
DESK STUDY AND GROUND INVESTIGATION
FOR PROPOSED BURGER KING
AT CYFARTHFA NORTH RETAIL PARK
SWANSEA ROAD
MERTHYR TYDFIL
SOUTH WALES

CARRIED OUT FOR:-

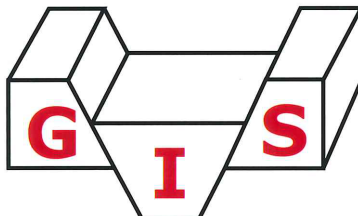
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REPORT NO: 2735

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1.0 INTRODUCTION

In November 2025 Ground Investigation Specialists Limited (GIS) received written instructions from Savills, acting as Agents on behalf of B L Merthyr Ltd to carry out a Desk Study and Coal Mining Risk Assessment (CMRA) and ground investigation for the construction of a new Burger King retail unit at Cyfarthfa North Retail Park in Merthyr Tydfil, South Wales.

The remit of the investigation was to ascertain the nature and structure of the near surface soils in order that an assessment could be made of certain mining, geotechnical and geoenvironmental properties relating to the construction of the new unit. The Architects for the project was Hurstwood Design Group, who prepared a generalised scope of work for the investigation.

Within the desk study is a review of the Groundsure Enviro+Geo Insight Report on the site and surrounding area and a review of geological information from the British Geological Survey (BGS) and mining information held by The Coal Authority. A qualitative risk assessment has also been carried out of the potential for contamination to be present at the site, including the development of a conceptual site model. A CMRA

has also been completed in relation to the proposed redevelopment scheme. The Groundsure and Coal Authority reports are attached for completeness.

Following the preparation of the Desk Study and Conceptual Site Model, an intrusive investigation for the proposed restaurant unit was undertaken between 1st and 4th December 2025 and consisted of sinking 2 No cable percussive boreholes in the area of the proposed building and 5 No windowless sampling boreholes in the surrounding car park area.

This report presents the findings of the Phase 1 Contaminated Land Assessment (Desk Study) and Coal Mining Risk Assessment. The report goes on to give a factual account of the intrusive works undertaken and a geoenvironmental assessment in respect of the presence of certain contaminants, along with recommendations on appropriate foundations for the new restaurant building.

This report is for the sole use of B L Merthyr Limited and their advisors in support of the new retail development. No liability can be accepted for its use by other parties or for other development proposals.

2.0 SITE LOCATION AND DESCRIPTION

The site is situated at the northern edge of the Cyfarthfa Retail Park, which is located in the western part of Merthyr Tydfil in South Wales. The National Grid Reference for the approximate centre of the site is 303810, 206750. The approximate site outline is shown in Figure 1 (overleaf) and represented by a overspill car park to the east of an access road and the main car park to B & Q Merthyr Tydfil (a large DIY and gardening supplier), which was built c. 2014. Steep embankments up to 8 m high form the northern and southern boundaries of the car park (site) leading down to Taff Vale and the Swansea Road respectively. Both slopes have dense foliage and undergrowth, with several trees growing along the crest. At the south east end of the site is a footbridge over the main

road. Outside the south west corner is an Electricity Sub Station, built at the end of the last century.

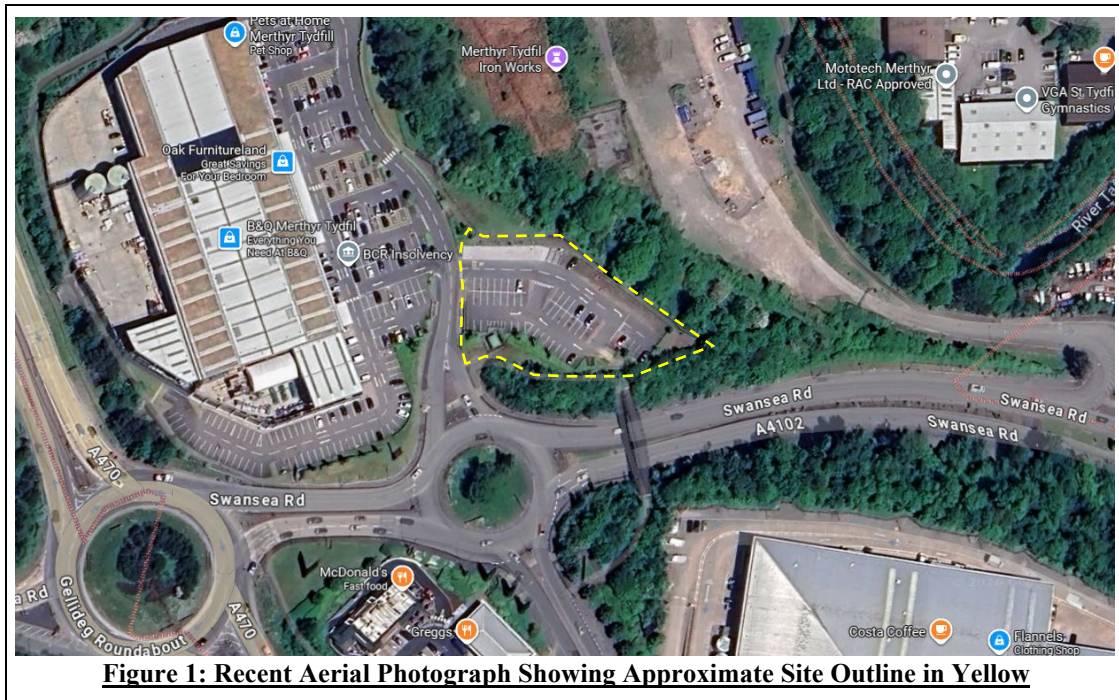


Figure 1: Recent Aerial Photograph Showing Approximate Site Outline in Yellow

3.0 DESK STUDY FINDINGS

This section of the report presents the observations made during the desk study and factual data obtained. The conclusions and recommendations included in this report are limited to those that can be made based upon the findings of the desk study and information provided by third parties. GIS believes all third-party data to be true and correct. However, no responsibility can be accepted by GIS for inaccuracies in the information supplied by another party.

The aim of the desk study is to ascertain the geoenvironmental and mining considerations which may affect any subsequent ground investigations and the proposed development.

3.1 Sources of Information

The following sources were consulted:-

Institutions

- Environment Agency (EA)
- British Geological Survey (BGS)
- Ordnance Survey (OS)
- Wales Online Historical Sources
- The Coal Authority

Materials

- Groundsure Enviro+GeoInsight Report Reference GS-DQV-ILF-FGX-R65
- Current and historical topographic mapping
- Geological Mapping
- The Coal Authority Consultants Coal Mining Report Reference 51003 539980001: November 2025.
- Cyfarthfa Coke Works (The Old Thorn Lighting Works) Merthyr Tydfil – Excavation report and analysis by The Glamorgan-Gwent Archaeological Trust Ltd: October 2017.

3.2 Anticipated Geology

Reference to solid and drift editions of the British Geological Survey (BGS) sheet no. 231 for Merthyr Tydfil (1: 50,000 series), along with the online BGS lexicon, shows that the site and immediate surrounds are likely to be underlain by made ground (associated with Cyfarthfa Ironworks) and then by glacial Till (boulder clay).

The underlying solid geology is expected to comprise Carboniferous era strata of the South Wales Lower Coal Measures Formation (SWLCM), comprising a sequence of interbedded sandstone with grey mudstones and siltstones with workable coal seams and ironstone beds. The strata are shown dipping to the southwest, with the younger South Wales Middle Coal Measures Formation shown sub-cropping below the Till c. 600 m to the south west. The Farewell Rock Sandstone unit is shown sub-cropping below the Till along the north eastern boundary of the site, and therefore it is anticipated to lie at very shallow depth below the proposed building.

The BGS website includes details of borehole No 5 (Ref SO OO NW 528) - sunk directly to the south of the site for the development of the retail park. The ground level of 205.5 m is at a similar level to that of the site and existing car park. The borehole recorded medium dense colliery waste material (made ground) to a depth of 7.9 m, underlain by a thick band of very weak to weak brown sandstone to 14.4 m and then very weak to weak dark grey mudstone to at least 17.3 m.

3.3 Coal Mining Legacy

The Mining Remediation Authority (formerly The Coal Authority) has confirmed the site falls within the defined reporting area and potential coal mining features and hazards would most likely need to be considered in relation to the determination of any planning application linked to the construction of the new retail building.

To identify and assess the risks to the new development from past coal mining activity, a Coal Mining Risk Assessment (CMRA) has been prepared in section 6.0.

3.4 Radon

According to Groundsure the site is in a lower probability radon area (less than 1% of homes are estimated to be at or above the action level). As such, no radon protective measures are considered necessary in the construction of the new retail outlet.

3.5 Site History

Table 1 (below) gives a summary of the historical land use on and adjacent to the site for which information was gathered from Ordnance Survey Maps dating between 1875 and 2025. Extracts of the maps are appended to this report in Section 16.0.

<u>Date</u>	<u>Land use on and adjacent to site</u>
1875 – 1923	Site formed part of the extensive Cyfarthfa Iron Works* with a smithy occupying the eastern half of the site and to the west tramway and railway sidings, linked to a foundry and kilns/blast furnaces to the north of the site. Outside the western boundary was a large coke yard with more railway sidings. Part of the site appeared built up with part of a spoil mound behind the smithy occupying the south eastern corner, and slopes forming roughly the south eastern and north western boundaries of the site, as they do today. To the south at the base of the bank was Swansea Road. Beyond the main road were many cinder tips. By 1900 the kilns and blast furnace building to the north had been demolished, with a coke works including ovens built to the west in the coke yard.

** The Cyfarthfa Ironworks the fourth coke-fired ironworks to be built in South Wales was founded in 1765 and is recognised nationally and internationally for its historic importance. It comprised multi-phase forges, smithies, coke ovens, calcining kilns, coal stores, a marshalling yard and office buildings.*

1924 - 1946	In 1924 the smithy building was demolished on site along with probably the coke works and other iron works buildings to the north. A subsequent excavation report prepared by the Glamorgan-Gwent Archaeological Trust Ltd (GAT) in October 2017 (prior to the latest development work), confirmed that now only the lowest portions of the foundation walls to the smithy survive, along with the highly truncated remains of three hearth bases. The building had a width of 6.6 m. Following demolition, photographs in GAT report showed the site to be comprised of spoil with some piles of brick and stone and a general absence of substantial vegetation.
1947 - 1992	The extensive Thorn Lighting Works was built directly to the west of the site, along with two small rectangular buildings (probably used for administrative purposes) which encroached on to the site. The business which manufactured electric lamps expanded in 1965, when part of the factory extended into the western half of the site.
1993 - present	Thorn Lighting ceased production in September 1992 and the works were demolished in early 1993, leaving the site and surrounding land to the west open wasteland until 2013, when construction of the large B & Q store commenced and the overspill car park was added on site. The electricity sub-station appeared in the south west corner of the site in 1998 at the same time Swansea Road was realigned and upgraded to incorporate the new roundabout at the northern end of the Cyfarthfa Retail Park.

3.6 Environmental Setting

Table 2 (below) gives a summary of relevant data obtained with regards to the environmental setting of the site.

Table 2: Environmental Setting

Hydrogeology	According to the Groundsure report, the anticipated superficial deposits are classified as a Secondary Aquifer (Undifferentiated), and the SWLCM bedrock a Secondary A Aquifer. The site lies within a ‘Low Vulnerability, Secondary Aquifer’ zone for groundwater vulnerability. There are no Source Protection Zones within 500 m of the site. There are no licences for groundwater abstraction within 500 m of the site. The site is not within a Nitrate Sensitive Area for groundwater. There is a low risk of groundwater flooding occurring on site, together with a negligible risk of surface water flooding.
Hydrology	The nearest surface water body is the Afon Taf (River Taff) flowing south east, approximately 100 m to the north east of the site at its closest point, at the base of the Taff Valley The site is not at risk of surface water flooding from rivers. There are no current and active licences for surface water abstraction within 1 km of the site. The site is not within a Nitrate Vulnerable Zone for surface water.
Designated Sites/	There are no designated sites or sensitive land uses within 500 m of the site, including Ancient Woodland, Adopted or Unadopted Green Belt, Areas of

Sensitive Land Use	Outstanding Natural Beauty, Forest Parks, National Nature Reserves, National Parks, Ramsar Sites, Sites of Special Scientific Interest, Special Areas of Conservation, Special Protection Areas and World Heritage Sites.
Industrial Land Use and Fuel Stations	There are no current or recent fuel stations within 500 m of the site. In terms of industrial land use, the contemporary trade directory entries show that with the exception of the B & Q store there are no potentially contaminative industrial sites close to the site. The nearest, including vehicle repair garages, food machinery manufacturers and metal manufacturers lie 140 – 200 m away to the east on lower ground to the east of the Afon Taf. The electricity sub-station outside the south west corner of the site was installed in 1998.
Landfill Sites	According to the Environment Agency (EA) and British Geological Survey (BGS) records there are no active/recent or historical landfills within 500 m of the site. However, the site formed part of Cyfarthfa Ironworks and historical maps show the site and surrounding area was once occupied by numerous mounds of blast furnace and colliery waste. Local Authority refer to at least two refuse tips within 500 m of the site.
Pollution Incidents and Discharge Consents	Within 200 m of the site there has been 6 No recorded pollution incidents since 2013. All had minor or no impact on the land or air. The nearest of any real significance occurred on 15th February 2018 when soils and clay contaminated the Afon Taf approximately 300 m to the north (upstream) of the site. There are no discharge consents currently effective within 250 m of the site. Thorn Lighting had one in place in the 1960's from their premises to the north west of the site, but this was revoked in 1985, prior to closure of the factory in 1992. Between 1964 and 1996 Cyfarthfa Transport Depot (located 50 m to the north east) was permitted to discharge effluent into the Afon Taf.

4.0 PRELIMINARY CONCEPTUAL SITE MODEL

A Conceptual Site Model (CSM) has been constructed based on the findings of the desk study and is reported in Table 3 (overleaf). The CSM seeks to describe the pollutant linkages between potential contamination sources and receptors both on and off-site and to give a preliminary assessment of potential risk to the receptors.

Table 3 – Preliminary Conceptual Site Model

<u>Source</u>	<u>Receptor</u>	<u>Pathway</u>	<u>Risk</u>
<u>Made Ground/</u> <u>Natural</u> <u>Soils/Groundwater</u> • Metals – some naturally occurring, others associated with made ground, waste or from past industrial processes. • Hydrocarbons – associated with made ground, waste and fuel/oil leakages. • Asbestos – associated with made ground, construction waste and demolition rubble	• Building Occupants • Ground workers	• Direct soil and dust ingestion (both indoor, through tracking of dust into buildings and outdoor) • Dermal contact (indoor and outdoor) • Inhalation (indoor and outdoor dust and vapour)	Low – Moderate The site was previously formed part of Cyfarthfa Iron Works which had infrastructure such as railway tracks and a smithy up to 1923, as well as a spoil mound. There is a potential for the near surface soils to have been contaminated as a result of past mining/ industrial processes with contaminants such as metals, hydrocarbons and asbestos. Following closure of the ironworks, the site was repurposed and from 1965 to 1992 formed an extension to Thorn Lighting Works, which was built to the west. This was demolished in 1993 and since 2013 the site has served as an overspill car park to the B & Q store built next door. The site is indicated to be underlain by colliery spoil and/or foundry waste which could contain contaminated soil.
	• Groundwater • Below surface structures and foundations	• Leaching and migration through permeable soil • Transmission into shallow groundwater and contamination of underlying secondary aquifers	The nature of the proposed commercial development, which will be entirely covered by a building and the existing hardstanding, will limit the risk of exposure to contaminated soils for end users as the pollutant – receptor pathway will be effectively severed.
• Ground Gas – associated with organic material within made ground and migration from nearby refuse tips.	• Building Occupants • Ground Workers	• Direct inhalation	Low to Moderate A significant thickness of made ground is expected below the site which has the potential to be generating harmful ground gases. There are records of historic refuse tips nearby from which there is a minor risk that ground gases could migrate.

5.0 CONCLUSIONS AND RECOMMENDATIONS FOR SAMPLING

Based on the information gathered in the desk study and presented in the CSM, it is concluded that the proposed commercial development presents a low – moderate potential risk to human health and/or controlled waters (underlying Secondary Aquifers) from contamination within the near surface soils and groundwater.

However, in order to make an accurate evaluation of the risks, testing would be required of representative samples of the near surface soil anticipated to be demolition spoil over foundry or colliery waste materials. It is recommended that a sampling scheme is designed which includes an assessment for asbestos, arsenic, cadmium, chromium, copper, lead, mercury, nickel, selenium, zinc, water soluble sulphate, pH, speciated Polycyclic Aromatic Hydrocarbons (PAH) and Total Petroleum Hydrocarbons Criteria Working Group (TPH CWG).

The potential risk of ground gas contamination is also considered to be ‘low to moderate’ from significant thicknesses of made ground on site and spoil/refuse tips nearby. The risk from ground gases should be confirmed by a suitable scheme of ground gas monitoring from boreholes located near the proposed building.

Groundwater contamination testing is not considered necessary unless evidence of significant potentially mobile contamination is detected by visual or olfactory means in either the soils or groundwater.

Conditions encountered on the site during the site investigation may vary from those predicted in the desk study and scope must be allowed for variations in the sampling procedure to account for this.

The results of the site investigation should be used to refine the site conceptual model and assess the risk to human health and the wider environment. A resultant strategy for the remediation of any contamination found should be submitted. Furthermore, the recommended sampling scheme can be carried out alongside a geotechnical investigation comprising a representative number of exploratory holes and in situ tests in order to aid in the design of the foundations for the proposed Burger King retail unit.

6.0 COAL MINING RISK ASSESSMENT

6.1 Introduction

A Coal Mining Risk Assessment has been prepared for the proposed redevelopment of the site, in order to provide information on past mining and an assessment of its impact on land stability. It is understood a Burger King retail/restaurant is to be located in the position shown on the site plan in Section 11.0.

In addition to the geological and historical plans referred to in Sections 3.2 and 3.5, the other main source of information used to inform this report is The Coal Authority's Consultants Coal Mining Report (CCMR) No: 51003539980001 included in Section 18.0.

6.2 Identification of Site Specific Risks

Based on the available information, Table 4 (overleaf) is a summary of the potential risks associated with coal mining legacy at the site. For a more detailed assessment reference should be made to the individual sections that follow it.

Table 4: Potential Coal Mining Legacy Issues

	<u>Coal Mining Legacy</u>	<u>Reported</u>		<u>Risk Assessment</u>
		<u>Yes</u>	<u>No</u>	
1)	Underground Coal Mining (recorded at shallow depths)		✓	Low: No mining or spine roadways recorded at shallow depth.
2)	Underground Coal Mining (probable at shallow depths)		✓	Low: Not considered at shallow depth.
3)	Mine Entries (shafts and adits)		✓	Very Low (negligible): None recorded.
4)	Coal Mining Geology (faults and fissures)		✓	Low: None recordeddd
5)	Record of Past Mine Gas Emissions or Potential		✓	Low: None recorded on or close to site.
6)	Recorded Coal Mining Surface Hazard		✓	Very Low (negligible): No coal seams recorded to outcrop within the development site boundary.
7)	Surface Mining (open cast workings)		✓	Very Low (negligible): No open cast mining activity recorded by Coal Authority

6.2.1 Underground Coal Mining (recorded at shallow depth)

Coal mining at shallow depth (typically < 30m) can pose a risk to ground stability with a collapse of mine workings causing migrating voids to break out at the surface and cause a sudden loss of bearing capacity and support to buildings/structures, hardstanding and buried services. The magnitude and severity of this depends on the precise depth of the workings, the thickness and type of rock cover and extraction thickness of the particular worked seam. In some cases, consolidation of the mine workings and the

ground above can also occur due to self-weight and foundation loads, resulting in excessive settlement of the buildings/structures and possibly (in extreme cases) the hardstanding and buried services.

The CCMR in Section 18.0 confirms that the site is not in an area of recorded coal mine workings.

The risk to the proposed development from recorded mine workings is considered to be **Low.**

6.2.2 Underground Coal Mining (probable at shallow depth)

The CCMR in Section 18.0 states the development site is not in an area of probable unrecorded shallow coal mine workings.

Reference to an extract of the recent 1:50000 Scale Geological Survey Sheet 231 for Merthyr Tydfil (included on page 108 of the Groundsure Report in Section 17.0), indicated in terms of the bedrock geology, the site to be underlain by the South Wales Lower Coal Measures Formation (SWLCM) of Westphalian age and formed during the Carboniferous Period. The SWLCM comprises grey siltstones and mudstones and sandstones with some interbedded coal and ironstone seams of former economic importance. The rock formation is dipping gently to south west with one significant sandstone unit (the Farewell Rock) sub-cropping inside the north eastern boundary of the site, and therefore anticipated at very shallow depth below the development.

The Coal Authority and British Geological Survey records indicate the lowest workable coal seam in the SWLCM sequence is the Garw Coal, which is conjectured to sub-crop c. 400 m to the south west of the site and dip to the south west. Below this there are the Rosser Ironstone beds, which are known to have been worked in the area, but anticipated to sub-crop c. 100 -200 m to the south west of the site.

Consequently, there are no coal seams of economic and workable importance below the site, and the closest potential ironstone workings are at least 100 m away from the proposed building.

The risk to the proposed development from unrecorded mine workings is considered **Low**.

6.2.3 Mine Entries (Shafts and Adits)

The CMRA in Section 18.0 shows no mine entries are recorded within 100 m of the development site. The site sits within a historical mining area and therefore there is a residual risk of unrecorded mine entries to be present on site.

All site operatives should be made aware of this potential risk and a watching brief should be maintained during site works.

In conclusion, the risk to the proposed development from unrecorded mine entries is considered **very low (negligible)**.

6.2.4 Coal Mining Geology (Faults and Fissures)

Faults can act as pathways for mine gas and mine water migration. They can also cause surface instability or residual settlement of the ground beneath buildings/structures due to a reactivation of movement brought about by a release of deep mining stresses or future tectonic processes.

The mining and geological records indicate no surface fault lines and fissures/breaklines are intersecting with the site boundary.

The Coal Authority do not have any records of a fault or other line of weakness as having caused any damage and affected the stability of the site at the surface due to coal mining.

In conclusion, the risk to the proposed building from geological faults or other lines of weakness is considered **Low**.

6.2.5 Record of Past Mine Gas Emissions or Potential

Disturbed coal seams and coal mine workings can pose a potential gas risk, particularly where pathways such as faults/fissures and mine entries are evident.

Records confirm there are no coal seams of economic and workable importance below the site, and the closest potential mine workings are over 100 m away from the proposed building.

The Coal Authority has no record of a mine gas emission requiring investigation and action either within the site or within 500 m of the site boundary.

The potential gas risk to the proposed development is considered **Low**.

6.2.6 Recorded Coal Mining Surface Hazard

The Coal Authority and geological records indicate no coal seams to be outcropping within the site boundary.

The risk to the proposed development from coal outcrops resulting in potential coal mining surface hazards (namely unrecorded adits and bell pits) is considered **Very Low (negligible)**.

6.2.7 Surface Mining (Open Cast Workings)

None recorded by The Coal Authority on the site or within 500 m of the boundary.

6.3 Conclusion

A review of the available evidence has found that there are no issues in respect of mining legacy affecting the site, that require further risk assessment and mitigation/remedial measures.

7.0 SITE INVESTIGATION

7.1 Fieldwork

The approximate location of the exploratory boreholes were broadly in agreement with those decided by the Engineer and are as shown on the site plan in Section 11.0.

7.1.1 Cable Percussion Boreholes (CP1 and CP2)

Between 1st and 4th December 2025, a Pilcon 1500 cable percussive boring rig was mobilised to drill two 200mm diameter boreholes in the area of the new Burger King Unit.

Following the hand excavation of a service inspection pit to a depth of 1.2m, the boreholes CP1 and CP2 were advanced to depths of 7.7 and 8.4m respectively.

In order to determine the relative density of the made ground and glacial soils encountered, Standard Penetration Tests with a cone (S(C)PT) were undertaken at the base of the service inspection pits (1.2m) and then at regular intervals to the base of each borehole.

Sampling was carried out in accordance with the British Standards Code of Practice for Ground Investigations B.S. 5930:2015.

Representative disturbed samples were taken at regular intervals and at major soil changes throughout the full depth of each borehole to provide a continuous soil profile.

These were logged by a Chartered Ground Engineer to produce the borehole logs included in section 12.0.

Upon completion of drilling, 50 mm diameter ground gas monitoring standpipes were installed to the base of both boreholes.

7.1.2 Percussive Windowless Sampling Boreholes

On 4th December 2025 a tracked Premier rig was utilised to sink five percussive windowless sampling boreholes (WS1 – WS5) to depths of between 0.7 and 5.0 m.

Following coring of the existing blacktop hardstanding, undisturbed 1.0 m long samples of 100 – 60 mm diameter were taken to ensure a continuous soil profile to the base of each borehole. The undisturbed samples were then described and sub-sampled on site by a Chartered Ground Engineer who was in full time attendance and produced the engineering logs included in Section 13.0.

At frequent intervals, commencing at a depth of either 0.4 or 1.0 m in-situ standard penetration tests with a cone (S(C)PT) were carried out to determine the relative density of the made ground soils encountered.

On completion, all the boreholes were backfilled with arisings and the blacktop core reinstated at ground level.

7.2 Laboratory Testing

GIS specified the following schedule of laboratory testing. The results are presented in Section 14.0.

4 No. samples of the made ground have been tested for a general suite of likely contaminants including asbestos, cadmium, chromium, copper, lead, mercury, nickel, selenium, zinc, speciated PAH and TPH CWG, along with their Soil Organic Matter content (SOM), water soluble sulphate and pH.

To determine its classification for disposal to landfill, a sample of the made ground has also undergone the full suite of Waste Acceptance Criteria (WAC) tests.

As an aid to pavement design in any newly proposed areas of car parking, California Bearing Ratio tests were carried out on three disturbed samples of made ground recovered from CP1 (BH1), CP2 (BH2) and WS4 after they had been lightly recompacted in the test mould using a 2.5 kg hammer.

8.0 GROUND CONDITIONS

8.1 Strata Encountered

Full details of the strata encountered are presented on the exploratory logs included in Sections 12.0 and 13.0. However, as a brief guide, the main engineering geology horizons are described below:-

The site has been found to be underlain by a wedge of made ground, extending to a depth of 2.9 m in CP1 and 6.3 m in CP2, located at the respective western and eastern ends of the new retail unit. It comprised for the most part a foundry type waste; medium dense dark grey clayey silty sandy gravel of fine to coarse stone, ash, clinker, masonry, mudstone, burnt shale, coal and furnace brick fragments. Below a depth of 2 m in WS4 (located at the far eastern end of the car park), the made ground resembled a colliery waste type material, and consisted mostly of gravel sized shale and mudstone fragments with a little coal.

The S(C)PT's carried out in the made ground recorded uncorrected 'N' values (where full penetration of the test equipment could be achieved) of between generally 13 and 36, although it is noted that at the far eastern end of the site (WS4) significantly lower values of 4 and 7 were recorded at depths of 4.0 and 5.0m in the looser colliery waste.

Underlying the made ground, glacial drift was encountered in both the deeper cable percussion boreholes. The full thickness of made ground was not proved in the five window sampling boreholes. In borehole CP1 it comprised a dense light brown slightly clayey very gravelly sand over a dense becoming very dense light brown sandy assorted gravel. In borehole CP2 the sand and gravel was of more equal proportions.

Uncorrected S(C)PT N values for the glacial drift ranged from 46 to a maximum extrapolated value of 214 (based on 50 blows for 70 mm penetration of the test equipment).

The full thickness of the glacial drift deposits was not proved by this investigation, nor consequently the depth to the weathered bedrock belonging to the SWLCM.

8.2 Groundwater

Water levels of c. 3.9 m and c. 6.2 m have been recorded in the standpipes installed in CP1 and CP2 respectively.

Above these depths, some of the boreholes (CP2, WS1 and WS2) encountered pockets of water perched in the made ground at depths of 1.7, 0.45 and 1.5 m respectively.

9.0 ENGINEERING COMMENTS

9.1 Introduction

Reference to Hurstwood Design Group Site layout Drawing No 0032-001 (included in Section 11.0) would show that it is proposed to construct a new 2500 sq ft drive-thru Burger King retail unit in the south western part of the site. It is understood the existing car park present on site will remain, providing in addition vehicular access around all four sides of the building.

9.2 Past Mining Activity

Reference to Section 6.0, and in particular the comments made by The Coal Authority, would confirm there are no issues with past mining activity below the site.

9.3 Foundations

With regard to the design of foundations for the proposed retail unit, the exploratory holes have found the building area to be underlain by a significant thickness of predominantly foundry waste materials (dark grey clayey silty sand with gravel sized stone, masonry, ash and furnace brick fragments) to depths of between 3 and 6 m. Below which glacial deposits of dense becoming very dense sand and gravel were encountered. Uncorrected S(C)PT N values recorded in the made ground ranged 13 to 46.

It is likely that the made ground has been in place for many decades since the construction of the Thorn Lighting Works in the mid 1960's. As such, any settlement due to self-weight should have ceased by now. Unless there is a substantial rise in the water table (not considered likely from available information) it is unlikely that significant self-weight settlement will be reactivated.

It is concluded that the risk of founding in the made ground is no greater than that of other local made ground sites which have been developed for retail and commercial use, but to reduce bearing pressures and avoid unacceptable differential settlements, consideration should be given to employing either:

- i) a reinforced semi-rigid raft foundation with perimeter downstand beams,

or,

- ii) a more heavily reinforced ground beam solution (reinforcing bars top to bottom) with an independent floating floor slab. Mesh reinforcement should be placed in both the top and bottom of the slab.

Maximum safe allowable bearing pressures should not exceed 75 kPa beneath the beams and 25 kPa beneath the floor slab.

Due to the nature of the made ground, it is difficult to accurately quantify the settlement that could occur, but it should not be detrimental to the new building provided the above bearing pressures are not exceeded. As an added safeguard against excessive total/differential settlements, the formation should be carefully proof rolled prior to the construction of the foundations and additional hardcore rolled into any loose pockets that develop.

As an alternative, consideration could be given to constructing the retail unit on shallow reinforced foundations, after the load bearing/settlement characteristics of the made ground has been improved by installing vibro stone columns.

It would also be possible to employ a standard pile and beam solution and in respect of these two alternative solutions reference should be made to the specialist contractors, who from knowledge of their individual design and the information contained within this report would best be able to advise on the detailed construction.

9.4 Car Park Design

The California Bearing Ratio Tests carried out in the laboratory recorded CBR values of between 0.7 and 4.5 %, depending on the level to which the soil samples recovered from CP1, CP2 and WS4 were compacted prior to testing.

Should any new areas of vehicular access/parking need to be created around the perimeter of the site, a CBR value of 4% could be adopted for design purposes, provided the formation is first proof rolled with a heavy vibrating roller to remove any inferior pockets.

9.5 Buried Concrete

The water-soluble sulphate and pH value testing carried out would indicate that in terms of buried concrete and classifying the site as to its Aggressive Chemical Environment for Concrete (ACEC) new foundations constructed above the water table could be considered to have an ACEC Class of AC-1s as detailed in the BRE Special Digest 1 : 2005.

10.0 CONTAMINATION ASSESSMENT

10.1 Introduction

Reference to the site plan included in section 11.0 would show that the proposal is for the majority of the development to be covered by either hardstanding or the new drive-thru unit, with only limited areas of soft landscaping around the perimeter, as there is at present.

10.2 Soil Analysis

Five representative samples of made ground (predominantly foundry type waste materials) have been tested for a suite of common contaminants, including asbestos, pH, arsenic, cadmium, chromium, copper, lead, mercury, nickel, selenium, zinc, speciated PAH and TPH CWG.

The results have been compared with Generic Assessment Criteria (GAC) for commercial land use. The “Suitable 4 Use Levels – S4UL” are used under licence and were derived using the Contaminated Land Environmental Assessment ‘CLEA’ v1.06 software methodology by the Land Quality Management (LQM)/ Chartered Institute of Environmental Health (CIEH). The only exception is lead, for which the DEFRA Category 4 Screening Level for the same land use scenario has been used.

It should be noted that the commercial screening values were not developed to be protective of groundworkers involved in direct contact with the soils. As such, residential without homegrown produce screening values are also provided to highlight any potential risks to groundworkers.

Table 5 (overleaf) provides a summary of all the made ground data and a comparison with the appropriate screening values.

Table 5: Summary of Analysis Data for Metals, Metalloids, pH, PAH, TPH & Asbestos

<u>Determinand</u>	<u>Units</u>	<u>BH1</u> <u>0.4</u>	<u>WS2</u> <u>0.5 – 1.0</u>	<u>WS5</u> <u>0.7</u>	<u>WS5</u> <u>1.5</u>	<u>Commercial</u> <u>Screen</u>	<u>Residential</u> <u>Without</u> <u>Homegrown</u> <u>Produce</u> <u>Screen</u>	<u>Source</u>
Arsenic	mg/kg	9.9	8.4	19	4.8	640	40	S4UL
Cadmium	mg/kg	0.42	0.16	0.15	0.15	190	85	S4UL
Chromium	mg/kg	25	11	21	8.0	8600	910	S4UL
Copper	mg/kg	41	35	140	14	68000	7100	S4UL
Lead	mg/kg	51	43	70	12	2330	310	C4SL
Mercury	mg/kg	0.1	0.15	0.37	<0.05	1100	56	S4UL
Nickel	mg/kg	20	20	81	10	980	180	S4UL
Selenium	mg/kg	0.62	0.50	1.2	0.61	12000	430	S4UL
Zinc	mg/kg	98	69	110	30	730000	40000	S4UL
pH	pH units	10.4	9.8	10.2	<12.0	<5	<5	Arb
Asbestos	-	NAD	NAD	NAD	NAD	Nil	Nil	-
Naphthalene	mg/kg	0.58	0.28	6.8	0.2	1100	13	S4UL
Acenaphthylene	mg/kg	<0.1	<0.1	0.18	<0.1	100000	6000	S4UL
Acenaphthene	mg/kg	0.64	0.25	0.52	<0.1	100000	6000	S4UL
Fluorene	mg/kg	0.64	0.2	0.53	<0.1	71000	4500	S4UL
Phenanthrene	mg/kg	3.1	0.93	2.7	0.68	23000	1500	S4UL
Anthracene	mg/kg	0.81	0.23	0.88	0.18	540000	37000	S4UL
Fluoranthene	mg/kg	4.2	1.2	3.9	1.6	23000	1600	S4UL
Pyrene	mg/kg	2.9	0.83	2.9	1.2	54000	3800	S4UL
Benzo[a]anthracene	mg/kg	2.2	0.71	2.6	0.82	180	15	S4UL
Chrysene	mg/kg	2.3	0.8	3.1	0.99	350	32	S4UL
Benzo[b]fluoranthene	mg/kg	3.0	1.1	4.4	1.2	45	4.0	S4UL
Benzo[k]fluoranthene	mg/kg	1.1	0.33	1.5	0.4	1200	110	S4UL
Benzo[a]pyrene	mg/kg	2.2	0.63	2.7	0.72	36	3.2	S4UL
Indeno[1,2,3-cd]pyrene	mg/kg	1.4	0.54	2.4	0.54	510	46	S4UL
Dibenzo[a,h]anthracene	mg/kg	0.39	0.21	0.84	0.16	3.6	0.32	S4UL
Benzo[g,h,i]perylene	mg/kg	1.2	0.44	2.1	0.48	4000	360	S4UL
Aromatic (>EC5-EC7)	mg/kg	<0.05	<0.05	<0.05	<0.05	86000	1400	S4UL
Aromatic (>EC7-EC8)	mg/kg	<0.05	<0.05	<0.05	<0.05	180000	3900	S4UL
Aromatic (>EC8-EC10)	mg/kg	<0.05	<0.05	<0.05	<0.05	1700	270	S4UL
Aromatic (>EC10-EC12)	mg/kg	<2.0	<2.0	<2.0	<2.0	34000	1200	S4UL
Aromatic (>EC12-EC16)	mg/kg	5.1	7.4	<2.0	<2.0	36000	2500	S4UL
Aromatic (>EC16-EC21)	mg/kg	11	15	<2.0	<2.0	28000	1900	S4UL
Aromatic (>EC21-EC35)	mg/kg	32	74	<2.0	<2.0	28000	1900	S4UL
Aromatic (>EC35-EC44)	mg/kg	52	53.6	<2.3	<2.0	28000	1900	S4UL
Aliphatic (>C5-C6)	mg/kg	<0.05	<0.05	<0.05	<0.05	12000	160	S4UL
Aliphatic (>C6-C8)	mg/kg	<0.10	<0.10	<0.10	<0.10	40000	530	S4UL
Aliphatic (>C8-C10)	mg/kg	<0.05	<0.05	<0.05	<0.05	11000	150	S4UL
Aliphatic (>C10-C12)	mg/kg	<2.0	<2.0	<2.0	<2.0	47000	770	S4UL
Aliphatic (>C12-C16)	mg/kg	<2.0	8.2	<2.0	<2.0	90000	4400	S4UL
Aliphatic (>C16-C35)	mg/kg	28.7	51	<5.0	<5.0	1800000	110000	S4UL
Aliphatic (>C35-C44)	mg/kg	<11	<11	<11	<11	1800000	110000	S4UL

S4UL = Suitable 4 Use Levels developed by LQM/CIEH for Commercial and Residential Without Homegrown Produce land uses (6% SOM).

C4SL = DEFRA Category 4 Screening Levels for lead.

Arb = Arbitrary Acidity Screen.

NAD = No Asbestos Detected.

Breaches of Residential Screen are highlighted in **Yellow**; Commercial in **Red**.

Reference to Table 5 would show within the four samples of made ground tested, no contaminants of concern were detected, including asbestos for a proposed commercial /retail development. No further assessment or remedial action is considered necessary with respect to the health of end-users.

In terms of the risks to groundworkers, a little PAH (benzo(b)fluoranthene and dibenzo (a,h) anthracene) contamination was identified and appropriate PPE for a development of this nature should be worn, including gloves, overalls, boots, helmets etc). A good standard of personal hygiene should be adopted, with regular washing of hands, particularly before food is consumed. The use of naked flames on site should be prohibited.

10.3 Classification of Soils for Off-Site Disposal

In respect of determining the suitability of the soils for disposal to landfill, waste classification software has been used to identify whether the made ground materials can be classified as hazardous or non-hazardous, as defined in the EWC (European Waste Catalogue 2002).

A mean of the solid suite results (representing a mixed load of near surface soil) has been compared with the appropriate/ most likely chemical compounds as detailed in EWC Chapter 17 - Construction and demolition wastes. Full details of the classification are provided in section 14.0.

Based on the total solid test results, the made ground waste stream would be classified at this stage as “Non-Hazardous Waste”. In addition, no asbestos was detected in the four samples of made ground tested.

Waste Acceptance Criteria (WAC) testing is subsequently required in order to establish the suitability of the materials for disposal to an inert landfill. Summaries of the solid and leachate results for the sample of made ground recovered from 0.50 – 1.0 m in WS2 are presented on the laboratory report included in section 14.0.

The WAC test results reveal the sample of made ground exceeded the Inert Waste Limit Value for Total Organic Carbon, with a concentration of 15% compared to the limit of 3%. As such, made ground removed from site would not qualify as Inert Waste and will need to be taken to a **Non-Hazardous** Waste Landfill Site. Final agreement and tipping costs should be discussed with the landfill operator.

10.4 Ground Gas Risk Assessment

As part of the intrusive investigation, 50 mm diameter ground gas monitoring standpipes were installed in boreholes CP1 and CP2. The standpipes were monitored on 4th and 11th December 2025 and 26th January 2026 for methane (CH₄), carbon dioxide (CO₂), oxygen (O₂), carbon monoxide (CO), hydrogen sulphide (IH₂S) and gas flow using a fully calibrated Gas Date GFM series landfill gas monitor.

The readings are included in full in section 15.0 and Table 6 (overleaf) provides a summary of the monitoring data.

Table 6: Summary of Ground Gas Monitoring Data

<u>Borehole</u>	<u>Response Zone (mbgl)</u>	<u>No. of Monitoring Occasions</u>	<u>Methane (% v/v)</u>	<u>Carbon Dioxide (% v/v)</u>	<u>Oxygen (% v/v)</u>	<u>Steady Positive Flow (l/hr)</u>	<u>Water Level (mbgl)</u>	<u>Atmospheric Pressure Range (mBar)</u>
CP1	1.0 – 7.7	3	<0.1	<0.1 – 0.3	2.2 – 20.3	0	3.82 – 4.12	974 - 992
CP2	1.0 – 8.0	3	<0.1	<0.1 – 4.5	3.6 – 20.2	0	6.16 – 6.31	

Based the available data, and referring to the guidance set out in BS 8485:2015 + A1:2019 ‘Code of practice for the design of protective measures for methane and carbon dioxide ground gases for new buildings’, a Borehole Hazardous Gas Flow Rate (Q_{hg}) should be derived using the following equation:-

$$Q_{hg} = q \left(\frac{C_{hg}}{100} \right)$$

Where q is the measured flow rate (in litres per hour).

And C_{hg} is the measured hazardous gas concentration (in percentage volume/volume).

Assuming a worst case steady positive flow of 0.1 l/hr, the C_{hg} for methane and carbon dioxide are calculated below:-

Methane

$$Q_{hg}CH_4 = 0.1 \left(\frac{0.1}{100} \right) = \mathbf{0.0001 \text{ l/hr}}$$

Carbon Dioxide

$$Q_{hg}CO_2 = 0.1 \left(\frac{4.5}{100} \right) = \mathbf{0.0045 \text{ l/hr}}$$

A typical gas screening value (GSV) of 0.0045 l/hr can be assigned based on the Q_{hg} for carbon dioxide. This GSV would put the site in the lowest “Characteristic Gas Situation” CS1 from the Modified Wilson & Card classification. Based on this assessment no gas protective measures will be required in the new building. To avoid unnecessary delays, confirmation should be sought from the Planning Authority as to whether any further monitoring is required in this regard.

As stated in the Groundsure Report, no radon protection measures will be required either.

H.S. Lister, BSc., C Sci., C. Geol., FGS
Director

Ground Investigation Specialists Limited

11.0 SITE PLAN

12.0 CABLE PERCUSSION BOREHOLE LOGS

GROUND INVESTIGATION SPECIALISTS LIMITED

BOREHOLE RECORD (DRAFT)	BORING COMMENCED: 03.12.25	TYPE OF BORING: Cable Percussion	CLIENT: British Land	BOREHOLE: CP1
	BORING COMPLETED: 04.12.25	DIAMETER OF HOLE: 200 mm	CONTRACT: Cyfarthfa North, Merthyr Tydfil	
	GROUND LEVEL:	BOREHOLE CASING: Used to 7.60 m		SHEET: 1 OF 1
				JOB NO: 2735

DRILLING			SAMPLES					RESULTS OF TESTS										
DESCRIPTION OF STRATA	LEGEND	WATER LEVEL	THICK-NESS	DEPTH	REDUCED LEVEL	DEPTH	TYPE	INDEX PROPERTIES					DENSITIES		STRENGTH TESTS			IN-SITU TESTS AND REMARKS (SPT Blows)
								'N' VALUE	M/C %	LL %	PL %	PI	WET (kg/m³)	DRY (kg/m³)	TYPE	COHESION (kN/m²)	ANGLE OF INTERNAL FRICTION (degrees)	
Blacktop onto fill (stone HARDCORE).			0.40	GL		0.40	E1											Service pit hand dug to a depth of 1.20m
Made ground (medium dense dark grey clayey silty sandy GRAVEL of fine-coarse angular stone, ash, clinker, masonry and furnace brick fragments, occasional cobbles and pieces of wood).			2.50		1.20 1.20	S(C)2 B3	20											(5.6.6.5.4.5.)
					2.00 2.00	S(C)4 B5	18											(3.3.5.4.4.5.)
			2.90 3.00 3.00	B6 S(C)7 B8	31											(6.8.9.7.7.8.)		
Dense light brown slightly clayey silty SAND with much fine – coarse sub-angular assorted gravel and occasional cobbles. (GLACIAL DRIFT)			2.40			4.00 4.00	S(C)9 B10	46										(5.7.12.13.10.11.) Chiselled for 0.5 hr from 4.20 – 4.40 m
Dense becoming very dense light brown sandy fine to coarse sub-angular to angular assorted GRAVEL with occasional cobbles/boulders and some red-brown clay lenses. (GLACIAL DRIFT)					5.00 5.00	S(C)10 B11	43										(6.8.10.10.11.12.) Chiselled for 0.5 hr from 5.40 – 5.60 m	
					6.50 6.50	S(C)12 B13	50 blows for 200 mm penetration									(13.12 for 40 mm.18.20.12 for 50 mm)		
																<u>3.12.25</u> 4.12.25 (15.10.40.50 for 70 mm)		
Borehole Complete. Ground gas monitoring standpipe installed to 7.70 m, comprising slotted section with gravel filter up to 1.0 m, then solid pipe with bentonite seal and security cover in blacktop at surface.						7.70	S(C)14	50 blows for 70 mm penetration										
GROUNDWATER OBSERVATIONS: Water encountered at 5.80 m; rose to 4.65 m after 20 mins. Morning of 4.12.25 when borehole and casing at 6.50 m, water at 5.75 m. When borehole complete water at 6.15 m.			W - Water Sample B - Bulk Sample T - Tub Sample E - Environmental Sample			M/C - Natural Moisture Content LL - Liquid Limit PL - Plastic Limit PI - Plasticity Index			'N' - Standard or Cone Penetration Test Result T - Undrained Triaxial M - Multi-stage Undrained Triaxial			S - Standard Penetration Test S(C) - Standard Penetration Test with Cone V - Pocket Vane Test						
▼ - Final groundwater level ▽ - Groundwater first struck ▲ - Standpipe ● - Piezometer																		

GROUND INVESTIGATION SPECIALISTS LIMITED

BOREHOLE RECORD (DRAFT)	BORING COMMENCED: 01.12.25	TYPE OF BORING: Cable Percussion	CLIENT: British Land	BOREHOLE: CP2 SHEET: 1 OF 1 JOB NO: 2735
	BORING COMPLETED: 02.12.25	DIAMETER OF HOLE: 200 mm	CONTRACT: Cyfarthfa North, Merthyr Tydfil	
	GROUND LEVEL:	BOREHOLE CASING: Used to 8.30 m		

DRILLING			SAMPLES					RESULTS OF TESTS												
DESCRIPTION OF STRATA	LEGEND	WATER LEVEL	THICK-NESS	DEPTH	REDUCED LEVEL	DEPTH	TYPE	INDEX PROPERTIES					DENSITIES		STRENGTH TESTS			IN-SITU TESTS AND REMARKS (SPT Blows)		
								'N' VALUE	M/C %	LL %	PL %	PI	WET (kg/m³)	DRY (kg/m³)	TYPE	COHESION (kN/m²)	ANGLE OF INTERNAL FRICTION (degrees)			
Blacktop onto fill (stone HARDCORE).			GL															Service pit hand dug to a depth of 1.20m		
Made ground (medium dense dark grey slightly clayey silty SAND and fine – coarse GRAVEL of masonry, stone and furnace bricks, ash, occasional cobbles).			0.70																(2.2.3.5.4.5.)	
			0.70	0.70	E1	17														
				1.20	S(C)2 B3	21													(3.6.6.5.5.5.)	
				2.00	S(C)4 B5	23														
				3.00	S(C)6 B7	36													(3.4.5.5.6.7.)	
..... becoming brown-grey from 4.00 m with occasional pieces of metal.			5.60	3.00	S(C)8 B9	26														Chiselled for 0.5 hr from 3.60 – 3.80 m
				4.00	S(C)10 B11	46														1.12.25
				5.00	S(C)12 B13	50 blows for 285 mm penetration														2.12.25
Dense becoming very dense light brown medium-coarse SAND and fine – coarse sub-angular assorted GRAVEL, occasional cobbles and boulders, with some thin lenses of red-brown silty sandy gravelly clay.					5.99	6.30	6.30	B12 S(C)13	46											(6.8.11.13.6.6.)
(GLACIAL DRIFT)	2.10	7.10			7.50	B14													(4.5.6.6.7.7.)	
		8.40			8.00	S(C)15	50 blows for 285 mm penetration													(10.11.11.13.13.13 for 60 mm)
Borehole Complete.																		Chiselled for 1 hr from 8.20 – 8.40 m		
Ground gas monitoring standpipe installed to 8.00 m, comprising slotted section with gravel filter up to 1.0 m, then solid pipe with bentonite seal and security cover in blacktop at surface.																				
GROUNDWATER OBSERVATIONS:			▼ - Final groundwater level			W - Water Sample			M/C - Natural Moisture Content			'N' - Standard or Cone Penetration Test Result			S - Standard Penetration Test					
Seepage at 1.70 m. Water encountered at 7.10 m, rose to 5.99 m after 20 mins.			▽ - Groundwater first struck			B - Bulk Sample			LL - Liquid Limit			T - Undrained Triaxial			S(C) - Standard Penetration Test with Cone					
When borehole complete, water at 6.50 m.			▲ - Standpipe			T - Tub Sample			PL - Plastic Limit			M - Multi-stage Undrained Triaxial			V - Pocket Vane Test					
			● - Piezometer			E - Environmental Sample			PI - Plasticity Index											

13.0 PERCUSSIVE WINDOWLESS SAMPLING BOREHOLE LOGS

GROUND INVESTIGATION SPECIALISTS LIMITED

BOREHOLE RECORD (DRAFT)	BORING COMMENCED: 04.12.25	TYPE OF BORING: Percussive Windowless	CLIENT: British Land	BOREHOLE: WS1 SHEET: 1 OF 1 JOB NO: 2735
	BORING COMPLETED: 04.12.25	DIAMETER OF HOLE: 50 mm	CONTRACT: Cyfarthfa North, Merthyr Tydfil	
	GROUND LEVEL:	BOREHOLE CASING: Not used		

DRILLING			SAMPLES					RESULTS OF TESTS										
DESCRIPTION OF STRATA	LEGEND	WATER LEVEL	THICK-NESS	DEPTH	REDUCED LEVEL	DEPTH	TYPE	INDEX PROPERTIES					DENSITIES		STRENGTH TESTS			IN-SITU TESTS AND REMARKS (SPT Blows)
								'N' VALUE	M/C %	LL %	PL %	PI	WET (kg/m³)	DRY (kg/m³)	TYPE	COHESION (kN/m²)	ANGLE OF INTERNAL FRICTION (degrees)	
Blacktop, intact to 0.10 m.			GL	0.15														Cored blacktop
Fill (very compact stone HARDCORE).		▼	0.15	0.15		0.30	S(C)1	50 blows for 275 mm penetration										(11.14.13.13.12.12 for 50 mm)
Made ground (very dense dark grey silty sandy GRAVEL of ash, stone and brick fragments).			0.30	0.45														
			0.27	0.72														
Borehole refused at 0.72 m.																		
GROUNDWATER OBSERVATIONS:			▼ - Final groundwater level		W - Water Sample		M/C - Natural Moisture Content				'N' - Standard or Cone Penetration Test Result		S - Standard Penetration Test					
Perched water at 0.45 m on completion of borehole.			▽ - Groundwater first struck		B - Bulk Sample		LL - Liquid Limit				T - Undrained Triaxial		S(C) - Standard Penetration Test with Cone					
			▲ - Standpipe		T - Tub Sample		PL - Plastic Limit				M - Multi-stage Undrained Triaxial		V - Pocket Vane Test					
			● - Piezometer		E - Environmental Sample		PI - Plasticity Index											

GROUND INVESTIGATION SPECIALISTS LIMITED

BOREHOLE RECORD (DRAFT)	BORING COMMENCED: 04.12.25	TYPE OF BORING: Percussive Windowless	CLIENT: British Land	BOREHOLE: WS2 SHEET: 1 OF 1 JOB NO: 2735
	BORING COMPLETED: 04.12.25	DIAMETER OF HOLE: 100 – 90 mm	CONTRACT: Cyfarthfa North, Merthyr Tydfil	
	GROUND LEVEL:	BOREHOLE CASING: Not used		

[illegible]

GROUND INVESTIGATION SPECIALISTS LIMITED

BOREHOLE RECORD (DRAFT)	BORING COMMENCED: 04.12.25	TYPE OF BORING: Percussive Windowless	CLIENT: British Land	BOREHOLE: WS3 SHEET: 1 OF 1 JOB NO: 2735
	BORING COMPLETED: 04.12.25	DIAMETER OF HOLE: 60 mm	CONTRACT: Cyfarthfa North, Merthyr Tydfil	
	GROUND LEVEL:	BOREHOLE CASING: Not used		

DRILLING			SAMPLES					RESULTS OF TESTS										
DESCRIPTION OF STRATA	LEGEND	WATER LEVEL	THICK-NESS	DEPTH	REDUCED LEVEL	DEPTH	TYPE	INDEX PROPERTIES					DENSITIES		STRENGTH TESTS			IN-SITU TESTS AND REMARKS (SPT Blows)
								'N' VALUE	M/C %	LL %	PL %	PI	WET (kg/m³)	DRY (kg/m³)	TYPE	COHESION (kN/m²)	ANGLE OF INTERNAL FRICTION (degrees)	
Blacktop intact to 0.105 m.			0.15	GL 0.15		0.40 0.50	S(C)1 T2	50 blows for 20 mm penetration										Cored blacktop. (16.9 for 50 mm. 50 for 20 mm)
Fill (stone HARDCORE).			0.20	0.35														
Made ground (very dense dark grey silty sandy GRAVEL of stone, mudstone, furnace brick, occasional coal and ash fragments).			0.41	0.76														
Borehole refused at 0.76 m.																		
GROUNDWATER OBSERVATIONS: Dry.		▼ - Final groundwater level ▽ - Groundwater first struck ▲ - Standpipe ● - Piezometer	W - Water Sample B - Bulk Sample T - Tub Sample E - Environmental Sample	M/C - Natural Moisture Content LL - Liquid Limit PL - Plastic Limit PI - Plasticity Index	'N' - Standard or Cone Penetration Test Result T - Undrained Triaxial M - Multi-stage Undrained Triaxial	S - Standard Penetration Test S(C) - Standard Penetration Test with Cone V - Pocket Vane Test												

GROUND INVESTIGATION SPECIALISTS LIMITED

BOREHOLE RECORD (DRAFT)	BORING COMMENCED: 04.12.25	TYPE OF BORING: Percussive Windowless	CLIENT: British Land	BOREHOLE: WS4 SHEET: 1 OF 1 JOB NO: 2735
	BORING COMPLETED: 04.12.25	DIAMETER OF HOLE: 100 – 60 mm	CONTRACT: Cyfarthfa North, Merthyr Tydfil	
	GROUND LEVEL:	BOREHOLE CASING: Not used		

DRILLING			SAMPLES					RESULTS OF TESTS															
DESCRIPTION OF STRATA	LEGEND	WATER LEVEL	THICK-NESS	DEPTH	REDUCED LEVEL	DEPTH	TYPE	INDEX PROPERTIES					DENSITIES		STRENGTH TESTS			IN-SITU TESTS AND REMARKS (SPT Blows)					
								'N' VALUE	M/C %	LL %	PL %	PI	WET (kg/m³)	DRY (kg/m³)	TYPE	COHESION (kN/m²)	ANGLE OF INTERNAL FRICTION (degrees)						
Blacktop intact to near base.			0.15	GL 0.15																			
Fill (stone HARDCORE).			0.30	0.45																0.70	E1	29	
Made ground (medium dense dark grey silty sandy GRAVEL of ash, clinker, some burnt shale, coal and mudstone fragments. Slightly clayey below 1.00 m).			1.45	1.90																0.70	B2		
			Made ground (medium dense grey sandy MUDSTONE GRAVEL).	0.40																2.30	1.00		S(C)3
				Made ground (medium dense becoming loose black silty sandy clayey GRAVEL of shale, mudstone and a little coal).																2.70	3.00		S(C)4
4.00	S(C)5	15																					
Thin band of soft slightly wet brown sandy clay from 3.70 – 3.80 m.	5.00	S(C)6	4																				
Borehole Complete.																							
																				5.00	S(C)7	7	
GROUNDWATER OBSERVATIONS:		▼ - Final groundwater level		W - Water Sample		M/C - Natural Moisture Content		'N' - Standard or Cone Penetration Test Result		S - Standard Penetration Test													
Dry.		▽ - Groundwater first struck		B - Bulk Sample		LL - Liquid Limit		T - Undrained Triaxial		S(C) - Standard Penetration Test with Cone													
		▲ - Standpipe		T - Tub Sample		PL - Plastic Limit		M - Multi-stage Undrained Triaxial		V - Pocket Vane Test													
		● - Piezometer		E - Environmental Sample		PI - Plasticity Index																	

GROUND INVESTIGATION SPECIALISTS LIMITED

BOREHOLE RECORD (DRAFT)	BORING COMMENCED: 04.12.25	TYPE OF BORING: Percussive Windowless	CLIENT: British Land	BOREHOLE: WS5 SHEET: 1 OF 1 JOB NO: 2735
	BORING COMPLETED: 04.12.25	DIAMETER OF HOLE: 100 – 90 mm	CONTRACT: Cyfarthfa North, Merthyr Tydfil	
	GROUND LEVEL:	BOREHOLE CASING: Not used		

[illegible]

14.0 LABORATORY TEST RESULTS

GEOLABS Limited
Albany House
Station Road
Coleshill
North Warwickshire
B46 1HT
Tel: +44(0) 121 296 4600

email: admin@geolabs.co.uk
web: www.geolabs.co.uk

Ground Investigation Specialists Limited
First Floor, Lowcroft House
Church Road
Wombourne
WV5 9EZ

20 January 2026

Report No : GEO/44024/01

Page 1 of 1

For the attention of Mr H Lister

Our ref	GEO / 44024	Date samples received	15/12/2025
Your ref	2735	Date written instructions received	22/12/2025
Order ref	2735	Date testing commenced	23/12/2025
		Date of sample disposal	17/02/2026

Project **MERTHYR**

Further to your instructions we have pleasure in enclosing the results of the tests you requested in the attached figures.

LABORATORY TEST REPORT

Item No	Test Quantity	Description
1	3	California Bearing Ratio

Any opinions or interpretations expressed herein are outside the scope of UKAS accreditation. All results contained in this report are provisional and may be subject to change unless signed by an approved signatory. The results contained in this report relate only to samples received in the laboratory and are tested 'as received' unless otherwise stated. This report should not be reproduced, except in full, without the written approval of the laboratory. The results reported are applicable only to the test items received by the laboratory.

All the necessary data required by the documented test procedures has been recorded and will be stored for a period of not less than 6 years. This data will be issued to yourselves at your request. All samples will be disposed of after the date shown above. Written confirmation will be required to retain the samples beyond this period and a storage charge may be applied.

We trust that the above meets your requirements and should you require any further information or assistance, please do not hesitate to contact us.

Yours faithfully
on behalf of **GEOLABS Limited**



J A Reynolds
Director

CALIFORNIA BEARING RATIO

Location BH1
Sample Depth 1.20-2.45 m
Sample Type AMAL

Description:

Dark brown silty CLAY with frequent fine to coarse gravel.

PREPARATION DETAILS

The specimen was tested in an unsoaked condition.
The specimen was tested at the as received water content
The specimen was prepared by dynamic compaction using a 2.5 kg rammer
Prepared bulk density 2.10 Mg/m³
Prepared dry density 1.80 Mg/m³
9.3 % of the sample was retained on a 20mm sieve

Test Details

Surcharge
Seating load
Water content

Top

8.0 kg
10 N
17 %

Base

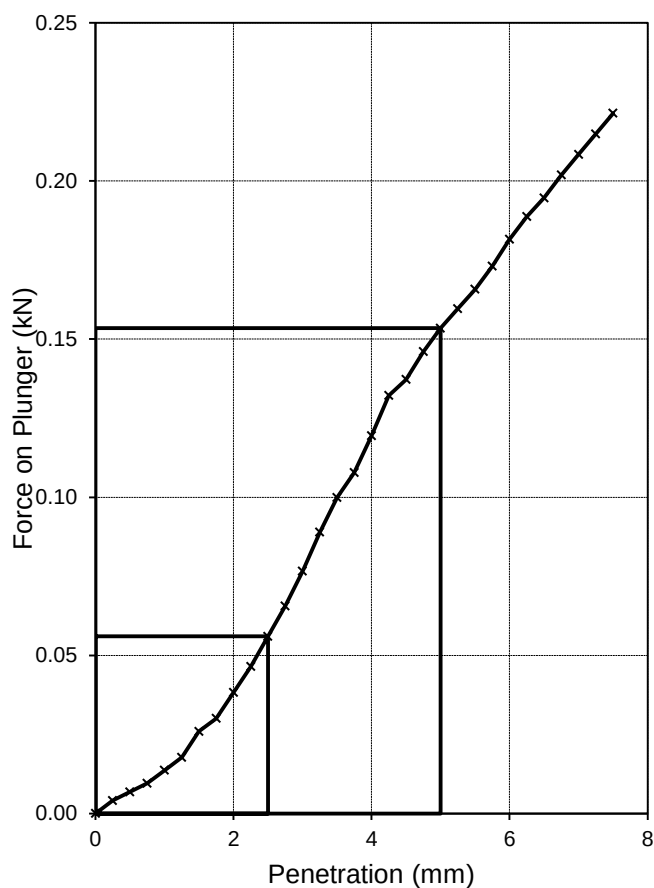
8.0 kg
10 N
16 %

CBR Value

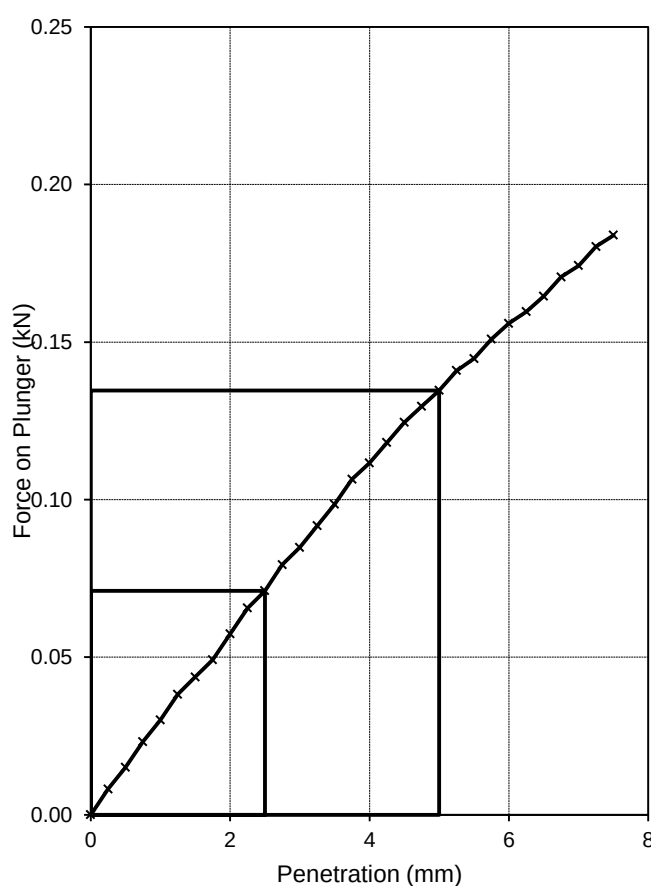
0.8 %

0.7 %

Top of Specimen



Base of Specimen



Tested by BM/DF
Checked and Approved by

J A Reynolds

J A Reynolds - Director
20/01/2026

Project Number:

GEO / 44024

Project Name:

**MERTHYR
2735**

GEOLABS



CALIFORNIA BEARING RATIO

Location BH2
Sample Depth 2.00-2.45 m
Sample Type LB

Description:

Dark brown silty CLAY with frequent fine to coarse gravel.

PREPARATION DETAILS

The specimen was tested in an unsoaked condition.
The specimen was tested at the as received water content
The specimen was prepared by dynamic compaction using a 2.5 kg rammer
Prepared bulk density 2.10 Mg/m³
Prepared dry density 1.82 Mg/m³
12.4 % of the sample was retained on a 20mm sieve

Test Details

Surcharge
Seating load
Water content

Top

8.0 kg
10 N
16 %

Base

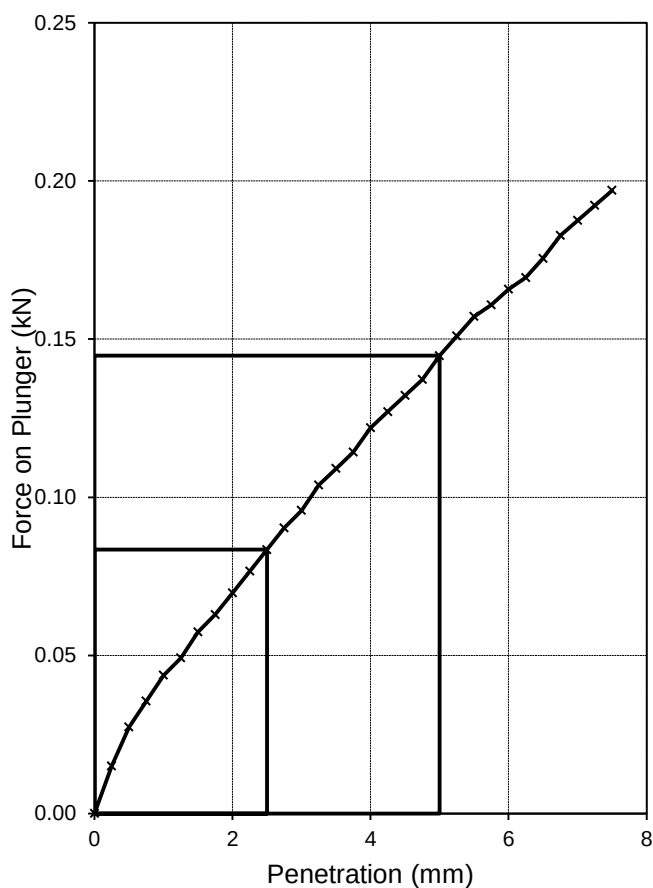
8.0 kg
10 N
15 %

CBR Value

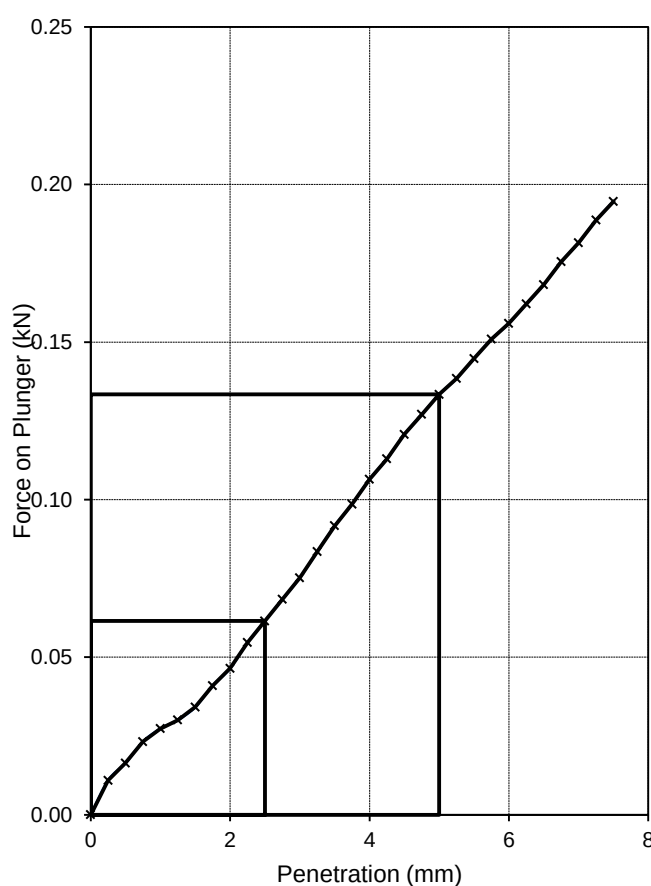
0.7 %

0.7 %

Top of Specimen



Base of Specimen



Tested by BM/DF
Checked and Approved by

J A Reynolds

J A Reynolds - Director
20/01/2026

Project Number:

GEO / 44024

Project Name:

**MERTHYR
2735**

GEOLABS



CALIFORNIA BEARING RATIO

Location WS4
Sample Depth 0.70-1.50 m
Sample Type LB

Description:

Black silty CLAY with frequent fine to coarse gravel.

PREPARATION DETAILS

The specimen was tested in an unsoaked condition.
The specimen was tested at the as received water content
The specimen was prepared by dynamic compaction using a 2.5 kg rammer
Prepared bulk density 1.94 Mg/m³
Prepared dry density 1.63 Mg/m³
11.5 % of the sample was retained on a 20mm sieve

Test Details

Surcharge
Seating load
Water content

Top

8.0 kg
10 N
20 %

Base

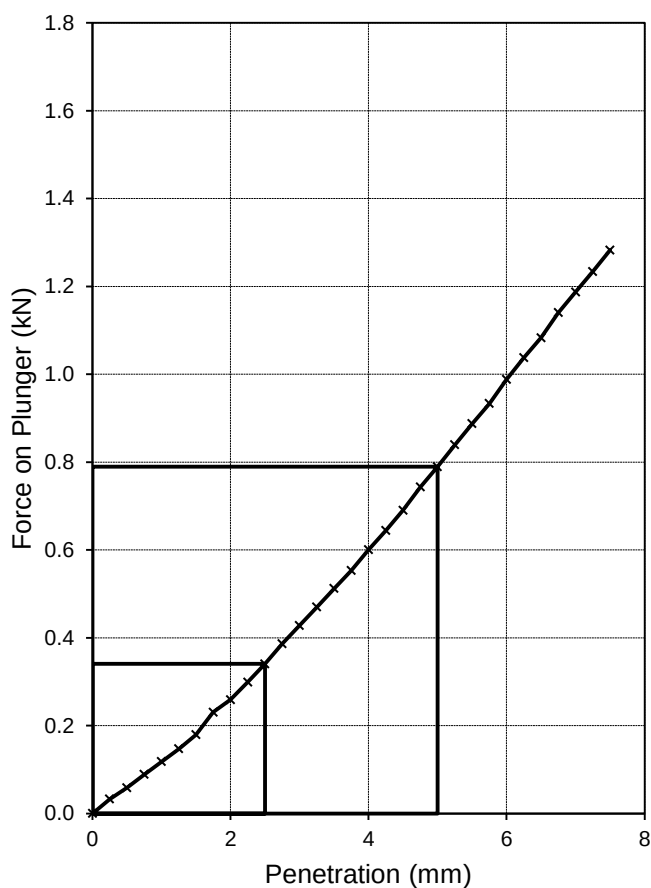
8.0 kg
10 N
19 %

CBR Value

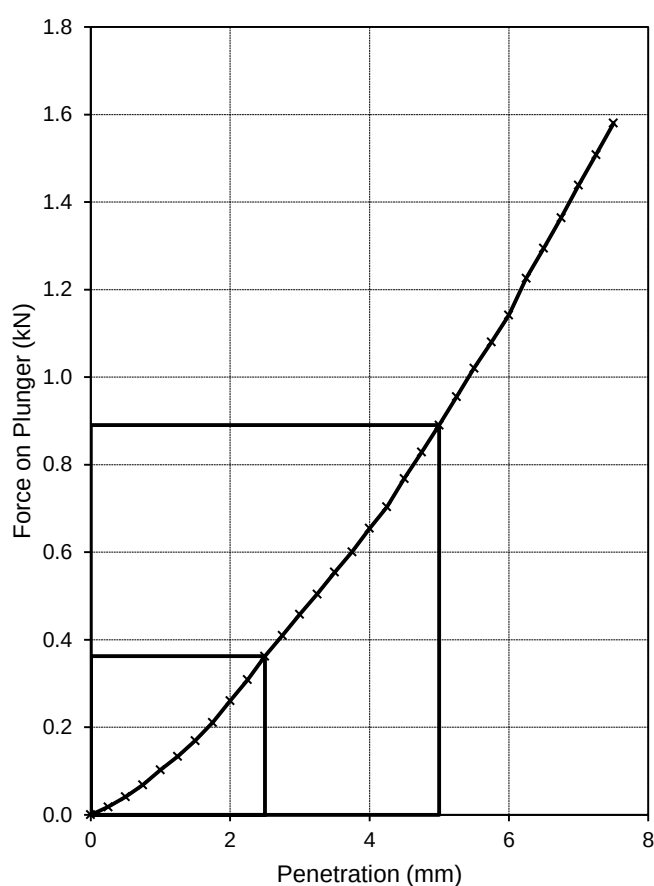
3.9 %

4.5 %

Top of Specimen



Base of Specimen



Tested by BM
Checked and Approved by

J A Reynolds

J A Reynolds - Director
20/01/2026

Project Number:

GEO / 44024

Project Name:

**MERTHYR
2735**

GEOLABS





Final Report

Report No.: 25-40088-1

Initial Date of Issue: 03-Jan-2026

Re-Issue Details:

Client *Ground Investigation Specialists Ltd*

Client Address: *Suite D Astor House
282 Lichfield Road
Sutton Coldfield
WV2 4LY*

Contact(s): *Charlie Noakes
Howard Lister*

Project *2735 MERT HXR*

Quotation No.: Q25-37036

Date Received: 11-Dec-2025

Order No.:

Date Instructed: 11-Dec-2025

No. of Samples: 5

Turnaround (Wkdays): 10

Results Due: 24-Dec-2025

Date Approved: 03-Jan-2026

Approved By:

Details: David Smith, Technical Director

For details about application of accreditation to specific matrix types, please refer to the Table at the back of this report

Results - Soil

Project: 2735 MERT HXR

Client: Ground Investigation Specialists Ltd		Chemtest Job No.:				25-40088	25-40088	25-40088	25-40088	25-40088
Quotation No.: Q25-37036		Chemtest Sample ID.:				2065068	2065069	2065070	2065071	2065072
		<i>Client Reference:</i>				BH1	WS2	WS4	WS3	WS5
		<i>Sample Type:</i>				SOIL	SOIL	SOIL	SOIL	SOIL
		<i>Top Depth (m):</i>				0.40	0.50	0.70	0.50	1.50
		<i>Bottom Depth (m):</i>					1.00			
		<i>Asbestos Lab:</i>				DURHAM	DURHAM	DURHAM		DURHAM
Determinand	HWOL Code	Accred.	SOP	Units	LOD					
ACM Type		N	2192		N/A	-	-	-		-
Asbestos Identification		U	2192		N/A	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected		No Asbestos Detected
Moisture		N	2030	%	0.020	11	< 0.020	17	8.9	18
Soil Colour		N	2030		N/A	Black	Black	Black	Black	Grey
Other Material		N	2030		N/A	Stones and brick	None	Stones	cobbles	Stones
Soil Texture		N	2030		N/A	Sand	Tarmac	Sand	Sand	Sand
pH at 20C		M	2010		4.0	10.4		9.8	10.2	> 12.0
Boron (Hot Water Soluble)		M	2120	mg/kg	0.40	1.3		0.54		1.0
Sulphate (2:1 Water Soluble) as SO4		M	2120	g/l	0.010				0.46	
Arsenic		M	2455	mg/kg	0.5	9.9	8.4	19		4.8
Barium		M	2455	mg/kg	0.5		130			
Cadmium		M	2455	mg/kg	0.10	0.42	0.16	0.15		0.15
Chromium		M	2455	mg/kg	0.5	25	11	21		8.0
Molybdenum		M	2455	mg/kg	0.5		2.8			
Antimony		N	2455	mg/kg	2.0		< 2.0			
Copper		M	2455	mg/kg	0.50	41	35	140		14
Mercury		M	2455	mg/kg	0.05	0.10	0.15	0.37		< 0.05
Nickel		M	2455	mg/kg	0.50	20	20	81		10
Lead		M	2455	mg/kg	0.50	51	43	70		12
Selenium		M	2455	mg/kg	0.25	0.62	0.50	1.2		0.61
Zinc		M	2455	mg/kg	0.50	98	69	110		30
Aliphatic VPH >C5-C6	HS_2D_AL	U	2780	mg/kg	0.05	< 0.05	< 0.05	< 0.05		< 0.05
Aliphatic VPH >C6-C7	HS_2D_AL	U	2780	mg/kg	0.05	< 0.05	< 0.05	< 0.05		< 0.05
Aliphatic VPH >C7-C8	HS_2D_AL	U	2780	mg/kg	0.05	< 0.05	< 0.05	< 0.05		< 0.05
Aliphatic VPH >C6-C8 (Sum)	HS_2D_AL	N	2780	mg/kg	0.10	< 0.10	< 0.10	< 0.10		< 0.10
Aliphatic VPH >C8-C10	HS_2D_AL	U	2780	mg/kg	0.05	< 0.05	< 0.05	< 0.05		< 0.05
Total Aliphatic VPH >C5-C10	HS_2D_AL	U	2780	mg/kg	0.25	< 0.25	< 0.25	< 0.25		< 0.25
Aliphatic EPH >C10-C12	EH_2D_AL #1	M	5002	mg/kg	2.00	< 2.0	< 2.0	< 2.0		< 2.0
Aliphatic EPH >C12-C16	EH_2D_AL #1	M	5002	mg/kg	2.00	< 2.0	8.3	< 2.0		< 2.0
Aliphatic EPH >C16-C21	EH_2D_AL #1	M	5002	mg/kg	2.00	6.7	16	< 2.0		< 2.0
Aliphatic EPH >C21-C35	EH_2D_AL #1	M	5002	mg/kg	3.00	22	35	< 3.0		< 3.0
Aliphatic EPH >C35-C40	EH_2D_AL #1	N	5002	mg/kg	10.00	< 10	< 10	< 10		< 10
Aliphatic EPH >C40-C44	EH_2D_AL #1	N	5002	mg/kg	1.00	< 1.0	< 1.0	< 1.0		< 1.0
Total Aliphatic EPH >C10-C35	EH_2D_AL #1	M	5002	mg/kg	7.00	30	60	< 7.0		< 7.0
Total Aliphatic EPH >C10-C40	EH_2D_AL #1	N	5002	mg/kg	10.00	37	62	< 10		< 10
Total Aliphatic EPH >C10-C44	EH_2D_AL #1	N	5002	mg/kg	10.00		60			

Results - Soil

Project: 2735 MERT HXR

Client: Ground Investigation Specialists Ltd		Chemtest Job No.:				25-40088	25-40088	25-40088	25-40088	25-40088
Quotation No.: Q25-37036		Chemtest Sample ID.:				2065068	2065069	2065070	2065071	2065072
		Client Reference:				BH1	WS2	WS4	WS3	WS5
		Sample Type:				SOIL	SOIL	SOIL	SOIL	SOIL
		Top Depth (m):				0.40	0.50	0.70	0.50	1.50
		Bottom Depth (m):					1.00			
		Asbestos Lab:				DURHAM	DURHAM	DURHAM		DURHAM
Determinand	HWOL Code	Accred.	SOP	Units	LOD					
Aromatic VPH >C5-C7	HS_2D_AR	U	2780	mg/kg	0.05	< 0.05	< 0.05	< 0.05		< 0.05
Aromatic VPH >C7-C8	HS_2D_AR	U	2780	mg/kg	0.05	< 0.05	< 0.05	< 0.05		< 0.05
Aromatic VPH >C8-C10	HS_2D_AR	U	2780	mg/kg	0.05	< 0.05	< 0.05	< 0.05		< 0.05
Total Aromatic VPH >C5-C10	HS_2D_AR	U	2780	mg/kg	0.25	< 0.25	< 0.25	< 0.25		< 0.25
Aromatic EPH >C10-C12	EH_2D_AR_#1	U	5002	mg/kg	2.00	< 2.0	< 2.0	< 2.0		< 2.0
Aromatic EPH >C12-C16	EH_2D_AR_#1	U	5002	mg/kg	2.00	5.1	7.4	< 2.0		< 2.0
Aromatic EPH >C16-C21	EH_2D_AR_#1	U	5002	mg/kg	2.00	11	15	< 2.0		< 2.0
Aromatic EPH >C21-C35	EH_2D_AR_#1	U	5002	mg/kg	2.00	32	74	< 2.0		< 2.0
Aromatic EPH >C35-C40	EH_2D_AR_#1	N	5002	mg/kg	1.00	40	46	1.3		< 1.0
Aromatic EPH >C40-C44	EH_2D_AR_#1	N	5002	mg/kg	1.00	12	7.6	< 1.0		< 1.0
Total Aromatic EPH >C10-C35	EH_2D_AR_#1	U	5002	mg/kg	4.00	49	97	< 4.0		< 4.0
Total Aromatic EPH >C10-C40	EH_2D_AR_#1	N	5002	mg/kg	10.00	89	140	< 10		< 10
Total Aromatic EPH >C10-C44	EH_2D_AR_#1	N	5002	mg/kg	10.00		150			
Total VPH >C5-C10	HS_2D_Total	U	2780	mg/kg	0.50	< 0.50	< 0.50	< 0.50		< 0.50
Total EPH >C10-C35	EH_2D_Total_#1	U	5002	mg/kg	10.00	79	160	< 10		< 10
Total EPH >C10-C40	EH_2D_Total_#1	N	5002	mg/kg	10.00	130	200	< 10		< 10
Total EPH >C10-C44	EH_2D_Total_#1	N	5002	mg/kg	10.00		210			
Organic Matter		M	2625	%	0.40	12		66		24
Naphthalene		M	2800	mg/kg	0.10	0.58	0.28	6.8		0.20
Acenaphthylene		N	2800	mg/kg	0.10	< 0.10	< 0.10	0.18		< 0.10
Acenaphthene		M	2800	mg/kg	0.10	0.64	0.25	0.52		< 0.10
Fluorene		M	2800	mg/kg	0.10	0.64	0.20	0.53		< 0.10
Phenanthrene		M	2800	mg/kg	0.10	3.1	0.93	2.7		0.68
Anthracene		M	2800	mg/kg	0.10	0.81	0.23	0.88		0.18
Fluoranthene		M	2800	mg/kg	0.10	4.2	1.2	3.9		1.6
Pyrene		M	2800	mg/kg	0.10	2.9	0.83	2.9		1.2
Benzo[a]anthracene		M	2800	mg/kg	0.10	2.2	0.71	2.6		0.82
Chrysene		M	2800	mg/kg	0.10	2.3	0.80	3.1		0.99
Benzo[b]fluoranthene		M	2800	mg/kg	0.10	3.0	1.1	4.4		1.2
Benzo[k]fluoranthene		M	2800	mg/kg	0.10	1.1	0.33	1.5		0.40
Benzo[a]pyrene		M	2800	mg/kg	0.10	2.2	0.63	2.7		0.72
Indeno(1,2,3-c,d)Pyrene		M	2800	mg/kg	0.10	1.4	0.54	2.4		0.54
Dibenz(a,h)Anthracene		N	2800	mg/kg	0.10	0.39	0.21	0.84		0.16
Benzo[g,h,i]perylene		M	2800	mg/kg	0.10	1.2	0.44	2.1		0.48
Coronene		N	2800	mg/kg	0.10		< 0.10			
Total Of 16 PAH's		N	2800	mg/kg	2.0	27		38		9.2
Total Of 17 PAH's		N	2800	mg/kg	2.0		8.7			

Results - Single Stage WAC

Project: 2735 MERT HXR

Project: 25-40088

Chemtest Job No:	25-40088		Landfill Waste Acceptance Criteria						
Chemtest Sample ID:	2065069		Limits						
Sample Ref:			Inert Waste Landfill	Stable, Non-reactive hazardous waste in non-hazardous Landfill	Hazardous Waste Landfill				
Sample ID:									
Client Reference:	WS2								
Top Depth(m):	0.50								
Bottom Depth(m):	1.00								
Sampling Date:									
Determinand	SOP	HWOL Code	Accred.	Units					
Total Organic Carbon	2625		M	%	15	3	5	6	
Loss On Ignition	2610		M	%	1.4	--	--	10	
Total BTEX	2760		M	mg/kg	< 0.010	6	--	--	
Total PCBs (7 Congeners)	2815		M	mg/kg	< 0.05	1	--	--	
WAC Total C10-C40	5002	EH_2D_AL_#1	N	mg/kg	310	500	--	--	
Total (Of 17) PAH's	2800		N	mg/kg	8.7	100	--	--	
pH at 20C	2010		M		10.8	--	>6	--	
Acid Neutralisation Capacity	2015		N	mol/kg	< 0.0020	--	To evaluate	To evaluate	
Eluate Analysis				10:1 Eluate mg/l	10:1 Eluate mg/kg	Limit values for compliance leaching test using BS EN 12457 at L/S 10 l/kg			
Arsenic	1455		U	0.0019	0.019	0.5	2	25	
Barium	1455		U	0.005	0.051	20	100	300	
Cadmium	1455		U	< 0.00011	< 0.0011	0.04	1	5	
Chromium	1455		U	0.0008	0.0081	0.5	10	70	
Copper	1455		U	0.015	0.15	2	50	100	
Mercury	1455		U	< 0.00005	< 0.00050	0.01	0.2	2	
Molybdenum	1455		U	0.0025	0.025	0.5	10	30	
Nickel	1455		U	0.0015	0.016	0.4	10	40	
Lead	1455		U	0.0032	0.032	0.5	10	50	
Antimony	1455		U	< 0.0005	< 0.0050	0.06	0.7	5	
Selenium	1455		U	0.0007	0.0072	0.1	0.5	7	
Zinc	1455		U	0.016	0.16	4	50	200	
Chloride	1220		U	< 1.0	< 10	800	15000	25000	
Fluoride	1220		U	0.17	1.7	10	150	500	
Sulphate	1220		U	< 1.0	< 10	1000	20000	50000	
Total Dissolved Solids	1020		N	110	1100	4000	60000	100000	
Phenol Index	1920		U	< 0.030	< 0.30	1	-	-	
Dissolved Organic Carbon	1610		U	5.2	52	500	800	1000	

Solid Information	
Dry mass of test portion/kg	0.090
Moisture (%)	6.3
WAC Sample Weight	1062

Waste Acceptance Criteria

Landfill WAC analysis (specifically leaching test results) must not be used for hazardous waste classification purposes. This analysis is only applicable for hazardous waste landfill acceptance and does not give any indication as to whether a waste may be hazardous or non-hazardous.

Deviations

In accordance with UKAS Policy on Deviating Samples TPS 63. Chemtest have a procedure to ensure 'upon receipt of each sample a competent laboratory shall assess whether the sample is suitable with regard to the requested test(s)'. This policy and the respective holding times applied, can be supplied upon request. The reason a sample is declared as deviating is detailed below. Where applicable the analysis remains UKAS/MCERTs accredited but the results may be compromised.

Chemtest Sample ID	Clients Sample Ref:	Clients Sample ID:	Clients Reference:	Sampled Date:	Deviation Code(s):	Containers Received:
2065068			BH1		A	Amber Glass 250ml
2065068			BH1		A	Amber Glass 60ml
2065068			BH1		A	Plastic Tub 1000g
2065069			WS2		A,E	Amber Glass 250ml
2065069			WS2		A,E	Amber Glass 60ml
2065069			WS2		A,E	Plastic Tub 1000g
2065070			WS4		A	Amber Glass 250ml
2065070			WS4		A	Amber Glass 60ml
2065070			WS4		A	Plastic Tub 1000g
2065071			WS3		A	Plastic Tub 1000g
2065072			WS5		A	Amber Glass 250ml
2065072			WS5		A	Amber Glass 60ml
2065072			WS5		A	Plastic Tub 1000g

Test Methods

SOP	Title	Parameters included	Method summary	Water Accred.
1020	Electrical Conductivity and Total Dissolved Solids (TDS) in Waters	Electrical Conductivity at 25°C and Total Dissolved Solids (TDS) in Waters	Conductivity Meter	
1220	Anions, Alkalinity & Ammonium in Waters	Fluoride; Chloride; Nitrite; Nitrate; Total; Oxidisable Nitrogen (TON); Sulfate; Phosphate; Alkalinity; Ammonium	Automated colorimetric analysis using 'Aquakem 600' Discrete Analyser.	RE PW PL LE DW GW
1455	Metals in Waters by ICP-MS	Metals, including: Antimony; Arsenic; Barium; Beryllium; Boron; Cadmium; Chromium; Cobalt; Copper; Lead; Manganese; Mercury; Molybdenum; Nickel; Selenium; Tin; Vanadium; Zinc	Filtration of samples followed by direct determination by inductively coupled plasma mass spectrometry (ICP-MS).	RE PW PL SW DW GW
1610	Total/Dissolved Organic Carbon in Waters	Organic Carbon	TOC Analyser using Catalytic Oxidation	PL SW GW
1920	Phenols in Waters by HPLC	Phenolic compounds including: Phenol, Cresols, Xylenols, Trimethylphenols Note: Chlorophenols are excluded.	Determination by High Performance Liquid Chromatography (HPLC) using electrochemical detection.	PL GW
2010	pH Value of Soils	pH at 20°C	pH Meter	
2015	Acid Neutralisation Capacity	Acid Reserve	Titration	
2030	Moisture and Stone Content of Soils(Requirement of MCERTS)	Moisture content	Determination of moisture content of soil as a percentage of its as received mass obtained at <30°C.	
2120	Water Soluble Boron, Sulphate, Magnesium & Chromium	Boron; Sulphate; Magnesium; Chromium	Aqueous extraction / ICP-OES	
2192	Asbestos Quantification in Soils Sediments Ballast & Aggregate Crushed Concrete & Demolition Rubble	Asbestos	Polarised light microscopy / Gravimetry	
2455	Acid Soluble Metals in Soils	Metals, including: Arsenic; Barium; Beryllium; Cadmium; Chromium; Cobalt; Copper; Lead; Manganese; Mercury; Molybdenum; Nickel; Selenium; Vanadium; Zinc	Acid digestion followed by determination of metals in extract by ICP-MS.	
2610	Loss on Ignition	loss on ignition (LOI)	Determination of the proportion by mass that is lost from a soil by ignition at 550°C.	
2625	Total Organic Carbon in Soils	Total organic Carbon (TOC)	Determined by high temperature combustion under oxygen, using an Eltra elemental analyser.	
2690	EPH A/A Split	Aliphatics: >C10–C12, >C12–C16, >C16–C21, >C21– C35, >C35– C40 Aromatics: >C10–C12, >C12–C16, >C16–C21, >C21– C35, >C35– C40	Acetone/Heptane extraction / GCxGC FID detection	
2760	Volatile Organic Compounds (VOCs) in Soils by Headspace GC-MS	Volatile organic compounds, including BTEX and halogenated Aliphatic/Aromatics.(cf. USEPA Method 8260)*please refer to UKAS schedule	Automated headspace gas chromatographic (GC) analysis of a soil sample, as received, with mass spectrometric (MS) detection of volatile organic compounds.	
2780	VPH A/A Split	Aliphatics: >C5–C6, >C6–C7,>C7–C8,>C8–C10 Aromatics: >C5–C7,>C7–C8,>C8–C10	Water extraction / Headspace GCxGC FID detection	
2800	Speciated Polynuclear Aromatic Hydrocarbons (PAH) in Soil by GC-MS	Acenaphthene*; Acenaphthylene; Anthracene*; Benzo[a]Anthracene*; Benzo[a]Pyrene*; Benzo[b]Fluoranthene*; Benzo[ghi]Perylene*; Benzo[k]Fluoranthene; Chrysene*; Dibenz[ah]Anthracene; Fluoranthene*; Fluorene*; Indeno[123cd]Pyrene*; Naphthalene*; Phenanthrene*; Pyrene*	Dichloromethane extraction / GC-MS	
2815	Polychlorinated Biphenyls (PCB) ICES7Congeners in Soils by GC-MS	ICES7 PCB congeners	Acetone/Hexane extraction / GC-MS. Reported PCB 101 results may contain contributions from PCB 90 due to inseparable chromatography.	
5002	EPH A/A Split	Aliphatics: >C10–C12, >C12–C16, >C16–C21, >C21– C35, >C35– C40 Aromatics: >C10–C12, >C12–C16, >C16–C21, >C21– C35, >C35– C40	Acetone/Heptane extraction / GCxGC FID detection	
640	Characterisation of Waste (Leaching C10)	Waste material including soil, sludges and granular waste	ComplianceTest for Leaching of Granular Waste Material and Sludge	

Test Methods

SOP	Title	Parameters included	Method summary	Water Accred.
650	Characterisation of Waste (Leaching C2,C8,C10,WAC)	Waste material including soil, sludges and granular waste	ComplianceTest for Leaching of Granular Waste Material and Sludge	

Report Information

Key	
U	UKAS accredited
M	MCERTS and UKAS accredited
N	Unaccredited
S	This analysis has been subcontracted to a UKAS accredited laboratory that is accredited for this analysis
SN	This analysis has been subcontracted to a UKAS accredited laboratory that is not accredited for this analysis
T	This analysis has been subcontracted to an unaccredited laboratory
I/S	Insufficient Sample
U/S	Unsuitable Sample
N/E	not evaluated
<	"less than"
>	"greater than"
SOP	Standard operating procedure
LOD	Limit of detection

Text example All items indicated in italic font represent customer-supplied information that may not be independently verified by the laboratory

This report shall not be reproduced except in full, and only with the prior approval of the laboratory.

Any comments or interpretations are outside the scope of UKAS accreditation.

The Laboratory is not accredited for any sampling activities and reported results relate to the samples 'as received' at the laboratory.

Uncertainty of measurement for the determinands tested are available upon request .

None of the results in this report have been recovery corrected.

All results are expressed on a dry weight basis.

The following tests were analysed on samples 'as received' and the results subsequently corrected to a dry weight basis EPH, VPH, TPH, BTEX, VOCs, SVOCs, PCBs, Phenols.

For all other tests the samples were dried at $\leq 30^{\circ}\text{C}$ prior to analysis.

All Asbestos testing is performed at the indicated laboratory .

Issue numbers are sequential starting with 1 all subsequent reports are incremented by 1.

Where analysis is performed on a dried and crushed sample, it has been prepared by crushing all of the sample. If material has been removed prior to crushing, or by request of the client, this will be stated on the report.

NEW_ASB Eurofins Chemtest Limited, 11 Depot Road, Newmarket, CB8 0AL

DURHAM Eurofins Chemtest Limited, Unit A North Wing, Prospect Business Park, Crookhall Lane, Consett, Co Durham, DH8 7PW

Sample Deviation Codes

As a result of any of the below deviations applying, the test results may be unreliable

- A - Date of sampling not supplied
- B - Sample age exceeds stability time (sampling to extraction)
- C - Sample not received in appropriate containers
- D - Broken Container
- E - The required amount of sample for analysis was not received
- H - Appropriate cooling measures were not taken for sample transportation

Sample Retention and Disposal

All soil samples will be retained for a period of 30 days from the date of receipt.

All water samples will be retained for 14 days from the date of receipt.

Charges may apply to extended sample storage.

Report Information

Water Sample Category Key for Accreditation

DW - Drinking Water (Non-Regulatory)
GW - Ground Water
LE - Land Leachate
NA - Not Applicable
PL - Prepared Leachate
PW - Processed Water
RE - Recreational Water
SA - Saline Water
SW - Surface Water
TE - Treated Effluent
TS - Treated Sewage
UL - Unspecified Liquid

Clean Up Codes

NC - No Clean Up
MC - Mathematical Clean Up
FC - Florisil Clean Up

HWOL Acronym System

HS - Headspace analysis
EH - Extractable hydrocarbons – i.e. everything extracted by the solvent
CU - Clean-up – e.g. by Florisil, silica gel
1D - GC – Single coil gas chromatography
Total - Aliphatics & Aromatics
AL - Aliphatics only
AR - Aromatic only
2D - GC-GC – Double coil gas chromatography
#1 - EH_2D_Total but with humics mathematically subtracted
#2 - EH_2D_Total but with fatty acids mathematically subtracted
+ - Operator to indicate cumulative e.g. EH+EH_Total or EH_CU+HS_Total

Asbestos Tests LOD = LOQ

Limit of Detection = Limit of Quantification for asbestos results only

If you require extended retention of samples, please email your requirements to:
cs@etuki.eurofins.com



Waste Classification Report

HazWasteOnline™ classifies waste as either **hazardous** or **non-hazardous** based on its chemical composition, related legislation and the rules and data defined in the current UK or EU technical guidance (Appendix C) (note that HP 9 Infectious is not assessed). It is the responsibility of the classifier named below to:

- understand the origin of the waste
- select the correct List of Waste code(s)
- confirm that the list of determinands, results and sampling plan are fit for purpose
- select and justify the chosen metal species (Appendix B)
- correctly apply moisture correction and other available corrections
- add the meta data for their user-defined substances (Appendix A)
- check that the classification engine is suitable with respect to the national destination of the waste (Appendix C)



AV8MA-EZWCD-IUZ4T

To aid the reviewer, the laboratory results, assumptions and justifications managed by the classifier are highlighted in pale yellow.

Report is invalid if pages are removed.

Job name

Cyfarthfa Retail Park

Description/Comments

Project

J 2735

Site

Classified by

Name: **Tom McLaren**
Date: **29 Jan 2026 10:30 GMT**
Telephone: **01902 717653**
Company: **Ground Investigation Specialists Limited**
GIS

HazWasteOnline™ provides a two day, hazardous waste classification course that covers the use of the software and both basic and advanced waste classification techniques. Certification has to be renewed every 3 years.

HazWasteOnline™ Certification:

-

Course

Hazardous Waste Classification

Date

-

Purpose of classification

2 - Material Characterisation

Address of the waste

Cyfarthfa Retail Park, Merthyr Tydfil

Post Code CF48 1HY

SIC for the process giving rise to the waste

41201 Construction of commercial buildings

Description of industry/producer giving rise to the waste

Construction

Description of the specific process, sub-process and/or activity that created the waste

Excavation

Description of the waste

Made ground



Job summary

#	Sample name	Depth [m]	Classification Result	Hazard properties	Page
1	Made Ground Mean		Non Hazardous		3

Related documents

#	Name	Description
1	General Soil Default Waste Stream	waste stream template used to create this Job

Report

Created by: Tom McLaren

Created date: 29 Jan 2026 10:30 GMT

Appendices	Page
Appendix A: Classifier defined and non GB MCL determinands	6
Appendix B: Rationale for selection of metal species	7
Appendix C: Version	8



Classification of sample: Made Ground Mean

✔ **Non Hazardous Waste**
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name: **Made Ground Mean** LoW Code: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Chapter: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)
Entry:

Hazard properties

None identified

Determinands

Moisture content: None

#	Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number									
1	arsenic { arsenic compounds, with the exception of those specified elsewhere in this Annex } 033-002-00-5			1	11	mg/kg		11	mg/kg	0.0011 %		
2	cadmium { cadmium sulfide } 048-010-00-4	215-147-8	1306-23-6	1	0.2	mg/kg	1.285	0.257	mg/kg	0.00002 %		
3	chromium(III) oxide (worst case) 215-160-9		1308-38-9		16	mg/kg		16	mg/kg	0.0016 %		
4	copper { dicopper oxide; copper (I) oxide } 029-002-00-X	215-270-7	1317-39-1		58	mg/kg	1.126	65.302	mg/kg	0.00653 %		
5	lead { lead compounds with the exception of those specified elsewhere in this Annex } 082-001-00-6			1	44	mg/kg		44	mg/kg	0.0044 %		
6	mercury { compounds of mercury (with the exception of mercuric sulfide and those listed separately in this Annex) } 080-002-00-6			1	0.2	mg/kg	1.39	0.278	mg/kg	0.00002 %		
7	nickel { nickel dihydroxide } 028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]		33	mg/kg	1.579	52.123	mg/kg	0.00521 %		
8	selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex } 034-002-00-8				0.7	mg/kg	1.405	0.983	mg/kg	0.0000983 %		
9	zinc { zinc oxide } 030-013-00-7	215-222-5	1314-13-2		77	mg/kg	1.245	95.843	mg/kg	0.00958 %		
10	pH PH				10.6	pH		10.6	pH	10.6 pH		
11	TPH (C6 to C40) petroleum group TPH				110	mg/kg		110	mg/kg	0.011 %		
12	benzene 601-020-00-8	200-753-7	71-43-2		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
13	toluene 601-021-00-3	203-625-9	108-88-3		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
14	ethylbenzene 601-023-00-4	202-849-4	100-41-4		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD



#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number								
15	xylene 601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]		<0.01 mg/kg		<0.01 mg/kg		<0.000001 %		<LOD
16	naphthalene 601-052-00-2	202-049-5	91-20-3		2 mg/kg		2 mg/kg		0.0002 %		
17	acenaphthylene 205-917-1	208-96-8			0.12 mg/kg		0.12 mg/kg		0.000012 %		
18	acenaphthene 201-469-6	83-32-9			0.4 mg/kg		0.4 mg/kg		0.00004 %		
19	fluorene 201-695-5	86-73-7			0.4 mg/kg		0.4 mg/kg		0.00004 %		
20	phenanthrene 201-581-5	85-01-8			1.9 mg/kg		1.9 mg/kg		0.00019 %		
21	anthracene 204-371-1	120-12-7			0.5 mg/kg		0.5 mg/kg		0.00005 %		
22	fluoranthene 205-912-4	206-44-0			2.7 mg/kg		2.7 mg/kg		0.00027 %		
23	pyrene 204-927-3	129-00-0			2 mg/kg		2 mg/kg		0.0002 %		
24	benzo[a]anthracene 601-033-00-9	200-280-6	56-55-3		1.6 mg/kg		1.6 mg/kg		0.00016 %		
25	chrysene 601-048-00-0	205-923-4	218-01-9		1.8 mg/kg		1.8 mg/kg		0.00018 %		
26	benzo[b]fluoranthene 601-034-00-4	205-911-9	205-99-2		2.4 mg/kg		2.4 mg/kg		0.00024 %		
27	benzo[k]fluoranthene 601-036-00-5	205-916-6	207-08-9		0.8 mg/kg		0.8 mg/kg		0.00008 %		
28	benzo[a]pyrene; benzo[def]chrysene 601-032-00-3	200-028-5	50-32-8		1.6 mg/kg		1.6 mg/kg		0.00016 %		
29	indeno[123-cd]pyrene 205-893-2	193-39-5			1.2 mg/kg		1.2 mg/kg		0.00012 %		
30	dibenz[a,h]anthracene 601-041-00-2	200-181-8	53-70-3		0.4 mg/kg		0.4 mg/kg		0.00004 %		
31	benzo[ghi]perylene 205-883-8	191-24-2			1.1 mg/kg		1.1 mg/kg		0.00011 %		
32	antimony { antimony compounds, with the exception of the tetroxide (Sb2O4), pentoxide (Sb2O5), trisulphide (Sb2S3), pentasulphide (Sb2S5) and those specified elsewhere in this Annex } 051-003-00-9			1	2 mg/kg		2 mg/kg		0.0002 %		
33	molybdenum { molybdenum(VI) oxide } 042-001-00-9	215-204-7	1313-27-5		2.8 mg/kg	1.5	4.201 mg/kg		0.00042 %		
34	barium { barium oxide } 215-127-9	1304-28-5			130 mg/kg	1.117	145.146 mg/kg		0.0145 %		
Total									0.0568 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Determinand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
	This determinand is defined in the EU CLP Table 3
<LOD	Below limit of detection
CLP: Note 1	Only the metal concentration has been used for classification



Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and ≤ 75°C"

Force this Hazardous Property to non-hazardous for cumulative determinand results below the concentration of: 1000 mg/kg (0.1%)
because: Not Liquid

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

TPH (C6 to C40) petroleum group (conc.: 0.011%)



Appendix A: Classifier defined and non GB MCL determinands

arsenic compounds, with the exception of those specified elsewhere in this Annex

GB MCL index number: 033-002-00-5

Description/Comments: Worst Case: IARC considers arsenic compounds Group 1; Carcinogenic to humans

Additional Hazard Statement(s): Carc. 1A; H350

Reason for additional Hazards Statement(s):

20 Nov 2021 - Carc. 1A; H350 hazard statement sourced from:: IARC Group 1 (23, Sup 7, 100C) 2012

chromium(III) oxide (worst case) (EC Number: 215-160-9, CAS Number: 1308-38-9)

Description/Comments: Data from C&L Inventory Database

Data source: <https://echa.europa.eu/information-on-chemicals/cl-inventory-database/-/discli/details/33806>

Data source date: 17 Jul 2015

Hazard Statements: Acute Tox. 4; H332, Acute Tox. 4; H302, Eye Irrit. 2; H319, STOT SE 3; H335, Skin Irrit. 2; H315, Resp. Sens. 1; H334, Skin Sens. 1; H317, Repr. 1B; H360FD, Aquatic Acute 1; H400, Aquatic Chronic 1; H410

lead compounds with the exception of those specified elsewhere in this Annex

GB MCL index number: 082-001-00-6

Description/Comments: Least-worst case: IARC considers lead compounds Group 2A; Probably carcinogenic to humans; Lead REACH Consortium, following MCL protocols, considers many simple lead compounds to be Carcinogenic category 2

Additional Hazard Statement(s): Carc. 2; H351

Reason for additional Hazards Statement(s):

20 Nov 2021 - Carc. 2; H351 hazard statement sourced from:: IARC Group 2A (Sup 7, 87) 2006; Lead REACH Consortium www.reach-lead.eu/substanceinformation.html. Review date 29/09/2015

compounds of mercury (with the exception of mercuric sulfide and those listed separately in this Annex)

EU CLP index number: 080-002-00-6

Description/Comments: Combines the average of the conversion factors for Mercury difulminate and Mercury (II) sulphide.

Data source: Regulation 1272/2008/EC - Classification, labelling and packaging of substances and mixtures. (CLP)

)

Hazard Statements: Acute Tox. 2; H330, Acute Tox. 1; H310, Acute Tox. 2; H300, STOT RE 2; H373, Aquatic Acute 1; H400, Aquatic Chronic 1; H410, STOT RE 2; H373 >= 0.1 %

pH (CAS Number: PH)

Description/Comments: Appendix C4

Data source: WM3 1st Edition 2015

Data source date: 25 May 2015

Hazard Statements: None.

TPH (C6 to C40) petroleum group (CAS Number: TPH)

Description/Comments: Unknown Oil

Hazard statements taken from WM3 1st Edition 2015

Data source: WM3 1st Edition 2015

Data source date: 25 May 2015

Hazard Statements: Flam. Liq. 3; H226, Asp. Tox. 1; H304, STOT RE 2; H373, Muta. 1B; H340, Carc. 1B; H350, Repr. 2; H361d, Aquatic Chronic 2; H411

ethylbenzene (EC Number: 202-849-4, CAS Number: 100-41-4)

GB MCL index number: 601-023-00-4

Description/Comments:

Additional Hazard Statement(s): Carc. 2; H351

Reason for additional Hazards Statement(s):

20 Nov 2021 - Carc. 2; H351 hazard statement sourced from:: IARC Group 2B (77) 2000

acenaphthylene (EC Number: 205-917-1, CAS Number: 208-96-8)

Description/Comments: Data from C&L Inventory Database

Data source: <http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database>

Data source date: 17 Jul 2015

Hazard Statements: Acute Tox. 4; H302, Acute Tox. 1; H330, Acute Tox. 1; H310, Eye Irrit. 2; H319, STOT SE 3; H335, Skin Irrit. 2; H315

acenaphthene (EC Number: 201-469-6, CAS Number: 83-32-9)

Description/Comments: Data from C&L Inventory Database

Data source: <http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database>

Data source date: 17 Jul 2015

Hazard Statements: Eye Irrit. 2; H319, STOT SE 3; H335, Skin Irrit. 2; H315, Aquatic Acute 1; H400, Aquatic Chronic 1; H410, Aquatic Chronic 2; H411



▪ **fluorene** (EC Number: 201-695-5, CAS Number: 86-73-7)

Description/Comments: Data from C&L Inventory Database

Data source: <http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database>

Data source date: 06 Aug 2015

Hazard Statements: Aquatic Acute 1; H400 , Aquatic Chronic 1; H410

▪ **phenanthrene** (EC Number: 201-581-5, CAS Number: 85-01-8)

Description/Comments: Data from C&L Inventory Database

Data source: <http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database>

Data source date: 06 Aug 2015

Hazard Statements: Acute Tox. 4; H302 , Eye Irrit. 2; H319 , STOT SE 3; H335 , Carc. 2; H351 , Skin Sens. 1; H317 , Aquatic Acute 1; H400 , Aquatic Chronic 1; H410 , Skin Irrit. 2; H315

▪ **anthracene** (EC Number: 204-371-1, CAS Number: 120-12-7)

Description/Comments: Data from C&L Inventory Database

Data source: <http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database>

Data source date: 17 Jul 2015

Hazard Statements: Eye Irrit. 2; H319 , STOT SE 3; H335 , Skin Irrit. 2; H315 , Skin Sens. 1; H317 , Aquatic Acute 1; H400 , Aquatic Chronic 1; H410

▪ **fluoranthene** (EC Number: 205-912-4, CAS Number: 206-44-0)

Description/Comments: Data from C&L Inventory Database

Data source: <http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database>

Data source date: 21 Aug 2015

Hazard Statements: Acute Tox. 4; H302 , Aquatic Acute 1; H400 , Aquatic Chronic 1; H410

▪ **pyrene** (EC Number: 204-927-3, CAS Number: 129-00-0)

Description/Comments: Data from C&L Inventory Database; SDS Sigma Aldrich 2014

Data source: <http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database>

Data source date: 21 Aug 2015

Hazard Statements: Skin Irrit. 2; H315 , Eye Irrit. 2; H319 , STOT SE 3; H335 , Aquatic Acute 1; H400 , Aquatic Chronic 1; H410

▪ **indeno[123-cd]pyrene** (EC Number: 205-893-2, CAS Number: 193-39-5)

Description/Comments: Data from C&L Inventory Database

Data source: <http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database>

Data source date: 06 Aug 2015

Hazard Statements: Carc. 2; H351

▪ **benzo[ghi]perylene** (EC Number: 205-883-8, CAS Number: 191-24-2)

Description/Comments: Data from C&L Inventory Database; SDS Sigma Aldrich 28/02/2015

Data source: <http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database>

Data source date: 23 Jul 2015

Hazard Statements: Aquatic Acute 1; H400 , Aquatic Chronic 1; H410

▪ **barium oxide** (EC Number: 215-127-9, CAS Number: 1304-28-5)

Description/Comments: Data from ECHA's C&L Inventory Database, Sigma Aldrich SDS dated 6/2/20

Data source: <https://echa.europa.eu/information-on-chemicals/cl-inventory-database/-/discli/details/88825>

Data source date: 02 Apr 2020

Hazard Statements: Acute Tox. 3; H301 , Skin Corr. 1B; H314 , Eye Dam. 1; H318 , Acute Tox. 1; H332

Appendix B: Rationale for selection of metal species

arsenic {arsenic compounds, with the exception of those specified elsewhere in this Annex}

Worst case species based on risk phrases

cadmium {cadmium sulfide}

Worst case species based on risk phrases

copper {dicopper oxide; copper (I) oxide}

Most likely common species

lead {lead compounds with the exception of those specified elsewhere in this Annex}

Worst case species based on risk phrases

mercury {compounds of mercury (with the exception of mercuric sulfide and those listed separately in this Annex)}

Worst case species based on risk phrases

nickel {nickel dihydroxide}

Worst case species based on risk phrases



selenium {selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex}

Worst case species based on risk phrases

zinc {zinc oxide}

Worst case species based on risk phrases

antimony {antimony compounds, with the exception of the tetroxide (Sb₂O₄), pentoxide (Sb₂O₅), trisulphide (Sb₂S₃), pentasulphide (Sb₂S₅) and those specified elsewhere in this Annex}

Worst case species based on risk phrases

molybdenum {molybdenum(VI) oxide}

Worst case species based on risk phrases

barium {barium oxide}

most likely species

Appendix C: Version

HazWasteOnline Classification Engine: **WM3 1st Edition v1.2.GB - Oct 2021**

HazWasteOnline Classification Engine Version: 2026.26.6955.12551 (26 Jan 2026)

HazWasteOnline Database: 2026.27.6959.12557 (27 Jan 2026)

This classification utilises the following guidance and legislation:

WM3 v1.2.GB - Waste Classification - 1st Edition v1.2.GB - Oct 2021

CLP Regulation - Regulation 1272/2008/EC of 16 December 2008

1st ATP - Regulation 790/2009/EC of 10 August 2009

2nd ATP - Regulation 286/2011/EC of 10 March 2011

3rd ATP - Regulation 618/2012/EU of 10 July 2012

4th ATP - Regulation 487/2013/EU of 8 May 2013

Correction to 1st ATP - Regulation 758/2013/EU of 7 August 2013

5th ATP - Regulation 944/2013/EU of 2 October 2013

6th ATP - Regulation 605/2014/EU of 5 June 2014

WFD Annex III replacement - Regulation 1357/2014/EU of 18 December 2014

Revised List of Waste 2014 - Decision 2014/955/EU of 18 December 2014

7th ATP - Regulation 2015/1221/EU of 24 July 2015

8th ATP - Regulation (EU) 2016/918 of 19 May 2016

9th ATP - Regulation (EU) 2016/1179 of 19 July 2016

10th ATP - Regulation (EU) 2017/776 of 4 May 2017

HP14 amendment - Regulation (EU) 2017/997 of 8 June 2017

13th ATP - Regulation (EU) 2018/1480 of 4 October 2018

14th ATP - Regulation (EU) 2020/217 of 4 October 2019

15th ATP - Regulation (EU) 2020/1182 of 19 May 2020

The Chemicals (Health and Safety) and Genetically Modified Organisms (Contained Use)(Amendment etc.) (EU Exit)

Regulations 2020 - UK: 2020 No. 1567 of 16th December 2020

The Waste and Environmental Permitting etc. (Legislative Functions and Amendment etc.) (EU Exit) Regulations 2020 - UK:

2020 No. 1540 of 16th December 2020

GB MCL List - version 1.1 of 09 June 2021

GB MCL List v2.0 - version 2.0 of 20th October 2023

GB MCL List v3.0 - version 3.0 of 11th January 2024

GB MCL List v4.0 - version 4.0 of 2nd March 2024

GB MCL List v5.0 - version 5.0 of 26th June 2024

GB MCL List v6.0 - version 6.0 of 15th February 2025

GB MCL List v7.0 - version 7.0 of 23rd September 2025

15.0 GROUND GAS MONITORING TEST RESULTS

GROUND INVESTIGATION SPECIALISTS LIMITED

CONTRACT: Cyfartha North, Merthyr Tydfil
CLIENT: British Land
ENGINEER:

SHEET 1 OF 1
JOB No. 2735

DATE: 04.12.25 AIR TEMP: 7 °C ATMOSPHERIC PRESSURE: 984 mbar TECHNICIAN: HSL

METEOROLOGICAL AND OUTSIDE SITE CONDITIONS

STATE OF GROUND	Dry	Moist	Wet	Saturated
WIND	Calm	Light	Moderate	Strong
CLOUD COVER	None	Scattered	Broken	Overcast
PRECIPITATION	None	Slight	Moderate	Heavy

BH ID	FLOW (l/hr)	START TIME	TIME ELAPSED (mins)	METHANE (% v/v)	CARBON DIOXIDE (% V/V)	OXYGEN (% v/v)	CARBON MONOXIDE (PPM)	HYDROGEN SULPHIDE (PPM)	WATER LEVEL (mbgl)
CP1	-0.1	14:36	0.5	<0.1	0.3	19.6	0	0	3.82
			1	<0.1	<0.1	19.5	0	0	
			2	<0.1	<0.1	19.5	0	0	
			3	<0.1	<0.1	19.5	0	0	
			4						
			5						
CP2	0	14:48	0.5	<0.1	<0.1	20.2	0	0	6.31
			1	<0.1	<0.1	20.2	0	0	
			2	<0.1	<0.1	20.2	0	0	
			3	<0.1	<0.1	20.2	0	0	
			4						
			5						
			0.5						
			1						
			2						
			3						
			4						
			5						
			0.5						
			1						
			2						
			3						
			4						
			5						
			0.5						
			1						
			2						
			3						
			4						
			5						
			0.5						
			1						
			2						
			3						
			4						
			5						

REMARKS:

FIG No.

GROUND INVESTIGATION SPECIALISTS LIMITED

CONTRACT: Cyfartha North, Merthyr Tydfil
CLIENT: British Land
ENGINEER:

SHEET 1 OF 1
JOB No. 2735

DATE: 11.12.25 AIR TEMP: 10 °C ATMOSPHERIC PRESSURE: 992-990 mbar TECHNICIAN: HSL

METEOROLOGICAL AND OUTSIDE SITE CONDITIONS

STATE OF GROUND	Dry	Moist	Wet	Saturated
WIND	Calm	Light	Moderate	Strong
CLOUD COVER	None	Scattered	Broken	Overcast
PRECIPITATION	None	Slight	Moderate	Heavy

BH ID	FLOW (l/hr)	START TIME	TIME ELAPSED (mins)	METHANE (% v/v)	CARBON DIOXIDE (% V/V)	OXYGEN (% v/v)	CARBON MONOXIDE (PPM)	HYDROGEN SULPHIDE (PPM)	WATER LEVEL (mbgl)
CP1	0	11:25	0.5	<0.1	<0.1	20.3	0	0	3.86
			1	<0.1	<0.1	20.3	0	0	
			2	<0.1	<0.1	20.3	0	0	
			3	<0.1	<0.1	20.3	0	0	
			4	<0.1	<0.1	20.3	0	0	
			5	<0.1	<0.1	20.3	0	0	
CP2	0	11:11	0.5	<0.1	3.0	9.4	0	0	6.16
			1	<0.1	3.1	9.1	0	0	
			2	<0.1	3.1	9.0	0	0	
			3	<0.1	3.1	8.9	0	0	
			4	<0.1	3.1	9.0	0	0	
			5	<0.1	3.1	9.1	0	0	
			0.5						
			1						
			2						
			3						
			4						
			5						
			0.5						
			1						
			2						
			3						
			4						
			5						
			0.5						
			1						
			2						
			3						
			4						
			5						
			0.5						
			1						
			2						
			3						
			4						
			5						

REMARKS:

FIG No.

GROUND INVESTIGATION SPECIALISTS LIMITED

CONTRACT: Cyfartha North, Merthyr Tydfil

CLIENT: British Land

ENGINEER:

SHEET 1 OF 1

JOB No. 2735

DATE: 26.1.26

AIR TEMP: 4 °C

ATMOSPHERIC PRESSURE: 974 mbar

TECHNICIAN: HSL

METEOROLOGICAL AND OUTSIDE SITE CONDITIONS

STATE OF GROUND	Dry	Moist	Wet	Saturated
WIND	Calm	Light	Moderate	Strong
CLOUD COVER	None	Scattered	Broken	Overcast
PRECIPITATION	None	Slight	Moderate	Heavy

BH ID	FLOW (l/hr)	START TIME	TIME ELAPSED (mins)	METHANE (% v/v)	CARBON DIOXIDE (% V/V)	OXYGEN (% v/v)	CARBON MONOXIDE (PPM)	HYDROGEN SULPHIDE (PPM)	WATER LEVEL (mbgl)
CP1	-0.1	11:40	0.5	<0.1	<0.1	2.9	0	0	4.12
			1	<0.1	<0.1	2.3	0	0	
			2	<0.1	<0.1	2.3	0	0	
			3	<0.1	<0.1	2.2	0	0	
			4	<0.1	<0.1	2.2	0	0	
			5	<0.1	<0.1	2.2	0	0	
CP2	-0.2	12:08	0.5	<0.1	4.4	4.0	0	0	6.27
			1	<0.1	4.5	3.7	0	0	
			2	<0.1	4.5	3.6	0	0	
			3	<0.1	4.5	3.6	0	0	
			4	<0.1	4.5	3.6	0	0	
			5	<0.1	4.5	3.6	0	0	
			0.5						
			1						
			2						
			3						
			4						
			5						
			0.5						
			1						
			2						
			3						
			4						
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			1						
			2						
			3						
			4						
			5						
			0.5						
			1						
			2						
			3						
			4						
			5						

REMARKS:

FIG No.

16.0 HISTORICAL MAPS

Map legend available at:
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Site Details:

CYFARTHFA RETAIL PARK,
SWANSEA ROAD, MERTHYR
TYDFIL, CF48 1HY

Client Ref: Cyfarthfa
Report Ref: GS-Z9V-LGE-8HA-AFE
Grid Ref: 303821, 206755

Map Name: County Series Town Plan

Map date: 1875

Scale: 1:500

Printed at: 1:1,000



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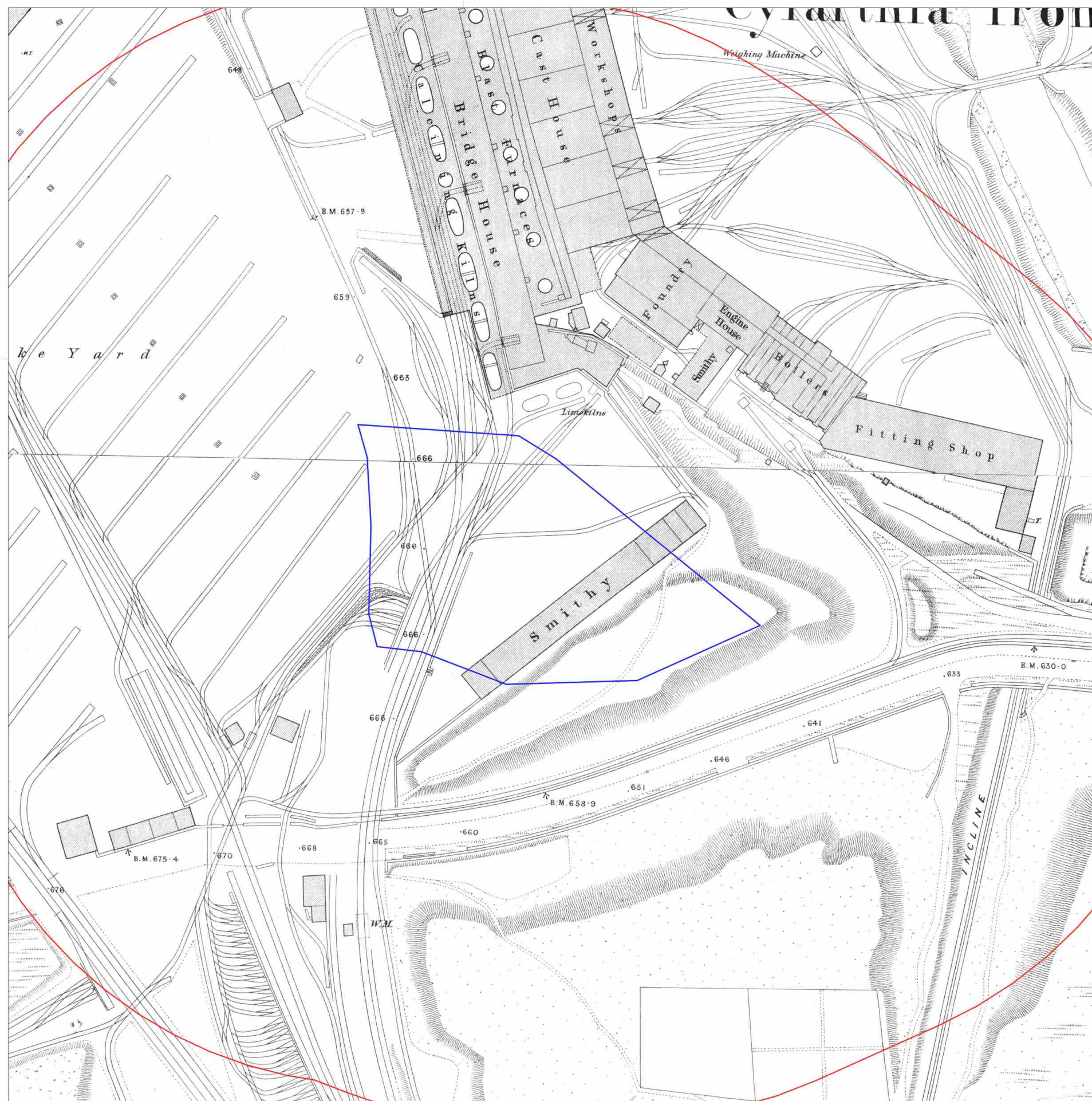


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Client Ref: Cyfarthfa
Report Ref: GS-Z9V-LGE-8HA-AFE
Grid Ref: 303821, 206755

Map Name: County Series

Map date: 1900

Scale: 1:2,500

Printed at: 1:2,500



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Revised 1900
Edition N/A
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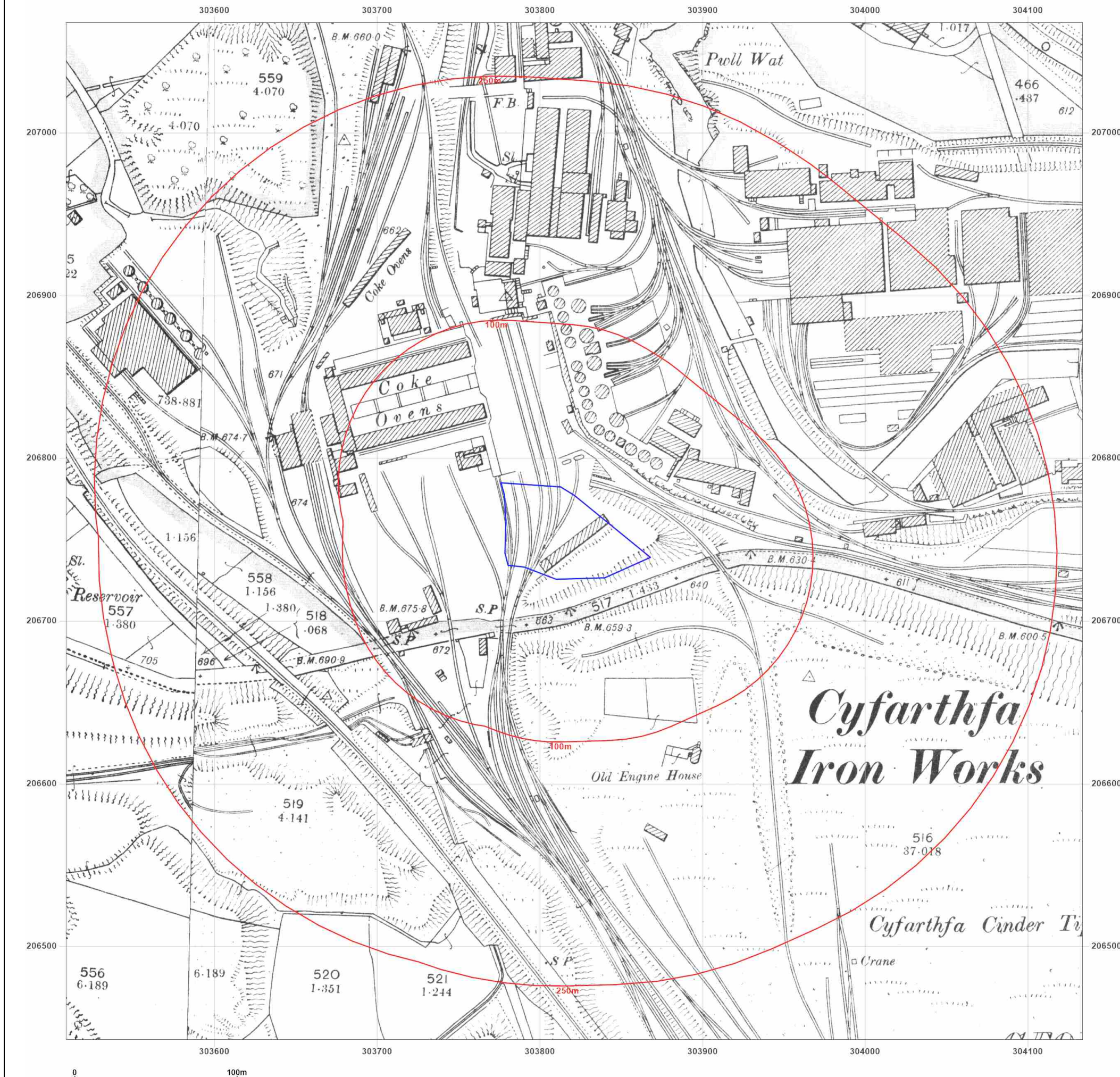


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Client Ref: Cyfarthfa
Report Ref: GS-Z9V-LGE-8HA-AFE
Grid Ref: 303821, 206755

Map Name: County Series

Map date: 1904

Scale: 1:2,500

Printed at: 1:2,500



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Client Ref: Cyfarthfa
Report Ref: GS-Z9V-LGE-8HA-AFE
Grid Ref: 303821, 206755

Map Name: County Series

Map date: 1919

Scale: 1:2,500

Printed at: 1:2,500



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Surveyed 1919
Revised 1919
Edition N/A
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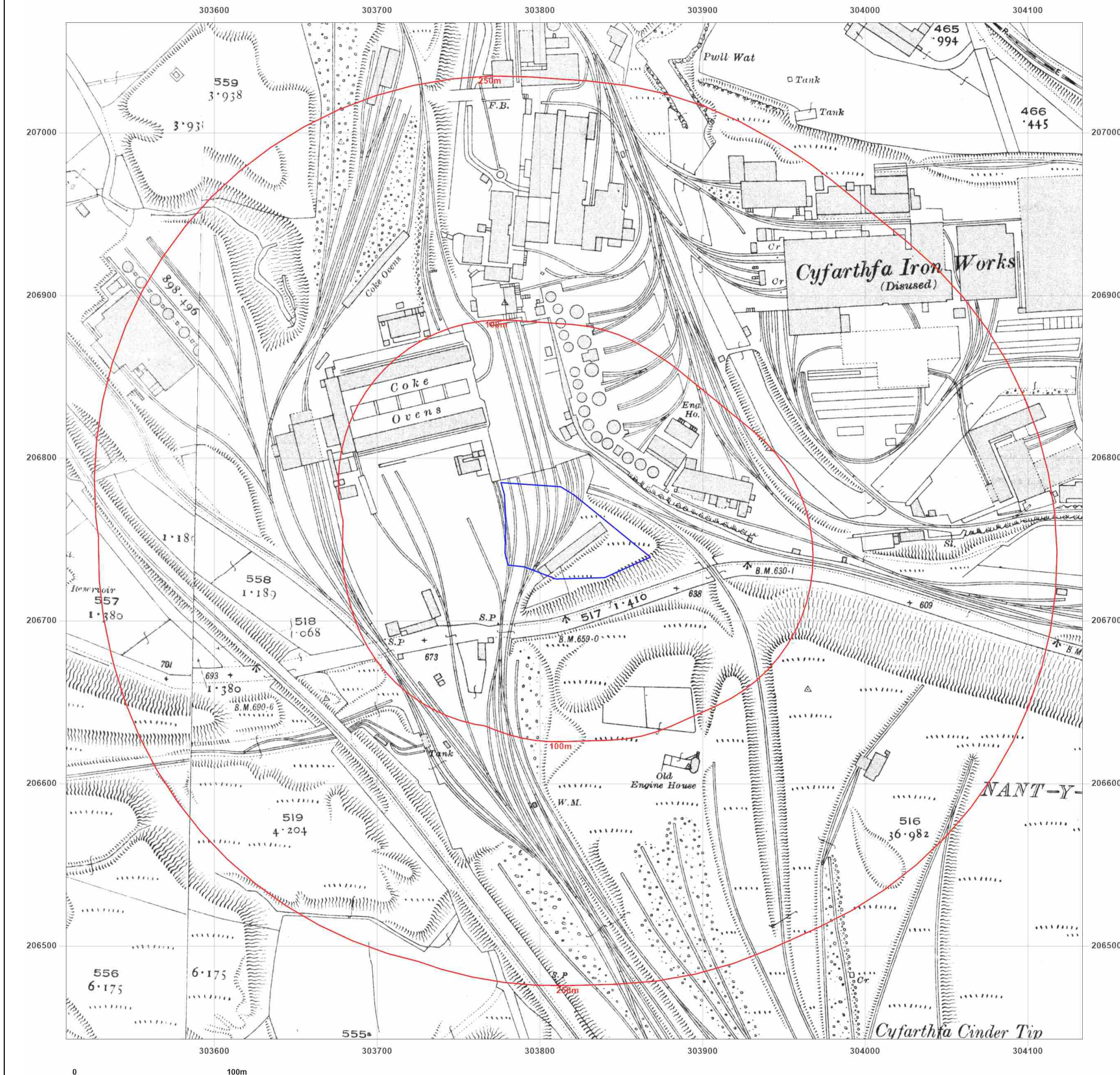


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TYDFIL, CF48 1HY

Client Ref: Cyfarthfa
Report Ref: GS-Z9V-LGE-8HA-AFE
Grid Ref: 303821, 206755

Map Name: National Grid

Map date: 1956-1957

Scale: 1:1,250

Printed at: 1:2,000



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Edition N/A
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Surveyed 1956
Revised 1956
Edition N/A
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Levelled 1950

Surveyed 1957
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Client Ref: Cyfarthfa
Report Ref: GS-Z9V-LGE-8HA-AFE
Grid Ref: 303821, 206755

Map Name: National Grid

Map date: 1958-1964

Scale: 1:2,500

Printed at: 1:2,500



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

Surveyed 1962
Revised 1962
Edition 1964
Copyright 1964
Levelled 1957

Surveyed 1957
Revised 1957
Edition 1958
Copyright N/A
Levelled 1950

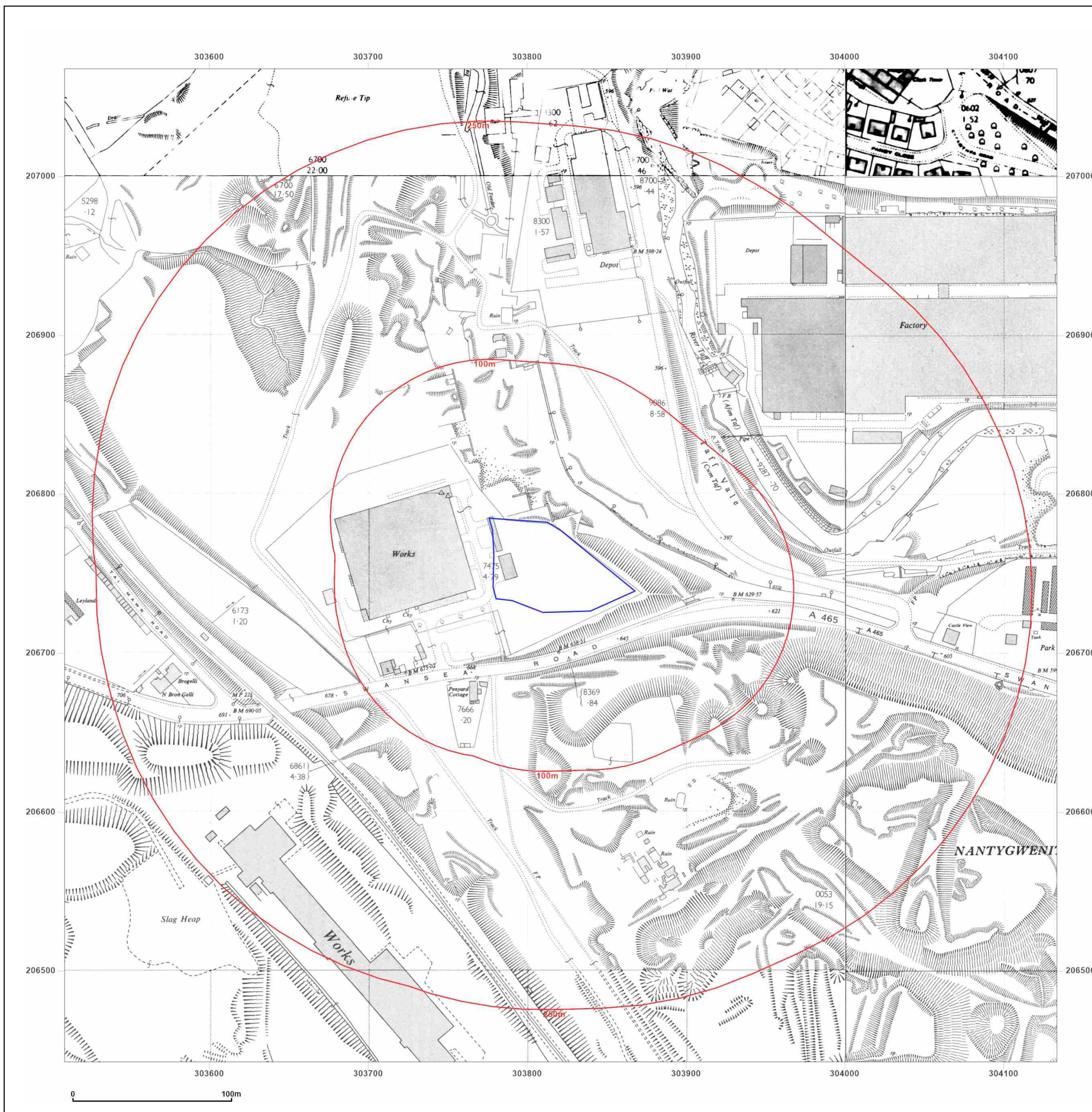


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Client Ref: Cyfarthfa
Report Ref: GS-Z9V-LGE-8HA-AFE
Grid Ref: 303821, 206755

Map Name: National Grid

Map date: 1964

Scale: 1:2,500

Printed at: 1:2,500



Surveyed 1963
Revised 1963
Edition 1964
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Levelled 1957

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

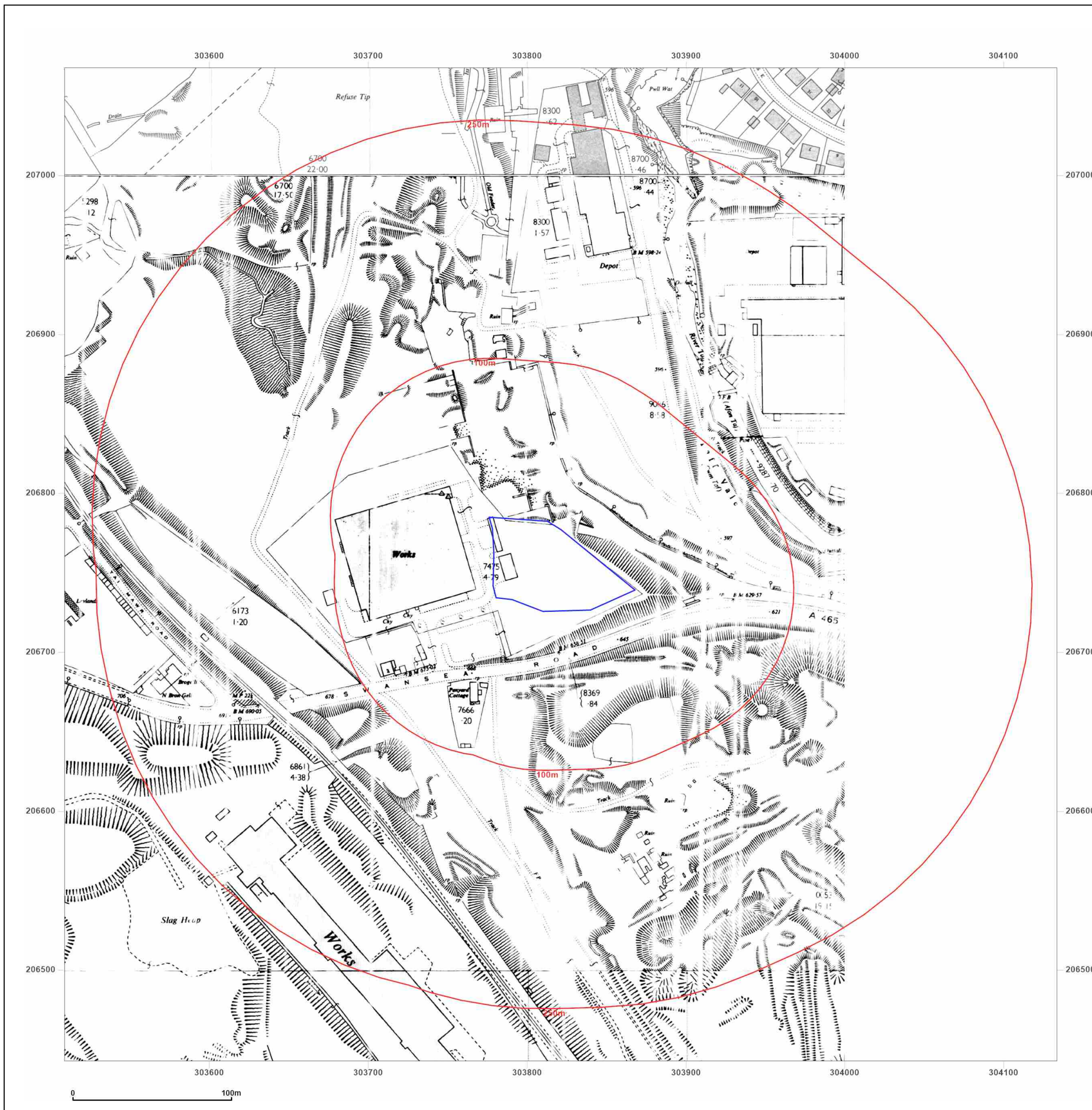


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Client Ref: Cyfarthfa
Report Ref: GS-Z9V-LGE-8HA-AFE
Grid Ref: 303821, 206755

Map Name: National Grid

Map date: 1972-1975

Scale: 1:1,250

Printed at: 1:2,000



Surveyed 1974
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Levelled 1964

Surveyed 1957
Revised 1971
Edition N/A
Copyright 1972
Levelled 1964

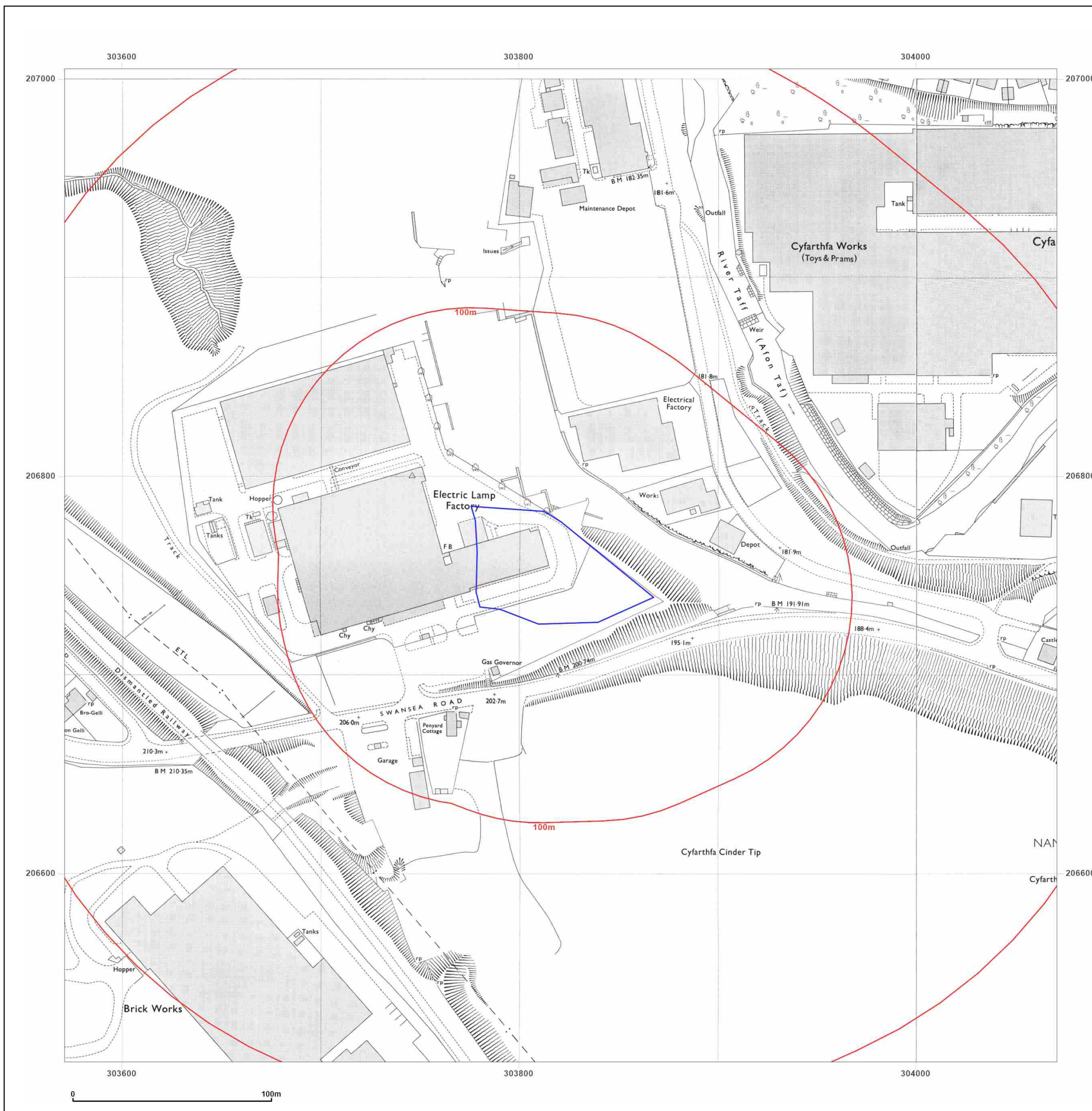


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Client Ref: Cyfarthfa
Report Ref: GS-Z9V-LGE-8HA-AFE
Grid Ref: 303821, 206755

Map Name: National Grid

Map date: 1984-1989

Scale: 1:1,250

Printed at: 1:2,000



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Surveyed 1964
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Client Ref: Cyfarthfa
Report Ref: GS-Z9V-LGE-8HA-AFE
Grid Ref: 303821, 206755

Map Name: National Grid

Map date: 1989-1993

Scale: 1:1,250

Printed at: 1:2,000



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Revised 1989
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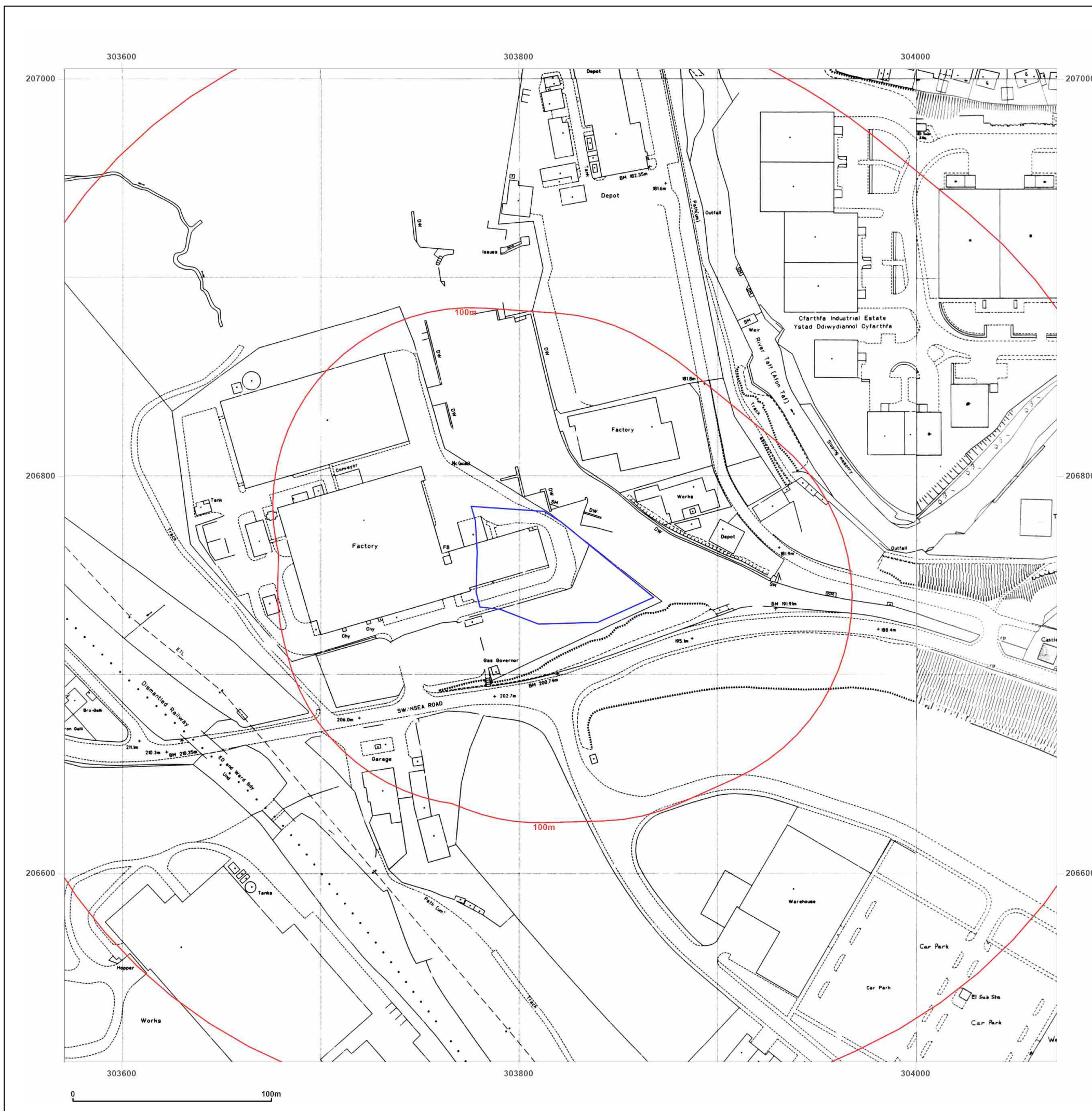


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Client Ref: Cyfarthfa
Report Ref: GS-Z9V-LGE-8HA-AFE
Grid Ref: 303821, 206755

Map Name: National Grid

Map date: 1990-1995

Scale: 1:1,250

Printed at: 1:2,000



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Client Ref: Cyfarthfa
Report Ref: GS-Z9V-LGE-8HA-AFE
Grid Ref: 303821, 206755

Map Name: National Grid

Map date: 1990-1995

Scale: 1:1,250

Printed at: 1:2,000



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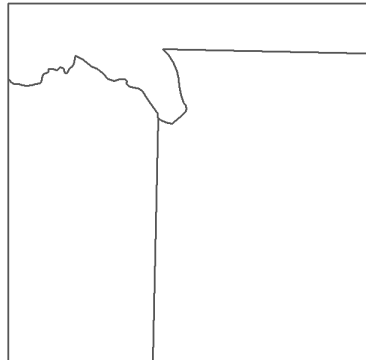
Site Details:

CYFARTHFA RETAIL PARK,
SWANSEA ROAD, MERTHYR
TYDFIL, CF48 1HY

Client Ref: Cyfarthfa
Report Ref: GS-Z9V-LGE-8HA-AFE
Grid Ref: 303821, 206755

Map Name: County Series
Map date: 1875-1878
Scale: 1:10,560
Printed at: 1:10,560



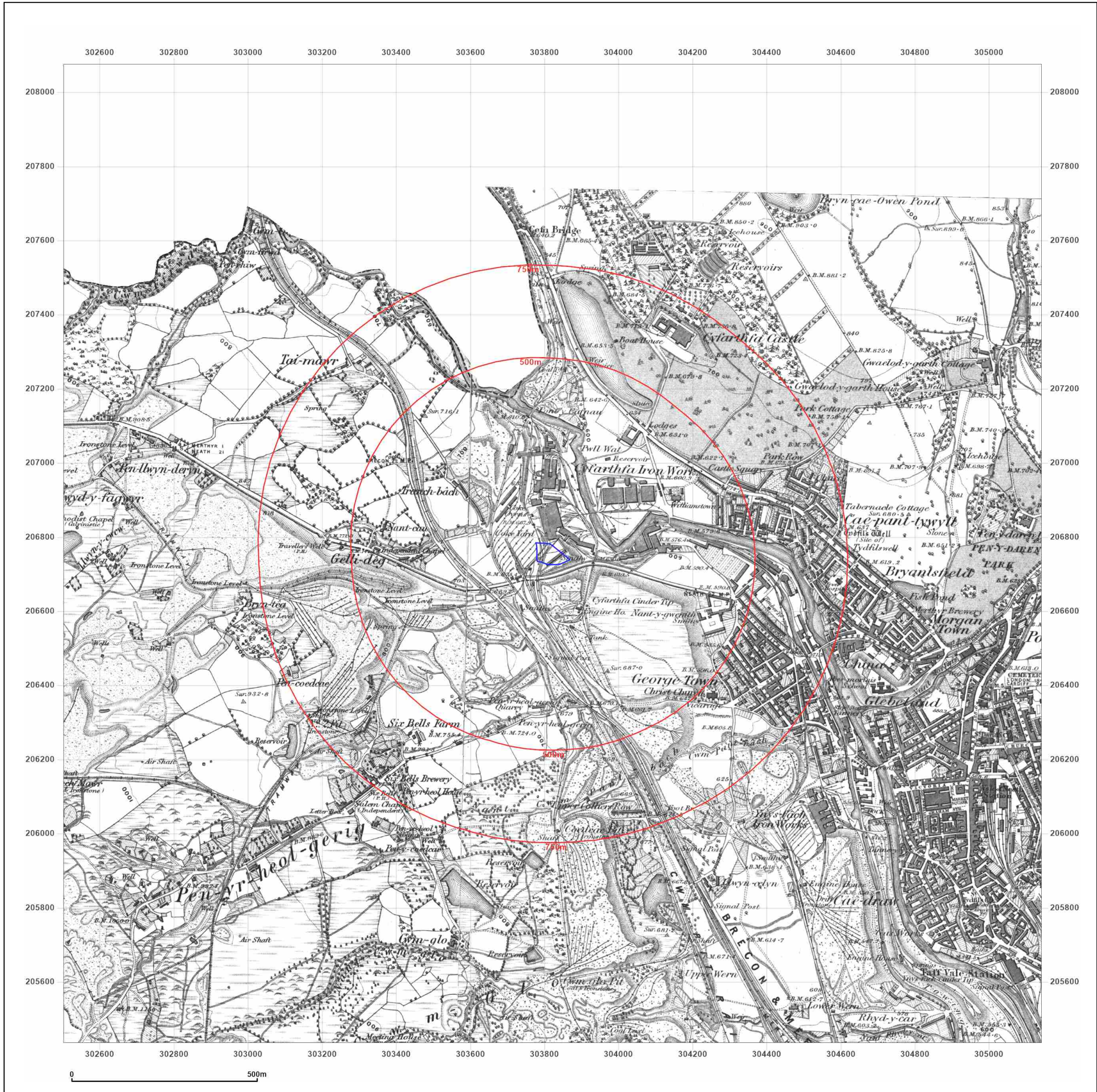


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Client Ref:

Report Ref:

Grid Ref:

Cyfarthfa

GS-Z9V-LGE-8HA-AFE

303821, 206755

Map Name:

Map date:

Scale:

Printed at:

County Series

1884-1885

1:10,560

1:10,560

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Revised 1885
Edition N/A
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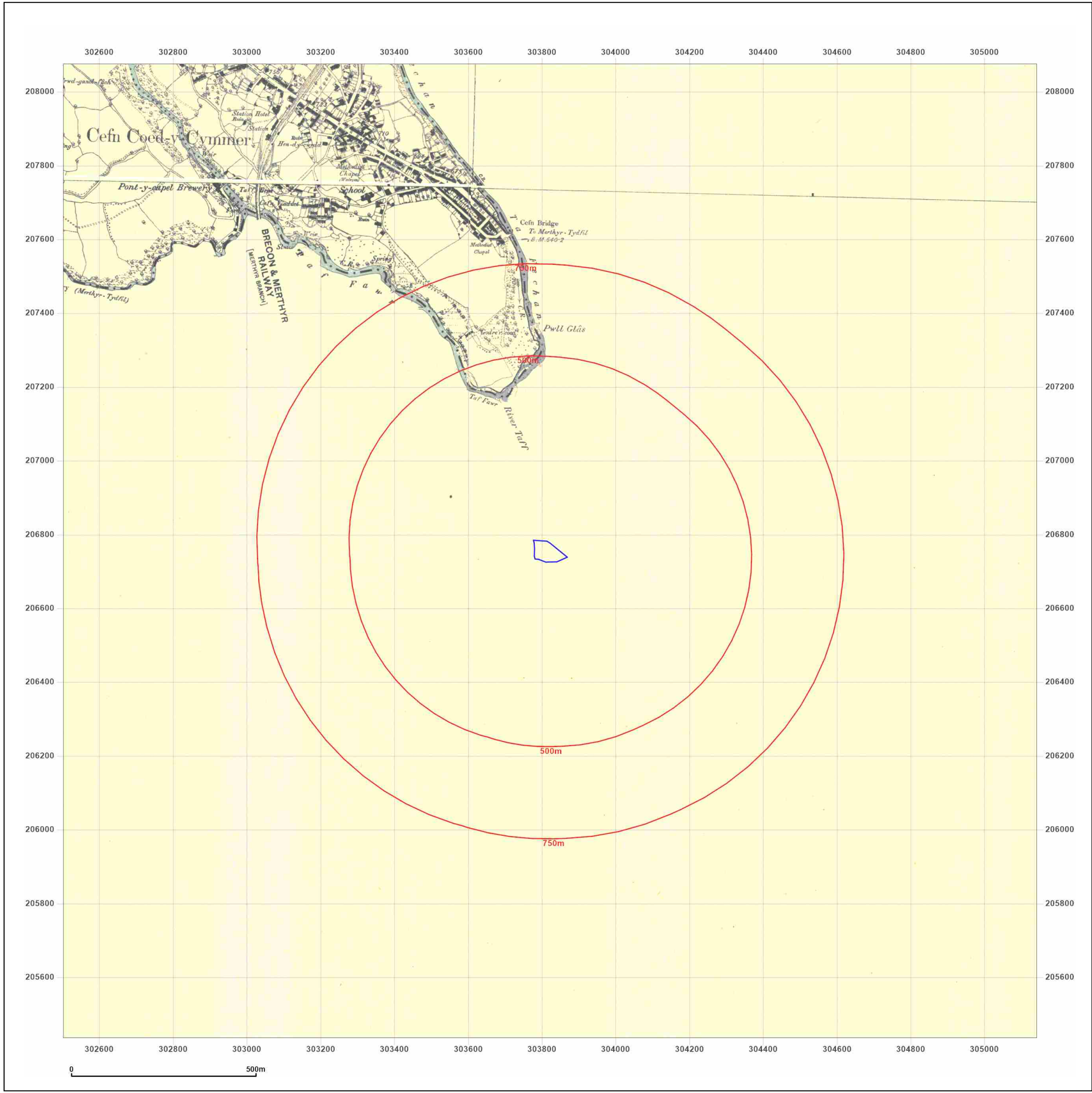
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The map shows a historical area in Merthyr Tydfil, Wales. The Brecon & Merthyr Railway is a prominent feature, running through the center. The map includes a grid with coordinates from 302600 to 305000 and 205600 to 208000. A red circle with a radius of 750m is centered on a point near the railway. A blue polygon is also visible on the map.

Site Details:

CYFARTHFA RETAIL PARK,
SWANSEA ROAD, MERTHYR
TYDFIL, CF48 1HY

Client Ref: Cyfarthfa
Report Ref: GS-Z9V-LGE-8HA-AFE
Grid Ref: 303821, 206755

Map Name: County Series

Map date: 1901-1903

Scale: 1:10,560

Printed at: 1:10,560



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Surveyed 1885
Revised 1901
Edition N/A
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Surveyed 1875
Revised 1901
Edition N/A
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Surveyed 1884
Revised 1903
Edition N/A
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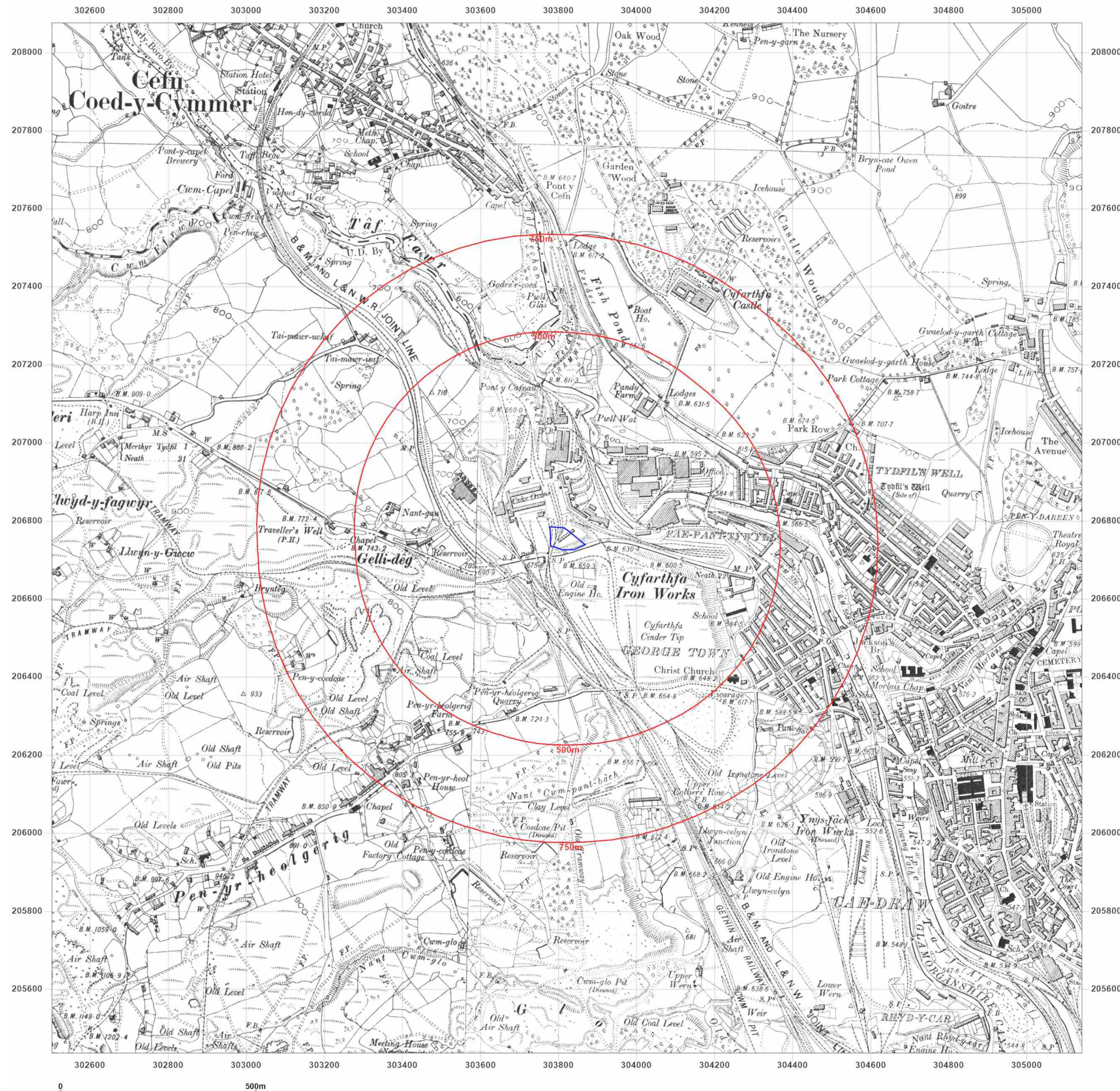


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SWANSEA ROAD, MERTHYR
TYDFIL, CF48 1HY

Client Ref: Cyfarthfa
Report Ref: GS-Z9V-LGE-8HA-AFE
Grid Ref: 303821, 206755

Map Name: County Series

Map date: 1901-1905

Scale: 1:10,560

Printed at: 1:10,560



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Revised 1903
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Surveyed 1884
Revised 1903
Edition N/A
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Surveyed 1884
Revised 1901
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Levelled N/A

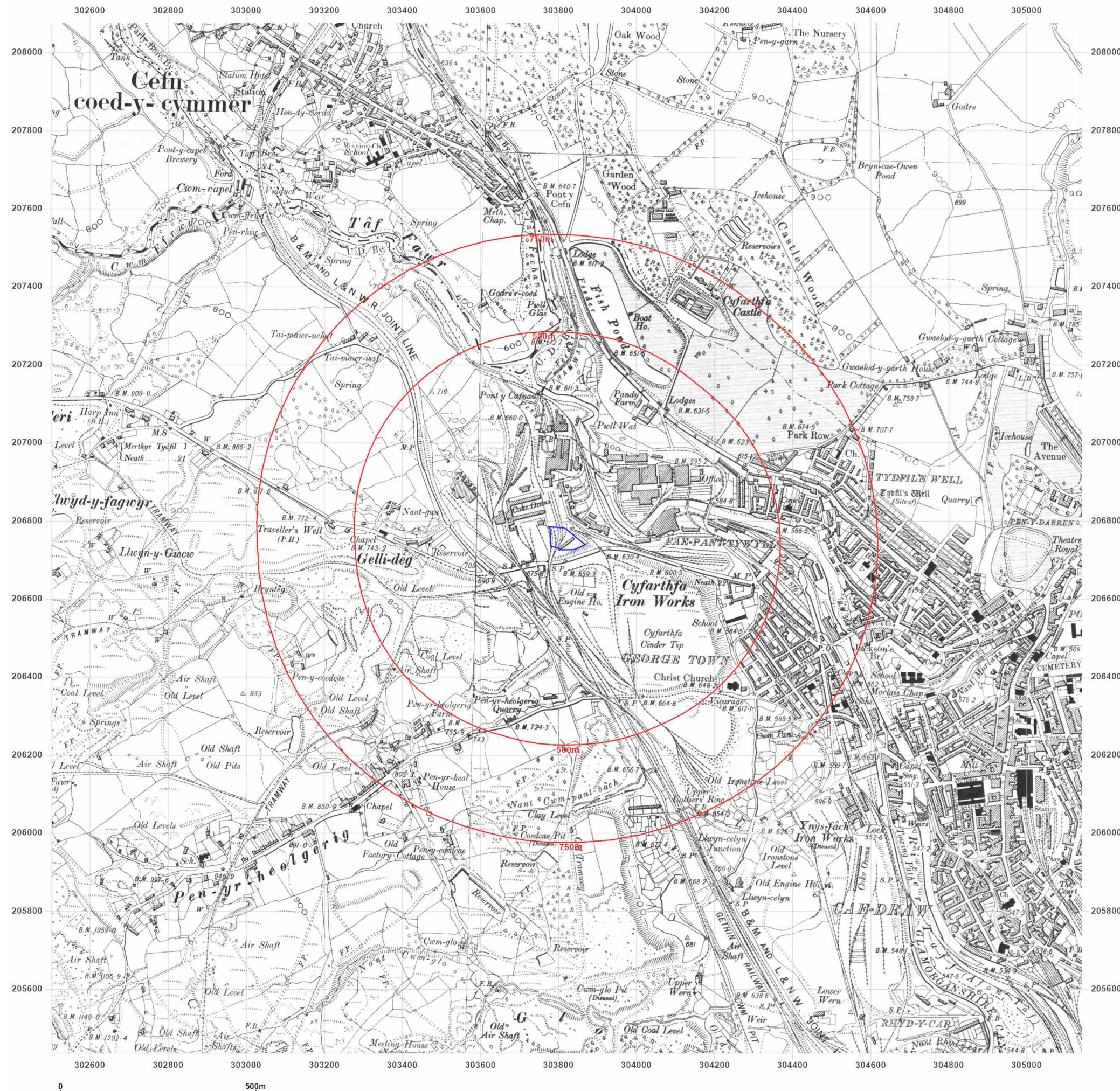


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SWANSEA ROAD, MERTHYR
TYDFIL, CF48 1HY

Client Ref:

Cyfarthfa

Report Ref:

GS-Z9V-LGE-8HA-AFE

Grid Ref:

303821, 206755

Map Name:

County Series

Map date:

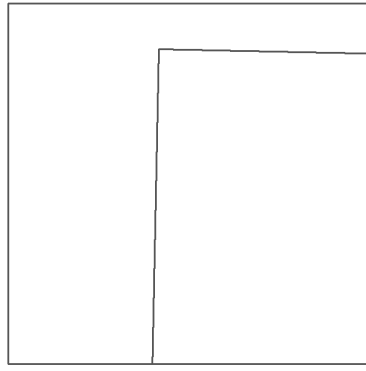
1915

Scale:

1:10,560

Printed at:

1:10,560



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Revised 1915
Edition N/A
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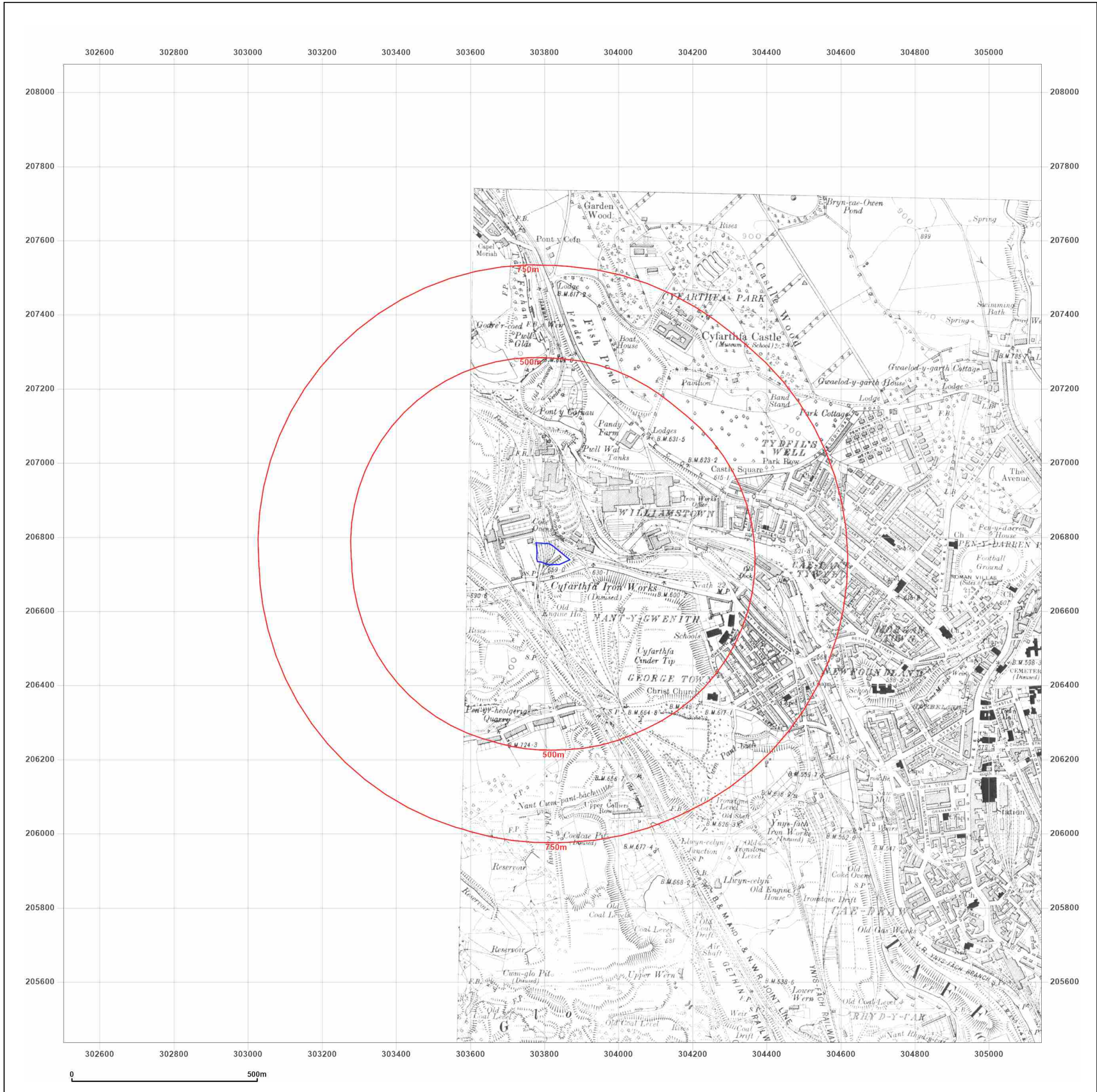


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Site Details:

CYFARTHFA RETAIL PARK,
SWANSEA ROAD, MERTHYR
TYDFIL, CF48 1HY

Client Ref: Cyfarthfa
Report Ref: GS-Z9V-LGE-8HA-AFE
Grid Ref: 303821, 206755

Map Name: County Series

Map date: 1921-1922

Scale: 1:10,560

Printed at: 1:10,560



Surveyed 1885
Revised 1915
Edition 1922
Copyright N/A
Levelled 1914

Surveyed 1884
Revised 1914
Edition 1921
Copyright N/A
Levelled 1914

Surveyed 1922
Revised N/A
Edition N/A
Copyright N/A
Levelled N/A

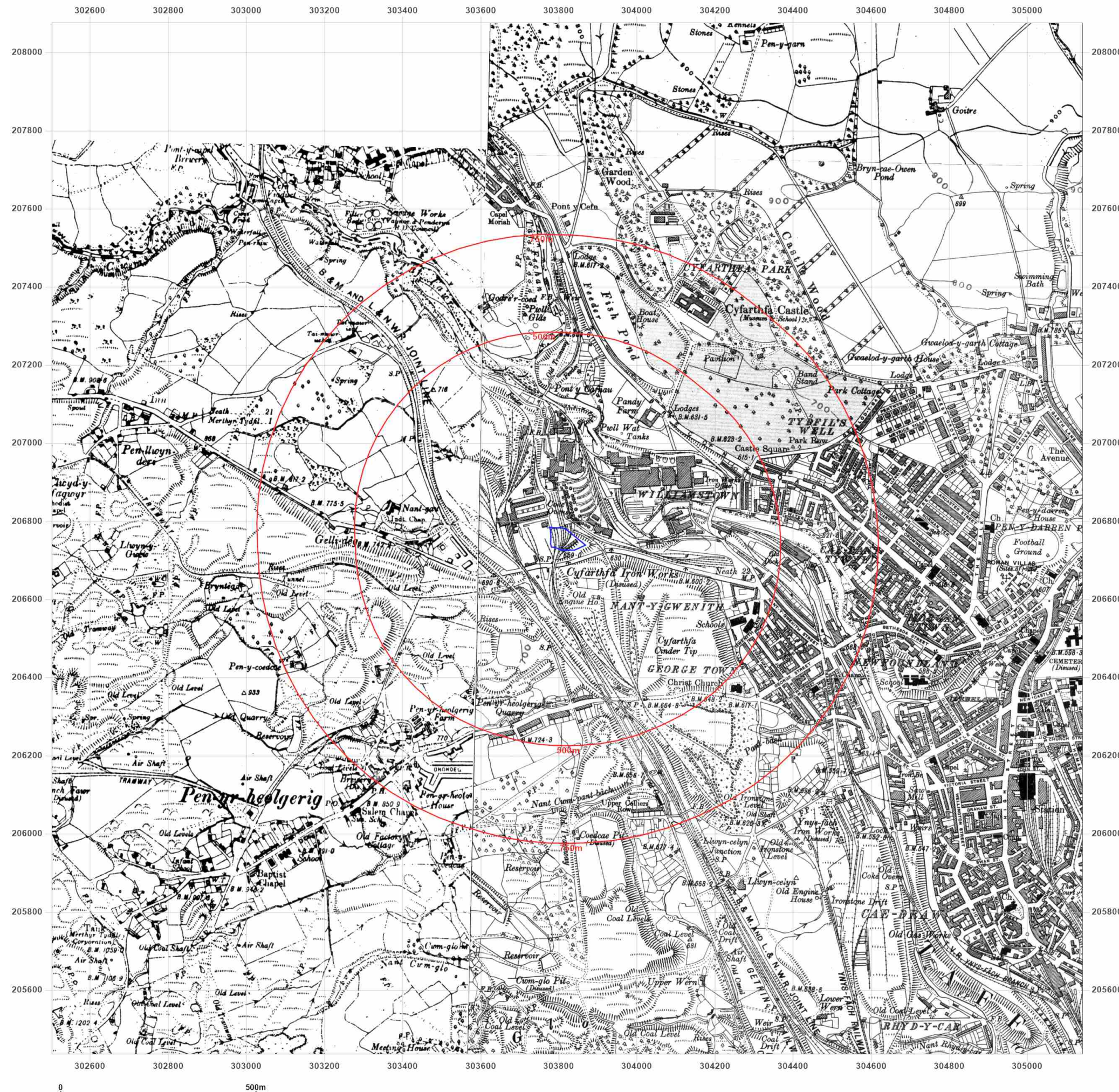


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Site Details:

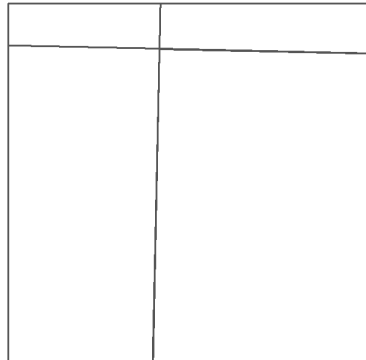
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SWANSEA ROAD, MERTHYR
TYDFIL, CF48 1HY

Client Ref: Cyfarthfa
Report Ref: GS-Z9V-LGE-8HA-AFE
Grid Ref: 303821, 206755

Map Name: County Series
Map date: 1921-1922
Scale: 1:10,560
Printed at: 1:10,560



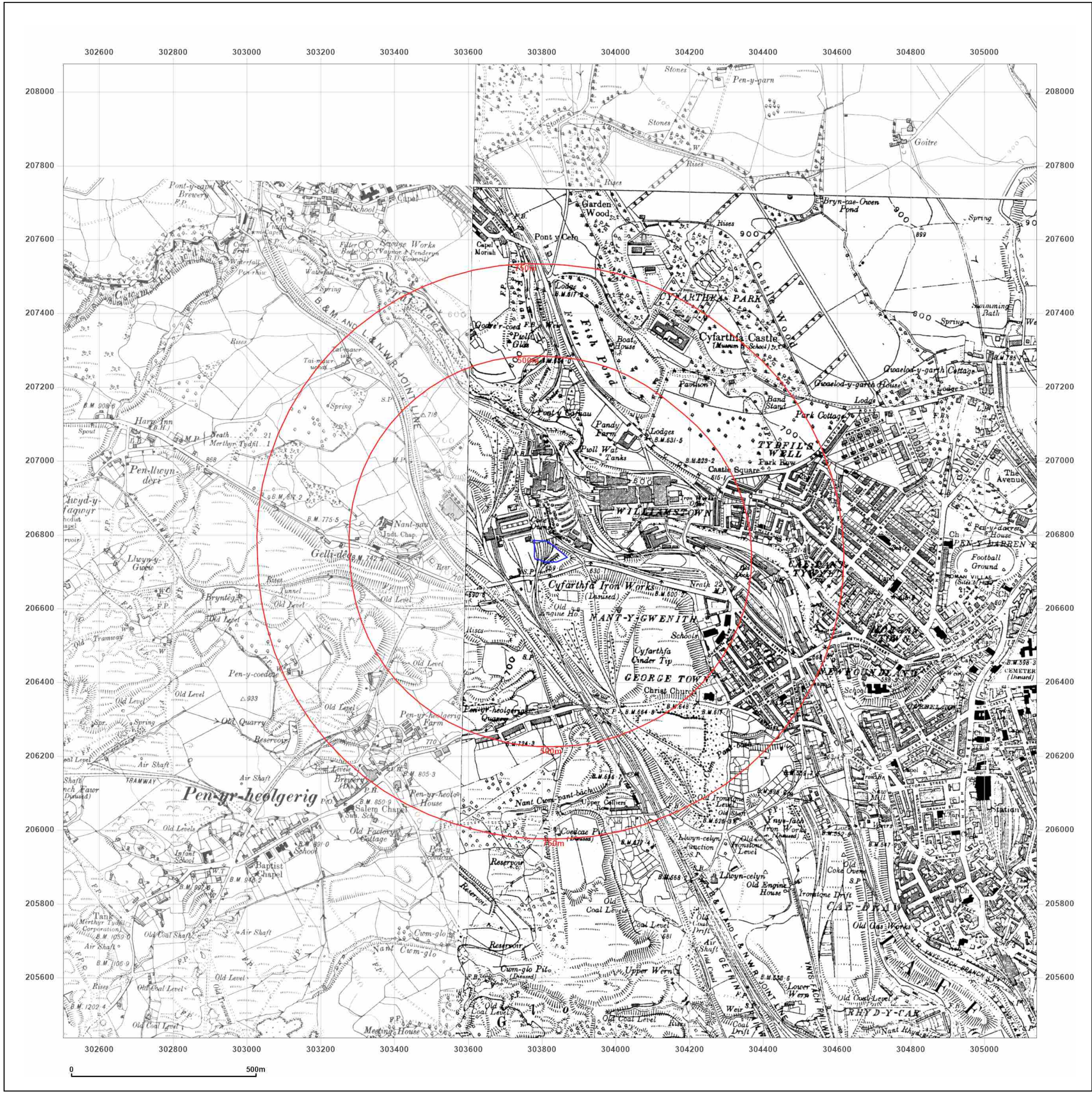
Surveyed 1885
Revised 1922
Edition 1922
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Surveyed 1884
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TYDFIL, CF48 1HY

Client Ref:

Cyfarthfa

Report Ref:

GS-Z9V-LGE-8HA-AFE

Grid Ref:

303821, 206755

Map Name:

County Series

Map date:

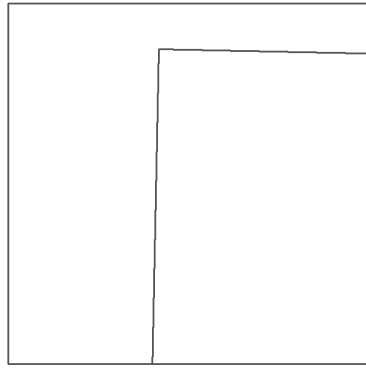
1938

Scale:

1:10,560

Printed at:

1:10,560



Surveyed 1884
Revised 1938
Edition 1938
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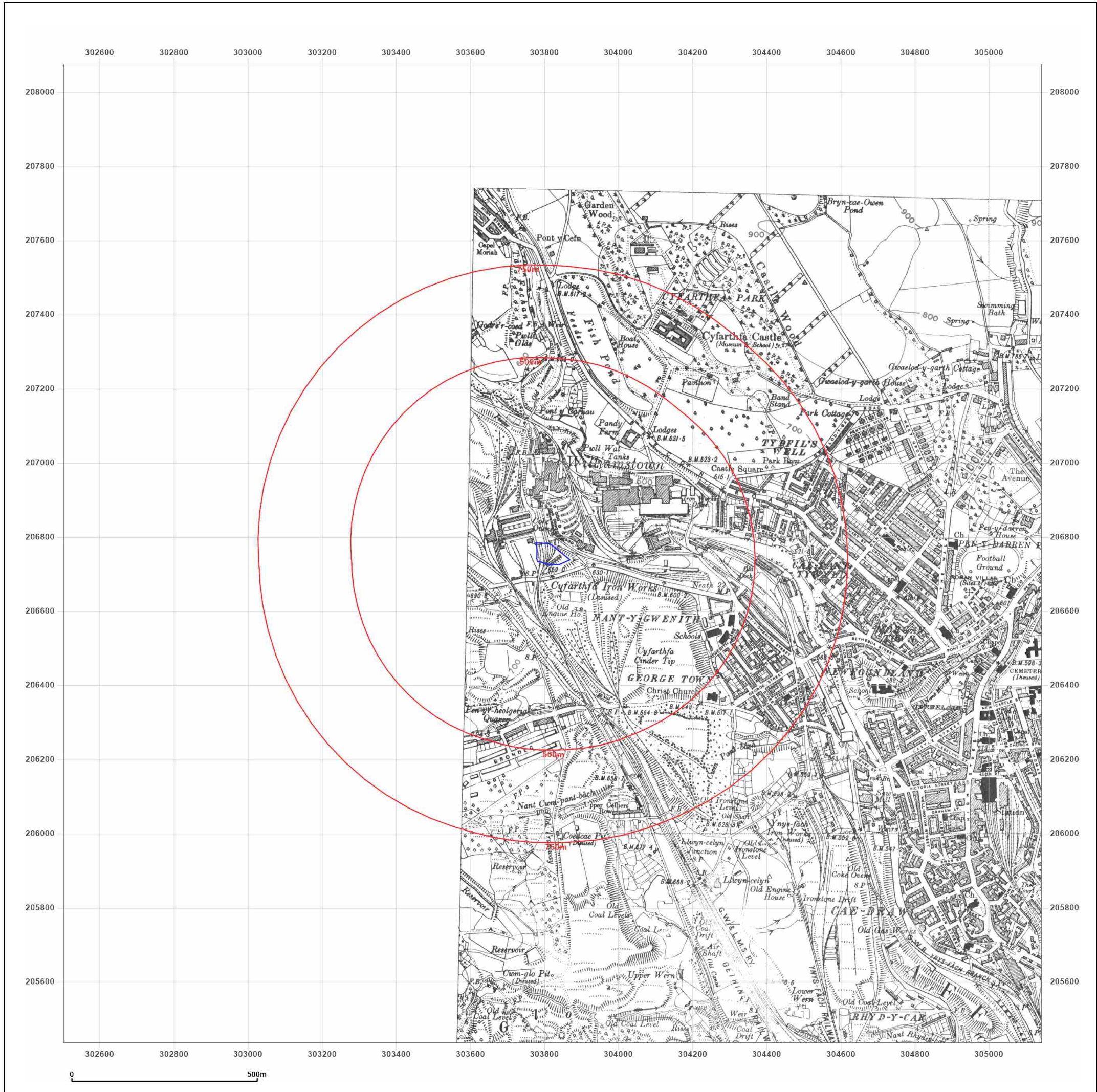


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Site Details:

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SWANSEA ROAD, MERTHYR
TYDFIL, CF48 1HY

Client Ref: Cyfarthfa
Report Ref: GS-Z9V-LGE-8HA-AFE
Grid Ref: 303821, 206755

Map Name: County Series

Map date: 1948

Scale: 1:10,560

Printed at: 1:10,560



Surveyed 1885
Revised 1948
Edition N/A
Copyright N/A
Levelled N/A

Surveyed 1884
Revised 1948
Edition N/A
Copyright N/A
Levelled N/A

Surveyed 1884
Revised 1948
Edition N/A
Copyright N/A
Levelled N/A

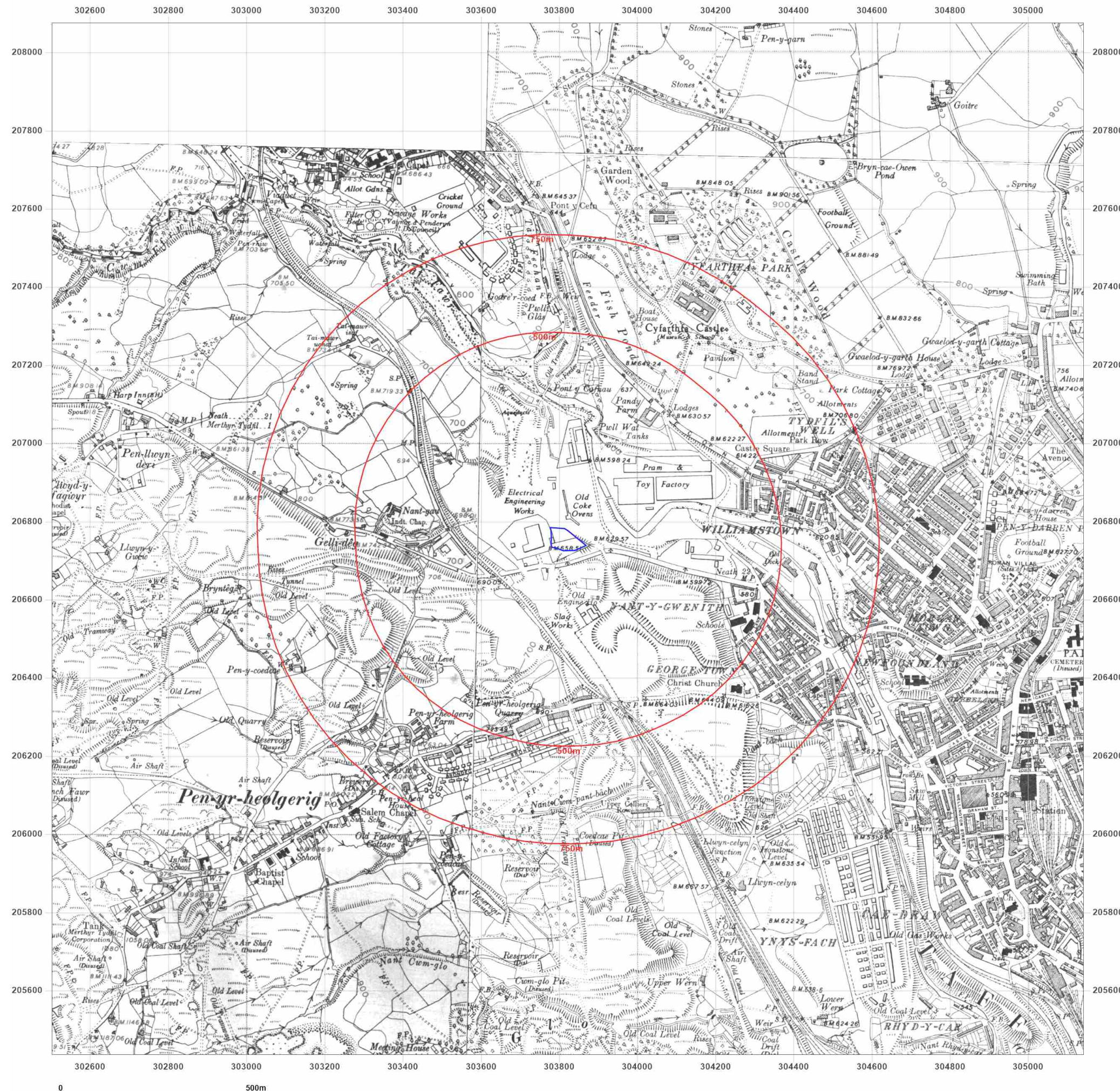


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Site Details:

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TYDFIL, CF48 1HY

Client Ref: Cyfarthfa
Report Ref: GS-Z9V-LGE-8HA-AFE
Grid Ref: 303821, 206755

Map Name: National Grid

Map date: 1976-1977

Scale: 1:10,000

Printed at: 1:10,000



Surveyed 1975
Revised 1976
Edition N/A
Copyright N/A
Levelled N/A

Surveyed 1974
Revised 1977
Edition N/A
Copyright 1977
Levelled 1975

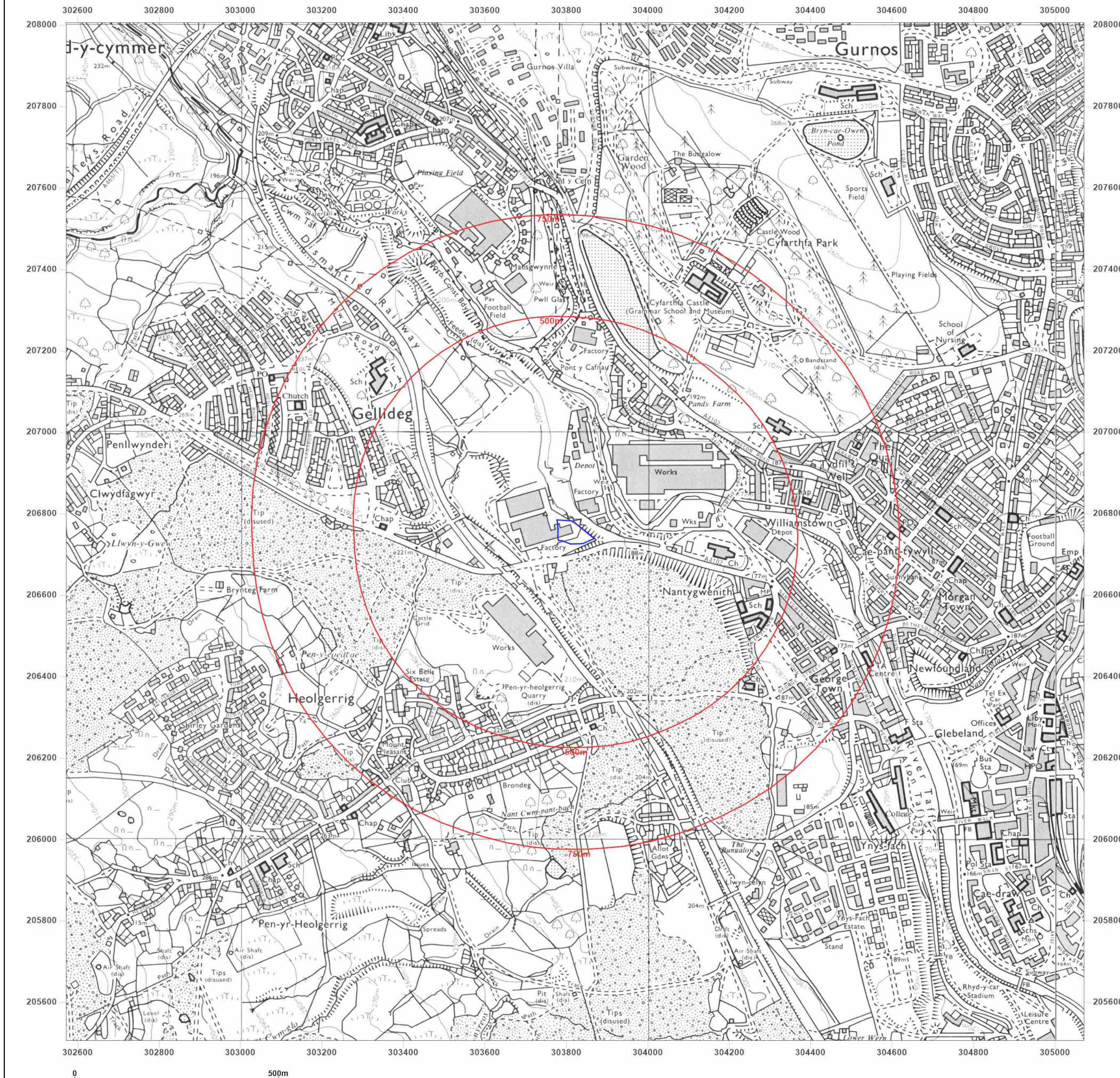


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Site Details:

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SWANSEA ROAD, MERTHYR
TYDFIL, CF48 1HY

Client Ref:

Cyfarthfa

Report Ref:

GS-Z9V-LGE-8HA-AFE

Grid Ref:

303821, 206755

Map Name:

National Grid

Map date:

1992

Scale:

1:10,000

Printed at:

1:10,000



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Edition N/A
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Surveyed 1989
Revised 1992
Edition N/A
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Map legend available at:
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The map displays the Cyfarthfa retail park site, highlighted in blue, located at the intersection of Swansea Road and Tydfil. The site is surrounded by residential areas, including Gurnos, Gellideg, and Heolgerrig. The map shows various features such as roads, railways, and topographical details. A red circle indicates a 500m radius around the site. Grid coordinates are shown along the edges of the map.

Site Details:

CYFARTHFA RETAIL PARK,
SWANSEA ROAD, MERTHYR
TYDFIL, CF48 1HY

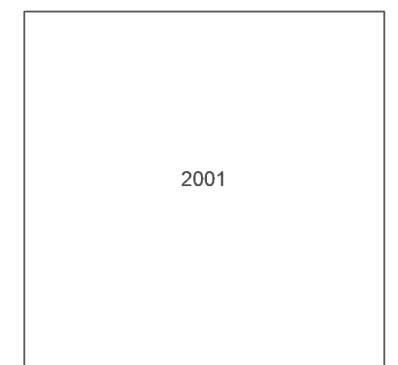
Client Ref: Cyfarthfa
Report Ref: GS-Z9V-LGE-8HA-AFE
Grid Ref: 303821, 206755

Map Name: National Grid

Map date: 2001

Scale: 1:10,000

Printed at: 1:10,000

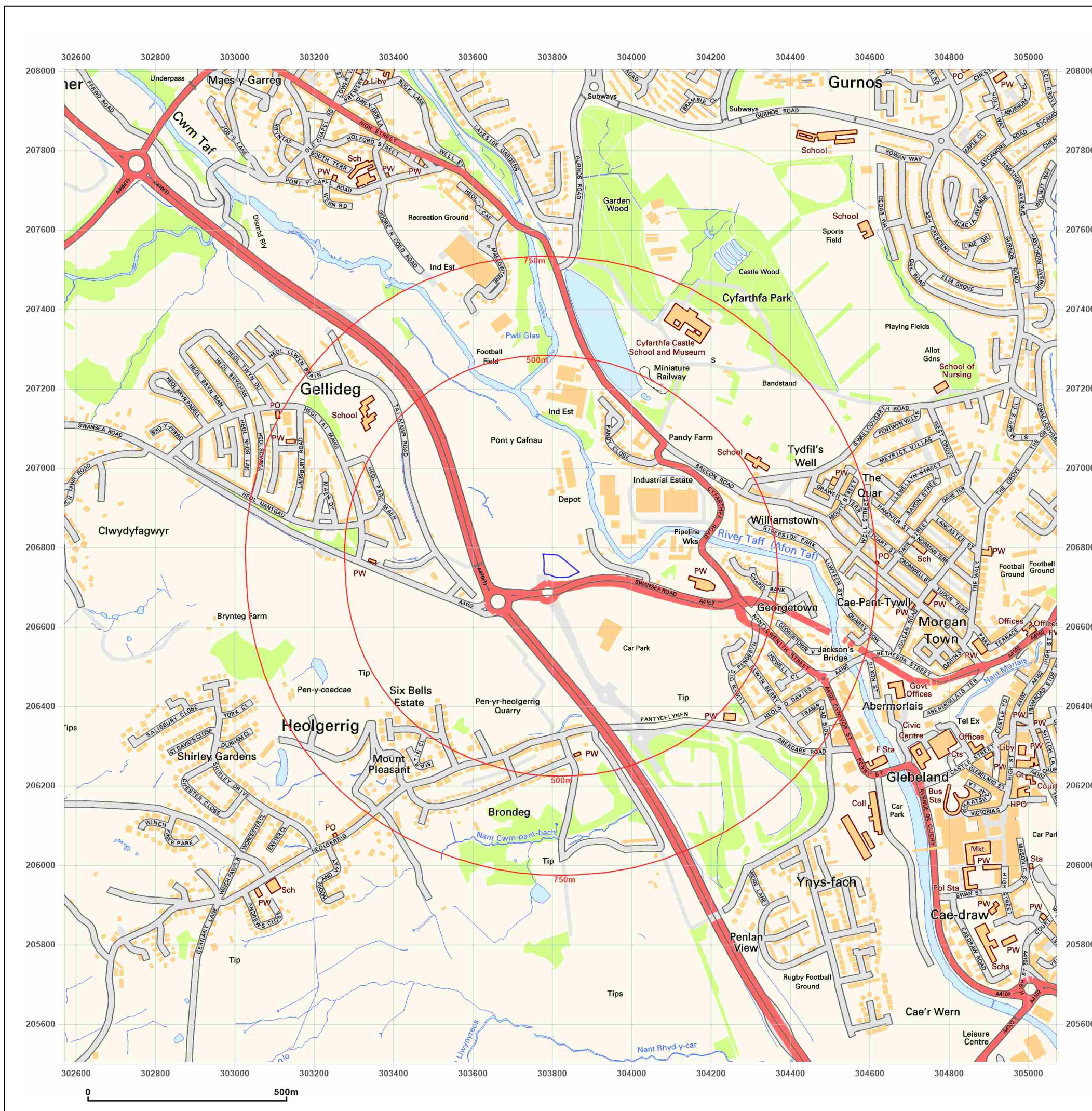


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Site Details:

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SWANSEA ROAD, MERTHYR
TYDFIL, CF48 1HY

Client Ref: Cyfarthfa
Report Ref: GS-Z9V-LGE-8HA-AFE
Grid Ref: 303821, 206755

Map Name: National Grid

Map date: 2010

Scale: 1:10,000

Printed at: 1:10,000



2010

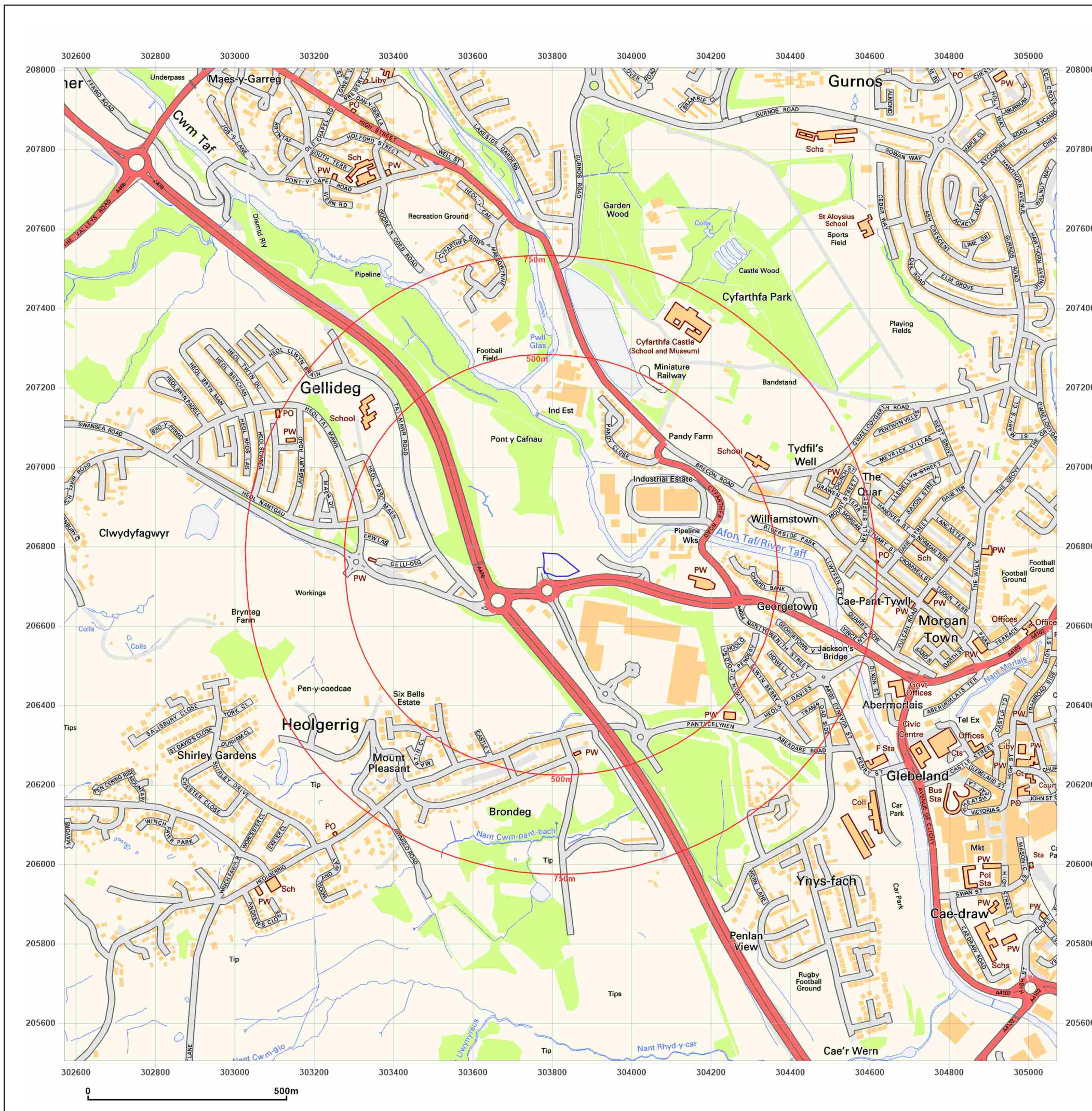


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Site Details:

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SWANSEA ROAD, MERTHYR
TYDFIL, CF48 1HY

Client Ref: Cyfarthfa
Report Ref: GS-Z9V-LGE-8HA-AFE
Grid Ref: 303821, 206755

Map Name: National Grid

Map date: 2025

Scale: 1:10,000

Printed at: 1:10,000



2025

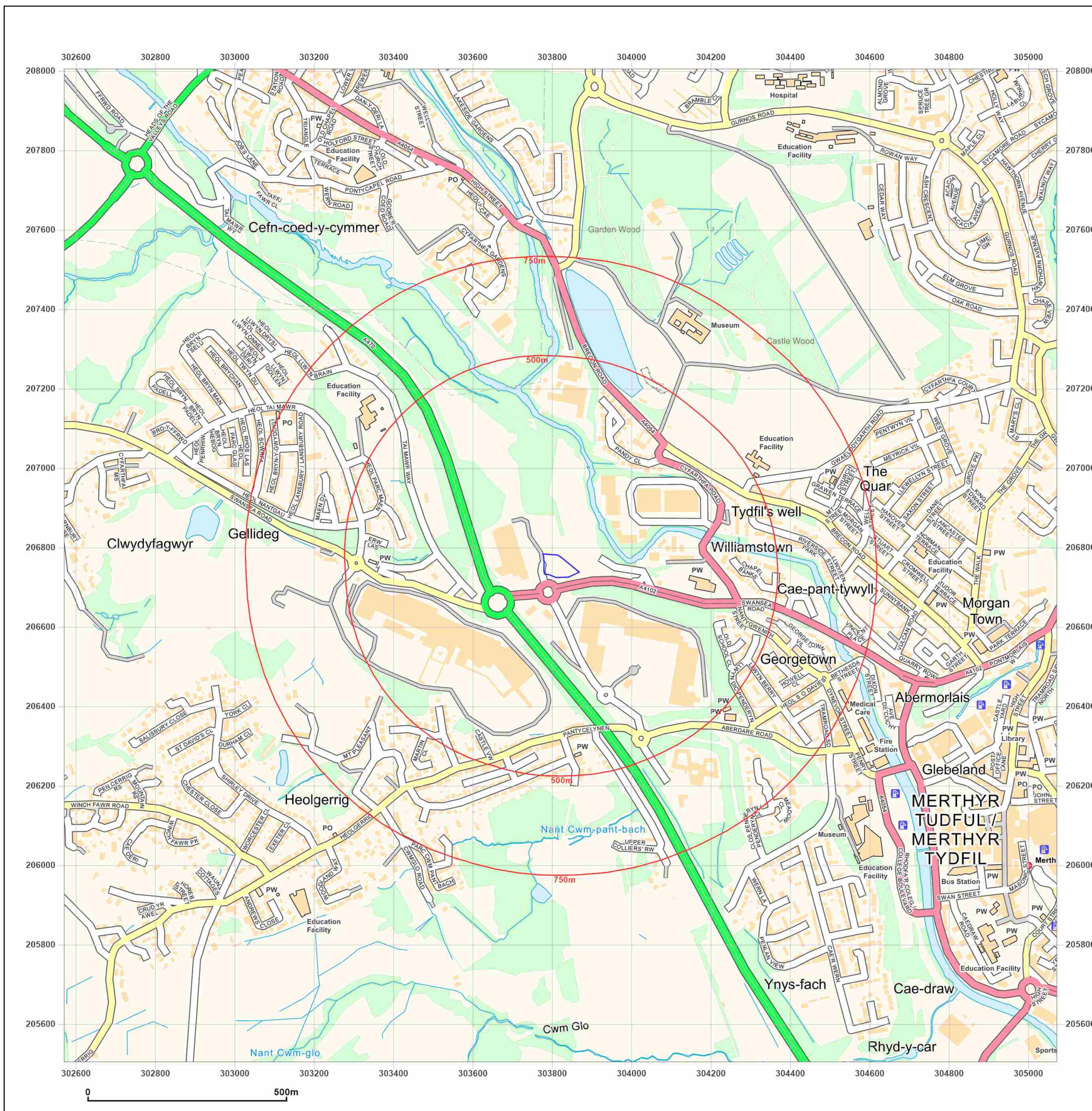


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17.0 GROUNDSURE ENVIRO+GEOINSIGHT REPORT NO: GS-DQV-ILF-
FGX-R65

CYFARTHFA RETAIL PARK, SWANSEA ROAD, MERTHYR TYDFIL, CF48 1HY

Order Details

Date: 24/11/2025
Your ref: Cyfarthfa
Our Ref: GS-DQV-ILF-FGX-R65

Site Details

Location: 303813 206752
Area: 0.36 ha
Authority: [Merthyr Tudful - Merthyr Tydfil County Borough Council](#) ↗



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 >	19	33	101	145	-
26 >	1.2 >	Historical tanks >	0	4	27	15	-
28 >	1.3 >	Historical energy features >	1	2	2	8	-
29	1.4	Historical petrol stations	0	0	0	0	-
29 >	1.5 >	Historical garages >	0	2	4	0	-
30 >	1.6 >	Historical military land >	1	0	0	0	-
Page	Section	Past land use - un-grouped >	On site	0-50m	50-250m	250-500m	500-2000m
31 >	2.1 >	Historical industrial land uses >	26	41	131	190	-
45 >	2.2 >	Historical tanks >	0	4	38	17	-
48 >	2.3 >	Historical energy features >	1	3	2	26	-
49	2.4	Historical petrol stations	0	0	0	0	-
49 >	2.5 >	Historical garages >	0	2	5	0	-
Page	Section	Waste and landfill >	On site	0-50m	50-250m	250-500m	500-2000m
51	3.1	Active or recent landfill	0	0	0	0	-
51	3.2	Historical landfill (BGS records)	0	0	0	0	-
52 >	3.3 >	Historical landfill (LA/mapping records) >	0	0	2	1	-
52	3.4	Historical landfill (EA/NRW records)	0	0	0	0	-
52	3.5	Historical waste sites	0	0	0	0	-
52 >	3.6 >	Licensed waste sites >	0	0	0	2	-
53 >	3.7 >	Waste exemptions >	0	0	3	2	-
Page	Section	Current industrial land use >	On site	0-50m	50-250m	250-500m	500-2000m
55 >	4.1 >	Recent industrial land uses >	1	0	17	-	-
57 >	4.2 >	National Geographic Database (NGD) - Current or recent tanks >	0	0	4	-	-
57	4.3	Current or recent petrol stations	0	0	0	0	-
57	4.4	Electricity cables	0	0	0	0	-
57	4.5	Gas pipelines	0	0	0	0	-



58	4.6	Sites determined as Contaminated Land	0	0	0	0	-
58	4.7	Control of Major Accident Hazards (COMAH)	0	0	0	0	-
58	4.8	Regulated explosive sites	0	0	0	0	-
58	4.9	Hazardous substance storage/usage	0	0	0	0	-
58	4.10	Historical licensed industrial activities (IPC)	0	0	0	0	-
59	4.11	Licensed industrial activities (Part A(1))	0	0	0	0	-
59 >	4.12 >	<u>Licensed pollutant release (Part A(2)/B) ></u>	0	0	0	1	-
59	4.13	Radioactive Substance Authorisations	0	0	0	0	-
59 >	4.14 >	<u>Licensed Discharges to controlled waters ></u>	0	1	1	10	-
61	4.15	Pollutant release to surface waters (Red List)	0	0	0	0	-
61	4.16	Pollutant release to public sewer	0	0	0	0	-
62	4.17	List 1 Dangerous Substances	0	0	0	0	-
62 >	4.18 >	<u>List 2 Dangerous Substances ></u>	0	0	0	1	-
62 >	4.19 >	<u>Pollution Incidents (EA/NRW) ></u>	0	1	5	10	-
64	4.20	Pollution inventory substances	0	0	0	0	-
64	4.21	Pollution inventory waste transfers	0	0	0	0	-
64	4.22	Pollution inventory radioactive waste	0	0	0	0	-
Page	Section	<u>Hydrogeology ></u>	On site	0-50m	50-250m	250-500m	500-2000m
65 >	5.1 >	<u>Superficial aquifer ></u>	Identified (within 500m)				
67 >	5.2 >	<u>Bedrock aquifer ></u>	Identified (within 500m)				
68 >	5.3 >	<u>Groundwater vulnerability ></u>	Identified (within 50m)				
69	5.4	Groundwater vulnerability- soluble rock risk	None (within 0m)				
69	5.5	Groundwater vulnerability- local information	None (within 0m)				
70	5.6	Groundwater abstractions	0	0	0	0	0
71 >	5.7 >	<u>Surface water abstractions ></u>	0	0	0	0	2
71	5.8	Potable abstractions	0	0	0	0	0
72	5.9	Source Protection Zones	0	0	0	0	-
72	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



73 >	6.1 >	Water Network (OS MasterMap) >	0	0	10	-	-
74 >	6.2 >	Surface water features >	0	0	2	-	-
75 >	6.3 >	WFD Surface water body catchments >	1	-	-	-	-
75 >	6.4 >	WFD Surface water bodies >	0	0	1	-	-
75 >	6.5 >	WFD Groundwater bodies >	1	-	-	-	-
Page	Section	River and coastal flooding >	On site	0-50m	50-250m	250-500m	500-2000m
77	7.1	Risk of flooding from rivers and the sea	None (within 50m)				
78 >	7.2 >	Historical Flood Events >	0	0	1	-	-
78	7.3	Flood Defences	0	0	0	-	-
78	7.4	Areas Benefiting from Flood Defences	0	0	0	-	-
78	7.5	Flood Storage Areas	0	0	0	-	-
79	7.6	Flood Zone 2	None (within 50m)				
79	7.7	Flood Zone 3	None (within 50m)				
Page	Section	Surface water flooding >					
80 >	8.1 >	Surface water flooding >	1 in 30 year, 0.1m - 0.3m (within 50m)				
Page	Section	Groundwater flooding >					
82 >	9.1 >	Groundwater flooding >	Low (within 50m)				
Page	Section	Environmental designations >	On site	0-50m	50-250m	250-500m	500-2000m
83 >	10.1 >	Sites of Special Scientific Interest (SSSI) >	0	0	0	0	2
84	10.2	Conserved wetland sites (Ramsar sites)	0	0	0	0	0
84	10.3	Special Areas of Conservation (SAC)	0	0	0	0	0
84	10.4	Special Protection Areas (SPA)	0	0	0	0	0
84	10.5	National Nature Reserves (NNR)	0	0	0	0	0
85 >	10.6 >	Local Nature Reserves (LNR) >	0	0	0	0	1
85 >	10.7 >	Designated Ancient Woodland >	0	0	0	0	17
86	10.8	Biosphere Reserves	0	0	0	0	0
86	10.9	Forest Parks	0	0	0	0	0
86	10.10	Marine Conservation Zones	0	0	0	0	0
87	10.11	Green Belt	0	0	0	0	0



87	10.12	Proposed Ramsar sites	0	0	0	0	0
87	10.13	Possible Special Areas of Conservation (pSAC)	0	0	0	0	0
87	10.14	Potential Special Protection Areas (pSPA)	0	0	0	0	0
87	10.15	Nitrate Sensitive Areas	0	0	0	0	0
88	10.16	Nitrate Vulnerable Zones	0	0	0	0	0
89	10.17	SSSI Impact Risk Zones	0	-	-	-	-
89	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
90	11.1	World Heritage Sites	0	0	0	-	-
91	11.2	Area of Outstanding Natural Beauty	0	0	0	-	-
91	11.3	National Parks	0	0	0	-	-
91	11.4	Listed Buildings	0	0	0	-	-
91 >	11.5 >	Conservation Areas >	1	0	0	-	-
92 >	11.6 >	Scheduled Ancient Monuments >	1	0	0	-	-
92	11.7	Registered Parks and Gardens	0	0	0	-	-
Page	Section	Agricultural designations >	On site	0-50m	50-250m	250-500m	500-2000m
93 >	12.1 >	Agricultural Land Classification >	Grade 4 (within 250m)				
94	12.2	Open Access Land	0	0	0	-	-
94	12.3	Tree Felling Licences	0	0	0	-	-
94	12.4	Environmental Stewardship Schemes	0	0	0	-	-
95	12.5	Countryside Stewardship Schemes	0	0	0	-	-
Page	Section	Habitat designations	On site	0-50m	50-250m	250-500m	500-2000m
96	13.1	Priority Habitat Inventory	0	0	0	-	-
96	13.2	Habitat Networks	0	0	0	-	-
96	13.3	Open Mosaic Habitat	0	0	0	-	-
96	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
97 >	14.1 >	10k Availability >	Identified (within 500m)				
98 >	14.2 >	Artificial and made ground (10k) >	1	0	0	1	-

99 >	14.3 >	Superficial geology (10k) >	1	1	0	1	-
100	14.4	Landslip (10k)	0	0	0	0	-
101 >	14.5 >	Bedrock geology (10k) >	2	0	4	3	-
102 >	14.6 >	Bedrock faults and other linear features (10k) >	0	0	2	7	-
Page	Section	Geology 1:50,000 scale >	On site	0-50m	50-250m	250-500m	500-2000m
103 >	15.1 >	50k Availability >	Identified (within 500m)				
104 >	15.2 >	Artificial and made ground (50k) >	1	0	0	0	-
105 >	15.3 >	Artificial ground permeability (50k) >	1	0	-	-	-
106 >	15.4 >	Superficial geology (50k) >	1	0	1	1	-
107 >	15.5 >	Superficial permeability (50k) >	Identified (within 50m)				
107	15.6	Landslip (50k)	0	0	0	0	-
107	15.7	Landslip permeability (50k)	None (within 50m)				
108 >	15.8 >	Bedrock geology (50k) >	2	0	2	2	-
109 >	15.9 >	Bedrock permeability (50k) >	Identified (within 50m)				
109 >	15.10 >	Bedrock faults and other linear features (50k) >	0	0	2	4	-
Page	Section	Boreholes >	On site	0-50m	50-250m	250-500m	500-2000m
111 >	16.1 >	BGS Boreholes >	0	0	38	-	-
Page	Section	Natural ground subsidence >					
114 >	17.1 >	Shrink swell clays >	Very low (within 50m)				
115 >	17.2 >	Running sands >	Very low (within 50m)				
116 >	17.3 >	Compressible deposits >	Very low (within 50m)				
117 >	17.4 >	Collapsible deposits >	Very low (within 50m)				
118 >	17.5 >	Landslides >	Very low (within 50m)				
119 >	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
121 >	18.1 >	BritPits >	0	0	0	3	-
123 >	18.2 >	Surface ground workings >	5	13	71	-	-
126 >	18.3 >	Underground workings >	0	0	2	8	25
128	18.4	Underground mining extents	0	0	0	0	-



128	18.5	Historical Mineral Planning Areas	0	0	0	0	-
128 >	18.6 >	Non-coal mining >	2	0	1	1	2
129	18.7	JPB mining areas	None (within 0m)				
129	18.8	The Coal Authority non-coal mining	0	0	0	0	-
129	18.9	Researched mining	0	0	0	0	-
130 >	18.10 >	Mining record office plans >	0	0	4	0	-
130 >	18.11 >	BGS mine plans >	0	0	0	1	-
130 >	18.12 >	Coal mining >	Identified (within 0m)				
131	18.13	Brine areas	None (within 0m)				
131	18.14	Gypsum areas	None (within 0m)				
131	18.15	Tin mining	None (within 0m)				
131	18.16	Clay mining	None (within 0m)				
Page	Section	Ground cavities and sinkholes	On site	0-50m	50-250m	250-500m	500-2000m
132	19.1	Natural cavities	0	0	0	0	-
132	19.2	Mining cavities	0	0	0	0	0
132	19.3	Reported recent incidents	0	0	0	0	-
132	19.4	Historical incidents	0	0	0	0	-
Page	Section	Radon >					
134 >	20.1 >	Radon >	Less than 1% (within 0m)				
Page	Section	Soil chemistry >	On site	0-50m	50-250m	250-500m	500-2000m
136 >	21.1 >	BGS Estimated Background Soil Chemistry >	2	0	-	-	-
136	21.2	BGS Estimated Urban Soil Chemistry	0	0	-	-	-
136	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
137	22.1	Underground railways (London)	0	0	0	-	-
137	22.2	Underground railways (Non-London)	0	0	0	-	-
138	22.3	Railway tunnels	0	0	0	-	-
138 >	22.4 >	Historical railway and tunnel features >	12	3	34	-	-
140	22.5	Royal Mail tunnels	0	0	0	-	-



140 >	22.6 >	Historical railways >	0	0	4	-	-
141	22.7	Railways	0	0	0	-	-
141	22.8	Crossrail 2	0	0	0	0	-
141	22.9	HS2	0	0	0	0	-

Recent aerial photograph



Capture Date: 20/05/2023

Site Area: 0.36ha



Recent site history - 2020 aerial photograph



Capture Date: 14/04/2020

Site Area: 0.36ha



Recent site history - 2014 aerial photograph



Capture Date: 23/07/2014

Site Area: 0.36ha



Recent site history - 2010 aerial photograph

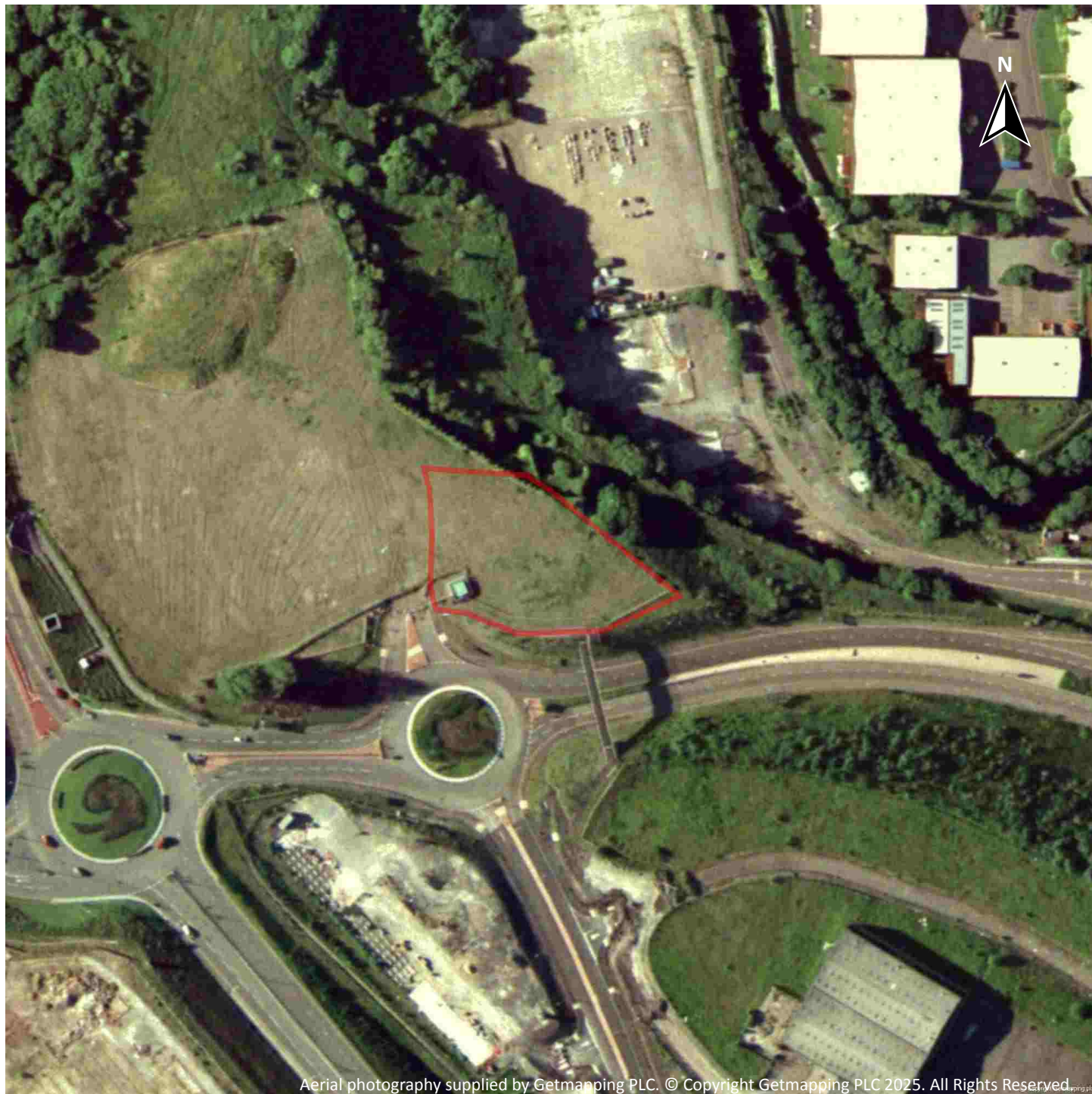


Capture Date: 22/05/2010

Site Area: 0.36ha



Recent site history - 2000 aerial photograph

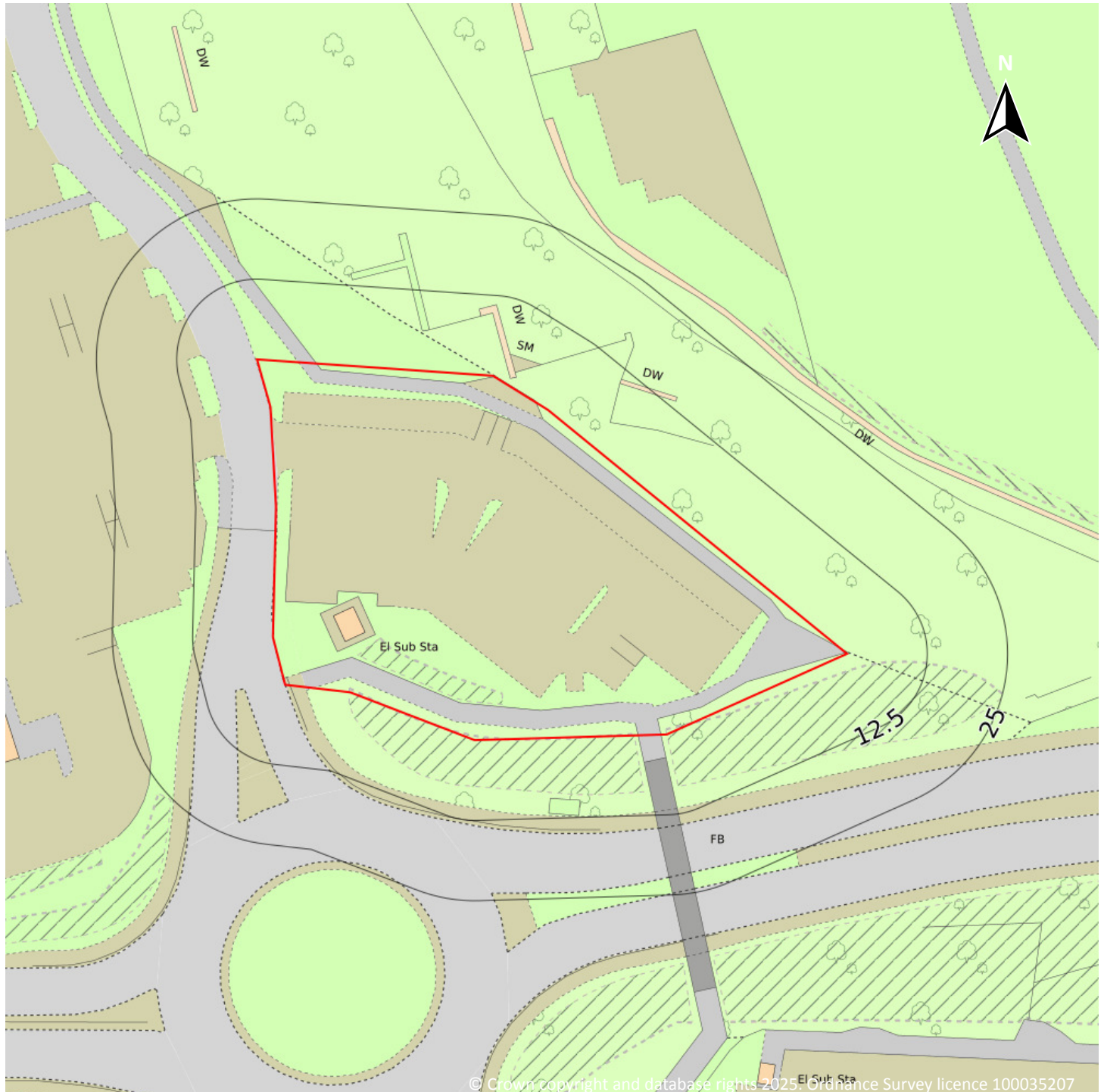


Capture Date: 18/06/2000

Site Area: 0.36ha



OS MasterMap site plan



Site Area: 0.36ha



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

Records within 500m	298
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Features are displayed on the Past land use map on [page 15 >](#)

ID	Location	Land use	Dates present	Group ID
A	On site	Electrical Engineering Works	1948	1020492

ID	Location	Land use	Dates present	Group ID
A	On site	Coke Yard	1875	1025555
A	On site	Smithy	1875	1031764
A	On site	Unspecified Works	1965	1033043
A	On site	Unspecified Heap	1901	1041430
A	On site	Disused Iron Works	1915	1074027
A	On site	Unspecified Ground Workings	1922	1075293
A	On site	Unspecified Ground Workings	1915	1080944
A	On site	Railway Sidings	1915	1088951
A	On site	Railway Sidings	1901 - 1903	1090547
A	On site	Railway Sidings	1875	1106118
A	On site	Iron Works	1901 - 1903	1110348
A	On site	Disused Iron Works	1922	1118083
A	On site	Railway Sidings	1938	1130623
A	On site	Unspecified Factory	1976 - 1992	1151419
A	On site	Unspecified Ground Workings	1922	1161076
A	On site	Railway Sidings	1921 - 1938	1162893
B	On site	Iron Works	1875	1083444
B	On site	Disused Iron Works	1938	1106577
A	1m NE	Unspecified Ground Workings	1922	1150052
C	9m NE	Railway Sidings	1901	1074439
B	24m N	Old Coke Ovens	1948	1033254
A	28m N	Coke Ovens	1938	1140200
B	28m NE	Unspecified Factory	1976 - 1992	1075308
A	28m S	Cinder Tip	1875	1089304
B	28m NE	Unspecified Tanks	1922	1123520
A	29m N	Coke Ovens	1922	1114265
D	29m S	Unspecified Disused Tip	1976	1051015
D	29m S	Unspecified Ground Workings	1965	1055131



ID	Location	Land use	Dates present	Group ID
B	29m NE	Unspecified Tanks	1915	1164201
B	29m NE	Unspecified Tanks	1938	1107032
C	30m NE	Railway Sidings	1922	1145197
A	30m N	Coke Ovens	1915	1169479
A	31m N	Coke Ovens	1922	1098552
B	34m NE	Unspecified Tanks	1922	1165229
1	35m S	Unspecified Ground Workings	1922	1122997
A	36m N	Coke Ovens	1901 - 1903	1165319
D	36m SE	Unspecified Tip	1903	1062833
A	38m S	Unspecified Ground Workings	1903	1091194
2	38m S	Railway Sidings	1901	1149567
B	40m NE	Unspecified Tank	1901	1045323
B	40m NE	Unspecified Tank	1922	1130499
B	42m NE	Unspecified Commercial/Industrial	1903	1076481
A	42m S	Unspecified Tip	1938	1060509
B	43m NE	Unspecified Tank	1922	1093818
A	44m S	Unspecified Ground Workings	1922	1131543
A	44m S	Unspecified Ground Workings	1922	1169311
A	46m S	Unspecified Ground Workings	1948	1159334
D	46m S	Refuse Heap	1992	1013493
B	48m N	Unspecified Depot	1976 - 1992	1162898
D	49m S	Cinder Tip	1901	1145027
A	50m S	Unspecified Ground Workings	1922	1087260
B	51m NE	Unspecified Tank	1901	1045322
B	58m NE	Unspecified Tank	1903	1046196
B	72m N	Unspecified Tank	1903	1046195
B	74m N	Unspecified Tanks	1915	1132082
D	75m SE	Unspecified Ground Workings	1948	1089505



ID	Location	Land use	Dates present	Group ID
B	77m N	Unspecified Tanks	1922	1105810
D	77m SE	Cinder Tip	1915	1152165
E	97m SW	Unspecified Heap	1922	1092685
E	99m SW	Unspecified Heap	1948	1166178
E	100m SW	Unspecified Heap	1915	1103691
B	100m N	Unspecified Tank	1901	1045321
E	100m SW	Unspecified Heap	1938	1169924
E	101m SW	Unspecified Heap	1965	1168351
E	101m SW	Unspecified Heap	1922	1065950
A	103m S	Unspecified Warehouse	1992	1044376
A	105m NW	Unspecified Ground Workings	1965	1089296
A	106m SE	Old Engine House	1903	1010342
F	109m E	Unspecified Commercial/Industrial	1875	1128198
G	113m NW	Refuse Heap	1938	1099506
G	114m NW	Unspecified Ground Workings	1948	1127645
H	115m NE	Unspecified Works	1976	1033042
A	117m NW	Coke Ovens	1875	1172404
A	118m S	Old Engine House	1901	1067113
A	119m SE	Engine House	1875	1023531
H	119m NE	Industrial Estate	1992	1034796
E	121m SW	Railway Building	1901	1047837
B	122m N	Unspecified Depot	1965	1164867
B	123m N	Unspecified Tank	1903	1046194
E	124m S	Smithy	1875	1031763
A	124m S	Old Engine House	1922 - 1938	1054527
H	125m NE	Unspecified Commercial/Industrial	1965	1114126
H	126m NE	Unspecified Commercial/Industrial	1903	1091922
F	127m E	Unspecified Commercial/Industrial	1903	1072581



ID	Location	Land use	Dates present	Group ID
A	129m SE	Cuttings	1938	1063991
A	129m SE	Old Engine House	1948	1090765
A	129m SE	Cuttings	1915	1111533
A	131m SE	Old Engine House	1915	1079063
4	131m SW	Railway Sidings	1948	1171933
A	132m SE	Cuttings	1922	1172131
H	133m NE	Toy Factory	1948	1023010
A	133m S	Slag Works	1948	1010528
G	135m W	Unspecified Heap	1875	1069187
A	135m NW	Coke Ovens	1875	1010288
A	136m SE	Old Engine House	1922	1132130
C	140m E	Unspecified Works	1976 - 1992	1064195
A	141m SE	Cinder Tip	1922	1162173
G	152m NW	Unspecified Ground Workings	1901	1159299
I	155m SW	Unspecified Heap	1903	1065386
I	159m SW	Unspecified Disused Tip	1976 - 1992	1168024
I	162m SW	Unspecified Heap	1965	1102616
A	167m S	Railway Building	1875	1048396
I	167m SW	Unspecified Heap	1938	1167807
I	168m SW	Unspecified Ground Workings	1922	1076857
I	170m SW	Unspecified Ground Workings	1901	1143290
I	171m SW	Unspecified Ground Workings	1915	1098568
I	176m SW	Unspecified Ground Workings	1922	1142001
5	181m S	Unspecified Ground Workings	1901	1019244
J	183m W	Unspecified Commercial/Industrial	1921	1023173
A	186m SE	Cuttings	1922	1059114
I	186m SW	Unspecified Works	1976 - 1992	1069770
K	187m W	Cuttings	1921	1010944



ID	Location	Land use	Dates present	Group ID
I	190m SW	Unspecified Heaps	1965	1035752
G	193m NW	Unspecified Ground Workings	1922	1135909
I	193m SW	Unspecified Heap	1922	1112083
G	195m NW	Unspecified Ground Workings	1915	1061069
G	196m NW	Unspecified Heap	1948	1160059
I	196m SW	Unspecified Heap	1915	1121160
J	197m NW	Unspecified Tanks	1921	1070264
J	197m NW	Unspecified Tank	1901	1044797
G	198m NW	Unspecified Ground Workings	1938	1156788
G	198m NW	Unspecified Ground Workings	1938	1160083
J	198m NW	Unspecified Tanks	1903	1076901
I	198m SW	Unspecified Works	1965	1116042
I	199m SW	Railway Sidings	1903	1101147
I	201m SW	Unspecified Ground Workings	1901	1114127
6	203m S	Unspecified Ground Workings	1901	1086083
G	204m NW	Unspecified Ground Workings	1965	1139978
L	207m SW	Unspecified Ground Workings	1921	1076302
A	208m S	Unspecified Tank	1875	1046033
J	210m NW	Unspecified Tank	1901	1045329
D	211m SE	Unspecified Pit	1915	1067633
L	212m SW	Ironstone Level	1878	1064375
D	214m SE	Unspecified Pit	1922	1173415
I	216m SW	Unspecified Ground Workings	1901	1143289
D	217m SE	Unspecified Pit	1922	1055965
I	221m SW	Unspecified Old Level	1948	1044473
M	222m SW	Tramway Sidings	1878	1064177
J	223m NW	Unspecified Tank	1901	1045328
G	224m NW	Unspecified Heap	1901	1108898



ID	Location	Land use	Dates present	Group ID
I	224m SW	Tramway Sidings	1901	1158619
G	225m NW	Unspecified Heap	1903	1120121
D	227m SE	Cuttings	1948	1011917
I	229m SW	Unspecified Pit	1948	1026572
J	234m NW	Unspecified Tank	1901	1045327
O	235m S	Railway Sidings	1901	1054851
G	242m NW	Unspecified Heap	1903	1138661
I	245m SW	Unspecified Heap	1948	1130865
I	245m SW	Unspecified Heap	1903	1166456
J	247m NW	Unspecified Tank	1901	1046183
P	249m NW	Unspecified Ground Workings	1901	1146507
P	250m NW	Unspecified Heap	1921 - 1948	1147552
P	252m NW	Unspecified Heap	1903	1080975
P	254m NW	Unspecified Heap	1878	1066439
P	256m NW	Unspecified Ground Workings	1921	1078862
N	257m NE	Unspecified Tanks	1922	1096148
I	257m SW	Refuse Heap	1965	1013036
J	260m NW	Unspecified Tank	1901	1045326
N	261m NE	Unspecified Tanks	1915	1066314
O	262m S	Unspecified Quarry	1875	1134913
I	262m SW	Unspecified Heap	1903	1170142
G	263m N	Railway Building	1903	1048521
N	264m NE	Unspecified Tanks	1948	1109917
N	264m NE	Water Tanks	1922	1074472
I	267m SW	Unspecified Ground Workings	1922	1075622
B	269m N	Unspecified Tank	1915	1065890
H	270m NE	Railway Sidings	1915	1097236
B	271m N	Unspecified Tank	1938	1091242



ID	Location	Land use	Dates present	Group ID
B	271m N	Unspecified Tank	1922	1163775
7	272m W	Unspecified Ground Workings	1901	1019222
N	272m NE	Unspecified Tanks	1922	1021813
8	274m NE	Iron Works	1922	1054230
N	277m NE	Unspecified Tanks	1915	1074342
N	279m NE	Unspecified Tanks	1938 - 1948	1063673
O	279m S	Unspecified Quarry	1901	1101567
B	280m N	Unspecified Ground Workings	1901	1017793
N	280m NE	Water Tanks	1922	1169990
O	280m S	Unspecified Quarry	1922	1105374
I	282m SW	Unspecified Heap	1878	1086703
O	282m S	Unspecified Quarry	1903 - 1915	1075750
B	282m N	Unspecified Tank	1915	1157711
B	283m N	Unspecified Heap	1875	1040174
O	283m S	Unspecified Quarry	1938	1168034
B	283m N	Unspecified Tank	1938	1140269
9	283m E	Unspecified Pit	1938	1161461
B	284m N	Unspecified Tank	1922	1115276
O	286m S	Unspecified Quarry	1948 - 1965	1143527
D	288m SE	Unspecified Warehouse	1992	1044380
B	289m N	Unspecified Tank	1901	1124105
O	289m S	Quarry	1922	1037291
B	293m N	Unspecified Tanks	1875	1021814
G	295m NW	Unspecified Ground Workings	1901	1168615
10	301m E	Unspecified Ground Workings	1901	1018978
F	312m E	Old Dock	1938	1055110
B	312m N	Unspecified Tank	1903	1045325
S	319m N	Railway Sidings	1875	1123925



ID	Location	Land use	Dates present	Group ID
O	322m S	Unspecified Heaps	1948	1035759
F	323m E	Railway Building	1915	1048395
F	324m E	Old Dock	1922	1064149
11	325m NE	Water Tanks	1922	1137477
I	331m SW	Unspecified Ground Workings	1901	1063961
O	331m SW	Unspecified Heap	1922	1142794
O	334m SW	Unspecified Heap	1938	1169463
I	335m SW	Unspecified Ground Workings	1965	1128984
O	335m SW	Unspecified Heap	1915	1126325
M	336m W	Cuttings	1965	1012039
L	336m W	Unspecified Ground Workings	1921	1138587
T	337m N	Industrial Estate	1992	1034769
S	338m N	Unspecified Pit	1965	1029482
U	339m W	Unspecified Ground Workings	1948 - 1965	1088154
L	340m W	Refuse Heap	1901 - 1903	1079043
L	341m W	Unspecified Disused Tip	1976	1051009
T	341m N	Coal Yard	1875	1036298
I	341m SW	Unspecified Old Level	1948	1091075
L	341m W	Unspecified Disused Tips	1992	1015550
O	342m SW	Unspecified Heap	1922	1058728
F	343m E	Unspecified Commercial/Industrial	1992	1151388
F	344m E	Unspecified Depot	1976	1022804
F	348m E	Old Canal	1901	1043422
F	355m E	Disused Canal	1915 - 1922	1108085
F	356m E	Unspecified Ground Workings	1922	1053423
S	357m N	Unspecified Ground Workings	1901	1154294
V	358m SW	Ironstone Levels	1878	1015595
I	361m SW	Unspecified Ground Workings	1948	1142429



ID	Location	Land use	Dates present	Group ID
D	362m SE	Cinder Tip	1922	1132096
F	364m E	Old Dock	1948	1148926
T	364m N	Tramway Sidings	1903	1115616
W	368m S	Colliery	1948	1063252
X	370m SE	Smithy	1875	1031765
F	372m E	Railway Building	1915	1048520
Y	374m S	Unspecified Tanks	1938	1070324
Y	376m S	Unspecified Tanks	1915	1147708
O	377m SW	Unspecified Ground Workings	1901	1051838
O	378m S	Unspecified Disused Quarry	1976 - 1992	1114144
T	378m N	Old Tramway Sidings	1922	1125794
T	379m N	Tramway Sidings	1948	1070869
T	381m N	Tramway Sidings	1915	1055143
L	389m SW	Railway Sidings	1921	1050550
I	391m SW	Tramway Sidings	1901 - 1903	1091917
L	392m W	Old Level	1921	1025917
W	393m S	Unspecified Disused Tip	1976 - 1992	1067378
V	395m SW	Unspecified Disused Tip	1976 - 1992	1106981
W	397m S	Unspecified Ground Workings	1965	1062824
Z	397m S	Old Ironstone Level	1901	1021665
I	403m SW	Old Level	1921	1025907
AB	404m NW	Railway Sidings	1921	1051815
Z	404m S	Unspecified Disused Tip	1976 - 1992	1169944
I	404m SW	Coal Level	1903	1035987
W	406m S	Unspecified Ground Workings	1901	1064719
W	408m S	Unspecified Ground Workings	1938	1087247
W	409m S	Unspecified Ground Workings	1915 - 1922	1085127
O	410m SW	Unspecified Pit	1948	1026564



ID	Location	Land use	Dates present	Group ID
14	412m S	Unspecified Heap	1875	1119347
15	412m SE	Unspecified Pits	1938	1068565
16	412m SE	Unspecified Ground Workings	1922	1152107
I	415m SW	Unspecified Pit	1948	1121836
Z	415m S	Unspecified Ground Workings	1965	1101349
AC	416m W	Cuttings	1878	1071723
V	416m SW	Unspecified Heap	1948	1039927
L	417m W	Unspecified Old Level	1901	1068207
W	417m S	Unspecified Heap	1903	1041693
I	418m SW	Unspecified Pit	1878	1131819
L	418m W	Unspecified Old Level	1903	1080514
V	419m SW	Unspecified Ground Workings	1921	1118671
Z	420m S	Refuse Heap	1922 - 1938	1137845
17	422m NE	Unspecified Heap	1992	1040176
T	425m N	Unspecified Factory	1976	1050297
O	425m SW	Unspecified Pit	1878	1027831
I	429m SW	Coal Level	1901	1036060
AB	430m NW	Refuse Heap	1921	1175274
L	430m W	Unspecified Old Level	1921	1066661
L	430m W	Unspecified Old Level	1921	1140943
I	431m SW	Unspecified Heaps	1948	1141415
I	431m SW	Unspecified Heaps	1903	1155981
W	432m S	Unspecified Ground Workings	1922	1085052
W	432m S	Unspecified Ground Workings	1922	1155648
AB	433m NW	Refuse Heap	1901 - 1903	1053758
Z	437m SE	Unspecified Heap	1903	1054127
Z	438m S	Refuse Heap	1915 - 1922	1177172
AD	439m NW	Cuttings	1878	1128269



ID	Location	Land use	Dates present	Group ID
I	440m SW	Unspecified Old Level	1921	1156243
I	440m SW	Unspecified Old Level	1921	1166593
V	442m SW	Refuse Heap	1901 - 1903	1170227
19	445m NW	Unspecified Ground Workings	1976	1019224
W	455m S	Colliery	1875	1129709
20	456m NE	Unspecified Ground Workings	1965 - 1976	1075654
F	461m E	Old Dock	1915	1107548
AC	462m W	Cuttings	1965	1132569
21	465m W	Tramway Sidings	1878	1049778
AD	466m NW	Cuttings	1921 - 1948	1095720
AC	467m W	Unspecified Ground Workings	1901 - 1903	1150463
AD	474m NW	Cuttings	1921	1154208
AC	487m W	Tramway Sidings	1878	1049777
F	490m E	Railway Building	1901	1047838
22	496m W	Refuse Heap	1901 - 1903	1124788
U	497m W	Unspecified Pit	1965	1029464
F	498m E	Old Dock	1922	1175198

This data is sourced from Ordnance Survey / Groundsure.

1.2 Historical tanks

Records within 500m

46

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
B	32m N	Tanks	1875	163490



ID	Location	Land use	Dates present	Group ID
B	34m NE	Tanks	1919	172128
B	39m NE	Tanks	1900	172507
B	40m NE	Tanks	1900	173690
B	55m N	Unspecified Tank	1875	159158
A	65m E	Tank or Trough	1875	164666
A	88m W	Tank or Trough	1875	164675
B	92m N	Unspecified Tank	1875	159157
A	107m W	Unspecified Tank	1975 - 1984	168889
E	115m S	Unspecified Tank	1904 - 1919	170055
A	126m SE	Tank or Trough	1875	164676
A	129m W	Tanks	1975 - 1984	165400
A	132m W	Unspecified Tank	1975	170158
A	132m W	Unspecified Tank	1995	164969
A	132m W	Unspecified Tank	1984	166649
C	170m E	Tank or Trough	1875	164672
B	172m N	Unspecified Tank	1975 - 1998	167783
B	172m N	Unspecified Tank	1956	174181
J	177m W	Unspecified Tank	1919	159133
I	188m SW	Tanks	1975 - 1984	175147
J	188m W	Unspecified Tank	1919	156498
J	198m NW	Tanks	1900 - 1904	170063
J	201m W	Unspecified Tank	1919	159132
A	206m S	Unspecified Tank	1875	159163
J	211m W	Unspecified Tank	1919	159135
C	217m E	Unspecified Tank	1972 - 1989	174514
J	223m W	Unspecified Tank	1919	159134
N	232m NE	Unspecified Tank	1975	168782
N	232m NE	Unspecified Tank	1956	173845



ID	Location	Land use	Dates present	Group ID
J	235m NW	Unspecified Tank	1919	159138
G	241m N	Unspecified Tank	1875	159154
Q	252m E	Unspecified Tank	1957	167335
Q	252m E	Unspecified Tank	1958	170559
N	267m NE	Unspecified Tank	1919	159131
B	277m N	Unspecified Tank	1875	159155
B	277m N	Tanks	1904 - 1919	166312
B	282m N	Unspecified Tank	1900	159167
N	285m NE	Unspecified Tank	1919	159145
B	291m N	Tanks	1875	168771
B	295m N	Unspecified Tank	1900	159168
O	335m S	Unspecified Tank	1975 - 1990	168972
12	351m NE	Unspecified Tank	1875	159156
AA	402m E	Tank or Trough	1875	164674
AA	403m E	Tanks or Troughs	1875	164601
X	412m SE	Tanks or Troughs	1875	164602
18	427m NE	Unspecified Tank	1919	159144

This data is sourced from Ordnance Survey / Groundsure.

1.3 Historical energy features

Records within 500m

13

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
A	On site	Electricity Substation	1998	94776



ID	Location	Land use	Dates present	Group ID
A	27m S	Gas Governor	1995	100595
A	27m S	Gas Governor	1975 - 1984	101386
3	117m W	Electricity Substation	1998	94777
K	185m W	Gas Governor	1998	95061
D	251m SE	Electricity Substation	1984 - 1994	95932
N	265m NE	Electricity Substation	1991 - 1994	97082
N	266m NE	Electricity Substation	1984 - 1990	96058
R	275m W	Electricity Substation	1984 - 1995	100450
R	275m W	Electricity Substation	1998	100984
13	366m S	Electricity Substation	1975 - 1998	97997
T	432m N	Electricity Substation	1989	94784
F	435m E	Electricity Substation	1991 - 1994	103294

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

6

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
B	49m N	Maintenance Depot	1975	34683
B	49m N	Maintenance Depot	1984	33729
E	62m SW	Garage	1984 - 1995	35100
E	69m SW	Garage	1975	33550
B	122m N	Maintenance Depot	1956	33332
B	216m N	Maintenance Depot	1989	32731

This data is sourced from Ordnance Survey / Groundsure.

1.6 Historical military land

Records within 500m

1

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.

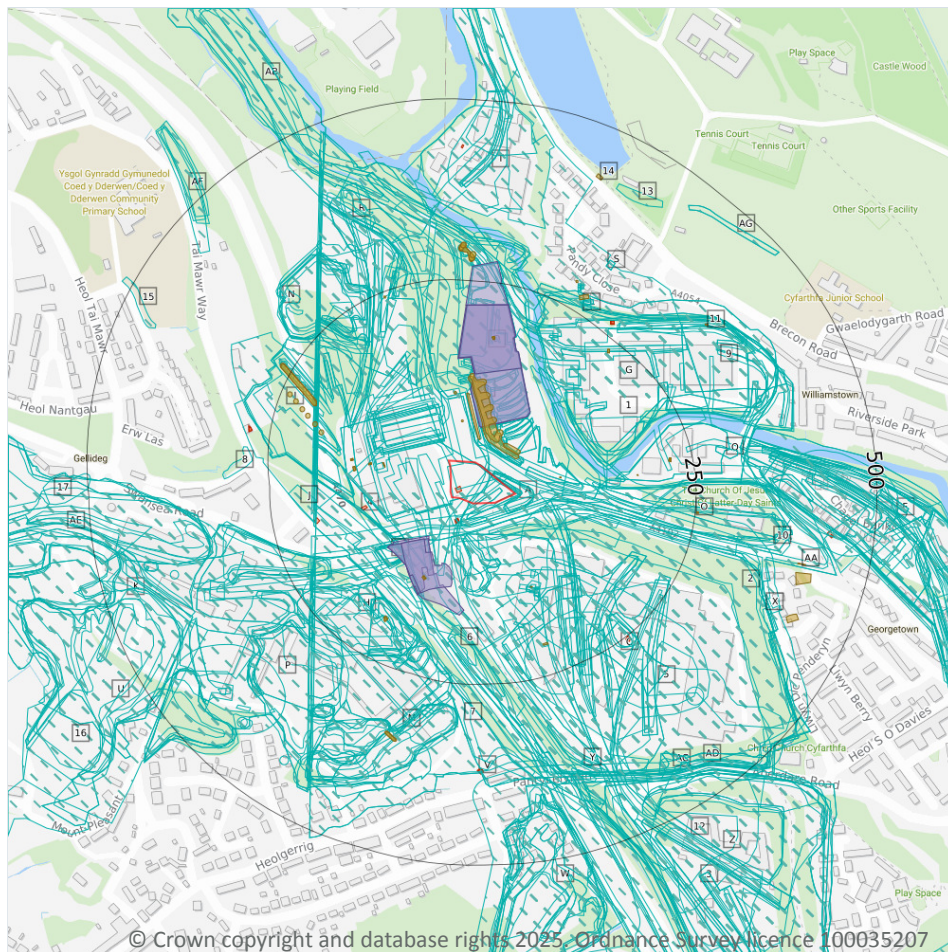
Features are displayed on the Past land use map on [page 15 >](#)

ID	Location	Site Name	Date of Operation	Activities
B	On site	Rolling Mills and Blast Furnaces Merthyr Tydfil, Cyfarthfa (Cyfarthfa Ironworks)	1765 - 1928	Rolling Mills and Blast Furnaces (c. WWI). Basic pig iron, rolling 18pdr shell steel bars; The site had been briefly closed until 1884 for a rebuild and steel works construction; In 1910 the steelworks had been forced to close again but it was briefly reopened in 1915 to aid in production of materials for WWI until 1919 when it was finally closed again; After being closed again in 1919, the site eventually fell into disrepair and was ultimately dismantled in 1928.

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



2 Past land use - un-grouped



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

2.1 Historical industrial land uses

Records within 500m

388

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 31](#) >

ID	Location	Land Use	Date	Group ID
A	On site	Unspecified Heap	1901	1041430
A	On site	Railway Sidings	1901	1090547
A	On site	Coke Yard	1875	1025555



ID	Location	Land Use	Date	Group ID
A	On site	Unspecified Ground Workings	1922	1161076
A	On site	Disused Iron Works	1922	1118083
A	On site	Railway Sidings	1922	1162893
A	On site	Unspecified Ground Workings	1915	1080944
A	On site	Disused Iron Works	1915	1074027
A	On site	Railway Sidings	1915	1088951
A	On site	Railway Sidings	1922	1162893
A	On site	Unspecified Ground Workings	1922	1075293
A	On site	Disused Iron Works	1922	1118083
A	On site	Railway Sidings	1922	1162893
A	On site	Unspecified Ground Workings	1922	1075293
A	On site	Disused Iron Works	1922	1118083
A	On site	Electrical Engineering Works	1948	1020492
A	On site	Railway Sidings	1903	1090547
A	On site	Smithy	1875	1031764
A	On site	Railway Sidings	1875	1106118
A	On site	Unspecified Factory	1992	1151419
A	On site	Unspecified Factory	1976	1151419
A	On site	Unspecified Works	1965	1033043
A	On site	Railway Sidings	1938	1130623
B	On site	Iron Works	1901	1110348
B	On site	Iron Works	1875	1083444
B	On site	Disused Iron Works	1938	1106577
A	1m NE	Unspecified Ground Workings	1922	1150052
A	1m NE	Unspecified Ground Workings	1922	1150052
A	6m S	Iron Works	1903	1110348
1	9m NE	Railway Sidings	1901	1074439
B	24m N	Old Coke Ovens	1948	1033254



ID	Location	Land Use	Date	Group ID
A	28m N	Coke Ovens	1938	1140200
B	28m NE	Unspecified Factory	1992	1075308
B	28m NE	Unspecified Factory	1976	1075308
A	28m S	Cinder Tip	1875	1089304
B	28m NE	Unspecified Tanks	1922	1123520
A	29m N	Coke Ovens	1922	1114265
C	29m S	Unspecified Disused Tip	1976	1051015
C	29m S	Unspecified Ground Workings	1965	1055131
B	29m NE	Unspecified Tanks	1915	1164201
B	29m NE	Unspecified Tanks	1938	1107032
D	30m NE	Railway Sidings	1922	1145197
A	30m N	Coke Ovens	1915	1169479
A	31m N	Coke Ovens	1922	1098552
A	31m N	Coke Ovens	1922	1098552
B	34m NE	Unspecified Tanks	1922	1165229
B	34m NE	Unspecified Tanks	1922	1165229
2	35m S	Unspecified Ground Workings	1922	1122997
A	36m N	Coke Ovens	1901	1165319
C	36m SE	Unspecified Tip	1903	1062833
A	38m S	Unspecified Ground Workings	1903	1091194
3	38m S	Railway Sidings	1901	1149567
B	40m NE	Unspecified Tank	1901	1045323
B	40m NE	Unspecified Tank	1922	1130499
B	42m NE	Unspecified Commercial/Industrial	1903	1076481
A	42m S	Unspecified Tip	1938	1060509
A	42m S	Unspecified Tip	1938	1060509
B	43m NE	Unspecified Tank	1922	1093818
B	43m NE	Unspecified Tank	1922	1093818



ID	Location	Land Use	Date	Group ID
A	44m S	Unspecified Ground Workings	1922	1169311
A	44m S	Unspecified Ground Workings	1922	1131543
A	46m S	Unspecified Ground Workings	1948	1159334
C	46m S	Refuse Heap	1992	1013493
B	48m N	Unspecified Depot	1992	1162898
B	48m N	Unspecified Depot	1976	1162898
C	49m S	Cinder Tip	1901	1145027
A	50m S	Unspecified Ground Workings	1922	1087260
B	51m NE	Unspecified Tank	1901	1045322
A	57m N	Coke Ovens	1903	1165319
B	58m NE	Unspecified Tank	1903	1046196
B	72m N	Unspecified Tank	1903	1046195
B	74m N	Unspecified Tanks	1915	1132082
A	75m N	Railway Sidings	1901	1090547
C	75m SE	Unspecified Ground Workings	1948	1089505
B	77m N	Unspecified Tanks	1922	1105810
B	77m N	Unspecified Tanks	1922	1105810
C	77m SE	Cinder Tip	1915	1152165
E	97m SW	Unspecified Heap	1922	1092685
E	97m SW	Unspecified Heap	1922	1092685
E	99m SW	Unspecified Heap	1948	1166178
E	100m SW	Unspecified Heap	1915	1103691
B	100m N	Unspecified Tank	1901	1045321
E	100m SW	Unspecified Heap	1938	1169924
E	100m SW	Unspecified Heap	1938	1169924
E	101m SW	Unspecified Heap	1965	1168351
E	101m SW	Unspecified Heap	1922	1065950
A	103m S	Unspecified Warehouse	1992	1044376



ID	Location	Land Use	Date	Group ID
A	105m NW	Unspecified Ground Workings	1965	1089296
A	106m SE	Old Engine House	1903	1010342
F	109m E	Unspecified Commercial/Industrial	1875	1128198
A	113m NW	Refuse Heap	1938	1099506
A	113m NW	Refuse Heap	1938	1099506
A	114m NW	Unspecified Ground Workings	1948	1127645
G	115m NE	Unspecified Works	1976	1033042
A	117m NW	Coke Ovens	1875	1172404
A	118m S	Old Engine House	1901	1067113
A	119m SE	Engine House	1875	1023531
G	119m NE	Industrial Estate	1992	1034796
E	121m SW	Railway Building	1901	1047837
B	122m N	Unspecified Depot	1965	1164867
B	123m N	Unspecified Tank	1903	1046194
E	124m S	Smithy	1875	1031763
A	124m S	Old Engine House	1922	1054527
A	124m S	Old Engine House	1922	1054527
G	125m NE	Unspecified Commercial/Industrial	1965	1114126
G	126m NE	Unspecified Commercial/Industrial	1903	1091922
F	127m E	Unspecified Commercial/Industrial	1903	1072581
A	129m SE	Cuttings	1938	1063991
A	129m SE	Old Engine House	1938	1054527
A	129m SE	Old Engine House	1948	1090765
A	129m SE	Cuttings	1915	1111533
A	131m SE	Old Engine House	1915	1079063
5	131m SW	Railway Sidings	1948	1171933
A	132m SE	Cuttings	1922	1172131
A	132m SE	Cuttings	1922	1172131



ID	Location	Land Use	Date	Group ID
G	133m NE	Toy Factory	1948	1023010
A	133m S	Slag Works	1948	1010528
A	135m W	Unspecified Heap	1875	1069187
A	135m NW	Coke Ovens	1875	1010288
A	136m SE	Old Engine House	1922	1132130
D	140m E	Unspecified Works	1992	1064195
D	140m E	Unspecified Works	1976	1064195
A	141m SE	Cinder Tip	1922	1162173
A	141m SE	Cinder Tip	1922	1162173
A	152m NW	Unspecified Ground Workings	1901	1159299
H	155m SW	Unspecified Heap	1903	1065386
H	159m SW	Unspecified Disused Tip	1992	1168024
H	159m SW	Unspecified Disused Tip	1976	1168024
H	162m SW	Unspecified Heap	1965	1102616
A	167m S	Railway Building	1875	1048396
H	167m SW	Unspecified Heap	1938	1167807
H	167m SW	Unspecified Heap	1938	1167807
H	168m SW	Unspecified Ground Workings	1922	1076857
H	168m SW	Unspecified Ground Workings	1922	1076857
H	170m SW	Unspecified Ground Workings	1901	1143290
H	171m SW	Unspecified Ground Workings	1915	1098568
H	176m SW	Unspecified Ground Workings	1922	1142001
6	181m S	Unspecified Ground Workings	1901	1019244
I	183m W	Railway Sidings	1921	1162893
I	183m W	Unspecified Commercial/Industrial	1921	1023173
I	184m W	Iron Works	1901	1110348
I	184m W	Railway Sidings	1901	1090547
I	185m W	Iron Works	1903	1110348



ID	Location	Land Use	Date	Group ID
I	185m W	Railway Sidings	1903	1090547
A	186m SE	Cuttings	1922	1059114
A	186m SE	Cuttings	1922	1059114
H	186m SW	Unspecified Works	1976	1069770
H	187m SW	Unspecified Works	1992	1069770
J	187m W	Cuttings	1921	1010944
H	190m SW	Unspecified Heaps	1965	1035752
A	193m NW	Unspecified Ground Workings	1922	1135909
H	193m SW	Unspecified Heap	1922	1112083
H	193m SW	Unspecified Heap	1922	1112083
I	195m W	Railway Sidings	1901	1090547
A	195m NW	Unspecified Ground Workings	1915	1061069
A	196m NW	Unspecified Heap	1948	1160059
A	196m NW	Unspecified Ground Workings	1922	1135909
A	196m NW	Unspecified Ground Workings	1922	1135909
H	196m SW	Unspecified Heap	1915	1121160
I	197m NW	Unspecified Tanks	1921	1070264
I	197m NW	Unspecified Tank	1901	1044797
A	198m NW	Unspecified Ground Workings	1938	1156788
A	198m NW	Unspecified Ground Workings	1938	1160083
I	198m NW	Unspecified Tanks	1903	1076901
H	198m SW	Unspecified Works	1965	1116042
H	199m SW	Railway Sidings	1903	1101147
H	201m SW	Unspecified Ground Workings	1901	1114127
7	203m S	Unspecified Ground Workings	1901	1086083
A	204m NW	Unspecified Ground Workings	1965	1139978
K	207m SW	Unspecified Ground Workings	1921	1076302
K	207m SW	Unspecified Ground Workings	1921	1076302



ID	Location	Land Use	Date	Group ID
A	208m S	Unspecified Tank	1875	1046033
H	209m SW	Unspecified Ground Workings	1921	1076302
I	210m NW	Unspecified Tank	1901	1045329
C	211m SE	Unspecified Pit	1915	1067633
H	212m SW	Ironstone Level	1878	1064375
C	214m SE	Unspecified Pit	1922	1173415
C	214m SE	Unspecified Pit	1922	1173415
H	216m SW	Unspecified Ground Workings	1901	1143289
C	217m SE	Unspecified Pit	1922	1055965
H	218m SW	Railway Sidings	1903	1090547
H	221m SW	Unspecified Old Level	1948	1044473
H	222m SW	Tramway Sidings	1878	1064177
I	223m NW	Unspecified Tank	1901	1045328
A	224m NW	Unspecified Heap	1901	1108898
H	224m SW	Tramway Sidings	1901	1158619
A	225m NW	Unspecified Heap	1903	1120121
C	227m SE	Cuttings	1948	1011917
H	229m SW	Unspecified Pit	1948	1026572
I	234m NW	Unspecified Tank	1901	1045327
M	235m S	Railway Sidings	1901	1054851
A	242m NW	Unspecified Heap	1903	1138661
H	245m SW	Unspecified Heap	1948	1130865
H	245m SW	Unspecified Heap	1903	1166456
I	247m NW	Unspecified Tank	1901	1046183
N	249m NW	Unspecified Ground Workings	1901	1146507
N	250m NW	Unspecified Heap	1921	1147552
N	250m NW	Unspecified Heap	1921	1147552
N	252m NW	Unspecified Heap	1948	1147552



ID	Location	Land Use	Date	Group ID
N	252m NW	Unspecified Heap	1903	1080975
N	254m NW	Unspecified Heap	1878	1066439
N	256m NW	Unspecified Ground Workings	1921	1078862
L	257m NE	Unspecified Tanks	1922	1096148
H	257m SW	Refuse Heap	1965	1013036
I	260m NW	Unspecified Tank	1901	1045326
L	261m NE	Unspecified Tanks	1915	1066314
M	262m S	Unspecified Quarry	1875	1134913
H	262m SW	Unspecified Heap	1903	1170142
H	263m SW	Unspecified Ground Workings	1901	1143290
A	263m N	Railway Building	1903	1048521
L	264m NE	Unspecified Tanks	1948	1109917
L	264m NE	Water Tanks	1922	1074472
L	264m NE	Water Tanks	1922	1074472
P	265m SW	Unspecified Heap	1903	1166456
H	267m SW	Unspecified Ground Workings	1922	1075622
B	269m N	Unspecified Tank	1915	1065890
G	270m NE	Railway Sidings	1915	1097236
B	271m N	Unspecified Tank	1938	1091242
B	271m N	Unspecified Tank	1922	1163775
B	271m N	Unspecified Tank	1922	1163775
8	272m W	Unspecified Ground Workings	1901	1019222
L	272m NE	Unspecified Tanks	1922	1021813
9	274m NE	Iron Works	1922	1054230
L	277m NE	Unspecified Tanks	1915	1074342
L	279m NE	Unspecified Tanks	1938	1063673
M	279m S	Unspecified Quarry	1901	1101567
B	280m N	Unspecified Ground Workings	1901	1017793



ID	Location	Land Use	Date	Group ID
L	280m NE	Water Tanks	1922	1169990
L	280m NE	Water Tanks	1922	1169990
L	280m NE	Unspecified Tanks	1948	1063673
M	280m S	Unspecified Quarry	1922	1105374
M	280m S	Unspecified Quarry	1922	1105374
P	282m SW	Unspecified Heap	1878	1086703
M	282m S	Unspecified Quarry	1915	1075750
B	282m N	Unspecified Tank	1915	1157711
B	283m N	Unspecified Heap	1875	1040174
M	283m S	Unspecified Quarry	1938	1168034
B	283m N	Unspecified Tank	1938	1140269
Q	283m E	Unspecified Pit	1938	1161461
Q	283m E	Unspecified Pit	1938	1161461
B	284m N	Unspecified Tank	1922	1115276
B	284m N	Unspecified Tank	1922	1115276
M	286m S	Unspecified Quarry	1948	1143527
C	288m SE	Unspecified Warehouse	1992	1044380
B	289m N	Unspecified Tank	1901	1124105
M	289m S	Quarry	1922	1037291
B	293m N	Unspecified Tanks	1875	1021814
A	295m NW	Unspecified Ground Workings	1901	1168615
10	301m E	Unspecified Ground Workings	1901	1018978
F	312m E	Old Dock	1938	1055110
F	312m E	Old Dock	1938	1055110
B	312m N	Unspecified Tank	1903	1045325
F	317m E	Railway Sidings	1901	1074439
K	318m W	Ironstone Level	1878	1064375
R	319m N	Railway Sidings	1875	1123925



ID	Location	Land Use	Date	Group ID
M	322m S	Unspecified Heaps	1948	1035759
F	323m E	Railway Building	1915	1048395
F	324m E	Old Dock	1922	1064149
S	325m NE	Water Tanks	1922	1137477
S	325m NE	Water Tanks	1922	1137477
M	329m S	Unspecified Quarry	1903	1075750
P	331m SW	Unspecified Ground Workings	1901	1063961
M	331m SW	Unspecified Heap	1922	1142794
M	331m SW	Unspecified Heap	1922	1142794
M	334m SW	Unspecified Heap	1938	1169463
M	334m SW	Unspecified Heap	1938	1169463
P	335m SW	Unspecified Ground Workings	1965	1128984
M	335m SW	Unspecified Heap	1915	1126325
H	336m W	Cuttings	1965	1012039
K	336m W	Unspecified Ground Workings	1921	1138587
T	337m N	Industrial Estate	1992	1034769
R	338m N	Unspecified Pit	1965	1029482
K	339m W	Unspecified Ground Workings	1948	1088154
K	340m W	Refuse Heap	1903	1079043
K	340m W	Refuse Heap	1901	1079043
K	341m W	Unspecified Disused Tip	1976	1051009
T	341m N	Coal Yard	1875	1036298
P	341m SW	Unspecified Old Level	1948	1091075
K	341m W	Unspecified Disused Tips	1992	1015550
M	342m SW	Unspecified Heap	1922	1058728
F	343m E	Unspecified Commercial/Industrial	1992	1151388
F	344m E	Unspecified Depot	1976	1022804
F	348m E	Old Canal	1901	1043422



ID	Location	Land Use	Date	Group ID
F	355m E	Disused Canal	1915	1108085
F	356m E	Unspecified Ground Workings	1922	1053423
F	356m E	Unspecified Ground Workings	1922	1053423
F	356m E	Disused Canal	1922	1108085
R	357m N	Unspecified Ground Workings	1901	1154294
U	358m SW	Ironstone Levels	1878	1015595
P	361m SW	Unspecified Ground Workings	1948	1142429
C	362m SE	Cinder Tip	1922	1132096
F	364m E	Old Dock	1948	1148926
T	364m N	Tramway Sidings	1903	1115616
W	368m S	Colliery	1948	1063252
X	370m SE	Smithy	1875	1031765
F	372m E	Railway Building	1915	1048520
Y	374m S	Unspecified Tanks	1938	1070324
Y	376m S	Unspecified Tanks	1915	1147708
M	377m SW	Unspecified Ground Workings	1901	1051838
M	378m S	Unspecified Quarry	1965	1143527
M	378m S	Unspecified Disused Quarry	1992	1114144
M	378m S	Unspecified Disused Quarry	1976	1114144
T	378m N	Old Tramway Sidings	1922	1125794
T	378m N	Old Tramway Sidings	1922	1125794
T	379m N	Tramway Sidings	1948	1070869
T	381m N	Tramway Sidings	1915	1055143
K	389m SW	Railway Sidings	1921	1050550
P	391m SW	Tramway Sidings	1903	1091917
K	392m W	Old Level	1921	1025917
P	393m SW	Tramway Sidings	1901	1091917
W	393m S	Unspecified Disused Tip	1992	1067378



ID	Location	Land Use	Date	Group ID
U	395m SW	Unspecified Disused Tip	1992	1106981
U	395m SW	Unspecified Disused Tip	1976	1106981
W	395m S	Unspecified Disused Tip	1976	1067378
W	397m S	Unspecified Ground Workings	1965	1062824
Z	397m S	Old Ironstone Level	1901	1021665
P	403m SW	Old Level	1921	1025907
AB	404m NW	Railway Sidings	1921	1051815
Z	404m S	Unspecified Disused Tip	1992	1169944
Z	404m S	Unspecified Disused Tip	1976	1169944
P	404m SW	Coal Level	1903	1035987
W	406m S	Unspecified Ground Workings	1901	1064719
W	408m S	Unspecified Ground Workings	1938	1087247
W	408m S	Unspecified Ground Workings	1938	1087247
W	409m S	Unspecified Ground Workings	1915	1085127
M	410m SW	Unspecified Pit	1948	1026564
12	412m S	Unspecified Heap	1875	1119347
AC	412m SE	Unspecified Pits	1938	1068565
AC	412m SE	Unspecified Pits	1938	1068565
AD	412m SE	Unspecified Ground Workings	1922	1152107
AD	412m SE	Unspecified Ground Workings	1922	1152107
W	415m S	Unspecified Ground Workings	1922	1085127
P	415m SW	Unspecified Pit	1948	1121836
Z	415m S	Unspecified Ground Workings	1965	1101349
AE	416m W	Cuttings	1878	1071723
U	416m SW	Unspecified Heap	1948	1039927
K	417m W	Unspecified Old Level	1901	1068207
U	417m SW	Unspecified Ground Workings	1965	1088154
W	417m S	Unspecified Heap	1903	1041693



ID	Location	Land Use	Date	Group ID
K	418m W	Unspecified Old Level	1903	1080514
P	418m SW	Unspecified Pit	1878	1131819
U	419m SW	Unspecified Ground Workings	1921	1118671
Z	420m S	Refuse Heap	1938	1137845
Z	420m S	Refuse Heap	1938	1137845
13	422m NE	Unspecified Heap	1992	1040176
T	425m N	Unspecified Factory	1976	1050297
M	425m SW	Unspecified Pit	1878	1027831
P	429m SW	Coal Level	1901	1036060
AB	430m NW	Refuse Heap	1921	1175274
AB	430m NW	Refuse Heap	1921	1175274
K	430m W	Unspecified Old Level	1921	1140943
K	430m W	Unspecified Old Level	1921	1066661
P	431m SW	Unspecified Heaps	1948	1141415
P	431m SW	Unspecified Heaps	1903	1155981
W	432m S	Unspecified Ground Workings	1922	1155648
W	432m S	Unspecified Ground Workings	1922	1085052
AB	433m NW	Refuse Heap	1901	1053758
AB	433m NW	Railway Sidings	1901	1090547
AB	434m NW	Railway Sidings	1903	1090547
Z	437m SE	Unspecified Heap	1903	1054127
Z	438m S	Refuse Heap	1922	1177172
AF	439m NW	Cuttings	1878	1128269
P	440m SW	Unspecified Old Level	1921	1156243
P	440m SW	Unspecified Old Level	1921	1166593
U	442m SW	Refuse Heap	1901	1170227
U	444m SW	Refuse Heap	1903	1170227
15	445m NW	Unspecified Ground Workings	1976	1019224



ID	Location	Land Use	Date	Group ID
Z	450m SE	Refuse Heap	1915	1177172
Z	455m SE	Refuse Heap	1922	1137845
Z	455m SE	Refuse Heap	1922	1137845
W	455m S	Colliery	1875	1129709
AG	456m NE	Unspecified Ground Workings	1976	1075654
AG	456m NE	Unspecified Ground Workings	1965	1075654
F	461m E	Old Dock	1915	1107548
AE	462m W	Cuttings	1965	1132569
16	465m W	Tramway Sidings	1878	1049778
AF	466m NW	Cuttings	1948	1095720
AE	467m W	Unspecified Ground Workings	1901	1150463
AE	469m W	Unspecified Ground Workings	1903	1150463
AB	473m N	Refuse Heap	1903	1053758
AF	473m NW	Cuttings	1921	1095720
AF	474m NW	Cuttings	1921	1154208
AE	487m W	Tramway Sidings	1878	1049777
F	490m E	Railway Building	1901	1047838
17	496m W	Refuse Heap	1901	1124788
AE	497m W	Unspecified Pit	1965	1029464
F	498m E	Old Dock	1922	1175198
F	498m E	Old Dock	1922	1175198

This data is sourced from Ordnance Survey / Groundsure.

2.2 Historical tanks

Records within 500m

59

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 31](#) >



ID	Location	Land Use	Date	Group ID
B	32m N	Tanks	1875	163490
B	34m NE	Tanks	1919	172128
B	39m NE	Tanks	1900	172507
B	40m NE	Tanks	1900	173690
B	55m N	Unspecified Tank	1875	159158
A	65m E	Tank or Trough	1875	164666
A	88m W	Tank or Trough	1875	164675
B	92m N	Unspecified Tank	1875	159157
A	107m W	Unspecified Tank	1975	168889
A	107m W	Unspecified Tank	1984	168889
E	115m S	Unspecified Tank	1919	170055
E	116m S	Unspecified Tank	1904	170055
A	126m SE	Tank or Trough	1875	164676
A	129m W	Tanks	1975	165400
A	129m W	Tanks	1984	165400
A	132m W	Unspecified Tank	1975	170158
A	132m W	Unspecified Tank	1995	164969
A	132m W	Unspecified Tank	1984	166649
D	170m E	Tank or Trough	1875	164672
B	172m N	Unspecified Tank	1995	167783
B	172m N	Unspecified Tank	1998	167783
B	172m N	Unspecified Tank	1984	167783
B	172m N	Unspecified Tank	1975	167783
B	172m N	Unspecified Tank	1956	174181
I	177m W	Unspecified Tank	1919	159133
H	188m SW	Tanks	1975	175147
I	188m W	Unspecified Tank	1919	156498
H	189m SW	Tanks	1984	175147



ID	Location	Land Use	Date	Group ID
I	198m NW	Tanks	1904	170063
I	198m W	Tanks	1900	170063
I	201m W	Unspecified Tank	1919	159132
A	206m S	Unspecified Tank	1875	159163
I	211m W	Unspecified Tank	1919	159135
D	217m E	Unspecified Tank	1984	174514
D	217m E	Unspecified Tank	1989	174514
D	217m E	Unspecified Tank	1989	174514
D	218m E	Unspecified Tank	1972	174514
I	223m W	Unspecified Tank	1919	159134
L	232m NE	Unspecified Tank	1975	168782
L	232m NE	Unspecified Tank	1956	173845
I	235m NW	Unspecified Tank	1919	159138
A	241m N	Unspecified Tank	1875	159154
O	252m E	Unspecified Tank	1957	167335
O	252m E	Unspecified Tank	1958	170559
L	267m NE	Unspecified Tank	1919	159131
B	277m N	Unspecified Tank	1875	159155
B	277m N	Tanks	1904	166312
B	277m N	Tanks	1919	166312
B	282m N	Unspecified Tank	1900	159167
L	285m NE	Unspecified Tank	1919	159145
B	291m N	Tanks	1875	168771
B	295m N	Unspecified Tank	1900	159168
M	335m S	Unspecified Tank	1975	168972
M	336m S	Unspecified Tank	1990	168972
11	351m NE	Unspecified Tank	1875	159156
AA	402m E	Tank or Trough	1875	164674



ID	Location	Land Use	Date	Group ID
AA	403m E	Tanks or Troughs	1875	164601
X	412m SE	Tanks or Troughs	1875	164602
14	427m NE	Unspecified Tank	1919	159144

This data is sourced from Ordnance Survey / Groundsure.

2.3 Historical energy features

Records within 500m

32

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 31](#) >

ID	Location	Land Use	Date	Group ID
A	On site	Electricity Substation	1998	94776
A	27m S	Gas Governor	1995	100595
A	27m S	Gas Governor	1975	101386
A	28m S	Gas Governor	1984	101386
4	117m W	Electricity Substation	1998	94777
J	185m W	Gas Governor	1998	95061
C	251m SE	Electricity Substation	1991	95932
C	251m SE	Electricity Substation	1994	95932
C	252m SE	Electricity Substation	1984	95932
C	252m SE	Electricity Substation	1989	95932
C	252m SE	Electricity Substation	1989	95932
C	252m SE	Electricity Substation	1990	95932
C	252m SE	Electricity Substation	1990	95932
C	252m SE	Electricity Substation	1990	95932
L	265m NE	Electricity Substation	1994	97082
L	265m NE	Electricity Substation	1991	97082
L	266m NE	Electricity Substation	1984	96058



ID	Location	Land Use	Date	Group ID
L	266m NE	Electricity Substation	1989	96058
L	266m NE	Electricity Substation	1989	96058
L	266m NE	Electricity Substation	1990	96058
L	266m NE	Electricity Substation	1990	96058
L	266m NE	Electricity Substation	1990	96058
I	275m W	Electricity Substation	1995	100450
I	275m W	Electricity Substation	1998	100984
I	275m W	Electricity Substation	1984	100450
V	366m S	Electricity Substation	1975	97997
V	366m S	Electricity Substation	1990	97997
V	367m S	Electricity Substation	1995	97997
V	367m S	Electricity Substation	1998	97997
T	432m N	Electricity Substation	1989	94784
F	435m E	Electricity Substation	1991	103294
F	440m E	Electricity Substation	1994	103294

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

7

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 31](#) >

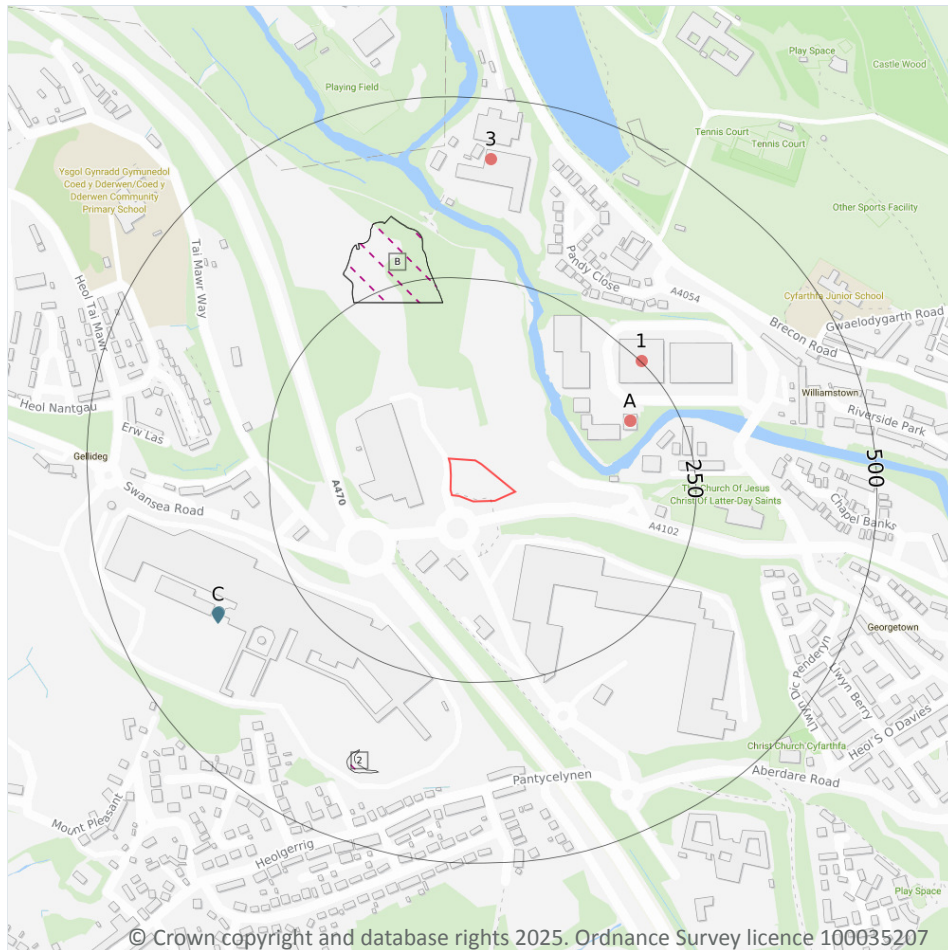


ID	Location	Land Use	Date	Group ID
B	49m N	Maintenance Depot	1975	34683
B	49m N	Maintenance Depot	1984	33729
E	62m SW	Garage	1995	35100
E	66m SW	Garage	1984	35100
E	69m SW	Garage	1975	33550
B	122m N	Maintenance Depot	1956	33332
B	216m N	Maintenance Depot	1989	32731

This data is sourced from Ordnance Survey / Groundsure.



3 Waste and landfill



- Site Outline
- Search buffers in metres (m)
- Historical landfill (LA/OS)
- Licensed waste sites
- Waste exemptions

3.1 Active or recent landfill

Records within 500m

0

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

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

3.2 Historical landfill (BGS records)

Records within 500m

0

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

This data is sourced from the British Geological Survey.



3.3 Historical landfill (LA/mapping records)

Records within 500m

3

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

Features are displayed on the Waste and landfill map on [page 51 >](#)

ID	Location	Site address	Source	Data type
B	215m N	Refuse Tip	1963 mapping	Polygon
B	216m N	Refuse Tip	1963 mapping	Polygon
2	374m S	Refuse Tip	1962 mapping	Polygon

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

2

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

Features are displayed on the Waste and landfill map on [page 51 >](#)



ID	Location	Details		
C	363m SW	Site Name: Trago Mills Development Site Address: Trago Mills Development, Former Brickworks, Pantycelyn, Merthyr Tydfil, Glamorgan, CF48 1TN Correspondence Address: -	Type of Site: Physico-Chemical Treatment Facility Size: Unknown Environmental Permitting Regulations (Waste) Licence Number: RIT001 EPR reference: AP3595FE/S002 Operator: Edmund Nuttall Ltd Waste Management licence No: 30374 Annual Tonnage: 0	Issue Date: 16/12/2005 Effective Date: - Modified: - Surrendered Date: 2.00701e+016 Expiry Date: 0 Cancelled Date: 0 Status: Surrendered
C	365m SW	Site Name: Trago Mills Development Site Address: Trago Mills Development, Former Brickworks, Pantycelyn, Merthyr Tydfil, Glamorgan, CF48 1TN Correspondence Address: -	Type of Site: Physico-Chemical Treatment Facility Size: 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: RIT001 EPR reference: EA/EPR/AP3595FE/S002 Operator: Edmund Nuttall Ltd Waste Management licence No: 30374 Annual Tonnage: 0	Issue Date: 16/12/2005 Effective Date: - Modified: - Surrendered Date: 15/01/2007 Expiry Date: - Cancelled Date: - Status: Surrendered

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

3.7 Waste exemptions

Records within 500m	5
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Activities involving the storage, treatment, use or disposal of waste that are exempt from needing a permit. Exemptions have specific limits and conditions that must be adhered to.

Features are displayed on the Waste and landfill map on [page 51](#) >

ID	Location	Site	Reference	Category	Sub-Category	Description
A	186m NE	Barden Network Engineering Ltd, Barden Network Engineering, Unit 2, Cyfarthfa Industrial Estate, Merthyr Tydfil, Merthyr Tydfil, Cf47 8pe	NRW-WME108380	Storing waste exemption	Not on a farm	Storage of waste in a secure place

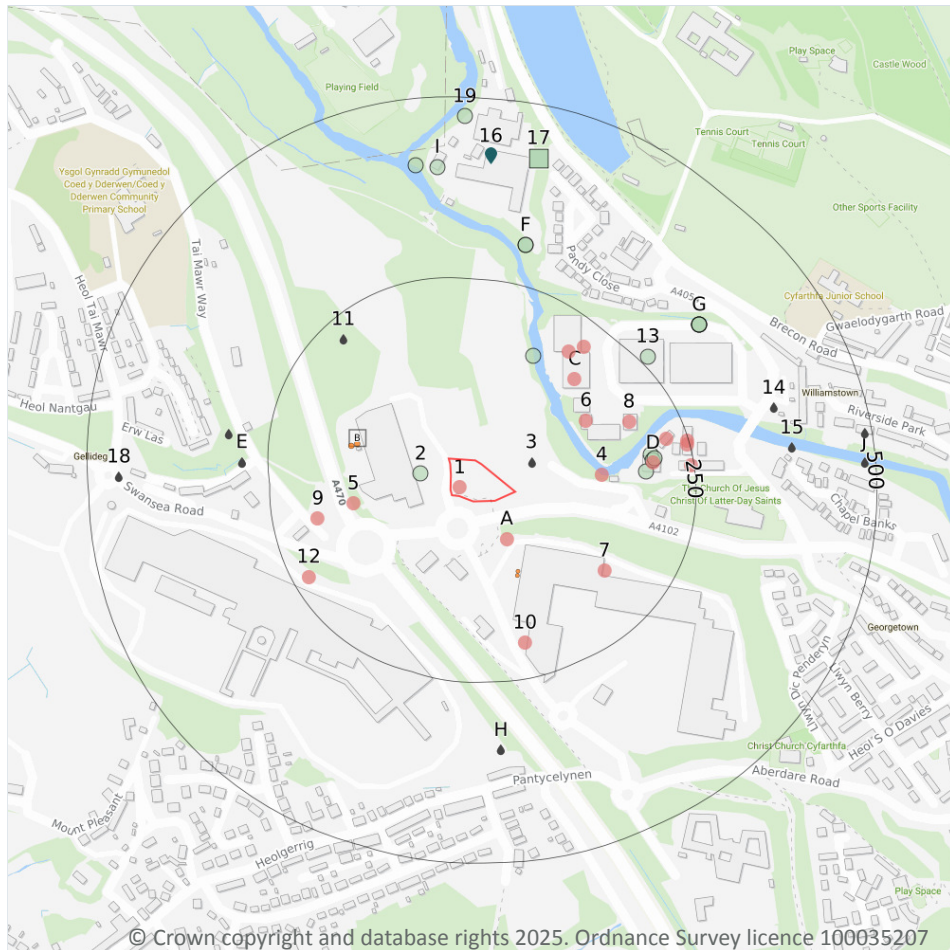


ID	Location	Site	Reference	Category	Sub-Category	Description
A	186m NE	Barden Network Engineering Ltd, Barden Network Engineering, Unit 2, Cyfarthfa Industrial Estate, Merthyr Tydfil, Merthyr Tydfil, Cf47 8pe	NRW-WME073555	Storing waste exemption	Not on a farm	Storage of waste in a secure place
A	186m NE	Barden Network Engineering Ltd, Barden Network Engineering, Unit 2, Cyfarthfa Industrial Estate, Merthyr Tydfil, Merthyr Tydfil, Cf478pe	NRW-WME037577	Storing waste exemption	Not on a farm	Storage of waste in a secure place
1	250m NE	Barden Network Engineering Ltd, Unit 2, Cyfarthfa Industrial Estate, Merthyr Tudful, Mid Glamorgan, Cf478pe	NRW-WME008439	Storing waste exemption	Not on a farm	Storage of waste in a secure place
3	416m N	Efi Industrial Estate, Brecon Road, Merthyr Tydfil, Mid Glamorgan, Cf47 8rb	NRW-WME001549	Using waste exemption	Waste exemption - non-agricultural	Use of waste in construction

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
- NGD current or recent tanks
- Licensed pollutant release (Part A(2)/B)
- Licensed Discharges to controlled waters
- List 2 Dangerous Substances
- Pollution Incidents (EA/NRW)

4.1 Recent industrial land uses

Records within 250m

18

Current potentially contaminative industrial sites.

Features are displayed on the Current industrial land use map on [page 55 >](#)

ID	Location	Company	Address	Activity	Category
1	On site	Electricity Sub Station	Mid Glamorgan, CF48	Electrical Features	Infrastructure and Facilities
A	55m S	Electricity Sub Station	Mid Glamorgan, CF48	Electrical Features	Infrastructure and Facilities
4	122m E	Outfall	Mid Glamorgan, CF48	Waste Storage, Processing and Disposal	Infrastructure and Facilities



ID	Location	Company	Address	Activity	Category
5	136m W	Electricity Sub Station	Mid Glamorgan, CF48	Electrical Features	Infrastructure and Facilities
6	139m NE	Mototech Merthyr Ltd	Unit 7a, Cyfarthfa Industrial Estate, Merthyr Tydfil, Mid Glamorgan, CF47 8PE	Vehicle Repair, Testing and Servicing	Repair and Servicing
7	165m SE	Electricity Sub Station	Mid Glamorgan, CF48	Electrical Features	Infrastructure and Facilities
C	173m NE	Taf Fechan Tyres Ltd	Unit 9, Cyfarthfa Industrial Estate, Merthyr Tydfil, Mid Glamorgan, CF47 8PE	Vehicle Parts and Accessories	Motoring
8	185m NE	Segafredo Zanetti	Unit 5, Cyfarthfa Industrial Estate, Merthyr Tydfil, Mid Glamorgan, CF47 8PE	Food and Beverage Industry Machinery	Industrial Products
9	188m W	Gas Governor Station	Mid Glamorgan, CF48	Gas Features	Infrastructure and Facilities
D	194m E	Works	Mid Glamorgan, CF48	Unspecified Works Or Factories	Industrial Features
C	197m NE	Alrod Ltd	Units 10-11, Cyfarthfa Industrial Estate, Merthyr Tydfil, Mid Glamorgan, CF47 8PE	Metals Manufacturers, Fabricators and Stockholders	Industrial Products
10	200m S	Electricity Sub Station	Mid Glamorgan, CF48	Electrical Features	Infrastructure and Facilities
C	214m NE	Electricity Sub Station	Mid Glamorgan, CF47	Electrical Features	Infrastructure and Facilities
D	221m E	Works	Mid Glamorgan, CF48	Unspecified Works Or Factories	Industrial Features
12	228m SW	Electricity Sub Station	Mid Glamorgan, CF48	Electrical Features	Infrastructure and Facilities
D	246m E	Auto Repairs	Travis Perkins Ltd, Cyfarthfa Road, Merthyr Tydfil, Mid Glamorgan, CF48 1BS	Vehicle Repair, Testing and Servicing	Repair and Servicing
D	246m E	Works	Mid Glamorgan, CF48	Unspecified Works Or Factories	Industrial Features
D	248m E	Works	Mid Glamorgan, CF48	Unspecified Works Or Factories	Industrial Features

This data is sourced from Ordnance Survey.



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

Records within 250m**4**

Current or recent tanks identified from the Ordnance Survey NGD.

Features are displayed on the Current industrial land use map on [page 55](#) >

ID	Location	Tank description	Activity	Date first identified
A	100m S	Roofed Storage Tank	Commercial Activity: Distribution Or Storage	17/06/2014
A	105m S	Roofed Storage Tank	Commercial Activity: Distribution Or Storage	17/06/2014
B	124m W	Roofed Storage Tank	Commercial Activity: Distribution Or Storage	16/03/2015
B	132m W	Roofed Storage Tank	Commercial Activity: Distribution Or Storage	16/03/2015

This data is sourced from Ordnance Survey.

4.3 Current or recent petrol stations

Records within 500m**0**

Open, closed, under development and obsolete petrol stations.

This data is sourced from Experian.

4.4 Electricity cables

Records within 500m**0**

High voltage underground electricity transmission cables.

This data is sourced from National Grid.

4.5 Gas pipelines

Records within 500m**0**

High pressure underground gas transmission pipelines.

This data is sourced from National Grid.



4.6 Sites determined as Contaminated Land

Records within 500m**0**

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

This data is sourced from Local Authority records.

4.7 Control of Major Accident Hazards (COMAH)

Records within 500m**0**

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

This data is sourced from the Health and Safety Executive.

4.8 Regulated explosive sites

Records within 500m**0**

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

This data is sourced from the Health and Safety Executive.

4.9 Hazardous substance storage/usage

Records within 500m**0**

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

This data is sourced from Local Authority records.

4.10 Historical licensed industrial activities (IPC)

Records within 500m**0**

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

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



4.11 Licensed industrial activities (Part A(1))

Records within 500m

0

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

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

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

Records within 500m

1

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

Features are displayed on the Current industrial land use map on [page 55 >](#)

ID	Location	Address	Details	
16	421m N	Beacons Products, Unit 10, E.F.I Industrial Estate, Merthyr Tydfil, Mid Glamorgan, CF47 8RB	Process: Coating Processes Status: Historical Permit Permit Type: Part B	Enforcement: No Enforcements Notified Date of enforcement: No Enforcements Notified Comment: No Enforcements Notified

This data is sourced from Local Authority records.

4.13 Radioactive Substance Authorisations

Records within 500m

0

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

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

4.14 Licensed Discharges to controlled waters

Records within 500m

12

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 55 >](#)



ID	Location	Address	Details	
3	46m NE	CYFARTHATRANSPORTDEPOTMERTHYR, CYFARTHATRANSPORTDEPOTMERTHYR, MERTHYRTYDFIL	Effluent Type: TRADE DISCHARGES - UNSPECIFIED Permit Number: AE2022002 Permit Version: 1 Receiving Water: RIVER TAFF	Status: CONSENT EXPIRED - TIME LIMIT Issue date: 20/02/1964 Effective Date: 20/02/1964 Revocation Date: 09/02/1996
11	220m NW	MERTHYRTYDFILTHORNLIGHTIN	Effluent Type: UNSPECIFIED Permit Number: AE2023201 Permit Version: 1 Receiving Water: TAFF RIVER TRIBUTARY	Status: CONSENT EXPIRED - TIME LIMIT Issue date: 10/03/1964 Effective Date: 10/03/1964 Revocation Date: 08/11/1985
E	286m W	Gellideg Tai Mawr Rd CSO, Merthyr Tydfil, 38 Heol Parc Maen, Swansea Rd, Merthyr Tydfil, CF48 1LF	Effluent Type: SEWAGE DISCHARGES - SEWER STORM OVERFLOW - WATER COMPANY Permit Number: AN0027701 Permit Version: 0 Receiving Water: RIVER TAFF	Status: Effective Issue date: 18/09/2019 Effective Date: 18/09/2019 Revocation Date: -
E	286m W	MTYDFILTAIMAWRLANESSO	Effluent Type: SEWAGE DISCHARGES - SEWER STORM OVERFLOW - WATER COMPANY Permit Number: AN0027701 Permit Version: 1 Receiving Water: RIVER TAFF	Status: Effective Issue date: 09/11/1988 Effective Date: 09/11/1988 Revocation Date: -
E	306m W	GellidegTaiMawrRdCSOMerthyrTydfil, 38HeolParcMaen, SwanseaRd, MerthyrTydfil, CF481LF	Effluent Type: SEWAGE DISCHARGES - SEWER STORM OVERFLOW - WATER COMPANY Permit Number: AN0027701 Permit Version: 2 Receiving Water: River Taff	Status: Effective Issue date: 18/09/2019 Effective Date: 18/09/2019 Revocation Date: -
H	345m S	FORMERBRICKWORKSSITEHEOLGERRIG, FORMERBRICKWORKSSITE, HEOLGERRIG, MERTHYRTYDFIL, MERTHYRTYDFILCBC, CF481TW	Effluent Type: MISCELLANEOUS DISCHARGES - SURFACE WATER Permit Number: AN0352001 Permit Version: 1 Receiving Water: THE HEOLGERRIG CULVERT	Status: REVOKED (WRA 91, S88 & SCHED 10 AS AMENDED BY ENV) Issue date: 18/02/2004 Effective Date: 18/02/2004 Revocation Date: 07/03/2007
H	345m S	FORMERBRICKWORKSSITEHEOLGERRIG, FORMERBRICKWORKSSITE, HEOLGERRIG, MERTHYRTYDFIL, MERTHYRTYDFILCBC, CF481TW	Effluent Type: TRADE DISCHARGES - SITE DRAINAGE Permit Number: AN0352001 Permit Version: 1 Receiving Water: THE HEOLGERRIG CULVERT	Status: REVOKED (WRA 91, S88 & SCHED 10 AS AMENDED BY ENV) Issue date: 18/02/2004 Effective Date: 18/02/2004 Revocation Date: 07/03/2007
14	376m E	Merthyr Tydfil Georgetown Lines Bridge CSO, In Front 14, Williamstown, Merthyr Tydfil, Merthyr Tydfil, CF47 8PD	Effluent Type: SEWAGE DISCHARGES - SEWER STORM OVERFLOW - WATER COMPANY Permit Number: AN0250201 Permit Version: 0 Receiving Water: RIVER TAFF	Status: Effective Issue date: 18/09/2019 Effective Date: 18/09/2019 Revocation Date: -



ID	Location	Address	Details	
15	387m E	MERTHYRLINESBRIDGECSO	Effluent Type: SEWAGE DISCHARGES - SEWER STORM OVERFLOW - WATER COMPANY Permit Number: AN0250201 Permit Version: 1 Receiving Water: RIVER TAFF	Status: Effective Issue date: 04/08/1994 Effective Date: 04/08/1994 Revocation Date: -
18	457m W	MERTHYRSWANSEAROAD	Effluent Type: SEWAGE DISCHARGES - SEWER STORM OVERFLOW - WATER COMPANY Permit Number: AE2025308 Permit Version: 1 Receiving Water: GELLIDEG STREAM THEN TAFF	Status: Surrendered Issue date: 15/04/1964 Effective Date: 15/04/1964 Revocation Date: -
J	484m E	MERTHYRBUSDEPOT	Effluent Type: TRADE DISCHARGES - UNSPECIFIED Permit Number: AE2022101 Permit Version: 1 Receiving Water: TAFF RIVER	Status: CONSENT EXPIRED - TIME LIMIT Issue date: 02/03/1964 Effective Date: 02/03/1964 Revocation Date: 29/10/1985
J	489m E	PANDYFARMDEVELOPMENTBRECO NROAD, PANDYFARMDEVELOPMENTBRECO NRO, BRECONROADMERTHYRTYDFIL, MERTHYRTYDFIL	Effluent Type: SEWAGE DISCHARGES - SEWER STORM OVERFLOW - WATER COMPANY Permit Number: AE1011601 Permit Version: 1 Receiving Water: RIVER TAFF	Status: Surrendered Issue date: 04/11/1959 Effective Date: 04/11/1959 Revocation Date: -

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

4.15 Pollutant release to surface waters (Red List)

Records within 500m

0

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

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

4.16 Pollutant release to public sewer

Records within 500m

0

Discharges of Special Category Effluents to the public sewer.

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



4.17 List 1 Dangerous Substances

Records within 500m

0

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

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

4.18 List 2 Dangerous Substances

Records within 500m

1

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

Features are displayed on the Current industrial land use map on [page 55 >](#)

ID	Location	Name	Status	Receiving Water	Authorised Substances
17	427m N	Remploy Ltd, Unit 3&4, Cyfarthfa Industrial Estate, Merthyr	Not Active	River Taff	Chromium, Copper, Lead, Nickel, Zinc

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

4.19 Pollution Incidents (EA/NRW)

Records within 500m

16

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 55 >](#)

ID	Location	Details	
2	42m W	Incident Date: 21/08/2013 Incident Identification: 1150204 Pollutant: Inert Materials and Wastes Pollutant Description: Construction and Demolition Materials and Wastes	Water Impact: - Land Impact: Category 4 (No Impact) Air Impact: Category 4 (No Impact)
C	165m NE	Incident Date: 17/03/2014 Incident Identification: 1218755 Pollutant: Specific Waste Materials Pollutant Description: Other Specific Waste Material	Water Impact: - Land Impact: Category 3 (Minor) Air Impact: Category 4 (No Impact)
D	182m E	Incident Date: 13/05/2014 Incident Identification: 1234766 Pollutant: Atmospheric Pollutants and Effects Pollutant Description: Smoke	Water Impact: - Land Impact: Category 4 (No Impact) Air Impact: Category 3 (Minor)



ID	Location	Details	
D	194m E	Incident Date: 15/05/2013 Incident Identification: 1113091 Pollutant: Atmospheric Pollutants and Effects Pollutant Description: Landfill Odour	Water Impact: - Land Impact: Category 4 (No Impact) Air Impact: Category 4 (No Impact)
D	195m E	Incident Date: 24/11/2014 Incident Identification: 1298152 Pollutant: Specific Waste Materials Pollutant Description: Vehicles and Vehicle Parts	Water Impact: - Land Impact: Category 4 (No Impact) Air Impact: Category 3 (Minor)
D	198m E	Incident Date: 15/07/2013 Incident Identification: 1133359 Pollutant: Multiple Pollutants Pollutant Description: 3 Pollutants Including Tyres	Water Impact: - Land Impact: Category 4 (No Impact) Air Impact: Category 3 (Minor)
13	262m NE	Incident Date: 14/07/2003 Incident Identification: 173664 Pollutant: Atmospheric Pollutants and Effects:Specific Waste Materials Pollutant Description: Smoke:Other Specific Waste Material	Water Impact: Category 3 (Minor) Land Impact: Category 4 (No Impact) Air Impact: Category 3 (Minor)
F	306m N	Incident Date: 15/02/2018 Incident Identification: 1800852 Pollutant: Inert Materials and Waste Pollutant Description: Soils and Clay	Water Impact: Category 2 (Significant) Land Impact: No Details Air Impact: No Details
F	306m N	Incident Date: 15/02/2018 Incident Identification: 1800852 Pollutant: Inert Materials and Waste Pollutant Description: Soils and Clay	Water Impact: Category 2 (Significant) Land Impact: No Details Air Impact: No Details
G	343m NE	Incident Date: 23/02/2002 Incident Identification: 60157 Pollutant: Organic Chemicals/Products:Organic Chemicals/Products:Oils and Fuel Pollutant Description: Paints and Varnishes:Solvents:Gas and Fuel Oils	Water Impact: Category 4 (No Impact) Land Impact: Category 4 (No Impact) Air Impact: Category 4 (No Impact)
G	343m NE	Incident Date: 23/02/2002 Incident Identification: 60157 Pollutant: Organic Chemicals/Products Pollutant Description: Paints and Varnishes	Water Impact: Category 4 (No Impact) Land Impact: Category 4 (No Impact) Air Impact: Category 4 (No Impact)
G	343m NE	Incident Date: 23/02/2002 Incident Identification: 60157 Pollutant: Organic Chemicals/Products Pollutant Description: Solvents	Water Impact: Category 4 (No Impact) Land Impact: Category 4 (No Impact) Air Impact: Category 4 (No Impact)
G	343m NE	Incident Date: 23/02/2002 Incident Identification: 60157 Pollutant: Oils and Fuel Pollutant Description: Gas and Fuel Oils	Water Impact: Category 4 (No Impact) Land Impact: Category 4 (No Impact) Air Impact: Category 4 (No Impact)



ID	Location	Details	
I	403m N	Incident Date: 24/11/2014 Incident Identification: 1298153 Pollutant: Specific Waste Materials Pollutant Description: Other Specific Waste Material	Water Impact: - Land Impact: Category 4 (No Impact) Air Impact: Category 4 (No Impact)
I	408m N	Incident Date: 24/06/2015 Incident Identification: 1348085 Pollutant: Pollutant Not Identified Pollutant Description: Not Identified	Water Impact: - Land Impact: Category 3 (Minor) Air Impact: Category 4 (No Impact)
19	474m N	Incident Date: 24/11/2014 Incident Identification: 1296923 Pollutant: Atmospheric Pollutants and Effects Pollutant Description: Smoke	Water Impact: - Land Impact: Category 4 (No Impact) Air Impact: Category 4 (No Impact)

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

4.20 Pollution inventory substances

Records within 500m

0

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

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

4.21 Pollution inventory waste transfers

Records within 500m

0

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

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

4.22 Pollution inventory radioactive waste

Records within 500m

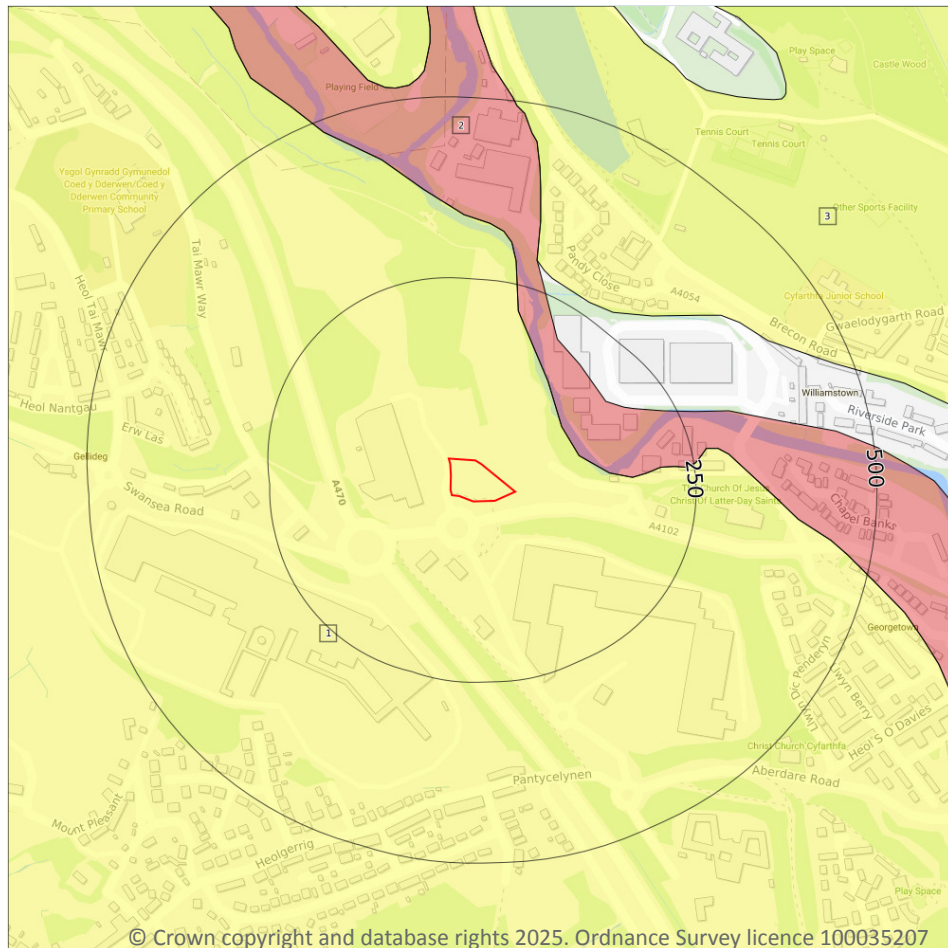
0

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

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



5 Hydrogeology - Superficial aquifer



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

5.1 Superficial aquifer

Records within 500m

3

Aquifer status of groundwater held within superficial geology.

Features are displayed on the Hydrogeology map on [page 65](#) >

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	101m NE	Secondary A	Permeable layers capable of supporting water supplies at a local rather than strategic scale, and in some cases forming an important source of base flow to rivers. These are generally aquifers formerly classified as minor aquifers

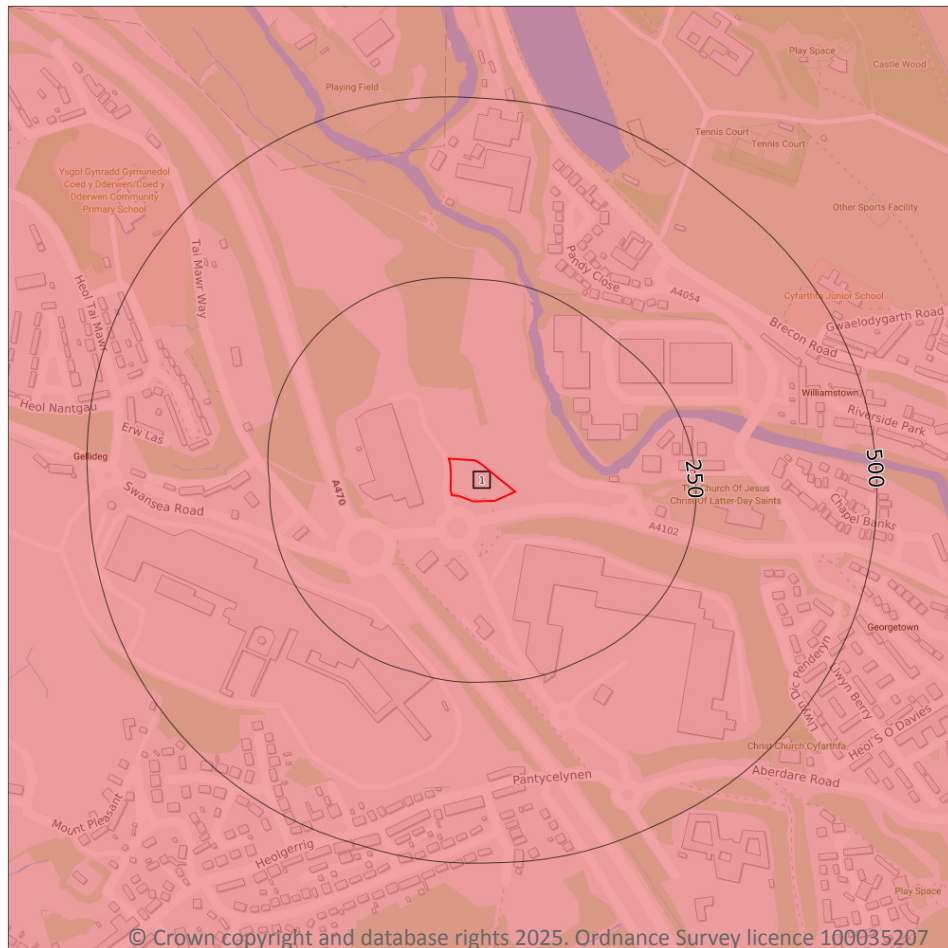


ID	Location	Designation	Description
3	269m NE	Secondary Undifferentiated	Assigned where it is not possible to attribute either category A or B to a rock type. In general these layers have previously been designated as both minor and non-aquifer in different locations due to the variable characteristics of the rock type

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



Bedrock aquifer



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

5.2 Bedrock aquifer

Records within 500m

1

Aquifer status of groundwater held within bedrock geology.

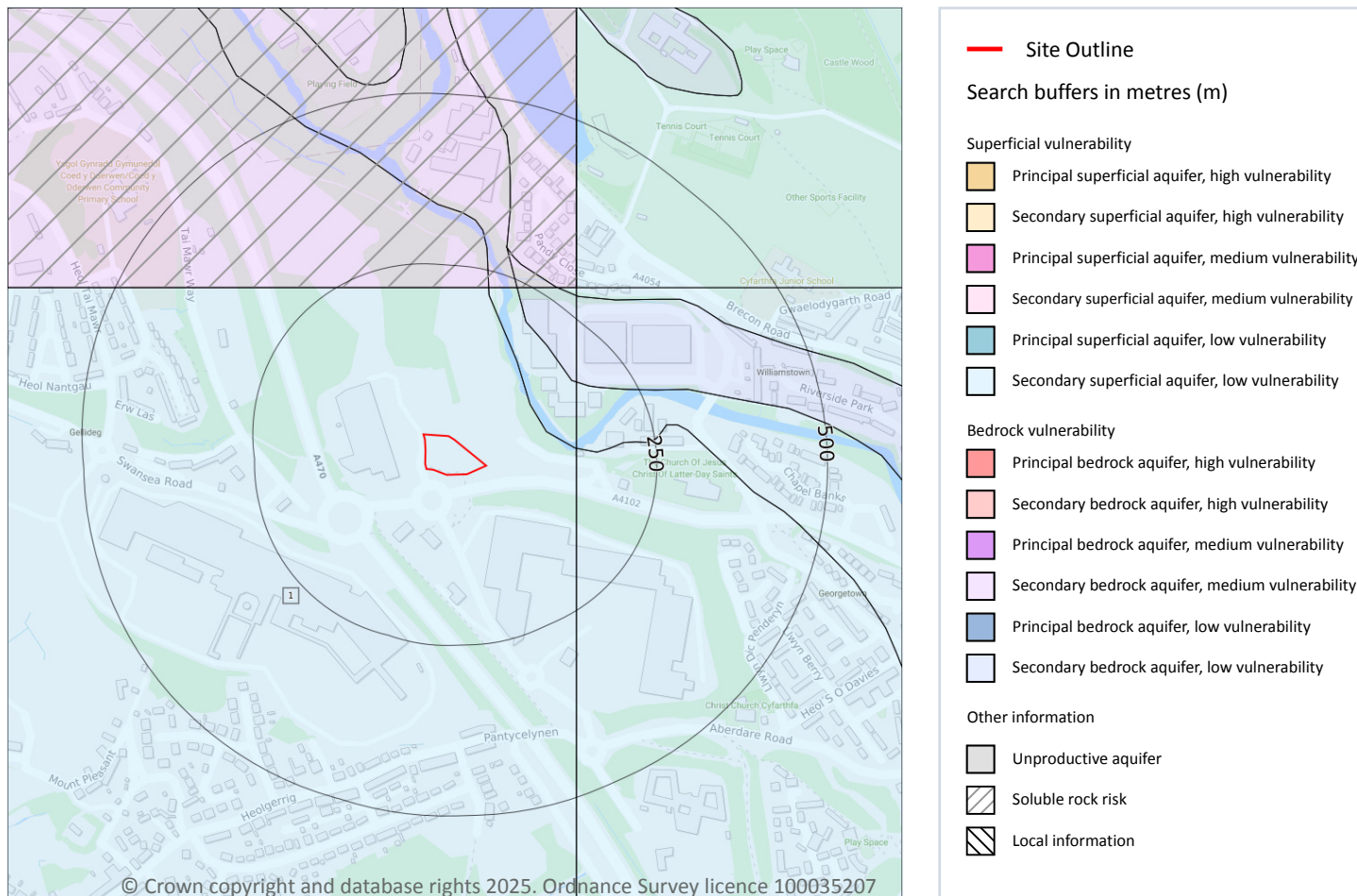
Features are displayed on the Bedrock aquifer map on [page 67](#) >

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

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

1

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 68 >](#)



ID	Location	Summary	Soil / surface	Superficial geology	Bedrock geology
1	On site	Summary Classification: Secondary superficial aquifer - Low Vulnerability Combined classification: Productive Bedrock Aquifer, Productive Superficial Aquifer	Leaching class: Low Infiltration value: <40% Dilution value: >550mm/year	Vulnerability: Low Aquifer type: Secondary Thickness: >10m Patchiness value: >90% Recharge potential: Low	Vulnerability: Low 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
------------------------	----------

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

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

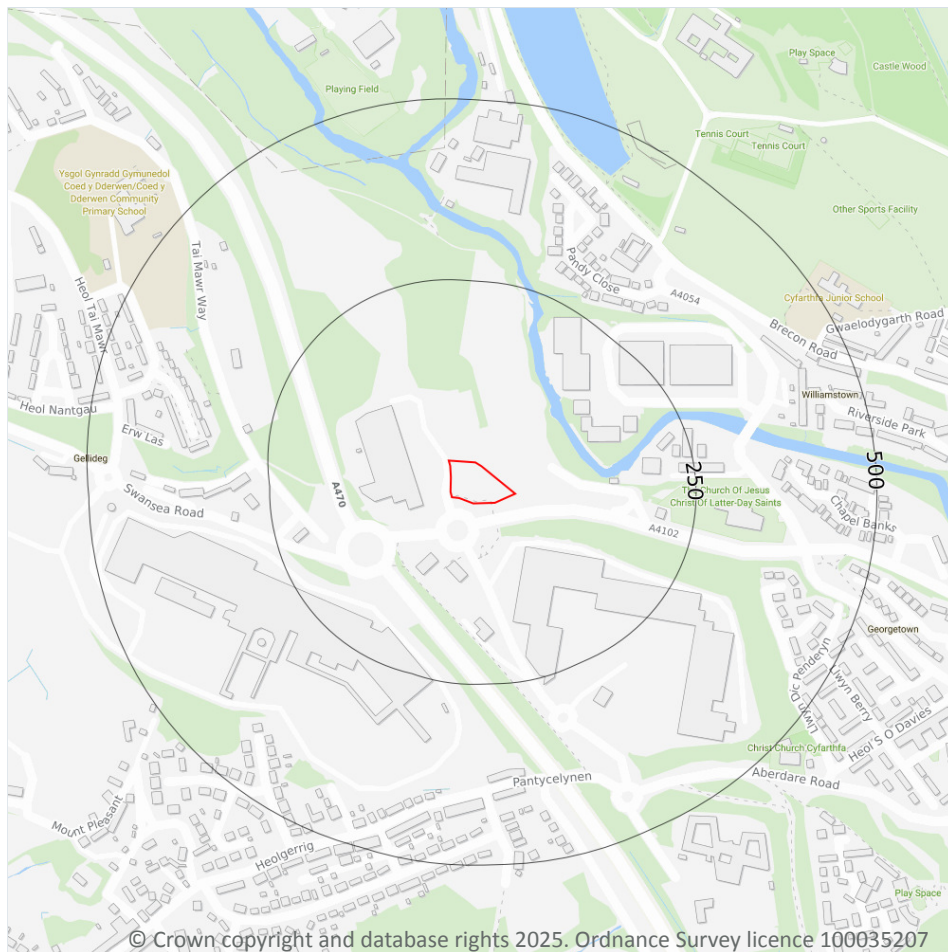
5.5 Groundwater vulnerability- local information

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

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

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

Abstractions and Source Protection Zones



- Site Outline
- Search buffers in metres (m)**
- Source Protection Zone 1
Inner catchment
- Source Protection Zone 2
Outer catchment
- Source Protection Zone 3
Total catchment
- Source Protection Zone 4
Zone of Special Interest
- Source Protection Zone 1c
Inner catchment - confined aquifer
- Source Protection Zone 2c
Outer catchment - confined aquifer
- Source Protection Zone 3c
Total catchment - confined aquifer
- Drinking water abstraction licences
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

0

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.

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



5.7 Surface water abstractions

Records within 2000m

2

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

Features are displayed on the Abstractions and Source Protection Zones map on [page 70](#) >

ID	Location	Details	
-	881m N	Status: Historical Licence No: WA/057/0021/002 Details: Transfer Between Sources (Post Water Act 2003) Direct Source: EAW Surface Water Point: POINT A ON TAF FECHAN ALONGSIDE CYFARTHFA LEAT Data Type: Point Name: Balfour Beatty Civil Engineering Limited Easting: 303704 Northing: 207663	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 06/06/2012 Expiry Date: 31/10/2012 Issue No: 1 Version Start Date: 06/06/2012 Version End Date: -
-	1633m N	Status: Active Licence No: WA/057/0021/0011 Details: Transfer between Sources (Pre Water Act 2003) - Very Low Direct Source: Taf Fechan Point: - Data Type: Point Name: - Easting: 303483 Northing: 208391	Annual Volume (m ³): 5650200 Max Daily Volume (m ³): 15480 Original Application No: - Original Start Date: 30/06/2016 Expiry Date: 30/03/2029 Issue No: - Version Start Date: - Version End Date: -

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

5.8 Potable abstractions

Records within 2000m

0

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

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



5.9 Source Protection Zones

Records within 500m

0

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

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

5.10 Source Protection Zones (confined aquifer)

Records within 500m

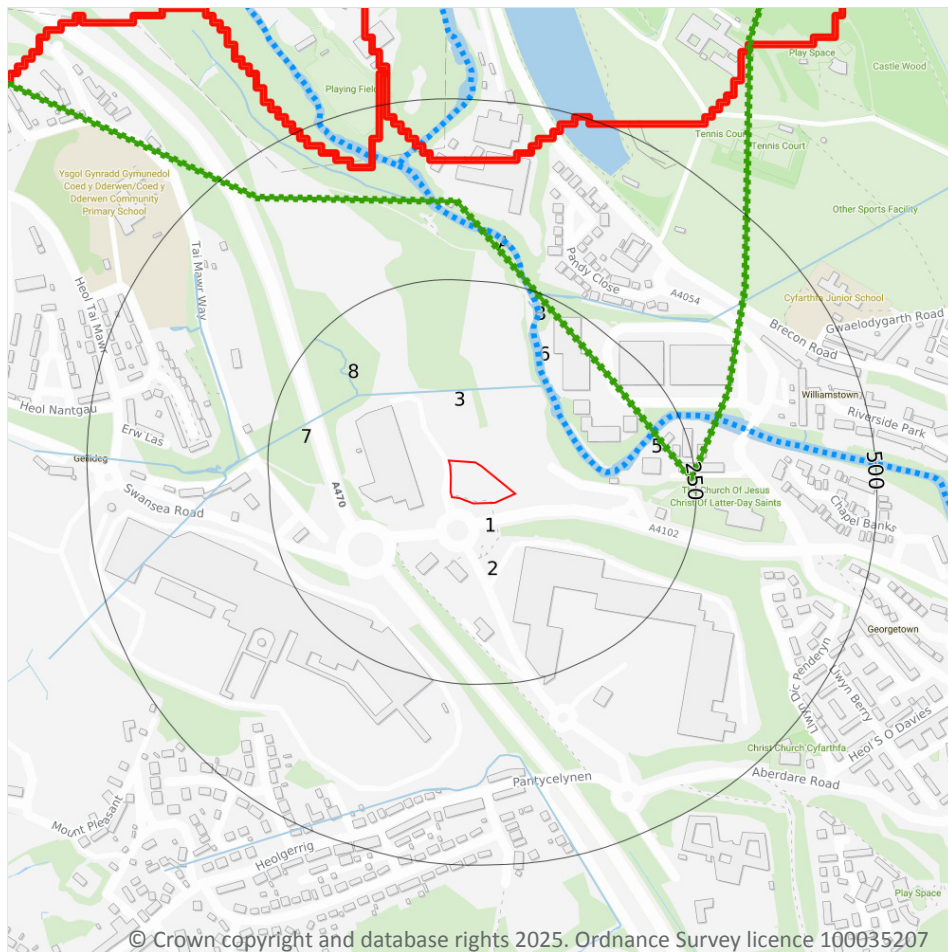
0

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

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



6 Hydrology



- Site Outline
- Search buffers in metres (m)
- Water Network (OS 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

10

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 73](#) >

ID	Location	Type of water feature	Ground level	Permanence	Name
3	96m N	Inland river not influenced by normal tidal action.	Not provided	Watercourse contains water year round (in normal circumstances)	-



ID	Location	Type of water feature	Ground level	Permanence	Name
5	109m NE	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	Afon Taf
6	144m NE	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	Afon Taf
7	155m NW	Inland river not influenced by normal tidal action.	Not provided	Watercourse contains water year round (in normal circumstances)	-
8	155m NW	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
B	230m N	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
B	233m N	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	Afon Taf
A	244m N	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	Afon Taf
B	244m N	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
B	248m N	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

2

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 73](#) >

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 73 >](#)

ID	Location	Type	Water body catchment	Water body ID	Operational catchment	Management catchment
1	On site	River WB catchment	Taff - conf Taf Fechan to conf R Cynon	GB109057033100	Taff u s Cynon	South East Valleys

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 73 >](#)

ID	Location	Type	Name	Water body ID	Overall rating	Chemical rating	Ecological rating	Year
4	109m NE	River	Taff - conf Taf Fechan to conf R Cynon	GB109057033100	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 73 >](#)



ID	Location	Name	Water body ID	Overall rating	Chemical rating	Quantitative	Year
2	On site	SE Valleys Carboniferous Coal Measures	GB40902G201900	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

1

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

Features are displayed on the River and coastal flooding map on [page 77](#) >

ID	Location	Event name	Date of flood	Flood source	Flood cause	Type of flood
A	119m NE	Merthyr Tydfil December 1979 03	1979-12-27 1979-12-27	Main river	Channel capacity exceeded (no raised defences)	Fluvial

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

7.3 Flood Defences

Records within 250m

0

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

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

7.4 Areas Benefiting from Flood Defences

Records within 250m

0

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

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

7.5 Flood Storage Areas

Records within 250m

0

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

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



River and coastal flooding - Flood Zones

7.6 Flood Zone 2

Records within 50m

0

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

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

7.7 Flood Zone 3

Records within 50m

0

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

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



8 Surface water flooding



— Site Outline

Search buffers in metres (m)

1 in 1000 return period

- Depth between 0.1m - 0.3m
- Depth between 0.3m - 1.0m
- Depth greater than 1.0m

1 in 250 return period

- Depth between 0.1m - 0.3m
- Depth between 0.3m - 1.0m
- Depth greater than 1.0m

1 in 100 return period

- Depth between 0.1m - 0.3m
- Depth between 0.3m - 1.0m
- Depth greater than 1.0m

1 in 30 return period

- Depth between 0.1m - 0.3m
- Depth between 0.3m - 1.0m
- Depth greater than 1.0m

8.1 Surface water flooding

Highest risk on site

Negligible

Highest risk within 50m

1 in 30 year, 0.1m - 0.3m

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

Features are displayed on the Surface water flooding map on [page 80 >](#)

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

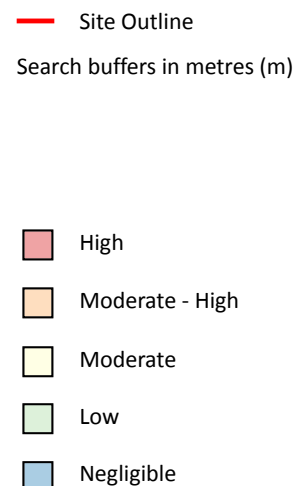
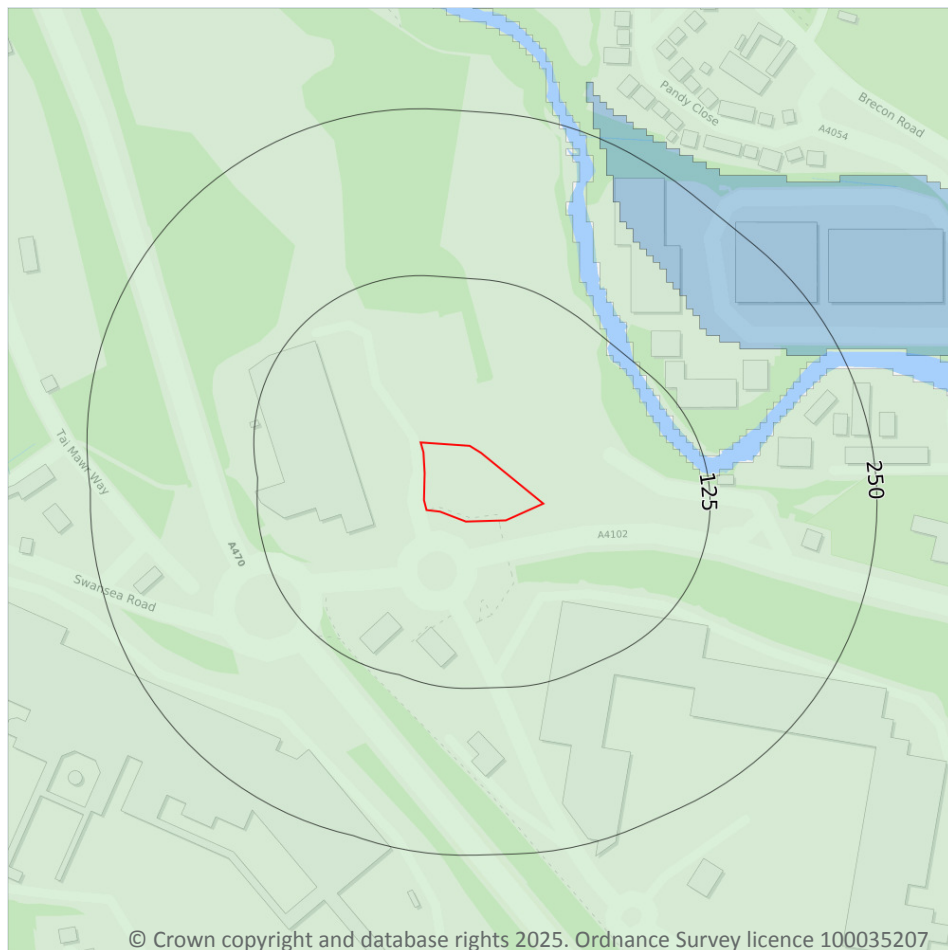
The table below shows the maximum flood depths for a range of return periods for the site.

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

This data is sourced from Ambiantal Risk Analytics.



9 Groundwater flooding



9.1 Groundwater flooding

Highest risk on site

Low

Highest risk within 50m

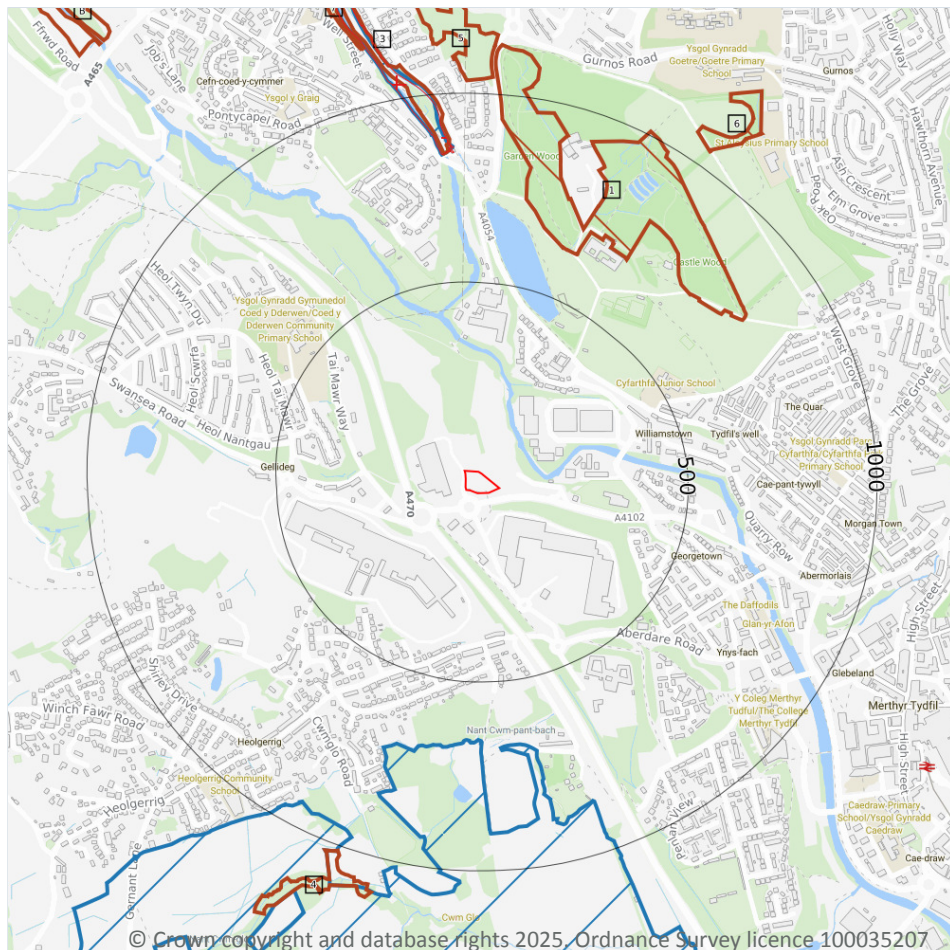
Low

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 82 >](#)

This data is sourced from Ambiental Risk Analytics.

10 Environmental designations



- Site Outline
- Search buffers in metres (m)
- Sites of Special Scientific Interest (SSSI)
- + Local Nature Reserves (LNR)
- Designated Ancient Woodland

10.1 Sites of Special Scientific Interest (SSSI)

Records within 2000m

2

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

Features are displayed on the Environmental designations map on [page 83](#) >

ID	Location	Name	Data source
2	653m S	Cwm Glo a Glyndyrys	Natural Resources Wales



ID	Location	Name	Data source
A	839m N	Cwm Taf Fechan Woodlands	Natural Resources Wales

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

10.2 Conserved wetland sites (Ramsar sites)

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

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

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

10.3 Special Areas of Conservation (SAC)

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

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

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

10.4 Special Protection Areas (SPA)

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

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

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

10.5 National Nature Reserves (NNR)

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

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

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

10.6 Local Nature Reserves (LNR)

Records within 2000m

1

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

Features are displayed on the Environmental designations map on [page 83 >](#)

ID	Location	Name	Data source
A	839m N	Cwm Taf Fechan Woodlands	Natural Resources Wales

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

10.7 Designated Ancient Woodland

Records within 2000m

17

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 83 >](#)

ID	Location	Name	Woodland Type
1	631m NE	Unknown	Restored Ancient Woodland Site
3	842m N	Unknown	Restored Ancient Woodland Site
4	1014m S	Unknown	Ancient Semi Natural Woodland
5	1034m N	Unknown	Restored Ancient Woodland Site
6	1046m NE	Unknown	Ancient Semi Natural Woodland
7	1150m N	Unknown	Ancient Semi Natural Woodland
-	1460m N	Unknown	Restored Ancient Woodland Site
B	1487m NW	Unknown	Ancient Semi Natural Woodland
B	1487m NW	Unknown	Ancient Semi Natural Woodland
-	1518m N	Unknown	Restored Ancient Woodland Site
-	1647m N	Unknown	Ancient Woodland Site of Unknown Category
-	1653m N	Unknown	Ancient Semi Natural Woodland



ID	Location	Name	Woodland Type
-	1665m N	Unknown	Restored Ancient Woodland Site
-	1693m N	Unknown	Ancient Semi Natural Woodland
-	1832m NW	Unknown	Ancient Semi Natural Woodland
-	1892m NW	Unknown	Restored Ancient Woodland Site
-	1965m N	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

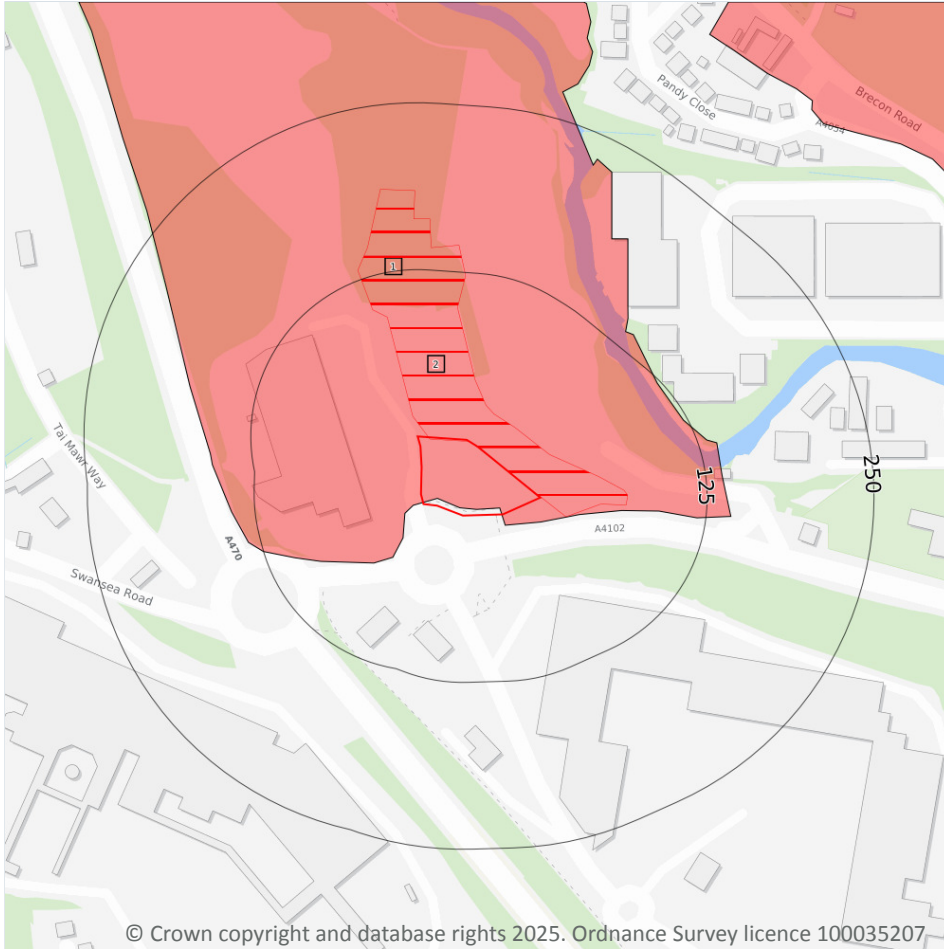
0

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



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- Site Outline
- Search buffers in metres (m)
- Listed buildings
- Conservation areas
- Conservation areas - no data
- National Parks
- Areas of Outstanding Natural Beauty
- Registered parks and gardens
- Scheduled Monuments
- World Heritage Sites

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**1**

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.



Features are displayed on the Visual and cultural designations map on [page 90 >](#)

ID	Location	Name	District	Date of designation
1	On site	Cyfarthfa, Merthyr Tydfil	Merthyr Tydfil	16/12/2009

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

11.6 Scheduled Ancient Monuments

Records within 250m	1
----------------------------	----------

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.

Features are displayed on the Visual and cultural designations map on [page 90 >](#)

ID	Location	Ancient monument name	Reference number
2	On site	Remains of Blast Furnaces, Cyfarthfa Ironworks	3118

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

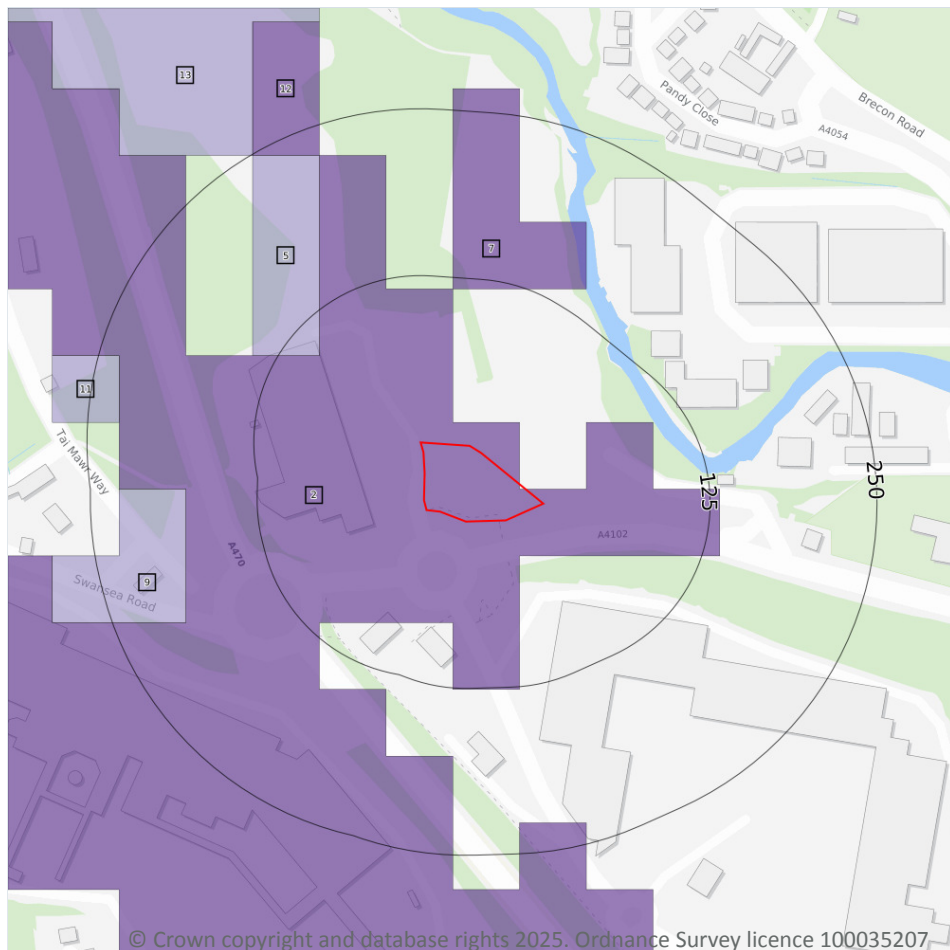
11.7 Registered Parks and Gardens

Records within 250m	0
----------------------------	----------

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

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

12 Agricultural designations



- Site Outline
- Search buffers in metres (m)
- Grade 1 - excellent quality
- Grade 2 - very good quality
- Grade 3a - good quality
- Grade 3b - moderate quality
- Grade 4 - poor quality
- Grade 5 - very poor quality
- Timber felling licences
- Open Access land

12.1 Agricultural Land Classification

Records within 250m

7

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 93](#) >

ID	Location	Classification	Description
2	On site	Grade 5	Very poor quality agricultural land
5	100m NW	Grade 4	Poor quality agricultural land
7	116m N	Grade 5	Very poor quality agricultural land



ID	Location	Classification	Description
9	178m W	Grade 4	Poor quality agricultural land
11	226m W	Grade 4	Poor quality agricultural land
12	228m N	Grade 5	Very poor quality agricultural land
13	249m NW	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

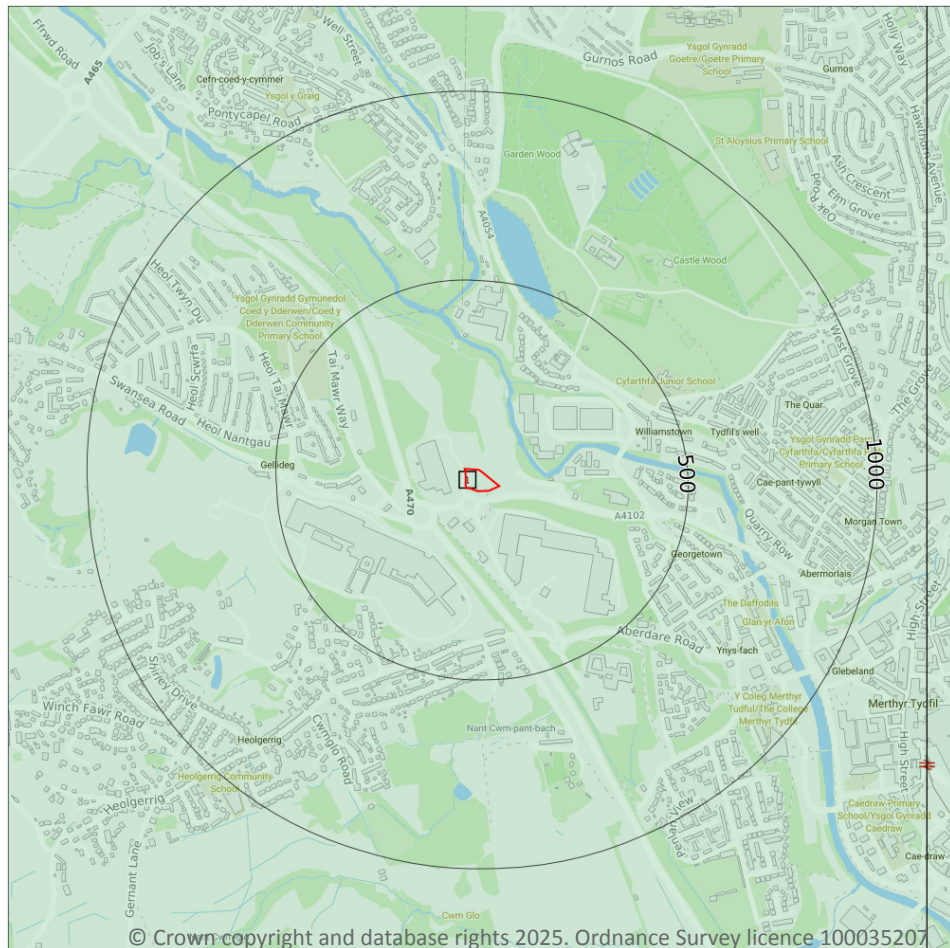
0

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

1

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

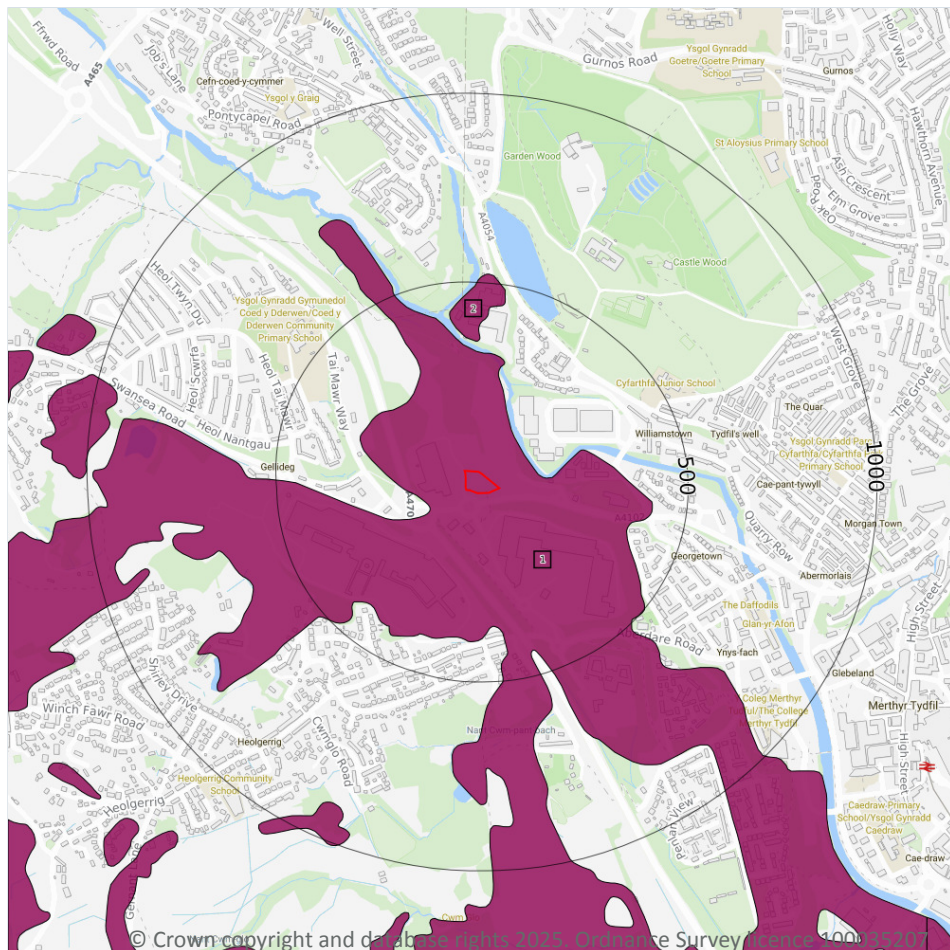
Features are displayed on the Geology 1:10,000 scale - Availability map on [page 97](#) >

ID	Location	Artificial	Superficial	Bedrock	Mass movement	Sheet No.
1	On site	Full	Full	Full	No coverage	SO00NW

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

2

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.

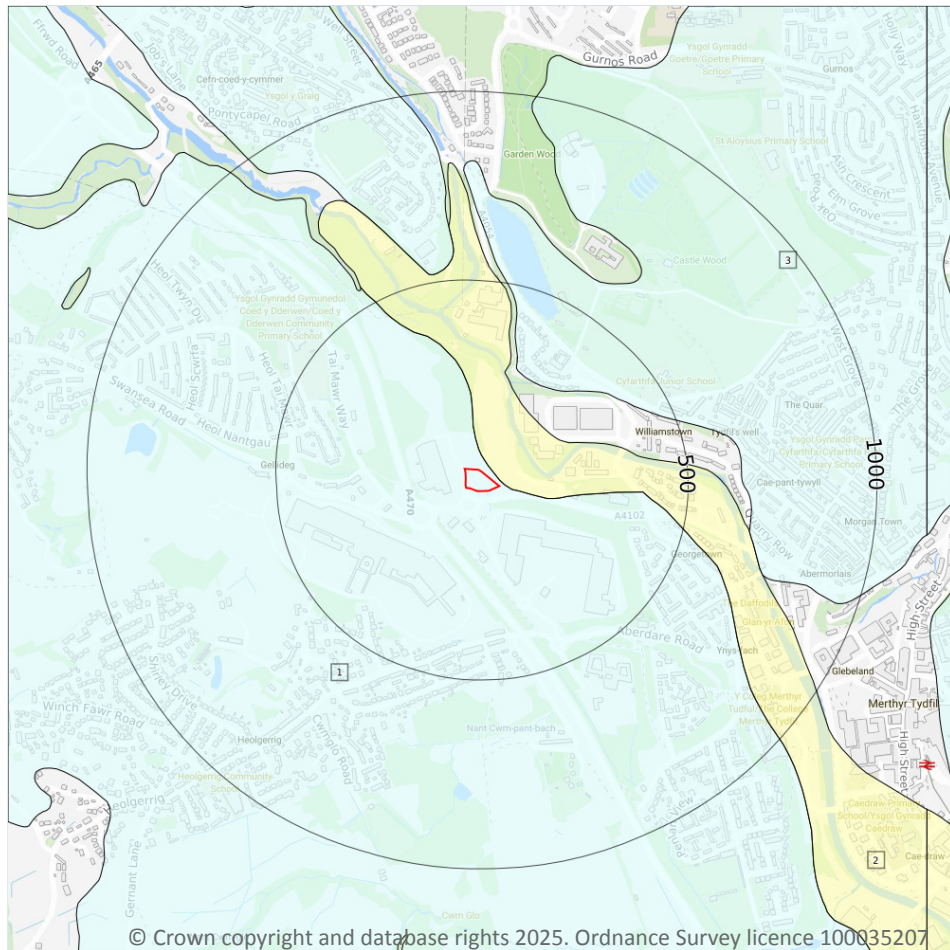
Features are displayed on the Geology 1:10,000 scale - Artificial and made ground map on [page 98](#) >

ID	Location	LEX Code	Description	Rock description
1	On site	MGR-ARTDP	Made Ground (Undivided)	Artificial deposit
2	344m N	MGR-ARTDP	Made Ground (Undivided)	Artificial deposit

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

3

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 99](#) >

ID	Location	LEX Code	Description	Rock description
1	On site	TILLD-DMTN	Till, Devensian-Diamicton	Diamicton
2	12m NE	ALV-XCZSV	Alluvium-Clay, Silt, Sand And Gravel	Clay, silt, sand and gravel
3	274m NE	TILLD-DMTN	Till, Devensian-Diamicton	Diamicton



This data is sourced from the British Geological Survey.

14.4 Landslip (10k)

Records within 500m

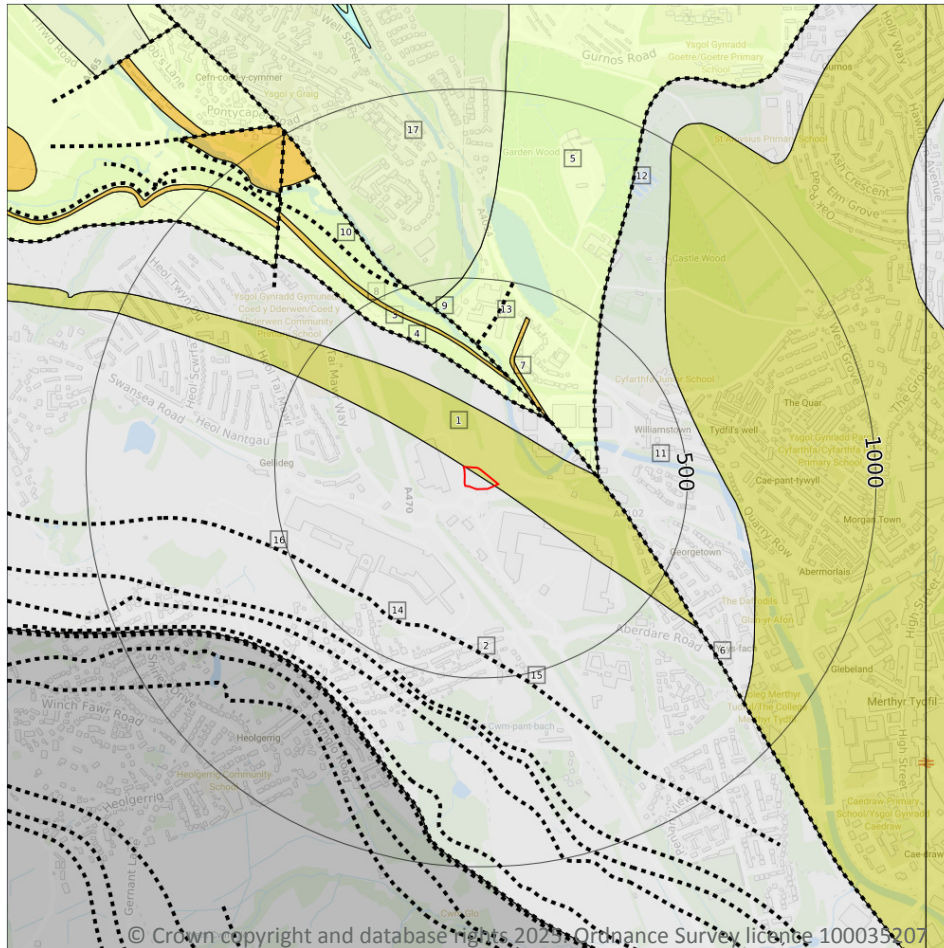
0

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

This data is sourced from the British Geological Survey.



Geology 1:10,000 scale - Bedrock



Site Outline

Search buffers in metres (m)

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

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

14.5 Bedrock geology (10k)

Records within 500m

9

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 101](#) >

ID	Location	LEX Code	Description	Rock age
1	On site	SWLCM-SDST	South Wales Lower Coal Measures Formation-Sandstone	Westphalian
2	On site	SWLCM-MDSS	South Wales Lower Coal Measures Formation-Mudstone, Siltstone And Sandstone	Westphalian



ID	Location	LEX Code	Description	Rock age
3	198m NE	BISHM-MDSS	Bishopston Mudstone Formation-Mudstone, Siltstone And Sandstone	Namurian
5	214m NE	BISHM-MDSS	Bishopston Mudstone Formation-Mudstone, Siltstone And Sandstone	Namurian
7	216m NE	BISHM-SDST	Bishopston Mudstone Formation-Sandstone	Namurian
8	240m NE	BISHM-SDST	Bishopston Mudstone Formation-Sandstone	Namurian
10	259m N	BISHM-MDSS	Bishopston Mudstone Formation-Mudstone, Siltstone And Sandstone	Namurian
11	265m E	SWLCM-MDSS	South Wales Lower Coal Measures Formation-Mudstone, Siltstone And Sandstone	Westphalian
17	436m N	TWR-SCON	Twrch Sandstone Formation-Interbedded Sandstone And Conglomerate	Namurian

This data is sourced from the British Geological Survey.

14.6 Bedrock faults and other linear features (10k)

Records within 500m

9

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.

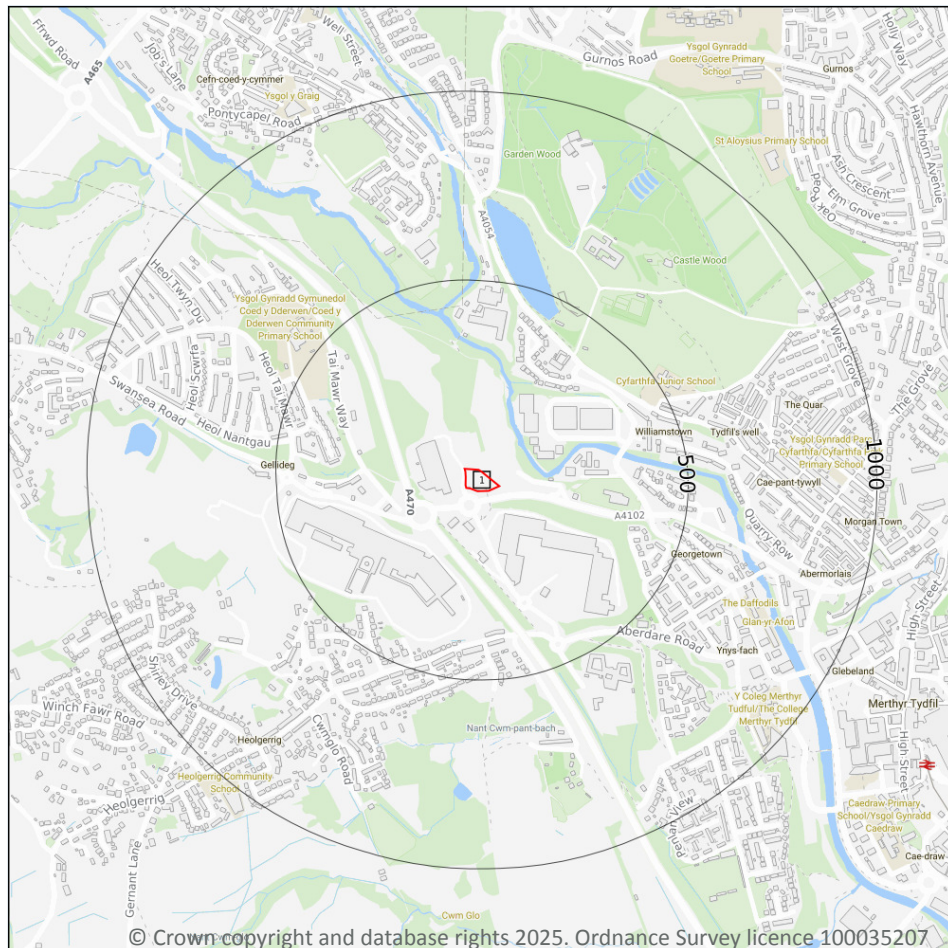
Features are displayed on the Geology 1:10,000 scale - Bedrock map on [page 101](#) >

ID	Location	Category	Description
4	198m NE	FOSSIL_HORIZON	Marine band
6	214m NE	FAULT	Fault, inferred, displacement unknown
9	256m N	FAULT	Fault, observed, displacement unknown
12	265m E	FOSSIL_HORIZON	Marine band
13	325m N	FOSSIL_HORIZON	Marine band
14	386m S	ROCK	Coal seam, observed
15	398m S	ROCK	Coal seam, inferred
16	429m SW	ROCK	Coal seam, inferred
18	498m N	FOSSIL_HORIZON	Marine band

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.

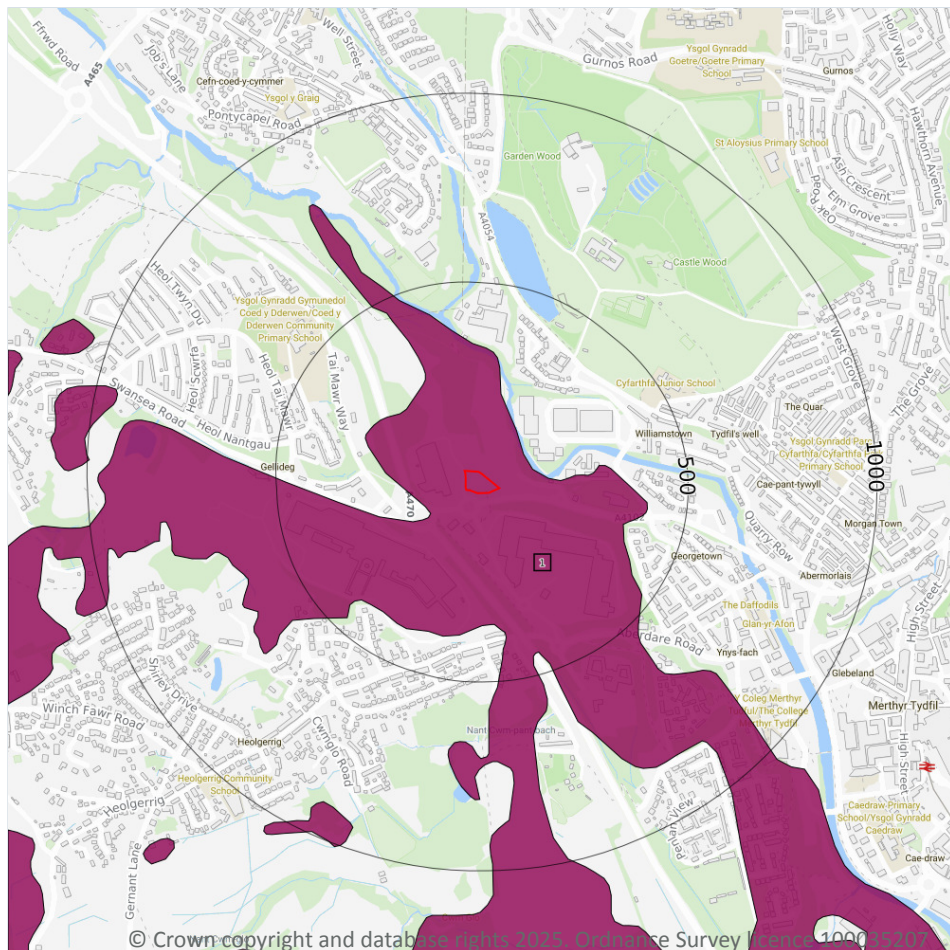
Features are displayed on the Geology 1:50,000 scale - Availability map on [page 103](#) >

ID	Location	Artificial	Superficial	Bedrock	Mass movement	Sheet No.
1	On site	Full	Full	Full	Full	EW231_merthyr_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

1

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 104](#) >

ID	Location	LEX Code	Description	Rock description
1	On site	MGR-ARTDP	Made Ground	Artificial deposit

This data is sourced from the British Geological Survey.



15.3 Artificial ground permeability (50k)

Records within 50m**1**

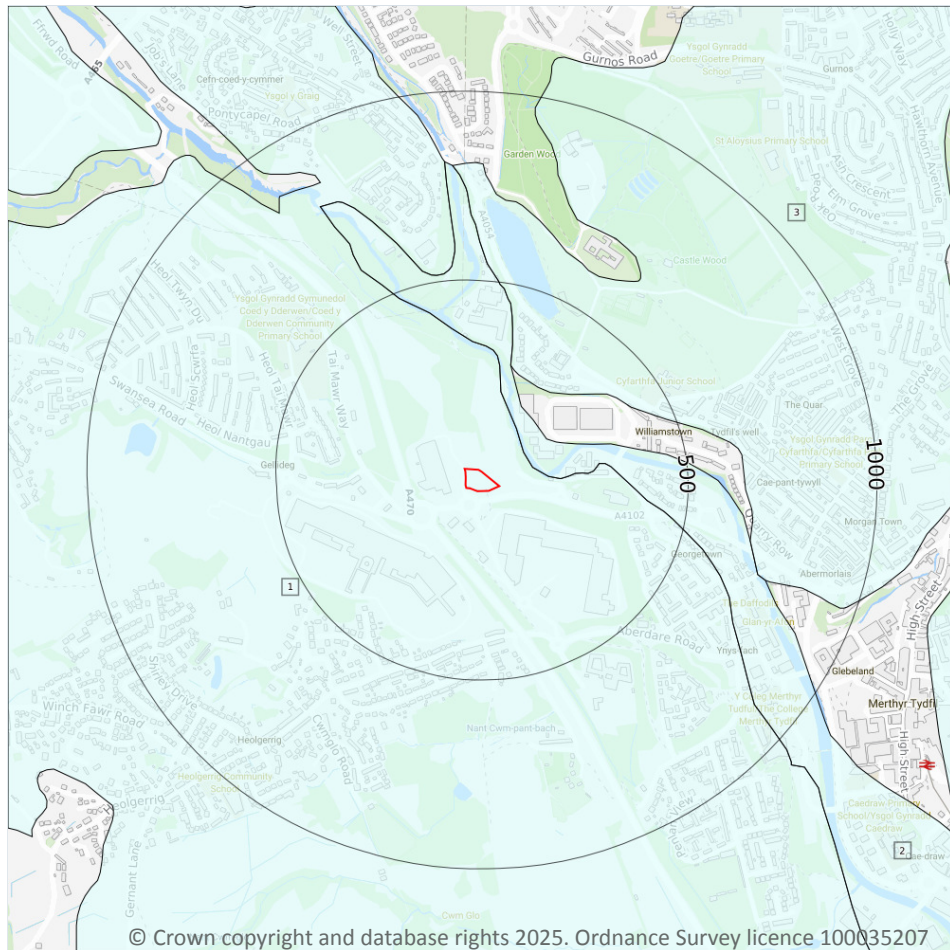
A qualitative classification of estimated rates of vertical movement of water from the ground surface through the unsaturated zone of any artificial deposits (the zone between the land surface and the water table).

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

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 106](#) >

ID	Location	LEX Code	Description	Rock description
1	On site	TILLD-DMTN	Till, Devensian	Diamicton
2	101m NE	ALV-XCZSV	Alluvium	Clay, silt, sand and gravel
3	269m NE	TILLD-DMTN	Till, Devensian	Diamicton



This data is sourced from the British Geological Survey.

15.5 Superficial permeability (50k)

Records within 50m

1

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

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

This data is sourced from the British Geological Survey.

15.6 Landslip (50k)

Records within 500m

0

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

This data is sourced from the British Geological Survey.

15.7 Landslip permeability (50k)

Records within 50m

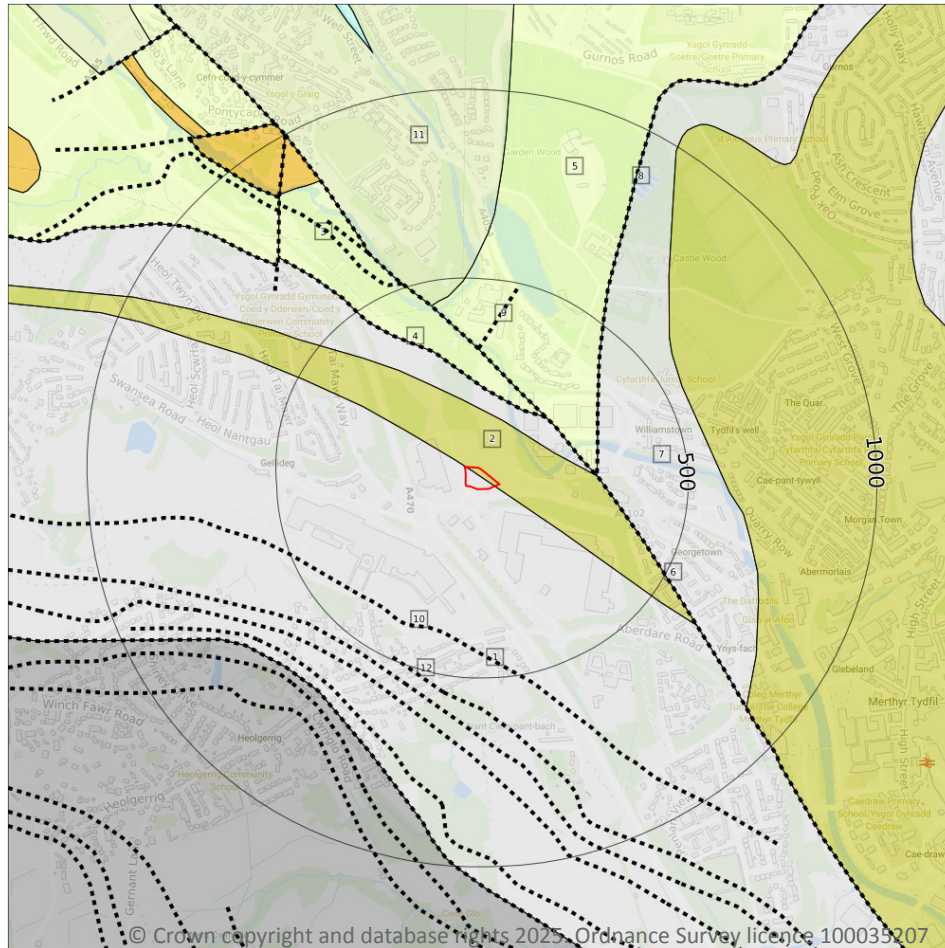
0

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

This data is sourced from the British Geological Survey.



Geology 1:50,000 scale - Bedrock



— Site Outline

Search buffers in metres (m)

.... Bedrock faults and other linear features (50k)

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

15.8 Bedrock geology (50k)

Records within 500m

6

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 108](#) >

ID	Location	LEX Code	Description	Rock age
1	On site	SWLCM-MDSS	South Wales Lower Coal Measures Formation-Mudstone, siltstone and sandstone	Westphalian
2	On site	SWLCM-SDST	South Wales Lower Coal Measures Formation-Sandstone	Westphalian



ID	Location	LEX Code	Description	Rock age
3	190m NE	BISHM-MDSS	Bishopston Mudstone Formation-Mudstone, siltstone and sandstone	Namurian
5	211m NE	BISHM-MDSS	Bishopston Mudstone Formation-Mudstone, siltstone and sandstone	Namurian
7	259m E	SWLCM-MDSS	South Wales Lower Coal Measures Formation-Mudstone, siltstone and sandstone	Westphalian
11	435m N	TWR-SCON	Twrch Sandstone Formation-Interbedded sandstone and conglomerate	Namurian

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	6
----------------------------	----------

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 108 >](#)

ID	Location	Category	Description
4	190m NE	FOSSIL_HORIZON	Marine band
6	211m NE	FAULT	Fault, inferred, displacement unknown
8	259m E	FOSSIL_HORIZON	Marine band
9	315m N	FOSSIL_HORIZON	Marine band

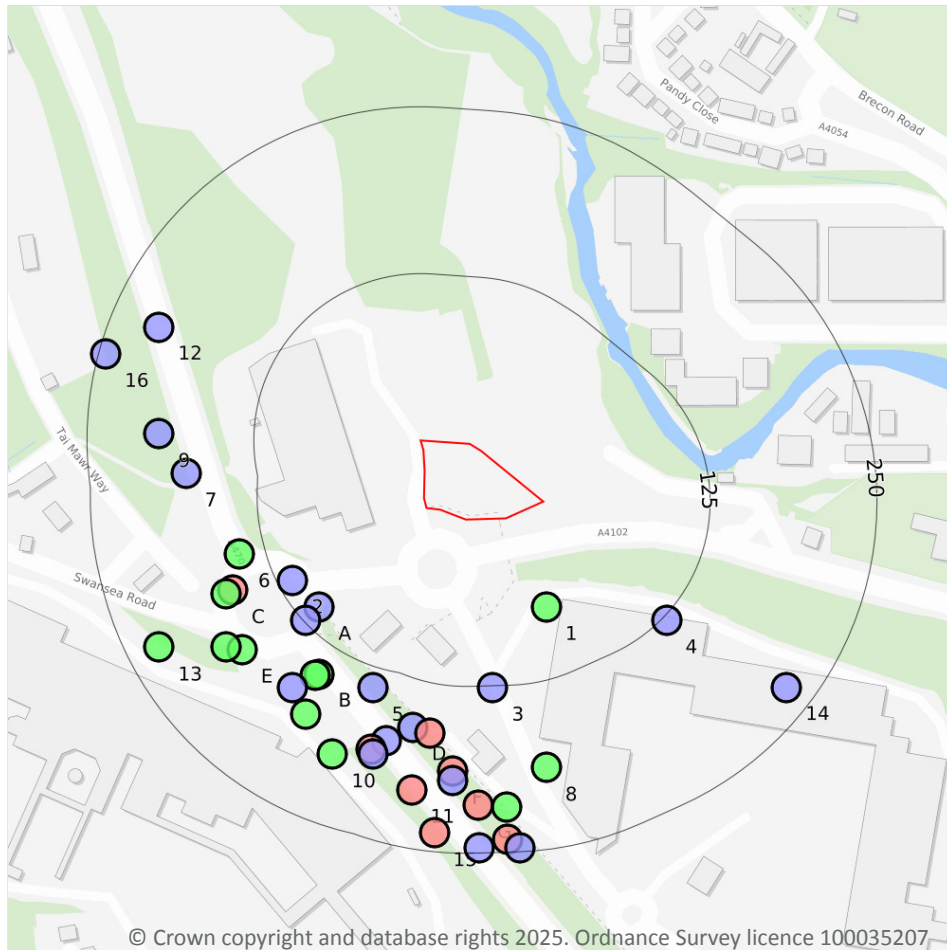


ID	Location	Category	Description
10	388m S	ROCK	Coal seam, inferred
12	492m SW	ROCK	Coal seam, inferred

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

38

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 111](#) >

ID	Location	Grid reference	Name	Length	Confidential	Web link
1	73m SE	303870 206660	SWANSEA RD MERTHYR TYDFIL BH5	17.3	N	260438 ↗
A	109m SW	303700 206660	TAFF VALE TRUNK ROAD. TP.560	4.6	N	260056 ↗
2	114m SW	303680 206680	TAFF VALE TRUNK ROAD. 295A	7.5	N	260057 ↗



ID	Location	Grid reference	Name	Length	Confidential	Web link
A	124m SW	303690 206650	A470 PENTREBACH/CEFN COED 63/A	4.0	N	260244 ↗
3	126m S	303830 206600	SWANSEA RD MERTHYR TYDFIL TP6	2.0	N	260444 ↗
4	128m SE	303960 206650	SWANSEA RD MERTHYR TYDFIL TP1	3.0	N	260439 ↗
5	140m S	303740 206600	TAFF VALE TRUNK ROAD. TP.559	5.0	N	260054 ↗
6	144m W	303640 206700	TAFF VALE TRUNK ROAD. 214	12.3	N	260059 ↗
B	148m SW	303700 206610	TAFF VALE TRUNK ROAD. 213	14.2	N	260055 ↗
B	151m SW	303697 206609	A470 PENTREBACH PB 218	27.0	N	260414 ↗
C	158m SW	303635 206673	A470 PENTREBACH PB 220	39.0	N	260416 ↗
D	161m S	303770 206570	TAFF VALE TRUNK ROAD. TP.558	4.0	N	260053 ↗
D	162m S	303783 206566	A470 PENTREBACH PB 216	39.0	N	260412 ↗
C	164m SW	303630 206670	TAFF VALE TRUNK ROAD. 296	17.6	N	260058 ↗
B	168m SW	303680 206600	A470 PENTREBACH/CEFN COED P62	3.5	N	260243 ↗
E	174m SW	303642 206628	A470 PENTREBACH PB 219	27.0	N	260415 ↗
D	176m S	303750 206560	A470 PENTREBACH/CEFN COED 61/A	4.5	N	260242 ↗
7	178m W	303600 206760	A470 PENTREBACH/CEFN COED 64/A	4.3	N	260245 ↗
B	179m SW	303690 206580	A470 PENTREBACH/CEFN COED B53	25.6	N	260152 ↗
E	183m SW	303630 206630	A470 PENTREBACH/CEFN COED B54	28.5	N	260153 ↗
D	185m S	303739 206554	A470 PENTREBACH PB 217	39.0	N	260413 ↗
D	189m S	303740 206550	TAFF VALE TRUNK ROAD. TP.557	3.9	N	260052 ↗
8	189m S	303870 206540	SWANSEA RD MERTHYR TYDFIL BH3	20.0	N	260436 ↗
F	189m S	303800 206537	A470 PENTREBACH PB 215E	38.25	N	260411 ↗
F	196m S	303800 206530	TAFF VALE TRUNK ROAD. TP.654A	4.05	N	260051 ↗
9	196m W	303580 206790	TAFF VALE TRUNK ROAD. TP.561	2.4	N	260060 ↗
10	197m S	303710 206550	A470 PENTREBACH/CEFN COED 52/A	25.9	N	260151 ↗
11	207m S	303769 206523	A470 PENTREBACH PB 214	39.0	N	260410 ↗
12	214m NW	303580 206870	A470 PENTREBACH/CEFN COED P65	4.5	N	260246 ↗
G	214m S	303819 206512	A470 PENTREBACH PB 212	39.0	N	260408 ↗
G	217m S	303840 206510	TAFF VALE TRUNK ROAD. 212	19.4	N	260050 ↗

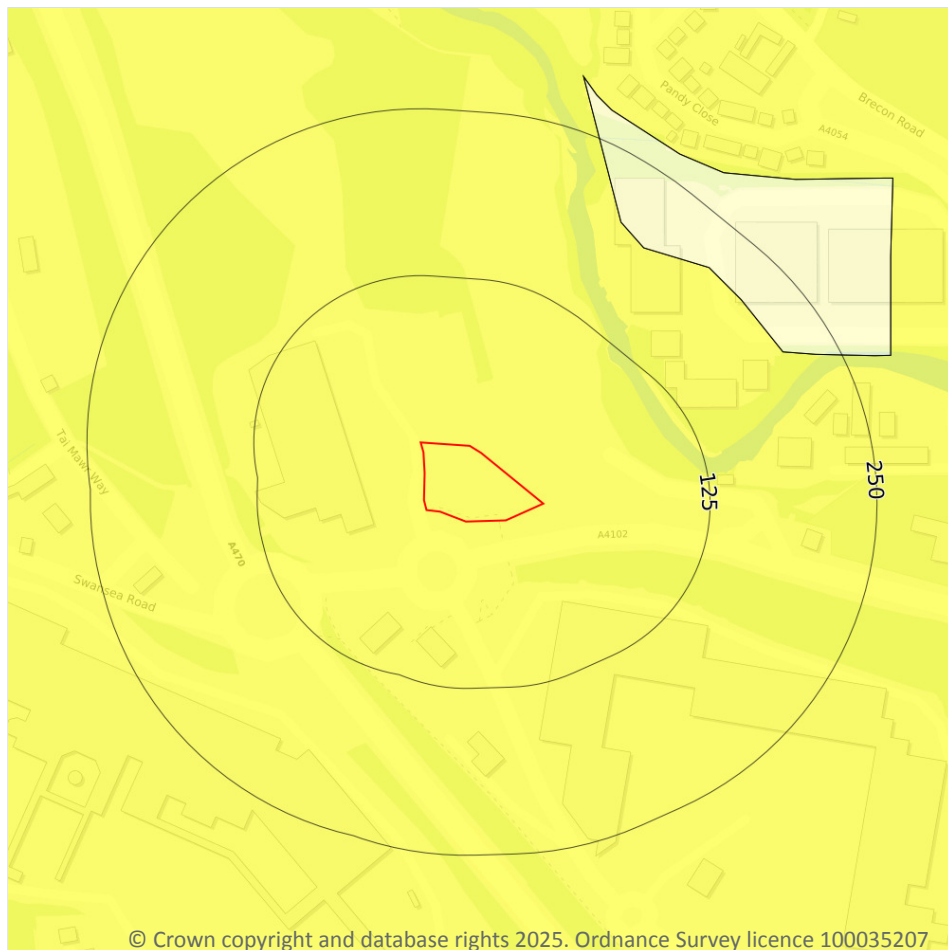


ID	Location	Grid reference	Name	Length	Confidential	Web link
13	226m SW	303580 206630	A470 PENT'BACH/CEFN COED B115	27.0	N	260212 ↗
14	229m SE	304050 206600	SWANSEA RD MERTHYR TYDFIL TP2	2.0	N	260440 ↗
15	236m S	303786 206491	A470 PENTREBACH PB 213	39.0	N	260409 ↗
G	241m S	303841 206486	A470 PENTREBACH PB 209	39.0	N	260405 ↗
16	245m W	303540 206850	TAFF VALE TRUNK ROAD. TP.562,563	3.8	N	260061 ↗
G	246m S	303820 206480	A470 PENTREBACH/CEFN COED P59	3.0	N	260240 ↗
G	247m S	303850 206480	TAFF VALE TRUNK ROAD. TP.556	3.5	N	260048 ↗

This data is sourced from the British Geological Survey.



17 Natural ground subsidence - Shrink swell clays



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

17.1 Shrink swell clays

Records within 50m

1

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

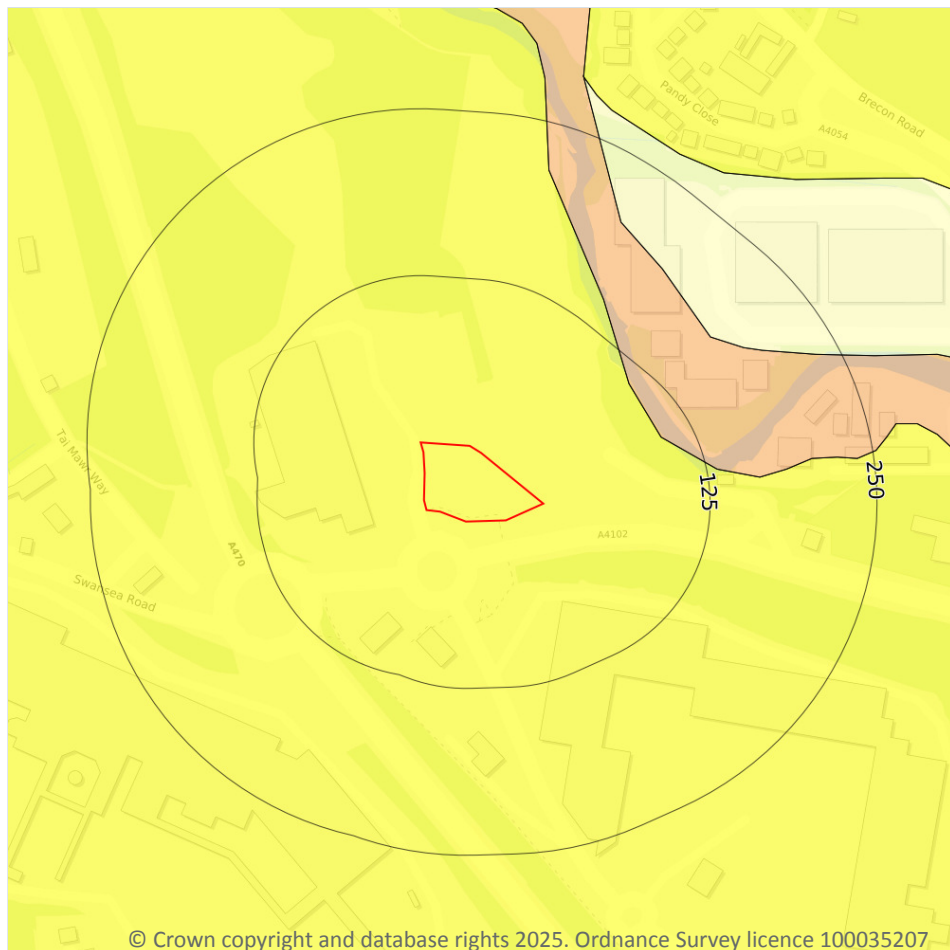
Features are displayed on the Natural ground subsidence - Shrink swell clays map on [page 114](#) >

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

This data is sourced from the British Geological Survey.



Natural ground subsidence - Running sands



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

17.2 Running sands

Records within 50m

1

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

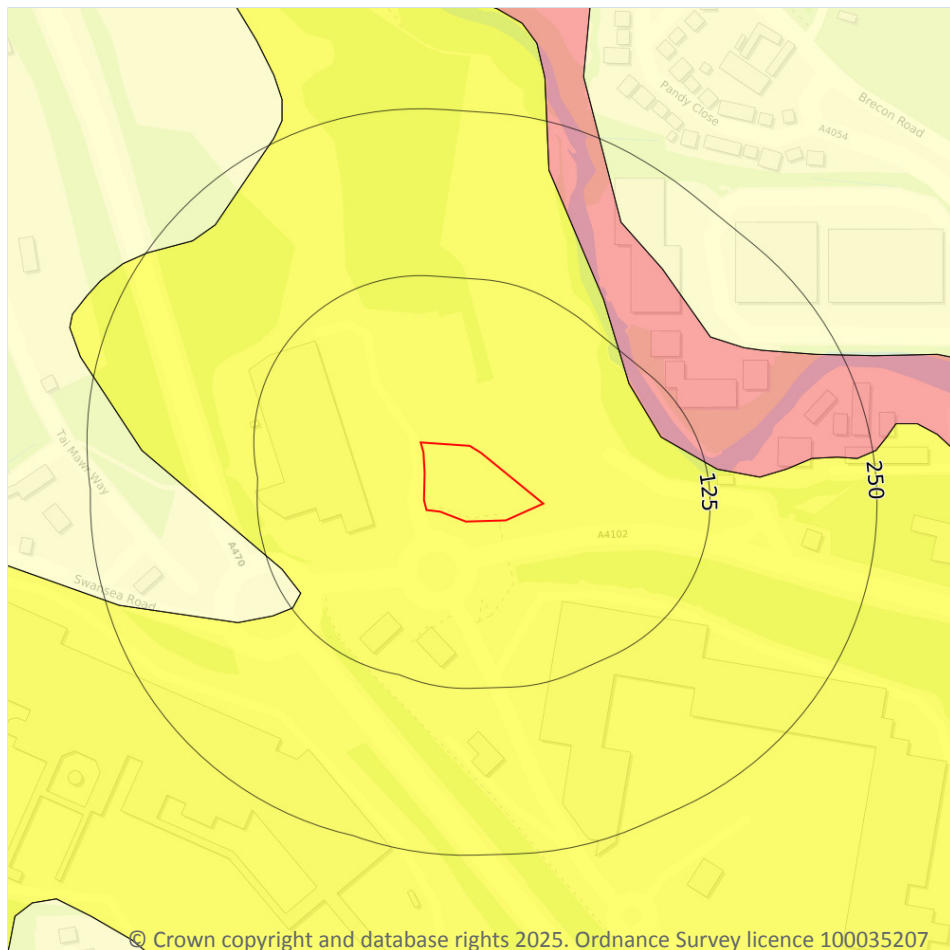
Features are displayed on the Natural ground subsidence - Running sands map on [page 115 >](#)

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

This data is sourced from the British Geological Survey.



Natural ground subsidence - Compressible deposits



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

17.3 Compressible deposits

Records within 50m

1

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

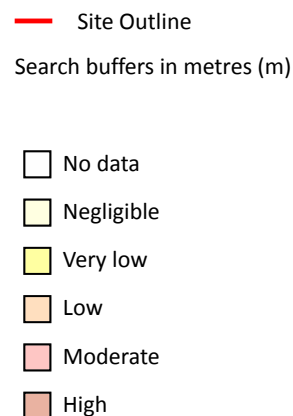
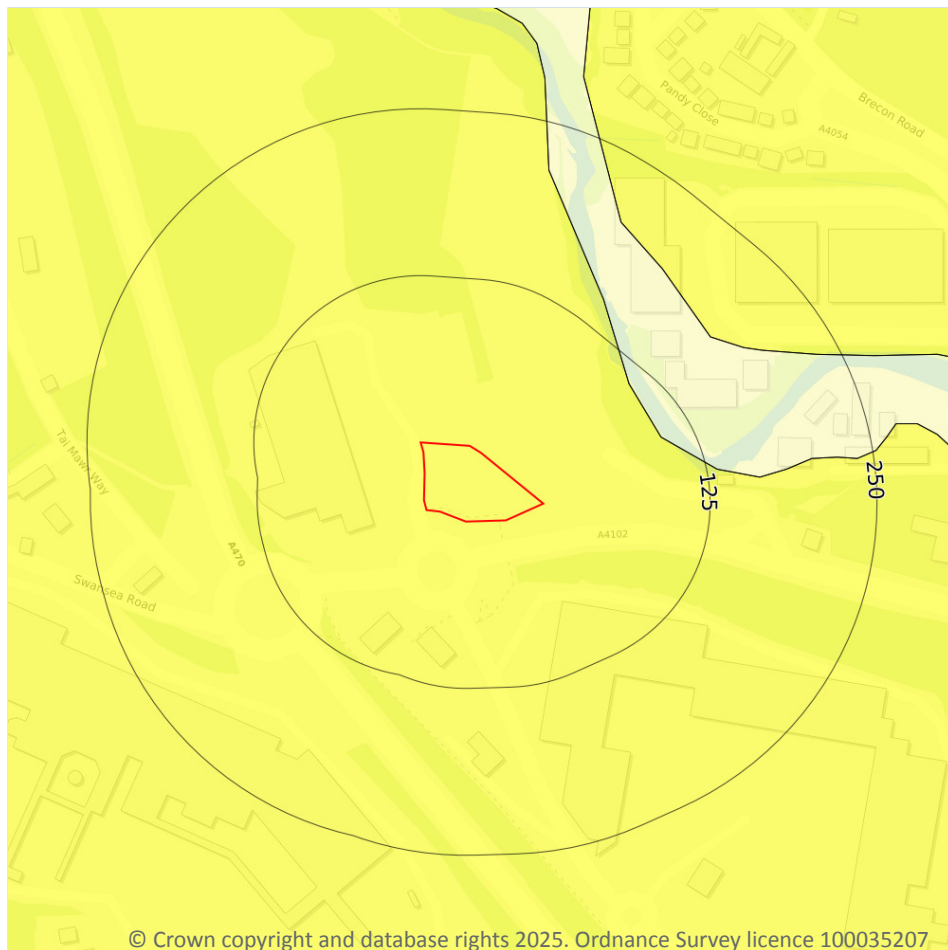
Features are displayed on the Natural ground subsidence - Compressible deposits map on [page 116 >](#)

Location	Hazard rating	Details
On site	Very low	Compressibility and uneven settlement problems are not likely to be significant on the site for most land uses.

This data is sourced from the British Geological Survey.



Natural ground subsidence - Collapsible deposits



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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.

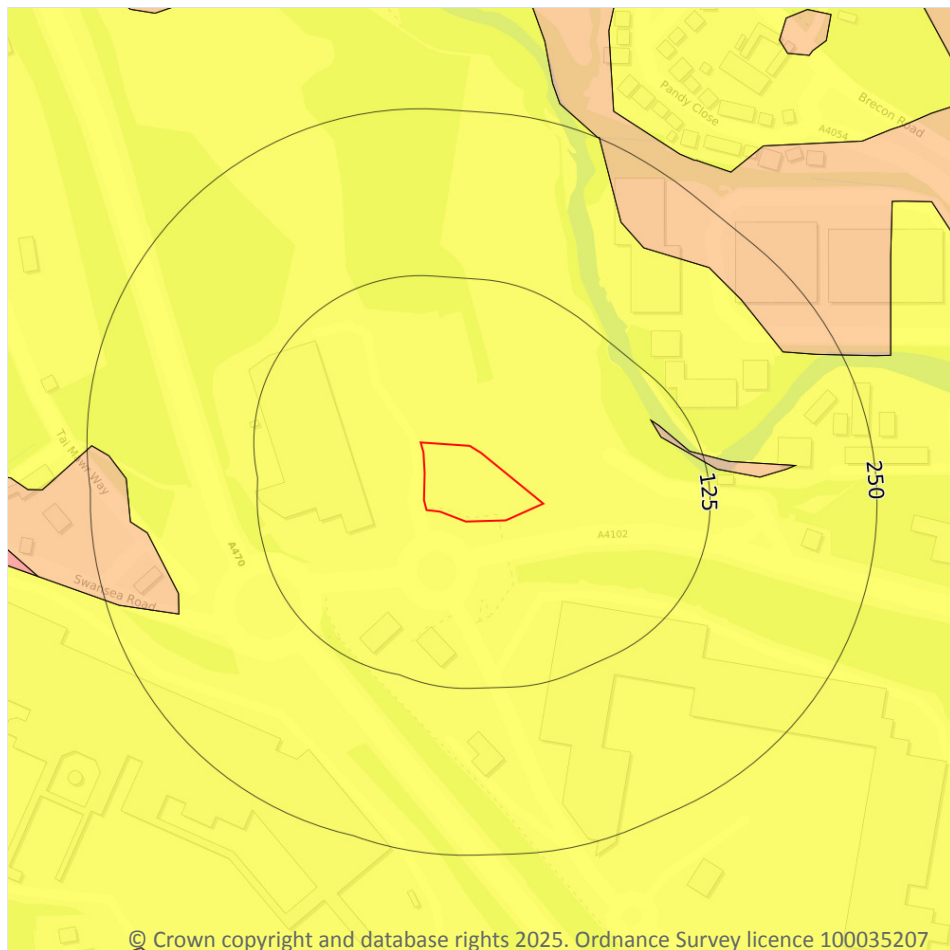
Features are displayed on the Natural ground subsidence - Collapsible deposits map on [page 117 >](#)

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

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17.5 Landslides

Records within 50m

1

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

Features are displayed on the Natural ground subsidence - Landslides map on [page 118](#) >

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

This data is sourced from the British Geological Survey.



Natural ground subsidence - Ground dissolution of soluble rocks



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

17.6 Ground dissolution of soluble rocks

Records within 50m

1

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

Features are displayed on the Natural ground subsidence - Ground dissolution of soluble rocks map on [page 119 >](#)

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.



ID	Location	Details	Description
C	398m S	Name: Pen-yr-heolgerig Quarry Address: MERTHYR TYDFIL, Mid Glamorgan Commodity: Sandstone Status: Ceased	Type: A surface mineral working. It may be termed Quarry, Delf, Delph, Gravel Pit, Sand Pit, Sand and Gravel Pit, Clay Pit, Pit, Opencast Coal Site or Surface Mine. It may be mapped as Worked Ground or Worked and Made Ground on BGS mapping. Status description: Site which has ceased to extract minerals. May be considered as 'Closed' by operator. May be considered to have 'Active', 'Dormant' or 'Expired' planning permissions by the Mineral Planning Authority.
M	407m SW	Name: Pen-yr-heolgerig Farm Address: Cefn-coed-y-cymmer, MERTHYR TYDFIL, Mid Glamorgan Commodity: Coal, Deep Status: Ceased	Type: Working is wholly underground, access by shaft, adit, drift or incline. Working may be termed Colliery, Mine, Drift Mine, Slant, Level, Adit or Ingoing Eye (Ingaun' Ee' - Scots). May also be locally termed 'Quarry' or 'Underground Quarry' when referring to sites extracting building stone (e.g. in Dorset and Wiltshire). The location given is that of the mine entrance and may be approximate for older sites shown on contemporaneous mapping by the Geological Survey used as the source document. Status description: Site which has ceased to extract minerals. May be considered as 'Closed' by operator. May be considered to have 'Active', 'Dormant' or 'Expired' planning permissions by the Mineral Planning Authority.
R	422m W	Name: Gelli-deg Address: Cefn-coed-y-cymmer, MERTHYR TYDFIL, Mid Glamorgan Commodity: Coal, Deep Status: Ceased	Type: Working is wholly underground, access by shaft, adit, drift or incline. Working may be termed Colliery, Mine, Drift Mine, Slant, Level, Adit or Ingoing Eye (Ingaun' Ee' - Scots). May also be locally termed 'Quarry' or 'Underground Quarry' when referring to sites extracting building stone (e.g. in Dorset and Wiltshire). The location given is that of the mine entrance and may be approximate for older sites shown on contemporaneous mapping by the Geological Survey used as the source document. Status description: Site which has ceased to extract minerals. May be considered as 'Closed' by operator. May be considered to have 'Active', 'Dormant' or 'Expired' planning permissions by the Mineral Planning Authority.

This data is sourced from the British Geological Survey.



18.2 Surface ground workings

Records within 250m

89

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 121](#) >

ID	Location	Land Use	Year of mapping	Mapping scale
A	On site	Unspecified Heap	1901	1:10560
A	On site	Unspecified Ground Workings	1922	1:10560
A	On site	Unspecified Ground Workings	1915	1:10560
A	On site	Unspecified Ground Workings	1922	1:10560
A	On site	Unspecified Ground Workings	1922	1:10560
A	1m NE	Unspecified Ground Workings	1922	1:10560
A	1m NE	Unspecified Ground Workings	1922	1:10560
D	28m S	Cinder Tip	1875	1:10560
E	29m S	Unspecified Disused Tip	1976	1:10000
E	29m S	Unspecified Ground Workings	1965	1:10560
1	35m S	Unspecified Ground Workings	1922	1:10560
F	38m S	Unspecified Ground Workings	1903	1:10560
F	44m S	Unspecified Ground Workings	1922	1:10560
F	44m S	Unspecified Ground Workings	1922	1:10560
F	46m S	Unspecified Ground Workings	1948	1:10560
E	46m S	Refuse Heap	1992	1:10000
E	49m S	Cinder Tip	1901	1:10560
F	50m S	Unspecified Ground Workings	1922	1:10560
E	75m SE	Unspecified Ground Workings	1948	1:10560
E	77m SE	Cinder Tip	1915	1:10560
G	97m SW	Unspecified Heap	1922	1:10560
G	97m SW	Unspecified Heap	1922	1:10560
G	99m SW	Unspecified Heap	1948	1:10560



ID	Location	Land Use	Year of mapping	Mapping scale
G	100m SW	Unspecified Heap	1915	1:10560
G	100m SW	Unspecified Heap	1938	1:10560
G	100m SW	Unspecified Heap	1938	1:10560
G	101m SW	Unspecified Heap	1965	1:10560
G	101m SW	Unspecified Heap	1922	1:10560
2	105m NW	Unspecified Ground Workings	1965	1:10560
B	113m NW	Refuse Heap	1938	1:10560
B	113m NW	Refuse Heap	1938	1:10560
B	114m NW	Unspecified Ground Workings	1948	1:10560
D	129m SE	Cuttings	1938	1:10560
D	129m SE	Cuttings	1915	1:10560
D	132m SE	Cuttings	1922	1:10560
D	132m SE	Cuttings	1922	1:10560
B	135m W	Unspecified Heap	1875	1:10560
D	141m SE	Cinder Tip	1922	1:10560
D	141m SE	Cinder Tip	1922	1:10560
B	152m NW	Unspecified Ground Workings	1901	1:10560
H	155m SW	Unspecified Heap	1903	1:10560
I	159m SW	Unspecified Disused Tip	1992	1:10000
I	159m SW	Unspecified Disused Tip	1976	1:10000
H	162m SW	Unspecified Heap	1965	1:10560
H	167m SW	Unspecified Heap	1938	1:10560
H	167m SW	Unspecified Heap	1938	1:10560
H	168m SW	Unspecified Ground Workings	1922	1:10560
H	168m SW	Unspecified Ground Workings	1922	1:10560
H	170m SW	Unspecified Ground Workings	1901	1:10560
H	171m SW	Unspecified Ground Workings	1915	1:10560
H	176m SW	Unspecified Ground Workings	1922	1:10560



ID	Location	Land Use	Year of mapping	Mapping scale
3	181m S	Unspecified Ground Workings	1901	1:10560
D	186m SE	Cuttings	1922	1:10560
D	186m SE	Cuttings	1922	1:10560
4	187m W	Cuttings	1921	1:10560
I	190m SW	Unspecified Heaps	1965	1:10560
B	193m NW	Unspecified Ground Workings	1922	1:10560
I	193m SW	Unspecified Heap	1922	1:10560
I	193m SW	Unspecified Heap	1922	1:10560
B	195m NW	Unspecified Ground Workings	1915	1:10560
B	196m NW	Unspecified Heap	1948	1:10560
B	196m NW	Unspecified Ground Workings	1922	1:10560
B	196m NW	Unspecified Ground Workings	1922	1:10560
I	196m SW	Unspecified Heap	1915	1:10560
B	198m NW	Unspecified Ground Workings	1938	1:10560
B	198m NW	Unspecified Ground Workings	1938	1:10560
I	201m SW	Unspecified Ground Workings	1901	1:10560
6	203m S	Unspecified Ground Workings	1901	1:10560
B	204m NW	Unspecified Ground Workings	1965	1:10560
J	207m SW	Unspecified Ground Workings	1921	1:10560
J	207m SW	Unspecified Ground Workings	1921	1:10560
I	209m SW	Unspecified Ground Workings	1921	1:10560
E	211m SE	Unspecified Pit	1915	1:10560
I	212m SW	Ironstone Level	1878	1:10560
E	214m SE	Unspecified Pit	1922	1:10560
E	214m SE	Unspecified Pit	1922	1:10560
I	216m SW	Unspecified Ground Workings	1901	1:10560
E	217m SE	Unspecified Pit	1922	1:10560
I	221m SW	Unspecified Old Level	1948	1:10560



ID	Location	Land Use	Year of mapping	Mapping scale
B	224m NW	Unspecified Heap	1901	1:10560
B	225m NW	Unspecified Heap	1903	1:10560
E	227m SE	Cuttings	1948	1:10560
I	229m SW	Unspecified Pit	1948	1:10560
B	242m NW	Unspecified Heap	1903	1:10560
H	245m SW	Unspecified Heap	1948	1:10560
H	245m SW	Unspecified Heap	1903	1:10560
K	249m NW	Unspecified Ground Workings	1901	1:10560
K	250m NW	Unspecified Heap	1921	1:10560
K	250m NW	Unspecified Heap	1921	1:10560

This is data is sourced from Ordnance Survey/Groundsure.

18.3 Underground workings

Records within 1000m

35

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 121](#) >

ID	Location	Land Use	Year of mapping	Mapping scale
I	212m SW	Ironstone Level	1878	1:10560
I	221m SW	Unspecified Old Level	1948	1:10560
R	318m W	Ironstone Level	1878	1:10560
V	358m SW	Ironstone Levels	1878	1:10560
X	397m S	Old Ironstone Level	1901	1:10560
M	404m SW	Coal Level	1903	1:10560
R	417m W	Unspecified Old Level	1901	1:10560
R	418m W	Unspecified Old Level	1903	1:10560
M	429m SW	Coal Level	1901	1:10560
14	455m S	Colliery	1875	1:10560



ID	Location	Land Use	Year of mapping	Mapping scale
M	505m SW	Air Shaft	1901	1:10560
M	509m SW	Air Shaft	1903	1:10560
17	554m W	Ironstone Levels	1878	1:10560
-	632m S	Clay Level	1903	1:10560
AM	644m SW	Unspecified Old Level	1948	1:10560
-	653m S	Clay Level	1901	1:10560
AJ	688m SW	Unspecified Old Level	1901	1:10560
AJ	688m SW	Unspecified Old Level	1903	1:10560
-	707m W	Unspecified Old Level	1948	1:10560
AJ	732m SW	Unspecified Old Shaft	1903	1:10560
AJ	732m SW	Unspecified Old Shaft	1901	1:10560
-	748m SW	Unspecified Shaft	1878	1:10560
AT	759m SW	Unspecified Old Level	1903	1:10560
AU	784m SE	Old Ironstone Level	1903	1:10560
AS	798m SW	Air Shaft	1878	1:10560
AU	808m SE	Ironstone Level	1948	1:10560
-	846m SE	Unspecified Old Shaft	1948	1:10560
-	851m SW	Unspecified Old Level	1901	1:10560
-	859m S	Old Coal Levels	1948	1:10560
-	893m SE	Old Ironstone Level	1948	1:10560
-	917m SE	Old Ironstone Level	1903	1:10560
-	930m SE	Old Ironstone Level	1901	1:10560
-	977m SW	Unspecified Shaft	1965	1:10560
-	997m W	Air Shaft	1901	1:10560
-	999m W	Air Shaft	1903	1:10560

This is data is sourced from Ordnance Survey/Groundsure.



18.4 Underground mining extents

Records within 500m

0

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

This data is sourced from Groundsure.

18.5 Historical Mineral Planning Areas

Records within 500m

0

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

This data is sourced from the British Geological Survey.

18.6 Non-coal mining

Records within 1000m

6

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 121 >](#)

ID	Location	Name	Commodity	Class	Likelihood
B	On site	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.
C	On site	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.
5	190m NE	Not available	Vein Mineral	A	Underground mine workings are uncommon, although the geology is similar to that worked elsewhere. Potential for difficult ground conditions are unlikely and are at a level where they need not be considered.



ID	Location	Name	Commodity	Class	Likelihood
7	259m E	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.
15	547m NE	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.
AL	624m S	Cwm Pant-bach	Clay and Shale	C	Underground mine workings may have occurred in the past, or current mines may be operating to modern engineering standards. Potential for difficult ground conditions should be considered.

This data is sourced from the British Geological Survey.

18.7 JPB mining areas

Records on site

0

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

This data is sourced from Johnson Poole and Bloomer.

18.8 The Coal Authority non-coal mining

Records within 500m

0

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

This data is sourced from The Coal Authority.

18.9 Researched mining

Records within 500m

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

4

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.

Location	Mineral
79m SW	Iron ore
115m S	Iron ore
161m SW	Iron ore
174m SW	Iron ore

This data is sourced from Groundsure.

18.11 BGS mine plans

Records within 500m

1

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.

Location	Mineral
326m SW	Coal

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.

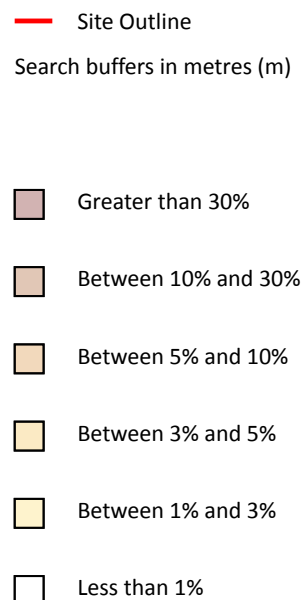
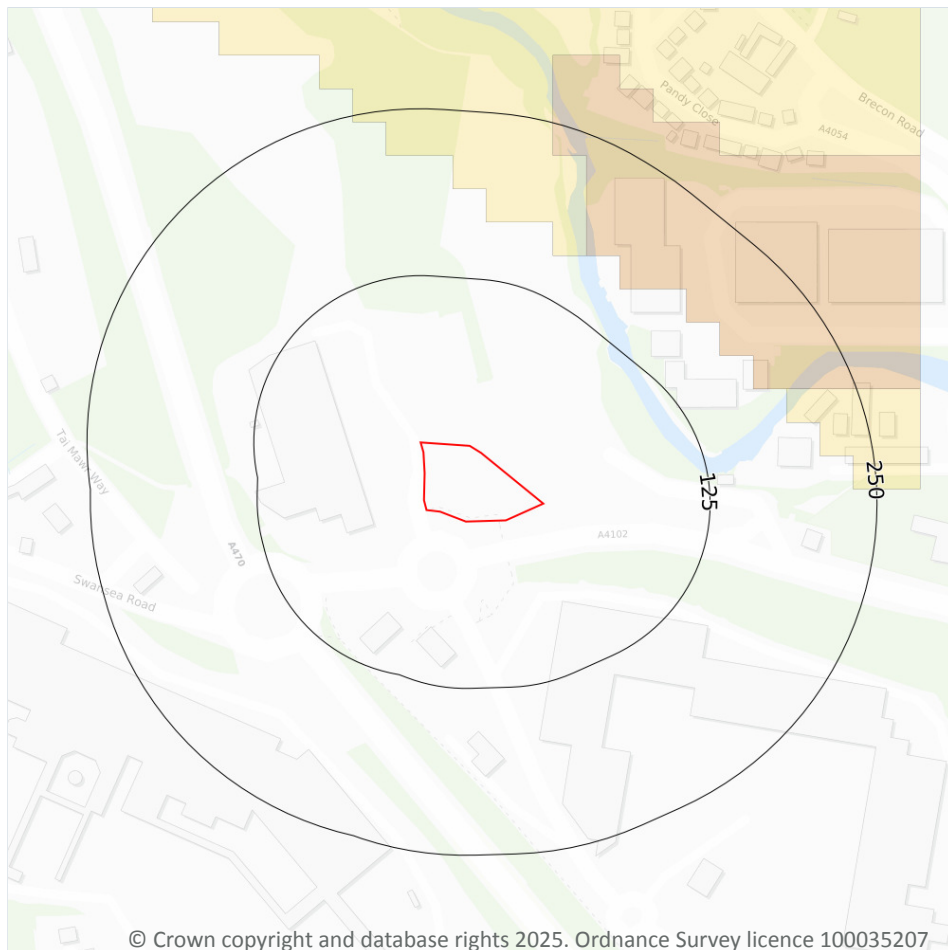
Not all 'holes' noted on Ordnance Survey mapping will necessarily be present within this dataset.



This data is sourced from Groundsure.



20 Radon



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 134 >](#)

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

2

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

Location	Arsenic	Bioaccessible Arsenic	Lead	Bioaccessible Lead	Cadmium	Chromium	Nickel
On site	15 - 25 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	60 - 90 mg/kg	15 - 30 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

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

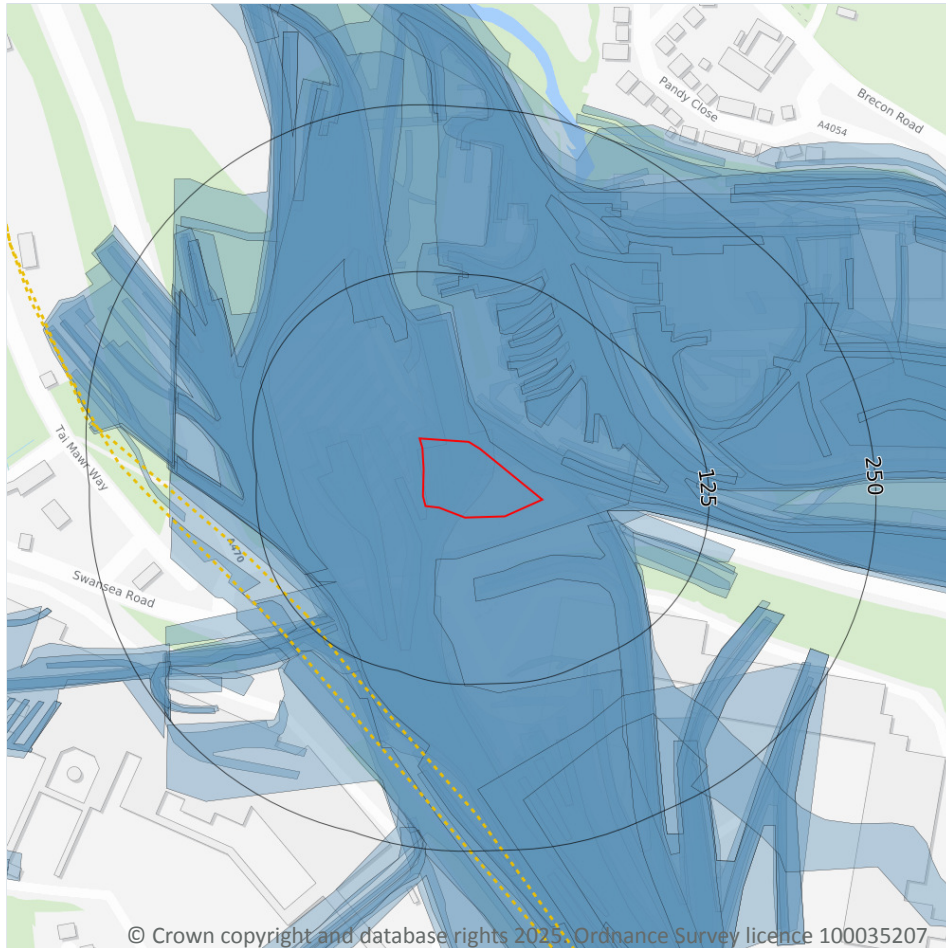
0

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)
- 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

49

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 137](#) >

Location	Land Use	Year of mapping	Mapping scale
On site	Railway Sidings	1903	10560
On site	Railway Sidings	1901	10560
On site	Railway Sidings	1938	10560
On site	Railway Sidings	1915	10560
On site	Railway Sidings	1922	10560
On site	Railway Sidings	1875	10560
On site	Railway Sidings	1875	2500
On site	Railway Sidings	1900	2500
On site	Railway Sidings	1919	2500
On site	Railway Sidings	1904	2500
On site	Tramway Sidings	1875	2500
On site	Railway	1875	-
9m NE	Railway Sidings	1901	10560
30m NE	Railway Sidings	1922	10560
38m S	Railway Sidings	1901	10560
75m N	Railway Sidings	1901	10560
106m SW	Tramway Sidings	1900	2500



Location	Land Use	Year of mapping	Mapping scale
108m SW	Tramway Sidings	1919	2500
110m SW	Tramways Sidings	1904	2500
131m SW	Railway Sidings	1948	10560
174m W	Railway Sidings	1919	2500
175m W	Railway Sidings	1919	2500
178m W	Railway Sidings	1919	2500
178m W	Railway Sidings	1919	2500
181m SW	Railway Sidings	1875	2500
183m W	Railway Sidings	1921	10560
184m W	Railway Sidings	1901	10560
184m W	Railway Sidings	1919	2500
185m W	Railway Sidings	1903	10560
185m W	Railway Sidings	1904	2500
186m W	Railway Sidings	1900	2500
186m W	Railway Sidings	1904	2500
186m W	Railway Sidings	1900	2500
195m W	Railway Sidings	1901	10560
199m SW	Railway Sidings	1903	10560
200m NW	Railway Sidings	1900	2500
213m NE	Railway Sidings	1919	2500
216m SW	Railway Sidings	1900	2500
218m SW	Railway Sidings	1903	10560
219m SW	Railway Sidings	1904	2500
222m SW	Tramway Sidings	1878	10560
224m SW	Tramway Sidings	1901	10560
224m SW	Tramway Sidings	1886	2500
224m SW	Tramway Sidings	1875	2500
225m S	Tramway Sidings	1875	2500



Location	Land Use	Year of mapping	Mapping scale
225m SW	Tramway Sidings	1900	2500
228m S	Tramway Sidings	1900	2500
232m S	Railway Sidings	1904	2500
235m S	Railway Sidings	1901	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	4
----------------------------	----------

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

Features are displayed on the Railway infrastructure and projects map on [page 137 >](#)

Location	Description
121m SW	Abandoned
121m SW	Razed
143m SW	Historical OSM
143m SW	Historical OSM

This data is sourced from OpenStreetMap.



22.7 Railways

Records within 250m**0**

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

This data is sourced from Ordnance Survey and OpenStreetMap.

22.8 Crossrail 2

Records within 500m**0**

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

This data is sourced from publicly available information by Groundsure.

22.9 HS2

Records within 500m**0**

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

This data is sourced from HS2 Ltd.



Data providers

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

Terms and conditions

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



18.0 CONSULTANTS COAL MINING REPORT REF: 51003539980001



The Coal
Authority

Consultants Coal Mining Report

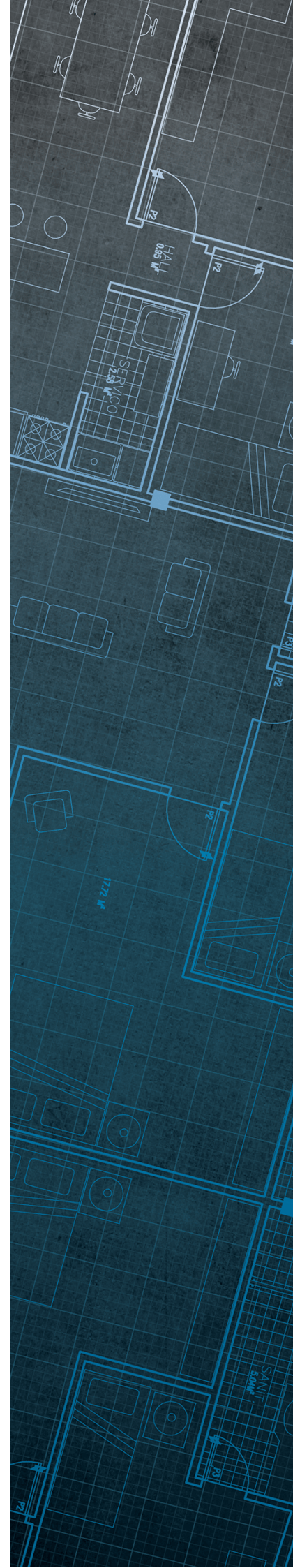
Cyfarthfa Retail Park, Swansea Road,
Merthyr Tydfil, Cf48 1hy
Merthyr Tydfil

Date of enquiry:
Date enquiry received:
Issue date:

24 November 2025
24 November 2025
24 November 2025

Our reference:
Your reference:

51003539980001
GS-TDD-FK3-E1P-YVN



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

GROUNDSURE LIMITED

Enquiry address

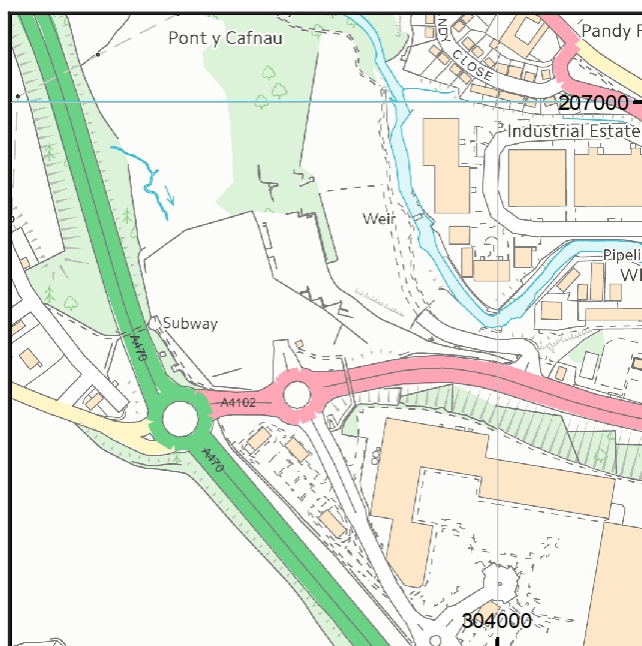
Cyfarthfa Retail Park, Swansea Road, Merthyr
Tydfil, Cf48 1hy
Merthyr Tydfil

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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

None recorded within 100 metres of the enquiry boundary.

Abandoned mine plan catalogue numbers

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

SWR3140	8695	OM15055
SWR1978	SWR3139	

For assistance in identifying the specific abandoned mine plans relevant to your requirements, **please contact us at InformationManagers@MiningRemediation.gov.uk**.

Outcrops

No outcrops recorded.

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 **email us at reports@miningremediation.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.

The map highlights any specific surface or subsurface features within or near to the boundary of the site.

Key

Approximate position of the enquiry boundary shown 

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