Castle Green Homes

Desk Study Report

For

Land at Bryn Derw, Abergele Phase 6

June 2026

REPORT NO: 26CGH049/DS

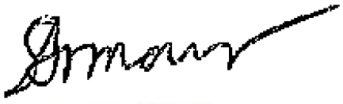
- *Desk Studies and Site Walkovers*
- *Intrusive Contaminated Land Investigations*
- *Geotechnical Appraisals and Ground Investigations*
- *Landfill Gas Assessments and Remedial Design*
- *Remediation Design and Implementation*
- *Remediation Project Management and Supervision*
- *Site Abnormal Assessments (Foundations and Contaminated Land)*

GEOTECHNICAL - CONTAMINATED LAND - FLOOD RISK

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DOCUMENT ISSUE RECORD

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BETTS GEO
CONSULTING ENGINEERS

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1 EXECUTIVE SUMMARY

Note – The following summary is not exhaustive and is to be used for guidance purposes only. The full report should be consulted for full details.

Site Location
The site is located north of St George Road, Abergele, LL22 9AU. The coordinates on the National Grid Reference are 295399, 377016. The site is approximately 4.16ha in total.

Proposed Development
Proposed residential development including residential dwellings and associated infrastructure.

Site Description
Access to the Site is via a locked gate off St George Road. Note you cannot access Phase 5 from the access road to 'The Kinmel' which extends off St George Road due to security barriers. The Site is an irregular parcel of agricultural land which rises to the south. An area of exposed soils is present in the south, adjacent to the site entrance. It appears that these may be soils which have been deposited on the site surface rather than removal of vegetation across this area, but this cannot be confirmed. The exposed soils were natural in appearance consisting of a light brown clay soil. No anthropogenic inclusions were observed.

A footpath runs along the western site boundary with a drainage ditch flowing south to north. Ground conditions were firm at time of visit. The Site slopes gently from south to north.

Site History
The site has remained undeveloped over the course of the historic maps, with field boundaries changing on site several times. Field boundaries on and around site have remained unchanged since 2022.

Surrounding Area
The surrounding area was predominantly undeveloped until circa 1911 & 1961 where residential development was shown to the west and 1970 where the A55 was constructed to the northeast. Circa 2025, residential development is shown immediately west of the site.

Published Geology
The BGS map shows the geology (1:50,000) beneath the site as the following:

- Artificial Ground – None recorded.
- Superficial – Till, Devensian – Sandy gravelly CLAY.
- Bedrock Deposits – Majority of site - Clwyd Limestone Group - Limestone
- Bedrock Deposits – Northeast corner of site - Warwickshire Group – Mudstone, siltstone and sandstone.

Coal
The site is not situated within a Coal Mining Remediation Authority reporting area therefore no further risk assessment is required in relation to shallow coal workings.

Radon Protection
The Groundsure Report indicates that the site lies within a low radon risk area where between 1-3% of homes are above the action level. However, the Radon UK mapping also shows the site lies within a 3-10% risk area and therefore basic Radon protection is required in the construction of new residential dwellings as a worst case scenario.

It is advised that a site-specific Radon report is obtained from the BGS to confirm if Radon protection is required on site based on the conflicting information above. Betts Geo can obtain this report if deemed required.

Summary of Environmental Data
Possible Contamination Sources;

- **Current Site Use** – Open Grassland, Significant Risk; No.
- **Historic Site Use –** Footpath, Significant Risk; Possible - Localised
- **Historic Site Use –** Changes in Field Boundaries, Significant Risk; Possible – Localised
- **A55 Construction – 250m NE,** Significant Risk; Unlikely
- **Sewage Pumping Station / Electricity Substation – 180-250m,** Significant Risk; Unlikely

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- **Historic Surrounding Area –** Ponds, Significant Risk; Possible

Pathways and Receptors
- **Aquifers –** Below Site – Significant Risk; Unlikely
- **Site End Users/Construction Workers** – Onsite – Significant Risk; Unlikely.
- **Surface Water Courses** – Onsite – Significant Risk; Unlikely.
- **Surrounding Site Users** – Adjacent to Site – Significant Risk; Unlikely.

Qualitative Risk Assessment:
In this qualitative risk assessment, a generally Low – Low/Moderate risk for contamination and ground gas is anticipated. Remedial action may be necessary at the site; however, this cannot be confirmed until a geotechnical and contamination ground investigation has been completed.

Proposed Ground Investigation Scope:
On assessing the potential risks on site, we have compiled the following recommendations for site investigation:

- One (1 No) day window sampling (circa 6 positions) to a maximum depth of 5m and all installed with gas/groundwater monitoring wells.
- Six (6 no) ground gas monitoring visits over a period of at least 3 months with varying barometric pressures.
- One (1 No) day trial pitting with a JCB or tracked excavator (depending on ground conditions) to assess superficial geology and to collect geo-environmental and geotechnical soil samples to aid any remediation strategy and foundation design.
- Fifteen (15 No) soil samples taken from within the topsoil, made ground and natural strata to benchmark contamination levels across the site. Proposed testing will include but not be limited to the following; heavy metals suite (comprising; As, Cd (low level), Cr Vi, Pb, Hg, Se, Ni, Cu, Zn), Organic Matter, Sulphate, pH, speciated polycyclic aromatic hydrocarbons and TPH CWG and PAH. Asbestos testing within topsoil and Made Ground.
- Geotechnical analysis of samples if clay strata is encountered for tree heave protection (anticipated).
- If elevated determinants are found within the site soils in close proximity to the watercourse along the western site boundary, then leachate and/or surface water sampling may be required as a follow on.

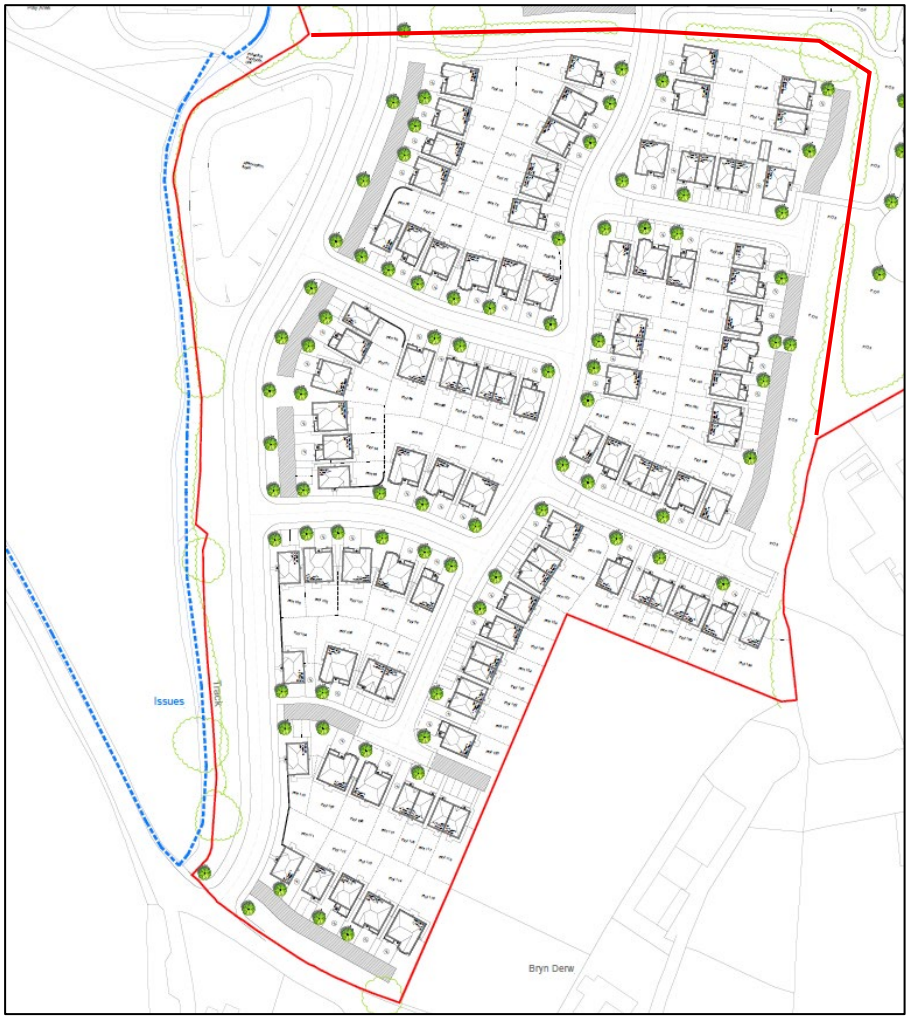
The scope of works should be agreed with the Local Authority prior to the intrusive ground investigation.

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2 SITE DESCRIPTION

2.1 Introduction

This investigation was carried out on the instruction of Castle Green Homes. The purpose of the work was to carry out a Desk Study to provide preliminary geotechnical and contamination risk assessment information to support a planning application for a proposed residential development including residential dwellings and associated infrastructure. The site location boundary has been provided by the client and can be found below.



Extract taken from 'Site Layout – Masterplan', Date 05/11/2025, Ref: BD-ABRGL_SL.03 by Castle Green Homes

2.2 Site Location

The site is located north of St George Road, Abergele, LL22 9AU. The coordinates on the National Grid Reference are 295399, 377016. The site is approximately 4.16ha in total. See Site Location Plan in Appendix A.

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2.3 Site Description

2.3.1 On Site

Site was visited by a Geo-Environmental Engineer on the 3rd of June 2026. Photos can be seen in Appendix A with a site description provided below;

Access to the Site is via a locked gate off St George Road. Note you cannot access Phase 5 from the access road to 'The Kinmel' which extends off St George Road due to security barriers. The Site is an irregular parcel of agricultural land which rises to the south.

An area of exposed soils is present in the south, adjacent to the site entrance. It appears that these may be soils which have been deposited on the site surface rather than removal of vegetation across this area, but this cannot be confirmed. The exposed soils were natural in appearance consisting of a light brown clay soil. No anthropogenic inclusions were observed.

No livestock were present in the field at the time of the walkover.

Suspected fox dens or badger setts were observed in the northeast of the site along the northern boundary. These appear to still be occupied with evidence of recent excavations and flattened vegetation.

Access to the Site is wide and more than sufficient for all plant including low-loaders to pass through. It appears that relatively recent widening of the site entrance has taking place with some exposed soils present on the verge into the site.

Overhead cables (possible telecoms?) extend through the centre of the site in a northeast to southwest direction, connecting to adjacent hotel.

A manhole was observed in the north of the Site. The direction of any drains or sewers is uncertain.

Site boundaries:

- **North** – Mixture of mature hedgerows and trees.
- **East** – Mature hedgerow onto 'The Kinmel' hotel and spa. In the southeast a wire mesh fence extends onto the property of Bryn Derw. The property of Bryn Derw is a bungalow with large commercial/agricultural shed/building.
- **South** – Wire and wooden post fence with site access gate onto St George Road.
- **West** – Mixture of mature hedgerows and trees onto public footpath and residential development

2.3.2 Surrounding Area

Surrounding land uses for the site are as follows:

- **North** – Agricultural land, crosscut by the A55.
- **East** – Commercial property immediately east, followed by agricultural land.
- **South** – Primarily agricultural land and pockets of woodland, with isolated residential dwellings and farms.
- **West** – Primarily agricultural land and occasional farms, with a residential development immediately northwest.

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3 SITE HISTORY

3.1 Site History from Ordnance Survey Maps

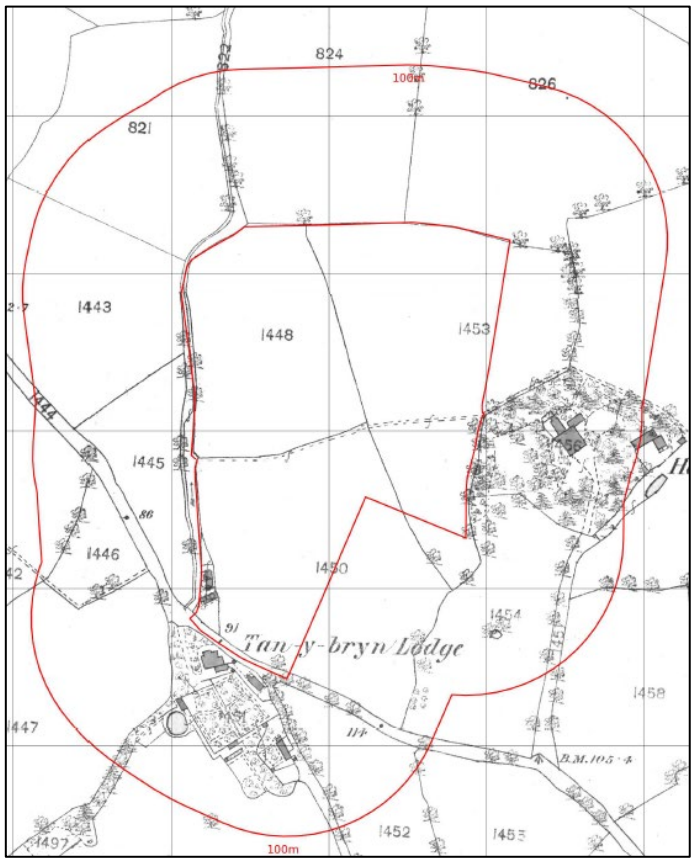
A search of available historic maps was undertaken to establish the land use history of the site. Extracts of the maps are discussed below and can be found in full in Appendix B of this report. All maps are Ordnance Survey unless otherwise stated. All distances quoted on OS maps are taken from the site boundary, which is marked on the map.

3.2 Summary of Site History

3.2.1 On Site

The earliest available map of the site is the 1872-1873 1:2,500 map which shows the site as undeveloped. The site is split across multiple field boundaries, with a footpath running east/west through the centre of site. A stream/watercourse is shown beyond the western site boundary flowing northwards. An extract of this map is shown below:

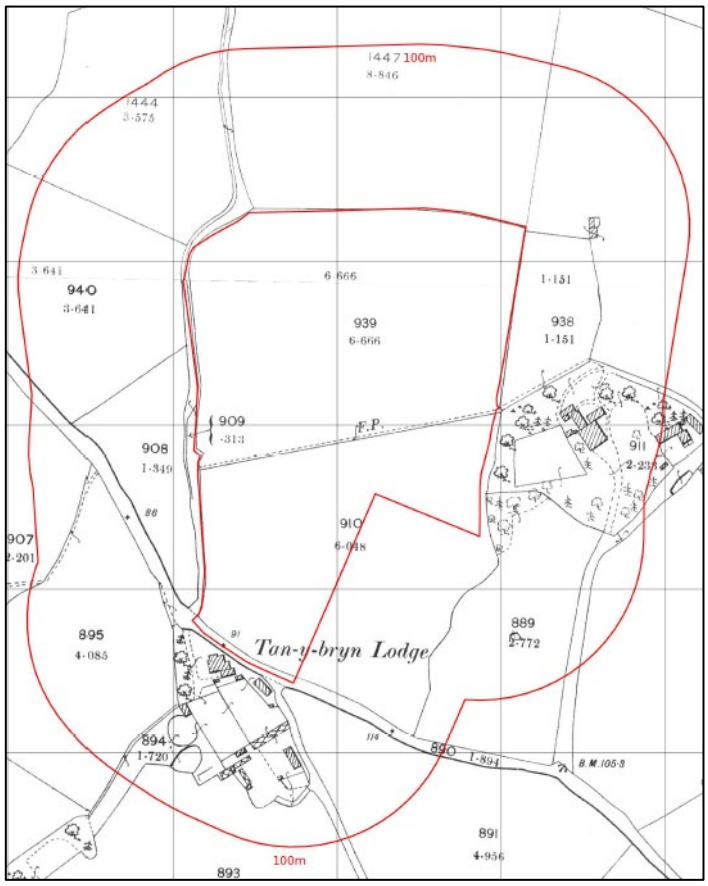
1872-1873 1:2,500 Map



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The next available map is the 1898 1:10,560 map which shows changed field boundaries on site. The N/S boundary is no longer shown, and a straightened E/W boundary alongside the footpath is present in the centre of site. This is shown in greater detail on the 1899 1:2500 map below.

1899 1:2,500 Map

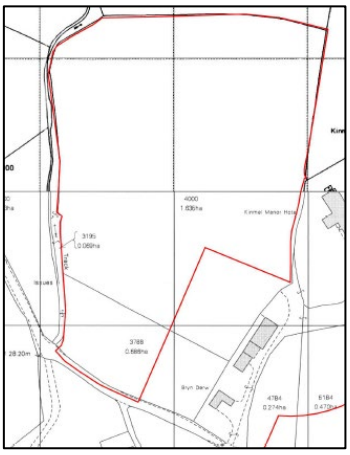


Circa 1961, the footpath on site is no longer shown.

Circa 1984, the central field boundary on site is no longer shown.

Circa 1991, a new field boundary is shown E/W in the southern portion of site.

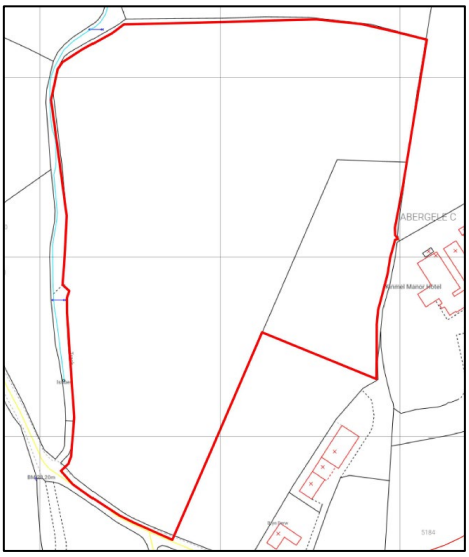
1991-1994 1:2,500 Map



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Circa 2003, the southern field boundary is no longer shown, and a new field boundary is shown in the east of site.

2003 1:2,500 Map



In satellite view, this field boundary is shown until 2020, when no field boundaries are shown on site.

Circa 2006 – present (2026) telecommunications poles are shown crossing the site E/W on Google Earth satellite and street view. These are not shown on any OS mapping.

Google Earth Satellite Imagery 03/06/2025



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3.2.2 Surrounding Area

The following table summarises the significant changes in historical use surrounding the site.

Date First Shown	Land Uses
1875	Isolated farmsteads in the surrounding area. **0m S** – St George Road (still present) **0m W** – Stream & Issue (still present) **0m W** – Footpath (still present) **15m E** – Hendre-gyda House (Labelled Kinmel Manor circa 1953, expanded and labelled hotel 1990, expanded 2001, 2010, 2025) **60m SW** – Pond (no longer shown circa 1899) **60m SE** – Pond (no longer shown circa 1961) **120m E** – Pond (no longer shown circa 1964)
1898	**75m SW** – Pond (expanded 1911, no longer shown circa 1990)
1911	**70m N** – Pond (no longer shown circa 1961) **80m NE** – Pond (no longer shown circa 1989) **100m – 200m** – Earthworks / Cutting (no longer shown circa 1990)
1938	No significant changes
1949 - 1953	**400m – 500m NW** – Residential dwellings (still present)
1964	No significant changes
1980	**200m NE** – A55 (still present)
1989 - 1990	**110m SW** – Tan-y-bryn nursing home (no longer shown circa 2010) **250m – 400m NW** – Cricket ground (no longer shown circa 2025) **350m – 500m NW** – Residential dwellings (still present)
2001	No significant changes
2015	No significant changes
2025	**0m – 320m NW** – Residential development (still present)

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4 GEOLOGY

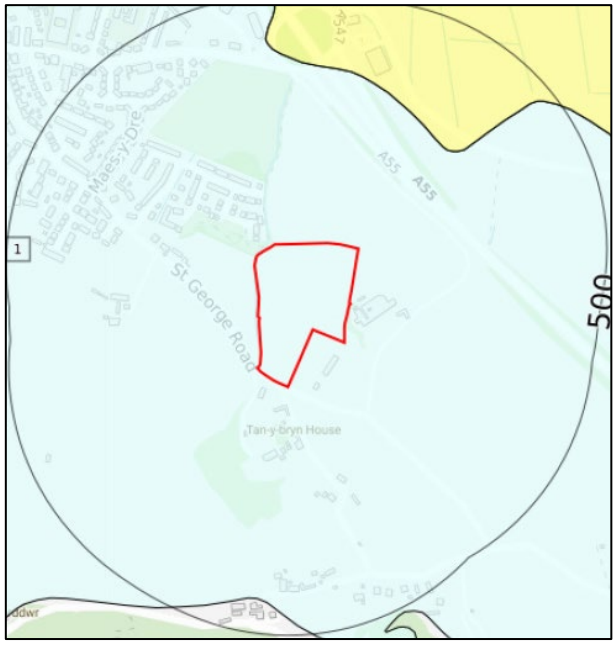
The following section details the published and available geological data available for the site and the surrounding area. All data is taken from the Groundsure Data report located in Appendix C unless otherwise stated. This report should be referred to for full details.

4.1 Published Geology

The documented geology of the site is summarised on the British Geological Survey map principally, with further site-specific details detailed below.

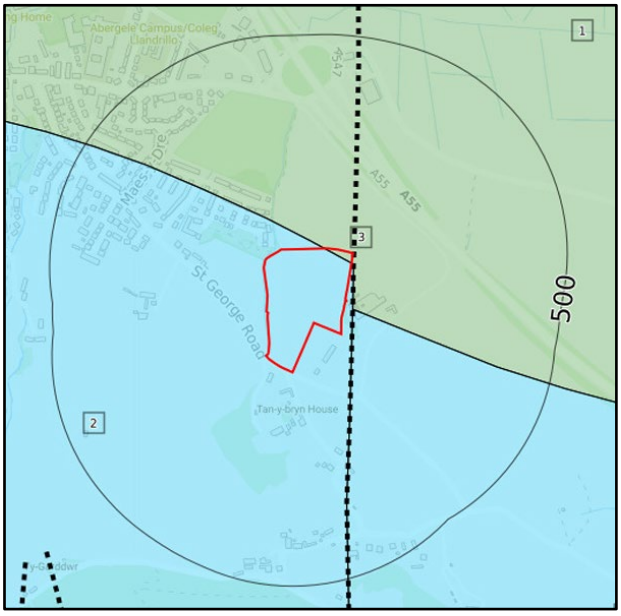
Geology	Artificial Ground & Land Slip	Drift	Solid
1:50,000	None shown on site	Till, Devensian – Sandy gravelly CLAY	Northeast corner - Warwickshire Group – Mudstone, siltstone and sandstone
			Majority of site - Clwyd Limestone Group - Limestone

Superficial Geology



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Bedrock Geology



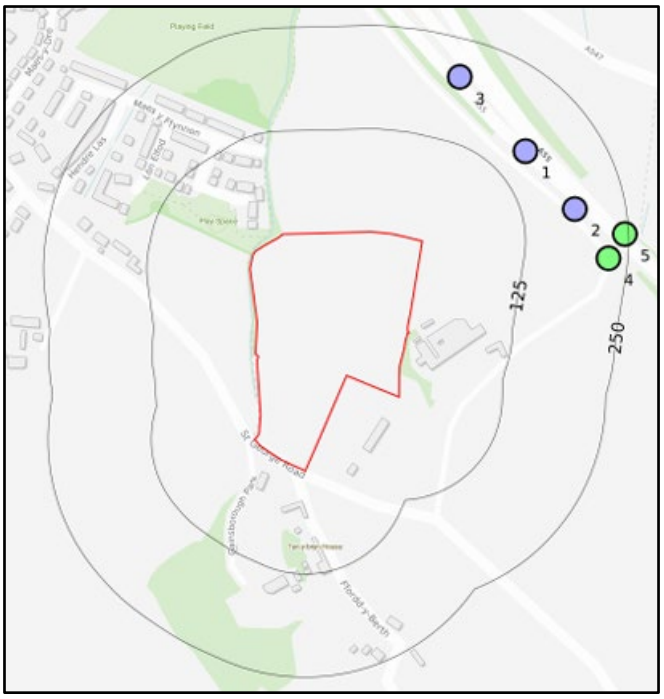
4.1.1 Linear Features

There is one (1 No) linear feature recorded within 250m of site as detailed below and shown on the bedrock geology map above).

ID	Location	Category	Description
3	2m E	FAULT	Fault, inferred, crossmark on downthrow side, throw in metres

4.1.2 Historic Borehole Records

There are five (5 No) BGS boreholes recorded within 250m of the site. None of these boreholes are within 50m of the site. Locations of these five boreholes are shown on the map below. For full details please refer to Appendix C.



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4.2 Geological Features

The table below summarises the presence/absence of recorded mining, extraction and natural cavities records within 500m of site. If entries are present within 250m, further details are provided in the relevant section below.

Data Type	On Site	0 – 50m	50 – 250m	250 – 500m
Geological				
Natural Cavities	-	-	-	-
Mining Cavities	-	-	-	-
BritPits	-	-	-	-
Surface Ground Workings	-	-	-	-
Underground Workings	-	-	-	-
Historic Mineral Planning Areas	-	-	-	-
Non Coal Mining	1	-	-	2
Coal Mining	None identified (within 0m)			
Brine Area	None identified (within 0m)			

4.2.1 Non Coal Mining

There is one (1 No) record of possible non coal mining within 250m of site as detailed below;

ID	Location	Name	Commodity	Class	Likelihood
1	On site	Not available	Vein Mineral	B	Underground mine workings may have occurred in the past or current mines may be working at significant depth to modern engineering standards. Potential for difficult ground conditions are unlikely and are at a level where they need not be considered.

Due to the Groundsure stating that '*potential for difficult ground conditions are unlikely and are at a level where they need not be considered*', these possible sources of contamination are deemed to be low risk to site.

4.2.2 Coal Mining

The site does not lie within a Coal Mining Reporting Area according to the Mining Remediation Authority therefore no further risk assessment is required in relation to potential shallow coal mining.

4.3 Radon

The Groundsure Report indicates that the site lies within a low radon risk area where between <1-3% of homes are above the action level. However, the Radon UK mapping also shows the site lies within a 3-10% risk area and therefore basic Radon protection is required in the construction of new residential dwellings as a worst case scenario.

It is advised that a site-specific Radon report is obtained from the BGS to confirm if Radon protection is

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required on site based on the conflicting information above. Betts Geo can obtain this report if deemed required.

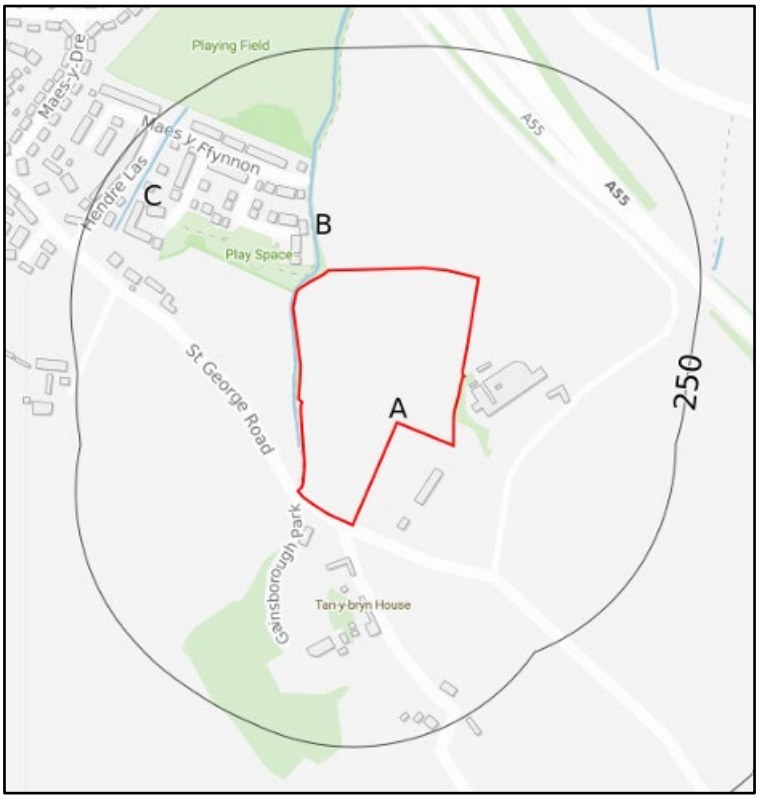
4.4 Hydrogeological and Hydrological Features

The table below summarises the presence/absence of any hydrological licences and incidents within 500m of the proposed site. If entries are present within 250m, further details are provided in the relevant subsection below;

Data Type	On Site	0 – 50m	50 – 250m	250 – 500m
Hydrogeology & Hydrology				
Licensed Discharges to Controlled Waters	-	-	1	1
Pollutant Release to Surface Waters (Red List Discharge Consents)	-	-	-	-
Groundwater Abstraction Licences	-	-	-	-
Surface Water Abstraction Licences	-	-	-	-
Potable Water Abstraction Licences	-	-	-	-
Source Protection Zones	-	-	-	-
Surface Water Features	-	1	3	-

4.4.1 Surface Water Features

There are (2 No) surface water features recorded within 250m of the site boundary, one (1 No) of which is recorded on site and refers to the watercourse along the western site boundary. This is shown on the extract below (reference A):



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4.4.2 Hydrogeology

- The superficial deposits of the clay are classed as a Secondary Undifferentiated Aquifer.
- The bedrock deposits of the mudstone, siltstone and sandstone are classed as a Secondary A Aquifer.
- The site does not lie within a Source Protection Zone as define by Natural Resources Wales.
- There are no groundwater or surface water abstraction licenses within 500m of the site.
- The is one (1 No) surface water feature located on site (watercourse/ditch along eastern site boundary).

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5 ENVIRONMENTAL DATA

The following section details environmental data available for the site and the surrounding area. Full details can be found in the Groundsure Report by located in Appendix C.

The table below summarises the presence/absence of any waste, hazardous substance sites of industrial land uses within 500m of the proposed site. If entries are present within 250m, further details are provided in the relevant section below.

Data Type	On Site	0 – 50m	50 – 250m	250 – 500m
Current Industrial Land Use				
Recent Industrial Land Uses	-	-	3	-
Current or Recent Petrol Stations	-	-	-	-
Electricity Cables	-	-	-	-
Gas Pipelines	-	-	-	-
Sites Determined as Contaminated Land	-	-	-	-
Control of Major Accident Hazards	-	-	-	-
Regulated Explosive Sites	-	-	-	-
Hazardous Substance/Storage	-	-	-	-
Historical Licensed Industrial Activities (IPC)	-	-	-	-
Licensed Industrial Activities	-	-	-	-
License Pollutant Release	-	-	-	3
Radioactive Substance Authorisations	-	-	-	-
Pollutant Release to Surface Waters	-	-	-	-
Pollutant Release to Public Sewer	-	-	-	-
List 1 & 2 Dangerous Substances	-	-	-	-
Pollution Incidents (EA/NRW)	-	1	-	1
Pollution Inventory Substances	-	-	-	-
Pollution Inventory Waste Transfers	-	-	-	-
Pollution Inventory Radioactive Waste	-	-	-	-
Waste and Landfill				
Active or recent landfill (EA/NRW)	-	-	-	-
Historical Landfill (BGS Records)	-	-	-	-
Historic Landfill (LA)	-	-	-	-
Historic Landfill (EA/ NRW)	-	-	-	-
Historical Waste Sites	-	-	-	-
Licenced Waste Sites (EA / NRW)	-	-	-	-
Waste Exemptions	-	-	1	-
Past Land Use				

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Historical Industrial Land Uses	-	-	-	2
Historical Tanks	-	-	-	-
Historical Energy Features	-	-	1	3
Historical Petrol Stations	-	-	-	-
Historical Garages	-	-	-	4
Environmental Designations				
Sites of Special Scientific Interest (SSSI)	-	-	-	-
Special Areas of Conservation (SAC)	-	-	-	-
Special Protection Areas (SPA)	-	-	-	-
Areas of Outstanding Natural Beauty (AONB)	-	-	-	-
National Parks	-	-	-	-
Green Belt Land	-	-	-	-
Nitrate Vulnerable Zones	-	-	-	-

5.1 Current Industrial Land Use

5.1.1 Recent Industrial Land Uses

There are three (3 No) entries for recent industrial land uses within 250m of site, none of which are on site. These are detailed below. For full details please refer to Appendix C.

ID	Location	Company	Address	Activity	Category
3	190m S	Electricity Sub Station	Clwyd, LL22	Electrical Features	Infrastructure and Facilities
A	225m NW	Electricity Sub Station	Clwyd, LL22	Electrical Features	Infrastructure and Facilities
A	245m NW	Sewage Pumping Station	Clwyd, LL22	Waste Storage, Processing and Disposal	Infrastructure and Facilities

Uses over 50m from site are deemed low risk due to the anticipated cohesive superficial geology on site and surrounding the site limiting any potential migration pathways.

5.1.2 Pollution Incidents

There is one (1 No) pollution incidents recorded within 250m of site as detailed below;

ID	Location	Details	
1	5m NW	Incident Date: 26/03/2014 Incident Identification: 1221362 Pollutant: Sewage Materials Pollutant Description: Crude Sewage	Water Impact: - Land Impact: Category 3 (Minor) Air Impact: Category 4 (No Impact)

Although the closets pollution incident occurred only 5m away from site, this pollution incident was a minor incident involving biodegradable materials and the incident took place a considerable amount of time ago in 2014. Due to the minor nature and length in time since the incident, there is little risk to be concerned with for pollution incidents on this site.

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5.2 Waste and Landfill

5.2.1 Waste Exemptions

There is one (1 No) Waste Exemption recorded within 250m of the site, as detailed below;

ID	Location	Site	Reference	Category	Sub-Category	Description
1	185m W	Anwyl Construction Company Limited, Land Off St George Road, Abergele, Conwy, LI229ar	NRW-WME020028	Storing waste exemption	Not on a farm	Storage of waste in a secure place

Due to the waste exemptions distance from site, and the category of the exemption relating to storage of waste in a secure place, the risk of any possible contamination from this source to site is deemed low.

5.3 Past Land Use

5.3.1 Historical energy features

There is one (1 No.) historical energy feature within 250m of site as detailed below;

ID	Location	Land use	Dates present	Group ID
1	183m S	Electricity Substation	1991	17001

As this feature was first recorded on 1991 mapping, there is unlikely to be any risk of contamination to site from this source, as PCBs were phased out of substations before this time.

5.4 UXO

Online Zetica Mapping indicates that the site is at a low risk of UXO with no strategic targets within 2000m of site.

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6 SUMMARY OF ENVIRONMENTAL SENSITIVITY

The following section is a review of the environmentally sensitivity of the site as discussed in Sections 2 - 5. Significant potential risks are discussed in the following subsections and will then be evaluated as part of the Site Conceptual Model in Section 7.

Sources are defined as where pollution comes from, pathways are a route in which the pollution travels and receptors are anything affected by a pollutant. Further details on Source-Pathway-Receptor methodology can be found in Appendix D.

The table in section 6.1 focuses on significant site-specific sources, pathways and receptors. More 'generic' pathways and receptors (such as site end uses) will be covered as part of the full Site Conceptual Model in Section 7.

6.1 Sources

Source	Distance/ Direction	Details	Significant Risk
Current Site Use – Open Grassland	On Site	The site is currently soft standing ground with long grass. Due to the undeveloped nature of the site, the risk of any contamination sources from the current site use is deemed low. Low residence agrochemicals are not deemed to be a significant threat to the site.	**No**
Historic Site Use – Change in Field Boundaries	On Site	Some slight changes in field boundaries are shown over the course of the historic maps however these are very localised to the north western and south eastern corners of site. Possible made ground in these locations or former hedge lines. Ground investigation and ground gas monitoring to confirm.	**Possible - Localised**
Historic Site Use – Footpath	On Site	Footpath shown E/W across the centre of site circa 1872-1961. Potential for localised made ground therefore contamination along this route. Ground investigation to confirm.	**Unlikely**
A55 Construction	250m NE	A55 & associated roundabout was constructed 10m N/NE circa 1970 and expanded circa 1980. Possible made ground in the northern area of site as a result of this construction although deemed unlikely. Ground investigation to confirm.	**Unlikely**
Sewage Pumping Station / Electricity Substation	183m S, 245NW and 225NW	The closest sewage pumping station is 245m NW and the closest electricity substations are 183m S and 225m NW. Sewage pumping station is far from site so contamination is unlikely even if leaks have occurred, any leakages likely to have been contained by cohesive superficial geology.	**Unlikely**
Historic Surrounding Area – Ponds	Within 100m	A number of ponds were located in the immediate area on the historic mapping which have either changed in size, shape or been infilled. Possible sources of ground gas and contamination depending on infill material. Migration pathway unlikely to be present due to cohesive superficial deposits. Ground investigation and ground gas monitoring to confirm.	**Possible**

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6.2 Pathways and Receptors

Pathways and Receptors	Distance/ Direction	Details	Significant Risk
Aquifers	Below Site	The superficial geology is classed as a Secondary Undifferentiated Aquifer and the bedrock is classed as a Principal Aquifer. Some possible contamination sources identified on site however cohesive superficial deposits should limit any downward migration.	**Unlikely**
Site End Users/ Construction Workers	On Site	Proposed site end use is residential. PPE to protect construction workers and remedial measures recommended for site end users if any significant contamination is present.	**Unlikely**
Surface Water Courses	On Site	Drain/watercourse located along the western site boundary. Possible receptor for any contamination however cohesive superficial deposits should limit any lateral migration. Ground investigation to confirm then surface water testing if required.	**Unlikely**
Surrounding Site Users	Adjacent to Site	Surrounding land use is mainly a road to the south, agricultural to the north and residential to the east. Cohesive superficial deposits should limit any lateral migration. Ground investigation to confirm.	**Unlikely**

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7 INITIAL CONTAMINATION CONCEPTUAL MODEL

For details on how the conceptual model is evaluated please refer to Appendix D.

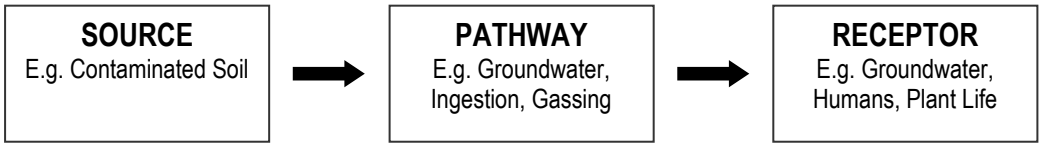
This section of the report aims to identify land which could potentially be affected by contamination, such that it could affect the value or re-use of the land, or such that mitigation would be required for certain proposed end uses of the land.

Potential contamination sources and environmentally sensitive receptors have been discussed in Section 6. Potentially significant risks are evaluated as part of the subsequent sub-sections.

7.1 Source-Pathway-Receptor-Linkages

The risk assessment uses a 'Source-Pathway-Receptor' methodology for assessing whether a source of contamination could potentially lead to harmful consequences. This means that there needs to be a pollutant linkage from source to receptor for harm to be caused, this linkage consisting of; a source of pollution; a pathway for the pollutant to move along; a receptor that is affected by the pollutant.

The current potential risks to site arising from various Source-Pathway-Receptor linkages are assessed below. A risk may be considered significant if all three of the stages are present and therefore providing a pollution linkage. The various sources, pathways and receptors are considered separately. The assessment is based on the future use, which is understood to be residential with homegrown produce.



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Type of Contamination	Potential Sources	Potential Pathway	Potential Receptors	Pollution Linkage	Comment	Estimated Level of Risk
Ground Gas	Current Site Use Historic Site Use	Inhalation of Vapours	Construction/ Maintenance Workers	**Active**	Localised made ground anticipated in former field boundary areas. PPE to protect to construction workers.	**Low**
		Vapours Penetrating Unprotected Buildings	Future Site Users	**Active**	As above. Future site use to be residential dwellings which are a high risk receptor. Future buildings to be designed with adequate protection (if ground gas is present) to minimise risk.	**Low – Low / Moderate**
Surface and Near Surface Contaminants Within Soils	Current Site Use Historic Site Use	Ingestion, Inhalation, Dermal Contact	Current Site Users	**Active**	Some Made Ground anticipated on site from possible infilling activities during the alteration of field boundaries. Current site use is agricultural which lowers any potential risk. SI required to confirm contamination status of the site.	**Low**
			Construction Workers	**Active**	Some Made Ground anticipated on site from possible infilling activities during the alteration of field boundaries. PPE to protect construction workers during ground breaking works.	**Low**
			Future Site Users	**Active**	Some Made Ground anticipated on site from possible infilling activities during the alteration of field boundaries. Future site use is residential with home grown produce (high sensitivity).	**Low – Low / Moderate**
			Adjacent Land Users	**Potentially Active**	Site surrounded by agricultural land to the north, south and west, commercial land to the east and a road to the south. Some Made Ground anticipated on site from possible infilling activities during alteration of field boundaries. Limited migration pathways off site due to anticipated cohesive superficial geology	**Low**
		Direct Contact	Structures	**Potentially Active**	Possible high/low sulphates and pH's in any Made Ground on site.	**Low – Low / Moderate**
		Absorption in Root Zone	Plants	**Potentially Active**	Some possible contamination sources identified on site. Future site use is residential with homegrown produce (high sensitivity).	**Low – Low / Moderate**
Mobile Contaminants, Leachables e.g. from Pollution Sources Adjacent to Site/On Site	Current Site Use Historic Site Use	Leaching into Groundwater	Groundwater	**Potentially Active**	Some possible contamination sources identified on site. Site is anticipated to be covered by cohesive superficial geology which limits any migration pathway into the underlying Principal and Secondary A Aquifers. Ground investigation to target and confirm.	**Low**
		Off-site Migration in Groundwater	Abstractions	**Active**	No groundwater or surface water abstractions within 500m of the site. Site not situated with a Source Protection Zone.	**Low**
			Controlled Waters	**Potentially Active**	Watercourse located along western boundary of site with possible sources of contamination identified on site. Cohesive superficial geology should limit any migration pathway however SI to confirm and surface water/leachate testing to be undertaken if elevated determinants found in soils.	**Low – Low / Moderate**
Organic and Inorganic Contaminants Within Soils / Groundwater	Current Site Use Historic Site Use	Potable Water Supply Pipes	Utilities Workers	**Potentially Active**	Potential for TPH contamination in localised made ground. SI required to confirm. Pipeline Assessment will be required once waterpipe line route known.	**Low – Low / Moderate**

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7.2 Contamination Summary

In this qualitative risk assessment, a generally **Low – Low/Moderate** risk for contamination and ground gas is anticipated on site (mainly from possible fill used to level the ground for the alteration of field boundaries over time). Remedial action may be necessary at the site; however, this cannot be confirmed until a geotechnical and contamination ground investigation has been completed.

7.3 Geotechnical Constraints

- Existing and/or redundant services across site.
- Made Ground associated with changing field boundaries within site.
- Potential tree heave in cohesive superficial geology along site boundaries. (anticipated)
- Possible alluvial deposits in vicinity of watercourse along western site boundary.

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8 SCOPE OF GROUND INVESTIGATION

8.1 Objectives of the Ground Investigation

The objectives of the intrusive ground investigation will be to:

- Clarify the 'Initial Contamination Conceptual Model'.
- Clarify the initial risk assessment.
- Benchmark the contamination status of the site.
- Provide data for the design of any remedial works that may be required.
- Provide a geotechnical appraisal for the site.

8.2 Proposed Initial Ground Investigation Scope

On assessing the potential risks on site, we have compiled the following recommendations for site investigation:

- One (1 No) day window sampling (circa 6 positions) to a maximum depth of 5m and all installed with gas/groundwater monitoring wells.
- Six (6 no) ground gas monitoring visits over a period of at least 3 months with varying barometric pressures.
- One (1 No) day trial pitting with a JCB or tracked excavator (depending on ground conditions) to assess superficial geology and to collect geo-environmental and geotechnical soil samples to aid any remediation strategy and foundation design.
- Fifteen (15 No) soil samples taken from within the topsoil, made ground and natural strata to benchmark contamination levels across the site. Proposed testing will include but not be limited to the following; heavy metals suite (comprising; As, Cd (low level), Cr Vi, Pb, Hg, Se, Ni, Cu, Zn), Organic Matter, Sulphate, pH, speciated polycyclic aromatic hydrocarbons and TPH CWG and PAH. Asbestos testing within topsoil and Made Ground.
- Geotechnical analysis of samples if clay strata is encountered for tree heave protection (anticipated).
- If elevated determinants are found within the site soils in close proximity to the watercourse along the western site boundary, then leachate and/or surface water sampling may be required as a follow on.

<u>The scope of works should be agreed with the Local Authority prior to the intrusive ground investigation.</u>

Notes on limitations of this report can be found in Appendix E.

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9 REFERENCES

9.1 *BS 5930:2015 Code of Practice for Ground Investigation.*

9.2 Investigation of Potentially contaminated sites BS10175:2011 +A1:2013.

9.3 BS8576:2013 Guidance on investigations for ground gas.

9.4 R & D Publication CLR 8 (March 2002) Assessment of Risks to Human Health from Land Contamination: An Overview of the Development of Soil Guideline Values and Related Research. Environment Agency.

9.5 R & D Publication CLR 10 (March 2002) The Contaminated Land Exposure Assessment Model (CLEA): Technical basis and algorithms. Environment Agency.

9.6 Contaminated Land Risk Assessment; a Guide to Good Practice; CIRIA C552: 2001.

9.7 BRE 211 Radon: guidance on protective measures for new buildings (including supplementary advice for extensions, conversions and refurbishment) (2007 edition).

9.8 Assessment of risks to human health from land contamination: an overview of the development of guideline values and related research. EA, 2002.

9.9 Health and Safety in Construction, HSG150, HSE, 1996.

9.10 Baker W (1987), Investigation Strategy - lecture at City of Birmingham Development Department Symposium on Methane Generating Sites, 9 December 1987, Industrial Research Laboratories, Birmingham.

9.11 NHBC Standards, Chapter 4.2, 2017 Building Near Trees.

9.12 'Guidance on Evaluation of Development Proposals on Sites Where Methane and Carbon Dioxide are Present', Report Edition No.04 March 2007 NHBC – designed for use with low rise residential properties.

9.13 CIRIA C665 'Assessing risks posed by hazardous ground gases for buildings' 2007 - for high rise residential / flats.

9.14 BS8485:2015 'Code of practice for the design of protective measures for methane and carbon dioxide ground gases for new buildings'.

9.15 BRE 414 'Protective measures for housing on gas-contaminated land' Roger Johnson, Parkman Environment 2001.

9.16 BS 8500-2:2015+A1:2016 'Concrete British Standard to BS EN 206. Specification for constituent materials and concrete'.

9.17 CLR11 'Model Procedures for the Management of Land Contamination' DEFRA 2004.

9.18 'Land Contamination Risk Management (LCRM)' Environment Agency (October 2020).

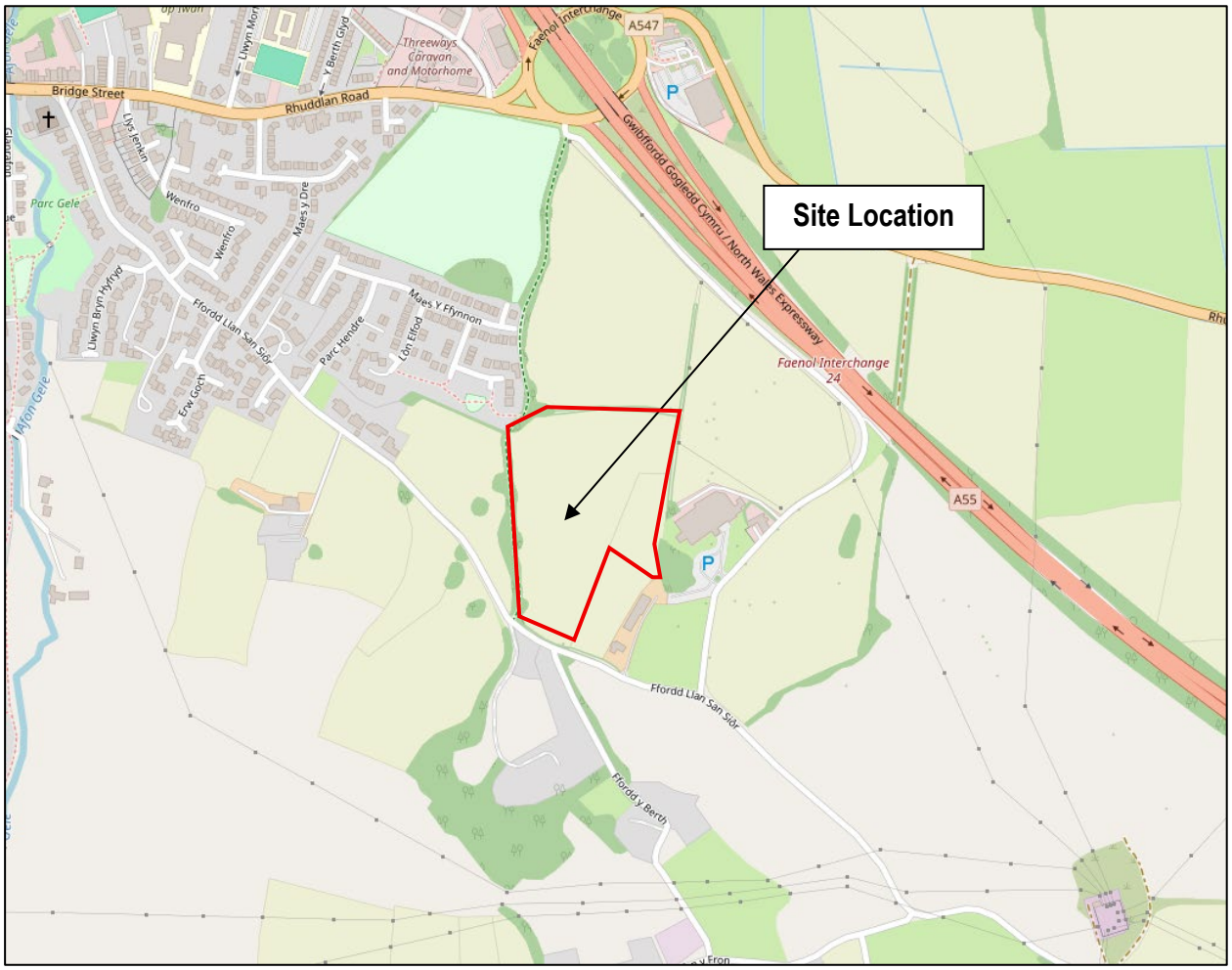
9.19 Ciria C758D Abandoned mine workings manual (C758D) September 2019

9.20 The Mining Remediation Authority App

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APPENDIX A

(i) Site Location Plan



Site Location Plan
The site is located north of St George Road, Abergele, LL22 9AU. The coordinates on the National Grid Reference are 295399, 377016. The site is approximately 4.16ha in total.

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iii) Site Photos



Access into the site off St George Road



Exposed soil in verge/embankment into site



Area of exposed soils in south of the site. Assumed to be deposited soils which appear to be natural clay soil



Northern view



Northeastern view along route of overhead cables



Site's western boundary onto public footpath

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Southern view of the site from northwest corner



Manhole present in the north



Recently excavated soils and depressed vegetation of suspected fox den or badger sett



Fenceline extending onto adjacent residential property of Bryn Derw



Southern view of access gate into Site. New residential development taking place to the south (background)



Residential development to the immediate south beyond St George Road under construction

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APPENDIX B

(i) Historical Mapping

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Map Insight

Site details:	ABERGELE PH6
Client ref:	26CGH049 - BG6301
Report ref:	GS-BXZ-MN3-TXH-FUV
Grid ref:	295399.35, 377016.13
Production date:	11 May 2026

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Printed at:	1:10,560

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Date: 1875
Surveyed: 1875
Revised: 1875

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ABERGELE
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Castle Terrace
Vicarage
Pwll-coch
Peel Garden
St Michael's Church
Glan-aber
New York
Methodist Chapel
Police Station
Gas Works
Bellevue Cottages
Bryn-telen
Jenkins St.
Glan-y-weirglawdd
Bryn-hyfryd
Bryn-coch
Tan-y-ddarwen
Hendre-gyda
Hendre-fawr
Hendre-bach
Tan-y-bryn Lodge
Mill Pond
Old Flour Mill
Pant-glâs
Bryn-aber
Ffordd-las
Bryn-gwenallt
Siambr Wen
Ty-garddwr
Llanrwst
Llandulas
Tan-y-bwlch
Kinmel Brick Works
Ysgubor-ddegwm
Bryn-y-berllan
Tan-y-fron
Tyddyn-uchaf
Ty-newydd
Hendre-uchaf
Llandulas
Pen-yr-allt
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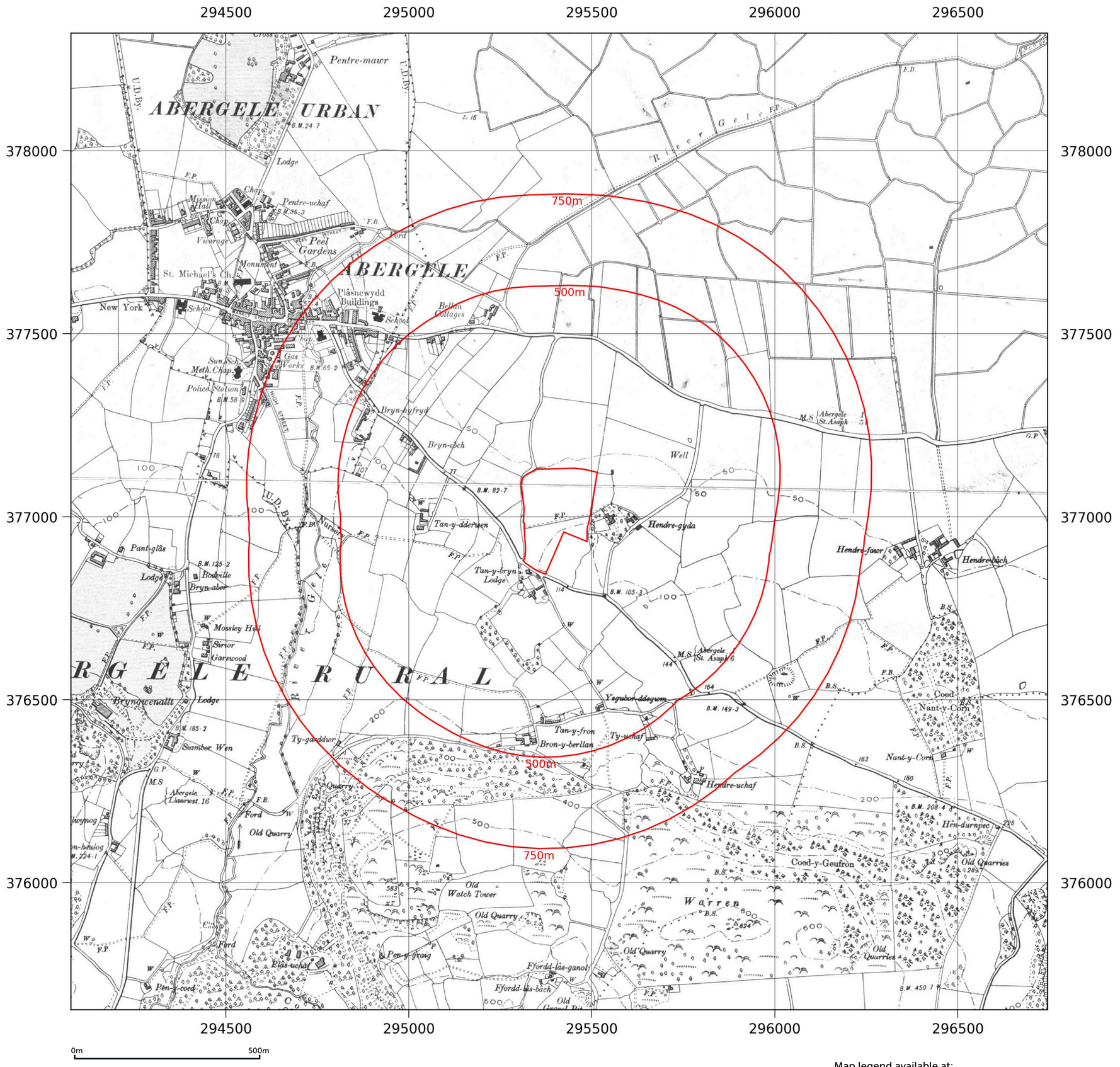
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Revised: 1911

Date: 1911
Surveyed: 1874
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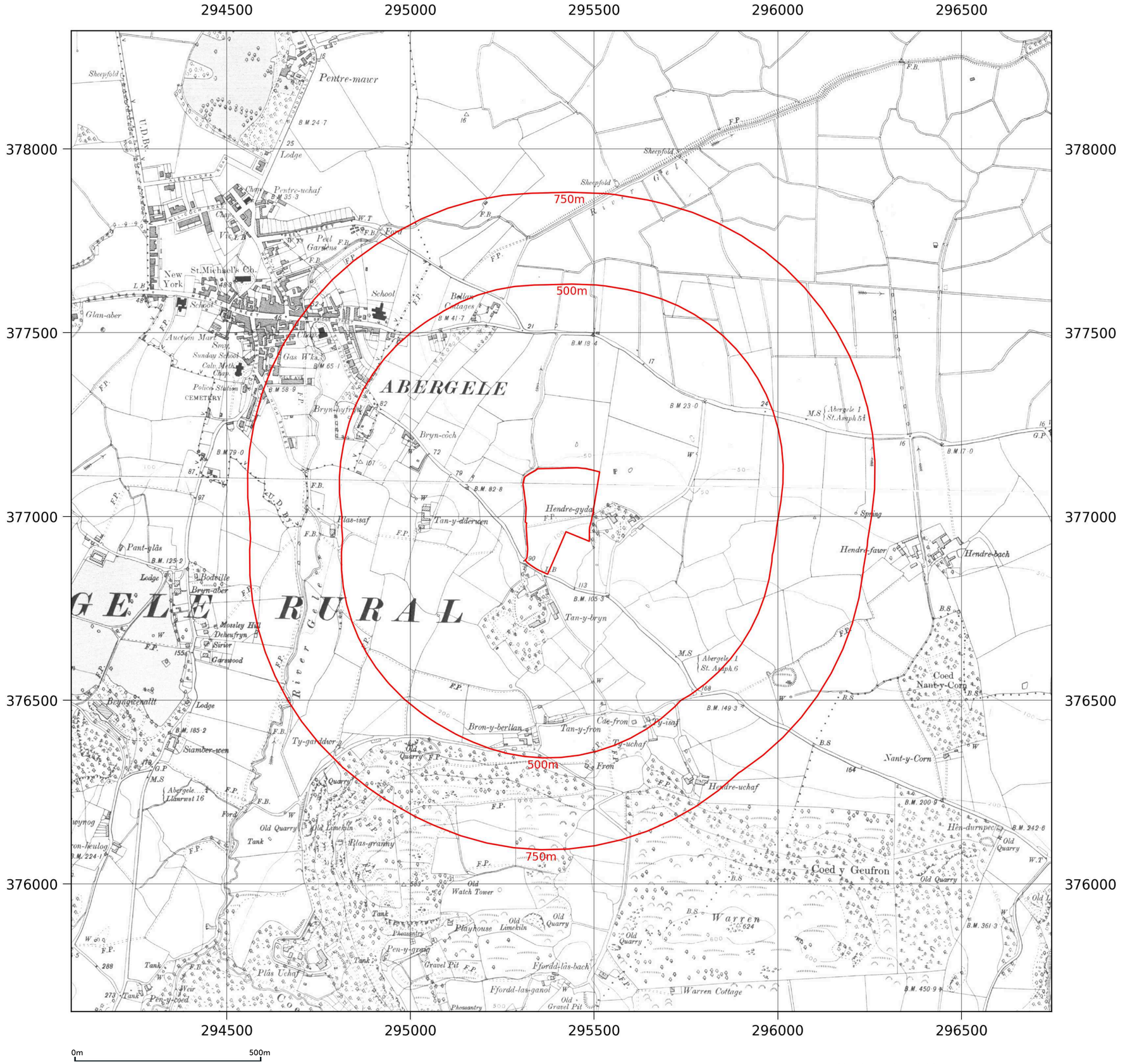
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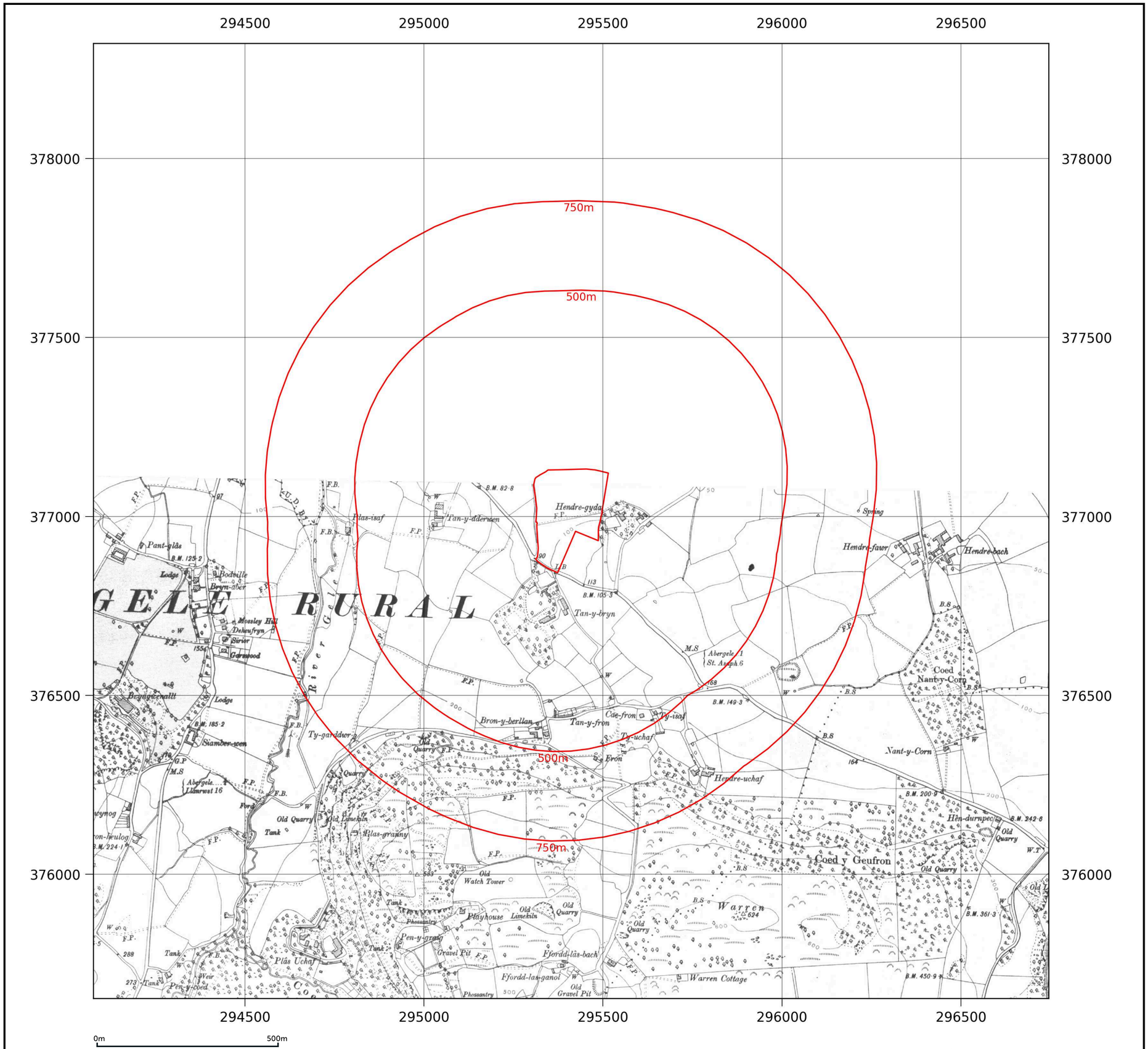
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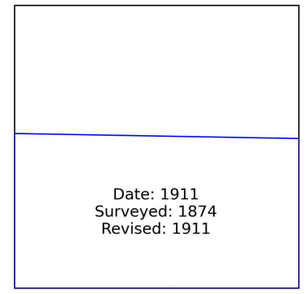
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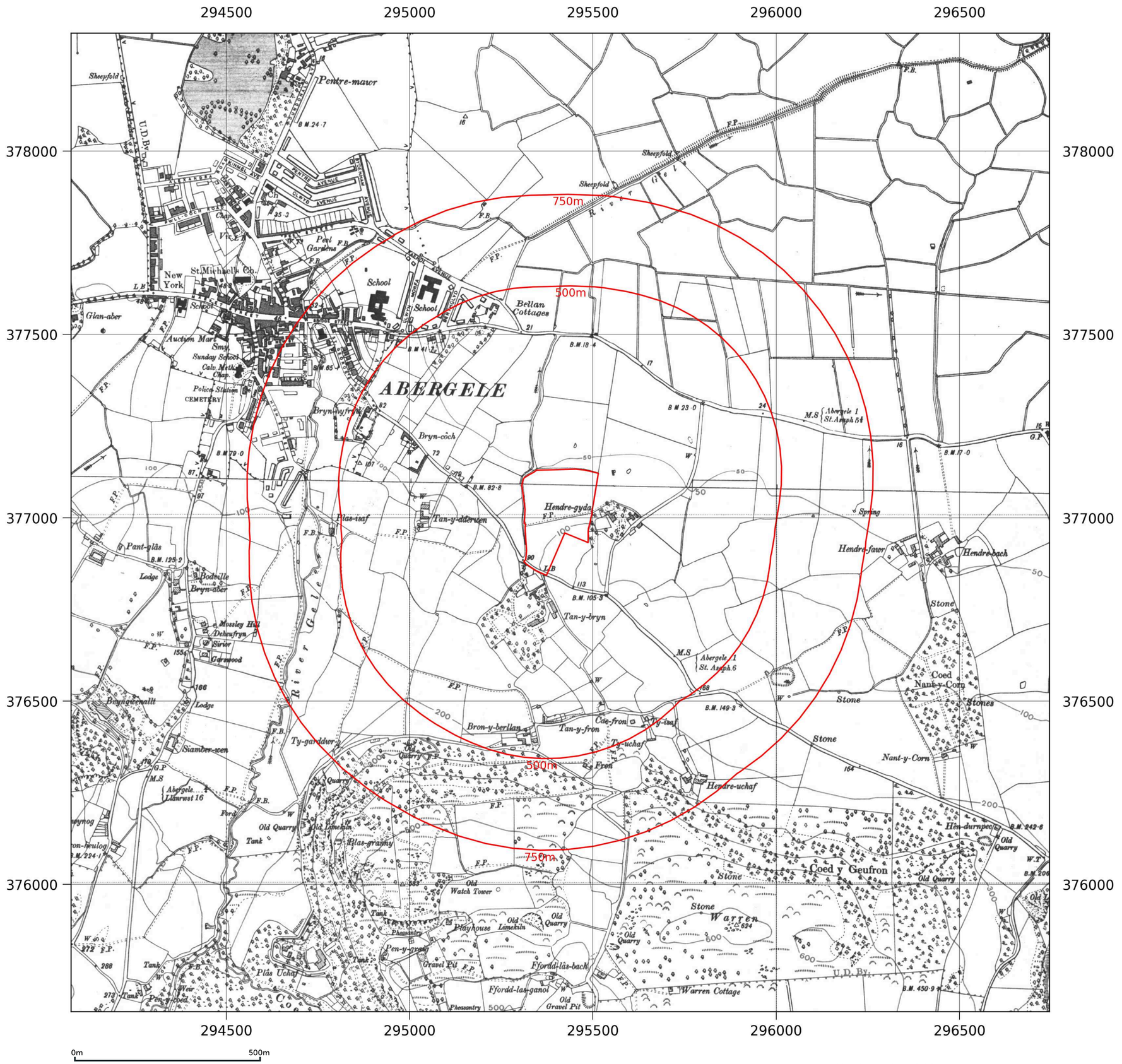
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Edition: 1938

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Edition: 1938

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Revised: 1949

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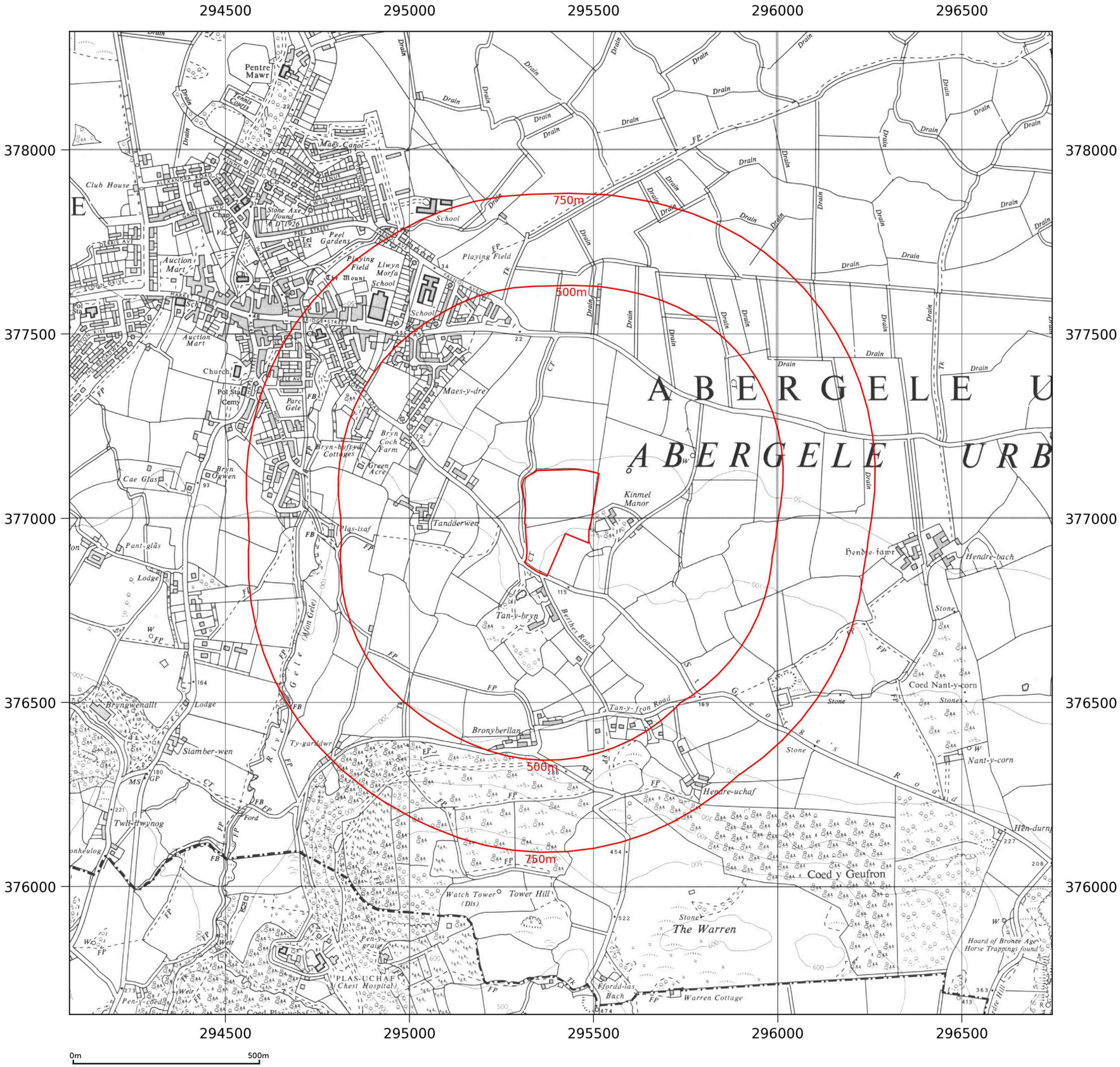
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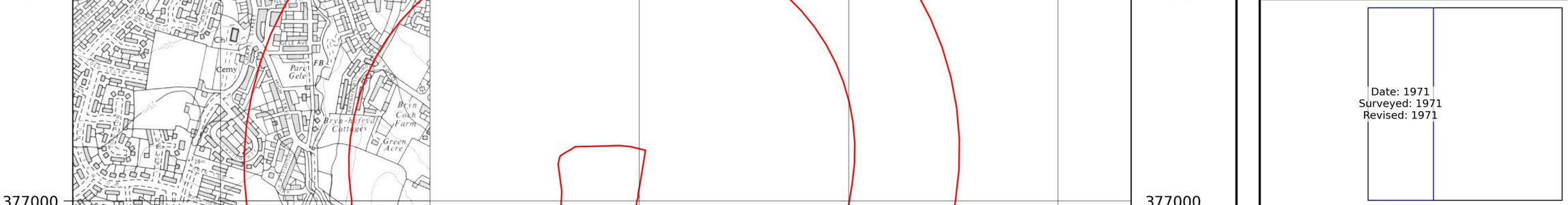
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Playing Field
Pentre Mawr
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Maes Canol
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Drain
Chap
Tel Ex
Wks
Playing Field
School
The Mount
Cemy
Pare Gele
Bryn-hyfrydfa Cottages
Bryn Coch Farm
Green Acre
Play-isaf
Lodge
Afon Gele
Bryngwenallt
Siamber-wen
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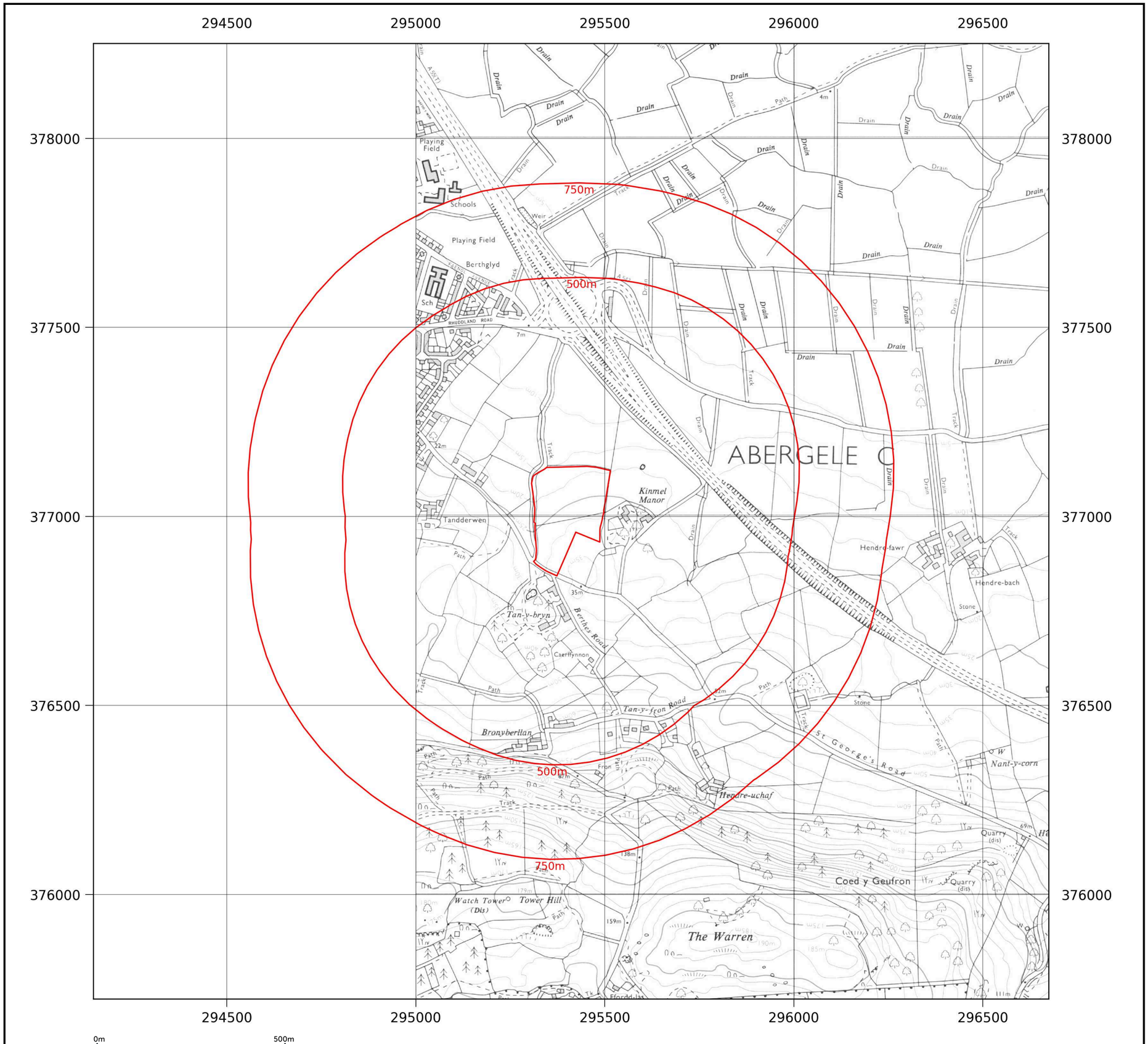
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Date: 1980
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Revised: 1980

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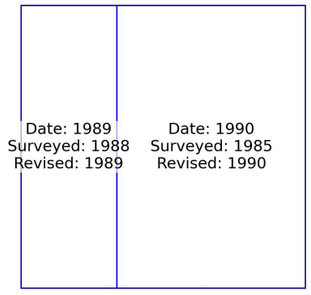
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Map date:	1989-1990
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Printed at:	1:10,000

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Map Insight

Site details:	ABERGELE PH6
Client ref:	26CGH049 - BG6301
Report ref:	GS-BXZ-MN3-TXH-FUV
Grid ref:	295399.35, 377016.13
Production date:	11 May 2026

Map name:	National Grid
Map date:	2001
Scale:	1:10,000
Printed at:	1:10,000

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Date: 2001	Date: 2001

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294500 295000 295500 296000 296500

378000 377500 377000 376500 376000

0m 500m

Map legend available at:
knowledge.groundsure.com/hubfs/groundsure_legend.pdf

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Map Insight

Site details:	ABERGELE PH6
Client ref:	26CGH049 - BG6301
Report ref:	GS-BXZ-MN3-TXH-FUV
Grid ref:	295399.35, 377016.13
Production date:	11 May 2026

Map name:	National Grid
Map date:	2010
Scale:	1:10,000
Printed at:	1:10,000

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Date: 2010	Date: 2010

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294500 295000 295500 296000 296500

378000 377500 377000 376500 376000

750m
500m
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750m

Maes Canol
Schools
Ysgol
Coleg
Berthglyld
Fire Sta
Liby
Pol Sta
Gele Bridge
Depot
Parc Gele
Recreation Ground
Tandderwen Cottage
Tandderwen
Plas-isaf
Hotel
Lodge
Hendre-fawr
Hendre-bach
Afon Gele/River Gele
Tan-y-bryn House
Caer Ffynnon
Bryngwenallt Hall
Siamber-wen
Bron Berllan
Gas Gov
Coed Abergele
Fron Cottage
Hendre Uchaf
Kennels
Seren-y-Mor
Nant Y Corn
Toll Cottage
Coed y Geufron
Tower Hill
The Warren
Plas Uchaf
Pen-y-graig
Ty Twn
Ffordd-las Bach
Squirrel Cottage

0m 500m

Map legend available at:
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Map Insight

Site details:	ABERGELE PH6
Client ref:	26CGH049 - BG6301
Report ref:	GS-BXZ-MN3-TXH-FUV
Grid ref:	295399.35, 377016.13
Production date:	11 May 2026

Map name:	National Grid
Map date:	2015
Scale:	1:10,000
Printed at:	1:10,000

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Date: 2015	Date: 2015

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294500 295000 295500 296000 296500

378000 377500 377000 376500 376000

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Map Insight

Site details:	ABERGELE PH6
Client ref:	26CGH049 - BG6301
Report ref:	GS-BXZ-MN3-TXH-FUV
Grid ref:	295399.35, 377016.13
Production date:	11 May 2026

Map name:	National Grid
Map date:	2025
Scale:	1:10,000
Printed at:	1:10,000

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Date: 2025	Date: 2025

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294500 295000 295500 296000 296500

378000 377500 377000 376500 376000

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Site details:	ABERGELE PH6
Client ref:	26CGH049 - BG6301
Report ref:	GS-BXZ-MN3-TXH-FUV
Grid ref:	295399.35, 377016.13
Production date:	11 May 2026

Map name:	County Series
Map date:	1872-1873
Scale:	1:2,500
Printed at:	1:2,500

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Date: 1872
Surveyed: 1872
Revised: 1872

Date: 1873
Surveyed: 1873
Revised: 1873

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295100 295200 295300 295400 295500 295600 295700

377300 377200 377100 377000 376900 376800 376700

100m

817 818 821 824 826 829 1441 1442 1443 1444 1445 1446 1447 1448 1450 1452 1453 1454 1455 1456 1458 1459 1460 1497 1498 1500

B.M. 82·7 B.M. 105·4

y-dderwen Hendre-gyda Tan-y-bryn Lodge

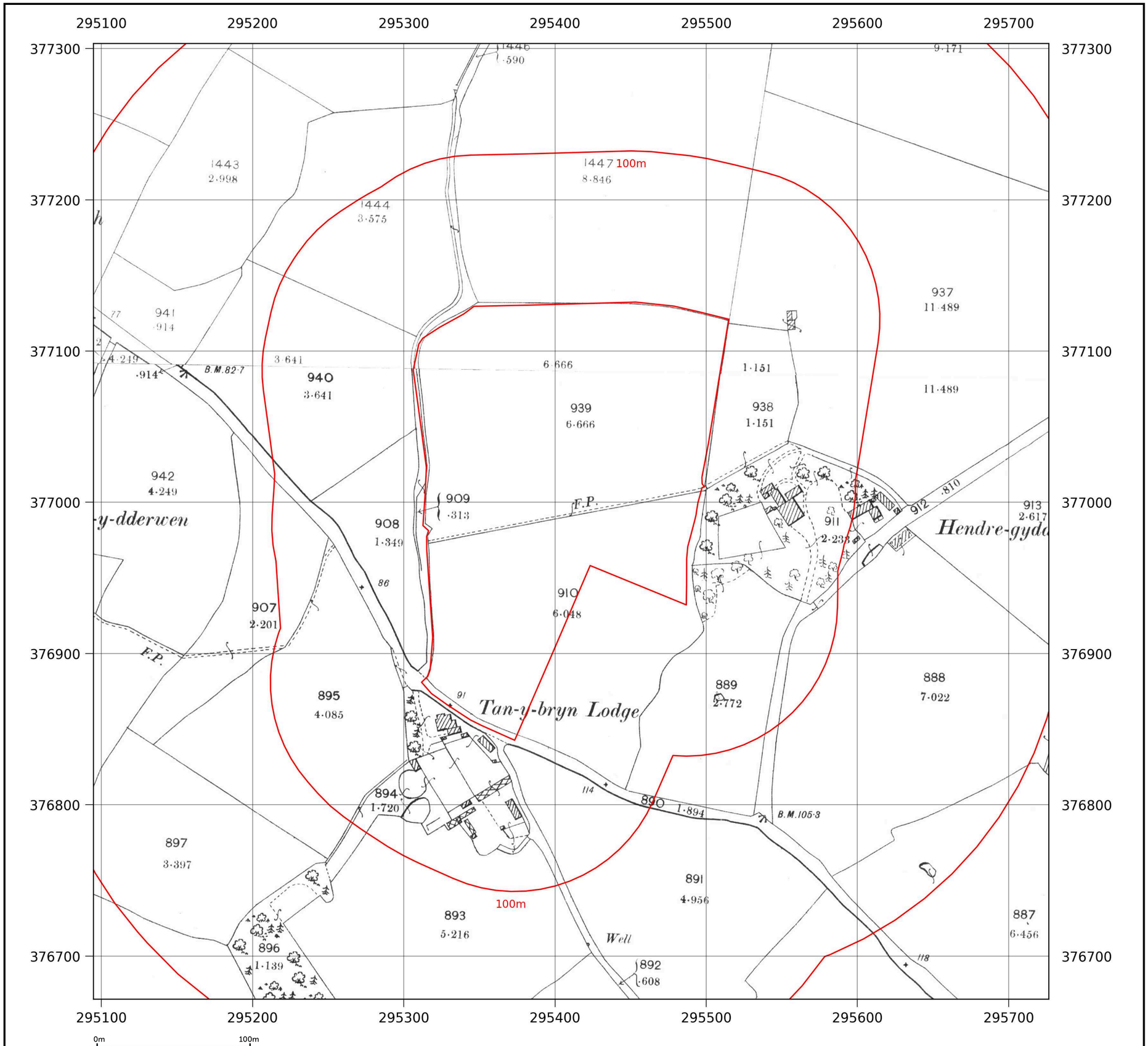
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Map Insight

Site details:	ABERGELE PH6
Client ref:	26CGH049 - BG6301
Report ref:	GS-BXZ-MN3-TXH-FUV
Grid ref:	295399.35, 377016.13
Production date:	11 May 2026

Map name:	County Series
Map date:	1899
Scale:	1:2,500
Printed at:	1:2,500

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Date: 1899
Surveyed: 1899
Revised: 1899

Date: 1899
Surveyed: 1899
Revised: 1899

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Map Insight

Site details:	ABERGELE PH6
Client ref:	26CGH049 - BG6301
Report ref:	GS-BXZ-MN3-TXH-FUV
Grid ref:	295399.35, 377016.13
Production date:	11 May 2026

Map name:	County Series
Map date:	1913
Scale:	1:2,500
Printed at:	1:2,500

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Date: 1913
Surveyed: 1913
Revised: 1913

Date: 1913
Surveyed: 1913
Revised: 1913

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295100 295200 295300 295400 295500 295600 295700

377300 377200 377100 377000 376900 376800 376700

1443 2·998
1444 3·575
1447 8·845 100m
941 ·959
·051
·004
B.M.82·8
1·536
940 2·055
2·098
939 4·589
937 9·268
3·394
942 4·198
909 ·311
Hendre-gyda
F.P.
908 1·349
911 2·220
912 ·799
913 2·615
907 2·216
910 6·025
Flagstaff
889 2·784
888 7·014
895 4·135
L.B
B.M.105·3
897 3·311
893 8·790
100m
891 4·956
887 6·456
890 2·771
892

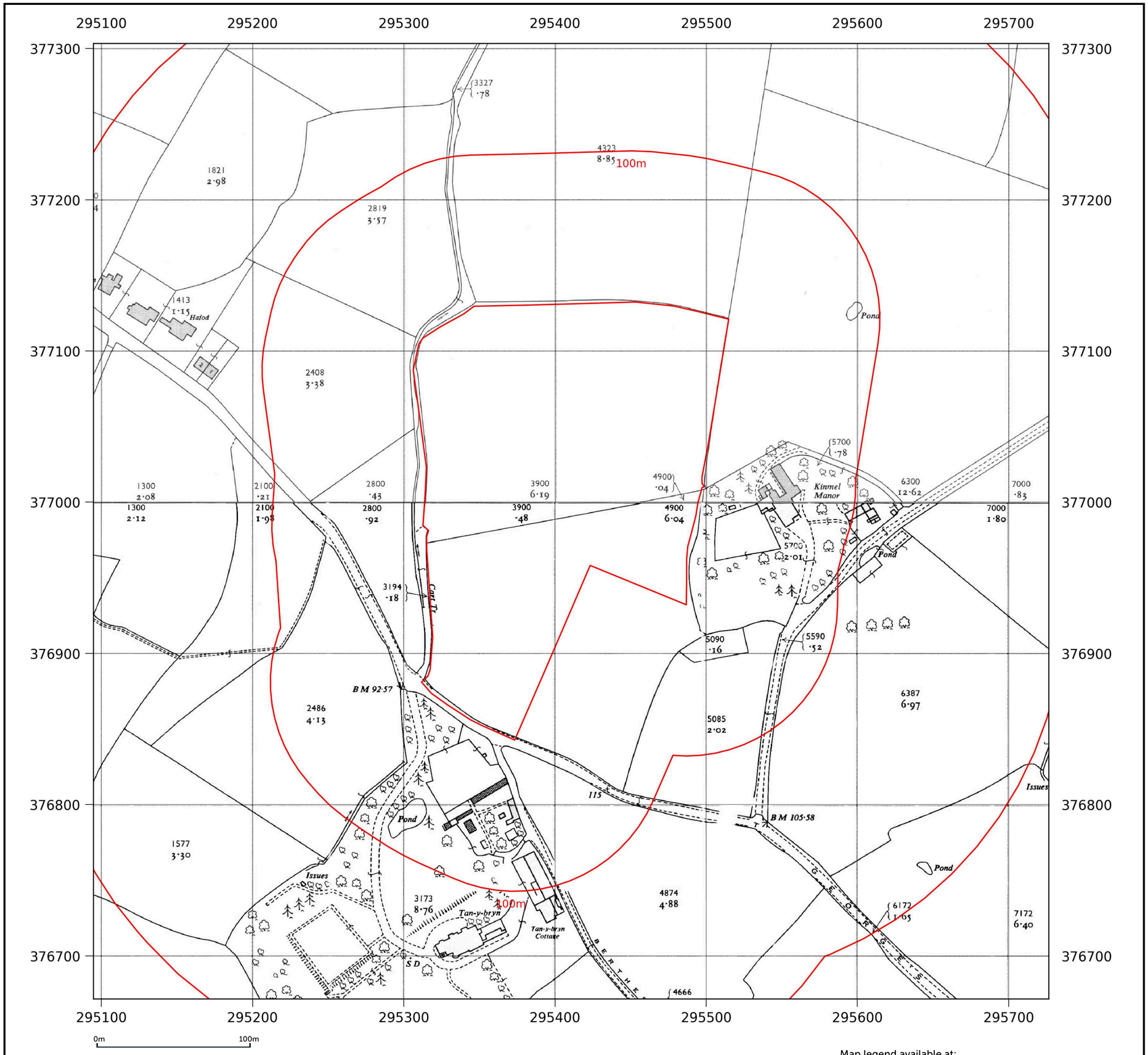
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Map Insight

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Client ref:	26CGH049 - BG6301
Report ref:	GS-BXZ-MN3-TXH-FUV
Grid ref:	295399.35, 377016.13
Production date:	11 May 2026

Map name:	National Grid
Map date:	1961
Scale:	1:2,500
Printed at:	1:2,500

N
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Date: 1961
Surveyed: 1960
Revised: 1960
Copyright: 1961
Levelled: 1953

Date: 1961

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Map Insight

Site details:	ABERGELE PH6
Client ref:	26CGH049 - BG6301
Report ref:	GS-BXZ-MN3-TXH-FUV
Grid ref:	295399.35, 377016.13
Production date:	11 May 2026

Map name:	National Grid
Map date:	1961
Scale:	1:2,500
Printed at:	1:2,500

N
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S

Date: 1961
Surveyed: 1960
Revised: 1960
Copyright: 1961
Levelled: 1953

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295100 295200 295300 295400 295500 295600 295700

377300 377200 377100 377000 376900 376800 376700

100m

1300 2·12 | 2100 1·98 | 2800 ·92 | 3900 ·48 | 4900 6·04 | 5700 2·01 | 7000 1·80

3194 ·18 | Cart Track | 5090 ·16 | 5590 ·52 | Pond

B M 92·57 | 2486 4·13 | 5085 2·02 | 6387 6·97

115 | B M 105·58 | Issues | Pond

1577 3·30 | 3173 8·76 | Tan-y-bryn | Tan-y-bryn Cottage | 4874 4·88 | 6172 ·05 | 7172 6·40

S D | 4666

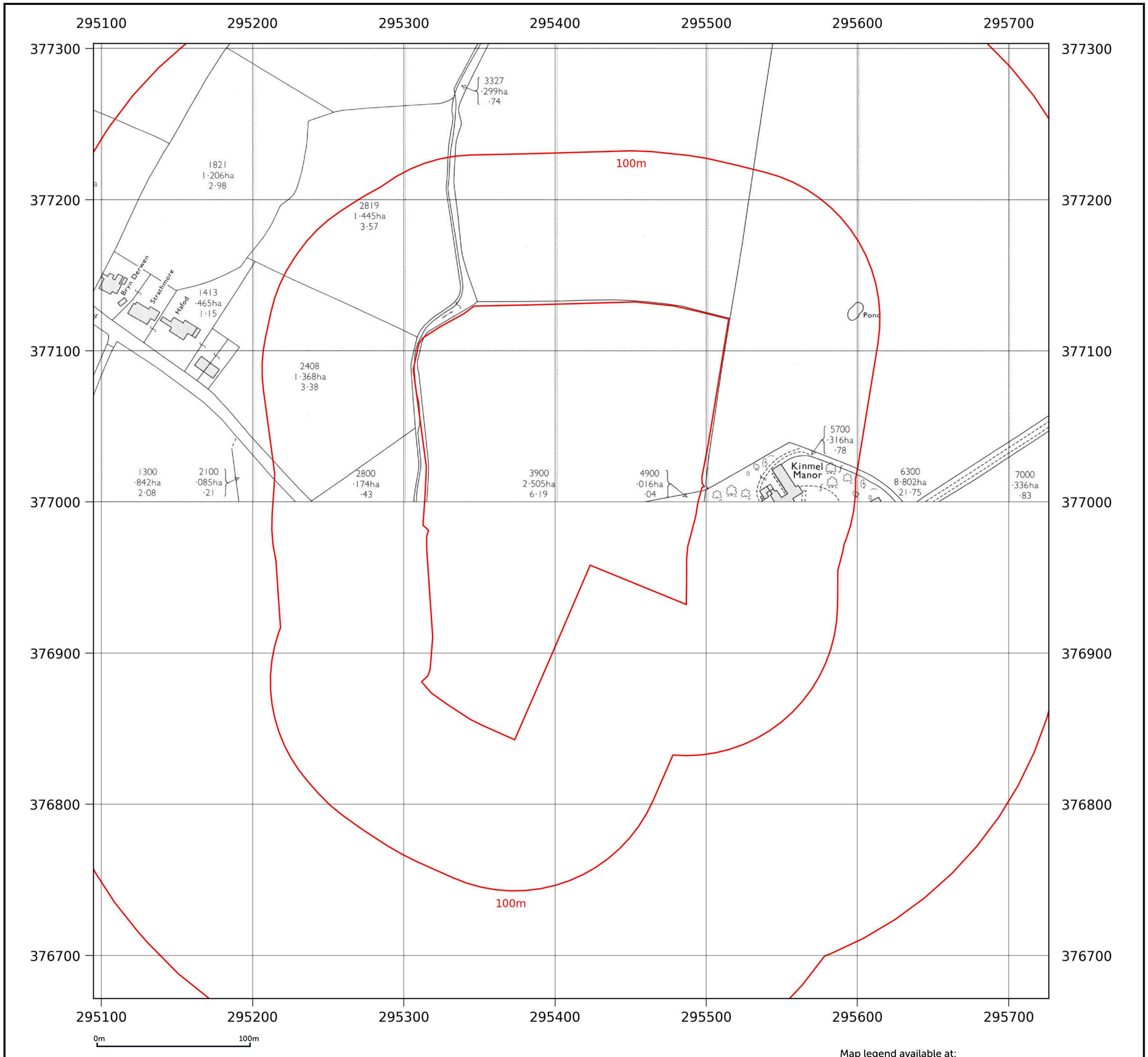
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Map Insight

Site details:	ABERGELE PH6
Client ref:	26CGH049 - BG6301
Report ref:	GS-BXZ-MN3-TXH-FUV
Grid ref:	295399.35, 377016.13
Production date:	11 May 2026

Map name:	National Grid
Map date:	1970
Scale:	1:2,500
Printed at:	1:2,500

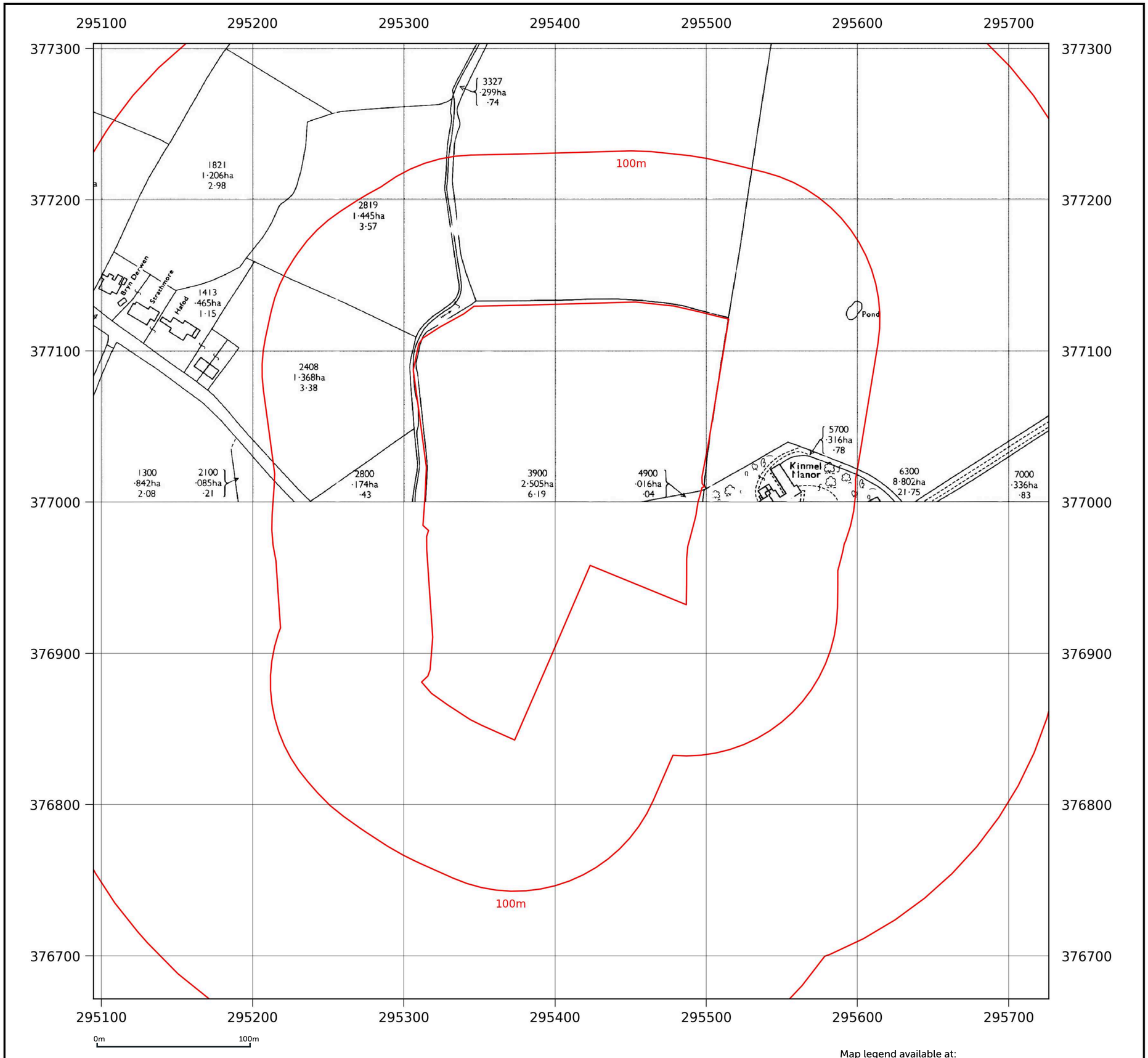
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Date: 1970
Surveyed: 1969
Revised: 1969
Copyright: 1970
Levelled: 1956

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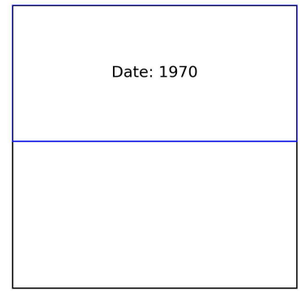
Map legend available at:
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Map Insight

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Client ref:	26CGH049 - BG6301
Report ref:	GS-BXZ-MN3-TXH-FUV
Grid ref:	295399.35, 377016.13
Production date:	11 May 2026

Map name:	National Grid
Map date:	1970
Scale:	1:2,500
Printed at:	1:2,500

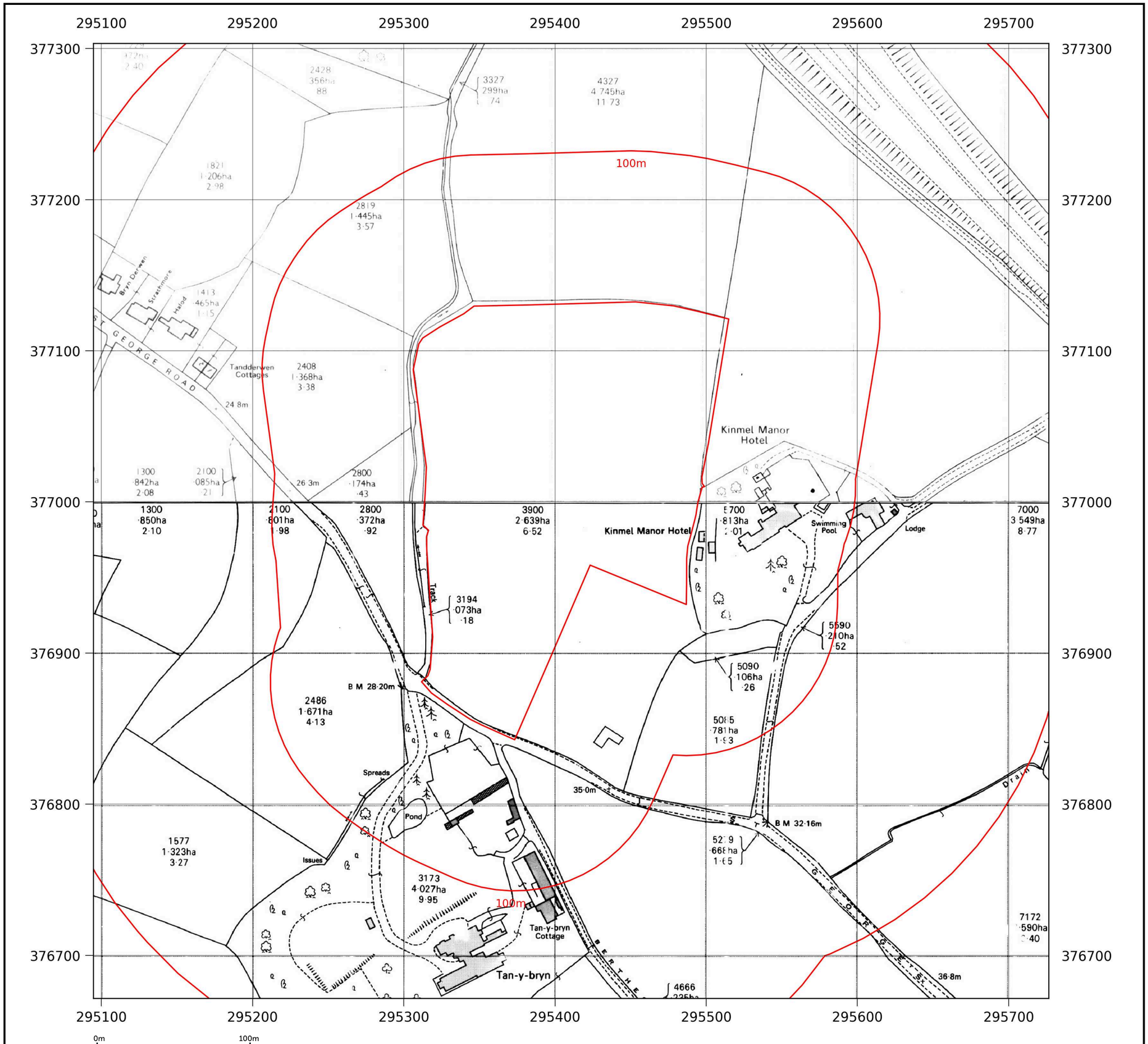
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Map Insight

Site details:	ABERGELE PH6
Client ref:	26CGH049 - BG6301
Report ref:	GS-BXZ-MN3-TXH-FUV
Grid ref:	295399.35, 377016.13
Production date:	11 May 2026

Map name:	National Grid
Map date:	1983-1984
Scale:	1:2,500
Printed at:	1:2,500

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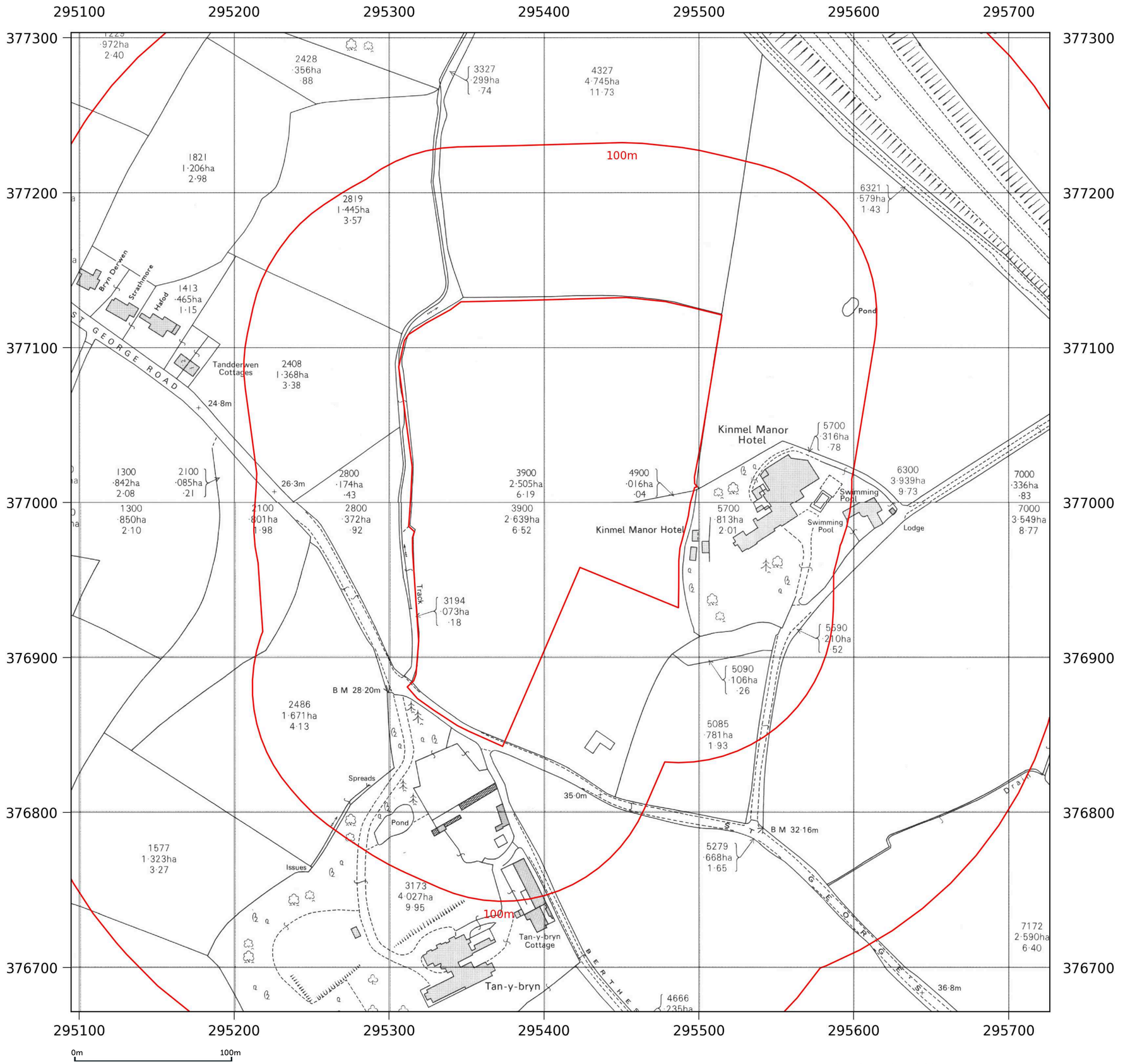
Date: 1983
Surveyed: 1970
Revised: 1982
Copyright: 1983
Levelled: 1970

Date: 1984

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Map Insight

Site details:	ABERGELE PH6
Client ref:	26CGH049 - BG6301
Report ref:	GS-BXZ-MN3-TXH-FUV
Grid ref:	295399.35, 377016.13
Production date:	11 May 2026

Map name:	National Grid
Map date:	1983-1984
Scale:	1:2,500
Printed at:	1:2,500

N
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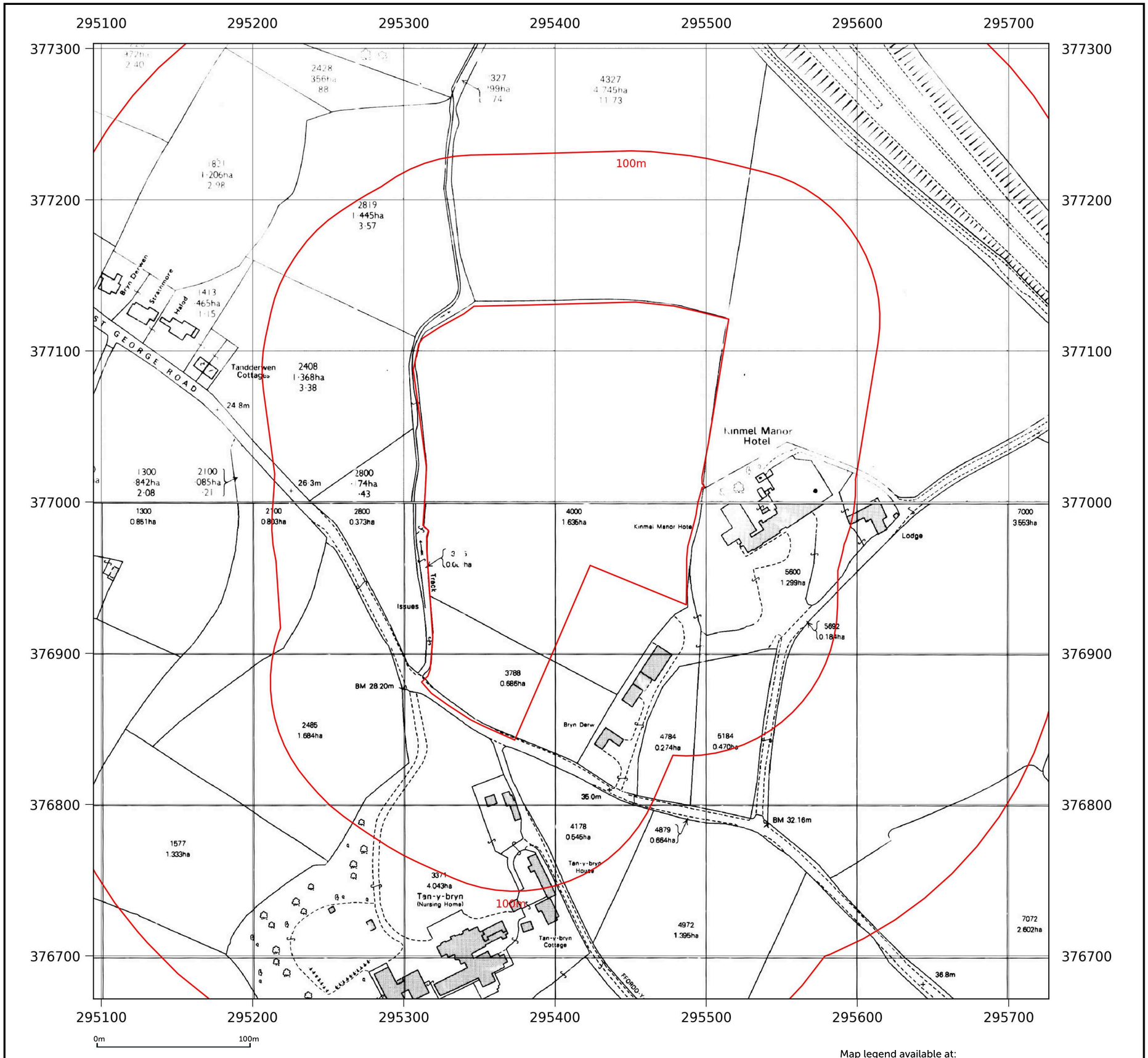
Date: 1983
Surveyed: 1982
Revised: 1982
Copyright: 1983
Levelled: 1970

Date: 1984
Surveyed: 1983
Revised: 1983
Copyright: 1984
Levelled: 1969

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Map Insight

Site details:	ABERGELE PH6
Client ref:	26CGH049 - BG6301
Report ref:	GS-BXZ-MN3-TXH-FUV
Grid ref:	295399.35, 377016.13
Production date:	11 May 2026

Map name:	National Grid
Map date:	1989-1991
Scale:	1:2,500
Printed at:	1:2,500

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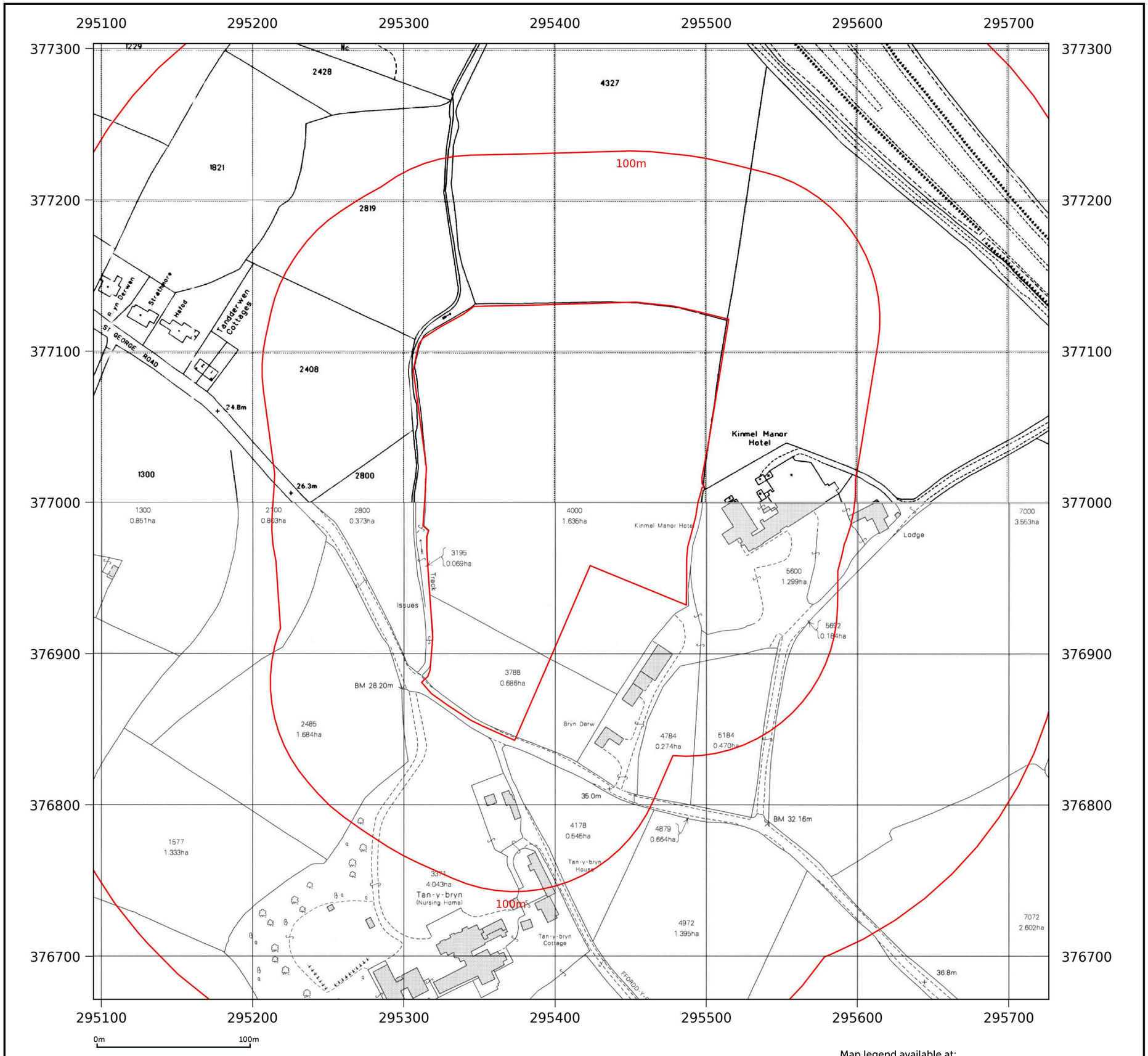
Date: 1989
Revised: 1989
Copyright: 1983

Date: 1991

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Map legend available at:
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Map Insight

Site details:	ABERGELE PH6
Client ref:	26CGH049 - BG6301
Report ref:	GS-BXZ-MN3-TXH-FUV
Grid ref:	295399.35, 377016.13
Production date:	11 May 2026

Map name:	National Grid
Map date:	1991-1994
Scale:	1:2,500
Printed at:	1:2,500

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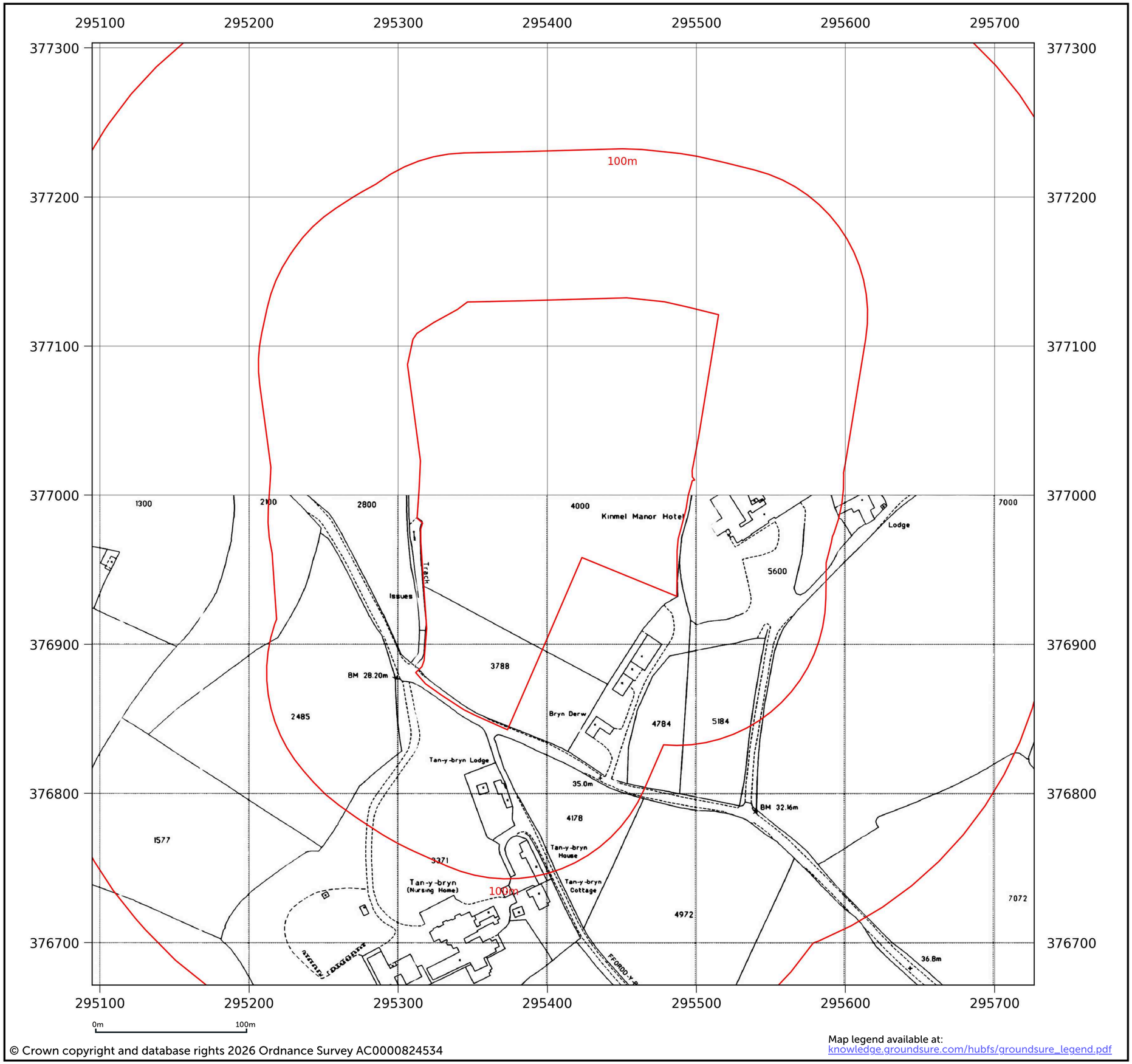
Date: 1994
Copyright: 1994

Date: 1991
Surveyed: 1990
Revised: 1990
Copyright: 1991

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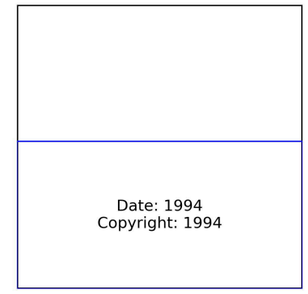
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Map Insight

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Client ref:	26CGH049 - BG6301
Report ref:	GS-BXZ-MN3-TXH-FUV
Grid ref:	295399.35, 377016.13
Production date:	11 May 2026

Map name:	National Grid
Map date:	1994
Scale:	1:2,500
Printed at:	1:2,500

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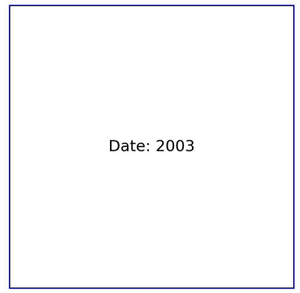
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Map Insight

Site details:	ABERGELE PH6
Client ref:	26CGH049 - BG6301
Report ref:	GS-BXZ-MN3-TXH-FUV
Grid ref:	295399.35, 377016.13
Production date:	11 May 2026

Map name:	LandLine
Map date:	2003
Scale:	1:1,250
Printed at:	1:1,250

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APPENDIX C

(i) Groundsure Report

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LOCATION INTELLIGENCE

Enviro+Geo Insight

ABERGELE PH6

Order Details

Date: 11/05/2026

Your ref: 26CGH049 - BG6301

Our Ref: GS-2CF-OFW-6SR-ZBO

Site Details

Location: 295399 377016

Area: 4.16 ha

Authority: Conwy County Borough Council ↗

Site plan



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Quick Links

Summary of findings p. 2 >

OS MasterMap site plan p.14 >

Aerial image p. 9 >

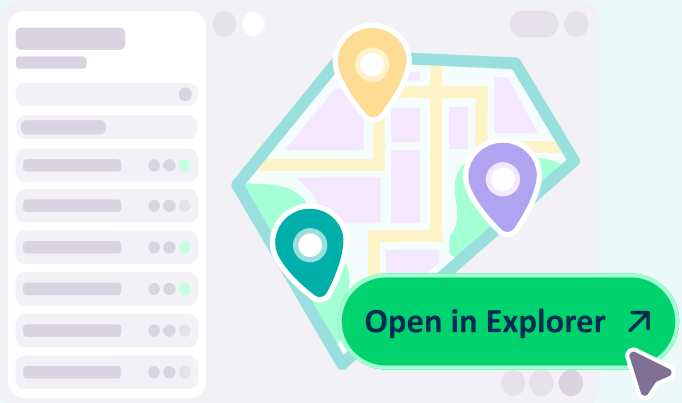
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Open this site in Explorer!

Access the data now in our interactive workspace.

- Map and interpret 130+ datasets across 170 years
- Generate insights and visuals quickly
- Revisit and collaborate with your team

Access to Groundsure Explorer requires an Insights account.
12 months access begins at purchase.



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Certified B Corporation

Summary of findings

Page	Section	Past land use >	On site	0-50m	50-250m	250-500m	500-2000m
15 >	1.1 >	Historical industrial land uses >	0	0	0	2	-
16	1.2	Historical tanks	0	0	0	0	-
16 >	1.3 >	Historical energy features >	0	0	1	2	-
16	1.4	Historical petrol stations	0	0	0	0	-
17 >	1.5 >	Historical garages >	0	0	0	3	-
17	1.6	Historical military land	0	0	0	0	-
Page	Section	Past land use - un-grouped >	On site	0-50m	50-250m	250-500m	500-2000m
18 >	2.1 >	Historical industrial land uses >	0	0	0	3	-
19	2.2	Historical tanks	0	0	0	0	-
19 >	2.3 >	Historical energy features >	0	0	1	3	-
19	2.4	Historical petrol stations	0	0	0	0	-
20 >	2.5 >	Historical garages >	0	0	0	4	-
Page	Section	Waste and landfill >	On site	0-50m	50-250m	250-500m	500-2000m
21	3.1	Active or recent landfill	0	0	0	0	-
21	3.2	Historical landfill (BGS records)	0	0	0	0	-
22	3.3	Historical landfill (LA/mapping records)	0	0	0	0	-
22	3.4	Historical landfill (EA/NRW records)	0	0	0	0	-
22	3.5	Historical waste sites	0	0	0	0	-
22	3.6	Licensed waste sites	0	0	0	0	-
22 >	3.7 >	Waste exemptions >	0	0	1	0	-
Page	Section	Current industrial land use >	On site	0-50m	50-250m	250-500m	500-2000m
24 >	4.1 >	Recent industrial land uses >	0	0	3	-	-
25	4.2	National Geographic Database (NGD) - Current or recent tanks	0	0	0	-	-
25	4.3	Current or recent petrol stations	0	0	0	0	-
25	4.4	Electricity cables	0	0	0	0	-
25	4.5	Gas pipelines	0	0	0	0	-

25	4.6	Sites determined as Contaminated Land	0	0	0	0	-
26	4.7	Control of Major Accident Hazards (COMAH)	0	0	0	0	-
26	4.8	Regulated explosive sites	0	0	0	0	-
26	4.9	Hazardous substance storage/usage	0	0	0	0	-
26	4.10	Historical licensed industrial activities (IPC)	0	0	0	0	-
26	4.11	Licensed industrial activities (Part A(1))	0	0	0	0	-
27 >	**4.12 >**	**Licensed pollutant release (Part A(2)/B) >**	0	0	0	3	-
27	4.13	Radioactive Substance Authorisations	0	0	0	0	-
27 >	**4.14 >**	**Licensed Discharges to controlled waters >**	0	0	1	1	-
28	4.15	Pollutant release to surface waters (Red List)	0	0	0	0	-
28	4.16	Pollutant release to public sewer	0	0	0	0	-
28	4.17	List 1 Dangerous Substances	0	0	0	0	-
28	4.18	List 2 Dangerous Substances	0	0	0	0	-
29 >	**4.19 >**	**Pollution Incidents (EA/NRW) >**	0	1	0	1	-
29	4.20	Pollution inventory substances	0	0	0	0	-
29	4.21	Pollution inventory waste transfers	0	0	0	0	-
30	4.22	Pollution inventory radioactive waste	0	0	0	0	-

Page	Section	**Hydrogeology >**	On site	0-50m	50-250m	250-500m	500-2000m
31 >	**5.1 >**	**Superficial aquifer >**	Identified (within 500m)				
33 >	**5.2 >**	**Bedrock aquifer >**	Identified (within 500m)				
35 >	**5.3 >**	**Groundwater vulnerability >**	Identified (within 50m)				
36 >	**5.4 >**	**Groundwater vulnerability- soluble rock risk >**	Identified (within 0m)				
37	5.5	Groundwater vulnerability- local information	None (within 0m)				
38 >	**5.6 >**	**Groundwater abstractions >**	0	0	0	0	4
39 >	**5.7 >**	**Surface water abstractions >**	0	0	0	0	1
40	5.8	Potable abstractions	0	0	0	0	0
40	5.9	Source Protection Zones	0	0	0	0	-
40	5.10	Source Protection Zones (confined aquifer)	0	0	0	0	-

Page	Section	**Hydrology >**	On site	0-50m	50-250m	250-500m	500-2000m

41 >	6.1 >	Water Network (OS NGD) >	0	1	5	-	-
42 >	6.2 >	Surface water features >	0	1	3	-	-
42 >	6.3 >	WFD Surface water body catchments >	1	-	-	-	-
43 >	6.4 >	WFD Surface water bodies >	0	0	0	-	-
43 >	6.5 >	WFD Groundwater bodies >	1	-	-	-	-
Page	Section	River and coastal flooding >	On site	0-50m	50-250m	250-500m	500-2000m
44	7.1	Risk of flooding from rivers and the sea	None (within 50m)				
45 >	7.2 >	Historical Flood Events >	0	0	2	-	-
45	7.3	Flood Defences	0	0	0	-	-
45	7.4	Areas Benefiting from Flood Defences	0	0	0	-	-
46	7.5	Flood Storage Areas	0	0	0	-	-
47	7.6	Flood Zone 2	None (within 50m)				
47	7.7	Flood Zone 3	None (within 50m)				
Page	Section	Surface water flooding >					
48 >	8.1 >	Surface water flooding >	1 in 30 year, 0.3m - 1.0m (within 50m)				
Page	Section	Groundwater flooding >					
50 >	9.1 >	Groundwater flooding >	Low (within 50m)				
Page	Section	Environmental designations >	On site	0-50m	50-250m	250-500m	500-2000m
51 >	10.1 >	Sites of Special Scientific Interest (SSSI) >	0	0	0	0	2
52	10.2	Conserved wetland sites (Ramsar sites)	0	0	0	0	0
52	10.3	Special Areas of Conservation (SAC)	0	0	0	0	0
52	10.4	Special Protection Areas (SPA)	0	0	0	0	0
52	10.5	National Nature Reserves (NNR)	0	0	0	0	0
53	10.6	Local Nature Reserves (LNR)	0	0	0	0	0
53 >	10.7 >	Designated Ancient Woodland >	0	0	1	1	50
55	10.8	Biosphere Reserves	0	0	0	0	0
55	10.9	Forest Parks	0	0	0	0	0
55	10.10	Marine Conservation Zones	0	0	0	0	0
56	10.11	Green Belt	0	0	0	0	0

56	10.12	Proposed Ramsar sites	0	0	0	0	0
56	10.13	Possible Special Areas of Conservation (pSAC)	0	0	0	0	0
56	10.14	Potential Special Protection Areas (pSPA)	0	0	0	0	0
56	10.15	Nitrate Sensitive Areas	0	0	0	0	0
57	10.16	Nitrate Vulnerable Zones	0	0	0	0	0
58	10.17	SSSI Impact Risk Zones	0	-	-	-	-
58	10.18	SSSI Units	0	0	0	0	0
Page	Section	Visual and cultural designations	On site	0-50m	50-250m	250-500m	500-2000m
59	11.1	World Heritage Sites	0	0	0	-	-
59	11.2	Area of Outstanding Natural Beauty	0	0	0	-	-
59	11.3	National Parks	0	0	0	-	-
59	11.4	Listed Buildings	0	0	0	-	-
60	11.5	Conservation Areas	0	0	0	-	-
60	11.6	Scheduled Ancient Monuments	0	0	0	-	-
60	11.7	Registered Parks and Gardens	0	0	0	-	-
Page	Section	**Agricultural designations** >	On site	0-50m	50-250m	250-500m	500-2000m
61 >	**12.1** >	**Agricultural Land Classification** >	Grade 3b (within 250m)				
62	12.2	Open Access Land	0	0	0	-	-
62	12.3	Tree Felling Licences	0	0	0	-	-
62	12.4	Environmental Stewardship Schemes	0	0	0	-	-
63	12.5	Countryside Stewardship Schemes	0	0	0	-	-
Page	Section	Habitat designations	On site	0-50m	50-250m	250-500m	500-2000m
64	13.1	Priority Habitat Inventory	0	0	0	-	-
64	13.2	Habitat Networks	0	0	0	-	-
64	13.3	Open Mosaic Habitat	0	0	0	-	-
64	13.4	Limestone Pavement Orders	0	0	0	-	-
Page	Section	**Geology 1:10,000 scale** >	On site	0-50m	50-250m	250-500m	500-2000m
65 >	**14.1** >	**10k Availability** >	Identified (within 500m)				
66	14.2	Artificial and made ground (10k)	0	0	0	0	-

67	14.3	Superficial geology (10k)	0	0	0	0	-
67	14.4	Landslip (10k)	0	0	0	0	-
68	14.5	Bedrock geology (10k)	0	0	0	0	-
68	14.6	Bedrock faults and other linear features (10k)	0	0	0	0	-
Page	Section	**Geology 1:50,000 scale >**	On site	0-50m	50-250m	250-500m	500-2000m
69 >	15.1 >	**50k Availability >**	Identified (within 500m)				
70	15.2	Artificial and made ground (50k)	0	0	0	0	-
70	15.3	Artificial ground permeability (50k)	0	0	-	-	-
71 >	15.4 >	**Superficial geology (50k) >**	1	0	0	1	-
72 >	15.5 >	**Superficial permeability (50k) >**	Identified (within 50m)				
72	15.6	Landslip (50k)	0	0	0	0	-
72	15.7	Landslip permeability (50k)	None (within 50m)				
73 >	15.8 >	**Bedrock geology (50k) >**	2	1	0	0	-
74 >	15.9 >	**Bedrock permeability (50k) >**	Identified (within 50m)				
74 >	15.10 >	**Bedrock faults and other linear features (50k) >**	0	1	0	0	-
Page	Section	**Boreholes >**	On site	0-50m	50-250m	250-500m	500-2000m
75 >	16.1 >	**BGS Boreholes >**	0	0	5	-	-
Page	Section	**Natural ground subsidence >**					
77 >	17.1 >	**Shrink swell clays >**	Very low (within 50m)				
78 >	17.2 >	**Running sands >**	Very low (within 50m)				
79 >	17.3 >	**Compressible deposits >**	Negligible (within 50m)				
80 >	17.4 >	**Collapsible deposits >**	Very low (within 50m)				
81 >	17.5 >	**Landslides >**	Very low (within 50m)				
82 >	17.6 >	**Ground dissolution of soluble rocks >**	Low (within 50m)				
Page	Section	**Mining and ground workings >**	On site	0-50m	50-250m	250-500m	500-2000m
84	18.1	BritPits	0	0	0	0	-
85	18.2	Surface ground workings	0	0	0	-	-
85	18.3	Underground workings	0	0	0	0	0
85	18.4	Underground mining extents	0	0	0	0	-

85	18.5	Historical Mineral Planning Areas	0	0	0	0	-
85 >	18.6 >	Non-coal mining >	1	0	0	2	2
86	18.7	JPB mining areas	None (within 0m)				
86	18.8	The Coal Authority non-coal mining	0	0	0	0	-
87 >	18.9 >	Researched mining >	0	0	0	1	-
87	18.10	Mining record office plans	0	0	0	0	-
87	18.11	BGS mine plans	0	0	0	0	-
87	18.12	Coal mining	None (within 0m)				
88	18.13	Brine areas	None (within 0m)				
88	18.14	Gypsum areas	None (within 0m)				
88	18.15	Tin mining	None (within 0m)				
88	18.16	Clay mining	None (within 0m)				
Page	Section	Ground cavities and sinkholes >	On site	0-50m	50-250m	250-500m	500-2000m
89	19.1	Natural cavities	0	0	0	0	-
90 >	19.2 >	Mining cavities >	0	0	0	0	1
90	19.3	Reported recent incidents	0	0	0	0	-
90	19.4	Historical incidents	0	0	0	0	-
Page	Section	Radon >					
91 >	20.1 >	Radon >	Between 1% and 3% (within 0m)				
Page	Section	Soil chemistry >	On site	0-50m	50-250m	250-500m	500-2000m
93 >	21.1 >	BGS Estimated Background Soil Chemistry >	6	5	-	-	-
93	21.2	BGS Estimated Urban Soil Chemistry	0	0	-	-	-
94	21.3	BGS Measured Urban Soil Chemistry	0	0	-	-	-
Page	Section	Railway infrastructure and projects	On site	0-50m	50-250m	250-500m	500-2000m
95	22.1	Underground railways (London)	0	0	0	-	-
95	22.2	Underground railways (Non-London)	0	0	0	-	-
95	22.3	Railway tunnels	0	0	0	-	-
95	22.4	Historical railway and tunnel features	0	0	0	-	-
95	22.5	Royal Mail tunnels	0	0	0	-	-

96	22.6	Historical railways	0	0	0	-	-
96	22.7	Railways	0	0	0	-	-
96	22.8	Crossrail 2	0	0	0	0	-
96	22.9	HS2	0	0	0	0	-

Recent aerial photograph



Capture Date: 14/08/2022

Site Area: 4.16ha

Recent site history - 2020 aerial photograph



Capture Date: 06/05/2020

Site Area: 4.16ha

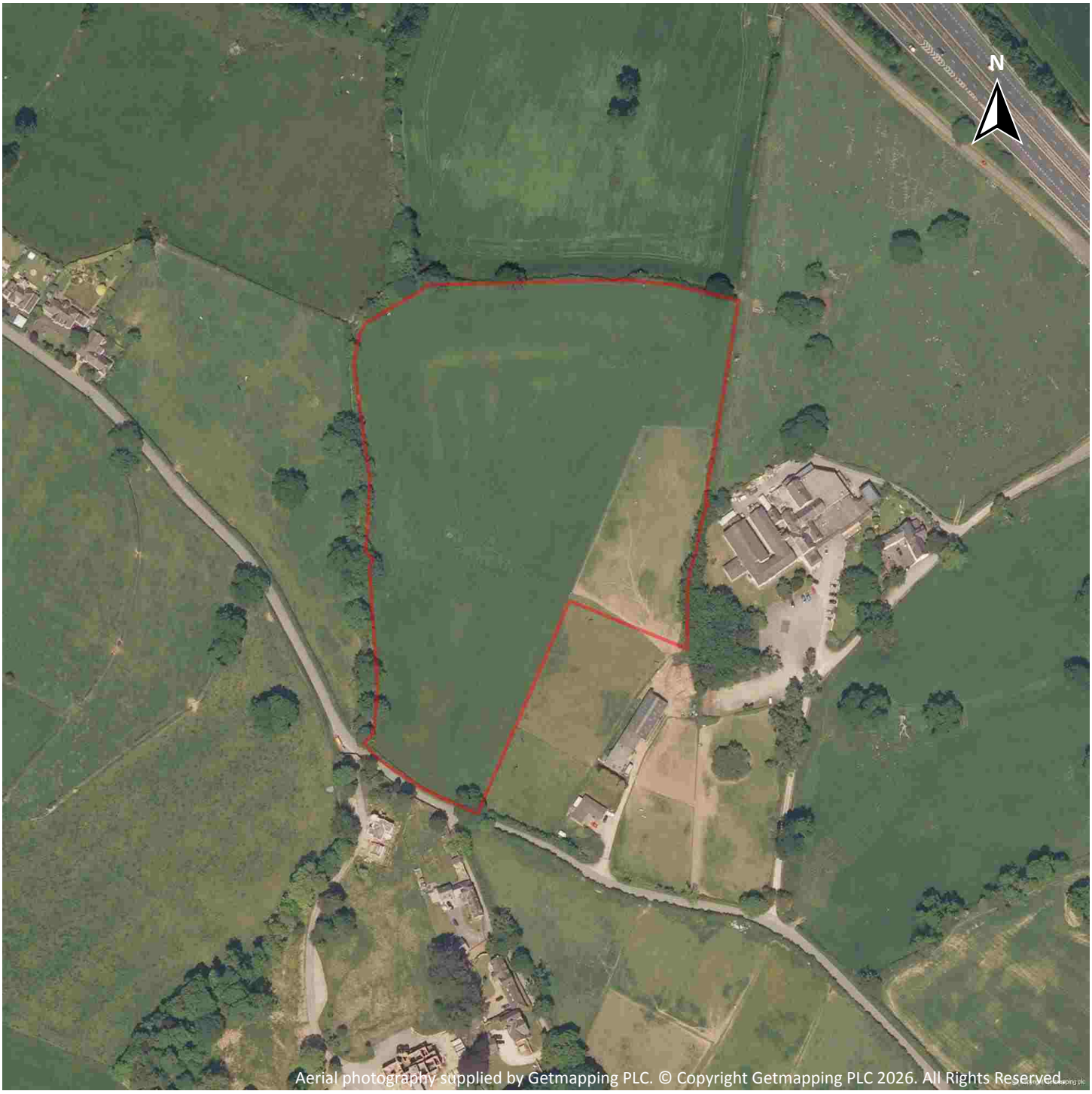
Recent site history - 2016 aerial photograph



Capture Date: 04/07/2016

Site Area: 4.16ha

Recent site history - 2009 aerial photograph



Capture Date: 01/06/2009

Site Area: 4.16ha

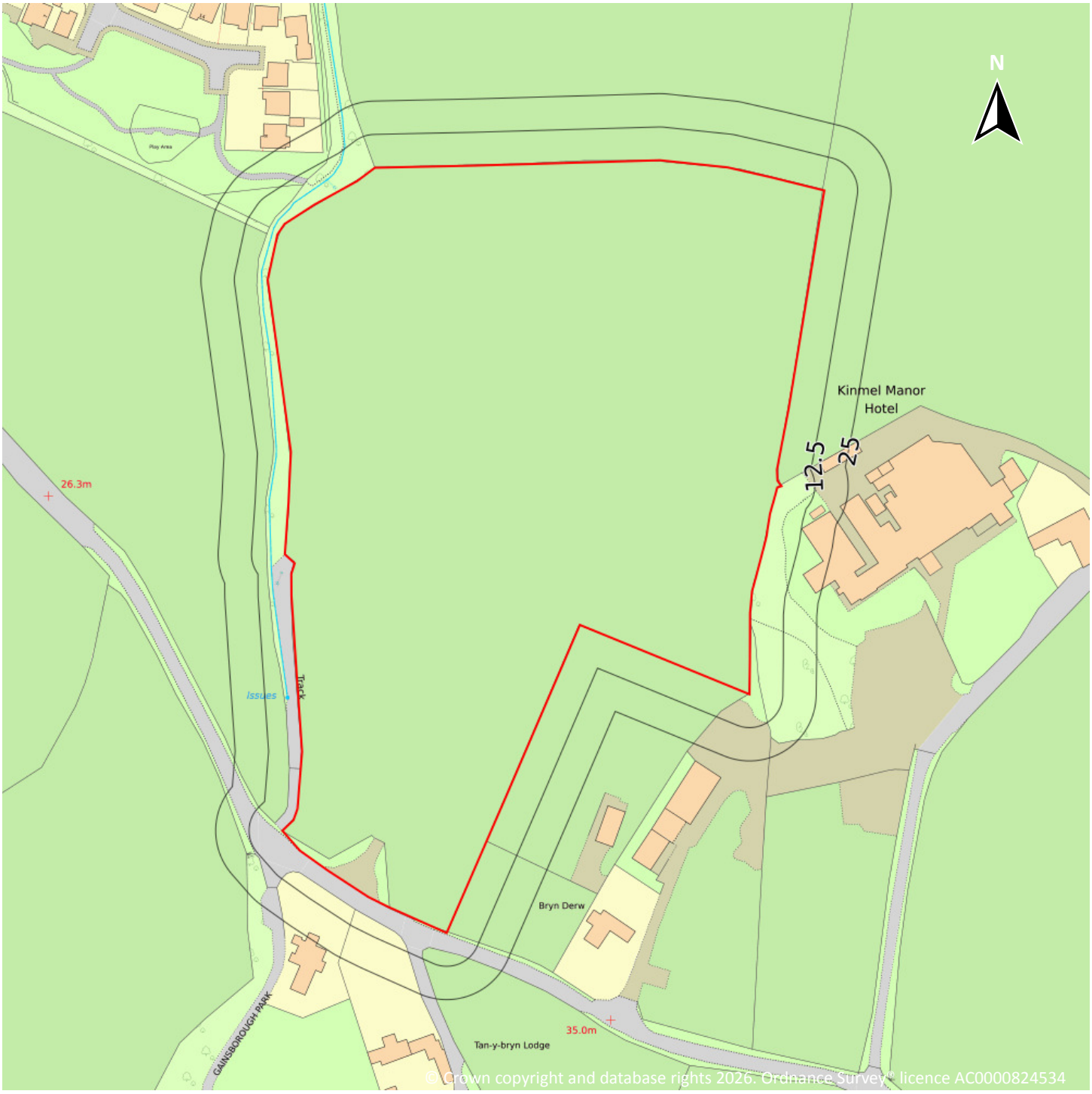
Recent site history - 2000 aerial photograph



Capture Date: 24/08/2000

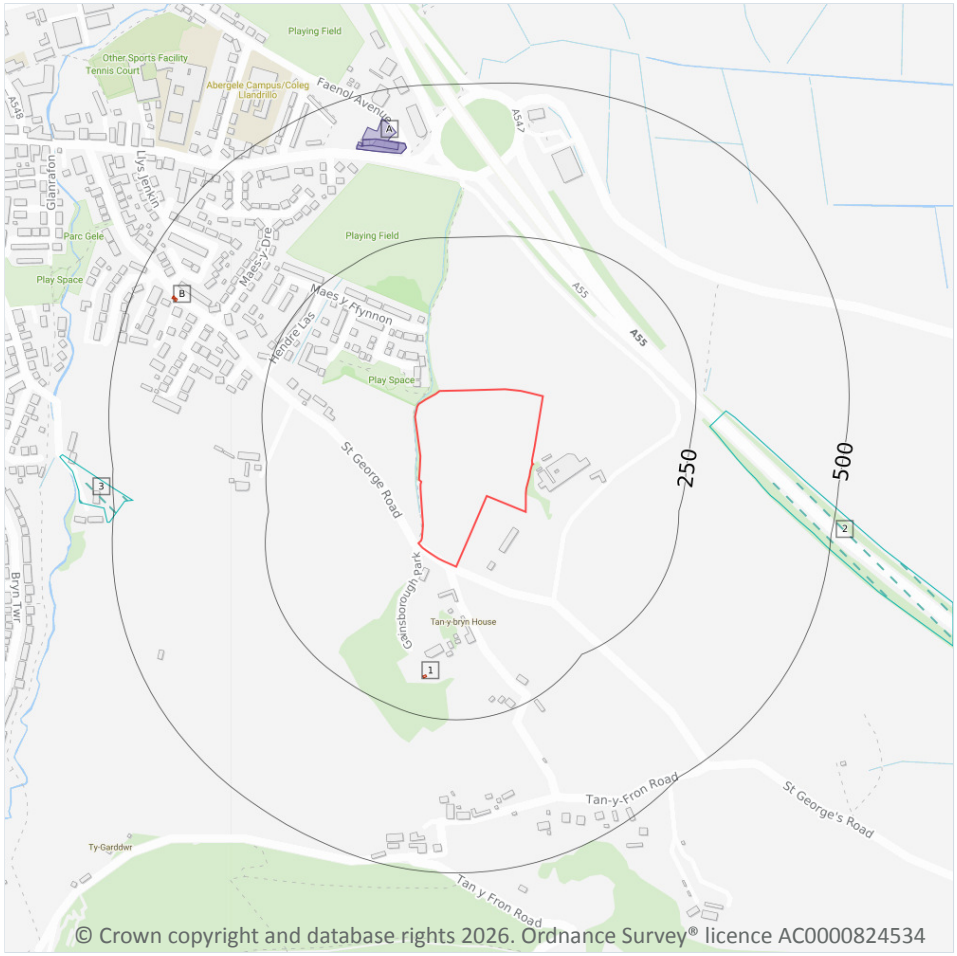
Site Area: 4.16ha

OS MasterMap site plan



Site Area: 4.16ha

1 Past land use



Site Outline

Search buffers in metres (m)

Historical industrial land uses

Historical energy features

Historical garages

1.1 Historical industrial land uses

Records within 500m	2

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

Features are displayed on the Past land use map on **page 15 >**

ID	Location	Land use	Dates present	Group ID
2	277m E	Cuttings	1980 - 1990	233527

ID	Location	Land use	Dates present	Group ID
3	469m W	Nursery	1898	228658

This data is sourced from Ordnance Survey® / Groundsure.

1.2 Historical tanks

Records within 500m	0

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

This data is sourced from Ordnance Survey® / Groundsure.

1.3 Historical energy features

Records within 500m	3

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

Features are displayed on the Past land use map on **page 15 >**

ID	Location	Land use	Dates present	Group ID
1	183m S	Electricity Substation	1991	17001
B	429m NW	Electricity Substation	1983	17000
B	433m NW	Electricity Substation	1983 - 1997	17939

This data is sourced from Ordnance Survey® / Groundsure.

1.4 Historical petrol stations

Records within 500m	0

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

original un-grouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

This data is sourced from Ordnance Survey® / Groundsure.

1.5 Historical garages

Records within 500m	3

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

Features are displayed on the Past land use map on **page 15 >**

ID	Location	Land use	Dates present	Group ID
A	393m N	Garage	1970 - 1983	6055
A	393m N	Garage	1983	6284
A	400m N	Garage	1983	6210

This data is sourced from Ordnance Survey® / Groundsure.

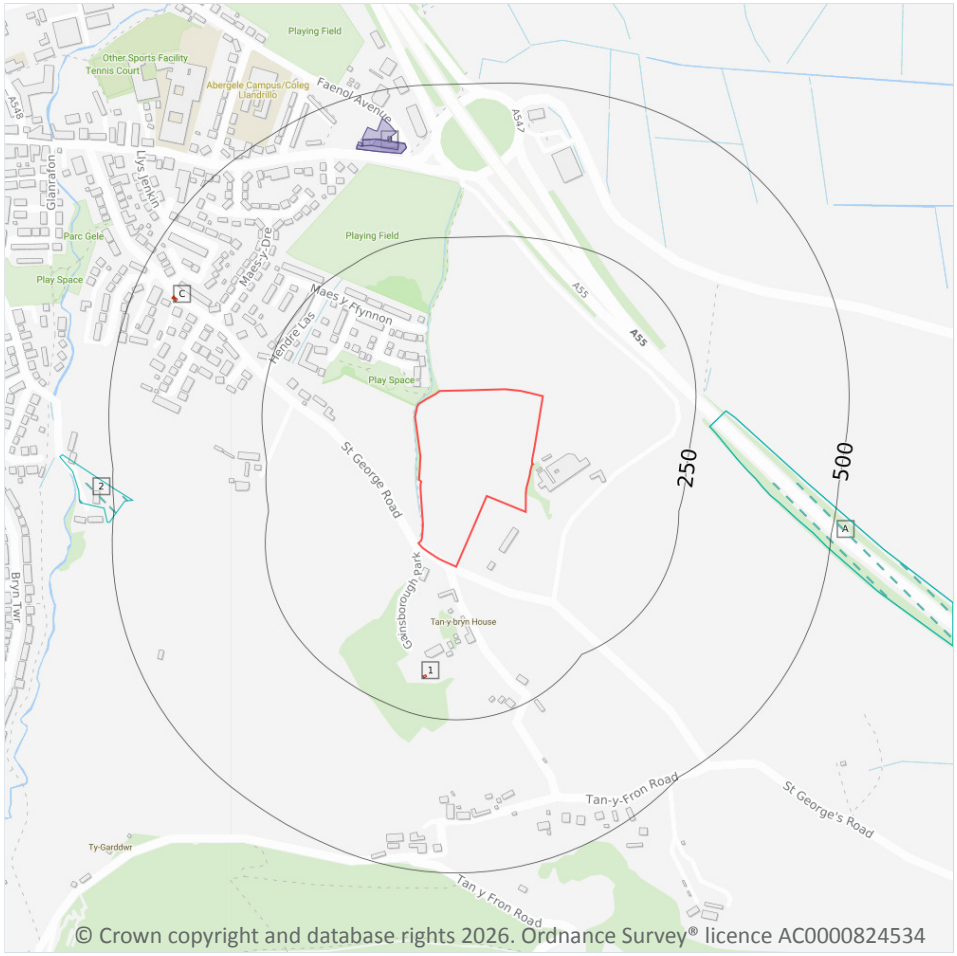
1.6 Historical military land

Records within 500m	0

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

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

2 Past land use - un-grouped



Site Outline

Search buffers in metres (m)

Historical industrial land uses

Historical energy features

Historical garages

2.1 Historical industrial land uses

Records within 500m	3

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

Features are displayed on the Past land use - un-grouped map on **page 18 >**

ID	Location	Land Use	Date	Group ID
A	277m E	Cuttings	1980	233527
A	277m E	Cuttings	1990	233527
2	469m W	Nursery	1898	228658

This data is sourced from Ordnance Survey® / Groundsure.

2.2 Historical tanks

Records within 500m	0

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

This data is sourced from Ordnance Survey® / Groundsure.

2.3 Historical energy features

Records within 500m	4

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

Features are displayed on the Past land use - un-grouped map on **page 18 >**

ID	Location	Land Use	Date	Group ID
1	183m S	Electricity Substation	1991	17001
C	429m NW	Electricity Substation	1983	17000
C	433m NW	Electricity Substation	1997	17939
C	435m NW	Electricity Substation	1983	17939

This data is sourced from Ordnance Survey® / Groundsure.

2.4 Historical petrol stations

Records within 500m	0

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

This data is sourced from Ordnance Survey® / Groundsure.

2.5 Historical garages

Records within 500m	4

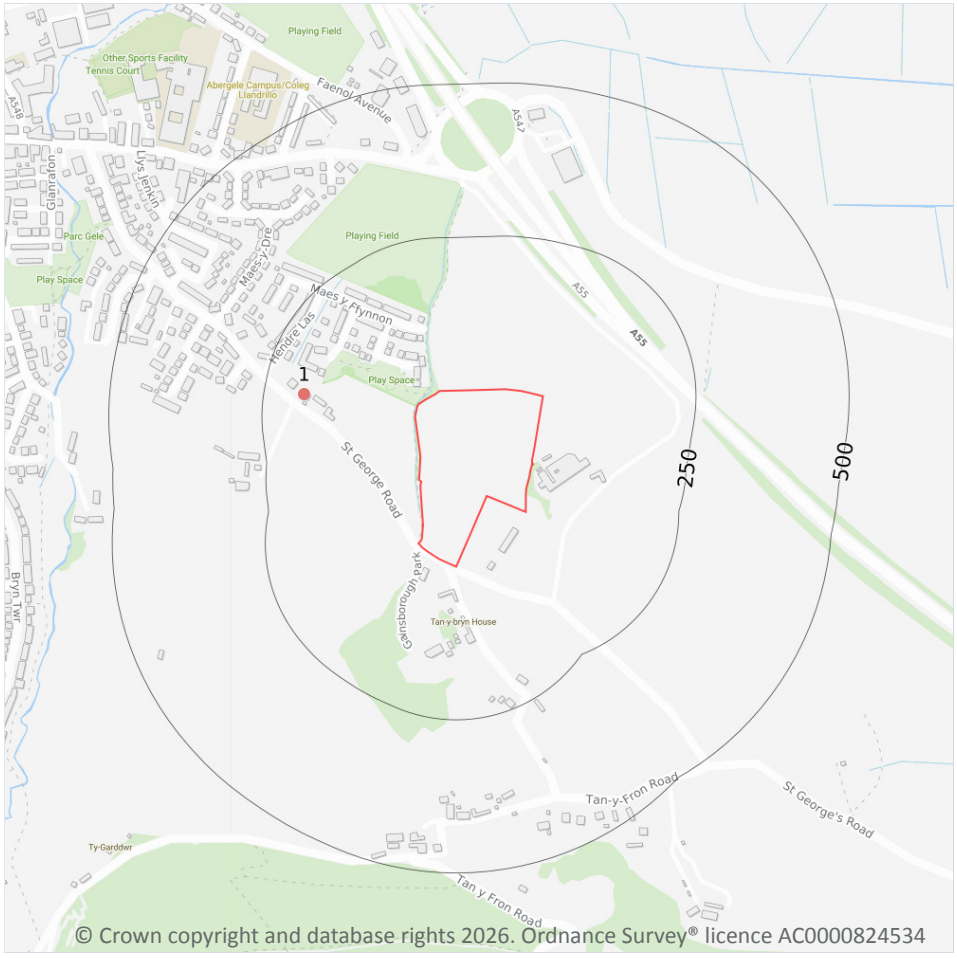
Garages digitised from historical Ordnance Survey® mapping at high-detail 1:1,250 and 1:2,500 scale. Any records shown are available intelligently grouped in section 1. Grouped and the original un-grouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

Features are displayed on the Past land use - un-grouped map on **page 18 >**

ID	Location	Land Use	Date	Group ID
B	393m N	Garage	1970	6055
B	393m N	Garage	1983	6284
B	400m N	Garage	1983	6210
B	417m N	Garage	1983	6055

This data is sourced from Ordnance Survey® / Groundsure.

3 Waste and landfill



Site Outline

Search buffers in metres (m)

Waste exemptions

3.1 Active or recent landfill

Records within 500m	0

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

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

3.2 Historical landfill (BGS records)

Records within 500m	0

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

This data is sourced from the British Geological Survey.

3.3 Historical landfill (LA/mapping records)

Records within 500m	0

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

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

3.4 Historical landfill (EA/NRW records)

Records within 500m	0

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

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

3.5 Historical waste sites

Records within 500m	0

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

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

3.6 Licensed waste sites

Records within 500m	0

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

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

3.7 Waste exemptions

Records within 500m	1

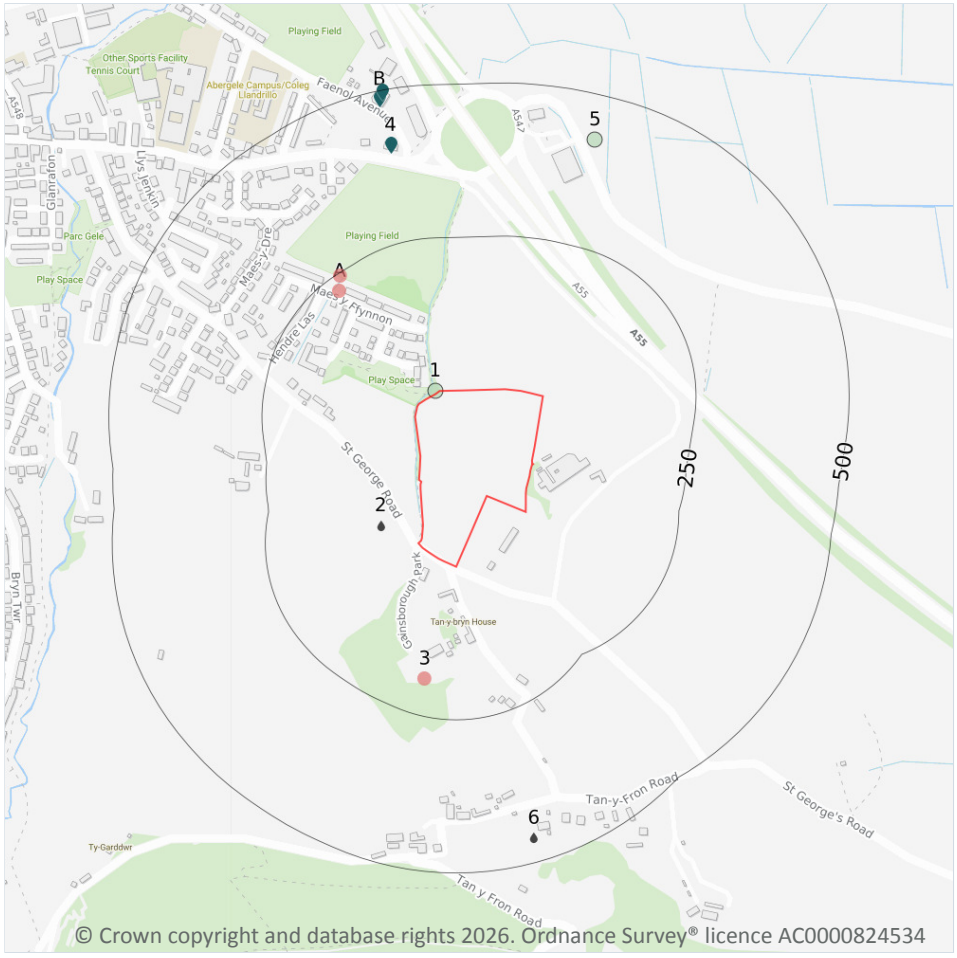
Activities involving the storage, treatment, use or disposal of waste that are exempt from needing a permit. Exemptions have specific limits and conditions that must be adhered to.

Features are displayed on the Waste and landfill map on **page 21 >**

ID	Location	Site	Reference	Category	Sub-Category	Description
1	185m W	Anwyl Construction Company Limited, Land Off St George Road, Abergele, Conwy, Ll229ar	NRW-WME020028	Storing waste exemption	Not on a farm	Storage of waste in a secure place

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

4 Current industrial land use



Site Outline

Search buffers in metres (m)

Recent industrial land uses

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

Licensed Discharges to controlled waters

Pollution Incidents (EA/NRW)

4.1 Recent industrial land uses

Records within 250m	3

Current potentially contaminative industrial sites.

Features are displayed on the Current industrial land use map on **page 24 >**

ID	Location	Company	Address	Activity	Category
3	190m S	Electricity Sub Station	Clwyd, LL22	Electrical Features	Infrastructure and Facilities
A	225m NW	Electricity Sub Station	Clwyd, LL22	Electrical Features	Infrastructure and Facilities

ID	Location	Company	Address	Activity	Category
A	245m NW	Sewage Pumping Station	Clwyd, LL22	Waste Storage, Processing and Disposal	Infrastructure and Facilities

This data is sourced from Ordnance Survey®.

4.2 National Geographic Database (NGD) - Current or recent tanks

Records within 250m	0

Current or recent tanks identified from the Ordnance Survey® NGD.

This data is sourced from Ordnance Survey®.

4.3 Current or recent petrol stations

Records within 500m	0

Open, closed, under development and obsolete petrol stations.

This data is sourced from Experian.

4.4 Electricity cables

Records within 500m	0

High voltage underground electricity transmission cables.

This data is sourced from National Grid.

4.5 Gas pipelines

Records within 500m	0

High pressure underground gas transmission pipelines.

This data is sourced from National Grid.

4.6 Sites determined as Contaminated Land

Records within 500m	0

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

This data is sourced from Local Authority records.

4.7 Control of Major Accident Hazards (COMAH)

Records within 500m	0

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

This data is sourced from the Health and Safety Executive.

4.8 Regulated explosive sites

Records within 500m	0

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

This data is sourced from the Health and Safety Executive.

4.9 Hazardous substance storage/usage

Records within 500m	0

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

This data is sourced from Local Authority records.

4.10 Historical licensed industrial activities (IPC)

Records within 500m	0

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

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

4.11 Licensed industrial activities (Part A(1))

Records within 500m	0

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

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

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

Records within 500m	3

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

Features are displayed on the Current industrial land use map on **page 24 >**

ID	Location	Address	Details	
4	409m N	Threeways Garage, Faenol Avenue, Abergele, LL22 7HT	Process: Waste Oil Burner 0.4 MW Status: New Legislation Applies Permit Type: Part B	Enforcement: No Enforcements Notified Date of enforcement: No Enforcements Notified Comment: No Enforcements Notified
B	487m N	Threeways Service Station, Threeways Garage, Faenol Avenue, Abergele, LL22 7HT	Process: Unloading of Petrol into Storage at Service Stations Status: Current Permit Permit Type: Part B	Enforcement: No Enforcements Notified Date of enforcement: No Enforcements Notified Comment: No Enforcements Notified
B	497m N	Threeways Service Station, Threeways Garage, Faenol Avenue, Abergele, LL22 7HT	Process: Unloading of Petrol into Storage at Service Stations Status: Historical Permit Permit Type: Part B	Enforcement: No Enforcements Notified Date of enforcement: No Enforcements Notified Comment: No Enforcements Notified

This data is sourced from Local Authority records.

4.13 Radioactive Substance Authorisations

Records within 500m	0

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

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

4.14 Licensed Discharges to controlled waters

Records within 500m	2

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

Features are displayed on the Current industrial land use map on **page 24 >**

ID	Location	Address	Details	
2	68m NW	ABERGELESTGEORGEROADTANYBRYN, ABERGELESTGEORGEROADTANYBR, STGEORGEROADTANYBRYN, TANYBRYN	Effluent Type: UNSPECIFIED Permit Number: CM0097001 Permit Version: 1 Receiving Water: TRIB.OF BODORYN CUT	Status: CONSENT EXPIRED - TIME LIMIT Issue date: 18/04/1984 Effective Date: 18/04/1984 Revocation Date: 05/04/1995
6	460m S	ABERGELEWTWCHLORINATEDOF	Effluent Type: UNSPECIFIED Permit Number: CG0193801 Permit Version: 1 Receiving Water: GROUND	Status: CONSENT EXPIRED - TIME LIMIT Issue date: 02/10/1989 Effective Date: 02/10/1989 Revocation Date: 17/03/1994

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

4.15 Pollutant release to surface waters (Red List)

Records within 500m	0

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

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

4.16 Pollutant release to public sewer

Records within 500m	0

Discharges of Special Category Effluents to the public sewer.

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

4.17 List 1 Dangerous Substances

Records within 500m	0

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

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

4.18 List 2 Dangerous Substances

Records within 500m	0

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

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

4.19 Pollution Incidents (EA/NRW)

Records within 500m	2

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

Features are displayed on the Current industrial land use map on **page 24 >**

ID	Location	Details	
1	5m NW	Incident Date: 26/03/2014 Incident Identification: 1221362 Pollutant: Sewage Materials Pollutant Description: Crude Sewage	Water Impact: - Land Impact: Category 3 (Minor) Air Impact: Category 4 (No Impact)
5	427m N	Incident Date: 12/09/2002 Incident Identification: 107258 Pollutant: General Biodegradable Materials and Wastes Pollutant Description: Food and Drink	Water Impact: Category 3 (Minor) Land Impact: Category 3 (Minor) Air Impact: Category 3 (Minor)

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

4.20 Pollution inventory substances

Records within 500m	0

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

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

4.21 Pollution inventory waste transfers

Records within 500m	0

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

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

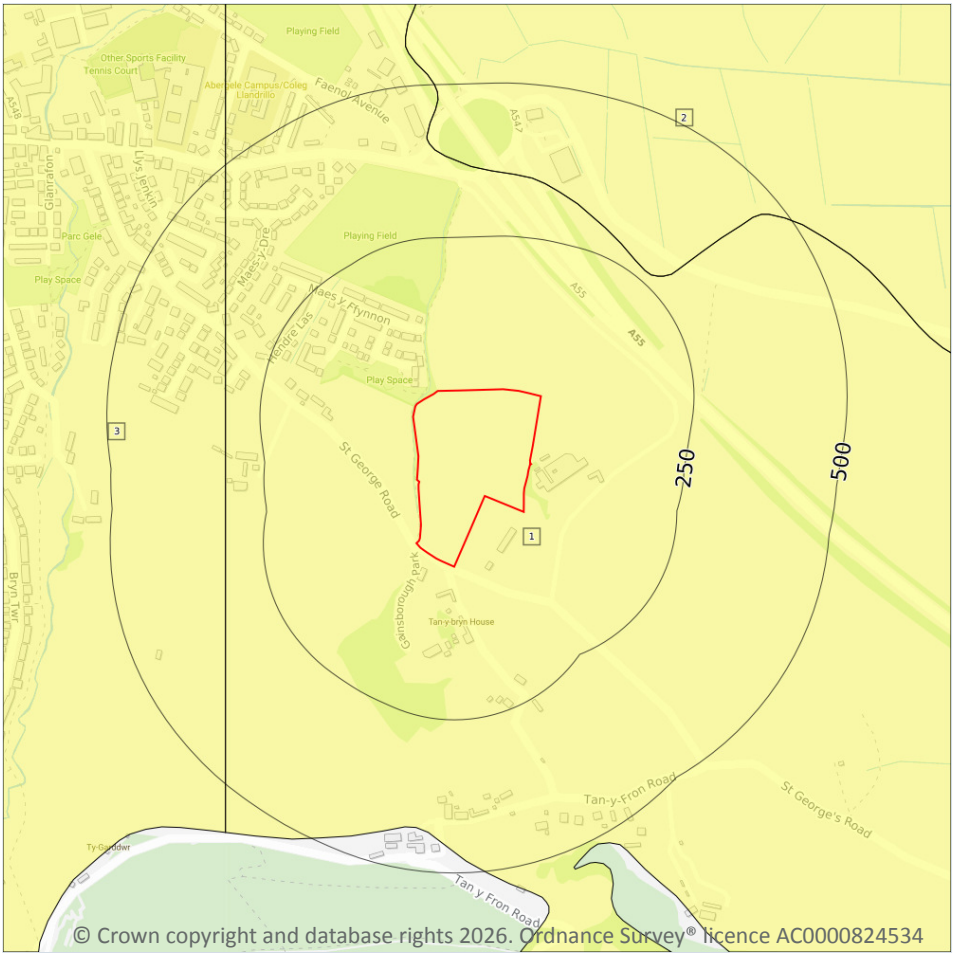
4.22 Pollution inventory radioactive waste

Records within 500m	0

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

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

5 Hydrogeology - Superficial aquifer



Site Outline

Search buffers in metres (m)

- Principal
- Secondary A
- Secondary B
- Secondary Undifferentiated
- Unproductive
- Unknown

5.1 Superficial aquifer

Records within 500m	3

Aquifer status of groundwater held within superficial geology.

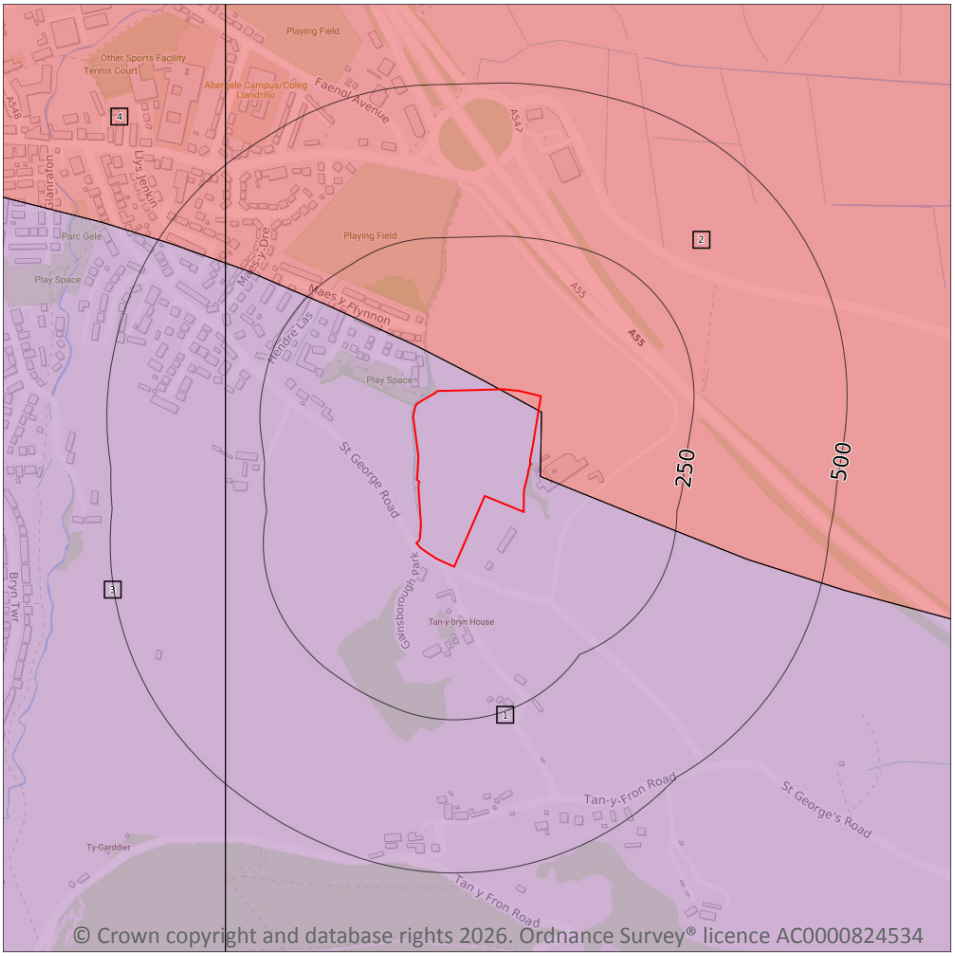
Features are displayed on the Hydrogeology map on **page 31 >**

ID	Location	Designation	Description
1	**On site**	**Secondary Undifferentiated**	**Assigned where it is not possible to attribute either category A or B to a rock type. In general these layers have previously been designated as both minor and non-aquifer in different locations due to the variable characteristics of the rock type**
2	266m NE	Secondary Undifferentiated	Assigned where it is not possible to attribute either category A or B to a rock type. In general these layers have previously been designated as both minor and non-aquifer in different locations due to the variable characteristics of the rock type

ID	Location	Designation	Description
3	306m W	Secondary Undifferentiated	Assigned where it is not possible to attribute either category A or B to a rock type. In general these layers have previously been designated as both minor and non-aquifer in different locations due to the variable characteristics of the rock type

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

Bedrock aquifer



Site Outline

Search buffers in metres (m)

- Principal
- Secondary A
- Secondary B
- Secondary Undifferentiated
- Unproductive

5.2 Bedrock aquifer

Records within 500m	4

Aquifer status of groundwater held within bedrock geology.

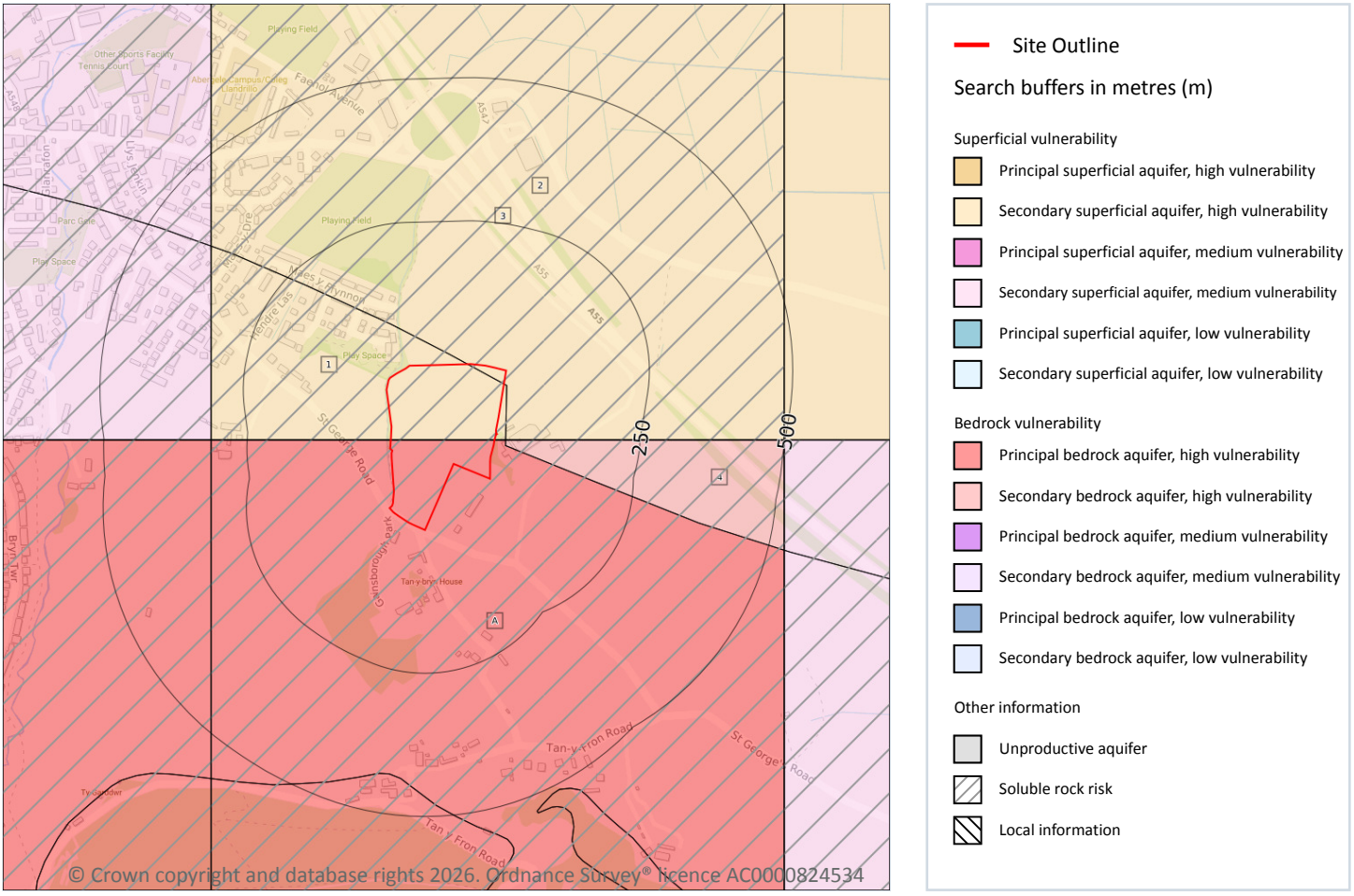
Features are displayed on the Bedrock aquifer map on **page 33 >**

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

ID	Location	Designation	Description
3	306m W	Principal	Geology of high intergranular and/or fracture permeability, usually providing a high level of water storage and may support water supply/river base flow on a strategic scale. Generally principal aquifers were previously major aquifers
4	388m NW	Secondary A	Permeable layers capable of supporting water supplies at a local rather than strategic scale, and in some cases forming an important source of base flow to rivers. These are generally aquifers formerly classified as minor aquifers

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

Groundwater vulnerability



5.3 Groundwater vulnerability

Records within 50m	4

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

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

Features are displayed on the Groundwater vulnerability map on **page 35 >**

ID	Location	Summary	Soil / surface	Superficial geology	Bedrock geology
1	**On site**	**Summary Classification: Secondary superficial aquifer - High Vulnerability Combined classification: Productive Bedrock Aquifer, Productive Superficial Aquifer**	**Leaching class: High Infiltration value: >70% Dilution value: 300-550mm/year**	**Vulnerability: High Aquifer type: Secondary Thickness: >10m Patchiness value: >90% Recharge potential: High**	**Vulnerability: Low Aquifer type: Principal Flow mechanism: Well connected fractures**
2	**On site**	**Summary Classification: Secondary superficial aquifer - High Vulnerability Combined classification: Productive Bedrock Aquifer, Productive Superficial Aquifer**	**Leaching class: High Infiltration value: >70% Dilution value: 300-550mm/year**	**Vulnerability: High Aquifer type: Secondary Thickness: >10m Patchiness value: >90% Recharge potential: High**	**Vulnerability: Low Aquifer type: Secondary Flow mechanism: Well connected fractures**
A	**On site**	**Summary Classification: Principal bedrock aquifer - High Vulnerability Combined classification: Productive Bedrock Aquifer, Productive Superficial Aquifer**	**Leaching class: Intermediate Infiltration value: 40-70% Dilution value: 300-550mm/year**	**Vulnerability: Medium Aquifer type: Secondary Thickness: 3-10m Patchiness value: <90% Recharge potential: No Data**	**Vulnerability: High Aquifer type: Principal Flow mechanism: Well connected fractures**
4	18m SE	Summary Classification: Secondary bedrock aquifer - High Vulnerability Combined classification: Productive Bedrock Aquifer, Productive Superficial Aquifer	Leaching class: Intermediate Infiltration value: 40-70% Dilution value: 300-550mm/year	Vulnerability: Medium Aquifer type: Secondary Thickness: 3-10m Patchiness value: <90% Recharge potential: No Data	Vulnerability: High Aquifer type: Secondary Flow mechanism: Well connected fractures

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

5.4 Groundwater vulnerability- soluble rock risk

Records on site	**2**

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

ID	Maximum soluble risk category	Percentage of grid square covered by maximum risk
3	**Significant soluble rocks are likely to be present. Low possibility of localised subsidence or dissolution-related degradation of bedrock occurring naturally, but may be possible in adverse conditions such as high surface or subsurface water flow.**	**11.0%**

ID	Maximum soluble risk category	Percentage of grid square covered by maximum risk
A	**Very significant soluble rocks are likely to be present with a moderate possibility of localised natural subsidence or dissolution-related degradation of bedrock, especially in adverse conditions such as concentrated surface or subsurface water flow.**	**30.0%**

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

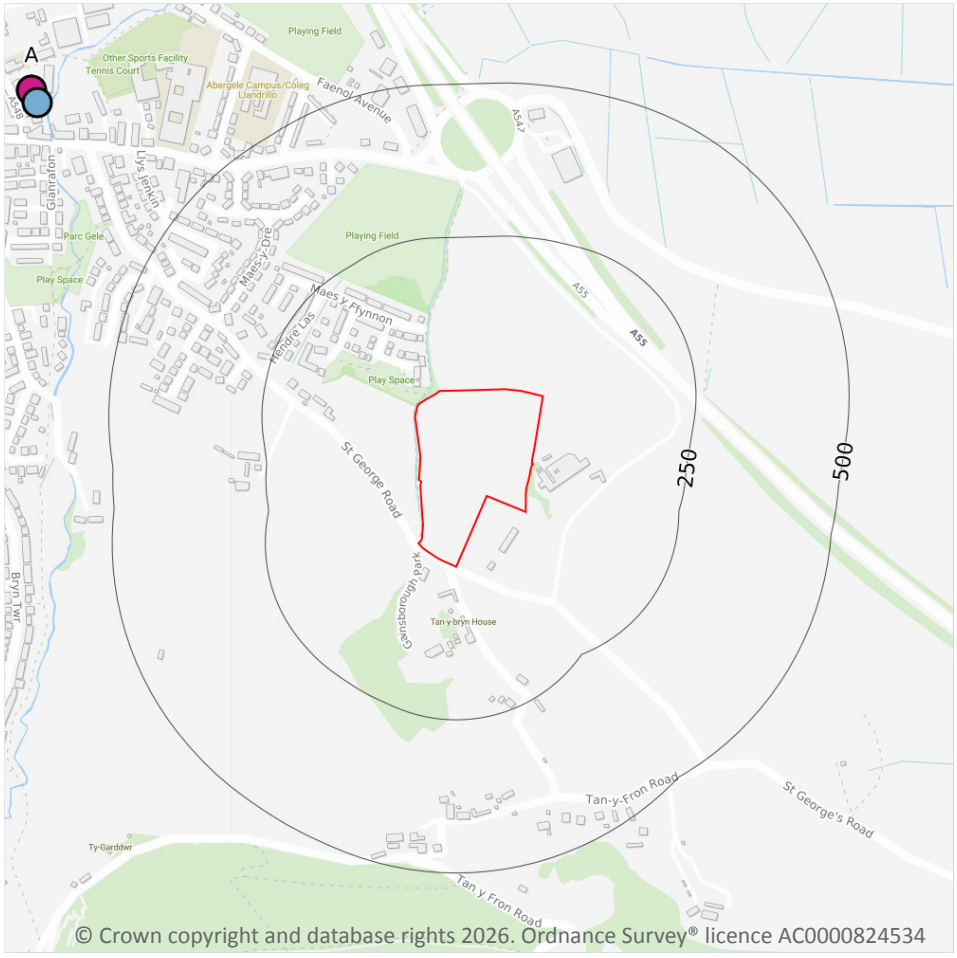
5.5 Groundwater vulnerability- local information

Records on site	**0**

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

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

Abstractions and Source Protection Zones



Site Outline

Search buffers in metres (m)

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

5.6 Groundwater abstractions

Records within 2000m	4

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

Features are displayed on the Abstractions and Source Protection Zones map on **page 38 >**

ID	Location	Details	
A	814m NW	Status: Historical Licence No: 24/66/7/0043 Details: General Washing/Process Washing Direct Source: EAW Groundwater Point: 100M DEEP, 120MM DIA. BOREHOLE Data Type: Point Name: Roberts And Co. Ltd Easting: 294680 Northing: 377620	Annual Volume (m^3): - Max Daily Volume (m^3): - Original Application No: - Original Start Date: 30/06/1998 Expiry Date: 30/06/2001 Issue No: 100 Version Start Date: 30/06/1998 Version End Date: -
A	814m NW	Status: Historical Licence No: 24/66/7/0045 Details: General Washing/Process Washing Direct Source: EAW Groundwater Point: 100M DEEP, 120MM DIA. BOREHOLE Data Type: Point Name: Roberts And Co. Ltd Easting: 294680 Northing: 377620	Annual Volume (m^3): - Max Daily Volume (m^3): - Original Application No: - Original Start Date: 20/08/2001 Expiry Date: 20/08/2004 Issue No: 1 Version Start Date: 01/04/2003 Version End Date: -
-	1626m SE	Status: Historical Licence No: 24/66/7/0044 Details: General Farming & Domestic Direct Source: EAW Groundwater Point: BOREHOLE A Data Type: Point Name: Morgan Easting: 296260 Northing: 375480	Annual Volume (m^3): - Max Daily Volume (m^3): - Original Application No: - Original Start Date: 07/09/1999 Expiry Date: 07/09/2004 Issue No: 1 Version Start Date: 07/09/1999 Version End Date: -
-	1626m SE	Status: Historical Licence No: 24/66/7/0046 Details: General Farming & Domestic Direct Source: EAW Groundwater Point: BOREHOLE A Data Type: Point Name: Morgan Easting: 296260 Northing: 375480	Annual Volume (m^3): - Max Daily Volume (m^3): - Original Application No: - Original Start Date: 08/09/2004 Expiry Date: 31/03/2017 Issue No: 1 Version Start Date: 08/09/2004 Version End Date: -

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

5.7 Surface water abstractions

Records within 2000m	**1**

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

Features are displayed on the Abstractions and Source Protection Zones map on **page 38 >**

ID	Location	Details	
A	793m NW	Status: Historical Licence No: 24/66/7/0038 Details: General Washing/Process Washing Direct Source: EAW Surface Water Point: RIVER GELE Data Type: Point Name: Roberts And Co. Ltd Easting: 294690 Northing: 377600	Annual Volume (m^3): - Max Daily Volume (m^3): - Original Application No: - Original Start Date: 11/07/1974 Expiry Date: - Issue No: 100 Version Start Date: 01/04/2000 Version End Date: -

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

5.8 Potable abstractions

Records within 2000m	**0**

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

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

5.9 Source Protection Zones

Records within 500m	**0**

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

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

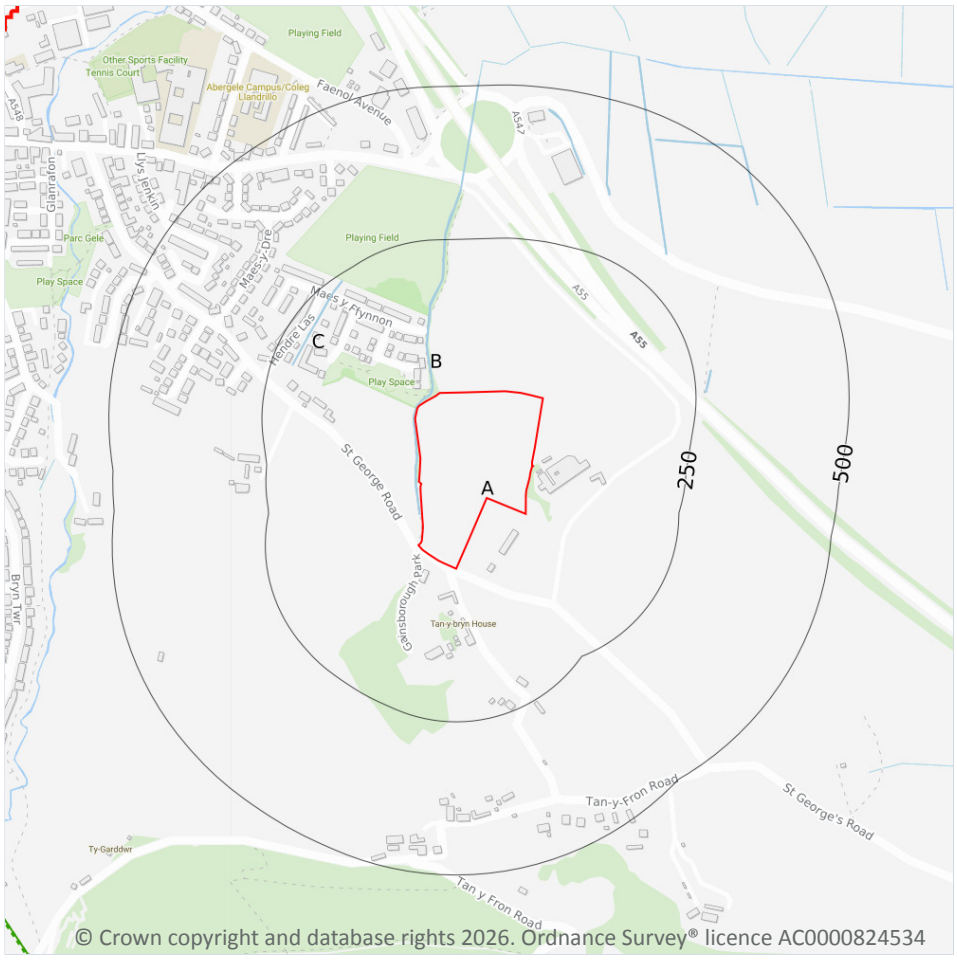
5.10 Source Protection Zones (confined aquifer)

Records within 500m	**0**

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

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

6 Hydrology



Site Outline

Search buffers in metres (m)

Water Network (OS NGD)

Surface water features (wider than 5m)

Surface water features (narrower than 5m)

WFD River, canal and surface water transfer water bodies

WFD Lake water bodies

WFD Transitional and coastal water bodies

WFD Surface water body catchments boundaries

WFD Groundwater body boundaries

6.1 Water Network (OS NGD)

Records within 250m	6

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

Features are displayed on the Hydrology map on **page 41 >**

ID	Location	Type of water feature	Ground level	Permanence	Name
B	2m W	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-

ID	Location	Type of water feature	Ground level	Permanence	Name
C	214m NW	Drain. A manmade watercourse for the removal of excess water from an area.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
C	215m NW	Drain. A manmade watercourse for the removal of excess water from an area.	Underground	Watercourse contains water year round (in normal circumstances)	-
C	216m NW	Drain. A manmade watercourse for the removal of excess water from an area.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
C	228m NW	Drain. A manmade watercourse for the removal of excess water from an area.	Underground	Watercourse contains water year round (in normal circumstances)	-
C	233m NW	Drain. A manmade watercourse for the removal of excess water from an area.	On ground surface	Watercourse contains water year round (in normal circumstances)	-

This data is sourced from the Ordnance Survey®.

6.2 Surface water features

Records within 250m	**4**

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

Features are displayed on the Hydrology map on **page 41 >**

This data is sourced from the Ordnance Survey®.

6.3 WFD Surface water body catchments

Records on site	**1**

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

Features are displayed on the Hydrology map on **page 41 >**

ID	Location	Type	Water body catchment	Water body ID	Operational catchment	Management catchment
A	**On site**	**River**	**Gele**	**GB110066059980**	**Gele**	**Clwyd**

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

6.4 WFD Surface water bodies

Records identified	1

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

Features are displayed on the Hydrology map on **page 41 >**

ID	Location	Type	Name	Water body ID	Overall rating	Chemical rating	Ecological rating	Year
-	561m W	River	Gele	GB110066059980	Moderate	High	Moderate	2024

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

6.5 WFD Groundwater bodies

Records on site	1

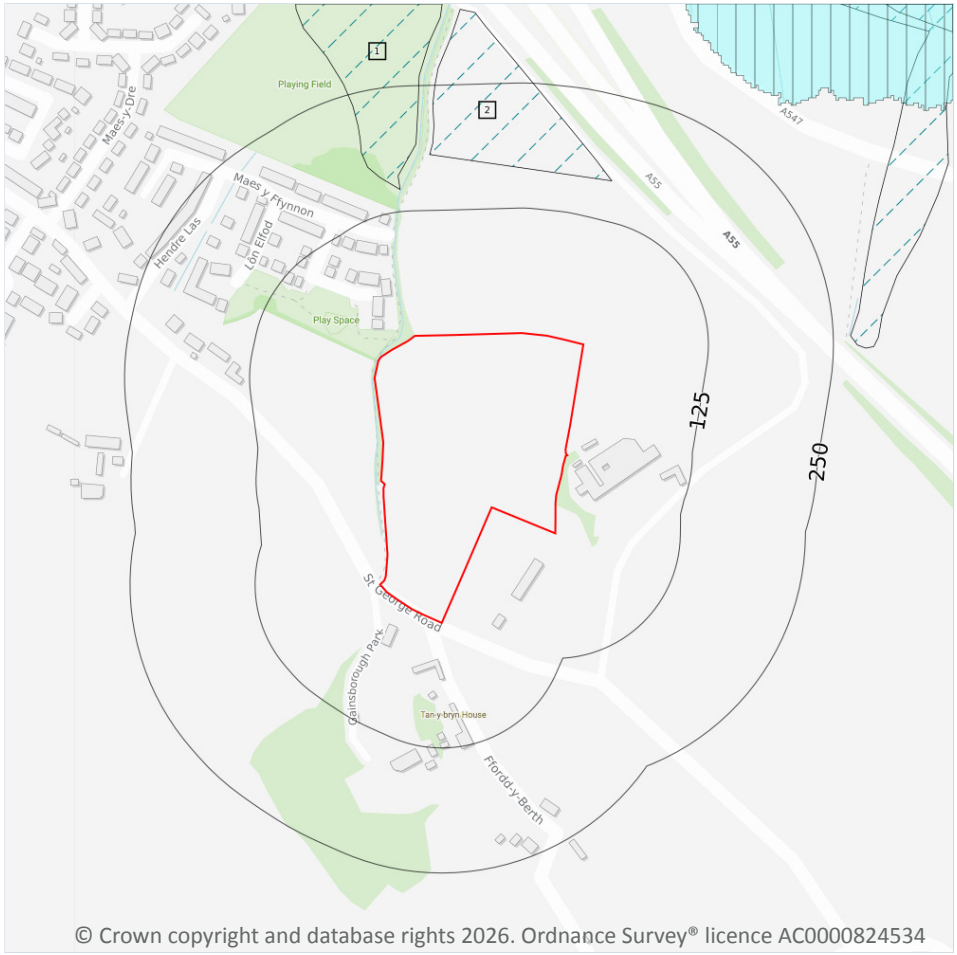
Groundwater bodies are also covered by the Directive and the same regime of objectives and reporting detailed in the previous section is in place.

Features are displayed on the Hydrology map on **page 41 >**

ID	Location	Name	Water body ID	Overall rating	Chemical rating	Quantitative	Year
A	**On site**	**Clwyd Permo-Triassic Sandstone**	**GB41001G202100**	**Good**			**2021**

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

7 River and coastal flooding



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Site Outline

Search buffers in metres (m)

River and coastal flooding:

- High
- Medium
- Low
- Very Low
- Historical Flood Events
- Areas Used for Flood Storage
- Areas Benefiting from Flood Defences
- Flood Defences

7.1 Risk of flooding from rivers and the sea

Records within 50m	0

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

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

7.2 Historical Flood Events

Records within 250m	2

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

Features are displayed on the River and coastal flooding map on **page 44 >**

ID	Location	Event name	Date of flood	Flood source	Flood cause	Type of flood
1	147m N	Abergele / Rhuddlan Marshes 1977 01	1977-02-11 1977-02-12	Main river	Overtopping of defences	Fluvial
2	163m N	Abergele / Rhuddlan Marshes 1977 01	1977-02-11 1977-02-12	Main river	Overtopping of defences	Fluvial

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

7.3 Flood Defences

Records within 250m	0

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

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

7.4 Areas Benefiting from Flood Defences

Records within 250m	0

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

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

7.5 Flood Storage Areas

Records within 250m	0

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

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

River and coastal flooding - Flood Zones

7.6 Flood Zone 2

Records within 50m	0

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

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

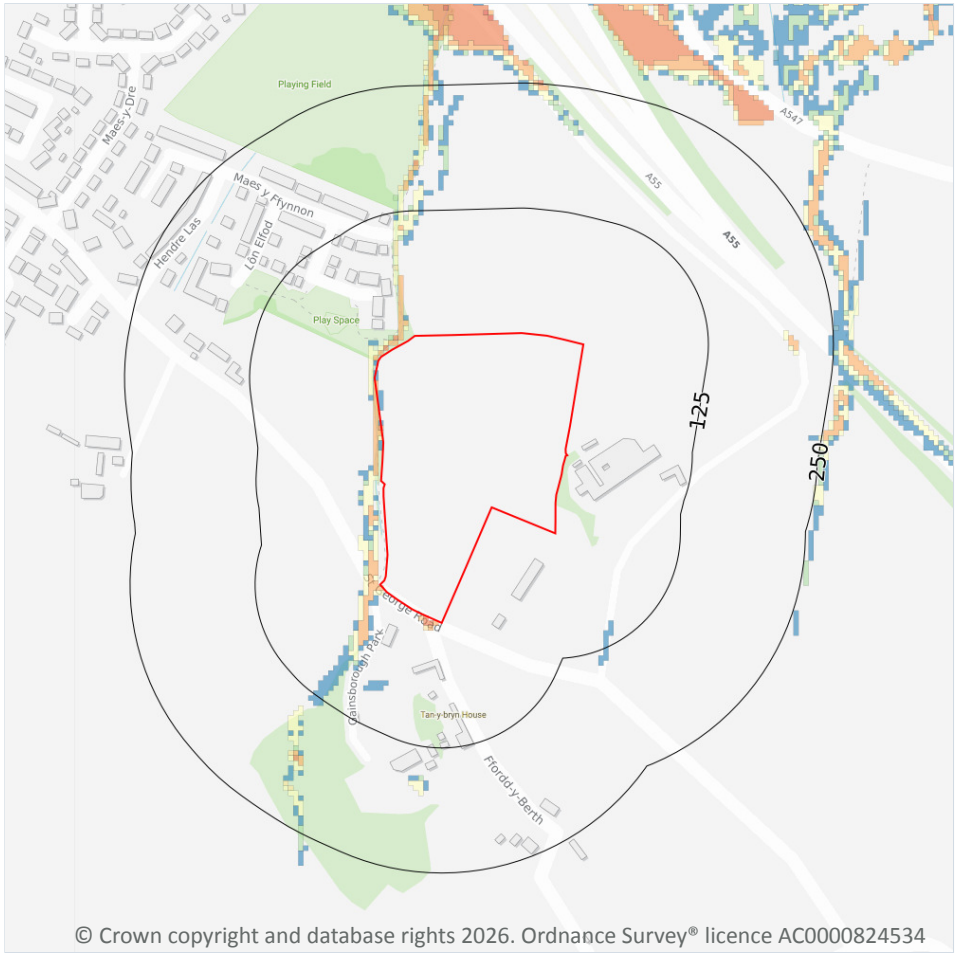
7.7 Flood Zone 3

Records within 50m	0

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

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

8 Surface water flooding



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Site Outline

Search buffers in metres (m)

1 in 1000 return period
- Depth between 0.1m - 0.3m
- Depth between 0.3m - 1.0m
- Depth greater than 1.0m

1 in 250 return period
- Depth between 0.1m - 0.3m
- Depth between 0.3m - 1.0m
- Depth greater than 1.0m

1 in 100 return period
- Depth between 0.1m - 0.3m
- Depth between 0.3m - 1.0m
- Depth greater than 1.0m

1 in 30 return period
- Depth between 0.1m - 0.3m
- Depth between 0.3m - 1.0m
- Depth greater than 1.0m

8.1 Surface water flooding

Highest risk on site	**1 in 30 year, 0.3m - 1.0m**
Highest risk within 50m	**1 in 30 year, 0.3m - 1.0m**

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

Features are displayed on the Surface water flooding map on **page 48 >**

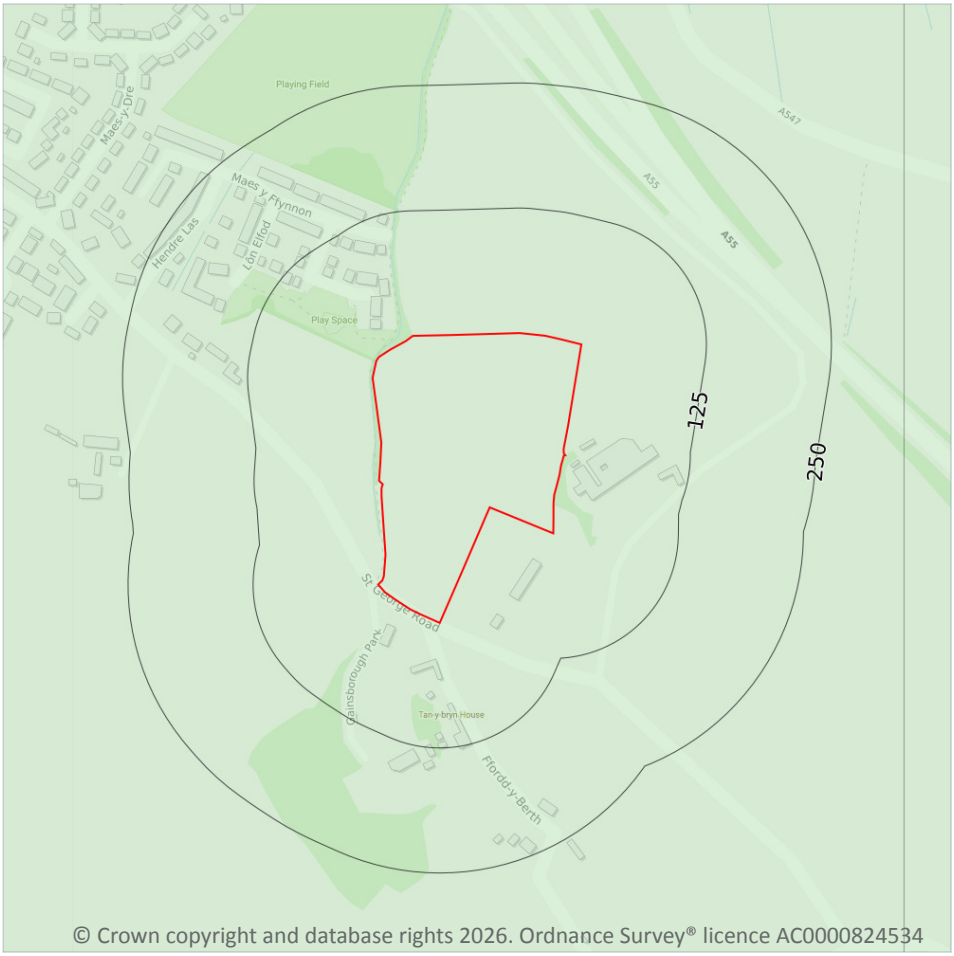
The data shown on the map and in the table above shows the highest likelihood of flood events happening at the site. Lower likelihood events may have greater flood depths and hence a greater potential impact on

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

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

This data is sourced from Ambiental Risk Analytics.

9 Groundwater flooding



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Site Outline

Search buffers in metres (m)

High

Moderate - High

Moderate

Low

Negligible

9.1 Groundwater flooding

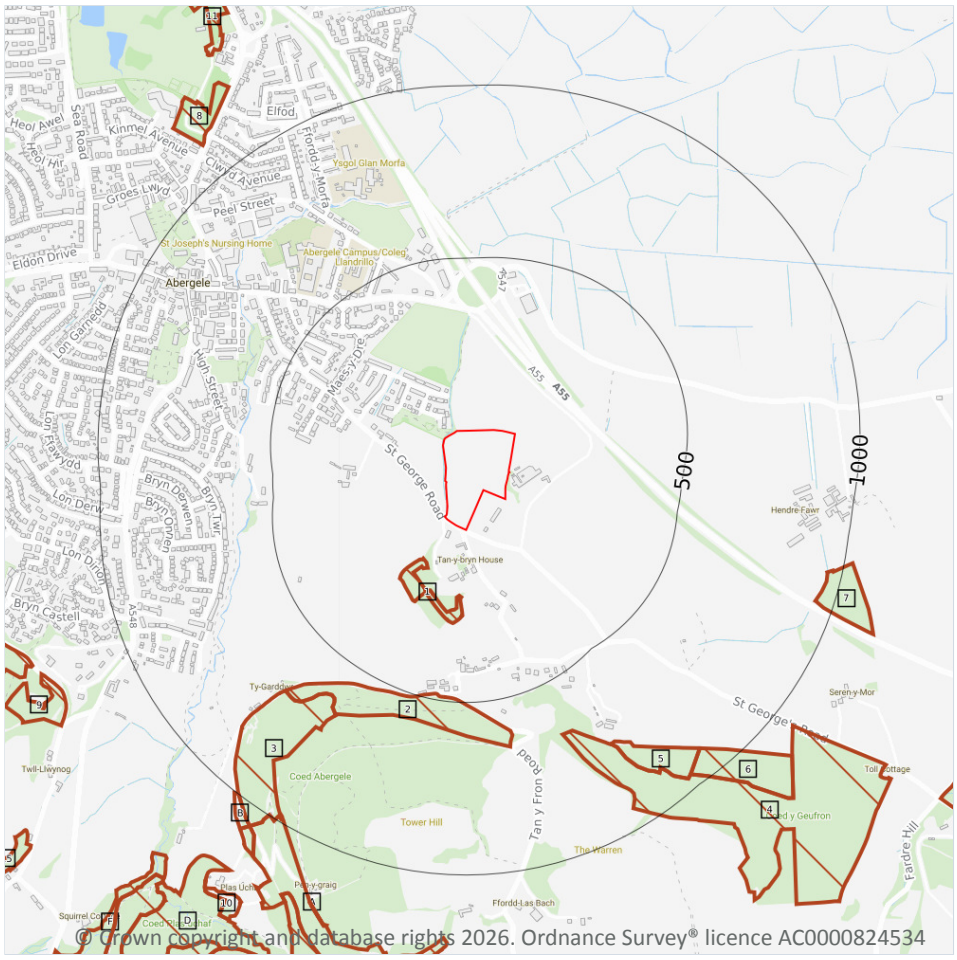
Highest risk on site	**Low**
Highest risk within 50m	**Low**

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

Features are displayed on the Groundwater flooding map on **page 50 >**

This data is sourced from Ambiental Risk Analytics.

10 Environmental designations



Site Outline

Search buffers in metres (m)

Sites of Special Scientific Interest (SSSI)

Designated Ancient Woodland

10.1 Sites of Special Scientific Interest (SSSI)

Records within 2000m	2

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

Features are displayed on the Environmental designations map on **page 51 >**

ID	Location	Name	Data source
-	1457m W	Coed y Gopa	Natural Resources Wales

ID	Location	Name	Data source
-	1815m NW	Traeth Pensarn	Natural Resources Wales

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

10.2 Conserved wetland sites (Ramsar sites)

Records within 2000m	0

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

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

10.3 Special Areas of Conservation (SAC)

Records within 2000m	0

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

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

10.4 Special Protection Areas (SPA)

Records within 2000m	0

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

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

10.5 National Nature Reserves (NNR)

Records within 2000m	0

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

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

10.6 Local Nature Reserves (LNR)

Records within 2000m	0

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

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

10.7 Designated Ancient Woodland

Records within 2000m	52

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

Features are displayed on the Environmental designations map on **page 51 >**

ID	Location	Name	Woodland Type
1	133m SW	Unknown	Restored Ancient Woodland Site
2	483m S	Unknown	Ancient Semi Natural Woodland
3	608m SW	Unknown	Plantation on Ancient Woodland Site
4	655m SE	Unknown	Restored Ancient Woodland Site
5	749m SE	Unknown	Ancient Semi Natural Woodland
6	916m SE	Unknown	Restored Ancient Woodland Site
7	946m E	Unknown	Restored Ancient Woodland Site
A	985m SW	Unknown	Ancient Semi Natural Woodland
B	1000m SW	Unknown	Plantation on Ancient Woodland Site
B	1057m SW	Unknown	Ancient Semi Natural Woodland
8	1102m NW	Unknown	Ancient Semi Natural Woodland
A	1168m SW	Unknown	Plantation on Ancient Woodland Site
C	1171m SW	Unknown	Plantation on Ancient Woodland Site
D	1194m SW	Unknown	Plantation on Ancient Woodland Site
9	1219m SW	Unknown	Restored Ancient Woodland Site

ID	Location	Name	Woodland Type
10	1249m SW	Unknown	Plantation on Ancient Woodland Site
E	1270m W	Unknown	Restored Ancient Woodland Site
F	1271m SW	Unknown	Ancient Semi Natural Woodland
11	1300m NW	Unknown	Ancient Semi Natural Woodland
F	1326m SW	Unknown	Ancient Semi Natural Woodland
-	1340m S	Unknown	Ancient Semi Natural Woodland
C	1353m S	Unknown	Ancient Semi Natural Woodland
-	1377m S	Unknown	Ancient Semi Natural Woodland
-	1378m S	Unknown	Ancient Semi Natural Woodland
-	1378m W	Unknown	Plantation on Ancient Woodland Site
D	1396m SW	Unknown	Ancient Semi Natural Woodland
-	1439m W	Unknown	Plantation on Ancient Woodland Site
-	1441m W	Unknown	Plantation on Ancient Woodland Site
-	1456m S	Unknown	Ancient Semi Natural Woodland
-	1459m W	Unknown	Plantation on Ancient Woodland Site
-	1487m W	Unknown	Plantation on Ancient Woodland Site
15	1516m SW	Unknown	Ancient Semi Natural Woodland
16	1531m SE	Unknown	Plantation on Ancient Woodland Site
-	1553m SW	Unknown	Ancient Semi Natural Woodland
-	1566m SW	Unknown	Ancient Semi Natural Woodland
-	1567m S	Unknown	Ancient Semi Natural Woodland
-	1596m SW	Unknown	Plantation on Ancient Woodland Site
-	1602m W	Unknown	Restored Ancient Woodland Site
-	1604m S	Unknown	Ancient Semi Natural Woodland
-	1606m W	Unknown	Restored Ancient Woodland Site
-	1610m W	Unknown	Restored Ancient Woodland Site
-	1611m W	Unknown	Restored Ancient Woodland Site
-	1708m E	Unknown	Restored Ancient Woodland Site

ID	Location	Name	Woodland Type
-	1734m SW	Unknown	Ancient Semi Natural Woodland
-	1740m W	Unknown	Plantation on Ancient Woodland Site
-	1742m NW	Unknown	Ancient Semi Natural Woodland
-	1744m SW	Unknown	Ancient Semi Natural Woodland
-	1759m W	Unknown	Restored Ancient Woodland Site
-	1784m SW	Unknown	Plantation on Ancient Woodland Site
-	1791m W	Unknown	Plantation on Ancient Woodland Site
-	1824m SE	Unknown	Restored Ancient Woodland Site
-	1882m SE	Unknown	Restored Ancient Woodland Site

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

10.8 Biosphere Reserves

Records within 2000m	0

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

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

10.9 Forest Parks

Records within 2000m	0

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

This data is sourced from the Forestry Commission.

10.10 Marine Conservation Zones

Records within 2000m	0

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

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

10.11 Green Belt

Records within 2000m	0

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

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

10.12 Proposed Ramsar sites

Records within 2000m	0

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

This data is sourced from Natural England.

10.13 Possible Special Areas of Conservation (pSAC)

Records within 2000m	0

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

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

10.14 Potential Special Protection Areas (pSPA)

Records within 2000m	0

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

This data is sourced from Natural England.

10.15 Nitrate Sensitive Areas

Records within 2000m	0

Areas where nitrate concentrations in drinking water sources exceeded or was at risk of exceeding the limit of 50 mg/l set by the 1980 EC Drinking Water Directive. Voluntary agricultural measures as a means of reducing the levels of nitrate were introduced by DEFRA as MAFF, with payments being made to farmers who complied. The scheme was started as a pilot in 1990 in ten areas, later implemented within 32 areas.

The scheme was closed to further new entrants in 1998, although existing agreements continued for their full term. All Nitrate Sensitive Areas fell within the areas designated as Nitrate Vulnerable Zones (NVZs) in 1996 under the EC Nitrate Directive (91/676/EEC).

This data is sourced from Natural England.

10.16 Nitrate Vulnerable Zones

Records within 2000m	0

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

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

SSSI Impact Zones and Units

10.17 SSSI Impact Risk Zones

Records on site	0

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

This data is sourced from Natural England.

10.18 SSSI Units

Records within 2000m	0

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

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

11 Visual and cultural designations

11.1 World Heritage Sites

Records within 250m	0

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

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

11.2 Area of Outstanding Natural Beauty

Records within 250m	0

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

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

11.3 National Parks

Records within 250m	0

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

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

11.4 Listed Buildings

Records within 250m	0

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

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

11.5 Conservation Areas

Records within 250m	0

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

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

11.6 Scheduled Ancient Monuments

Records within 250m	0

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

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

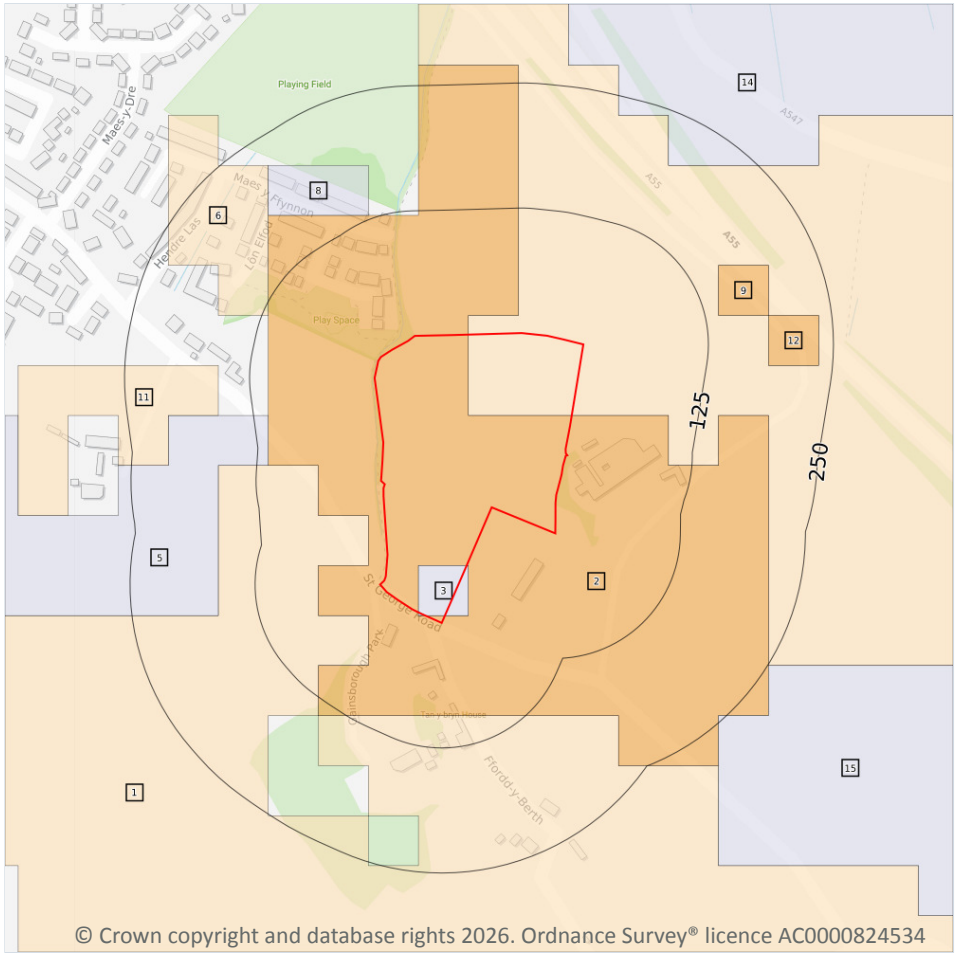
11.7 Registered Parks and Gardens

Records within 250m	0

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

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

12 Agricultural designations



Site Outline

Search buffers in metres (m)

- Grade 1 - excellent quality
- Grade 2 - very good quality
- Grade 3a - good quality
- Grade 3b - moderate quality
- Grade 4 - poor quality
- Grade 5 - very poor quality
- Timber felling licences
- Open Access land

12.1 Agricultural Land Classification

Records within 250m	11

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

Features are displayed on the Agricultural designations map on **page 61 >**

ID	Location	Classification	Description
1	**On site**	**Grade 3a**	**Good to moderate quality agricultural land**
2	**On site**	**Grade 2**	**Good quality agricultural land**
3	**On site**	**Grade 3b**	**Moderate quality agricultural land**

ID	Location	Classification	Description
5	110m W	Grade 3b	Moderate quality agricultural land
6	119m W	Grade 3a	Good to moderate quality agricultural land
8	129m N	Grade 3b	Moderate quality agricultural land
9	138m E	Grade 2	Good quality agricultural land
11	156m W	Grade 3a	Good to moderate quality agricultural land
12	185m E	Grade 2	Good quality agricultural land
14	198m NE	Grade 3b	Moderate quality agricultural land
15	245m SE	Grade 3b	Moderate quality agricultural land

This data is sourced from Natural Resources Wales.

12.2 Open Access Land

Records within 250m	0

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

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

12.3 Tree Felling Licences

Records within 250m	0

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

This data is sourced from the Forestry Commission.

12.4 Environmental Stewardship Schemes

Records within 250m	0

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

This data is sourced from Natural England.

12.5 Countryside Stewardship Schemes

Records within 250m	0

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

This data is sourced from Natural England.

13 Habitat designations

13.1 Priority Habitat Inventory

Records within 250m	0

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

This data is sourced from Natural England.

13.2 Habitat Networks

Records within 250m	0

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

This data is sourced from Natural England.

13.3 Open Mosaic Habitat

Records within 250m	0

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

This data is sourced from Natural England.

13.4 Limestone Pavement Orders

Records within 250m	0

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

This data is sourced from Natural England.

14 Geology 1:10,000 scale - Availability



Site Outline

Search buffers in metres (m)

Full coverage

Partial coverage

No coverage

14.1 10k Availability

Records within 500m	1

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

Features are displayed on the Geology 1:10,000 scale - Availability map on **page 65 >**

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

This data is sourced from the British Geological Survey.

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

14.2 Artificial and made ground (10k)

Records within 500m	0

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

This data is sourced from the British Geological Survey.

Geology 1:10,000 scale - Superficial

14.3 Superficial geology (10k)

Records within 500m	0

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

This data is sourced from the British Geological Survey.

14.4 Landslip (10k)

Records within 500m	0

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

This data is sourced from the British Geological Survey.

Geology 1:10,000 scale - Bedrock

14.5 Bedrock geology (10k)

Records within 500m	0

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

This data is sourced from the British Geological Survey.

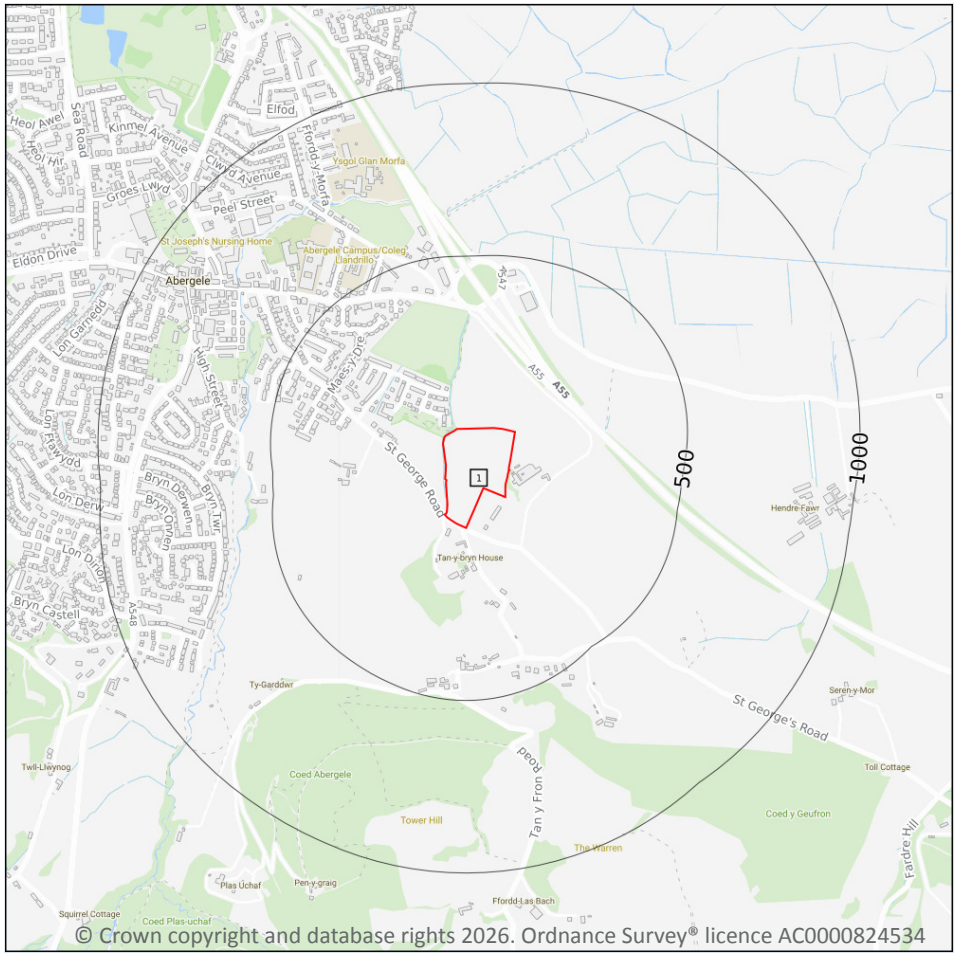
14.6 Bedrock faults and other linear features (10k)

Records within 500m	0

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

This data is sourced from the British Geological Survey.

15 Geology 1:50,000 scale - Availability



Site Outline

Search buffers in metres (m)

Geological map tile

15.1 50k Availability

Records within 500m	1

An indication on the coverage of 1:50,000 scale geology data for the site. Either 'Full' or 'No coverage' for each geological theme. Where 50k data is not available, this area has been filled in with 625k scale data.

Features are displayed on the Geology 1:50,000 scale - Availability map on **page 69 >**

ID	Location	Artificial	Superficial	Bedrock	Mass movement	Sheet No.
1	**On site**	**No coverage**	**Full**	**Full**	**Full**	**EW095_rhyl_v4**

This data is sourced from the British Geological Survey.

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

15.2 Artificial and made ground (50k)

Records within 500m	0

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

This data is sourced from the British Geological Survey.

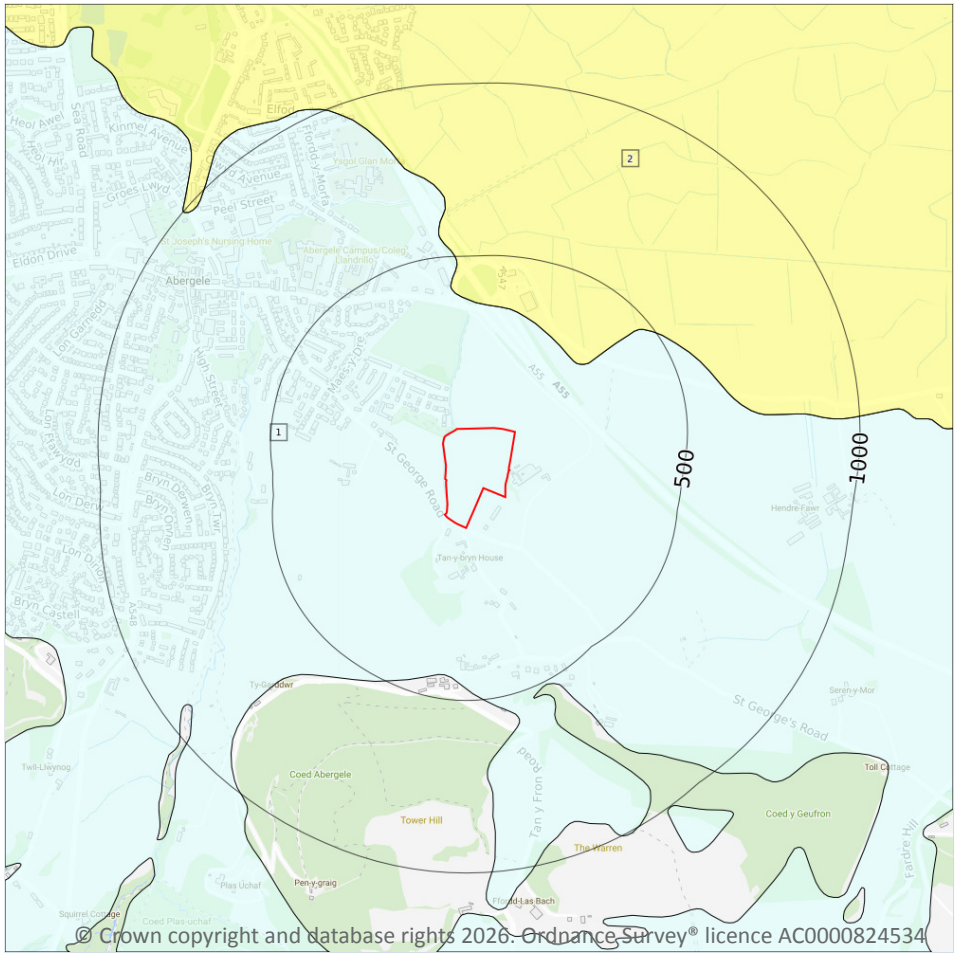
15.3 Artificial ground permeability (50k)

Records within 50m	0

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

This data is sourced from the British Geological Survey.

Geology 1:50,000 scale - Superficial



Site Outline

Search buffers in metres (m)

Landslip (50k)

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

15.4 Superficial geology (50k)

Records within 500m	2

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

Features are displayed on the Geology 1:50,000 scale - Superficial map on **page 71 >**

ID	Location	LEX Code	Description	Rock description
1	**On site**	**TILLD-DMTN**	**Till, Devensian**	**Diamicton**
2	266m NE	TFD-XCZS	Tidal flat deposits	Clay, silt and sand

This data is sourced from the British Geological Survey.

15.5 Superficial permeability (50k)

Records within 50m	1

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

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

This data is sourced from the British Geological Survey.

15.6 Landslip (50k)

Records within 500m	0

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

This data is sourced from the British Geological Survey.

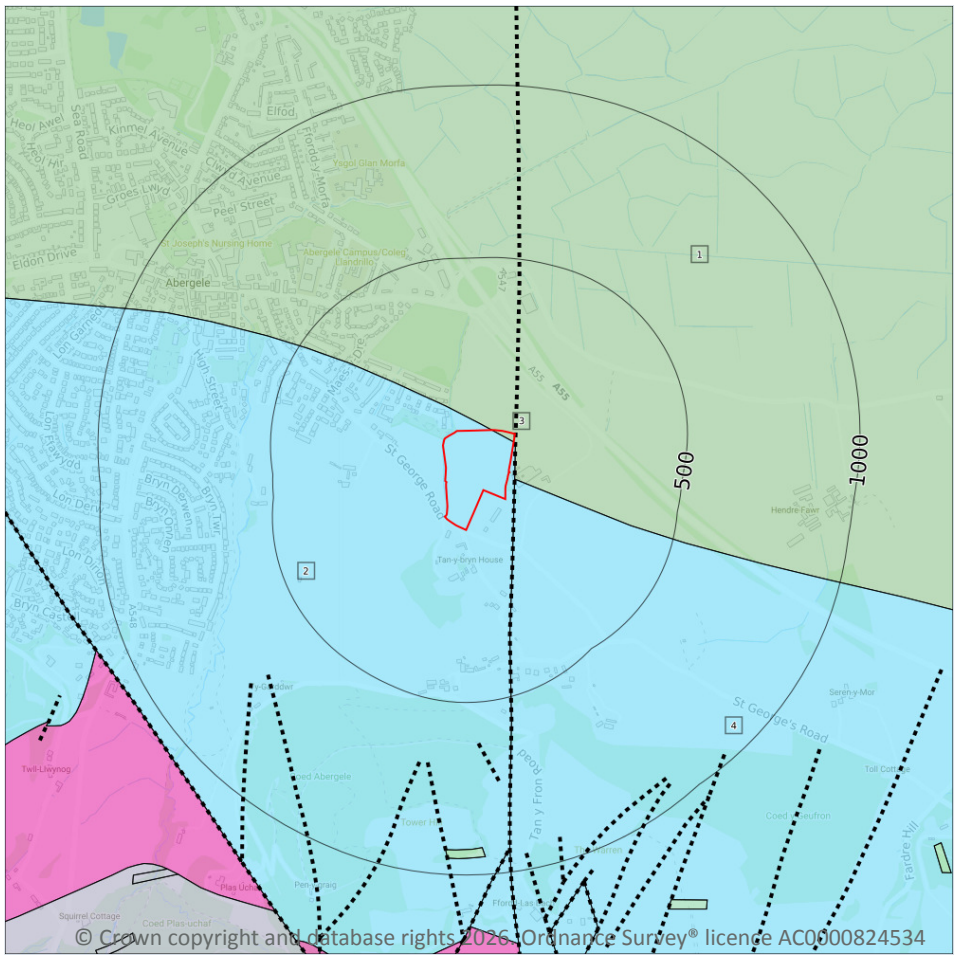
15.7 Landslip permeability (50k)

Records within 50m	0

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

This data is sourced from the British Geological Survey.

Geology 1:50,000 scale - Bedrock



Site Outline

Search buffers in metres (m)

Bedrock faults and other linear features (50k)

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

15.8 Bedrock geology (50k)

Records within 500m	3

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

Features are displayed on the Geology 1:50,000 scale - Bedrock map on **page 73 >**

ID	Location	LEX Code	Description	Rock age
1	On site	WAWK-MDSS	Warwickshire Group-Mudstone, siltstone and sandstone	Westphalian
2	On site	CLWYD-LMST	Clwyd Limestone Group-Limestone	Visean

ID	Location	LEX Code	Description	Rock age
4	21m E	CLWYD-LMST	Clwyd Limestone Group-Limestone	Visean

This data is sourced from the British Geological Survey.

15.9 Bedrock permeability (50k)

Records within 50m	**2**

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

Location	Flow type	Maximum permeability	Minimum permeability
On site	**Fracture**	**Moderate**	**Low**
On site	**Fracture**	**Very High**	**High**

This data is sourced from the British Geological Survey.

15.10 Bedrock faults and other linear features (50k)

Records within 500m	**1**

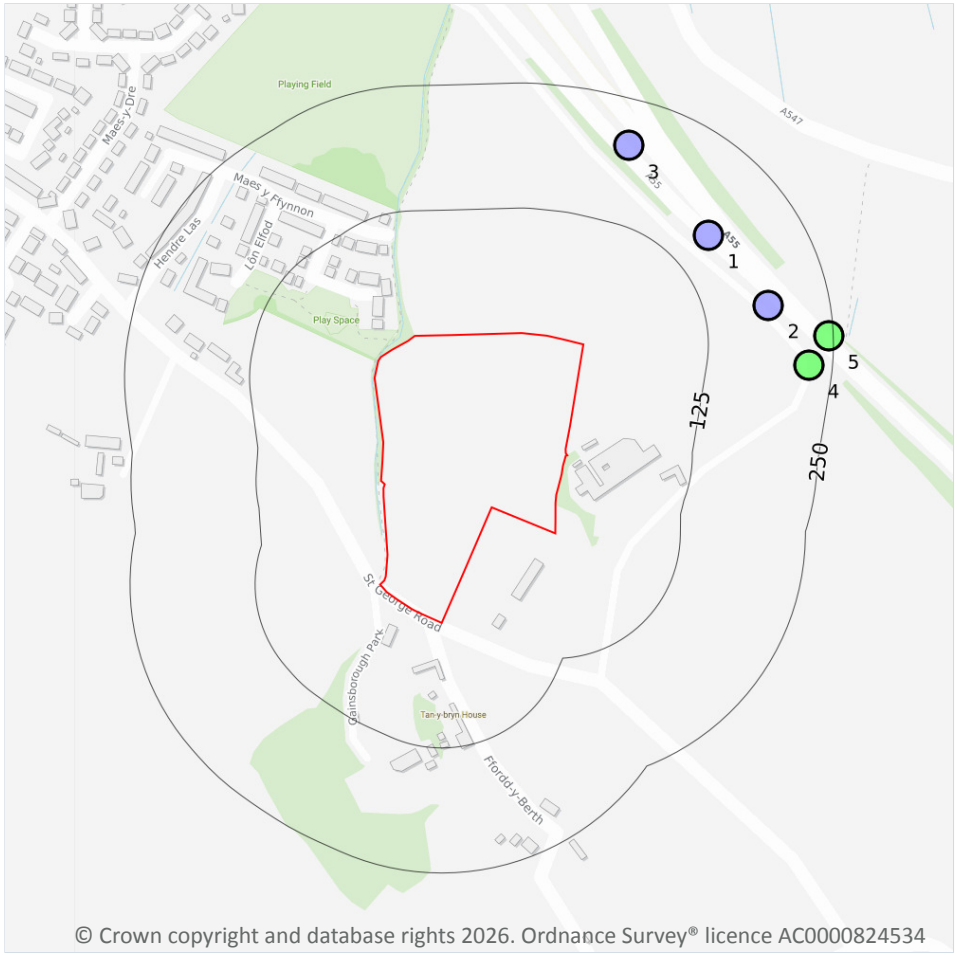
Linear features at the ground or bedrock surface at 1:50,000 scale of six main types; rock, fault, fold axis, mineral vein, alteration area or landform. Features are either observed or inferred, and relate primarily to bedrock.

Features are displayed on the Geology 1:50,000 scale - Bedrock map on **page 73 >**

ID	Location	Category	Description
3	2m E	FAULT	Fault, inferred, crossmark on downthrow side, throw in metres

This data is sourced from the British Geological Survey.

16 Boreholes



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Site Outline

Search buffers in metres (m)

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

16.1 BGS Boreholes

Records within 250m	5

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

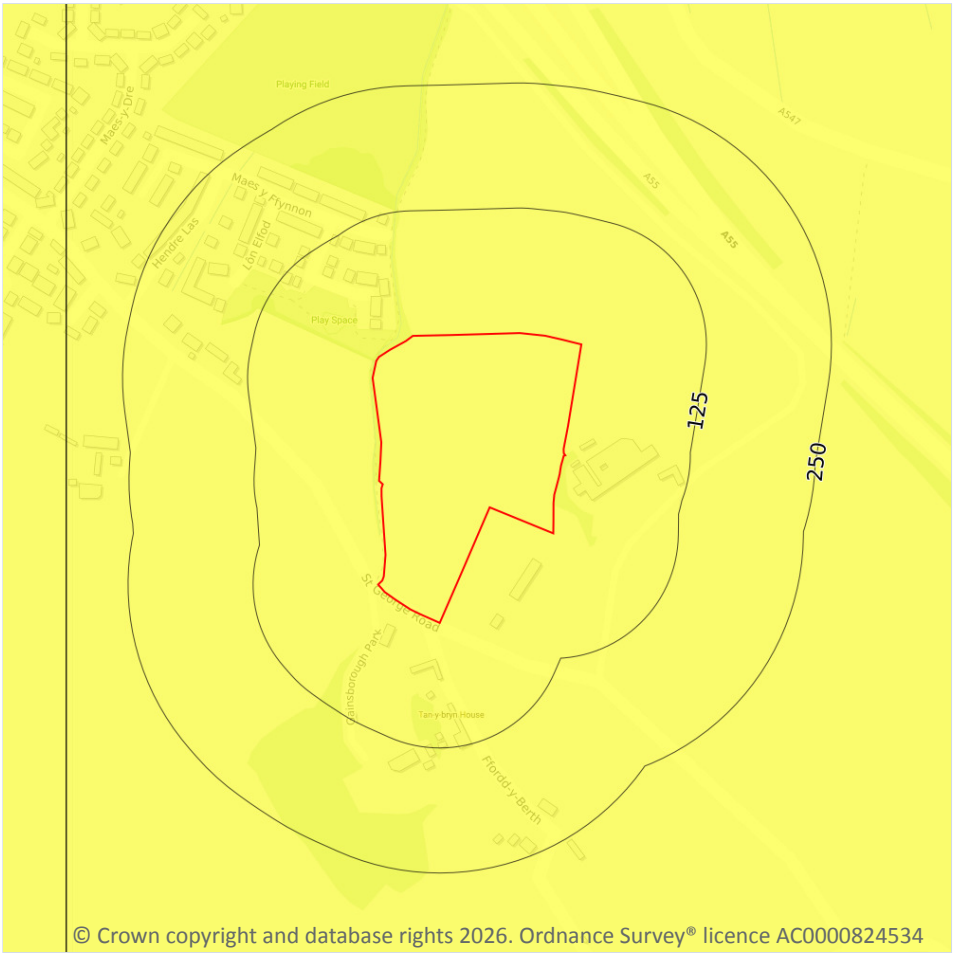
Features are displayed on the Boreholes map on **page 75 >**

ID	Location	Grid reference	Name	Length	Confidential	Web link
1	166m NE	295640 377230	A55 DIVERSION 11	5.0	N	140269 ↗
2	189m E	295700 377160	A55 DIVERSION 12	3.0	N	140270 ↗

ID	Location	Grid reference	Name	Length	Confidential	Web link
3	204m N	295560 377320	A55 DIVERSION 10	3.0	N	140268 ↗
4	226m E	295740 377100	A55 DIVERSION 15	14.5	N	140273 ↗
5	245m E	295760 377130	A55 DIVERSION 14	12.0	N	140272 ↗

This data is sourced from the British Geological Survey.

17 Natural ground subsidence - Shrink swell clays



Site Outline

Search buffers in metres (m)

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

17.1 Shrink swell clays

Records within 50m	1

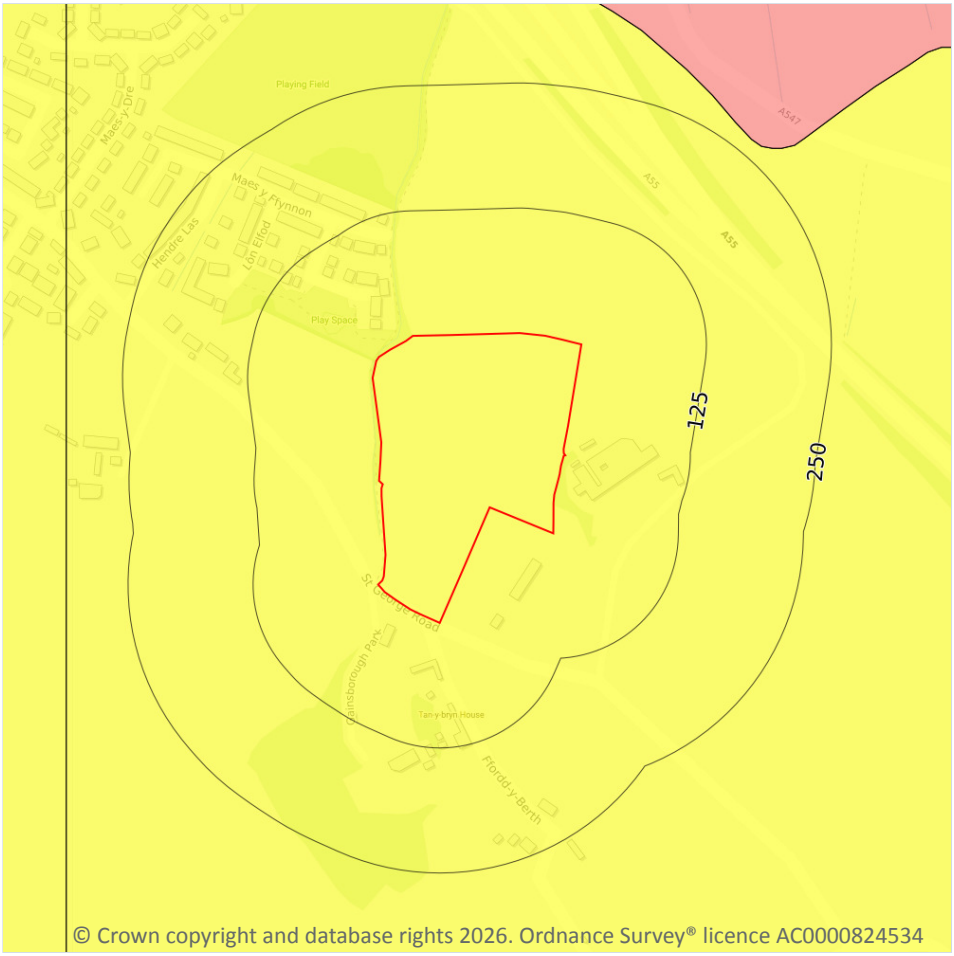
The potential hazard presented by soils that absorb water when wet (making them swell), and lose water as they dry (making them shrink). This shrink-swell behaviour is controlled by the type and amount of clay in the soil, and by seasonal changes in the soil moisture content (related to rainfall and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

Features are displayed on the Natural ground subsidence - Shrink swell clays map on **page 77 >**

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

This data is sourced from the British Geological Survey.

Natural ground subsidence - Running sands



Site Outline

Search buffers in metres (m)

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

17.2 Running sands

Records within 50m	1

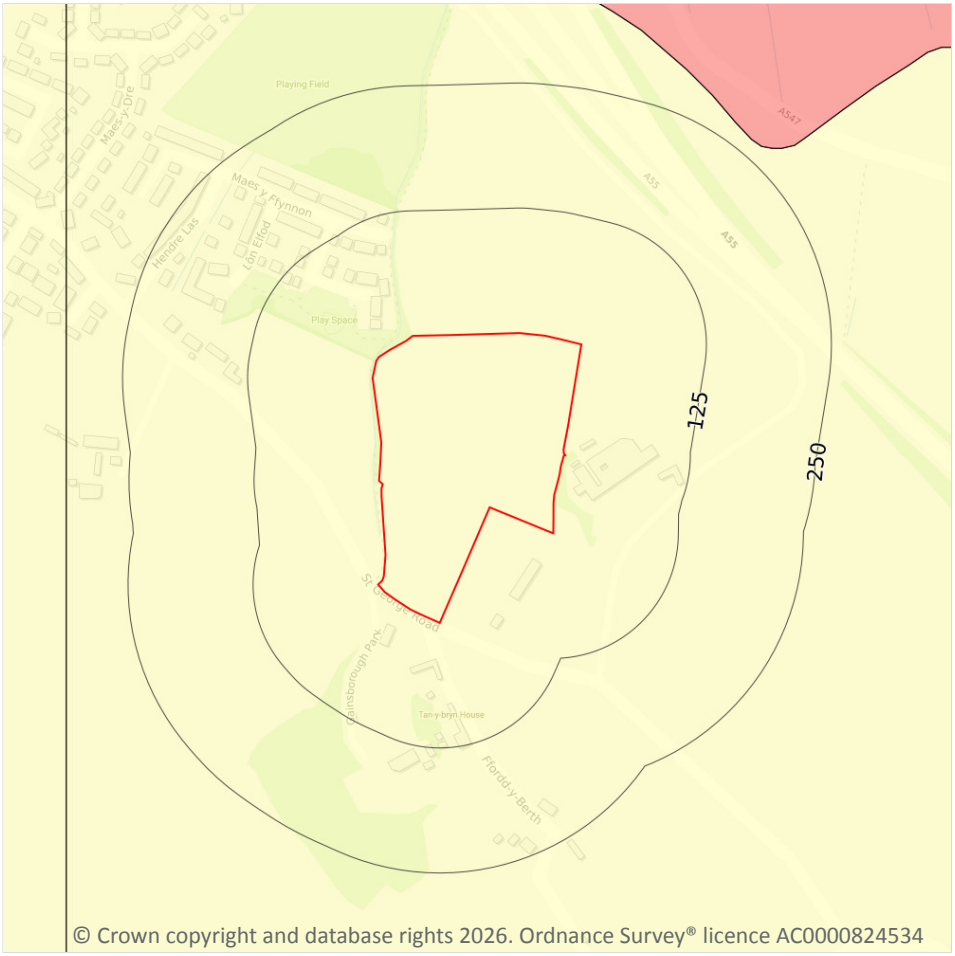
The potential hazard presented by rocks that can contain loosely-packed sandy layers that can become fluidised by water flowing through them. Such sands can 'run', removing support from overlying buildings and causing potential damage.

Features are displayed on the Natural ground subsidence - Running sands map on **page 78 >**

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

This data is sourced from the British Geological Survey.

Natural ground subsidence - Compressible deposits



Site Outline

Search buffers in metres (m)

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

17.3 Compressible deposits

Records within 50m	1

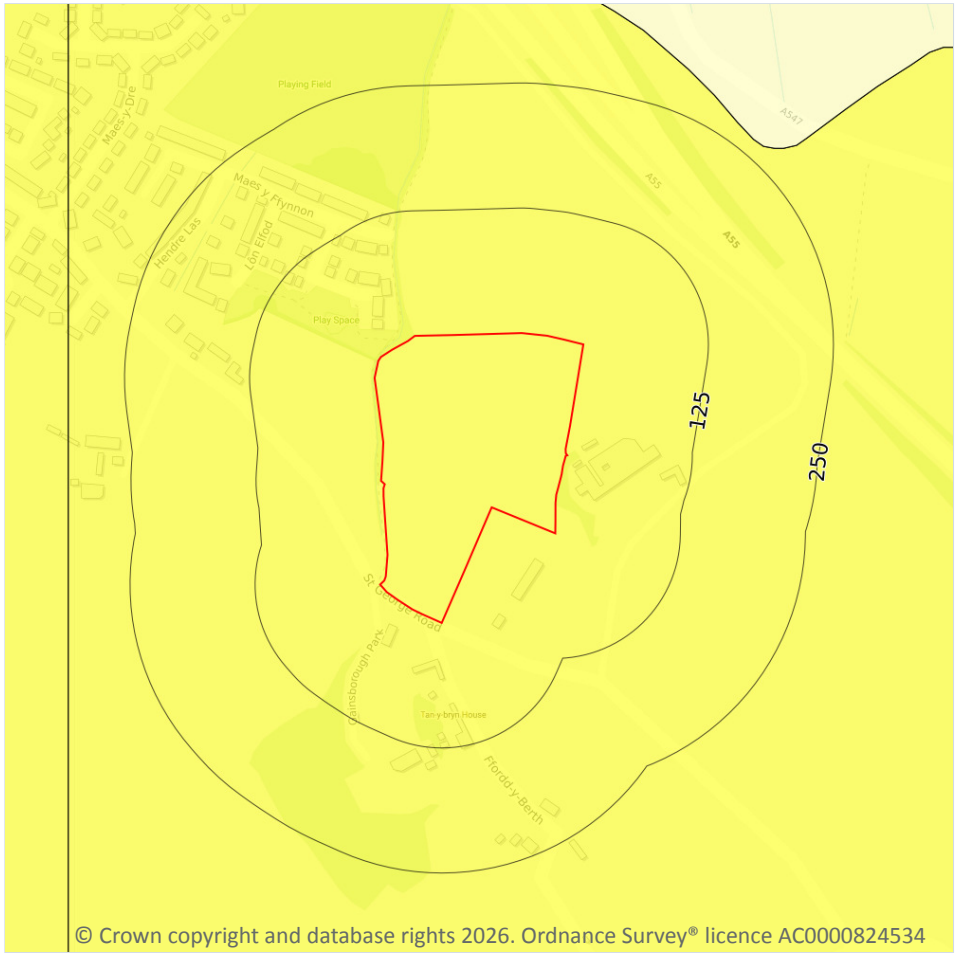
The potential hazard presented by types of ground that may contain layers of very soft materials like clay or peat and may compress if loaded by overlying structures, or if the groundwater level changes, potentially resulting in depression of the ground and disturbance of foundations.

Features are displayed on the Natural ground subsidence - Compressible deposits map on **page 79 >**

Location	Hazard rating	Details
On site	**Negligible**	**Compressible strata are not thought to occur.**

This data is sourced from the British Geological Survey.

Natural ground subsidence - Collapsible deposits



Site Outline

Search buffers in metres (m)

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

17.4 Collapsible deposits

Records within 50m	1

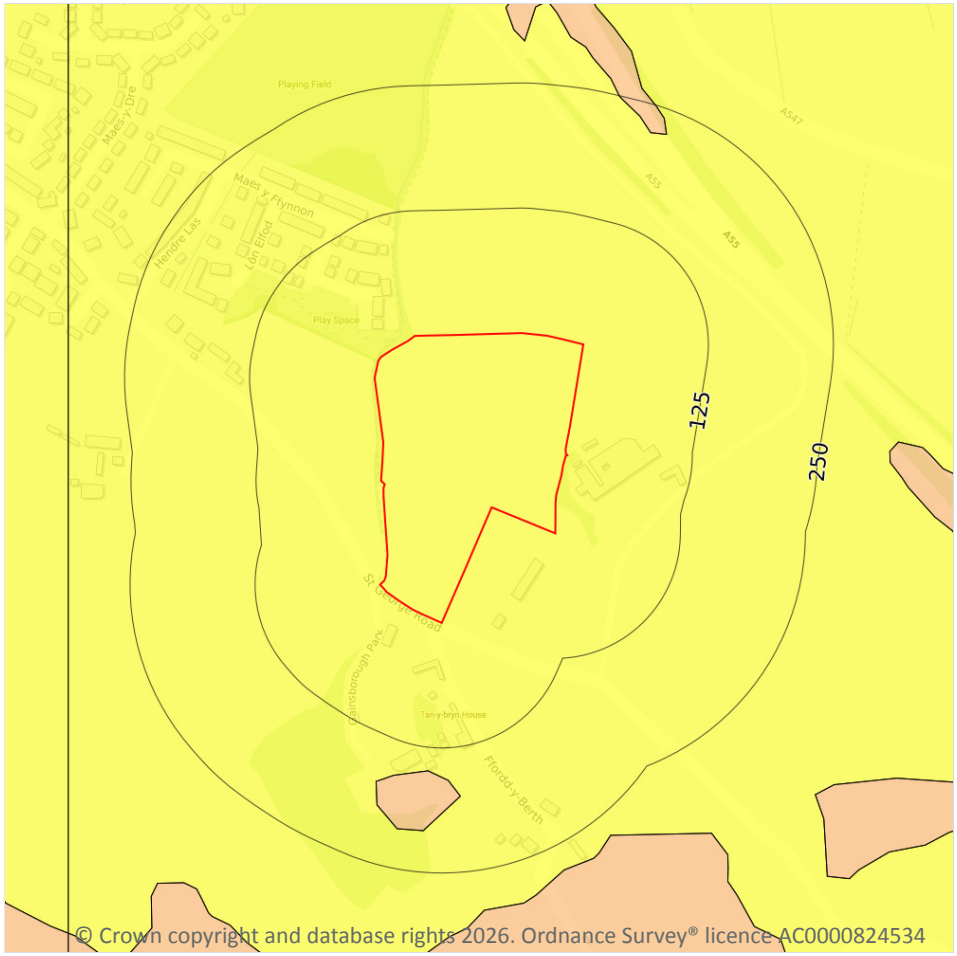
The potential hazard presented by natural deposits that could collapse when a load (such as a building) is placed on them or they become saturated with water.

Features are displayed on the Natural ground subsidence - Collapsible deposits map on **page 80 >**

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

This data is sourced from the British Geological Survey.

Natural ground subsidence - Landslides



Site Outline

Search buffers in metres (m)

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

17.5 Landslides

Records within 50m	1

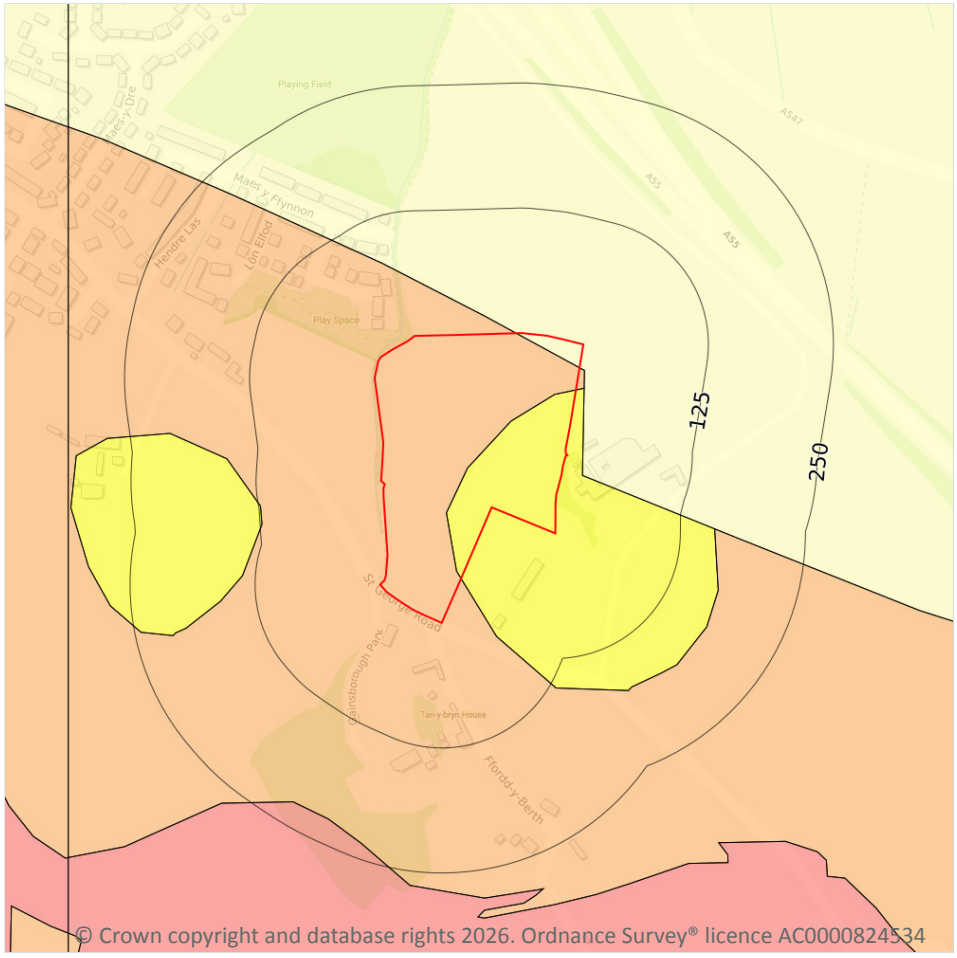
The potential for landsliding (slope instability) to be a hazard assessed using 1:50,000 scale digital maps of superficial and bedrock deposits, combined with information from the BGS National Landslide Database and scientific and engineering reports.

Features are displayed on the Natural ground subsidence - Landslides map on **page 81 >**

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

This data is sourced from the British Geological Survey.

Natural ground subsidence - Ground dissolution of soluble rocks



Site Outline

Search buffers in metres (m)

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

17.6 Ground dissolution of soluble rocks

Records within 50m	3

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

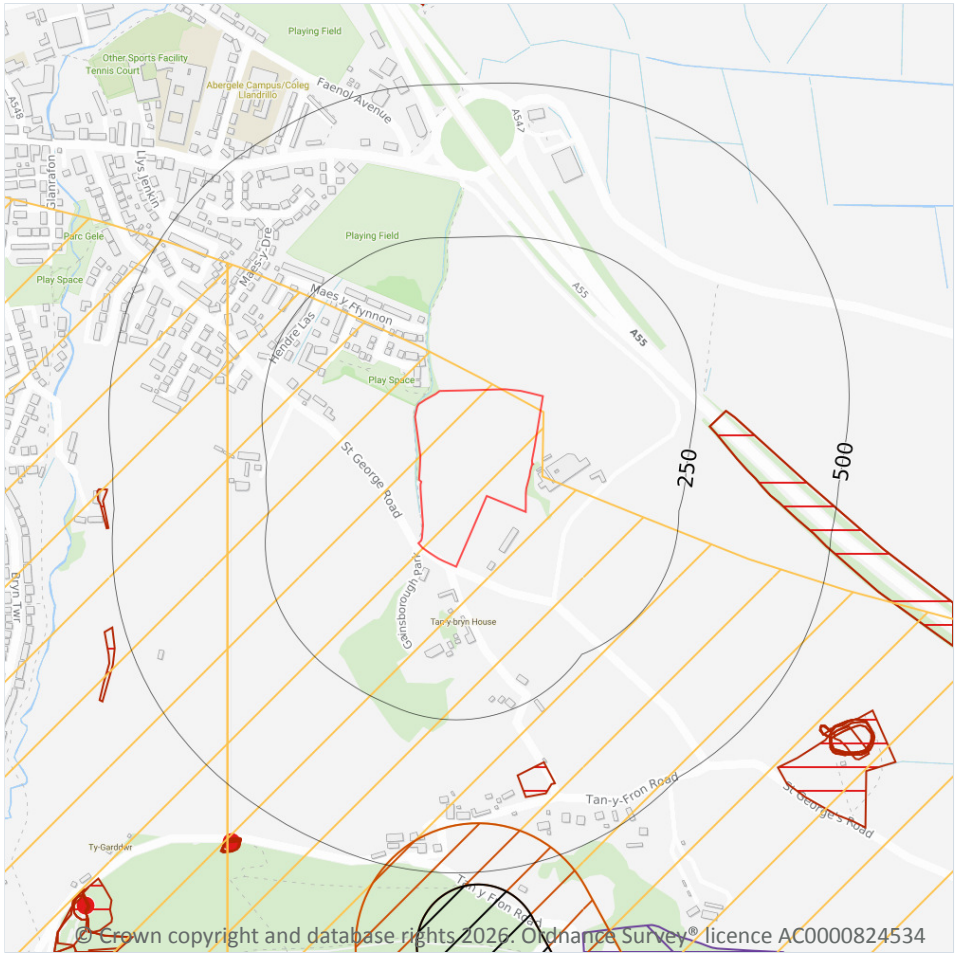
Features are displayed on the Natural ground subsidence - Ground dissolution of soluble rocks map on **page 82 >**

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

Location	Hazard rating	Details
On site	**Very low**	**Soluble rocks are present within the ground. Few dissolution features are likely to be present. Potential for difficult ground conditions or localised subsidence are at a level where they need not be considered.**
On site	**Low**	**Soluble rocks are present within the ground. Some dissolution features may be present. Potential for difficult ground conditions are at a level where they may be considered, localised subsidence need not be considered except in exceptional circumstances.**

This data is sourced from the British Geological Survey.

18 Mining and ground workings



Site Outline

Search buffers in metres (m)

BritPits

Surface ground workings

Underground workings

Underground mining extents

Historical mineral planning areas

TCA non-coal mining

Non Coal Mining

Sporadic underground mining of restricted extent possible

Localised small scale underground mining possible

Small scale mining possible

Underground mining known or likely within or in close proximity

Underground mining known within or in very close proximity

18.1 BritPits

Records within 500m	0

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

This data is sourced from the British Geological Survey.

18.2 Surface ground workings

Records within 250m	0

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

This is data is sourced from Ordnance Survey®/Groundsure.

18.3 Underground workings

Records within 1000m	0

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

This is data is sourced from Ordnance Survey®/Groundsure.

18.4 Underground mining extents

Records within 500m	0

This data identifies underground mine workings that could present a potential risk, including adits and seam workings. These features have been identified from BGS Geological mapping and mine plans sourced from the BGS and various collections and sources.

This data is sourced from Groundsure.

18.5 Historical Mineral Planning Areas

Records within 500m	0

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

This data is sourced from the British Geological Survey.

18.6 Non-coal mining

Records within 1000m	5

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

Features are displayed on the Mining and ground workings map on **page 84 >**

ID	Location	Name	Commodity	Class	Likelihood
1	**On site**	**Not available**	**Vein Mineral**	**B**	**Underground mine workings may have occurred in the past or current mines may be working at significant depth to modern engineering standards. Potential for difficult ground conditions are unlikely and are at a level where they need not be considered.**
2	306m W	Not available	Vein Mineral	B	Underground mine workings may have occurred in the past or current mines may be working at significant depth to modern engineering standards. Potential for difficult ground conditions are unlikely and are at a level where they need not be considered.
4	420m S	Not available	Vein Mineral	D	Underground mining is considered likely to have occurred within or close to the area. The location, extent and nature of mining should be considered in any site investigation. Potential for difficult ground conditions should be considered.
7	520m S	Not available	Vein Mineral	E	Underground mining is known or considered likely within or very close to the area. The location, extent and nature of mining should be considered in any site investigation. Potential for difficult ground conditions should be considered.
-	853m S	Not available	Vein Mineral	E	Underground mining is known or considered likely within or very close to the area. The location, extent and nature of mining should be considered in any site investigation. Potential for difficult ground conditions should be considered.

This data is sourced from the British Geological Survey.

18.7 JPB mining areas

Records on site	**0**

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

This data is sourced from Johnson Poole and Bloomer.

18.8 The Coal Authority non-coal mining

Records within 500m	**0**

This data provides an indication of the potential zone of influence of recorded underground non-coal mining workings. Any and all analysis and interpretation of Coal Authority Data in this report is made by Groundsure, and is in no way supported, endorsed or authorised by the Coal Authority. The use of the data is restricted to the terms and provisions contained in this report. Data reproduced in this report may be the copyright of the Coal Authority and permission should be sought from Groundsure prior to any re-use.

This data is sourced from The Coal Authority.

18.9 Researched mining

Records within 500m	1

This data indicates areas of potential mining identified from alternative or archival sources, including; BGS Geological paper maps, Lidar data, aerial photographs (from World War II onwards), archaeological data services, websites, Tithe maps, and various text/plans from collected books and reports. Some of this data is approximate and Groundsure have interpreted the resultant risk area and, where possible, specific areas of risk have been captured.

Location	Mineral type
497m S	Metals

This data is sourced from Groundsure.

18.10 Mining record office plans

Records within 500m	0

This dataset is representative of Mining Record Office and/or plan extents held by Groundsure and should be considered approximate. Where possible, plans have been located and any specific areas of risk they depict have been captured.

This data is sourced from Groundsure.

18.11 BGS mine plans

Records within 500m	0

This dataset is representative of BGS mine plans held by Groundsure and should be considered approximate. Where possible, plans have been located and any specific areas of risk they depict have been captured.

This data is sourced from Groundsure.

18.12 Coal mining

Records on site	0

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

This data is sourced from the Coal Authority.

18.13 Brine areas

Records on site	0

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

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

18.14 Gypsum areas

Records on site	0

Generalised areas that may be affected by gypsum extraction.

This data is sourced from British Gypsum.

18.15 Tin mining

Records on site	0

Generalised areas that may be affected by historical tin mining.

This data is sourced from Groundsure.

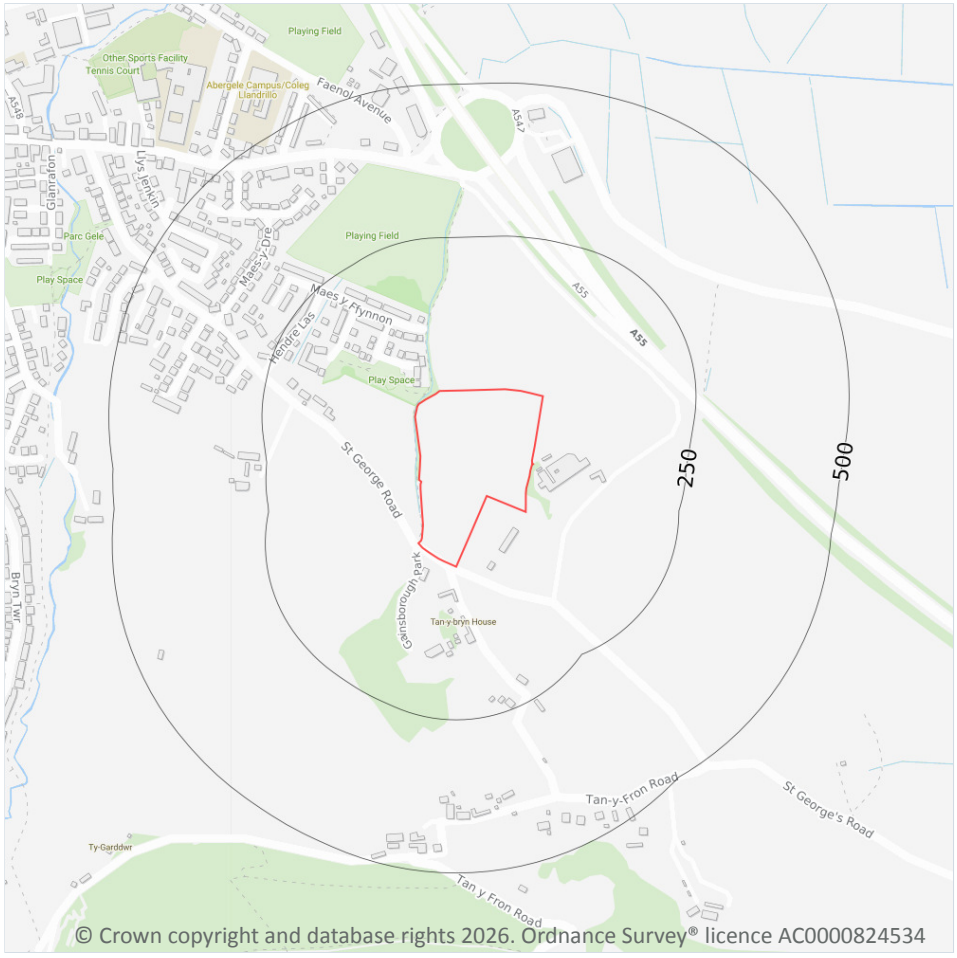
18.16 Clay mining

Records on site	0

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

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

19 Ground cavities and sinkholes



Site Outline

Search buffers in metres (m)

Natural cavities (Area)

Natural cavities (Point)

Mining cavities

Reported recent incidents

Historical incidents

19.1 Natural cavities

Records within 500m	0

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

This data is sourced from Stantec UK Ltd.

19.2 Mining cavities

Records within 1000m	1

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

Features are displayed on the Ground cavities and sinkholes map on **page 89 >**

ID	Location	Mine Address	Mineral
-	852m S	Ffordd-Las-Bach, Clwyd	Blende, Zinc, Sphalerite, Smithsonite

This data is sourced from Stantec UK Ltd.

19.3 Reported recent incidents

Records within 500m	0

This data identifies sinkhole information gathered from media reports and Groundsure's own records. This data goes back to 2014 and includes relative accuracy ratings for each event and links to the original data sources. The data is updated on a regular basis and should not be considered a comprehensive catalogue of all sinkhole events. The absence of data in this database does not mean a sinkhole definitely has not occurred during this time.

This data is sourced from Groundsure.

19.4 Historical incidents

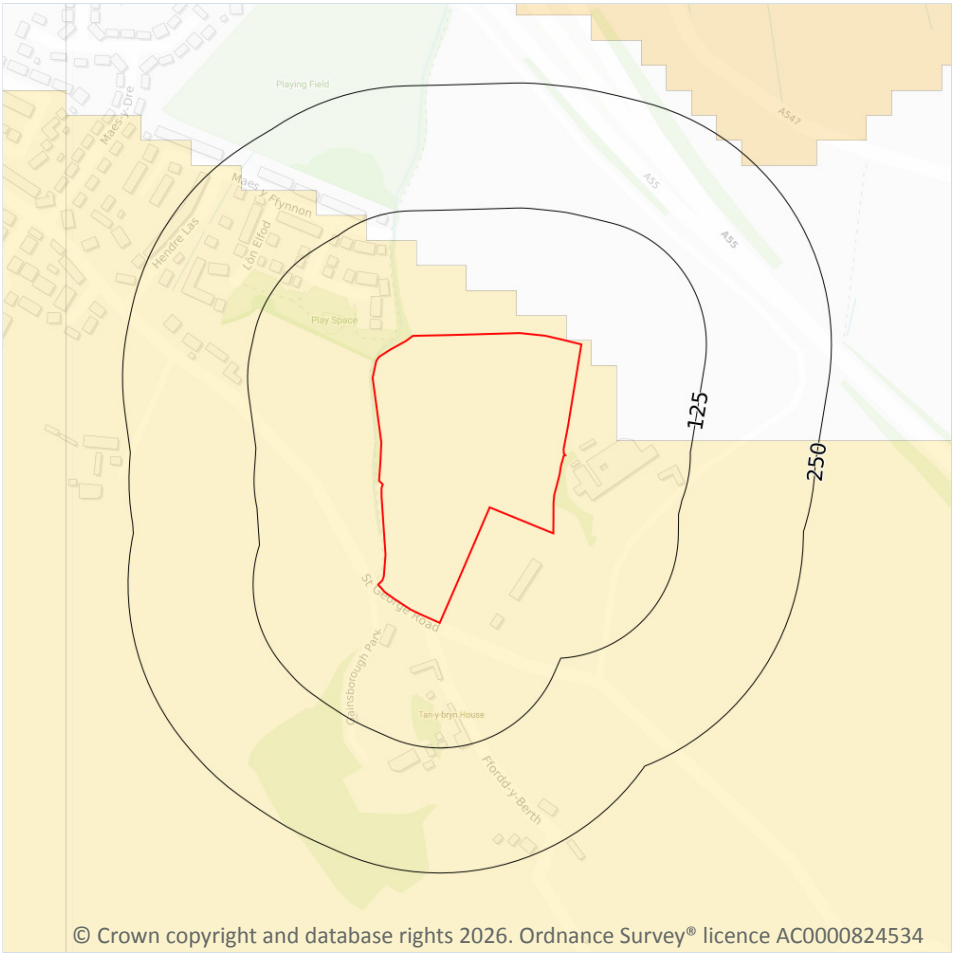
Records within 500m	0

This dataset comprises an extract of 1:10,560, 1:10,000, 1:2,500 and 1:1,250 scale historical Ordnance Survey® maps held by Groundsure, dating back to the 1840s. It shows shakeholes, deneholes and other 'holes' as noted on these maps. Dene holes are medieval chalk extraction pits, usually comprising a narrow shaft with a number of chambers at the base of the shaft. Shakeholes are an alternative name for suffusion sinkholes, most commonly found in the limestone landscapes of North Yorkshire but also extensively noted around the Brecon Beacons National Park.

Not all 'holes' noted on Ordnance Survey® mapping will necessarily be present within this dataset.

This data is sourced from Groundsure.

20 Radon



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Site Outline

Search buffers in metres (m)

- Greater than 30%
- Between 10% and 30%
- Between 5% and 10%
- Between 3% and 5%
- Between 1% and 3%
- Less than 1%

20.1 Radon

Records on site	1

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

Features are displayed on the Radon map on **page 91 >**

Location	Estimated properties affected	Radon Protection Measures required
On site	**Between 1% and 3%**	**None**

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

21 Soil chemistry

21.1 BGS Estimated Background Soil Chemistry

Records within 50m	11

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

Location	Arsenic	Bioaccessible Arsenic	Lead	Bioaccessible Lead	Cadmium	Chromium	Nickel
On site	**15 mg/kg**	**No data**	**100 mg/kg**	**60 mg/kg**	**1.8 mg/kg**	**60 - 90 mg/kg**	**15 - 30 mg/kg**
On site	**15 mg/kg**	**No data**	**100 mg/kg**	**60 mg/kg**	**1.8 mg/kg**	**60 - 90 mg/kg**	**15 - 30 mg/kg**
On site	**15 mg/kg**	**No data**	**100 mg/kg**	**60 mg/kg**	**1.8 mg/kg**	**60 - 90 mg/kg**	**15 - 30 mg/kg**
On site	**15 mg/kg**	**No data**	**100 mg/kg**	**60 mg/kg**	**1.8 mg/kg**	**60 - 90 mg/kg**	**15 - 30 mg/kg**
On site	**15 mg/kg**	**No data**	**100 mg/kg**	**60 mg/kg**	**1.8 mg/kg**	**60 - 90 mg/kg**	**15 - 30 mg/kg**
On site	**15 mg/kg**	**No data**	**100 mg/kg**	**60 mg/kg**	**1.8 mg/kg**	**60 - 90 mg/kg**	**15 - 30 mg/kg**
5m E	15 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg
5m E	15 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg
18m SE	15 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg
18m SE	15 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg
21m E	15 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg

This data is sourced from the British Geological Survey.

21.2 BGS Estimated Urban Soil Chemistry

Records within 50m	0

Estimated topsoil chemistry of Arsenic, Cadmium, Chromium, Copper, Nickel, Lead, Tin and Zinc and bioaccessible Arsenic and Lead in 23 urban centres across Great Britain. These estimates are derived from interpolation of the measured urban topsoil data referred to above and provide information across each city between the measured sample locations (4 per km^2).

This data is sourced from the British Geological Survey.

21.3 BGS Measured Urban Soil Chemistry

Records within 50m	0

The locations and measured total concentrations (mg/kg) of Arsenic, Cadmium, Chromium, Copper, Nickel, Lead, Tin and Zinc in urban topsoil samples from 23 urban centres across Great Britain. These are collected at a sample density of 4 per km^2.

This data is sourced from the British Geological Survey.

22 Railway infrastructure and projects

22.1 Underground railways (London)

Records within 250m	0

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

This data is sourced from publicly available information by Groundsure.

22.2 Underground railways (Non-London)

Records within 250m	0

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

This data is sourced from publicly available information by Groundsure.

22.3 Railway tunnels

Records within 250m	0

Railway tunnels taken from contemporary Ordnance Survey® mapping.

This data is sourced from the Ordnance Survey®.

22.4 Historical railway and tunnel features

Records within 250m	0

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

This data is sourced from Ordnance Survey®/Groundsure.

22.5 Royal Mail tunnels

Records within 250m	0

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

This data is sourced from Groundsure/the Postal Museum.

22.6 Historical railways

Records within 250m	0

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

This data is sourced from OpenStreetMap.

22.7 Railways

Records within 250m	0

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

This data is sourced from Ordnance Survey® and OpenStreetMap.

22.8 Crossrail 2

Records within 500m	0

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

This data is sourced from publicly available information by Groundsure.

22.9 HS2

Records within 500m	0

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

This data is sourced from HS2 ltd.

Data providers

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

Terms and conditions

Groundsure's Terms and Conditions can be accessed at this link: www.groundsure.com/terms-conditions-april-2026/ ↗.

APPENDIX D

(i) Conceptual Model

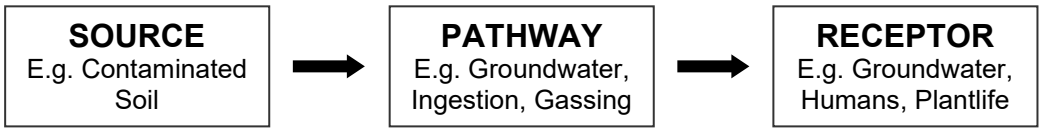
The report aims to identify land which could potentially be affected by contamination, such that it could affect the value or re-use of the land, or such that mitigation would be required for certain proposed end uses of the land.

The assessment also aims to identify land which would be regarded as 'contaminated land' under the terms of the Environmental Protection Act 1990, Part IIa. This act includes a stricter test for contaminated land than that outlined above. Land is considered to be contaminated if either: the land is causing significant harm to people, ecosystems or infrastructure; or there is a significant possibility that such harm could be caused; or pollution of controlled waters is being, or is likely to be, caused.

The following situations are defined as being where harm is to be regarded as significant: chronic or quite toxic effect, serious injury or death to humans; irreversible or other adverse harm to the ecological system; substantial damage to or failure of buildings; death of, or disease or other physical damage affecting, livestock or crops; pollution of controlled waters.

The risk assessment uses a 'Source-Pathway-Receptor' methodology for assessing whether a source of contamination could potentially lead to harmful consequences. This means that there needs to be a pollutant linkage from source to receptor for harm to be caused, this linkage consisting of: a source of pollution; a pathway for the pollutant to move along; a receptor that is affected by the pollutant.

As an example, the pollutant source could be an identified leak of oil or an area of dumped waste.



The pathways could include transport of the contaminant by groundwater, surface water, windblown dust, or vapours, and for human receptors will include the means by which contaminants enter the body, for example skin contact, ingestion and inhalation.

Receptors include people, other living organisms, the built environment and groundwater and surface waters (these latter two also being contaminant pathways).

The source-pathway-receptor methodology relationship allows an assessment of the environmental risk to be determined, based on the nature of the source, the degree of exposure of the receptor to the source and the sensitivity of the receptor.

This section of the report is based on the information set out in the previous sections of the report and should not be read independently of such sections.

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Initial Conceptual Model

From the available information the preliminary conceptual model is visualised as follows:

Target (Receptor)	POTENTIAL SOURCE-PATHWAY LINKAGE
Site Users / Residents	Inhalation of soil gas, odours or dust.
	Ingestion of, and skin contact with, contaminated soil.
	Ingestion of contaminants in vegetables etc. or in soils adhering to vegetables, etc.
Construction/ Maintenance Workers.	Inhalation of soil gas, odours or dust.
	Ingestion of, and skin contact with, contaminated soil
Plants	Adverse effects on growth caused by presence of contaminants in soil
Buildings and Structures	Flow of ground gas into buildings. Asphyxiation, toxicity, explosion and fire hazards
	Sulphate attack of foundations
	Hydrocarbons penetrating plastic water supply pipes
Groundwater	Migration of soluble contaminants into groundwater on or off site. Migration of oils into groundwater on or off site.
Surface water	Migration of soluble contaminants and/or direct run-off of contaminants. Migration of oils into groundwater on or off site.

Initial Environmental Risk Assessment - General

It is accepted that an environmental risk assessment can be based on a source-pathway-target model. An examination is carried out as to whether a target will be at risk from a contamination source, that a source exists, and whether there are any pathways (routes of exposure) which might actually link the source to the target.

Environmental risk assessments rely heavily on numerical trigger concentrations or guidelines because exposure of targets to contamination is difficult to quantify directly. Quantification of risk is therefore mainly undertaken for general scenarios in order to derive trigger levels. These are derived for various contaminants for particular targets and routes of exposure. An example of a sensitive target would be users of a domestic back garden, where routes of exposure might be skin contact, dust inhalation, direct ingestion and indirect ingestion via cultivation and consumption of fruit and vegetables. In March 2002, the first parts of the new CLEA risk assessment guidance were released by DEFRA/Environment Agency.

The risk assessment approach is an extension of the 'fit for use' concept whereby land is cleaned up to a standard fit for the proposed use, that is, so all remaining risks are acceptable. However, as well as being 'fit for use', the environmental risk assessment approach also addresses the soil and water environment so that these are also safeguarded where necessary. For example if a site was contaminated with heavy metals and the development comprised the proposed construction of hard standings and buildings only, the fit-for-use approach might require no remediation for the site. However, consideration of the wider environment needs to address whether groundwater is being contaminated, and if so whether remediation is required for this reason.

The following classification presented by CIRIA has been used in the assessment of risk:

Estimation of risk from consideration of magnitude, consequences and probabilities				
Probability	**Consequences**			
	Severe	**Moderate**	**Mild**	**Minor**
High	Very high	High	Moderate	Moderate / Low
Medium	High	Moderate	Moderate / Low	Low
Low	Moderate	Moderate / Low	Low	Very Low
Unlikely	Moderate / Low	Low	Very Low	Very Low

Reference: Contaminated Land Risk Management; A Guide to Good Practice, CIRIA C552:2001

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APPENDIX E

(i) Notes on Limitations

The desk study report includes examination and provision of historical maps and an environmental database search covering geology, hydrogeology, historical, land use, water abstractions, groundwater source protection zones, landfill sites, radon, trade directory entries, petrol filling stations and nature reserves for the site and surrounding area.

This report does not consider ecological impacts (e.g. bats) or botanical risks (e.g. Japanese knotweed). It is recommended that these are considered as part of the assessment of development constraints for the site.

The assessment and judgements given in this report are directed by both the finite data on which they are based and the proposed works to which they are addressed. The data essentially comprised a study of available documented information from various sources together with discussions with relevant authorities and other interested parties. There may also be circumstances at the site that are not documented. The information reviewed is not exhaustive and has been accepted in good faith as providing representative and true data pertaining to site conditions. If additional information becomes available which might impact our environmental conclusions, we request the opportunity to review the information, reassess the potential concerns and modify our opinion if warranted.

It should be noted that any risks identified in this report are perceived risks based on the available information. Actual risks can only be assessed following a physical investigation of the site.

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