



SOLUTIONS LIMITED

**PHASE I DESKTOP STUDY AND
PRELIMINARY RISK ASSESSMENT
REPORT**

AT

**COMMEMORATIVE WOODLAND,
ERRDIG, HAFOD ROAD, WREXHAM**

FOR

NATIONAL TRUST

Report Reference: 3031-22 PI

GeoEnviro Solutions Ltd
Unit 7, Springvale Works,
Brookfoot Lane,
Brighthouse,
HD6 2RA

[www: geoenvirosolutions.com](http://www.geoenvirosolutions.com)

QUALITY ASSURANCE

	Name	Position	Date
Prepared by:	Richard Caine	Senior Engineer	December 2022
Reviewed by:	Andrew Dickinson	Associate Director	December 2022
Approved by:	Andrew Dickinson	Associate Director	December 2022

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LIST OF ACRONYMS

Acronym	Meaning
BGS	British Geological Survey
BH	Borehole
CDM	Construction Design and Management
CL:AIRE	Contaminated Land: Applications In Real Environments
CLR	Contaminated Land Report
COSHH	Control Of Substances Hazardous to Health
CSM	Conceptual Site Model
DCP	Dynamic Cone Penetrometer
DEFRA	Department for Environment Foods and Rural Affairs
DoE	Department of Environment
DP	Dynamic Probe
DWS	Drinking Water Standard
EA	Environment Agency
EQS	Environmental Quality Standard
GAC	Generic Acceptance Criteria
HA	Hand Auger
HP	Hand Pit
LPA	Local Planning Authority
LQM	Land Quality Management
mbgl	Metres Below Ground Level
MP	Mackintosh Probe
NGR	National Grid Reference
NPPF	National Planning Policy Framework
OS	Ordnance Survey
SGV	Soil Guideline Value
SPOSH	Significant Possibility of Significant Harm
SPZ	Source Protection Zone
SSSI	Site of Special Scientific Interest
SSV	Soil Screening Value
TP	Trial Pit
TT	Trial Trench
WS	Windowless Sample / Window Sample
WSV	Water Screening Value

1. INTRODUCTION

1.1 BACKGROUND AND INSTRUCTION

GeoEnviro Solutions Limited (GES) was instructed by the National Trust (the Client) to produce a Phase I: Desktop Study and Preliminary Risk Assessment Report for the site located at Commemorative Woodland, Errdig, Hafod Road, Wrexham, LL14 6ET.

A site location plan is presented as Drawing No. GES 3031-22/01 in **Appendix 1**.

This report is written in accordance with the guidance set out in Land Contamination Risk Management (LCRM), Guiding Principles for Land Contamination (GPLC) 1 – 3, and the National Planning Policy Framework (NPPF).

1.2 PROPOSED DEVELOPMENT

It is currently proposed to develop a new National Trust Park at the site.

A proposed site plan, as provided to GES, referenced P03 Rev. C and dated 8th July 2022 is provided within **Appendix 1**.

This proposed development plan has been utilized in the preparation of this risk assessment, based on a 'Public Open Space - Park' end-use, if an alternative development is subsequently proposed this assessment may need revising and should not be relied upon in its present outcome.

1.3 OBJECTIVES

The objectives of this Phase I report are to:

- To gain an understanding of any concerns of the regulatory authorities (Local Authority Planning, Building Control and Environmental Health departments and the Environment Agency) regarding local land filling, flooding, mining, quarrying and other concerns.
- Establish the environmental setting, including sensitivity in relation to human health, surface water, groundwater, and ecological receptors.
- Review historical and recent uses to assess the potential for contamination to be present from past and current land-use.
- Assess by qualitative means the potential nature and extent of contamination from those uses and the environmental risk and liabilities which may affect the site redevelopment.
- Identify the prevalent source-pathway-receptor linkages present on site by means of a Tier 1 contamination risk assessment which incorporates the formulation of a Conceptual Site Model.

1.4 INFORMATION SOURCES

During the production of this report the following primary information sources have been utilised:

- Envirocheck Report (Landmark Information Group).
- Historical Ordnance Survey mapping at scales ranging from 1:1,250 to 1:10,560, obtained from Landmark.
- BGS Open Geoscience online geological mapping tool.
- OS Open Data online mapping tool.
- Coal Authority Online interactive map.
- Coal Mining Report.

1.5 PREVIOUS INVESTIGATIONS

GES have not been provided with any previous environmental and/or geotechnical investigation reports and are unaware that any have been carried out to date.

2. SITE LOCATION AND DESCRIPTION

2.1 SITE LOCATION

The site is located at Commemorative Woodland, Errdig, Hafod Road, Wrexham, LL14 6ET, at approximate National Grid Reference (NGR): 331340, 346280 (centre of the site).

2.2 SITE DESCRIPTION

A site walkover was carried out on the 8th December 2022 and is summarised below.

The site is accessed via Hafod Road, slopes gently from northwest to southeast and has an area of approximately 9.15 hectares.

The site currently comprises a number of fields, covered with grasses and shrubs; the fields are split by hedgerows and a number of mature trees.

Two manholes were noted in the centre of the east of the site, which are considered likely associated with an on-site underground gas pipe.

An ephemeral pond is present in the south of the site, along with a water trough, which is understood to have previously been used for cattle.

An approximate distribution of the surface covering is given below in Table 2.1.

Table 2.1: Site Surface Covering

Type of Surface Cover	Distribution (%)
Soft Ground (grassed and landscaped areas)	95
Hardstanding	0
Roadways	0
Buildings	0
Water (ponds, streams)	5

The site is bounded by Hafod Lane to the west, horse paddocks to the north, the A438 to the east and sporadic trees and a single lane track to the south.

A selection of photographs from the site walkover are presented in [Appendix 2](#).

Surrounding Area

The current surrounding land use to the site comprises undeveloped land to the north, east and south of the site, with an industrial works to the west of the site.

The topography of the surrounding area is gently slopes to the southeast.

3. ENVIRONMENTAL AND GEOLOGICAL SETTING

Information on the environmental and geological setting of the site is presented in a Landmark Envirocheck Report prepared for the site; a copy of this report is presented in [Appendix 3](#).

3.1 SITE GEOLOGY

The site geology has been assessed by reference to information from British Geological Survey (BGS) mapping. Information referenced in this report has been predominantly limited to that identified within 50m of the site (underlying geology) or 250m of the site (structural features, borehole records), in order to focus on the information directly relevant to the site. Information from outside these radii will be referenced when deemed relevant.

Artificial / Made Ground

There are no records of artificial deposits underlying the site.

Made Ground (Undivided) is recorded to the immediate northwest of the site beyond Hafod Road, 30 m southeast of the site and 90 m southwest of the site.

Superficial Ground and Drift Deposits

The superficial ground deposits underlying the site are recorded to comprise Till, which is generally described as '*a generally over consolidated, unsorted and unstratified, heterogenous mixture of clay, sand, gravel, and boulders*' (BGS Lexicon Description).

Bedrock Geology

Underlying the superficial drift deposits is bedrock comprised of the Etruria Formation, which is generally described as '*red, purple, brown, ochreous, green, grey and commonly mottled mudstone, with lenticular sandstones and conglomerates*' (BGS Lexicon Description).

Linear Features

There are no records of linear features directly under the site.

Natural Ground Subsidence

The following hazard ratings applicable to the site and land within 50 m are presented in the Enviro + Geo Insight Report:

- | | |
|--|-------------|
| • Shrink / swell clays: | Very low. |
| • Running sands: | Very low. |
| • Compressible deposits: | Very low. |
| • Collapsible deposits: | Very low. |
| • Landslides: | Very low. |
| • Ground dissolution of soluble rocks: | Negligible. |

3.2 BOREHOLE RECORDS

A historic BGS borehole is recorded in the east of the site, ref. SJ34NW316, which recorded topsoil from ground surface to 0.30 mbgl, overlying a stiff red brown silty clay, with a trace of gravel and local pockets of sand to the end of the borehole at 5.00 mbgl.

A historic BGS borehole is recorded 7 m southeast of the site, ref. SJ34NW283, which recorded:

- Topsoil from ground level to 0.40 mbgl,
- Stiff red brown silty clay, with a trace of gravel and local pockets of sand to 4.00 mbgl.
- Grey silty sand and gravel with clay bands to 7.50 mbgl.
- Stiff red brown silty clay, with a trace of gravel and local pockets of sand to 11.80 mbgl.
- Light brown slightly silty sand to 13.90 mbgl.
- Stiff to very stiff dark reddish brown slightly silty clay with weak lithorelicts to 20.00 mbgl
- Weak thinly laminated highly weathered mudstone to the end of the borehole at 31.50 mbgl.

There are two other historic BGS boreholes within 50 m of the site (SJ34NW282 and JW32NW317, located 29 m northeast and 31 m southeast respectively).

3.3 HYDROGEOLOGY

These records are derived by Landmark from Environment Agency and British Geological Survey data. Details of the source and coverage of specific records are provided in the Envirocheck Report. Information from these sources referenced in this report have been predominantly limited to those identified within 250 m of the site (or 1000 m of the site for abstractions), in order to focus on the information directly relevant to the site. Information from outside these radii will be referenced when deemed relevant.

The Environment Agency aquifer designations used within the following sections are summarised in Table 3.1, below.

Table 3.1: Aquifer Designations

Definition	Description
Principal Aquifer	Layers with high intergranular and/or secondary permeability capable of supporting water supplies at strategic scale, and in some cases forming an important source of base flow to rivers. These are generally aquifers formerly classified as Major Aquifers.
Secondary (A) Aquifer	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.
Secondary (B) Aquifer	Predominantly lower permeability layers which may store/yield limited amounts of groundwater due to localised features such as fissures, thin permeable horizons and weathering. These are generally the water bearing parts of former non-Aquifers.
Secondary Undifferentiated Aquifer	Layers that cannot be attributed to a category A or B rock type. These layers could have previously been described as a minor or a non-aquifer due to their variable characteristics.
Unproductive strata	Rock layers or drift deposits with low permeability that have negligible significance for water supply or river base flow.

Aquifer within Superficial Deposits

The superficial geology underlying the site is classified as a Secondary Undifferentiated Aquifer.

Aquifer within Bedrock Geology

The bedrock geology underlying the site is classified as a Secondary (A) Aquifer.

Groundwater Vulnerability

The site is recorded to be located within an area where the EA considers the groundwater to have a low vulnerability to mobile pollutants, as summarised in Table 3.2 below / overleaf.

Table 3.2: Groundwater Vulnerability Definitions

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

Groundwater Abstraction Licences

There are no licensed ground water abstractions within 500 m of site.

Potable Water Abstraction Licences

There are no potable abstractions within 500 m of site.

Source Protection Zones

There is no Source Protection Zone within 500 m of site.

3.4 HYDROLOGY

These records are derived by Groundsure from Environment Agency and British Geological Survey data. Details of the source and coverage of specific records are provided in the Enviro + Geo Insight Report. Information from these sources referenced in this report have been predominantly limited to that identified within 250 m of the site (aquifers, surface water) or 1000 m of the site (abstractions), in order to focus on the information directly relevant to the site. Information from outside these radii will be referenced when deemed relevant.

Ordnance Survey Water Network

There are 20 entries in the Ordnance Survey Water Network register within 250 m of the site, the closest of which is located 17 m southeast of the site.

Surface Water Features

A surface water feature is recorded on-site, relating to the pond in the south of the site.

Surface Water Abstraction Licences

There are no licensed surface water abstractions within 250 m of site.

3.5 ENVIRONMENTALLY SENSITIVE AREAS

A Site of Special Scientific Interest and a Special Area of Conservation is located 8 m northwest of the site, relating to Syryt Las Ar Hafod and Johnstown Newt Sites respectively.

4. PAST LAND USE AND POTENTIAL CONTAMINANT SOURCES

Information on past land use and potential contaminant sources is presented in a Landmark Envirocheck Report prepared for the site; a copy of which is reproduced in [Appendix 3](#).

4.1 LAND USE RECORDS

These records are derived by Landmark from historical mapping and each record corresponds to a particular map revision date. Thus, several records may refer to the same feature where it is present over time. Differences in distances quoted from the study site may be due to expansion of the feature over time or geolocation errors.

Information from these sources referenced in this report have been predominantly limited to that identified within 250 m of the site, in order to focus on the information directly relevant to the site. Information from outside this radius will be referenced when deemed relevant.

Contemporary Trade Directory Entries

There are seven Contemporary Trade Directory Entries within 250 m of the site, the closest of which relates to an inactive Scrap Metal Merchants, located 6 m west of the site.

The closest active entry relates to a Road Haulage Service, located 8 m south of the site.

Points of Interest – Commercial Services

There are two records within 250 m of the site, the closest two records are located 57 m northwest of the site, both of which relate to Enviroclear Site Services Ltd, which is categorised as a Transport, Storage and Delivery company.

Points of Interest – Education and Health

There are no records within 250 m of the site.

Points of Interest – Manufacturing and Production

There are two records within 250 m of the site, the closest of which is located 98 m southwest of the site, relating to an unnamed works, categorised as an industrial feature.

Points of Interest – Public Infrastructure

There are two records within 250 m of the site, the closest of which is located 154 m southwest of the site, with relates to a tip, classed as a refuse disposal facility.

Points of Interest – Recreational and Environmental

There are no records within 250 m of the site.

Tanks

There are no records of within 250 m of the site.

Fuel Station Entries

There are no records of within 250 m of the site.

Electricity Cables

There are no records of high voltage (HV) underground electricity cables within 500 m.

Gas Pipelines

There are no records of medium- or high-pressure underground gas or oil supply pipelines within 500 m of the site.

However, the proposed site plan for the site shows a gas main running along the western boundary of the site.

4.2 ENVIRONMENTAL PERMITS, INCIDENTS AND REGISTERS

These records are derived by Landmark from local authority, Health and Safety Executive and Environment Agency data. Details of the source and coverage of specific records are provided in the Envirocheck Report. Information from these sources referenced in this report have been predominantly limited to that identified within 250 m of the site, in order to focus on the information directly relevant to the site. Information from outside this radius will be referenced when deemed relevant.

Notification of Installations Handling Hazardous Substances (NIHHS)

There is one record within 250 m of the site, the record is located 26 m southwest of the site and relates to Hafod Tileries, which is not active.

Control of Major Accident Hazards (COMAH)

There is one record within 250 m of the site, the record is located 26 m southwest of the site and relates to Hafod Tileries, which is active and classified as lower tier.

Planning Hazardous Substance Enforcements

There are no records within 250 m of the site.

Planning Hazardous Substance Consents

There is one record within 250 m of the site, the record is located 26 m southwest of the site and relates to Hafod Tileries, the hazardous status of the site was unknown at the time of report.

Explosive Sites

There are no records within 250 m of the site.

Pollution Incidents to Controlled Waters

There are three records within 250 m of the site, the closest of which is located 72 m north of the site, relating to oils (diesel) being released on the 5th June 1996 at the Old Colliery Bathhouse, the severity of which was classified as category 3 – minor incident.

Prosecutions Relating to Authorised Processes

There is one record within 250 m of the site, which is located 4 m southwest of the site, located at Hafod Yard, relating to “keeping scrap metal and dismantled cars on a site not benefitting from a waste management licence” dated 9th December 2002.

Registered Radioactive Substances

There are no records within 250 m of the site

Discharge Consents

There are five records within 250 m of the site, four of the records are located 55 m southwest of the site, relating to Enviroclear Site Services Ltd, discharging trade discharges (site drainage) into the groundwater via an infiltration system, the status of which is recorded to be effective.

Prosecutions Relating to Controlled Waters

There are no records within 250 m of the site.

Enforcement and Prohibition Notices

There are no records within 250 m of the site.

Integrated Pollution Controls

There are no records within 250 m of the site.

Integrated Pollution Prevention and Control

There is one record within 250 m of the site, located 148 m southwest of the site, relating to Hafod Quarry Landfill, the activity description is waste landfilling, with greater than 10 t/d, with a capacity greater than 25,000 t, excluding inert waste.

Local Authority Integrated Pollution Prevention and Control

There are no records within 250 m of the site.

Local Authority Pollution Prevention and Controls

There are two records within 250 m of the site, the closest of which is located 26 m southwest of the site, relating to Hafod Tileries, where the authorisation has been revoked for the manufacture of heavy clay goods and refractory goods.

Local Authority Pollution Prevention and Control Enforcements

There are no records within 250 m of the site.

4.3 WASTE AND LANDFILL

These records are derived by Groundsure from Environment Agency, British Geological Survey, Ordnance Survey (interpreted by Groundsure) and local authority data. Details of the source and coverage of specific records are provided in the Enviro + Geo Insight Report.

Information from these sources referenced in this report have been predominantly limited to that identified within 500 m of the site (landfills) or 250 m of the site (non-landfill waste operations), in order to focus on the information directly relevant to the site. Information from outside these radii will be referenced when deemed relevant.

BGS Recorded Landfill Sites

There are no records within 500 m of the site.

Historic Landfill Sites

There is one record within 500 m of the site, which is located 344 m southwest of the site, which relates to Hafod Quarry, with the licence held by Sita UK. No other information is provided.

Integrated Pollution Control Registered Waste Sites

There are no records within 500 m of the site.

Licensed Waste Management Facilities

There are seven records within 500 m of the site, the closest of which is located 54 m northwest of the site and relates to an expired licence for F B Skips Ltd, who which was classified as a household, commercial and industrial transfer station.

Potentially Infilled Land (Non-Water)

There is one on-site record and one record within 500 m of the site. The offsite record is located 3 m northwest of the site. Both records relate to unknown filled ground (pit, quarry etc), mapped in 1993.

Registered Landfill Sites

There is one record within 500 m of the site, located 394 m east of the site at Sontley Farm. The licence is recorded to be lapsed / cancelled / defunct / not applicable / surrendered / cancelled, and to have had a medium input rate (greater than 25,000 t and less than 75,000 t per year) and no known restriction on source of waste.

Registered Waste Transfer Sites

There is one record within 500 m of the site, located 120 m northwest of the site, relating to Haydn Roberts Skip Hire, which is recorded to be operational as far as know and have no known restriction on the source of waste. The max input rate is recorded to be small (greater than 10,000 t and less than 25,000 t per year).

Registered Waste Treatment or Disposal Sites

There is one record within 500 m of the site, located 72 m east of the site at Old A.R.C Brickworks. The licence is recorded to be lapsed / cancelled / defunct / not applicable / surrendered / cancelled, the max input rate is recorded to be very small (less than 10,000 t per year).

4.4 MINING, GROUND WORKINGS AND NATURAL CAVITIES

These records are derived by from British Geological Survey, Ordnance Survey (interpreted by Groundsure), Coal Authority, Peter Brett Associates, Johnson Poole and Bloomer, Cheshire Brine Subsidence Compensation Board, British Gypsum, Mining Searches UK, Kaolin and Ball Clay Association and local authority data. Details of the source and coverage of specific records are provided in the Enviro + Geo Insight Report.

Information from these sources referenced in this report have been predominantly limited to that identified within 250 m of the site, in order to focus on the information directly relevant to the site. Information from outside these radii will be referenced when deemed relevant.

Natural Cavities

There are no records within 250 m of the site.

Man-Made Mining Cavities

There are no records within 250 m of the site.

Mining Instability

The site is recorded to have inconclusive evidence of coal mining.

Cheshire Brine Compensation District

There are no records within 250 m of the site.

BGS Recorded Mineral Site

There is one record within 250 m of the site, located 134 m northwest of the site, related to Hafod-Y-Bwch Colliery, which is recorded as a ceased, underground mine, for coal.

Coal Mining

There site is recorded to be within a Coal Mining Affected Area.

Probable Shallow Coal Mine Workings

There are no records within 250 m of the site.

Past Shallow Coal Mine Workings

There are no records within 250 m of the site.

Past Underground Coal Mining

The site is recorded to be in a surface area, which could be affected by underground mining in 10 seams of coal at depths of between 370 and 640 m depth, last worked in 1968.

Present Underground Coal Mining

The site is not in a surface area which could be affected by present underground mining.

Past Underground Coal Mining

There are no records within 250 m of the site.

Past Opencast Coal Mining

The site is not within the boundary of an opencast site from which coal has been removed.

Past Opencast Coal Mining

There are no records within 200 m of the site.

Mine Entries

There are no records within 20 m of the site.

Coal Mining Subsidence

The CA has not received a damage notice or claim for the site or any property within 50 m of the site since 31st October 1994.

Mine Entries

There are no records within 250 m of the site.

Mine Gas

The CA has no record of mine gas emissions requiring action.

Withdrawal of Support

The site is not in an area where a notice to withdraw support has been given.

Outcrops

There are no records within 250 m of the site.

Non-Coal Mining

The site is recorded to have a rare risk.

4.5 RADON

These records are derived by Groundsure from British Geological Survey and Public Health England data. Details of the source and coverage of specific records are provided in the Enviro + Geo Insight Report. Information from these sources referenced in this report have been predominantly limited to that identified on or within 50 m of the site.

The study site is not located within a Radon Affected Area, as less than 1% of properties are above the Radon Action Level. No radon protection measures are required.

4.6 BACKGROUND SOIL CHEMISTRY

Values estimated by BGS for background concentrations of six potentially harmful elements are provided as follows:

- Arsenic: <15 mg/kg.
- Lead: <100 mg/kg.
- Cadmium: <1.8 mg/kg.
- Chromium: 60-90 mg/kg.
- Nickel: 15-30 mg/kg.

These values are not considered to be elevated with respect to guideline values for a 'Public Open Space – Park' end-use.

5. HISTORICAL MAPPING STUDY

5.1 HISTORICAL MAPPING

The object of this search was to report on the evidence of site history and redevelopment of the site and its environs from available County Series and Ordnance Survey Maps at scales ranging from 1:2,500 to 1:10,560 dating from 1874 to the present day.

Information in the historical mapping study has been predominantly limited to that identified on the site or within 100m of the site, in order to focus on the information directly relevant to the site. Information from outside this radius will be referenced when deemed relevant.

Each map only represents a “snap-shot” of the site and its environs at the date of the survey. Changes that had occurred at other times may not have been recorded on the maps and could represent an unidentified hazard to the site.

The information reported might not represent all pertinent information that could be obtained. The interpretation of the maps and/or other data commented on in this report is subjective.

The Historical Ordnance Survey Maps were obtained from Landmark and are available for review within [Appendix 4](#) and are summarised in Table 5.1 below.

Table 5.1: Historical Mapping Review

Date	Scale	On-Site	Offsite
1874	1:2,500	The site is shown as undeveloped land, split into several fields.	Hafod House is shown to the immediate south of the site. A clay pit and infrastructures associated with Hafod-y-bwch Colliery is shown from approximately 40 m northwest of the site. No shafts are shown The remainder of the surrounding area generally comprises undeveloped land. A pond is shown on the northern boundary of the site, with other ponds shown in the surrounding area.
1879	1:10,560	No significant changes noted from pervious map.	No significant changes noted from pervious map.
1899	1:2,500	No significant changes noted from pervious map.	A reservoir and earthworks associated with Hafod-y-bwch Colliery is shown to the immediate northwest of the site. Hafod Red Brick Works and associated earthworks are shown to the immediate west of the site.
1900	1:10,560	No significant changes noted from pervious map.	No significant changes noted from pervious map.
1912	1:2,500	No significant changes noted from pervious map.	No significant changes noted from pervious map.
1914-1915	1:10,560	No significant changes noted from pervious map.	No significant changes noted from pervious map.
1938	1:10,560	No significant changes noted from pervious map.	A series of buildings are shown approximately 20 m northwest of the site within the boundary of Hafod-y-bwch Colliery.
1961-1962	1:2,500	No significant changes noted from pervious map.	No significant changes noted from pervious map.

Date	Scale	On-Site	Offsite
1963-1968	1:10,000	No significant changes noted from previous map.	No significant changes noted from previous map.
1968-1974	1:2,500	No significant changes noted from previous map.	No significant changes noted from previous map.
1976-1979	1:10,000	No significant changes noted from previous map.	Hafod-y-bwch Colliery is no longer shown to the northwest of the site. Two buildings are shown from 40 m northwest of the site.
1978-1989	1:2,500	No significant changes noted from previous map.	The brick works are now labelled as tile works. The buildings to the northwest of the site are labelled "factory". An electrical sub-station is shown approximately 40 m northwest of the site, associated with the factory. A tank is shown approximately 80 m northwest of the site, associated with the factory. A works with a conveyor and hopper are shown approximately 50 m northwest of the site. Two electrical sub-stations are shown approximately 50 and 70 m west of the site, associated with the Tile Works.
1982	1:2,500	No significant changes noted from previous map.	No significant changes noted from previous map.
1992	1:2,500	Earthworks are shown in the southeast of the site, associated with an overpass over the new road to the east of the site.	A road is shown to the immediate east of the site, running along the eastern boundary of the site.
1993-1995	1:10,000	No significant changes noted from previous map.	No significant changes noted from previous map.
2000	1:10,000	No significant changes noted from previous map.	The factory and associated features to the northwest of the site are no longer shown.
2006	1:10,000	No significant changes noted from previous map.	No significant changes noted from previous map.
2022	1:10,000	A pond is shown in the south centre of the site.	No significant changes noted from previous map.

5.2 SUMMARY

The site has generally comprised undeveloped land since the earliest historical maps. An earthworks feature has been present in the southeast of the site since at least 1992, associated with the road to the east of the site and a pond was shown in the south centre of the site from 2022.

6. FRAMEWORK FOR ASSESSMENT OF CONTAMINATION

Environmental risks are assessed within the risk management framework established in Part IIA of the Environmental Protection Act (EPA) 1990 introduced by Section 57 of the Environment Act 1995 which provides a statutory definition of contaminated land. To fall within this definition it is necessary that, as a result of the condition of the land, substances may be present on or under the land such that:

(a) Significant harm is being caused or there is a significant possibility of such harm being caused.

or

(b) Pollution of controlled water is being, or is likely to be, caused.

Risk from contamination is assessed by consideration of possible linkages between contaminant sources and potential receptors which could be harmed or polluted.

The key aspect of the framework is the development of a Conceptual Site Model (CSM) which illustrates the spatial interaction between the potential sources and receptors on site.

The information presented in this report was collated and evaluated to develop an initial CSM to assess ground contamination issues at the site.

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

- A source, i.e., a substance that is capable of causing pollution or harm.
- A receptor, i.e., something which could be adversely affected by the contaminant.
- A pathway, i.e., a route by which the contaminant can reach the receptor.

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

Potential sources, pathways and receptors are identified in the sections below and the risks associated with possible pollutant linkages outlined.

6.1 SOURCES

On-Site Sources

The following possible on-site sources have been identified from the historical study and Envirocheck Report:

- Historical made ground.

The following contaminants are potentially associated with the on-site sources:

- Heavy Metals and Metalloids
- Inorganics
- PAH
- TPH
- VOCs and SVOCs

- Asbestos
- Hazardous Ground Gases.

Offsite Sources

The following off site sources have been identified from the historical study and Envirocheck Report:

- Pre-1981 electrical sub-stations within 100 m of the site.
- Former colliery.
- Former brick / tile works.

There are further entries present, but these are considered far enough from the site to pose no risk.

The following contaminants are potentially associated with the offsite sources.

- Heavy Metals and Metalloids
- Inorganics
- PAH
- TPH
- VOCs and SVOCs
- Hazardous Ground Gases.

6.2 PATHWAYS

For contaminants to reach potential receptors, there must be a viable **pathway** for the contaminant. Potential pathways that may affect the migration of contaminants are listed in Table 6.1, below.

Table 6.1: Pathways

Pathway	Medium	Properties
Direct Contact	Dust, solid and liquid phase	There may be direct contact with potentially impacted soil and Made Ground across the site. There is a possibility of dust fumes being produced during earthworks in the construction phase. Dermal contact and ingestion of potentially contaminated soils during construction or operational phase of the site.
Leaching through Made Ground	Unsaturated flow	Potential for leaching and migration of potential contaminants along preferential flow paths in the ground.
Migration of Ground Gas	Gaseous flow	Migration through granular material within superficial deposits is possible.

6.3 RECEPTORS

The site-specific **receptors** that could be potentially affected by the contamination hazards identified during this preliminary appraisal are summarised in Table 6.2, below.

Table 6.2: Receptors

Category	Receptor	Properties
Humans	End users (visitors)	Potential contact with contaminated soils is likely limited given the 'Public Open Space – Park' end use planned. No buildings are currently proposed to be constructed on-site.
	Construction workers	Limited construction activities, likely relating to new pathways and tree planting activities are planned at the site.
Controlled Waters	Underlying superficial / bedrock Aquifer	The site is recorded as having a Secondary (A) Aquifer within the bedrock and a Secondary Undifferentiated Aquifer within the superficial deposits underlying the site.
Plant (species and uptake) and Wildlife	Various	Attributes will be influenced by factors such as relative quality, scale, rarity and substitutability; however, it is understood that the site is proposed to be hard surfaced.

7. QUALITATIVE RISK ASSESSMENT

Potential pollutant linkages are identified using the source-pathway-receptor framework detailed above. An assessment of the potential significance of each linkage is then made by consideration of the likely magnitude and mobility of the source, the sensitivity of the receptor and nature of the migration/exposure pathways.

This qualitative risk assessment has been undertaken in accordance with Annex 4 of the National House Building Council/Environment Agency/Chartered Institute of Environmental Health R&D publication 66, Guidance for the Safe Development of Housing on Land Affected by Contamination (NHBC/EA/CIEH, 2008) which updates and supersedes CIRIA C552: Contaminated Land Risk Assessment, A Guide to Good Practice (Rudland et al., 2001).

A summary of the risk assessment protocols, and subsequent risk assessment matrix is provided in **Appendix 5**.

An assessment of the likelihood of the risk being realised and the magnitude of potential risk is presented below to give an estimation of the significance of each potential pollutant linkage identified. Where it is considered that there is no credible linkage, this is indicated in the table. In accordance with the R&D66 guidance, if there is no pollution linkage then there is no need to apply tests for probability and consequence.

The assessment is undertaken based on the current proposals for the site, at the time of issuing this report, which would be classed as a generic end land use of 'Public Open Space – Park'. Any change in the development proposals for the site involving a change in end use class may result in a requirement for this assessment to be revised.

8. PRELIMINARY CONCEPTUAL SITE MODEL

Contaminant Source	Pathways	Receptor	Pollutant Linkage	Classification of Probability	Classification of Consequence	Level of Risk	Justification
On Site: Made Ground soils on site possibly containing elevated metals, other organics such as TPH, PAH and phenols.	Ingestion, dermal contact, inhalation of dusts/vapours	Future end users and site visitors	Considered potentially active	Unlikely	Mild	Very Low ●	Limited Made Ground is recorded in the southeast of the stie. The proposed site plan shows the southeast of the site to be planted with trees, reducing the likelihood of access to the area. Given the Made Ground appears to be associated with the construction of the highway, chemical testing should have been undertaken to confirm suitability for use.
		Construction Workers	Considered potentially active	Unlikely	Mild	Very Low ●	Limited Made Ground is recorded in the southeast of the stie. Given the Made Ground appears to be associated with the construction of the highway, chemical testing should have been undertaken to confirm suitability for use.
	Leaching through soils and migration via groundwater or soil pore moisture	Controlled Waters	Considered potentially active	Unlikely	Mild	Very Low ●	Given the Made Ground appears to be associated with the construction of the highway, chemical testing should have been undertaken to confirm suitability for use.
	Uptake	Plant and Wildlife	Considered potentially active	Unlikely	Mild	Very Low ●	Limited Made Ground is recorded in the southeast of the stie. No evidence of stress observed.

Contaminant Source	Pathways	Receptor	Pollutant Linkage	Classification of Probability	Classification of Consequence	Level of Risk	Justification
On Site: Asbestos at/near ground surface in Made Ground soils.	Inhalation of fibres in airborne dust	Future end users and site visitors	Considered potentially active	Unlikely	Mild	Very Low ●	Given the Made Ground appears to be associated with the construction of the highway, chemical testing should have been undertaken to confirm suitability for use.
		Construction Workers	Considered potentially active	Unlikely	Mild	Very Low ●	Given the Made Ground appears to be associated with the construction of the highway, chemical testing should have been undertaken to confirm suitability for use.
On Site: Ground Gases (CH ₄ , CO ₂ , CO, H ₂ S) from on-site Made Ground.	Gas migration and build up within buildings (explosion/asphyxiation risk)	Future end users.	Considered inactive	-	-	Very Low ●	The Made Ground in the southeast of the site has been placed at ground level. No buildings are proposed to be developed on-site, so no receptor has been identified.
Offsite: Historical land uses Made Ground material possibly containing elevated metals, inorganics, TPH, PAH, PCBs, phenols.	Leaching through soils and migration via groundwater or soil pore moisture	Site visitors	Considered potentially active	Unlikely	Mild	Very Low ●	Site visitors will not be undertaking excavations within the on-site soils. The duration of site visits will be low, resulting in low exposures.
	Ingestion, dermal contact, inhalation of dusts/vapours	Site visitors	Considered potentially active	Unlikely	Mild	Very Low ●	Site visitors will not be undertaking excavations within the on-site soils. The duration of site visits will be low, resulting in low exposures.
Offsite: Ground Gases (CH ₄ , CO ₂ , CO, H ₂ S) from off-site historical coal mining activities	Gas migration and build up within buildings (explosion/asphyxiation risk)	Site visitors	Considered inactive	-	-	Very Low ●	No faults are recorded to underlie the site and the coal mining is recorded to have been undertaken from a depth of 370 mbgl. No buildings are proposed to be developed on-site, so no receptor has been identified.

9. RECOMMENDATIONS

9.1 PROPOSED SITE INVESTIGATION

Based on the information obtained for the formation of this report, we would recommend that no further action is required based on the CSM with respect to the environmental condition of the site.

9.2 CONSULTEES

It is highly recommended that this report be forwarded to the relevant Local Authority Environmental Health and Planning Departments to seek their comments and subsequent approval, otherwise further works may be required.

9.3 FLOOD RISK ASSESSMENT

This report does not replace a full hydrogeological survey and specialist studies may need to be undertaken to ascertain the risks posed from flooding. Further details on site flood information can be found within the appendices.

9.4 COAL MINING RISK ASSESSMENT

Although a Coal Mining Report from the Coal Authority has been included with this report and has been commented on, this report does not constitute a full Coal Mining Risk Assessment (CMRA). If the impacts of historical coal mining are considered relevant a separate CMRA should be commissioned.

9.5 INVASIVE PLANT SURVEY

The site reconnaissance visit undertaken herein, whilst reference to the possible presence of invasive plants such as Japanese Knotweed has not been made, this report should not be considered an Invasive Plant Survey and any concerns relating to the possible presence of such plants should be undertaken by an appropriately qualified surveyor.

10. RELIANCE AND LIMITATIONS

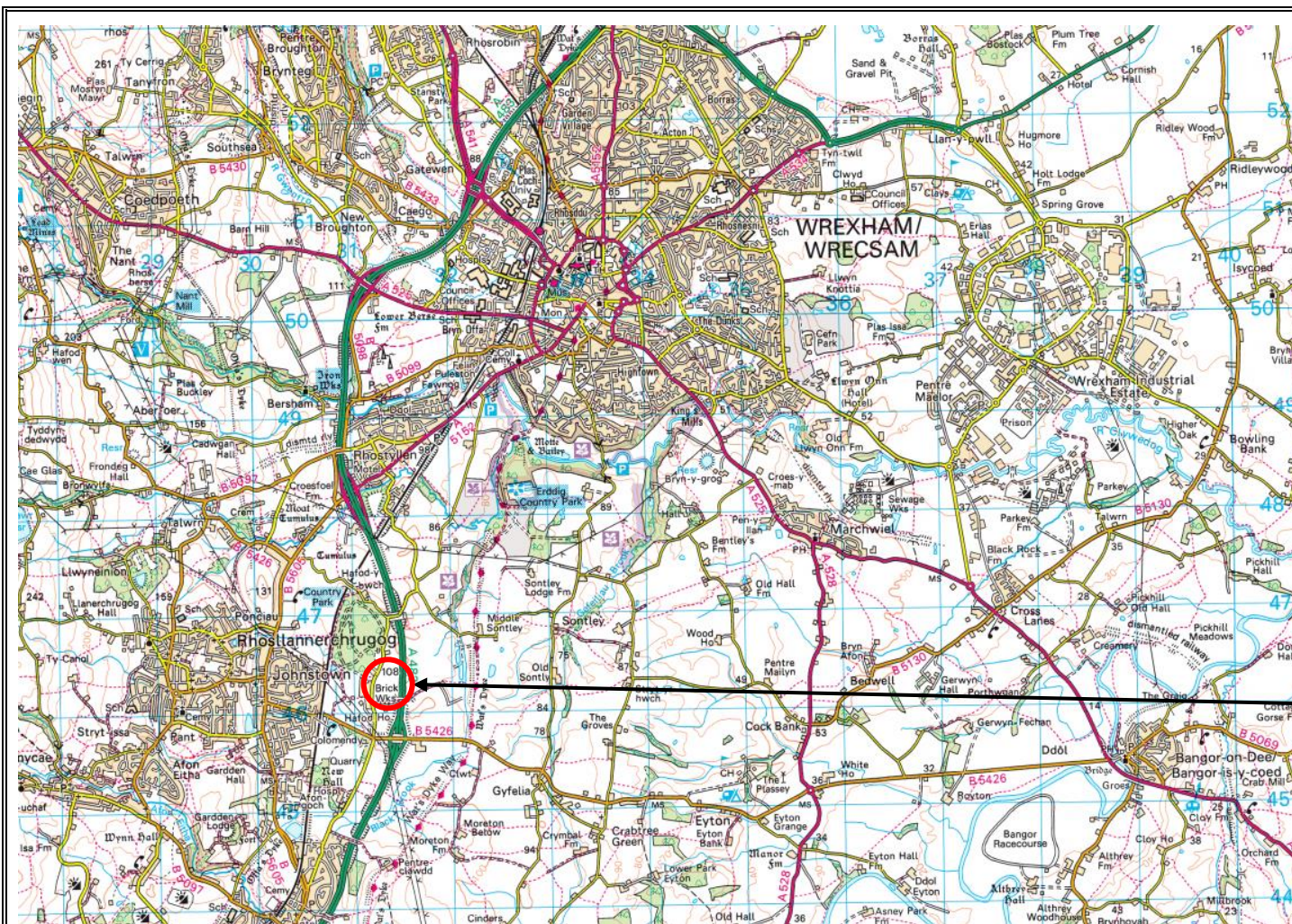
This report has been prepared by GES with all reasonable skill, care and diligence. The work undertaken to provide the basis of this report comprised a study of available documented information from a variety of sources, together with a site walkover inspection of the site.

The opinions given in this report have been dictated by the finite data on which are they based and are relevant only to the purpose for which the report was commissioned.

Information reviewed should not be considered exhaustive and accepted in good faith as providing true and representative data with respect to site conditions. Should additional information become available which may influence the opinion expressed in this report, GES reserves the right to review such information and, if warranted, to alter the opinions accordingly.

It should be noted that any risks identified in this report are perceived risks based on the information reviewed; actual risks can only be assessed following a physical investigation of the site. This is an environmental Phase 1 report and does not consider the geotechnical implications for the site, its redevelopment and proposed future use. Further advice should be sought on geotechnical investigation requirements for the proposed development.

APPENDIX 1
DRAWINGS AND PLANS



General
Site
Location



GeoEnviro Solutions Ltd
Unit 7 Springvale Works
Brighouse
West Yorkshire
HD6 2RA
Tel: 01484 986010
Email: info@geoenvirosolutions.com
Web: www.geoenvirosolutions.com



PROJECT NAME	Commemorative Woodland, Errdig, Hafod Road, Wrexham
PROJECT NUMBER	3031-22
TITLE	Site Location Plan

DRAWING NO.
3031-22/01

SCALE
N.T.S

DATE
December 2022

DRAWN BY
RC

Sketch proposals are for illustrative purposes only and as such are subject to detailed investigation including ground conditions/contaminants and drainage. Sketch proposals may be based upon enlargements of OS sheets and visual estimates of existing site features, accuracy will therefore need to be verified by survey

This drawing is the copyright of the National Trust and may not be reproduced except by written permission

Rev	Date	Notes
A	04/11/2022	Active Trail Added
B	04/11/2022	Boardwalks removed, path reworked
C	04/11/2022	



Zoning Map
refer to concept design document

- Entrance
- Activities/Picnic
- Contemplation
- Community
- Explore
- For Nature
- Ridge and Furrow Meadow

Legend

- Proposed Woodland Planting (indicative tree locations)
- Proposed hedgerow
- Existing hedgerow
- Grassland (various lengths)
- Underplanting/shrubs
- Wetland/reedbed creation approx 4000m²
- Perennial meadow creation approx 3200m²
- Seasonal Pond
- Potential ephemeral pond location
- Accessible path 1.8m wide - approx 2450m²/1.2km
- Boardwalk/decking 2.5m wide - approx 0m²/0 linear m
- Indicative desire line
- Glade feature (design to be developed)
- Bench/Resting point (distributed approx 50m apart)



National Trust

Placemaking & Design
Heelis, Kemble Drive, Swindon, Wiltshire, SN2 2NA
www.nationaltrust.org.uk

PROPERTY/PROJECT
Commemorative Woodland, Erddig
Hafof Road, Wrexham, LL14 6ET
STATUS
CONCEPT DESIGN
DRAWING TITLE
PROPOSED Site Plan

DRAWN BY
EPH
SCALE
1:750 @A1
DRAWING No.
P03

DATE
08/07/2022
CHECKED BY
-
REV.
C

APPENDIX 2
SITE PHOTOGRAPHS

Site: Commemorative Woodland, Errdig, Hafod Road

Client: National Trust

Job Reference: 3031-22, Dated: December 2022



A.



B.



C.



D.



A. Photograph of field north of the site.

B. Photograph of field north of the site.

C. Photograph of field north of the site.

D. Photograph of field north of the site.

Site: Commemorative Woodland, Errdig, Hafod Road

Client: National Trust

Job Reference: 3031-22, Dated: December 2022



E.



F.



E. Photograph of the field south of the site.

F. Photograph of the water tank on site.

G.



H.



G. Photograph of ephemeral pond

H. Photograph of ephemeral pond



I.



J.



- I. Photograph of manhole
- J. Photograph of gas pipe maker in centre west edge of the site
- K. Photograph of gas pipe maker at south of the site.
- L.

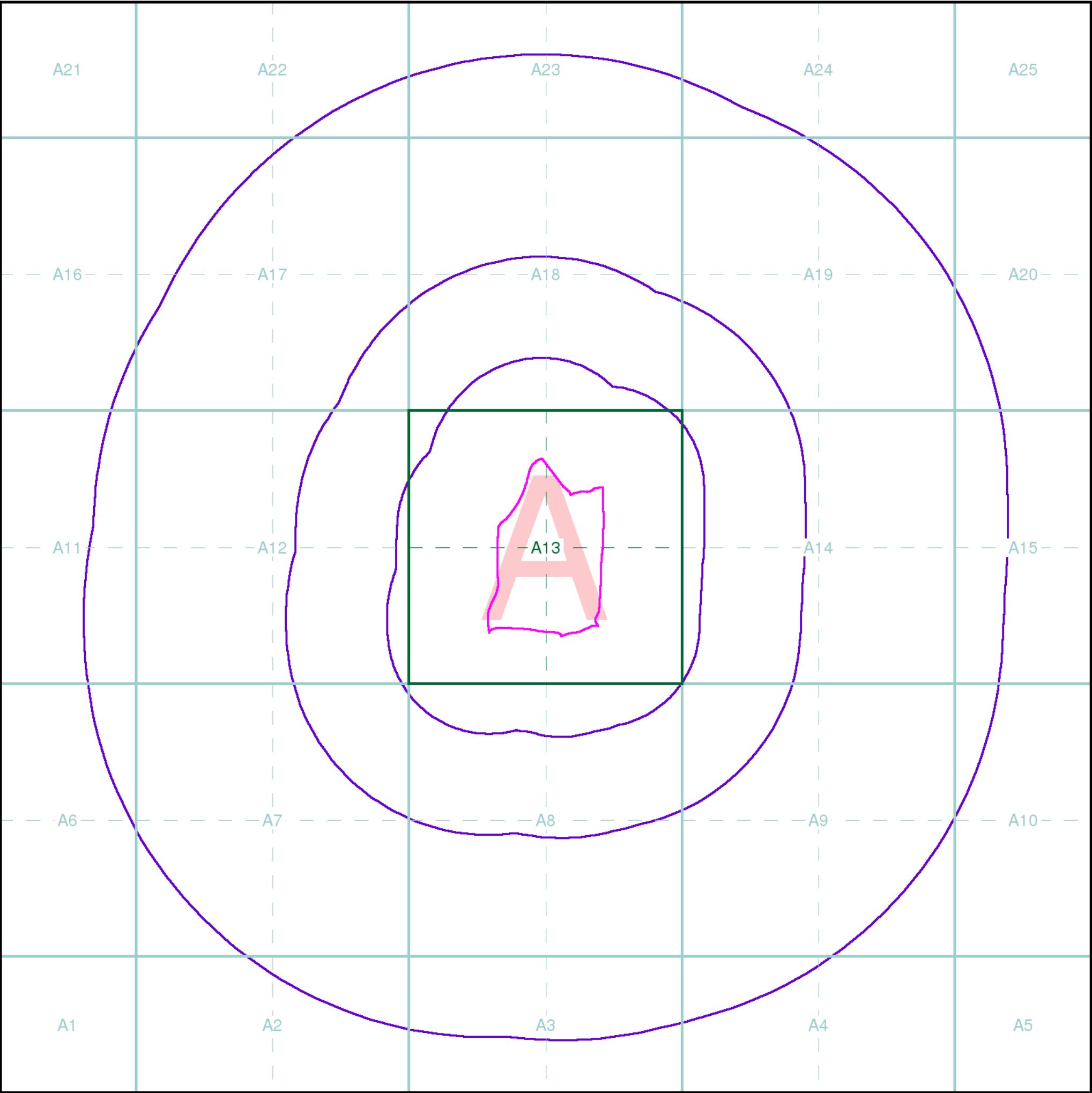
K.



L.



APPENDIX 3
ENVIROCHECK REPORT



Index Map

For ease of identification, your site and buffer have been split into Slices, Segments and Quadrants. These are illustrated on the Index Map opposite and explained further below.

Slice

Each slice represents a 1:10,000 plot area (2.7km x 2.7km) for your site and buffer. A large site and buffer may be made up of several slices (represented by a red outline), that are referenced by letters of the alphabet, starting from the bottom left corner of the slice "grid". This grid does not relate to National Grid lines but is designed to give best fit over the site and buffer.

Segment

A segment represents a 1:2,500 plot area. Segments that have plot files associated with them are shown in dark green, others in light blue. These are numbered from the bottom left hand corner within each slice.

Quadrant

A quadrant is a quarter of a segment. These are labelled as NW, NE, SW, SE and are referenced in the datasheet to allow features to be quickly located on plots. Therefore a feature that has a quadrant reference of A7NW will be in Slice A, Segment 7 and the NW Quadrant.

A selection of organisations who provide data within this report:



Envirocheck reports are compiled from 136 different sources of data.

Client Details

Mr R Caine, GeoEnviro Solutions Ltd, Unit 7 Springvale Works, Brookfoot Lane, Brighouse, HD6 2RA

Order Details

Order Number: 304817738_1_1
Customer Ref: 3031-22
National Grid Reference: 331340, 346280
Site Area (Ha): 9.15
Search Buffer (m): 1000

Site Details

Commemorative Woodland, Erddig, Haford Road, Wrexham, LL14 6ET

Full Terms and Conditions can be found on the following link:
<http://www.landmarkinfo.co.uk/Terms/Show/515>

Envirocheck[®] Report:

Datasheet

Order Details:

Order Number:

304817738_1_1

Customer Reference:

3031-22

National Grid Reference:

331340, 346290

Slice:

A

Site Area (Ha):

9.15

Search Buffer (m):

1000

Site Details:

Commemorative Woodland

Erddig

Haford Road

Wrexham

LL14 6ET

Client Details:

Mr R Caine

GeoEnviro Solutions Ltd

Unit 7 Springvale Works

Brookfoot Lane

Brighthouse

HD6 2RA

Report Section	Page Number
Summary	-
Agency & Hydrological	1
Waste	37
Hazardous Substances	44
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Industrial Land Use	48
Sensitive Land Use	51
Data Currency	52
Data Suppliers	59
Useful Contacts	60

Introduction

The Environment Act 1995 has made site sensitivity a key issue, as the legislation pays as much attention to the pathways by which contamination could spread, and to the vulnerable targets of contamination, as it does the potential sources of contamination. For this reason, Landmark's Site Sensitivity maps and Datasheet(s) place great emphasis on statutory data provided by the Environment Agency/Natural Resources Wales and the Scottish Environment Protection Agency; it also incorporates data from Natural England (and the Scottish and Welsh equivalents) and Local Authorities; and highlights hydrogeological features required by environmental and geotechnical consultants. It does not include any information concerning past uses of land. The datasheet is produced by querying the Landmark database to a distance defined by the client from a site boundary provided by the client. In this datasheet the National Grid References (NGRs) are rounded to the nearest 10m in accordance with Landmark's agreements with a number of Data Suppliers.

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Report Version v53.0

Data Type	Page Number	On Site	0 to 250m	251 to 500m	501 to 1000m (*up to 2000m)
Agency & Hydrological					
BGS Groundwater Flooding Susceptibility	pg 1	Yes	Yes	Yes	n/a
Contaminated Land Register Entries and Notices					
Discharge Consents	pg 3		5	11	7
Prosecutions Relating to Controlled Waters			n/a	n/a	n/a
Enforcement and Prohibition Notices					
Integrated Pollution Controls	pg 9				2
Integrated Pollution Prevention And Control	pg 9		1	1	13
Local Authority Integrated Pollution Prevention And Control					
Local Authority Pollution Prevention and Controls	pg 13		2		1
Local Authority Pollution Prevention and Control Enforcements					
Nearest Surface Water Feature	pg 13	Yes			
Pollution Incidents to Controlled Waters	pg 13		3	4	
Prosecutions Relating to Authorised Processes	pg 14		1		
Registered Radioactive Substances					
River Quality	pg 15				1
River Quality Biology Sampling Points	pg 15				1
Substantiated Pollution Incident Register	pg 15		1	3	2
River Quality Chemistry Sampling Points					
Water Abstractions	pg 16				(*7)
Water Industry Act Referrals	pg 18				1
Groundwater Vulnerability Map	pg 18	Yes	n/a	n/a	n/a
Bedrock Aquifer Designations	pg 18	Yes	n/a	n/a	n/a
Superficial Aquifer Designations	pg 18	Yes	n/a	n/a	n/a
Source Protection Zones					
Extreme Flooding from Rivers or Sea without Defences				n/a	n/a
Flooding from Rivers or Sea without Defences				n/a	n/a
Areas Benefiting from Flood Defences				n/a	n/a
Flood Water Storage Areas				n/a	n/a
Flood Defences				n/a	n/a
OS Water Network Lines	pg 18		20	54	86

Data Type	Page Number	On Site	0 to 250m	251 to 500m	501 to 1000m (*up to 2000m)
Waste					
BGS Recorded Landfill Sites					
Historical Landfill Sites	pg 37			1	1
Integrated Pollution Control Registered Waste Sites					
Licensed Waste Management Facilities (Landfill Boundaries)	pg 37			3	
Licensed Waste Management Facilities (Locations)	pg 38		7	3	
Local Authority Landfill Coverage	pg 40	1	n/a	n/a	n/a
Local Authority Recorded Landfill Sites					
Potentially Infilled Land (Non-Water)	pg 40	1	1		2
Potentially Infilled Land (Water)	pg 40	1	2	1	10
Registered Landfill Sites	pg 41			1	1
Registered Waste Transfer Sites	pg 42		1		
Registered Waste Treatment or Disposal Sites	pg 43		1		
Hazardous Substances					
Control of Major Accident Hazards Sites (COMAH)	pg 44		1		
Explosive Sites					
Notification of Installations Handling Hazardous Substances (NIHHS)	pg 44		1		
Planning Hazardous Substance Consents	pg 44		1		
Planning Hazardous Substance Enforcements					

Data Type	Page Number	On Site	0 to 250m	251 to 500m	501 to 1000m (*up to 2000m)
Geological					
BGS 1:625,000 Solid Geology	pg 45	Yes	n/a	n/a	n/a
BGS Estimated Soil Chemistry	pg 45	Yes			
BGS Recorded Mineral Sites	pg 45		1	1	5
BGS Urban Soil Chemistry					
BGS Urban Soil Chemistry Averages					
CBSCB Compensation District			n/a	n/a	n/a
Coal Mining Affected Areas	pg 46	Yes	n/a	n/a	n/a
Mining Instability	pg 46	Yes	n/a	n/a	n/a
Man-Made Mining Cavities					
Natural Cavities					
Non Coal Mining Areas of Great Britain	pg 46	Yes		n/a	n/a
Potential for Collapsible Ground Stability Hazards	pg 46	Yes		n/a	n/a
Potential for Compressible Ground Stability Hazards	pg 46	Yes	Yes	n/a	n/a
Potential for Ground Dissolution Stability Hazards				n/a	n/a
Potential for Landslide Ground Stability Hazards	pg 47	Yes	Yes	n/a	n/a
Potential for Running Sand Ground Stability Hazards	pg 47	Yes		n/a	n/a
Potential for Shrinking or Swelling Clay Ground Stability Hazards	pg 47	Yes		n/a	n/a
Radon Potential - Radon Affected Areas			n/a	n/a	n/a
Radon Potential - Radon Protection Measures			n/a	n/a	n/a
Industrial Land Use					
Contemporary Trade Directory Entries	pg 48		7		7
Fuel Station Entries					
Points of Interest - Commercial Services	pg 49		2		
Points of Interest - Education and Health					
Points of Interest - Manufacturing and Production	pg 49		2	2	5
Points of Interest - Public Infrastructure	pg 50		2		3
Points of Interest - Recreational and Environmental	pg 50				4
Gas Pipelines					
Underground Electrical Cables					

Data Type	Page Number	On Site	0 to 250m	251 to 500m	501 to 1000m (*up to 2000m)
Sensitive Land Use					
Ancient Woodland	pg 51				1
Areas of Adopted Green Belt					
Areas of Unadopted Green Belt					
Areas of Outstanding Natural Beauty					
Environmentally Sensitive Areas					
Forest Parks					
Local Nature Reserves					
Marine Nature Reserves					
National Nature Reserves					
National Parks					
Nitrate Sensitive Areas					
Nitrate Vulnerable Zones					
Ramsar Sites					
Sites of Special Scientific Interest	pg 51		1		
Special Areas of Conservation	pg 51		1		
Special Protection Areas					
World Heritage Sites					

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A13NW (NW)	0	1	331250 346400
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A13SE (W)	0	1	331337 346290
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A13NE (N)	0	1	331350 346450
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding to Occur at Surface	A13SE (S)	0	1	331337 346250
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A13SE (SE)	39	1	331500 346150
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A13SW (S)	53	1	331250 346050
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A13NW (N)	59	1	331250 346550
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A13NW (N)	72	1	331300 346600
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A13NW (NW)	87	1	331200 346500
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A13NW (NW)	95	1	331150 346500
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A13NW (NW)	105	1	331150 346450
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A18SE (N)	120	1	331337 346650
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A13SE (SE)	141	1	331600 346100
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A18SE (N)	170	1	331337 346700
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A8NW (SW)	207	1	331050 345950
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A18SE (N)	222	1	331350 346750
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A14NW (E)	228	1	331700 346400
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A13NW (NW)	231	1	331000 346450
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A8NW (SW)	255	1	331150 345850
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A8NE (S)	257	1	331450 345850
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A8NW (SW)	268	1	331100 345850
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A18SE (N)	271	1	331350 346800

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A12NE (W)	278	1	330950 346450
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A8NW (SW)	278	1	331000 345900
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A8NW (SW)	288	1	331050 345850
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A12NE (NW)	298	1	330950 346500
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A18SE (NE)	299	1	331550 346750
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A8NW (SW)	315	1	331100 345800
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A18SE (N)	321	1	331350 346850
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A14NW (E)	328	1	331800 346400
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A8NW (SW)	333	1	331050 345800
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A12NE (NW)	343	1	330900 346500
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A8NE (S)	344	1	331337 345750
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A12NE (NW)	366	1	330900 346550
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A7NE (SW)	385	1	330900 345850
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A12NE (NW)	389	1	330850 346500
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A8NW (S)	412	1	331100 345700
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A7NE (SW)	419	1	330900 345800
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A18SE (N)	421	1	331350 346950
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding to Occur at Surface	A18SE (N)	427	1	331400 346950
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A12NE (NW)	435	1	330850 346600
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A8NW (S)	452	1	331200 345650
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A8NW (S)	452	1	331250 345650
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A8NW (S)	454	1	331150 345650

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding to Occur at Surface	A8NW (S)	461	1	331100 345650
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A17SE (NW)	463	1	330850 346650
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A18NE (N)	470	1	331337 347000
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A18NE (N)	471	1	331350 347000
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A17SE (NW)	483	1	330850 346700
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A8SE (S)	494	1	331337 345600
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A14NW (NE)	499	1	331950 346600
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A8SW (S)	499	1	331300 345600
1	Discharge Consents Operator: Ambipar Site Services Ltd. Property Type: Waste Disposal Sites Location: Hafod Yard, Hafod Industrial Estate, Hafod Road, Johnstown, Wrexham, LI14 2at Authority: Natural Resources Wales Catchment Area: BLACK BROOK (CLYWEDOG) Reference: Cg0411501 Permit Version: 4 Effective Date: 13th June 2022 Issued Date: 13th June 2022 Revocation Date: Not Supplied Discharge Type: Trade Discharges - Site Drainage Discharge: Into Land Environment: Receiving Water: Groundwater Via Infiltration System Status: Effective Positional Accuracy: Located by supplier to within 10m	A13NW (NW)	55	2	331208 346440
1	Discharge Consents Operator: Enviroclear Site Services Ltd Property Type: Waste Disposal Sites Location: Enviroclear Site Services Ltd, Hafod Industrial Estate, Hafod Road, Johnstown, Wrexham, LI14 2at Authority: Natural Resources Wales Catchment Area: BLACK BROOK (CLYWEDOG) Reference: Cg0411501 Permit Version: 3 Effective Date: 23rd May 2018 Issued Date: 23rd May 2018 Revocation Date: Not Supplied Discharge Type: Trade Discharges - Site Drainage Discharge: Into Land Environment: Receiving Water: Groundwater Via Infiltration System Status: Effective Positional Accuracy: Located by supplier to within 10m	A13NW (NW)	55	2	331208 346440

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
1	Discharge Consents Operator: Enviroclear Site Services Ltd Property Type: Not Supplied Location: M&Jt Davies Group, Hafod Industrial Estate, Hafod Road, Johnstown, Wrexham, L14 2at Authority: Natural Resources Wales Catchment Area: BLACK BROOK (CLYWEDOG) Reference: Cg0411501 Permit Version: 2 Effective Date: 26th November 2012 Issued Date: 26th November 2012 Revocation Date: Not Supplied Discharge Type: Trade Discharges - Site Drainage Discharge: Land/Soakaway Environment: Receiving Water: To Ground Status: Effective Positional Accuracy: Located by supplier to within 10m	A13NW (NW)	55	2	331208 346440
1	Discharge Consents Operator: Mr Michael Davies Property Type: Dealing In Scrap Metals Location: M&Jt Davies Group, Hafod Industrial Estate, Hafod Road, Johnstown, Wrexham, L14 2at Authority: Natural Resources Wales Catchment Area: Not Supplied Reference: Cg0411501 Permit Version: 1 Effective Date: 24th October 2003 Issued Date: 24th October 2003 Revocation Date: 25th November 2012 Discharge Type: Trade Discharges - Site Drainage Discharge: Land/Soakaway Environment: Receiving Water: To Ground Status: New Consent (Water Resources Act 1991, Section 88 & Schedule 10 as amended by Environment Act 1995) Positional Accuracy: Located by supplier to within 10m	A13NW (NW)	55	2	331208 346440
2	Discharge Consents Operator: British Coal Corporation Property Type: Undefined Or Other Location: Wrexham Hafod Colliery Authority: Natural Resources Wales Catchment Area: River Dee Reference: Cm0096301 Permit Version: 1 Effective Date: 21st October 1983 Issued Date: 21st October 1983 Revocation Date: 11th July 1991 Discharge Type: Trade Effluent Discharge: Not Supplied Environment: Receiving Water: Aberderfynbrook Status: Consent expired Positional Accuracy: Located by supplier to within 100m	A13NW (NW)	176	2	331100 346500
3	Discharge Consents Operator: Dwr Cymru Cyfyngedig Property Type: Sewerage Network - Sewers - Water Company Location: Johnstown Combined Sewerage System Authority: Natural Resources Wales Catchment Area: BLACK BROOK (CLYWEDOG) Reference: Cm0050101 Permit Version: 3 Effective Date: 31st March 2007 Issued Date: 31st March 2007 Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Stw Storm Overflow/Storm Tank - Water Company Discharge: Freshwater Stream/River Environment: Receiving Water: Black Brook Status: Effective Positional Accuracy: Located by supplier to within 100m	A7NE (SW)	354	2	330900 345900

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
3	Discharge Consents Operator: Dwr Cymru Cyfyngedig Property Type: Sewerage Network - Sewers - Water Company Location: Johnstown Combined Sewerage System Authority: Natural Resources Wales Catchment Area: BLACK BROOK (CLYWEDOG) Reference: Cm0050101 Permit Version: 3 Effective Date: 31st March 2007 Issued Date: 31st March 2007 Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Stw Storm Overflow/Storm Tank - Water Company Discharge: Freshwater Stream/River Environment: Receiving Water: Black Brook Status: Effective Positional Accuracy: Located by supplier to within 100m	A7NE (SW)	354	2	330900 345900
3	Discharge Consents Operator: Dwr Cymru Cyfyngedig Property Type: Sewerage Network - Sewers - Water Company Location: Johnstown Combined Sewerage System Authority: Natural Resources Wales Catchment Area: River Dee Reference: Cm0050101 Permit Version: 2 Effective Date: 31st March 2009 Issued Date: 8th March 2005 Revocation Date: 30th March 2007 Discharge Type: Public Sewage: Storm Sewage Overflow Discharge: Freshwater Stream/River Environment: Receiving Water: Black Brook Status: Modified (Water Resources Act 1991, Schedule 10 as amended by Environment Act 1995) Positional Accuracy: Located by supplier to within 100m	A7NE (SW)	354	2	330900 345900
3	Discharge Consents Operator: Dwr Cymru Cyfyngedig Property Type: Sewerage Network - Sewers - Water Company Location: Johnstown Combined Sewerage System Authority: Natural Resources Wales Catchment Area: River Dee Reference: CM0050101 Permit Version: 1 Effective Date: 20th May 1968 Issued Date: 20th May 1968 Revocation Date: 30th March 2009 Discharge Type: Public Sewage: Storm Sewage Overflow Discharge: Freshwater Stream/River Environment: Receiving Water: Black Brook Status: New Consent, by Application (Water Resources Act 1991, Section 88) Positional Accuracy: Located by supplier to within 100m	A7NE (SW)	354	2	330900 345900
4	Discharge Consents Operator: Dwr Cymru Cyfyngedig Property Type: Sewerage Network - Sewers - Water Company Location: Johnstown Combined Sewerage System Cso, Nr 106 Bangor Rd, Ruabon, Wrexham, LI14 6et Authority: Natural Resources Wales Catchment Area: BLACK BROOK (CLYWEDOG) Reference: Cm0050101 Permit Version: 4 Effective Date: 21st October 2019 Issued Date: 21st October 2019 Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Stw Storm Overflow/Storm Tank - Water Company Discharge: Freshwater Stream/River Environment: Receiving Water: Black Spool Status: Effective Positional Accuracy: Located by supplier to within 10m	A12SE (SW)	358	2	330850 345991

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
5	Discharge Consents Operator: Alexander Russell Plc Property Type: Undefined Or Other Location: Ruabon Authority: Natural Resources Wales Catchment Area: River Dee Reference: Cm0147601 Permit Version: 1 Effective Date: 4th April 1986 Issued Date: 4th April 1986 Revocation Date: 7th August 1986 Discharge Type: Unspecified Discharge: Not Supplied Environment: Receiving Water: Aberderfyn Brook Status: Consent expired Positional Accuracy: Located by supplier to within 10m	A12NE (W)	413	2	330810 346450
6	Discharge Consents Operator: Director And General Manager Property Type: Extraction Of Stone, Gravel Etc. Location: Hafod Quarry Bangor Road, Ruabon, Wrexham, LI14 6et Authority: Natural Resources Wales Catchment Area: Not Supplied Reference: Cg0397901 Permit Version: 1 Effective Date: 25th March 2002 Issued Date: 25th March 2002 Revocation Date: 1st November 2004 Discharge Type: Trade Discharges - Site Drainage Discharge: Freshwater Stream/River Environment: Receiving Water: Aberderfyn Brook Status: Revoked (Water Resources Act 1991, Section 88 & Schedule 10 as amended by Environment Act 1995) Positional Accuracy: Located by supplier to within 10m	A7NE (SW)	436	2	330790 345930
6	Discharge Consents Operator: Dwr Cymru Cyfyngedig Property Type: Sewerage Network - Sewers - Water Company Location: Johnstown Bangor Road - Sso Authority: Natural Resources Wales Catchment Area: River Dee Reference: Cm0197501 Permit Version: 1 Effective Date: 20th October 1989 Issued Date: 20th October 1989 Revocation Date: 4th March 1994 Discharge Type: Unspecified Discharge: Not Supplied Environment: Receiving Water: Aberderfyn Status: Consent expired Positional Accuracy: Located by supplier to within 100m	A7NE (SW)	440	2	330800 345900
7	Discharge Consents Operator: Hafod Quarries Ltd Property Type: Extraction Of Stone, Gravel Etc. Location: Hafod Clay Pit Ruabon Wrexham, Ruabon Authority: Natural Resources Wales Catchment Area: River Dee Reference: Cg0323101 Permit Version: 2 Effective Date: 14th June 2000 Issued Date: 27th July 1992 Revocation Date: 1st November 2004 Discharge Type: Trade Discharges - Site Drainage Discharge: Not Supplied Environment: Receiving Water: Aberderfyn Brook Status: Revoked (Water Resources Act 1991, Section 88 & Schedule 10 as amended by Environment Act 1995) Positional Accuracy: Located by supplier to within 10m	A8NW (S)	452	2	331170 345650

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
7	Discharge Consents Operator: Hafod Quarries Ltd Property Type: Extraction Of Other Minerals Location: Haford Clay Pit Ruabon Wrexham Authority: Natural Resources Wales Catchment Area: River Dee Reference: CG0323101 Permit Version: 1 Effective Date: 27th July 1992 Issued Date: 27th July 1992 Revocation Date: 13th June 2000 Discharge Type: Trade Effluent Discharge: Not Supplied Environment: Receiving Water: Aberderfyn Brook Status: New Consent, by Application (Water Resources Act 1991, Section 88) Positional Accuracy: Located by supplier to within 100m	A8NW (S)	454	2	331172 345648
8	Discharge Consents Operator: Rees Jones Developments Ltd Property Type: Undefined Or Other Location: Johnstown Tan-Y-Clawdd Nant Park Es, Tan-Y-Clawdd Nant Park Estate Authority: Natural Resources Wales Catchment Area: River Dee Reference: Cm0080902 Permit Version: 1 Effective Date: 5th February 1976 Issued Date: 5th February 1976 Revocation Date: 24th September 1992 Discharge Type: Unspecified Discharge: Not Supplied Environment: Receiving Water: Aberderfyn Brook Status: Consent expired Positional Accuracy: Located by supplier to within 10m	A12NE (W)	452	2	330760 346350
9	Discharge Consents Operator: Rees Jones Developments Ltd Property Type: Undefined Or Other Location: Johnstown Tan-Y-Clawdd Nant Park Es, Tan-Y-Clawdd Nant Park Estate Authority: Natural Resources Wales Catchment Area: River Dee Reference: Cm0080901 Permit Version: 1 Effective Date: 5th February 1976 Issued Date: 5th February 1976 Revocation Date: 24th September 1992 Discharge Type: Unspecified Discharge: Not Supplied Environment: Receiving Water: Aberderfyn Brook Status: Consent expired Positional Accuracy: Located by supplier to within 10m	A12NE (NW)	526	2	330730 346570
10	Discharge Consents Operator: Edwards F R & M Property Type: Undefined Or Other Location: Wrexham Gyfelia Clwt Farm Authority: Natural Resources Wales Catchment Area: River Dee Reference: Cm0017001 Permit Version: 1 Effective Date: 16th July 1963 Issued Date: 16th July 1963 Revocation Date: 22nd December 1992 Discharge Type: Unspecified Discharge: Not Supplied Environment: Receiving Water: Ditch Leading To Black Brook Status: Consent expired Positional Accuracy: Located by supplier to within 100m	A9SW (SE)	663	2	331700 345500

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
11	Discharge Consents Operator: Jones N W Property Type: Undefined Or Other Location: Sontley Hafod-Y-Bwch Farm Authority: Natural Resources Wales Catchment Area: River Dee Reference: Cm0053601 Permit Version: 1 Effective Date: 19th December 1968 Issued Date: 19th December 1968 Revocation Date: 5th April 1995 Discharge Type: Unspecified Discharge: Not Supplied Environment: Receiving Water: Un-Named Trib. Of Black Brook Status: Consent expired Positional Accuracy: Located by supplier to within 10m	A19NW (NE)	789	2	331920 347110
12	Discharge Consents Operator: Mr John Mason Kearsley Property Type: Domestic Property (Single) Location: Tyddyn Ucha Rhos Y Madoc Ruabon Authority: Natural Resources Wales Catchment Area: Not Given Reference: CG0339101 Permit Version: 1 Effective Date: 4th May 1993 Issued Date: 4th May 1993 Revocation Date: Not Supplied Discharge Type: Unspecified Discharge: Freshwater Stream/River Environment: Receiving Water: Black Brook Status: New Consent, by Application (Water Resources Act 1991, Section 88) Positional Accuracy: Located by supplier to within 100m	A19SE (NE)	804	2	332200 346800
13	Discharge Consents Operator: Dwr Cymru Cyfyngedig Property Type: Sewerage Network - Pumping Station - Water Company Location: Ruabon Ps, Ll14 1us Authority: Natural Resources Wales Catchment Area: River Dee Reference: Cm0190801 Permit Version: 2 Effective Date: 8th September 2010 Issued Date: 8th September 2010 Revocation Date: 18th December 2011 Discharge Type: Sewage Discharges - Pumping Station - Water Company Discharge: Freshwater Stream/River Environment: Receiving Water: Eitha Status: Varied under EPR 2010 Positional Accuracy: Located by supplier to within 100m	A17SW (NW)	881	2	330400 346700
13	Discharge Consents Operator: Dwr Cymru Cyfyngedig Property Type: Sewerage Network - Pumping Station - Water Company Location: Ruabon Ps, Ll14 1us Authority: Natural Resources Wales Catchment Area: River Dee Reference: CM0190801 Permit Version: 1 Effective Date: 19th October 1989 Issued Date: 19th October 1989 Revocation Date: 7th September 2010 Discharge Type: Sewage Discharges - Pumping Station - Water Company Discharge: Freshwater Stream/River Environment: Receiving Water: Eitha Status: New Consent, by Application (Water Resources Act 1991, Section 88) Positional Accuracy: Located by supplier to within 100m	A17SW (NW)	881	2	330400 346700

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
14	Discharge Consents Operator: Dwr Cymru Cyfyngedig Property Type: Industrial Parks & Estates Location: Johnstown Vauxhall Industrial Estat, Vauxhall Industrial Estate, Ruabon, Wrexham Authority: Natural Resources Wales Catchment Area: River Dee Reference: CM0047101 Permit Version: 1 Effective Date: 17th January 1968 Issued Date: 17th January 1968 Revocation Date: 6th March 2007 Discharge Type: Unspecified Discharge: Freshwater Stream/River Environment: Receiving Water: Un-Named Trib.Of Black Brook Status: Revoked (Water Resources Act 1991, Section 88 & Schedule 10 as amended by Environment Act 1995) Positional Accuracy: Located by supplier to within 100m	A7SW (SW)	971	2	330520 345400
15	Prosecutions Relating to Controlled Waters Location: Hafod Tileries, Hafod Tileries, Ruabon, WREXHAM, Clwyd, LL14 6ET Prosecution Text: Ea Welsh Data 02/09/1999, Polluting Aberderfyn Brook With Trade Effluent Pollutants. Offence Committed 31/10/1992. Given A Caution. Prosecution Act: Wra91 S85(1) Hearing Date: Not Supplied Verdict: Guilty Fine: Not Supplied Cost: Not Supplied Positional Accuracy: Manually positioned to the road within the address or location	A13SW (SW)	6	3	331201 346199
16	Integrated Pollution Controls Name: Morgan Advanced Ceramics Ltd Location: Vauxhall Industrial Estate, Ruabon, WREXHAM, Clwyd, LL14 6HY Authority: Environment Agency, Welsh Region Permit Reference: BC9305 Dated: 24th November 1998 Process Type: IPC minor (non-substantial) variation to previous variation Description: 4.5 A (F) Inorganic Chemical processes within the Chemical Industry Status: Revoked - Now IPPC Positional Accuracy: Manually positioned to the address or location	A7SW (SW)	866	3	330487 345597
16	Integrated Pollution Controls Name: Morgan Advanced Ceramics Ltd Location: Vauxhall Industrial Estate, Ruabon, WREXHAM, Clwyd, LL14 6HY Authority: Environment Agency, Welsh Region Permit Reference: AO0164 Dated: 28th November 1994 Process Type: IPC application for process that was regulated by HMIP for air releases under previous legislation Description: 4.5 A (F) Inorganic Chemical processes within the Chemical Industry Status: Authorisation superseded by a substantial or non substantial variation Positional Accuracy: Manually positioned to the address or location	A7SW (SW)	866	3	330487 345597
17	Integrated Pollution Prevention And Control Name: Cory Environmental (Central) Ltd Location: Hafod Quarry Landfill, Hafod Quarry Landfill, Bangor Road, Johnstown,, Wrexham, LL14 6ET Authority: Natural Resources Wales Permit Reference: DP3636ZC Original Permit Ref: Pp3139gb Effective Date: 26th June 2013 Status: Effective Application Type: Variation App. Sub Type: Minor Positional Accuracy: Manually positioned within the geographical locality Activity Code: 5.2 A(1) (A) Activity Description: Waste Landfilling; Greater Than 10 T/D With Capacity Greater Than 25,000T Excluding Inert Waste Primary Activity: Y Activity Code: 0.0 Associated Process Activity Description: Associated Process Primary Activity: N	A13SW (SW)	148	2	331081 346002

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
18	Integrated Pollution Prevention And Control Name: Mersey Waste Holdings Associate Ltd Location: Hafod Landfill, Hafod Quarry And Landfill Site, Bangor Road,,, Johnstown, Wrexham Borough Council, LL14 6ET Authority: Natural Resources Wales Permit Reference: TP3032LA Original Permit Ref: Bs8621iw Effective Date: 28th February 2007 Status: Superseded By Variation Application Type: Variation App. Sub Type: Minor Positional Accuracy: Manually positioned to the road within the address or location Activity Code: 5.2 A(1) (A) Activity Description: Waste Landfilling; Greater Than 10 T/D With Capacity Greater Than 25,000T Excluding Inert Waste Primary Activity: Y	A8NW (SW)	338	2	331014 345813
19	Integrated Pollution Prevention And Control Name: Hafod Quarry Landfill Site Location: Hafod Landfill Ea/Epr/Pp3139gb/T001, Hafod Quarry And Landfill Site, Bangor Road,,, Johnstown, Wrexham Borough Council, LL14 6ET Authority: Natural Resources Wales Permit Reference: PP3139GB Original Permit Ref: Dp3636zc Effective Date: 6th March 2020 Status: Effective Application Type: Bespoke App. Sub Type: Not Supplied Positional Accuracy: Located by supplier to within 10m Activity Code: 5.2 A(1) (A) Activity Description: Not Supplied Primary Activity: Y	A7SE (SW)	652	2	330860 345540
19	Integrated Pollution Prevention And Control Name: Cory Environmental (Central) Ltd Location: Hafod Landfill - Ea/Epr/Pp3139gb/V005, Hafod Quarry And Landfill Site, Bangor Road,,, Johnstown, Wrexham Borough Council, LL14 6ET Authority: Natural Resources Wales Permit Reference: DP3839FS Original Permit Ref: Pp3139gb Effective Date: 7th February 2012 Status: Superseded By Variation Application Type: Variation App. Sub Type: Standard Positional Accuracy: Located by supplier to within 10m Activity Code: 5.2 A(1) (A) Activity Description: Waste Landfilling; Greater Than 10 T/D With Capacity Greater Than 25,000T Excluding Inert Waste Primary Activity: Y Activity Code: 1.1 A(1) (B) (III) Activity Description: Combustion; Waste Derived Fuel Greater Or Equal To 3Mw But Less Than 50Mw Primary Activity: N	A7SE (SW)	652	2	330860 345540
19	Integrated Pollution Prevention And Control Name: Cory Environmental (Central) Ltd Location: Hafod Landfill - Ea/Epr/Pp3139gb/V005, Hafod Quarry And Landfill Site, Bangor Road,,, Johnstown, Wrexham Borough Council, LL14 6ET Authority: Natural Resources Wales Permit Reference: PP3934TD Original Permit Ref: Pp3139gb Effective Date: 8th June 2010 Status: Superseded By Variation Application Type: Variation App. Sub Type: Minor Positional Accuracy: Located by supplier to within 10m Activity Code: 1.1 A(1) (B) (III) Activity Description: Combustion; Waste Derived Fuel Greater Or Equal To 3Mw But Less Than 50Mw Primary Activity: N Activity Code: 5.2 A(1) (A) Activity Description: Waste Landfilling; Greater Than 10 T/D With Capacity Greater Than 25,000T Excluding Inert Waste Primary Activity: Y	A7SE (SW)	652	2	330860 345540

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
19	Integrated Pollution Prevention And Control Name: Cory Environmental (Central) Ltd Location: Hafod Landfill Ea/Epr/Pp3139gb/V004, Hafod Quarry And Landfill Site, Bangor Road,,, Johnstown, Wrexham Borough Council, LL14 6ET Authority: Natural Resources Wales Permit Reference: KP3933KM Original Permit Ref: Pp3139gb Effective Date: 25th September 2009 Status: Superseded By Variation Application Type: Variation App. Sub Type: Substantial Positional Accuracy: Located by supplier to within 10m Activity Code: 1.1 A(1) (B) (III) Activity Description: Combustion; Waste Derived Fuel Greater Or Equal To 3Mw But Less Than 50Mw Primary Activity: N Activity Code: 5.2 A(1) (A) Activity Description: Waste Landfilling; Greater Than 10 T/D With Capacity Greater Than 25,000T Excluding Inert Waste Primary Activity: Y	A7SE (SW)	652	2	330860 345540
19	Integrated Pollution Prevention And Control Name: Cory Environmental Ltd Location: Hafod Landfill Ea/Epr/Pp3139gb/V003, Hafod Quarry And Landfill Site, Bangor Road,,, Johnstown, Wrexham Borough Council, LL14 6ET Authority: Natural Resources Wales Permit Reference: GP3034GM Original Permit Ref: Pp3139gb Effective Date: 27th March 2009 Status: Superseded By Variation Application Type: Variation App. Sub Type: Simple Standard Variation Positional Accuracy: Located by supplier to within 10m Activity Code: 5.2 A(1) (A) Activity Description: Waste Landfilling; Greater Than 10 T/D With Capacity Greater Than 25,000T Excluding Inert Waste Primary Activity: Y	A7SE (SW)	652	2	330860 345540
19	Integrated Pollution Prevention And Control Name: Mersey Waste Holdings Associate Ltd Location: Hafod Landfill Ea/Epr/Bs8621iw/T003, Hafod Quarry And Landfill Site, Bangor Road,,, Johnstown, Wrexham Borough Council, LL14 6ET Authority: Natural Resources Wales Permit Reference: Bs8621iw Original Permit Ref: Bs8621iw Effective Date: 8th October 2004 Status: Superseded By Variation Application Type: Application App. Sub Type: New Positional Accuracy: Located by supplier to within 10m Activity Code: 5.3 A(1) (C) (I) Activity Description: Other Waste Disposal; Non-Hazardous Waste >50T/D By Biological Treatment Primary Activity: N Activity Code: 5.2 A(1) (A) Activity Description: Waste Landfilling; Greater Than 10 T/D With Capacity Greater Than 25,000T Excluding Inert Waste Primary Activity: Y	A7SE (SW)	652	2	330860 345540
20	Integrated Pollution Prevention And Control Name: Ruabon Electro Ceramics Location: Ruabon Electro Ceramics, Vauxhall Industrial Estate, Ruabon,, WREXHAM, Clwyd, LL14 6HY Authority: Natural Resources Wales Permit Reference: PP3834CB Original Permit Ref: Zp3831cu Effective Date: 13th April 2018 Status: Effective Application Type: Bespoke App. Sub Type: Not Supplied Positional Accuracy: Automatically positioned to the address Activity Code: 4.2 PART A (1) D) Activity Description: Not Supplied Primary Activity: Y Activity Code: 5.3 A(1) a) (ii) Activity Description: Not Supplied Primary Activity: N	A7SW (SW)	881	2	330470 345594

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
20	Integrated Pollution Prevention And Control Name: Morgan Technical Ceramics Limited Location: Ruabon Electro Ceramics, Vauxhall Industrial Estate, Ruabon,, WREXHAM, Clwyd, LL14 6HY Authority: Natural Resources Wales Permit Reference: ZP3831CU Original Permit Ref: Pp3834cb Effective Date: 26th September 2012 Status: Effective Application Type: Variation App. Sub Type: Standard Positional Accuracy: Automatically positioned to the address Activity Code: 4.2 A(1) (D) Activity Description: Inorganic Chemicals; Using Etc Of Antimony Etc (Unless Otherwise Prescrined) (Unless Glazing Etc) Primary Activity: Y	A7SW (SW)	881	2	330470 345594
20	Integrated Pollution Prevention And Control Name: Morgan Electro Ceramics Ltd Location: Ruabon Electro Ceramics, Vauxhall Industrial Estate, Ruabon,, WREXHAM, Clwyd, LL14 6HY Authority: Natural Resources Wales Permit Reference: UP3938HY Original Permit Ref: By0364ib Effective Date: 25th January 2011 Status: Superseded By Variation Application Type: Variation App. Sub Type: Simple Standard Variation Positional Accuracy: Automatically positioned to the address Activity Code: 4.2 A(1) (D) Activity Description: Inorganic Chemicals; Using Etc Of Antimony Etc (Unless Otherwise Prescrined) (Unless Glazing Etc) Primary Activity: Y	A7SW (SW)	881	2	330470 345594
20	Integrated Pollution Prevention And Control Name: Morgan Electro Ceramics Ltd Location: Vauxhall Industrial Estate, Ruabon, Wrexham, Clwyd, LL14 6HY Authority: Natural Resources Wales Permit Reference: QP3232UM Original Permit Ref: By0364ib Effective Date: 23rd August 2007 Status: Superseded By Variation Application Type: Variation App. Sub Type: Standard Positional Accuracy: Automatically positioned to the address Activity Code: 4.2 A(1) (D) Activity Description: Inorganic Chemicals; Using Etc Of Antimony Etc (Unless Otherwise Prescrined) (Unless Glazing Etc) Primary Activity: Y	A7SW (SW)	881	2	330470 345594
20	Integrated Pollution Prevention And Control Name: Morgan Electro Ceramics Ltd Location: Vauxhall Industrial Estate, Ruabon, Wrexham, Clwyd, LL14 6HY Authority: Natural Resources Wales Permit Reference: FP3838MT Original Permit Ref: By0364ib Effective Date: 26th February 2007 Status: Superseded By Variation Application Type: Variation App. Sub Type: Standard Positional Accuracy: Automatically positioned to the address Activity Code: 4.2 A(1) (D) Activity Description: Inorganic Chemicals; Using Etc Of Antimony Etc (Unless Otherwise Prescrined) (Unless Glazing Etc) Primary Activity: Y	A7SW (SW)	881	2	330470 345594
20	Integrated Pollution Prevention And Control Name: Morgan Electro Ceramics Ltd Location: Vauxhall Industrial Estate, Ruabon, Wrexham, Clwyd, LL14 6HY Authority: Natural Resources Wales Permit Reference: NP3338LX Original Permit Ref: By0364ib Effective Date: 18th July 2006 Status: Superseded By Variation Application Type: Variation App. Sub Type: Standard Positional Accuracy: Automatically positioned to the address Activity Code: 4.2 A(1) (D) Activity Description: Inorganic Chemicals; Using Etc Of Antimony Etc (Unless Otherwise Prescrined) (Unless Glazing Etc) Primary Activity: Y	A7SW (SW)	881	2	330470 345594

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
20	Integrated Pollution Prevention And Control Name: Morgan Electro Ceramics Ltd Location: Ruabon Electro Ceramics, Vauxhall Industrial Estate, Ruabon, Wrexham, Clwyd, LL14 6HY Authority: Natural Resources Wales Permit Reference: By0364ib Original Permit Ref: By0364ib Effective Date: 31st August 2005 Status: Superseded By Variation Application Type: Application App. Sub Type: New Positional Accuracy: Automatically positioned to the address Activity Code: 4.2 A(1) (D) Activity Description: Inorganic Chemicals; Using Etc Of Antimony Etc (Unless Otherwise Prescribed) (Unless Glazing Etc) Primary Activity: Y	A7SW (SW)	881	2	330470 345594
21	Local Authority Pollution Prevention and Controls Name: Ruabon Sales Ltd Location: Hafod Tileries, Ruabon, Wrexham, LL14 6ET Authority: Wrexham County Borough Council, Environmental Health Department Permit Reference: Not Supplied Dated: Not Supplied Process Type: Local Authority Pollution Prevention and Control Description: PG3/2 Manufacture of heavy clay goods and refractory goods Status: Authorisation revoked Positional Accuracy: Manually positioned to the address or location	A13SW (SW)	26	4	331186 346217
21	Local Authority Pollution Prevention and Controls Name: Eco Readymix Location: Hafod Tileries, Ruabon, WREXHAM, Clwyd, LL14 6ET Authority: Wrexham County Borough Council, Environmental Health Department Permit Reference: WCBC-PG3-1-ER Dated: 20th August 2002 Process Type: Local Authority Air Pollution Control Description: PG3/2 Manufacture of heavy clay goods and refractory goods Status: Authorised Positional Accuracy: Manually positioned to the address or location	A13SW (W)	47	4	331165 346221
22	Local Authority Pollution Prevention and Controls Name: Morgan Electro Ceramics Ltd Location: Vauxhall Industrial Estate, Ruabon, Wrexham, LL14 6ha Authority: Wrexham County Borough Council, Environmental Health Department Permit Reference: 41 Dated: Not Supplied Process Type: Local Authority Pollution Prevention and Control Description: PG6/45 Surface cleaning Status: Authorisation certificate surrendered by operator Positional Accuracy: Located by supplier to within 10m	A7SW (SW)	896	4	330474 345564
	Nearest Surface Water Feature	A13SW (S)	0	-	331317 346179
23	Pollution Incidents to Controlled Waters Property Type: Not Given Location: Old Colliery Bathhouse, Hafod Road, JOHNSTOWN Authority: Environment Agency, Welsh Region Pollutant: Oils - Diesel (Including Agricultural) Note: Not Supplied Incident Date: 5th June 1996 Incident Reference: 28616 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Runoff Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A13NW (N)	72	3	331300 346600
24	Pollution Incidents to Controlled Waters Property Type: Industrial Premises Location: Culvert Under, New Bypass Near, Hafod House Authority: Environment Agency, Welsh Region Pollutant: Crude Sewage Note: Weather Incident Date: 12th February 1992 Incident Reference: 3376 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Runoff Incident Severity: Category 2 - Significant Incident Positional Accuracy: Located by supplier to within 100m	A8NW (SW)	157	3	331150 345950

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
25	Pollution Incidents to Controlled Waters Property Type: Not Given Location: The Firs, Brundy Road, JOHNSTOWN Authority: Environment Agency, Welsh Region Pollutant: Miscellaneous - Fire water / Foam Note: Mechanical/Electrical Failure Incident Date: 1st May 1997 Incident Reference: 32133 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Natural Causes Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A13SW (SW)	216	3	331000 346000
26	Pollution Incidents to Controlled Waters Property Type: Not Given Location: Edisbury, Grange Farm Authority: Environment Agency, Welsh Region Pollutant: Farm Land Run-Off Note: Not Supplied Incident Date: 29th August 1991 Incident Reference: 2004 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Unknown Incident Severity: Category 2 - Significant Incident Positional Accuracy: Located by supplier to within 100m	A8NW (S)	402	3	331200 345700
26	Pollution Incidents to Controlled Waters Property Type: Other Transport Location: Dennis Ruabon Authority: Environment Agency, Welsh Region Pollutant: Agricultural: Silage Liquor Note: Weather Incident Date: 31st July 1991 Incident Reference: 3001 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Runoff Incident Severity: Category 2 - Significant Incident Positional Accuracy: Located by supplier to within 100m	A8NW (S)	402	3	331205 345700
26	Pollution Incidents to Controlled Waters Property Type: Water Company Sewage: Surface Water Outfall Location: Down Stream Of Dennis, Ruabon Site Authority: Environment Agency, Welsh Region Pollutant: Unknown Note: Poor Operational Practise Incident Date: 30th October 1991 Incident Reference: 1946 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Overflow Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A8NW (S)	407	3	331205 345695
26	Pollution Incidents to Controlled Waters Property Type: Other Transport Location: Dennis Tiles, Ruabon, Johnstown, WREXHAM Authority: Environment Agency, Welsh Region Pollutant: Agricultural: Carcasses Note: Weather Incident Date: 6th July 1991 Incident Reference: 2905 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Runoff Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A8NW (S)	407	3	331200 345695
27	Prosecutions Relating to Authorised Processes Location: Hafod Yard, Hafod Road, Johnstown, Wrexham, Clwyd, LI14 Prosecution Text: Charged With Keeping Scrap Metal And Dismantled Cars On A Site Not Benefitting From A Waste Management Licence Prosecution Act: Epa90 S33(1a) & S33(1b) Hearing Date: 9th December 2002 Verdict: Guilty Fine: 500 Costs: 300 Positional Accuracy: Manually positioned to the road within the address or location	A13SW (SW)	4	3	331199 346189

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	River Quality Name: Black Bk GQA Grade: River Quality A Reach: Conf.Clywedog - B5426 Rd.Br. Estimated Distance (km): 3.4 Flow Rate: Flow less than 0.62 cumecs Flow Type: River Year: 2000	A14NE (E)	599	3	332071 346365
28	River Quality Biology Sampling Points Name: Black Brook Reach: Confluence River Clywedog To B5426 Rd.Br. Estimated Distance: 3.40 Positional Accuracy: Located by supplier to within 100m Year: 1990 GQA Grade: River Quality Biology GQA Grade B - Good Year: 1995 GQA Grade: River Quality Biology GQA Grade B - Good Year: 2000 GQA Grade: River Quality Biology GQA Grade C - Fairly Good Year: 2002 GQA Grade: River Quality Biology GQA Grade Not Supplied Year: 2003 GQA Grade: River Quality Biology GQA Grade Not Supplied Year: 2004 GQA Grade: River Quality Biology GQA Grade C - Fairly Good Year: 2005 GQA Grade: River Quality Biology GQA Grade C - Fairly Good Year: 2006 GQA Grade: River Quality Biology GQA Grade C - Fairly Good Year: 2007 GQA Grade: River Quality Biology GQA Grade A - Very Good Year: 2008 GQA Grade: River Quality Biology GQA Grade A - Very Good Year: 2009 GQA Grade: River Quality Biology GQA Grade A - Very Good	A9NE (SE)	850	3	332200 345700
29	Substantiated Pollution Incident Register Authority: Natural Resources Wales Incident Date: 8th August 2017 Incident Reference: 1704250 Water Impact: Category 4 - No Impact Air Impact: Category 4 - No Impact Land Impact: Category 1 - Major Incident Positional Accuracy: Located by supplier to within 10m Pollutant: Specific Waste Materials: Other Specific Waste Material	A13SW (SW)	113	2	331192 345989
30	Substantiated Pollution Incident Register Authority: Natural Resources Wales Incident Date: 12th June 2020 Incident Reference: 2004144 Water Impact: Category 4 - No Impact Air Impact: Category 4 - No Impact Land Impact: Category 2 - Significant Incident Positional Accuracy: Located by supplier to within 10m Pollutant: Inert Materials And Wastes: Soils And Clay	A8NW (SW)	332	2	331027 345813
31	Substantiated Pollution Incident Register Authority: Natural Resources Wales Incident Date: 12th June 2020 Incident Reference: 2004148 Water Impact: Category 4 - No Impact Air Impact: Category 4 - No Impact Land Impact: Category 2 - Significant Incident Positional Accuracy: Located by supplier to within 10m Pollutant: Inert Materials And Wastes: Soils And Clay	A7NE (SW)	358	2	330966 345823
32	Substantiated Pollution Incident Register Authority: Natural Resources Wales Incident Date: 25th April 2003 Incident Reference: 153893 Water Impact: Category 2 - Significant Incident Air Impact: Category 4 - No Impact Land Impact: Category 4 - No Impact Positional Accuracy: Located by supplier to within 10m Pollutant: Contaminated Water: Other Contaminated Water	A8NW (S)	450	2	331181 345652

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
33	Substantiated Pollution Incident Register Authority: Natural Resources Wales Incident Date: 27th May 2020 Incident Reference: 2003682 Water Impact: Category 4 - No Impact Air Impact: Category 2 - Significant Incident Land Impact: Category 4 - No Impact Positional Accuracy: Located by supplier to within 10m Pollutant: Atmospheric Pollutants and Effects: Smoke	A7SE (SW)	759	2	330877 345411
34	Substantiated Pollution Incident Register Authority: Natural Resources Wales Incident Date: 8th January 2020 Incident Reference: 2000111 Water Impact: Category 2 - Significant Incident Air Impact: Category 4 - No Impact Land Impact: Category 4 - No Impact Positional Accuracy: Located by supplier to within 10m Pollutant: Contaminated Water: Urban Run-Off	A19NW (NE)	802	2	331997 347067
	Water Abstractions Operator: Wrexham County Borough Licence Number: 24/67/7/0181 Permit Version: 100 Location: Afon Goch Authority: Environment Agency, Welsh Region Abstraction: Water Supply Related: Effluent/Slurry Dilution Abstraction Type: Water may be abstracted from a single point Source: Surface Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: River Gwenfro Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 8th February 1974 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m	A2SE (SW)	1248	3	330760 344930
	Water Abstractions Operator: Mrs G Price Licence Number: 24/67/7/0183 Permit Version: 100 Location: Well Authority: Environment Agency, Welsh Region Abstraction: General Farming And Domestic Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Not Supplied Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 26th April 1978 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m	A4SE (SE)	1515	3	332110 344750
	Water Abstractions Operator: A.L. Hughes & Partners Licence Number: 24/67/7/0218 Permit Version: 1 Location: Old Sontley Farm Borehole Authority: Environment Agency, Welsh Region Abstraction: General Farming And Domestic Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Old Sontley Farm Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 1st January 2004 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	(E)	1569	3	333040 346300

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Water Abstractions Operator: T M Hughes Licence Number: 24/67/7/0219 Permit Version: 1 Location: Old Sontley Hall Authority: Environment Agency, Welsh Region Abstraction: General Farming And Domestic Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Not Supplied Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 9th March 2001 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	(E)	1571	3	333040 346250
	Water Abstractions Operator: Mr M Hughes Licence Number: 24/67/7/0020 Permit Version: 100 Location: Well Authority: Environment Agency, Welsh Region Abstraction: General Farming And Domestic Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Not Supplied Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 29th March 1966 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m	(NE)	1810	3	333080 347290
	Water Abstractions Operator: Mr J Jones Licence Number: 24/67/7/0133 Permit Version: 100 Location: Well Authority: Environment Agency, Welsh Region Abstraction: General Farming And Domestic Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Not Supplied Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 24th February 1967 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m	(S)	1968	3	332110 344260
	Water Abstractions Operator: The National Trust Licence Number: 24/67/7/0169 Permit Version: 100 Location: Spring Authority: Environment Agency, Welsh Region Abstraction: Household Water Supply: Drinking; Cooking; Sanitary; Washing; (Small Garden) Abstraction Type: Water may be abstracted from a single point Source: Surface Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Not Supplied Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 6th May 1977 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m	(NE)	1973	3	332440 348180

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
35	Water Industry Act Referrals Name: Morgan Advanced Ceramics Ltd Location: VAUXHALL INDUSTRIAL ESTATE, RUABON, WREXHAM, CLWYD, LL14 6HY Authority: Natural Resources Wales Permit Reference: AU5971 Dated: 18th January 1996 Process Type: Permissions or amendments to discharge under the Water Industry Act 1991 Description: Processes which result in the discharge of Special Category effluents under The Trade Effluents (Prescribed Processes and Substances) Regulations Status: Application received by the EA but is not yet authorised Positional Accuracy: Automatically positioned to the address	A7SW (SW)	884	2	330470 345589
	Groundwater Vulnerability Map Combined Classification: Secondary Superficial Aquifer - Low Vulnerability Combined Vulnerability: Low Combined Aquifer: Productive Bedrock Aquifer, Productive Superficial Aquifer Pollutant Speed: Low Bedrock Flow: Well Connected Fractures Dilution: 300-550 mm/year Baseflow Index: <40% Superficial Patchiness: >90% Superficial Thickness: >10m Superficial Recharge: Medium	A13SE (W)	0	2	331337 346290
	Bedrock Aquifer Designations Aquifer Designation: Secondary Aquifer - A	A13SE (W)	0	2	331337 346290
	Superficial Aquifer Designations Aquifer Designation: Secondary Aquifer - Undifferentiated	A13SE (W)	0	2	331337 346290
	Extreme Flooding from Rivers or Sea without Defences None				
	Flooding from Rivers or Sea without Defences None				
	Areas Benefiting from Flood Defences None				
	Flood Water Storage Areas None				
	Flood Defences None				
36	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 504.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Dee Primacy: 1	A13SE (SE)	17	5	331439 346097
37	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 207.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Dee Primacy: 2	A13NW (NW)	105	5	331213 346580
38	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 100.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Dee Primacy: 1	A13NW (NW)	118	5	331152 346471

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
39	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 94.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Dee Primacy: 1	A18SW (N)	133	5	331295 346660
40	OS Water Network Lines Watercourse Form: Lake Watercourse Length: 4.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Dee Primacy: 1	A13NW (NW)	167	5	331061 346430
41	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 4.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Dee Primacy: 1	A13NW (NW)	168	5	331058 346426
42	OS Water Network Lines Watercourse Form: Lake Watercourse Length: 9.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Dee Primacy: 1	A13NW (NW)	169	5	331056 346422
43	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 21.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Dee Primacy: 1	A13NW (NW)	178	5	331047 346422
44	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 265.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Dee Primacy: 1	A18SW (NW)	203	5	331140 346662
45	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 258.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Dee Primacy: 1	A18SW (NW)	222	5	331145 346689
46	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 2.0 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Dee Primacy: 1	A18SW (N)	222	5	331316 346752
47	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 1.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Dee Primacy: 1	A18SW (N)	223	5	331316 346754

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
48	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 135.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Dee Primacy: 1	A18SW (N)	225	5	331316 346755
49	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 58.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Dee Primacy: 1	A13NW (NW)	227	5	331071 346606
50	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 23.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Dee Primacy: 1	A13NW (NW)	227	5	331113 346647
51	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 159.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Dee Primacy: 1	A13NW (NW)	243	5	331071 346606
52	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 11.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Dee Primacy: 1	A13NW (NW)	243	5	331065 346597
53	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 6.5 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Dee Primacy: 1	A18SW (NW)	244	5	331108 346669
54	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 191.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Dee Primacy: 1	A13NW (NW)	245	5	331048 346572
55	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 41.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Dee Primacy: 1	A13NW (NW)	245	5	331065 346597
56	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 16.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Dee Primacy: 1	A18SW (N)	267	5	331154 346744

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
57	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 351.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Aberderfyn Catchment Name: Dee Primacy: 1	A8NW (SW)	276	5	331099 345837
58	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 166.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Dee Primacy: 1	A18SW (NW)	278	5	331140 346747
59	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 287.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Dee Primacy: 1	A18SE (NE)	278	5	331568 346724
60	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 18.8 Watercourse Level: Underground Permanent: True Watercourse Name: Aberderfyn Catchment Name: Dee Primacy: 1	A8NW (SW)	281	5	331119 345830
61	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 106.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Aberderfyn Catchment Name: Dee Primacy: 1	A8NW (SW)	281	5	331119 345830
62	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 94.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Dee Primacy: 1	A12NE (W)	293	5	330921 346377
63	OS Water Network Lines Watercourse Form: Lake Watercourse Length: 7.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Dee Primacy: 1	A12NE (W)	303	5	330912 346397
64	OS Water Network Lines Watercourse Form: Lake Watercourse Length: 9.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Dee Primacy: 1	A18SW (N)	310	5	331294 346839
65	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 7.7 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Dee Primacy: 1	A14NW (NE)	312	5	331724 346643

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
66	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 131.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Dee Primacy: 1	A14NW (NE)	315	5	331730 346640
67	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 165.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Dee Primacy: 1	A18SW (N)	318	5	331298 346847
68	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 52.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Dee Primacy: 1	A14NW (NE)	338	5	331796 346556
69	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 85.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Dee Primacy: 1	A18SW (NW)	343	5	331093 346793
70	OS Water Network Lines Watercourse Form: Lake Watercourse Length: 11.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Dee Primacy: 1	A12NE (W)	344	5	330868 346343
71	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 6.3 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Dee Primacy: 1	A12NE (NW)	344	5	330902 346507
72	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 21.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Dee Primacy: 1	A18SW (NW)	344	5	331115 346810
73	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 83.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Dee Primacy: 1	A12NE (NW)	348	5	330896 346505
74	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 103.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Aberderfyn Catchment Name: Dee Primacy: 1	A8NW (S)	348	5	331188 345754

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
75	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 81.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Dee Primacy: 1	A12NE (W)	350	5	330862 346333
76	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 19.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Dee Primacy: 1	A18SW (NW)	362	5	331012 346737
77	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 124.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Dee Primacy: 1	A18SW (NW)	365	5	331105 346829
78	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 263.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Aberderfyn Catchment Name: Dee Primacy: 1	A12SE (W)	366	5	330796 346236
79	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 5.3 Watercourse Level: Not Supplied Permanent: True Watercourse Name: Not Supplied Catchment Name: Dee Primacy: 1	A12SE (SW)	366	5	330829 346042
80	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 842.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Dee Primacy: 1	A12SE (SW)	371	5	330824 346040
81	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 33.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Dee Primacy: 2	A18SW (NW)	379	5	330994 346742
82	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 122.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Dee Primacy: 1	A14NW (NE)	386	5	331838 346580
83	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 10.7 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Dee Primacy: 1	A14SW (E)	400	5	331870 346282

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
84	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 9.7 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Dee Primacy: 2	A17SE (NW)	402	5	330992 346776
85	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 249.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Dee Primacy: 1	A14SW (E)	404	5	331874 346292
86	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 166.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Dee Primacy: 1	A18SW (NW)	407	5	330993 346786
87	OS Water Network Lines Watercourse Form: Lake Watercourse Length: 9.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Dee Primacy: 1	A12NE (W)	408	5	330822 346478
88	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 8.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Dee Primacy: 1	A12NE (W)	414	5	330815 346473
89	OS Water Network Lines Watercourse Form: Lake Watercourse Length: 29.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Dee Primacy: 1	A12NE (W)	420	5	330808 346469
90	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 168.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Aberderfyn Catchment Name: Dee Primacy: 1	A12SE (W)	423	5	330788 346300
91	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 21.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Dee Primacy: 1	A12NE (W)	447	5	330779 346466
92	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 247.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Aberderfyn Catchment Name: Dee Primacy: 1	A8NW (S)	450	5	331200 345649

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
93	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 1.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Dee Primacy: 1	A18SW (NW)	466	5	331054 346916
94	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 18.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Dee Primacy: 1	A18SW (NW)	466	5	331055 346917
95	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 75.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Dee Primacy: 1	A17SE (NW)	467	5	330977 346855
96	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 8.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Dee Primacy: 1	A12NE (W)	468	5	330756 346461
97	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 133.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Dee Primacy: 1	A12NE (W)	468	5	330757 346464
98	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 129.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Dee Primacy: 1	A18SW (N)	468	5	331206 346984
99	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 10.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Aberderfyn Catchment Name: Dee Primacy: 1	A12NE (W)	472	5	330752 346458
100	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 34.0 Watercourse Level: Underground Permanent: True Watercourse Name: Aberderfyn Catchment Name: Dee Primacy: 1	A12NE (W)	473	5	330752 346468
101	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 6.1 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Dee Primacy: 1	A19SW (NE)	474	5	331888 346686

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
102	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 68.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Dee Primacy: 1	A17SE (NW)	476	5	330987 346877
103	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 163.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Dee Primacy: 1	A19SW (NE)	476	5	331888 346692
104	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 21.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Dee Primacy: 1	A18SW (NW)	479	5	331060 346935
105	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 13.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Dee Primacy: 1	A18NW (N)	492	5	331221 347012
106	OS Water Network Lines Watercourse Form: Lake Watercourse Length: 17.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Dee Primacy: 1	A12NE (NW)	497	5	330774 346595
107	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 7.4 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Dee Primacy: 1	A18SW (NW)	499	5	331056 346956
108	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 0.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Dee Primacy: 1	A18SW (NW)	499	5	331056 346956
109	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 162.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Dee Primacy: 1	A18SW (NW)	499	5	331056 346956
110	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 11.1 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Dee Primacy: 1	A18NW (N)	505	5	331221 347026

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
111	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 19.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Dee Primacy: 1	A12NE (NW)	506	5	330773 346612
112	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 7.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Dee Primacy: 1	A12NE (W)	507	5	330720 346480
113	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 108.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Aberderfyn Catchment Name: Dee Primacy: 1	A12NE (W)	507	5	330720 346480
114	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 39.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Dee Primacy: 1	A18SW (NW)	507	5	331051 346962
115	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 27.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Dee Primacy: 2	A18SW (NW)	510	5	330999 346934
116	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 68.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Dee Primacy: 1	A18SW (NW)	510	5	331011 346940
117	OS Water Network Lines Watercourse Form: Lake Watercourse Length: 5.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Dee Primacy: 1	A12NE (NW)	515	5	330772 346627
118	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 191.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Dee Primacy: 1	A18NW (N)	516	5	331218 347036
119	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 5.8 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Dee Primacy: 2	A17SE (NW)	517	5	330987 346930

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
120	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 124.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Dee Primacy: 1	A12NE (NW)	518	5	330771 346632
121	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 130.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Dee Primacy: 1	A17SE (NW)	520	5	330981 346929
122	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 182.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Dee Primacy: 1	A12NE (NW)	525	5	330739 346587
123	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 487.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Aberderfyn Catchment Name: Dee Primacy: 1	A12NE (NW)	525	5	330739 346587
124	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 139.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Dee Primacy: 1	A18NW (N)	542	5	331045 346999
125	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 158.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Dee Primacy: 1	A17SE (NW)	547	5	330798 346762
126	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 60.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Aberderfyn Catchment Name: Dee Primacy: 1	A8SE (S)	556	5	331349 345538
127	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 227.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Dee Primacy: 1	A17SE (NW)	562	5	330789 346755
128	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 5.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Dee Primacy: 1	A17SE (NW)	588	5	330766 346767

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
129	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 40.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Dee Primacy: 1	A17SE (NW)	589	5	330767 346772
130	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 218.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Aberderfyn Catchment Name: Dee Primacy: 1	A8SE (S)	599	5	331392 345495
131	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 3.1 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Dee Primacy: 1	A17SE (NW)	602	5	330774 346813
132	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 281.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Dee Primacy: 1	A17SE (NW)	603	5	330775 346816
133	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 5.8 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Dee Primacy: 1	A18NW (N)	611	5	331147 347116
134	OS Water Network Lines Watercourse Form: Marsh Watercourse Length: 7.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Dee Primacy: 1	A19SW (NE)	611	5	331978 346802
135	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 10.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Dee Primacy: 1	A18NW (N)	613	5	331094 347101
136	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 72.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Dee Primacy: 1	A18NW (N)	615	5	331142 347120
137	OS Water Network Lines Watercourse Form: Marsh Watercourse Length: 52.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Dee Primacy: 1	A19SW (NE)	618	5	331985 346804

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
138	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 1.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Dee Primacy: 1	A18NW (N)	621	5	331095 347110
139	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 25.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Dee Primacy: 1	A18NW (N)	622	5	331093 347111
140	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 310.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Black Brook Catchment Name: Dee Primacy: 1	A14NE (E)	626	5	332097 346518
141	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 6.1 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Dee Primacy: 1	A17NE (NW)	628	5	330971 347055
142	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 160.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Dee Primacy: 1	A17NE (NW)	632	5	330973 347061
143	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 32.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Black Brook Catchment Name: Dee Primacy: 1	A14NE (E)	634	5	332105 346483
144	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 189.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Black Brook Catchment Name: Dee Primacy: 1	A14SE (E)	638	5	332128 346304
145	OS Water Network Lines Watercourse Form: Lake Watercourse Length: 60.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Dee Primacy: 1	A17SE (NW)	644	5	330845 346973
146	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 3.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Dee Primacy: 1	A18NW (N)	646	5	331079 347131

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
147	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 139.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Black Brook Catchment Name: Dee Primacy: 1	A14SE (E)	647	5	332110 346176
148	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 3.9 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Dee Primacy: 1	A14SE (E)	648	5	332117 346279
149	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 2.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Dee Primacy: 1	A18NW (N)	649	5	331079 347134
150	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 206.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Black Brook Catchment Name: Dee Primacy: 1	A14SE (E)	649	5	332110 346144
151	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 8.0 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Dee Primacy: 1	A18NW (N)	651	5	331080 347136
152	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 8.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Dee Primacy: 1	A14SE (E)	651	5	332121 346280
153	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 29.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Dee Primacy: 1	A18NW (N)	659	5	331080 347144
154	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 293.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Black Brook Catchment Name: Dee Primacy: 1	A19SE (NE)	669	5	332036 346819
155	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 36.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Black Brook Catchment Name: Dee Primacy: 1	A19SE (NE)	669	5	332036 346819

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
156	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 404.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Dee Primacy: 1	A17NE (NW)	675	5	330860 347031
157	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 4.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Dee Primacy: 1	A9NE (SE)	681	5	332117 345941
158	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 222.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Black Brook Catchment Name: Dee Primacy: 1	A9NE (SE)	684	5	332121 345942
159	OS Water Network Lines Watercourse Form: Lake Watercourse Length: 67.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Dee Primacy: 1	A19SE (NE)	702	5	332138 346678
160	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 482.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Black Brook Catchment Name: Dee Primacy: 1	A9SW (SE)	708	5	331796 345495
161	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 106.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Dee Primacy: 1	A9SW (SE)	728	5	331837 345495
162	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 210.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Black Brook Catchment Name: Dee Primacy: 1	A9SW (SE)	728	5	331837 345495
163	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 2.7 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Dee Primacy: 1	A17NE (NW)	734	5	330815 347070
164	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 16.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Dee Primacy: 1	A17NE (NW)	737	5	330814 347072

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
165	OS Water Network Lines Watercourse Form: Lake Watercourse Length: 10.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Dee Primacy: 1	A17NE (NW)	753	5	330805 347086
166	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 6.8 Watercourse Level: Underground Permanent: True Watercourse Name: Black Brook Catchment Name: Dee Primacy: 1	A9NE (SE)	759	5	332119 345740
167	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 185.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Black Brook Catchment Name: Dee Primacy: 1	A9NE (SE)	762	5	332118 345733
168	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 5.7 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Dee Primacy: 1	A17NE (NW)	763	5	330799 347094
169	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 102.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Dee Primacy: 1	A17NE (NW)	769	5	330795 347098
170	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 53.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Dee Primacy: 1	A19SE (NE)	769	5	332203 346697
171	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 81.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Dee Primacy: 1	A9NE (SE)	787	5	332193 345831
172	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 260.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Dee Primacy: 1	A9SW (SE)	791	5	331931 345483
173	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 4.5 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Dee Primacy: 1	A17NE (NW)	802	5	330706 347056

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
174	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 44.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Dee Primacy: 1	A19NW (NE)	802	5	331991 347072
175	OS Water Network Lines Watercourse Form: Lake Watercourse Length: 28.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Dee Primacy: 1	A17NE (NW)	804	5	330702 347055
176	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 5.0 Watercourse Level: Underground Permanent: True Watercourse Name: Black Brook Catchment Name: Dee Primacy: 1	A9SE (SE)	809	5	332029 345542
177	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 2.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Aberderfyn Catchment Name: Dee Primacy: 1	A3NE (S)	809	5	331460 345291
178	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 78.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Black Brook Catchment Name: Dee Primacy: 1	A9SE (SE)	811	5	332033 345544
179	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 194.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Black Brook Catchment Name: Dee Primacy: 1	A3NE (S)	811	5	331462 345289
180	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 3.9 Watercourse Level: Underground Permanent: True Watercourse Name: Black Brook Catchment Name: Dee Primacy: 1	A19NE (NE)	814	5	332036 347047
181	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 18.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Black Brook Catchment Name: Dee Primacy: 1	A19NE (NE)	816	5	332035 347050
182	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 272.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Black Brook Catchment Name: Dee Primacy: 1	A19NE (NE)	829	5	332034 347069

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
183	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 3.7 Watercourse Level: Underground Permanent: True Watercourse Name: Black Brook Catchment Name: Dee Primacy: 1	A9SE (SE)	844	5	332106 345574
184	OS Water Network Lines Watercourse Form: Lake Watercourse Length: 18.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Dee Primacy: 1	A9NE (SE)	858	5	332273 345847
185	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 61.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Dee Primacy: 1	A23SW (N)	858	5	331240 347384
186	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 23.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Dee Primacy: 1	A9NE (SE)	858	5	332273 345847
187	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 174.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Aberderfyn Catchment Name: Dee Primacy: 1	A17SW (NW)	935	5	330367 346758
188	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 4.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Dee Primacy: 1	A7SW (SW)	957	5	330568 345375
189	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 3.6 Watercourse Level: Underground Permanent: True Watercourse Name: Black Brook Catchment Name: Dee Primacy: 1	A3NE (S)	965	5	331370 345129
190	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 1243.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Dee Primacy: 1	A15SW (E)	968	5	332428 346099
191	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 7.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Black Brook Catchment Name: Dee Primacy: 1	A3NE (S)	968	5	331369 345126

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
192	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 86.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Black Brook Catchment Name: Dee Primacy: 1	A3NE (S)	976	5	331368 345118
193	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 131.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Dee Primacy: 1	A3NE (S)	976	5	331369 345119
194	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 45.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Dee Primacy: 1	A9SE (SE)	996	5	332171 345420
195	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 189.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Dee Primacy: 1	A10NW (E)	999	5	332436 345863

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
196	Historical Landfill Sites Licence Holder: Sita Uk Location: Bangor Road, Johnstown, Wrexham Name: Hafod Quarry Operator Location: Not Supplied Boundary Accuracy: As Supplied Provider Reference: EAHLD34211 First Input Date: Not Supplied Last Input Date: Not Supplied Specified Waste: Not Supplied Type: EA Waste Ref: 37201 Regis Ref: WW1/L/SWM001 WRC Ref: Not Supplied BGS Ref: Not Supplied Other Ref: Not Supplied	A8NW (SW)	344	2	331083 345771
197	Historical Landfill Sites Licence Holder: J R Longmate Location: Sontley Name: Middle Sontley Farm Operator Location: Not Supplied Boundary Accuracy: As Supplied Provider Reference: EAHLD15134 First Input Date: 31st July 1977 Last Input Date: 31st July 1979 Specified Waste: Deposited Waste included Inert, Industrial and Household Waste Type: EA Waste Ref: 0 Regis Ref: Not Supplied WRC Ref: 6955/0065 BGS Ref: Not Supplied Other Ref: WMBC/L13	A19SE (NE)	902	2	332305 346803
198	Licensed Waste Management Facilities (Landfill Boundaries) Name: Hafod Quarry Landfill Licence Number: 37286 Location: Bangor Road, Johnstown, Wrexham, Clwyd, LL14 6ET Licence Holder: Cory Environmental (Central) Ltd Authority: Natural Resources Wales Site Category: Household, Commercial And Industrial Waste Landfills Max Input Rate: Not Supplied Licence Status: PPC Issued: 8th March 2005 Positional Accuracy: Positioned by the supplier Boundary Accuracy: As Supplied	A8NW (SW)	337	2	331075 345782
199	Licensed Waste Management Facilities (Landfill Boundaries) Name: Hafod Quarry Licence Number: 37201 Location: Bangor Road, Johnstown, Wrexham, LL14 6ET Licence Holder: Sita Uk Authority: Natural Resources Wales Site Category: Co-disposal Landfill Sites Max Input Rate: Large (Equal to or greater than 75,000 tonnes per year) Licence Status: Inactive Issued: 30th April 1999 Positional Accuracy: Positioned by the supplier Boundary Accuracy: As Supplied	A8NW (SW)	344	2	331083 345771
200	Licensed Waste Management Facilities (Landfill Boundaries) Name: Not Supplied Licence Number: 37201 Location: Not Supplied Licence Holder: Not Supplied Authority: Natural Resources Wales Site Category: Not Supplied Max Input Rate: Not Supplied Licence Status: Inactive Issued: Not Supplied Positional Accuracy: Positioned by the supplier Boundary Accuracy: As Supplied	A8NW (SW)	344	2	331083 345771

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
201	Licensed Waste Management Facilities (Locations) Licence Number: DP3691SB Location: F B Skips Ltd, Hafod, Wrexham, Clwyd, Wrexham, LL14 6HF Operator Name: F B Skips Ltd Operator Location: Not Supplied Authority: Natural Resources Wales Site Category: Household, Commercial And Industrial Transfer Stations Licence Status: Expired Issued: 30th September 1997 Last Modified: Not Supplied Expires: 14th February 2012 Suspended: Not Supplied Revoked: Not Supplied Surrendered: Not Supplied IPPC Reference: Not Supplied Positional Accuracy: Located by supplier to within 10m	A13NW (NW)	54	2	331213 346446
201	Licensed Waste Management Facilities (Locations) Licence Number: EB3390HL Location: Enviroclear Site Services Limited, Enviroclear Site Services Limited, Hafod Yard, Hafod Road, Ruabon, Wrexham, LL14 6HF Operator Name: Enviroclear Site Services Limited Operator Location: Not Supplied Authority: Natural Resources Wales Site Category: Household, Commercial And Industrial Transfer Stations Licence Status: Effective Issued: 9th April 2021 Last Modified: Not Supplied Expires: Not Supplied Suspended: Not Supplied Revoked: Not Supplied Surrendered: Not Supplied IPPC Reference: Not Supplied Positional Accuracy: Located by supplier to within 10m	A13NW (NW)	62	2	331209 346455
202	Licensed Waste Management Facilities (Locations) Licence Number: NB3339RH Location: Hafod Yard Transfer Station, Hafod Road, Johnstown, Wrexham, LL14 6HF Operator Name: Enviroclear Site Services Limited Operator Location: Not Supplied Authority: Natural Resources Wales Site Category: Metal Recycling Sites (Vehicle Dismantlers) Licence Status: Effective Issued: 9th April 2021 Last Modified: Not Supplied Expires: Not Supplied Suspended: Not Supplied Revoked: Not Supplied Surrendered: Not Supplied IPPC Reference: Not Supplied Positional Accuracy: Located by supplier to within 10m	A13NW (NW)	122	2	331099 346403
202	Licensed Waste Management Facilities (Locations) Licence Number: NB3339RH Location: Hafod Yard Transfer Station, Hafod Road, Johnstown, Wrexham, LL14 6HF Operator Name: Enviroclear Site Services Limited Operator Location: Not Supplied Authority: Natural Resources Wales Site Category: Household, Commercial And Industrial Transfer Stations Licence Status: Effective Issued: 9th April 2021 Last Modified: Not Supplied Expires: Not Supplied Suspended: Not Supplied Revoked: Not Supplied Surrendered: Not Supplied IPPC Reference: Not Supplied Positional Accuracy: Located by supplier to within 10m	A13NW (NW)	122	2	331099 346403

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
202	Licensed Waste Management Facilities (Locations) Licence Number: NB3339RH Location: Hafod Yard Transfer Station, Hafod Road, Hafod, Ruabon, Wrexham, Wrexham, Wrexham, LL14 6HF Operator Name: Enviroclear Site Services Limited Operator Location: Not Supplied Authority: Natural Resources Wales Site Category: Special Waste Transfer Stations Licence Status: Effective Issued: 15th January 2020 Last Modified: Not Supplied Expires: Not Supplied Suspended: Not Supplied Revoked: Not Supplied Surrendered: Not Supplied IPPC Reference: Not Supplied Positional Accuracy: Located by supplier to within 10m	A13NW (NW)	122	2	331099 346403
202	Licensed Waste Management Facilities (Locations) Licence Number: NB3339RH Location: Hafod Yard Transfer Station, Hafod Road, Hafod, Ruabon, Wrexham, Wrexham, Wrexham, LL14 6HF Operator Name: Enviroclear Site Services Limited Operator Location: Not Supplied Authority: Natural Resources Wales Site Category: Household, Commercial And Industrial Transfer Stations Licence Status: Effective Issued: 15th January 2020 Last Modified: Not Supplied Expires: Not Supplied Suspended: Not Supplied Revoked: Not Supplied Surrendered: Not Supplied IPPC Reference: Not Supplied Positional Accuracy: Located by supplier to within 10m	A13NW (NW)	122	2	331099 346403
202	Licensed Waste Management Facilities (Locations) Licence Number: 100343 Location: Hafod Yard, Hafod Road, Johnstown, Wrexham, LL14 2AT Operator Name: Enviroclear Site Services Limited Operator Location: Not Supplied Authority: Natural Resources Wales Site Category: Special Waste Transfer Stations Licence Status: Modified Issued: 3rd December 2008 Last Modified: 18th December 2013 Expires: Not Supplied Suspended: Not Supplied Revoked: Not Supplied Surrendered: Not Supplied IPPC Reference: Not Supplied Positional Accuracy: Located by supplier to within 10m	A13NW (NW)	122	2	331099 346403
203	Licensed Waste Management Facilities (Locations) Licence Number: JP3294FV Location: Hafod Quarry Landfill, Wrexham, Clwyd, Wrexham, LL14 6ET Operator Name: Cory Environmental (Central) Ltd Operator Location: Not Supplied Authority: Natural Resources Wales Site Category: Household, Commercial And Industrial Waste Landfills Licence Status: Expired Issued: 8th March 2005 Last Modified: Not Supplied Expires: 8th October 2004 Suspended: Not Supplied Revoked: Not Supplied Surrendered: Not Supplied IPPC Reference: Not Supplied Positional Accuracy: Located by supplier to within 10m	A8NW (S)	358	2	331114 345752

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
203	Licensed Waste Management Facilities (Locations) Licence Number: 37286 Location: Bangor Road, Johnstown, Wrexham, Clwyd, LL14 6ET Operator Name: Cory Environmental (Central) Ltd Operator Location: Not Supplied Authority: Natural Resources Wales Site Category: Household, Commercial And Industrial Waste Landfills Licence Status: To PPC Issued: 8th March 2005 Last Modified: Not Supplied Expires: Not Supplied Suspended: Not Supplied Revoked: Not Supplied Surrendered: Not Supplied IPPC Reference: BS8621IW Positional Accuracy: Located by supplier to within 10m	A8NW (S)	358	2	331114 345752
203	Licensed Waste Management Facilities (Locations) Licence Number: 37201 Location: Bangor Road, Johnstown, Wrexham, Clwyd, LL14 6ET Operator Name: Sita U K Ltd Operator Location: Not Supplied Authority: Natural Resources Wales Site Category: Co-disposal Landfill Sites Licence Status: Surrendered Issued: 30th April 1999 Last Modified: Not Supplied Expires: Not Supplied Suspended: Not Supplied Revoked: Not Supplied Surrendered: 23rd May 2005 IPPC Reference: Not Supplied Positional Accuracy: Located by supplier to within 10m	A8NW (SW)	362	2	331110 345749
	Local Authority Landfill Coverage Name: Wrexham County Borough Council - Has supplied landfill data		0	6	331337 346290
204	Potentially Infilled Land (Non-Water) Bearing Ref: W Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1993	A13SW (W)	0	-	331208 346299
205	Potentially Infilled Land (Non-Water) Bearing Ref: NW Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1993	A13NW (NW)	3	-	331255 346424
206	Potentially Infilled Land (Non-Water) Bearing Ref: SW Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1993	A7SW (SW)	755	-	330597 345635
207	Potentially Infilled Land (Non-Water) Bearing Ref: W Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1993	A7NW (W)	784	-	330423 345940
208	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1938	A13SW (SW)	0	-	331207 346129
209	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1900	A13SE (S)	14	-	331345 346089
210	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1964	A13SE (SE)	64	-	331482 346058
211	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1938	A12NE (NW)	415	-	330834 346531
212	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1938	A7NE (SW)	579	-	330743 345735
213	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1964	A19SE (NE)	647	-	332079 346683

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
214	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1964	A12NW (W)	688	-	330548 346535
215	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1900	A18NE (N)	702	-	331568 347187
216	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1964	A19NW (NE)	740	-	331826 347111
217	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1964	A18NW (N)	744	-	331147 347254
218	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1964	A19SE (NE)	838	-	332260 346743
219	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1879	A9NE (SE)	915	-	332244 345646
220	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1900	A17SW (NW)	955	-	330414 346884
221	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1879	A11NE (W)	998	-	330243 346590
222	Registered Landfill Sites Licence Holder: Longmate Demolition Contractors Licence Reference: L14 Site Location: Sontley Farm, Sontley, Wrexham, Clwyd Licence Easting: 332100 Licence Northing: 346600 Operator Location: As Site Address Authority: Environment Agency Wales, North Area Site Category: Landfill Max Input Rate: Medium (Equal to or greater than 25,000 and less than 75,000 tonnes per year) Waste Source: No known restriction on source of waste Restrictions: Status: Licence lapsed/cancelled/defunct/not applicable/surrenderedCancelled Dated: 1st May 1977 Preceded By: Not Given Licence: Superseded By: Not Given Licence: Positional Accuracy: Approximate location provided by supplier Boundary Accuracy: Not Applicable Authorised Waste: Concrete And Brick Rubble From Demolition	A14NW (E)	394	3	331868 346506

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
223	Registered Landfill Sites Licence Holder: Shropshire Waste Management Ltd Licence Reference: EAWML37201 Site Location: Hafod Quarry, Ruabon, WREXHAM, Clwyd, LL14 6ET Licence Easting: 330760 Licence Northing: 345800 Operator Location: 107 Longden Road, SHREWSBURY, Shropshire, SY3 9DS Authority: Environment Agency Wales, North Area Site Category: Landfill Max Input Rate: Large (Equal to or greater than 75,000 and less than 250,000 tonnes per year) Waste Source: No known restriction on source of waste Restrictions: Status: Site not yet started Dated: 30th April 1999 Preceded By: Not Given Licence: Superseded By: Not Given Licence: Positional Accuracy: Manually positioned to the address or location Boundary Accuracy: Not Applicable Authorised Waste: Bonded Asbestos Degradable/Non-Degradable Commercial Waste Degradable/Non-Degradable Household Waste Degradable/Non-Degradable Industrial Waste Inert Waste Metal Waste/Scrap Metal (Only As Small Admixtures With Permitted Wastes)) Prohibited Waste: Liquid Wastes Material With Haz.Code H 1 - Explosive Material With Haz.Code H 2 - Oxidising Material With Haz.Code H 3a - Highly Flammable Material With Haz.Code H 3b - Flammable Material With Haz.Code H 9 - Infectious Material With Haz.Code H10 - Teratogenic Material With Haz.Code H11 - Mutagenic Material With Haz.Code H12 - Can Release Toxic Gases Material With Haz.Code H13 - May Yield Leachates With Haz.Code Properties Material With Haz.Code H14 - Ecotoxic Other Waste/Waste Not Otherwise Specified Packaged Waste (Mixed/Unmixed) Or Bulk Loose Container Waste Special Waste (As In Epa 1990:S62 Of 1996 Regs) Other Than	A7NE (SW)	526	3	330760 345800
224	Registered Waste Transfer Sites Licence Holder: Haydn Roberts Skip Hire Licence Reference: NOW-506-L Site Location: Former A.R.C. Conblock Yard, Old Hafod Road, Hafod, Wrexham, Clwyd Operator Location: Hillcrest, Bangor Road, Gyfelia, WREXHAM, Clwyd, LL13 0YH Authority: Environment Agency Wales, North Area Site Category: Transfer Max Input Rate: Small (Equal to or greater than 10,000 and less than 25,000 tonnes per year) Waste Source: No known restriction on source of waste Restrictions: Licence Status: Operational as far as is knownOperational Dated: 30th September 1997 Preceded By: Not Given Licence: Superseded By: Not Given Licence: Positional Accuracy: Approximate location provided by supplier Boundary Quality: Not Supplied Authorised Waste: Com. & Ind. Waste Construction Ind. Wastes Household Waste (S75 Epa'90) Max.Storage Of Inert Waste Max.Storage Of Other Waste Max.Waste Permitted By Licence Prohibited Waste: Liquid Wastes Sludge Wastes Spec.Waste (Epa'90:S62/1996 Regs) Special Forms Of Asbestos Waste In Drums Waste N.O.S.	A13NW (NW)	120	3	331100 346400

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
225	Registered Waste Treatment or Disposal Sites Licence Holder: Haydn Roberts Licence Reference: L78 Site Location: Old A.R.C. Brickworks, Hafod Road, Ruabon, Wrexham, Clwyd Operator Location: Hillcrest, Bangor Road, Gyfelia, WREXHAM, Clwyd, LL13 0YH Authority: Environment Agency Wales, North Area Site Category: Scrapyard Max Input Rate: Very Small (Less than 10,000 tonnes per year) Waste Source: No known restriction on source of waste Restrictions: Licence Status: Licence lapsed/cancelled/defunct/not applicable/surrenderedCancelled Dated: 1st March 1994 Preceded By: Not Given Licence: Superseded By: Not Given Licence: Positional Accuracy: Approximate location provided by supplier Boundary Quality: Not Supplied Authorised Waste: Batteries & Acid Therein Max.Stor. Brake/Clutch Fluids Max.Stor. Coolant Sol.(Water/Ethylene Glycol Mix Fuel Oils, Incl. Diesel Max.Stor. Gearboxes/Transm. Units Max.Stor. Internal Combustion Engines Max.Stor. Mineral Oils/Hub Oils Max.Stor. Petrol Max.Stor. Scrap Vehicles, Including Tyres Max.Stor. Prohibited Waste: Cadmium Compounds Elemental Sodium/Potassium Liable To Cause Environmental Hazards Liquified Gas / Gas Under Pressure Mercury Compounds Percussive/Explosive/Similar Waste Special Wastes Sub'S Control. Radioactive Subs Act'60 Waste In Drums Water Soluble Waste	A13NW (N)	72	3	331300 346600

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
226	Control of Major Accident Hazards Sites (COMAH) Name: Easi - Gas (UK) Ltd Location: Hafod Tileries, Hafod, Ruabon, Wrexham, Clwyd, LL14 6ET Reference: 1027588 Type: Lower Tier Status: Active Positional Accuracy: Automatically positioned to the address	A13SW (SW)	26	7	331186 346217
227	Notification of Installations Handling Hazardous Substances (NIHHS) Name: Denis Ruabon Ltd Location: Hafod Tileries, Hafod, Ruabon, Wrexham, Clwyd, LL14 6ET Status: Not Active Positional Accuracy: Automatically positioned to the address	A13SW (SW)	26	7	331186 346217
228	Planning Hazardous Substance Consents Name: Dennis Ruabon Ltd Location: Hafod Tileries, Ruabon, WREXHAM, Clwyd, LL14 6ET Authority: Wrexham County Borough Council, Planning Department Application Ref: 6/0002/0809 Hazardous: Unknown at time of report Substance: Maximum Quantity: 380 Application date: 20th October 1992 Decision: Deemed Consent Granted Positional Accuracy: Automatically positioned to the address	A13SW (SW)	26	8	331186 346217

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS 1:625,000 Solid Geology Description: Warwickshire Group	A13SE (W)	0	1	331337 346290
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic Concentration: <15 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <100 mg/kg Nickel Concentration: 15 - 30 mg/kg	A13SE (W)	0	1	331337 346290
229	BGS Recorded Mineral Sites Site Name: Hafod-Y-Bwch Colliery Location: Rhosllanerchrugog, Wrexham, Denbighshire Source: British Geological Survey, National Geoscience Information Service Reference: 185616 Type: Underground Status: Ceased Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Carboniferous Geology: Etruria Formation Commodity: Coal - Deep Positional Accuracy: Located by supplier to within 10m	A13NW (NW)	134	1	331177 346575
230	BGS Recorded Mineral Sites Site Name: Hafod Red Brick Works Clay Pits Location: Rhosllanerchrugog, Wrexham, Denbighshire Source: British Geological Survey, National Geoscience Information Service Reference: 185621 Type: Opencast Status: Ceased Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Carboniferous Geology: Etruria Formation Commodity: Common Clay and Shale Positional Accuracy: Located by supplier to within 10m	A7NE (SW)	461	1	330983 345690
231	BGS Recorded Mineral Sites Site Name: Hafod Red Brick Works Clay Pits Location: Rhosllanerchrugog, Wrexham, Denbighshire Source: British Geological Survey, National Geoscience Information Service Reference: 185622 Type: Opencast Status: Ceased Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Carboniferous Geology: Etruria Formation Commodity: Common Clay and Shale Positional Accuracy: Located by supplier to within 10m	A8SW (S)	606	1	331058 345510
232	BGS Recorded Mineral Sites Site Name: Hafod Location: Ruabon, Wrexham, Denbighshire Source: British Geological Survey, National Geoscience Information Service Reference: 4744 Type: Opencast Status: Dormant Operator: Cory Environmental Ltd. Operator Location: Not Supplied Periodic Type: Quaternary Geology: Glaciofluvial Deposits, Devensian Commodity: Sand and Gravel Positional Accuracy: Located by supplier to within 10m	A7SE (SW)	651	1	330880 345530

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
232	BGS Recorded Mineral Sites Site Name: Hafod Location: Ruabon, Wrexham, Denbighshire Source: British Geological Survey, National Geoscience Information Service Reference: 4744 Type: Opencast Status: Dormant Operator: Cory Environmental Ltd. Operator Location: Not Supplied Periodic Type: Carboniferous Geology: Etruria Formation (Ruabon Marl Formation) Commodity: Common Clay and Shale Positional Accuracy: Located by supplier to within 10m	A7SE (SW)	651	1	330880 345530
233	BGS Recorded Mineral Sites Site Name: Wharf Cottage Sand Pit Location: Rhosllanerchrugog, Wrexham, Denbighshire Source: British Geological Survey, National Geoscience Information Service Reference: 185619 Type: Opencast Status: Ceased Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Quaternary Geology: Glaciofluvial Deposits, Devensian Commodity: Sand Positional Accuracy: Located by supplier to within 10m	A7NW (W)	778	1	330430 345937
234	BGS Recorded Mineral Sites Site Name: Vauxhall Colliery Location: Rhosllanerchrugog, Wrexham, Denbighshire Source: British Geological Survey, National Geoscience Information Service Reference: 185620 Type: Underground Status: Ceased Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Carboniferous Geology: Etruria Formation Commodity: Coal - Deep Positional Accuracy: Located by supplier to within 10m	A7SE (SW)	884	1	330728 345349
	BGS Measured Urban Soil Chemistry No data available				
	BGS Urban Soil Chemistry Averages No data available				
	Coal Mining Affected Areas Description: In an area which may be affected by coal mining activity. It is recommended that a coal mining report is obtained from the Coal Authority. Contact details are included in the Useful Contacts section of this report.	A13SE (W)	0	9	331337 346290
	Mining Instability Mining Evidence: Inconclusive Coal Mining Source: Ove Arup & Partners Boundary Quality: As Supplied	A13SE (W)	0	-	331337 346290
	Non Coal Mining Areas of Great Britain Risk: Rare Source: British Geological Survey, National Geoscience Information Service	A13SE (W)	0	1	331337 346290
	Potential for Collapsible Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13SE (W)	0	1	331337 346290
	Potential for Compressible Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13SE (W)	0	1	331337 346290
	Potential for Compressible Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13NW (NW)	0	1	331225 346388
	Potential for Compressible Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13SE (SE)	31	1	331496 346131
	Potential for Compressible Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13SW (SW)	75	1	331148 346040

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Potential for Compressible Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A8NE (S)	155	1	331471 345961
	Potential for Ground Dissolution Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13SE (W)	0	1	331337 346290
	Potential for Landslide Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13SE (W)	0	1	331337 346290
	Potential for Landslide Ground Stability Hazards Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service	A18SW (N)	124	1	331322 346654
	Potential for Landslide Ground Stability Hazards Hazard Potential: Moderate Source: British Geological Survey, National Geoscience Information Service	A18SE (N)	202	1	331338 346732
	Potential for Running Sand Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13SE (W)	0	1	331337 346290
	Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13SE (W)	0	1	331337 346290
	Radon Potential - Radon Affected Areas Affected Area: The property is in a Lower probability radon area (less than 1% of homes are estimated to be at or above the Action Level). Source: British Geological Survey, National Geoscience Information Service	A13SE (W)	0	1	331337 346290
	Radon Potential - Radon Protection Measures Protection Measure: No radon protective measures are necessary in the construction of new dwellings or extensions Source: British Geological Survey, National Geoscience Information Service	A13SE (W)	0	1	331337 346290

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
235	Contemporary Trade Directory Entries Name: M & J T Davies Location: Hafod Rd, Ruabon, Wrexham, Clwyd, LL14 6HF Classification: Scrap Metal Merchants Status: Inactive Positional Accuracy: Manually positioned to the road within the address or location	A13NW (W)	6	-	331206 346332
236	Contemporary Trade Directory Entries Name: Enviroclear Site Services Ltd Location: Hafod, Ruabon, Wrexham, Clwyd, LL14 6HF Classification: Road Haulage Services Status: Active Positional Accuracy: Manually positioned within the geographical locality	A13SW (S)	8	-	331318 346097
237	Contemporary Trade Directory Entries Name: Easy Gas Location: Hafod Tileries, Hafod, Ruabon, Wrexham, Clwyd, LL14 6ET Classification: Fuel Dealers Status: Inactive Positional Accuracy: Automatically positioned to the address	A13SW (SW)	26	-	331186 346217
237	Contemporary Trade Directory Entries Name: Knights Concrete Flooring Ltd Location: Hafod, Ruabon, Wrexham, Clwyd, LL14 6ET Classification: Concrete Contractors Status: Inactive Positional Accuracy: Manually positioned within the geographical locality	A13SW (SW)	26	-	331186 346217
237	Contemporary Trade Directory Entries Name: Natural Tiles Ltd Location: HAFOD TILERIES, HAFOD, RUABON, LL14 6ET Classification: Tile Manufacturers Status: Active Positional Accuracy: Automatically positioned to the address	A13SW (SW)	27	-	331185 346217
237	Contemporary Trade Directory Entries Name: Eco-Readymix Location: Hafod Tileries, Hafod, Ruabon, Wrexham, LL14 6ET Classification: Concrete & Mortar Ready Mixed Status: Active Positional Accuracy: Automatically positioned to the address	A13SW (SW)	27	-	331185 346217
238	Contemporary Trade Directory Entries Name: Enviroclear Site Services Location: Hafod, Ruabon, Wrexham, LL14 6HF Classification: Recycling Services Status: Inactive Positional Accuracy: Automatically positioned to the address	A13NW (NW)	57	-	331184 346415
239	Contemporary Trade Directory Entries Name: Eco Operative Location: Maes Isaf, Johnstown, Wrexham, LL14 1UU Classification: Heating Equipment - Sales & Service Status: Inactive Positional Accuracy: Automatically positioned to the address	A12NW (W)	784	-	330427 346340
240	Contemporary Trade Directory Entries Name: Fry Fresh Edible Oils Ltd Location: Wrexham, LL14 6HA Classification: Distribution Services Status: Active Positional Accuracy: Automatically positioned to the address	A7SW (SW)	877	-	330531 345523
240	Contemporary Trade Directory Entries Name: Steni Uk Ltd Location: Unit 1-4, Vauxhall Industrial Estate, Ruabon, Wrexham, Clwyd, LL14 6HA Classification: Cladding Suppliers & Installers Status: Inactive Positional Accuracy: Automatically positioned to the address	A7SW (SW)	921	-	330509 345483
241	Contemporary Trade Directory Entries Name: Ceram Tec Location: Vauxhall Industrial Estate, Ruabon, Wrexham, Clwyd, LL14 6HY Classification: Ceramic Manufacturers, Supplies & Services Status: Active Positional Accuracy: Automatically positioned to the address	A7SW (SW)	881	-	330470 345594
242	Contemporary Trade Directory Entries Name: Belle Blinds & Curtains Location: 36, Bangor Road, Johnstown, Wrexham, Clwyd, LL14 2SP Classification: Blinds, Awnings & Canopies Status: Inactive Positional Accuracy: Automatically positioned to the address	A11SE (W)	882	-	330311 346034

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
243	Contemporary Trade Directory Entries Name: A W Services Northwest Ltd Location: Unit 8a, Vauxhall Industrial Estate, Ruabon, WREXHAM, Clwyd, LL14 6HA Classification: Powder Coatings Status: Inactive Positional Accuracy: Automatically positioned to the address	A7SW (SW)	933	-	330544 345429
243	Contemporary Trade Directory Entries Name: Link Powder Coating & Metal Finishing Ltd Location: Unit 8a, Vauxhall Industrial Estate, Ruabon, Wrexham, LL14 6HA Classification: Powder Coatings Status: Active Positional Accuracy: Automatically positioned to the address	A7SW (SW)	940	-	330538 345425
244	Points of Interest - Commercial Services Name: Enviroclear Site Services Ltd Location: Hafod Yard, Hafod, Ruabon, LL14 2AT Category: Transport, Storage and Delivery Class Code: Distribution and Haulage Positional Accuracy: Positioned to address or location	A13NW (NW)	57	10	331184 346415
244	Points of Interest - Commercial Services Name: Enviroclear Site Services Location: Hafod, Ruabon, Wrexham, LL14 6HF Category: Recycling Services Class Code: Recycling, Reclamation and Disposal Positional Accuracy: Positioned to address or location	A13NW (NW)	57	10	331184 346415
245	Points of Interest - Manufacturing and Production Name: Works Location: LL14 Category: Industrial Features Class Code: Unspecified Works Or Factories Positional Accuracy: Positioned to an adjacent address or location	A13SW (SW)	98	10	331092 346168
245	Points of Interest - Manufacturing and Production Name: Works Location: Not Supplied Category: Industrial Features Class Code: Unspecified Works Or Factories Positional Accuracy: Positioned to an adjacent address or location	A13SW (SW)	101	10	331090 346169
246	Points of Interest - Manufacturing and Production Name: Tanks Location: LL14 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to an adjacent address or location	A12SE (W)	254	10	330944 346221
247	Points of Interest - Manufacturing and Production Name: W H Jones (Farms) Ltd Location: Edisbury Grange, Gyfelia, Wrexham, LL13 0YL Category: Farming Class Code: Livestock Farming Positional Accuracy: Positioned to address or location	A8NE (SE)	441	10	331588 345696
248	Points of Interest - Manufacturing and Production Name: Tank Location: LL13 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to an adjacent address or location	A9NW (SE)	502	10	331692 345673
249	Points of Interest - Manufacturing and Production Name: Clay Pit Location: LL14 Category: Extractive Industries Class Code: Sand, Gravel and Clay Extraction and Merchants Positional Accuracy: Positioned to an adjacent address or location	A8SW (S)	571	10	331042 345550
250	Points of Interest - Manufacturing and Production Name: Hafod Quarry (Dis) Location: LL14 Category: Extractive Industries Class Code: Unspecified Quarries Or Mines Positional Accuracy: Positioned to an adjacent address or location	A7SE (SW)	590	10	330939 345568
251	Points of Interest - Manufacturing and Production Name: Solar Panels Location: LL13 Category: Industrial Features Class Code: Energy Production Positional Accuracy: Positioned to an adjacent address or location	A19SW (NE)	651	10	331900 346950

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
252	Points of Interest - Manufacturing and Production Name: Clay Pit Location: LL14 Category: Extractive Industries Class Code: Sand, Gravel and Clay Extraction and Merchants Positional Accuracy: Positioned to an adjacent address or location	A7SE (SW)	692	10	330943 345456
253	Points of Interest - Public Infrastructure Name: Tip Location: LL14 Category: Infrastructure and Facilities Class Code: Refuse Disposal Facilities Positional Accuracy: Positioned to an adjacent address or location	A13SW (SW)	154	10	331064 346014
253	Points of Interest - Public Infrastructure Name: Spoil Heap Location: LL14 Category: Infrastructure and Facilities Class Code: Waste Storage, Processing and Disposal Positional Accuracy: Positioned to an adjacent address or location	A8NW (SW)	186	10	331060 345969
254	Points of Interest - Public Infrastructure Name: Slurry Bed Location: LL13 Category: Infrastructure and Facilities Class Code: Waste Storage, Processing and Disposal Positional Accuracy: Positioned to an adjacent address or location	A9SW (SE)	553	10	331688 345614
255	Points of Interest - Public Infrastructure Name: Slurry Lagoon Location: LL13 Category: Infrastructure and Facilities Class Code: Waste Storage, Processing and Disposal Positional Accuracy: Positioned to an adjacent address or location	A19NW (NE)	748	10	331872 347092
255	Points of Interest - Public Infrastructure Name: Slurry Lagoon Location: LL13 Category: Infrastructure and Facilities Class Code: Waste Storage, Processing and Disposal Positional Accuracy: Positioned to address or location	A19NW (NE)	749	10	331873 347093
256	Points of Interest - Recreational and Environmental Name: Play Area Location: Not Supplied Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to an adjacent address or location	A12SW (W)	604	10	330594 346255
256	Points of Interest - Recreational and Environmental Name: Play Area Location: LL14 Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to an adjacent address or location	A12SW (W)	605	10	330593 346253
257	Points of Interest - Recreational and Environmental Name: Childrens Playground Location: Not Supplied Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to an adjacent address or location	A7NW (SW)	925	10	330357 345700
257	Points of Interest - Recreational and Environmental Name: Childrens Playground Location: (Heol Kenyon), LL14 Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to address or location	A7NW (SW)	927	10	330356 345698

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
258	Ancient Woodland Name: Not Supplied Reference: 30633 Area(m²): 27060.97 Type: Restored Ancient Woodland Site	A19SE (NE)	666	2	332012 346849
259	Sites of Special Scientific Interest Name: Stryt Las Ar Hafod Multiple Areas: Y Total Area (m2): 697177.17 Source: Natural Resources Wales Reference: 137631wsp Designation Details: Biological Designation Date: 27th November 1997 Date Type: Notified	A13NW (NW)	8	2	331249 346422
260	Special Areas of Conservation Name: Johnstown Newt Sites Multiple Areas: Y Total Area (m2): 697177.17 Source: Natural Resources Wales Reference: Uk0030173 Status: Designated	A13NW (NW)	8	2	331249 346422

Agency & Hydrological	Version	Update Cycle
Contaminated Land Register Entries and Notices Oswestry Borough Council (now part of Shropshire Council) - Environmental Health Department Natural Resources Wales North Shropshire District Council (now part of Shropshire Council) - Environmental Health Department Shropshire Council - Environmental Health Department Wrexham County Borough Council - Public Protection Department Denbighshire County Council - Public Protection Department	December 2008 June 2020 October 2008 October 2017 October 2017 September 2017	 Annually Annually Annually Annual Rolling Update
Discharge Consents Environment Agency - Welsh Region Natural Resources Wales	August 2014 July 2022	Quarterly Quarterly
Enforcement and Prohibition Notices Environment Agency - Midlands Region Environment Agency - Welsh Region	March 2013 March 2013	
Integrated Pollution Controls Environment Agency - Midlands Region Environment Agency - Welsh Region	January 2009 January 2009	
Integrated Pollution Prevention And Control Environment Agency - Welsh Region Environment Agency - Midlands Region Natural Resources Wales	January 2021 July 2022 October 2022	Quarterly Quarterly Quarterly
Local Authority Integrated Pollution Prevention And Control Wrexham County Borough Council - Environmental Health Department Denbighshire County Council - Environmental Health Department North Shropshire District Council (now part of Shropshire Council) - Environmental Health Department Shropshire Council - Environmental Health Department Oswestry Borough Council (now part of Shropshire Council) - Environmental Health Department	April 2014 December 2014 June 2008 October 2014 September 2008	Variable Variable Not Applicable Variable Not Applicable
Local Authority Pollution Prevention and Controls Wrexham County Borough Council - Environmental Health Department Denbighshire County Council - Environmental Health Department North Shropshire District Council (now part of Shropshire Council) - Environmental Health Department Shropshire Council - Environmental Health Department Oswestry Borough Council (now part of Shropshire Council) - Environmental Health Department	April 2014 December 2014 June 2008 October 2014 September 2008	Annual Rolling Update Annual Rolling Update Not Applicable Annually Not Applicable
Local Authority Pollution Prevention and Control Enforcements Wrexham County Borough Council - Environmental Health Department Denbighshire County Council - Environmental Health Department North Shropshire District Council (now part of Shropshire Council) - Environmental Health Department Shropshire Council - Environmental Health Department Oswestry Borough Council (now part of Shropshire Council) - Environmental Health Department	April 2014 December 2014 June 2008 October 2014 September 2008	Variable Variable Not Applicable Variable Not Applicable
Nearest Surface Water Feature Ordnance Survey	September 2022	
Pollution Incidents to Controlled Waters Environment Agency - Welsh Region	December 1998	
Prosecutions Relating to Authorised Processes Environment Agency - Midlands Region Environment Agency - Welsh Region Natural Resources Wales	July 2015 July 2015 July 2015	

Agency & Hydrological	Version	Update Cycle
Prosecutions Relating to Controlled Waters Environment Agency - Midlands Region Environment Agency - Welsh Region Natural Resources Wales	March 2013 March 2013 March 2013	
Registered Radioactive Substances Natural Resources Wales Environment Agency - Midlands Region Environment Agency - Welsh Region	January 2015 June 2016 June 2016	As notified As notified
River Quality Environment Agency - Head Office	November 2001	Not Applicable
River Quality Biology Sampling Points Environment Agency - Head Office	April 2012	
Substantiated Pollution Incident Register Environment Agency Wales - North Area Environment Agency - Midlands Region - Upper Severn Area Environment Agency - Midlands Region - West Area Natural Resources Wales	January 2021 July 2022 July 2022 October 2022	Quarterly Quarterly Quarterly Quarterly
Water Abstractions Natural Resources Wales Environment Agency - Welsh Region	July 2022 October 2022	Quarterly Quarterly
Water Industry Act Referrals Natural Resources Wales Environment Agency - Midlands Region Environment Agency - Welsh Region	July 2022 October 2017 October 2017	Quarterly
Groundwater Vulnerability Map Natural Resources Wales	June 2018	As notified
Bedrock Aquifer Designations Natural Resources Wales	January 2018	Annually
Superficial Aquifer Designations Natural Resources Wales	January 2018	Annually
Source Protection Zones Natural Resources Wales	July 2022	Annual Rolling Update
Extreme Flooding from Rivers or Sea without Defences Natural Resources Wales	September 2020	
Flooding from Rivers or Sea without Defences Natural Resources Wales	September 2020	
Areas Benefiting from Flood Defences Natural Resources Wales	November 2019	Quarterly
Flood Water Storage Areas Natural Resources Wales	August 2019	Quarterly
Flood Defences Natural Resources Wales	November 2019	Quarterly
OS Water Network Lines Ordnance Survey	October 2022	Quarterly
Surface Water 1 in 30 year Flood Extent Natural Resources Wales	May 2018	Annually
Surface Water 1 in 100 year Flood Extent Natural Resources Wales	May 2018	Annually
Surface Water 1 in 1000 year Flood Extent Natural Resources Wales	May 2018	Annually
Surface Water Suitability Natural Resources Wales	February 2016	Annually

Agency & Hydrological	Version	Update Cycle
BGS Groundwater Flooding Susceptibility British Geological Survey - National Geoscience Information Service	May 2013	As notified
Waste	Version	Update Cycle
BGS Recorded Landfill Sites British Geological Survey - National Geoscience Information Service	November 2002	As notified
Historical Landfill Sites Natural Resources Wales	July 2019	Quarterly
Integrated Pollution Control Registered Waste Sites Environment Agency - Midlands Region Environment Agency - Welsh Region	January 2009 January 2009	Not Applicable Not Applicable
Licensed Waste Management Facilities (Landfill Boundaries) Natural Resources Wales Environment Agency - Midlands Region - Upper Severn Area Environment Agency - Midlands Region - West Area Environment Agency Wales - North Area	October 2021 October 2022 October 2022 October 2022	Quarterly Quarterly Quarterly Quarterly
Licensed Waste Management Facilities (Locations) Environment Agency Wales - North Area Environment Agency - Midlands Region - Upper Severn Area Environment Agency - Midlands Region - West Area Natural Resources Wales	July 2021 July 2022 July 2022 July 2022	Quarterly Quarterly Quarterly Quarterly
Local Authority Landfill Coverage Denbighshire County Council - Environmental Health Department North Shropshire District Council (now part of Shropshire Council) Oswestry Borough Council (now part of Shropshire Council) - Environmental Health Department Shropshire County Council (now part of Shropshire Council) - Shropshire Records And Research Centre Wrexham County Borough Council	February 2003 February 2003 February 2003 February 2003 February 2003	Not Applicable Not Applicable Not Applicable Not Applicable Not Applicable
Local Authority Recorded Landfill Sites Denbighshire County Council - Environmental Health Department North Shropshire District Council (now part of Shropshire Council) Oswestry Borough Council (now part of Shropshire Council) - Environmental Health Department Shropshire County Council (now part of Shropshire Council) - Shropshire Records And Research Centre Wrexham County Borough Council	October 2018 October 2018 October 2018 October 2018 October 2018	
Potentially Infilled Land (Non-Water) Landmark Information Group Limited	December 1999	Not Applicable
Potentially Infilled Land (Water) Landmark Information Group Limited	December 1999	
Registered Landfill Sites Environment Agency - Midlands Region - Upper Severn Area Environment Agency - Midlands Region - West Area Environment Agency Wales - North Area	March 2006 March 2006 March 2006	Not Applicable Not Applicable Not Applicable
Registered Waste Transfer Sites Environment Agency - Midlands Region - Upper Severn Area Environment Agency - Midlands Region - West Area Environment Agency Wales - North Area	April 2018 April 2018 April 2018	
Registered Waste Treatment or Disposal Sites Environment Agency - Midlands Region - Upper Severn Area Environment Agency - Midlands Region - West Area Environment Agency Wales - North Area	June 2015 June 2015 June 2015	

Hazardous Substances	Version	Update Cycle
Control of Major Accident Hazards Sites (COMAH) Health and Safety Executive	January 2022	Bi-Annually
Explosive Sites Health and Safety Executive	March 2017	Annually
Notification of Installations Handling Hazardous Substances (NIHHS) Health and Safety Executive	August 2001	
Planning Hazardous Substance Enforcements North Shropshire District Council (now part of Shropshire Council) Denbighshire County Council - Planning Department Shropshire Council - Planning Department Wrexham County Borough Council - Planning Department Shropshire County Council (now part of Shropshire Council) Oswestry Borough Council (now part of Shropshire Council)	February 2009 February 2016 February 2016 February 2016 March 2009 October 2008	Not Applicable Variable Variable Variable Annual Rolling Update Not Applicable
Planning Hazardous Substance Consents North Shropshire District Council (now part of Shropshire Council) Denbighshire County Council - Planning Department Shropshire Council - Planning Department Wrexham County Borough Council - Planning Department Shropshire County Council (now part of Shropshire Council) Oswestry Borough Council (now part of Shropshire Council)	February 2009 February 2016 February 2016 February 2016 March 2009 October 2008	Not Applicable Variable Variable Variable Annual Rolling Update Not Applicable

Geological	Version	Update Cycle
BGS 1:625,000 Solid Geology British Geological Survey - National Geoscience Information Service	January 2009	As notified
BGS Estimated Soil Chemistry British Geological Survey - National Geoscience Information Service	December 2015	As notified
BGS Recorded Mineral Sites British Geological Survey - National Geoscience Information Service	November 2022	Bi-Annually
CBSCB Compensation District Cheshire Brine Subsidence Compensation Board (CBSCB) Cheshire Brine Subsidence Compensation Board (CBSCB)	August 2011 November 2020	As notified
Coal Mining Affected Areas The Coal Authority - Property Searches	March 2014	Annual Rolling Update
Mining Instability Ove Arup & Partners	June 1998	Not Applicable
Non Coal Mining Areas of Great Britain British Geological Survey - National Geoscience Information Service	May 2015	Not Applicable
Potential for Collapsible Ground Stability Hazards British Geological Survey - National Geoscience Information Service	April 2020	As notified
Potential for Compressible Ground Stability Hazards British Geological Survey - National Geoscience Information Service	January 2019	As notified
Potential for Ground Dissolution Stability Hazards British Geological Survey - National Geoscience Information Service	January 2019	As notified
Potential for Landslide Ground Stability Hazards British Geological Survey - National Geoscience Information Service	January 2019	As notified
Potential for Running Sand Ground Stability Hazards British Geological Survey - National Geoscience Information Service	January 2019	As notified
Potential for Shrinking or Swelling Clay Ground Stability Hazards British Geological Survey - National Geoscience Information Service	January 2019	As notified
Radon Potential - Radon Affected Areas British Geological Survey - National Geoscience Information Service	September 2022	Annually
Radon Potential - Radon Protection Measures British Geological Survey - National Geoscience Information Service	September 2022	Annually

Industrial Land Use	Version	Update Cycle
Contemporary Trade Directory Entries Thomson Directories	October 2022	Quarterly
Fuel Station Entries Catalist Ltd - Experian	August 2022	Quarterly
Gas Pipelines National Grid	October 2021	Bi-Annually
Points of Interest - Commercial Services PointX	December 2022	Quarterly
Points of Interest - Education and Health PointX	December 2022	Quarterly
Points of Interest - Manufacturing and Production PointX	December 2022	Quarterly
Points of Interest - Public Infrastructure PointX	December 2022	Quarterly
Points of Interest - Recreational and Environmental PointX	December 2022	Quarterly
Underground Electrical Cables National Grid	May 2021	Bi-Annually

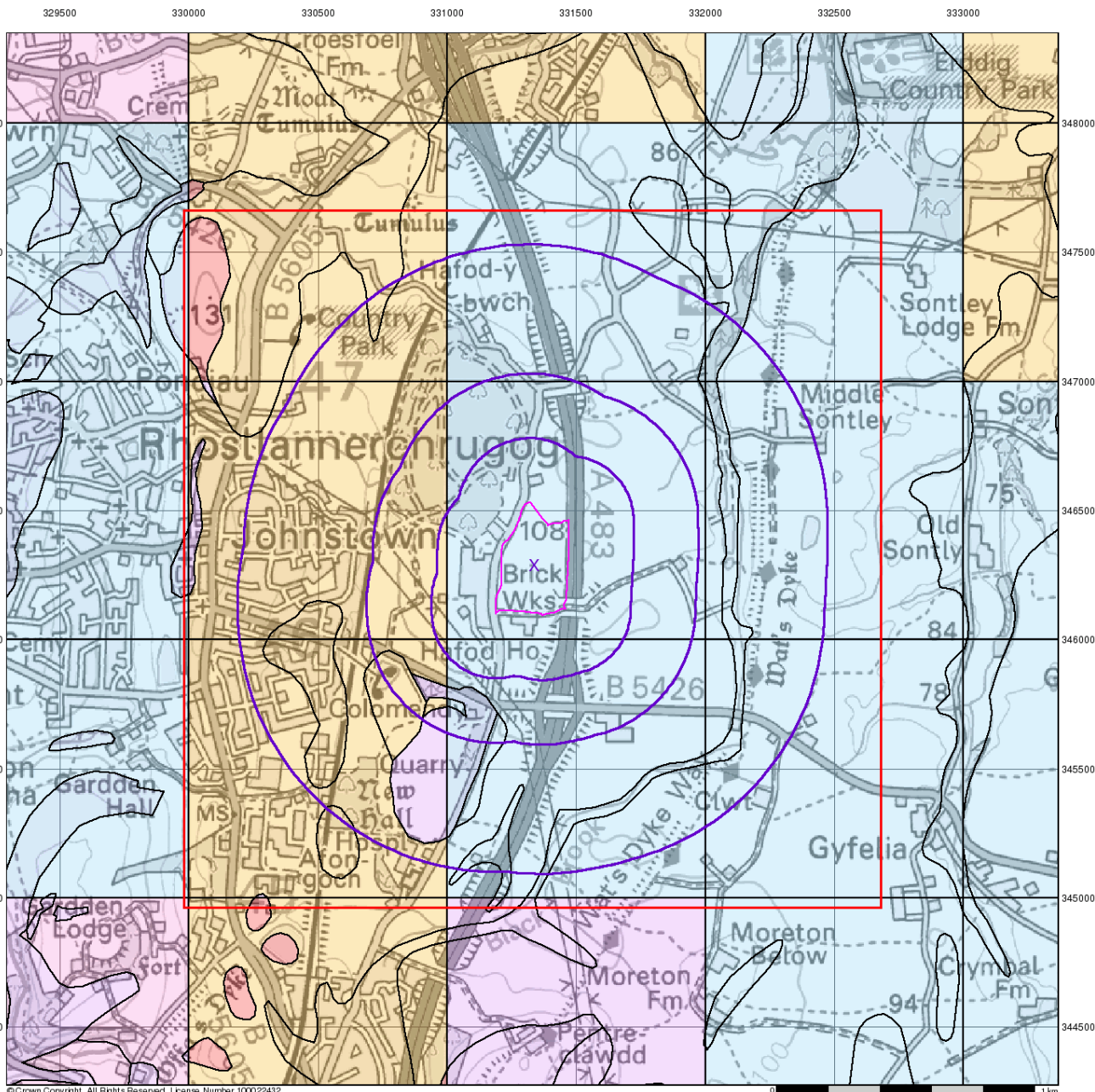
Sensitive Land Use	Version	Update Cycle
Ancient Woodland Natural Resources Wales	September 2018	Bi-Annually
Areas of Adopted Green Belt Denbighshire County Council North Shropshire District Council (now part of Shropshire Council) Oswestry Borough Council (now part of Shropshire Council) Shropshire Council - Planning Department Wrexham County Borough Council	July 2022 July 2022 July 2022 July 2022 July 2022	Quarterly Quarterly Quarterly Quarterly Quarterly
Areas of Unadopted Green Belt Denbighshire County Council North Shropshire District Council (now part of Shropshire Council) Oswestry Borough Council (now part of Shropshire Council) Shropshire Council - Planning Department Wrexham County Borough Council	July 2022 July 2022 July 2022 July 2022 July 2022	Quarterly Quarterly Quarterly Quarterly Quarterly
Areas of Outstanding Natural Beauty Natural England Natural Resources Wales	August 2022 August 2022	Bi-Annually Bi-Annually
Environmentally Sensitive Areas Natural England The National Assembly for Wales - GI Services (Department of Planning & Countryside)	January 2017 January 2017	
Forest Parks Forestry Commission	April 1997	Not Applicable
Local Nature Reserves Denbighshire County Council Wrexham County Borough Council Natural England	August 2018 August 2018 February 2021	Bi-Annually Bi-Annually Bi-Annually
Marine Nature Reserves Natural Resources Wales	August 2018	Bi-Annually
National Nature Reserves Natural Resources Wales	February 2022	Bi-Annually
National Parks Natural Resources Wales Natural England	February 2018 February 2018	Annually Bi-Annually
Nitrate Vulnerable Zones The National Assembly for Wales - GI Services (Department of Planning & Countryside) Natural Resources Wales	April 2016 July 2019	Bi-Annually
Ramsar Sites Natural Resources Wales	July 2019	Bi-Annually
Sites of Special Scientific Interest Natural Resources Wales	March 2020	Bi-Annually
Special Areas of Conservation Natural Resources Wales	August 2020	Bi-Annually
Special Protection Areas Natural Resources Wales	August 2018	Bi-Annually

A selection of organisations who provide data within this report

Data Supplier	Data Supplier Logo
Ordnance Survey	
Environment Agency	
Scottish Environment Protection Agency	
The Coal Authority	
British Geological Survey	 British Geological Survey NATURAL ENVIRONMENT RESEARCH COUNCIL
Centre for Ecology and Hydrology	 Centre for Ecology & Hydrology NATURAL ENVIRONMENT RESEARCH COUNCIL
Natural Resources Wales	
Scottish Natural Heritage	
Natural England	
Public Health England	
Ove Arup	
Stantec UK Ltd	

Contact	Name and Address	Contact Details
1	British Geological Survey - Enquiry Service British Geological Survey, Environmental Science Centre, Keyworth, Nottingham, Nottinghamshire, NG12 5GG	Telephone: 0115 936 3143 Fax: 0115 936 3276 Email: enquiries@bgs.ac.uk Website: www.bgs.ac.uk
2	Natural Resources Wales Ty Cambria, 29 Newport Road, Cardiff, CF24 0TP	Telephone: 0300 065 3000 Email: enquiries@naturalresourceswales.gov.uk
3	Environment Agency - National Customer Contact Centre (NCCC) PO Box 544, Templeborough, Rotherham, S60 1BY	Telephone: 03708 506 506 Email: enquiries@environment-agency.gov.uk
4	Wrexham County Borough Council - Environmental Health Department Crown Buildings, P O Box 1297, Wrexham, Clwyd, LL13 8ZE	Telephone: 01978 297038 Fax: 01978 292502 Website: www.wrexham.gov.uk
5	Ordnance Survey Adanac Drive, Southampton, Hampshire, SO16 0AS	Telephone: 03456 05 05 05 Email: customerservices@ordnancesurvey.co.uk Website: www.ordnancesurvey.gov.uk
6	Wrexham County Borough Council Lampet Street, Guildhall, Wrexham, Clwyd, LL11 1WL	Telephone: 01978 292000 Fax: 01978 292502 Website: www.wrexham.gov.uk
7	Health and Safety Executive 5S.2 Redgrave Court, Merton Road, Bootle, L20 7HS	Website: www.hse.gov.uk
8	Wrexham County Borough Council - Planning Department Guildhall, Wrexham, LL11 1AY	Telephone: 01978 292000 Fax: 01978 292502 Website: www.wrexham.gov.uk
9	The Coal Authority - Property Searches 200 Lichfield Lane, Mansfield, Nottinghamshire, NG18 4RG	Telephone: 0345 762 6848 Fax: 01623 637 338 Email: groundstability@coal.gov.uk Website: www2.groundstability.com
10	PointX 7 Abbey Court, Eagle Way, Sowton, Exeter, Devon, EX2 7HY	Website: www.pointx.co.uk
-	Public Health England - Radon Survey, Centre for Radiation, Chemical and Environmental Hazards Chilton, Didcot, Oxfordshire, OX11 0RQ	Telephone: 01235 822622 Fax: 01235 833891 Email: radon@phe.gov.uk Website: www.ukradon.org
-	Landmark Information Group Limited Imperium, Imperial Way, Reading, Berkshire, RG2 0TD	Telephone: 0844 844 9952 Fax: 0844 844 9951 Email: customerservices@landmarkinfo.co.uk Website: www.landmarkinfo.co.uk

Please note that the Environment Agency / Natural Resources Wales / SEPA have a charging policy in place for enquiries.



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Groundwater Vulnerability

General

- Specified Site
- Specified Buffer(s)
- Bearing Reference Point
- Slice
- Map ID

Agency and Hydrological

Bedrock Aquifers

- High Vulnerability, Principal Aquifer
- High Vulnerability, Secondary Aquifer
- Medium Vulnerability, Principal Aquifer
- Medium Vulnerability, Secondary Aquifer
- Low Vulnerability, Principal Aquifer
- Low Vulnerability, Secondary Aquifer

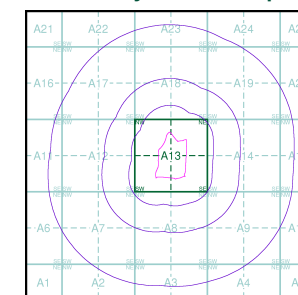
Superficial Aquifers

- High Vulnerability, Principal Aquifer
- High Vulnerability, Secondary Aquifer
- Medium Vulnerability, Principal Aquifer
- Medium Vulnerability, Secondary Aquifer
- Low Vulnerability, Principal Aquifer
- Low Vulnerability, Secondary Aquifer

Unproductive Aquifer

Soluble Rock

Site Sensitivity Context Map - Slice A



Order Details

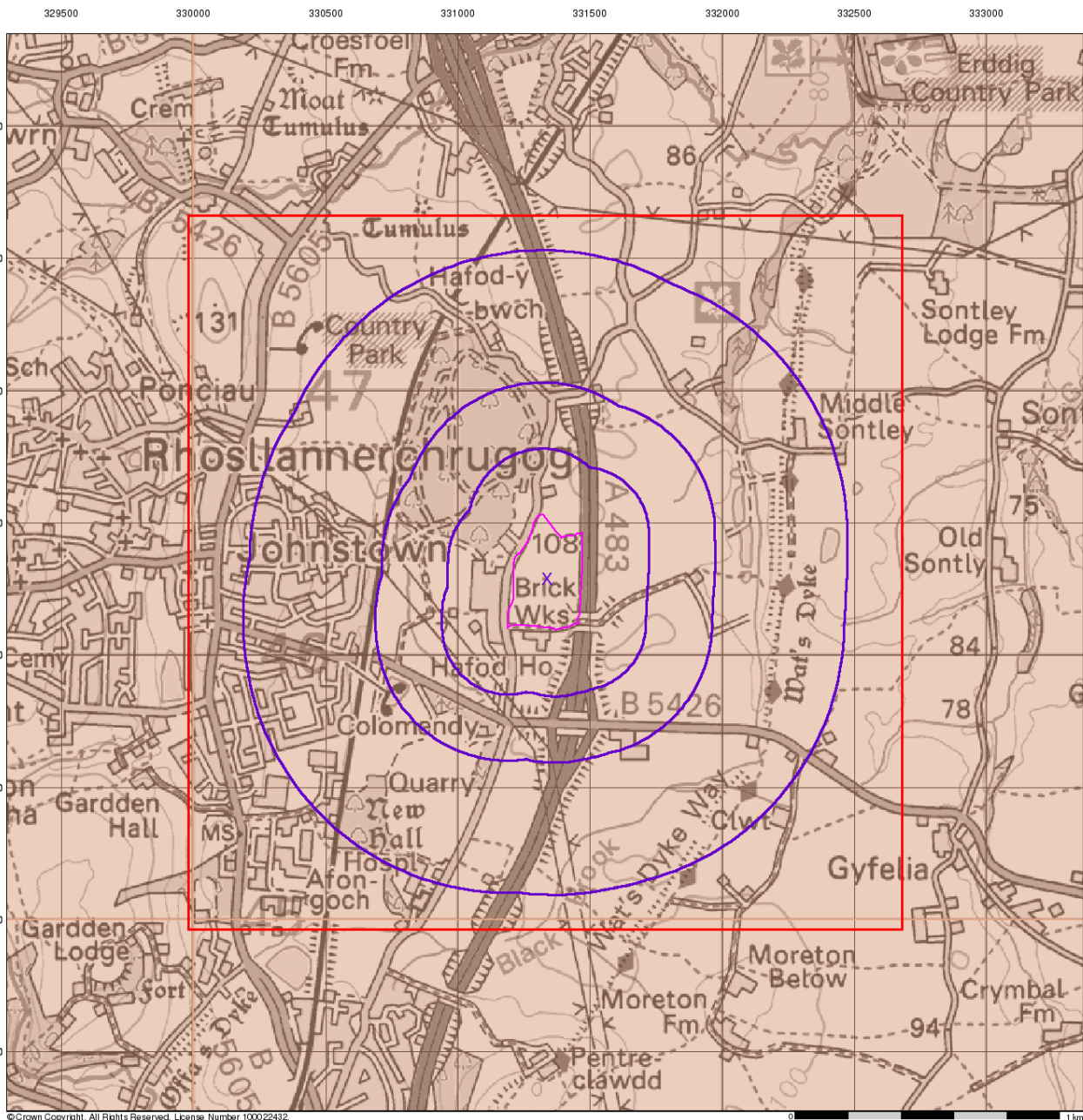
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 Customer Ref: 3031-22
 National Grid Reference: 331340, 346290
 Slice: A
 Site Area (Ha): 9.15
 Search Buffer (m): 1000

Site Details

Commemorative Woodland, Erddig, Hafod Road, Wrexham, LL14 6ET

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Bedrock Aquifer Designation

General

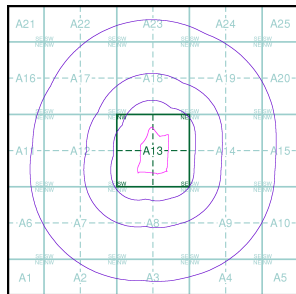
- Specified Site
- Specified Buffer(s)
- Bearing Reference Point
- Slice
- Map ID

Agency and Hydrological

Geological Classes

- Principal Aquifer
- Secondary A Aquifer
- Secondary B Aquifer
- Secondary Undifferentiated
- Unproductive Strata
- Unknown
- Unknown (Lakes and Landslip)

Site Sensitivity Context Map - Slice A



Order Details

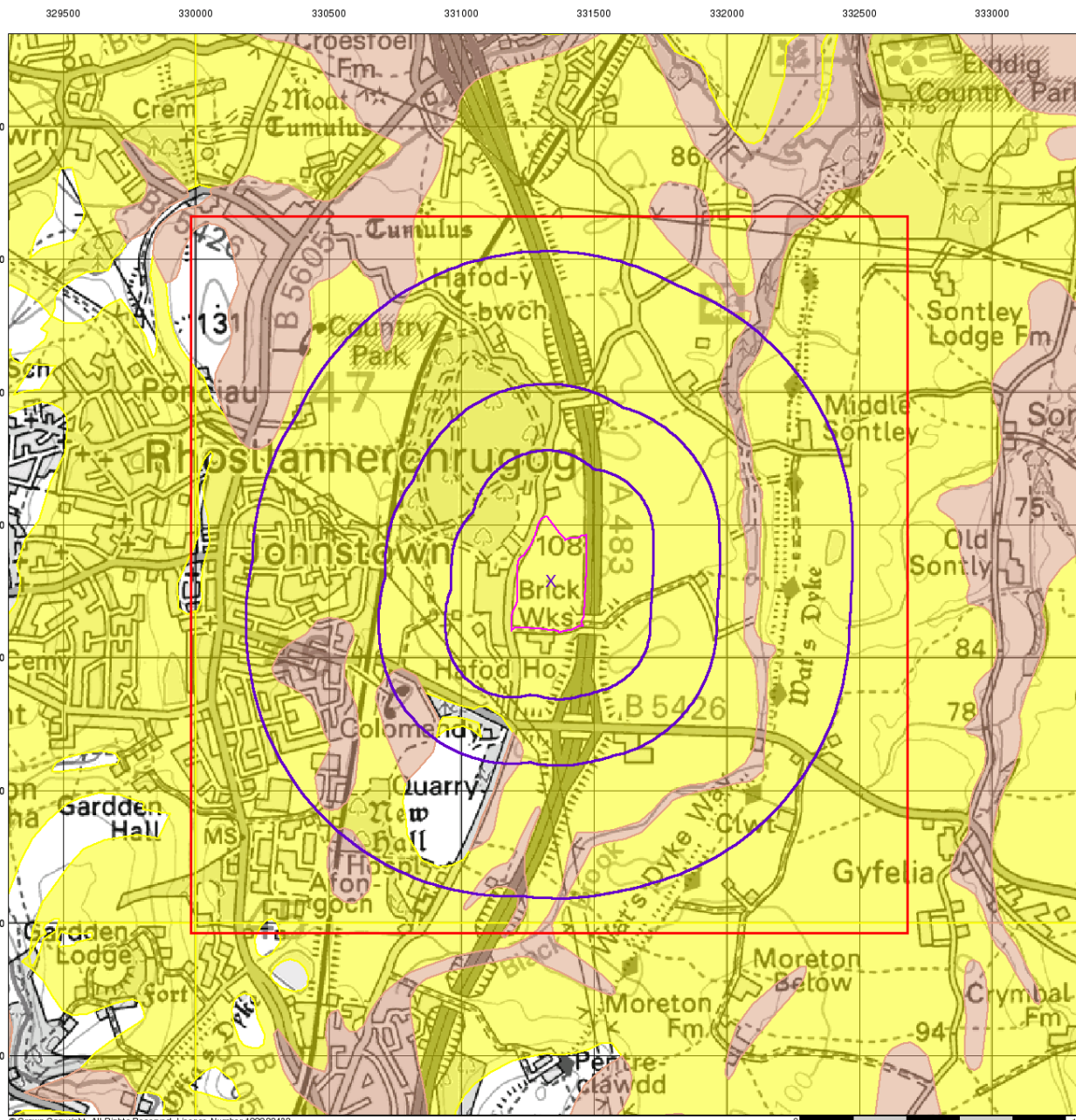
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National Grid Reference: 331340, 346290
Slice: A
Site Area (Ha): 9.15
Search Buffer (m): 1000

Site Details

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Superficial Aquifer Designation

General

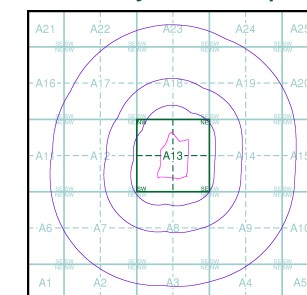
- Specified Site
- Specified Buffer(s)
- Bearing Reference Point
- Slice
- Map ID

Agency and Hydrological

Geological Classes

- Principal Aquifer
- Secondary A Aquifer
- Secondary B Aquifer
- Secondary Undifferentiated
- Unproductive Strata
- Unknown
- Unknown (Lakes and Landslip)

Site Sensitivity Context Map - Slice A



Order Details

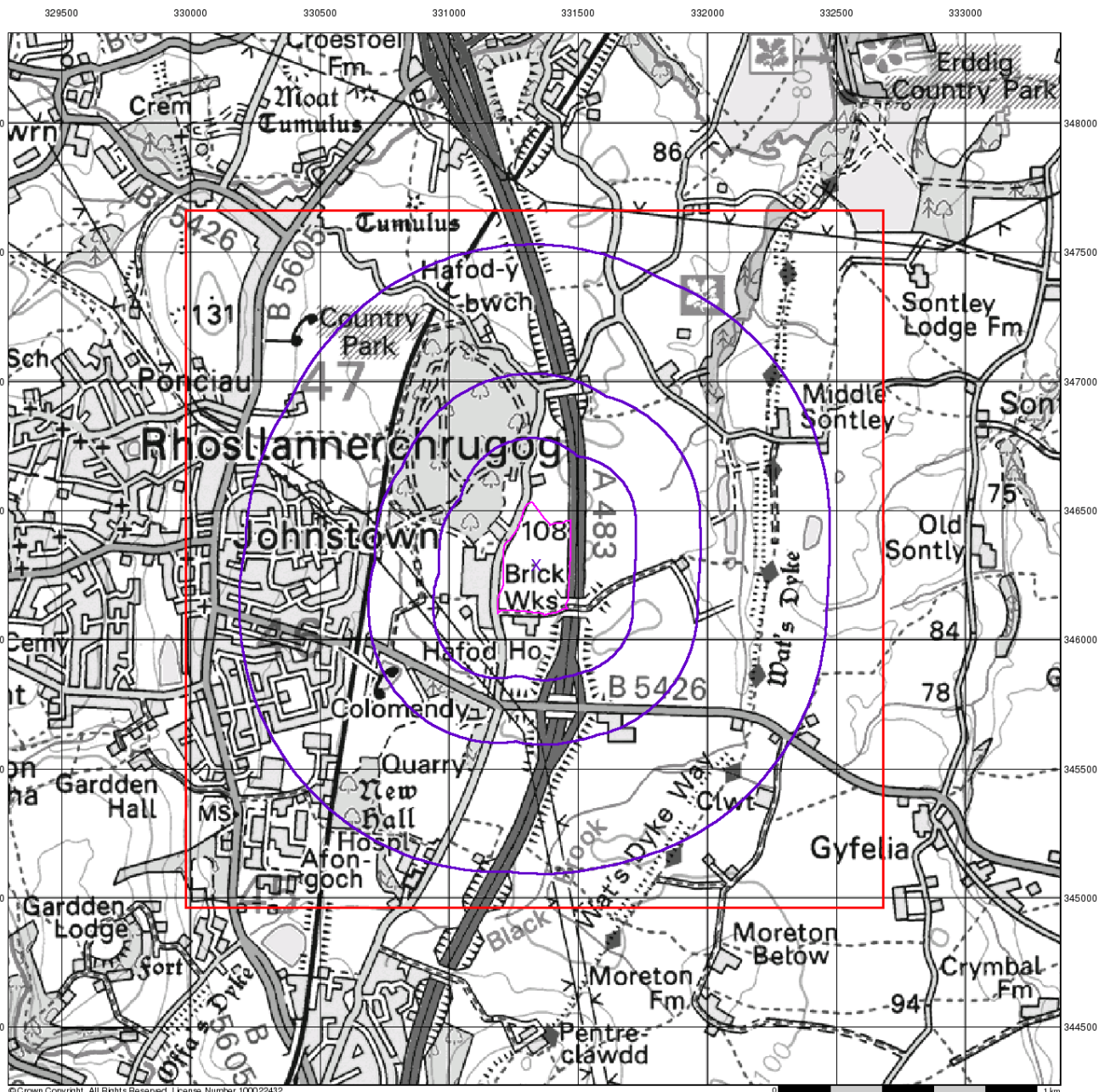
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 Site Area (Ha): 9.15
 Search Buffer (m): 1000

Site Details

Commemorative Woodland, Erddig, Haford Road, Wrexham, LL14 6ET

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Source Protection Zones

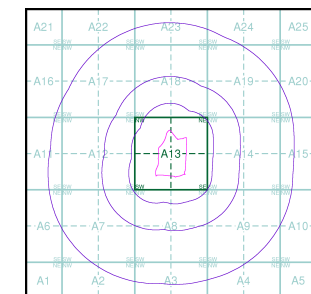
General

- Specified Site
- Specified Buffer(s)
- Bearing Reference Point
- Slice
- Map ID

Agency and Hydrological

- Inner zone (Zone 1)
- Inner zone - subsurface activity only (Zone 1c)
- Outer zone (Zone 2)
- Outer zone - subsurface activity only (Zone 2c)
- Total catchment (Zone 3)
- Total catchment - subsurface activity only (Zone 3c)
- Special interest (Zone 4)

Site Sensitivity Context Map - Slice A



Order Details

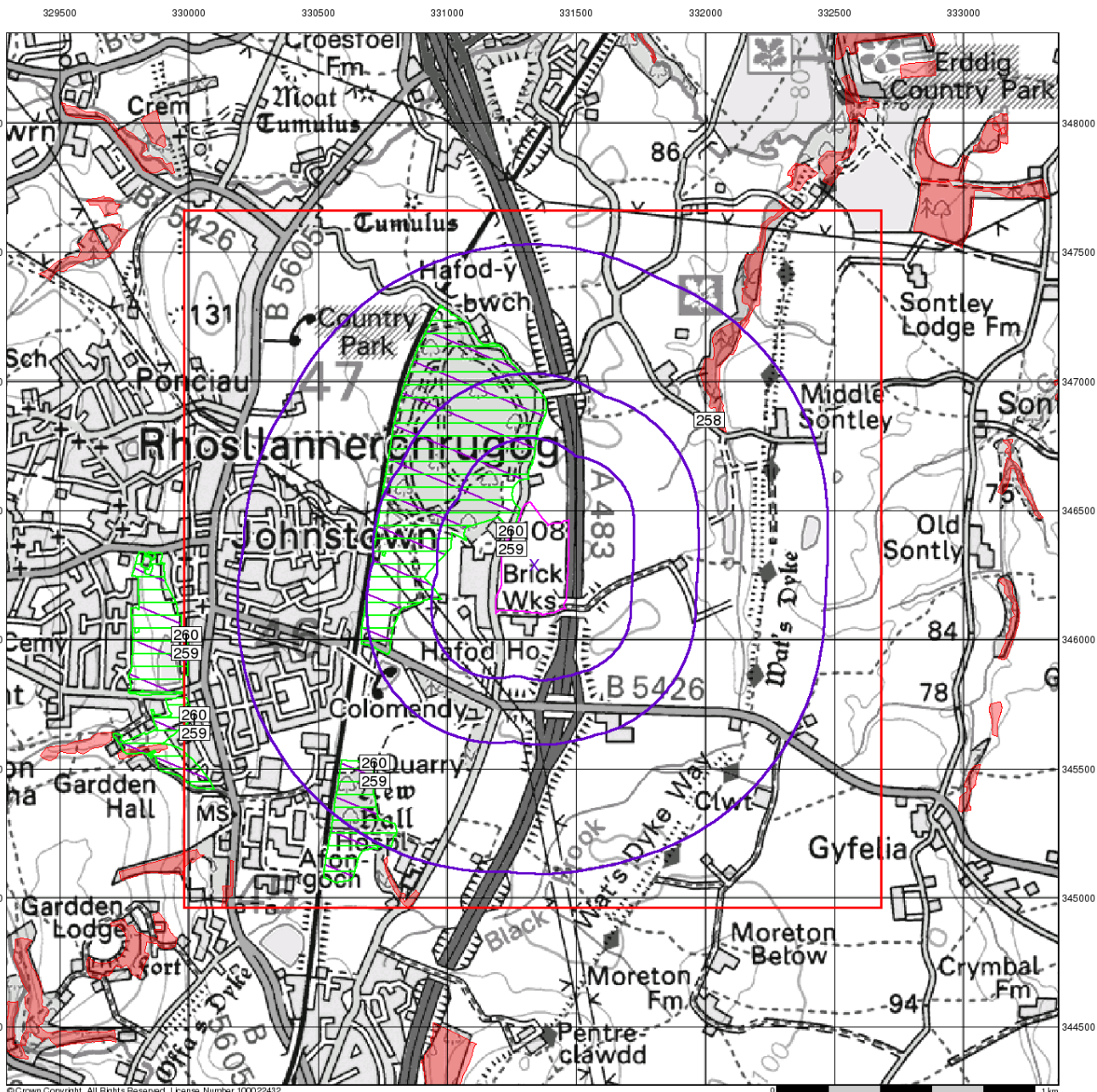
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 Search Buffer (m): 1000

Site Details

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Sensitive Land Uses

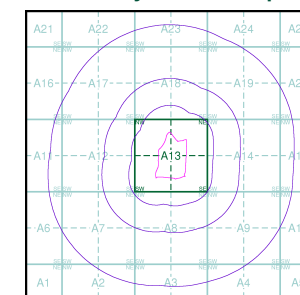
General

- Specified Site
- Specified Buffer(s)
- Bearing Reference Point
- Slice
- Map ID

Sensitive Land Uses

- Ancient Woodland
- Area of Adopted Green Belt
- Area of Unadopted Green Belt
- Area of Outstanding Natural Beauty
- Environmentally Sensitive Area
- Forest Park
- Local Nature Reserve
- Marine Nature Reserve
- National Nature Reserve
- National Park
- Nitrate Sensitive Area
- Nitrate Vulnerable Zone
- Ramsar Site
- Site of Special Scientific Interest
- Special Area of Conservation
- Special Protection Area
- World Heritage Sites

Site Sensitivity Context Map - Slice A



Order Details

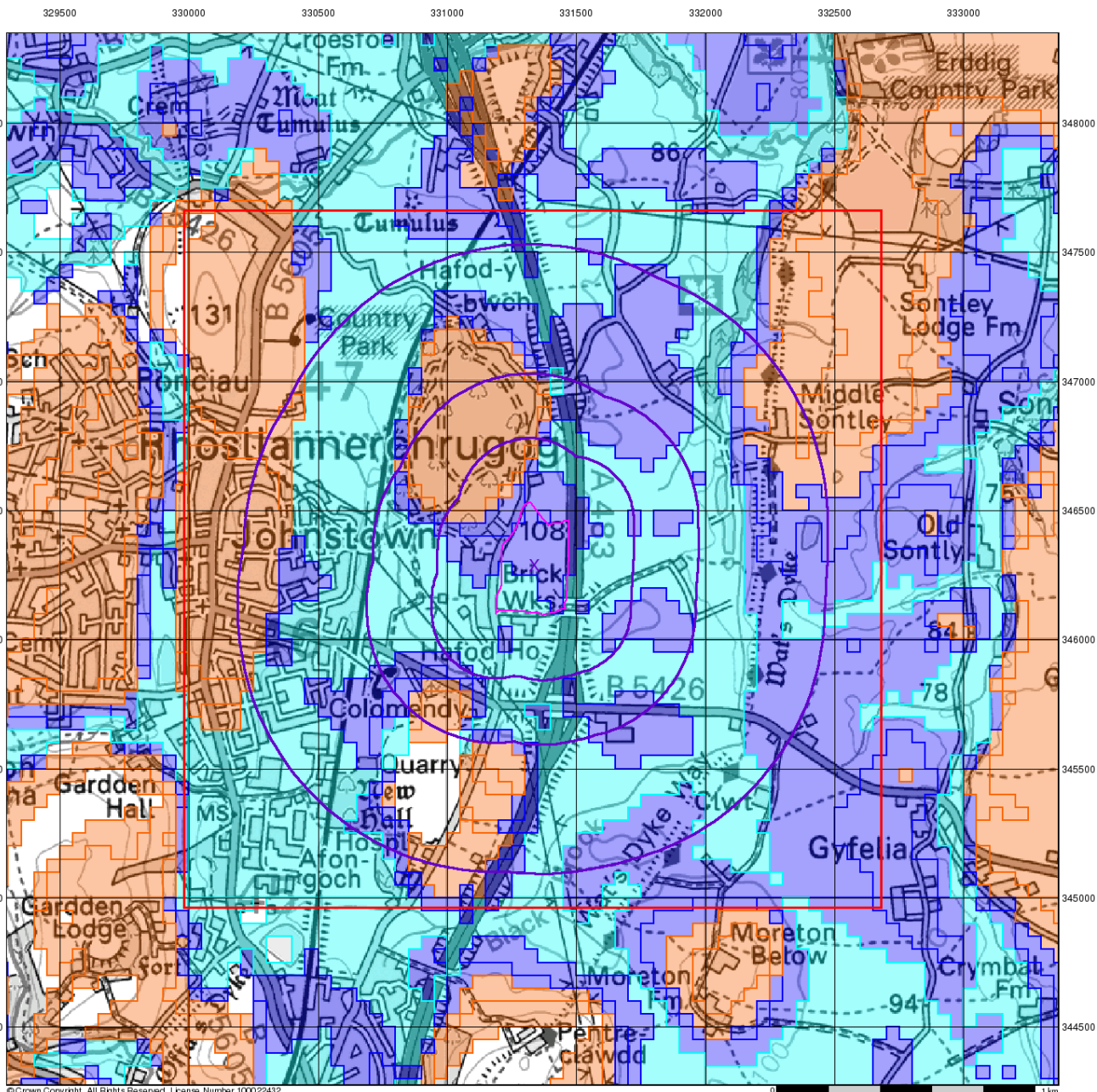
Order Number: 304817738_1_1
 Customer Ref: 3031-22
 National Grid Reference: 331340, 346290
 Slice: A
 Site Area (Ha): 9.15
 Search Buffer (m): 1000

Site Details

Commemorative Woodland, Erddig, Hafod Road, Wrexham, LL14 6ET

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BGS Flood GFS Data

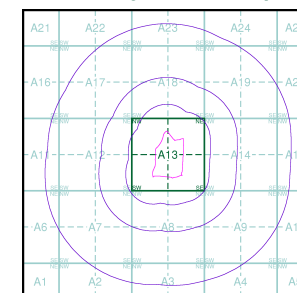
General

- Specified Site
- Specified Buffer(s)
- Bearing Reference Point
- Slice

Agency and Hydrological (Flood)

- Limited Potential for Groundwater Flooding to Occur
- Potential for Groundwater Flooding of Property Situated Below Ground Level
- Potential for Groundwater Flooding to Occur at Surface

Site Sensitivity Context Map - Slice A



Order Details

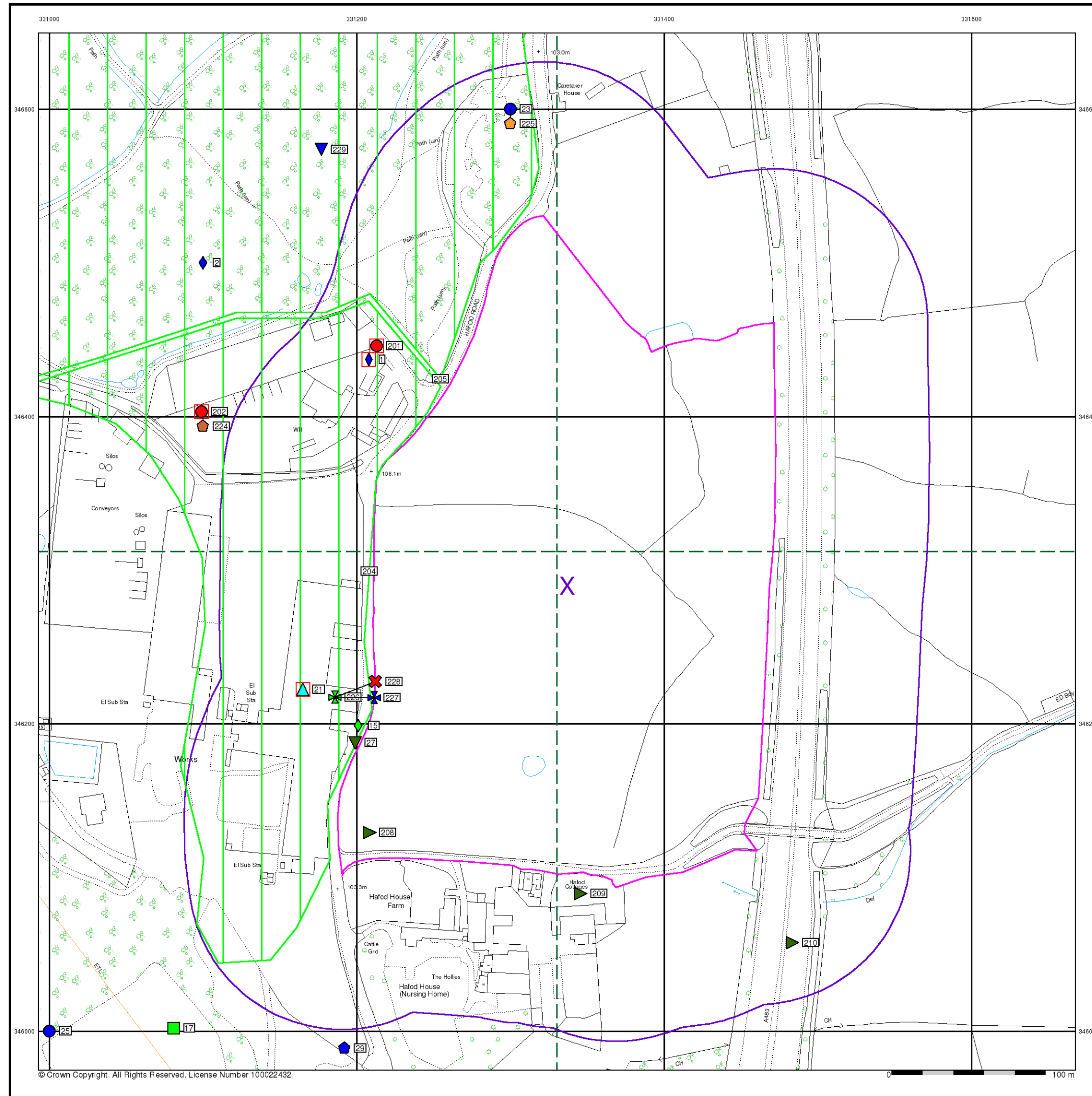
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 Customer Ref: 3031-22
 National Grid Reference: 331340, 346290
 Slice: A
 Site Area (Ha): 9.15
 Search Buffer (m): 1000

Site Details

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General

- Specified Site
- Specified Buffer(s)
- Bearing Reference Point
- Map ID

Agency and Hydrological

- Contaminated Land Register Entry or Notice (Location)
- Contaminated Land Register Entry or Notice
- Discharge Consent
- Enforcement or Prohibition Notice
- Integrated Pollution Control
- Integrated Pollution Prevention Control
- Local Authority Integrated Pollution Prevention and Control
- Local Authority Pollution Prevention and Control Enforcement
- Pollution Incident to Controlled Waters
- Prosecution Relating to Authorised Processes
- Prosecution Relating to Controlled Waters
- Registered Radioactive Substance
- River Network or Water Feature
- River Quality Sampling Point
- Substantiated Pollution Incident Register
- Water Abstraction
- Water Industry Act Referral

Waste

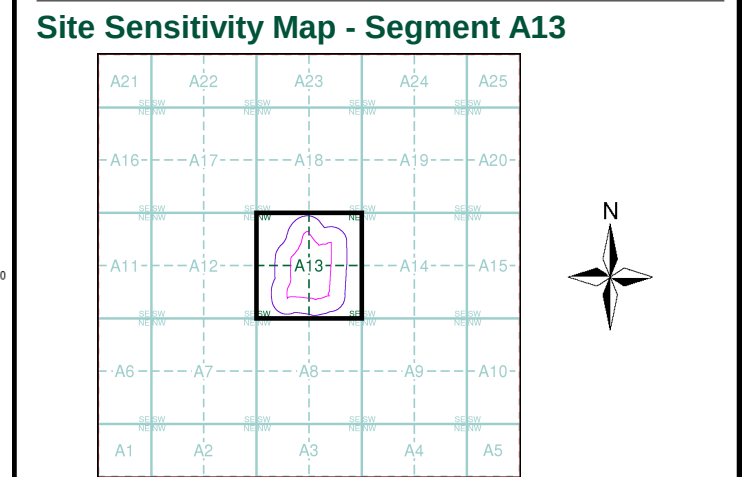
- BGS Recorded Landfill Site (Location)
- BGS Recorded Landfill Site
- EA Historic Landfill (Buffered Point)
- EA Historic Landfill (Polygon)
- Integrated Pollution Control Registered Waste Site
- Licensed Waste Management Facility (Landfill Boundary)
- Licensed Waste Management Facility (Location)
- Local Authority Recorded Landfill Site (Location)
- Local Authority Recorded Landfill Site
- Potentially Infilled Land (Non-water)
- Potentially Infilled Land (Non-water)
- Potentially Infilled Land (Water)
- Potentially Infilled Land (Water)
- Potentially Infilled Land (Water)
- Registered Landfill Site
- Registered Landfill Site (Location)
- Registered Landfill Site (Point Buffered to 100m)
- Registered Landfill Site (Point Buffered to 250m)
- Registered Waste Transfer Site (Location)
- Registered Waste Transfer Site
- Registered Waste Treatment or Disposal Site (Location)
- Registered Waste Treatment or Disposal Site

Hazardous Substances

- COMAH Site
- Explosive Site
- NIHHS Site
- Planning Hazardous Substance Consent
- Planning Hazardous Substance Enforcement

Geological

- BGS Recorded Mineral Site

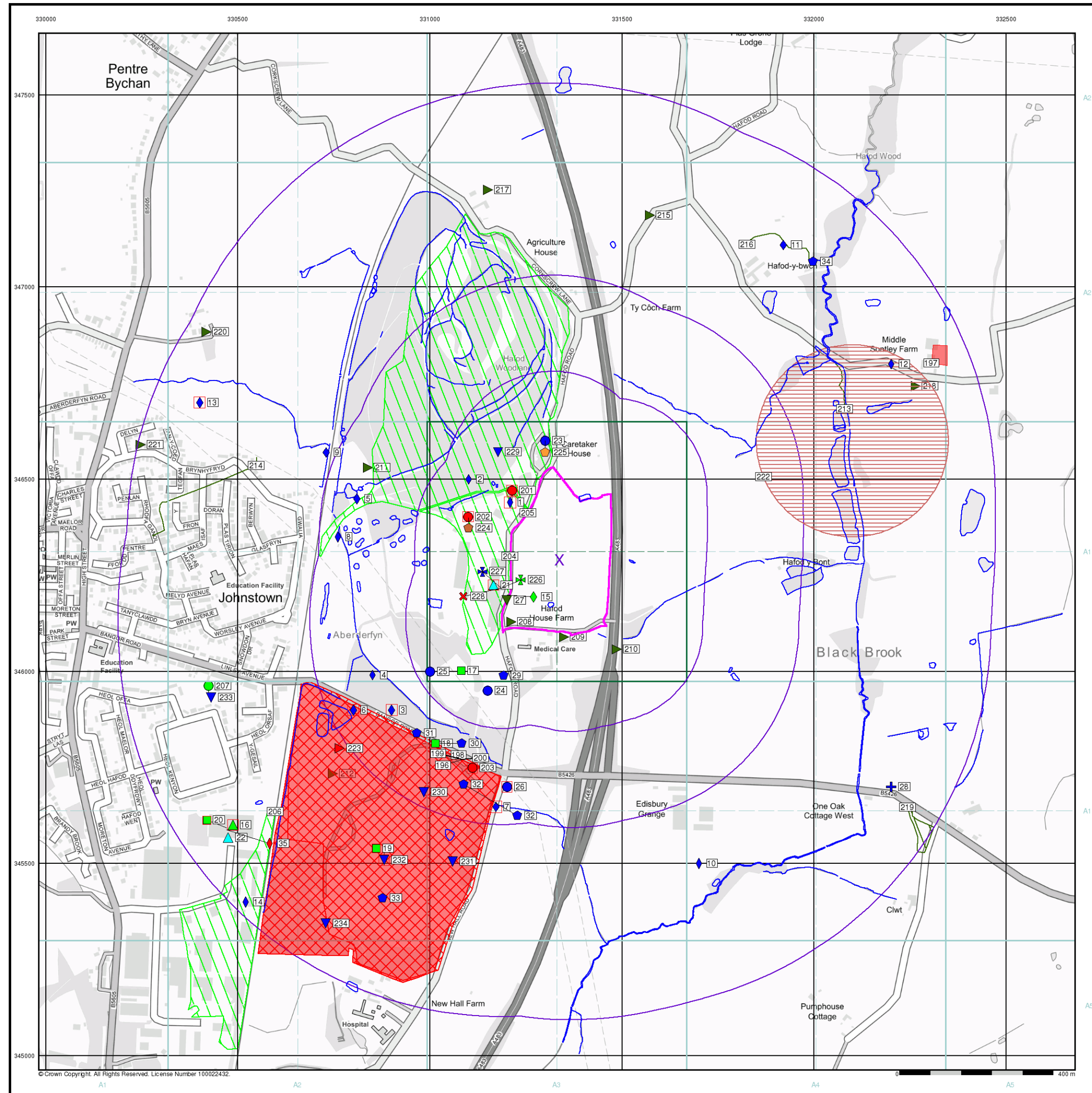


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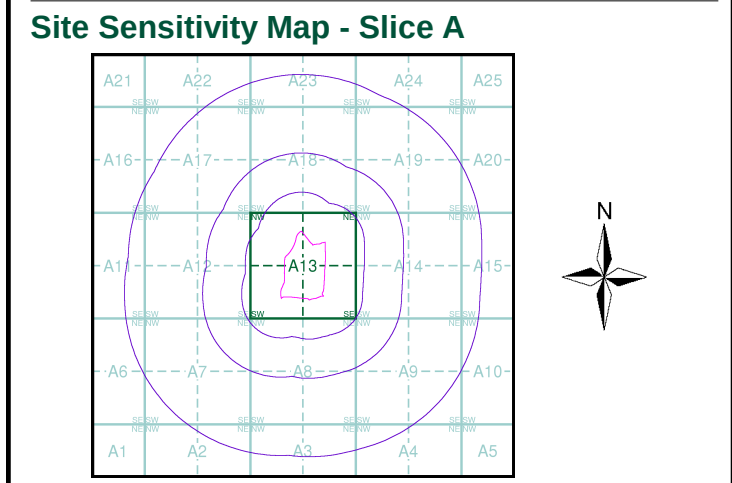
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Customer Ref: 3031-22
National Grid Reference: 331340, 346290
Slice: A
Site Area (Ha): 9.15
Plot Buffer (m): 100

Site Details

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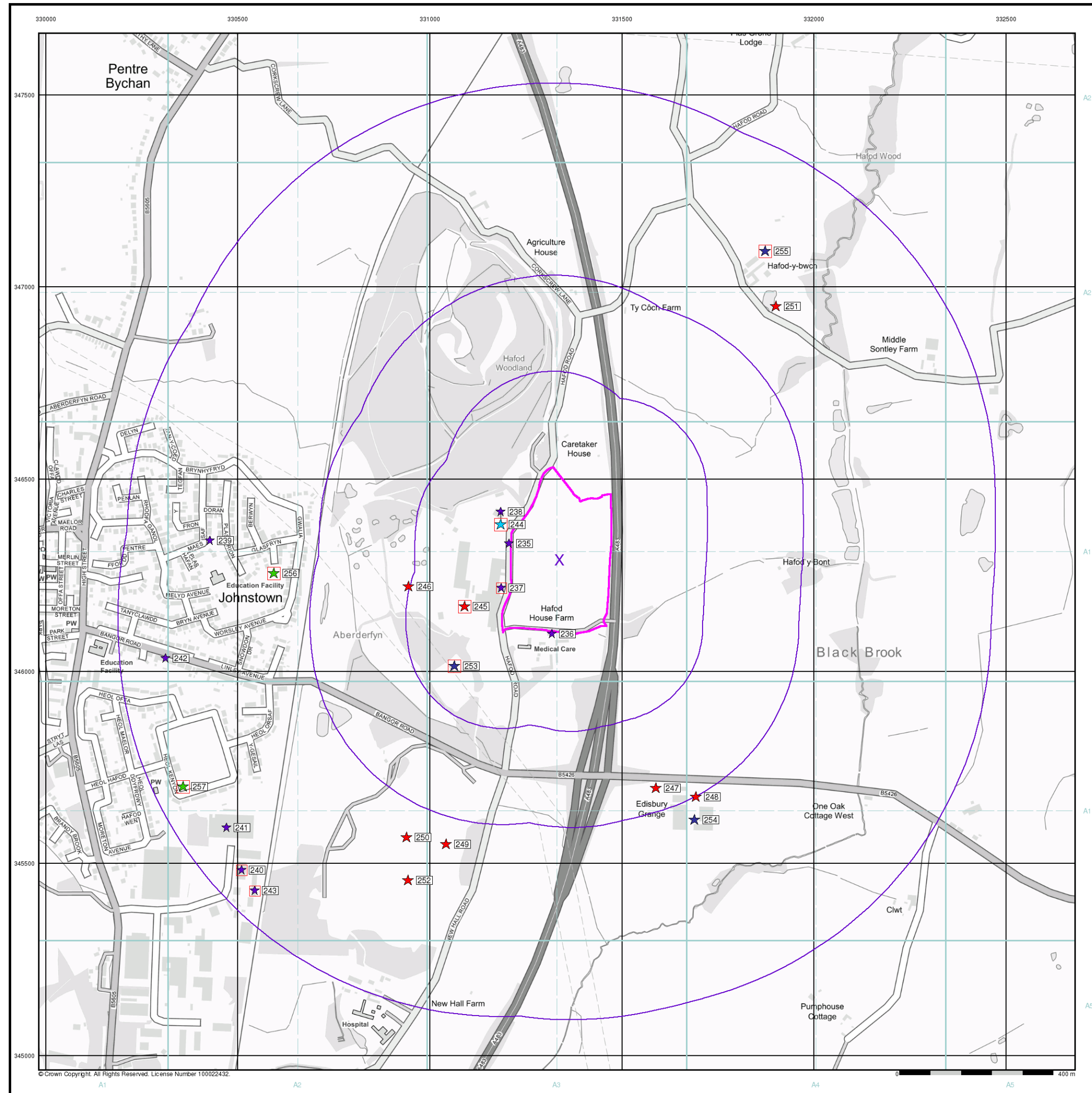


- General**
 - Specified Site
 - Specified Buffer(s)
 - Bearing Reference Point
 - Map ID
 - Several of Type at Location
- Agency and Hydrological**
 - Contaminated Land Register Entry or Notice (Location)
 - Contaminated Land Register Entry or Notice
 - Discharge Consent
 - Enforcement or Prohibition Notice
 - Integrated Pollution Control
 - Integrated Pollution Prevention Control
 - Local Authority Integrated Pollution Prevention and Control
 - Local Authority Pollution Prevention and Control
 - Local Authority Pollution Prevention and Control Enforcement
 - Pollution Incident to Controlled Waters
 - Prosecution Relating to Authorised Processes
 - Prosecution Relating to Controlled Waters
 - Registered Radioactive Substance
 - River Network or Water Feature
 - River Quality Sampling Point
 - Substantiated Pollution Incident Register
 - Water Abstraction
 - Water Industry Act Referral
- Waste**
 - BGS Recorded Landfill Site (Location)
 - BGS Recorded Landfill Site
 - EA Historic Landfill (Buffered Point)
 - EA Historic Landfill (Polygon)
 - Integrated Pollution Control Registered Waste Site
 - Licensed Waste Management Facility (Landfill Boundary)
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 - Local Authority Recorded Landfill Site
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 - Potentially Infilled Land (Non-water)
 - Potentially Infilled Land (Non-water)
 - Potentially Infilled Land (Water)
 - Potentially Infilled Land (Water)
 - Potentially Infilled Land (Water)
 - Potentially Infilled Land (Water)
 - Registered Landfill Site (Location)
 - Registered Landfill Site (Point Buffered to 100m)
 - Registered Landfill Site (Point Buffered to 250m)
 - Registered Waste Transfer Site (Location)
 - Registered Waste Transfer Site
 - Registered Waste Treatment or Disposal Site (Location)
 - Registered Waste Treatment or Disposal Site
- Hazardous Substances**
 - COMAH Site
 - Explosive Site
 - NIHHS Site
 - Planning Hazardous Substance Consent
 - Planning Hazardous Substance Enforcement
 - BGS Recorded Mineral Site
- Geological**
 -



Order Details
Order Number: 304817738_1_1
Customer Ref: 3031-22
National Grid Reference: 331340, 346290
Slice: A
Site Area (Ha): 9.15
Search Buffer (m): 1000

Site Details
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Industrial Land Use Map

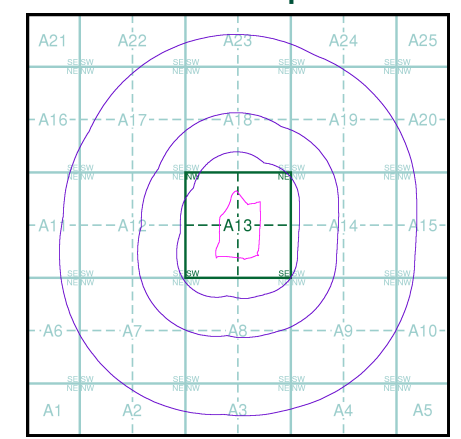
General

- Specified Site
- Specified Buffer(s)
- Bearing Reference Point
- Slice
- Map ID

Industrial Land Use

- Contemporary Trade Directory Entry
- Fuel Station Entry
- Gas Pipeline
- Points of Interest - Commercial Services
- Points of Interest - Education and Health
- Points of Interest - Manufacturing and Production
- Points of Interest - Public Infrastructure
- Points of Interest - Recreational and Environmental
- Underground Electrical Cables

Industrial Land Use Map - Slice A



Order Details

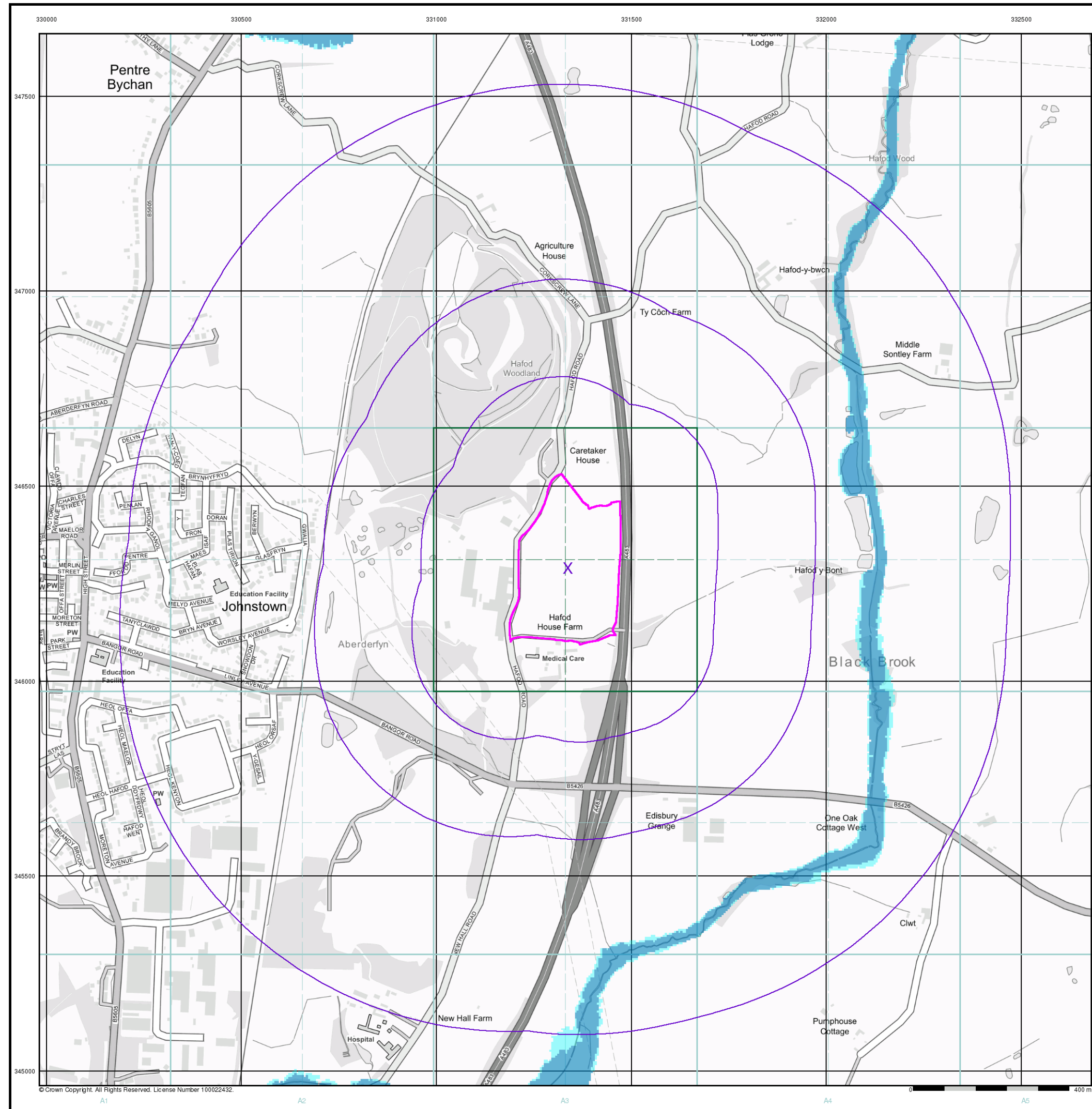
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Customer Ref: 3031-22
National Grid Reference: 331340, 346290
Slice: A
Site Area (Ha): 9.15
Search Buffer (m): 1000

Site Details

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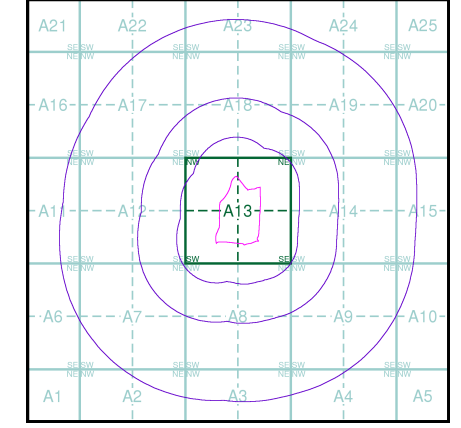
General

- Specified Site
- Specified Buffer(s)
- Bearing Reference Point

Agency and Hydrological (Flood)

- Extreme Flooding from Rivers or Sea without Defences (Zone 2)
- Flooding from Rivers or Sea without Defences (Zone 3)
- Area Benefiting from Flood Defence
- Flood Water Storage Areas
- Flood Defence

Flood Map - Slice A



Order Details

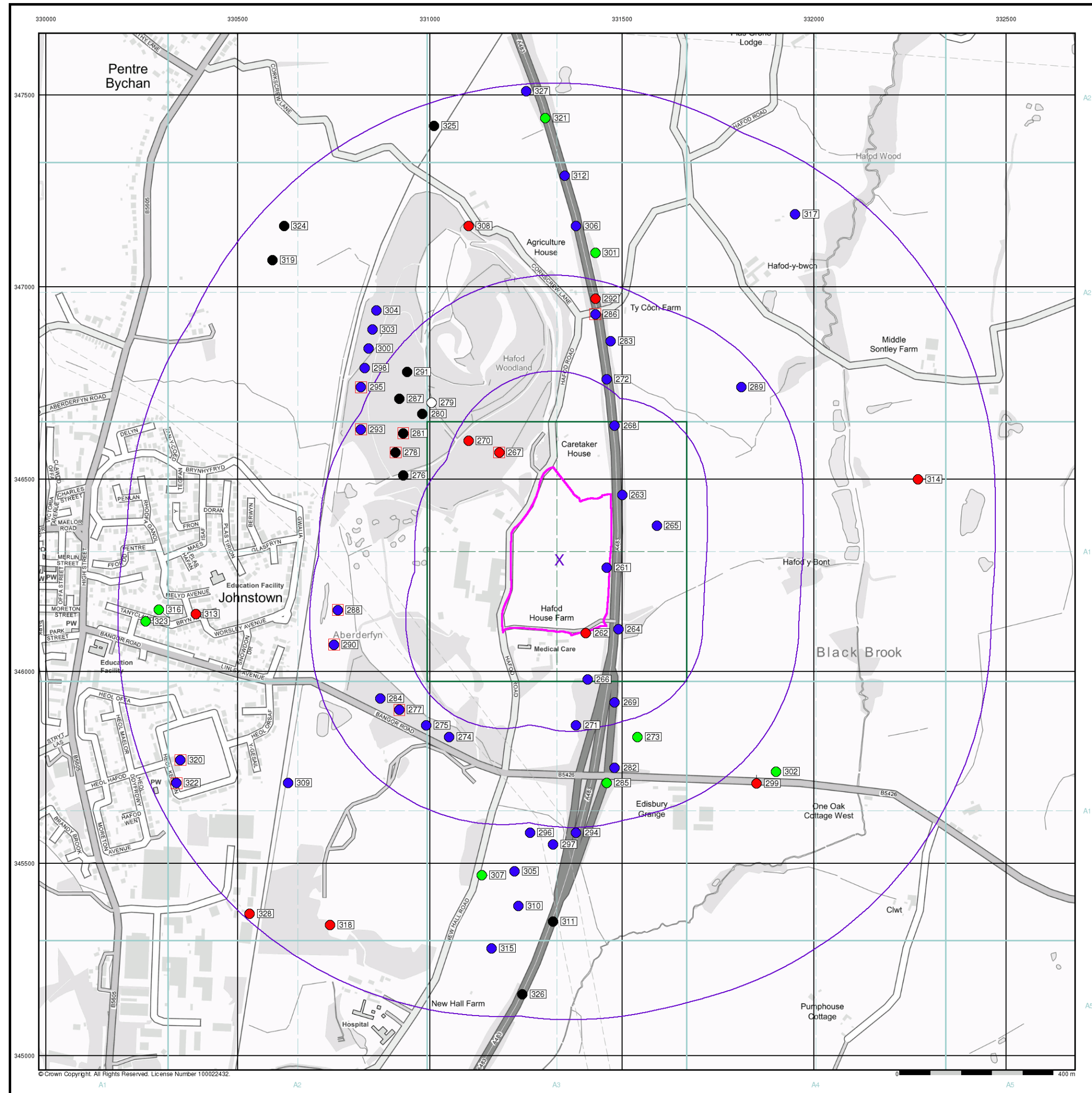
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Customer Ref: 3031-22
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Slice: A
Site Area (Ha): 9.15
Search Buffer (m): 1000

Site Details

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General

- Specified Site
- Specified Buffer(s)
- Bearing Reference Point
- Map ID
- Several of Type at Location

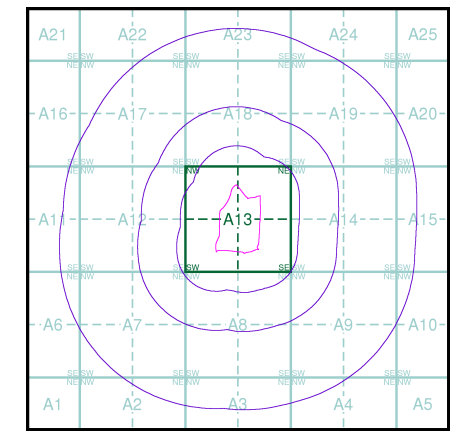
Agency and Hydrological (Boreholes)

- BGS Borehole Depth 0 - 10m
- BGS Borehole Depth 10 - 30m
- BGS Borehole Depth 30m +
- Confidential
- Other

For Borehole information please refer to the Borehole .csv file which accompanied this slice.

A copy of the BGS Borehole Ordering Form is available to download from the Support section of www.envirocheck.co.uk.

Borehole Map - Slice A

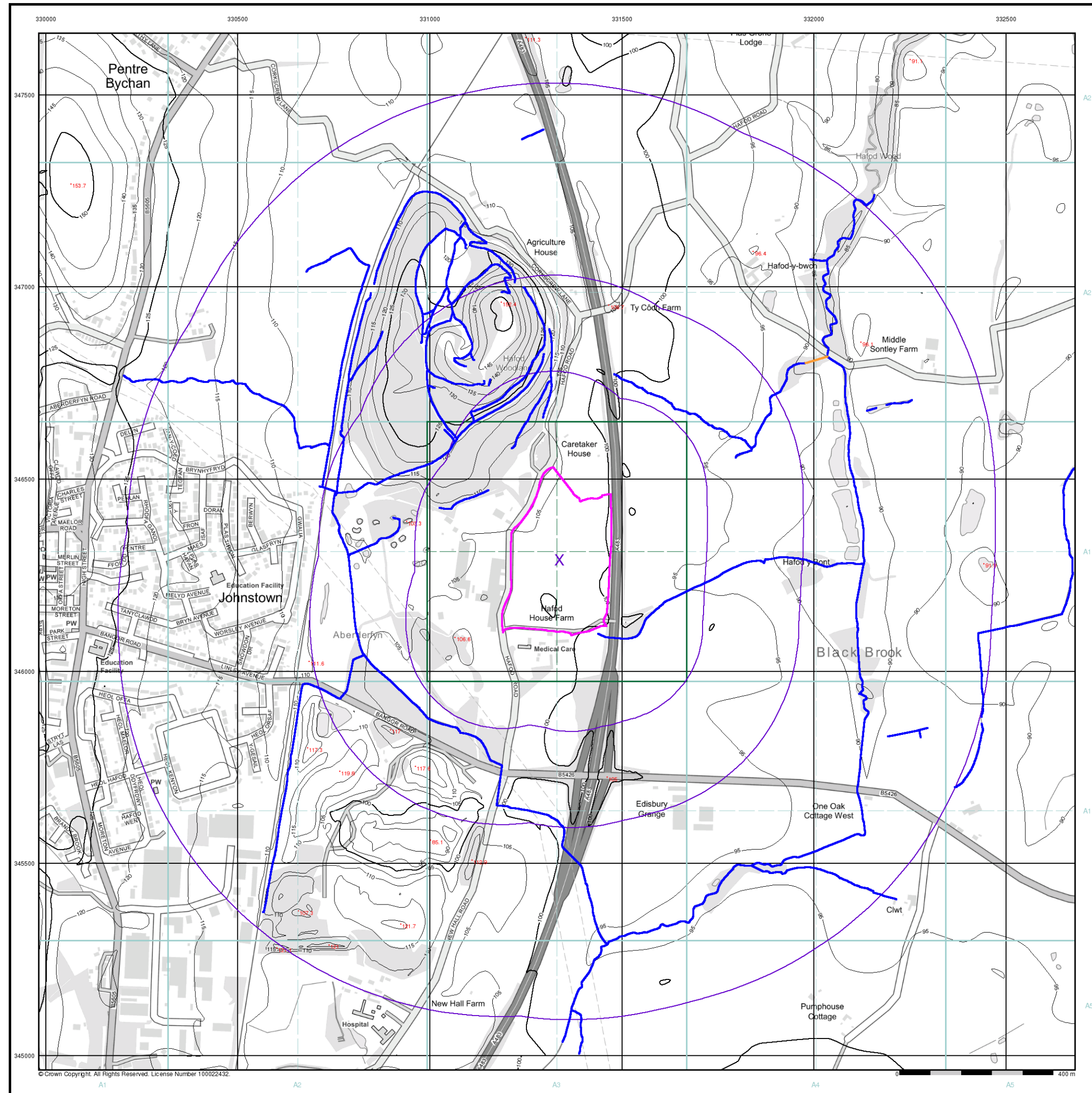


Order Details

Order Number: 304817738_1_1
Customer Ref: 3031-22
National Grid Reference: 331340, 346290
Slice: A
Site Area (Ha): 9.15
Search Buffer (m): 1000

Site Details

Commemorative Woodland, Erddig, Hafod Road, Wrexham, LL14 6ET



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General

- Specified Site
- Specified Buffer(s)
- Bearing Reference Point

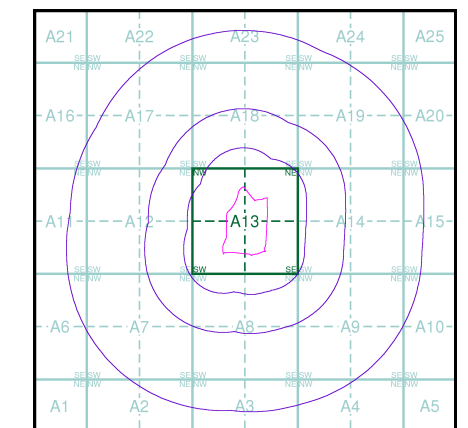
OS Water Network Data

- | | |
|--------------|-------------------------|
| Canal | Drain |
| Reservoir | Other |
| Foreshore | Lake |
| Marsh | Transfer |
| Tidal River | Lock Or Flight Of Locks |
| Inland River | Sea |

Contours (height in meters)

- Standard Contour 105 100 95
- Master Contour 105 100 95
- Spot Height 167.3
- MLW Mean Low Water
- MHW Mean High Water

OS Water Network Map - Slice A



Order Details

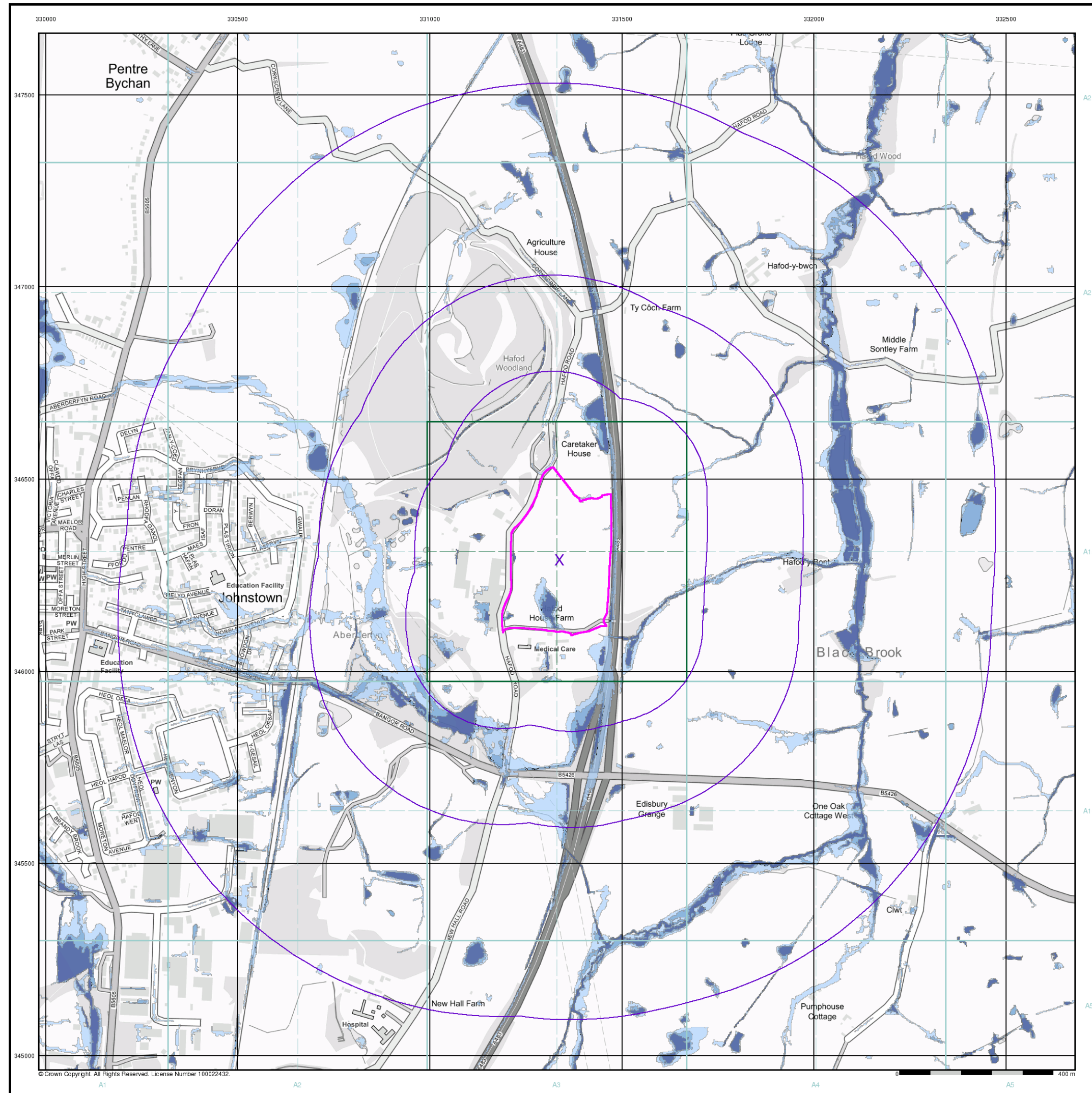
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Customer Ref: 3031-22
National Grid Reference: 331340, 346290
Slice: A
Site Area (Ha): 9.15
Search Buffer (m): 1000

Site Details

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General

- Specified Site
- Specified Buffer(s)
- Bearing Reference Point

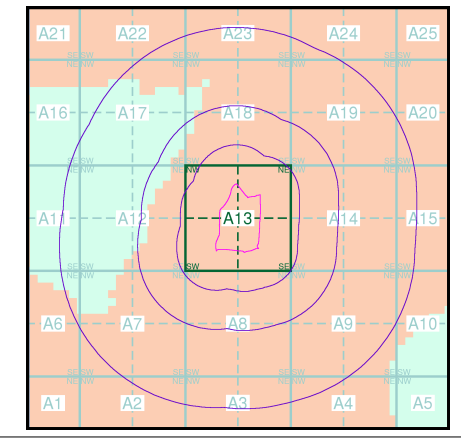
Risk of Flooding from Surface Water

- High - 30 Year Return
- Medium - 100 Year Return
- Low - 1000 Year Return

Suitability

- See the suitability map below
- National to county
 - County to town
 - Town to street
 - Street to parcels of land
 - Property

EA/NRW Suitability Map - Slice A



Order Details

Order Number: 304817738_1_1
Customer Ref: 3031-22
National Grid Reference: 331340, 346290
Slice: A
Site Area (Ha): 9.15
Search Buffer (m): 1000

Site Details

Commemorative Woodland, Erddig, Hafod Road, Wrexham, LL14 6ET

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330000 330500 331000 331500 332000 332500



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A1

A2

A3

A4

A5

0 400 m

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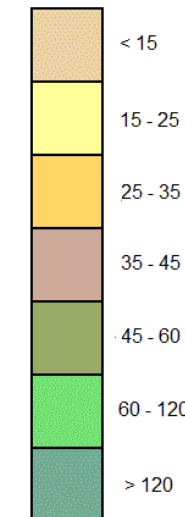
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General

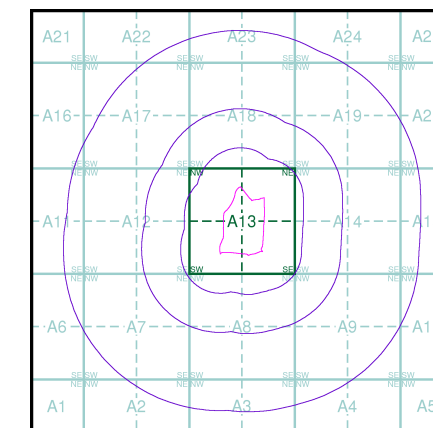
Specified Site Specified Buffer(s) Bearing Reference Point

Estimated Soil Chemistry Arsenic

Arsenic Concentrations mg/kg



Estimated Soil Chemistry Arsenic - Slice A



Order Details

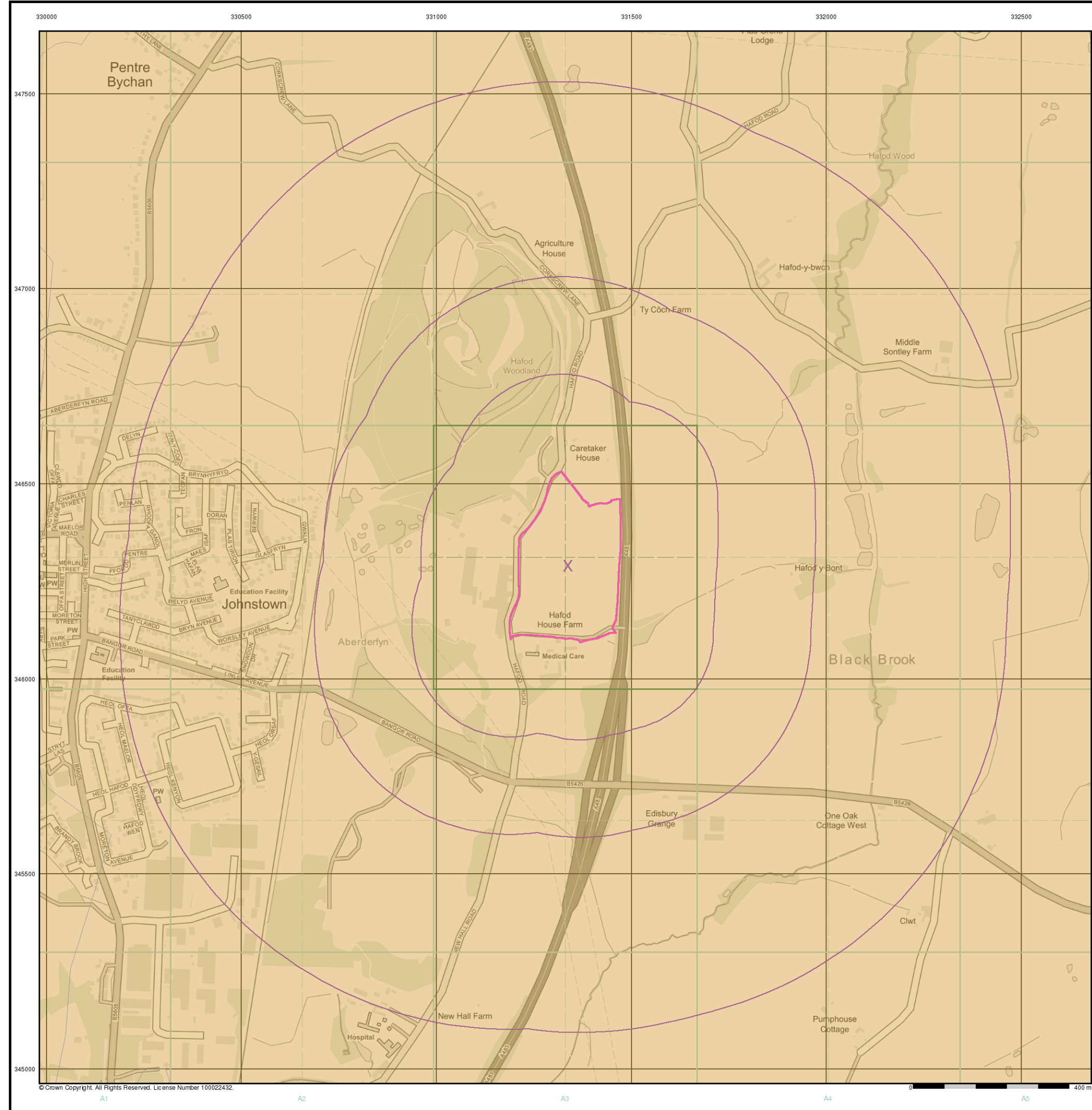
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Customer Ref: 3031-22
National Grid Reference: 331340, 346290
Slice: A
Site Area (Ha): 9.15
Search Buffer (m): 1000

Site Details

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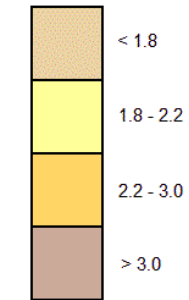
LANDMARK INFORMATION GROUP®

General

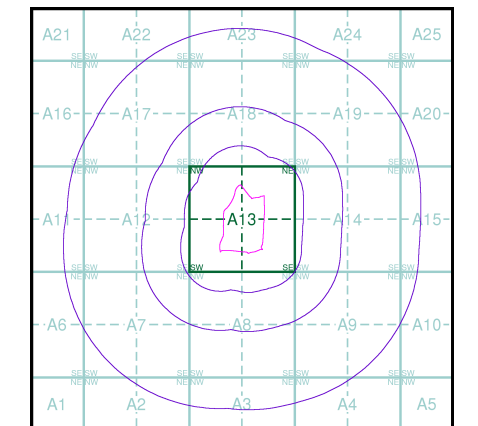
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Estimated Soil Chemistry Cadmium

Cadmium Concentrations mg/kg



Estimated Soil Chemistry Cadmium - Slice A



Order Details

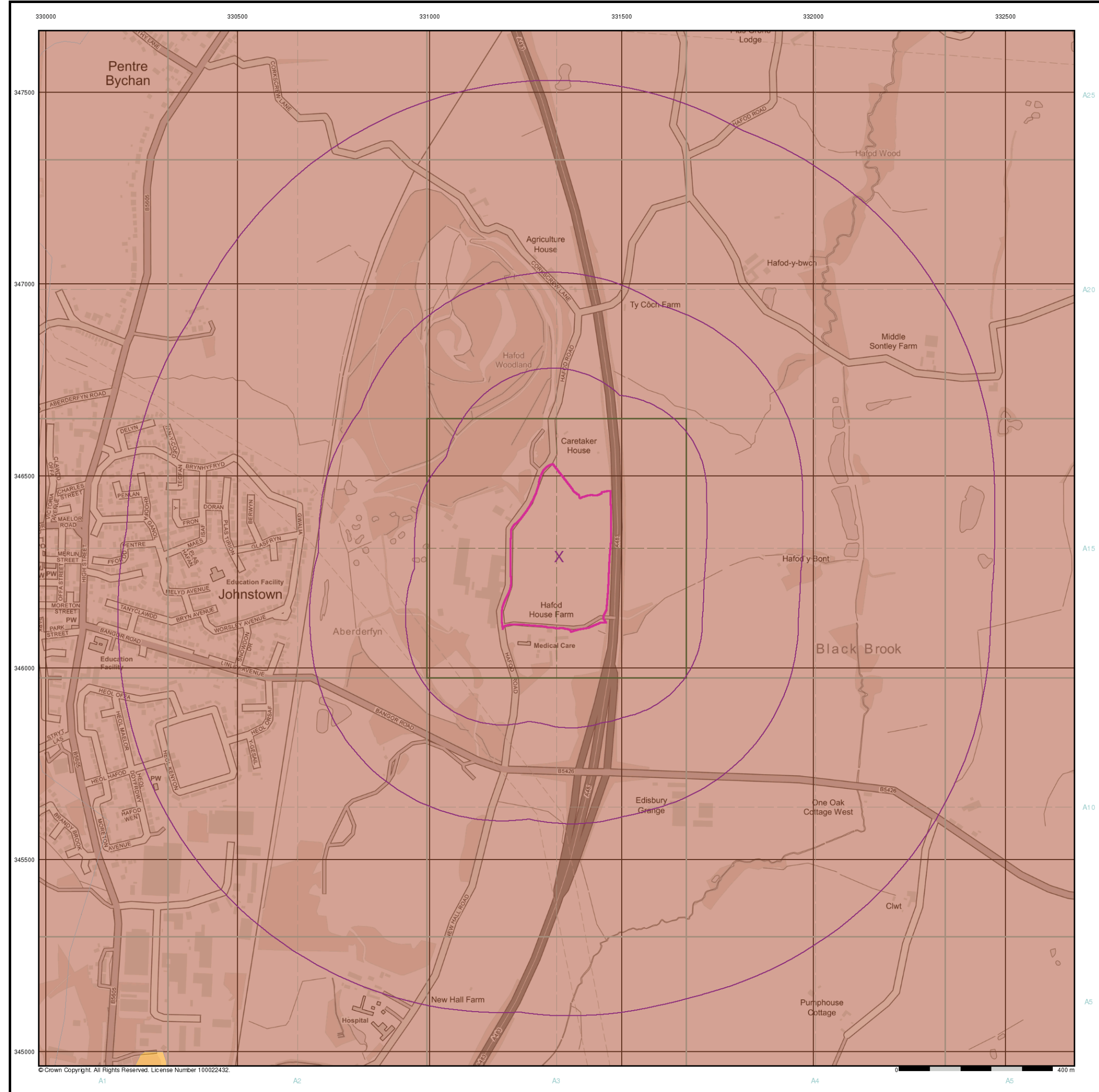
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Customer Ref: 3031-22
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Site Area (Ha): 9.15
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Site Details

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General

● Specified Site ● Specified Buffer(s) X Bearing Reference Point

Estimated Soil Chemistry Chromium

Chromium Concentrations mg/kg

< 20
20 - 40
40 - 60
60 - 90
90 - 120
120 - 180
> 180

Estimated Soil Chemistry Chromium - Slice A

Order Details

Order Details:	304817738_1_1
Customer Ref:	3031-22
National Grid Reference:	331340, 346290
Slice:	A
Site Area (Ha):	9.15
Search Buffer (m):	1000

Site Details

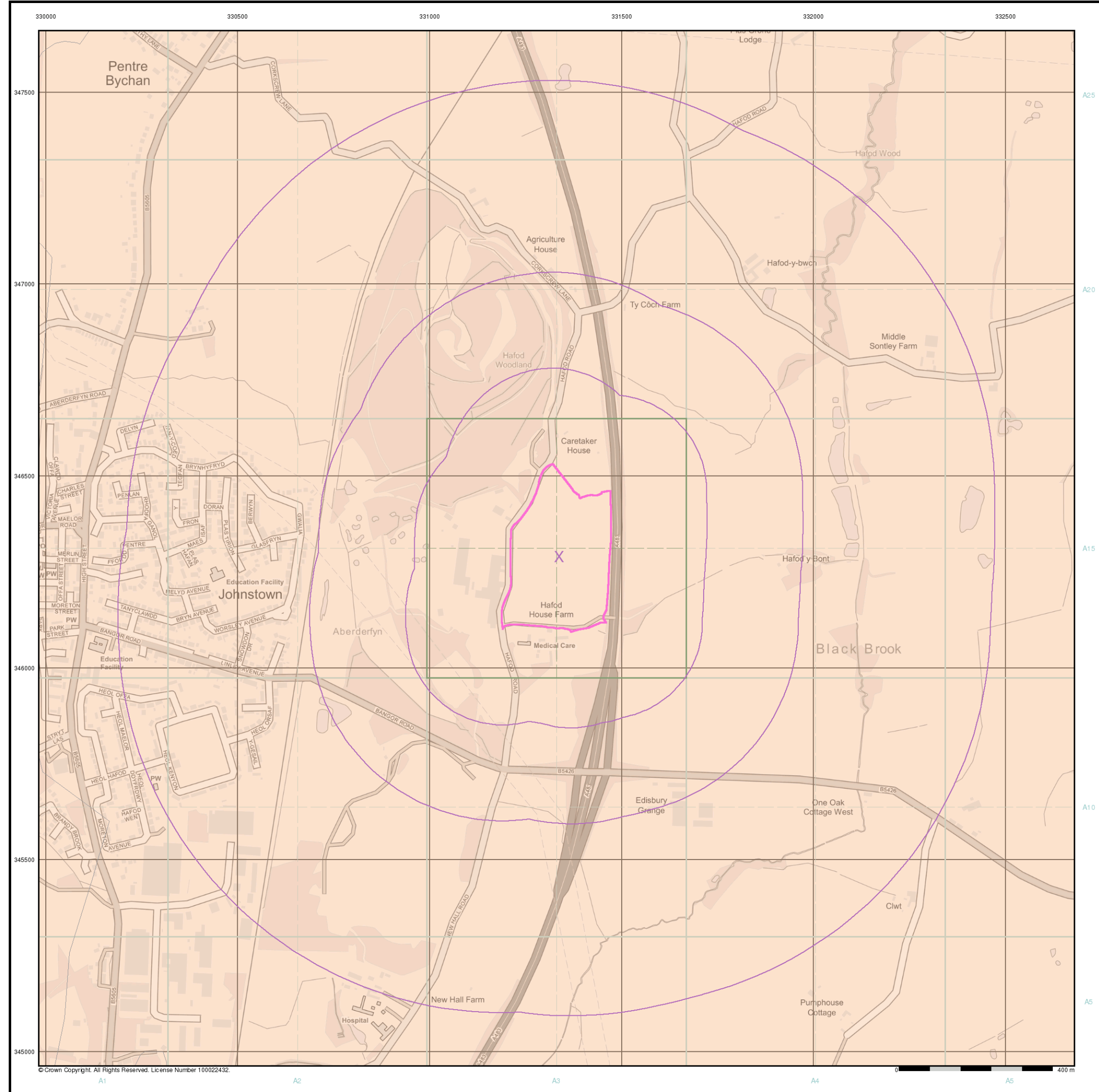
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General

● Specified Site ● Specified Buffer(s) X Bearing Reference Point

Estimated Soil Chemistry Lead

Lead Concentrations mg/kg

Orange	<100 mg/kg
Green	100 - 200
Purple	200 - 300
Brown	300 - 600
Blue	600 - 1200
Cyan	>1200

Estimated Soil Chemistry Lead - Slice A

Order Details

Order Details: 304817738_1_1
Customer Ref: 3031-22
National Grid Reference: 331340, 346290
Slice: A
Site Area (Ha): 9.15
Search Buffer (m): 1000

Site Details

Commemorative Woodland, Erddig, Hafod Road, Wrexham, LL14 6ET

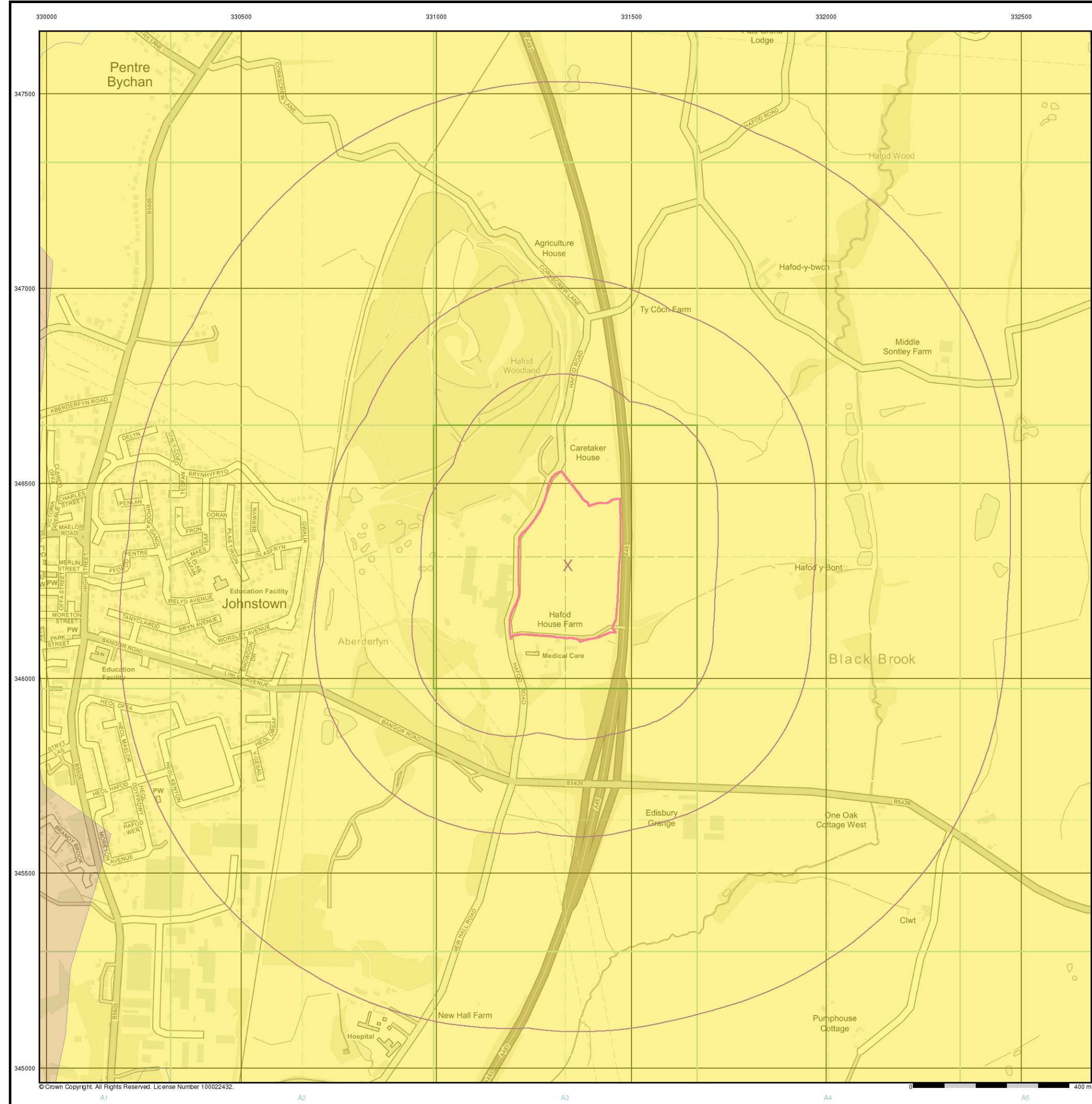
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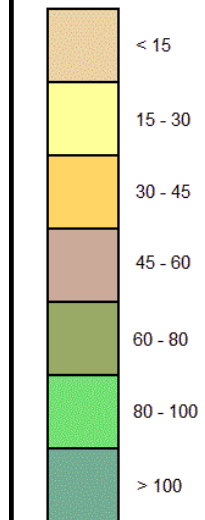
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General

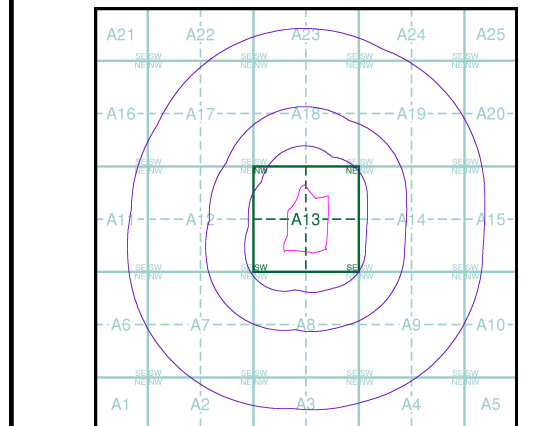
🔴 Specified Site 🟡 Specified Buffer(s) ✕ Bearing Reference Point

Estimated Soil Chemistry Nickel

Nickel Concentrations mg/kg



Estimated Soil Chemistry Nickel - Slice A



Order Details

Order Details: 304817738_1_1
Customer Ref: 3031-22
National Grid Reference: 331340, 346290
Slice: A
Site Area (Ha): 9.15
Search Buffer (m): 1000

Site Details

Commemorative Woodland, Erddig, Hafod Road, Wrexham, LL14 6ET

APPENDIX 4
HISTORICAL ORDNANCE SURVEY
MAPS

Historical Mapping Legends

Ordnance Survey County Series 1:10,560

	Gravel Pit		Sand Pit		Other Pits
	Quarry		Shingle		Orchard
	Osiers		Reeds		Marsh
	Mixed Wood		Deciduous		Brushwood
	Fir		Furze		Rough Pasture
	Arrow denotes flow of water		Trigonometrical Station		
	Site of Antiquities		Bench Mark		
	Pump, Guide Post, Signal Post		Well, Spring, Boundary Post		
	•285 Surface Level				
	Sketched Contour		Instrumental Contour		
	Main Roads		Minor Roads		
	Sunken Road		Raised Road		
	Road over Railway		Railway over River		
	Railway over Road		Level Crossing		
	Road over River or Canal		Road over Stream		
	Road over Stream				
	County Boundary (Geographical)				
	County & Civil Parish Boundary				
	Administrative County & Civil Parish Boundary				
	County Borough Boundary (England)				
	County Burgh Boundary (Scotland)				
	Rural District Boundary				
	Civil Parish Boundary				

Ordnance Survey Plan 1:10,000

	Chalk Pit, Clay Pit or Quarry		Gravel Pit
	Sand Pit		Disused Pit or Quarry
	Refuse or Slag Heap		Lake, Loch or Pond
	Dunes		Boulders
	Coniferous Trees		Non-Coniferous Trees
	Orchard		Scrub
	Bracken		Heath
	Marsh		Reeds
	Building		Glasshouse
	Sloping Masonry		Pylon
	Cutting		Embankment
	Road Under		Road Over
	Level Crossing		Foot Bridge
	Standard Gauge Multiple Track		Standard Gauge Single Track
	Siding, Tramway or Mineral Line		Narrow Gauge
	Geographical County		Administrative County, County Borough or County of City
	Municipal Borough, Urban or Rural District, Burgh or District Council		Borough, Burgh or County Constituency
	Civil Parish		
	BP, BS Boundary Post or Stone		Police Station
	Church		Post Office
	Club House		Public Convenience
	Fire Engine Station		Public House
	Foot Bridge		Signal Box
	Fountain		Spring
	Guide Post		Telephone Call Box
	Mile Post		Telephone Call Post
	Mile Stone		Well

1:10,000 Raster Mapping

	Gravel Pit		Refuse tip or slag heap
	Rock		Rock (scattered)
	Boulders		Boulders (scattered)
	Shingle		Mud
	Sand		Sand Pit
	Slopes		Top of cliff
	General detail		Underground detail
	Overhead detail		Narrow gauge railway
	Multi-track railway		Single track railway
	County boundary (England only)		Civil, parish or community boundary
	District, Unitary, Metropolitan, London Borough boundary		Constituency boundary
	Area of wooded vegetation		Non-coniferous trees
	Non-coniferous trees (scattered)		Coniferous trees
	Coniferous trees (scattered)		Positioned tree
	Orchard		Coppice or Osiers
	Rough Grassland		Heath
	Scrub		Marsh, Salt Marsh or Reeds
	Water feature		Flow arrows
	Mean high water (springs)		Mean low water (springs)
	Telephone line (where shown)		Electricity transmission line (with poles)
	Bench mark (where shown)		Triangulation station
	Point feature (e.g. Guide Post or Mile Stone)		Pylon, flare stack or lighting tower
	Site of (antiquity)		Glasshouse
	General Building		Important Building

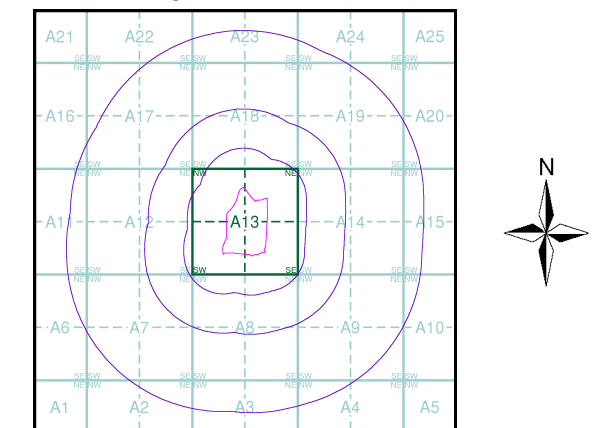
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Historical Mapping & Photography included:

Mapping Type	Scale	Date	Pg
Denbighshire	1:10,560	1879	2
Denbighshire	1:10,560	1900	3
Denbighshire	1:10,560	1914 - 1915	4
Denbighshire	1:10,560	1938	5
Denbighshire	1:10,560	1938 - 1954	6
Denbighshire	1:10,560	1954	7
Ordnance Survey Plan	1:10,000	1954	8
Ordnance Survey Plan	1:10,000	1963 - 1968	9
Ordnance Survey Plan	1:10,000	1976 - 1979	10
Ordnance Survey Plan	1:10,000	1986	11
Ordnance Survey Plan	1:10,000	1993 - 1995	12
10K Raster Mapping	1:10,000	2000	13
10K Raster Mapping	1:10,000	2006	14
VectorMap Local	1:10,000	2022	15

Historical Map - Slice A



Order Details

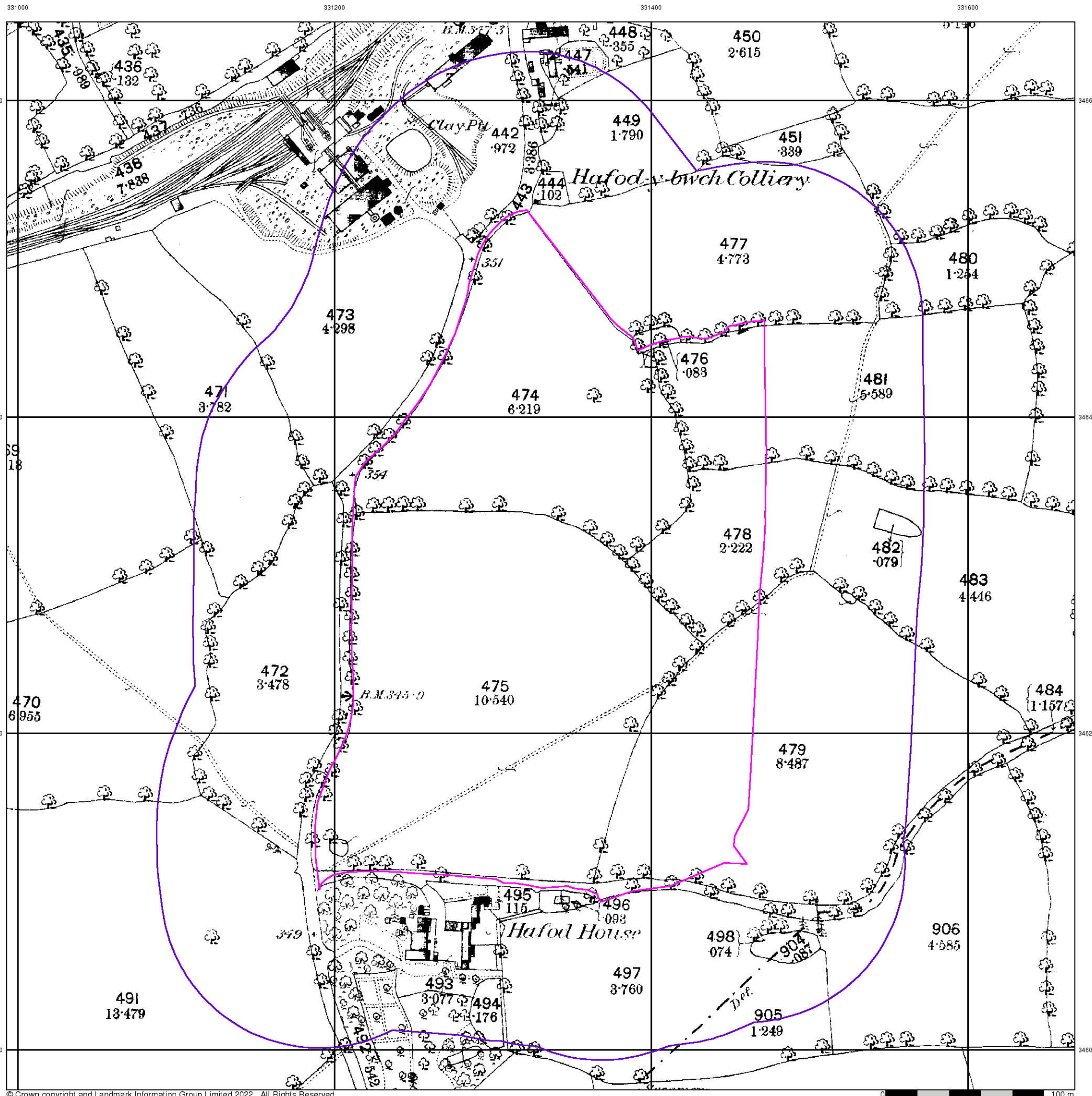
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Customer Ref: 3031-22
National Grid Reference: 331340, 346290
Slice: A
Site Area (Ha): 9.15
Search Buffer (m): 1000

Site Details

Commemorative Woodland, Erddig, Haford Road, Wrexham, LL14 6ET

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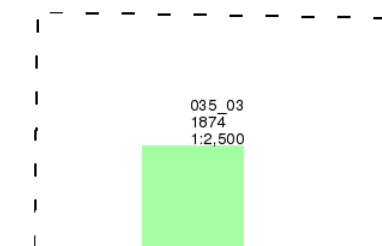
Denbighshire

Published 1874

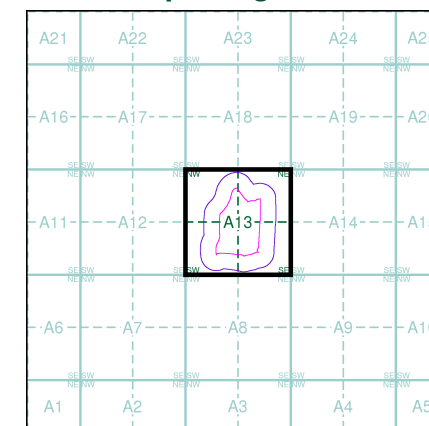
Source map scale - 1:2,500

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas and by 1896 it covered the whole of what were considered to be the cultivated parts of Great Britain. The published date given below is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas.

Map Name(s) and Date(s)



Historical Map - Segment A13



Order Details

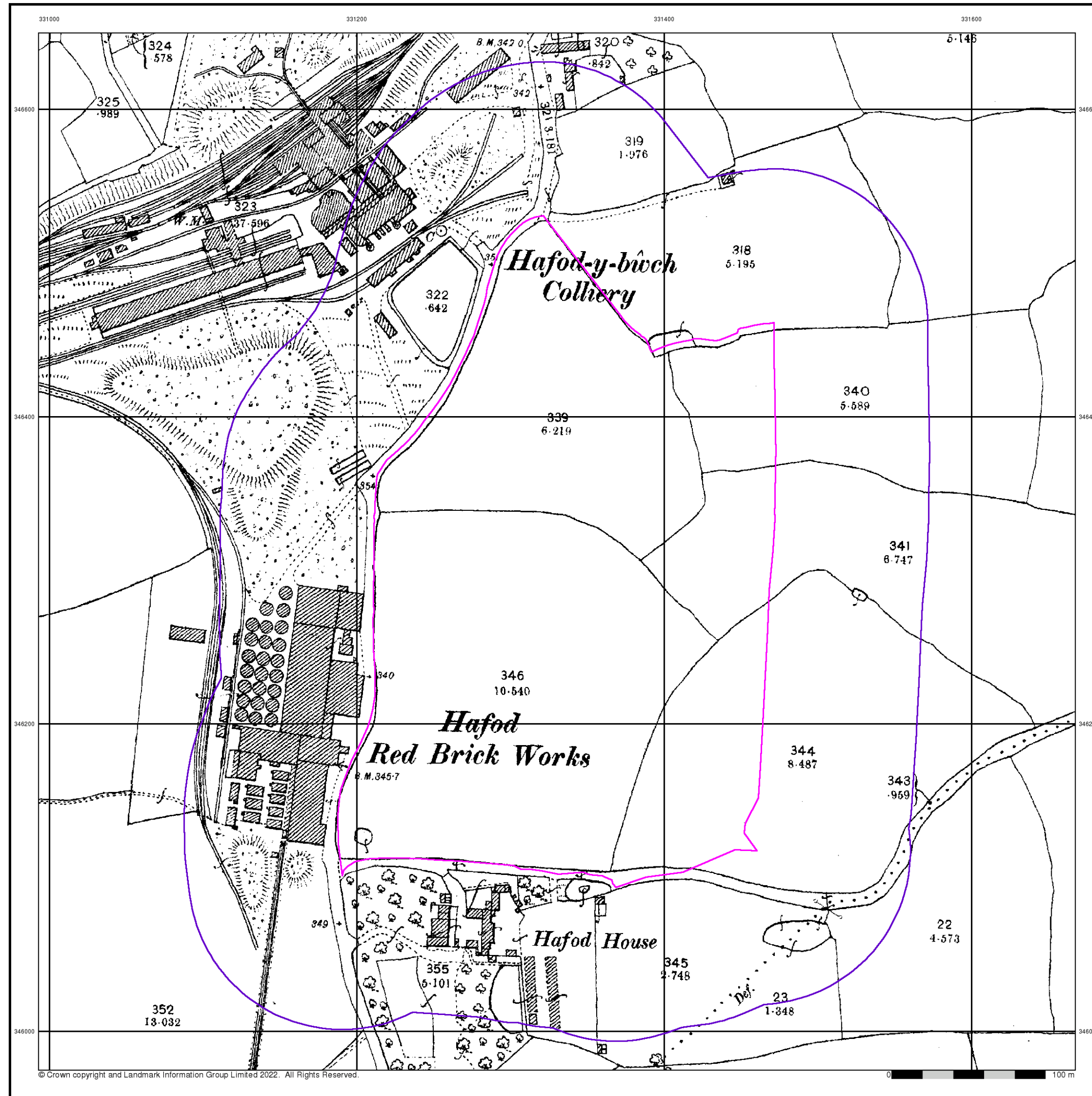
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Customer Ref: 3031-22
National Grid Reference: 331340, 346290
Slice: A
Site Area (Ha): 9.15
Search Buffer (m): 100

Site Details

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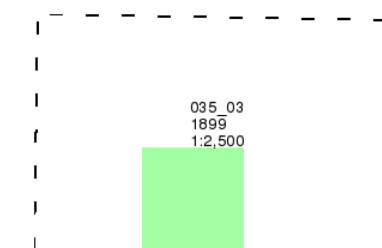
Denbighshire

Published 1899

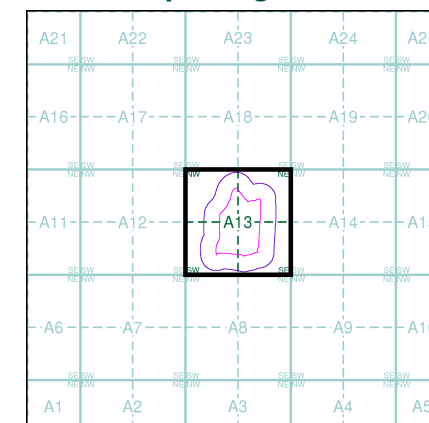
Source map scale - 1:2,500

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas and by 1896 it covered the whole of what were considered to be the cultivated parts of Great Britain. The published date given below is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas.

Map Name(s) and Date(s)



Historical Map - Segment A13



Order Details

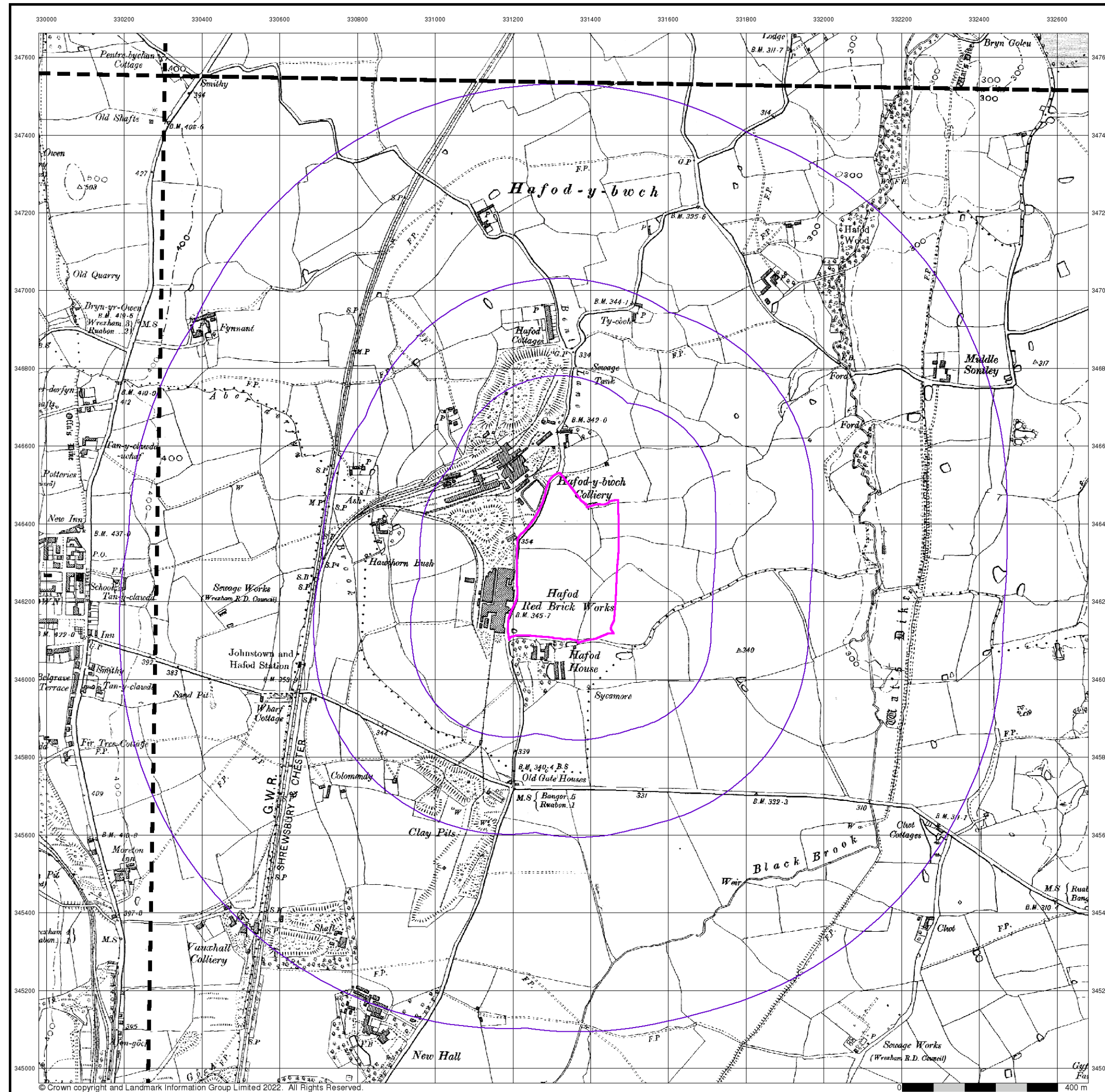
Order Number: 304817738_1_1
Customer Ref: 3031-22
National Grid Reference: 331340, 346290
Slice: A
Site Area (Ha): 9.15
Search Buffer (m): 100

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Denbighshire

Published 1900

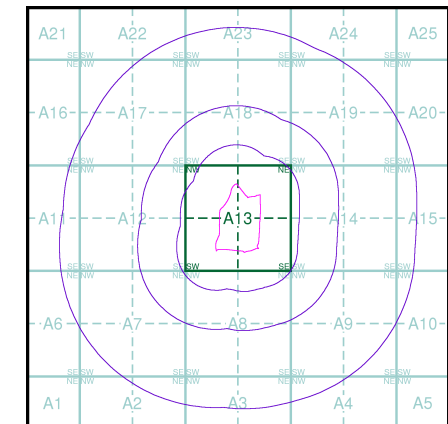
Source map scale - 1:10,560

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas; these maps were used to update the 1:10,560 maps. The published date given therefore is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas. In the late 1940's, a Provisional Edition was produced, which updated the 1:10,560 mapping from a number of sources. The maps appear unfinished - with all military camps and other strategic sites removed. These maps were initially overprinted with the National Grid. In 1970, the first 1:10,000 maps were produced using the Transverse Mercator Projection. The revision process continued until recently, with new editions appearing every 10 years or so for urban areas.

Map Name(s) and Date(s)

028SW 1900 1:10,560	028SE 1900 1:10,560
035NW 1900 1:10,560	035NE 1900 1:10,560

Historical Map - Slice A



Order Details

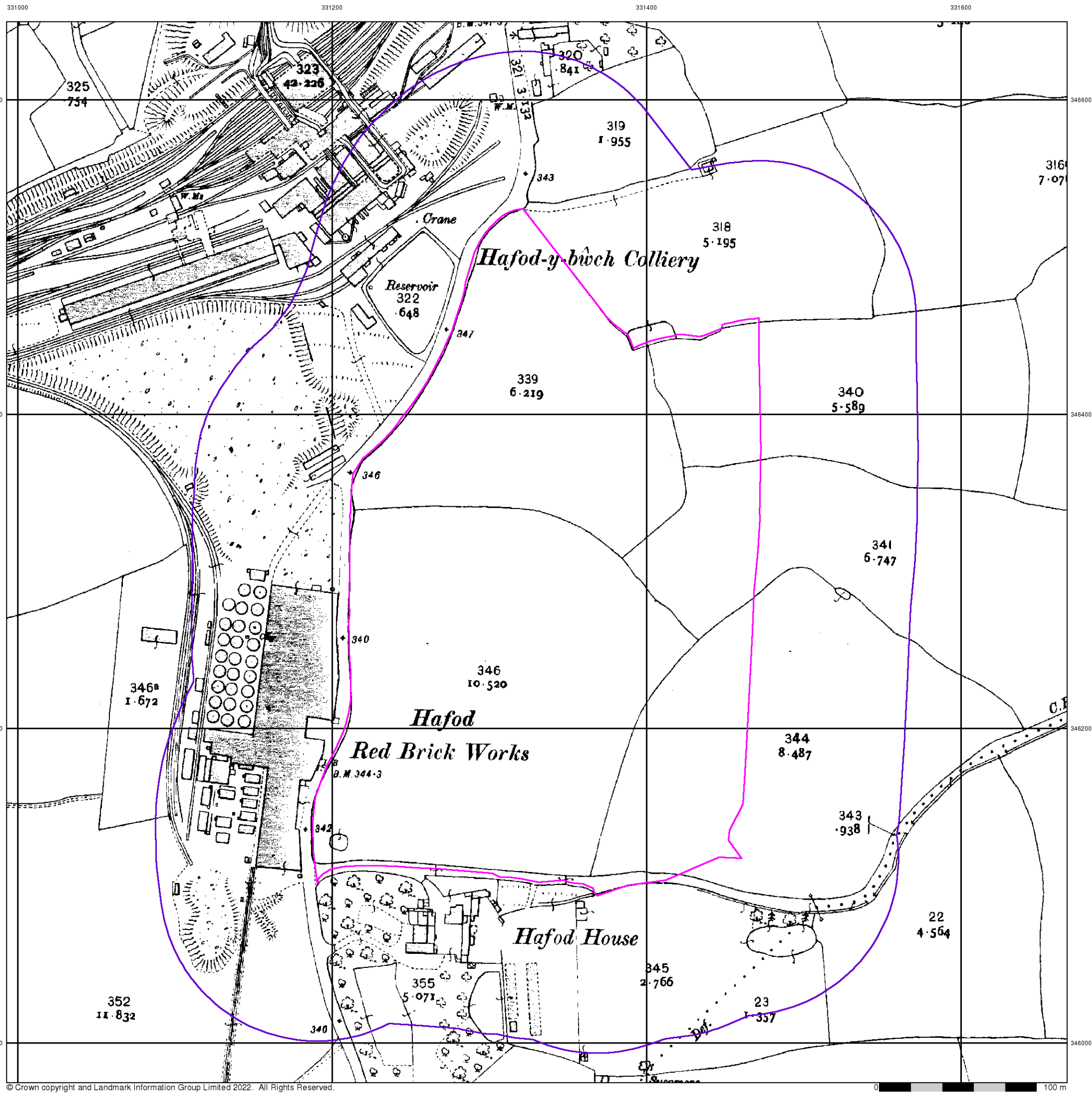
Order Number: 304817738_1_1
Customer Ref: 3031-22
National Grid Reference: 331340, 346290
Slice: A
Site Area (Ha): 9.15
Search Buffer (m): 1000

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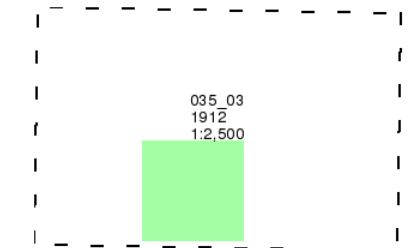
Denbighshire

Published 1912

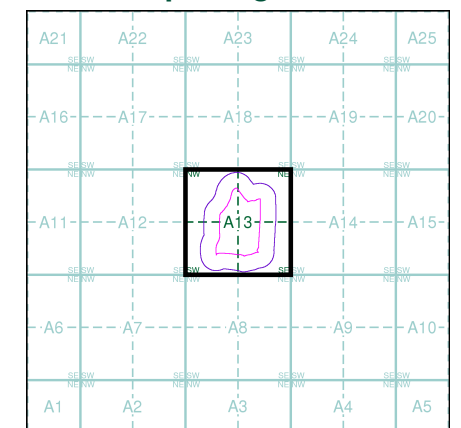
Source map scale - 1:2,500

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas and by 1896 it covered the whole of what were considered to be the cultivated parts of Great Britain. The published date given below is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas.

Map Name(s) and Date(s)



Historical Map - Segment A13



Order Details

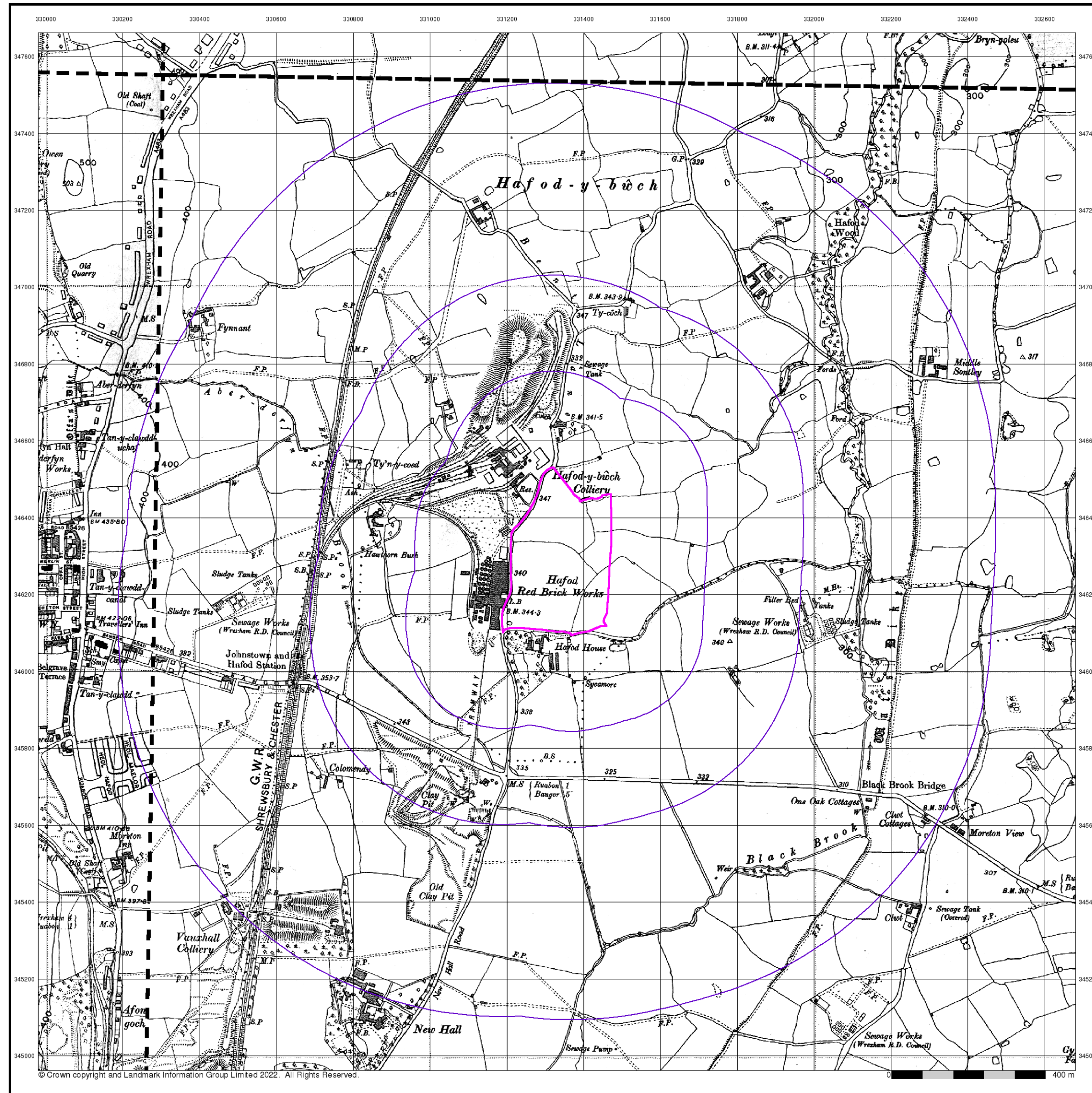
Order Number: 304817738_1_1
Customer Ref: 3031-22
National Grid Reference: 331340, 346290
Slice: A
Site Area (Ha): 9.15
Search Buffer (m): 100

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Denbighshire

Published 1938

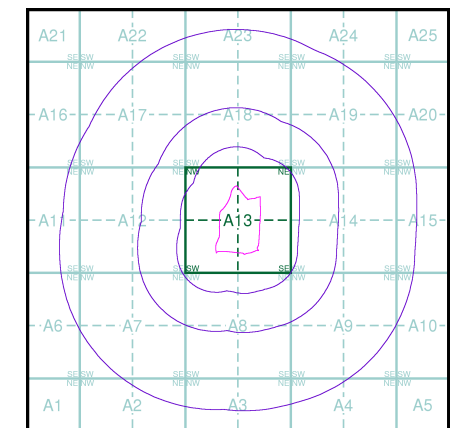
Source map scale - 1:10,560

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas; these maps were used to update the 1:10,560 maps. The published date given therefore is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas. In the late 1940's, a Provisional Edition was produced, which updated the 1:10,560 mapping from a number of sources. The maps appear unfinished - with all military camps and other strategic sites removed. These maps were initially overprinted with the National Grid. In 1970, the first 1:10,000 maps were produced using the Transverse Mercator Projection. The revision process continued until recently, with new editions appearing every 10 years or so for urban areas.

Map Name(s) and Date(s)

028SW 1938 1:10,560	028SE 1938 1:10,560
035NW 1938 1:10,560	035NE 1938 1:10,560

Historical Map - Slice A

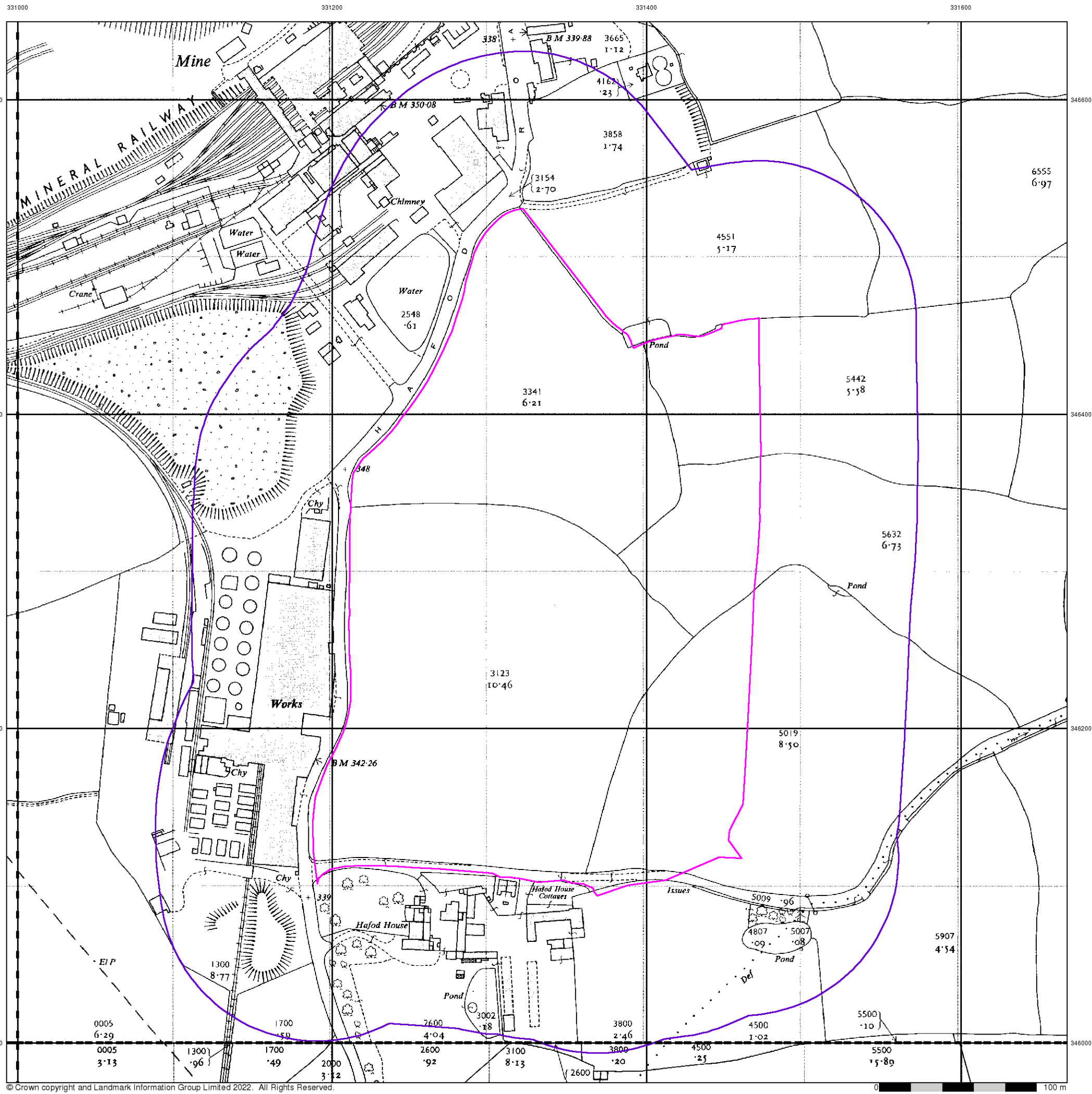


Order Details

Order Number: 304817738_1_1
Customer Ref: 3031-22
National Grid Reference: 331340, 346290
Slice: A
Site Area (Ha): 9.15
Search Buffer (m): 1000

Site Details

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Ordnance Survey Plan

Published 1961 - 1962

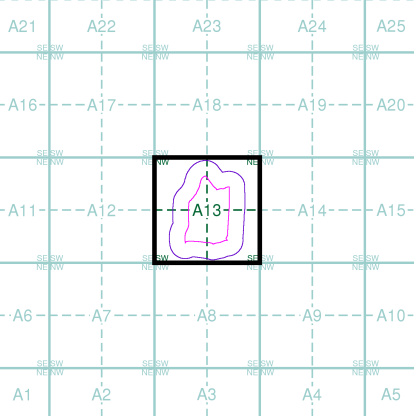
Source map scale - 1:2,500

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas and by 1896 it covered the whole of what were considered to be the cultivated parts of Great Britain. The published date given below is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas.

Map Name(s) and Date(s)

SJ3046 1962 12,500	SJ3146 1962 12,500
SJ3045 1961 12,500	SJ3145 1961 12,500

Historical Map - Segment A13

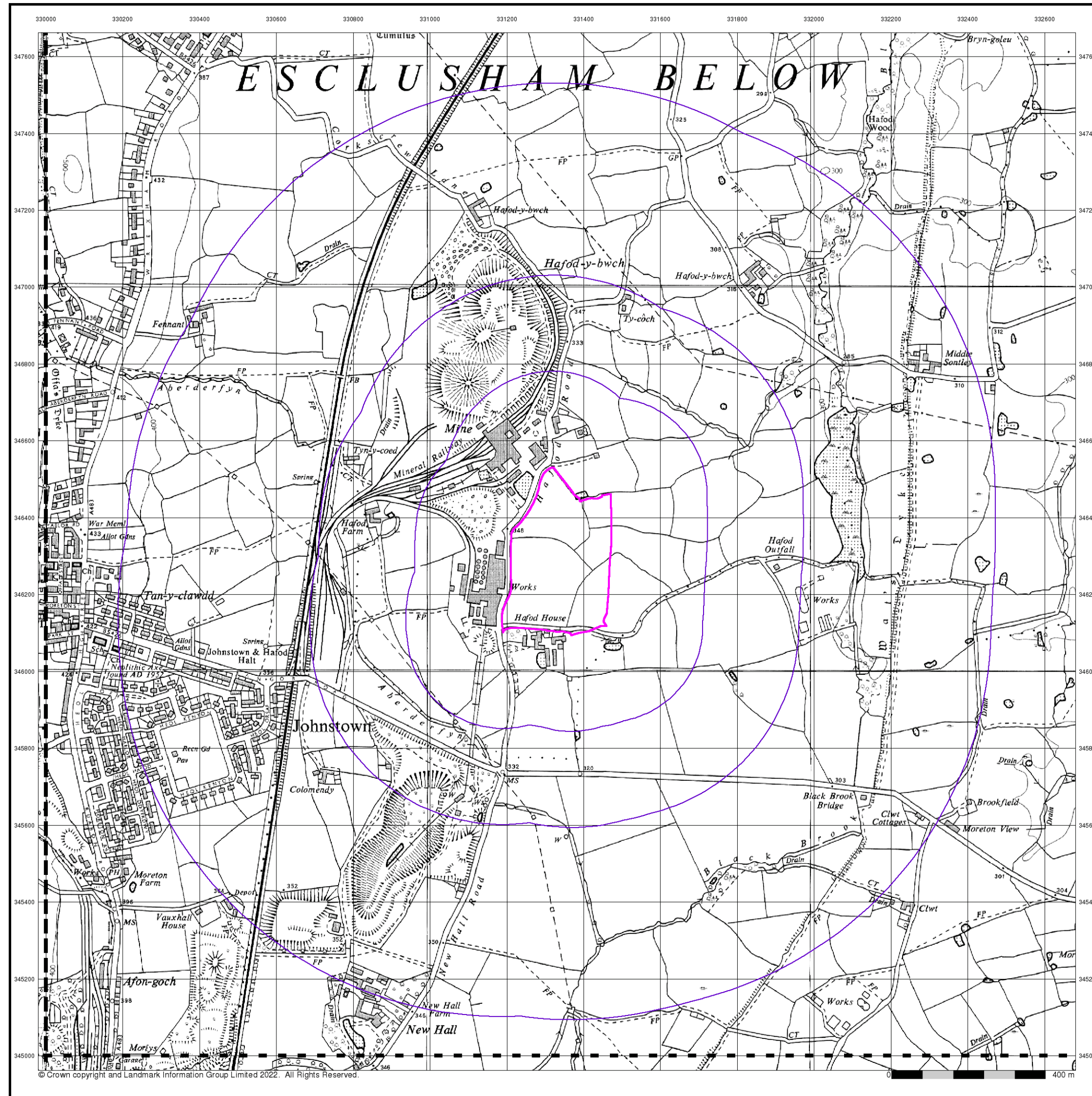


Order Details

Order Number: 304817738_1_1
Customer Ref: 3031-22
National Grid Reference: 331340, 346290
Slice: A
Site Area (Ha): 9.15
Search Buffer (m): 100

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Ordnance Survey Plan

Published 1963 - 1968

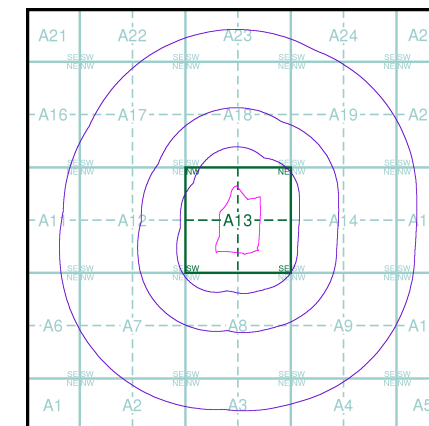
Source map scale - 1:10,000

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas; these maps were used to update the 1:10,560 maps. The published date given therefore is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas. In the late 1940's, a Provisional Edition was produced, which updated the 1:10,560 mapping from a number of sources. The maps appear unfinished - with all military camps and other strategic sites removed. These maps were initially overprinted with the National Grid. In 1970, the first 1:10,000 maps were produced using the Transverse Mercator Projection. The revision process continued until recently, with new editions appearing every 10 years or so for urban areas.

Map Name(s) and Date(s)

SJ24NE	SJ34NW
1963	1964
1:10,560	1:10,560
SJ24SE	SJ34SW
1963	1968
1:10,560	1:10,560

Historical Map - Slice A



Order Details

Order Number: 304817738_1_1
Customer Ref: 3031-22
National Grid Reference: 331340, 346290
Slice: A
Site Area (Ha): 9.15
Search Buffer (m): 1000

Site Details

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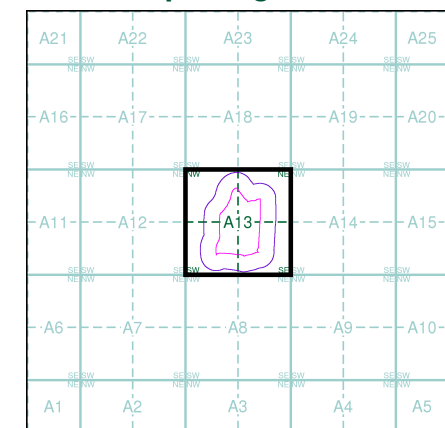
Ordnance Survey Plan
Published 1968 - 1974
Source map scale - 1:2,500

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas and by 1896 it covered the whole of what were considered to be the cultivated parts of Great Britain. The published date given below is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas.

Map Name(s) and Date(s)

SJ3046 1968 1:2,500	SJ3146 1968 1:2,500
SJ3045 1974 1:2,500	SJ3145 1974 1:2,500

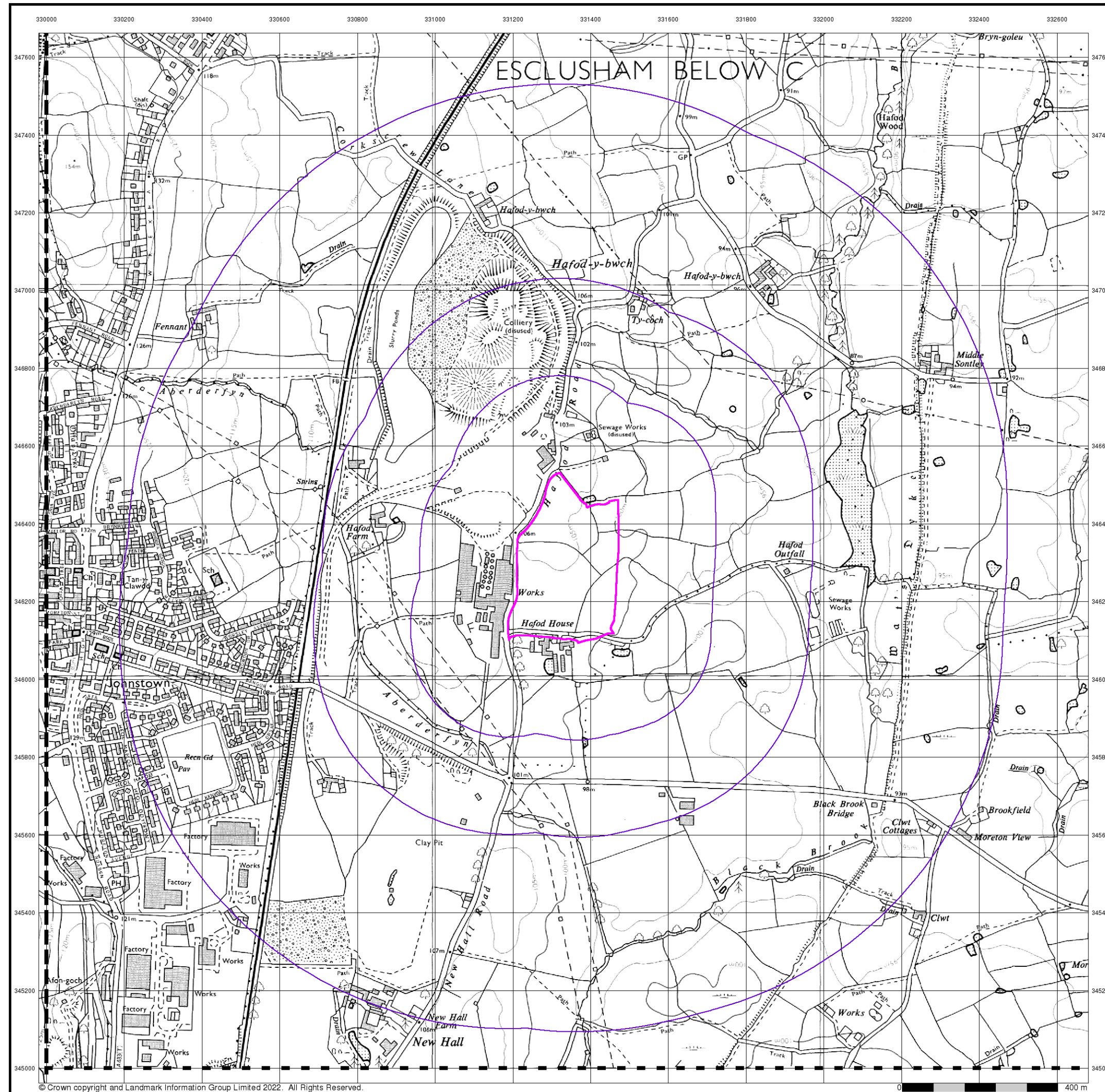
Historical Map - Segment A13



Order Details
Order Number: 304817738_1_1
Customer Ref: 3031-22
National Grid Reference: 331340, 346290
Slice: A
Site Area (Ha): 9.15
Search Buffer (m): 100

Site Details
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Ordnance Survey Plan

Published 1976 - 1979

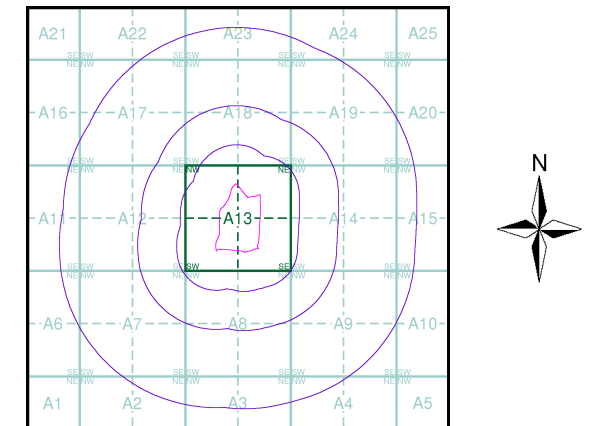
Source map scale - 1:10,000

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas; these maps were used to update the 1:10,560 maps. The published date given therefore is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas. In the late 1940's, a Provisional Edition was produced, which updated the 1:10,560 mapping from a number of sources. The maps appear unfinished - with all military camps and other strategic sites removed. These maps were initially overprinted with the National Grid. In 1970, the first 1:10,000 maps were produced using the Transverse Mercator Projection. The revision process continued until recently, with new editions appearing every 10 years or so for urban areas.

Map Name(s) and Date(s)

SJ24NE	SJ34NW
1976	1979
1:10,000	1:10,000
SJ24SE	
1977	
1:10,000	

Historical Map - Slice A



Order Details

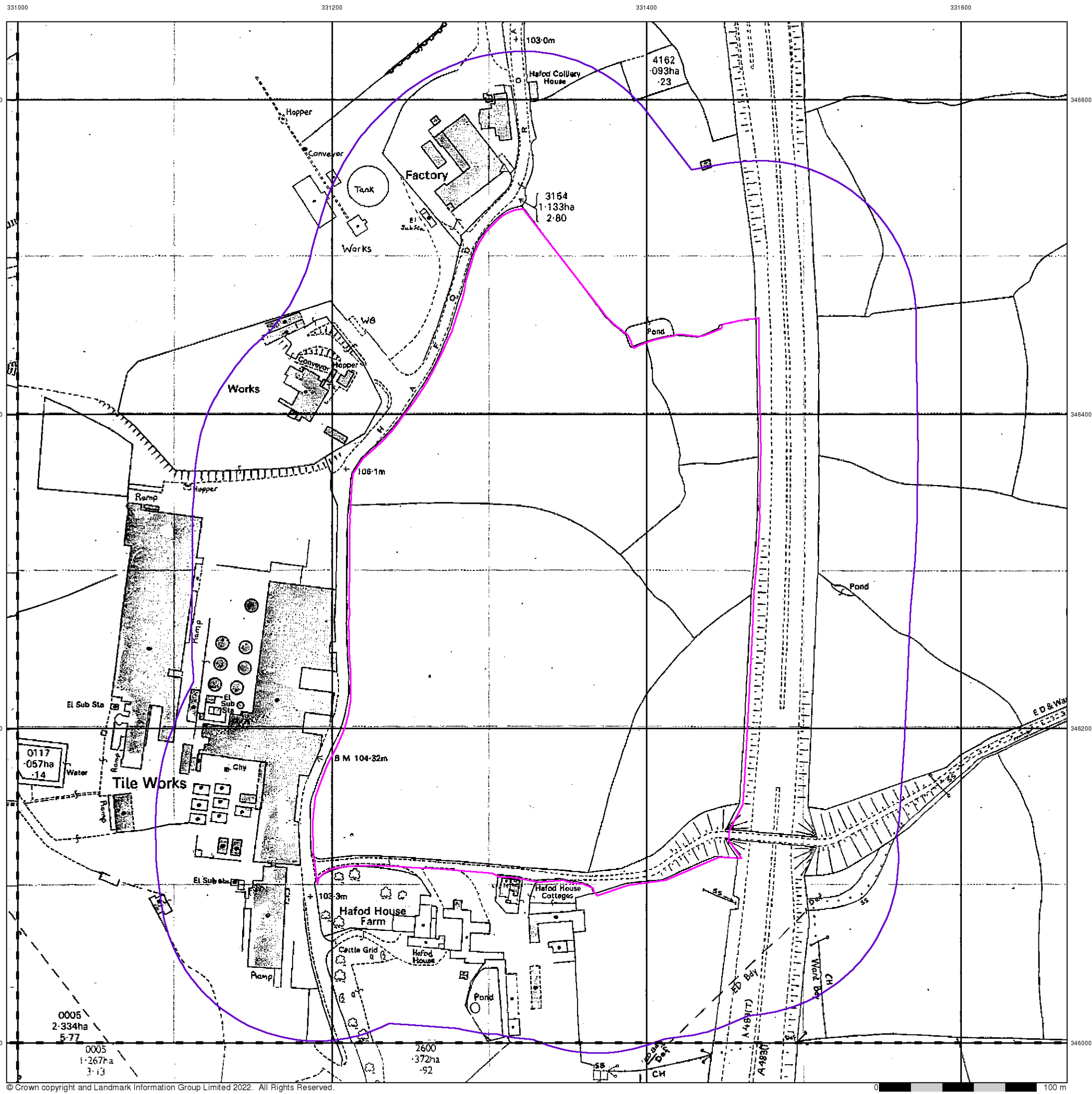
Order Number: 304817738_1_1
Customer Ref: 3031-22
National Grid Reference: 331340, 346290
Slice: A
Site Area (Ha): 9.15
Search Buffer (m): 1000

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Additional SIMs

Published 1978 - 1989

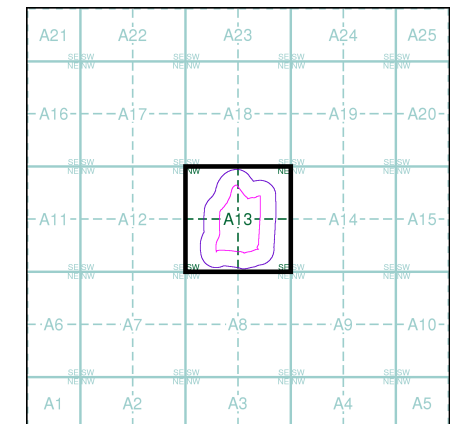
Source map scale - 1:2,500

The SIM cards (Ordnance Survey's 'Survey of Information on Microfilm') are further, minor editions of mapping which were produced and published in between the main editions as an area was updated. They date from 1947 to 1994, and contain detailed information on buildings, roads and land-use. These maps were produced at both 1:2,500 and 1:1,250 scales.

Map Name(s) and Date(s)

SJ3046 1978 12,500	SJ3146 1989 12,500
SJ3045 1989 12,500	SJ3145 1989 12,500

Historical Map - Segment A13

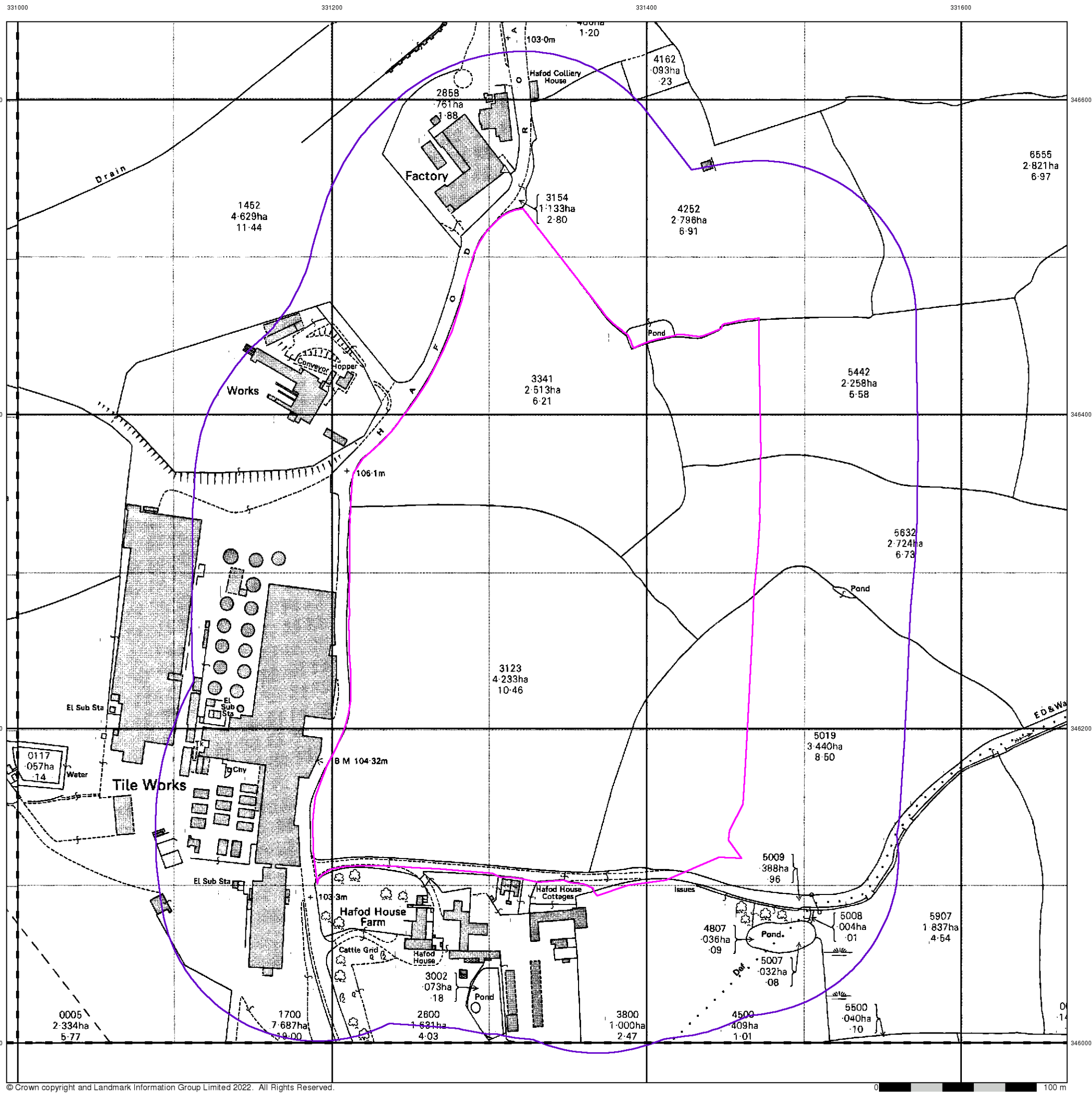


Order Details

Order Number: 304817738_1_1
Customer Ref: 3031-22
National Grid Reference: 331340, 346290
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Site Details

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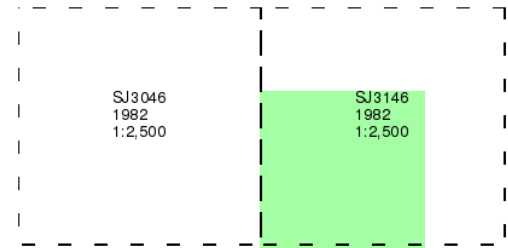
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Ordnance Survey Plan

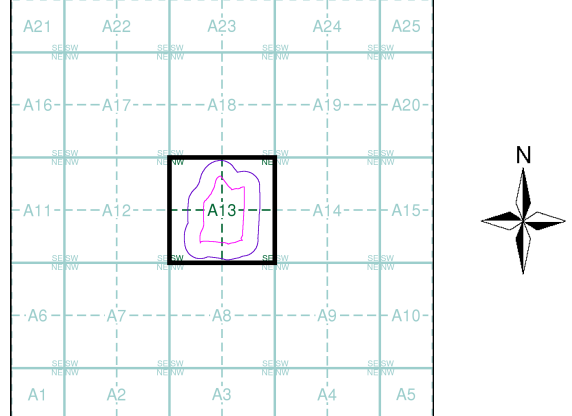
Published 1982
Source map scale - 1:2,500

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas and by 1896 it covered the whole of what were considered to be the cultivated parts of Great Britain. The published date given below is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas.

Map Name(s) and Date(s)

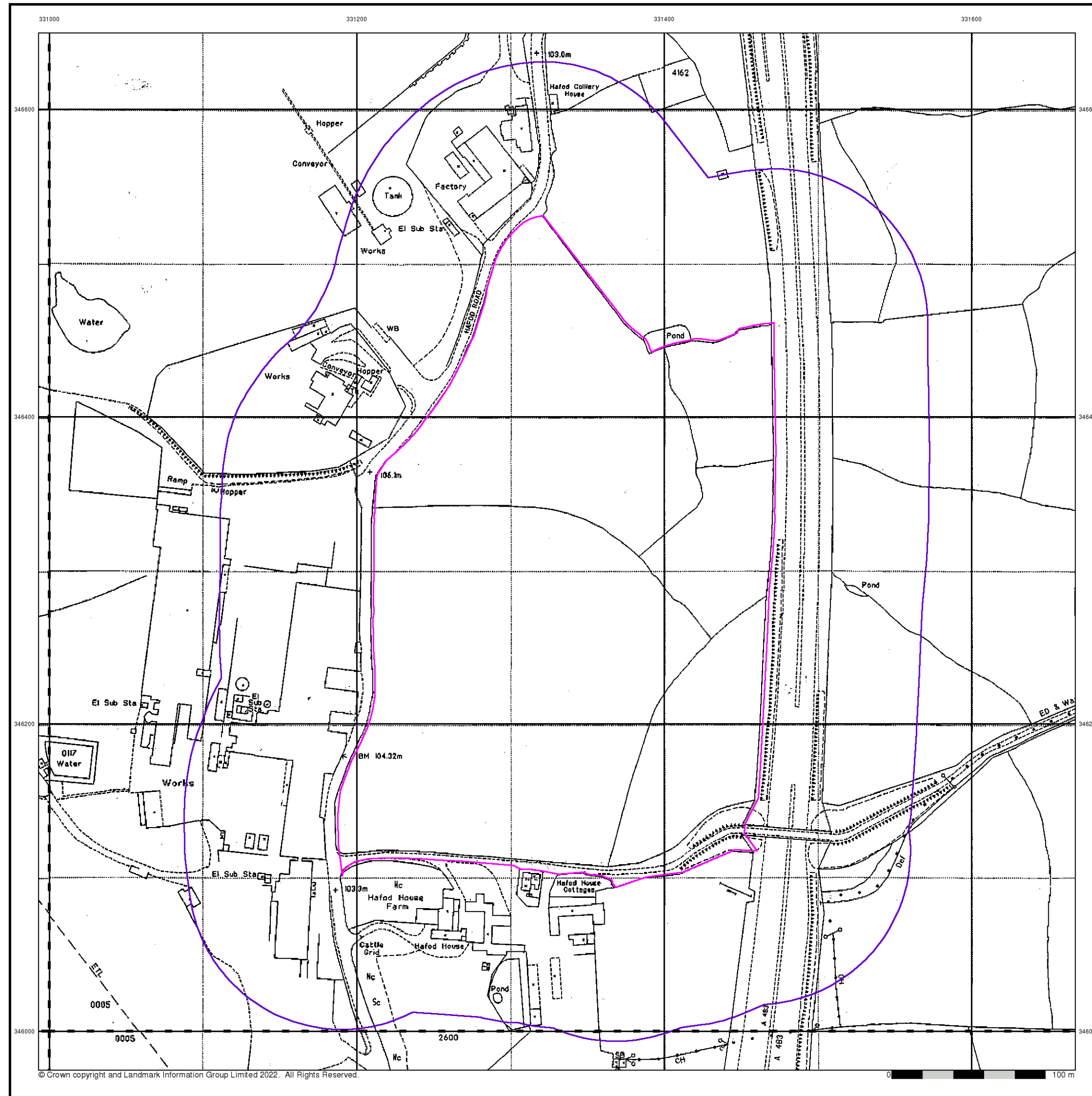


Historical Map - Segment A13



Order Details
Order Number: 304817738_1_1
Customer Ref: 3031-22
National Grid Reference: 331340, 346290
Slice: A
Site Area (Ha): 9.15
Search Buffer (m): 100

Site Details
Commemorative Woodland, Erddig, Haford Road, Wrexham, LL14 6ET



Large-Scale National Grid Data

Published 1992

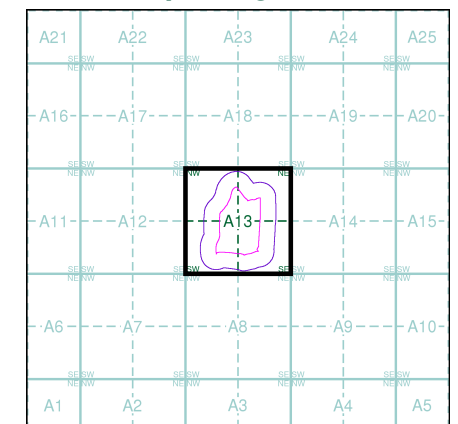
Source map scale - 1:2,500

'Large Scale National Grid Data' superseded SIM cards (Ordnance Survey's 'Survey of Information on Microfilm') in 1992, and continued to be produced until 1999. These maps were the fore-runners of digital mapping and so provide detailed information on houses and roads, but tend to show less topographic features such as vegetation. These maps were produced at both 1:2,500 and 1:1,250 scales.

Map Name(s) and Date(s)

SJ3046 1992 1:2,500	SJ3146 1992 1:2,500
SJ3045 1992 1:2,500	SJ3145 1992 1:2,500

Historical Map - Segment A13

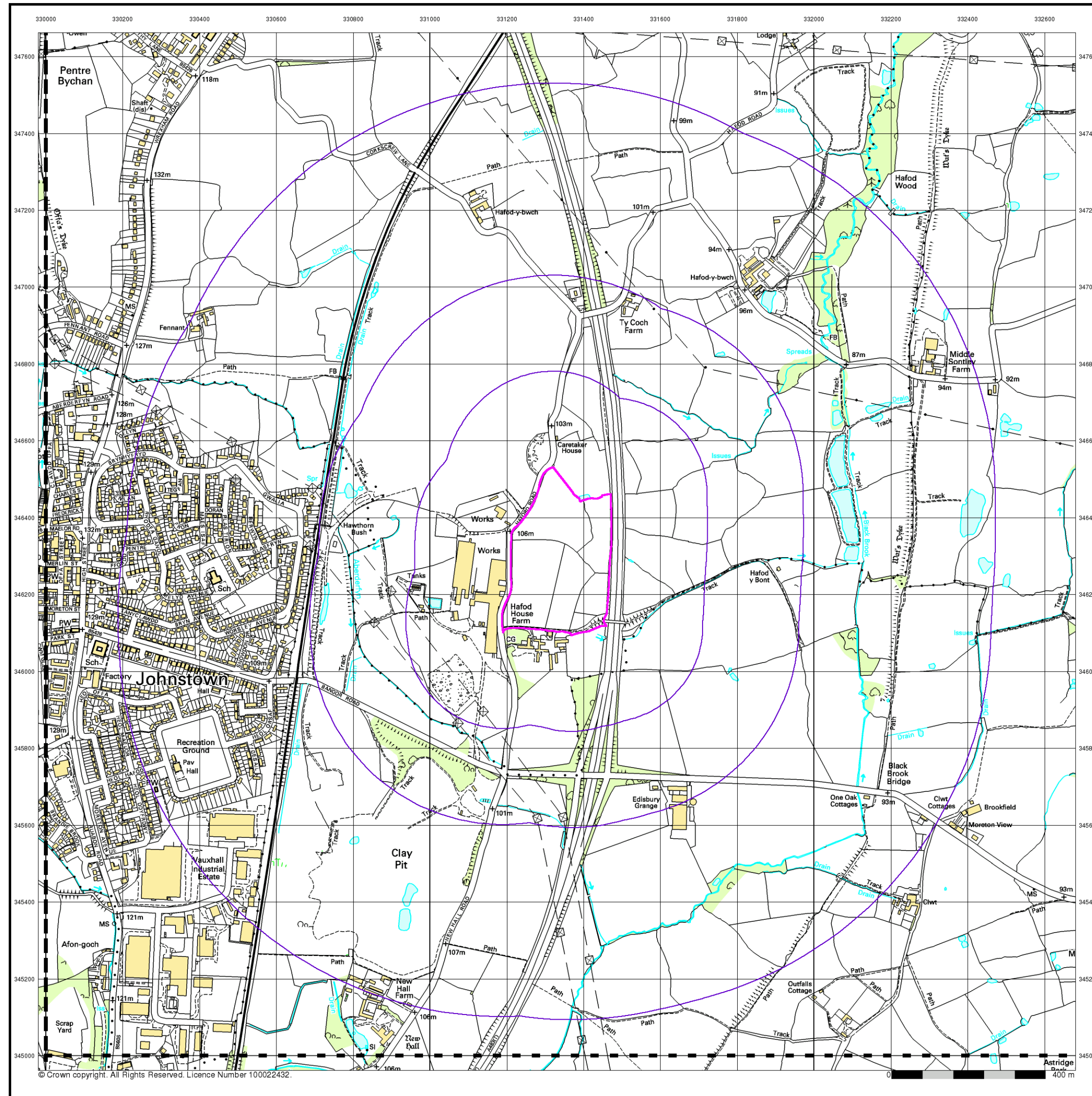


Order Details

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 Customer Ref: 3031-22
 National Grid Reference: 331340, 346290
 Slice: A
 Site Area (Ha): 9.15
 Search Buffer (m): 100

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10k Raster Mapping

Published 2000

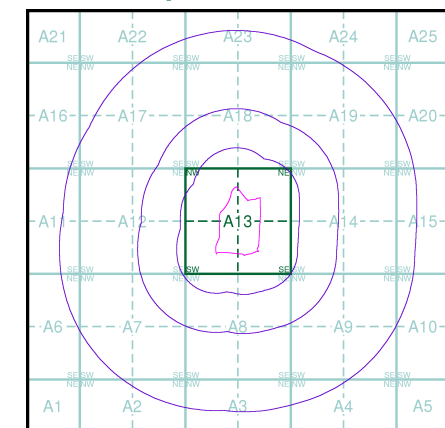
Source map scale - 1:10,000

The historical maps shown were produced from the Ordnance Survey's 1:10,000 colour raster mapping. These maps are derived from Landplan which replaced the old 1:10,000 maps originally published in 1970. The data is highly detailed showing buildings, fences and field boundaries as well as all roads, tracks and paths. Road names are also included together with the relevant road number and classification. Boundary information depiction includes county, unitary authority, district, civil parish and constituency.

Map Name(s) and Date(s)

SJ24NE	SJ34NW
2000	2000
1:10,000	1:10,000
SJ24SE	SJ34SW
2000	2000
1:10,000	1:10,000

Historical Map - Slice A



Order Details

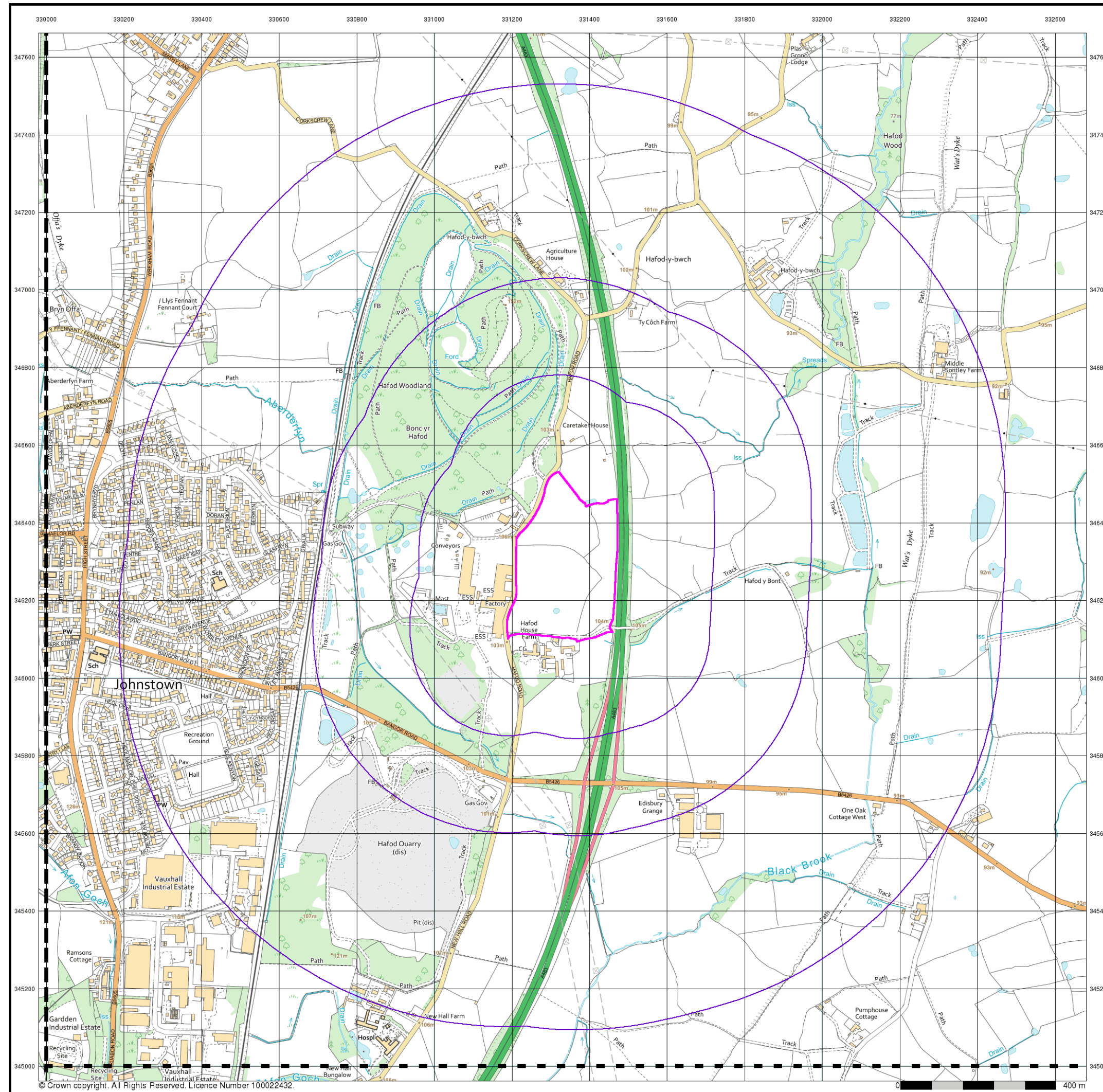
Order Number: 304817738_1_1
Customer Ref: 3031-22
National Grid Reference: 331340, 346290
Slice: A
Site Area (Ha): 9.15
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VectorMap Local

Published 2022

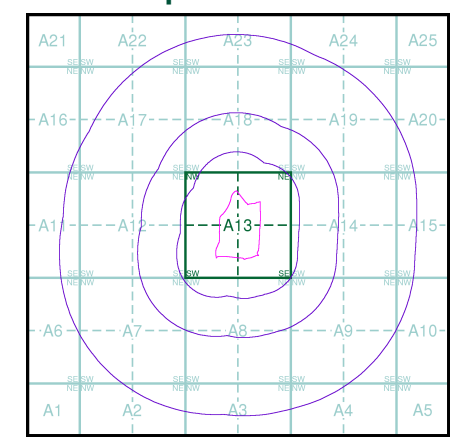
Source map scale - 1:10,000

VectorMap Local (Raster) is Ordnance Survey's highest detailed 'backdrop' mapping product. These maps are produced from OS's VectorMap Local, a simple vector dataset at a nominal scale of 1:10,000, covering the whole of Great Britain, that has been designed for creating graphical mapping. OS VectorMap Local is derived from large-scale information surveyed at 1:1250 scale (covering major towns and cities), 1:2500 scale (smaller towns, villages and developed rural areas), and 1:10 000 scale (mountain, moorland and river estuary areas).

Map Name(s) and Date(s)

SJ24NE 2022 Variable	SJ34NW 2022 Variable
SJ24SE 2022 Variable	SJ34SW 2022 Variable

Historical Map - Slice A



Order Details

Order Number: 304817738_1_1
Customer Ref: 3031-22
National Grid Reference: 331340, 346290
Slice: A
Site Area (Ha): 9.15
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APPENDIX 5
COAL AUTHORITY REPORT



The Coal
Authority

CON29M

coal mining report

COMMEMORATIVE WOODLAND, ERDDIG HAFORD ROAD, WREXHAM,
WREXHAM, LL14 6ET



Known or potential coal mining risks

Past underground coal mining	Page 4
Future underground coal mining	Page 4



Further action

No further reports from the Coal Authority are required. Further information on any next steps can be found in our Professional opinion.

For more information on our reports please visit
www.groundstability.com



Professional opinion

According to the official mining information records held by the Coal Authority at the time of this search, evidence of, or the potential for, coal mining related features have been identified. It is unlikely that these features will impact on the stability of the enquiry boundary.

Your reference: **304817738_2**
Our reference: **51003329207001**
Date: **8 December 2022**

Client name:
NLIS Hub

If you require any further assistance please
contact our experts on:
0345 762 6848
groundstability@coal.gov.uk



The Law
Society

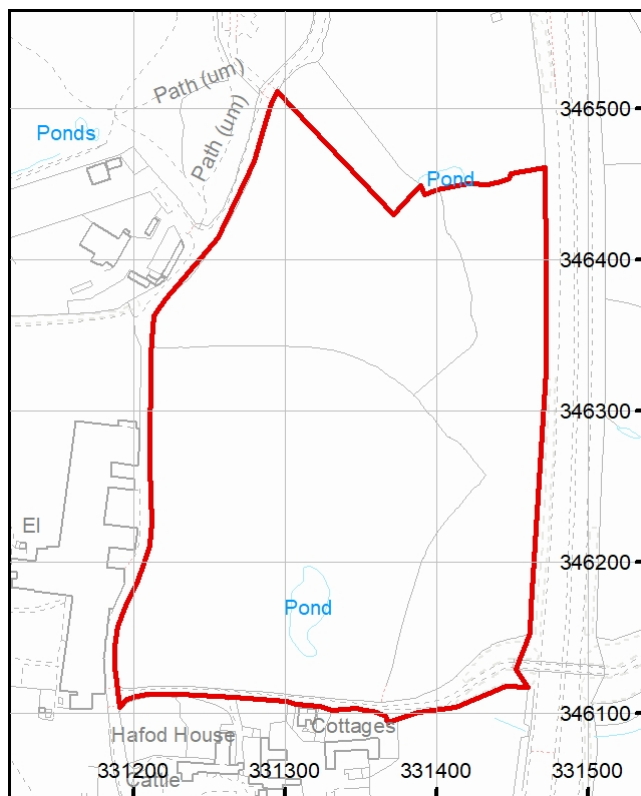
Enquiry boundary

Key

Approximate position of enquiry boundary shown



We can confirm that the location is
on the coalfield



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This report is prepared in accordance with the latest Law Society's Guidance Notes 2018, the User Guide 2018 and the Coal Authority's Terms and Conditions applicable at the time the report was produced.



Accessibility

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Professional opinion



Future development

If development proposals are being considered, technical advice relating to both the investigation of coal and former coal mines and their treatment should be obtained before beginning work on site. All proposals should apply specialist engineering practice required for former mining areas. No development should be undertaken that intersects, disturbs or interferes with any coal or coal mines without first obtaining the permission of the Coal Authority.

MINE GAS: Please note, if there are no recorded instances of mine gas within the enquiry boundary, this does not mean that mine gas is not present within the vicinity. The Coal Authority Mine Gas data is limited to only those sites where a Mine Gas incident has been recorded. Developers should be aware that the investigation of coal seams, mine workings or mine entries may have the potential to generate and/or displace underground gases. Associated risks both to the development site and any neighbouring land or properties should be fully considered when undertaking any ground works. The need for effective measures to prevent gases migrating onto any land or into any properties, either during investigation or remediation work, or after development must also be assessed and properly addressed. In these instances, the Coal Authority recommends that a more detailed Gas Risk Assessment is undertaken by a competent assessor.

If you are looking to develop, or undertake works, within a coal mining development high risk area your Local Authority planning department may require a Coal Mining Risk Assessment to be undertaken by a qualified mining geologist or engineer. Should you require any additional information then please contact the Coal Authority on **0345 762 6848** or email **cmra@coal.gov.uk**.

Detailed findings

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1 Past underground coal mining

The property is in a surface area that could be affected by underground mining in 10 seams of coal at 370m to 640m depth, and last worked in 1968.

Any movement in the ground due to coal mining activity associated with these workings should have stopped by now.

2 Present underground coal mining

The property is not within a surface area that could be affected by present underground mining.

3 Future underground coal mining

The property is not in an area where the Coal Authority has received an application for, and is currently considering whether to grant a licence to remove or work coal by underground methods.

The property is not in an area where a licence has been granted to remove or otherwise work coal using underground methods.

The property is not in an area likely to be affected from any planned future underground coal mining.

However, reserves of coal exist in the local area which could be worked at some time in the future.

No notices have been given, under section 46 of the Coal Mining Subsidence Act 1991, stating that the land is at risk of subsidence.

4 Mine entries

There are no recorded coal mine entries known to the Coal Authority within, or within 20 metres, of the boundary of the property.

5 Coal mining geology

The Coal Authority is not aware of any damage due to geological faults or other lines of weakness that have been affected by coal mining.

6 Past opencast coal mining

The property is not within the boundary of an opencast site from which coal has been removed by opencast methods.

7 Present opencast coal mining

The property does not lie within 200 metres of the boundary of an opencast site from which coal is being removed by opencast methods.

8 Future opencast coal mining

There are no licence requests outstanding to remove coal by opencast methods within 800 metres of the boundary.

The property is not within 800 metres of the boundary of an opencast site for which a licence to remove coal by opencast methods has been granted.

9 Coal mining subsidence

The Coal Authority has not received a damage notice or claim for the subject property, or any property within 50 metres of the enquiry boundary, since 31 October 1994.

There is no current Stop Notice delaying the start of remedial works or repairs to the property.

The Coal Authority is not aware of any request having been made to carry out preventive works before coal is worked under section 33 of the Coal Mining Subsidence Act 1991.

10 Mine gas

The Coal Authority has no record of a mine gas emission requiring action.

11 Hazards related to coal mining

The property has not been subject to remedial works, by or on behalf of the Coal Authority, under its Emergency Surface Hazard Call Out procedures.

12 Withdrawal of support

The property is not in an area where a notice to withdraw support has been given.

The property is not in an area where a notice has been given under section 41 of the Coal Industry Act 1994, cancelling the entitlement to withdraw support.

13 Working facilities order

The property is not in an area where an order has been made, under the provisions of the Mines (Working Facilities and Support) Acts 1923 and 1966 or any statutory modification or amendment thereof.

14 Payments to owners of former copyhold land

The property is not in an area where a relevant notice has been published under the Coal Industry Act 1975/Coal Industry Act 1994.

Statutory cover



Coal mining subsidence

In the unlikely event of any coal mining related subsidence damage, the Coal Authority or the mine operator has a duty to take remedial action in respect of subsidence caused by the withdrawal of support from land or property in connection with lawful coal mining operations.

When the works are the responsibility of the Coal Authority, our dedicated public safety and subsidence team will manage the claim. The house or land owner ("the owner") is covered for these works under the terms of the Coal Mining Subsidence Act 1991 (as amended by the Coal Industry Act 1994). Please note, this Act does not apply where coal was worked or gotten by virtue of the grant of a gale in the Forest of Dean, or any other part of the Hundred of St. Briavels in the county of Gloucester.

If you believe your land or property is suffering from coal mining subsidence damage and you need more information on what to do next, please use the following link to our website which sets out what your rights are and what you need to consider before making a claim.

www.gov.uk/government/publications/coal-mining-subsidence-damage-notice-form



Coal mining hazards

Our public safety and subsidence team provide a 24 hour a day, 7 days a week hazard reporting service, to help protect the public from hazards caused by past coal workings, such as a mine shaft or shallow working collapse. To report any hazards please call **0800 288 4242**. Further information can be found on our website: www.gov.uk/coalauthority.

Glossary



Key terms

adit - horizontal or sloped entrance to a mine

coal mining subsidence - ground movement caused by the removal of coal by underground mining

Coal Mining Subsidence Act 1991 - the Act setting out the duties of the Coal Authority to repair damage caused by coal mining subsidence

coal mining subsidence damage - damage to land, buildings or structures caused by the removal of coal by underground mining

coal seams - bed of coal of varying thickness

future opencast coal mining - a licence granted, or licence application received, by the Coal Authority to excavate coal from the surface

future underground coal mining - a licence granted, or licence application received, by the Coal Authority to excavate coal underground. Although it is unlikely, remaining coal reserves could create a possibility for future mining, which would be licensed by the Coal Authority

mine entries - collective name for shafts and adits

mine gas - reports of alleged mine gas emissions received by the Coal Authority within the enquiry boundary that subsequently required investigation and action by the Coal Authority to mitigate the effects of the mine gas emission. Please note, if there are no recorded instances of mine gas reported, this does not mean that mine gas is not present within the vicinity. The Coal Authority Mine Gas data is limited to only those sites where a Mine Gas incident has been recorded

payments to owners of former copyhold land - historically, copyhold land gave rights to coal to the copyholder. Legislation was set up to allow others to work this coal, but they had to issue a notice and pay compensation if a copyholder came forward

shaft - vertical entry into a mine

site investigation - investigations of coal mining risks carried out with the Coal Authority's permission

stop notice - a delay to repairs because further coal mining subsidence damage may occur and it would be unwise to carry out permanent repairs

subsidence claim - a formal notice of subsidence damage to the Coal Authority since it was established on 31 October 1994

withdrawal of support - a historic notice informing landowners that the coal beneath their property was going to be worked

working facilities orders - a court order which gave permission, restricted or prevented coal mine workings

APPENDIX 6

RISK ASSESSMENT MATRIX

Preliminary Risk Assessment Methodology (After NHBC Guidance for the Safe Development of Housing on Land Affected by Contamination (2008))

NHBC Guidance for the Safe Development of Housing on Land Affected by Contamination (2008) sets out a methodology for the estimation of risk.

At Phase I the risk estimation will take the form of a qualitative risk assessment, which will be entirely based on the conceptual model for each potential end-use of the site. Comments on level of uncertainty will also need to be included for each source-pathway-target linkage to allow the confidence in the assessed risks to be understood. The results of the qualitative risk assessment will allow the risk evaluation to be concisely described in the following chapters.

The methodology for risk evaluation is a qualitative method for interpreting the output for the risk estimation stage of the assessment. It involves the classification of the:

The magnitude of probability (i.e. likelihood).

[takes into account both the presence of the hazard and receptor and the integrity of the pathway]

The magnitude of the potential consequence (i.e. severity).

[takes into account both the potential severity of the hazard and the sensitivity of the receptor]

Classification of Probability

Classification	Definition	Examples
High likelihood (Hi)	There is a pollutant linkage and an event that either appears very likely in the short term and almost inevitable in the long term, or there is evidence at the receptor of harm or pollution.	A) <i>Elevated concentrations of toxic contaminants are present in soils in the top 0.5m in a residential garden.</i> B) <i>Ground/groundwater contamination could be present from chemical works, containing a number of USTs, having been in operation on the same site for over 50 years</i>
Likely (Li)	There is a pollutant linkage, and all the elements are present and in the right place, which means that it is probable that an event will occur. Circumstances are such that an event is not inevitable, but possible in the short term and likely over the long term.	A) <i>Elevated concentrations of toxic contaminants are present in soils at depths of 0.5-1.0m in a residential garden, or the top 0.5m in public open space.</i> B) <i>Ground/groundwater contamination could be present from an industrial site containing a UST present between 1970 and 1990. The tank is known to be single skin. There is no evidence of leakage although there are no records of integrity tests.</i>
Low likelihood (Lw)	There is a pollutant linkage and circumstances are possible under which an event could occur. However, it is by no means certain that even over a longer period such event would take place and is less likely in the short term.	A) <i>Elevated concentrations of toxic contaminants are present in soils at depths >1m in a residential garden, or 0.5-1.0m in public open space.</i> B) <i>Ground/groundwater contamination could be present on a light industrial unit constructed in the 1990s containing a UST in operation over the last 10 years – the tank is double skinned but there is no integrity testing or evidence of leakage.</i>
Unlikely (UI)	There is a pollutant linkage but circumstances are such that it is improbable that an event would occur even in the very long term.	A) <i>Elevated concentrations of toxic contaminants are present below hardstanding.</i> B) <i>Light industrial unit <10 yrs old containing a double skinned UST with annual integrity testing results available.</i>

Preliminary Risk Assessment Methodology (After NHBC Guidance for the Safe Development of Housing on Land Affected by Contamination (2008))

Classification of Consequence

	Definition	Examples
Severe (Sv)	Highly elevated concentrations likely to result in “significant harm” to human health as defined by the EPA 1990, Part 2A, if exposure occurs. A Category 1: Human Health risk is present. Equivalent to EA Category 1 pollution incident including persistent and/or extensive effects on water quality; leading to closure of a potable abstraction point major impact on amenity value or major damage to agriculture or commerce. Major damage to aquatic or other ecosystems, which is likely to result in a substantial adverse change in its functioning or harm to a species of special interest that endangers the long - term maintenance of the population. Catastrophic damage to crops, buildings or property.	<i>Significant harm to humans is defined in circular 01/2006 as death, disease*, serious injury, genetic mutation, birth defects or the impairment of reproductive functions.</i> <i>Major fish kill in surface water from large spillage of contaminants from site.</i> <i>Highly elevated concentrations of List 1 and substances present in groundwater close to small potable abstraction (high sensitivity).</i> <i>Explosion, causing building collapse (can also equate to immediate human health risk if buildings are occupied).</i>
Medium (Md)	Elevated concentrations which could result in “significant harm” to human health as defined by the EPA 1990, Part 2A if exposure occurs. A Category 2: Human Health risk is present. Equivalent to EA Category 2 pollution incident including significant effect on water quality; notification required to abstractors; reduction in amenity value or significant damage to agriculture or commerce. Significant damage to aquatic or other ecosystems, which may result in a substantial adverse change in its functioning or harm to a species of special interest that may endanger the long-term maintenance of the population. Significant damage to crops, buildings or property.	<i>Significant harm to humans is defined in circular 01/2006 as death, disease* serious injury, genetic mutation, birth defects or the impairment of reproductive functions.</i> <i>Damage to building rendering it unsafe to occupy e.g. foundation damage resulting in instability.</i> <i>Ingress of contaminants through plastic potable water pipes.</i>
Mild (MI)	Exposure to human health unlikely to lead to “significant harm”. A Category 3 Human Health risk is present. Equivalent to EA Category 3 pollution incident including minimal or short lived effect on water quality; marginal effect on amenity value, agriculture or commerce Minor or short lived damage to aquatic or other ecosystems, which is unlikely to result in a substantial adverse change in its functioning or harm to a species of special interest that would endanger the long-term maintenance of the population Minor damage to crops, buildings or property.	<i>Exposure could lead to slight short - term effects (e.g. mild skin rash).</i> <i>Surface spalling of concrete.</i>
Minor (Mr)	No measurable effect on humans. A Category 4: Human Health risk is present. Equivalent to insubstantial pollution incident with no observed effect on water quality or ecosystems. Repairable effects of damage to buildings, structures and services.	<i>The presence of contaminants at such concentrations that protective equipment is required during site works.</i> <i>The loss of plants in a landscaping scheme.</i> <i>Discoloration of concrete.</i>

* For these purposes, disease is to be taken to mean an unhealthy condition of the body or a part of it and can include, for example, cancer, liver dysfunction or extensive skin ailments. Mental dysfunction is included only insofar as it is attributable to the effects of a pollutant on the body of the person concerned.

The classification of consequence does not take into account the probability of the consequence being realized. Therefore, there may be more than one consequence for a particular pollutant linkage. Both a severe and medium classification can result in death. Severe relates to short term (acute) risk while medium relates to long

Preliminary Risk Assessment Methodology (After NHBC Guidance for the Safe Development of Housing on Land Affected by Contamination (2008))

term (chronic) risk. Mild relates to significant harm but to less sensitive receptors. Minor classification relates to harm which is not significant but could have a financial cost.

The classification gives a guide as to the severity and consequence of identified risk when compared with other risk presented on the site. It should be noted that if a risk is identified it cannot be classified as “no risk” but as “very low risk”. Differing stakeholders may have a different view on the acceptability of a risk.

Risk Evaluation Matrix

		Consequence			
		Severe (Sv)	Medium (Md)	Mild (Mi)	Minor (Mr)
Probability	High likelihood (Hi)	Very high risk (VH)	High Risk (H)	Moderate Risk (M)	Mod/low risk (M/L)
	Likely (Li)	High risk (H)	Moderate risk (M)	Mod/low risk (M/L)	Low risk (L)
	Low likelihood (Lw)	Moderate risk (M)	Mod/low risk (M/L)	Low risk (L)	Very low risk (VL)
	Unlikely (UI)	Mod/low risk (M/L)	Low risk (L)	Very low risk (VL)	Very low risk (VL)

Risk Categorizations

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

Reference

Rudland, D J, Lancefield, R M, Mayell, P N; 2001; Contaminated land Risk Assessment. A guide to Good Practice; CIRIA Report C552.

The NHBC (National House-Building Council) the Environment Agency and the Chartered Institute of Environmental Health, 2008, Guidance for the Safe Development of Housing on Land Affected by Contamination R&D66.