



RHONDDA
GEOTECHNICAL
SERVICES

PHASE 1 CONTAMINATED LAND REPORT

NEATH PORT TALBOT C.B.C.

PLANNING APPLICATION P2023/0077

PROPOSED RESIDENTIAL DEVELOPMENT

3 FERNFIELD

BAGLAN

SA 12 8AL

18/06/2024

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INTRODUCTION-PURPOSES AND AIMS

Planning permission ref. P2023/0077 has been granted by Neath Port Talbot L.P.A. This is for the extensive remodelling and extension of an existing residential property at 3 Fernfield, Baglan. As Condition 7 N.P.T.C.B.C. have indicated that they require a Contaminated Land Risk Assessment. Rhondda Geotechnical Services have been engaged by the applicant to carry out this work. The exact wording of the condition 7 requesting a Phase 1 is as follows:-

7. No further development shall be undertaken on site until an assessment of the nature and extent of contamination affecting the application site area has been submitted to and approved in writing by the Local Planning Authority. This assessment must be carried out by or under the direction of a suitably qualified competent person in accordance with BS10175 (2011) 'Investigation of Potentially Contaminated Sites Code of Practice' and shall assess any contamination on the site, whether or not it originates on the site. The report of the findings shall include:

(i)a desk top study to identify all previous uses at the site and potential contaminants associated with those uses and the impacts from those contaminants on land and controlled waters. The desk study shall establish a 'conceptual site model' (CSM) which identifies and assesses all identified potential source, pathway, and receptor linkages;

(ii)an intrusive investigation to assess the extent, scale and nature of contamination which may be present, if identified as required by the desk top study;

(iii) an assessment of the potential risks to: -human health, -groundwater and surface waters -adjoining land, -property (existing or proposed) including buildings, crops, livestock, pets, woodland and service lines and pipes,- ecological systems, -archaeological sites and ancient monuments; and -any other receptors identified at (i)

(iv) an appraisal of remedial options, and justification for the preferred remedial option(s).

Note that Condition 7.2 requests a Phase 2 intrusive site investigation and report *if identified as required by the desk top study*. This will be entirely dependent on the conclusions of the Phase 1 report which will include a qualitative risk assessment. Conditions 7.3, 8 and 9 request detailed remediation

and validation schemes. Again, these will be entirely dependent on the recommendations of the Phase 1 and 2 reports *only if contamination is found at the site*.

The report will follow the guidelines set out in the document Development of Land Affected by Contamination: A Guide for Developers (Version 3). This was produced by the Welsh Land Contamination Working Group in 2017. In particular the methodology set out in Appendix B with the check list for Phase 1 will be followed. The contaminated land exposure assessment (henceforth CLEA) produced by The Environment Agency will be used in the conceptual model, particularly regarding the source-pathway-receptor concept for pollutant linkages. The entire project will be guided by the 2021 C.L.R.M which has now superseded the withdrawn 2004 Defra/E.A. document CLR11 (Model Procedures for the Management of Land Contamination).

The current definition of contaminated land is “any land which appears to the local authority in whose area it is situated in to be in such a condition, by reason of substances in or under the ground that:-

- a. “Significant harm is being caused, or there is a significant possibility of such harm being caused OR
- b. Pollution of controlled waters is being, or is likely to be caused”.

(Section 78A Part 2A Environmental Protection Act)

This act also requires that a risk-based approach should be used for assessing the contamination status of a site. For a site to be designated as contaminated it must be shown that the site is not fit for its current or intended use. Statutory guidance states that a two-stage approach should be adopted for the assessment of contaminated land.

1. Identification of potential pollution linkages
2. Assessment of the risk to receptors

The first stage (The Phase 1 report) is a qualitative assessment of the plausible pollution linkages that exist or may exist on site. This involves the development of a site conceptual model. This may then be refined in Phase 2 after an intrusive

investigation, followed by laboratory testing of samples obtained, but only if the Phase 1 deems it necessary.

1. AUTHOR CREDENTIALS

The author of this report is Richard Davies. He graduated with a Batchelor of Science honours degree in Geology from Liverpool University in 1979. After starting his career as an engineer in the coal industry, he moved into site investigation in the 1980's and has many years experience working on contaminated land. He is a Fellow of The Geological Society and holds a Master's Degree in Applied Environmental Geology from Cardiff University. He is also a Supporter Member of CL: AIRE (Contaminated Land: Applications in Real Environments)

2. SITE DESCRIPTION

The site is centred on grid reference 275375, 191840 and is at an elevation of approximately 35m A.O.D. The site planning boundary is triangular, sitting in the crook of the hairpin bend as the Fernfield Road climbs the hillside. The site covers an area of 0.06 Ha. The site location is shown in Figure 1 overleaf. Figure 2 shows the site boundary. Figure 3 is a recent aerial photograph of the site.

3. SITE WALKOVER

A walkover survey is part of the Phase 1 Template. This really aimed at large sites with former industrial use where differing areas can be delineated. The site was visited on Monday 15th April 2024 . Much of the site is currently occupied by the existing residence. There are extensive exposures of the soil at the site visible along the eastern boundary where a retaining wall is to be constructed. The nature of the soil will be discussed in the relevant section.

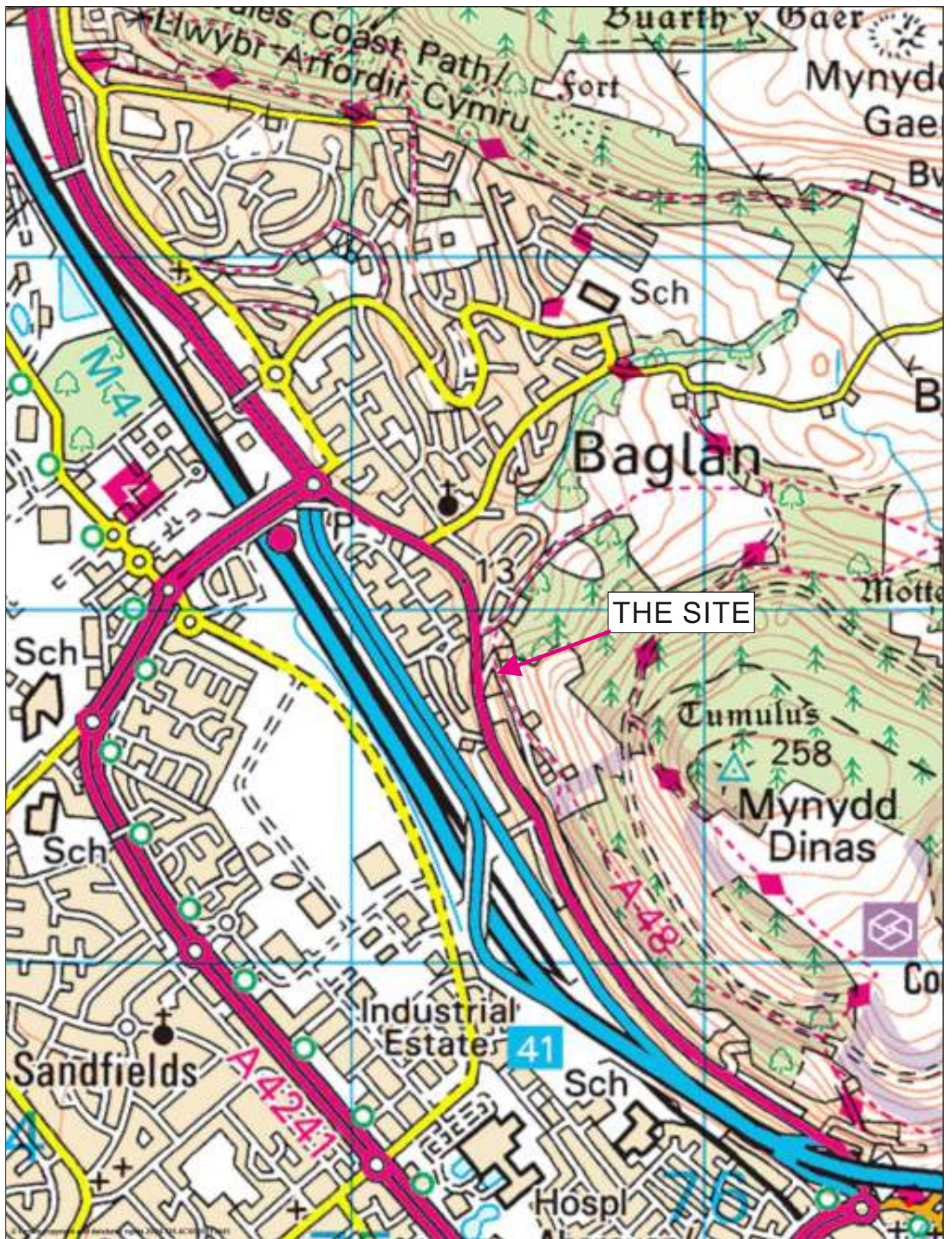


FIGURE 1
SITE LOCATION.

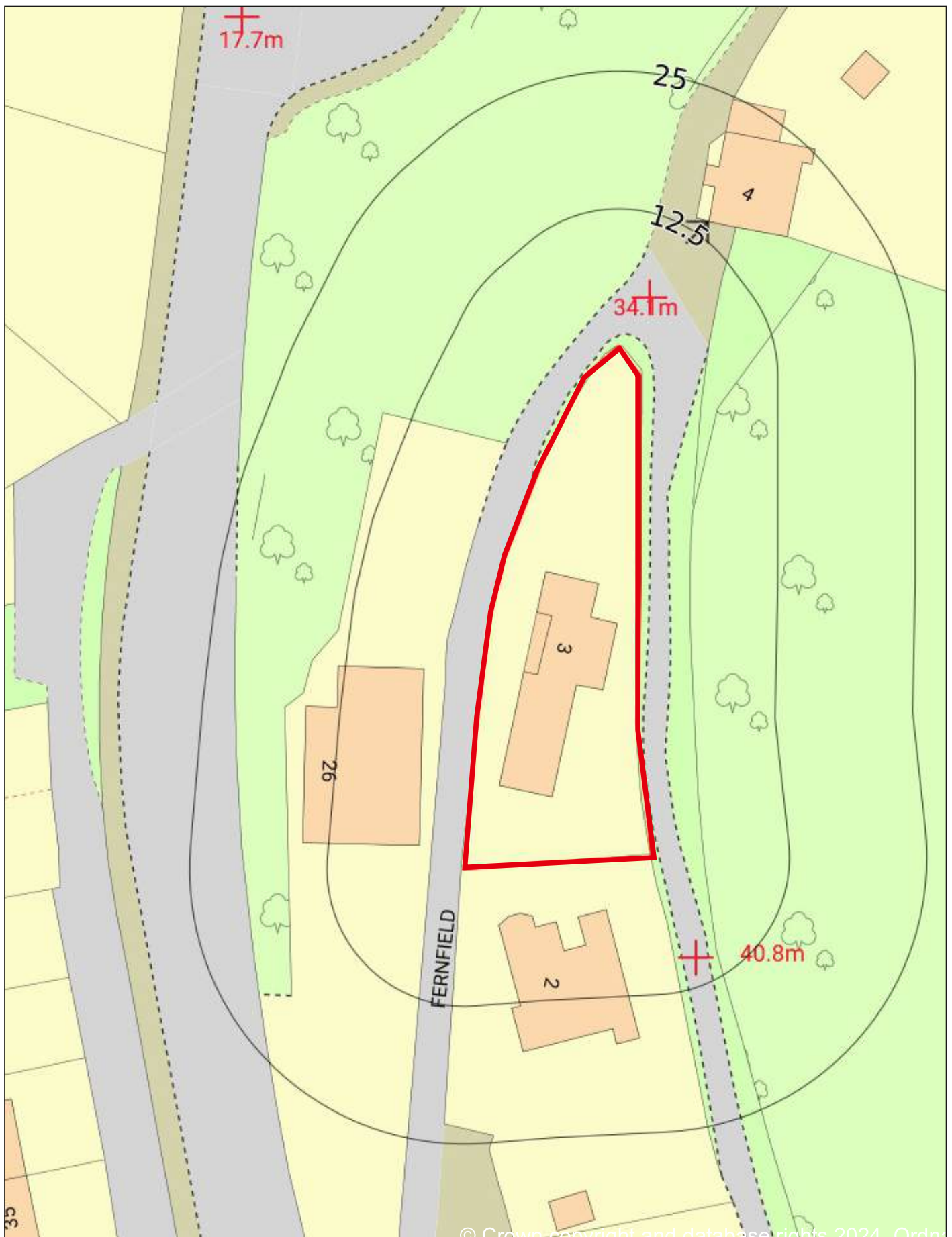


FIGURE 2
SITE BOUNDARY ON THE O.S. MASTERMAP.

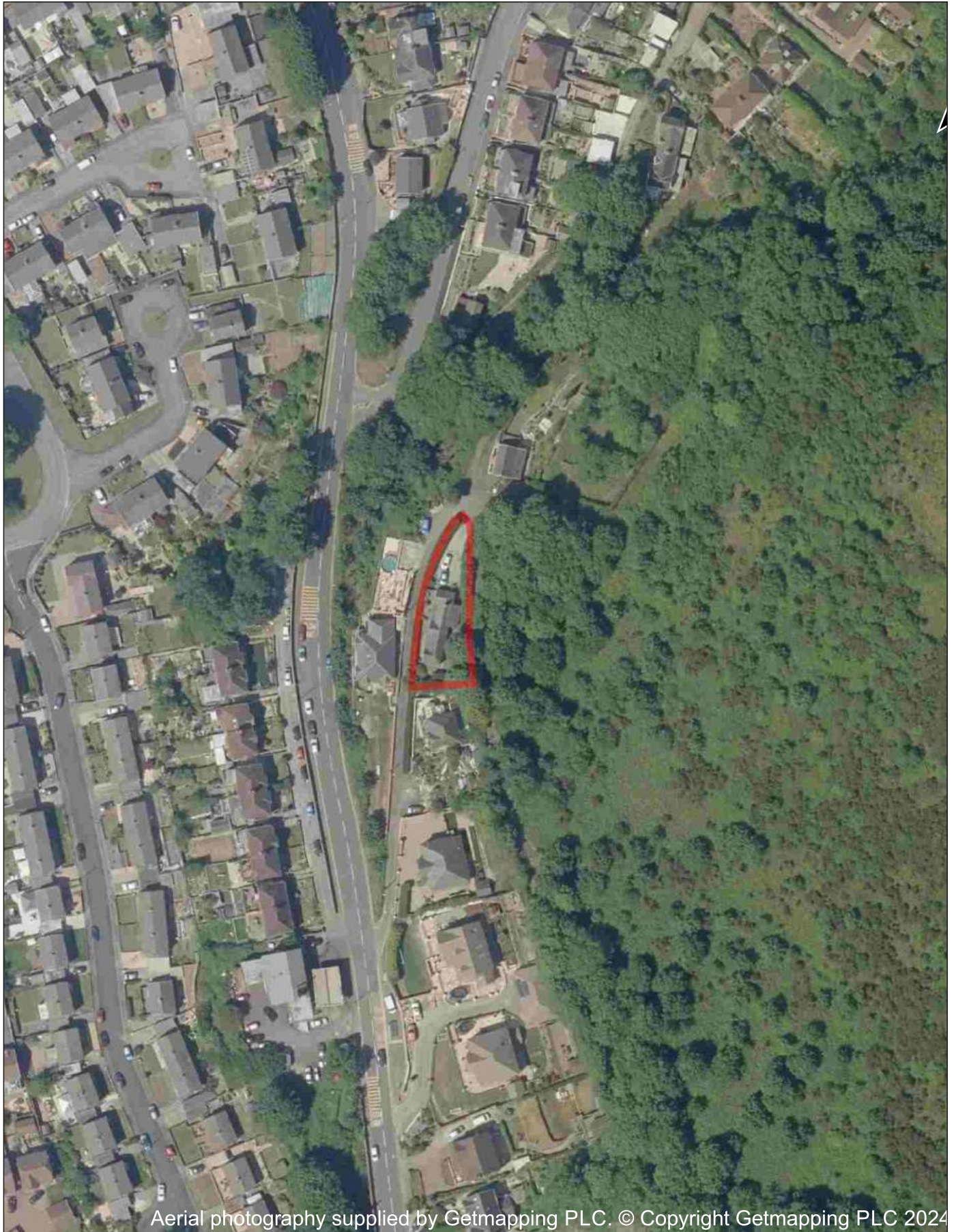


FIGURE 3
RECENT (2017) AERIAL PHOTO OF THE SITE.

4. SITE HISTORY

In order to gain a thorough understanding of the history of the site a comprehensive collection of historical Ordnance Survey maps was purchased from Groundsure. These were at 1:1250, 1:2500 and 1:10560 scales (later maps are at 1:10,000). Obviously, the larger scale maps are preferable for a desk study, but sometimes a large gap in dates means it is necessary to fall back on the smaller scale maps. Another reason for using the smaller scale maps is that they provide a broader contextual setting for the site. In terms of both the site and the immediate surrounding area, there have been gradual changes from the earliest (1875) map to the present day.

Extracts from the original large-scale maps are presented overleaf as Figures 4 - 10. These have been slightly truncated from the originals for reasons of page fit and file size. The maps have either the eastern or western margin truncated. This has been done alternately so nothing of significance to the desk study is missing from the map extracts.

1875 (Figure 4) SITE- The site is an undeveloped field.

SURROUNDING AREA- A track swings around the site in the same position as Fernfield, the narrow tarmac road that currently borders the site. There are three farms within a 250m radius of the site. The entire area covered by the map is completely rural with fields and small wooded areas. The Great Western Railway main line runs across Baglan Moor 270m southwest of the site

1899 (Figure 5) SITE- The site is completely unchanged.

SURROUNDING AREA- The surrounding area retains its rural appearance. The three farms are still present. There is a small building just north of the site bearing an O.S. benchmark. There is a new residential building Dan y Graig, 150m south of the site.

1918 (Figure 6) SITE- The site is completely unchanged.

SURROUNDING AREA- A small quarry has opened on the hillside above the site 200m to the southeast. A tramway connects it to Fernfield Road which now appears to have been partly surfaced. A second, larger quarry is seen 300m southeast. Some residential properties have been built 250m south of the site.

1936 (Figure 7) SITE- There is now a building on the site with a very similar footprint to the house that now stands on the site.

SURROUNDING AREA- The quarries now appear disused. The area still appears semi-rural with fields and small wooded areas, but there is considerable residential development along the main Baglan Road.

1948 (Figure 8) This map is at 1:10,560 and has been included to give an overview of a bigger proportion of the surrounding area. To the west Baglan Moor is completely undeveloped with the Great Western Railway still running across it and a second railway further out west. To the east, the steeply rising hillside is undeveloped. North and south of the site the ribbon residential development along Baglan Road continues. There is no industrial land use over the entire map area.

1970 (Figure 9) **SITE-** The house footprint appears identical to 1936 but it is now named Bay View.

SURROUNDING AREA- There is considerable residential development north of the site which is no longer confined to Baglan Road.

1995 (Figure 9) **SITE-** There is a 1:1250 scale 2003 revision but the 1995 1:2500 shows more of the surrounding area and has been reproduced in preference. The house appears identical but is now numbered 3 as opposed to being named.

SURROUNDING AREA- Residential development continues north and west of the site. The M4 can be seen adjacent to the mainline railway.

More recent small-scale maps (2001, 2010 and 2021) have been checked but add little of relevance to the desk study. For this reason, they have not been reproduced here. The Enviroinsight Report (attached as Appendix 1) has a good set of aerial photos from 2000-2020 on pages 9-13.

In summary the site was an open field until the house that currently sits on the site was built sometime between 1918-1935. There has never been any contaminative use of the site and there have never been any contaminative industrial uses of the surrounding area. The site now sits on the fringe of an extensive residential area with undeveloped hillside to the east.

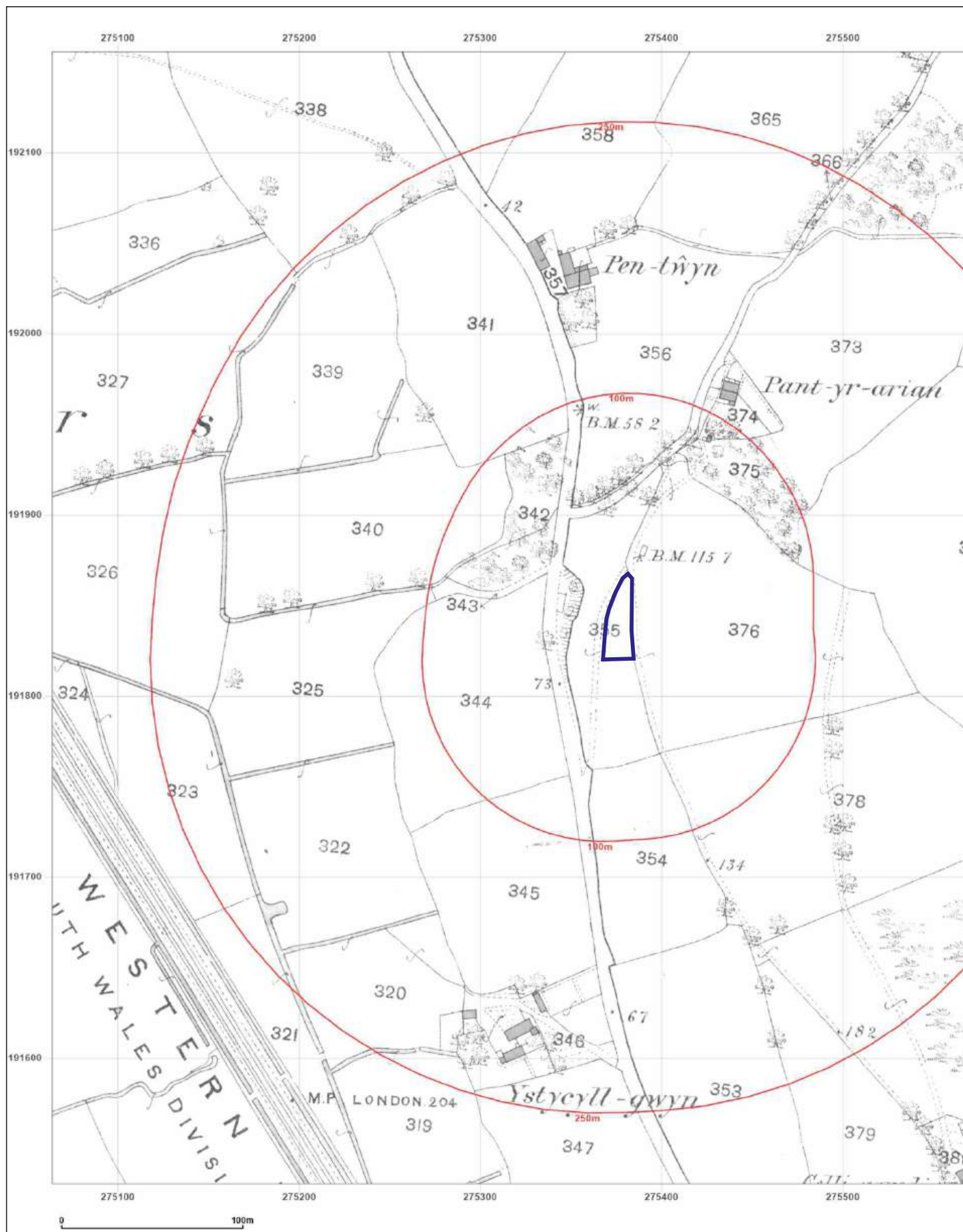


FIGURE 4
THE SITE (OUTLINED IN BLUE) IN 1876.

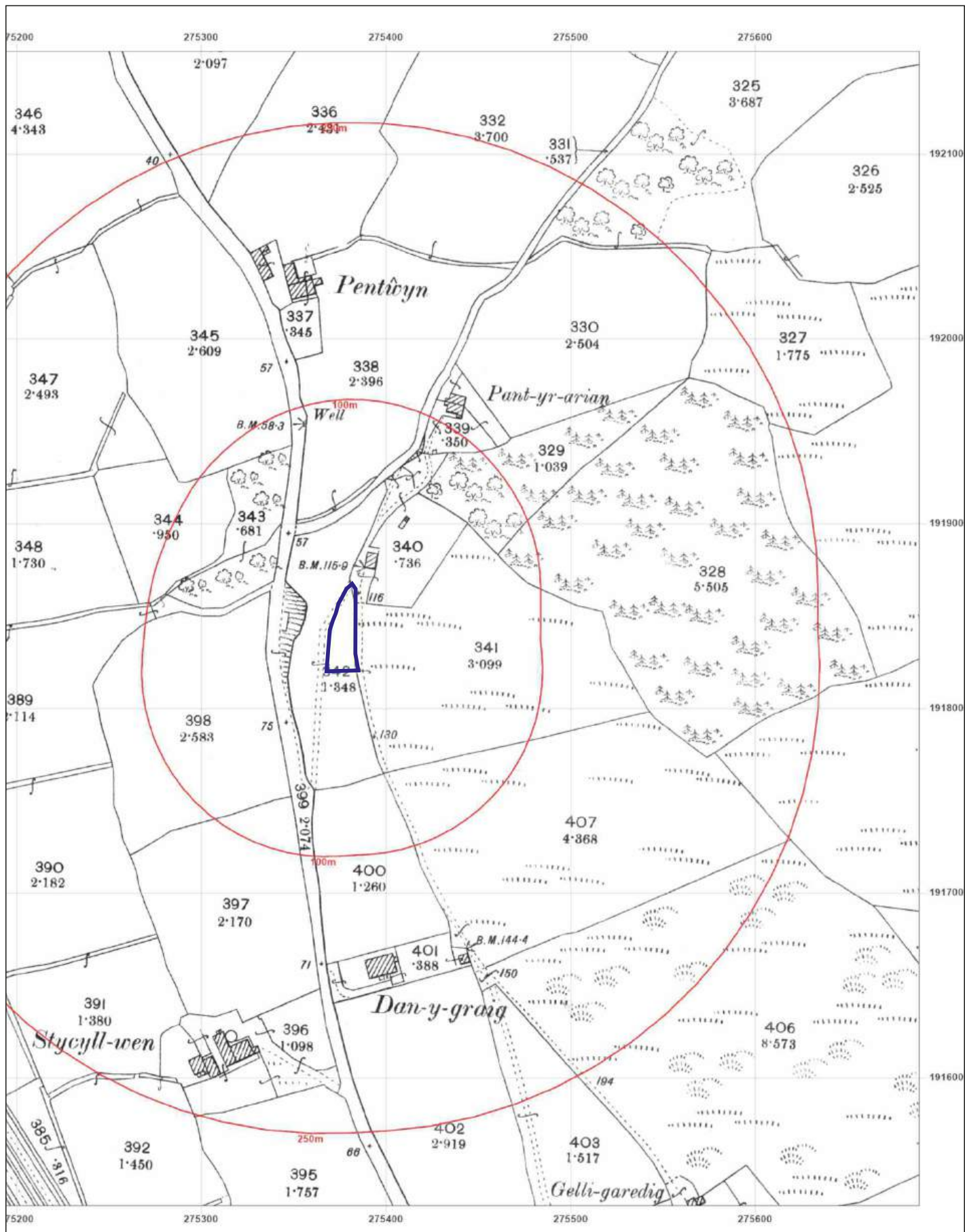


FIGURE 5
THE SITE IN 1899.

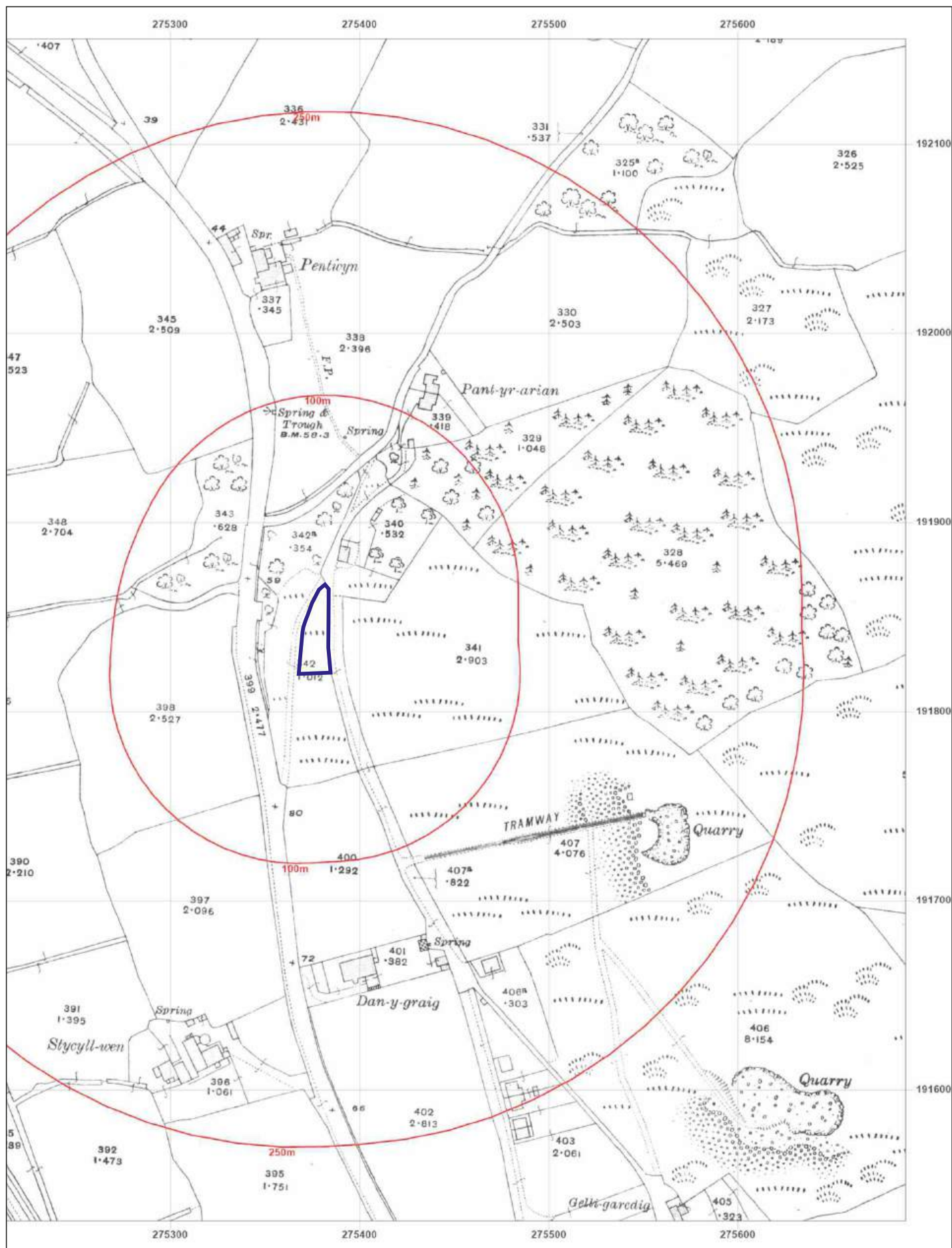


FIGURE 6
THE SITE IN 1918.

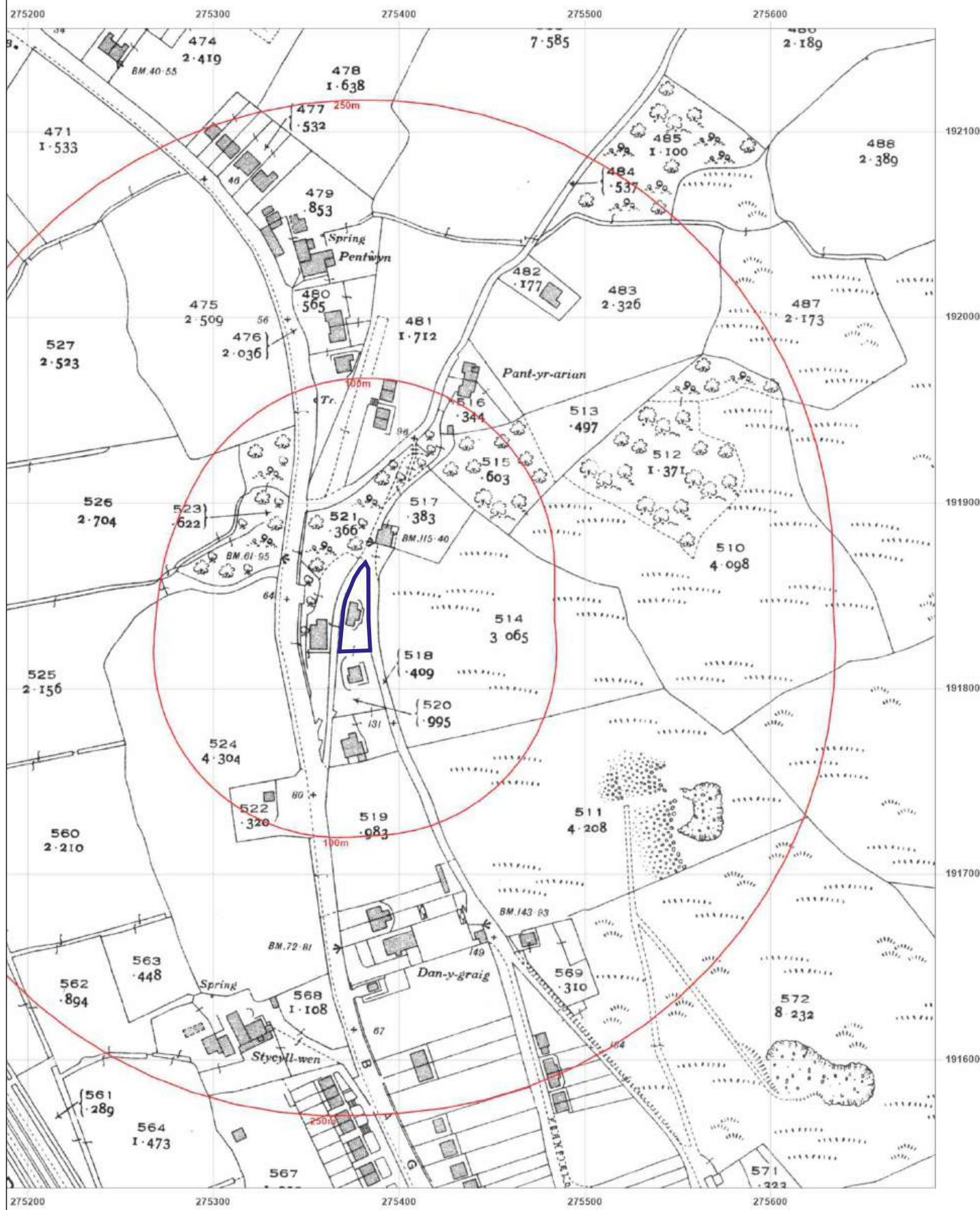


FIGURE 7
THE SITE IN 1936.

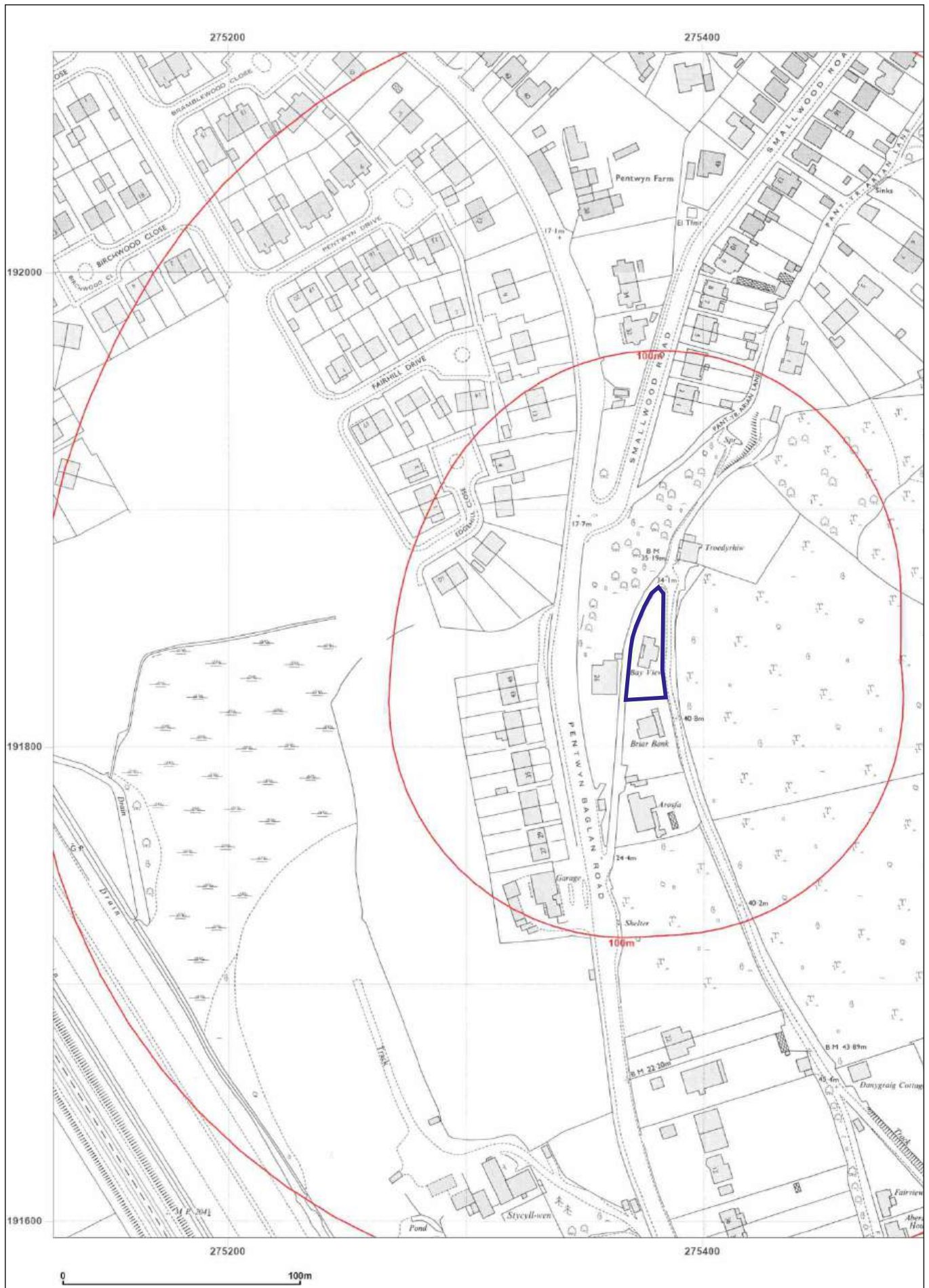


FIGURE 9
THE SITE IN 1970.

5. GEOLOGY

The geology under this (or any other) site can usually be divided into two components. The bedrock, and the superficial deposits (including Made Ground) overlying the bedrock. For a contaminated land study, the superficial deposits are usually the more important of the two as they are the shallowest. This means they are the most likely to be impacted by contamination. Indeed, with Made Ground, it can itself be a source of contamination. The shallowest soils are also more likely to have a pathway to above-ground receptors. The deeper underlying geology will influence the hydrogeology, controlled waters and mining history. A Geoinsight report was purchased to obtain geological information for the Phase 1. It is included in full in Appendix A. This report will also draw on archive material from other sources. These include the B.G.S. Geoindex, the Geological Survey map that covers the site (SS 79SE), the Memoirs of the Geological Survey, South Wales Coalfield, Part IV, Pontypridd and Maesteg (1963) and mining archive material held by the author. This will enable a complete understanding of the site geology, particularly the coal mining. In addition, a Consultants Report was purchased from the Coal Authority and the Coal Authority Interactive Viewer was consulted. The information from these two sources will be discussed in the mine gas risk assessment.

Superficial Deposits (Natural Ground only)

Figure 11A is the 1:50,000 Superficial Deposits map taken from the B.G.S. Geoindex. The narrow ribbon of blue colour beneath the site in Figure 11A is Devensian Diamicton. Formerly known as boulder clay, the material is characteristically a poorly sorted mixture of gravel, cobbles and boulders with a sandy silty clay matrix. It is usually relatively impermeable although this may vary along fissures and coarser lenses. The junctions between the different deposits are shown as sharp lines but they are more likely to be gradational. The position for the existing house has clearly been benched into the hillside at the time of construction. The current owner is in the process of improving the retaining wall structures either side of the house. Diamicton is exposed wherever retaining walls have not yet been built. This can be seen in the photographs in Figure 11B. Returning to 11A, the broad yellow ribbon running west of the site is alluvium. This will be sand and gravel. This then gives way to a very large area of wind-blown sand. This area is the former Baglan Moors, once a poorly drained low-lying area topographically well below the site. Figure 12 is taken directly from page 71 of the Geoinsight Report. This shows the extent

of Made Ground that has been used to reclaim the former moors and the sand dunes to the west. The land has then been used for infrastructure and housing.

Solid (Bedrock) Geology:-

Figure 13 is an extract of the six-inch Geological Survey sheet covering the site (SS 79SE). Figure 14 is a section of the stratigraphic column from the map. The memoirs state that the bedrock beneath the site is of Upper Carboniferous (Upper Coal Measure) age. More specifically the site is underlain by the Rhondda Beds (Ra on the map). These overlie the Llynfi Beds (LI) and the site is very close to the boundary between the two. The Geological Survey sheets are at 1:10,560 scale and show the geology, and in particular coal seam outcrops, in detail. In Figure 13 the thick black dashed lines represent coal seam outcrops. Just west of the site is the outcrop of the Field Seam, closely followed by the Wernddu Seam. The Wernddu Seam marks the junction between the Rhondda and Llynfi Beds. South of the site on the outcrop of the Wernddu, the broad arrow symbols represent coal levels. These are sub-horizontal mine entrances driven into the hillside. The map also shows “old workings” on the outcrop of the Wernpistyll Seam further down the hillside below the levels. The top of the Llynfi Beds are sandstone (LI,S on the map), but the remainder of the beds are argillaceous. This fact is responsible for the very sharp change in topography where Mynydd Dinas, composed of the Rhondda Sandstones, rises sharply out of the moors which are underlain by soft mudstones. The site sits on very steep ground 30m above the lower ground. The dashed line running east-west just north of the site is the Moel Gilau Fault. This is an important structural feature in the South Wales Coalfield. The massive throw of the fault brings strata from the Lower Coal Measures (LCM on the map) in contact with the Upper Coal Measures. The geology and its influence on coal mining will be discussed further in the mine gas risk assessment.

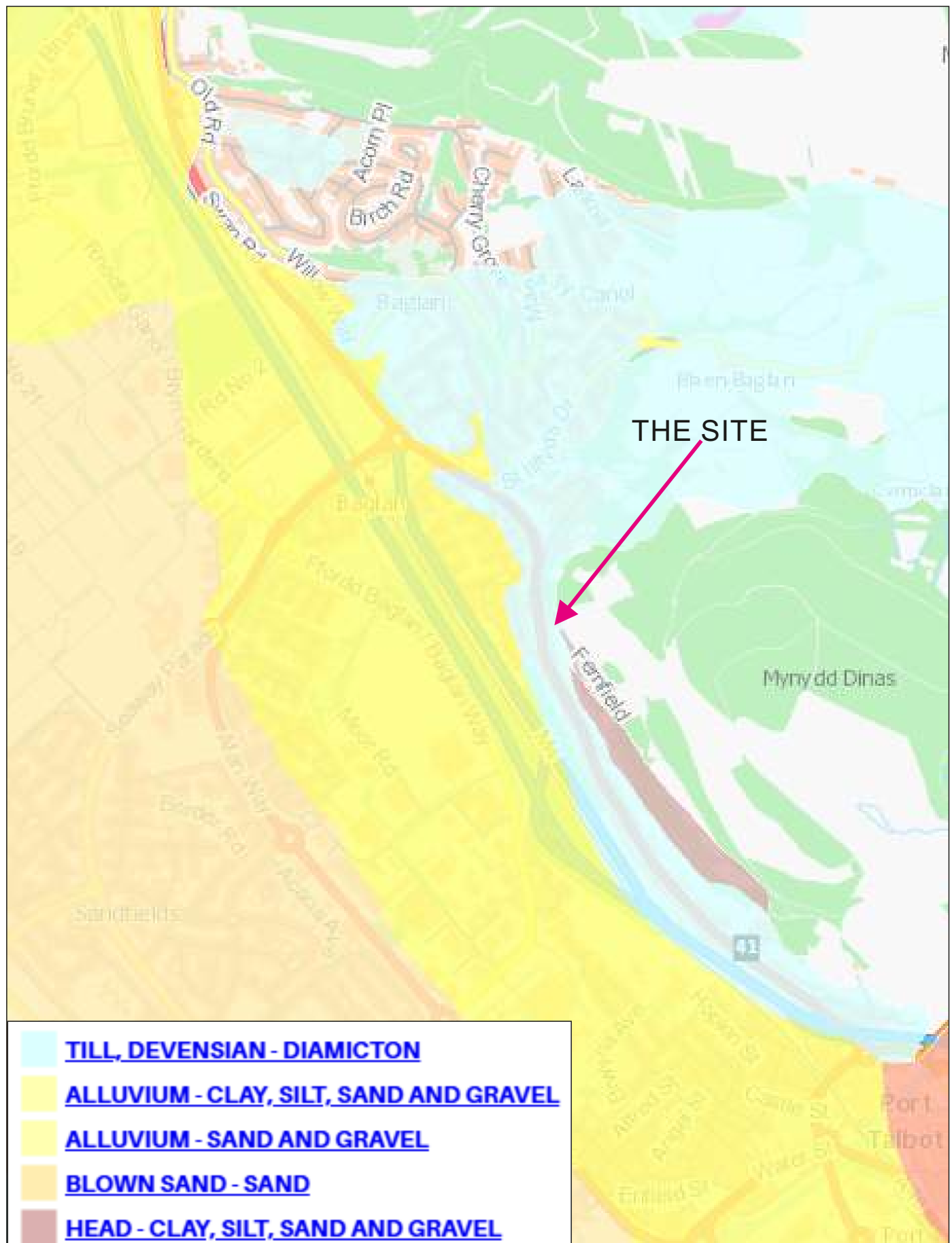


FIGURE 11A

B.G.S. GEOINDEX 1:50,000 MAP OF SUPERFICIAL DEPOSITS.



FIGURE 11B DIAMICTON EXPOSED IN THE GARDEN OF 3 FERNFIELD

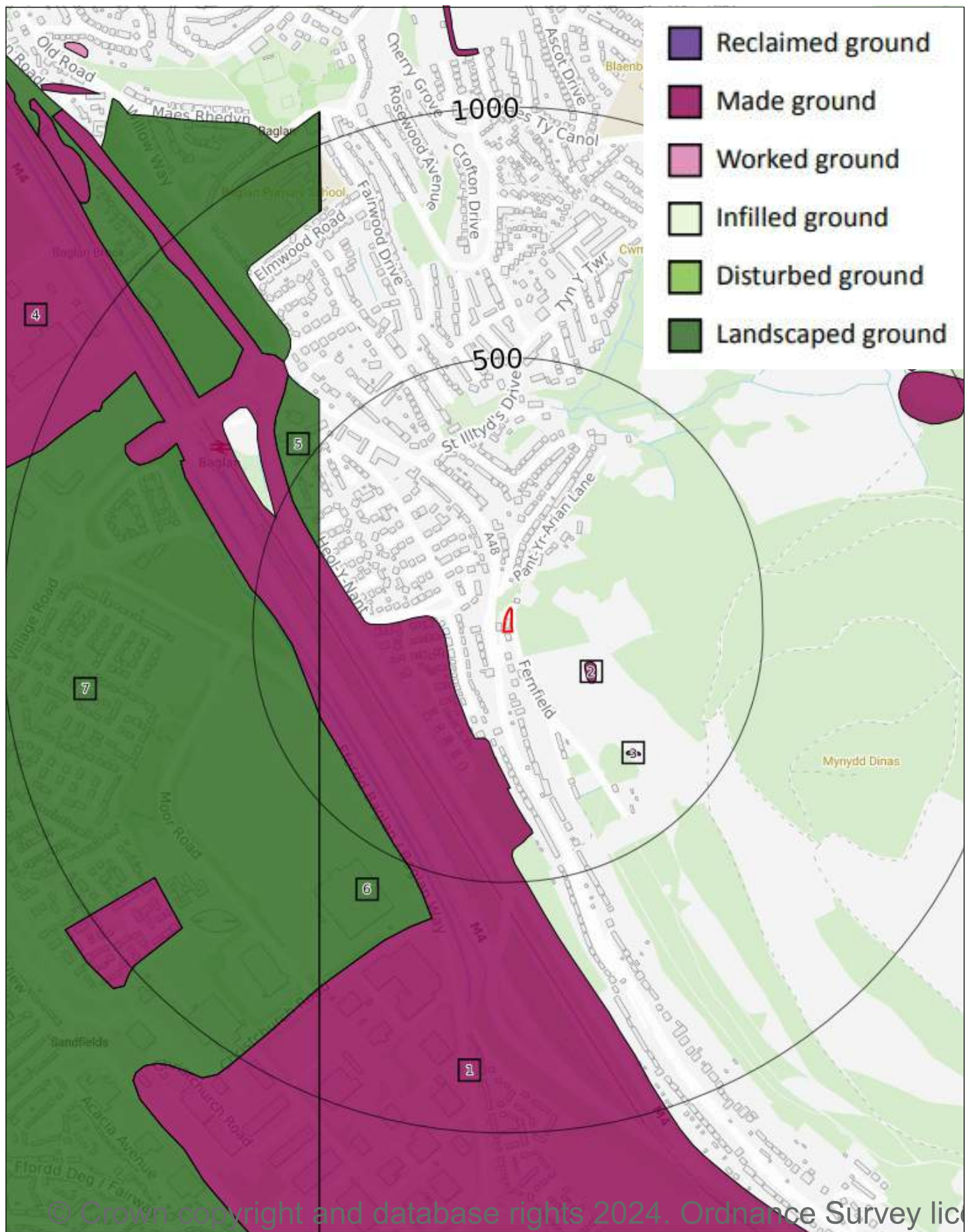


FIGURE 12
MAP OF MADE GROUND FROM THE ENVIROINSIGHT REPORT.

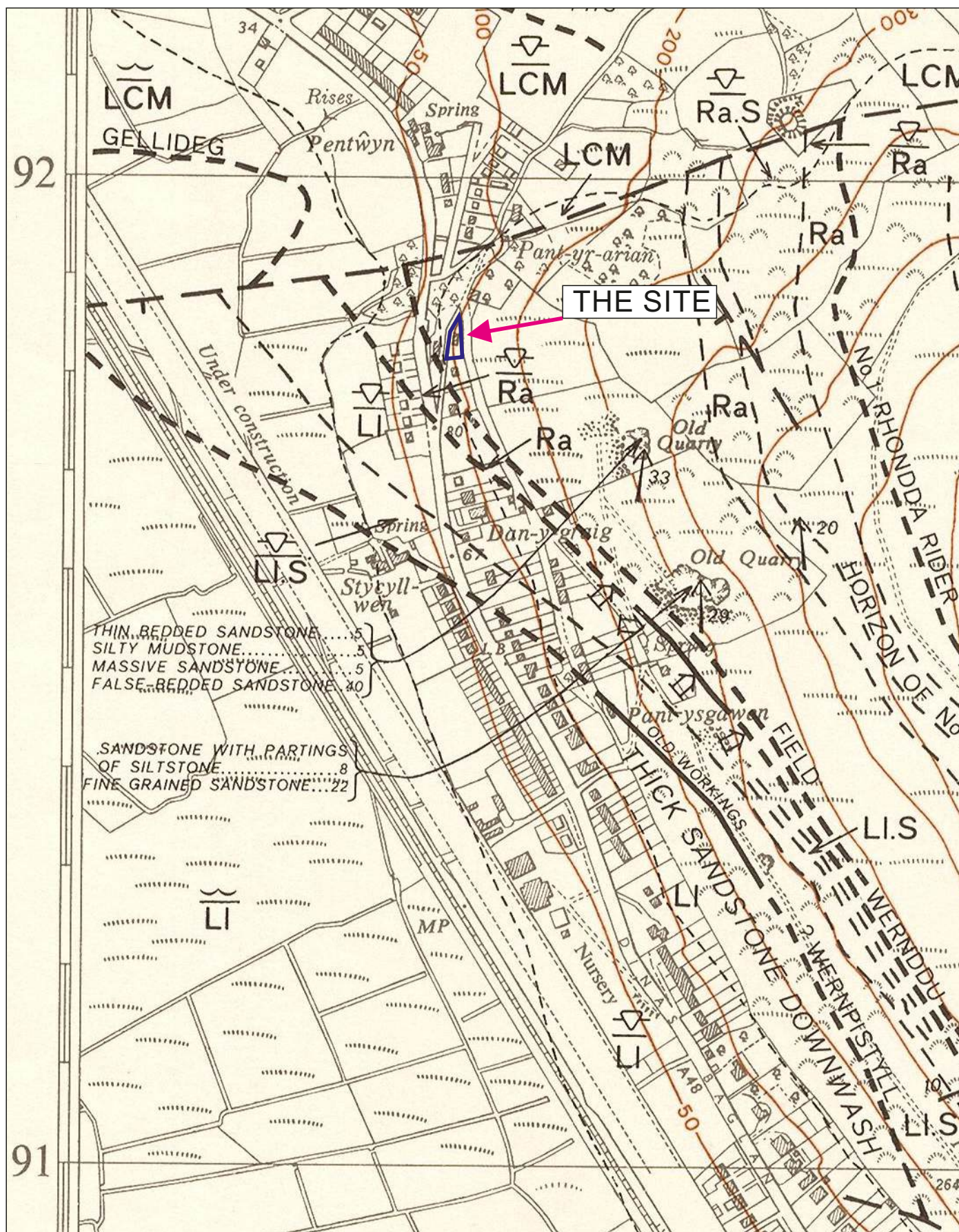


FIGURE 13
SECTION OF GEOLOGICAL SURVEY SHEET SS79SE

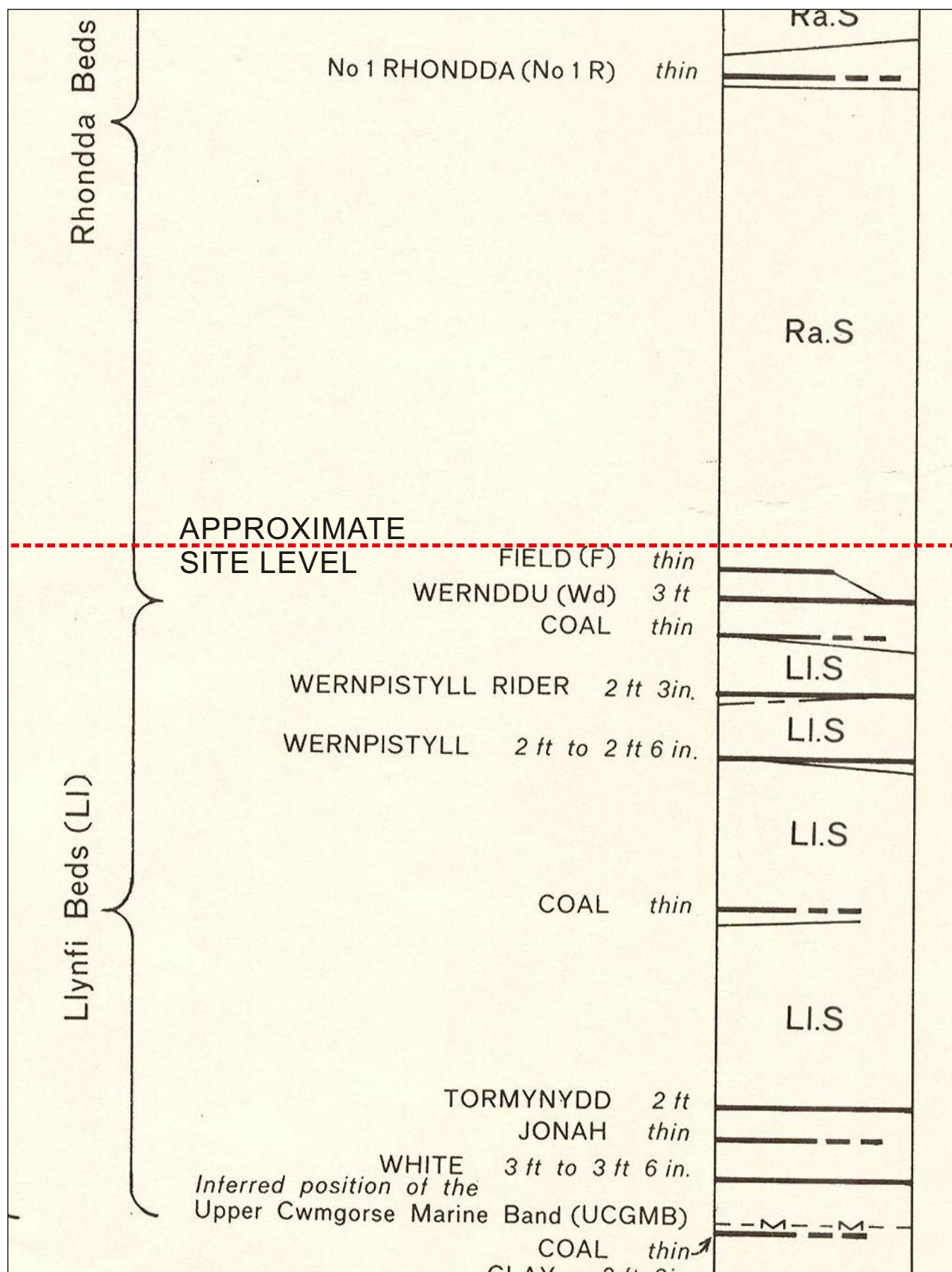


FIGURE 14
SECTION OF THE STRATIGRAPHIC COLUMN FROM SS 79SE.
THE APPROXIMATE SITE LEVEL IS MARKED.

6. HYDROGEOLOGY

In the past when compiling a Part 1 Desk Study the necessary information about Hydrogeology and other environmental factors could be obtained from the Environment Agency. In Wales this is no longer the case due to the N.R.W. (to whom the responsibilities of the E.A. have been devolved) failing to publish this information to date. It is now necessary to purchase the information off a private organisation such as Groundsure. This has been done for this report and the full Enviroinsight report is attached as Appendix A. All the information in the following sections 6-12 has been taken directly from the report.

The Superficial Aquifer map for the site is on page 33 of the Enviroinsight Report. Figure 15 is taken directly from the report. The aquifer map mimics the superficial deposits map in Figure 10 almost exactly. The Diamicton beneath the site has a Secondary Aquifer-Undifferentiated classification. This classification is used when it is not possible to assign A or B to a site. Formerly these would have been either Minor or Non-Aquifers. The classification is due to the nature of the underlying Devensian Till/ Diamicton. Formerly known as Boulder Clay, the material is a chaotic, poorly sorted jumble of coarse sediments ranging from sand to boulder size. There is a variable, but significant proportion of silt and clay grade material. This makes Diamicton generally impermeable, although water does travel through fissures and coarser layers. The Alluvium and blown sand deposits are also classed as Undifferentiated. Although probably much more permeable than the Diamicton, the low ground level close to the sea is likely to make any groundwater brackish.

Page 35 of the Enviroinsight Report shows the bedrock aquifer classification. The entire area of the map is Secondary (A). For this reason, the map is not reproduced here. Formerly known as Minor Aquifers the official definition is:- 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 in rivers. This reflects the nature of the Upper and Lower Coal Measures in the area. Although predominantly argillaceous, there are permeable sandstone layers within the Lower Coal Measures. In contrast, the Upper Coal Measures are predominantly sandstone. These sandstones have a low porosity but are highly permeable due to the well-developed jointing which allows high flow rates. Because of the relative abundance of surface water in South Wales the only groundwater abstractions tend to be private wells on properties remote from mains supply.

7. HYDROLOGY AND WATER QUALITY

The Ordnance Survey Water Network Mastermap is on page 42 of the report. The closest water body is a drainage ditch alongside the A48, 226m west of the site. The nearest natural watercourse is the Baglan Brook. This is 350m north of the site. After the confluence of several small streams, it is then culverted under the major infrastructure. The site is within the Baglan Brook (Headwaters to River Neath) Water Body Catchment Area. The Operational Catchment Area is Neath, and the Management Catchment Area is Tawe to Cadoxton.

The 2016 classification of the Baglan Brook Catchment is Ecological- Moderate, Chemical rating- Good and overall rating- Moderate. The nearest monitoring point is unknown.

The Swansea Carboniferous Coal Measures 2017 groundwater rating is Overall- Poor, Chemical rating- Poor and Quantitative rating-good.

8. ABSTRACTIONS

The Enviroinsight report lists a single groundwater abstraction licence within 2000m of the site. This is an unnamed spring 1786m east of the site. This is a licensed Potable Abstraction with the water being bottled. There are no Source Protection Zones, or Source Protection Zones within Confined Aquifer within a 500m radius of the site.

9. POLLUTION INCIDENTS

There has been ten Environment Agency/Natural Resources Wales Recorded Pollution Incidents within 500m of the site. Most are related to either dust, smoke or fly tipping. There is a single incident involving polluted minewater 248m northeast of the site. This was in 2016. None of the recorded pollution incidents will have no bearing on the site. There are no sites designated as Part 2a contaminated land within 500m of the site. There are no COMAH sites within 500m. There are no I.P.C. authorisations, Part A (1) or I.P.P.C. Authorised activities. There are no Part A (2)/B licenses within 500m. There are no Red List discharge consents or Dangerous/Radioactive Authorisations within 500m. There are no List 1 or List 2 Dangerous Substance Inventory Sites within 500m of the site. There is a single licensed non-water company sewage discharge consent relating to two properties 256m away.

10. LANDFILL

There are no active or recently closed landfills within 500m of the site. There are no historic landfills within 500m of the site. All databases were searched including the B.G.S and E.A./N.R.W. Local Authority and historic mapping. There are no waste exemption licences within 500m of the site

11. FLOOD RISK

Flood risk for the site will be dealt with as a separate matter for the planning application. For a Phase 1 report the risk of flooding of possibly contaminated land needs to be considered. There are no flood risk zones within 100m. There are no historical flood records within 250m. The surface water flooding risk is described as negligible for every return period up to 1 in 1000 year. The groundwater flooding map is on page 49 of the Enviroinsight Report. The risk is low for the site and low or negligible for everywhere within 250m of the site.

12. ECOLOGICAL AND ARCHAEOLOGICAL CONSIDERATIONS

There are no known archaeological considerations. There are no S.S.S.I.s within 2000m of the site. There are 43 areas of ancient semi-natural woodland and restored ancient woodland within 2000m of the site in various directions.

13. PREVIOUS CONTAMINATION STUDIES

None recorded.

14. LPA AND BUILDING CONTROL RECORDS

It is not anticipated that N.P.T. will hold any planning or building control records within the site boundary beyond the current application.

15. CONTAMINANTS OF CONCERN AND SOURCE AREAS

All the information contained in the preceding sections shows no possible contaminative uses of the site. The site visit demonstrated there was no Made Ground at the site. There are also no possibly contaminative uses within 500m of the site. Therefore, there are no contaminants of concern and no likely source areas. Table 1 overleaf is a qualitative risk assessment of the site.

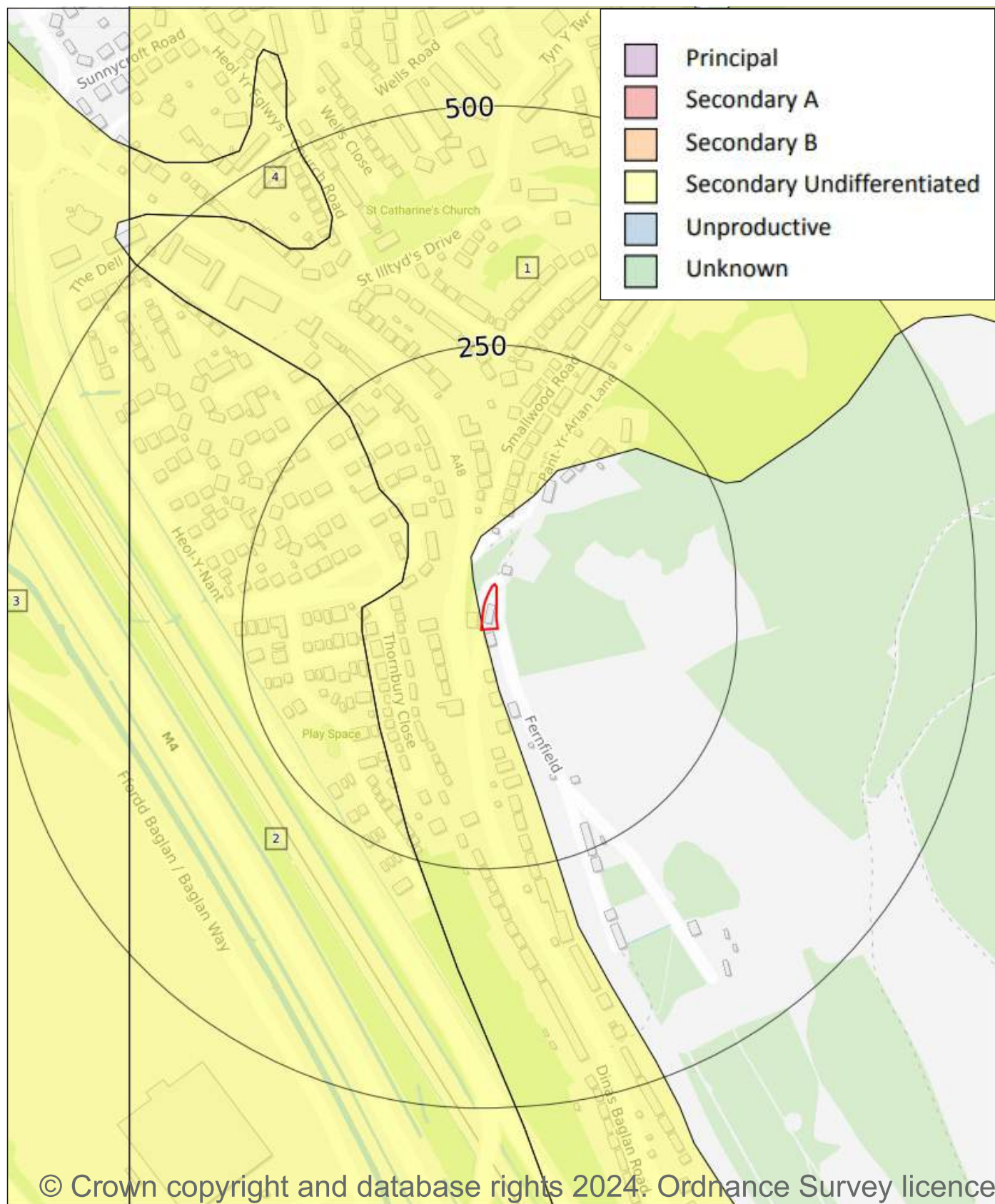


FIGURE 15
SUPERFICIAL AQUIFER MAP FROM THE ENVIROINSIGHT REPORT.

TABLE 1						
INITIAL QUALITATIVE HUMAN HEALTH RISK ASSESSMENT AND ENVIRONMENTAL RISK ASSESSMENT AT 3 FERNFIELD, BAGLAN.						
CONTAMINANT SOURCE	PATHWAYS	RECEPTORS	POTENTIAL SEVERITY	PROBABILITY OF RISK	LEVEL OF RISK	FURTHER ACTION REQUIRED
ON SITE: POTENTIAL CONTAMINATION IN SOILS/MADE GROUND. POSSIBLY ELEVATED LEVELS OF METALS AND PAH	INGESTION, DERMAL CONTACT, INHALATION	FUTURE END USERS, VISITORS	MEDIUM	LOW	LOW	THERE HAVE BEEN NO CONTAMINATIVE USES OF THE SITE IN THE PAST. THE SITE WAS UNDEVELOPED FARMLAND UNTIL THE EXISTING HOUSE WAS BUILT. THERE HAVE BEEN NO CONTAMINATIVE LAND USES WITHIN 500m OF THE SITE. THERE IS NO MADE GROUND ON THE SITE. THERE IS NO REASON TO SUSPECT THAT THERE IS ANY CONTAMINATION AT THE SITE. NO FURTHER ACTION REQUIRED.
	CONTACT WITH CONTAMINATED GROUNDWATER	FUTURE END USERS, VISITORS AND CONSTRUCTION WORKERS	MEDIUM			
	PERMEATION OF WATER PIPES	FUTURE END USERS AND SITE VISITORS	MEDIUM			
	INGESTION OF HOME GROWN PRODUCE	FUTURE END USERS	N/A			
ON SITE: ASBESTOS AT OR NEAR GROUND SURFACE IN SOILS/MADE GROUND	INHALATION OF FIBRES IN AIRBORNE DUST	FUTURE END USERS AND SITE VISITORS	HIGH	LOW	LOW	NO POSSIBLE SOURCE OF ASBESTOS ON OR NEAR TO THE SITE. NO FURTHER ACTION REQUIRED.
		CONSTRUCTION WORKERS	HIGH	LOW	LOW	
ON SITE: POTENTIAL CONTAMINATION IN SOILS/MADE GROUND. POSSIBLY ELEVATED LEVELS OF CONTAMINANTS	RUN OFF	SURFACE DRAINAGE	MEDIUM	LOW	LOW	BECAUSE THERE IS NO POSSIBILITY OF CONTAMINATION OF SOIL ON THE SITE THERE IS NO THREAT TO THE WIDER ENVIRONMENT.
	MIGRATION THROUGH SOIL VIA LEACHING	SHALLOW GROUNDWATER				
	ONWARD MIGRATION OF GROUNDWATER	BEDROCK AQUIFER				

16. GROUND GAS POTENTIAL

The updated (2017) WLGA & NRW guidelines on the Development of Land Affected by Contamination state that “Ground gas is a contaminant and should be considered as a potential contaminant source in the preliminary risk assessment on sites where gas generation and /or migration is suspected”. More recently, local authorities have been requesting specific mine gas risk assessments conducted in accordance with 'CL:AIRE - Good Practice for Risk Assessment for Coal Mine Gas Emissions, October 2021' and having regard to current guidance - 'Land Contamination: Risk Management (LCRM; 2020)'. In particular, there is often a demand to follow the decision tree in Figure 13.1 of the Decision support tool for mine gas risk assessment on page 35 of the CL:AIRE document. It is possible that is the reason for applying contaminated land conditions to this planning application. Before going on to a full Mine Gas Risk Assessment all other sources of ground gas need to be examined.

There is no Made Ground at the site. There are no natural organic soils at the site. Therefore, on-site generation of ground gas can be completely discounted at this stage.

Moving on to the risk of migration from elsewhere, the two most common sources for ground gas migrating onto a site from elsewhere are landfill sites and mines, particularly coal mines.

Landfill sites have been found to be sources of gases, particularly methane, caused by the breakdown of organic material contained within them. There have been instances where migration of these gases has caused explosions or asphyxiation at receptors off site. These occurrences are rare and usually outside Britain in completely unregulated circumstances. In contrast, landfills in Britain have been tightly regulated and managed for many years, and a sense of perspective is necessary when assessing the threat from a landfill close to a site. At the present time “close” is generally taken to mean 250m, although there are no specific studies that have arrived at this figure. The figure dates to a 2003 E.A. publication “Building on or within 250m of a Landfill”. The document and 250m figure were subsequently adopted in L.P.A. planning guidance. The original document itself stresses that conditions can vary enormously. In particular, the document acknowledges that there must be viable pathways from any potential source of Landfill gases to a receptor, for there to be any risk. As stated in Section 10, there are no active or historic landfills within 500m of the site. The migration of Landfill Gas to site can be completely discounted at this stage.

17. DETAILED COAL MINING GAS RISK ASSESSMENT

This leaves the risk from Coal Mining. Gas production was a constant problem during the coal mining heyday of the South Wales Coalfield. The loss of life through explosion or asphyxiation was huge. However, there were vast differences in the potential for gas production between different areas, and in different seams. As a generalisation, the deep steam coals of the Middle and Lower Coal Measures were the most problematic in the Coalfield. Gas production in coal mines takes two forms. Methane trapped under pressure in the coal is released during mining operations. The production of Methane stops very shortly after the end of mining activity. The production of Carbon Dioxide and Carbon Monoxide is due to oxidation of the coal. If conditions are suitable, this gas production can carry on long after mining ceases.

The geological desk study contained in Section 5 established that the Upper Coal Measures underlie the site, more specifically the Rhondda Beds. The Geological Survey Sheet showed shallow mining in two seams close to the site. The seams were the Wernddu and Wernpistyll.

To obtain further mining information, the Coal Authority Interactive Viewer was used. This contains multiple datasets relating to past coal mining. The primary source for the C.A. Interactive Viewer is the British Coal Rationalised Development Plan. This itself drew heavily on the Geological Survey with additional information from N.C.B/B.C. records. Figure 16 is an extract from the Viewer. For clarity, only four datasets are shown. The brown lines are seam outcrops, and the red crosses are mine entries. Both are very similar to those on the Geological Survey Sheets. This is unsurprising for the reason given above. The main point of interest are the other two datasets. Pink hatching denotes areas of recorded underground mining, purple hatching shows areas of suspected shallow mining. There is one tiny area of recorded mining circled within the screenshot in Figure 16. There is no suspected unrecorded mining anywhere in the screenshot. Information on both is required to use the CL:AIRE Decision Tree. The Interactive Viewer is not totally reliable, as anyone who uses it regularly will attest. To double check the facts, a Consultants Report was purchased from the Coal Authority. This is attached as Appendix B. The Consultants Report confirms everything that was assumed above. There is no coal mining beneath the site at any depth. There is no suspected unrecorded shallow mining. This leaves the issue of mine entries. On the Interactive Viewer, the nearest mine entry appears to be more than 50m away, but the scale is too small to establish this without doubt. The Summary

of Findings map with the Consultants report is better, but not perfect. To get a definitive answer a Shaft map and Mine Data Sheet Report was purchased. This is also in Appendix B. An extract from the map in the report is shown in Figure 17. Using the 100m grid for scale the mine entry is 70m from the site.

All the extensive evidence presented in the preceding section shows there can be no risk to the site from Mine Gas. The Decision Support Tool, Figure 13.1 on Page 35 of the CL:AIRE publication Good Practise for Risk Assessment for Coal Mine Gas Emissions is now supposed to be used. Within this rigid framework there is no room for past experience, or practical knowledge of coal mining, and there is certainly no allowance for the hydrogeology of the South Wales Coalfield. The arbitrary insistence that all workings must be >150m deep is particularly ridiculous. In this instance the flow chart can be followed to reach the decision above. This may not be true in many cases where there is no mine gas risk and there must be a discussion around this at some point.

IS THE SITE WITHIN A C.A. DEFINED COAL MINING REPORTING AREA

>YES>

ARE ALL THESE STATEMENTS TRUE.

ALL MINE ENTRIES >50m FROM SITE BOUNDARY.

ALL WORKINGS >150m DEPTH

NO FAULTS OR POTENTIAL PATHWAYS CONNECTING THE SURFACE TO DEEPER UNFLOODED WORKINGS.

OUTSIDE AREA OF PAST OR PROBABLE SHALLOW WORKINGS ON THE COAL AUTHORITY INTERACTIVE VIEWER.

>YES>

NEGLIIBLE RISK ZONE.

DETAILED FINDINGS WITHIN THIS REPORT.

MITIGATION NOT REQUIRED.

NO FURTHER ACTION REQUIRED.

At the outset of the author's involvement the presence of the nearest mine entrance, combined with the outcrop positions made it unclear if the decision tree would clear the site of all risk. Because a building was already standing on the site there was an opportunity to carry out gas monitoring inside. After being occupied for at least 90

years the idea that there could be a risk from mine gas seems ridiculous. Nevertheless, a program of monitoring was undertaken. The equipment used was a Drager Xam2500 fitted in a custom-made cradle pump. Figure 18 shows the author taking readings. Corners and wall/floor junctions were monitored as the most likely points for any gas ingress. A normal program of monitoring in wells calls for six visits over a variety of atmospheric conditions. What this really means is at least some monitoring must be on days with low atmospheric pressure. This is because of the theoretically higher risk of gas emissions when air pressure is low. The results of the monitoring are tabulated below. As would be anticipated no mine gases were detected regardless of air pressure.

DATE	AIR PRESSURE	O ₂	CO	CO ₂	CH ₄	H ₂ S	V.O.C.s
06/04/2024	997mB	20.9	0	0.3	0	0	N/A
15/04/2024	1010mB	20.9	0	0.3	0	0	N/A
30/04/2024	1007mB	20.9	0	0.3	0	0	N/A
12/05/2024	998mB	20.9	0	0.3	0	0	N/A
01/06/2024	1026mB	20.9	0	0.3	0	0	N/A
14/06/2024	999mB	20.9	0	0.3	0	0	N/A
GAS MONITORING RESULTS INSIDE 3 FERNFIELD BAGLAN							

Finally, part of the site is within an area where less than 1% of properties are affected by Radon. No Radon protective measures will be required.

A summary of the Ground Gas Risk Assessment of the site is contained in Table 2 overleaf.

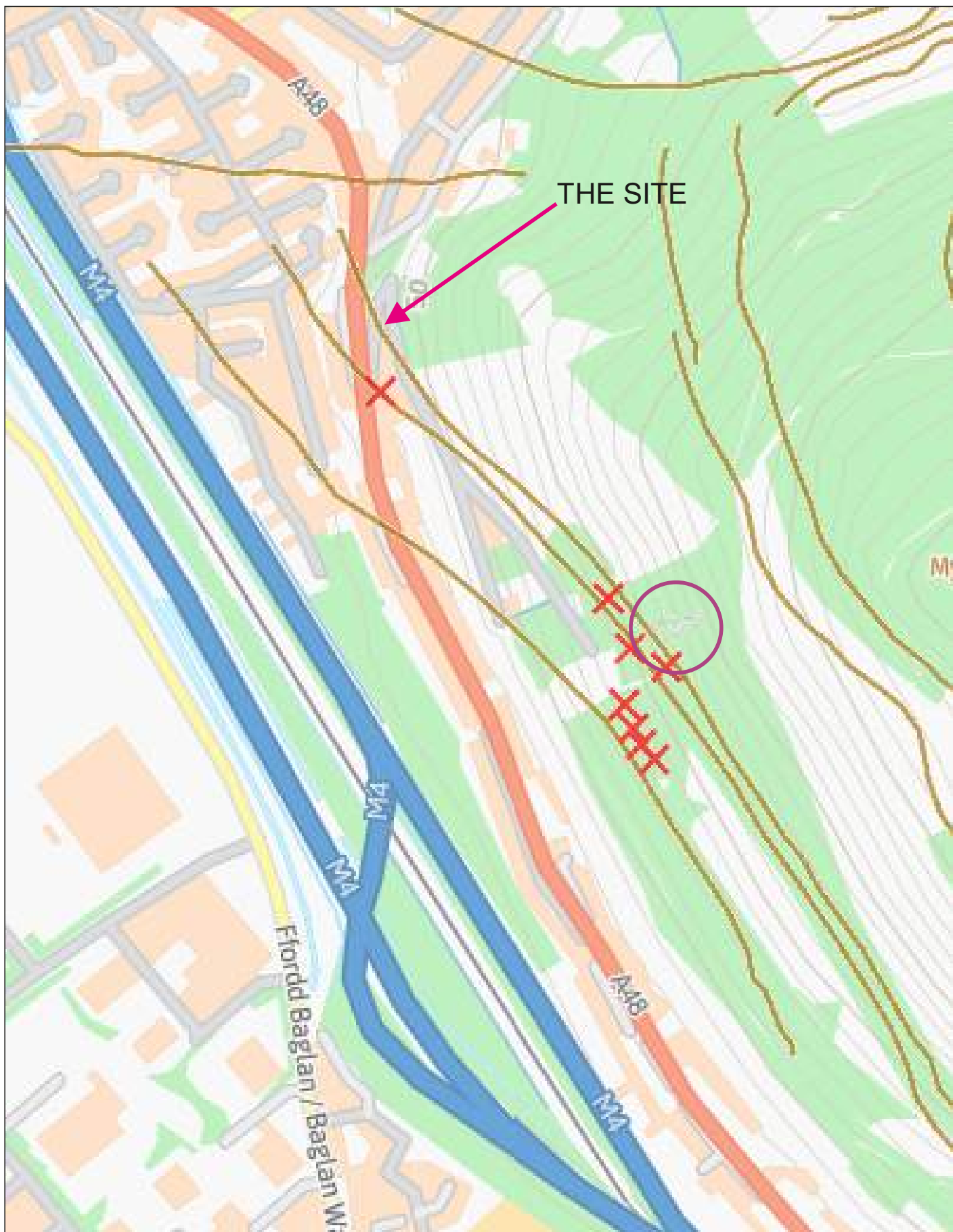


FIGURE 16
COAL AUTHORITY INTERACTIVE VIEWER, MINING DATA WINDOW. RED
CROSSES ARE MINE ENTRIES, BROWN LINES ARE SEAM OUTCROPS.

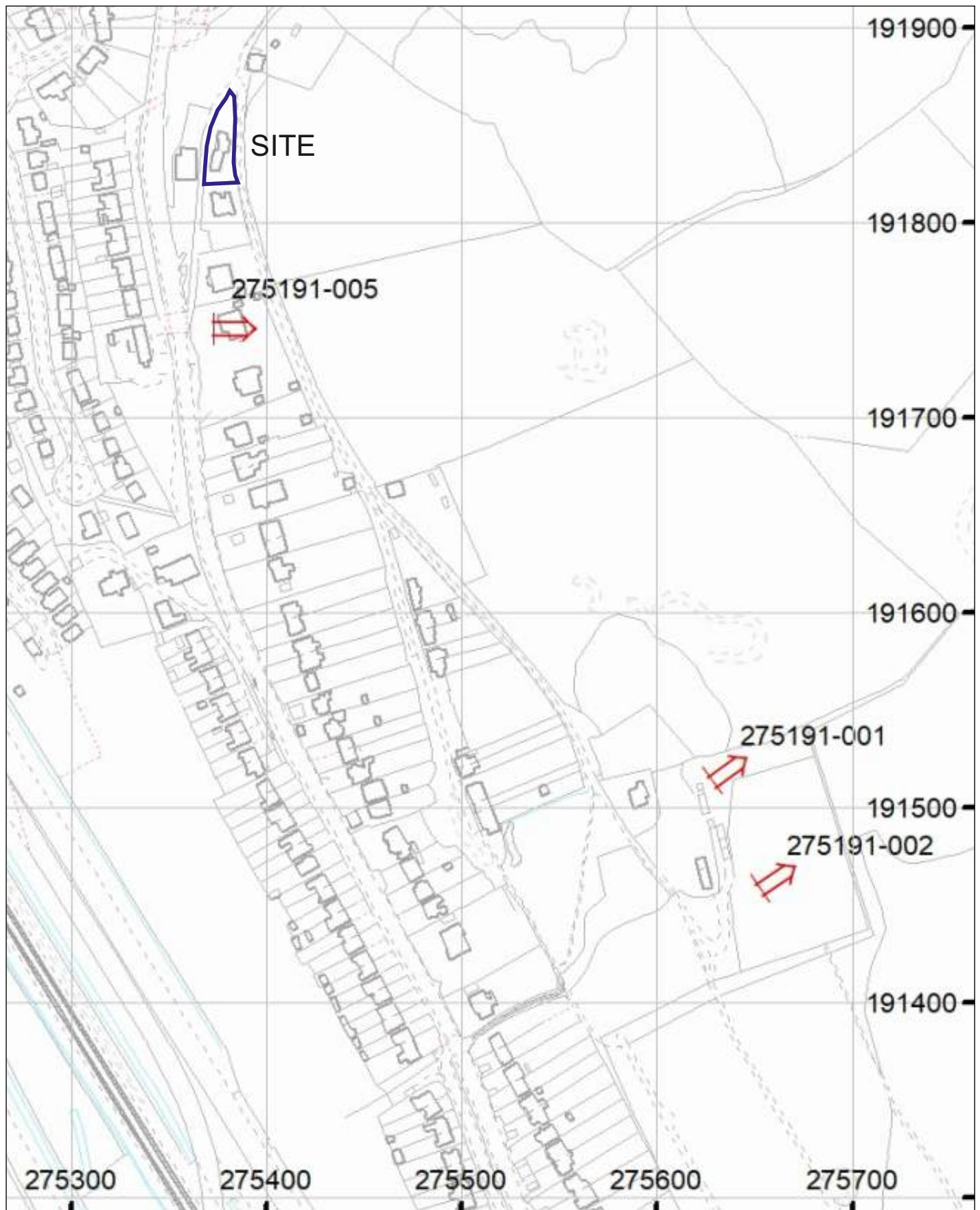


FIGURE 17
THE COAL AUTHORITY SHAFT PLAN WITH THE SITE HIGHLIGHTED.



FIGURE 18
GAS MONITORING WITHIN THE PROPERTY.

TABLE 2 INITIAL GROUND GAS RISK ASSESSMENT 3 FERNFIELD, BAGLAN					
SOURCE	PATHWAY	RECEPTOR	CONSEQUENCE CLASSIFICATION	RISK	FURTHER ACTION
HAZARDOUS GROUND GAS FROM OFF SITE SOURCE	INHALATION, INJURY FROM EXPLOSION	SITE USERS, VISITORS, CONSTRUCTION WORKERS	SEVERE	LOW. NO LANDFILL WITHIN 500m. GEOLOGICAL RESEARCH SHOWED NO MINING BENEATH THE SITE. NO VIABLE PATHWAY TO SITE	NO FURTHER ACTION REQUIRED
HAZARDOUS GROUND GAS FROM OFF SITE SOURCE	DAMAGE FROM EXPLOSION	BUILDINGS	SEVERE		
HAZARDOUS GROUND GAS FROM ON SITE SOURCE	INHALATION, INJURY FROM EXPLOSION	SITE USERS, VISITORS, CONSTRUCTION WORKERS	SEVERE	LOW. NO POSSIBILITY OF ON SITE GENERATION FROM MADE GROUND OR ORGANIC SOILS.	NO FURTHER ACTION REQUIRED
HAZARDOUS GROUND GAS FROM ON SITE SOURCE	DAMAGE FROM EXPLOSION	BUILDINGS	SEVERE		
RADON GAS	LONG TERM HAZARD FROM INHALATION	SITE USERS	SEVERE	LOW. LESS THAN 1% OF PROPERTIES AFFECTED BY RADON.	NO RADON PROTECTIVE MEASURES NECESSARY

18. CONCEPTUAL SITE MODEL (C.S.M.)

A C.S.M. is a required part of a standard Phase 1 template. This is a diagrammatic method of showing potential contamination pathways. Since this report has shown there is no risk to the site or the wider environment from soil contamination or ground gas a C.S.M. is superfluous. With no sources there can be no pathways.

19. CONCLUSIONS

This Phase 1 desk study has used extensive research to conclude there is an no risk of soil contamination at the site. With no contamination on the site there can be no threat to the broader environment. This means that the Contaminated Land Risk Assessment has become a single issue, namely the risk from mine gases. This risk was fully quantified and found to be non-existent. The assessment was carried out in accordance with the CL:AIRE publication Good Practice for Risk Assessment for Coal Gas Emissions: October 2021 and done by a competent person as defined by said publication. The author started work in the coal industry over forty years ago and continues to work on coal mining legacy issues.

The conclusions of this report mean Neath Port Talbot can discharge Condition 7.1. This also means conditions 7.2, 7.3, 8 and 9 can be discharged as they were dependent on the conclusions of the Phase 1 report requiring them. As this is not the case, they no longer apply. Condition 10 is a standard Unexpected Contamination Condition. This is not pre-commencement but will run during the course of construction.

Richard Davies BSc. (Hons), MSc., F.G.S.

18/06/2024

APPENDIX A
GROUNDSURE ENVIROINSIGHT
AND GEOINSIGHT REPORT
3 FERNFIELD
BAGLAN

275375,191835,

Order Details

Date: 16/04/2024
Your ref: FERNFIELD_BAGLAN
Our Ref: GS-R4Q-CXN-MG8-FGM

Site Details

Location: 275375 191835
Area: 0.06 ha
Authority: [Castell-nedd Port Talbot - Neath Port Talbot County Borough](#) ↗



[Summary of findings](#)

[p. 2 >](#)

[Aerial image](#)

[p. 9 >](#)

[OS MasterMap site plan](#)

[p.14 >](#)

[Insight User Guide](#) ↗

Contact us with any questions at:

info@groundsure.com ↗

01273 257 755

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	8	20	-
17 >	1.2 >	Historical tanks >	0	0	1	0	-
17 >	1.3 >	Historical energy features >	0	0	2	5	-
18	1.4	Historical petrol stations	0	0	0	0	-
18 >	1.5 >	Historical garages >	0	0	2	0	-
18	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
19 >	2.1 >	Historical industrial land uses >	0	0	12	23	-
21 >	2.2 >	Historical tanks >	0	0	2	0	-
21 >	2.3 >	Historical energy features >	0	0	6	8	-
22	2.4	Historical petrol stations	0	0	0	0	-
22 >	2.5 >	Historical garages >	0	0	3	0	-
Page	Section	Waste and landfill	On site	0-50m	50-250m	250-500m	500-2000m
23	3.1	Active or recent landfill	0	0	0	0	-
23	3.2	Historical landfill (BGS records)	0	0	0	0	-
23	3.3	Historical landfill (LA/mapping records)	0	0	0	0	-
23	3.4	Historical landfill (EA/NRW records)	0	0	0	0	-
23	3.5	Historical waste sites	0	0	0	0	-
24	3.6	Licensed waste sites	0	0	0	0	-
24	3.7	Waste exemptions	0	0	0	0	-
Page	Section	Current industrial land use >	On site	0-50m	50-250m	250-500m	500-2000m
25 >	4.1 >	Recent industrial land uses >	0	0	4	-	-
26 >	4.2 >	Current or recent petrol stations >	0	0	0	1	-
26	4.3	Electricity cables	0	0	0	0	-
26	4.4	Gas pipelines	0	0	0	0	-
26	4.5	Sites determined as Contaminated Land	0	0	0	0	-



27	4.6	Control of Major Accident Hazards (COMAH)	0	0	0	0	-
27	4.7	Regulated explosive sites	0	0	0	0	-
27	4.8	Hazardous substance storage/usage	0	0	0	0	-
27	4.9	Historical licensed industrial activities (IPC)	0	0	0	0	-
27	4.10	Licensed industrial activities (Part A(1))	0	0	0	0	-
28	4.11	Licensed pollutant release (Part A(2)/B)	0	0	0	0	-
28	4.12	Radioactive Substance Authorisations	0	0	0	0	-
28 >	4.13 >	<u>Licensed Discharges to controlled waters</u> >	0	0	1	3	-
29	4.14	Pollutant release to surface waters (Red List)	0	0	0	0	-
29	4.15	Pollutant release to public sewer	0	0	0	0	-
29	4.16	List 1 Dangerous Substances	0	0	0	0	-
29	4.17	List 2 Dangerous Substances	0	0	0	0	-
30 >	4.18 >	<u>Pollution Incidents (EA/NRW)</u> >	0	0	12	6	-
32	4.19	Pollution inventory substances	0	0	0	0	-
32	4.20	Pollution inventory waste transfers	0	0	0	0	-
32	4.21	Pollution inventory radioactive waste	0	0	0	0	-
Page	Section	<u>Hydrogeology</u> >	On site	0-50m	50-250m	250-500m	500-2000m
33 >	5.1 >	<u>Superficial aquifer</u> >	Identified (within 500m)				
35 >	5.2 >	<u>Bedrock aquifer</u> >	Identified (within 500m)				
37 >	5.3 >	<u>Groundwater vulnerability</u> >	Identified (within 50m)				
38	5.4	Groundwater vulnerability- soluble rock risk	None (within 0m)				
38	5.5	Groundwater vulnerability- local information	None (within 0m)				
39 >	5.6 >	<u>Groundwater abstractions</u> >	0	0	0	0	1
40	5.7	Surface water abstractions	0	0	0	0	0
40 >	5.8 >	<u>Potable abstractions</u> >	0	0	0	0	1
41	5.9	Source Protection Zones	0	0	0	0	-
41	5.10	Source Protection Zones (confined aquifer)	0	0	0	0	-
Page	Section	<u>Hydrology</u> >	On site	0-50m	50-250m	250-500m	500-2000m
42 >	6.1 >	<u>Water Network (OS MasterMap)</u> >	0	0	1	-	-



43 >	6.2 >	Surface water features >	0	0	1	-	-
43 >	6.3 >	WFD Surface water body catchments >	1	-	-	-	-
43 >	6.4 >	WFD Surface water bodies >	0	0	0	-	-
44 >	6.5 >	WFD Groundwater bodies >	1	-	-	-	-
Page	Section	River and coastal flooding >	On site	0-50m	50-250m	250-500m	500-2000m
45	7.1	Risk of flooding from rivers and the sea	None (within 50m)				
46	7.2	Historical Flood Events	0	0	0	-	-
46	7.3	Flood Defences	0	0	0	-	-
46 >	7.4 >	Areas Benefiting from Flood Defences >	0	0	1	-	-
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	Negligible (within 50m)				
Page	Section	Groundwater flooding >					
49 >	9.1 >	Groundwater flooding >	Low (within 50m)				
Page	Section	Environmental designations >	On site	0-50m	50-250m	250-500m	500-2000m
50	10.1	Sites of Special Scientific Interest (SSSI)	0	0	0	0	0
51	10.2	Conserved wetland sites (Ramsar sites)	0	0	0	0	0
51	10.3	Special Areas of Conservation (SAC)	0	0	0	0	0
51	10.4	Special Protection Areas (SPA)	0	0	0	0	0
51	10.5	National Nature Reserves (NNR)	0	0	0	0	0
52	10.6	Local Nature Reserves (LNR)	0	0	0	0	0
52 >	10.7 >	Designated Ancient Woodland >	0	0	1	5	37
54	10.8	Biosphere Reserves	0	0	0	0	0
54	10.9	Forest Parks	0	0	0	0	0
54	10.10	Marine Conservation Zones	0	0	0	0	0
54	10.11	Green Belt	0	0	0	0	0
54	10.12	Proposed Ramsar sites	0	0	0	0	0



55	10.13	Possible Special Areas of Conservation (pSAC)	0	0	0	0	0
55	10.14	Potential Special Protection Areas (pSPA)	0	0	0	0	0
55	10.15	Nitrate Sensitive Areas	0	0	0	0	0
55	10.16	Nitrate Vulnerable Zones	0	0	0	0	0
56	10.17	SSSI Impact Risk Zones	0	-	-	-	-
56	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
57	11.1	World Heritage Sites	0	0	0	-	-
57	11.2	Area of Outstanding Natural Beauty	0	0	0	-	-
57	11.3	National Parks	0	0	0	-	-
57	11.4	Listed Buildings	0	0	0	-	-
58	11.5	Conservation Areas	0	0	0	-	-
58	11.6	Scheduled Ancient Monuments	0	0	0	-	-
58	11.7	Registered Parks and Gardens	0	0	0	-	-
Page	Section	Agricultural designations >	On site	0-50m	50-250m	250-500m	500-2000m
59 >	12.1 >	Agricultural Land Classification >	Grade 4 (within 250m)				
60	12.2	Open Access Land	0	0	0	-	-
60	12.3	Tree Felling Licences	0	0	0	-	-
60	12.4	Environmental Stewardship Schemes	0	0	0	-	-
60	12.5	Countryside Stewardship Schemes	0	0	0	-	-
Page	Section	Habitat designations	On site	0-50m	50-250m	250-500m	500-2000m
61	13.1	Priority Habitat Inventory	0	0	0	-	-
61	13.2	Habitat Networks	0	0	0	-	-
61	13.3	Open Mosaic Habitat	0	0	0	-	-
61	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
62 >	14.1 >	10k Availability >	Identified (within 500m)				
63 >	14.2 >	Artificial and made ground (10k) >	0	0	2	5	-
65 >	14.3 >	Superficial geology (10k) >	1	0	2	1	-

66	14.4	Landslip (10k)	0	0	0	0	-
67 >	14.5 >	Bedrock geology (10k) >	1	1	6	8	-
68 >	14.6 >	Bedrock faults and other linear features (10k) >	0	1	7	12	-
Page	Section	Geology 1:50,000 scale >	On site	0-50m	50-250m	250-500m	500-2000m
70 >	15.1 >	50k Availability >	Identified (within 500m)				
71 >	15.2 >	Artificial and made ground (50k) >	0	0	1	2	-
72	15.3	Artificial ground permeability (50k)	0	0	-	-	-
73 >	15.4 >	Superficial geology (50k) >	1	0	2	0	-
74 >	15.5 >	Superficial permeability (50k) >	Identified (within 50m)				
74	15.6	Landslip (50k)	0	0	0	0	-
74	15.7	Landslip permeability (50k)	None (within 50m)				
75 >	15.8 >	Bedrock geology (50k) >	2	0	6	6	-
76 >	15.9 >	Bedrock permeability (50k) >	Identified (within 50m)				
77 >	15.10 >	Bedrock faults and other linear features (50k) >	1	0	7	11	-
Page	Section	Boreholes >	On site	0-50m	50-250m	250-500m	500-2000m
78 >	16.1 >	BGS Boreholes >	0	2	9	-	-
Page	Section	Natural ground subsidence >					
80 >	17.1 >	Shrink swell clays >	Very low (within 50m)				
81 >	17.2 >	Running sands >	Very low (within 50m)				
83 >	17.3 >	Compressible deposits >	Negligible (within 50m)				
84 >	17.4 >	Collapsible deposits >	Very low (within 50m)				
85 >	17.5 >	Landslides >	Moderate (within 50m)				
87 >	17.6 >	Ground dissolution of soluble rocks >	Negligible (within 50m)				
Page	Section	Mining and ground workings >	On site	0-50m	50-250m	250-500m	500-2000m
89 >	18.1 >	BritPits >	0	0	1	1	-
90 >	18.2 >	Surface ground workings >	0	0	9	-	-
91 >	18.3 >	Underground workings >	0	0	0	4	13
91	18.4	Underground mining extents	0	0	0	0	-
92	18.5	Historical Mineral Planning Areas	0	0	0	0	-

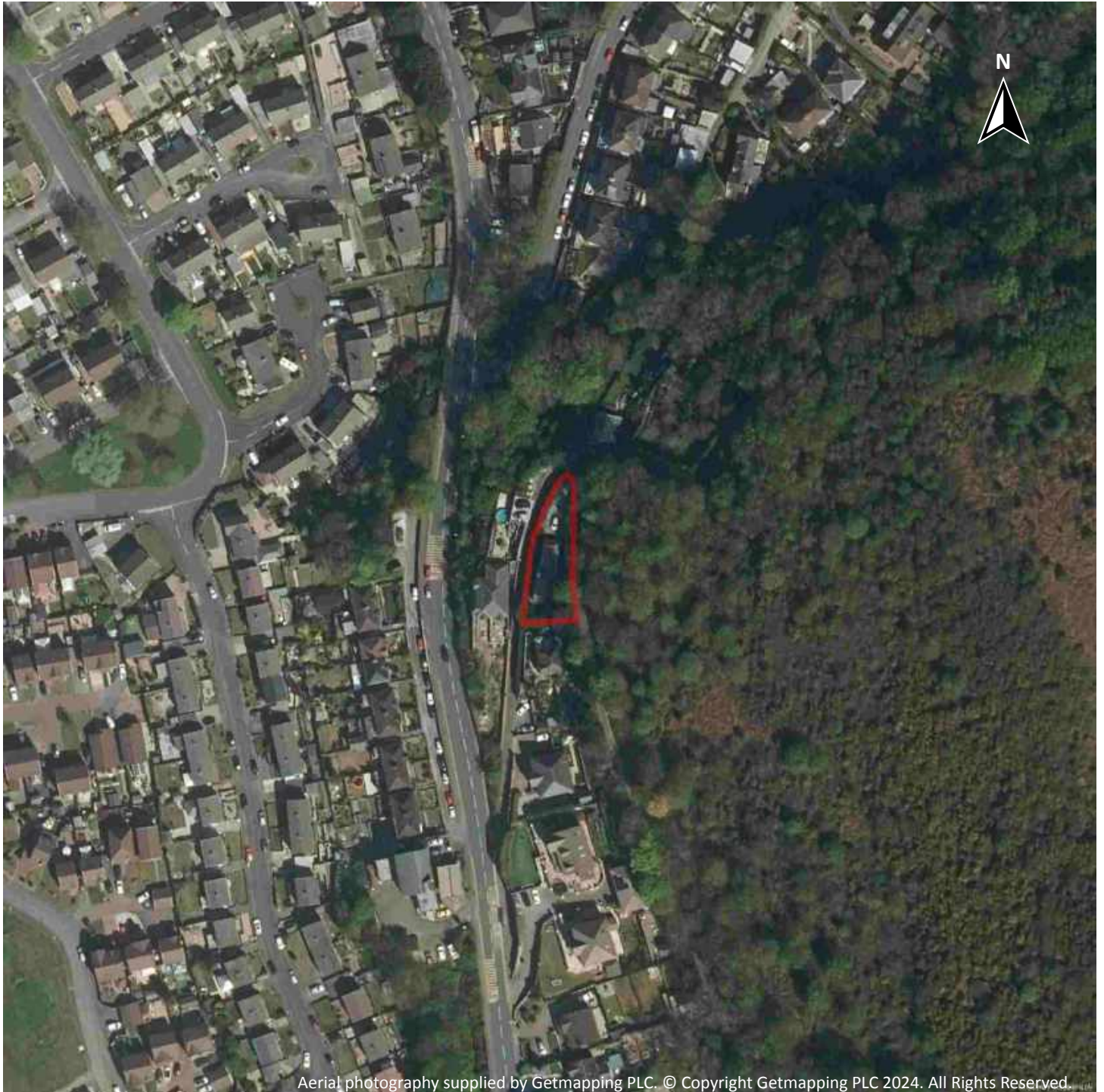


92 >	18.6 >	Non-coal mining >	0	0	1	1	0
92	18.7	JPB mining areas	None (within 0m)				
93	18.8	The Coal Authority non-coal mining	0	0	0	0	-
93	18.9	Researched mining	0	0	0	0	-
93	18.10	Mining record office plans	0	0	0	0	-
93	18.11	BGS mine plans	0	0	0	0	-
94 >	18.12 >	Coal mining >	Identified (within 0m)				
94	18.13	Brine areas	None (within 0m)				
94	18.14	Gypsum areas	None (within 0m)				
94	18.15	Tin mining	None (within 0m)				
94	18.16	Clay mining	None (within 0m)				
Page	Section	Ground cavities and sinkholes	On site	0-50m	50-250m	250-500m	500-2000m
95	19.1	Natural cavities	0	0	0	0	-
95	19.2	Mining cavities	0	0	0	0	0
95	19.3	Reported recent incidents	0	0	0	0	-
95	19.4	Historical incidents	0	0	0	0	-
96	19.5	National karst database	0	0	0	0	-
Page	Section	Radon >					
97 >	20.1 >	Radon >	Less than 1% (within 0m)				
Page	Section	Soil chemistry >	On site	0-50m	50-250m	250-500m	500-2000m
99 >	21.1 >	BGS Estimated Background Soil Chemistry >	3	2	-	-	-
99	21.2	BGS Estimated Urban Soil Chemistry	0	0	-	-	-
100	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
101	22.1	Underground railways (London)	0	0	0	-	-
101	22.2	Underground railways (Non-London)	0	0	0	-	-
102	22.3	Railway tunnels	0	0	0	-	-
102 >	22.4 >	Historical railway and tunnel features >	0	0	4	-	-
102	22.5	Royal Mail tunnels	0	0	0	-	-



103	22.6	Historical railways	0	0	0	-	-
103	22.7	Railways	0	0	0	-	-
103	22.8	Crossrail 1	0	0	0	0	-
103	22.9	Crossrail 2	0	0	0	0	-
103	22.10	HS2	0	0	0	0	-

Recent aerial photograph



Capture Date: 14/04/2020

Site Area: 0.06ha



Recent site history - 2017 aerial photograph



Capture Date: 26/05/2017

Site Area: 0.06ha



Recent site history - 2014 aerial photograph

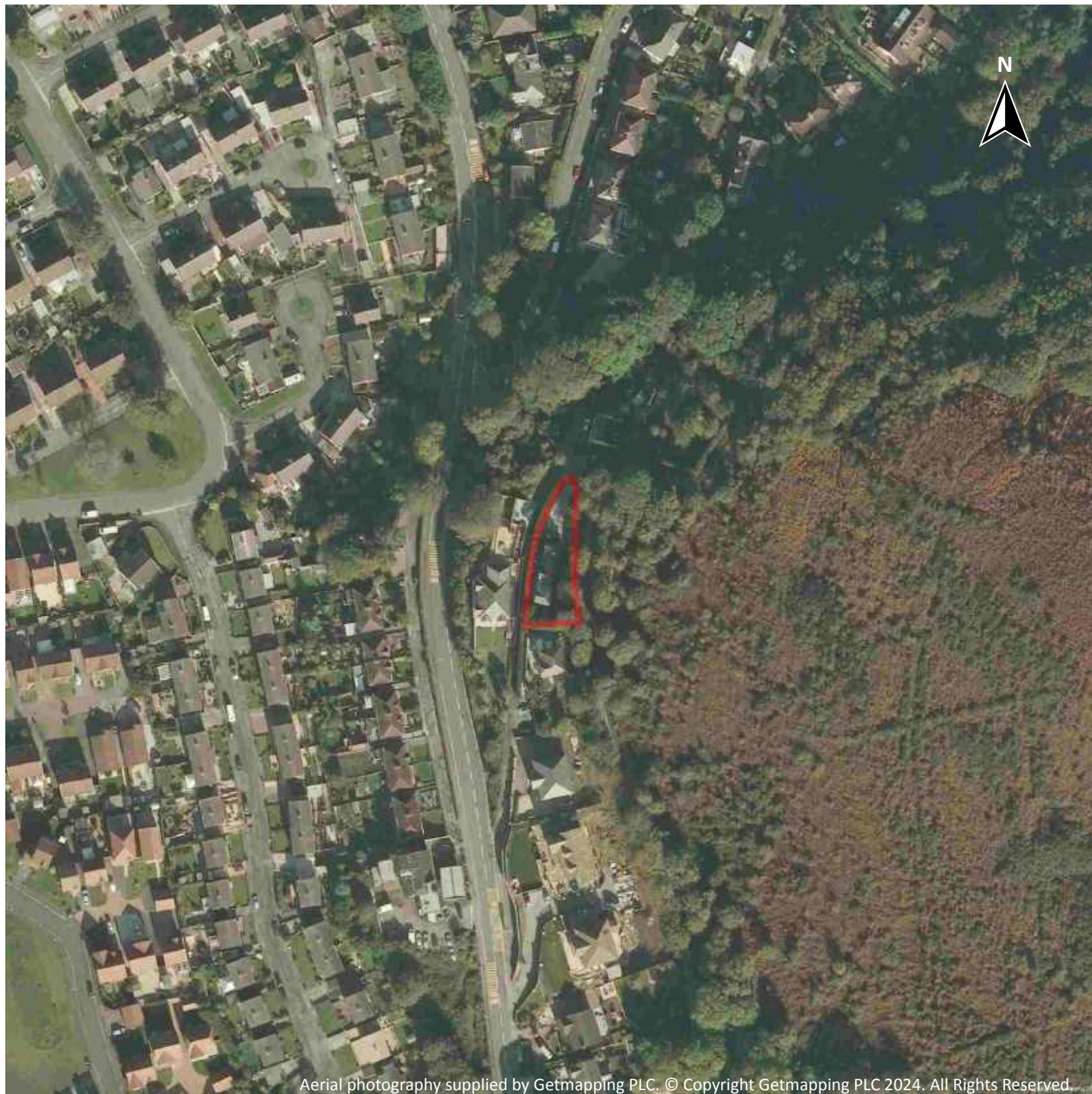


Capture Date: 23/07/2014

Site Area: 0.06ha



Recent site history - 2009 aerial photograph



Capture Date: 12/10/2009

Site Area: 0.06ha



Recent site history - 2000 aerial photograph



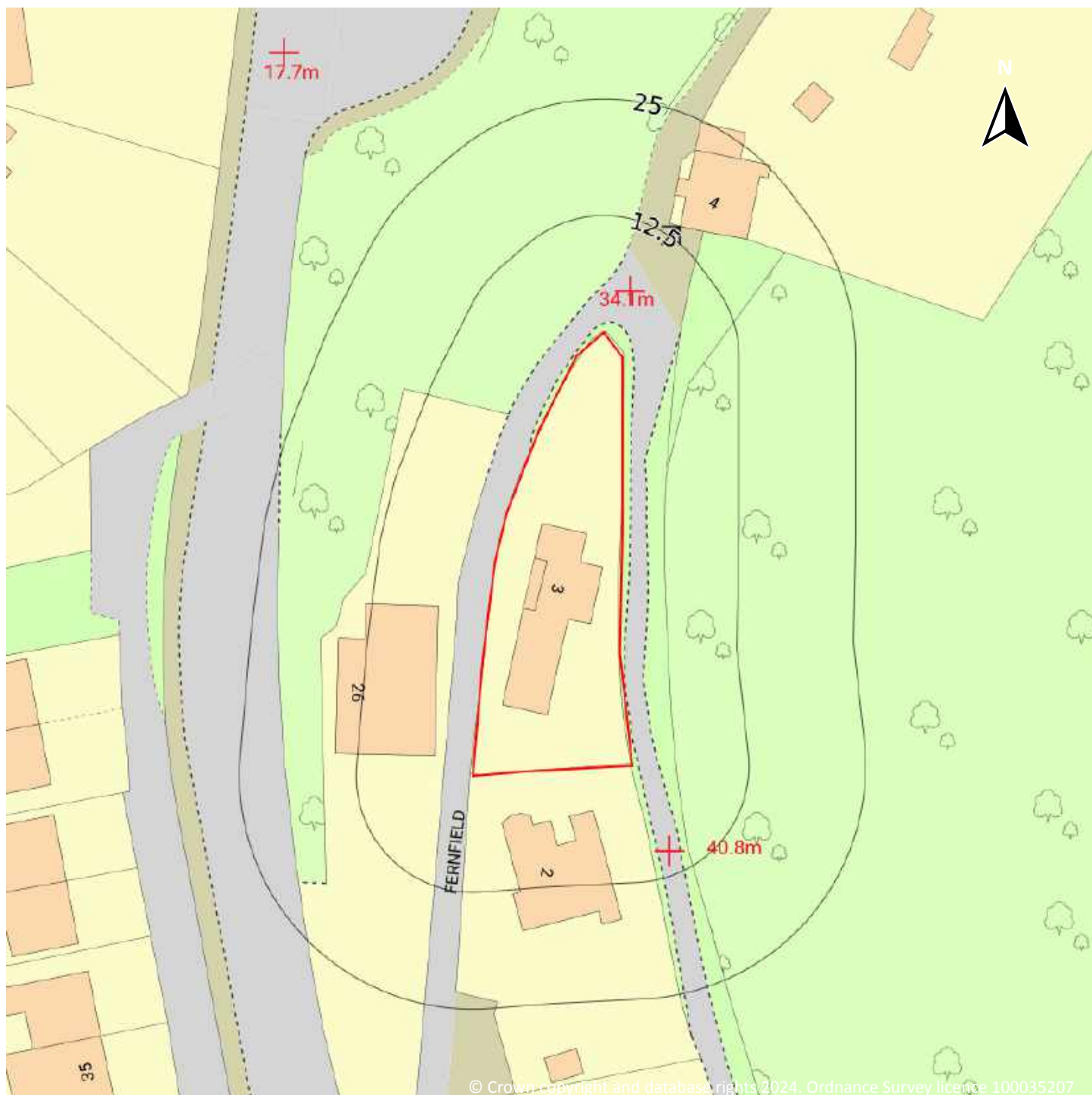
Aerial photography supplied by Getmapping PLC. © Copyright Getmapping PLC 2024. All Rights Reserved.

Capture Date: 18/06/2000

Site Area: 0.06ha



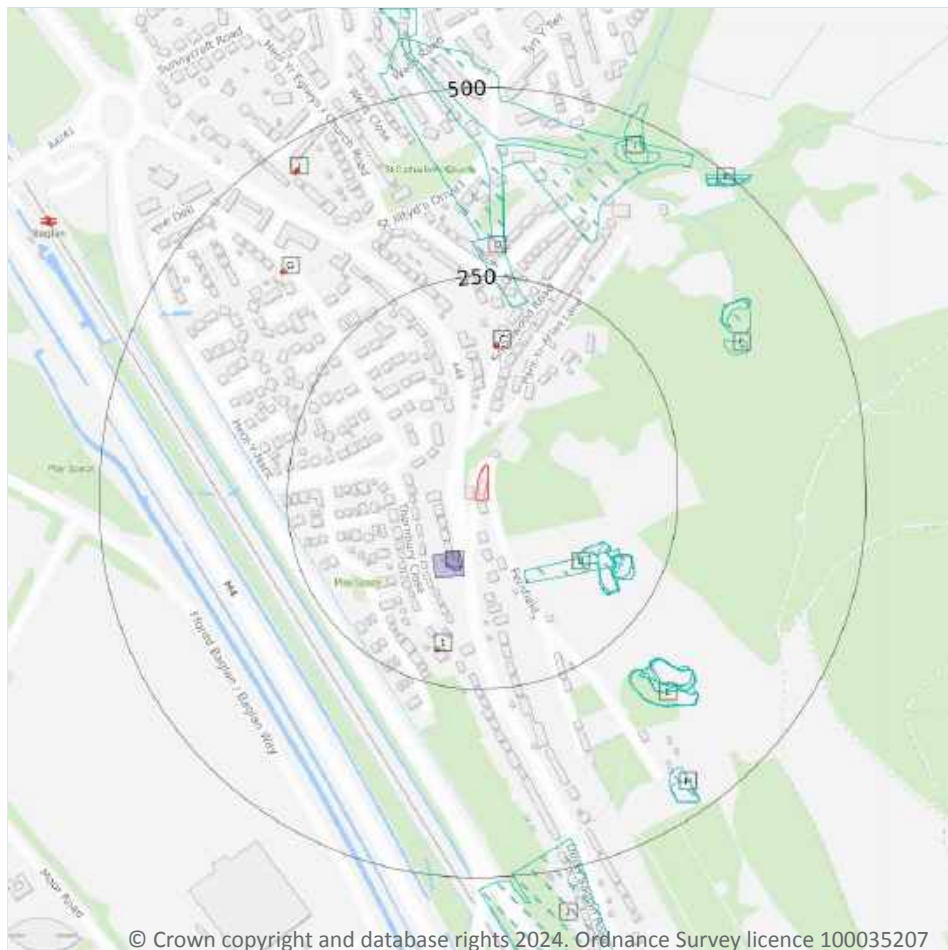
OS MasterMap site plan



Site Area: 0.06ha



1 Past land use



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

1.1 Historical industrial land uses

Records within 500m

28

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
B	106m SE	Tramway Sidings	1914 - 1921	370721



ID	Location	Land use	Dates present	Group ID
B	137m SE	Sand Pit	1957	330785
B	140m SE	Refuse Heap	1921 - 1947	376755
B	161m SE	Unspecified Quarry	1914 - 1921	366754
B	181m SE	Unspecified Disused Quarry	1995	374255
B	181m SE	Unspecified Disused Quarry	1978	378737
B	181m SE	Unspecified Old Quarry	1947 - 1957	373837
D	211m N	Railway Sidings	1877	337475
E	297m SE	Refuse Heap	1957	341417
D	298m N	Colliery	1877	330825
E	299m SE	Refuse Heap	1921 - 1947	355790
E	299m SE	Unspecified Quarry	1914	368721
E	303m SE	Unspecified Disused Quarry	1995	370440
E	303m SE	Unspecified Disused Quarry	1978	371446
E	304m SE	Unspecified Old Quarry	1957	330314
E	307m SE	Unspecified Quarry	1921 - 1947	349200
F	352m NE	Refuse Heap	1877	338690
F	363m NE	Unspecified Ground Workings	1957	333221
F	364m NE	Unspecified Heap	1947	326671
H	433m SE	Refuse Heap	1947	338646
I	441m NE	Unspecified Ground Workings	1897	346569
I	445m NE	Unspecified Ground Workings	1921	354990
H	450m SE	Gravel Pit	1957	328672
2	462m S	Nursery	1947 - 1957	362672
K	472m NE	Refuse Heaps	1914	337255
K	472m NE	Railway Sidings	1914	350788
K	476m NE	Refuse Heap	1947	338691
K	480m NE	Railway Sidings	1947	376062

This data is sourced from Ordnance Survey / Groundsure.



1.2 Historical tanks

Records within 500m

1

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

Features are displayed on the Past land use map on [page 15 >](#)

ID	Location	Land use	Dates present	Group ID
1	201m S	Unspecified Tank	1899 - 1918	42821

This data is sourced from Ordnance Survey / Groundsure.

1.3 Historical energy features

Records within 500m

7

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

Features are displayed on the Past land use map on [page 15 >](#)

ID	Location	Land use	Dates present	Group ID
C	156m N	Electricity Substation	1991 - 1995	20189
C	156m N	Electricity Transformer	1968 - 1975	20112
G	368m NW	Electricity Substation	1991 - 1995	20159
G	369m NW	Electricity Transformer	1975	19806
J	460m NW	Electricity Substation	1991	19337
J	460m NW	Electricity Transformer	1968 - 1975	20828
J	461m NW	Electricity Substation	1995	19336

This data is sourced from Ordnance Survey / Groundsure.



1.4 Historical petrol stations

Records within 500m

0

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

This data is sourced from Ordnance Survey / Groundsure.

1.5 Historical garages

Records within 500m

2

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

Features are displayed on the Past land use map on [page 15](#) >

ID	Location	Land use	Dates present	Group ID
A	70m S	Garage	1967 - 1970	7953
A	71m S	Garage	1971	6787

This data is sourced from Ordnance Survey / Groundsure.

1.6 Historical military land

Records within 500m

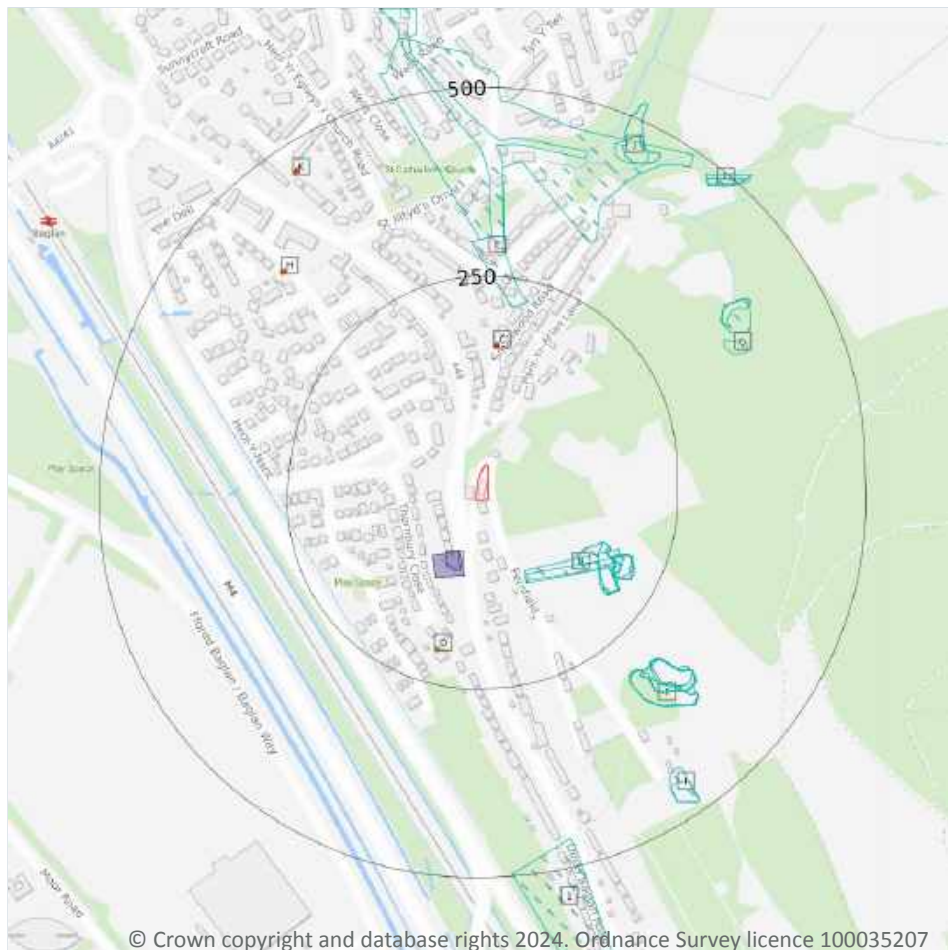
0

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

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



2 Past land use - un-grouped



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

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2.1 Historical industrial land uses

Records within 500m

35

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 19](#) >

ID	Location	Land Use	Date	Group ID
B	106m SE	Tramway Sidings	1921	370721
B	111m SE	Tramway Sidings	1914	370721
B	137m SE	Sand Pit	1957	330785



ID	Location	Land Use	Date	Group ID
B	140m SE	Refuse Heap	1947	376755
B	161m SE	Unspecified Quarry	1914	366754
B	161m SE	Refuse Heap	1921	376755
B	181m SE	Unspecified Disused Quarry	1978	378737
B	181m SE	Unspecified Disused Quarry	1995	374255
B	181m SE	Unspecified Old Quarry	1957	373837
B	184m SE	Unspecified Old Quarry	1947	373837
B	184m SE	Unspecified Quarry	1921	366754
E	211m N	Railway Sidings	1877	337475
F	297m SE	Refuse Heap	1957	341417
E	298m N	Colliery	1877	330825
F	299m SE	Refuse Heap	1947	355790
F	299m SE	Unspecified Quarry	1914	368721
F	299m SE	Refuse Heap	1921	355790
F	303m SE	Unspecified Disused Quarry	1978	371446
F	303m SE	Unspecified Disused Quarry	1995	370440
F	304m SE	Unspecified Old Quarry	1957	330314
F	307m SE	Unspecified Quarry	1947	349200
F	307m SE	Unspecified Quarry	1921	349200
G	352m NE	Refuse Heap	1877	338690
G	363m NE	Unspecified Ground Workings	1957	333221
G	364m NE	Unspecified Heap	1947	326671
I	433m SE	Refuse Heap	1947	338646
J	441m NE	Unspecified Ground Workings	1897	346569
J	445m NE	Unspecified Ground Workings	1921	354990
J	445m NE	Unspecified Ground Workings	1921	354990
I	450m SE	Gravel Pit	1957	328672
1	462m S	Nursery	1957	362672



ID	Location	Land Use	Date	Group ID
L	472m NE	Refuse Heaps	1914	337255
L	472m NE	Railway Sidings	1914	350788
L	476m NE	Refuse Heap	1947	338691
L	480m NE	Railway Sidings	1947	376062

This data is sourced from Ordnance Survey / Groundsure.

2.2 Historical tanks

Records within 500m

2

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

Features are displayed on the Past land use - un-grouped map on [page 19 >](#)

ID	Location	Land Use	Date	Group ID
D	201m S	Unspecified Tank	1918	42821
D	201m S	Unspecified Tank	1899	42821

This data is sourced from Ordnance Survey / Groundsure.

2.3 Historical energy features

Records within 500m

14

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 19 >](#)

ID	Location	Land Use	Date	Group ID
C	156m N	Electricity Substation	1991	20189
C	156m N	Electricity Transformer	1975	20112
C	156m N	Electricity Transformer	1969	20112
C	156m N	Electricity Substation	1995	20189
C	157m N	Electricity Transformer	1968	20112



ID	Location	Land Use	Date	Group ID
C	157m N	Electricity Transformer	1970	20112
H	368m NW	Electricity Substation	1995	20159
H	368m NW	Electricity Substation	1991	20159
H	369m NW	Electricity Transformer	1975	19806
K	460m NW	Electricity Substation	1991	19337
K	460m NW	Electricity Transformer	1975	20828
K	460m NW	Electricity Transformer	1969	20828
K	460m NW	Electricity Transformer	1968	20828
K	461m NW	Electricity Substation	1995	19336

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

3

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 19 >](#)

ID	Location	Land Use	Date	Group ID
A	70m S	Garage	1970	7953
A	70m S	Garage	1967	7953
A	71m S	Garage	1971	6787

This data is sourced from Ordnance Survey / Groundsure.



3 Waste and landfill

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

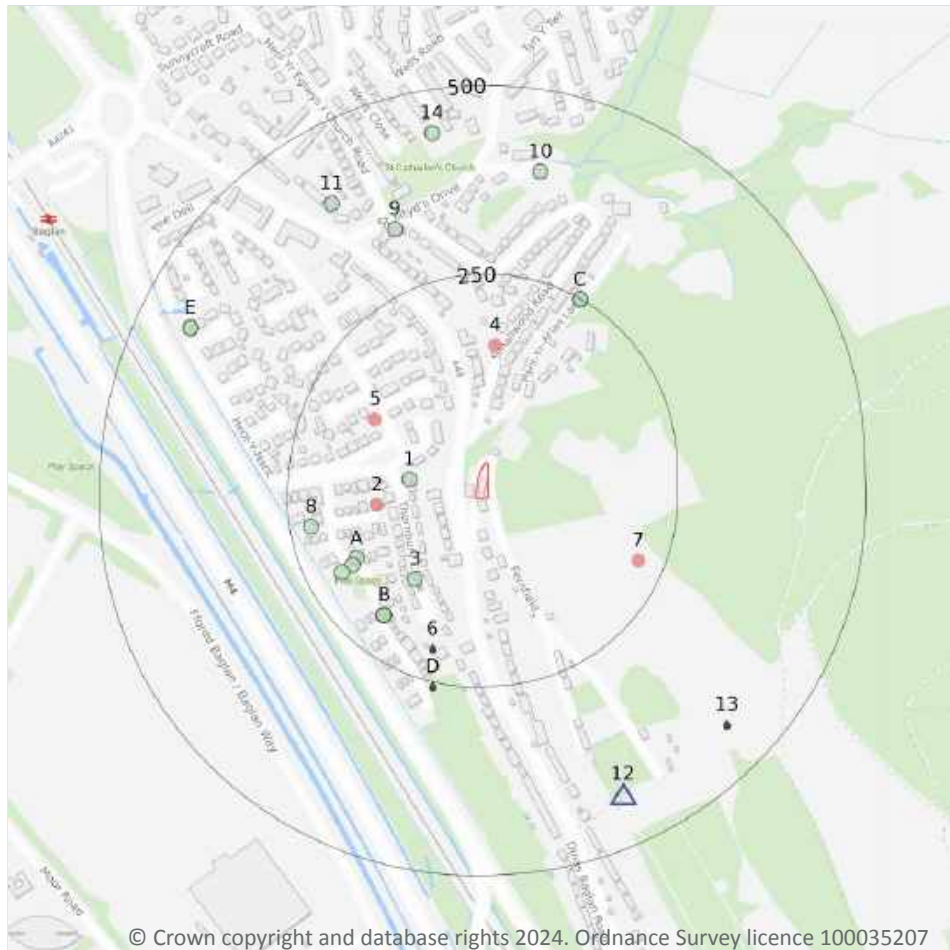
0

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.

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
- △ Current or recent petrol stations
- Licensed Discharges to controlled waters
- Pollution Incidents (EA/NRW)

4.1 Recent industrial land uses

Records within 250m

4

Current potentially contaminative industrial sites.

Features are displayed on the Current industrial land use map on [page 25 >](#)

ID	Location	Company	Address	Activity	Category
2	132m W	D W Executive Travel	13, Rowan Tree Avenue, Baglan, West Glamorgan, SA12 8EZ	Vehicle Hire and Rental	Hire Services
4	156m N	Electricity Sub Station	West Glamorgan, SA12	Electrical Features	Infrastructure and Facilities



ID	Location	Company	Address	Activity	Category
5	156m NW	Electricity Sub Station	West Glamorgan, SA12	Electrical Features	Infrastructure and Facilities
7	215m SE	Quarry (Disused)	West Glamorgan, SA12	Unspecified Quarries Or Mines	Extractive Industries

This data is sourced from Ordnance Survey.

4.2 Current or recent petrol stations

Records within 500m

1

Open, closed, under development and obsolete petrol stations.

Features are displayed on the Current industrial land use map on [page 25 >](#)

ID	Location	Company	Address	LPG	Status
12	431m SE	TEXACO	Baglan Road, Baglan, Port Talbot, Neath Port Talbot, SA12 8HY	Not Applicable	Obsolete

This data is sourced from Experian.

4.3 Electricity cables

Records within 500m

0

High voltage underground electricity transmission cables.

This data is sourced from National Grid.

4.4 Gas pipelines

Records within 500m

0

High pressure underground gas transmission pipelines.

This data is sourced from National Grid.

4.5 Sites determined as Contaminated Land

Records within 500m

0

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

This data is sourced from Local Authority records.



4.6 Control of Major Accident Hazards (COMAH)

Records within 500m

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.

4.7 Regulated explosive sites

Records within 500m

0

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

This data is sourced from the Health and Safety Executive.

4.8 Hazardous substance storage/usage

Records within 500m

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.

4.9 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.

4.10 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.



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

Records within 500m

0

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.

This data is sourced from Local Authority records.

4.12 Radioactive Substance Authorisations

Records within 500m

0

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

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

4.13 Licensed Discharges to controlled waters

Records within 500m

4

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 25 >](#)

ID	Location	Address	Details	
6	207m S	25 THORNBURY CLOSE PENTWYN BAGLAN P, 25 THORNBURY CLOSE PENTWYN BAGLA, PENTWYN BAGLAN PORT TALBOT, BAGLAN PORT TALBOT, PORT TALBOT, PORT TALBO	Effluent Type: UNSPECIFIED Permit Number: BP0107601 Permit Version: 1 Receiving Water: TO LAND	Status: CONSENT EXPIRED - TIME LIMIT Issue date: 16/09/1988 Effective Date: 16/09/1988 Revocation Date: 10/10/1994
D	256m S	THE PINES & THE OAKS STYCELLWEN LAN, THE PINES & THE OAKS STYCELLWEN, STYCELLWEN LANE BAGLAN PORT TALB, BAGLAN PORT TALBOT, PORT TALBOT	Effluent Type: UNSPECIFIED Permit Number: BM0024201 Permit Version: 1 Receiving Water: UNDERGROUND STRATA	Status: NEW CONSENT, BY APPLICATION (WRA 91, SECTION 88) Issue date: 30/06/1982 Effective Date: 30/06/1982 Revocation Date: -
D	256m S	THE PINES & THE OAKS STYCELLWEN LAN, THE PINES & THE OAKS STYCELLWEN, STYCELLWEN LANE BAGLAN PORT TALB, BAGLAN PORT TALBOT, PORT TALBOT	Effluent Type: UNSPECIFIED Permit Number: BM0024201 Permit Version: 1 Receiving Water: UNDERGROUND STRATA	Status: NEW CONSENT, BY APPLICATION (WRA 91, SECTION 88) Issue date: 30/06/1982 Effective Date: 30/06/1982 Revocation Date: -



ID	Location	Address	Details	
13	435m SE	SWO.PANT DU BRIDGE PT.2	Effluent Type: UNSPECIFIED Permit Number: BW0200201 Permit Version: 1 Receiving Water: RIVER AFAN	Status: CONSENT EXPIRED - TIME LIMIT Issue date: 20/10/1989 Effective Date: 20/10/1989 Revocation Date: 14/03/1994

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

4.14 Pollutant release to surface waters (Red List)

Records within 500m	0
----------------------------	----------

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

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

4.15 Pollutant release to public sewer

Records within 500m	0
----------------------------	----------

Discharges of Special Category Effluents to the public sewer.

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

4.16 List 1 Dangerous Substances

Records within 500m	0
----------------------------	----------

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

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

4.17 List 2 Dangerous Substances

Records within 500m	0
----------------------------	----------

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

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



4.18 Pollution Incidents (EA/NRW)

Records within 500m

18

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 25](#) >

ID	Location	Details	
1	90m W	Incident Date: 28/08/2001 Incident Identification: 27238 Pollutant: Atmospheric Pollutants and Effects Pollutant Description: Dust	Water Impact: Category 3 (Minor) Land Impact: Category 3 (Minor) Air Impact: Category 3 (Minor)
3	133m SW	Incident Date: 28/08/2001 Incident Identification: 27178 Pollutant: Atmospheric Pollutants and Effects Pollutant Description: Dust	Water Impact: Category 3 (Minor) Land Impact: Category 3 (Minor) Air Impact: Category 3 (Minor)
A	177m SW	Incident Date: 16/09/2002 Incident Identification: 108008 Pollutant: Specific Waste Materials Pollutant Description: Commercial Waste	Water Impact: Category 4 (No Impact) Land Impact: Category 3 (Minor) Air Impact: Category 3 (Minor)
A	185m SW	Incident Date: 19/11/2002 Incident Identification: 129463 Pollutant: Specific Waste Materials Pollutant Description: Commercial Waste	Water Impact: Category 4 (No Impact) Land Impact: Category 3 (Minor) Air Impact: Category 3 (Minor)
B	196m SW	Incident Date: 15/01/2003 Incident Identification: 131244 Pollutant: Inert Materials and Wastes Pollutant Description: Construction and Demolition Materials and Wastes	Water Impact: Category 4 (No Impact) Land Impact: Category 3 (Minor) Air Impact: Category 4 (No Impact)
B	196m SW	Incident Date: 15/01/2003 Incident Identification: 131244 Pollutant: Specific Waste Materials Pollutant Description: Other Specific Waste Material	Water Impact: Category 4 (No Impact) Land Impact: Category 3 (Minor) Air Impact: Category 4 (No Impact)
B	196m SW	Incident Date: 15/01/2003 Incident Identification: 131244 Pollutant: Specific Waste Materials Pollutant Description: Metal Wastes	Water Impact: Category 4 (No Impact) Land Impact: Category 3 (Minor) Air Impact: Category 4 (No Impact)
B	196m SW	Incident Date: 15/01/2003 Incident Identification: 131244 Pollutant: Inert Materials and Wastes:Specific Waste Materials:Specific Waste Materials Pollutant Description: Construction and Demolition Materials and Wastes:Metal Wastes:Other Specific Waste Material	Water Impact: Category 4 (No Impact) Land Impact: Category 3 (Minor) Air Impact: Category 4 (No Impact)



ID	Location	Details	
A	202m SW	Incident Date: 05/02/2003 Incident Identification: 135059 Pollutant: Other Pollutant Pollutant Description: Other	Water Impact: Category 4 (No Impact) Land Impact: Category 4 (No Impact) Air Impact: Category 3 (Minor)
8	221m W	Incident Date: 04/02/2003 Incident Identification: 134792 Pollutant: Atmospheric Pollutants and Effects Pollutant Description: Smoke	Water Impact: Category 4 (No Impact) Land Impact: Category 4 (No Impact) Air Impact: Category 3 (Minor)
C	248m NE	Incident Date: 07/06/2016 Incident Identification: 1603052 Pollutant: Contaminated Water Pollutant Description: Minewater	Water Impact: Category 3 (Minor) Land Impact: Other Air Impact: Other
C	248m NE	Incident Date: 07/06/2016 Incident Identification: 1603052 Pollutant: - Pollutant Description: -	Water Impact: Category 3 (Minor) Land Impact: Other Air Impact: Other
9	332m N	Incident Date: 28/08/2001 Incident Identification: 27170 Pollutant: Atmospheric Pollutants and Effects Pollutant Description: Dust	Water Impact: Category 3 (Minor) Land Impact: Category 3 (Minor) Air Impact: Category 3 (Minor)
10	392m N	Incident Date: 07/08/2003 Incident Identification: 179816 Pollutant: Inert Materials and Wastes Pollutant Description: Soils and Clay	Water Impact: Category 3 (Minor) Land Impact: Category 4 (No Impact) Air Impact: Category 4 (No Impact)
11	400m NW	Incident Date: 28/08/2001 Incident Identification: 27257 Pollutant: Atmospheric Pollutants and Effects Pollutant Description: Dust	Water Impact: Category 3 (Minor) Land Impact: Category 3 (Minor) Air Impact: Category 3 (Minor)
E	429m NW	Incident Date: 03/12/2002 Incident Identification: 124421 Pollutant: Specific Waste Materials Pollutant Description: Commercial Waste	Water Impact: Category 4 (No Impact) Land Impact: Category 3 (Minor) Air Impact: Category 3 (Minor)
E	429m NW	Incident Date: 03/12/2002 Incident Identification: 124421 Pollutant: Specific Waste Materials Pollutant Description: Commercial Waste	Water Impact: Category 4 (No Impact) Land Impact: Category 3 (Minor) Air Impact: Category 3 (Minor)
14	442m N	Incident Date: 29/07/2002 Incident Identification: 95409 Pollutant: Atmospheric Pollutants and Effects Pollutant Description: Smoke	Water Impact: Category 4 (No Impact) Land Impact: Category 4 (No Impact) Air Impact: Category 3 (Minor)

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



4.19 Pollution inventory substances

Records within 500m**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.

4.20 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.

4.21 Pollution inventory radioactive waste

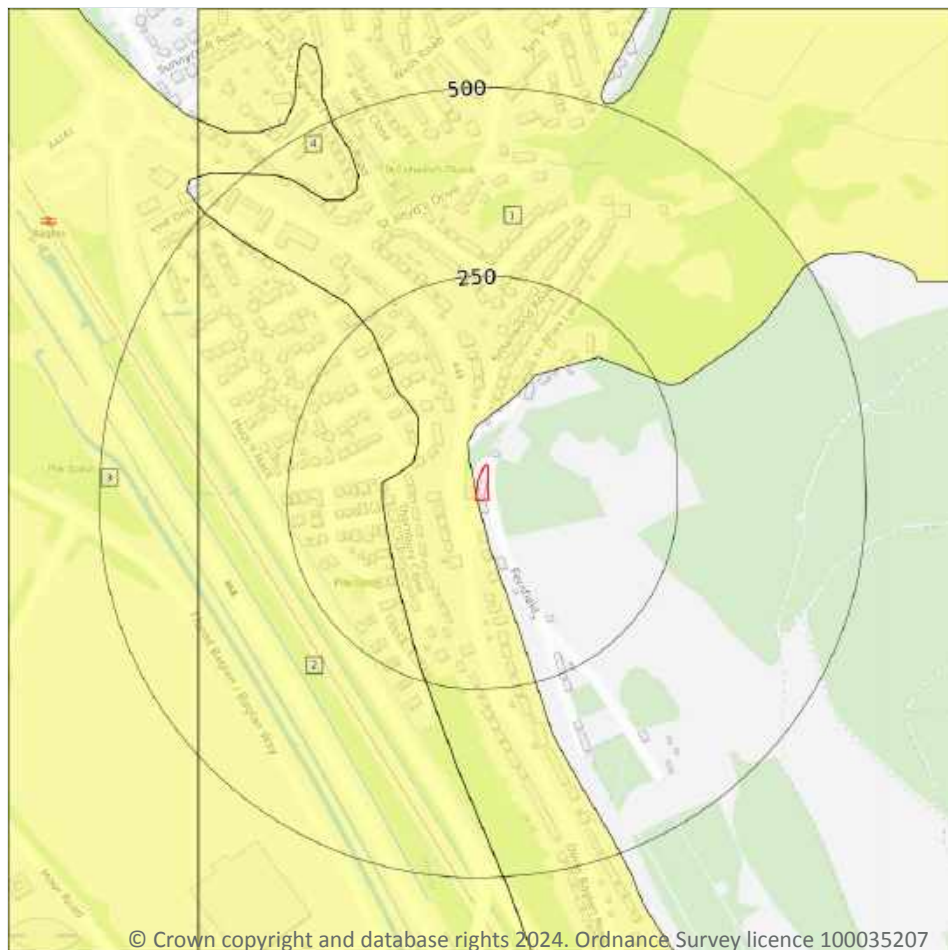
Records within 500m**0**

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

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



5 Hydrogeology - Superficial aquifer



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

5.1 Superficial aquifer

Records within 500m

4

Aquifer status of groundwater held within superficial geology.

Features are displayed on the Hydrogeology map on [page 33](#) >

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	89m 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

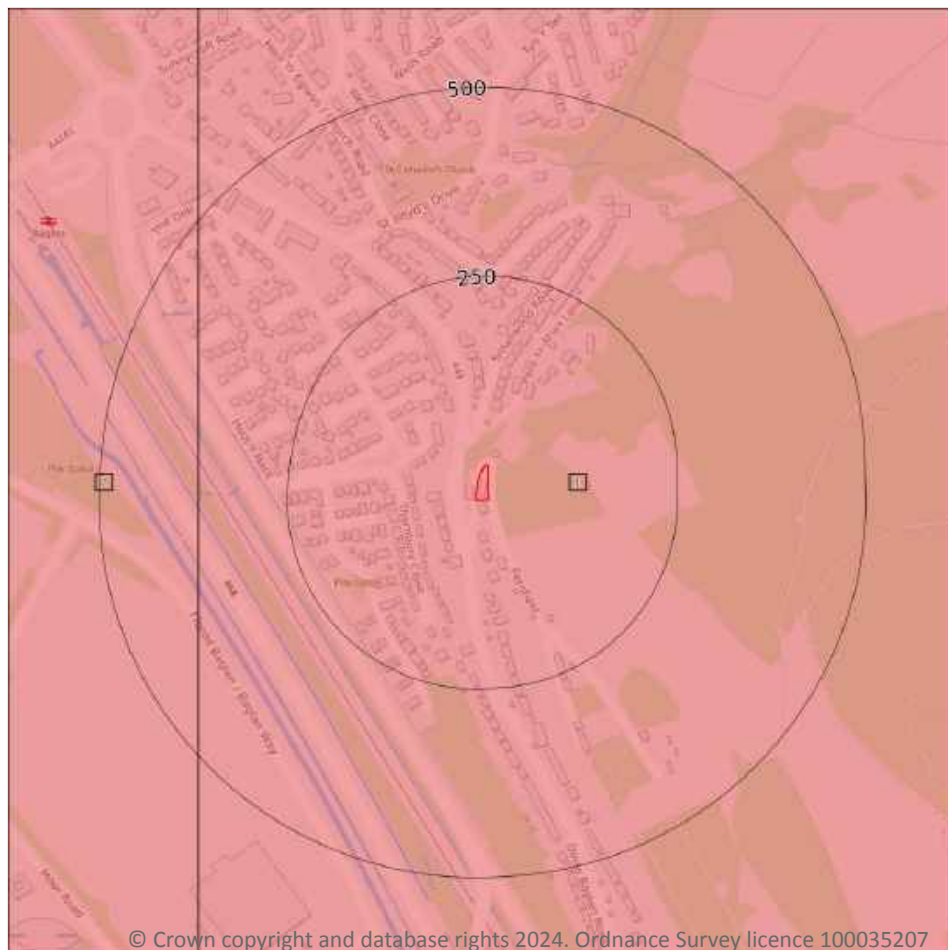


ID	Location	Designation	Description
3	368m W	Secondary Undifferentiated	Assigned where it is not possible to attribute either category A or B to a rock type. In general these layers have previously been designated as both minor and non-aquifer in different locations due to the variable characteristics of the rock type
4	399m NW	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

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5.2 Bedrock aquifer

Records within 500m

2

Aquifer status of groundwater held within bedrock geology.

Features are displayed on the Bedrock aquifer map on [page 35](#) >

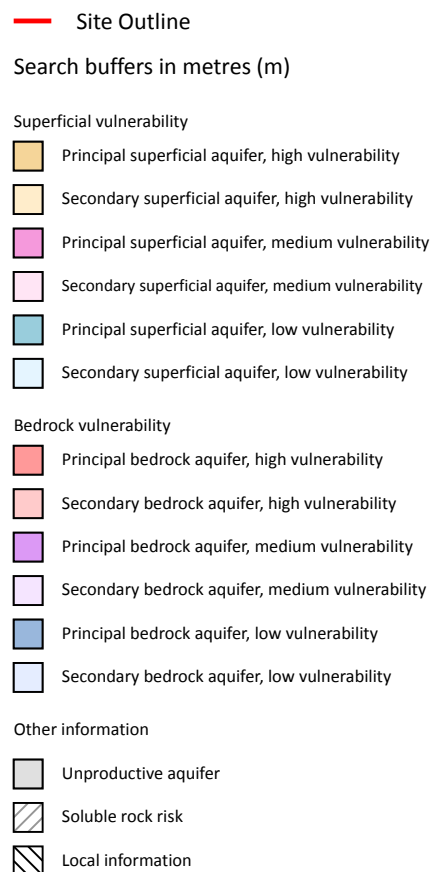
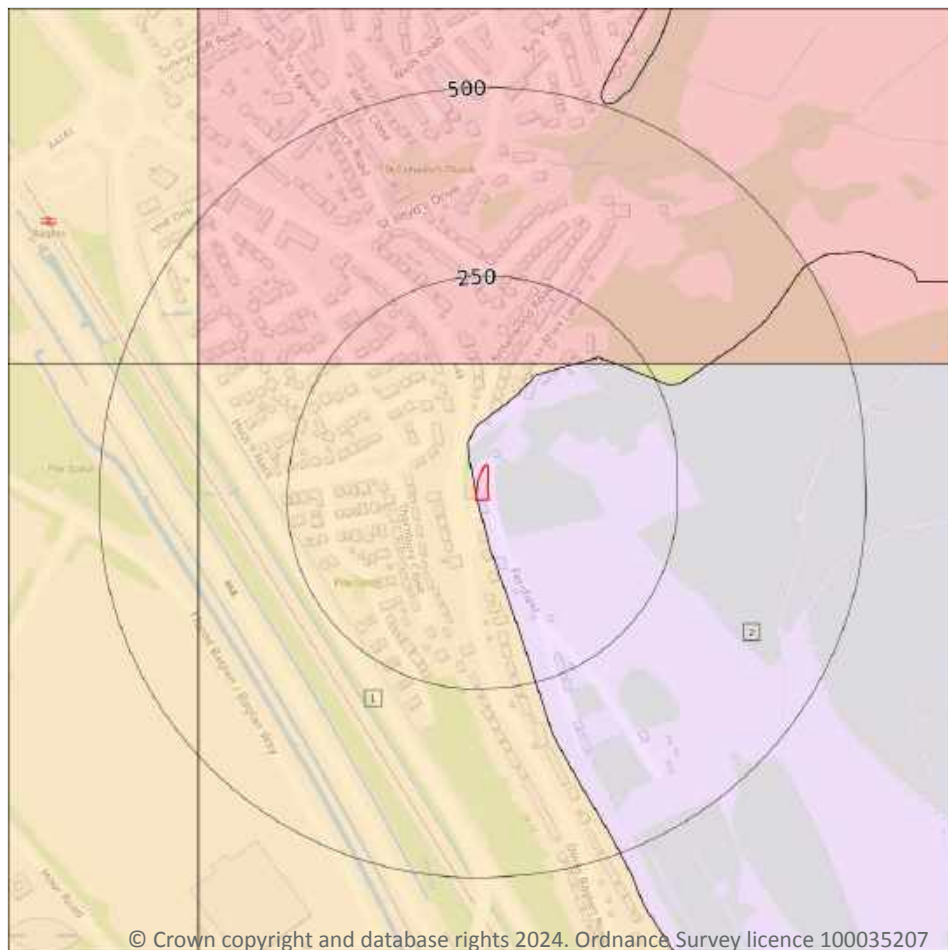
ID	Location	Designation	Description
1	On site	Secondary A	Permeable layers capable of supporting water supplies at a local rather than strategic scale, and in some cases forming an important source of base flow to rivers. These are generally aquifers formerly classified as minor aquifers
2	368m W	Secondary 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

2

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

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

Features are displayed on the Groundwater vulnerability map on [page 37](#) >



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: >550mm/year	Vulnerability: High Aquifer type: Secondary Thickness: >10m Patchiness value: <90% Recharge potential: Medium	Vulnerability: Medium Aquifer type: Secondary Flow mechanism: Well connected fractures
2	On site	Summary Classification: Secondary bedrock aquifer - Medium Vulnerability Combined classification: Productive Bedrock Aquifer, No Superficial Aquifer	Leaching class: High Infiltration value: >70% Dilution value: >550mm/year	Vulnerability: - Aquifer type: - Thickness: >10m Patchiness value: <90% Recharge potential: Medium	Vulnerability: Medium 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	0
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This dataset identifies areas where solution features that enable rapid movement of a pollutant may be present within a 1km grid square.

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

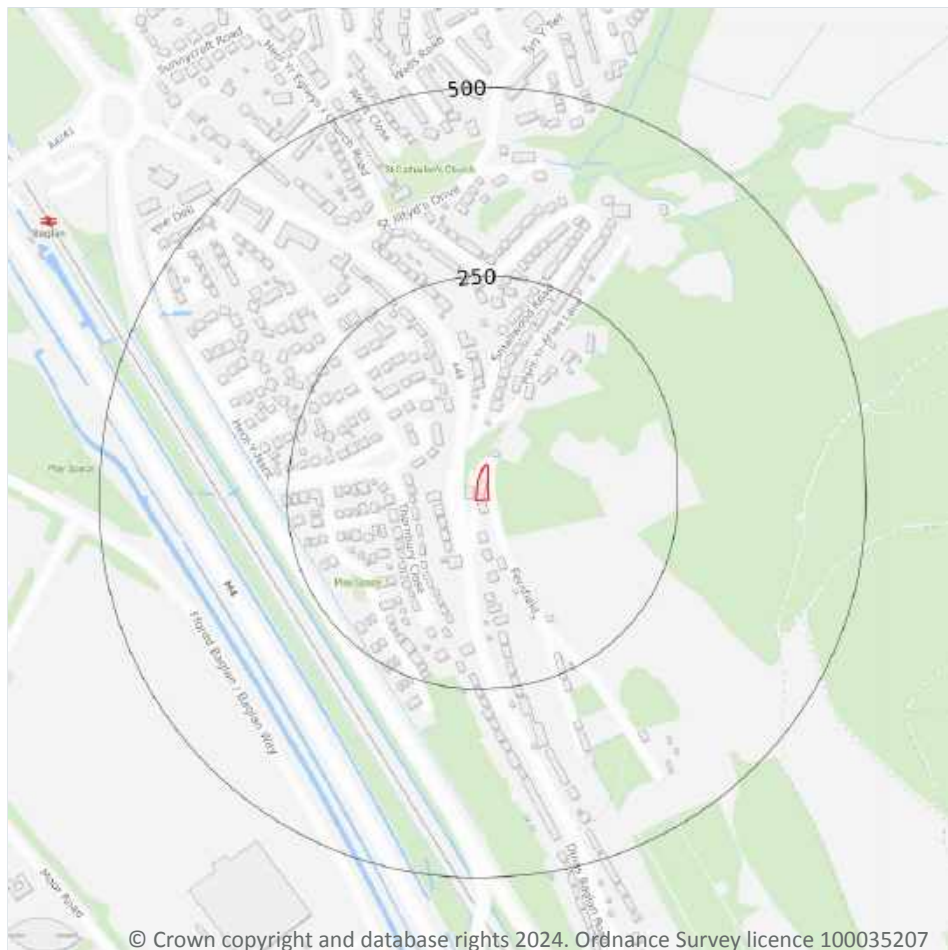
5.5 Groundwater vulnerability- local information

Records on site	0
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This dataset identifies areas where additional local information affecting vulnerability is held by the Environment Agency. Further information can be obtained by contacting the Environment Agency local Area groundwater team through the Environment Agency National Customer Call Centre on 03798 506 506 or by email on enquiries@environment-agency.gov.uk ↗.

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

Abstractions and Source Protection Zones



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

5.6 Groundwater abstractions

Records within 2000m

1

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 39](#) >

ID	Location	Details	
-	1786m E	Status: Historical Licence No: 21/58/61/0043 Details: Water Bottling Direct Source: EAW Groundwater Point: UNNAMED SPRING Data Type: Point Name: Ms Powell & Mr Spackman Easting: 277170 Northing: 191880	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: - Expiry Date: 31/03/2017 Issue No: 1 Version Start Date: 20/11/2004 Version End Date: -

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

5.7 Surface water abstractions

Records within 2000m	0
-----------------------------	----------

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

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

5.8 Potable abstractions

Records within 2000m	1
-----------------------------	----------

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

Features are displayed on the Abstractions and Source Protection Zones map on [page 39](#) >

ID	Location	Details	
-	1786m E	Status: Historical Licence No: 21/58/61/0043 Details: Water Bottling Direct Source: EAW Groundwater Point: UNNAMED SPRING Data Type: Point Name: Ms Powell & Mr Spackman Easting: 277170 Northing: 191880	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: - Expiry Date: 31/03/2017 Issue No: 1 Version Start Date: 20/11/2004 Version End Date: -

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



5.9 Source Protection Zones

Records within 500m

0

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

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

5.10 Source Protection Zones (confined aquifer)

Records within 500m

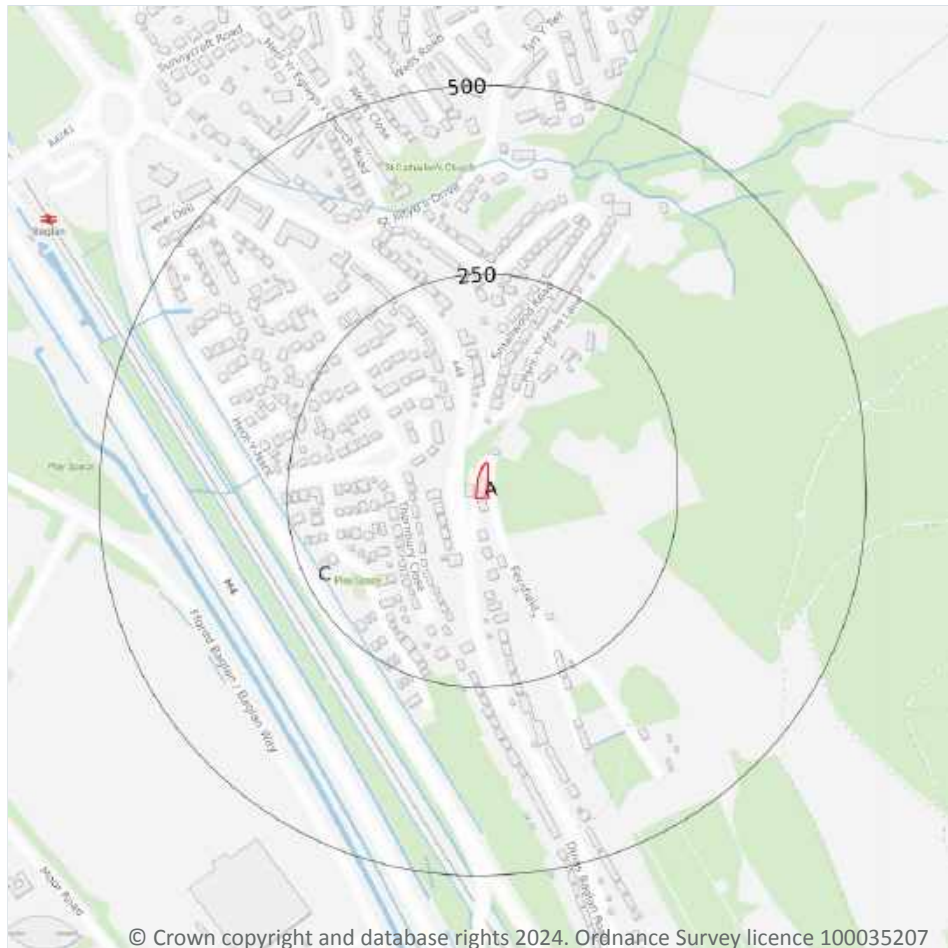
0

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

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



6 Hydrology



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

6.1 Water Network (OS MasterMap)

Records within 250m

1

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 42](#) >

ID	Location	Type of water feature	Ground level	Permanence	Name
C	226m SW	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-

This data is sourced from the Ordnance Survey.



6.2 Surface water features

Records within 250m

1

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

Features are displayed on the Hydrology map on [page 42 >](#)

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 42 >](#)

ID	Location	Type	Water body catchment	Water body ID	Operational catchment	Management catchment
A	On site	River WB catchment	Baglan Brook - headwaters to conf with River Neath	GB110058026350	Neath	Tawe to Cadoxton

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 42 >](#)

ID	Location	Type	Name	Water body ID	Overall rating	Chemical rating	Ecological rating	Year
-	1878m NW	River	Baglan Brook - headwaters to conf with River Neath	GB110058026350	Moderate	Good	Moderate	2016



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.

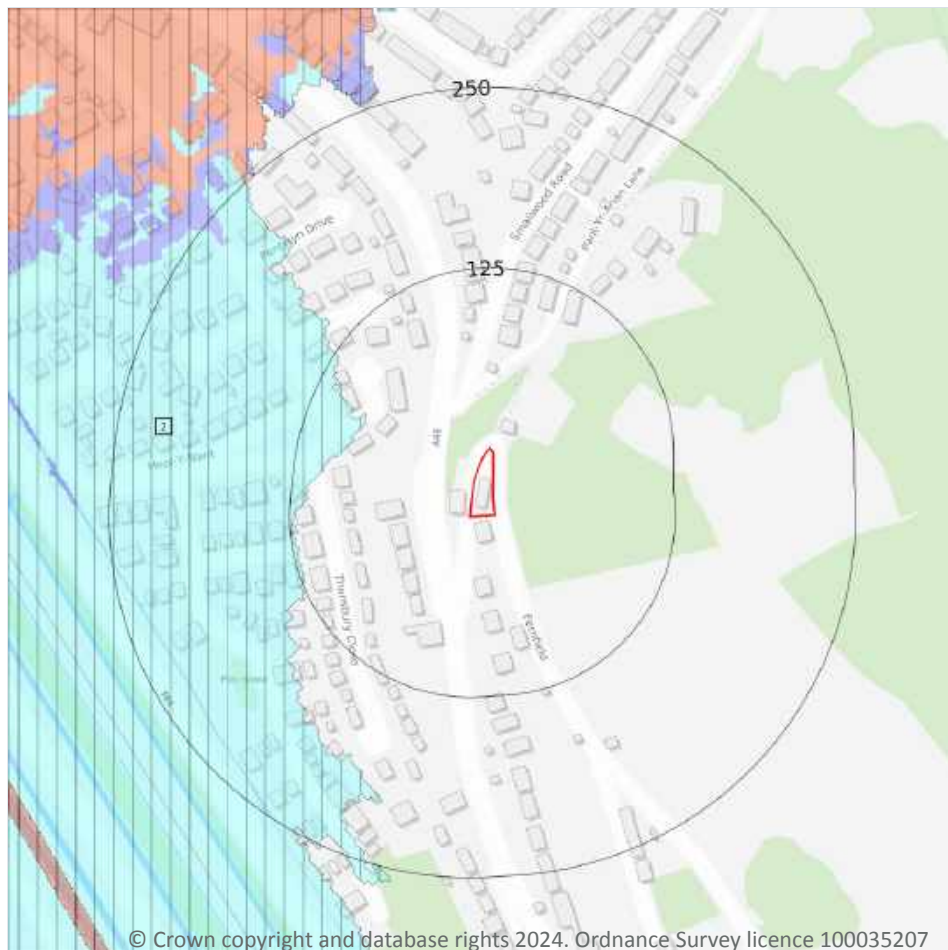
Features are displayed on the Hydrology map on [page 42 >](#)

ID	Location	Name	Water body ID	Overall rating	Chemical rating	Quantitative	Year
A	On site	Swansea Carboniferous Coal Measures	GB41002G201000	Poor	Poor	Good	2017

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



7 River and coastal flooding



- 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

0

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

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

7.3 Flood Defences

Records within 250m

0

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

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

7.4 Areas Benefiting from Flood Defences

Records within 250m

1

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.

Features are displayed on the River and coastal flooding map on [page 45 >](#)

ID	Location	
2	84m NW	Area benefiting from flood defences

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

7.5 Flood Storage Areas

Records within 250m

0

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

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



River and coastal flooding - Flood Zones

7.6 Flood Zone 2

Records within 50m

0

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

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

7.7 Flood Zone 3

Records within 50m

0

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

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



8 Surface water flooding

8.1 Surface water flooding

Highest risk on site

Negligible

Highest risk within 50m

Negligible

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.

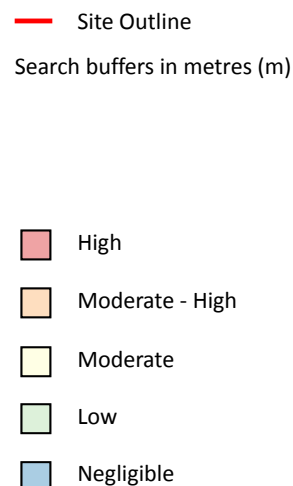
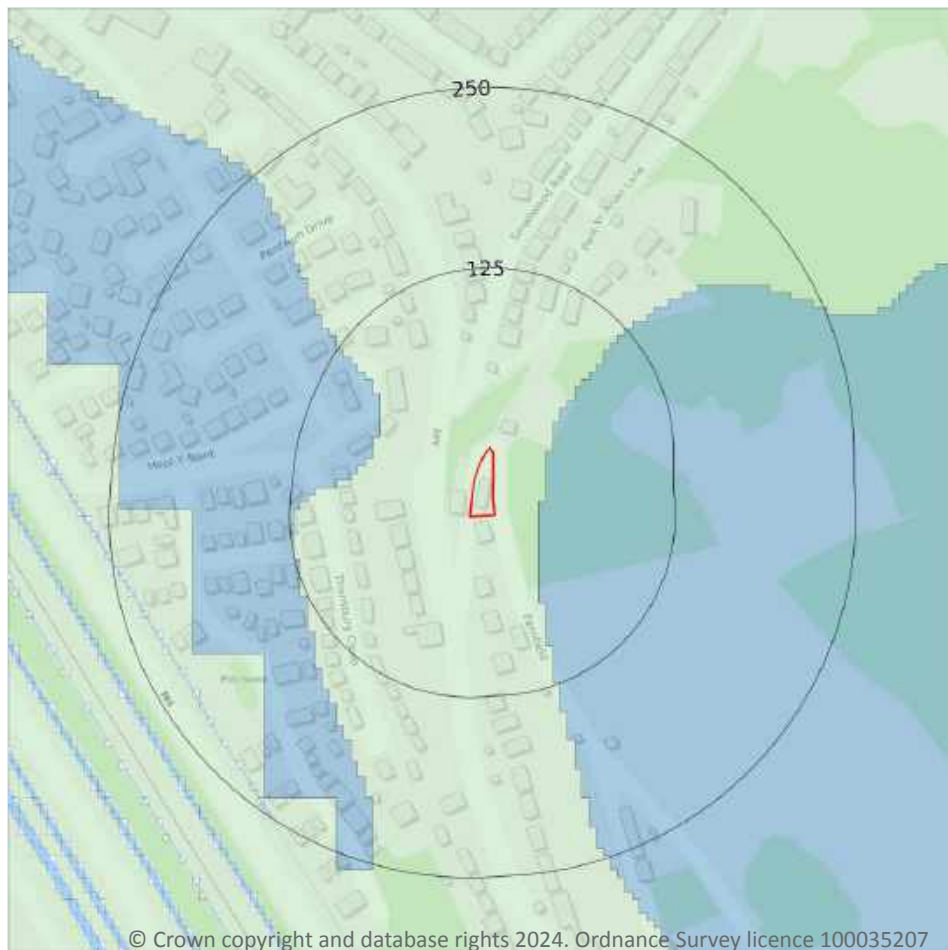
The data shown on the map and in the table above shows the highest likelihood of flood events happening at the site. Lower likelihood events may have greater flood depths and hence a greater potential impact on a site. The table below shows the maximum flood depths for a range of return periods for the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

Return period	Maximum modelled depth
1 in 1000 year	Negligible
1 in 250 year	Negligible
1 in 100 year	Negligible
1 in 30 year	Negligible

This data is sourced from Ambiental Risk Analytics.



9 Groundwater flooding



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 49](#) >

This data is sourced from Ambiantal Risk Analytics.

10 Environmental designations



- Site Outline
- Search buffers in metres (m)
- ▨ Designated Ancient Woodland

10.1 Sites of Special Scientific Interest (SSSI)

Records within 2000m

0

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

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

10.2 Conserved wetland sites (Ramsar sites)

Records within 2000m**0**

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

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

10.3 Special Areas of Conservation (SAC)

Records within 2000m**0**

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

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

10.4 Special Protection Areas (SPA)

Records within 2000m**0**

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

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

10.5 National Nature Reserves (NNR)

Records within 2000m**0**

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

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

10.6 Local Nature Reserves (LNR)

Records within 2000m

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

43

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 50 >](#)

ID	Location	Name	Woodland Type
1	189m NE	Unknown	Ancient Semi Natural Woodland
2	391m NE	Unknown	Ancient Semi Natural Woodland
3	395m N	Unknown	Ancient Semi Natural Woodland
4	404m NE	Unknown	Ancient Semi Natural Woodland
5	456m NE	Unknown	Ancient Semi Natural Woodland
6	479m NE	Unknown	Ancient Semi Natural Woodland
A	701m N	Unknown	Ancient Semi Natural Woodland
A	746m N	Unknown	Ancient Semi Natural Woodland
7	807m NW	Unknown	Ancient Semi Natural Woodland
8	864m NE	Unknown	Ancient Semi Natural Woodland
9	910m E	Unknown	Ancient Semi Natural Woodland
10	1189m NW	Unknown	Ancient Semi Natural Woodland
11	1211m N	Unknown	Ancient Semi Natural Woodland
-	1229m E	Unknown	Ancient Semi Natural Woodland
-	1257m E	Unknown	Ancient Semi Natural Woodland
13	1287m NW	Unknown	Ancient Semi Natural Woodland



ID	Location	Name	Woodland Type
-	1298m N	Unknown	Restored Ancient Woodland Site
-	1346m N	Unknown	Plantation on Ancient Woodland Site
-	1355m E	Unknown	Ancient Semi Natural Woodland
-	1437m N	Unknown	Ancient Semi Natural Woodland
-	1525m N	Unknown	Restored Ancient Woodland Site
-	1531m N	Unknown	Plantation on Ancient Woodland Site
-	1540m N	Unknown	Restored Ancient Woodland Site
-	1544m N	Unknown	Plantation on Ancient Woodland Site
-	1546m E	Unknown	Ancient Semi Natural Woodland
-	1557m N	Unknown	Ancient Semi Natural Woodland
-	1573m N	Unknown	Ancient Semi Natural Woodland
-	1630m E	Unknown	Ancient Semi Natural Woodland
-	1681m N	Unknown	Plantation on Ancient Woodland Site
-	1685m N	Unknown	Restored Ancient Woodland Site
-	1698m N	Unknown	Plantation on Ancient Woodland Site
-	1717m N	Unknown	Ancient Semi Natural Woodland
-	1804m NW	Unknown	Plantation on Ancient Woodland Site
-	1804m NW	Unknown	Plantation on Ancient Woodland Site
-	1818m NW	Unknown	Ancient Semi Natural Woodland
-	1843m N	Unknown	Restored Ancient Woodland Site
-	1845m NW	Unknown	Restored Ancient Woodland Site
-	1855m N	Unknown	Ancient Semi Natural Woodland
-	1893m N	Unknown	Plantation on Ancient Woodland Site
-	1899m N	Unknown	Plantation on Ancient Woodland Site
-	1958m NW	Unknown	Ancient Semi Natural Woodland
-	1970m NE	Unknown	Ancient Semi Natural Woodland
-	1997m SE	Unknown	Ancient Semi Natural Woodland

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



10.8 Biosphere Reserves

Records within 2000m

0

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

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

10.9 Forest Parks

Records within 2000m

0

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

This data is sourced from the Forestry Commission.

10.10 Marine Conservation Zones

Records within 2000m

0

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

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

10.11 Green Belt

Records within 2000m

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



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- 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

4

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 59](#) >

ID	Location	Classification	Description
2	15m SE	Grade 5	Very poor quality agricultural land
4	165m E	Grade 4	Poor quality agricultural land
5	206m SW	Grade 4	Poor quality agricultural land



ID	Location	Classification	Description
6	233m NE	Grade 4	Poor 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

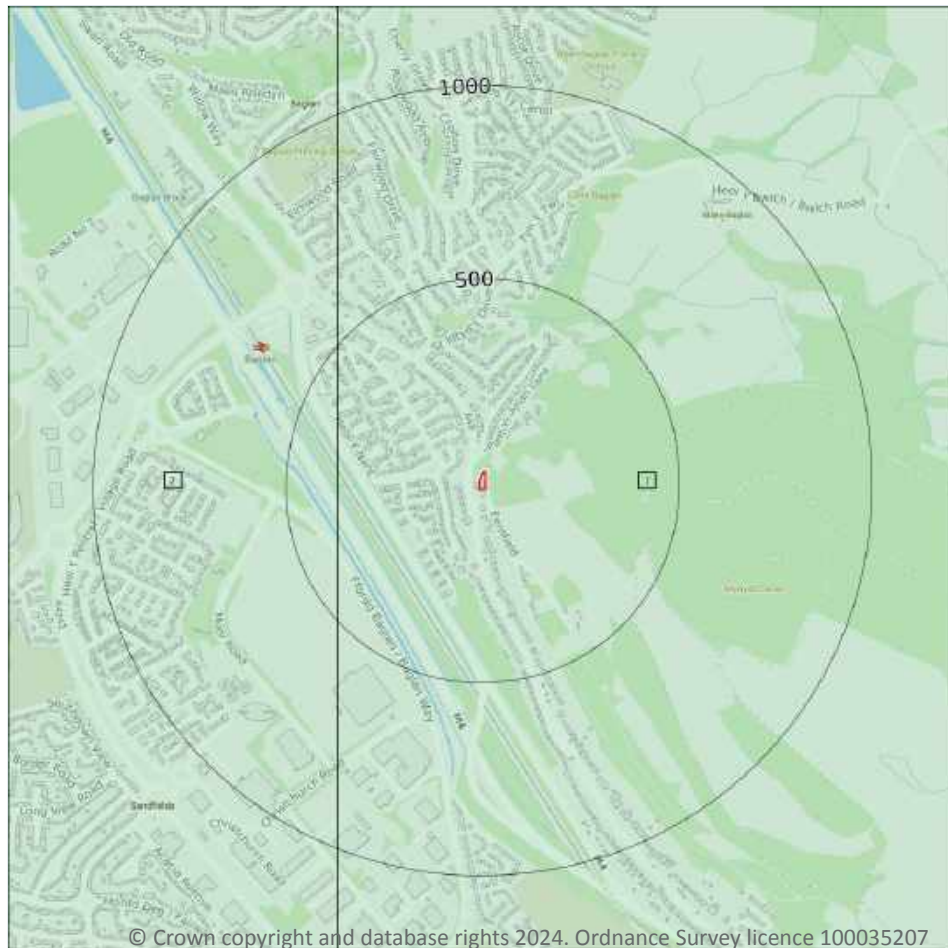
0

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

2

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.

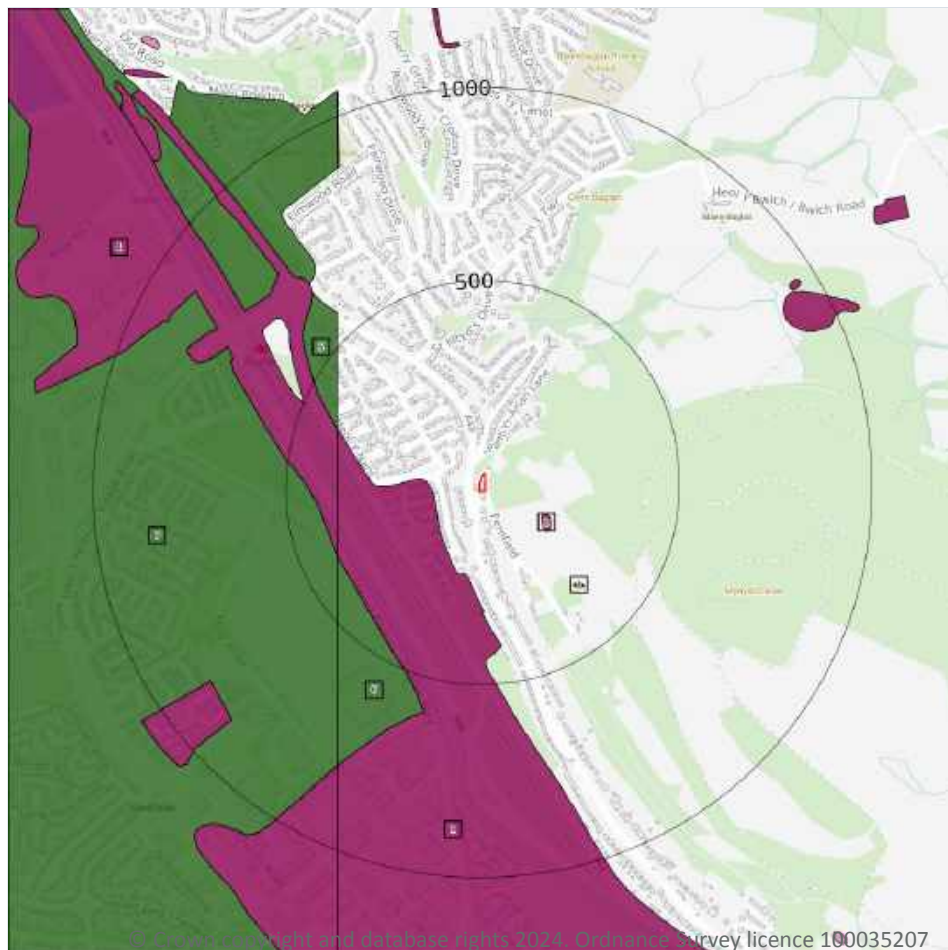
Features are displayed on the Geology 1:10,000 scale - Availability map on [page 62](#) >

ID	Location	Artificial	Superficial	Bedrock	Mass movement	Sheet No.
1	On site	Full	Full	Full	Full	SS79SE
2	368m W	Full	Full	Full	No coverage	SS79SW

This data is sourced from the British Geological Survey.



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



- Site Outline**
- Search buffers in metres (m)
- Reclaimed ground
 - Made ground
 - Worked ground
 - Infilled ground
 - Disturbed ground
 - Landscaped ground

14.2 Artificial and made ground (10k)

Records within 500m

7

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.

Features are displayed on the Geology 1:10,000 scale - Artificial and made ground map on [page 63](#) >

ID	Location	LEX Code	Description	Rock description
1	117m W	MGR-ARTDP	Made Ground (Undivided)	Artificial Deposit
2	160m SE	MGR-ARTDP	Made Ground (Undivided)	Artificial Deposit
3	332m SE	MGR-ARTDP	Made Ground (Undivided)	Artificial Deposit
4	368m W	MGR-ARTDP	Made Ground (Undivided)	Artificial Deposit

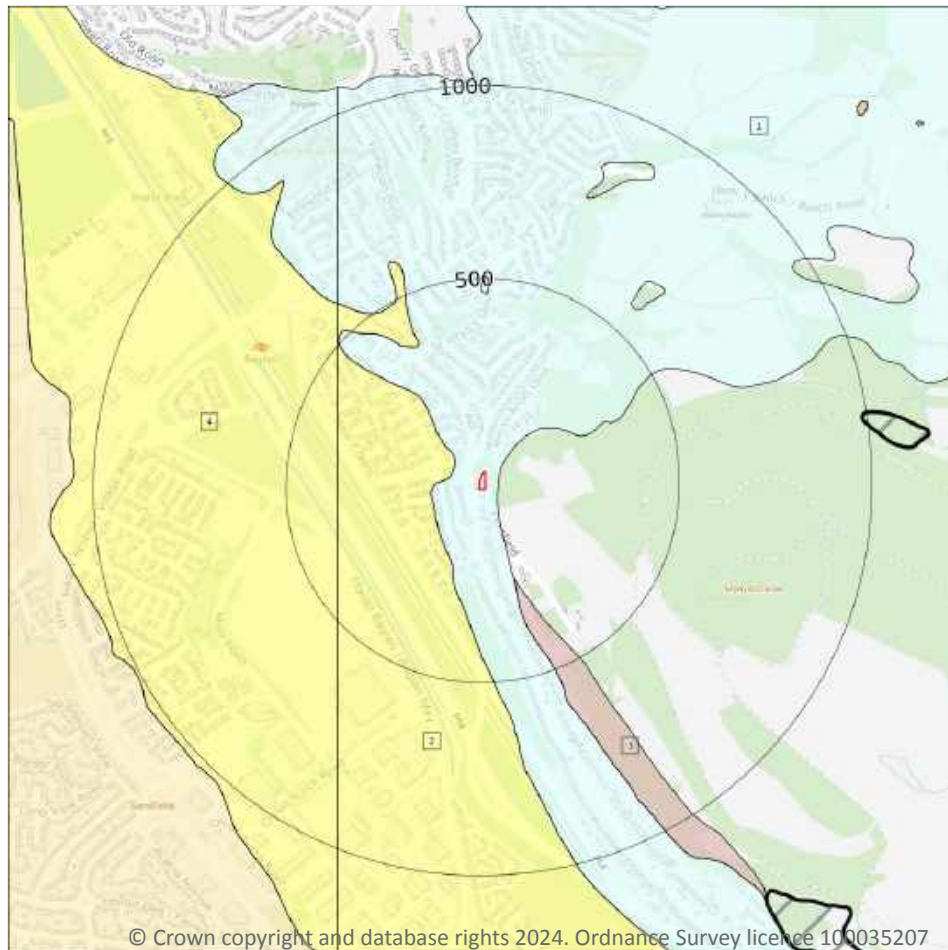


ID	Location	LEX Code	Description	Rock description
5	395m W	LSGR-UNKNOWN	Landscaped Ground (Undivided)	Unknown/unclassified Entry
6	402m SW	LSGR-UNKNOWN	Landscaped Ground (Undivided)	Unknown/unclassified Entry
7	402m SW	LSGR-UNKNOWN	Landscaped Ground (Undivided)	Unknown/unclassified Entry

This data is sourced from the British Geological Survey.



Geology 1:10,000 scale - Superficial



Site Outline
Search buffers in metres (m)

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

14.3 Superficial geology (10k)

Records within 500m

4

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

Features are displayed on the Geology 1:10,000 scale - Superficial map on [page 65](#) >

ID	Location	LEX Code	Description	Rock description
1	On site	TILLD-DMTN	Till, Devensian - Diamicton	Diamicton
2	74m W	TFD-XCZS	Tidal Flat Deposits - Clay, Silt And Sand	Clay, Silt And Sand
3	243m S	HEAD-XCZSV	Head - Clay, Silt, Sand And Gravel	Clay, Silt, Sand And Gravel



ID	Location	LEX Code	Description	Rock description
4	368m W	TFD-XCZS	Tidal Flat Deposits - Clay, Silt And Sand	Clay, Silt And Sand

This data is sourced from the British Geological Survey.

14.4 Landslip (10k)

Records within 500m

0

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

This data is sourced from the British Geological Survey.



Geology 1:10,000 scale - Bedrock



— Site Outline

Search buffers in metres (m)

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

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

14.5 Bedrock geology (10k)

Records within 500m

16

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

Features are displayed on the Geology 1:10,000 scale - Bedrock map on [page 67](#) >

ID	Location	LEX Code	Description	Rock age
1	On site	LLFB-SDST	Llynfi Member - Sandstone	Bolsovia Sub-age
2	8m SW	RA-MDSS	Rhonda Member - Mudstone, Siltstone And Sandstone	Westphalian D Sub-age - Bolsovia Sub-age
4	52m SW	LLFB-MDSS	Llynfi Member - Mudstone, Siltstone And Sandstone	Bolsovia Sub-age



ID	Location	LEX Code	Description	Rock age
6	57m N	SWLCM-MDSS	South Wales Lower Coal Measures Formation - Mudstone, Siltstone And Sandstone	Langsettian Sub-age
8	125m W	SWMCM-MDSS	South Wales Middle Coal Measures Formation - Mudstone, Siltstone And Sandstone	Bolsovia Sub-age - Duckmantian Sub-age
10	134m SW	LLFB-SDST	Llynfi Member - Sandstone	Bolsovia Sub-age
14	193m S	LLFB-MDSS	Llynfi Member - Mudstone, Siltstone And Sandstone	Bolsovia Sub-age
16	236m E	RA-MDSS	Rhondda Member - Mudstone, Siltstone And Sandstone	Westphalian D Sub-age - Bolsovia Sub-age
18	272m E	RA-SDST	Rhondda Member - Sandstone	Westphalian D Sub-age - Bolsovia Sub-age
19	295m S	SWUCM-MDSS	South Wales Upper Coal Measures Formation - Mudstone, Siltstone And Sandstone	Westphalian D Sub-age - Bolsovia Sub-age
22	341m E	RA-MDSS	Rhondda Member - Mudstone, Siltstone And Sandstone	Westphalian D Sub-age - Bolsovia Sub-age
24	368m W	SWMCM-MDSS	South Wales Middle Coal Measures Formation - Mudstone, Siltstone And Sandstone	Bolsovia Sub-age - Duckmantian Sub-age
26	371m W	SWLCM-MDSS	South Wales Lower Coal Measures Formation - Mudstone, Siltstone And Sandstone	Langsettian Sub-age
28	382m E	RA-SDST	Rhondda Member - Sandstone	Westphalian D Sub-age - Bolsovia Sub-age
32	438m N	SWMCM-MDSS	South Wales Middle Coal Measures Formation - Mudstone, Siltstone And Sandstone	Bolsovia Sub-age - Duckmantian Sub-age
36	489m S	LLFB-SDST	Llynfi Member - Sandstone	Bolsovia Sub-age

This data is sourced from the British Geological Survey.

14.6 Bedrock faults and other linear features (10k)

Records within 500m

20

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.

Features are displayed on the Geology 1:10,000 scale - Bedrock map on [page 67](#) >

ID	Location	Category	Description
3	8m SW	ROCK	Coal seam, inferred (FIELD)



ID	Location	Category	Description
5	52m SW	ROCK	Coal seam, inferred ()
7	57m N	FAULT	Normal fault, inferred
9	125m W	FAULT	Normal fault, inferred
11	150m N	FOLD_AXIS	Axial plane trace of major anticline
12	185m NW	ROCK	Coal seam, inferred (GELLIDEG)
13	187m NE	ROCK	Coal seam, inferred ()
15	193m S	ROCK	Coal seam, inferred ()
17	251m E	FAULT	Normal fault, inferred
20	295m S	FOSSIL_HORIZON	Fossil horizon, marine band ()
21	306m SE	ROCK	Coal seam, observed ()
23	365m S	ROCK	Coal seam, observed (OLD WORKINGS)
25	371m S	ROCK	Coal seam, inferred ()
27	371m W	FAULT	Normal fault, inferred
29	382m E	ROCK	Coal seam, inferred (No 1 RHONDDA RIDER)
30	392m NW	ROCK	Coal seam, inferred (GELLIDEG)
31	411m NW	ROCK	Coal seam, inferred (GELLIDEG)
33	438m N	FOSSIL_HORIZON	Fossil horizon, marine band (AMMAN MARINE BAND)
34	445m SE	ROCK	Coal seam, inferred (WERNDDU)
35	468m N	FOLD_AXIS	Axial plane trace of major syncline

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 70](#) >

ID	Location	Artificial	Superficial	Bedrock	Mass movement	Sheet No.
1	On site	Full	Full	Full	Full	EW247_swansea_v4

This data is sourced from the British Geological Survey.



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



- Site Outline
- Search buffers in metres (m)
- Made ground
 - Worked ground
 - Infilled ground
 - Disturbed ground
 - Landscaped ground

15.2 Artificial and made ground (50k)

Records within 500m

3

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

Features are displayed on the Geology 1:50,000 scale - Artificial and made ground map on [page 71](#) >

ID	Location	LEX Code	Description	Rock description
1	117m W	MGR-ARTDP	MADE GROUND (UNDIVIDED)	ARTIFICIAL DEPOSIT
2	395m W	LSGR-ARTGR	LANDSCAPED GROUND (UNDIVIDED)	ARTIFICIALLY MODIFIED GROUND
3	402m SW	LSGR-ARTGR	LANDSCAPED GROUND (UNDIVIDED)	ARTIFICIALLY MODIFIED GROUND

This data is sourced from the British Geological Survey.



15.3 Artificial ground permeability (50k)

Records within 50m

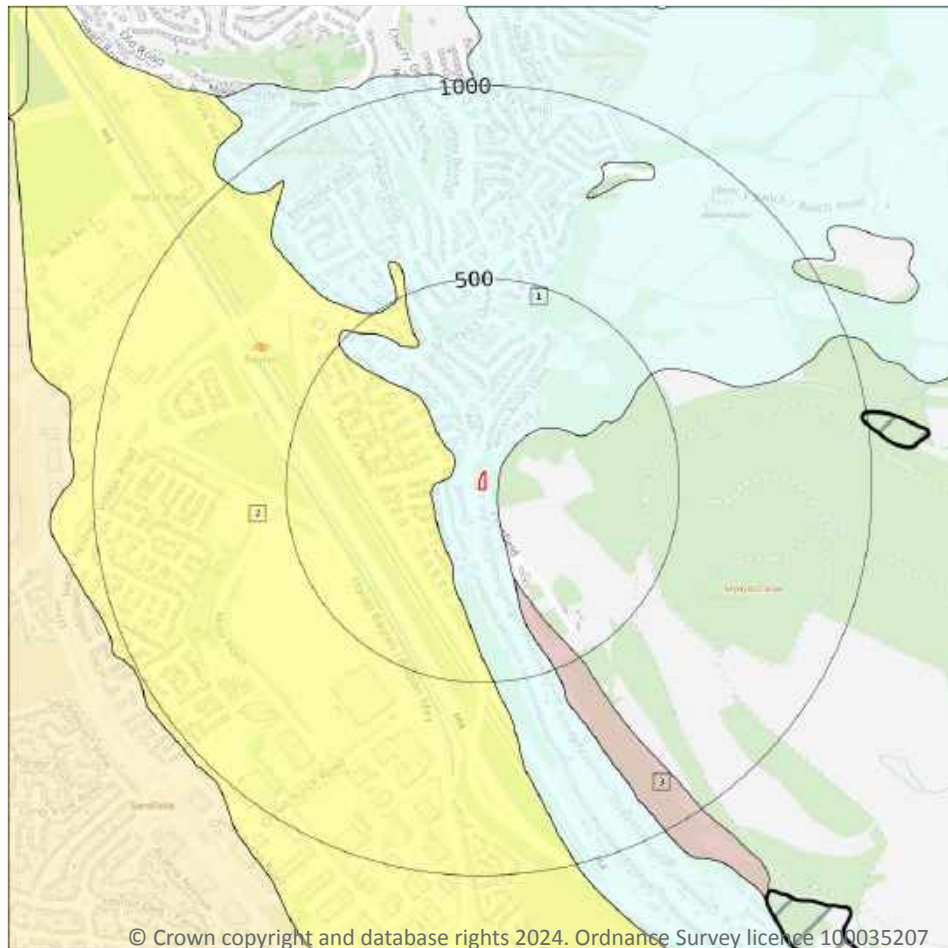
0

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

3

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

Features are displayed on the Geology 1:50,000 scale - Superficial map on [page 73](#) >

ID	Location	LEX Code	Description	Rock description
1	On site	TILLD-DMTN	TILL, DEVANSIAN	DIAMICTON
2	74m W	TFD-XCZS	TIDAL FLAT DEPOSITS	CLAY, SILT AND SAND
3	243m S	HEAD-XCZSV	HEAD	CLAY, SILT, SAND AND GRAVEL



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

14

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 75 >](#)

ID	Location	LEX Code	Description	Rock age
1	On site	RA-MDSS	RHONDDA MEMBER - MUDSTONE, SILTSTONE AND SANDSTONE	WESTPHALIAN
2	On site	RA-SDST	RHONDDA MEMBER - SANDSTONE	WESTPHALIAN
4	52m SW	LLFB-MDSS	LLYNFI MEMBER - MUDSTONE, SILTSTONE AND SANDSTONE	WESTPHALIAN



ID	Location	LEX Code	Description	Rock age
6	57m N	SWLCM-MDSS	SOUTH WALES LOWER COAL MEASURES FORMATION - MUDSTONE, SILTSTONE AND SANDSTONE	WESTPHALIAN
8	125m W	SWMCM-MDSS	SOUTH WALES MIDDLE COAL MEASURES FORMATION - MUDSTONE, SILTSTONE AND SANDSTONE	WESTPHALIAN
10	143m SW	LLFB-SDST	LLYNFI MEMBER - SANDSTONE	WESTPHALIAN
14	236m E	RA-MDSS	RHONDDA MEMBER - MUDSTONE, SILTSTONE AND SANDSTONE	WESTPHALIAN
15	239m S	LLFB-MDSS	LLYNFI MEMBER - MUDSTONE, SILTSTONE AND SANDSTONE	WESTPHALIAN
18	272m E	RA-SDST	RHONDDA MEMBER - SANDSTONE	WESTPHALIAN
19	295m S	SWUCM-MDSS	SOUTH WALES UPPER COAL MEASURES FORMATION - MUDSTONE, SILTSTONE AND SANDSTONE	WESTPHALIAN
22	341m E	RA-MDSS	RHONDDA MEMBER - MUDSTONE, SILTSTONE AND SANDSTONE	WESTPHALIAN
25	382m E	RA-SDST	RHONDDA MEMBER - SANDSTONE	WESTPHALIAN
29	438m N	SWMCM-MDSS	SOUTH WALES MIDDLE COAL MEASURES FORMATION - MUDSTONE, SILTSTONE AND SANDSTONE	WESTPHALIAN
33	489m S	LLFB-SDST	LLYNFI MEMBER - SANDSTONE	WESTPHALIAN

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	High	Moderate

This data is sourced from the British Geological Survey.



15.10 Bedrock faults and other linear features (50k)

Records within 500m

19

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.

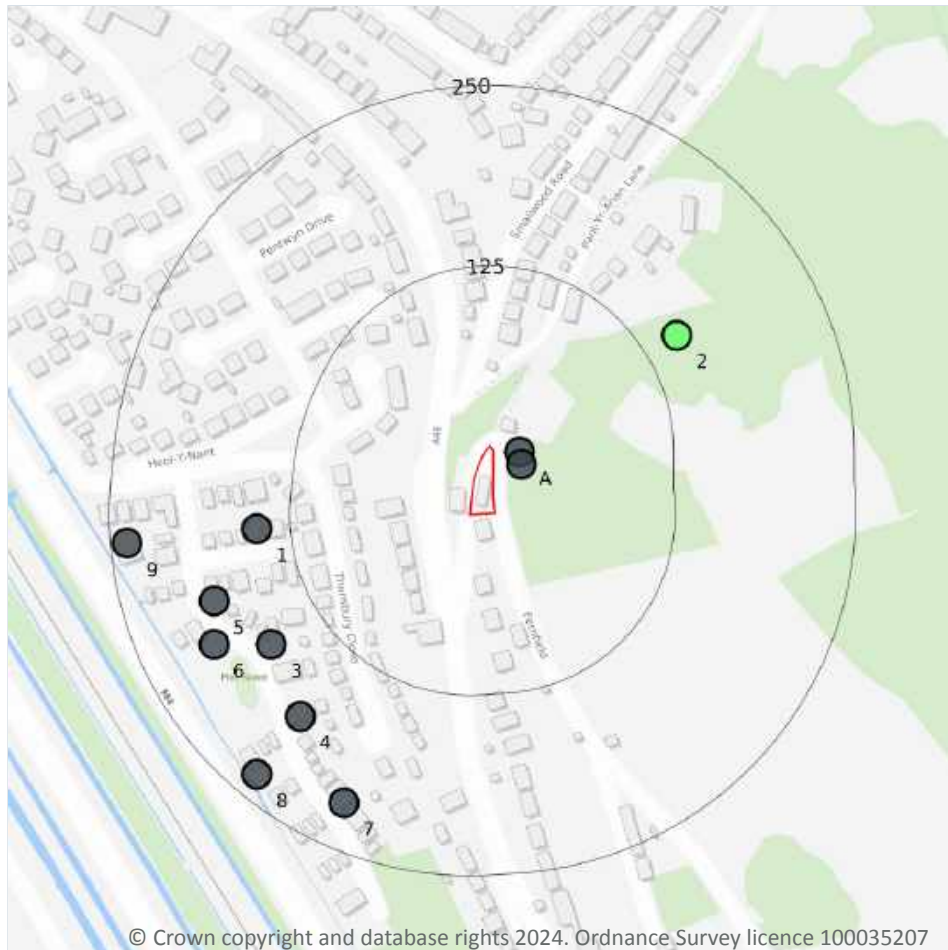
Features are displayed on the Geology 1:50,000 scale - Bedrock map on [page 75 >](#)

ID	Location	Category	Description
3	On site	ROCK	Coal seam, inferred
5	52m SW	ROCK	Coal seam, inferred
7	57m N	FAULT	Fault, inferred, displacement unknown
9	125m W	FAULT	Fault, inferred, displacement unknown
11	150m N	FOLD_AXIS	Axial plane trace of major anticline
12	185m NW	ROCK	Coal seam, inferred
13	187m NE	ROCK	Coal seam, inferred
16	239m S	ROCK	Coal seam, inferred
17	251m E	FAULT	Fault, inferred, displacement unknown
20	295m S	FOSSIL_HORIZON	Marine band
21	306m SE	ROCK	Coal seam, observed
23	371m S	ROCK	Coal seam, inferred
24	371m W	FAULT	Fault, inferred, displacement unknown
26	382m E	ROCK	Coal seam, inferred
27	392m NW	ROCK	Coal seam, inferred
28	424m S	ROCK	Coal seam, observed
30	438m N	FOSSIL_HORIZON	Marine band
31	445m SE	ROCK	Coal seam, inferred
32	468m N	FOLD_AXIS	Axial plane trace of major syncline

This data is sourced from the British Geological Survey.



16 Boreholes



Site Outline
Search buffers in metres (m)

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

16.1 BGS Boreholes

Records within 250m

11

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 78 >](#)

ID	Location	Grid reference	Name	Length	Confidential	Web link
A	18m NE	275402 191863	FERNFIELD SARNFARN IMPROVEMENT 2	-	Y	N/A
A	19m NE	275403 191855	FERNFIELD SARNFARN IMPROVEMENT 1	-	Y	N/A
1	148m W	275220 191810	STYCYLLWEN FARM BAGLAN TP 9	-	Y	N/A

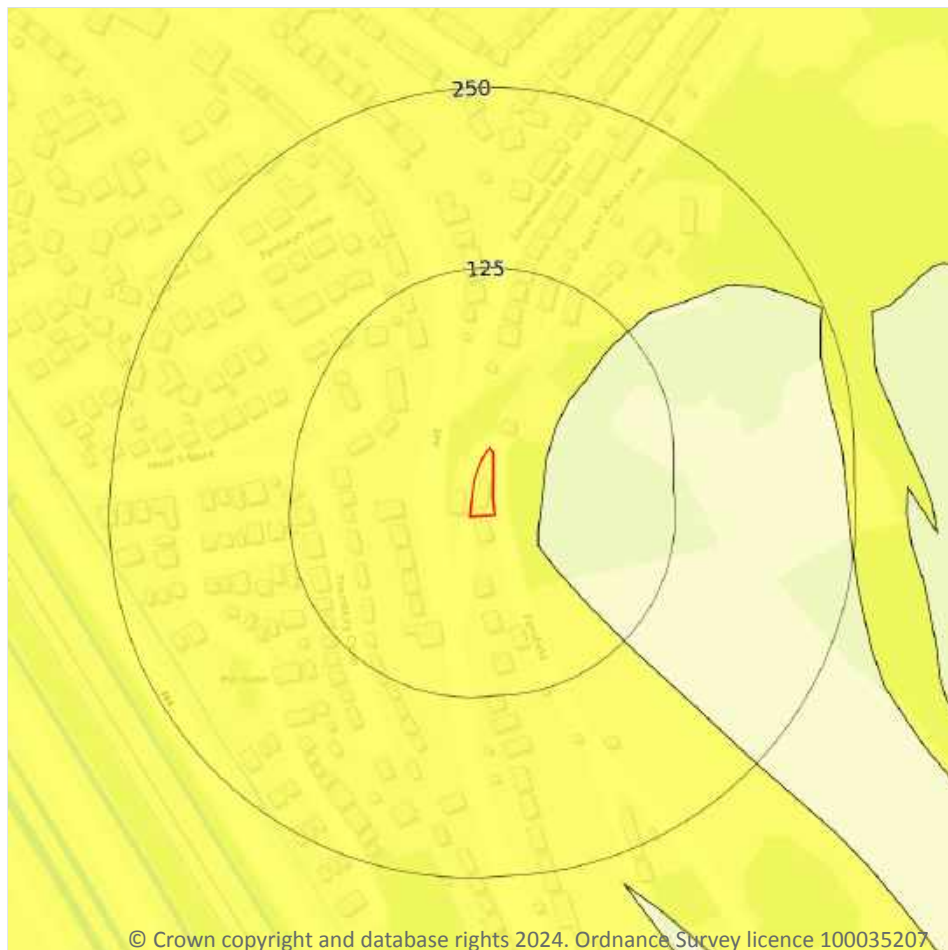


ID	Location	Grid reference	Name	Length	Confidential	Web link
2	150m NE	275511 191944	M4 M'WAY LONDON-WALES 30/3	21.0	N	371768 ↗
3	164m SW	275230 191730	STYCYLLWEN FARM BAGLAN TP 6	-	Y	N/A
4	183m SW	275250 191680	STYCYLLWEN FARM BAGLAN TP 5	-	Y	N/A
5	187m SW	275190 191760	STYCYLLWEN FARM BAGLAN TP 8	-	Y	N/A
6	199m SW	275190 191730	STYCYLLWEN FARM BAGLAN TP 7	-	Y	N/A
7	218m SW	275280 191620	STYCYLLWEN FARM BAGLAN TP 3	-	Y	N/A
8	233m SW	275220 191640	STYCYLLWEN FARM BAGLAN TP 4	-	Y	N/A
9	238m W	275130 191800	STYCYLLWEN FARM BAGLAN TP 10	-	Y	N/A

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

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17.1 Shrink swell clays

Records within 50m

2

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).

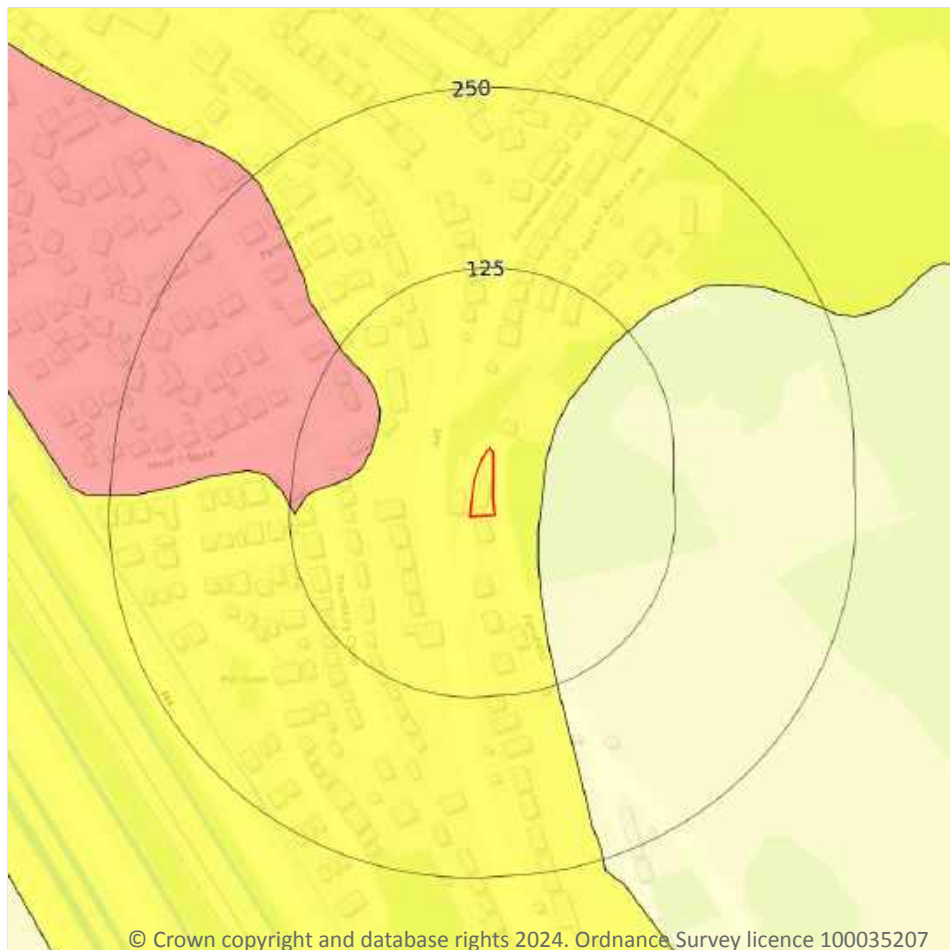
Features are displayed on the Natural ground subsidence - Shrink swell clays map on [page 80 >](#)

Location	Hazard rating	Details
On site	Very low	Ground conditions predominantly low plasticity.
31m SE	Negligible	Ground conditions predominantly non-plastic.

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

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17.2 Running sands

Records within 50m

2

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 81](#) >

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.

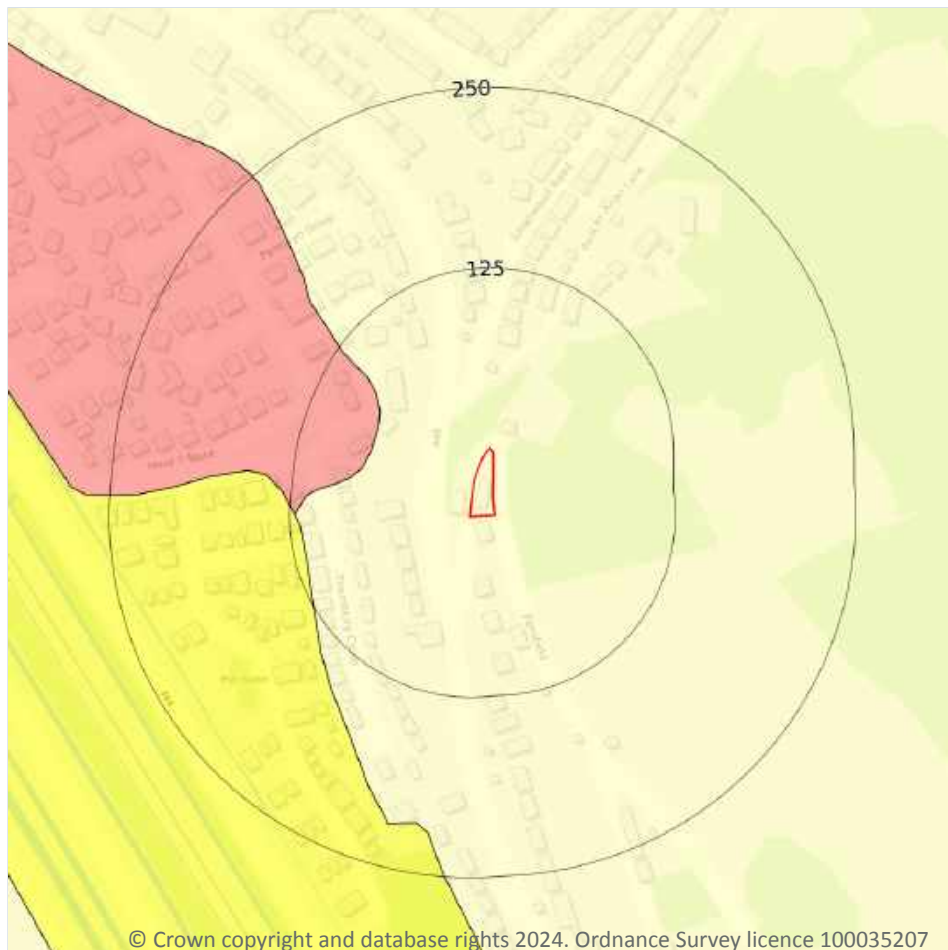


Location	Hazard rating	Details
31m SE	Negligible	Running sand conditions are not thought to occur whatever the position of the water table. No identified constraints on lands use due to running conditions.

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.

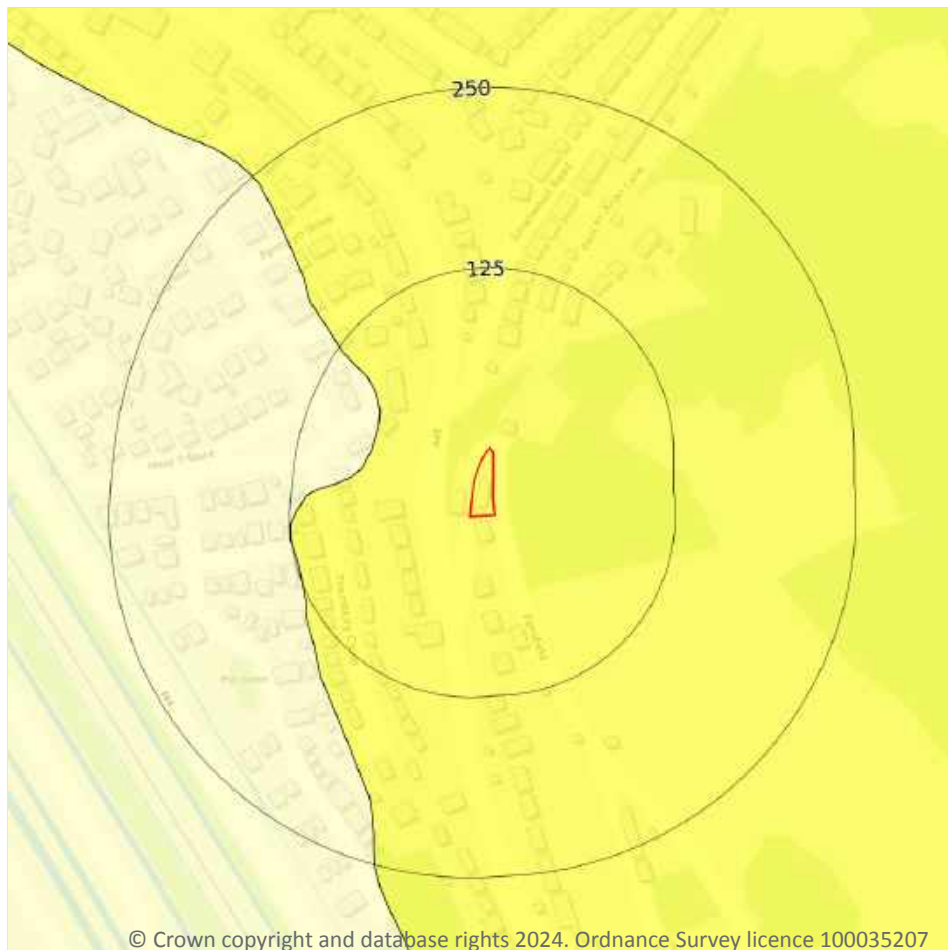
Features are displayed on the Natural ground subsidence - Compressible deposits map on [page 83](#) >

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.

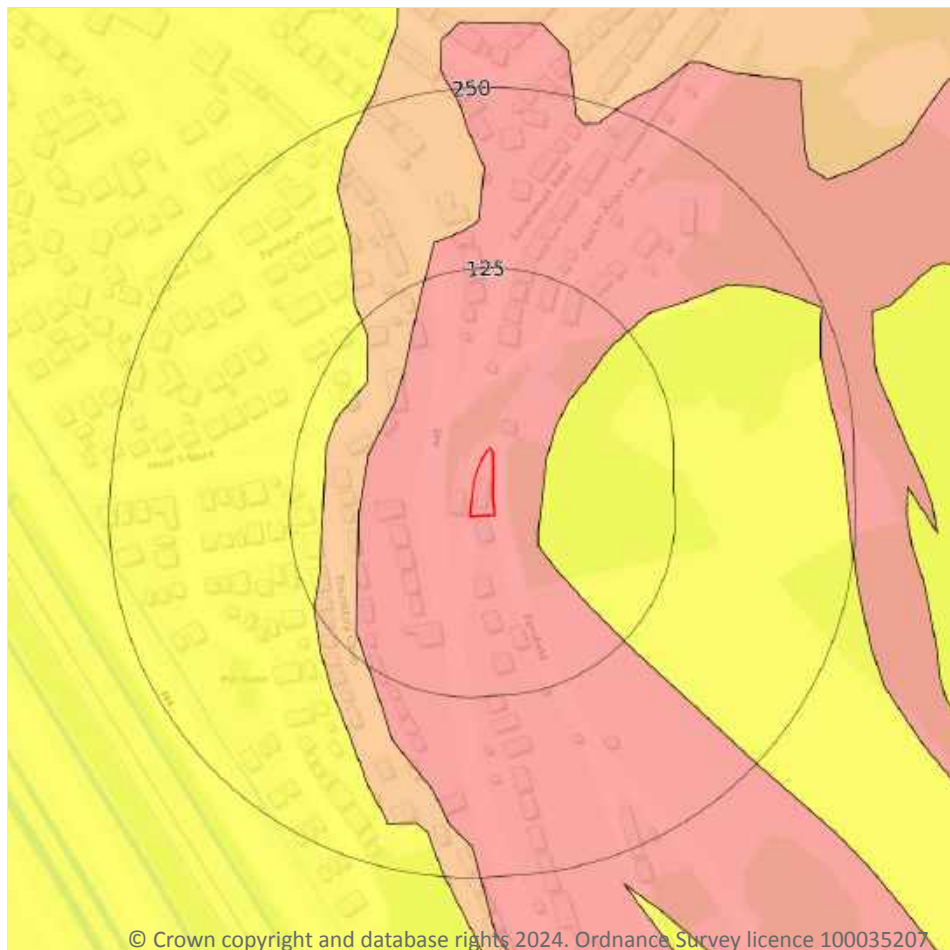
Features are displayed on the Natural ground subsidence - Collapsible deposits map on [page 84 >](#)

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

2

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 85 >](#)

Location	Hazard rating	Details
On site	Moderate	Slope instability problems are probably present or have occurred in the past. Land use should consider specifically the stability of the site.

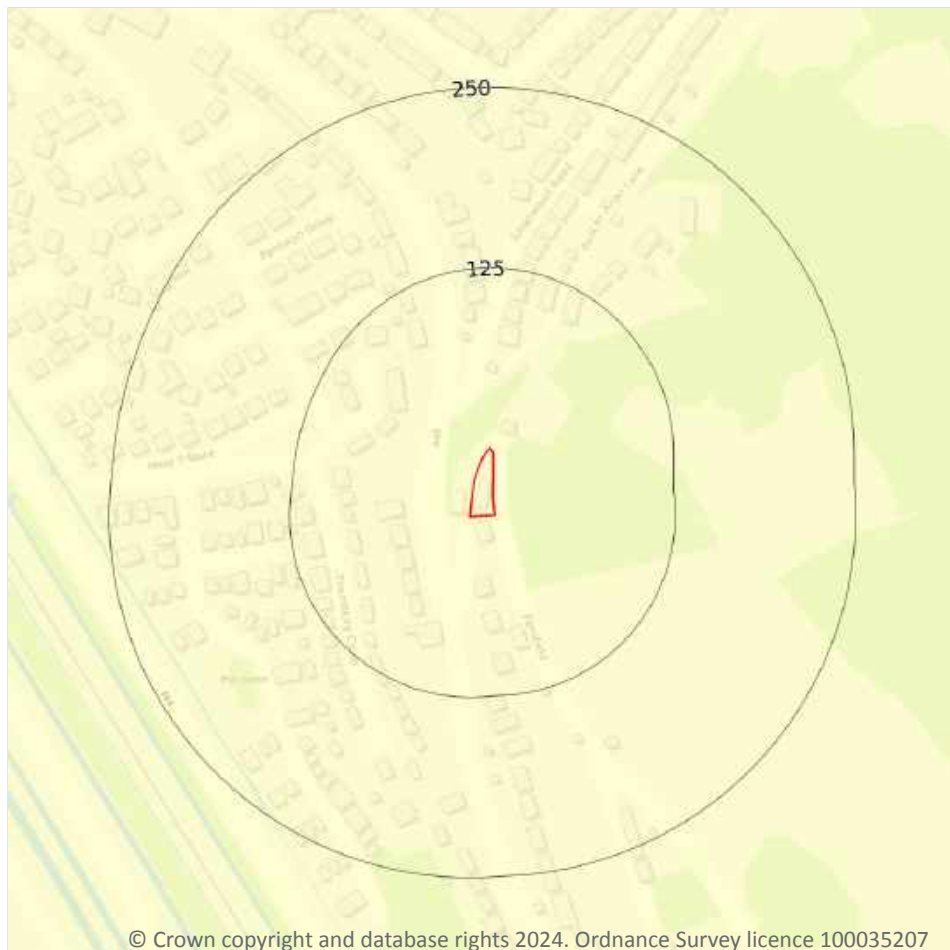


Location	Hazard rating	Details
31m SE	Very low	Slope instability problems are not likely to occur but consideration to potential problems of adjacent areas impacting on the site should always be considered.

This data is sourced from the British Geological Survey.



Natural ground subsidence - Ground dissolution of soluble rocks



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

17.6 Ground dissolution of soluble rocks

Records within 50m

1

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

Features are displayed on the Natural ground subsidence - Ground dissolution of soluble rocks map on [page 87](#) >

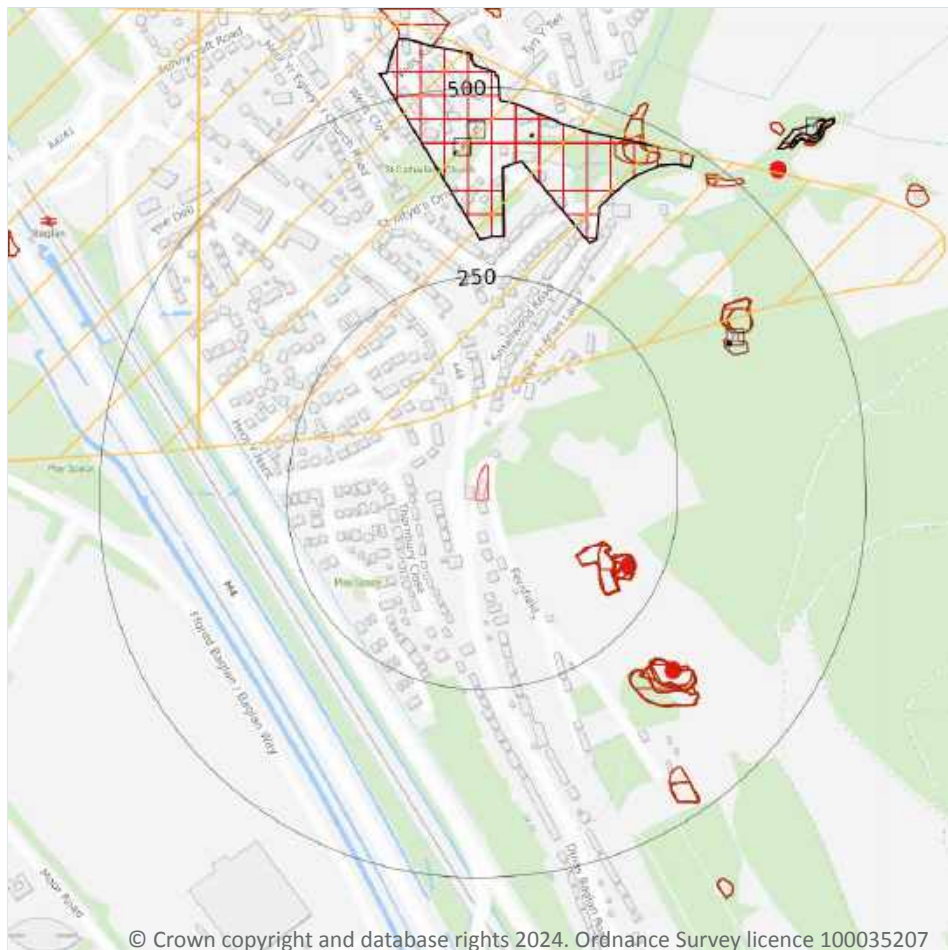
Location	Hazard rating	Details
On site	Negligible	Soluble rocks are either not thought to be present within the ground, or not prone to dissolution. Dissolution features are unlikely to be present.



This data is sourced from the British Geological Survey.



18 Mining 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

2

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

Features are displayed on the Mining and ground workings map on [page 89](#) >

ID	Location	Details	Description
A	205m SE	Name: Dan-y-graig Address: PORT TALBOT, West Glamorgan Commodity: Sandstone Status: Ceased	Type: A surface mineral working. It may be termed Quarry, Sand Pit, Clay Pit or Opencast Coal Site Status description: Site which, at date of entry, has ceased to extract minerals. May be considered as Closed by operator. May be considered to have Active, Dormant or Expired planning permissions by Mineral Planning Authority
B	332m SE	Name: Dan-y-graig Address: PORT TALBOT, West Glamorgan Commodity: Sandstone Status: Ceased	Type: A surface mineral working. It may be termed Quarry, Sand Pit, Clay Pit or Opencast Coal Site Status description: Site which, at date of entry, has ceased to extract minerals. May be considered as Closed by operator. May be considered to have Active, Dormant or Expired planning permissions by Mineral Planning Authority

This data is sourced from the British Geological Survey.

18.2 Surface ground workings

Records within 250m

9

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

Features are displayed on the Mining and ground workings map on [page 89 >](#)

ID	Location	Land Use	Year of mapping	Mapping scale
A	137m SE	Sand Pit	1957	1:10560
A	140m SE	Refuse Heap	1947	1:10560
A	161m SE	Refuse Heap	1921	1:10560
A	161m SE	Unspecified Quarry	1914	1:10560
A	181m SE	Unspecified Disused Quarry	1978	1:10000
A	181m SE	Unspecified Disused Quarry	1995	1:10000
A	181m SE	Unspecified Old Quarry	1957	1:10560
A	184m SE	Unspecified Old Quarry	1947	1:10560
A	184m SE	Unspecified Quarry	1921	1:10560

This data is sourced from Ordnance Survey/Groundsure.



18.3 Underground workings

Records within 1000m

17

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

Features are displayed on the Mining and ground workings map on [page 89](#) >

ID	Location	Land Use	Year of mapping	Mapping scale
C	298m N	Colliery	1877	1:10560
D	356m NE	Air Shaft	1877	1:10560
3	412m N	Air Shaft	1877	1:10560
C	439m N	Air Shaft	1877	1:10560
H	569m NE	Old Coal Level	1897	1:10560
H	582m NE	Coal Level	1921	1:10560
H	582m NE	Coal Level	1921	1:10560
-	753m NE	Air Shaft	1877	1:10560
-	783m N	Air Shaft	1877	1:10560
-	829m NW	Disused Colliery	1897	1:10560
-	923m NE	Unspecified Shaft	1897	1:10560
-	934m NE	Unspecified Disused Level	1978	1:10000
-	934m NE	Unspecified Disused Level	1995	1:10000
-	936m NE	Unspecified Old Level	1957	1:10560
-	937m NE	Old Coal Level	1921	1:10560
-	937m NE	Unspecified Old Level	1936	1:10560
-	937m NE	Old Coal Level	1921	1:10560

This 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

2

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

Features are displayed on the Mining and ground workings map on [page 89 >](#)

ID	Location	Name	Commodity	Class	Likelihood
1	85m N	Not available	Iron Ore (Bedded)	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	373m W	Not available	Iron Ore (Bedded)	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.

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

0

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.

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	1
-----------------	---

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

Location	Details
On site	The site is located within a coal mining area as defined by the Coal Authority. A Consultants Coal Mining Report is recommended to further assess coal mining issues at the site. This can be ordered directly through Groundsure or your preferred search provider.

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

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

0

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

This data is sourced from Stantec UK Ltd.

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.

19.5 National karst database

Records within 500m

0

This is a comprehensive database of national karst information gathered from a wide range of sources. BGS have collected data on five main types of karst feature: Sinkholes, stream links, caves, springs, and incidences of associated damage to buildings, roads, bridges and other engineered works.

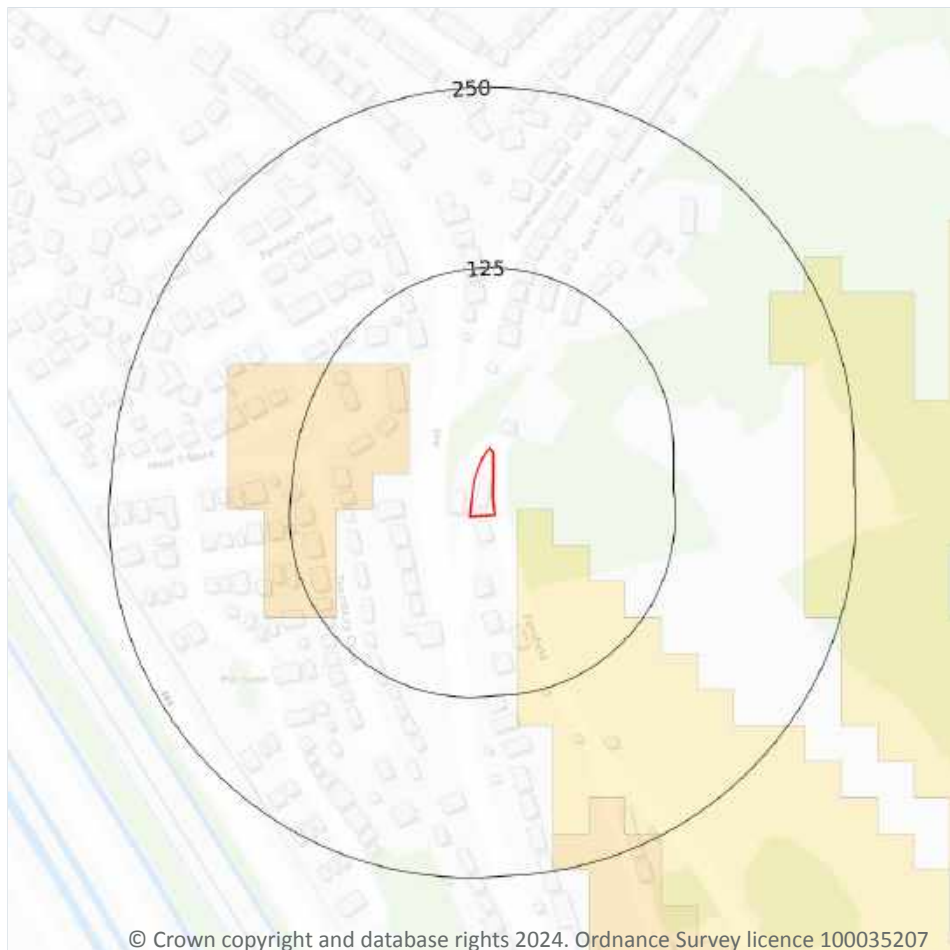
Since the database was set up in 2002 data covering most of the evaporite karst areas of the UK have now been added, along with data covering about 60% of the Chalk, and 35% of the Carboniferous Limestone outcrops. Many of the classic upland karst areas have yet to be included. Recorded so far are: Over 800 caves, 1300 stream sinks, 5600 springs, 10,000 sinkholes.

The database is not yet complete, and not all records have been verified. The absence of data does not mean that karst features are not present at a site. A reliability rating is included with each record.

This data is sourced from the British Geological Survey.



20 Radon



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

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 97](#) >

Location	Estimated properties affected	Radon Protection Measures required
On site	Less than 1%	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

5

The estimated values provide the likely background concentration of the potentially harmful elements Arsenic, Cadmium, Chromium, Lead and Nickel in topsoil. The values are estimated primarily from rural topsoil data collected at a sample density of approximately 1 per 2 km². In areas where rural soil samples are not available, estimation is based on stream sediment data collected from small streams at a sampling density of 1 per 2.5 km²; this is the case for most of Scotland, Wales and southern England. The stream sediment data are converted to soil-equivalent concentrations prior to the estimation.

Location	Arsenic	Bioaccessible Arsenic	Lead	Bioaccessible Lead	Cadmium	Chromium	Nickel
On site	25 - 35 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	60 - 90 mg/kg	30 - 45 mg/kg
On site	35 - 45 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	60 - 90 mg/kg	30 - 45 mg/kg
On site	35 - 45 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg
0m SW	45 - 60 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg
43m SW	35 - 45 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	60 - 90 mg/kg	30 - 45 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 km²).

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 km².

This data is sourced from the British Geological Survey.



22 Railway infrastructure and projects



- Site Outline
- Search buffers in metres (m)
- C1 Crossrail 1 Stations
- Crossrail 1 Route
- C2 Crossrail 2 Stations
- Crossrail 2 Route
- Crossrail 2 Worksites
- Crossrail 2 Safeguarding
- Crossrail 2 Headhouses
- Railway stations
- Active railways
- Active tunnels
- Abandoned railways
- Historic railways
- Historic tunnels
- Underground stations
- Underground Lines
- Royal Mail tunnels
- HS2 optimised route
- HS2 Stations
- HS2 Depots
- HS2 Surface Safeguarding
- HS2 Subsurface Safeguarding

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

4

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

Features are displayed on the Railway infrastructure and projects map on [page 101](#) >

Location	Land Use	Year of mapping	Mapping scale
106m SE	Tramway Sidings	1921	10560
111m SE	Tramway Sidings	1914	10560
111m SE	Tramway Sidings	1918	2500
211m N	Railway Sidings	1877	10560

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 1

Records within 500m

0

The Crossrail railway project links 41 stations over 100 kilometres from Reading and Heathrow in the west, through underground sections in central London, to Shenfield and Abbey Wood in the east.

This data is sourced from publicly available information by Groundsure.

22.9 Crossrail 2

Records within 500m

0

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

This data is sourced from publicly available information by Groundsure.

22.10 HS2

Records within 500m

0

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

This data is sourced from HS2 Ltd.



Data providers

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

Terms and conditions

Groundsure's Terms and Conditions can be accessed at this link: www.groundsure.com/terms-and-conditions-april-2023/ ↗.



APPENDIX B
COAL AUTHORITY
CONSULTANTS REPORT
AND
MINE ENTRY DATA SHEETS
3 FERNFIELD
BAGLAN



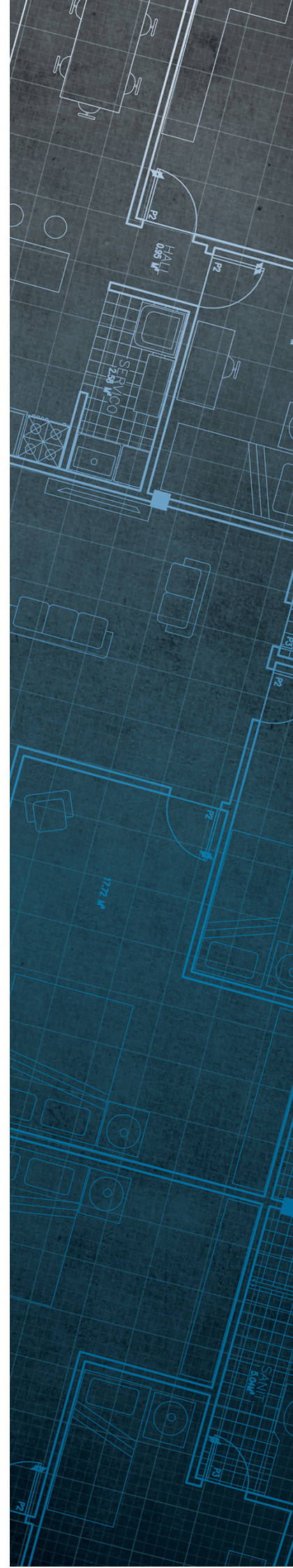
The Coal
Authority

Consultants Coal Mining Report

Bayview
3 Fernfield
Baglan
Neath Port Talbot
SA12 8AL

Date of enquiry:	16 April 2024
Date enquiry received:	16 April 2024
Issue date:	16 April 2024

Our reference:	51003418291001
Your reference:	



Consultants

Coal Mining Report

This report is based on and limited to the records held by the Coal Authority at the time the report was produced.

Client name

RICHARD Davies

Enquiry address

Bayview
3 Fernfield
Baglan
Neath Port Talbot
SA12 8AL

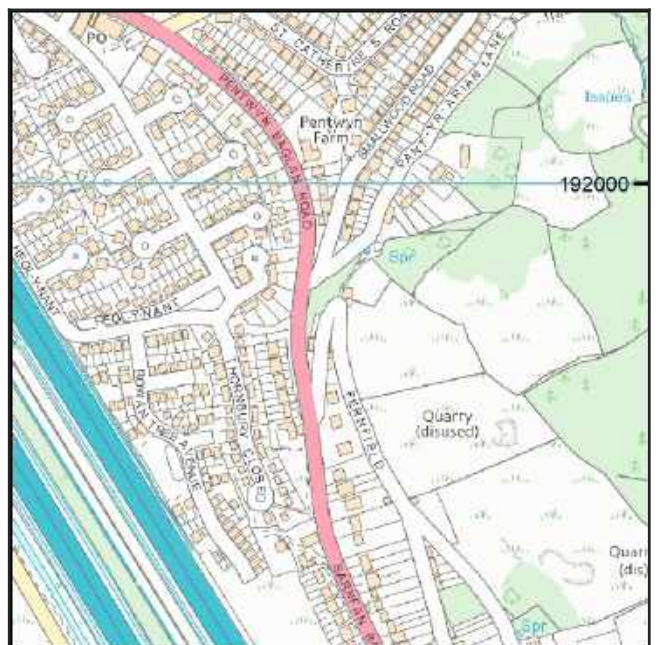
How to contact us

0345 762 6848 (UK)
+44 (0)1623 637 000 (International)

200 Lichfield Lane
Mansfield
Nottinghamshire
NG18 4RG

www.groundstability.com

 @coalauthority
 /company/the-coal-authority
 /thecoalauthority
 /thecoalauthority



Approximate position of property



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Section 1 – Mining activity and geology

Past underground mining

No past mining recorded.

Probable unrecorded shallow workings

None.

Spine roadways at shallow depth

No spine roadway recorded at shallow depth.

Mine entries

Entry type	Reference	Grid reference	Treatment description	Mineral	Conveyancing details
Adit	275191-005	275373 191746	A site investigation by Thyssens Geotechnical in 2003 involving excavation of parallel trenches to a depth of 1.5m over an area of approximately 20m x 12m found no evidence of this mine entry	Coal	

Abandoned mine plan catalogue numbers

The following abandoned mine plan catalogue numbers intersect with some, or all, of the enquiry boundary:

SWR2654		
---------	--	--

Please contact us on 0345 762 6848 to determine the exact abandoned mine plans you require based on your needs.

Outcrops

Seam name	Mineral	Seam workable	Distance to outcrop (m)	Direction to outcrop	Bearing of outcrop
NO.2 RHONDDA	Coal	Yes	47.7	South-West	139
NO.2 RHONDDA RIDER	Coal	Yes	Within	N/A	157

Geological faults, fissures and breaklines

No faults, fissures or breaklines recorded.

Opencast mines

None recorded within 500 metres of the enquiry boundary.

Coal Authority managed tips

None recorded within 500 metres of the enquiry boundary.

Section 2 – Investigative or remedial activity

Please refer to the 'Summary of findings' map (on separate sheet) for details of any activity within the area of the site boundary.

Site investigations

None recorded within 50 metres of the enquiry boundary.

Remediated sites

None recorded within 50 metres of the enquiry boundary.

Coal mining subsidence

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

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

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

Mine gas

None recorded within 500 metres of the enquiry boundary.

Mine water treatment schemes

None recorded within 500 metres of the enquiry boundary.

Section 3 – Licensing and future mining activity

Future underground mining

None recorded.

Coal mining licensing

None recorded within 200 metres of the enquiry boundary.

Court orders

None recorded.

Section 46 notices

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

Withdrawal of support notices

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

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

Payments to owners of former copyhold land

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

Section 4 – Further information

Based on the responses in this report, no further information has been highlighted.

Future development

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

MINE GAS: Please note, if there are no recorded instances of mine gas within 500m of the enquiry boundary, this does not mean that mine gas is not present within the vicinity. The Coal Authority Mine Gas data is limited to only those sites where a Mine Gas incident has been recorded. Developers should be aware that the investigation of coal seams, mine workings or mine entries may have the potential to generate and/or displace underground gases. Associated risks both to the development site and any neighbouring land or properties should be fully considered when undertaking any ground works. The need for effective measures to prevent gases migrating onto any land or into any properties, either during investigation or remediation work, or after development must also be assessed and properly addressed. In these instances, the Coal Authority recommends that a more detailed Gas Risk Assessment is undertaken by a competent assessor.

Section 5 – Data definitions

The datasets used in this report have limitations and assumptions within their results. For more guidance on the data and the results specific to the enquiry boundary, please **call us on 0345 762 6848** or **email us at groundstability@coal.gov.uk**.

Past underground coal mining

Details of all recorded underground mining relative to the enquiry boundary. Only past underground workings where the enquiry boundary is within 0.7 times the depth of the workings (zone of likely physical influence) allowing for seam inclination, will be included.

Probable unrecorded shallow workings

Areas where the Coal Authority believes there to be unrecorded coal workings that exist at or close to the surface (less than 30 metres deep).

Spine roadways at shallow depth

Connecting roadways either, working to working, or, surface to working, both in-seam and cross measures that exist at or close to the surface (less than 30 metres deep), either within or within 10 metres of the enquiry boundary.

Mine entries

Details of any shaft or adit either within, or within 100 metres of the enquiry boundary including approximate location, brief treatment details where known, the mineral worked from the mine entry and conveyance details where the mine entry has previously been sold by the Authority or its predecessors British Coal or the National Coal Board.

Abandoned mine plan catalogue numbers

Plan numbers extracted from the abandoned mines catalogue containing details of coal and other mineral abandonment plans deposited via the Mines Inspectorate in accordance with the Coal Mines Regulation Act and Metalliferous Mines Regulation Act 1872. A maximum of 9 plan extents that intersect with the enquiry boundary will be included. This does not infer that the workings and/or mine entries shown on the abandonment plan will be relevant to the site/property boundary.

Outcrops

Details of seam outcrops will be included where the enquiry boundary intersects with a conjectured or actual seam outcrop location (derived by either the British Geological Survey or the Coal Authority) or intersects with a defined 50 metres buffer on the coal (dip) side of the outcrop. An indication of whether the Coal Authority believes the seam to be of sufficient thickness and/or quality to have been worked will also be included.

Geological faults, fissures and breaklines

Geological disturbances or fractures in the bedrock. Surface fault lines (British Geological Survey derived data) and fissures and breaklines (Coal Authority derived data) intersecting with the enquiry boundary will be included. In some circumstances faults, fissures or breaklines have been known to contribute to surface subsidence damage as a consequence of underground coal mining.

Opencast mines

Opencast coal sites from which coal has been removed in the past by opencast (surface) methods and where the enquiry boundary is within 500 metres of either the licence area, site boundary, excavation area (high wall) or coaling area.

Coal Authority managed tips

Locations of disused colliery tip sites owned and managed by the Coal Authority, located within 500 metres of the enquiry boundary.

Site investigations

Details of site investigations within 50 metres of the enquiry boundary where the Coal Authority has received information relating to coal mining risk investigation and/or remediation by third parties.

Remediated sites

Sites where the Coal Authority has undertaken remedial works either within or within 50 metres of the enquiry boundary following report of a hazard relating to coal mining under the Coal Authority's Emergency Surface Hazard Call Out procedures.

Coal mining subsidence

Details of alleged coal mining subsidence claims made since 31 October 1994 either within or within 50 metres of the enquiry boundary. Where the claim relates to the enquiry boundary confirmation of whether the claim was accepted, rejected or whether liability is still being determined will be given. Where the claim has been discharged, whether this was by repair, payment of compensation or a combination of both, the value of the claim, where known, will also be given.

Details of any current 'Stop Notice' deferring remedial works or repairs affecting the property/site, and if so the date of the notice.

Details of any request made to execute preventative works before coal is worked under section 33 of the Coal Mining Subsidence Act 1991. If yes, whether any person withheld consent or failed to comply with any request to execute preventative works.

Mine gas

Reports of alleged mine gas emissions received by the Coal Authority, either within or within 500 metres of the enquiry boundary that subsequently required investigation and action by the Coal Authority to mitigate the effects of the mine gas emission. Please note, if there are no recorded instances of mine gas reported, this does not mean that mine gas is not present within the vicinity. The Coal Authority Mine Gas data is limited to only those sites where a Mine Gas incident has been recorded.

Mine water treatment schemes

Locations where the Coal Authority has constructed or operates assets that remove pollutants from mine water prior to the treated mine water being discharged into the receiving water body.

These schemes are part of the UK's strategy to meet the requirements of the Water Framework Directive. Schemes fall into 2 basic categories: Remedial – mitigating the impact of existing pollution or Preventative – preventing a future pollution incident.

Mine water treatment schemes generally consist of one or more primary settlement lagoons and one or more reed beds for secondary treatment. A small number are more specialised process treatment plants.

Future underground mining

Details of all planned underground mining relative to the enquiry boundary. Only those future workings where the enquiry boundary is within 0.7 times the depth of the workings (zone of likely physical influence) allowing for seam inclination will be included.

Coal mining licensing

Details of all licenses issued by the Coal Authority either within or within 200 metres of the enquiry boundary in relation to the under taking of surface coal mining, underground coal mining or underground coal gasification.

Court orders

Orders in respect of the working of coal under the Mines (Working Facilities and Support) Acts of 1923 and 1966 or any statutory modification or amendment thereof.

Section 46 notices

Notice of proposals relating to underground coal mining operations that have been given under section 46 of the Coal Mining Subsidence Act 1991.

Withdrawal of support notices

Published notices of entitlement to withdraw support and the date of the notice. Details of any revocation notice withdrawing the entitlement to withdraw support given under Section 41 of the Coal Industry Act 1994.

Payment to owners of former copyhold land

Relevant notices which may affect the property and any subsequent notice of retained interests in coal and coal mines, acceptance or rejection notices and whether any compensation has been paid to a claimant.

Issued by:

The Coal Authority, Property Search Services, 200 Lichfield Lane, Berry Hill, Mansfield, Nottinghamshire, NG18 4RG
Website: www.groundstability.com Phone: 0345 762 6848

RICHARD DAVIES

Our reference:

51003418292001

Your reference:

Date of your enquiry:

16 April 2024

Date we received your enquiry:

16 April 2024

Date of issue:

17 April 2024

This report is for the property described in the address below and the attached plan.

Shaft Plan and Data Sheets

BAYVIEW, 3 FERNFIELD, BAGLAN, NEATH PORT TALBOT, SA12 8AL

I refer to the enquiry dated 16 April 2024, received 16 April 2024, in connection with the above.

As requested I enclose the mine entry data sheet(s) held for the mine entry/entries referred to.

Mine Entry Data

Shaft/adit:	Adit
Reference:	275191-001
Source:	Ab plan 12899
Colliery name:	Unknown
Entry name:	Baglan Isaf or Graig Baglan
Date abandoned:	Unknown
Depth of superficial deposits (m):	Unknown
Depth of shaft (m):	Unknown
Diameter of shaft (m):	Unknown
Probable adit azimuth:	54
Treatment details:	Unknown
Conveyance:	Not Applicable
Easting:	275629
Northing:	191514
Other information:	None

Mine Entry Data (continued)

Shaft/adit:	Adit
Reference:	275191-002
Source:	Ab plan 12899
Colliery name:	Unknown
Entry name:	Baglan Isaf Main Level or Graig Baglan
Date abandoned:	Unknown
Depth of superficial deposits (m):	Unknown
Depth of shaft (m):	Unknown
Diameter of shaft (m):	Unknown
Probable adit azimuth:	56
Treatment details:	Unknown
Conveyance:	Not Applicable
Easting:	275653
Northing:	191458
Other information:	None

Mine Entry Data (continued)

Shaft/adit:	Adit
Reference:	275191-005
Source:	Other: Former British Coal West Wales Shaft Register
Colliery name:	Unknown
Entry name:	Unknown
Date abandoned:	Unknown
Depth of superficial deposits (m):	Unknown
Depth of shaft (m):	Unknown
Diameter of shaft (m):	Unknown
Probable adit azimuth:	90
Treatment details:	A site investigation by Thyssens Geotechnical in 2003 involving excavation of parallel trenches to a depth of 1.5m over an area of approximately 20m x 12m found no evidence of this mine entry
Conveyance:	Not Applicable
Easting:	275373
Northing:	191746
Other information:	None

Location map

Approximate position of enquiry



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This plan shows the approximate location of the disused mine entry / entries referred to in the attached mining report. For reasons of clarity, mine entry symbols may not be drawn to the same scale as the plan.

Property owners have the benefit of statutory protection (under the Coal Mining Subsidence Act 1991). This contains provision for the making good, to the reasonable satisfaction of the owner, of physical damage from disused coal mine workings including disused coal mine entries. A leaflet setting out the rights and obligations of either the Coal Authority or other responsible persons under the 1991 Act can be obtained by visiting www.groundstability.com.

If you wish to discuss the relevance of any of the information contained in this report, you should seek the advice of a qualified mining engineer or surveyor. If you or your advisor wish to examine the source plans from which the information has been taken, these are available to view, free of charge, at our Head Office in Mansfield. To book an appointment please ring 01623 637225. Should you or your advisor wish to carry out a physical investigation that may enter, disturb or interfere with any disused mine entry, prior permission of the owner must be sought. For coal mine entries, the owner will normally be the Coal Authority.

The Coal Authority, regardless of responsibility and in conjunction with other public bodies, provide an emergency call out facility in coalfield areas to assess the public safety implications of mining features (including disused mine entries).

Our emergency telephone number is 0800 288 4242.

Key

Disused Adit or Mineshaft

