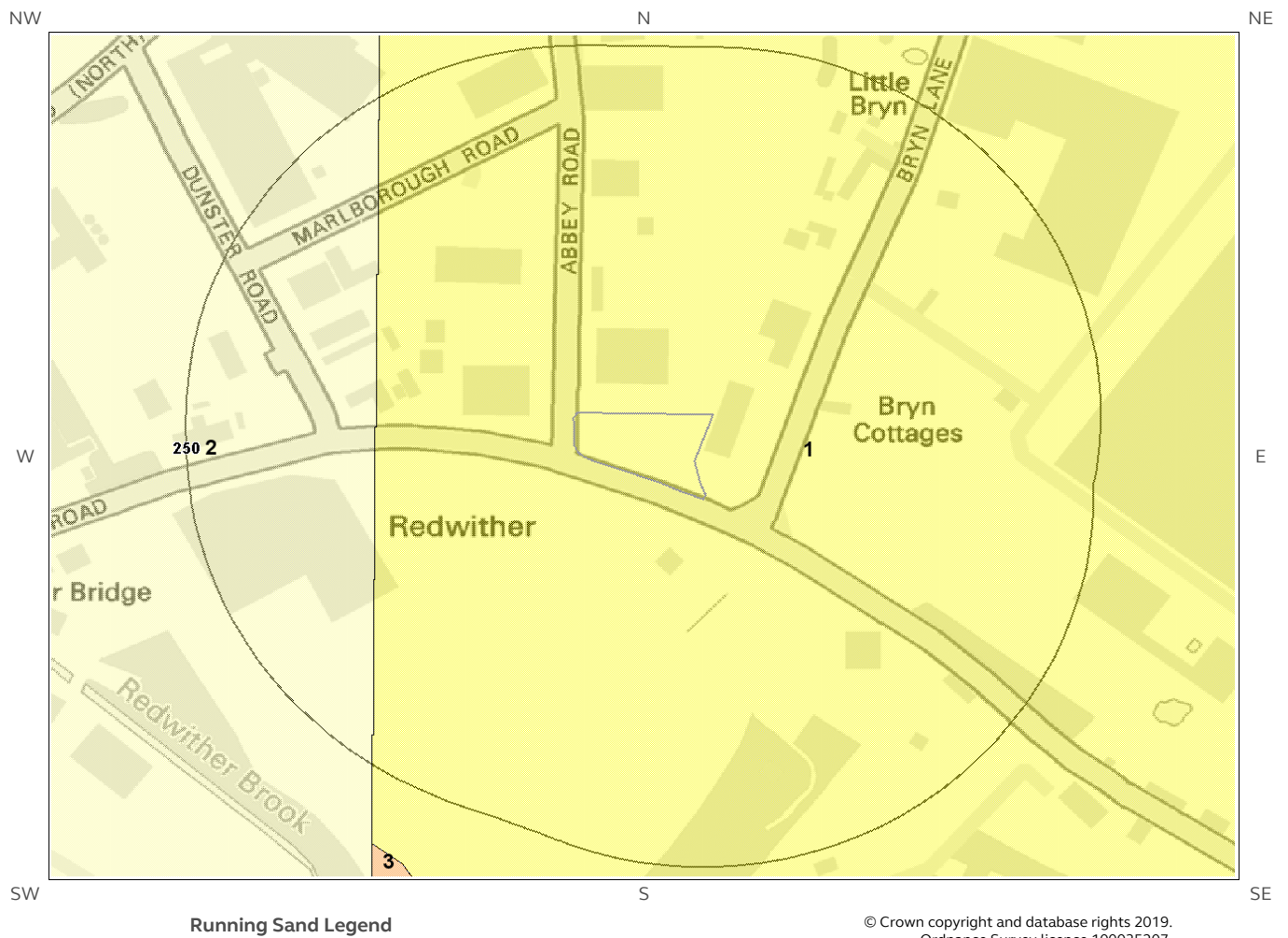


Collapsible Deposits Legend

© Crown copyright and database rights 2019.
 Ordnance Survey licence 100035207.



6.6 Running Sand map



6 Natural Ground Subsidence

The National Ground Subsidence rating is obtained through the 6 natural ground stability hazard datasets, which are supplied by the British Geological Survey (BGS).

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

What is the maximum hazard rating of natural subsidence within the study site** boundary? Very Low

6.1 Shrink-Swell Clays

The following Shrink Swell information provided by the British Geological Survey:

ID	Distance (m)	Direction	Hazard Rating	Details
1	0.0	On Site	Very Low	Ground conditions predominantly low plasticity. No special actions required to avoid problems due to shrink-swell clays. No special ground investigation required, and increased construction costs or increased financial risks are unlikely due to potential problems with shrink-swell clays.

6.2 Landslides

The following Landslides information provided by the British Geological Survey:

ID	Distance (m)	Direction	Hazard Rating	Details
1	0.0	On Site	Very Low	Slope instability problems are unlikely to be present. No special actions required to avoid problems due to landslides. No special ground investigation required, and increased construction costs or increased financial risks are unlikely due to potential problems with landslides.

6.3 Ground Dissolution of Soluble Rocks

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

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

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

6.4 Compressible Deposits

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

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

6.5 Collapsible Deposits

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

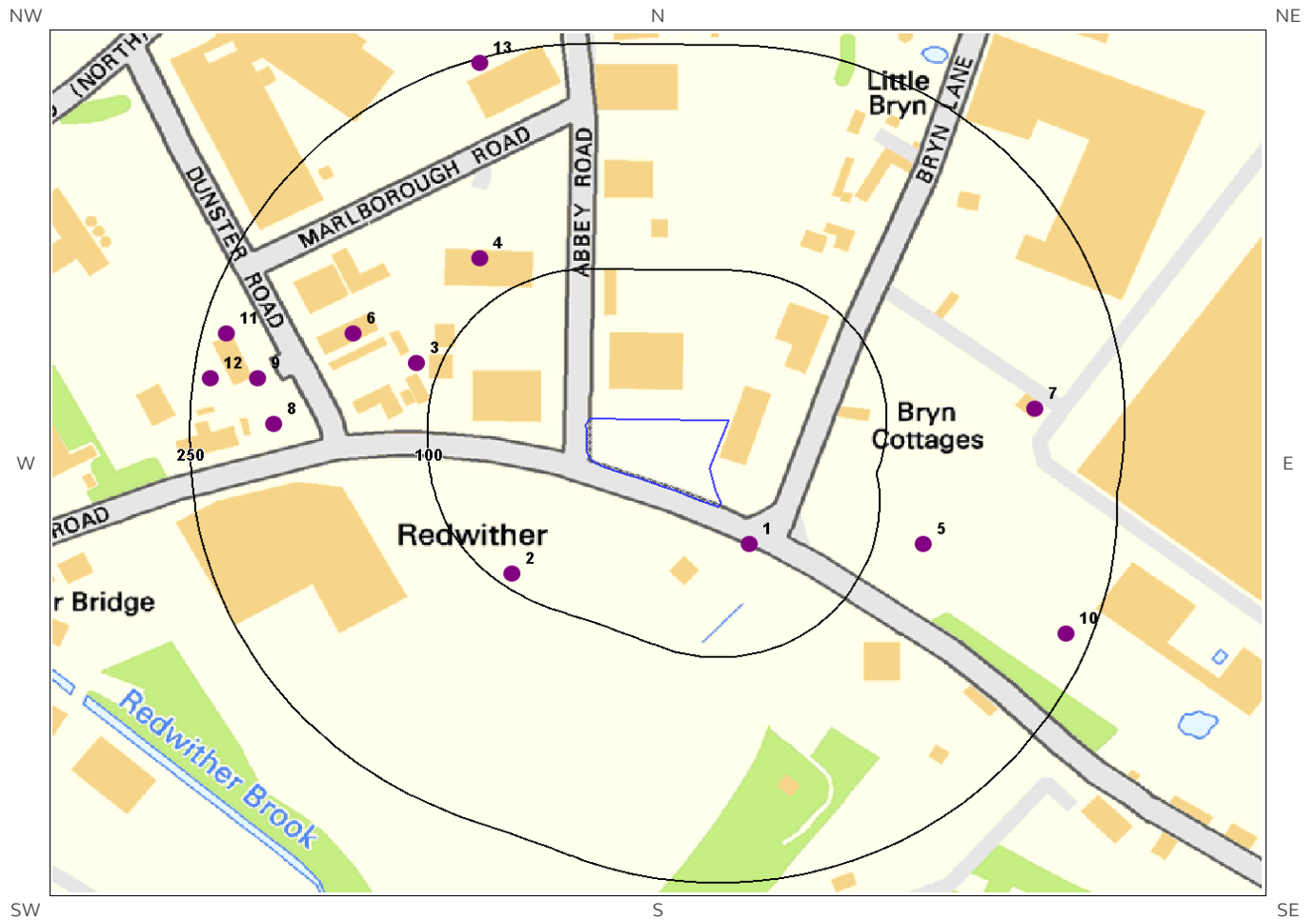
ID	Distance (m)	Direction	Hazard Rating	Details
1	0.0	On Site	Very Low	Deposits with potential to collapse when loaded and saturated are unlikely to be present. No special ground investigation required or increased construction costs or increased financial risk due to potential problems with collapsible deposits.

6.6 Running Sands

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

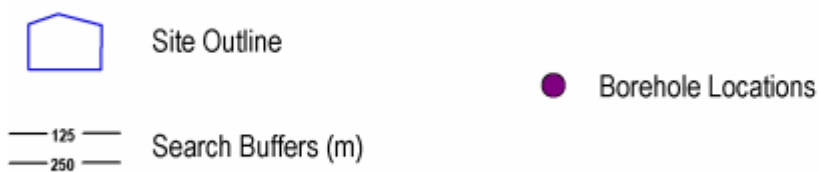
ID	Distance (m)	Direction	Hazard Rating	Details
1	0.0	On Site	Very Low	Very low potential for running sand problems if water table rises or if sandy strata are exposed to water. No special actions required, to avoid problems due to running sand. No special ground investigation required, and increased construction costs or increased financial risks are unlikely due to potential problems with running sand.

7 Borehole Records map



Borehole Records Legend

© Crown copyright and database rights 2019.
 Ordnance Survey licence 100035207.



7 Borehole Records

The systematic analysis of data extracted from the BGS Borehole Records database provides the following information.

Records of boreholes within 250m of the study site boundary:

13

ID	Distance (m)	Direction	NGR	BGS Reference	Drilled Length	Borehole Name
1	31.0	SE	338750 349450	SJ34NE161	Not Available	BICC PLC WREXHAM IND EST BH1
2	91.0	SW	338600 349430	SJ34NE25	18	REDWITHER ABENBURY
3	115.0	W	338540 349570	SJ34NE120	45.01	WREXHAM IND ESTATE, CHEM. DISPOSAL. 1A
4	127.0	NW	338580 349640	SJ34NE117	10	WREXHAM IND ESTATE, CHEM. DISPOSAL. 2
5	130.0	E	338860 349450	SJ34NE34/1	34.44	WREXHAM IND EST. BICC SITE. 1
6	159.0	W	338500 349590	SJ34NE145	6.5	IND EST. BRITISH TISSUES. 4A
7	193.0	E	338930 349540	SJ34NE34/7	30.48	WREXHAM IND EST. BICC SITE. 7
8	197.0	W	338450 349530	SJ34NE232	Not Available	REDWITHER INDUSTRIAL COMPLEX DUNSTER ROAD 1
9	210.0	W	338440 349560	SJ34NE233	Not Available	REDWITHER INDUSTRIAL COMPLEX DUNSTER ROAD 2
10	234.0	E	338950 349390	SJ34NE34/2	9.14	WREXHAM IND EST. BICC SITE. 2
11	235.0	W	338420 349590	SJ34NE234	Not Available	REDWITHER INDUSTRIAL COMPLEX DUNSTER ROAD 3
12	239.0	W	338410 349560	SJ34NE235	Not Available	REDWITHER INDUSTRIAL COMPLEX DUNSTER ROAD 4
13	247.0	N	338580 349770	SJ34NE122	37	WREXHAM IND ESTATE, CHEM. DISPOSAL. 3A

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

#2: scans.bgs.ac.uk/sobi_scans/boreholes/153131
#3: scans.bgs.ac.uk/sobi_scans/boreholes/153290
#4: scans.bgs.ac.uk/sobi_scans/boreholes/153287
#5: scans.bgs.ac.uk/sobi_scans/boreholes/153140
#6: scans.bgs.ac.uk/sobi_scans/boreholes/153315
#7: scans.bgs.ac.uk/sobi_scans/boreholes/153146
#10: scans.bgs.ac.uk/sobi_scans/boreholes/153141
#13: scans.bgs.ac.uk/sobi_scans/boreholes/153292

8 Estimated Background Soil Chemistry

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

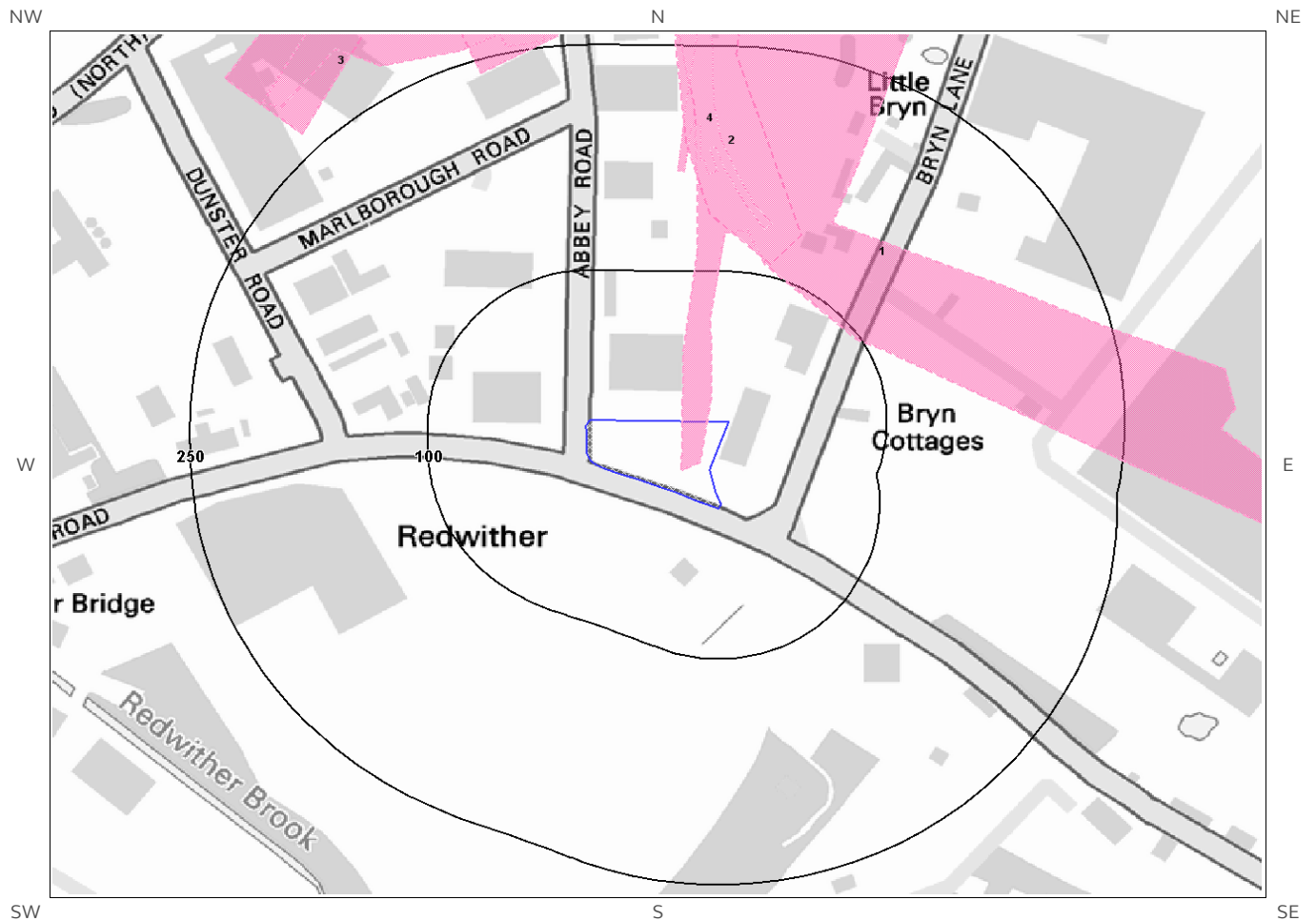
4

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

Distance (m)	Direction	Sample Type	Arsenic (As)	Cadmium (Cd)	Chromium (Cr)	Nickel (Ni)	Lead (Pb)
0.0	On Site	RuralSoil	<15 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<100 mg/kg
0.0	On Site	RuralSoil	<15 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<100 mg/kg
0.0	On Site	RuralSoil	<15 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	100 - 200 mg/kg
0.0	On Site	RuralSoil	<15 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	100 - 200 mg/kg

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

9 Railways and Tunnels map



Railways and Tunnels Legend

© Crown copyright and database rights 2019.
Ordnance Survey licence 100035207.
© OpenStreetMapContributors

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

9 Railways and Tunnels

9.1 Tunnels

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

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

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

Database searched and no data found.

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

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

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

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

Database searched and no data found.

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

9.2 Historical Railway and Tunnel Features

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

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

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

ID	Distance (m)	Direction	NGR	Details	Date
1	0	On Site	338558 349907	Railway Sidings	1949
2	108	N	338725 349820	Railway Sidings	1964
4	130	N	338718 349831	Railway Sidings	1959
3	241	N	338526 349864	Railway Sidings	1964

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

9.3 Historical Railways

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

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

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

Database searched and no data found.

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

9.4 Active Railways

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

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

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

Database searched and no data found.

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

9.5 Railway Projects

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

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

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

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

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

Please note that this assessment takes account of both the original Phase 2b proposed route and the amended route proposed in 2016. As the Phase 2b route is still under consultation, Groundsure are providing information on both options until the final route is formally confirmed. Practitioners should take account of this uncertainty when advising clients.

Contact Details

Groundsure Helpline
Telephone: 08444 159 000
info@groundsure.com



British Geological Survey Enquiries

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



BGS Geological Hazards Reports and general geological enquiries

British Gypsum

British Gypsum Ltd
East Leake
Loughborough
Leicestershire
LE12 6HX



The Coal Authority

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



Public Health England

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



Johnson Poole & Bloomer Limited

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



Ordnance Survey

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



Getmapping PLC

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



Peter Brett Associates
Caversham Bridge House
Waterman Place
Reading
Berkshire RG1 8DN
Tel: +44 (0)118 950 0761 E-mail: reading@pba.co.uk
Website: <http://www.peterbrett.com/home>



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

Standard Terms and Conditions

Groundsure's Terms and Conditions can be viewed online at this link:
<https://www.groundsure.com/terms-and-conditions-feb11-2019>



SOCOTEC

APPENDIX E

WALKOVER SURVEY PHOTOGRAPHS

Checklist
Photographs

Plate 1 to 7

Site Walkover Checklist

REFERENCES	
Project No.	F9042-19
Site Address	Oak Road Wrexham Industrial Estate
Date of visit	21 August 2019
Prepared by	Melody Wareing
SITE – GENERAL	
Plan of site	See photos
Site size (area) : % building, % hardstanding, % open space / other	0.3 Ha Open space with overhead line tower [photo 1]
Current use (occupants and operations)	Unused. Backhoe excavator on site carrying out vegetation clearance.[photo 2]
SITE – BUILDINGS	
Age of building(s)	N/A
Building appearance: no. of storeys, basement, roofing type, chimneys / stacks?, car park, service areas	N/A
Tanks: location (internal / external : above or below ground), age / condition, size / capacity, type, bunding (condition), refuelling point, evidence of stains / spills	N/A
Heating : electric/gas/oil	N/A
Chemical storage : drums, other chemical stores	Rusted drum of unknown origin [photo 4]
Gas control measures (e.g. vents, cowls, monitoring / alarms)	N/A
Other evidence of industrial activity	N/A
Asbestos / deleterious materials – any asbestos surveys?, removal programmes?	Unknown.
Electrical equipment / Transformers – check for PCBs? Backup power supplies (generators)	N/A
SITE – EXTERNAL	
Site surfacing : type (asphalt/concrete etc.), staining, weathering, subsidence, repairs. Landscaped areas.	Predominantly soil and minor vegetation. Mature trees on eastern site boundary [photo 8]
Drainage : interceptors, disposal of storm water / waste water, mains water supply?	Broken drainage pipe in centre of site, one end into concrete service [photo 5 and 6]
Site topography – flat / sloping?, level compared to surroundings, evidence of filling or raising, earthworks?	Generally level. Gully central to site. Approx. 1.5m deep. Running NW-SE towards SE of site

Site Walkover Checklist

Vehicle maintenance : washdown areas, workshops, refuelling points	N/A
Waste : skips / compounds, any hazardous waste? Burning grounds or incinerators	N/A
Sub-stations : age, condition, transformers, operator, servicing?	N/A
Trees – effects on buildings, condition, species and height	Mature trees on east boundary including conifer. Those within site have been felled
Sloping ground – any indication of instability (cracks in ground, bulges, leaning trees, walls or poles), rotational slip scars.	Gully central to site. Approx. 1.5m deep. Running NW-SE towards SE of site. Steep sides though no obvious cracks
Ecological features of note – Burrows, bats, nest sites, designated preservation areas	None noted
Other features of note within site	N/A
SURROUNDING LAND USES	
General site context – industrial, commercial, urban, agricultural etc.	Industrial
Land use – north (give distances)	Industrial units on boundary
Land use – south (give distances)	Oak Road then overgrown unused land beyond. Believed to be used by local paintball/airsoft group.
Land use – east (give distances)	Industrial units on boundary
Land use – west (give distances)	Abbey Road South then industrial units
Nearby (<500m) sources of pollution – landfills, filling stations, industrial activity.	See desk study report
Nearby river / surface water features – culverted, banks, flood plain. If visible, condition of watercourse	None bar gully, no water within gully during site visit
Adjacent geotechnical features of note – cuttings, quarries, embankments, slopes (particularly if failed), major excavations, deep basements, sources of vibrations (railway or heavy machinery)	N/A
Other features of note adjacent to site	N/A



Photo 1: View East from Abbey Road South towards site. Excavator on site carrying out clearance – not operating at time of walkover.



Photo 2: View East along northern boundary towards OHL tower

Notes:	Project	Wrexham SI	Plate 1
	Project No.	F9042-19	
	Carried out for	Conrad Energy	



Photo 3: View East along centre of site showing concrete service cover and gully feature



Photo 4: Unknown drum adjacent to north of concrete service cover

Notes:	<table><tr><td>Project</td><td>Wrexham SI</td></tr><tr><td>Project No.</td><td>F9042-19</td></tr><tr><td>Carried out for</td><td>Conrad Energy</td></tr></table>	Project	Wrexham SI	Project No.	F9042-19	Carried out for	Conrad Energy	Plate 2
Project	Wrexham SI							
Project No.	F9042-19							
Carried out for	Conrad Energy							



Photo 5: View East: Gully leading from concrete service cover. Drainage pipe exposed in northern gully face



Photo 6: Drainage pipe in eastern face of concrete service cover

Notes:	Project	Wrexham SI	Plate 3
	Project No.	F9042-19	
	Carried out for	Conrad Energy	



Photo 7: View North from concrete service cover towards northern site boundary



Photo 8: View North at eastern end of site – mature trees on boundary

Notes:	<table><tr><td>Project</td><td>Wrexham SI</td></tr><tr><td>Project No.</td><td>F9042-19</td></tr><tr><td>Carried out for</td><td>Conrad Energy</td></tr></table>	Project	Wrexham SI	Project No.	F9042-19	Carried out for	Conrad Energy	<table><tr><td>Plate</td><td>4</td></tr></table>	Plate	4
Project	Wrexham SI									
Project No.	F9042-19									
Carried out for	Conrad Energy									
Plate	4									



Photo 9: View North West of spoil heap created during site clearance



Photo 10: View South along eastern site boundary

Notes:	Project	Wrexham SI	Plate 5
	Project No.	F9042-19	
	Carried out for	Conrad Energy	



Photo 11: View South showing path of OHL



Photo 12: View East along southern site of gully showing southern site boundary

Notes:	Project	Wrexham SI	Plate 6
	Project No.	F9042-19	
	Carried out for	Conrad Energy	



Photo 13: South East corner of site



Photo 14: View West along southern site boundary

Notes:	<table><tr><td>Project</td><td>Wrexham SI</td></tr><tr><td>Project No.</td><td>F9042-19</td></tr><tr><td>Carried out for</td><td>Conrad Energy</td></tr></table>	Project	Wrexham SI	Project No.	F9042-19	Carried out for	Conrad Energy	<table><tr><td>Plate</td><td>7</td></tr></table>	Plate	7
Project	Wrexham SI									
Project No.	F9042-19									
Carried out for	Conrad Energy									
Plate	7									