

Morgan Sindall Construction & Infrastructure Ltd

GOETRE PRIMARY SCHOOL, MERTHYR TYDFIL

Site Investigation Report

14209/FG/23/SI/Rev.A

CLIENT: Morgan Sindall Construction & Infrastructure Ltd

PROJECT: Goetre Primary School, Merthyr Tydfil

TITLE: Site Investigation Report

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1.0 INTRODUCTION

1.1 GENERAL

Morgan Sindall Construction & Infrastructure Ltd are proposing to develop a site in Merthyr Tydfil for an educational end-use.

Cambria Consulting are the appointed Consulting Civil and Structural Engineers for the scheme.

Intégral Géotechnique (Wales) Limited have been appointed as the Geotechnical Engineers to undertake an intrusive site investigation to enable a geotechnical and geoenvironmental appraisal of the educational end use area of the site and provide a basis for design.

This report presents the findings of the intrusive site investigation and gives recommendations for the design of foundations, floor slabs and other geotechnical and geoenvironmental aspects of the project.

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1.2 PROPOSED DEVELOPMENT

The development proposals include the construction of a new school building with associated external play areas, access roads, and areas of car parking. At the time of writing, the final proposed development layout and engineering levels had not been confirmed.

Additionally, it is understood that a solar array farm has been proposed to the east of the school development, and a future LDP housing zone has been allocated to the south of the school development.

It should be noted that the recommendations outlined in this report relate to the proposed school development area only.

1.2 PROPOSED DEVELOPMENT (CONTINUED)

The following recommendations should be reviewed and revised accordingly once the final proposed layout and engineering levels have been confirmed.

1.3 SCOPE OF WORKS

The work instructed included a desk study of available information, site reconnaissance and intrusive investigation. This was followed by laboratory testing, on site monitoring and geotechnical and geoenvironmental reporting.

The desk study comprised a review of:

- An Envirocheck Report obtained for the site,
- Old Ordnance Survey maps covering the site, included within the Envirocheck Report,
- A Landmark Geodata Radon Information Map,
- A Consultants Coal Mining Report obtained from the Coal Authority,
- Geological maps of the area provided by the British Geological Survey,
- the Natural Resources Wales groundwater vulnerability map and aquifer database for the area,
- Existing site investigation data (if available).

The desk study information was used to make an initial assessment of the site and to design an investigation to be carried out by Intégral Géotechnique. The site investigation was designed in accordance with BS 5930:2015+A1:2020, the Code of Practice for Site Investigations, BS10175:2011+A2:2017, the code of practice for investigation of potentially contaminated sites, and 'Development of Land Affected by Contamination: A Guide for Developers' prepared by Welsh Local Government Association (WLGA)/Natural Resources Wales (NRW) Land Contamination Working Group, 2017.

The approximate locations of the exploratory hole positions were provided by Cambria Consulting.

The site investigation included:

- An intrusive investigation carried out during 18th to 23rd May and 7th to 16th June 2023 comprising the excavation of fifteen trial pits with seven soil infiltration tests, the drilling of ten windowless sample boreholes and six shell and auger boreholes,
- Sampling of soil/fill for laboratory chemical testing,

1.3 SCOPE OF WORKS (CONTINUED)

- Sampling of soil/fill for laboratory geotechnical testing,
- Monitoring for concentrations of methane, carbon dioxide, oxygen, hydrocarbon vapours and gas flow.

1.4 LIMITATIONS

This document is intended to be a working document for further development in discussion with all concerned including the Local Planning Authority and Natural Resources Wales, and the Building Control Authority as considered appropriate.

“Contamination” is taken throughout the report to mean the “presence of one or more potentially harmful substances as a result of human activity”. The use of the term in this way does not imply that harm is being or might be caused by the contamination. It should be noted that “contamination” can have different meanings under different regulatory regimes, for example, planning, building control and Part IIA of the Environmental Protection Act 1990. Naturally elevated concentrations of potentially harmful substances may also be of concern and the significance of any that have been found is also evaluated in this report.

It is important to recognise that there may be areas of contamination that have not been found, or that contaminants are present at concentrations above those that have been found. It is also important to recognise that contamination may be localised and that no investigation, however comprehensive, is capable of finding such occurrences other than by chance.

It should also be noted that vertical and lateral changes in ground conditions may be present between exploratory hole locations.

Access for the intrusive site investigation was generally available across the site. The densely vegetated areas of the site and other inaccessible areas are as shown in Figure 2, were not investigated as part of this site investigation.

2.0 THE SITE

2.1 SITE LOCATION AND DESCRIPTION

The site is located to the northeast of Goetre Lane approximately 2km north of Merthyr Tydfil at a National Grid Reference of 305020, 208310, see Figure 1.

The site is irregular in shape and occupies an area of approximately 9.3 hectares. A site plan is presented in Figure 2.

The site is situated on ground which typically rises to the northeast from an approximate minimum elevation of 286m AOD within the southern corner to an approximate maximum elevation of 307m AOD within the northeast corner.

The boundaries of the site are defined by Goetre Lane and residential housing to the south, residential housing to the east and the Pen-Y-Dre High School Playing fields to the north. Goitre Lane and the Pen-Y-Dre High school share the western boundary. The site is laid to a surface covering of vegetation and grass with sloping embankments to the north and east, also laid to vegetation.

Pockets of dense vegetation are seen along the site's northern embankment. The vegetation includes mature and semi mature trees. Suspected Japanese knotweed was also identified within these pockets of dense vegetation. The location of suspected Japanese Knotweed is also identified on Figure 2.

Access to the site is afforded from several footpaths along the site's southern boundary. During the site investigation formal access for machinery was afforded through Pen-Y-Dre High School in the sites north-western corner. A footpath extends from the site's western boundary, along the foot of the northern embankment before extending up the site's western embankment. Manholes for presumed water / foul drainage were encountered along the footpath.

2.2 SITE OPERATIONS

The site is currently undeveloped land primarily utilised for the grazing of horses and public dog walking.

2.3 SURROUNDING LAND USE

The surrounding areas are mainly developed for residential use to the southwest and southeast and the school with playing fields/sports pitches located to the northwest and northeast.

2.4 AVAILABLE SITE INVESTIGATION DATA

There is no available site investigation data to our knowledge.

2.5 CONSULTATIONS WITH REGULATORS

Applicable regulators have not been contacted at this stage.

3.0 SITE HISTORY

The recent history of the site has been traced with the aid of an Envirocheck Report, a copy of which is included in Appendix A. The Envirocheck Report includes the following scaled historical maps:

Map Scale	Dates
1:2,500	1875, 1887, 1900, 1904, 1919, 1963-1964, 1964, 1986
1:1,250	1956-1974, 1956-1957, 1963-1972, 1975, 1963-1988, 1988-1989, 1981-1990, 1990, 1993, 2001 (aerial photo)
1:10,560	1884, 1901, 1905, 1922, 1938-1951, 1945 (aerial photo)
1:10,000	1965, 1977-1979, 1983, 1992, 1999, 2006, 2022

The earliest edition of the map dated 1875 indicated the southern area of the site to be occupied by Goitre Pond. Two existing surface water features flowed across the site towards the pond from the north and the east. The path of the surface water features was indicated to be vegetated. The western area of the site, to the north of the pond, was also indicated to be covered with scrub vegetation. A sluice was indicated on the southern edge of the pond on the embankment which was indicated to form the southern edge. A tramway encroached across the western boundary of the site and formed the southern edge at the base of the embankment. The tramway accessed an existing coal and ironstone level located approximately 310m to the southeast. The surrounding areas were typically undeveloped apart from potential farm buildings including Galon-Uchaf located approximately 110m to the west, Garn approximately 180m to the northeast and Ty-Newydd-ar-y-Bryn approximately 250m to the southeast. Additional individual buildings were indicated further beyond including Pen-y-Bryn Water Works located approximately 500m to the southeast.

The edition of the map dated 1900 indicated less vegetation along the surface water features and with a slightly reduced vegetated area to the north of the pond. A small boat house had been constructed on the southern edge of the pond. The tramway was no longer evident along the southern boundary of the site, but the path of the tramway was still evident.

The 1919 edition of the map indicated no significant changes to the site or the surrounding area apart from the removal of the boat house from the southern edge of the pond. The immediate surrounding areas remained unchanged.

3.0 SITE HISTORY (CONTINUED)

The edition of the map dated 1956-1974 indicated the pond within the site had been infilled but a small surface water feature, spreads, collects, sinks and areas of marshy ground remained. It is understood that the pond was infilled circa 1965. Evidence of earthworks was noted within the western corner of the site in order to construct a subway access from the site beneath the new road, Goitre Lane, constructed along the western and southern edge of the site. Significant mainly residential development had been constructed to the west, southwest and southeast of the site and with a youth centre constructed to the north of the western area of the site.

The edition of the map dated 1963-1988 indicated the former pond area was now being used as school playing fields associated with Pen-y-Dre High School which had been constructed to the north of the site. Surface water features were still present within the eastern area of the site. A footpath was also indicated across the northern and north-eastern area of the site. Additional games courts and playing fields were constructed to the northeast of the site and the new Heads of the Valley Road had been constructed beyond the playing field approximately 100m to the northeast.

The 1981-1990 edition of the map indicated the site to have remained relatively unchanged with playing fields across the former pond area and with surface water features still evident within the eastern and south-eastern areas. Localised marshy ground was also indicated in the vicinity of the surface water features. The former surface water feature which flowed towards the pond from the northern corner of the site was no longer evident. Additional earthworks were indicated off-site to construct three sports pitches to the south of the main school building and to the west of the site. The earthworks associated with the construction encroached across the western boundary of the site. Playing fields remained to the northeast of the site and with residential development up to the south-western and south eastern boundaries.

The site and the immediate surrounding areas have remained relatively unchanged between the 1990's and the present day. The aerial photos indicate the site to be grass covered and with more heavy vegetation within the northern area of the site and with trees along the southern edge.

4.0 SITE ENVIRONMENTAL SETTING

4.1 PHYSICAL SETTING

The site is located within a mainly residential setting on the northern edge of Merthyr Tydfil with Pen-y-Dre High School located to the northwest of the site.

The site is situated on ground which typically rises to the northeast from an approximate minimum elevation of 286m AOD within the southern corner to an approximate maximum elevation of 307m AOD within the northeast corner.

An existing surface water feature flows across the northeast area of the site before sinking below ground to re-issue within the southeast corner of the site. This feature may potentially be culverted across the site area.

4.2 GEOLOGY

The 1:50,000 and 1:10,560 (Sheet No. SO 00 NE and SO 00 NW) scale geological maps of the area indicate the majority of the site to be underlain by the South Wales Lower Coal Measures Formation of the Carboniferous period. The solid strata typically comprise grey productive coal-bearing mudstones/siltstones, with seatearths and minor sandstones. The western corner of the site is indicated to be underlain by Bishopston Mudstone Formation of the Carboniferous period. This bedrock typically comprises mid to dark grey mudstones, with some beds of mid grey siltstone and beds of interbedded siltstone and mudstone. Sporadic, minor pale grey quartzitic sandstones and rare thin coals are also present.

The geology map indicates two approximately northwest to southeast trending faults in the vicinity of the site. The Gyrnos Fault which downthrows to the northeast crosses the western corner of the site and the Dowlais Fault which downthrows to the southwest is indicated approximately 10m to the east.

There are no strata dips indicated in the vicinity of the site but dips to the northwest are indicated to be 8° to 18° to the south. The Generalised Vertical Section (GVS) would also indicate a southerly strata dip.

The nearest conjectural coal outcrop according to the geology map is the Gellideg seam which is located approximately 1.3km to the southeast of the site. Due to the southerly strata dips this seam would not underlie the site. The next seam below the Gellideg in the sequence according to the GVS is the Garw seam. It is considered that this seam would also conjecturally outcrop to the southeast of the site and would therefore not underlie the site.

4.2 GEOLOGY (CONTINUED)

A sequence of ironstones is known to be located in between the Gellideg and the Garw seams and the Rosser Ironstone Veins are known to be located beneath the Garw seam. It is considered that these ironstones would not affect the site.

Superficial deposits of Devensian Till of the Quaternary period area indicated to overlie the solid strata. These deposits are typically poorly sorted and variable in nature comprising clays, sands, and gravel.

A variable thickness of made ground is anticipated above the superficial deposits across the site. Thicker made ground would be anticipated in the vicinity of the former pond and also in the vicinity of any infilled surface water features. Disturbed ground or reworked material would also be anticipated along the western edge of the site at the boundary of the existing school sports pitches where earthworks were required as part of their construction. Topsoil/subsoil would be anticipated within any previously undeveloped areas.

A summary of the anticipated geological succession is given below in Table 1.

Table 1 : Summary of Anticipated Site Geology		
Geological unit	Horizon	Description
Recent	Made ground and/or topsoil/subsoil	Various materials
Quaternary	Devensian Till	Sands and gravels with varying matrix
Carboniferous	South Wales Lower Coal Measures Formation	Grey productive coal-bearing mudstones/siltstones, with seatearths and minor sandstones
	Bishopston Mudstone Formation	Mid to dark grey mudstones, with some beds of mid grey siltstone and beds of interbedded siltstone and mudstone. Sporadic, minor pale grey quartzitic sandstones and rare thin coals are also present.

4.3 RADON

Information with regard to Radon Protective Measures is provided within the Envirocheck Report and the Landmark Geodata Radon Information Map as presented in Appendices A and B. The report and map state that the site is located within a lower to intermediate probability area, as less than 1% and 1% to 3% of properties are above action level, and that therefore no radon protective measures would be necessary in the construction of new buildings within the site.

4.4 MINING

The site is located within a coal mining reporting area and therefore a Consultants Coal Mining Report has been obtained from the Coal Authority and a copy is included in Appendix C.

The Coal Authority states that there is *“no past mining recorded”*.

The Coal Authority state that probable unrecorded workings is “none”. However, this does not mean that shallow unrecorded workings do not exist, but rather any information to support this has not come into the possession of the Coal Authority. However, it should be noted that there are no conjectural coal outcrops indicated in the vicinity of the site with the nearest conjectural outcrop on the geology map indicated to be the Gellideg seam located approximately 1.3km to the southeast. The conjectural outcrop of the Garw seam would be anticipated to be nearer to the site but also located to the southeast. Due to the southerly strata dips these seams and any associated ironstone veins would not be anticipated to underlie the site.

The Coal Authority indicates that there are no mine entries recorded on site or within 100m of the site boundary.

The Coal Authority mining report confirms that there are *“No faults, fissures or breaklines recorded”*. However, the geology map does indicate two approximately northwest to southeast trending faults in the vicinity of the site. The Gyrnos Fault which downthrows to the northeast crosses the western corner of the site and the Dowlais Fault which downthrows to the southwest is indicated approximately 10m to the east.

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”*.

4.4 MINING (CONTINUED)

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”*.

The Coal Authority states that with regards to mine gas, none has been recorded within 500m of the site boundary. However, due to the site being located within a coal mining reporting area, a mine gas risk assessment should always be undertaken within coal mining areas in order to satisfy the guidelines within CL:AIRE document Good Practice for Risk Assessment for Coal Mine Gas Emissions, dated October 2021. (See Section 10.6)

Based on the information provided by the geology maps and the general knowledge of the seams in the area, the risk of unrecorded shallow workings beneath the site is considered to be low. The conjectural outcrops of the Gellideg and Garw seams are to the southeast of the site and would therefore not underlie the site. The rock strata beneath the site is known as the “Farewell Rock” which lies at the base of the coal measures. The thin Sun Vein and other thin coals are located below the Farewell Rock, but they would be thin and unviable to mine as well as being intermittent. The Farewell Rock is also known to be very hard and water bearing making any mining below difficult.

The Coal Authority interactive map indicates that the site is not located within a high-risk development area. The western half of the site located outside the coalfield consultation area.

It is therefore concluded that the risk of ground subsidence occurring as a result of past shallow recorded or unrecorded mine workings is considered to be low. No further specific coal mining related investigation would therefore be required.

4.5 HYDROLOGY, HYDROGEOLOGY AND FLOOD RISK

The Envirocheck Report indicates that the nearest surface water features are located on site. The OS Water Network Lines map indicates an unnamed surface water feature to flow from the northeast corner of the site. This feature then sinks underground to issue within the southeast corner before flowing off-site to the southeast. This feature may be culverted beneath the site. The nearest named feature is Nant Morlais located 516m to the southeast.

4.5 HYDROLOGY, HYDROGEOLOGY AND FLOOD RISK (CONTINUED)

The Natural Resources Wales groundwater vulnerability map and aquifer database classifies the bedrock beneath the site as a Secondary 'A' Aquifer. Secondary 'A' Aquifers are 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.

The Natural Resources Wales groundwater vulnerability map and aquifer database classifies the superficial deposits beneath the site as Secondary Aquifer-Undifferentiated. This classification is assigned in cases where it has not been possible to attribute either category A or B to a soil type. In most cases, this means that the layer in question has previously been designated as both minor and non-aquifer in different locations due to the variable characteristics of the material.

A perched water body could be encountered within the made ground. This is particularly likely due to the relatively impermeable nature of the underlying superficial deposits.

It is considered possible that the existing site drainage could act as a pathway for potential surface contaminants.

There is one discharge consent recorded within 250m of the site boundary. The consent is recorded 139m to the south where an unspecified Dwr Cymru discharge is received by Goitre Stream.

The Envirocheck Report states that there are no water abstractions recorded within 1km of the site boundary.

Tables 2 and 3 present a summary of the hydrological features and key hydrogeological nature of the site.

4.5 HYDROLOGY, HYDROGEOLOGY AND FLOOD RISK (CONTINUED)**Table 2: Summary of Site Hydrology**

Feature	Distance from site	Flow	Classification	Abstraction	Discharge
Unnamed surface and below ground features	Eastern site area	Southerly	Inland river	No	Unknown
Nant Morlais	516m southeast	Variable	Inland river	No	River Taff
Surface run-off	On site	Flows into site drainage or into site	N/A	No	Not known
Site Drainage	On site	Not known	N/A	No	Not known

Table 3: Summary of Site Hydrogeology

Geological Unit	Aquifer Classification	Aquifer Characteristics	Source Protection Zone	Groundwater Abstractions
Made ground and/or topsoil/subsoil	Not classified	Highly variable permeability and porosity. Perched water may be present with variable flow directions.	No	None
Devensian Till	Secondary Aquifer-Undifferentiated	Variable low to moderate permeability and porosity with intergranular flow possible. High clay content likely to restrict flow.	No	None
South Wales Lower Coal Measures Formation	Secondary A Aquifer	Variable moderate permeability coal-bearing mudstones/siltstones, with seatearths and minor sandstones 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	No	None
Bishopston Mudstone Formation		Variable moderate permeability mudstones, siltstone and beds of interbedded siltstone and mudstone. Sporadic quartzitic sandstones and rare thin coals 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		

4.5 HYDROLOGY, HYDROGEOLOGY AND FLOOD RISK (CONTINUED)

The Groundwater Vulnerability map of the area indicates the secondary bedrock aquifer to have a medium vulnerability. The pollutant speed is low with well-connected fractures.

The Natural Resources Wales Flood Risk map as presented within the Envirocheck Report indicates that the site is not at risk of extreme flooding from rivers or sea without defences.

The Natural Resources Wales Surface Water Flood Risk map as presented within the Envirocheck Report indicates that the majority of the site is not at a high-risk of surface water flooding. However, the map indicates that the area within the southeast corner in the vicinity of the surface water feature is at a high-risk of surface water flooding (1 in 30-year flood extent).

The BGS Groundwater Flooding Susceptibility map as presented within the Envirocheck Report indicates the majority of the site to have limited potential for groundwater flooding to occur. It also indicates that the western area has potential for groundwater flooding of property situated below ground level.

4.6 LANDFILL SITES

The Envirocheck Report indicates that there are no historical, BGS recorded, or local authority recorded landfill sites or any licensed waste management facilities located within 250m of the site boundary.

There are ten areas of potentially infilled land (water) located on site and within 250m of the site boundary. The areas are located across the southern half of the site at the location of the former pond and within the northern and north-eastern area at the location of former surface water features which flowed into the pond. The off-site features were located 21m north, 107m west, 114m south, 150m north, 181m west and 246m west at the location of former surface water features.

4.7 POTENTIAL CONTAMINATION

Previous Uses

The various activities in the vicinity of the site which may have resulted in ground or water resource contamination on this site are listed below in Tables 4 and 5. A summary of the potential contaminants can be found in the tables.

4.7 POTENTIAL CONTAMINATION (CONTINUED)

Table 4: Potential Contaminants		
Land Use: Undeveloped land including Goitre Pond until the 1960's		
Material/Process	Contamination/Hazard	Evidence
Possible agricultural land across the undeveloped areas	No potential contaminants	Historical maps
Excavation of the pond including evidence of earthworks along the southern and eastern edges which may have utilised imported materials of unknown origin	Metals, semi metals, non-metals, PAH, asbestos	Historical maps
Construction and use of the tramway pre-1880 which followed the southern boundary of the site and crossed the western boundary. Construction works may have utilised imported materials of unknown origin and the use and maintenance may have caused localised spills of oil/fuel. Removed by 1900	Metals, semi metals, non-metals, PAH, asbestos	Historical maps and anecdotal
Construction of a small boathouse on the southern edge of the pond by 1900 which may have utilised imported material of unknown origin and subsequent demolition by 1919 which may have caused further ground disturbance	Metals, semi metals, non-metals, PAH, asbestos	Historical maps
Land Use: Infilling of the pond and construction of the playing fields circa 1960's		
Material/Process	Contamination/Hazard	Evidence
Infilling of the pond and other on-site surface water features with imported materials of unknown origin	Metals, semi metals, non-metals, PAH, asbestos	Historical maps
Regrading of the site to form playing fields across the former pond area and additional earthworks to create plateaux for the off-site sports pitches with potential for any imported materials to encroach across the western boundary of the site	Metals, semi metals, non-metals, PAH, asbestos	Historical maps

Existing Uses

The site is currently an area of undeveloped land. The current site uses would not add any additional contamination concerns.

4.7 POTENTIAL CONTAMINATION (CONTINUED)

Adjacent Site Uses

Table 5 : Potential Contaminants : Adjacent Site Uses		
Potential Contamination Source	Boundary	Associated Contaminants and Hazards
Pen-y-Dre High School and associated grounds	North-western	No Potential Contaminants
School playing fields and sports courts	North-eastern	No Potential Contaminants
Residential development	South-eastern	No Potential Contaminants
Goitre Lane with residential development beyond	South-western	No Potential Contaminants

4.8 OTHER ENVIRONMENTAL ISSUES

The Envirocheck Report indicates environmentally sensitive land has not been identified within 250m of the site boundary.

The Envirocheck Report indicates that there have been no pollution incidents to controlled waters recorded on site and none within 250m of the site boundary. The nearest incident was recorded 435m to the northwest and was a Category 3-Minor Incident involving an unknown pollutant. The nearest Category 2-Significant Incident was recorded 969m to the northwest involving mud/clay/soil.

There have been no substantiated pollution incidents registered on site or recorded within 250m of the site boundary. The nearest incident was recorded 474m to the northeast where commercial waste caused a significant impact on land but no impact on air or water.

There have been no prosecutions relating to controlled waters or to authorised processes recorded on site or recorded within 1km of the site boundary.

The site is vegetated with areas which are more heavily vegetated. It is uncertain if any invasive plant species are present and therefore it may be prudent to undertake a full vegetation survey prior to development.

5.0 PRELIMINARY CONCEPTUAL SITE MODEL

5.1 RISK ASSESSMENT FRAMEWORK

In order to be consistent with current UK government policies and legislation, it is necessary to identify, assess, estimate, evaluate, and take appropriate action to deal with land contamination, in accordance with the procedures specified in the Environment Agency guidance Land Contamination Risk Management (LCRM) published in October 2020. This replaces the now withdrawn 'Model Procedures for the Management of Land Contamination CLR-11' (Environment Agency 2004).

The risk assessment process is designed to provide a reasoned, structured, and pragmatic mechanism for the identification of any potential human health and controlled waters risks associated with land contamination and where necessary to develop a robust remediation strategy to ensure protection of the sensitive receptors (human health of future residents, controlled waters, etc).

In accordance with LCRM, the term 'land contamination' is defined as:

- All land affected by contamination – land that might have contamination present which may, or may or may not, meet the statutory definition of contaminated land,
- Land determined as contaminated land under Part 2A of the Environmental Protection Act 1990.

LCRM provides a tiered approach to risk assessment, comprising a preliminary risk assessment (including the development of an initial conceptual site model), a generic quantitative risk assessment and a detailed quantitative risk assessment. For each tier of risk assessment, the following steps must be followed:

1. Identify the hazard - establish contaminant sources,
2. Assess the hazard – use a source-pathway-receptor linkage approach to determine if there is potential for unacceptable risk,
3. Estimate the risk – predict what degree of harm or pollution may result and how likely it is to occur, and
4. Evaluate the risk – decide whether a risk is unacceptable.

LCRM also provides definitions of the following terms:

- Hazard – a property or situation that in particular circumstances could lead to harm or pollution,

5.1 RISK ASSESSMENT FRAMEWORK (CONTINUED)

- Risk – a combination of the probability, or frequency of occurrence of a defined hazard and the magnitude of the consequences of the occurrence,
- Risk assessment – the formal process of identifying, assessing and evaluating the health and environmental risks that may be associated with a hazard,
- Risk management – the formal process to identify, assess and determine the risks, and to select and take action to mitigate them.

The three essential elements to any risk are defined by LCRM as follows:

- A contaminant, or pollutant, that is in, on, or under the land and that has the potential to cause harm, or pollution (Source)
- A route by which a receptor is, or could be affected by a contaminant (Pathway)
- A receptor, i.e., something that could be adversely affected by a contaminant, for example a person, controlled waters, an organism, an ecosystem, or Part 2A receptors such as buildings, crops or animals (Receptor).

In order for there to be a potential risk, all three of the above elements must be present. If there is a source of contamination and a receptor (for example a resident or site user), then there is only a potential risk if there is a pathway linking the two. Such an active pathway is known as a relevant pollutant linkage. It is possible for the same contaminant to be linked to a receptor via a number of pathways, and hence it is important that all relevant pollutant linkages, to both human health and controlled waters, are separately identified on a site in order that a comprehensive conceptual model can be formed and ultimately a robust remediation strategy designed.

Current practice during Generic Quantitative Risk Assessment of land affected by contamination is to use generic soil screening values based on the appropriate proposed end use. These usually comprise risk-based Soil Guideline values (SGVs) or Generic Assessment Criteria (GACs) derived by the Environment Agency's Contaminated Land Exposure Assessment Model (CLEA). The SGVs and the supporting technical guidance were developed in order to assist in the assessment of long-term risk to human health from the exposure to contaminated soils.

Revised Statutory Guidance, published in 2012, to support Part 2A of the Environmental Protection Act 1990, introduced a new four category system for classifying land under Part 2A. Category 1 includes land where the level of risk is clearly unacceptable, and Category 4 includes land where the level of risk posed is considered to be acceptably low. Under Part 2A, land would be determined as contaminated if it falls within Categories 1 or 2.

5.1 RISK ASSESSMENT FRAMEWORK (CONTINUED)

The revised Part 2A Statutory Guidance was accompanied by an Impact Assessment that identified a role for new 'Category 4 Screening Levels' (C4SLs) that would provide a simple test for determining when land is suitable for use and definitely not contaminated land. A Policy Companion Document including the C4SLs was published in March 2014 (England) and May 2014 (Wales).

The C4SLs have been based on the CLEA methodology and derived using the CLEA model, with modified toxicological and exposure parameters. To date, C4SLs have been released for six substances (arsenic, cadmium, chromium (VI), lead, benzo(a)pyrene and benzene).

The C4SLs have been derived on the assumption that where they exist, they will be used as generic screening criteria within generic quantitative risk assessment.

Following publication of the C4SLs, Land Quality Management (LQM), in conjunction with the Chartered Institute for Environmental Health (CIEH) released Suitable 4 Use Levels (S4ULs) in January 2015.

The S4ULs have been derived in accordance with UK legislation and using a modified version of the Environment Agency's CLEA software. As such, the S4ULs are based on the concept of minimal or tolerable risk as described in Human Health Toxicological Assessment of Contaminants in Soil (Science Report SR2, Environment Agency 2009a).

S4ULs have been derived for a wider number of substances.

In addition to the existing SGVs, C4SLs and S4ULs, Atkins ATRISK^{soil} also provide a set of Soil Screening Values. These are currently intended to be used in conjunction with SGVs, although they intend to update these values in line with the C4SLs in due course.

We have reviewed all sets of values and intend to use the most appropriate assessment criteria as Tier 1 screening values in the first instance. Where a published S4UL is available, and considered appropriate, this will be used in the first instance.

5.2 CONCEPTUAL MODEL FRAMEWORK

The preliminary stage of the risk assessment process is to develop and define a conceptual site model, based on the desk study and any existing site investigation data. This is used to establish any potential contaminant sources, identify existing and future receptors and assess if there are any potentially active pathways by which a potential risk may be present.

5.2 CONCEPTUAL MODEL FRAMEWORK (CONTINUED)

The preliminary conceptual site model will be developed and refined as site specific data is gathered, such as actual ground conditions and chemical data, resulting in a more robust conceptual understanding of the site.

5.3 CRITICAL SENSITIVE RECEPTOR – HUMAN HEALTH

The proposed redevelopment of the site is for an educational end-use with the development of a new school. Since this is a non-standard land use, a residential without homegrown produce end-use has been considered in the first instance as a conservative assessment. Therefore, the critical sensitive receptor from a human health perspective is an on-site residential receptor without homegrown produce. It should also be noted that the eastern area of the site is proposed to be developed with a solar array farm and the southern area will comprise a future residential development.

In accordance with S4UL/C4SL and CLEA guidance for a standard residential without homegrown produce scenario, the critical sensitive receptor for a residential end use risk assessment is a female child, with exposure from 0 to 6 years. A less conservative commercial end use scenario would be appropriate for the solar array farm area and the critical sensitive receptor for a commercial risk assessment is a female adult, with exposure from 16 to 65 years.

The standard residential end-use conceptual model defined by S4UL/C4SL and CLEA is assumed to be suitable for the purposes of this assessment for the proposed educational facility.

5.4 CRITICAL SENSITIVE RECEPTOR – CONTROLLED WATERS

Based on the proposed redevelopment of the site for an educational end use, and the findings of the desk study, the critical sensitive receptor from a controlled water perspective is groundwater within the Secondary 'A' Aquifer of the South Wales Lower Coal Measures Formation and the Bishopston Mudstone Formation.

By considering groundwater as the critical sensitive receptor for controlled waters, the groundwater/hydrogeological risk assessment will also be protective of the surface water features which cross the site.

5.5 POTENTIAL CONTAMINANT SOURCES

As identified in the desk study, the site has remained largely undeveloped but included a large pond within the southern area. A tramway followed the southern boundary of the site and encroached across the western boundary. The tramway was dismantled and removed by 1900. The pond was infilled during the 1960's along with some of the surface water features associated with the pond. There was evidence of earthworks as part of the pond construction and subsequent infilling and also evidence of earthworks off-site to the west to construct the school sports pitches.

The potential types of contaminants of concern are listed below:

- Metals, semi-metals, and inorganics within the shallow made ground,
- Polyaromatic hydrocarbons (PAH) within the shallow made ground,
- Asbestos within the shallow made ground.

The nature of the materials utilised to infill the pond is unknown. These materials could be a source of ground gas such as methane and carbon dioxide.

5.6 POTENTIAL EXPOSURE PATHWAYS

Potential exposure pathways for the critical receptors (both human health and controlled waters) are listed below:

- Dermal contact with soil and/or soil derived dust,
- Ingestion of soil ,
- Inhalation of soil derived dust,
- Inhalation of vapours – indoor and outdoor air,
- Leaching of contaminants from made ground to groundwater,
- Transportation of contaminants within groundwater.

In addition, the following exposure pathways have also been considered:

- Ground gas generation and migration,
- Building materials durability.

5.7 SUMMARY OF CONCEPTUAL EXPOSURE MODEL

A preliminary conceptual exposure model has been developed for the site. This is based on the findings of the desk study, historical review and site walk over and includes all potential sources, pathways and receptors that may be present on site. Those that have been identified as being potentially active require further investigation in the form of sampling and testing of soils and/or groundwater, followed by appropriate risk assessment.

The preliminary conceptual exposure model will be reviewed and refined following the completion of the site works and laboratory testing.

The preliminary conceptual exposure model is presented below in Table 6.

Table 6: Preliminary Conceptual Exposure Model				
Source		Receptor	Pathway	Potentially Active Pathway?
Origin	Contaminant			
Made Ground of unknown origin and historical land uses	Metals, semi-metals, non-metals, PAH, asbestos	Resident – human health	Dermal Contact with made ground/dust	✓
			Ingestion of soil	✓
			Inhalation of dust	✓
			Inhalation of vapours – indoor/outdoor	✓
	Metals, semi-metals, inorganics, PAH	Groundwater quality	Leaching from made ground	✓
	Metals, semi-metals, inorganics, PAH	Surface water quality	Transportation within groundwater	✓
Made Ground of unknown origin and natural ground	pH and water-soluble sulphate	Building Materials Durability	Direct contact	✓
Ground Gas – organic, gas producing materials	Methane, carbon dioxide	Human health	Accumulation of gases in confined spaces, and/or migration off site, leading to asphyxiation, or risk of explosion	✓

6.0 THE SITE INVESTIGATION

6.1 FIELDWORKS

A site investigation was designed in accordance with BS 5930:2015+A1:2020, the Code of Practice for Site Investigations, BS10175:2011+A2:2017, the Code of Practice for Investigation of Potentially Contaminated Sites, and 'Development of Land Affected by Contamination: A Guide for Developers' prepared by Welsh Local Government Association (WLGA)/Natural Resources Wales (NRW) Land Contamination Working Group, 2017.

The site investigation was also designed to provide information to support and refine the preliminary conceptual site model/conceptual exposure model.

An investigation comprising fifteen machine excavated trial pits and ten windowless sample boreholes was carried out during 18th/19th and 22nd/23rd of May 2023. Soil infiltration testing was undertaken in seven of the trial pits.

Additionally, six shell and auger boreholes were drilled between the 7th and 19th of June 2023.

The approximate locations of the exploratory hole positions were provided by Cambria Consulting.

The trial pits (TP01 to TP08, and SA01 to SA07) were excavated across the site using a wheeled JCB 4CX mechanical backhoe excavator to a maximum depth of 4.1m below existing ground level.

At select trial pit locations (SA01 to SA07) soil infiltration testing was undertaken.

At each trial pit location not designated for a soil infiltration test, a Mexe Cone CBR handheld probe was utilised at 0.5m depth to order to ascertain an approximate CBR value for the shallow soils.

The windowless sample boreholes (WS01 to WS10) were located across the site and drilled to a maximum depth of 5.0m below existing ground level. In-situ strength testing (SPT/CPTs) was carried out in the boreholes.

Ground gas monitoring standpipes were installed within two of the windowless sample boreholes (WS01 and WS08).

6.1 FIELDWORKS (CONTINUED)

Six shell and auger boreholes (BH01 to BH06) were drilled on site and drilled to a maximum depth of 10.0m below existing ground level.

The purpose of the shell and auger boreholes was to prove the deeper ground conditions and allow an assessment of the most appropriate foundation type for the proposed development. In-situ strength testing (SPT/CPTs) was also carried out in the cable percussion boreholes. A chisel was also employed within the boreholes when encountering both man-made and natural obstructions and at the base of the boreholes.

Ground gas monitoring standpipes were installed within three of the shell and auger boreholes (BH02, BH05 and BH06).

A programme of gas monitoring was commenced on completion of the fieldwork.

Representative soil samples were taken from the trial pits/boreholes for laboratory chemical and geotechnical testing and placed in the appropriate sample containers deemed suitable for the analysis required. Strict protocols were adopted during this process to limit the cross contamination of samples.

The fieldworks were supervised by a qualified Geotechnical Engineer from Intégral Géotechnique (Wales) Limited who also logged the trial pits / boreholes and prepared their detailed engineering logs in accordance with the requirements of BS5930:2015+A1:2020. The engineering logs provide descriptions of the materials encountered in accordance with BSEN ISO 14688-1 (2002) and 14689-1 (2003) for soils and rocks respectively.

The approximate locations of the trial pits, windowless sample boreholes and shell and auger boreholes are shown on Figure 2, while their logs are presented in Appendices D, E and F respectively. The results of the soil infiltration testing are presented in Appendix G. The results of the handheld Mexecon CBR probe are presented on the trial pit logs in Appendix D.

6.2 FIELD OBSERVATIONS

Made ground was encountered at numerous exploratory hole locations. However, no visual or olfactory evidence of any potentially significant contamination, including fuels oils, was observed.

6.3 LABORATORY CHEMICAL TESTING

Representative soil samples were taken from the trial pits and boreholes across the site, stored at the appropriate temperature and dispatched to the UKAS and MCERT accredited laboratories of i2 analytical for laboratory chemical testing within 24 hours.

The samples were tested for a range of contaminants that reflects the historical use of the site, the findings of the desk study and the preliminary conceptual site model/conceptual exposure model. A list of the soil testing carried out is given below:

Beryllium	Cadmium
Total Chromium	Hexavalent Chromium (VI)
Copper	Lead
Mercury	Nickel
Vanadium	Zinc
Arsenic	Boron
Selenium	Elemental Sulphur
Total Cyanide	Total Sulphate
Sulphide	Water Soluble Sulphate
pH	Monohydric Phenol
Polyaromatic Hydrocarbons (PAH)	

All soil samples were also screened for the presence of asbestos.

Select soil samples were also scheduled for Waste Acceptance Criteria (WAC) testing.

The results of the chemical testing are presented in Appendix H.

6.4 LABORATORY GEOTECHNICAL TESTING

During the site investigation works representative soil samples of made ground and natural ground were also taken and dispatched to the laboratories of GSTL for laboratory geotechnical testing including pH, water soluble sulphate, optimum compaction/Dry Density relationship (OMC/DDR), particle size distribution (PSD), Atterberg limits and moisture content.

The results of the geotechnical testing are presented in Appendix I.

6.5 IN-SITU GAS MONITORING

Gas monitoring standpipes were installed in two of the windowless sample boreholes and three of the shell and auger boreholes and these have been monitored at fortnightly intervals following completion of the respective drilling operations.

The gas monitoring programme commenced on the 31st May 2023 within the windowless sample boreholes and the 18th July 2023 within the shell and auger boreholes.

The concentration levels of methane, carbon dioxide and oxygen were measured in the standpipes during each visit by using a GA5000 Landfill Gas Analyser. In addition, gas flow rate and the atmospheric pressure at the time of the field measurements were also recorded.

Gas monitoring was carried out over a range of atmospheric pressures to include at least one reading in low and/or falling pressure, in accordance with the recommendations made in CIRIA Report C665.

The results of the field gas monitoring are presented in Appendix J.

7.0 GROUND CONDITIONS

Geologically, the ground conditions generally comprise a thick mantle of made ground deposits, shallowing to the peripheries of the site. The made ground is generally underlain by soft organic soils which are in turn further underlain by natural undisturbed superficial deposits of Devensian Till. This ground profile is reflective of the historical infill of the former pond area.

A summary of the ground conditions encountered across the site is presented below in Table 7.

Table 7 : Summary of Ground Conditions		
Depth (m)		Stratum
From	To	
0.00	0.20/0.30	<u>TOPSOIL</u> Grass over soft brown and black silty slightly gravelly organic rich CLAY with frequent roots and rootlets.
0.00/0.30	0.80/4.10	<u>MADE GROUND</u> Varying densities/consistencies of very soft to stiff brown, grey and black, silty, sometimes sandy, gravelly CLAY/SILT. AND Loose to medium dense grey and black sometimes clayey, sandy GRAVEL / gravelly SAND.
1.50/4.00	1.90/4.50	Soft blackish brown spongy fibrous PEAT [suspected base of former pond].
0.30/4.10	>2.30/>10.0	<u>NATURAL SOILS</u> Typically soft to firm, locally very soft and stiff brown, grey and greyish brown silty, locally sandy gravelly CLAY/SILT. AND Medium dense sandy GRAVEL

The majority of the trial pits were recorded as generally stable with local instability associated with cobble and boulder removal.

Further instability was recorded within highly saturated made ground deposits associated with perched groundwater.

7.0 GROUND CONDITIONS (CONTINUED)

7.1 TOPSOIL

A surface covering of topsoil was recorded across the majority of the site ranging in thickness between approximately 0.20m and 0.30m. The topsoil generally comprised soft brown and black silty slightly gravelly organic rich clay with frequent roots and rootlets. Locally, a low cobble content was recorded comprising sub-angular and sub-rounded sandstone and limestone. The gravel constituents of the topsoil generally comprised fine to coarse sub-angular and sub-rounded sandstone and limestone.

7.2 MADE GROUND

Made ground was recorded within the majority of the exploratory pit/holes positioned across the site. The made ground was recorded between ground level and 0.30m depths (generally below the existing topsoil) and extended to depths of between approximately 0.80m to 4.80m below existing ground level.

The thickness of made ground was recorded to increase towards the centre of the site. Comparatively, the made ground was recorded to thin towards the northern and eastern peripheries of the site where more competent natural soils were observed within sloping areas. Within the eastern portion of the site the made ground extends to a nominal average approximate depth of 2.70m below ground level. Within the western site area, the made ground extends to an average approximate depth of 4.00m below ground level. The made ground was recorded to thin to the north with average approximate depths of 1.50m to 2.50m. The made ground deposits are commonly recorded within the relatively flat plateau of the site, before shallowing where the site begins to slope to the north and east.

It is assumed that the made ground is the result of the infilling of the former Goitre Pond, which was infilled in the 1970's. The approximate extent of the infilled Goitre Pond is shown in Figure 3.

The made ground was variable in nature and generally comprised soft to firm, locally very soft and stiff brown, grey and black silty, sometimes sandy gravelly clay /silt. Locally a loose to medium dense grey and black sometimes clayey sandy gravel/ gravelly sand was also encountered.

The made ground also contained low to high cobble and boulder contents generally comprising sub-angular and sub-rounded sandstone, limestone, concrete, brick, and rare vesicular slag.

7.2 MADE GROUND (CONTINUED)

The gravel constituents of the made ground comprised fine to coarse angular to rounded fine charcoal, clinker, brick, concrete, bituminous material, vitreous and vesicular slag, limestone, mudstone, and sandstone.

Within the upper metre of the made ground across the site, anthropogenic inclusions were encountered comprising glass, timber, timber posts, metal bar and metal scrap, fabric, plastic, and cabling.

It should be noted that although oversized and anthropogenic material was encountered across all areas of the site. An increased count of these materials exists within the explored western site area.

It should also be noted SA04 encountered deep made ground deposits that differed in composition to the general made ground encountered across the site. The topsoil was underlain by a thin veneer of soft greyish brown clayey slightly gravelly silt. Here, the gravel comprised fine to coarse sub-angular fine ash, limestone, and sandstone. The silt layer extended to 0.4m depth before encountering a loose black clayey sandy gravel layer. The gravel within this layer comprised fine to coarse sub-angular fine ash and clinker. The depth to natural deposits was not proven in this location with the made ground extending to >3.0m depth.

Uncorrected SPT 'N' values recorded within the made ground ranged between 4 and 50, with the higher value likely reflective of the presence of cobbles and boulders within the made ground.

Laboratory plasticity testing undertaken on samples of made ground recorded a plasticity index in the range of 13% and 21%. The calculated modified plasticity indices of 6.5% and 13.3%, indicates this stratum has a low volume change potential.

7.3 NATURAL SOILS

The natural soils across the site were recorded underlying both topsoil and made ground from depths ranging between approximately 0.30m/4.10m below existing ground level.

The highly variable depths to in-situ natural strata are reflective of much of the site being occupied by the historically infilled Goitre Pond.

7.3 NATURAL SOILS (CONTINUED)

The natural soils varied in composition but generally comprised primarily cohesive deposits and more locally granular deposits were observed. Additionally, organic/peaty soil deposits were also encountered.

7.3.1 Organic Soils / Peat

A thin layer of an organic cohesive material and peat (between approximately 0.20m and 0.50m thick) was recorded below the made ground deposits within the area of the historically infilled Goitre Pond.

It is assumed that the organic soils / peat layers recorded across the site are indicative of the original ground level before the infilling of the pond. These layers will be expected to have high organic and water contents and be highly compressible in nature.

7.3.1 Glacial Till Soils

The majority of the natural soils encountered underlying the made ground or organic / peat soils, typically comprised soft to firm, locally very soft brown, grey and greyish brown silty, locally sandy, gravelly clay.

Low to high cobble and boulder contents were recorded throughout the natural soils comprising sub-angular and sub-rounded sandstone and limestone. The gravel constituents comprised fine to coarse sub-angular and sub-rounded sandstone and limestone.

Within BH01 a more granular layer of medium dense very sandy gravel with moderate cobble and boulder content was recorded between 6.5m and 8.6m depth. The gravel, cobble and boulders within this layer comprised fine to coarse sub-angular to rounded sandstone.

Uncorrected SPT 'N' values recorded within the natural soils ranged between 1 and 50.

Laboratory plasticity testing undertaken on samples of natural soils recorded a plasticity index in the range of 14% and 16%.

The calculated modified plasticity indices of 12.2% and 12.3%, indicates this stratum has a low volume change potential.

All shell and auger boreholes terminated on suspected sandstone deposits or suspected boulders within the Devensian Till deposits.

7.4 GROUNDWATER

Groundwater was recorded within the majority of exploratory hole locations.

The majority of the groundwater observed during the site investigation was representative of perched water bodies, primarily within the made ground.

Within the underlying clay soils, groundwater seepages and strikes were encountered at variable depths.

Due to the presence of cohesive soils and organic clay soils, this is likely indicative of a perched water body/pocket held within the made ground.

The depth to groundwater has been converted to an approximate groundwater level with respect to ordnance datum, and a summary provided below in Table 8.

Table 8: Summary of Groundwater Levels				
Location ID	Depth to Groundwater (m bgl)	Approximate Ground Level (mAOD)	Approximate Groundwater Level (mAOD)	Comments
TP01	0.2	290.75	290.55	Extremely Fast Inflow
TP02	3.5	291.10	287.60	Minor Seepage
TP04	1.5	290.70	289.20	Extremely Fast Inflow
TP05	2.9	290.40	287.50	Minor Seepage
TP07	2.2	290.60	288.40	Minor Seepage
TP08	2	290.00	288.00	Moderate Seepage
SA03	1.1	290.50	289.40	Moderate Seepage
SA05	3.4	290.70	287.30	Minor Seepage
SA06	3.3	290.60	287.30	Minor Seepage
SA07	0.3	290.70	290.40	Standing in Borehole
WS01	3.4	291.25	287.85	Standing in Borehole
WS02	4.7	291.30	286.60	Extremely Fast Inflow
WS04	0.6	291.20	290.60	Standing in Borehole
WS05	2.3	290.30	288.00	Standing in Borehole
WS06	0.6	290.90	290.30	Standing in Borehole
WS08	3.5	290.30	286.80	Standing in Borehole
WS09	2.2	290.70	288.50	Standing in Borehole
BH01	1.0	290.90	289.90	Standing in Borehole after 20 minutes
BH02	0.4	290.70	290.30	Standing in Borehole after 20 minutes
BH03	1.0	291.00	290.00	Standing in Borehole after 20 minutes
BH06	1.8	290.50	288.70	Standing in Borehole after 20 minutes

7.4 GROUNDWATER (CONTINUED)

The groundwater conditions are based on observations made at the time of the fieldwork. It should be noted that groundwater levels may vary due to seasonal and other effects.

Following completion of the fieldworks, return visits have been undertaken to monitor the ground gas/water levels at multiple locations across the site.

It should be noted that the windowless sample boreholes were completed before the shell and auger borehole drilling. As such, the monitoring rounds of the windowless sample boreholes were commenced first.

A summary of the groundwater levels measured within the boreholes during each monitoring visits is provided below in Table 9.

Table 9: Summary of Groundwater Monitoring						
Borehole Ref:	Depth (m bgl)					
	Round 1 31/05/23	Round 2 14/06/23	Round 3 05/07/23	Round 4 18/07/23	Round 5 11/08/23	Round 6 21/08/23
WS01	1.52	1.53	1.56	1.42	1.40	1.49
WS08	0.00	0.00	0.01	0.30AGL	0.00	0.00
Borehole Ref:	Round 1 18/07/23	Round 2 11/08/23	Round 3 21/08/23	Round 4 06/09/23	Round 5 01/10/2023	Round 6 03/11/23
BH02	0.36	0.42	0.42	0.48	0.47	0.41
BH05	1.03	1.01	1.02	1.05	1.10	0.98
BH06	1.63	1.64	1.61	1.64	1.61	1.58

It should also be noted during the fourth round of windowless sample borehole monitoring the ground local to WS08 was highly saturated and waterlogged. As a result, water level has been recorded as 0.30m above ground level.

7.5 SOIL INFILTRATION TESTING

Soil infiltration testing was carried out in seven trial pits (SA01 -SA07) at the approximate locations provided by Cambria Consulting.

The trial pits were rapidly filled with clean water from a tractor-towed agricultural bowser and the water level monitored over a period of time.

Insufficient infiltration was observed in all test locations, and it was not possible to calculate a design infiltration rate.

7.5 SOIL INFILTRATION TESTING (CONTINUED)

The soil infiltration test calculation sheets are presented in Appendix G.

The soil infiltration test results are specific to the location and depths of the tests undertaken. It should also be noted that this initial testing should only be regarded as indicative. If it should be proposed to use soakaways for this site, then more extensive follow-up tests will be required and should fully comply with BRE 365, in order to confirm the suitability of the site and to satisfy the local authority.

7.6 LABORATORY GEOTECHNICAL TESTING RESULTS

Laboratory geotechnical testing was carried out on a number of disturbed samples of made ground and superficial soils recovered from trial pits. The results of the laboratory geotechnical testing are included within Appendix H.

While a summary of the geotechnical testing results for the made ground and natural soils is presented below in Tables 10 and 11.

Table 10: Summary of Laboratory Geotechnical Parameters – Made Ground							
Summary of Atterberg Limit Testing							
Location	Moisture Content (%)	Liquid Limit (%)	Plastic Limit (%)	Plasticity Index (%)	% Passing 425um	Modified Plasticity Index (%)	Volume Change Potential
SA03	15.7	29	16	13	50	6.5	Negligible
SA04	18.4	36	19	17	49	8.3	Negligible
TP02	17.2	39	20	18	74	13.3	Low
TP04	16.4	43	22	21	47	9.8	Negligible
Summary of Particle Distribution (Sample Portions %)							
Location	Boulders/Cobbles		Gravel	Sand	Silt		Clay
SA03	16		27	25	32		
TP02	3		25	29	44		
TP04	1		39	29	31		
Summary of Dry Density/Optimum Moisture Content Relationship							
Location	Initial Water Content (%)		Maximum Dry Density (Mg/m³)		Optimum Moisture Content (%)		
SA03	15.7		1.91		10		
TP02	17.2		1.89		12		
TP04	16.4		1.83		14		

7.6 LABORATORY GEOTECHNICAL TESTING RESULTS (CONTINUED)

Table 11: Summary of Laboratory Geotechnical Parameters – Natural Soils							
Summary of Atterberg Limit Testing							
Location	Moisture Content (%)	Liquid Limit (%)	Plastic Limit (%)	Plasticity Index (%)	% Passing 425um	Modified Plasticity Index (%)	Volume Change Potential
SA01	14.4	37	19	16	76	12.2	Low
SA05	18.9	33	19	14	88	12.3	Low
Summary of Particle Distribution (Sample Portions %)							
Location	Boulders/Cobbles		Gravel	Sand		Silt	Clay
SA05	0		8	30		62	
Summary of Dry Density/Optimum Moisture Content Relationship							
Location	Initial Water Content (%)		Maximum Dry Density (Mg/m³)		Optimum Moisture Content (%)		
SA05	1.84		13.8		18.9		

7.7 IN-SITU MEXE CONE CBR TESTING RESULTS

In situ Mexe Cone CBR testing was carried out at 0.5m depth at the eight trial pit locations across the site (TP01 – TP08)

Excavation of the trial pits was halted at 0.5m depth to allow three CBR values to be obtained. The results of the Mexe Cone CBR testing are reflective of the made ground materials recorded at the respective locations.

It should be noted that due to the extremely fast ground water inflows encountered at TP01, no CBR value was recorded at this location.

The results of the CBR testing are shown in the trial pits logs, presented in Appendix D.

The results indicate average CBR values across the site at approximately 0.5m depth within the made ground range between 0.98% and 3.15%.

8.0 CONTAMINATION

8.1 AVERAGING AREAS

To assess the laboratory test results reliably and in context, the data have been grouped into an averaging area. An averaging area (or area of interest) is that area of soil to which a receptor is exposed, or which otherwise contributes to the creation of hazardous conditions. This may be an area of historical industrial usage, a soil type, or a specific proposed end use.

In the case of this analysis, the averaging area has been determined according to the proposed school end use.

8.2 SOIL CONTAMINATION

The Suitable 4 Use Levels (S4ULs) published by LQM have been adopted as critical concentrations against which soil contaminant concentrations can be compared. In the absence of additional published S4ULs, the Category 4 Screening Levels (C4SLs) derived by DEFRA and Soil Screening Values (SSVs) derived by Atkins ATRISK^{soil} for a residential without home grown produce end use have been adopted, where considered appropriate.

It should be noted that published thresholds for a school end use are unavailable, and it has been considered that a residential without the consumption of home grown produce end use has been deemed appropriate for the site, as a conservative assessment in the first instance.

Since the results of the testing indicate total organic carbon content (TOC) in the range of 0.3% to 5.1%, the results have been compared to the respective guidelines, where applicable, for 1% soil organic matter content.

The results of the soil chemical testing have been summarised and are shown in Appendices K.

8.2.1 *Made Ground*

A total of eleven samples of the made ground were tested for contamination, including asbestos in accordance with the findings of the desk study.

The results of the laboratory testing indicate that the majority of the analysed chemical elements or compounds are present at concentrations below the appropriate thresholds. However, the initial screening indicates exceedances of beryllium and several PAH compounds.

8.2 SOIL CONTAMINATION (CONTINUED)

Beryllium was detected at elevated concentrations in two out of the eleven made ground samples and detected at concentrations between 2.3mg/kg and 5.4mg/kg, elevated above the adopted threshold of 1.7mg/kg (S4UL 1%SOM).

Benzo(a)pyrene was detected at an elevated concentration in one made ground sample (SA03 at 0.40m). The concentration of 5.0mg/kg exceeds the adopted screening value of 3.2mg/kg (S4UL 1% SOM).

Benzo(b)fluoranthene was detected at an elevated concentration in one made ground sample (SA03 at 0.40m). The concentration of 8.7mg/kg exceeds the adopted screening value of 3.9mg/kg (S4UL 1% SOM).

Dibenzo(ah)anthracene was detected at an elevated concentration in one made ground sample (SA03 at 0.40m). The concentration of 0.75mg/kg exceeds the adopted screening value of 0.31mg/kg (S4UL 1% SOM).

Asbestos was detected within one sample of made ground from WS05 at 0.4m depth. Asbestos quantification testing revealed that chrysotile and amosite fibres were present at a concentration of <0.001% by weight.

No further exceedances were detected within the tested samples of made ground.

8.2.2 Topsoil and Natural Soils

A total of two topsoil samples and one natural soil sample were tested for contamination.

The results of the laboratory testing indicate that all of the analysed chemical elements or compounds are present at concentrations below the appropriate thresholds.

With regards to the natural soils, no visual or olfactory evidence of contamination of the in-situ natural ground was identified during the excavation of the trial pits or drilling of the boreholes. It is considered likely that any concentrations of determinants within the natural ground are likely to be naturally occurring and as such, the natural ground poses no significant threat to human health or the environment.

8.3 GROUND GASES

Ground gas was monitored on a fortnightly basis using a GA5000 Gas Analyser. The results of the gas monitoring programme are included in Appendix J. A summary of the results is given in the following Table 12.

8.3 GROUND GASES (CONTINUED)

Table 12: Summary of Ground Gas Results				
Borehole	Maximum Methane Concentration (%)	Maximum Carbon Dioxide Concentration (%)	Minimum Oxygen Concentration (%)	Gas Flow Rate (l/hr)
WS01	0.2	3.6	18.7	<0.3
WS08	2.2	0.4	18.2	<0.3
BH02	0.3	0.7	17.8	<0.3
BH05	0.1	0.3	19.1	<0.3
BH06	0.4	0.8	17.2	<0.3

The results show a maximum methane concentration of 2.2% and a maximum carbon dioxide concentration of 3.6%. A maximum gas flow rate of <0.3/hr was measured during the gas monitoring programme.

In addition to the above, carbon monoxide and hydrogen sulphide concentrations are also measured. Results indicate the general absence of hydrogen sulphide, with concentrations below the limit of detection. During all monitoring rounds a maximum carbon monoxide concentration of 6ppm was recorded.

9.0 REVISED CONCEPTUAL EXPOSURE MODEL

The preliminary conceptual exposure model has been reviewed and revised to reflect the findings of the site investigation and the results of the laboratory testing of soils and gas monitoring. Pathways identified as a relevant pollutant linkage require appropriate risk assessment or mitigation measures (see Section 10).

Table 13: Revised Conceptual Exposure Model						
Source		Receptor	Pathway	Preliminary Active Pathway? (see Sect. 5.7)	Relevant Pollutant Linkage	Justification/ Mitigation
Origin	Contaminant					
Made Ground of unknown origin and historical land uses	Metals, semi-metals, non-metals, PAH and asbestos	Resident – human health	Dermal Contact with made ground/dust	✓	✓	Elevated concentrations of beryllium and PAH compounds and asbestos fibres identified within the made ground – Risk assess.
			Ingestion of soil and/	✓	✓	
			Inhalation of dust	✓	✓	
			Inhalation of vapours – indoor/outdoor	✓	X	No sufficiently volatile contaminants identified.
	Metals, semi-metals, inorganics, PAH	Groundwater quality	Leaching from made ground	✓	X	Slight, localised elevations of total concentrations of beryllium and speciated PAHs. All PAHs elevations are local to SA04. Given the slight exceedances and localised nature of contamination, risk of leachate generation and risk to groundwater is considered low.
		Surface water quality	Transportation within groundwater	✓	X	

9.0 REVISED CONCEPTUAL EXPOSURE MODEL (CONTINUED)

Table 13: Revised Conceptual Exposure Model (Continued)						
Source		Receptor	Pathway	Preliminary Active Pathway?	Relevant Pollutant Linkage	Justification/ Mitigation
Origin	Contaminant					
Made Ground of unknown origin and natural ground	pH and Water-Soluble Sulphate	Building Materials Durability	Direct contact	✓	✓	Building materials will be in contact with made ground and natural soils– Risk assess
Ground Gas – organic, gas producing materials	Methane, carbon dioxide	Human health	Accumulation of gases in confined spaces, and/or migration off site, leading to asphyxiation, or risk of explosion	✓	✓	Potential gas producing materials present in the form of made ground and organic natural peaty soils. – Risk assess

10.0 RISK ASSESSMENT

10.1 METHODOLOGY

The risk of pollution, health effects or environmental harm occurring as a result of ground contamination is dependent upon three principal factors:

- The scale of the contamination sources;
- The presence of sensitive “receptors”, e.g., Humans: health of the general public, site occupiers, redevelopment workers. Environment: flora, fauna, etc;
- The existence of migration pathways by which contaminants can reach the sensitive receptors.

This section assesses each of these factors in order to evaluate the overall level of risk and potential harm to receptors. The receptor may be human, a water resource, an eco-system or construction materials. Pathways connecting a perceived hazard to a receptor are referred to as exposure pathways.

The sources of contamination and the links connecting the hazards to the sensitive receptors will represent the basis for the risk assessment.

10.2 SOURCE-PATHWAY-RECEPTOR MODEL

The preliminary conceptual site model was based on the findings of the desk study. This was later reviewed and refined according to the findings of the site investigation, allowing for the ground conditions encountered and the results of laboratory testing of soil and groundwater. Any pathways considered to be inactive were removed from the model and all remaining potentially active pathways require risk assessment.

The pathways shown as potentially active in the Revised Conceptual Site Model in Section 9.0 above have been assessed below.

10.3 HUMAN HEALTH RISK ASSESSMENT

10.3.1 *Site in its Present Condition*

It is considered that the site does not pose any risks to casual visitors or trespassers.

10.3 HUMAN HEALTH RISK ASSESSMENT (CONTINUED)

10.3.2 Future Site Users

The contamination test results, and investigation observations show locally elevated concentration levels in the made ground of beryllium and three PAH compounds (benzo(a)pyrene, benzo(b)fluoranthene and dibenzo(ah)anthracene).

Chrysotile and amosite fibres were detected in one screened sample of made ground at a concentration of <0.001% by weight.

Given the elevated beryllium and PAH concentrations and the presence of asbestos fibres within the general made ground encountered across the site, it is considered that a potential risk to human health may exist via the following relevant pollutant linkages:

- Dermal contact,
- Ingestion of soil or soil derived dust,
- Inhalation of soil bourn dust.
- Inhalation of fibres.

It is therefore considered necessary to protect end users from the elevated concentrations of beryllium, PAH, and asbestos fibres in the made ground. It is considered necessary to break the above listed relevant pollutant linkages in order to remove the potential risk.

It is recommended that a capping layer, of a minimum thickness of 600mm, of clean imported subsoil and topsoil is placed in all areas of soft landscaping and any sport pitches underlain by made ground. This should be placed above a robust high visibility anti-mixing membrane/geofabric. This would break all the above listed relevant pollutant linkages.

10.3.2 Construction Operatives

With future site development works involving the excavation and removal of the made ground, there would be a risk to workers from contaminants in the soils and also the groundwater if it is encountered. Appropriate measures are therefore recommended for works involving the made ground materials which are known to be present beneath the site.

All excavations should be regularly checked for safe atmospheres.

Normal good hygiene practices should be adequate to protect the health and safety of redevelopment workers, and should include:

10.3 HUMAN HEALTH RISK ASSESSMENT (CONTINUED)

- Minimum handling of materials,
- Washing of hands prior to all meal breaks, which should be taken in a designated clean area,
- The use of standard protective clothing such as boots and overalls and gloves, where considered relevant.

As a minimum, all groundworkers should be asbestos awareness trained.

In dry weather, inhalation of dust and gases should be avoided preferably by the use of dust suppression techniques to minimise fugitive emissions and minimisation of exposed materials at any particular time.

Additionally, a system should be established by which any 'unusual' materials that may be encountered are reported rapidly to the site management, so that the appropriate action may be taken, following specialist advice if necessary. An unusual material may be identified on site by colour, odour, or physical nature.

Reference should be made to the Health and Safety Executive document "Protection of Workers and the General Public during the development of contaminated land" for detailed guidance on these matters.

10.4 RISKS TO VEGETATION

As outlined above, it is recommended that a capping layer, of a minimum thickness of 600mm, of clean imported subsoil and topsoil is placed in all areas of soft landscaping and any sport pitches underlain by made ground. This should be placed above a robust high visibility anti-mixing membrane/geofabric.

10.5 CONTROLLED WATERS RISK ASSESSMENT

Localised elevated concentrations of beryllium and three PAH compounds (benzo(a)pyrene, benzo(b)fluoranthene and dibenzo(ah)anthracene) were encountered within the made ground located beneath the site.

The underlying natural ground comprised of generally cohesive glacial deposits, although perched ground incidences were recorded in the made ground and natural soils.

10.5 CONTROLLED WATERS RISK ASSESSMENT (CONTINUED)

In the developed state, the site will be covered by either the building footprint or areas of hardstanding and the areas of soft landscaping and any sport pitches underlain by made ground will be covered by a minimum 600mm thick capping layer of clean inert imported soils, placed above a high visibility anti-mixing membrane/geofabric.

It is therefore considered that the potential for rainfall infiltration into the made ground, subsequent leachate generation from the made ground and the potential for vertical migration of unacceptable leachate concentrations to impact the underlying perched groundwater bodies is considered to be low.

Consultation should be undertaken with regulators prior to development. Regulators may require additional leachate and groundwater sampling and analysis on site to confirm the above.

10.6 GROUND AND MINE GAS RISK ASSESSMENT

The results show a maximum methane concentration of 2.2% and a maximum carbon dioxide concentration of 3.6%. A maximum gas flow rate of <0.3l/hr was measured during the gas monitoring programme.

In accordance with CIRIA Report C665 a Gas Screening Value (GSV) of 0.0108/hour has been calculated. This GSV corresponds to gas Characteristic Situation 1 (CS1), which does not require any special gas protective measures.

However, due to the significant thickness of made ground, methane concentrations above 1% and the presence of significantly thick organic cohesive soils underlying the site, it would be prudent to increase the gas Characteristic Situation to Situation 2 (CS2).

Reference should also be made to BS8485+A1:2019.

In accordance with BS8485+A1:2019 and based on the results of the ground gas monitoring programme with the site being classified as CS2, for Development Type B and C (commercial/public), the minimum gas protection score is 3.5.

As stated in Section 8.3, maximum carbon monoxide concentrations of 6ppm were detected during the gas monitoring programme.

10.6 GROUND AND MINE GAS RISK ASSESSMENT (CONTINUED)

The HSE Workplace Exposure Limit for carbon monoxide is 20ppm for long term exposure (8-hour time weighted average period), which is not exceeded by the maximum recorded concentration. It is therefore considered that the potential risk from carbon monoxide within the proposed school buildings is considered to be low.

No radon protective measures are required.

Gas evolution from coal seams and accumulated sources such as abandoned tunnels and workings cannot be discounted and will require further assessment conducted in accordance with CL:AIRE document Good Practice for Risk Assessment for Coal Mine Gas Emissions, dated October 2021.

The site is not located within a high-risk development area but based on the above guidelines a mine gas risk assessment should still be undertaken. The initial desk-based assessment of the site will be utilised in order to develop the level of mine gas risk within the site.

There are many sources of gas in mine workings including desorption of gas from coal and rocks, oxidation of coal, decomposition of old wood (such as pit props) and acidic mine drainage reacting with carbonate in the rocks around the seam or shaft.

These gases, if produced within the old workings, would need a viable pathway to the surface such as a shaft or fractured rock above the workings.

The desk study shows that the site is not located within a high-risk development area. Shallow coal workings are not recorded and there are no potential shallow unrecorded workings beneath the site.

There are no mine entries located within 100m of the site boundary. It is therefore concluded that there are no viable pathways, via old shafts or adits, for any mine gas beneath, or within an influencing distance, of the site.

No faults, fissures or breaklines are known to affect the development site according to the Coal Authority. The site is also overlain by a thickness of cohesive superficial deposits. Although lines of fault are indicated on the geology map, one of which crosses the site, it is considered that no workings where gas could generate are present beneath the site. It is therefore concluded that the faults would not provide a risk.

10.6 GROUND AND MINE GAS RISK ASSESSMENT (CONTINUED)

Based on the desk-based research, the potential risk from coal mine gas emissions at the development site is considered below:

Figure 13.1 Decision Support Tool for Mine Gas Risk Assessment, included within CL:AIRE document Good Practice for Risk Assessment for Coal Mine Gas Emissions, dated October 2021 includes a flow chart to aid the risk assessment process and decision making.

Stage 1 of the flow chart asks if the site is within a Coal Authority defined Coal Mining Reporting Area. Since the site is located within a Coal Authority defined Coal Mining Reporting Area the flow chart then asks if all of the following statements are true:

- Mine entries >50m from site boundary,
- Workings >150m depth,
- No faults or other potential pathways connecting surface to deeper unflooded workings,
- Outside area of past or probable shallow workings on Coal Authority viewer.

Based on the information gained from the desk-based research, it is considered that the Stage 1 statements are true. The CL:AIRE document 'Good Practice for Risk Assessment for Coal Mine Gas Emissions dated October 2021' therefore classifies the site as being within a "Negligible Risk Zone" and states that mitigation is not required based on the proposed development of the site.

10.7 RISKS TO BUILDINGS AND MATERIALS DURABILITY

10.7.1 Concrete Classification

A summary of the laboratory chemical test results for the chemicals monohydric phenol, sulphur, total sulphate, water soluble sulphate, sulphide, and pH, which may adversely affect the durability of building materials is presented in Appendix G.

Evidence to date does not indicate any specifically aggressive conditions, but it would be reasonable to expect a degree of sulphate and acidic aggressiveness from the made ground.

10.7 RISKS TO BUILDINGS AND MATERIALS DURABILITY (CONTINUED)

Made Ground

In accordance with BRE Digest SD1:2005 and adopting the assessment procedure specified therein for brownfield sites, the laboratory chemical test results indicate a characteristic value (taking the highest test result) for water soluble sulphate within the made ground of 410mg/l.

Using Table C2 of BRE Digest SD1:2005, this characteristic value corresponds to Design Sulphate Class DS-1.

The groundwater regime of the site has been assessed as 'mobile' and a characteristic pH value within the made ground of 7.0 has been determined (adopting the lowest test result). The Design Sulphate Class has been modified to give a site ACEC class of AC-1 for concrete structures constructed within the made ground.

Natural Soils

In accordance with BRE Digest SD1:2005 and adopting the assessment procedure specified therein for brownfield sites, the laboratory chemical test result (based on one sample of natural soil) indicate a characteristic value for water soluble sulphate within the natural soil of 17mg/l.

Using Table C2 of BRE Digest SD1:2005, this characteristic value corresponds to Design Sulphate Class DS-1.

The groundwater regime of the site has been assessed as 'mobile' and a characteristic pH value within the made ground of 5.8 has been determined (adopting the mean of the lowest 20% of the test results). The Design Sulphate Class has been modified to give a site ACEC class of AC-2z for concrete structures constructed within the natural soils.

10.7.2 Water Services

Water supply pipes will need to be protected from any contamination present within the ground. In particular, the presence of organic contaminants (such as PAH) should be addressed when selecting pipe materials. Measures to protect the pipes will include clean backfill to trenches and possibly alternative material selection.

Reference should be made to UKWIR Guidance for the Selection of Water Supply Pipes to be used in Brownfield Sites, document No. 10/WM/03/21. The final design and selection of the pipe and associated backfill should be agreed with the appropriate Regulator prior to installation.

10.7 RISKS TO BUILDINGS AND MATERIALS DURABILITY (CONTINUED)

In order to comply with the UKWIR guidance, specific sampling and testing along the actual line of the proposed water supply route may need to be carried out once this has been established.

10.8 WASTE DISPOSAL

Excavated materials generated by the development may be considered as waste and subject to waste controls. Any re-use of excavated materials on-site should be undertaken in accordance with current waste and environmental legislation, and which may require the production of an approved Materials Management Plan (MMP) prepared in accordance with the CL:AIRE Code of Practice.

It is recommended that a sustainable development strategy is adopted which reduces to a practicable minimum the generation of waste materials and the need for disposal to a licensed tip. Emphasis should be on recovery and re-use rather than disposal.

However, any waste or surplus materials that are generated will need to be classified in accordance with current EC regulations and Environment Agency guidance prior to disposal. It is the responsibility of the waste producer to classify the waste.

Based on the data obtained from the site investigation works, any waste materials comprising the existing made ground are likely to be classified as a combination of non-hazardous and hazardous waste (a preliminary HazWasteOnline Waste Classification Report is presented in Appendix L).

The existing natural ground are likely to be classified as non-hazardous waste.

Any asbestos containing materials (ACMs) will be classified as hazardous waste.

This classification is provisional, and indicative of the likely waste classification based on the data obtained to date (including chemical composition, moisture content, etc.). It also assumes that the materials tested will be representative of future generated waste.

In order to minimise disposal, the materials generated should be segregated and examined, with appropriate testing as necessary, to enable the materials to be sorted or treated into lower classifications, with the resultant benefit of potentially generating re-use rather than disposal.

10.8 WASTE DISPOSAL (CONTINUED)

Once final waste sources and volumes are known, the waste stockpile to be disposed off-site will need to be classified in accordance with Environment Agency/Natural Resources Wales Waste Classification – Guidance on the Classification and Assessment of Waste Technical Guidance WM3 (2015). This is likely to require additional sampling and testing of the generated waste materials to provide an up-to-date current basis for classification.

Waste Acceptance Criteria testing was taken on one sample of topsoil (TP02 at 0.1m depth) and one sample of made ground (SA04 at 00.45m depth).

Copies of the results from the WAC testing are presented in Appendix G.

It is recommended that the results of any waste classification and any WAC testing are sent to the intended licensed waste operator prior to disposal in order to confirm their classification and acceptance.

10.9 UNCERTAINTIES

It is important to recognise that there may be areas of contamination within the site that have not been found or that contaminants may be present at concentrations above those that have been found. It is also important to recognise that contamination may be localised and that no investigation, however comprehensive, is capable of finding such occurrences, other than by chance.

11.0 ENGINEERING CONSIDERATIONS AND RECOMMENDATIONS

11.1 DETAILS OF PROPOSED DEVELOPMENT

The development proposals include the construction of a new school building with associated external play areas, access roads, and areas of car parking. At the time of writing the final proposed development layout and engineering levels had not been confirmed.

Additionally, it is understood that a solar array farm has been proposed to the east of the school site, and a future LDP housing zone has been allocated to the south of the school site.

It should be noted that the recommendations outlined in this report relate to the proposed school development area only.

The following recommendations should be reviewed and revised accordingly once the final proposed layout and engineering levels have been confirmed.

11.2 GEOTECHNICAL CONSTRAINTS AND CONSIDERATIONS

A number of geotechnical constraints have been identified that require careful consideration prior to development.

A summary of the main geotechnical constraints on development are outlined below.

- A significant portion of the site is underlain by the footprint of an historically infilled pond (the former Goitre Pond). The historical infill materials generally comprise soft cohesive made ground (up to approximately 4.00m thick) and are underlain by a layer of organic-rich / peaty soils (up to approximately 0.50m thick) considered to represent the historical pond base.
- Due to the presence of thick made ground deposits and the underlying peat layer, the use of conventional shallow foundations and a ground bearing floor slab for the proposed building is not advisable due to the potential for unacceptable levels of total and differential settlements.
- It is recommended that a piled foundation solution is utilised for the proposed building.

11.2 GEOTECHNICAL CONSTRAINTS AND CONSIDERATIONS (CONTINUED)

- If adopting a piled foundation solution, then the effects of settlement outside the footprint of the building, between the thresholds of the piled structure and external areas / infrastructure / service entry points needs to be carefully considered. In order to create a suitable plateau and to minimise potential associated differential settlements, it is recommended that the site is reclaimed in accordance with an agreed Earthworks Specification.
- When setting levels for the proposed development allowances should be made for the inclusion of a minimum 600mm clean capping layer (placed over a hi-visibility geotextile separation membrane) in all proposed soft landscaped areas that are underlain by made ground.
- In the event that ground levels are to be raised greater than 600mm above existing, then detailed settlement assessments will be required in order to assess potential differential settlement risks (particularly at the interface between external areas and piled structures).

11.3 SITE PREPARATION

11.3.1 Services

Prior to any works commencing on site, any existing buried services, including any culverts, within the site area should be identified and either diverted or protected. It is possible that a significant stream is culverted beneath the site. Further investigations to confirm the presence or absence of any culverts should be undertaken prior to detailed design. Any diversion works should be carried out undertaken the supervision of, and to the specification of, the appropriate statutory authorities. The resulting excavations should be backfilled with suitable granular material.

11.3.2 Vegetation Clearance and Site Strip

It has previously been noted that invasive plants, specifically Japanese Knotweed are present in localised parts of the site, specifically the northern site area. It is recommended that a full pest plant survey is undertaken and should the existence of Invasive Plants be identified, a licenced and competent contractor is engaged to undertake an eradication programme.

11.3 SITE PREPARATION (CONTINUED)

There are mature trees/vegetation along the edges of the site. Allowances should therefore be made for the protection of any trees or vegetation which are to be retained. Where trees are to be removed this should include the removal of any associated roots that may become exposed in any nearby earthworks and foundation excavations.

All existing topsoil should be stripped from development areas and stockpiled on site for potential re-use or removal off-site. Given the nature of the near surface soils, the exposed surface of the site will deteriorate in poor weather and due to trafficking of plant. We therefore recommend that to minimise surface water management risks and minimise the generation of silt, softened materials and unsuitable arising materials strategic earthworks materials management is required.

The exposed areas should be minimised at all times. All exposed areas should be protected from damage in wet weather. Designated access routes should be maintained and suitably designed and maintained working platforms for construction plant provided.

11.3.3 Unexpected Occurrences

A system should be established by which any 'unusual' materials that may be encountered are reported rapidly to the site management, so that the appropriate action may be taken, following specialist advice if necessary. An unusual material may be identified on site by colour, odour, or physical nature.

Allowances should be made for potentially encountering and dealing with possible springs, land drains and uncharted buried services.

11.3.4 Site Reclamation Earthworks

The site is underlain by variable thicknesses of made ground / historical pond infill materials.

It is recommended that the proposed building utilises piled foundations (as outlined below in Section 11.4). However, in order to provide a suitable plateau for the proposed development and to minimise settlements beneath access roads, car parking areas, drainage, and services (particularly at the interface with the piled structure), it is recommended that site reclamation earthworks are undertaken prior to development, to ensure adequate compaction of the existing made ground / pond infill deposits.

The compaction of the made ground / pond infill could be achieved through an 'excavation-and-recompaction' earthworks exercise, or by utilising a ground improvement technique such as High Energy Impact Compaction (HEIC).

11.3 SITE PREPARATION (CONTINUED)

Alternatively, ground improvement utilising vibro-stone column could also be considered.

Excavation and Recompaction

If it is proposed to undertake an excavate-and-recompact earthworks exercise, then the made ground beneath the footprints of all proposed development areas should be excavated to a depth of 2.0m below proposed development levels, or undisturbed virgin natural ground (whichever is shallowest).

Any excavated materials should be inspected, processed, and sorted in accordance with an agreed Earthworks Strategy and Materials Management Plan. The Materials Management Plan should be produced in accordance with the CL:AIRE Code of Practice and approved by a Qualified Person. Any unacceptable materials (such as wood, metal, etc) should be removed and disposed off-site. The acceptable materials should then be stockpiled on site for compliance testing and subsequent re-use as fill material.

The exposed sub-formations should be proof rolled. Any soft spots, soft cohesive or organic materials at sub-formation level will require excavation and replacement with granular fill materials.

The reduced levels should be brought up to the required levels with the processed made ground in controlled and compacted layers in accordance with Department of Transport (DTp) Specification for Highway Works. Any shortfall in quantities shall be made up with clean, inert, granular imported materials in accordance with an agreed specification. These materials will need to be placed and compacted to achieve structural performance standards suitable for the development.

The results of some initial Dry Density/Moisture Content Relationship testing (presented in Appendix I) indicate that the tested samples of the made ground and natural soils are currently beyond optimum moisture content for optimum compaction.

During the reclamation earthworks it will be necessary to implement suitable land drainage and surface water management control measures.

Any soft spots within prepared formations should be excavated and replaced with inert structural fill. Engineered fill should be of granular nature, rolled and compacted over benched formations, and placed in accordance with Department of Transport Specification for Highways Works. Detailed material re-use strategies should be produced prior to the commencement of works to maximise the re-use of materials.

11.3 SITE PREPARATION (CONTINUED)

The required site preparatory earthworks should be properly designed, specified, and monitored by a suitably qualified Geotechnical Engineer.

The recommended site reclamation earthworks should be undertaken in accordance with a separately prepared and agreed Earthworks Specification document.

It should be noted that earthworks will be seasonally dependant and will rely on control of water content in the structural soils.

It is recommended that earthworks are carried out as enabling works during the summer months.

Allowances should also be made for conditioning/drying out the structural soils prior to placement/compaction.

With regard to the re-workability of as dug materials, recent experience of sites of a similar nature in this vicinity has demonstrated that as dug materials are likely to be extremely susceptible to weather softening. Great care will need to be taken by the groundworks contractor to preserve as dug usable materials excavated to an acceptable standard.

Significant areas of the site are notably waterlogged/boggy.

Land drainage will be required to control seepage horizons and surface water migration.

Validation testing, chemical and physical (typically plate load tests and dynamic probing) should be carried out across the completed prepared plateau in order to ensure its performance.

High Energy Impact Compaction (HEIC)

Subject to advice from a specialist ground improvement contractor, an alternative to the 'excavation and recompaction' earthworks, would be to treat the made ground material utilising high energy impact compaction (HEIC) ground improvement.

Treatment is achieved by applying and self-monitoring, using real time deflectometer data, repeated HEIC until no further induced settlements are achievable. The use of systems such as this avoid the requirement to carry out bulk earthworks to densify made ground materials.

11.3 SITE PREPARATION (CONTINUED)

A HEIC system should incorporate real time deflectometer data or similar for the impacts which provides the accurate data supporting the successful treatment of the ground to an agreed compaction specification.

The utilisation of HEIC would also have the added benefit of further compaction of soils to a depth of approximately 3m below existing ground level, thereby providing further betterment.

The HEIC treatment area should cover the full extents of proposed development footprints.

It is recommended that any HEIC ground improvement works are carried out as enabling works during the summer months.

Ground Improvement utilising Vibro-stone Columns

Ground improvement using vibro-stone columns would involve the construction of closely spaced stone columns beneath the proposed development areas. The aim is to ensure 'stiffening' of the ground, thereby spreading and dissipating the new development loads in order to minimise total and differential settlements within the underlying soils.

The advice of a specialist vibro-compaction contractor should be sought in order to fully explore the suitability of this ground improvement technique. It should be noted that vibro contractors generally won't treat areas of recently placed cohesive fill material, so an idea of cut and fill levels is advised prior to seeking the advice of a specialist.

Allowances should be made by the vibro contractor for carrying out suitable in-situ strength testing of the prepared formations.

11.3.5 Certification

The required site preparatory earthworks should be properly designed, specified, and supervised by a suitably qualified Geotechnical Engineer. Validation testing, chemical and physical (typically plate load tests and dynamic probing), level station monitoring (as appropriate) should be carried out across the completed prepared plateau in order to ensure its performance.

A verification report will be required upon completion of the site works in order to satisfy the requirements of the local planning authority, Natural Resources Wales, and the Premier Guarantee, as appropriate.

11.3 SITE PREPARATION (CONTINUED)

11.3.6 Pollution Protection and Management

During the site clearance and subsequent operations airborne nuisance caused by dust from the site must be controlled on account of the health and safety of site operatives and the general public who are occupying nearby properties.

Temporary drainage grips and silt pumps will be required during earthworks in order to control near surface formations and protect the adjacent water courses to the north and east of the site from uncontrolled run-off.

11.3 FOUNDATIONS AND FLOOR SLABS

The ground conditions below the site are characterised by a variable thickness of made ground overlying a thin layer of clayey peat (former pond basin) overlying variable till deposits and solid strata. The use of conventional shallow foundations is not considered feasible due to the potential for unacceptable total and differential settlements.

It is recommended that piled foundations are used for the proposed school buildings.

Subject to vibration and noise, driven pre-cast concrete piles, driven to an appropriate set within the natural stiff/dense superficial deposits or natural solid strata.

Based on the results of the intrusive site investigation, pile lengths are anticipated at approximately around 6-12m, although variations should be expected dependent on localised ground conditions, pile diameters and choice of pile. Pile capacity would be generated from both skin friction and end bearing resistance, subject to the advice of a specialist piling contractor.

It is recommended that follow on rotary cored boreholes are progressed 5m below base of the proposed pile toe levels to establish the bedrock strength / degree of weathering. Point load and UCS testing should be undertaken on core samples gained.

Variations in pile lengths should be limited to avoid over-stressing adjacent piles of different lengths. Allowances should be made for moving piles affected by shallow obstructions, or alternatively any shallow obstructions removed with excavation plant.

Piles will need to be designed to ignore load contribution from the made ground and soft and very soft underlying clay strata.

11.3 FOUNDATIONS AND FLOOR SLABS (CONTINUED)

In the event that ground levels are to be raised greater than 600mm above existing, then a detailed settlement assessments will be required in order to assess potential differential settlement risks at the interface between external areas and piled structures.

Any piles that are driven to a premature set should be investigated and allowances made for re-driving, digging out any encountered shallow obstructions, or pile replacement. Steel driven piles would be a viable alternative and a contingency should be allowed for a certain number of steel piles, especially on the peripheral areas of the site removed from the historic pond feature.

Subject to the advice of a specialist piling contractor, the use of alternative piling techniques may be required.

Note that the adopted piling system will need to consider any potential vibration and noise issues in relation to the adjacent buildings/structures. If noise and/or vibration issues preclude the use of driven pre-cast concrete piles, then steel driven piles or a bored or drilled piling system deriving load capacity in the form of a suitably designed and constructed socket within superficial deposits and bedrock could be considered.

If an augured piling system is adopted, it will be necessary to segregate the made ground arisings from the natural soil arisings for appropriate off-site disposal.

It is recommended that the advice of a specialist piling contractor is sought in order to confirm the most appropriate piling technique and for the detailed pile design.

Floor slabs should be designed and constructed as suspended.

Based on the results of the gas monitoring programme, gas protective measures are required, as detailed in Section 10.6. No radon protective measures are required.

11.4 EXCAVATIONS AND FORMATIONS

Most of the excavations should be possible with normal soil excavating machinery. However, it should be noted that occasional obstructions and difficult dig conditions were observed throughout the site investigation. Allowances should be made for the use of larger excavators and/or hydraulic breaking equipment to deal with any unforeseen obstructions.

Inflows of perched groundwater were encountered at depths ranging from 0.2m to 4.7m below existing ground level within the exploratory holes positioned across the site.

11.4 EXCAVATIONS AND FORMATIONS (CONTINUED)

Consideration will need to be given to the control of the groundwater incidences into excavations.

Instability of trial pit sides was frequently associated with cobble and boulder removal. Locally, made ground deposits were recorded as unstable due to the higher granular content or the influence of perched water.

Instability of the excavation sides, including overbreak should be allowed for.

Excavations should not be entered and the sides of excavations deeper than 1.0m should be fully supported by trench boxes.

11.5 ACCESS ROADS AND CAR PARKING AREAS

For access roads and car parking formations within existing made ground and/or in situ natural soils, California Bearing Ratio (CBR) values of 1% to 3% should be used for design purposes.

In areas of re-engineered made ground or engineered fill, for access roads and car parking formations California Bearing Ratio (CBR) values of 4% or greater should be achievable.

After proof rolling the formations, any 'soft spots/areas' should be removed and replaced with well-compacted imported granular materials. Department of Transport (DTp) Type 1

Sub-Base, or similar approved, could be used and should be compacted in layers in accordance with the current DTp Specification for Highway Works.

Formations should be regarded as frost susceptible.

It should be noted that field CBR tests should be carried out in order to confirm the above assumptions. Depending on the outcome of such field tests, the above recommendations may need to be revised.

Special care in detailing of hard finished surfaces should also be taken where hard finished and tarmac surfaces approach piled structures. A considerable degree of flexibility should also be allowed in the details to deal with potential differential movements.

11.6 DRAINAGE

Soil Infiltration testing was carried out in seven trial pits (SA01 to SA07).

Insufficient infiltration was observed in all test locations, and it was not possible to calculate a design infiltration rate/soil permeability. The soil infiltration test calculation sheets are presented in Appendix G.

The soil infiltration test results are specific to the location and depths of the tests undertaken.

It should also be noted that this initial testing should only be regarded as indicative. If it should be proposed to use soakaways for this site, then more extensive follow-up tests will be required and should fully comply with BRE 365, in order to confirm the suitability of the site and to satisfy the local authority.

It is recommended that a drainage engineer is consulted for the detailed design with regard to falls adopted and provision of adequate rocker details to drainage runs and at the junction with piled structures, in order to accommodate differential settlements.

11.7 RECOMMENDED FURTHER WORKS

In the event that ground levels are to be raised greater than 600mm above existing, then detailed settlement assessments will be required in order to assess potential differential settlement risks (particularly at the interface between external areas and piled structures).

It is recommended that follow on rotary cored boreholes are progressed 5m below base of the proposed pile toe levels to establish the bedrock strength / degree of weathering. Point load and UCS testing should be undertaken on core samples gained.

APPENDIX A

ENVIROCHECK REPORT

Envirocheck[®] Report:

Datasheet

Order Details:

Order Number:

310553660_1_1

Customer Reference:

14209/LP

National Grid Reference:

305020, 208310

Slice:

A

Site Area (Ha):

9.34

Search Buffer (m):

1000

Site Details:

Pen-Y-Dre High Comprehensive School,
Gurnos
MERTHYR TYDFIL
CF47 9BY

Client Details:

MR H Pritchard
Integral Geotechnique
Integral House
7 Beddau Way
Castlegate Business Park
Caerphilly
CF83 2AX

Report Section	Page Number
Summary	-
Agency & Hydrological	1
Waste	33
Hazardous Substances	-
Geological	36
Industrial Land Use	43
Sensitive Land Use	59
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Data Suppliers	66
Useful Contacts	67

Introduction

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

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Report Version v53.0

Data Type	Page Number	On Site	0 to 250m	251 to 500m	501 to 1000m (*up to 2000m)
Agency & Hydrological					
BGS Groundwater Flooding Susceptibility	pg 1	Yes	Yes	Yes	n/a
Contaminated Land Register Entries and Notices					
Discharge Consents	pg 4		1	5	17
Prosecutions Relating to Controlled Waters			n/a	n/a	n/a
Enforcement and Prohibition Notices					
Integrated Pollution Controls					
Integrated Pollution Prevention And Control	pg 10				2
Local Authority Integrated Pollution Prevention And Control					
Local Authority Pollution Prevention and Controls	pg 10			1	
Local Authority Pollution Prevention and Control Enforcements	pg 10			2	1
Nearest Surface Water Feature	pg 10	Yes			
Pollution Incidents to Controlled Waters	pg 11			1	6
Prosecutions Relating to Authorised Processes					
Registered Radioactive Substances	pg 12			12	
River Quality	pg 14				1
River Quality Biology Sampling Points					
River Quality Chemistry Sampling Points					
Substantiated Pollution Incident Register	pg 14			1	1
Water Abstractions	pg 14				(*2)
Water Industry Act Referrals					
Groundwater Vulnerability Map	pg 15	Yes	n/a	n/a	n/a
Bedrock Aquifer Designations	pg 15	Yes	n/a	n/a	n/a
Superficial Aquifer Designations	pg 15	Yes	n/a	n/a	n/a
Source Protection Zones					
Extreme Flooding from Rivers or Sea without Defences				n/a	n/a
Flooding from Rivers or Sea without Defences				n/a	n/a
Areas Benefiting from Flood Defences				n/a	n/a
Flood Water Storage Areas				n/a	n/a
Flood Defences				n/a	n/a
OS Water Network Lines	pg 15	4	17	29	100

Data Type	Page Number	On Site	0 to 250m	251 to 500m	501 to 1000m (*up to 2000m)
Waste					
BGS Recorded Landfill Sites					
Historical Landfill Sites	pg 33			1	
Integrated Pollution Control Registered Waste Sites					
Licensed Waste Management Facilities (Landfill Boundaries)					
Licensed Waste Management Facilities (Locations)	pg 33			1	
Local Authority Landfill Coverage	pg 33	1	n/a	n/a	n/a
Local Authority Recorded Landfill Sites	pg 33			1	
Potentially Infilled Land (Non-Water)	pg 33			3	3
Potentially Infilled Land (Water)	pg 33	4	6	2	18
Registered Landfill Sites					
Registered Waste Transfer Sites	pg 35			1	
Registered Waste Treatment or Disposal Sites	pg 35			1	
Hazardous Substances					
Control of Major Accident Hazards Sites (COMAH)					
Explosive Sites					
Notification of Installations Handling Hazardous Substances (NIHHS)					
Planning Hazardous Substance Consents					
Planning Hazardous Substance Enforcements					

Data Type	Page Number	On Site	0 to 250m	251 to 500m	501 to 1000m (*up to 2000m)
Geological					
BGS 1:625,000 Solid Geology	pg 36	Yes	n/a	n/a	n/a
BGS Estimated Soil Chemistry	pg 36	Yes	Yes	Yes	Yes
BGS Recorded Mineral Sites	pg 39				9
BGS Urban Soil Chemistry					
BGS Urban Soil Chemistry Averages					
CBSCB Compensation District			n/a	n/a	n/a
Coal Mining Affected Areas	pg 40	Yes	n/a	n/a	n/a
Mining Instability	pg 41	Yes	n/a	n/a	n/a
Man-Made Mining Cavities					
Natural Cavities	pg 41	1			
Non Coal Mining Areas of Great Britain	pg 41	Yes	Yes	n/a	n/a
Potential for Collapsible Ground Stability Hazards	pg 41	Yes		n/a	n/a
Potential for Compressible Ground Stability Hazards	pg 41		Yes	n/a	n/a
Potential for Ground Dissolution Stability Hazards	pg 41		Yes	n/a	n/a
Potential for Landslide Ground Stability Hazards	pg 41	Yes	Yes	n/a	n/a
Potential for Running Sand Ground Stability Hazards	pg 42	Yes		n/a	n/a
Potential for Shrinking or Swelling Clay Ground Stability Hazards	pg 42	Yes		n/a	n/a
Radon Potential - Radon Affected Areas	pg 42	Yes	n/a	n/a	n/a
Radon Potential - Radon Protection Measures			n/a	n/a	n/a
Industrial Land Use					
Contemporary Trade Directory Entries	pg 43		2	23	75
Fuel Station Entries	pg 52			1	
Points of Interest - Commercial Services	pg 52		2	8	17
Points of Interest - Education and Health	pg 54			6	
Points of Interest - Manufacturing and Production	pg 55			4	11
Points of Interest - Public Infrastructure	pg 56			3	2
Points of Interest - Recreational and Environmental	pg 56	1	1	6	14
Gas Pipelines	pg 58				1
Underground Electrical Cables					

Data Type	Page Number	On Site	0 to 250m	251 to 500m	501 to 1000m (*up to 2000m)
Sensitive Land Use					
Ancient Woodland	pg 59			1	8
Areas of Adopted Green Belt					
Areas of Unadopted Green Belt					
Areas of Outstanding Natural Beauty					
Environmentally Sensitive Areas					
Forest Parks					
Local Nature Reserves	pg 59				1
Marine Nature Reserves					
National Nature Reserves					
National Parks					
Nitrate Sensitive Areas					
Nitrate Vulnerable Zones					
Ramsar Sites					
Sites of Special Scientific Interest	pg 59				1
Special Areas of Conservation					
Special Protection Areas					
World Heritage Sites					

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A11NW (N)	0	1	305022 208311
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A10NE (N)	0	1	305000 208450
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A11NW (E)	0	1	305250 208350
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A10NE (N)	0	1	305000 208400
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A10NE (SW)	0	1	305000 208300
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A10NE (NW)	0	1	304950 208350
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A11NW (E)	0	1	305050 208311
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A10NE (W)	0	1	305000 208311
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A10SE (SW)	2	1	304950 208200
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A10NE (NW)	6	1	304900 208400
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A11SW (S)	27	1	305100 208100
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A10SE (S)	38	1	305000 208100
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A11SW (SE)	57	1	305200 208150
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A11SW (SE)	57	1	305250 208200
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A11NW (N)	69	1	305022 208550
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A11SW (E)	80	1	305300 208250
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A10NE (NW)	82	1	304750 208450
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding to Occur at Surface	A11SW (SE)	93	1	305150 208050
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A11SW (SE)	93	1	305200 208100
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A10NE (N)	109	1	305000 208600
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A11NW (N)	115	1	305022 208600
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding to Occur at Surface	A10NW (W)	123	1	304650 208400

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A11SW (SE)	126	1	305250 208100
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding to Occur at Surface	A10NE (NW)	131	1	304750 208500
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A10SW (W)	152	1	304650 208250
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A11SW (SE)	160	1	305250 208050
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding to Occur at Surface	A15SW (N)	163	1	305022 208650
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A7NW (S)	164	1	305100 207950
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A10SE (SW)	167	1	304800 208100
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A10NW (W)	170	1	304600 208311
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A10NE (NW)	192	1	304700 208550
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A10SW (W)	197	1	304600 208250
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A14SE (N)	218	1	304900 208700
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A10NW (W)	219	1	304550 208350
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A10NW (W)	220	1	304550 208311
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A10SW (W)	220	1	304600 208200
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A7NW (SE)	230	1	305250 207950
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A11SE (E)	256	1	305450 208150
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A14SE (N)	259	1	305000 208750
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A14SE (N)	259	1	304950 208750
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding to Occur at Surface	A7NW (S)	260	1	305100 207850
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A14SE (NW)	265	1	304750 208650
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A14SE (N)	266	1	304900 208750
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A10NW (W)	269	1	304500 208350

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A7NW (SE)	272	1	305250 207900
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A15SW (N)	273	1	305050 208750
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A14SE (NW)	288	1	304700 208650
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding to Occur at Surface	A7NW (S)	304	1	305050 207800
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A14SE (NW)	306	1	304800 208750
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A14SE (N)	309	1	304950 208800
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A14SE (N)	309	1	305000 208800
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A15SW (N)	311	1	305022 208800
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A7NW (S)	322	1	305150 207800
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A14SE (N)	329	1	304850 208800
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A7NW (S)	341	1	305200 207800
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A6NE (SW)	357	1	304750 207900
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A7NW (S)	358	1	305100 207750
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A14SE (NW)	369	1	304700 208750
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A7NW (S)	369	1	305150 207750
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A11NE (E)	385	1	305650 208400
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding to Occur at Surface	A7NW (S)	404	1	305022 207700
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A14SE (NW)	405	1	304700 208800
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A7NW (S)	408	1	305100 207700
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A12NW (E)	430	1	305700 208311
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A12NW (E)	431	1	305700 208350
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A12NW (E)	442	1	305700 208450

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A6NE (SW)	458	1	304700 207800
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A12NW (E)	473	1	305700 208550
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding to Occur at Surface	A12NW (E)	480	1	305750 208311
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A12NW (E)	481	1	305750 208300
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding to Occur at Surface	A6NE (SW)	493	1	304700 207750
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A9SE (W)	496	1	304300 208200
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A6NW (SW)	497	1	304650 207800
1	Discharge Consents Operator: Dwr Cymru Cyfyngedig Property Type: Sewerage Network - Sewers - Water Company Location: Merthyr - Goitre Lane Authority: Natural Resources Wales Catchment Area: River Taff Reference: AE2025303 Permit Version: 1 Effective Date: 15th April 1964 Issued Date: 15th April 1964 Revocation Date: 10th December 2001 Discharge Type: Unspecified Discharge: Not Supplied Environment: Receiving Water: Goitre Stream Status: New Consent, by Application (Water Resources Act 1991, Section 88) Positional Accuracy: Located by supplier to within 100m	A11SW (S)	139	2	305150 208000
2	Discharge Consents Operator: Dwr Cymru Cyfyngedig Property Type: Sewerage Network - Sewers - Water Company Location: Goitre Lane Cso, Gurnos, Merthyr Tydfil, Cf47 9ty Authority: Natural Resources Wales Catchment Area: NANT MORLAIS - SOURCE TO CONF R TAFF Reference: Ae2025303 Permit Version: 4 Effective Date: 21st August 2019 Issued Date: 21st August 2019 Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Stw Storm Overflow/Storm Tank - Water Company Discharge: Freshwater Stream/River Environment: Receiving Water: Goitre Brook Status: Effective Positional Accuracy: Located by supplier to within 10m	A7NW (S)	323	2	305200 207820
2	Discharge Consents Operator: Dwr Cymru Cyfyngedig Property Type: Sewerage Network - Sewers - Water Company Location: Cso Goitre Lane Merthyr Tydfil Authority: Natural Resources Wales Catchment Area: NANT MORLAIS - SOURCE TO CONF R TAFF Reference: Ae2025303 Permit Version: 2 Effective Date: 11th December 2001 Issued Date: 10th December 2001 Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Stw Storm Overflow/Storm Tank - Water Company Discharge: Freshwater Stream/River Environment: Receiving Water: Goitre Brook Status: Effective Positional Accuracy: Located by supplier to within 10m	A7NW (S)	323	2	305200 207820

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
2	Discharge Consents Operator: Dwr Cymru Cyfyngedig Property Type: Sewerage Network - Sewers - Water Company Location: Cso Goitre Lane Merthyr Tydfil Authority: Natural Resources Wales Catchment Area: NANT MORLAIS - SOURCE TO CONF R TAFF Reference: Ae2025303 Permit Version: 2 Effective Date: 11th December 2001 Issued Date: 10th December 2001 Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Stw Storm Overflow/Storm Tank - Water Company Discharge: Freshwater Stream/River Environment: Receiving Water: Goitre Brook Status: Effective Positional Accuracy: Located by supplier to within 10m	A7NW (S)	323	2	305200 207820
2	Discharge Consents Operator: Dwr Cymru Cyfyngedig Property Type: Water Supply Grid Location: Penybryn Authority: Natural Resources Wales Catchment Area: Not Supplied Reference: Am0008401 Permit Version: 1 Effective Date: 2nd October 1989 Issued Date: 2nd October 1989 Revocation Date: 14th March 1994 Discharge Type: Unspecified Discharge: Not Supplied Environment: Receiving Water: Soakaway Status: Consent expired Positional Accuracy: Located by supplier to within 100m	A7NW (S)	341	2	305200 207800
3	Discharge Consents Operator: Fcc Construcccion S A, Uk Branch Office Property Type: Civil Engineering Location: A465 Section 5 And 6 Dowlaid Top To Hirwaun X 3 Locations, Orbit Business Centre, Rhydyccar Business Park, Merthyr Tydfil, Cf48 1dl Authority: Natural Resources Wales Catchment Area: TAF FECHAN - SOURCE TO CONF AFON TAF FAWR Reference: Cb3594ff Permit Version: 1 Effective Date: 14th June 2022 Issued Date: 14th June 2022 Revocation Date: Not Supplied Discharge Type: Trade Discharges - Site Drainage Discharge: Freshwater Stream/River Environment: Receiving Water: Taf Fechan And Taf Fawr Status: Effective Positional Accuracy: Located by supplier to within 10m	A10NW (NW)	414	2	304438 208620
4	Discharge Consents Operator: Dwr Cymru Cyfyngedig Property Type: Not Supplied Location: Penybryn Depot Merthyr Tydfil, Merthyr Tydfil Ua, Wales Authority: Natural Resources Wales Catchment Area: NANT MORLAIS - SOURCE TO CONF R TAFF Reference: AN0216701 Permit Version: 1 Effective Date: 30th April 1990 Issued Date: 30th April 1990 Revocation Date: Not Supplied Discharge Type: Trade And Other Matter Discharge Discharge: Freshwater Stream/River Environment: Receiving Water: Tributary Of Nanr Morlais Status: Effective Positional Accuracy: Located by supplier to within 100m	A7SW (S)	656	2	305300 207500

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
4	Discharge Consents Operator: Dwr Cymru Cyfyngedig Property Type: Not Supplied Location: Penybryn Depot Merthyr Tydfil, Merthyr Tydfil Ua, Wales Authority: Natural Resources Wales Catchment Area: NANT MORLAIS - SOURCE TO CONF R TAFF Reference: An0216701 Permit Version: 1 Effective Date: 30th April 1990 Issued Date: 30th April 1990 Revocation Date: Not Supplied Discharge Type: Trade And Other Matter Discharge Discharge: Freshwater Stream/River Environment: Receiving Water: Tributary Of Nanr Morlais Status: Effective Positional Accuracy: Located by supplier to within 100m	A7SW (S)	656	2	305300 207500
5	Discharge Consents Operator: Dwr Cymru Cyfyngedig Property Type: Sewerage Network - Sewers - Water Company Location: Merthyr - Cwm Rhyd-Y-Bedd Balaclava, Balaclava Road Authority: Natural Resources Wales Catchment Area: NANT MORLAIS - SOURCE TO CONF R TAFF Reference: AE2025301 Permit Version: 1 Effective Date: 15th April 1964 Issued Date: 15th April 1964 Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Stw Storm Overflow/Storm Tank - Water Company Discharge: Freshwater Stream/River Environment: Receiving Water: Morlais Brook Status: Effective Positional Accuracy: Located by supplier to within 10m	A12SE (E)	813	2	306067 208173
5	Discharge Consents Operator: Dwr Cymru Cyfyngedig Property Type: Sewerage Network - Sewers - Water Company Location: Merthyr - Cwm Rhyd-Y-Bedd Balaclava, Balaclava Road Authority: Natural Resources Wales Catchment Area: NANT MORLAIS - SOURCE TO CONF R TAFF Reference: Ae2025301 Permit Version: 1 Effective Date: 15th April 1964 Issued Date: 15th April 1964 Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Stw Storm Overflow/Storm Tank - Water Company Discharge: Freshwater Stream/River Environment: Receiving Water: Morlais Brook Status: Effective Positional Accuracy: Located by supplier to within 10m	A12SE (E)	813	2	306067 208173
6	Discharge Consents Operator: Dwr Cymru Cyfyngedig Property Type: Sewerage Network - Sewers - Water Company Location: Merthyr - Gellifaelog School Rocky, Rocky Road Authority: Natural Resources Wales Catchment Area: River Taff Reference: AE1006601 Permit Version: 1 Effective Date: 28th October 1955 Issued Date: 28th October 1955 Revocation Date: 7th December 2001 Discharge Type: Unspecified Discharge: Not Supplied Environment: Receiving Water: Morlais Brook Status: New Consent, by Application (Water Resources Act 1991, Section 88) Positional Accuracy: Located by supplier to within 100m	A12SE (E)	843	2	306080 208100

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
6	Discharge Consents Operator: Dwr Cymru Cyfyngedig Property Type: Sewerage Network - Sewers - Water Company Location: Merthyr - Gellifaelog School Rocky, Rocky Road Authority: Natural Resources Wales Catchment Area: River Taff Reference: AE1006602 Permit Version: 1 Effective Date: 28th October 1955 Issued Date: 28th October 1955 Revocation Date: 2nd February 1999 Discharge Type: Unspecified Discharge: Not Supplied Environment: Receiving Water: Morlais Brook Status: Revoked (Water Resources Act 1991, Section 88 & Schedule 10 as amended by Environment Act 1995) Positional Accuracy: Located by supplier to within 10m	A12SE (E)	843	2	306080 208100
6	Discharge Consents Operator: Dwr Cymru Cyfyngedig Property Type: Sewerage Network - Sewers - Water Company Location: Cso At Dowlais Balaclava Road, Uplands, Balaclava Road, Dowlais, Merthyr Tydfil, Cf48 3bs Authority: Natural Resources Wales Catchment Area: NANT MORLAIS - SOURCE TO CONF R TAFF Reference: Ae2025301 Permit Version: 2 Effective Date: 18th September 2019 Issued Date: 18th September 2019 Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Stw Storm Overflow/Storm Tank - Water Company Discharge: Freshwater Stream/River Environment: Receiving Water: Morlais Brook Status: Effective Positional Accuracy: Located by supplier to within 10m	A12SE (E)	855	2	306097 208116
6	Discharge Consents Operator: Dwr Cymru Cyfyngedig Property Type: Sewerage Network - Sewers - Water Company Location: Rocky Rd Cso Merthyr Tydfil, 6, Cwm Graig Bungalows, Rocky Road, Merthyr Tydfil, Cf47 9jw Authority: Natural Resources Wales Catchment Area: NANT MORLAIS - SOURCE TO CONF R TAFF Reference: Ae1006601 Permit Version: 3 Effective Date: 24th September 2019 Issued Date: 24th September 2019 Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Stw Storm Overflow/Storm Tank - Water Company Discharge: Freshwater Stream/River Environment: Receiving Water: Nant Morlais Status: Effective Positional Accuracy: Located by supplier to within 10m	A12SE (E)	860	2	306100 208110
6	Discharge Consents Operator: Dwr Cymru Cyfyngedig Property Type: Sewerage Network - Sewers - Water Company Location: Cso Gellifaelog School Rocky Road, Merthyr Tydfil Authority: Natural Resources Wales Catchment Area: NANT MORLAIS - SOURCE TO CONF R TAFF Reference: Ae1006601 Permit Version: 2 Effective Date: 8th December 2001 Issued Date: 7th December 2001 Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Stw Storm Overflow/Storm Tank - Water Company Discharge: Freshwater Stream/River Environment: Receiving Water: Morlais Brook Status: Effective Positional Accuracy: Located by supplier to within 10m	A12SE (E)	860	2	306100 208110

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
6	Discharge Consents Operator: Dwr Cymru Cyfyngedig Property Type: Sewerage Network - Sewers - Water Company Location: Cso Gellifaelog School Rocky Road, Merthyr Tydfil Authority: Natural Resources Wales Catchment Area: NANT MORLAIS - SOURCE TO CONF R TAFF Reference: Ae1006601 Permit Version: 2 Effective Date: 8th December 2001 Issued Date: 7th December 2001 Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Stw Storm Overflow/Storm Tank - Water Company Discharge: Freshwater Stream/River Environment: Receiving Water: Morlais Brook Status: Effective Positional Accuracy: Located by supplier to within 10m	A12SE (E)	860	2	306100 208110
7	Discharge Consents Operator: Dwr Cymru Cyfyngedig Property Type: Sewerage Network - Sewers - Water Company Location: Merthyr - Rear Of Gwaelodygart Authority: Natural Resources Wales Catchment Area: River Taff Reference: Ae2025306 Permit Version: 1 Effective Date: 15th April 1964 Issued Date: 15th April 1964 Revocation Date: 6th May 1998 Discharge Type: Unspecified Discharge: Not Supplied Environment: Receiving Water: Goitre Stream Status: Consent expired Positional Accuracy: Located by supplier to within 100m	A2NE (S)	905	2	305000 207200
8	Discharge Consents Operator: Morlais Castle Golf Club Property Type: Recreational & Cultural Location: Morlais Castle Golf Club, Pant Road, Merthyr Tydfil, Mid Glamorgan, Wales, Cf48 2uy Authority: Natural Resources Wales Catchment Area: TAF FECHAN - SOURCE TO CONF AFON TAF FAWR Reference: An0245201 Permit Version: 2 Effective Date: 21st December 2012 Issued Date: 21st December 2012 Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Final/Treated Effluent - Not Water Company Discharge: Into Land Environment: Receiving Water: Groundwater Via Infiltration System Status: Effective Positional Accuracy: Located by supplier to within 100m	A15NE (N)	918	2	305400 209300
8	Discharge Consents Operator: Morlais Castle Golf Club Property Type: Recreational & Cultural Location: Morlais Castle Golf Club, Pant Road, Merthyr Tydfil, Mid Glamorgan, Wales, Cf48 2uy Authority: Natural Resources Wales Catchment Area: River Taff Reference: AN0245201 Permit Version: 1 Effective Date: 29th November 1993 Issued Date: 29th November 1993 Revocation Date: 20th December 2012 Discharge Type: Unspecified Discharge: Into Land Environment: Receiving Water: To Land Status: New Consent, by Application (Water Resources Act 1991, Section 88) Positional Accuracy: Manually positioned within the geographical locality	A15NE (N)	918	2	305400 209300

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
9	Discharge Consents Operator: Dwr Cymru Cyfyngedig Property Type: Sewerage Network - Sewers - Water Company Location: Brewers Arms Sso Dowlais Merthyr T, Dowlais Merthyr Tydfil Authority: Natural Resources Wales Catchment Area: NANT MORLAIS - SOURCE TO CONF R TAFF Reference: An0230601 Permit Version: 2 Effective Date: 31st March 2002 Issued Date: 15th March 2002 Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Stw Storm Overflow/Storm Tank - Water Company Discharge: Freshwater Stream/River Environment: Receiving Water: Morlais Brook Status: Effective Positional Accuracy: Located by supplier to within 10m	A8NE (SE)	979	2	306110 207830
9	Discharge Consents Operator: Dwr Cymru Cyfyngedig Property Type: Sewerage Network - Sewers - Water Company Location: Brewers Arms Sso Dowlais Merthyr T, Dowlais Merthyr Tydfil Authority: Natural Resources Wales Catchment Area: NANT MORLAIS - SOURCE TO CONF R TAFF Reference: An0230601 Permit Version: 2 Effective Date: 31st March 2002 Issued Date: 15th March 2002 Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Stw Storm Overflow/Storm Tank - Water Company Discharge: Freshwater Stream/River Environment: Receiving Water: Morlais Brook Status: Effective Positional Accuracy: Located by supplier to within 10m	A8NE (SE)	979	2	306110 207830
9	Discharge Consents Operator: Dwr Cymru Cyfyngedig Property Type: Sewerage Network - Sewers - Water Company Location: Brewers Arms Sso Dowlais Merthyr T, Dowlais Merthyr Tydfil Authority: Natural Resources Wales Catchment Area: Not Given Reference: AN0230601 Permit Version: 1 Effective Date: 28th November 1991 Issued Date: 28th November 1991 Revocation Date: 30th March 2002 Discharge Type: Public Sewage: Storm Sewage Overflow Discharge: Not Supplied Environment: Receiving Water: Morlais Brook Status: New Consent, by Application (Water Resources Act 1991, Section 88) Positional Accuracy: Located by supplier to within 100m	A8NE (SE)	979	2	306110 207830
9	Discharge Consents Operator: Dwr Cymru Cyfyngedig Property Type: Sewerage Network - Sewers - Water Company Location: Brewers Arms Cso, Balaclava Rd, Dowlais, Brewers Arms, Brewery Road, Merthyr Tydfil, Cf48 3bu Authority: Natural Resources Wales Catchment Area: NANT MORLAIS - SOURCE TO CONF R TAFF Reference: An0230601 Permit Version: 3 Effective Date: 29th August 2019 Issued Date: 29th August 2019 Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Stw Storm Overflow/Storm Tank - Water Company Discharge: Freshwater Stream/River Environment: Receiving Water: Morlais Brook Status: Effective Positional Accuracy: Located by supplier to within 10m	A8NE (SE)	986	2	306103 207806

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
10	Integrated Pollution Prevention And Control Name: Merthyr Electro-Plating Co Ltd Location: Merthyr Electroplating Co Ea/Epr/Bv5397il/S002, Pant Industrial Estate, Dowlais,, Merthyr Tydfil, South Wales, CF48 2SR Authority: Natural Resources Wales Permit Reference: MP3436GJ Original Permit Ref: Bv5394il Effective Date: 5th May 2009 Status: Surrender Effective Application Type: Surrender App. Sub Type: Whole Positional Accuracy: Located by supplier to within 10m Activity Code: 2.3 A(1) (A) Activity Description: Surface Treating Metals And Plastics; Electrolytic/Chemical Greater Than 30 Cubic Metres Primary Activity: Y	A16SW (NE)	794	2	305970 208730
10	Integrated Pollution Prevention And Control Name: Merthyr Electro-Plating Co Ltd Location: Methyr Electro-Plating Co Ltd, Pant Industrial Estate, Dowlais, MERTHYR TYDFIL, Mid Glamorgan, CF48 2SR Authority: Natural Resources Wales Permit Reference: Bv5394il Original Permit Ref: Bv5394il Effective Date: 25th January 2005 Status: Superseded By Variation Application Type: Application App. Sub Type: New Positional Accuracy: Automatically positioned to the address Activity Code: 2.3 A(1) (A) Activity Description: Surface Treating Metals And Plastics; Electrolytic/Chemical Greater Than 30 Cubic Metres Primary Activity: Y	A16SW (NE)	797	2	305973 208731
11	Local Authority Pollution Prevention and Controls Name: Prince Charles Hospital Location: Gurnos Road, Gurnos Estate, MERTHYR TYDFIL, Mid Glamorgan, CF47 9DT Authority: Merthyr Tydfil County Borough Council, Environmental Health Department Permit Reference: PG5/1/A Dated: 30th October 1992 Process Type: Local Authority Pollution Prevention and Control Description: PG5/1Clinical waste incineration processes under 1 tonne an hour Status: Authorisation revoked Positional Accuracy: Located by supplier to within 10m	A10SW (W)	330	3	304496 208161
12	Local Authority Pollution Prevention and Control Enforcements Location: Prince Charles Hospital Type: Air Pollution Control Enforcement Notice Reference: PG/1/A/Enf2 Date Issued: Not Supplied Enforcement Date: 28th July 1993 Details: Not Supplied Positional Accuracy: Located by supplier to within 10m	A10SW (W)	330	3	304496 208161
12	Local Authority Pollution Prevention and Control Enforcements Location: Prince Charles Hospital Type: Air Pollution Control Enforcement Notice Reference: PG/1/A/Enf1 Date Issued: Not Supplied Enforcement Date: 28th July 1993 Details: Not Supplied Positional Accuracy: Located by supplier to within 10m	A10SW (W)	330	3	304496 208161
13	Local Authority Pollution Prevention and Control Enforcements Location: Merthyr Tydfil Industrial Estate, Merthyr Tydfil Type: Air Pollution Control Enforcement Notice Reference: PG6/26(96)1 Date Issued: 1st January 2007 Enforcement Date: Not Supplied Details: Not Supplied Positional Accuracy: Manually positioned within the geographical locality	A12NE (E)	870	3	306096 208624
	Nearest Surface Water Feature	A11NW (E)	0	-	305148 208360

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
14	Pollution Incidents to Controlled Waters Property Type: Water Company Sewage: Surface Water Outfall Location: Taf Fechan, Nature Reserve Authority: Environment Agency, Welsh Region Pollutant: Unknown Note: Weather Incident Date: 21st December 1994 Incident Reference: 22204 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Runoff Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A10NW (NW)	435	4	304400 208600
15	Pollution Incidents to Controlled Waters Property Type: Not Given Location: Taff Fechan Reservoir Authority: Environment Agency, Welsh Region Pollutant: Farm Effluent/Slurry Note: Not Supplied Incident Date: 30th January 1995 Incident Reference: 22627 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Unknown Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A9NE (W)	584	4	304200 208500
16	Pollution Incidents to Controlled Waters Property Type: Not Given Location: TREFECHAN Authority: Environment Agency, Welsh Region Pollutant: Sewage - Treated Effluent Note: Inadequate Design/Capacity Incident Date: 11th September 1996 Incident Reference: 30099 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Direct Discharge Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A13SW (NW)	950	4	303980 208900
17	Pollution Incidents to Controlled Waters Property Type: Water Company Sewage: Sewerage Location: Taff Authority: Environment Agency, Welsh Region Pollutant: Crude Sewage Note: Deliberate Act Incident Date: 21st August 1994 Incident Reference: 21250 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Direct Discharge Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A13SW (NW)	963	4	303905 208795
17	Pollution Incidents to Controlled Waters Property Type: Water Company Sewage: Sewerage Location: Taff Authority: Environment Agency, Welsh Region Pollutant: Crude Sewage Note: Deliberate Act Incident Date: 21st August 1994 Incident Reference: 21582 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Direct Discharge Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A13SW (NW)	965	4	303905 208800
17	Pollution Incidents to Controlled Waters Property Type: Water Company Sewage: Sewerage Location: Maple Crescent Authority: Environment Agency, Welsh Region Pollutant: Chlorinated Water Note: Deliberate Act Incident Date: 21st August 1994 Incident Reference: 21582 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Direct Discharge Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A13SW (NW)	967	4	303900 208795

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
17	Pollution Incidents to Controlled Waters Property Type: Water Company Sewage: Sewerage Location: Maple Crescent Authority: Environment Agency, Welsh Region Pollutant: Mud/Clay/Soil Note: Deliberate Act Incident Date: 21st August 1994 Incident Reference: 21250 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Direct Discharge Incident Severity: Category 2 - Significant Incident Positional Accuracy: Located by supplier to within 100m	A13SW (NW)	969	4	303900 208800
18	Registered Radioactive Substances Name: North Glamorgan Nhs Trust Location: Prince Charles Hospital, MERTHYR TYDFIL, Mid Glamorgan, CF47 9DT Authority: Natural Resources Wales Permit Reference: AV5136 Dated: 6th June 1996 Process Type: Authorisation under S13 RSA for the disposal of Radioactive waste (was RSA60 S7) Description: Initial variation to an authorisation under RSA Status: Authorisation superseded by a substantial or non substantial variation Positional Accuracy: Automatically positioned to the address	A10SW (W)	337	2	304491 208156
18	Registered Radioactive Substances Name: North Glamorgan Nhs Trust Location: Prince Charles Hospital, MERTHYR TYDFIL, Mid Glamorgan, CF47 9DT Authority: Natural Resources Wales Permit Reference: AX8608 Dated: 11th February 1997 Process Type: Authorisation under S13 RSA for the disposal of Radioactive waste (was RSA60 S7) Description: Minor variation to authorisation under RSA Status: Authorisation superseded by a substantial or non substantial variation Positional Accuracy: Automatically positioned to the address	A10SW (W)	339	2	304491 208151
18	Registered Radioactive Substances Name: North Glamorgan Nhs Trust Location: Prince Charles Hospital, MERTHYR TYDFIL, Mid Glamorgan, CF47 9DT Authority: Natural Resources Wales Permit Reference: AS2718 Dated: 10th August 1995 Process Type: Authorisation under S13 RSA for the disposal of Radioactive waste (was RSA60 S7) Description: Minor variation to authorisation under RSA Status: Authorisation superseded by a substantial or non substantial variation Positional Accuracy: Unknown	A10SW (W)	339	2	304486 208161
18	Registered Radioactive Substances Name: Cwm Taf Local Health Board Location: Prince Charles Hospital, MERTHYR TYDFIL, Mid Glamorgan, CF47 9DT Authority: Natural Resources Wales Permit Reference: CD8872 Dated: 29th September 2009 Process Type: Registration under S7 RSA for the keeping and use of Radioactive materials (was RSA60 S1) Description: Discretionary registration under the Act of an open source which is also the subject of an authorisation Status: Application has been authorised and any conditions apply to the operator Positional Accuracy: Automatically positioned to the address	A10SW (W)	343	2	304481 208161
18	Registered Radioactive Substances Name: Cwm Taf Local Health Board Location: Prince Charles Hospital, MERTHYR TYDFIL, Mid Glamorgan, CF47 9DT Authority: Natural Resources Wales Permit Reference: CD8864 Dated: 24th September 2009 Process Type: Authorisation under S13 RSA for the disposal of Radioactive waste (was RSA60 S7) Description: Discretionary authorisation under RSA Status: Application has been authorised and any conditions apply to the operator Positional Accuracy: Automatically positioned to the address	A10SW (W)	343	2	304481 208161

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
18	Registered Radioactive Substances Name: North Glamorgan Nhs Trust Location: Prince Charles Hospital, MERTHYR TYDFIL, Mid Glamorgan, CF47 9DT Authority: Natural Resources Wales Permit Reference: Bw8666 Dated: 1st December 2003 Process Type: Authorisation under S13 RSA for the disposal of Radioactive waste (was RSA60 S7) Description: Minor variation to authorisation under RSA Status: Authorisation either revoked or cancelled Positional Accuracy: Automatically positioned to the address	A10SW (W)	343	2	304481 208161
18	Registered Radioactive Substances Name: North Glamorgan Nhs Trust Location: Prince Charles Hospital, MERTHYR TYDFIL, Mid Glamorgan, CF47 9DT Authority: Natural Resources Wales Permit Reference: Bq3878 Dated: 18th March 2002 Process Type: Registration under S7 RSA for the keeping and use of Radioactive materials (was RSA60 S1) Description: Substantial variation to a registration under the Act of an open source which is also the subject of an authorisation Status: Authorisation either revoked or cancelled Positional Accuracy: Automatically positioned to the address	A10SW (W)	343	2	304481 208161
18	Registered Radioactive Substances Name: North Glamorgan Nhs Trust Location: Prince Charles Hospital, MERTHYR TYDFIL, Mid Glamorgan, CF47 9DT Authority: Natural Resources Wales Permit Reference: AF4976 Dated: 18th March 1993 Process Type: Authorisation under S13 RSA for the disposal of Radioactive waste (was RSA60 S7) Description: Substantial variation to authorisation under RSA Status: Authorisation superseded by a substantial or non substantial variation Positional Accuracy: Unknown	A10SW (W)	343	2	304481 208161
18	Registered Radioactive Substances Name: East Glamorgan Nhs Trust Location: Prince Charles Hospital, MERTHYR TYDFIL, Mid Glamorgan, CF47 9DT Authority: Natural Resources Wales Permit Reference: AH5132 Dated: 31st March 1991 Process Type: Authorisation under S13 RSA for the disposal of Radioactive waste (was RSA60 S7) Description: Authorisation under RSA Status: Authorisation either revoked or cancelled Positional Accuracy: Unknown	A10SW (W)	345	2	304481 208156
18	Registered Radioactive Substances Name: North Glamorgan Nhs Trust Location: Prince Charles Hospital, MERTHYR TYDFIL, Mid Glamorgan, CF47 9DT Authority: Environment Agency, Welsh Region Permit Reference: AH5159 Dated: 31st March 1991 Process Type: Registration under S7 RSA for the keeping and use of Radioactive materials (was RSA60 S1) Description: Registration under the Act of an open source which is also the subject of an authorisation Status: Authorisation superseded by a substantial or non substantial variation Positional Accuracy: Unknown	A10SW (W)	345	4	304476 208166
18	Registered Radioactive Substances Name: North Glamorgan Nhs Trust Location: Prince Charles Hospital, MERTHYR TYDFIL, Mid Glamorgan, CF47 9DT Authority: Natural Resources Wales Permit Reference: AG0437 Dated: 31st March 1991 Process Type: Authorisation under S13 RSA for the disposal of Radioactive waste (was RSA60 S7) Description: Authorisation under RSA Status: Authorisation superseded by a substantial or non substantial variation Positional Accuracy: Unknown	A10SW (W)	348	2	304476 208161

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
18	Registered Radioactive Substances Name: North Glamorgan NHS Trust Location: Prince Charles Hospital, MERTHYR TYDFIL, Mid Glamorgan, CF47 9DT Authority: Natural Resources Wales Permit Reference: AV5144 Dated: 1st May 1996 Process Type: Registration under S7 RSA for the keeping and use of Radioactive materials (was RSA60 S1) Description: Minor variation to a registration under the Act of an open source which is also the subject of an authorisation Status: Authorisation superseded by a substantial or non substantial variation Positional Accuracy: Automatically positioned to the address	A10SW (W)	352	2	304476 208151
	River Quality Name: Taf Fechan GQA Grade: River Quality A Reach: Conf.Taff - Conf.Cwm-Moel Estimated Distance (km): 3.1 Flow Rate: Flow less than 1.25 cumecs Flow Type: River Year: 2000	A9NW (W)	904	4	303895 208603
19	Substantiated Pollution Incident Register Authority: Natural Resources Wales Incident Date: 8th August 2013 Incident Reference: 1145556 Water Impact: Category 4 - No Impact Air Impact: Category 4 - No Impact Land Impact: Category 2 - Significant Incident Positional Accuracy: Located by supplier to within 10m Pollutant: Specific Waste Materials: Commercial Waste	A11NE (NE)	474	2	305656 208631
20	Substantiated Pollution Incident Register Authority: Natural Resources Wales Incident Date: 29th August 2018 Incident Reference: 1805569 Water Impact: Category 4 - No Impact Air Impact: Category 2 - Significant Incident Land Impact: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 10m Pollutant: Atmospheric Pollutants and Effects: Smoke	A9NE (W)	581	2	304216 208549
	Water Abstractions Operator: Balfour Beatty Civil Engineering Limited Licence Number: Wa/057/0021/002 Permit Version: 1 Location: Point A On Taf Fechan Alongside Cyfarthfa Leat Authority: Environment Agency, Welsh Region Abstraction: Industrial/Commercial/Energy/Public Services: Transfer between sources Abstraction Type: Water may be abstracted from a single point Source: Surface Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Not Supplied Authorised Start: 06 June Authorised End: 31 October Permit Start Date: 6th June 2012 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	A5NW (SW)	1265	4	303704 207663
	Water Abstractions Operator: Merthyr Tydfil County Borough Council Licence Number: Wa/057/0021/0011 Permit Version: Not Supplied Location: Cyfarthfa Leat, Cyfarthfa Castle Museum, Cyfarthfa Park, Merthyr Tydfil, Merthyr Tydfil, Cf47 8re Authority: Natural Resources Wales Abstraction: Industrial/Commercial/Energy/Public Services: Transfer between sources Abstraction Type: Water may be abstracted from a single point Source: Surface Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Not Supplied Authorised Start: 01 January Authorised End: 31 December Permit Start Date: Not Supplied Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	(W)	1286	2	303483 208391

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Groundwater Vulnerability Map Combined Classification: Secondary Bedrock Aquifer - Medium Vulnerability Combined Vulnerability: Medium Combined Aquifer: Productive Bedrock Aquifer, Productive Superficial Aquifer Pollutant Speed: Low Bedrock Flow: Well Connected Fractures Dilution: >550 mm/year Baseflow Index: 40-70% Superficial Patchiness: <90% Superficial Thickness: 3-10m Superficial Recharge: High	A11NW (N)	0	2	305022 208311
	Groundwater Vulnerability Map Combined Classification: Secondary Bedrock Aquifer - Medium Vulnerability Combined Vulnerability: Medium Combined Aquifer: Productive Bedrock Aquifer, Productive Superficial Aquifer Pollutant Speed: Low Bedrock Flow: Well Connected Fractures Dilution: >550 mm/year Baseflow Index: 40-70% Superficial Patchiness: <90% Superficial Thickness: <3m Superficial Recharge: High	A10NE (W)	0	2	305000 208311
	Bedrock Aquifer Designations Aquifer Designation: Secondary Aquifer - A	A11NW (N)	0	2	305022 208311
	Bedrock Aquifer Designations Aquifer Designation: Secondary Aquifer - A	A10NE (W)	0	2	305000 208311
	Superficial Aquifer Designations Aquifer Designation: Secondary Aquifer - Undifferentiated	A10NE (W)	0	2	305000 208311
	Superficial Aquifer Designations Aquifer Designation: Secondary Aquifer - Undifferentiated	A11NW (N)	0	2	305022 208311
	Extreme Flooding from Rivers or Sea without Defences None				
	Flooding from Rivers or Sea without Defences None				
	Areas Benefiting from Flood Defences None				
	Flood Water Storage Areas None				
	Flood Defences None				
21	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 74.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cynon, Ely and Rhondda Primacy: 1	A11SW (S)	0	5	305021 208162
22	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 165.7 Watercourse Level: Not Supplied Permanent: True Watercourse Name: Not Supplied Catchment Name: Cynon, Ely and Rhondda Primacy: 1	A11SW (E)	0	5	305067 208296

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
23	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 200.9 Watercourse Level: Not Supplied Permanent: True Watercourse Name: Not Supplied Catchment Name: Cynon, Ely and Rhondda Primacy: 1	A11SW (S)	0	5	305066 208116
24	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 137.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cynon, Ely and Rhondda Primacy: 1	A11NW (E)	0	5	305075 208319
25	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 117.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cynon, Ely and Rhondda Primacy: 1	A10NE (N)	145	5	304984 208635
26	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 378.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cynon, Ely and Rhondda Primacy: 1	A10NE (N)	145	5	304984 208635
27	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 8.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cynon, Ely and Rhondda Primacy: 1	A11NW (N)	145	5	305107 208581
28	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 34.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cynon, Ely and Rhondda Primacy: 1	A11NW (N)	152	5	305106 208590
29	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 9.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cynon, Ely and Rhondda Primacy: 1	A11NW (N)	152	5	305114 208585
30	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 26.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cynon, Ely and Rhondda Primacy: 1	A11NW (N)	177	5	305097 208622
31	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 33.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cynon, Ely and Rhondda Primacy: 1	A11NW (N)	177	5	305127 208608

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
32	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 42.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cynon, Ely and Rhondda Primacy: 1	A15SW (N)	193	5	305085 208646
33	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 24.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cynon, Ely and Rhondda Primacy: 1	A15SW (N)	193	5	305085 208646
34	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 356.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cynon, Ely and Rhondda Primacy: 1	A7NW (S)	199	5	305161 207938
35	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 31.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cynon, Ely and Rhondda Primacy: 1	A15SW (N)	219	5	305077 208683
36	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 163.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cynon, Ely and Rhondda Primacy: 1	A15SW (N)	221	5	305152 208644
37	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 20.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cynon, Ely and Rhondda Primacy: 1	A15SW (N)	227	5	305112 208671
38	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 5.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cynon, Ely and Rhondda Primacy: 1	A15SW (N)	234	5	305098 208686
39	OS Water Network Lines Watercourse Form: Lake Watercourse Length: 16.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cynon, Ely and Rhondda Primacy: 1	A15SW (N)	239	5	305103 208689
40	OS Water Network Lines Watercourse Form: Lake Watercourse Length: 4.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cynon, Ely and Rhondda Primacy: 1	A15SW (N)	248	5	305119 208691

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
41	OS Water Network Lines Watercourse Form: Lake Watercourse Length: 9.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cynon, Ely and Rhondda Primacy: 1	A15SW (N)	248	5	305119 208691
42	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 247.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cynon, Ely and Rhondda Primacy: 1	A15SW (N)	257	5	305126 208697
43	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 29.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cynon, Ely and Rhondda Primacy: 1	A15SW (NE)	283	5	305252 208671
44	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 126.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cynon, Ely and Rhondda Primacy: 1	A15SW (NE)	286	5	305252 208671
45	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 10.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cynon, Ely and Rhondda Primacy: 1	A15SE (NE)	351	5	305373 208695
46	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 107.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cynon, Ely and Rhondda Primacy: 1	A15SE (NE)	351	5	305373 208695
47	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 117.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cynon, Ely and Rhondda Primacy: 1	A14SW (NW)	357	5	304609 208706
48	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 83.2 Watercourse Level: Not Supplied Permanent: True Watercourse Name: Not Supplied Catchment Name: Cynon, Ely and Rhondda Primacy: 1	A14SW (NW)	365	5	304533 208649
49	OS Water Network Lines Watercourse Form: Lake Watercourse Length: 9.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cynon, Ely and Rhondda Primacy: 1	A14SW (NW)	425	5	304450 208651

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
50	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 105.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cynon, Ely and Rhondda Primacy: 1	A14SW (NW)	432	5	304440 208650
51	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 9.9 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Cynon, Ely and Rhondda Primacy: 1	A7NW (S)	441	5	305066 207663
52	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 191.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cynon, Ely and Rhondda Primacy: 1	A7NW (S)	451	5	305065 207653
53	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 16.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cynon, Ely and Rhondda Primacy: 1	A15SE (NE)	452	5	305426 208783
54	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 38.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cynon, Ely and Rhondda Primacy: 1	A15SE (NE)	452	5	305426 208783
55	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 50.8 Watercourse Level: Not Supplied Permanent: True Watercourse Name: Not Supplied Catchment Name: Cynon, Ely and Rhondda Primacy: 1	A15SE (NE)	466	5	305436 208794
56	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 43.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cynon, Ely and Rhondda Primacy: 1	A15SE (NE)	466	5	305436 208794
57	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 17.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cynon, Ely and Rhondda Primacy: 1	A15SE (NE)	478	5	305486 208784
58	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 17.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cynon, Ely and Rhondda Primacy: 1	A9NE (W)	481	5	304339 208587

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
59	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 19.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cynon, Ely and Rhondda Primacy: 1	A15SE (NE)	483	5	305503 208782
60	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 6.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cynon, Ely and Rhondda Primacy: 1	A9NE (NW)	486	5	304344 208607
61	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 2.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cynon, Ely and Rhondda Primacy: 1	A15SW (NE)	486	5	305308 208864
62	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 58.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cynon, Ely and Rhondda Primacy: 1	A15SE (NE)	489	5	305450 208813
63	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 3.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cynon, Ely and Rhondda Primacy: 1	A15SE (NE)	489	5	305450 208813
64	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 91.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cynon, Ely and Rhondda Primacy: 1	A15SW (NE)	489	5	305309 208866
65	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 13.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cynon, Ely and Rhondda Primacy: 1	A9NE (NW)	490	5	304338 208604
66	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 27.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cynon, Ely and Rhondda Primacy: 1	A15SE (NE)	490	5	305522 208779
67	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 2.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cynon, Ely and Rhondda Primacy: 1	A15SE (NE)	491	5	305447 208817

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
68	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 2.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cynon, Ely and Rhondda Primacy: 1	A15SE (NE)	492	5	305449 208817
69	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 65.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cynon, Ely and Rhondda Primacy: 1	A12NW (E)	492	5	305758 208397
70	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 20.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cynon, Ely and Rhondda Primacy: 1	A9NE (W)	499	5	304326 208599
71	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 293.0 Watercourse Level: Not Supplied Permanent: True Watercourse Name: Not Supplied Catchment Name: Cynon, Ely and Rhondda Primacy: 1	A15SE (NE)	501	5	305549 208775
72	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 5.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cynon, Ely and Rhondda Primacy: 1	A15SE (NE)	505	5	305467 208823
73	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 21.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cynon, Ely and Rhondda Primacy: 1	A15SE (NE)	505	5	305467 208823
74	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 217.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cynon, Ely and Rhondda Primacy: 1	A12NW (E)	513	5	305783 208341
75	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 853.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Nant Morlais Catchment Name: Cynon, Ely and Rhondda Primacy: 1	A7NE (SE)	516	5	305508 207797
76	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 38.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cynon, Ely and Rhondda Primacy: 1	A9NE (W)	517	5	304307 208603

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
77	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 3.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cynon, Ely and Rhondda Primacy: 1	A15SE (NE)	523	5	305485 208835
78	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 4.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cynon, Ely and Rhondda Primacy: 1	A15SE (NE)	523	5	305485 208835
79	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 172.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cynon, Ely and Rhondda Primacy: 1	A15SE (NE)	526	5	305488 208837
80	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 2.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cynon, Ely and Rhondda Primacy: 1	A15SE (NE)	526	5	305488 208837
81	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 3.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cynon, Ely and Rhondda Primacy: 1	A15SE (NE)	540	5	305493 208850
82	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 4.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cynon, Ely and Rhondda Primacy: 1	A15SE (NE)	540	5	305494 208850
83	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 196.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Nant Morlais Catchment Name: Cynon, Ely and Rhondda Primacy: 1	A7NW (SE)	544	5	305346 207644
84	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 17.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cynon, Ely and Rhondda Primacy: 1	A14SW (NW)	552	5	304613 208918
85	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 80.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cynon, Ely and Rhondda Primacy: 1	A9NE (W)	552	5	304269 208604

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
86	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 57.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cynon, Ely and Rhondda Primacy: 1	A14SW (NW)	560	5	304595 208914
87	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 2.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cynon, Ely and Rhondda Primacy: 1	A6NW (SW)	561	5	304556 207790
88	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 2.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cynon, Ely and Rhondda Primacy: 1	A6NW (SW)	562	5	304555 207790
89	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 160.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cynon, Ely and Rhondda Primacy: 1	A6NW (SW)	563	5	304556 207787
90	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 463.3 Watercourse Level: Not Supplied Permanent: True Watercourse Name: Not Supplied Catchment Name: Cynon, Ely and Rhondda Primacy: 1	A14SW (NW)	579	5	304459 208879
91	OS Water Network Lines Watercourse Form: Lake Watercourse Length: 17.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cynon, Ely and Rhondda Primacy: 1	A14SW (NW)	604	5	304540 208929
92	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 84.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cynon, Ely and Rhondda Primacy: 1	A12SW (E)	612	5	305818 208061
93	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 5.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cynon, Ely and Rhondda Primacy: 1	A14SW (NW)	616	5	304523 208935
94	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 50.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cynon, Ely and Rhondda Primacy: 1	A7SW (S)	625	5	305138 207486

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
95	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 40.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cynon, Ely and Rhondda Primacy: 1	A9NE (W)	628	5	304189 208612
96	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 25.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cynon, Ely and Rhondda Primacy: 1	A7SW (S)	630	5	305089 207476
97	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 55.6 Watercourse Level: Not Supplied Permanent: True Watercourse Name: Not Supplied Catchment Name: Cynon, Ely and Rhondda Primacy: 1	A6NW (SW)	640	5	304592 207650
98	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 100.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cynon, Ely and Rhondda Primacy: 1	A16SW (NE)	653	5	305829 208691
99	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 28.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cynon, Ely and Rhondda Primacy: 1	A6SW (SW)	654	5	304622 207603
100	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 164.3 Watercourse Level: Not Supplied Permanent: True Watercourse Name: Not Supplied Catchment Name: Cynon, Ely and Rhondda Primacy: 1	A7SW (S)	654	5	305093 207451
101	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 22.3 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Cynon, Ely and Rhondda Primacy: 1	A9NE (W)	664	5	304150 208612
102	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 405.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cynon, Ely and Rhondda Primacy: 1	A6SW (SW)	670	5	304628 207577
103	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 56.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cynon, Ely and Rhondda Primacy: 1	A12NW (E)	670	5	305940 208333

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
104	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 51.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cynon, Ely and Rhondda Primacy: 1	A15NW (N)	672	5	305269 209091
105	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 367.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cynon, Ely and Rhondda Primacy: 1	A12NW (E)	677	5	305943 208411
106	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 9.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cynon, Ely and Rhondda Primacy: 1	A12SW (E)	679	5	305948 208292
107	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 1.2 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Cynon, Ely and Rhondda Primacy: 1	A12SW (E)	679	5	305947 208293
108	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 132.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cynon, Ely and Rhondda Primacy: 1	A9NE (W)	685	5	304128 208611
109	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 47.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cynon, Ely and Rhondda Primacy: 1	A12SW (E)	685	5	305953 208284
110	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 8.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cynon, Ely and Rhondda Primacy: 1	A12SW (E)	685	5	305953 208284
111	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 55.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cynon, Ely and Rhondda Primacy: 2	A12SW (E)	704	5	305966 208230
112	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 29.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Nant Morlais Catchment Name: Cynon, Ely and Rhondda Primacy: 1	A12SW (E)	704	5	305966 208230

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
113	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 2.7 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Cynon, Ely and Rhondda Primacy: 1	A15NW (N)	713	5	305315 209114
114	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 19.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cynon, Ely and Rhondda Primacy: 1	A15NW (N)	715	5	305317 209115
115	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 37.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cynon, Ely and Rhondda Primacy: 2	A12SW (E)	723	5	305988 208251
116	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 628.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Nant Morlais Catchment Name: Cynon, Ely and Rhondda Primacy: 1	A12SW (E)	723	5	305988 208251
117	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 12.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cynon, Ely and Rhondda Primacy: 1	A7SE (SE)	724	5	305413 207476
118	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 27.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cynon, Ely and Rhondda Primacy: 1	A9NE (W)	726	5	304045 208317
119	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 2.3 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Cynon, Ely and Rhondda Primacy: 1	A15NW (N)	732	5	305333 209126
120	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 10.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cynon, Ely and Rhondda Primacy: 1	A15NW (N)	735	5	305335 209127
121	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 2.6 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Cynon, Ely and Rhondda Primacy: 1	A7SE (SE)	736	5	305417 207465

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
122	OS Water Network Lines Watercourse Form: Lake Watercourse Length: 3.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cynon, Ely and Rhondda Primacy: 1	A9NE (W)	738	5	304032 208340
123	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 105.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Nant Morlais Catchment Name: Cynon, Ely and Rhondda Primacy: 1	A7SE (SE)	738	5	305418 207463
124	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 3.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cynon, Ely and Rhondda Primacy: 1	A9NE (W)	740	5	304029 208362
125	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 1.2 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Cynon, Ely and Rhondda Primacy: 2	A12SW (E)	754	5	306016 208226
126	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 5.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cynon, Ely and Rhondda Primacy: 2	A12SW (E)	755	5	306017 208225
127	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 82.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cynon, Ely and Rhondda Primacy: 1	A12SW (E)	759	5	306021 208222
128	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 14.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cynon, Ely and Rhondda Primacy: 1	A12SW (E)	759	5	306021 208222
129	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 56.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cynon, Ely and Rhondda Primacy: 1	A12SW (E)	761	5	306017 208190
130	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 1.3 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Cynon, Ely and Rhondda Primacy: 1	A12SW (E)	761	5	306025 208236

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
131	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 121.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cynon, Ely and Rhondda Primacy: 1	A12SW (E)	762	5	306026 208237
132	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 79.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cynon, Ely and Rhondda Primacy: 1	A9NW (W)	811	5	304000 208627
133	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 245.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cynon, Ely and Rhondda Primacy: 1	A7SW (S)	813	5	305060 207291
134	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 29.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cynon, Ely and Rhondda Primacy: 1	A5NE (SW)	822	5	304273 207670
135	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 333.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Nant Morlais Catchment Name: Cynon, Ely and Rhondda Primacy: 1	A7SE (SE)	840	5	305462 207371
136	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 226.7 Watercourse Level: Not Supplied Permanent: True Watercourse Name: Not Supplied Catchment Name: Cynon, Ely and Rhondda Primacy: 1	A2NE (S)	846	5	304867 207276
137	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 41.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cynon, Ely and Rhondda Primacy: 2	A5NE (SW)	849	5	304264 207643
138	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 57.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cynon, Ely and Rhondda Primacy: 1	A5NE (SW)	849	5	304264 207643
139	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 109.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cynon, Ely and Rhondda Primacy: 2	A5NE (SW)	870	5	304223 207650

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
140	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 64.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cynon, Ely and Rhondda Primacy: 2	A5NE (SW)	870	5	304223 207650
141	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 51.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cynon, Ely and Rhondda Primacy: 1	A5NE (SW)	877	5	304244 207624
142	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 10.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cynon, Ely and Rhondda Primacy: 1	A13SW (W)	888	5	303933 208667
143	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 446.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Taf Fechan Catchment Name: Cynon, Ely and Rhondda Primacy: 1	A13SW (W)	889	5	303963 208745
144	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 77.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Taf Fechan Catchment Name: Cynon, Ely and Rhondda Primacy: 1	A13SW (W)	890	5	303957 208733
145	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 7.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cynon, Ely and Rhondda Primacy: 1	A13SW (W)	890	5	303959 208739
146	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 81.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cynon, Ely and Rhondda Primacy: 1	A5SE (SW)	897	5	304249 207593
147	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 402.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Taf Fechan Catchment Name: Cynon, Ely and Rhondda Primacy: 1	A13SW (W)	898	5	303923 208671
148	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 21.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cynon, Ely and Rhondda Primacy: 1	A5SE (SW)	901	5	304305 207547

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
149	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 1.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cynon, Ely and Rhondda Primacy: 1	A5SE (SW)	913	5	304205 207609
150	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 2.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cynon, Ely and Rhondda Primacy: 1	A5SE (SW)	913	5	304204 207610
151	OS Water Network Lines Watercourse Form: Lake Watercourse Length: 26.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cynon, Ely and Rhondda Primacy: 1	A5SE (SW)	914	5	304271 207556
152	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 19.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cynon, Ely and Rhondda Primacy: 1	A5SE (SW)	915	5	304204 207608
153	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 285.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cynon, Ely and Rhondda Primacy: 1	A6SW (SW)	916	5	304406 207446
154	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 5.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cynon, Ely and Rhondda Primacy: 1	A5SE (SW)	918	5	304289 207537
155	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 16.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cynon, Ely and Rhondda Primacy: 1	A5SE (SW)	921	5	304292 207533
156	OS Water Network Lines Watercourse Form: Lake Watercourse Length: 5.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cynon, Ely and Rhondda Primacy: 1	A5SE (SW)	926	5	304196 207599
157	OS Water Network Lines Watercourse Form: Lake Watercourse Length: 4.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cynon, Ely and Rhondda Primacy: 2	A5SE (SW)	926	5	304192 207603

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
158	OS Water Network Lines Watercourse Form: Lake Watercourse Length: 13.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cynon, Ely and Rhondda Primacy: 1	A5SE (SW)	927	5	304208 207588
159	OS Water Network Lines Watercourse Form: Lake Watercourse Length: 13.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cynon, Ely and Rhondda Primacy: 1	A5SE (SW)	930	5	304191 207599
160	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 3.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cynon, Ely and Rhondda Primacy: 1	A5SE (SW)	934	5	304278 207526
161	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 17.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cynon, Ely and Rhondda Primacy: 1	A5SE (SW)	936	5	304280 207523
162	OS Water Network Lines Watercourse Form: Lake Watercourse Length: 4.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cynon, Ely and Rhondda Primacy: 1	A5SE (SW)	936	5	304195 207587
163	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 145.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cynon, Ely and Rhondda Primacy: 1	A5SE (SW)	941	5	304192 207584
164	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 89.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cynon, Ely and Rhondda Primacy: 2	A5NE (SW)	944	5	304114 207654
165	OS Water Network Lines Watercourse Form: Lake Watercourse Length: 28.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cynon, Ely and Rhondda Primacy: 1	A5SE (SW)	948	5	304264 207514
166	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 5.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cynon, Ely and Rhondda Primacy: 1	A5SE (SW)	952	5	304266 207513

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
167	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 165.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cynon, Ely and Rhondda Primacy: 1	A5NW (W)	952	5	303941 207879
168	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 177.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cynon, Ely and Rhondda Primacy: 1	A5SE (SW)	953	5	304268 207510
169	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 46.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cynon, Ely and Rhondda Primacy: 1	A5NW (SW)	977	5	303979 207766
170	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 26.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cynon, Ely and Rhondda Primacy: 1	A5NW (SW)	980	5	303993 207742

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
171	Historical Landfill Sites Licence Holder: Merthyr Tydfil Borough Council Location: Galon Uchaf Name: Greenie Operator Location: Not Supplied Boundary Accuracy: As Supplied Provider Reference: EAHLD14083 First Input Date: 31st December 1960 Last Input Date: 31st December 1975 Specified Waste: Deposited Waste included Inert, Industrial, Commercial, Household and Type: Special Waste EA Waste Ref: 0 Regis Ref: Not Supplied WRC Ref: 6925/0014 BGS Ref: Not Supplied Other Ref: Not Supplied	A7NW (SE)	449	2	305289 207723
172	Licensed Waste Management Facilities (Locations) Licence Number: 30170 Location: Prince Charles Hospital, Gurnos Estate, Merthyr Tydfil, Glamorgan, CF47 9DT Operator Name: North Glamorgan N H S Trust Operator Location: Not Supplied Authority: Natural Resources Wales Site Category: Clinical Waste Transfer Stations Licence Status: Surrendered Issued: 18th October 1995 Last Modified: 22nd March 2002 Expires: Not Supplied Suspended: Not Supplied Revoked: Not Supplied Surrendered: 15th January 2004 IPPC Reference: Not Supplied Positional Accuracy: Located by supplier to within 10m	A10SW (W)	264	2	304520 208273
	Local Authority Landfill Coverage Name: Merthyr Tydfil County Borough Council - Has supplied landfill data		0	3	305022 208311
173	Local Authority Recorded Landfill Sites Location: Galon Uchaf Reference: 120 Authority: Merthyr Tydfil County Borough Council, Environmental Health Department Last Reported Status: Closed Types of Waste: Not Supplied Date of Closure: Not Supplied Positional Accuracy: Positioned by the supplier Boundary Quality: Moderate	A7NW (S)	419	3	305209 207719
174	Potentially Infilled Land (Non-Water) Bearing Ref: SE Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1992	A7NW (SE)	299	9	305223 207857
175	Potentially Infilled Land (Non-Water) Bearing Ref: SE Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1992	A7NE (SE)	490	9	305366 207715
176	Potentially Infilled Land (Non-Water) Bearing Ref: SE Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1992	A11SE (SE)	494	9	305626 207975
177	Potentially Infilled Land (Non-Water) Bearing Ref: N Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1992	A15NW (N)	665	9	305282 209077
178	Potentially Infilled Land (Non-Water) Bearing Ref: NE Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1992	A15SE (NE)	681	9	305642 208932
179	Potentially Infilled Land (Non-Water) Bearing Ref: SE Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1992	A7SE (SE)	835	9	305501 207395
180	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1965	A11NW (N)	0	9	305022 208311

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
181	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1922	A10NE (W)	0	9	304847 208304
182	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1965	A11NW (E)	0	9	305183 208370
183	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1965	A10NE (W)	0	9	305001 208319
184	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1965	A10NE (N)	21	9	304991 208502
185	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1965	A10SE (W)	107	9	304701 208254
186	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1951	A11SW (S)	114	9	305111 208009
187	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1891	A14SE (N)	150	9	304986 208640
188	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1951	A10SW (W)	181	9	304606 208278
189	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1965	A10SW (W)	246	9	304535 208247
190	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1965	A10NW (NW)	279	9	304619 208605
191	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1885	A6NE (S)	458	9	305001 207647
192	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1938	A6SE (S)	502	9	304938 207613
193	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1965	A6NW (SW)	605	9	304518 207762
194	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1922	A12NW (E)	612	9	305867 208487
195	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1922	A12SW (E)	621	9	305884 208242
196	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1885	A7SW (S)	628	9	305085 207477
197	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1965	A6NW (SW)	637	9	304560 207678
198	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1885	A7SW (S)	665	9	305097 207441
199	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1938	A7SW (S)	682	9	305085 207423
200	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1965	A12SW (E)	747	9	306008 208217
201	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1938	A7SW (S)	758	9	305226 207368

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
202	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1885	A7SW (S)	816	9	305058 207287
203	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1885	A6SE (S)	827	9	304862 207296
204	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1965	A12SE (E)	864	9	306116 208159
205	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1965	A9SW (W)	865	9	303971 208022
206	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1951	A12SE (E)	887	9	306120 208080
207	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1965	A9SW (W)	905	9	303906 208090
208	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1885	A2NE (S)	936	9	304893 207179
209	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1905	A8NE (E)	965	9	306133 207902
210	Registered Waste Transfer Sites Licence Holder: North Glamorgan Nhs Trust Licence Reference: 950134 Site Location: Prince Charles Hospital, Gurnos Estate, MERTHYR TYDFIL, Mid Glamorgan, CF47 9DT Operator Location: Prince Charles Hospital, Gurnos Estate, MERTHYR TYDFIL, Mid Glamorgan, CF47 9DT Authority: Environment Agency Wales, South East Area Site Category: Transfer Max Input Rate: Very Small (Less than 10,000 tonnes per year) Waste Source: No known restriction on source of waste Restrictions: Licence Status: Operational as far as is knownOperational Dated: 18th October 1995 Preceded By: 910123 Licence: Superseded By: Not Given Licence: Positional Accuracy: Manually positioned to the address or location Boundary Quality: Not Supplied Authorised Waste: Clinical Wastes Max.Storage In Licence Prohibited Waste: Waste N.O.S.	A10SW (W)	345	4	304480 208160
211	Registered Waste Treatment or Disposal Sites Licence Holder: Mid Glamorgan Health Authority Licence Reference: 910123 Site Location: Prince Charles Hospital, Gurnos Estate, MERTHYR TYDFIL, Mid Glamorgan, CF47 9DT Operator Location: St Tydfils Hospital, Merthyr Tydfil, Mid Glamorgan Authority: Environment Agency Wales, South East Area Site Category: Incineration Max Input Rate: Undefined Waste Source: No known restriction on source of waste Restrictions: Licence Status: Site exempt from licenceExempt Dated: 1st November 1993 Preceded By: Not Given Licence: Superseded By: 950134 Licence: Positional Accuracy: Manually positioned to the address or location Boundary Quality: Not Supplied Authorised Waste: Clinical Wastes	A10SW (W)	309	4	304500 208200

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS 1:625,000 Solid Geology Description: Millstone Grit Group [See Also Migr]	A11NW (NE)	0	1	305030 208319
	BGS 1:625,000 Solid Geology Description: Pennine Lower Coal Measures Formation And South Wales Lower Coal Measures Formation (Undifferentiated)	A11NW (N)	0	1	305022 208311
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic Concentration: 15 - 25 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <100 mg/kg Nickel Concentration: 15 - 30 mg/kg	A10NE (NW)	0	1	304927 208364
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic Concentration: 25 - 35 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <100 mg/kg Nickel Concentration: 15 - 30 mg/kg	A11NW (N)	0	1	305022 208311
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic Concentration: 35 - 45 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <100 mg/kg Nickel Concentration: 15 - 30 mg/kg	A11NW (NE)	15	1	305236 208435
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic Concentration: 15 - 25 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <100 mg/kg Nickel Concentration: 15 - 30 mg/kg	A10SE (SW)	27	1	304921 208189
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic Concentration: 15 - 25 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <100 mg/kg Nickel Concentration: 15 - 30 mg/kg	A11SW (SE)	77	1	305218 208129

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic 35 - 45 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <100 mg/kg Nickel 15 - 30 mg/kg Concentration:	A10NE (NW)	97	1	304740 208463
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic <15 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <100 mg/kg Nickel 15 - 30 mg/kg Concentration:	A11SW (SE)	144	1	305310 208133
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic 45 - 60 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 40 - 60 mg/kg Concentration: Lead Concentration: <100 mg/kg Nickel 15 - 30 mg/kg Concentration:	A15SW (N)	242	1	305103 208693
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic 25 - 35 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <100 mg/kg Nickel 15 - 30 mg/kg Concentration:	A11SE (SE)	248	1	305436 208138
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic 35 - 45 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <100 mg/kg Nickel 15 - 30 mg/kg Concentration:	A14SE (NW)	288	1	304739 208676
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic <15 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <100 mg/kg Nickel 15 - 30 mg/kg Concentration:	A7NW (S)	290	1	305202 207857

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic 15 - 25 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <100 mg/kg Nickel 15 - 30 mg/kg Concentration:	A15SW (N)	338	1	305109 208796
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic 35 - 45 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <100 mg/kg Nickel 15 - 30 mg/kg Concentration:	A10SW (W)	457	1	304365 208139
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic 45 - 60 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 40 - 60 mg/kg Concentration: Lead Concentration: <100 mg/kg Nickel 15 - 30 mg/kg Concentration:	A13SE (W)	640	1	304193 208650
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic <15 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <100 mg/kg Nickel 15 - 30 mg/kg Concentration:	A12SE (E)	846	1	306091 208129
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic 45 - 60 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <100 mg/kg Nickel 15 - 30 mg/kg Concentration:	A12SE (E)	861	1	306080 208041
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic 15 - 25 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <100 mg/kg Nickel 15 - 30 mg/kg Concentration:	A14NW (NW)	884	1	304550 209274

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic: 15 - 25 mg/kg Concentration: Cadmium: <1.8 mg/kg Concentration: Chromium: 60 - 90 mg/kg Concentration: Lead Concentration: <100 mg/kg Nickel: 15 - 30 mg/kg Concentration:	A12SE (E)	924	1	306174 208142
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic: 45 - 60 mg/kg Concentration: Cadmium: <1.8 mg/kg Concentration: Chromium: 40 - 60 mg/kg Concentration: Lead Concentration: <100 mg/kg Nickel: 15 - 30 mg/kg Concentration:	A13SW (NW)	980	1	303895 208814
212	BGS Recorded Mineral Sites Site Name: Pen-Y-Bryn Location: Merthyr Tydfil, Mid Glamorgan Source: British Geological Survey, National Geoscience Information Service Reference: 125675 Type: Opencast Status: Ceased Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Carboniferous Geology: South Wales Lower Coal Measures Formation Commodity: Sandstone Positional Accuracy: Located by supplier to within 10m	A11SE (SE)	541	1	305679 207971
213	BGS Recorded Mineral Sites Site Name: Bryniau Quarries Location: Bryniau, Merthyr Tydfil, Mid Glamorgan Source: British Geological Survey, National Geoscience Information Service Reference: 26523 Type: Opencast Status: Ceased Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Carboniferous Geology: Twrch Sandstone Formation Commodity: Silica rock Positional Accuracy: Located by supplier to within 10m	A15SE (NE)	701	1	305660 208940
214	BGS Recorded Mineral Sites Site Name: Bryniau Quarries Location: Bryniau, Merthyr Tydfil, Mid Glamorgan Source: British Geological Survey, National Geoscience Information Service Reference: 26520 Type: Opencast Status: Ceased Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Carboniferous Geology: Twrch Sandstone Formation Commodity: Silica rock Positional Accuracy: Located by supplier to within 10m	A15NW (N)	734	1	305300 209145
215	BGS Recorded Mineral Sites Site Name: Careg Ifan Location: Vaynor, Merthyr Tydfil, Mid Glamorgan Source: British Geological Survey, National Geoscience Information Service Reference: 125660 Type: Underground Status: Ceased Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Carboniferous Geology: Oxwich Head Limestone Formation Commodity: Limestone Positional Accuracy: Located by supplier to within 10m	A15NW (N)	787	1	305085 209269

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
216	BGS Recorded Mineral Sites Site Name: Bryniau Quarries Location: Bryniau, Merthyr Tydfil, Mid Glamorgan Source: British Geological Survey, National Geoscience Information Service Reference: 26524 Type: Opencast Status: Ceased Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Carboniferous Geology: Twrch Sandstone Formation Commodity: Silica rock Positional Accuracy: Located by supplier to within 10m	A15NE (NE)	794	1	305600 209080
217	BGS Recorded Mineral Sites Site Name: Bryniau Quarries Location: Bryniau, Merthyr Tydfil, Mid Glamorgan Source: British Geological Survey, National Geoscience Information Service Reference: 26521 Type: Opencast Status: Ceased Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Carboniferous Geology: Twrch Sandstone Formation Commodity: Silica rock Positional Accuracy: Located by supplier to within 10m	A15NE (NE)	842	1	305570 209145
218	BGS Recorded Mineral Sites Site Name: Bryniau Quarries Location: Bryniau, Merthyr Tydfil, Mid Glamorgan Source: British Geological Survey, National Geoscience Information Service Reference: 2894 Type: Opencast Status: Dormant Operator: Guest, Keen, Baldwins Iron & Steel Co., Ltd. Operator Location: Not Supplied Periodic Type: Carboniferous Geology: Twrch Sandstone Formation Commodity: Sandstone Positional Accuracy: Located by supplier to within 10m	A16NW (NE)	892	1	305850 209035
219	BGS Recorded Mineral Sites Site Name: Morlais Castle Quarries Location: Pant, Merthyr Tydfil, Mid Glamorgan Source: British Geological Survey, National Geoscience Information Service Reference: 9745 Type: Opencast Status: Ceased Operator: Guest, Keen, Baldwins Iron & Steel Co., Ltd. Operator Location: Not Supplied Periodic Type: Carboniferous Geology: Dowlais Limestone Formation (Cil-Yr-Ychen Limestone) Commodity: Limestone Positional Accuracy: Located by supplier to within 10m	A18SE (N)	965	1	304855 209450
220	BGS Recorded Mineral Sites Site Name: Bryniau Quarries Location: Bryniau, Merthyr Tydfil, Mid Glamorgan Source: British Geological Survey, National Geoscience Information Service Reference: 26522 Type: Opencast Status: Ceased Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Carboniferous Geology: Twrch Sandstone Formation Commodity: Silica rock Positional Accuracy: Located by supplier to within 10m	A16NW (NE)	984	1	305780 209200
	BGS Measured Urban Soil Chemistry No data available				
	BGS Urban Soil Chemistry Averages No data available				
	Coal Mining Affected Areas Description: In an area which may be affected by coal mining activity. It is recommended that a coal mining report is obtained from the Coal Authority. Contact details are included in the Useful Contacts section of this report.	A11NW (N)	0	6	305022 208311

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Mining Instability Mining Evidence: Inconclusive Coal Mining Source: Ove Arup & Partners Boundary Quality: As Supplied	A11NW (N)	0	-	305022 208311
	Natural Cavities Easting: 304942 Northing: 208471 Distance: 0 Quadrant Reference: A10 Quadrant Reference: NE Bearing Ref: NW Cavity Type: Phreatic Cave, Sinkhole, Solution Pipe, Solution Widened Joint or Fissure, Swallow Hole Solid Geology Detail: Carboniferous Limestone Supergroup, Lower Carboniferous Limestone, Millstone Grit Group, Upper Carboniferous Limestone Superficial Geology Detail: Glacial sand	A10NE (NW)	0	7	304942 208471
	Non Coal Mining Areas of Great Britain Risk: Highly Unlikely Source: British Geological Survey, National Geoscience Information Service	A11NW (N)	0	1	305022 208311
	Non Coal Mining Areas of Great Britain Risk: Highly Unlikely Source: British Geological Survey, National Geoscience Information Service	A10NE (W)	0	1	305000 208311
	Non Coal Mining Areas of Great Britain Risk: Rare Source: British Geological Survey, National Geoscience Information Service	A10SE (SW)	0	1	304898 208221
	Non Coal Mining Areas of Great Britain Risk: Rare Source: British Geological Survey, National Geoscience Information Service	A11NW (NE)	11	1	305236 208435
	Non Coal Mining Areas of Great Britain Risk: Rare Source: British Geological Survey, National Geoscience Information Service	A14SE (N)	195	1	305000 208683
	Non Coal Mining Areas of Great Britain Risk: Highly Unlikely Source: British Geological Survey, National Geoscience Information Service	A15SW (N)	242	1	305103 208693
	Potential for Collapsible Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A10NE (W)	0	1	305000 208311
	Potential for Collapsible Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A11NW (N)	0	1	305022 208311
	Potential for Compressible Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A10NE (W)	0	1	305000 208311
	Potential for Compressible Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A11NW (N)	0	1	305022 208311
	Potential for Compressible Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A7NW (SE)	220	1	305218 207942
	Potential for Ground Dissolution Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A10NE (W)	0	1	305000 208311
	Potential for Ground Dissolution Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A11NW (N)	0	1	305022 208311
	Potential for Ground Dissolution Stability Hazards Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service	A15SW (N)	232	1	305114 208679
	Potential for Ground Dissolution Stability Hazards Hazard Potential: High Source: British Geological Survey, National Geoscience Information Service	A15SW (N)	242	1	305103 208693
	Potential for Landslide Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A11NW (N)	0	1	305022 208311

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Potential for Landslide Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A10NE (W)	0	1	305000 208311
	Potential for Landslide Ground Stability Hazards Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service	A11SW (SE)	0	1	305112 208153
	Potential for Landslide Ground Stability Hazards Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service	A11NW (NE)	0	1	305066 208349
	Potential for Landslide Ground Stability Hazards Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service	A11NW (NE)	193	1	305152 208613
	Potential for Landslide Ground Stability Hazards Hazard Potential: Moderate Source: British Geological Survey, National Geoscience Information Service	A11SE (SE)	249	1	305359 208030
	Potential for Running Sand Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A10NE (W)	0	1	305000 208311
	Potential for Running Sand Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A11NW (N)	0	1	305022 208311
	Potential for Running Sand Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A11SW (SE)	144	1	305310 208133
	Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A10NE (W)	0	1	305000 208311
	Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A11NW (N)	0	1	305022 208311
	Radon Potential - Radon Affected Areas Affected Area: The property is in an Intermediate probability radon area (1 to 3% of homes are estimated to be at or above the Action Level). Source: British Geological Survey, National Geoscience Information Service	A11NW (NE)	0	1	305200 208425
	Radon Potential - Radon Affected Areas Affected Area: The property is in an Intermediate probability radon area (1 to 3% of homes are estimated to be at or above the Action Level). Source: British Geological Survey, National Geoscience Information Service	A10SE (SW)	0	1	304925 208250
	Radon Potential - Radon Affected Areas Affected Area: The property is in a Lower probability radon area (less than 1% of homes are estimated to be at or above the Action Level). Source: British Geological Survey, National Geoscience Information Service	A10NE (W)	0	1	305000 208311
	Radon Potential - Radon Affected Areas Affected Area: The property is in a Lower probability radon area (less than 1% of homes are estimated to be at or above the Action Level). Source: British Geological Survey, National Geoscience Information Service	A11NW (N)	0	1	305022 208311
	Radon Potential - Radon Protection Measures Protection Measure: No radon protective measures are necessary in the construction of new dwellings or extensions Source: British Geological Survey, National Geoscience Information Service	A11NW (NE)	0	1	305200 208425
	Radon Potential - Radon Protection Measures Protection Measure: No radon protective measures are necessary in the construction of new dwellings or extensions Source: British Geological Survey, National Geoscience Information Service	A10SE (SW)	0	1	304925 208250
	Radon Potential - Radon Protection Measures Protection Measure: No radon protective measures are necessary in the construction of new dwellings or extensions Source: British Geological Survey, National Geoscience Information Service	A10NE (W)	0	1	305000 208311
	Radon Potential - Radon Protection Measures Protection Measure: No radon protective measures are necessary in the construction of new dwellings or extensions Source: British Geological Survey, National Geoscience Information Service	A11NW (N)	0	1	305022 208311

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
221	Contemporary Trade Directory Entries Name: Castle Auto Repairs Location: Pontsarn Road, Merthyr Tydfil, Mid Glamorgan, CF48 2TN Classification: Garage Services Status: Inactive Positional Accuracy: Automatically positioned to the address	A11NE (NE)	240	-	305415 208549
221	Contemporary Trade Directory Entries Name: Mikerry Rail Location: UNIT 1, PONTSARN ROAD, PONTSARN, MERTHYR TYDFIL, CF48 2TN Classification: Fencing Manufacturers Status: Active Positional Accuracy: Automatically positioned to the address	A11NE (NE)	257	-	305424 208563
222	Contemporary Trade Directory Entries Name: Bil-D-Aid Location: 45, Sycamore Road, Merthyr Tydfil, Mid Glamorgan, CF47 9RU Classification: Damp & Dry Rot Control Status: Inactive Positional Accuracy: Automatically positioned to the address	A7NW (S)	240	-	305051 207863
223	Contemporary Trade Directory Entries Name: D M Motors Location: Pontsarn Rd, Merthyr Tydfil, Mid Glamorgan, CF48 2TN Classification: Garage Services Status: Inactive Positional Accuracy: Manually positioned within the geographical locality	A15SE (NE)	308	-	305403 208636
224	Contemporary Trade Directory Entries Name: Gilgen Door Systems Location: 1b, Twelfth Avenue, Merthyr Tydfil, Mid Glamorgan, CF47 9TA Classification: Door Manufacturers - Industrial Status: Inactive Positional Accuracy: Automatically positioned to the address	A11NE (E)	335	-	305601 208388
224	Contemporary Trade Directory Entries Name: First Choice Blinds Location: Creative House, Rocky Road, Merthyr Tydfil, Mid Glamorgan, CF47 9JL Classification: Blinds, Awnings & Canopies Status: Inactive Positional Accuracy: Automatically positioned to the address	A11NE (E)	348	-	305608 208429
224	Contemporary Trade Directory Entries Name: Divine Window Manufacturers Location: Creative House, Rocky Road, Merthyr Tydfil, Mid Glamorgan, CF47 9JL Classification: Window Frame Manufacturers Status: Inactive Positional Accuracy: Automatically positioned to the address	A11NE (E)	348	-	305608 208429
225	Contemporary Trade Directory Entries Name: Baxter Healthcare Ltd Location: Prince Charles Hospital, Merthyr Tydfil, Mid Glamorgan, CF47 9DT Classification: Hospitals Status: Inactive Positional Accuracy: Automatically positioned to the address	A10SW (W)	343	-	304481 208161
225	Contemporary Trade Directory Entries Name: C W M Taf University Heath Board Location: Prince Charles Hospital, Merthyr Tydfil, CF47 9DT Classification: Hospitals Status: Active Positional Accuracy: Automatically positioned to the address	A10SW (W)	347	-	304465 208186
226	Contemporary Trade Directory Entries Name: A & K Roller Shutter Doors Location: Dan-y-Castell Farm, Pontsarn Road, Merthyr Tydfil, CF48 2TP Classification: Roller Shutter Manufacturers Status: Active Positional Accuracy: Automatically positioned to the address	A15SW (N)	389	-	305077 208863
226	Contemporary Trade Directory Entries Name: A & K Roller Shutter Doors Location: Dan-y-Castell Farm, Pontsarn Road, Merthyr Tydfil, Mid Glamorgan, CF48 2TP Classification: Roller Shutter Manufacturers Status: Inactive Positional Accuracy: Automatically positioned to the address	A15SW (N)	389	-	305077 208863

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
227	Contemporary Trade Directory Entries Name: Dependable Packaging Location: UNIT 33, PANT INDUSTRIAL ESTATE, DOWLAIS, PANT, MERTHYR TYDFIL, CF48 2SR Classification: Packaging Materials Manufacturers & Suppliers Status: Active Positional Accuracy: Automatically positioned to the address	A11NE (E)	400	-	305625 208539
227	Contemporary Trade Directory Entries Name: Lewis Motors Merthyr Ltd Location: Unit 8, Old Rediffusion Buildings, Pant Industrial Estate, Dowlais, Merthyr Tydfil, CF48 2SR Classification: Garage Services Status: Active Positional Accuracy: Automatically positioned to the address	A11NE (NE)	426	-	305616 208605
227	Contemporary Trade Directory Entries Name: Sellitasitis Location: Unit 3, Hubert Johns Buildings, Pant Industrial Estate, Dowlais, Merthyr Tydfil, Mid Glamorgan, CF48 2SR Classification: Boilers - Servicing, Replacements & Repairs Status: Inactive Positional Accuracy: Automatically positioned to the address	A11NE (NE)	433	-	305625 208603
227	Contemporary Trade Directory Entries Name: Beypro Fabrication Location: Unit 4, Pant Industrial Estate, Dowlais, Merthyr Tydfil, CF48 2SR Classification: Garage Services Status: Inactive Positional Accuracy: Automatically positioned to the address	A11NE (NE)	437	-	305632 208601
227	Contemporary Trade Directory Entries Name: M & M Auto Repairs Location: Unit 4d, Pant Industrial Estate, Dowlais, Merthyr Tydfil, Mid Glamorgan, CF48 2SR Classification: Garage Services Status: Inactive Positional Accuracy: Automatically positioned to the address	A11NE (NE)	438	-	305632 208601
227	Contemporary Trade Directory Entries Name: Dependable Packs Ltd Location: Unit 33, Pant Industrial Estate, Dowlais, Merthyr Tydfil, Mid Glamorgan, CF48 2SR Classification: Packaging & Wrapping Equipment & Supplies Status: Inactive Positional Accuracy: Automatically positioned to the address	A11NE (NE)	444	-	305654 208578
227	Contemporary Trade Directory Entries Name: Dependable Packs Location: Unit 33, Pant Industrial Estate, Dowlais, Merthyr Tydfil, Mid Glamorgan, CF48 2SR Classification: Paper & Cardboard Products & Packaging - Manufacturers Status: Inactive Positional Accuracy: Automatically positioned to the address	A11NE (NE)	444	-	305654 208578
228	Contemporary Trade Directory Entries Name: Richards Garage Location: Unit 35, Pant Industrial Estate, Dowlais, Merthyr Tydfil, CF48 2SR Classification: Garage Services Status: Active Positional Accuracy: Automatically positioned to the address	A15SE (NE)	450	-	305617 208643
228	Contemporary Trade Directory Entries Name: Paul Hughes Motor Vehicle Repairs Location: Unit 35, Pant Industrial Estate, Dowlais, Merthyr Tydfil, Mid Glamorgan, CF48 2SR Classification: Mot Testing Centres Status: Inactive Positional Accuracy: Automatically positioned to the address	A15SE (NE)	457	-	305619 208652
228	Contemporary Trade Directory Entries Name: Indigo Location: Unit 35, Pant Industrial Estate, Dowlais, Merthyr Tydfil, Mid Glamorgan, CF48 2SR Classification: Mot Testing Centres Status: Inactive Positional Accuracy: Automatically positioned to the address	A15SE (NE)	457	-	305619 208652

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
229	Contemporary Trade Directory Entries Name: Merthyr Tyre Services Location: Pant Ind Est, Dowlais, Merthyr Tydfil, Mid Glamorgan, CF48 2SR Classification: Tyre Dealers Status: Inactive Positional Accuracy: Manually positioned within the geographical locality	A11NE (NE)	488	-	305673 208632
230	Contemporary Trade Directory Entries Name: J W Morgan & Son Location: Pontsarn Rd, Merthyr Tydfil, Mid Glamorgan, CF48 2TN Classification: Garage Services Status: Inactive Positional Accuracy: Manually positioned to the road within the address or location	A15SW (NE)	491	-	305356 208852
230	Contemporary Trade Directory Entries Name: Carls Location: Pontsarn Rd, Merthyr Tydfil, Mid Glamorgan, CF48 2TN Classification: Car Body Repairs Status: Inactive Positional Accuracy: Manually positioned to the road within the address or location	A15SW (NE)	493	-	305351 208856
230	Contemporary Trade Directory Entries Name: Auto Care Location: Pontsarn Rd, Merthyr Tydfil, Mid Glamorgan, CF48 2TN Classification: Garage Services Status: Inactive Positional Accuracy: Manually positioned to the road within the address or location	A15SW (NE)	493	-	305350 208856
231	Contemporary Trade Directory Entries Name: Aim Packaging Ltd Location: Unit 38, Pant Industrial Estate, Dowlais, Merthyr Tydfil, Mid Glamorgan, CF48 2SR Classification: Packaging Materials Manufacturers & Suppliers Status: Inactive Positional Accuracy: Automatically positioned to the address	A15SE (NE)	535	-	305665 208717
232	Contemporary Trade Directory Entries Name: Screwfix Merthyr Tydfil Location: Pant Industrial Estate, Dowlais, Merthyr Tydfil, CF48 2SR Classification: Builders' Merchants Status: Active Positional Accuracy: Automatically positioned to the address	A12NW (E)	543	-	305777 208547
232	Contemporary Trade Directory Entries Name: Mercer Chainsaw & Garden Equipment Location: 31b, Pant Industrial Estate, Dowlais, Merthyr Tydfil, CF48 2SR Classification: Lawnmowers & Garden Machinery - Sales & Service Status: Inactive Positional Accuracy: Automatically positioned to the address	A12NW (E)	543	-	305777 208547
232	Contemporary Trade Directory Entries Name: Frank Hoyle Transport Ltd Location: Unit 31, Pant Industrial Estate, Dowlais, Merthyr Tydfil, CF48 2SR Classification: Road Haulage Services Status: Inactive Positional Accuracy: Automatically positioned to the address	A12NW (E)	543	-	305777 208547
232	Contemporary Trade Directory Entries Name: Lsw Wales Ltd Location: Unit 31, Pant Industrial Estate, Dowlais, Merthyr Tydfil, Mid Glamorgan, CF48 2SR Classification: Distribution Services Status: Inactive Positional Accuracy: Manually positioned to the address or location	A12NW (E)	543	-	305778 208547
233	Contemporary Trade Directory Entries Name: Jack Matthews & Son Location: Pant Industrial Estate, Dowlais, Merthyr Tydfil, CF48 2SR Classification: Garage Services Status: Inactive Positional Accuracy: Automatically positioned to the address	A12NW (E)	590	-	305836 208517
233	Contemporary Trade Directory Entries Name: Homesafe Security & Electrical Solutions Location: Unit 30a, Pant Industrial Estate, Dowlais, Merthyr Tydfil, CF48 2SR Classification: Electrical Engineers Status: Active Positional Accuracy: Automatically positioned to the address	A12NW (E)	615	-	305850 208557

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
233	Contemporary Trade Directory Entries Name: R T Williams Vehicle Repair & Recovery Location: Unit 30a, Pant Industrial Estate, Dowlais, MERTHYR TYDFIL, Mid Glamorgan, CF48 2SR Classification: Commercial Vehicle Breakdown & Recovery Services Status: Active Positional Accuracy: Automatically positioned to the address	A12NW (E)	616	-	305851 208558
233	Contemporary Trade Directory Entries Name: Texturing Technology Ltd Location: Pant Industrial Estate, Dowlais, Merthyr Tydfil, Mid Glamorgan, CF48 2SR Classification: Metal Finishing Services Status: Inactive Positional Accuracy: Automatically positioned to the address	A12NW (E)	616	-	305851 208558
233	Contemporary Trade Directory Entries Name: Texturing Technology Location: Pant Industrial Estate, Dowlais, Merthyr Tydfil, Mid Glamorgan, CF48 2SR Classification: Metal Finishing Services Status: Inactive Positional Accuracy: Automatically positioned to the address	A12NW (E)	616	-	305851 208558
233	Contemporary Trade Directory Entries Name: Williams Location: Unit 30a, Pant Industrial Estate, Dowlais, MERTHYR TYDFIL, Mid Glamorgan, CF48 2SR Classification: Commercial Vehicle Bodybuilders & Repairers Status: Inactive Positional Accuracy: Automatically positioned to the address	A12NW (E)	616	-	305851 208558
233	Contemporary Trade Directory Entries Name: A1 Tyres & Exhausts Centre Location: Unit 30a, Pant Industrial Estate, Dowlais, Merthyr Tydfil, Mid Glamorgan, CF48 2SR Classification: Garage Services Status: Inactive Positional Accuracy: Automatically positioned to the address	A12NW (E)	616	-	305851 208558
234	Contemporary Trade Directory Entries Name: R D J Ltd Location: Merthyr Tydfil Ind Est, Dowlais, Merthyr Tydfil, Mid Glamorgan, CF48 2SS Classification: Quarries Status: Inactive Positional Accuracy: Manually positioned within the geographical locality	A16SW (NE)	601	-	305782 208670
235	Contemporary Trade Directory Entries Name: G K Products Uk Location: Pant Industrial Estate, Pontsarn Road, Merthyr Tydfil, Mid Glamorgan, CF48 2TN Classification: Graffiti Removers Status: Active Positional Accuracy: Manually positioned to the road within the address or location	A16SW (NE)	671	-	305835 208717
236	Contemporary Trade Directory Entries Name: Ruggers Location: Unit 2a, Pant Industrial Estate, Dowlais, Merthyr Tydfil, CF48 2SR Classification: Carpets & Rugs - Manufacturers Status: Inactive Positional Accuracy: Automatically positioned to the address	A12NW (E)	672	-	305913 208546
236	Contemporary Trade Directory Entries Name: Merthyr Tyre & Exhaust Services Ltd Location: Pant Industrial Estate, Dowlais, Merthyr Tydfil, Mid Glamorgan, CF48 2SR Classification: Tyre Dealers Status: Active Positional Accuracy: Automatically positioned to the address	A12NW (E)	690	-	305930 208553
236	Contemporary Trade Directory Entries Name: Dragon Print Location: Unit 2, Pant Industrial Estate, Dowlais, Merthyr Tydfil, Mid Glamorgan, CF48 2SR Classification: Printers Status: Inactive Positional Accuracy: Automatically positioned to the address	A12NW (E)	700	-	305936 208568
236	Contemporary Trade Directory Entries Name: Dragon Engines & Engineering Location: Unit 35, Pant Ind Est, Dowlais, Merthyr Tydfil, Mid Glamorgan, CF48 2SR Classification: Engine Rebuilding & Reconditioning Status: Inactive Positional Accuracy: Manually positioned within the geographical locality	A12NW (E)	706	-	305947 208552

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
236	Contemporary Trade Directory Entries Name: Phil Hunt Location: Unit 4, Pant Ind Est, Dowlais, Merthyr Tydfil, Mid Glamorgan, CF48 2SR Classification: Car & Commercial Repairs Status: Inactive Positional Accuracy: Manually positioned within the geographical locality	A12NW (E)	709	-	305946 208564
237	Contemporary Trade Directory Entries Name: Freightier Trailer Location: Unit 27a, Pant Ind Est, Dowlais, Merthyr Tydfil, Mid Glamorgan, CF48 2SR Classification: Trailers & Towing Equipment Status: Inactive Positional Accuracy: Manually positioned within the geographical locality	A16SW (NE)	720	-	305886 208728
237	Contemporary Trade Directory Entries Name: Design & Manufacture Ltd Location: Unit 27, Pant Industrial Estate, Dowlais, Merthyr Tydfil, Mid Glamorgan, CF48 2SR Classification: Engineers - General Status: Inactive Positional Accuracy: Automatically positioned to the address	A16SW (NE)	734	-	305911 208713
237	Contemporary Trade Directory Entries Name: Henderson Bennett (South Wales) Ltd Location: Unit 27, Pant Industrial Estate, Dowlais, Merthyr Tydfil, Mid Glamorgan, CF48 2SR Classification: Sheet Metal Work Status: Inactive Positional Accuracy: Automatically positioned to the address	A16SW (NE)	734	-	305911 208713
237	Contemporary Trade Directory Entries Name: Design & Manufacture Location: Unit 27, Pant Industrial Estate, Dowlais, Merthyr Tydfil, CF48 2SR Classification: Machine Shops Status: Active Positional Accuracy: Automatically positioned to the address	A16SW (NE)	734	-	305911 208713
238	Contemporary Trade Directory Entries Name: Scrap Yard In Merthyr Tydfil Htt Location: Unit 30b Pant Industrial Estate, Merthyr Tydfil, Mid Glamorgan, cf48 2sr Classification: Car Breakers & Dismantlers Status: Inactive Positional Accuracy: Manually positioned within the geographical locality	A12NW (E)	726	-	305948 208614
238	Contemporary Trade Directory Entries Name: Ats Euromaster Merthyr Tydfil Location: Industrial Estate, Dowlais, Merthyr Tydfil, Mid Glamorgan, CF48 2SR Classification: Tyre Dealers Status: Active Positional Accuracy: Manually positioned within the geographical locality	A12NW (E)	726	-	305948 208614
238	Contemporary Trade Directory Entries Name: Robert Price Builders Merchants Location: Pant Industrial Estate, Dowlais, Merthyr Tydfil, Mid Glamorgan, CF48 2SR Classification: Builders' Merchants Status: Active Positional Accuracy: Automatically positioned to the address	A12NW (E)	726	-	305948 208614
239	Contemporary Trade Directory Entries Name: Actemium Location: Pant Ind Est, Dowlais, Merthyr Tydfil, Mid Glamorgan, CF48 2SS Classification: Electrical Engineers Status: Inactive Positional Accuracy: Manually positioned within the geographical locality	A12NW (E)	758	-	305997 208565
239	Contemporary Trade Directory Entries Name: Troy Electrical Location: Unit 7, Pant Industrial Estate, Dowlais, Merthyr Tydfil, Mid Glamorgan, CF48 2SR Classification: Electrical goods - servicing & repairs Status: Inactive Positional Accuracy: Automatically positioned to the address	A12NW (E)	766	-	306000 208583
239	Contemporary Trade Directory Entries Name: B T S Transport Location: Merthyr Tydfil Indust Est, Dowlais, Merthyr Tydfil, Mid Glamorgan, CF48 2SR Classification: Road Haulage Services Status: Inactive Positional Accuracy: Manually positioned within the geographical locality	A12NW (E)	770	-	306011 208560

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
240	Contemporary Trade Directory Entries Name: Cyfarthfa Structures Location: Unit 5 Pant Ind Est, Dowlais, Merthyr Tydfil, Mid Glamorgan, CF48 2SR Classification: PVC-U Products - Manufacturers & Suppliers Status: Inactive Positional Accuracy: Manually positioned within the geographical locality	A12NW (E)	776	-	305999 208618
241	Contemporary Trade Directory Entries Name: Merthyr Electroplating Co Ltd Location: Unit 23A, Pant Industrial Estate, Dowlais, Merthyr Tydfil, Mid Glamorgan, CF48 2SR Classification: Metal Finishing Services Status: Inactive Positional Accuracy: Automatically positioned to the address	A16SW (NE)	797	-	305973 208731
242	Contemporary Trade Directory Entries Name: The Marble Design Workshop Ltd Location: Unit 1, Pant Industrial Estate, Dowlais, Merthyr Tydfil, CF48 2SR Classification: Fireplaces & Mantelpieces Status: Active Positional Accuracy: Automatically positioned to the address	A16SW (E)	804	-	306019 208647
242	Contemporary Trade Directory Entries Name: V C Industrial Doors Ltd Location: Unit 18a, Pant Industrial Estate, Merthyr Tydfil, CF48 2SR Classification: Door Manufacturers - Industrial Status: Inactive Positional Accuracy: Manually positioned within the geographical locality	A16SW (E)	805	-	306019 208647
242	Contemporary Trade Directory Entries Name: A D M & Sons Location: Unit 30b Pant Industrial Estate, Dowlais, Merthyr Tydfil, Mid Glamorgan, CF48 2SR Classification: Garage Services Status: Active Positional Accuracy: Manually positioned within the geographical locality	A16SW (E)	807	-	306021 208648
242	Contemporary Trade Directory Entries Name: Magnet Trade Location: Pant Industrial Estate, Dowlais, Merthyr Tydfil, Mid Glamorgan, CF48 2SR Classification: Kitchen Furniture Manufacturers Status: Inactive Positional Accuracy: Manually positioned within the geographical locality	A16SW (E)	807	-	306021 208648
242	Contemporary Trade Directory Entries Name: Flavours From India Location: Pant Ind Est, Dowlais, Merthyr Tydfil, Mid Glamorgan, CF48 2SR Classification: Food Products - Manufacturers Status: Inactive Positional Accuracy: Manually positioned within the geographical locality	A16SE (E)	828	-	306032 208678
242	Contemporary Trade Directory Entries Name: R L S Freight Services (Wales) Ltd Location: Unit 2-4, Venture Wales Park, Pant Ind Est, Dowlais, Merthyr Tydfil, Mid Glamorgan, CF48 2SR Classification: Road Haulage Services Status: Inactive Positional Accuracy: Manually positioned to the address or location	A16SE (E)	842	-	306054 208660
242	Contemporary Trade Directory Entries Name: Jones Location: Unit 2, Old Rediffusion Buildings, Pant Industrial Estate, Dowlais, Merthyr Tydfil, Mid Glamorgan, CF48 2SR Classification: Car Dealers - Used Status: Active Positional Accuracy: Automatically positioned to the address	A16SE (E)	842	-	306054 208660
242	Contemporary Trade Directory Entries Name: Brammer Buck & Hickman Location: Unit 9, Pant Industrial Estate, Dowlais, Merthyr Tydfil, CF48 2SR Classification: Engineering Materials Status: Inactive Positional Accuracy: Automatically positioned to the address	A16SE (E)	867	-	306077 208670
243	Contemporary Trade Directory Entries Name: Supakleen Location: 10, Royal Crescent, Penydarren, Merthyr Tydfil, Mid Glamorgan, CF47 9LA Classification: Carpet, Curtain & Upholstery Cleaners Status: Inactive Positional Accuracy: Automatically positioned to the address	A7SE (SE)	816	-	305563 207454

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
244	Contemporary Trade Directory Entries Name: Jasonic Ltd Location: Unit 8-9, Merthyr Tydfil Industrial Estate, Dowlais, Merthyr Tydfil, Mid Glamorgan, CF48 2TD Classification: Builders' Merchants Status: Active Positional Accuracy: Automatically positioned to the address	A12NE (E)	817	-	306055 208577
244	Contemporary Trade Directory Entries Name: Raynes Scaffolding & Groundworks Location: Unit 43, Pant Industrial Estate, Dowlais, Merthyr Tydfil, CF48 2SR Classification: Scaffolding & Work Platforms Status: Active Positional Accuracy: Automatically positioned to the address	A12NE (E)	839	-	306083 208556
244	Contemporary Trade Directory Entries Name: Magnet Kitchens Merthyr Tydfil Location: Pant Industrial Estate, Dowlais, Merthyr Tydfil, Mid Glamorgan, CF48 2SR Classification: Kitchen Furniture Manufacturers Status: Active Positional Accuracy: Automatically positioned to the address	A12NE (E)	839	-	306083 208557
244	Contemporary Trade Directory Entries Name: Freighter Trailers Ltd Location: Unit 27, Merthyr Tydfil Ind Est, Dowlais, Merthyr Tydfil, Mid Glamorgan, CF48 2SR Classification: Trailers & Towing Equipment Status: Inactive Positional Accuracy: Manually positioned within the geographical locality	A12NE (E)	841	-	306076 208592
244	Contemporary Trade Directory Entries Name: B T S Transport Location: Unit 3a Merthyr Ind Est, Pant Ind Est, Dowlais, Merthyr Tydfil, Mid Glamorgan, CF48 2SR Classification: Road Haulage Services Status: Inactive Positional Accuracy: Manually positioned within the geographical locality	A12NE (E)	850	-	306080 208611
245	Contemporary Trade Directory Entries Name: Welsh Country Foods Location: 14, Tanybryn Place, Merthyr Tydfil, Mid Glamorgan, CF47 9EJ Classification: Meat - Wholesale Status: Inactive Positional Accuracy: Automatically positioned to the address	A8NW (SE)	839	-	305822 207662
246	Contemporary Trade Directory Entries Name: Home & Dry Damp Proofing M T Ltd Location: 22, Harrison Street, Merthyr Tydfil, Mid Glamorgan, CF47 9SJ Classification: Damp & Dry Rot Control Status: Inactive Positional Accuracy: Automatically positioned to the address	A8NW (SE)	855	-	305943 207801
247	Contemporary Trade Directory Entries Name: Blade Environmental Location: 59, Brynhyfryd Street, Merthyr Tydfil, Mid Glamorgan, CF47 9YW Classification: Recycling Services Status: Inactive Positional Accuracy: Automatically positioned to the address	A8SW (SE)	865	-	305779 207579
248	Contemporary Trade Directory Entries Name: Formula Bathrooms Location: Unit 19, Pant Industrial Estate, Dowlais, Merthyr Tydfil, Mid Glamorgan, CF48 2SR Classification: Distribution Services Status: Active Positional Accuracy: Automatically positioned to the address	A16SW (NE)	868	-	306001 208823
249	Contemporary Trade Directory Entries Name: Greers Gas Location: 3, Hodges Street, Merthyr Tydfil, Mid Glamorgan, CF47 9NX Classification: Gas Suppliers Status: Inactive Positional Accuracy: Automatically positioned to the address	A8NW (SE)	872	-	305910 207722
250	Contemporary Trade Directory Entries Name: Balloon Artistry Location: Unit 3, Pant Industrial Estate, Dowlais, Merthyr Tydfil, Mid Glamorgan, CF48 2SR Classification: Rubber & Plastic Products - Manufacturers Status: Inactive Positional Accuracy: Automatically positioned to the address	A12NE (E)	880	-	306109 208618

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
250	Contemporary Trade Directory Entries Name: Neptune Frozen Produce Location: Unit 5, Pant Industrial Estate, Dowlais, Merthyr Tydfil, Mid Glamorgan, CF48 2SR Classification: Frozen Food Processors & Distributors Status: Inactive Positional Accuracy: Automatically positioned to the address	A12NE (E)	889	-	306118 208620
250	Contemporary Trade Directory Entries Name: Britannia Upvc Location: Unit 3, Pant Ind Est, Dowlais, Merthyr Tydfil, Mid Glamorgan, CF48 2SR Classification: Window Tinting Status: Inactive Positional Accuracy: Manually positioned to the address or location	A12NE (E)	906	-	306134 208626
250	Contemporary Trade Directory Entries Name: Knightsbridge Contractors Ltd Location: Unit 3, Pant Industrial Estate, Dowlais, Merthyr Tydfil, Mid Glamorgan, CF48 2SR Classification: Engineers - General Status: Inactive Positional Accuracy: Automatically positioned to the address	A12NE (E)	908	-	306135 208627
250	Contemporary Trade Directory Entries Name: Pant Transport Location: Unit 3, Pant Industrial Estate, Dowlais, Merthyr Tydfil, Mid Glamorgan, CF48 2SR Classification: Road Haulage Services Status: Inactive Positional Accuracy: Automatically positioned to the address	A12NE (E)	908	-	306135 208627
250	Contemporary Trade Directory Entries Name: Affordable Heat Pumps Location: Unit 4d, Pant Industrial Estate, Dowlais, Merthyr Tydfil, CF48 2SR Classification: Electricity Generating & Distributing Equipment Status: Inactive Positional Accuracy: Automatically positioned to the address	A12NE (E)	912	-	306149 208593
250	Contemporary Trade Directory Entries Name: Leadfab Fires & Flues Location: Unit 4, BT Buildings, Pant Industrial Estate, Dowlais, Merthyr Tydfil, Mid Glamorgan, CF48 2SR Classification: Fireplaces & Mantelpieces Status: Inactive Positional Accuracy: Automatically positioned to the address	A12NE (E)	912	-	306149 208593
250	Contemporary Trade Directory Entries Name: M R P Ornamental Ironcraft Location: Unit 4, BT Buildings, Pant Industrial Estate, Dowlais, Merthyr Tydfil, Mid Glamorgan, CF48 2SR Classification: Wrought Ironwork Status: Inactive Positional Accuracy: Manually positioned to the address or location	A16SE (E)	928	-	306154 208635
251	Contemporary Trade Directory Entries Name: Rokel Engineering Ltd Location: Unit 18, Pant Industrial Estate, Dowlais, MERTHYR TYDFIL, Mid Glamorgan, CF48 2SR Classification: Machine Shops Status: Active Positional Accuracy: Automatically positioned to the address	A16SW (NE)	905	-	306011 208876
252	Contemporary Trade Directory Entries Name: National Plastics Location: Unit 12, Valleys Enterprise Centre, Pant Industrial Estate, Dowlais, Merthyr Tydfil, Mid Glamorgan, CF48 2SR Classification: Cladding Suppliers & Installers Status: Active Positional Accuracy: Automatically positioned to the address	A16SE (E)	914	-	306132 208655
253	Contemporary Trade Directory Entries Name: Classic Blinds Location: Redlands, Brooklands Close, Merthyr Tydfil, Mid Glamorgan, CF47 8EJ Classification: Blinds, Awnings & Canopies Status: Inactive Positional Accuracy: Automatically positioned to the address	A2NE (S)	929	-	304929 207181
254	Contemporary Trade Directory Entries Name: Graft Heating Solutions Location: 6, Winifred Street, Dowlais, Merthyr Tydfil, Mid Glamorgan, CF48 3SD Classification: Boilers - Servicing, Replacements & Repairs Status: Active Positional Accuracy: Automatically positioned to the address	A12SE (E)	958	-	306217 208191

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
255	Contemporary Trade Directory Entries Name: Classical Fireplaces Location: Unit 7, BT Buildings, Pant Industrial Estate, Dowlais, Merthyr Tydfil, Mid Glamorgan, CF48 2SR Classification: Fireplaces & Mantelpieces Status: Inactive Positional Accuracy: Automatically positioned to the address	A16SE (E)	968	-	306183 208675
255	Contemporary Trade Directory Entries Name: Prosys Instrumentation Ltd Location: Unit 7, BT Buildings, Pant Industrial Estate, Dowlais, Merthyr Tydfil, Mid Glamorgan, CF48 2SR Classification: Electrical Engineers Status: Inactive Positional Accuracy: Automatically positioned to the address	A16SE (E)	968	-	306183 208675
255	Contemporary Trade Directory Entries Name: Merthyr & Gwent Location: Unit 11, Pant Ind Est, Dowlais, Merthyr Tydfil, Mid Glamorgan, CF48 2SR Classification: Fork Lift Trucks Status: Inactive Positional Accuracy: Manually positioned within the geographical locality	A16SE (E)	999	-	306214 208679
256	Contemporary Trade Directory Entries Name: Rhymney Brewery Ltd Location: Unit A2, Pant Industrial Estate, Dowlais, MERTHYR TYDFIL, Mid Glamorgan, CF48 2SR Classification: Brewers Status: Inactive Positional Accuracy: Automatically positioned to the address	A12NE (E)	977	-	306217 208591
256	Contemporary Trade Directory Entries Name: Forma Lingerie Ltd Location: A, 3, Pant Industrial Estate, Dowlais, Merthyr Tydfil, Mid Glamorgan, CF48 2SR Classification: Lingerie Manufacturers & Wholesalers Status: Inactive Positional Accuracy: Automatically positioned to the address	A12NE (E)	995	-	306238 208579
256	Contemporary Trade Directory Entries Name: Lift Parts Direct Location: Unit A3, Pant Industrial Estate, Dowlais, Merthyr Tydfil, CF48 2SR Classification: Fork Lift Trucks Status: Inactive Positional Accuracy: Automatically positioned to the address	A12NE (E)	996	-	306238 208584
257	Contemporary Trade Directory Entries Name: Trust Tyres Location: Unit 14, Pant Industrial Estate, Dowlais, Merthyr Tydfil, CF48 2SR Classification: Tyre Dealers Status: Inactive Positional Accuracy: Automatically positioned to the address	A16SE (E)	992	-	306166 208779
257	Contemporary Trade Directory Entries Name: G B Engineering Location: Unit 14, Pant Industrial Estate, Dowlais, Merthyr Tydfil, Mid Glamorgan, CF48 2SR Classification: Precision Engineers Status: Inactive Positional Accuracy: Automatically positioned to the address	A16SE (E)	992	-	306167 208780
257	Contemporary Trade Directory Entries Name: Pant Animal Feeds Ltd Location: Pant Industrial Estate, Dowlais, Merthyr Tydfil, Mid Glamorgan, CF48 2SR Classification: Pet Foods & Animal Feeds Status: Inactive Positional Accuracy: Automatically positioned to the address	A16SE (E)	992	-	306167 208780
257	Contemporary Trade Directory Entries Name: Pant Animal Feeds Location: Unit 14, Pant Industrial Estate, Dowlais, Merthyr Tydfil, Mid Glamorgan, CF48 2SR Classification: Pet Foods & Animal Feeds Status: Inactive Positional Accuracy: Automatically positioned to the address	A16SE (E)	992	-	306167 208780
257	Contemporary Trade Directory Entries Name: Pant Animal Feeds Location: Unit 14, Pant Industrial Estate, Dowlais, Merthyr Tydfil, Mid Glamorgan, CF48 2SR Classification: Pet Foods & Animal Feeds Status: Inactive Positional Accuracy: Automatically positioned to the address	A16SE (E)	992	-	306167 208780

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
258	Contemporary Trade Directory Entries Name: R L Minney Location: Flat 5, Pontsarn Flats, Pontsarn, Merthyr Tydfil, Mid Glamorgan, CF48 2TR Classification: Domestic Appliances - Servicing, Repairs & Parts Status: Inactive Positional Accuracy: Automatically positioned to the address	A18SE (N)	992	-	304717 209452
259	Contemporary Trade Directory Entries Name: Design & Supply Ltd Location: Unit 13, Pant Industrial Estate, Dowlais, Merthyr Tydfil, Mid Glamorgan, CF48 2SR Classification: Door Manufacturers - Industrial Status: Inactive Positional Accuracy: Automatically positioned to the address	A16SE (E)	999	-	306196 208730
260	Fuel Station Entries Name: Jack Matthews And Son Location: Merthyr Tydfil Industrial Estate, Dowlais, Merthyr Tydfil, Merthyr Tydfil, CF48 2SR Brand: Obsolete Premises Type: Not Applicable Status: Obsolete Positional Accuracy: Manually positioned to the address or location	A11NE (E)	399	-	305638 208508
261	Points of Interest - Commercial Services Name: Castle Auto Repairs Location: Pontsarn Road, Merthyr Tydfil, CF48 2TN Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A11NE (NE)	240	8	305415 208549
262	Points of Interest - Commercial Services Name: Haydn Lewis & Sons Location: 38 Galon Uchaf Road, Merthyr Tydfil, CF47 9TP Category: Transport, Storage and Delivery Class Code: Distribution and Haulage Positional Accuracy: Positioned to address or location	A11SE (SE)	240	8	305404 208101
263	Points of Interest - Commercial Services Name: S & P Mason Location: 52 Tenth Avenue, Merthyr Tydfil, CF47 9TE Category: Transport, Storage and Delivery Class Code: Distribution and Haulage Positional Accuracy: Positioned to address or location	A11SE (SE)	406	8	305529 207989
264	Points of Interest - Commercial Services Name: M & M Auto Repairs Location: Unit 4d, Pant Industrial Estate, Dowlais, Merthyr Tydfil, CF48 2SR Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A11NE (NE)	438	8	305632 208601
264	Points of Interest - Commercial Services Name: Dragon Engines & Engineering Location: Unit 33, Pant Industrial Estate, Dowlais, Merthyr Tydfil, CF48 2SR Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A11NE (NE)	444	8	305654 208578
264	Points of Interest - Commercial Services Name: Davis & Sons Motorbike Breakers Location: Unit 33, Pant Industrial Estate, Dowlais, Merthyr Tydfil, CF48 2SR Category: Recycling Services Class Code: Scrap Metal Merchants Positional Accuracy: Positioned to address or location	A11NE (NE)	444	8	305654 208578
264	Points of Interest - Commercial Services Name: Richards Garage Location: Unit 35, Pant Industrial Estate, Pant, Merthyr Tydfil, CF48 2SR Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A15SE (NE)	449	8	305616 208642
264	Points of Interest - Commercial Services Name: Paul Hughes Motor Vehicle Repairs Location: Unit 35, Pant Industrial Estate, Dowlais, Merthyr Tydfil, CF48 2SR Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A15SE (NE)	456	8	305618 208651

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
264	Points of Interest - Commercial Services Name: Paul Hughes Location: Pant Industrial Estate, Dowlais, Merthyr Tydfil, CF48 2SR Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A15SE (NE)	457	8	305619 208652
264	Points of Interest - Commercial Services Name: Paul Hughes Location: Pant Industrial Estate, Dowlais, Merthyr Tydfil, CF48 2SR Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A15SE (NE)	457	8	305619 208652
265	Points of Interest - Commercial Services Name: Logical Solutions (Wales) Ltd Location: Unit 31, Pant Industrial Estate, Dowlais, Merthyr Tydfil, CF48 2SR Category: Transport, Storage and Delivery Class Code: Distribution and Haulage Positional Accuracy: Positioned to address or location	A12NW (E)	543	8	305778 208547
265	Points of Interest - Commercial Services Name: Jack Matthews & Son Location: Pant Industrial Estate, Dowlais, Merthyr Tydfil, CF48 2SR Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A12NW (E)	600	8	305844 208525
265	Points of Interest - Commercial Services Name: A D M & Sons Location: Unit 30, Pant Industrial Estate, Pant, Merthyr Tydfil, CF48 2SR Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A12NW (E)	615	8	305850 208557
265	Points of Interest - Commercial Services Name: Williams R T Commercial Vehicles Location: Unit 30a, Pant Industrial Estate, Dowlais, Merthyr Tydfil, CF48 2SR Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A12NW (E)	616	8	305851 208558
266	Points of Interest - Commercial Services Name: Merthyr Tyres & Exhaust Services Ltd Location: Pant Industrial Estate, Dowlais, Merthyr Tydfil, CF48 2SR Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A12NW (E)	690	8	305930 208553
267	Points of Interest - Commercial Services Name: Formula Bathrooms Location: Unit 23, Pant Industrial Estate, Pant, Merthyr Tydfil, CF48 2SR Category: Transport, Storage and Delivery Class Code: Distribution and Haulage Positional Accuracy: Positioned to address or location	A16SW (E)	798	8	305986 208706
267	Points of Interest - Commercial Services Name: Jack Matthews & Son Location: Unit 1, Pant Industrial Estate, Dowlais, Merthyr Tydfil, CF48 2SR Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A16SW (E)	803	8	306018 208646
268	Points of Interest - Commercial Services Name: Blade Environmental Location: 59 Brynhyfryd Street, Merthyr Tydfil, CF47 9YW Category: Recycling Services Class Code: Recycling, Reclamation and Disposal Positional Accuracy: Positioned to address or location	A8SW (SE)	865	8	305779 207579
269	Points of Interest - Commercial Services Name: Lewis Motors Merthyr Ltd Location: Bearing Service Ltd, Pant Industrial Estate, Pant, Merthyr Tydfil, CF48 2SR Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A16SE (E)	867	8	306077 208670
269	Points of Interest - Commercial Services Name: Beypro Fabrication Location: Unit 4 Former 49-50, Pant Industrial Estate, Pant, Merthyr Tydfil, CF48 2SR Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A12NE (E)	892	8	306130 208588

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
269	Points of Interest - Commercial Services Name: Cynon Valley Soft Drink Location: Unit 3, Pant Industrial Estate, Dowlais, Merthyr Tydfil, CF48 2SR Category: Transport, Storage and Delivery Class Code: Distribution and Haulage Positional Accuracy: Positioned to address or location	A12NE (E)	908	8	306135 208627
269	Points of Interest - Commercial Services Name: Cynon Valley Soft Drink Location: Unit 3, Pant Industrial Estate, Dowlais, Merthyr Tydfil, CF48 2SR Category: Transport, Storage and Delivery Class Code: Distribution and Haulage Positional Accuracy: Positioned to address or location	A12NE (E)	908	8	306135 208627
269	Points of Interest - Commercial Services Name: M & M Auto Repairs Location: Unit 4d, Pant Industrial Estate, Dowlais, Merthyr Tydfil, CF48 2SR Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A12NE (E)	912	8	306149 208593
269	Points of Interest - Commercial Services Name: M R P Ornamental Ironcraft Location: Unit 4 BT Buildings, Pant Industrial Estate, Dowlais, Merthyr Tydfil, CF48 2SR Category: Construction Services Class Code: Metalworkers Including Blacksmiths Positional Accuracy: Positioned to address or location	A16SE (E)	928	8	306154 208635
270	Points of Interest - Commercial Services Name: Lj's Auto Body Shop Merthyr Tydfil Location: Unit 19, Pant Industrial Estate, Dowlais, Merthyr Tydfil, CF48 2SR Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A16SW (NE)	868	8	306001 208823
271	Points of Interest - Commercial Services Name: Pant Transport Andrew Harris Location: 3A Pant Industrial Estate, Dowlais, Merthyr Tydfil, CF48 2SR Category: Transport, Storage and Delivery Class Code: Distribution and Haulage Positional Accuracy: Positioned to address or location	A12NE (E)	995	8	306238 208579
272	Points of Interest - Commercial Services Name: Treads Tyre & Exhaust M O T Centre Location: Unit 11 Valleys Enterprise Centre, Pant Industrial Estate, Pant, Merthyr Tydfil, CF48 2SR Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A16SE (E)	997	8	306212 208679
273	Points of Interest - Education and Health Name: Prince Charles Hospital Location: Prince Charles Hospital, Merthyr Tydfil, CF47 9DT Category: Health Practitioners and Establishments Class Code: Hospitals Positional Accuracy: Positioned to address or location	A10SW (W)	343	8	304481 208161
273	Points of Interest - Education and Health Name: Prince Charles Hospital Location: Prince Charles Hospital, Merthyr Tydfil, CF47 9DT Category: Health Practitioners and Establishments Class Code: Accident & Emergency Department Positional Accuracy: Positioned to address or location	A10SW (W)	343	8	304481 208161
273	Points of Interest - Education and Health Name: Prince Charles Hospital Location: Prince Charles Hospital, Merthyr Tydfil, CF47 9DT Category: Health Practitioners and Establishments Class Code: Accident & Emergency Department Positional Accuracy: Positioned to address or location	A10SW (W)	343	8	304481 208161
273	Points of Interest - Education and Health Name: Prince Charles Hospital Location: Prince Charles Hospital, Merthyr Tydfil, CF47 9DT Category: Health Practitioners and Establishments Class Code: Hospitals Positional Accuracy: Positioned to address or location	A10SW (W)	343	8	304481 208161
273	Points of Interest - Education and Health Name: Prince Charles Hospital Location: Prince Charles Hospital, Gurnos Road, Gurnos, Merthyr Tydfil, CF47 9DT Category: Health Practitioners and Establishments Class Code: Hospitals Positional Accuracy: Positioned to address or location	A10SW (W)	347	8	304465 208186

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
273	Points of Interest - Education and Health Name: Prince Charles Hospital Location: Prince Charles Hospital, Merthyr Tydfil, CF47 9DT Category: Health Practitioners and Establishments Class Code: Accident & Emergency Department Positional Accuracy: Positioned to address or location	A10SW (W)	362	8	304438 208211
274	Points of Interest - Manufacturing and Production Name: Tank Location: CF47 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to an adjacent address or location	A10SW (W)	258	8	304530 208262
274	Points of Interest - Manufacturing and Production Name: Tank Location: CF47 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to an adjacent address or location	A10SW (W)	261	8	304529 208255
274	Points of Interest - Manufacturing and Production Name: Tank Location: CF47 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to an adjacent address or location	A10SW (W)	267	8	304523 208255
275	Points of Interest - Manufacturing and Production Name: Gurnos Farm Location: Merthyr Tydfil, CF48 2SH Category: Farming Class Code: Livestock Farming Positional Accuracy: Positioned to address or location	A9NE (NW)	497	8	304336 208614
276	Points of Interest - Manufacturing and Production Name: Industrial Estate Location: CF48 Category: Industrial Features Class Code: Business Parks and Industrial Estates Positional Accuracy: Positioned to an adjacent address or location	A16SW (NE)	590	8	305762 208681
276	Points of Interest - Manufacturing and Production Name: Industrial Estate Location: CF48 Category: Industrial Features Class Code: Business Parks and Industrial Estates Positional Accuracy: Positioned to an adjacent address or location	A16SW (NE)	620	8	305796 208683
277	Points of Interest - Manufacturing and Production Name: Shaft Location: CF48 Category: Extractive Industries Class Code: Unspecified Quarries Or Mines Positional Accuracy: Positioned to address or location	A15NW (N)	790	8	305080 209273
277	Points of Interest - Manufacturing and Production Name: Shaft Location: CF48 Category: Extractive Industries Class Code: Unspecified Quarries Or Mines Positional Accuracy: Positioned to an adjacent address or location	A15NW (N)	794	8	305080 209277
278	Points of Interest - Manufacturing and Production Name: Bryniau Quarries (Disused) Location: CF48 Category: Extractive Industries Class Code: Unspecified Quarries Or Mines Positional Accuracy: Positioned to an adjacent address or location	A15NE (NE)	852	8	305663 209114
278	Points of Interest - Manufacturing and Production Name: Bryniau Quarries (Disused) Location: CF48 Category: Extractive Industries Class Code: Unspecified Quarries Or Mines Positional Accuracy: Positioned to an adjacent address or location	A15NE (NE)	855	8	305662 209118
279	Points of Interest - Manufacturing and Production Name: Castle Quarries (Disused) Location: CF48 Category: Extractive Industries Class Code: Unspecified Quarries Or Mines Positional Accuracy: Positioned to an adjacent address or location	A19SW (N)	874	8	305042 209362

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
280	Points of Interest - Manufacturing and Production Name: Blandford M Geological Services Coal Consultant Geologist Location: Heddfan 5, Pontsarn Close, Pontsarn, Merthyr Tydfil, CF48 2TW Category: Extractive Industries Class Code: Coal Mining Positional Accuracy: Positioned to address or location	A18SE (N)	915	8	304746 209380
281	Points of Interest - Manufacturing and Production Name: Morlais Castle Quarries (Disused) Location: CF48 Category: Extractive Industries Class Code: Unspecified Quarries Or Mines Positional Accuracy: Positioned to address or location	A18SE (N)	925	8	304901 209414
281	Points of Interest - Manufacturing and Production Name: Morlais Castle Quarries (Disused) Location: CF48 Category: Extractive Industries Class Code: Unspecified Quarries Or Mines Positional Accuracy: Positioned to an adjacent address or location	A18SE (N)	928	8	304940 209419
282	Points of Interest - Manufacturing and Production Name: Tank Location: CF48 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to an adjacent address or location	A16SE (E)	987	8	306176 208746
283	Points of Interest - Public Infrastructure Name: Gurnos Police Station Location: Police Station, Gurnos, Merthyr Tydfil, CF47 9ED Category: Central and Local Government Class Code: Police Stations Positional Accuracy: Positioned to address or location	A10NW (W)	424	8	304378 208535
284	Points of Interest - Public Infrastructure Name: Weir Location: CF47 Category: Water Class Code: Weirs, Sluices and Dams Positional Accuracy: Positioned to an adjacent address or location	A7NW (S)	441	8	305071 207663
284	Points of Interest - Public Infrastructure Name: Weir Location: CF47 Category: Water Class Code: Weirs, Sluices and Dams Positional Accuracy: Positioned to an adjacent address or location	A7NW (S)	442	8	305068 207662
285	Points of Interest - Public Infrastructure Name: Outfall Location: CF48 Category: Infrastructure and Facilities Class Code: Waste Storage, Processing and Disposal Positional Accuracy: Positioned to an adjacent address or location	A13SW (W)	896	8	303952 208739
285	Points of Interest - Public Infrastructure Name: Outfall Location: CF48 Category: Infrastructure and Facilities Class Code: Waste Storage, Processing and Disposal Positional Accuracy: Positioned to an adjacent address or location	A13SW (W)	899	8	303947 208735
286	Points of Interest - Recreational and Environmental Name: Play Area Location: CF47 Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to an adjacent address or location	A11SW (S)	0	8	305048 208116
287	Points of Interest - Recreational and Environmental Name: Play Area Location: CF47 Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to an adjacent address or location	A10NW (W)	208	8	304568 208312
287	Points of Interest - Recreational and Environmental Name: Play Area Location: CF47 Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to an adjacent address or location	A10NW (W)	262	8	304511 208322

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
288	Points of Interest - Recreational and Environmental Name: Playground Location: Second Avenue, CF47 Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to an adjacent address or location	A7NW (SE)	273	8	305312 207947
288	Points of Interest - Recreational and Environmental Name: Playground Location: Not Supplied Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to an adjacent address or location	A7NW (SE)	279	8	305321 207948
289	Points of Interest - Recreational and Environmental Name: Playground Location: Cherry Grove, CF47 Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to address or location	A7NW (S)	282	8	305097 207827
289	Points of Interest - Recreational and Environmental Name: Playground Location: Not Supplied Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to an adjacent address or location	A7NW (S)	294	8	305110 207817
290	Points of Interest - Recreational and Environmental Name: Playground Location: Galon Uchaf Road, CF47 Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to address or location	A7NE (SE)	418	8	305382 207815
291	Points of Interest - Recreational and Environmental Name: Playground Location: Not Supplied Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to an adjacent address or location	A9SE (W)	602	8	304187 208211
292	Points of Interest - Recreational and Environmental Name: Playground Location: Honeysuckle Close, CF47 Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to address or location	A9SE (W)	709	8	304140 208025
293	Points of Interest - Recreational and Environmental Name: Playground Location: Not Supplied Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to an adjacent address or location	A6SW (SW)	715	8	304637 207515
293	Points of Interest - Recreational and Environmental Name: Playground Location: Cedar Way, CF47 Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to address or location	A6SW (SW)	715	8	304636 207516
294	Points of Interest - Recreational and Environmental Name: Playground Location: Gwaunfarren Close, CF47 Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to address or location	A7SE (SE)	748	8	305566 207540
294	Points of Interest - Recreational and Environmental Name: Playground Location: Not Supplied Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to an adjacent address or location	A7SE (SE)	749	8	305569 207541
295	Points of Interest - Recreational and Environmental Name: Playground Location: Not Supplied Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to an adjacent address or location	A12SW (E)	749	8	305935 207989

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
295	Points of Interest - Recreational and Environmental Name: Playground Location: Nr Haydn Terrace, CF47 Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to address or location	A12SW (E)	752	8	305933 207979
296	Points of Interest - Recreational and Environmental Name: Playground Location: Balaclava Road, CF48 Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to an adjacent address or location	A12SE (E)	927	8	306145 208029
296	Points of Interest - Recreational and Environmental Name: Playground Location: Not Supplied Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to an adjacent address or location	A12SE (E)	934	8	306153 208029
296	Points of Interest - Recreational and Environmental Name: Playground Location: CF48 Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to an adjacent address or location	A12SE (E)	941	8	306148 207995
296	Points of Interest - Recreational and Environmental Name: Playground Location: Not Supplied Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to an adjacent address or location	A12SE (E)	947	8	306155 207996
297	Points of Interest - Recreational and Environmental Name: Playground Location: Tylwyd Street, CF47 Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to an adjacent address or location	A7SE (SE)	966	8	305583 207291
297	Points of Interest - Recreational and Environmental Name: Playground Location: Not Supplied Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to an adjacent address or location	A7SE (SE)	969	8	305591 207292
298	Gas Pipelines Name: DOWLAIS TO DYFFRYN CLYDACH Nat Grid: Owned By National Grid Diameter (mm): 600 Building Proximity: Not Supplied Distance (m): Status: Active Pipe Length (m): 42162.27 Pipe Number: Not Supplied	A15NW (N)	549	9	305096 209034

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
299	Ancient Woodland Name: Not Supplied Reference: 12372 Area(m²): 27103.72 Type: Ancient and Semi-Natural Woodland	A14SE (NW)	290	2	304734 208669
300	Ancient Woodland Name: Not Supplied Reference: 12365 Area(m²): 8854.39 Type: Ancient and Semi-Natural Woodland	A6NW (SW)	557	2	304563 207790
301	Ancient Woodland Name: Not Supplied Reference: 21423 Area(m²): 7658.12 Type: Restored Ancient Woodland Site	A9NE (W)	643	2	304127 208408
302	Ancient Woodland Name: Not Supplied Reference: 50254 Area(m²): 42173.49 Type: Ancient Woodland Site of Unknown Category	A13SE (W)	781	2	304052 208682
303	Ancient Woodland Name: Not Supplied Reference: 21419 Area(m²): 137845.16 Type: Restored Ancient Woodland Site	A5NE (SW)	815	2	304293 207661
304	Ancient Woodland Name: Not Supplied Reference: 10350 Area(m²): 101785.2 Type: Restored Ancient Woodland Site	A13SE (NW)	831	2	304021 208732
305	Ancient Woodland Name: Not Supplied Reference: 14086 Area(m²): 216568.9 Type: Ancient and Semi-Natural Woodland	A18SE (N)	927	2	304761 209396
306	Ancient Woodland Name: Not Supplied Reference: 7353 Area(m²): 11965.44 Type: Ancient and Semi-Natural Woodland	A13SW (NW)	973	2	303898 208806
307	Ancient Woodland Name: Not Supplied Reference: 21420 Area(m²): 20552.54 Type: Restored Ancient Woodland Site	A5NW (W)	995	2	303865 207939
308	Local Nature Reserves Name: Cwm Taf Fechan Woodlands Multiple Area: N Area (m2): 413248.27 Source: Merthyr Tydfil County Borough Council Designation Date: 31st December 1975	A9NE (W)	682	10	304132 208612
309	Sites of Special Scientific Interest Name: Cwm Taf Fechan Woodlands Multiple Areas: Y Total Area (m2): 641319.9 Source: Natural Resources Wales Reference: 40433wmc Designation Details: Biological Designation Date: 1st January 1972 Date Type: Notified	A9NE (W)	682	2	304132 208612

Agency & Hydrological	Version	Update Cycle
Contaminated Land Register Entries and Notices Natural Resources Wales Powys County Council - Public Protection Department Rhondda Cynon Taff County Borough Council - Environmental Services Caerphilly County Borough Council - Environmental Health Department Merthyr Tydfil County Borough Council - Environmental Health Department	June 2020 October 2017 October 2017 September 2017 September 2017	Annually Annual Rolling Update Annual Rolling Update Annual Rolling Update Annual Rolling Update
Discharge Consents Environment Agency - Welsh Region Natural Resources Wales	August 2014 October 2022	Quarterly Quarterly
Enforcement and Prohibition Notices Environment Agency - Welsh Region	March 2013	
Integrated Pollution Controls Environment Agency - Welsh Region	January 2009	
Integrated Pollution Prevention And Control Environment Agency - Welsh Region Natural Resources Wales	January 2021 January 2023	Quarterly Quarterly
Local Authority Integrated Pollution Prevention And Control Powys County Council - Public Protection Department Caerphilly County Borough Council - Environmental Health Department Rhondda Cynon Taff County Borough Council - Public Health and Protection Division Merthyr Tydfil County Borough Council - Environmental Health Department	May 2014 September 2014 September 2014 September 2016	Variable Variable Variable Variable
Local Authority Pollution Prevention and Controls Powys County Council - Public Protection Department Rhondda Cynon Taff County Borough Council - Public Health and Protection Division Caerphilly County Borough Council - Environmental Health Department Merthyr Tydfil County Borough Council - Environmental Health Department	May 2014 September 2014 September 2014 September 2016	Annual Rolling Update Annual Rolling Update Not Applicable Annual Rolling Update
Local Authority Pollution Prevention and Control Enforcements Powys County Council - Public Protection Department Caerphilly County Borough Council - Environmental Health Department Rhondda Cynon Taff County Borough Council - Public Health and Protection Division Merthyr Tydfil County Borough Council - Environmental Health Department	May 2014 September 2014 September 2014 September 2016	Variable Variable Variable Variable
Nearest Surface Water Feature Ordnance Survey	March 2023	
Pollution Incidents to Controlled Waters Environment Agency - Welsh Region	December 1998	
Prosecutions Relating to Authorised Processes Environment Agency - Welsh Region Natural Resources Wales	July 2015 July 2015	
Prosecutions Relating to Controlled Waters Environment Agency - Welsh Region Natural Resources Wales	March 2013 March 2013	
Registered Radioactive Substances Natural Resources Wales Environment Agency - Welsh Region	January 2015 June 2016	As notified
River Quality Environment Agency - Head Office	November 2001	Not Applicable
Substantiated Pollution Incident Register Environment Agency Wales - South East Area Natural Resources Wales	January 2021 January 2023	Quarterly Quarterly
Water Abstractions Environment Agency - Welsh Region Natural Resources Wales	April 2023 January 2023	Quarterly Quarterly

Agency & Hydrological	Version	Update Cycle
Water Industry Act Referrals Environment Agency - Welsh Region Natural Resources Wales	October 2017 October 2022	
Groundwater Vulnerability Map Natural Resources Wales	June 2018	As notified
Bedrock Aquifer Designations Natural Resources Wales	January 2018	Annually
Superficial Aquifer Designations Natural Resources Wales	January 2018	Annually
Source Protection Zones Natural Resources Wales	July 2022	Annual Rolling Update
Extreme Flooding from Rivers or Sea without Defences Natural Resources Wales	September 2020	
Flooding from Rivers or Sea without Defences Natural Resources Wales	September 2020	
Areas Benefiting from Flood Defences Natural Resources Wales	November 2019	Quarterly
Flood Water Storage Areas Natural Resources Wales	August 2019	Quarterly
Flood Defences Natural Resources Wales	November 2019	Quarterly
OS Water Network Lines Ordnance Survey	January 2023	Quarterly
Surface Water 1 in 30 year Flood Extent Natural Resources Wales	May 2018	Annually
Surface Water 1 in 100 year Flood Extent Natural Resources Wales	May 2018	Annually
Surface Water 1 in 1000 year Flood Extent Natural Resources Wales	May 2018	Annually
Surface Water Suitability Natural Resources Wales	February 2016	Annually
BGS Groundwater Flooding Susceptibility British Geological Survey - National Geoscience Information Service	May 2013	As notified

Waste	Version	Update Cycle
BGS Recorded Landfill Sites British Geological Survey - National Geoscience Information Service	November 2002	As notified
Historical Landfill Sites Natural Resources Wales	March 2023	As notified
Integrated Pollution Control Registered Waste Sites Environment Agency - Welsh Region	January 2009	Not Applicable
Licensed Waste Management Facilities (Landfill Boundaries) Environment Agency Wales - South East Area Natural Resources Wales	January 2023 October 2021	Quarterly Quarterly
Licensed Waste Management Facilities (Locations) Natural Resources Wales Environment Agency Wales - South East Area	January 2023 July 2021	Quarterly Quarterly
Local Authority Landfill Coverage Caerphilly County Borough Council - Environmental Health Department Merthyr Tydfil County Borough Council - Environmental Health Department Powys County Council Rhondda Cynon Taff County Borough Council	February 2003 February 2003 February 2003 February 2003	Not Applicable Not Applicable Not Applicable Not Applicable
Local Authority Recorded Landfill Sites Caerphilly County Borough Council - Environmental Health Department Merthyr Tydfil County Borough Council - Environmental Health Department Powys County Council Rhondda Cynon Taff County Borough Council	October 2018 October 2018 October 2018 October 2018	
Potentially Infilled Land (Non-Water) Landmark Information Group Limited	December 1999	
Potentially Infilled Land (Water) Landmark Information Group Limited	December 1999	
Registered Landfill Sites Environment Agency Wales - South East Area	March 2006	Not Applicable
Registered Waste Transfer Sites Environment Agency Wales - South East Area	April 2018	
Registered Waste Treatment or Disposal Sites Environment Agency Wales - South East Area	June 2015	
Hazardous Substances	Version	Update Cycle
Control of Major Accident Hazards Sites (COMAH) Health and Safety Executive	March 2023	Bi-Annually
Explosive Sites Health and Safety Executive	March 2017	Annually
Notification of Installations Handling Hazardous Substances (NIHHS) Health and Safety Executive	August 2001	
Planning Hazardous Substance Enforcements Brecon Beacons National Park Powys County Council - Planning Department Rhondda Cynon Taff County Borough Council - Planning Department Caerphilly County Borough Council - Planning Department Merthyr Tydfil County Borough Council - Planning Department	August 2008 February 2016 February 2016 January 2023 January 2023	Annual Rolling Update Variable Variable Variable Variable
Planning Hazardous Substance Consents Brecon Beacons National Park Powys County Council - Planning Department Rhondda Cynon Taff County Borough Council - Planning Department Caerphilly County Borough Council - Planning Department Merthyr Tydfil County Borough Council - Planning Department	August 2008 February 2016 February 2016 January 2023 January 2023	Annual Rolling Update Variable Variable Variable Variable

Geological	Version	Update Cycle
BGS 1:625,000 Solid Geology British Geological Survey - National Geoscience Information Service	January 2009	As notified
BGS Estimated Soil Chemistry British Geological Survey - National Geoscience Information Service	December 2015	As notified
BGS Recorded Mineral Sites British Geological Survey - National Geoscience Information Service	November 2022	Bi-Annually
CBSCB Compensation District Cheshire Brine Subsidence Compensation Board (CBSCB) Cheshire Brine Subsidence Compensation Board (CBSCB)	August 2011 November 2020	As notified
Coal Mining Affected Areas The Coal Authority - Property Searches	February 2023	Annual Rolling Update
Mining Instability Ove Arup & Partners	June 1998	Not Applicable
Non Coal Mining Areas of Great Britain British Geological Survey - National Geoscience Information Service	May 2015	Not Applicable
Potential for Collapsible Ground Stability Hazards British Geological Survey - National Geoscience Information Service	April 2020	As notified
Potential for Compressible Ground Stability Hazards British Geological Survey - National Geoscience Information Service	January 2019	As notified
Potential for Ground Dissolution Stability Hazards British Geological Survey - National Geoscience Information Service	January 2019	As notified
Potential for Landslide Ground Stability Hazards British Geological Survey - National Geoscience Information Service	January 2019	As notified
Potential for Running Sand Ground Stability Hazards British Geological Survey - National Geoscience Information Service	January 2019	As notified
Potential for Shrinking or Swelling Clay Ground Stability Hazards British Geological Survey - National Geoscience Information Service	January 2019	As notified
Radon Potential - Radon Affected Areas British Geological Survey - National Geoscience Information Service	September 2022	Annually
Radon Potential - Radon Protection Measures British Geological Survey - National Geoscience Information Service	September 2022	Annually

Industrial Land Use	Version	Update Cycle
Contemporary Trade Directory Entries Thomson Directories	January 2023	Quarterly
Fuel Station Entries Catalist Ltd - Experian	February 2023	Quarterly
Gas Pipelines National Grid	October 2021	Bi-Annually
Points of Interest - Commercial Services PointX	March 2023	Quarterly
Points of Interest - Education and Health PointX	March 2023	Quarterly
Points of Interest - Manufacturing and Production PointX	March 2023	Quarterly
Points of Interest - Public Infrastructure PointX	March 2023	Quarterly
Points of Interest - Recreational and Environmental PointX	March 2023	Quarterly
Underground Electrical Cables National Grid	February 2023	Bi-Annually

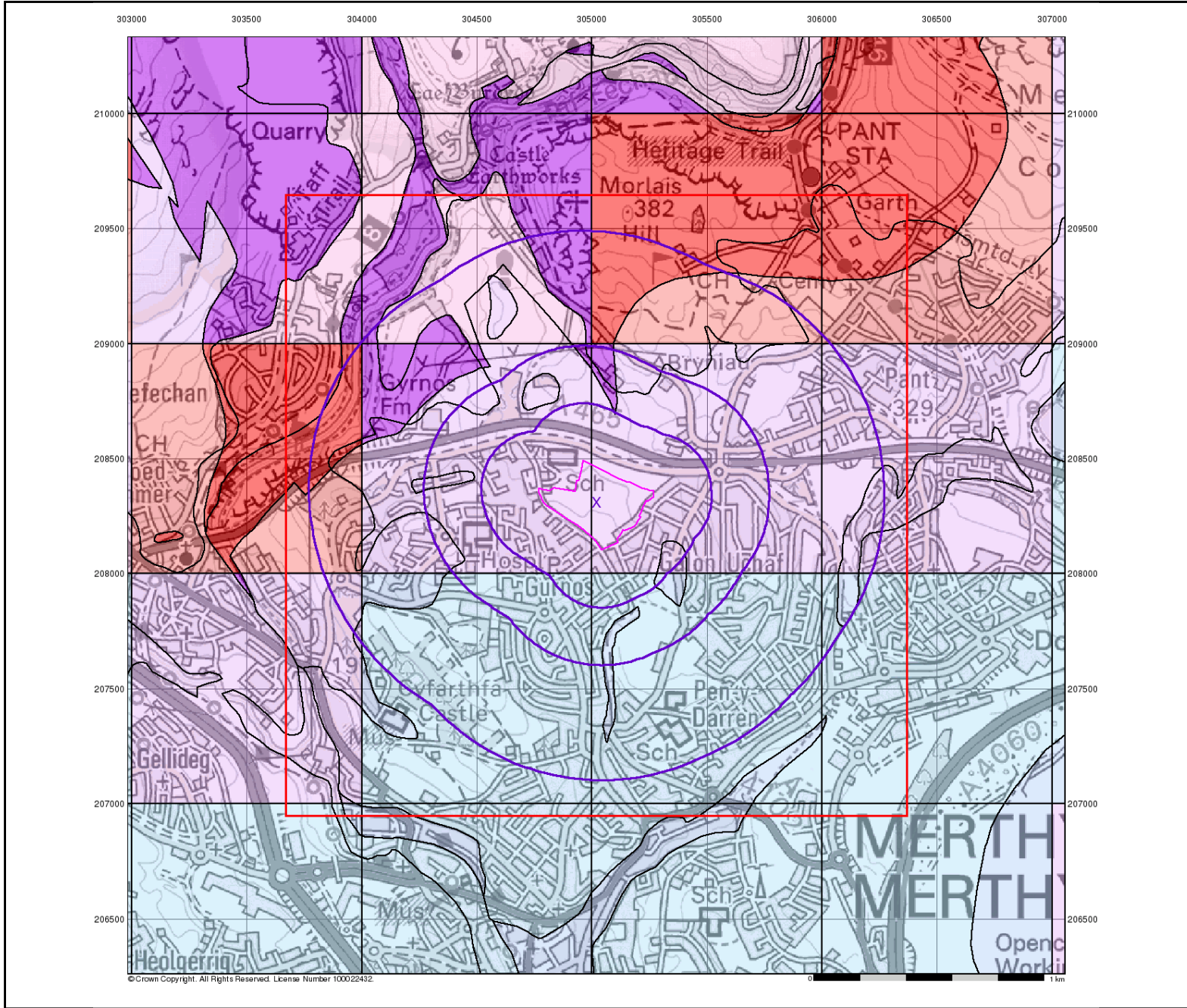
Sensitive Land Use	Version	Update Cycle
Ancient Woodland Natural Resources Wales	September 2018	Bi-Annually
Areas of Adopted Green Belt Brecon Beacons National Park Caerphilly County Borough Council Merthyr Tydfil County Borough Council Powys County Council Rhondda Cynon Taff County Borough Council	July 2022 July 2022 July 2022 July 2022 July 2022	Quarterly Quarterly Quarterly Quarterly Quarterly
Areas of Unadopted Green Belt Brecon Beacons National Park Caerphilly County Borough Council Merthyr Tydfil County Borough Council Powys County Council Rhondda Cynon Taff County Borough Council	July 2022 July 2022 July 2022 July 2022 July 2022	Quarterly Quarterly Quarterly Quarterly Quarterly
Areas of Outstanding Natural Beauty Natural Resources Wales	August 2022	Bi-Annually
Environmentally Sensitive Areas The National Assembly for Wales - GI Services (Department of Planning & Countryside)	January 2017	
Forest Parks Forestry Commission	April 1997	Not Applicable
Local Nature Reserves Caerphilly County Borough Council Merthyr Tydfil County Borough Council Powys County Council Rhondda Cynon Taff County Borough Council	March 2023 March 2023 March 2023 March 2023	Bi-Annually Bi-Annually Bi-Annually Bi-Annually
Marine Nature Reserves Natural Resources Wales	August 2018	Bi-Annually
National Nature Reserves Natural Resources Wales	February 2023	Bi-Annually
National Parks Natural Resources Wales	February 2018	Annually
Nitrate Vulnerable Zones The National Assembly for Wales - GI Services (Department of Planning & Countryside) Natural Resources Wales	April 2016 March 2023	Bi-Annually
Ramsar Sites Natural Resources Wales	March 2023	Bi-Annually
Sites of Special Scientific Interest Natural Resources Wales	March 2023	Bi-Annually
Special Areas of Conservation Natural Resources Wales	April 2023	Bi-Annually
Special Protection Areas Natural Resources Wales	April 2023	Bi-Annually

A selection of organisations who provide data within this report

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

Contact	Name and Address	Contact Details
1	British Geological Survey - Enquiry Service British Geological Survey, Environmental Science Centre, Keyworth, Nottingham, Nottinghamshire, NG12 5GG	Telephone: 0115 936 3143 Fax: 0115 936 3276 Email: enquiries@bgs.ac.uk Website: www.bgs.ac.uk
2	Natural Resources Wales Ty Cambria, 29 Newport Road, Cardiff, CF24 0TP	Telephone: 0300 065 3000 Email: enquiries@naturalresourceswales.gov.uk
3	Merthyr Tydfil County Borough Council - Environmental Health Department Civic Centre, Castle Street, Merthyr Tydfil, Mid Glamorgan, CF47 8AN	Telephone: 01685 725000 Fax: 01685 725024 Website: www.merthyr.gov.uk
4	Environment Agency - National Customer Contact Centre (NCCC) PO Box 544, Templeborough, Rotherham, S60 1BY	Telephone: 03708 506 506 Email: enquiries@environment-agency.gov.uk
5	Ordnance Survey Adanac Drive, Southampton, Hampshire, SO16 0AS	Telephone: 03456 05 05 05 Email: customerservices@ordnancesurvey.co.uk Website: www.ordnancesurvey.gov.uk
6	The Coal Authority - Property Searches 200 Lichfield Lane, Mansfield, Nottinghamshire, NG18 4RG	Telephone: 0345 762 6848 Fax: 01623 637 338 Email: groundstability@coal.gov.uk Website: www2.groundstability.com
7	Stantec UK Ltd Caversham Bridge House, Waterman Place, Reading, RG1 8DN	Telephone: 0118 950 0761 Email: pba.reading@stantec.com Website: www.stantec.com
8	PointX 7 Abbey Court, Eagle Way, Sowton, Exeter, Devon, EX2 7HY	Website: www.pointx.co.uk
9	Landmark Information Group Limited Imperium, Imperial Way, Reading, Berkshire, RG2 0TD	Telephone: 0844 844 9966 Fax: 0844 844 9951 Email: helpdesk@landmark.co.uk Website: www.landmark.co.uk
10	Merthyr Tydfil County Borough Council Civic Centre, Castle Street, Merthyr Tydfil, Mid Glamorgan, CF47 8AN	Telephone: 01685 725000 Fax: 01685 722146 Website: www.merthyr.gov.uk
-	Public Health England - Radon Survey, Centre for Radiation, Chemical and Environmental Hazards Chilton, Didcot, Oxfordshire, OX11 0RQ	Telephone: 01235 822622 Fax: 01235 833891 Email: radon@phe.gov.uk Website: www.ukradon.org
-	Landmark Information Group Limited Imperium, Imperial Way, Reading, Berkshire, RG2 0TD	Telephone: 0844 844 9952 Fax: 0844 844 9951 Email: customerservices@landmarkinfo.co.uk Website: www.landmarkinfo.co.uk

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



Intégral Géotechnique

Groundwater Vulnerability

General

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

Agency and Hydrological

Bedrock Aquifers

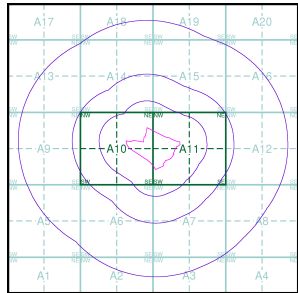
- High Vulnerability, Principal Aquifer
- High Vulnerability, Secondary Aquifer
- Medium Vulnerability, Principal Aquifer
- Medium Vulnerability, Secondary Aquifer
- Low Vulnerability, Principal Aquifer
- Low Vulnerability, Secondary Aquifer

Superficial Aquifers

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

- Unproductive Aquifer
- Soluble Rock

Site Sensitivity Context Map - Slice A



Order Details

Order Number: 310553660_1_1
Customer Ref: 14209/LP
National Grid Reference: 305020, 208310
Slice: A
Site Area (Ha): 9.34
Search Buffer (m): 1000

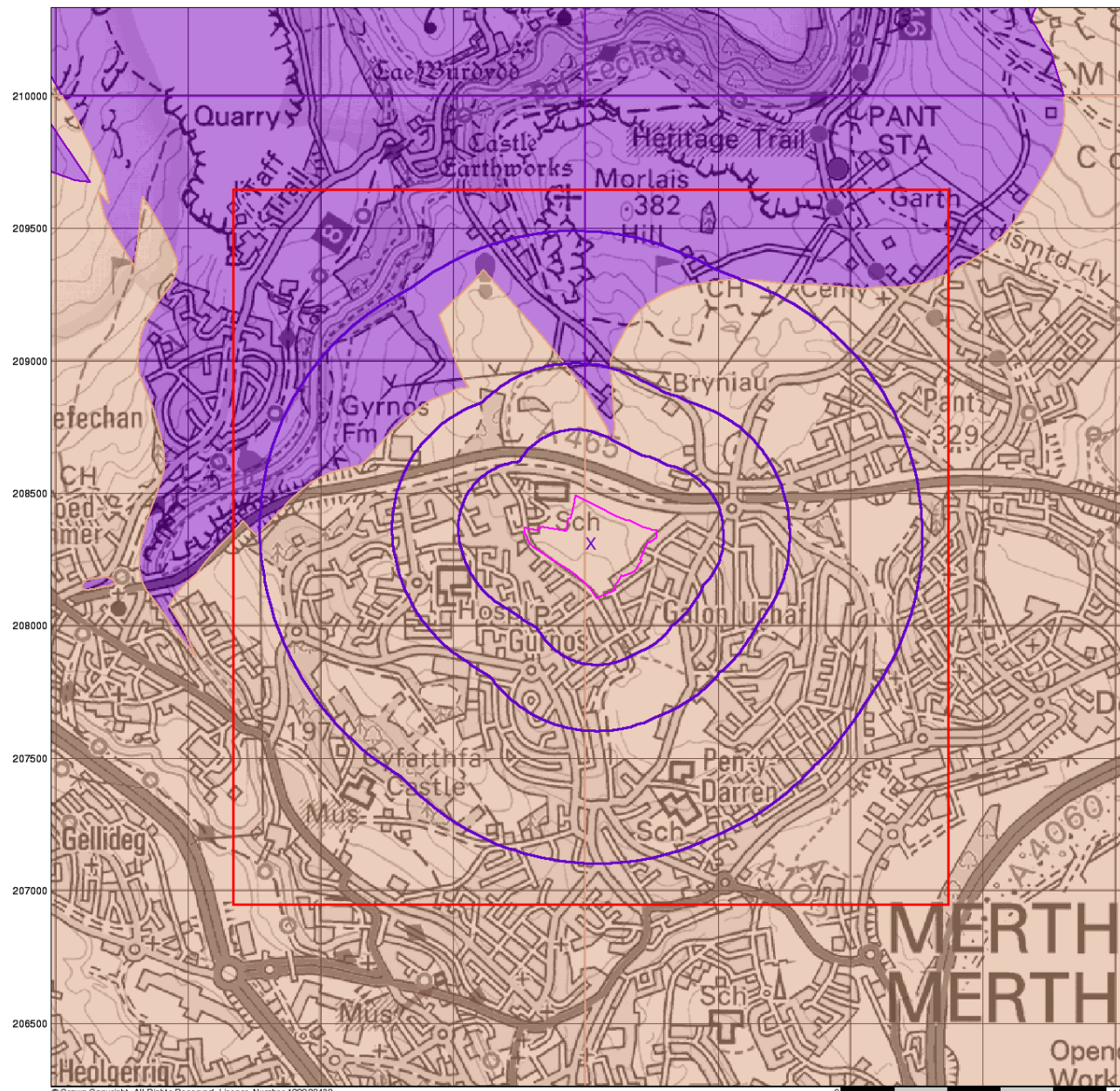
Site Details

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303000 303500 304000 304500 305000 305500 306000 306500 307000



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0 1 km

Intégral Géotechnique

Bedrock Aquifer Designation

General

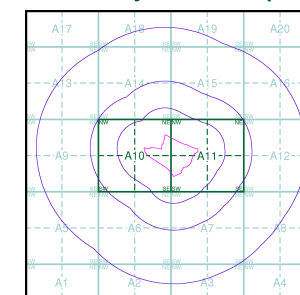
- Specified Site
- Specified Buffer(s)
- Slice
- Bearing Reference Point
- Map ID

Agency and Hydrological

Geological Classes

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

Site Sensitivity Context Map - Slice A



Order Details

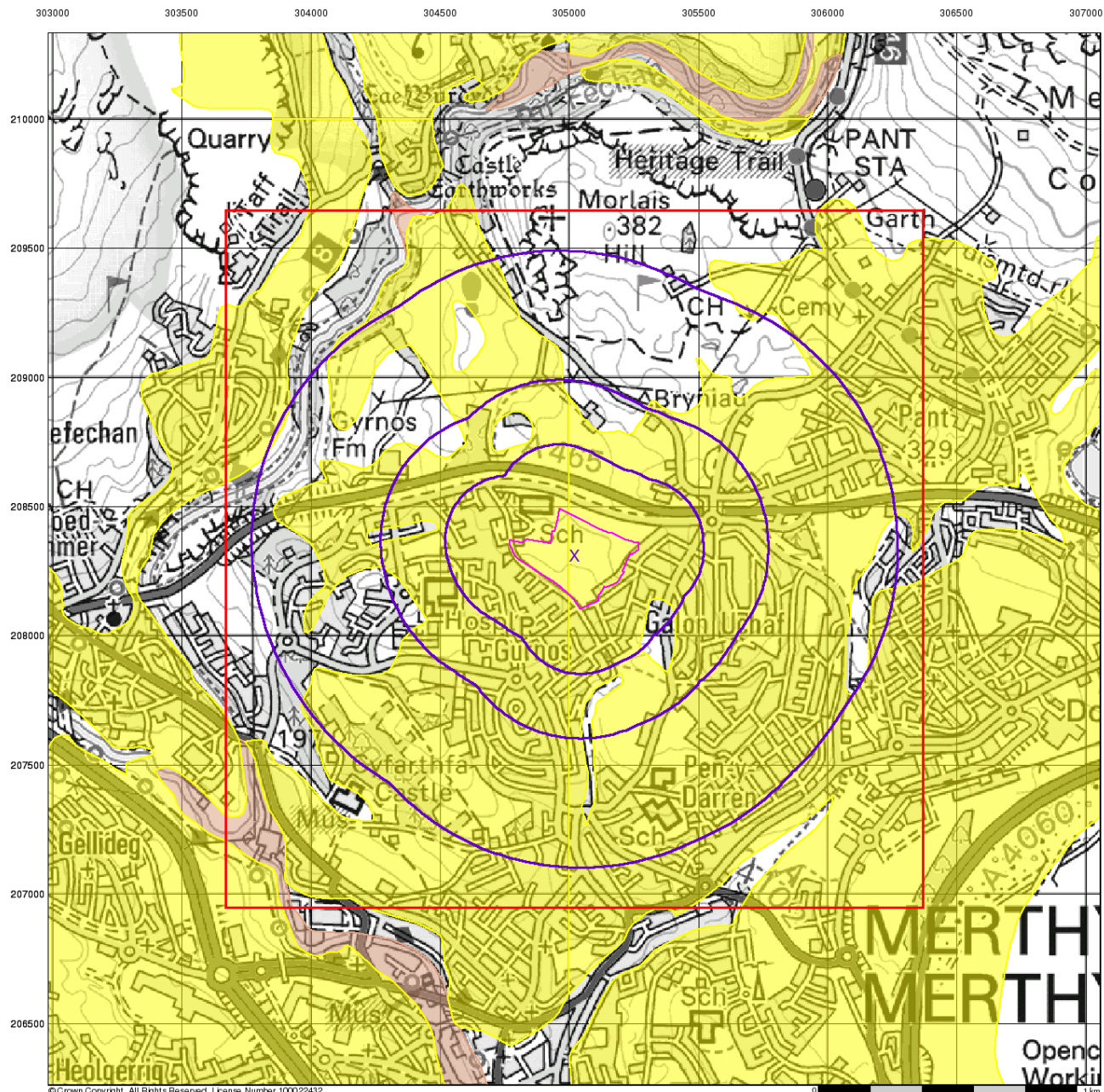
Order Number: 310553660_1_1
Customer Ref: 14209/LP
National Grid Reference: 305020, 208310
Slice: A
Site Area (Ha): 9.34
Search Buffer (m): 1000

Site Details

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0

1 km

Intégral Géotechnique

Superficial Aquifer Designation

General

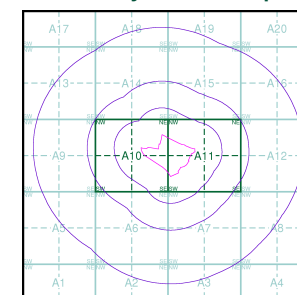
- ◊ Specified Site
- Specified Buffer(s)
- X Bearing Reference Point
- Slice
- B Map ID

Agency and Hydrological

Geological Classes

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

Site Sensitivity Context Map - Slice A



Order Details

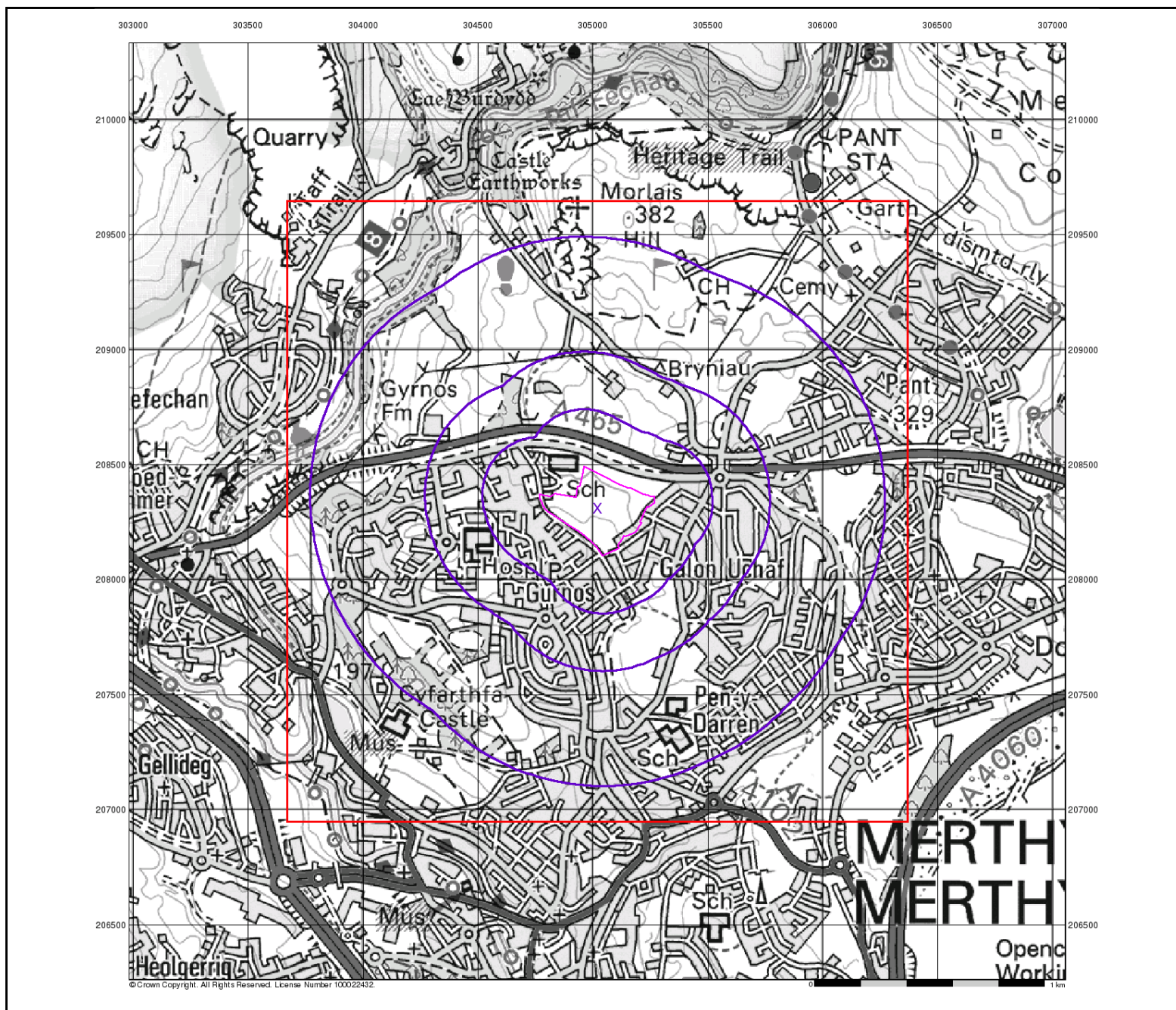
Order Number: 310553660_1_1
 Customer Ref: 14209/LP
 National Grid Reference: 305020, 208310
 Slice: A
 Site Area (Ha): 9.34
 Search Buffer (m): 1000

Site Details

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Source Protection Zones

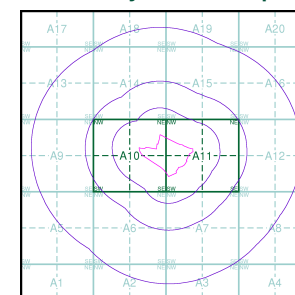
General

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

Agency and Hydrological

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

Site Sensitivity Context Map - Slice A



Order Details

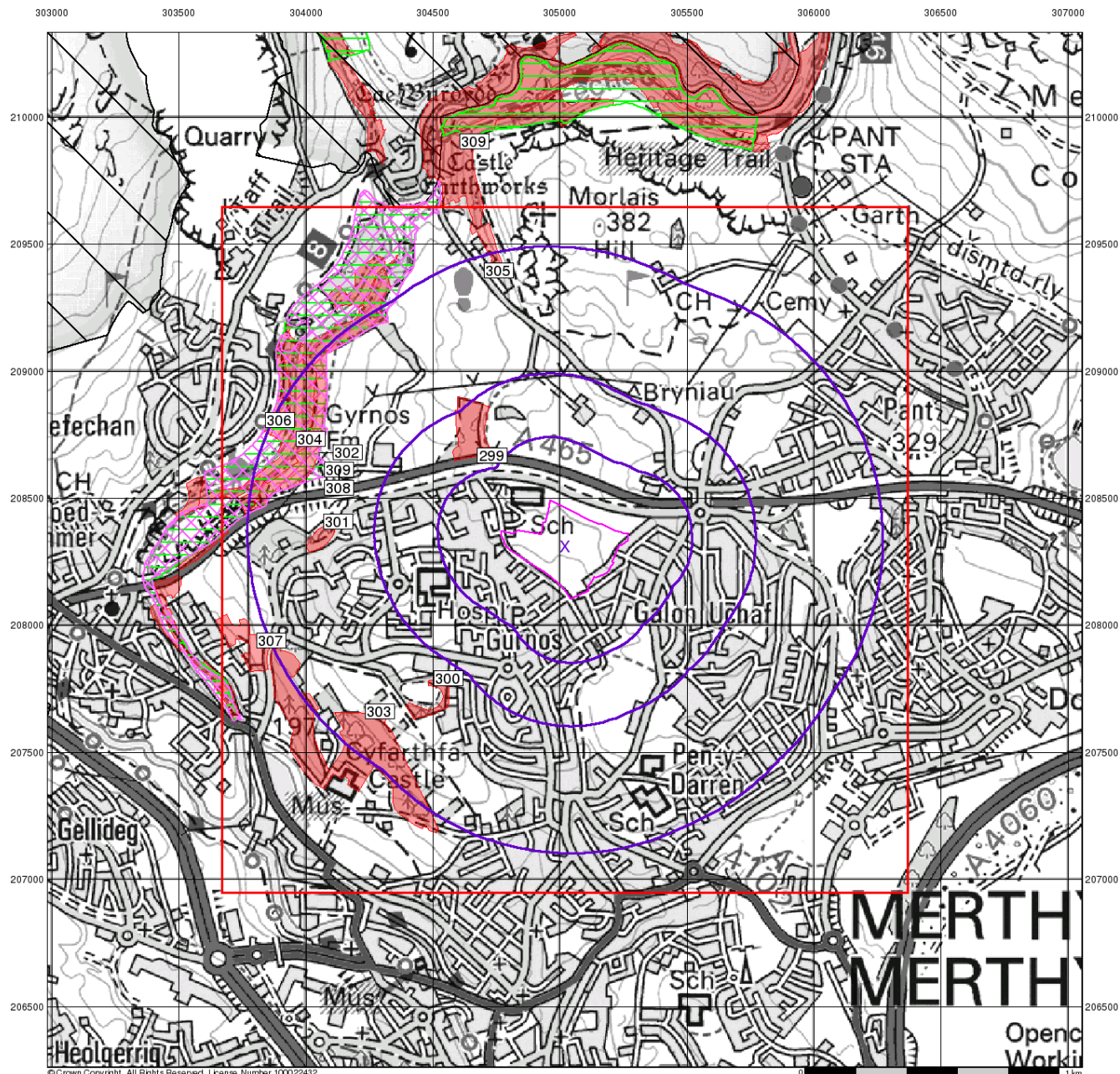
Order Number: 310553660_1_1
 Customer Ref: 14209/LP
 National Grid Reference: 305020, 208310
 Slice: A
 Site Area (Ha): 9.34
 Search Buffer (m): 1000

Site Details

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Intégral Géotechnique

Sensitive Land Uses

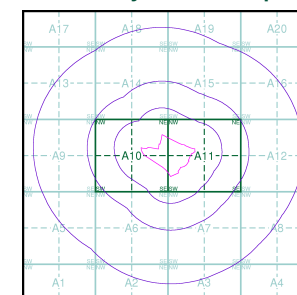
General

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

Sensitive Land Uses

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

Site Sensitivity Context Map - Slice A



Order Details

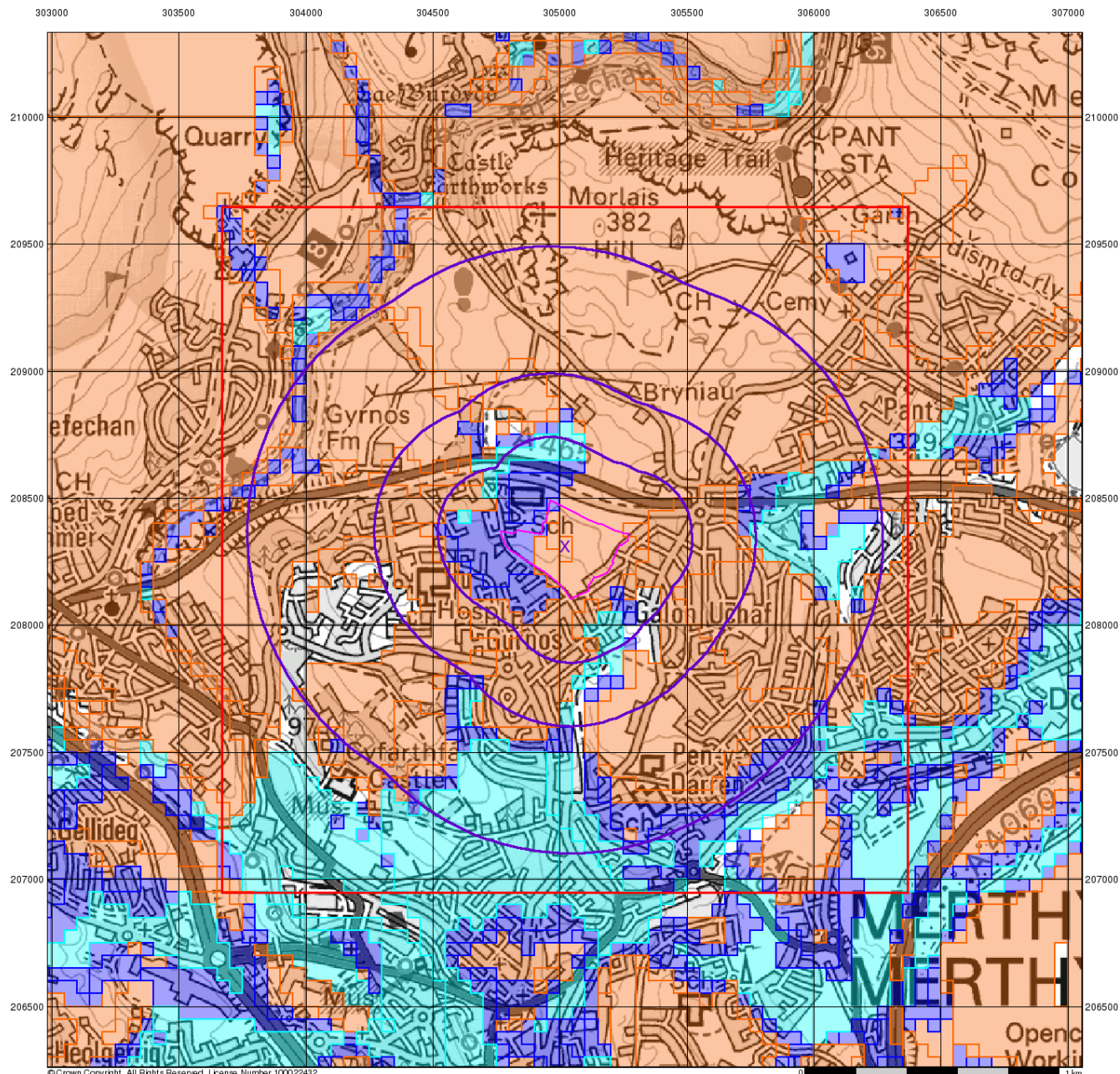
Order Number: 310553660_1_1
Customer Ref: 14209/LP
National Grid Reference: 305020, 208310
Slice: A
Site Area (Ha): 9.34
Search Buffer (m): 1000

Site Details

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Intégral Géotechnique

BGS Flood GFS Data

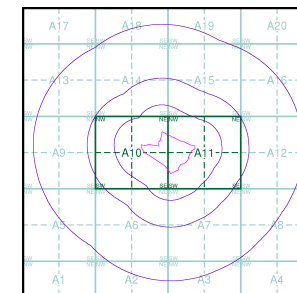
General

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

Agency and Hydrological (Flood)

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

Site Sensitivity Context Map - Slice A



Order Details

Order Number: 310553660_1_1
 Customer Ref: 14209/LP
 National Grid Reference: 305020, 208310
 Slice: A
 Site Area (Ha): 9.34
 Search Buffer (m): 1000

Site Details

Pen-Y-Dre High Comprehensive School, Gurnos, MERTHYR TYDFIL,
 CF47 9BY

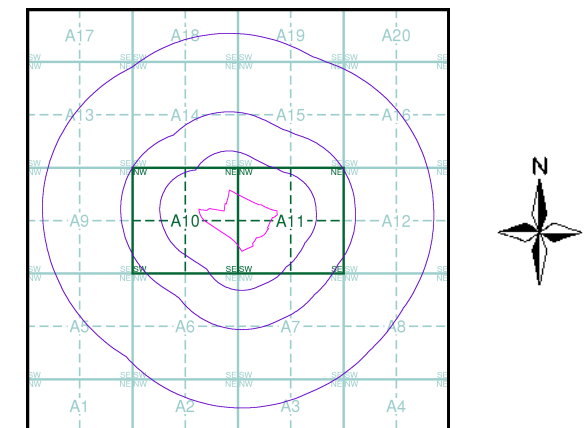
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Intégral Géotechnique

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

Site Sensitivity Map - Slice A



Order Details

Order Number: 310553660_1_1
Customer Ref: 14209/LP
National Grid Reference: 305020, 208310
Slice: A
Site Area (Ha): 9.34
Search Buffer (m): 1000

Site Details

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Intégral Géotechnique

Industrial Land Use Map

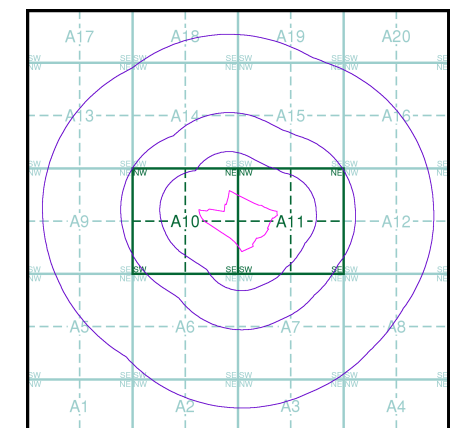
General

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

Industrial Land Use

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

Industrial Land Use Map - Slice A



Order Details

Order Number: 310553660_1_1
Customer Ref: 14209/LP
National Grid Reference: 305020, 208310
Slice: A
Site Area (Ha): 9.34
Search Buffer (m): 1000

Site Details

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Web: www.envirocheck.co.uk

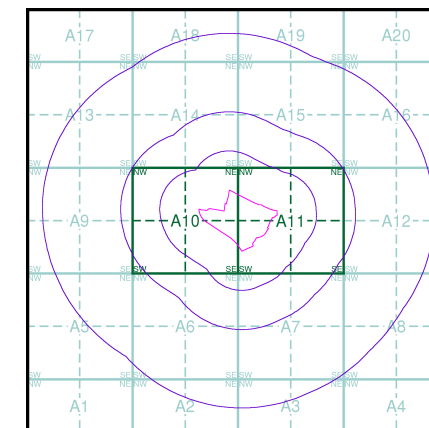
General

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

Agency and Hydrological (Flood)

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

Flood Map - Slice A



Order Details

Order Number: 310553660_1_1
Customer Ref: 14209/LP
National Grid Reference: 305020, 208310
Slice: A
Site Area (Ha): 9.34
Search Buffer (m): 1000

Site Details

Pen-Y-Dre High Comprehensive School, Gurnos, MERTHYR
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General

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

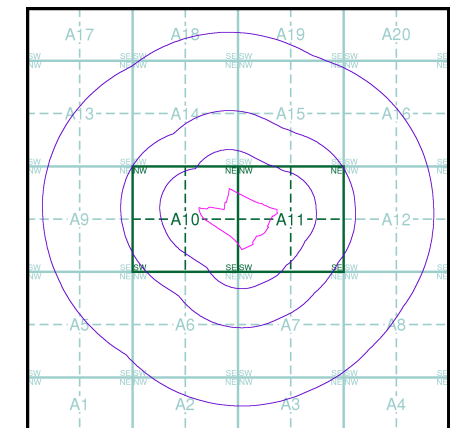
Agency and Hydrological (Boreholes)

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

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

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

Borehole Map - Slice A



Order Details

Order Number: 310553660_1_1
Customer Ref: 14209/LP
National Grid Reference: 305020, 208310
Slice: A
Site Area (Ha): 9.34
Search Buffer (m): 1000

Site Details

Pen-Y-Dre High Comprehensive School, Gurnos, MERTHYR TYDFIL, CF47 9BY

Intégral Géotechnique

General

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

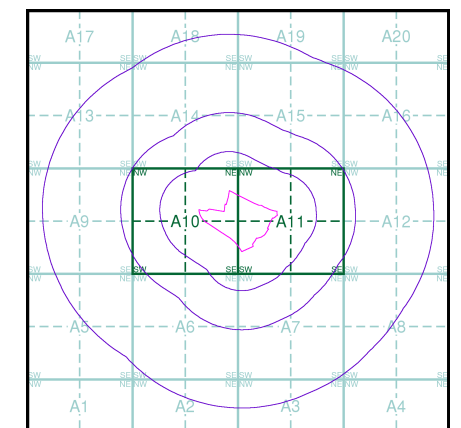
OS Water Network Data

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

Contours (height in meters)

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

OS Water Network Map - Slice A



Order Details

Order Number: 310553660_1_1
Customer Ref: 14209/LP
National Grid Reference: 305020, 208310
Slice: A
Site Area (Ha): 9.34
Search Buffer (m): 1000

Site Details

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General

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

Risk of Flooding from Surface Water

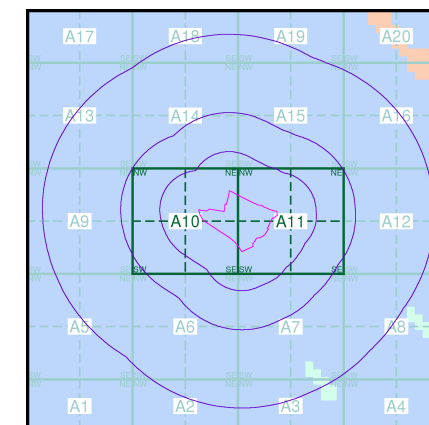
- High - 30 Year Return
- Medium - 100 Year Return
- Low - 1000 Year Return

Suitability

See the suitability map below

- National to county
- County to town
- Town to street
- Street to parcels of land
- Property

E/NRW Suitability Map - Slice A

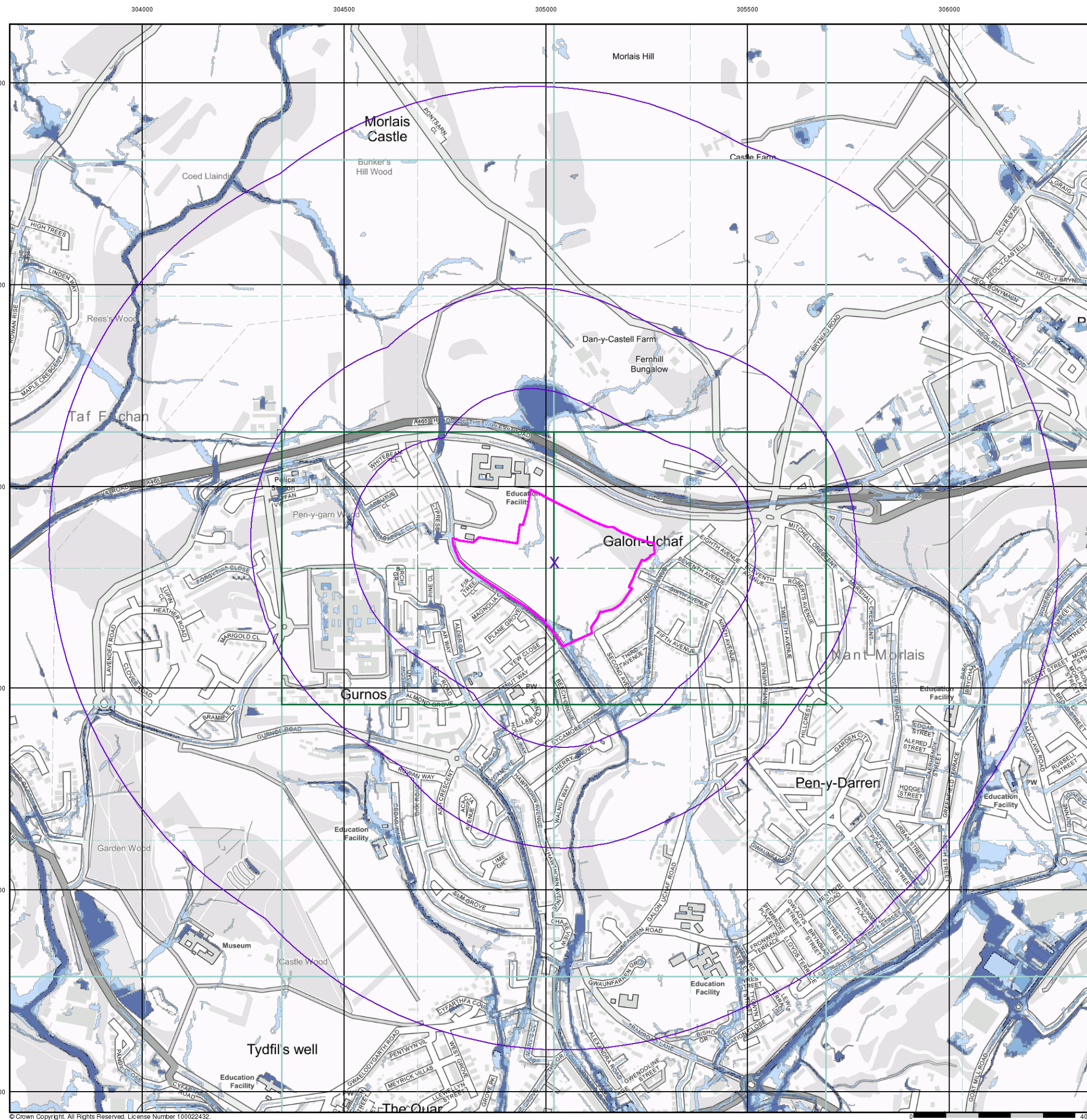


Order Details

Order Number: 310553660_1_1
Customer Ref: 14209/LP
National Grid Reference: 305020, 208310
Slice: A
Site Area (Ha): 9.34
Search Buffer (m): 1000

Site Details

Pen-Y-Dre High Comprehensive School, Gurnos, MERTHYR
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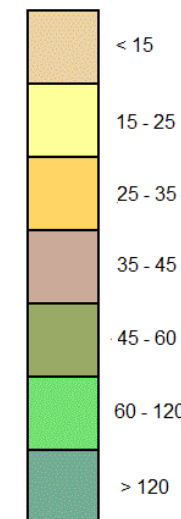


General

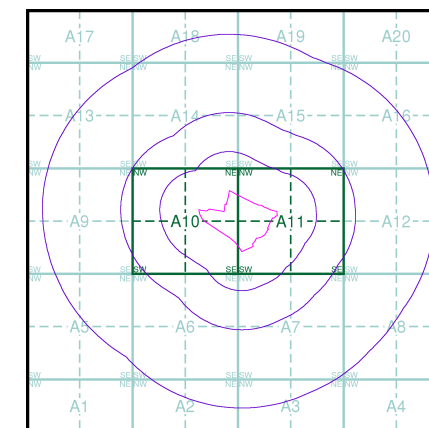
Specified Site Specified Buffer(s) Bearing Reference Point

Estimated Soil Chemistry Arsenic

Arsenic Concentrations mg/kg



Estimated Soil Chemistry Arsenic - Slice A

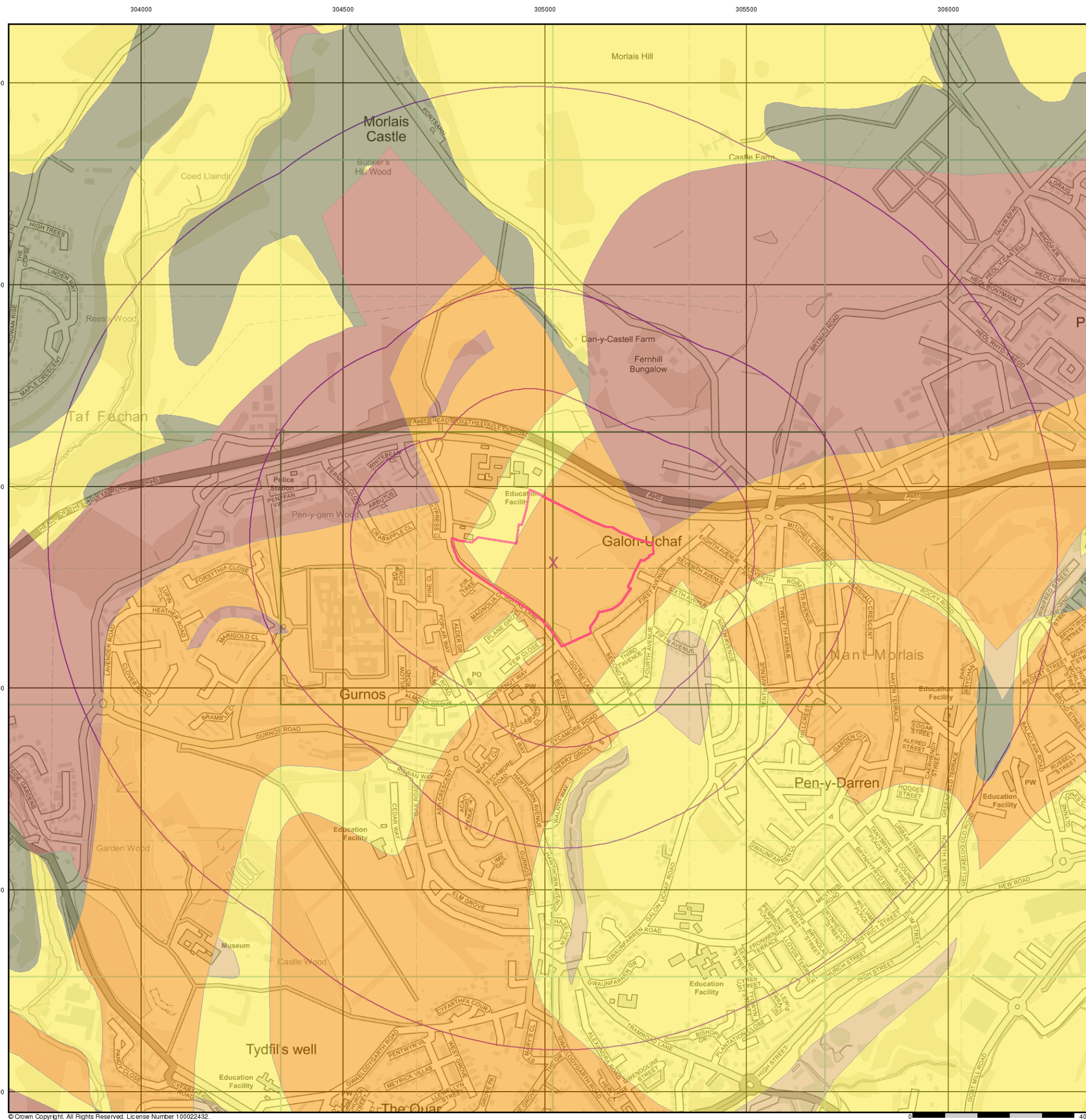


Order Details

Order Details: 310553660_1_1
Customer Ref: 14209/LP
National Grid Reference: 305020, 208310
Slice: A
Site Area (Ha): 9.34
Search Buffer (m): 1000

Site Details

Pen-Y-Dre High Comprehensive School, Gurnos, MERTHYR
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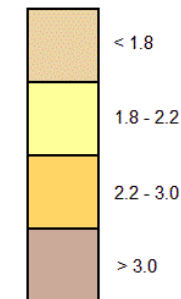
Intégral Géotechnique

General

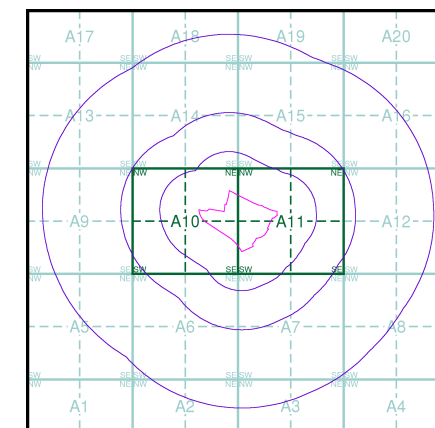
Specified Site Specified Buffer(s) Bearing Reference Point

Estimated Soil Chemistry Cadmium

Cadmium Concentrations mg/kg



Estimated Soil Chemistry Cadmium - Slice A



Order Details

Order Details: 310553660_1_1
Customer Ref: 14209/LP
National Grid Reference: 305020, 208310
Slice: A
Site Area (Ha): 9.34
Search Buffer (m): 1000

Site Details

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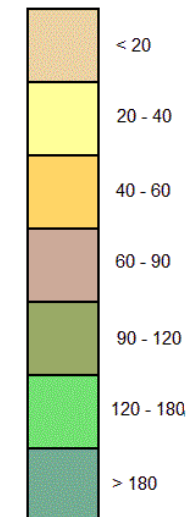
Intégral Géotechnique

General

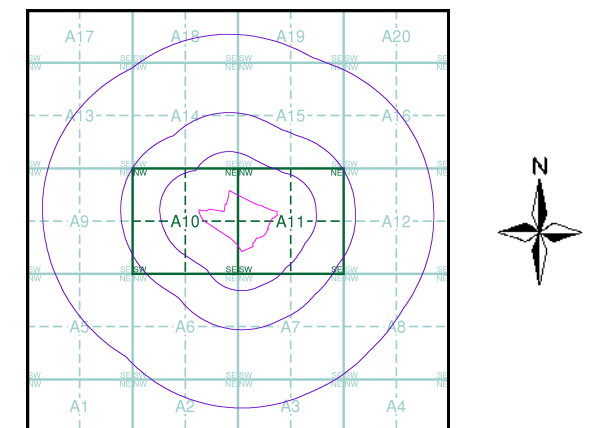
Specified Site Specified Buffer(s) Bearing Reference Point

Estimated Soil Chemistry Chromium

Chromium Concentrations mg/kg



Estimated Soil Chemistry Chromium - Slice A



Order Details

Order Details: 310553660_1_1
Customer Ref: 14209/LP
National Grid Reference: 305020, 208310
Slice: A
Site Area (Ha): 9.34
Search Buffer (m): 1000

Site Details

Pen-Y-Dre High Comprehensive School, Gurnos, MERTHYR TYDFIL, CF47 9BY

Landmark
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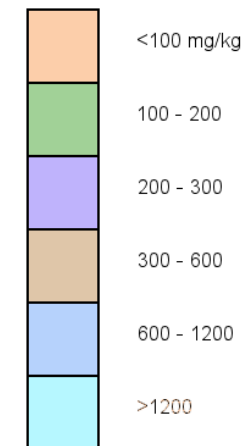
Tel: 0844 844 9952
Fax: 0844 844 9951
Web: www.envirocheck.co.uk

General

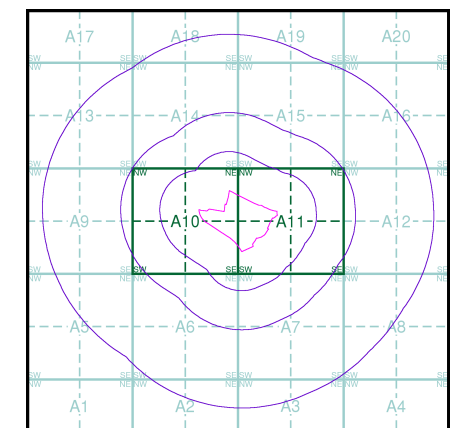
Specified Site Specified Buffer(s) Bearing Reference Point

Estimated Soil Chemistry Lead

Lead Concentrations mg/kg



Estimated Soil Chemistry Lead - Slice A



Order Details

Order Details: 310553660_1_1
Customer Ref: 14209/LP
National Grid Reference: 305020, 208310
Slice: A
Site Area (Ha): 9.34
Search Buffer (m): 1000

Site Details

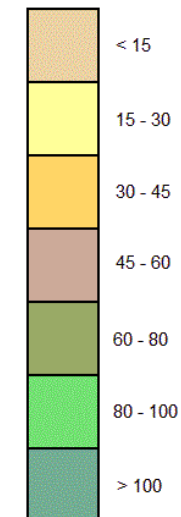
Pen-Y-Dre High Comprehensive School, Gurnos, MERTHYR
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General

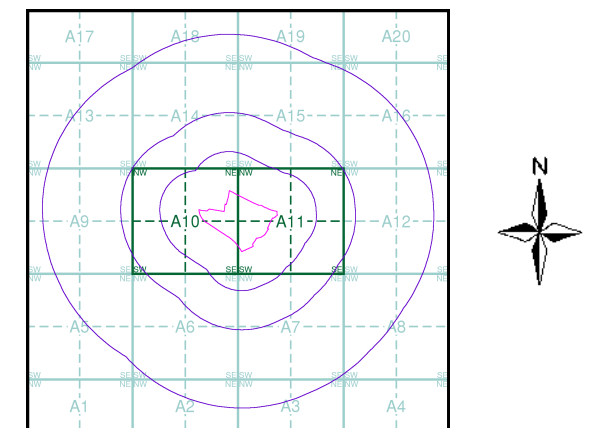
Specified Site Specified Buffer(s) Bearing Reference Point

Estimated Soil Chemistry Nickel

Nickel Concentrations mg/kg



Estimated Soil Chemistry Nickel - Slice A



Order Details

Order Details: 310553660_1_1
Customer Ref: 14209/LP
National Grid Reference: 305020, 208310
Slice: A
Site Area (Ha): 9.34
Search Buffer (m): 1000

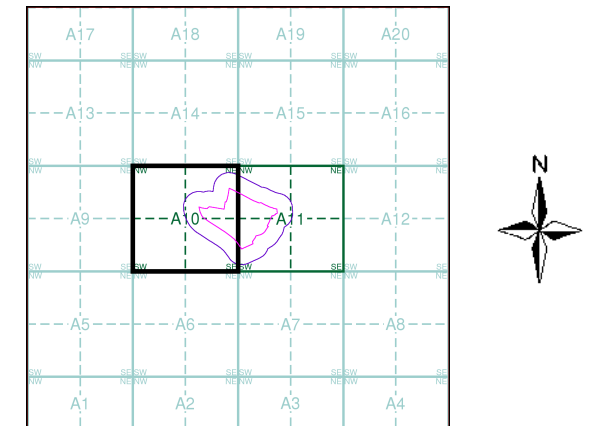
Site Details

Pen-Y-Dre High Comprehensive School, Gurnos, MERTHYR
TYDFIL, CF47 9BY

General

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

Site Sensitivity Map - Segment A10



Order Details

Order Number: 310553660_1_1
Customer Ref: 14209/LP
National Grid Reference: 305020, 208310
Slice: A
Site Area (Ha): 9.34
Plot Buffer (m): 100

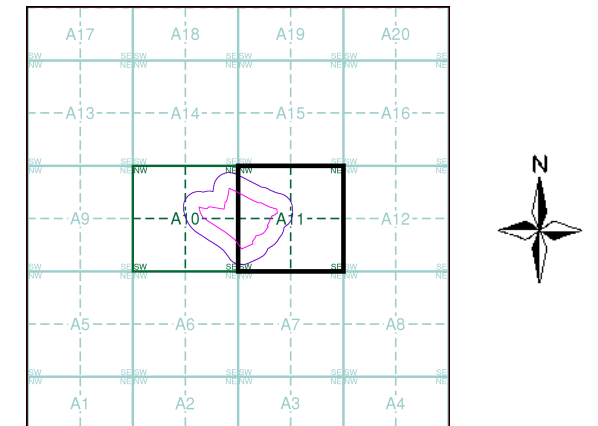
Site Details

Pen-Y-Dre High Comprehensive School, Gurnos, MERTHYR
TYDFIL, CF47 9BY

General

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

Site Sensitivity Map - Segment A11



Order Details

Order Number: 310553660_1_1
Customer Ref: 14209/LP
National Grid Reference: 305020, 208310
Slice: A
Site Area (Ha): 9.34
Plot Buffer (m): 100

Site Details

Pen-Y-Dre High Comprehensive School, Gurnos, MERTHYR
TYDFIL, CF47 9BY

Geology 1:50,000 Maps Legends

Artificial Ground and Landslip

Map Colour	Lex Code	Rock Name	Rock Type	Min and Max Age
	MGR	Made Ground (Undivided)	Artificial Deposit	Not Supplied - Holocene

Superficial Geology

Map Colour	Lex Code	Rock Name	Rock Type	Min and Max Age
	ALV	Alluvium	Clay, Silt, Sand and Gravel	Not Supplied - Holocene
	TILLD	Till, Devensian	Diamicton	Not Supplied - Devensian
	TILLD	Till, Devensian	Diamicton	Not Supplied - Devensian

Bedrock and Faults

Map Colour	Lex Code	Rock Name	Rock Type	Min and Max Age
	SWMCM	South Wales Middle Coal Measures Formation	Mudstone, Siltstone and Sandstone	Not Supplied - Westphalian
	SWLCM	South Wales Lower Coal Measures Formation	Mudstone, Siltstone and Sandstone	Not Supplied - Westphalian
	SWLCM	South Wales Lower Coal Measures Formation	Sandstone	Not Supplied - Westphalian
	BISHM	Bishopston Mudstone Formation	Mudstone, Siltstone and Sandstone	Not Supplied - Namurian
	TWR	Twrch Sandstone Formation	Sandstone and Conglomerate, Interbedded	Not Supplied - Namurian
	BISHM	Bishopston Mudstone Formation	Sandstone	Not Supplied - Namurian
	OHL	Oxwich Head Limestone Formation	Limestone	Not Supplied - Visean
	PDO	Penderyn Oolite Member	Limestone, Ooidal	Not Supplied - Visean
	DWL	Dowlais Limestone Formation	Limestone	Not Supplied - Visean
	LLY	Llanelly Formation	Limestone and [Subequal/Subordinate] Argillaceous Rocks, Interbedded	Not Supplied - Visean
	ABO	Abercribbar Oolite Subgroup	Limestone, Ooidal	Not Supplied - Tournaisian
	ABO	Abercribbar Oolite Subgroup	Limestone, Ooidal	Not Supplied - Tournaisian

Map Colour	Lex Code	Rock Name	Rock Type	Min and Max Age
		Faults		
		Rock Segments		

Intégral Géotechnique

Geology 1:50,000 Maps

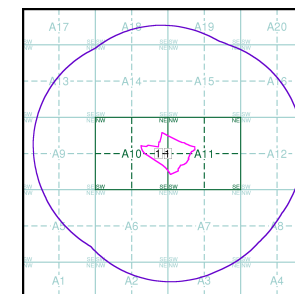
This report contains geological map extracts taken from the BGS Digital Geological map of Great Britain at 1:50,000 scale and is designed for users carrying out preliminary site assessments who require geological maps for the area around the site. This mapping may be more up to date than previously published paper maps.

The various geological layers - artificial and landslip deposits, superficial geology and solid (bedrock) geology are displayed in separate maps, but superimposed on the final 'Combined Surface Geology' map. All map legends feature on this page. Not all layers have complete nationwide coverage, so availability of data for relevant map sheets is indicated below.

Geology 1:50,000 Maps Coverage

Map ID:	1
Map Sheet No:	231
Map Name:	Merthyr Tydfil
Map Date:	1979
Bedrock Geology:	Available
Superficial Geology:	Available
Artificial Geology:	Available
Faults:	Not Supplied
Landslip:	Available
Rock Segments:	Not Supplied

Geology 1:50,000 Maps - Slice A

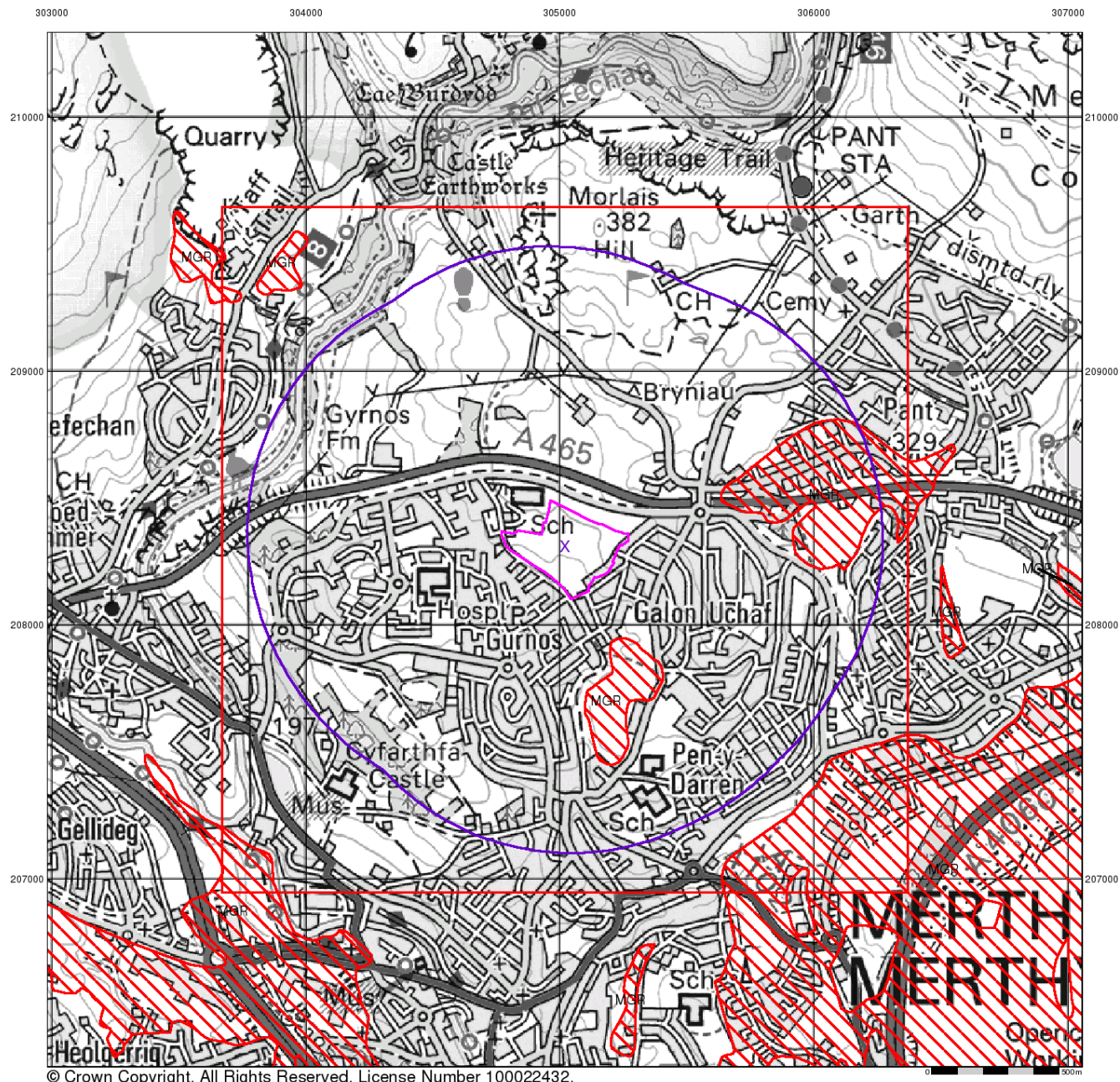


Order Details:

Order Number:	310553660_1_1
Customer Reference:	14209/LP
National Grid Reference:	305020, 208310
Slice:	A
Site Area (Ha):	9.34
Search Buffer (m):	1000

Site Details:

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Intégral Géotechnique

Artificial Ground and Landslip

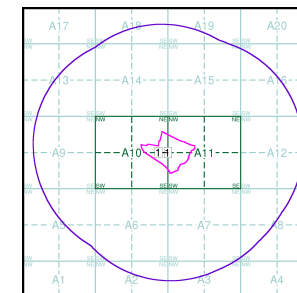
Artificial ground is a term used by BGS for those areas where the ground surface has been significantly modified by human activity. Information about previously developed ground is especially important, as it is often associated with potentially contaminated material, unpredictable engineering conditions and unstable ground.

Artificial ground includes:

- Made ground - man-made deposits such as embankments and spoil heaps on the natural ground surface.
- Worked ground - areas where the ground has been cut away such as quarries and road cuttings.
- Infilled ground - areas where the ground has been cut away then wholly or partially backfilled.
- Landscaped ground - areas where the surface has been reshaped.
- Disturbed ground - areas of ill-defined shallow or near surface mineral workings where it is impracticable to map made and worked ground separately.

Mass movement (landslip) deposits on BGS geological maps are primarily superficial deposits that have moved down slope under gravity to form landslips. These affect bedrock, other superficial deposits and artificial ground. The dataset also includes foundered strata, where the ground has collapsed due to subsidence.

Artificial Ground and Landslip Map - Slice A



Order Details:

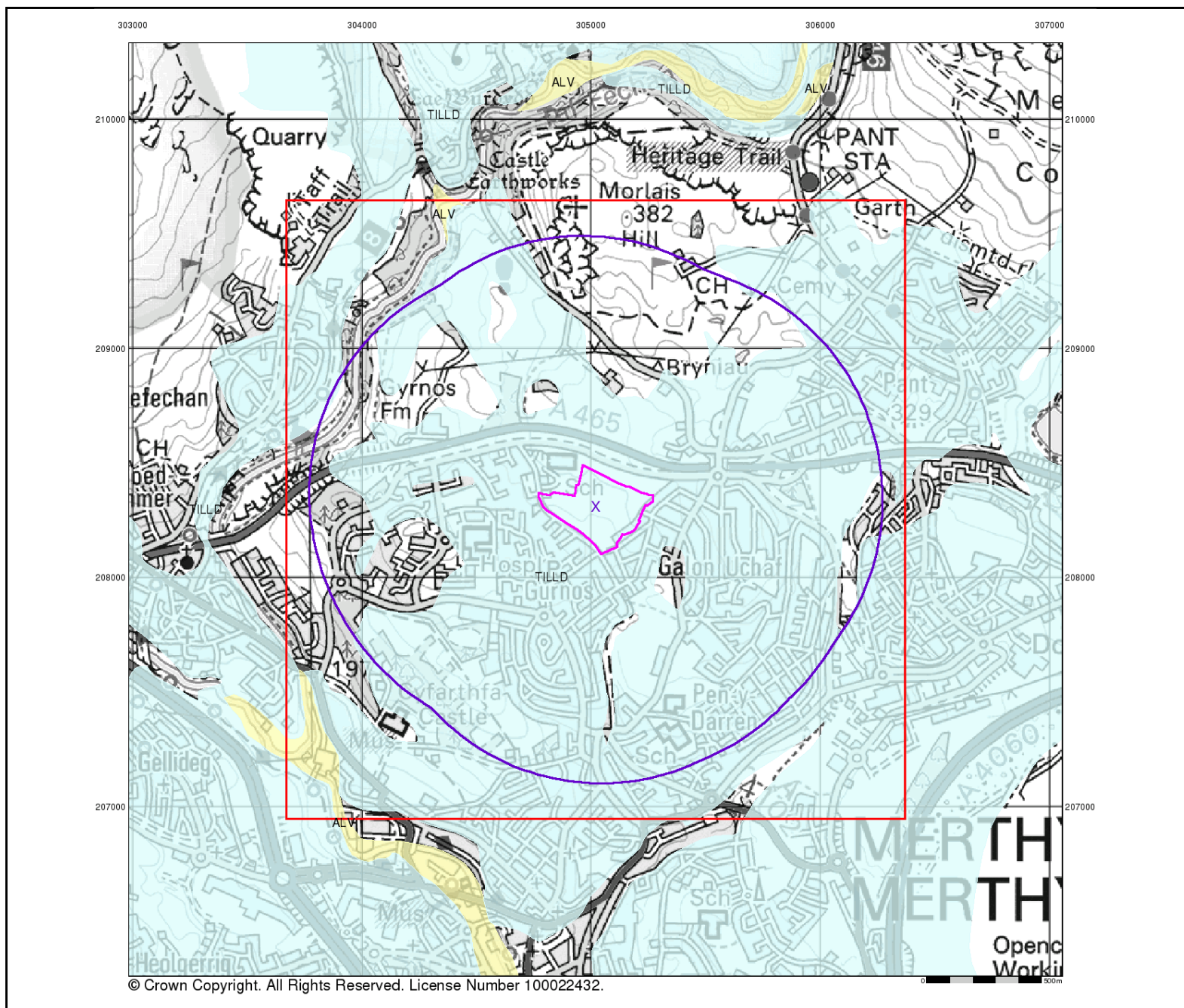
Order Number: 310553660_1_1
 Customer Reference: 14209/LP
 National Grid Reference: 305020, 208310
 Slice: A
 Site Area (Ha): 9.34
 Search Buffer (m): 1000

Site Details:

Pen-Y-Dre High Comprehensive School, Gurnos, MERTHYR TYDFIL, CF47 9BY

Landmark
 INFORMATION GROUP

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Intégral Géotechnique

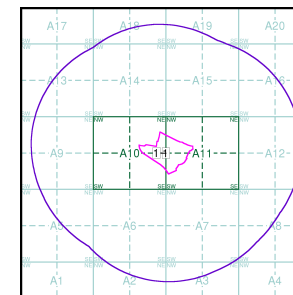
Superficial Geology

Superficial Deposits are the youngest geological deposits formed during the most recent period of geological time, the Quaternary, which extends back about 1.8 million years from the present.

They rest on older deposits or rocks referred to as Bedrock. This dataset contains Superficial deposits that are of natural origin and 'in place'. Other superficial strata may be held in the Mass Movement dataset where they have been moved, or in the Artificial Ground dataset where they are of man-made origin.

Most of these Superficial deposits are unconsolidated sediments such as gravel, sand, silt and clay, and onshore they form relatively thin, often discontinuous patches or larger spreads.

Superficial Geology Map - Slice A



Order Details:

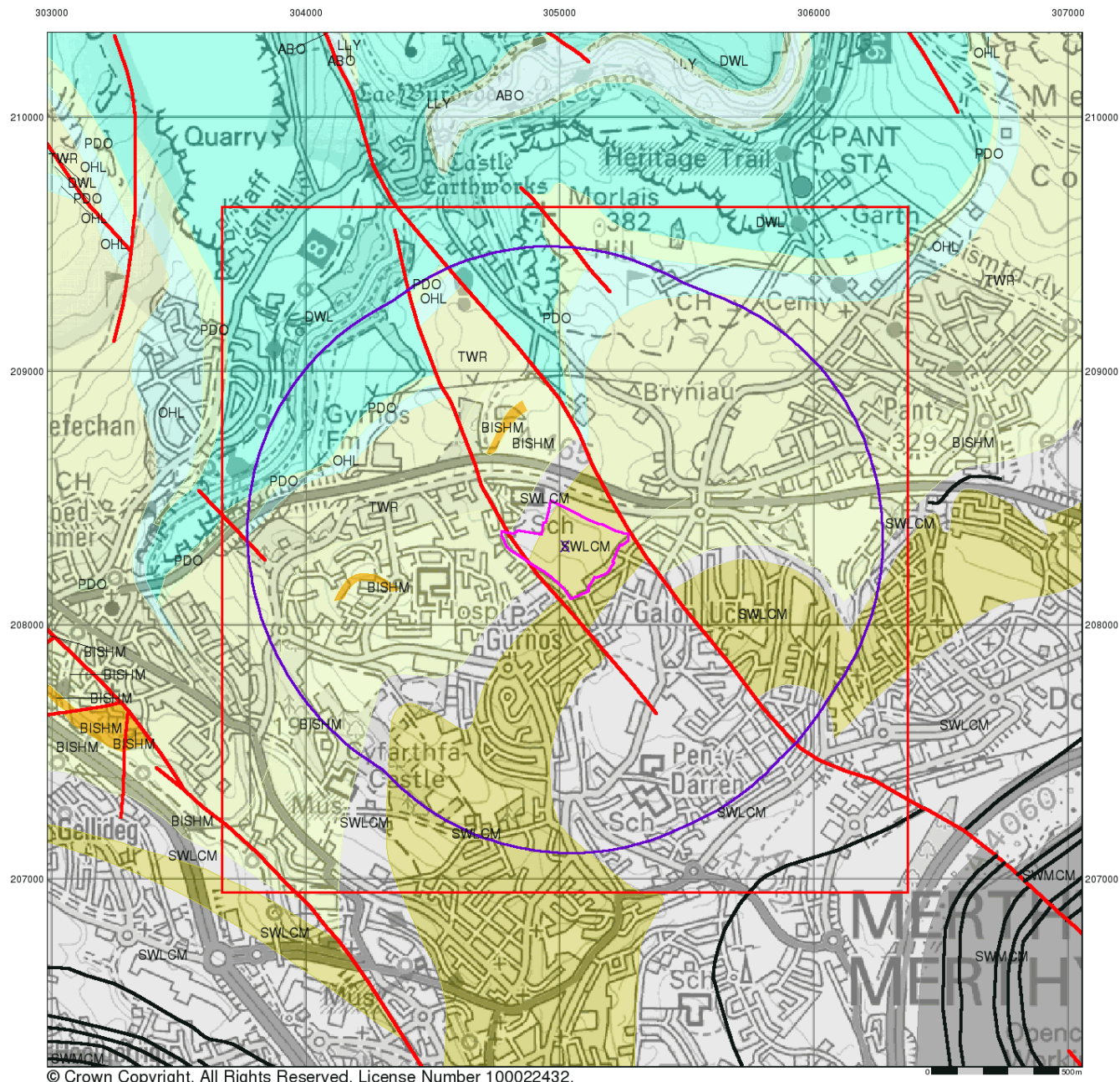
Order Number: 310553660_1_1
Customer Reference: 14209/LP
National Grid Reference: 305020, 208310
Slice: A
Site Area (Ha): 9.34
Search Buffer (m): 1000

Site Details:

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Intégral Géotechnique

Bedrock and Faults

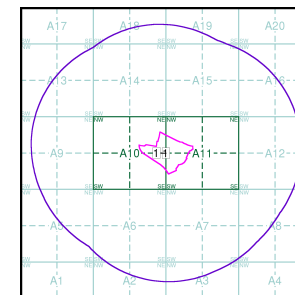
Bedrock geology is a term used for the main mass of rocks forming the Earth and are present everywhere, whether exposed at the surface in outcrops or concealed beneath superficial deposits or water.

The bedrock has formed over vast lengths of geological time ranging from ancient and highly altered rocks of the Proterozoic, some 2500 million years ago, or older, up to the relatively young Pliocene, 1.8 million years ago.

The bedrock geology includes many lithologies, often classified into three types based on origin: igneous, metamorphic and sedimentary.

The BGS Faults and Rock Segments dataset includes geological faults (e.g. normal, thrust), and thin beds mapped as lines (e.g. coal seam, gypsum bed). Some of these are linked to other particular 1:50,000 Geology datasets, for example, coal seams are part of the bedrock sequence, most faults and mineral veins primarily affect the bedrock but cut across the strata and post date its deposition.

Bedrock and Faults Map - Slice A



Order Details:

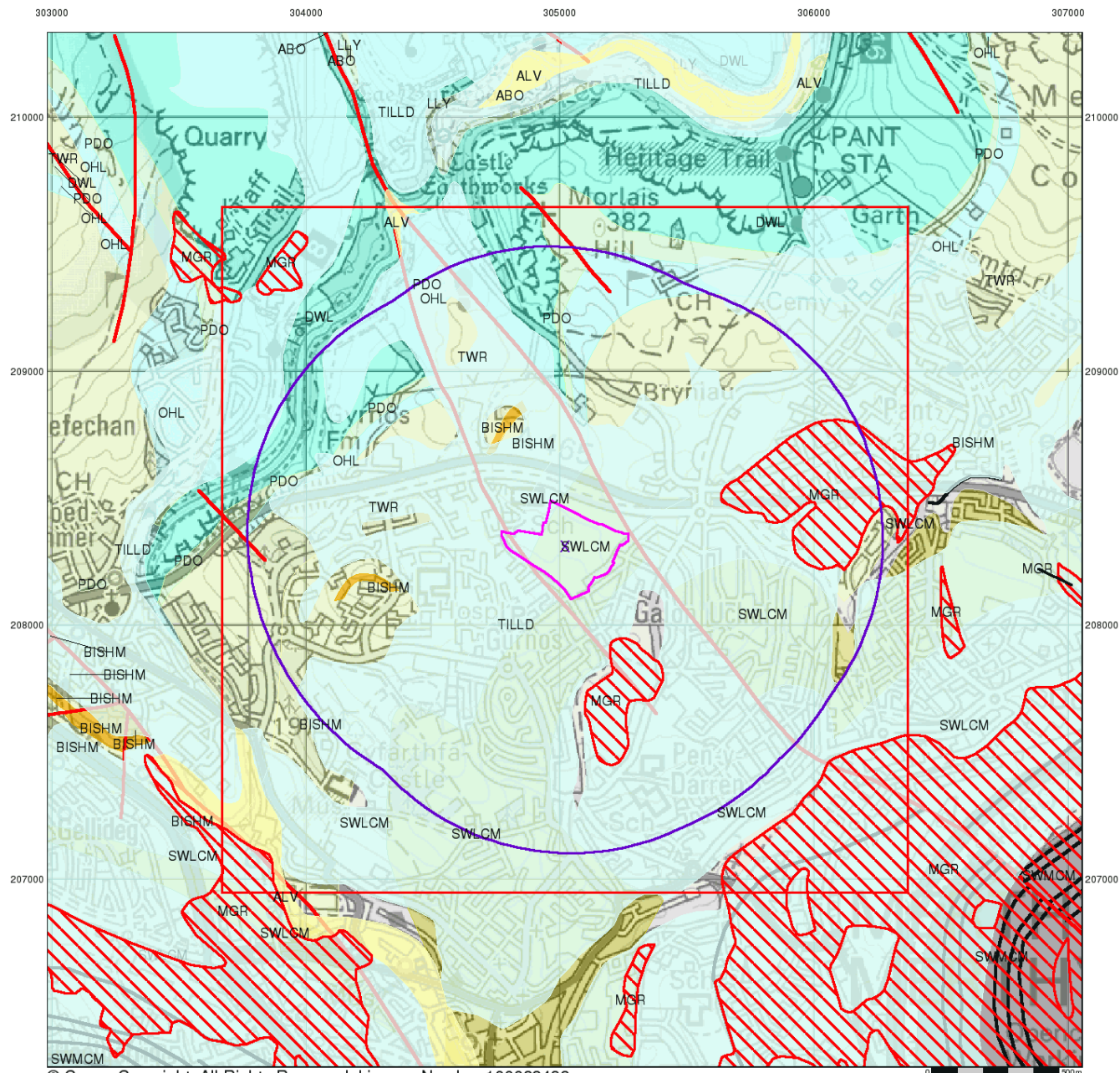
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Customer Reference: 14209/LP
National Grid Reference: 305020, 208310
Slice: A
Site Area (Ha): 9.34
Search Buffer (m): 1000

Site Details:

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Intégral Géotechnique

Combined Surface Geology

The Combined Surface Geology map combines all the previous maps into one combined geological overview of your site.

Please consult the legends to the previous maps to interpret the Combined "Surface Geology" map.

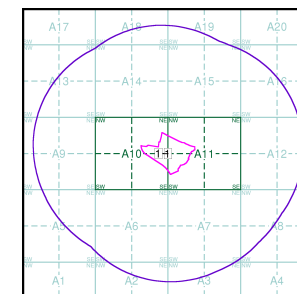
Additional Information

More information on 1:50,000 Geological mapping and explanations of rock classifications can be found on the BGS website. Using the LEX Codes in this report, further descriptions of rock types can be obtained by interrogating the 'BGS Lexicon of Named Rock Units'. This database can be accessed by following the 'Information and Data' link on the BGS website.

Contact

British Geological Survey
Kingsley Dunham Centre
Keyworth
Nottingham
NG12 5GG
Telephone: 0115 936 3143
Fax: 0115 936 3276
email: enquiries@bgs.ac.uk
website: www.bgs.ac.uk

Combined Geology Map - Slice A



Order Details:

Order Number: 310553660_1_1
Customer Reference: 14209/LP
National Grid Reference: 305020, 208310
Slice: A
Site Area (Ha): 9.34
Search Buffer (m): 1000

Site Details:

Pen-Y-Dre High Comprehensive School, Gurnos, MERTHYR TYDFIL,
CF47 9BY

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Historical Mapping Legends

Ordnance Survey County Series 1:10,560

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

Ordnance Survey Plan 1:10,000

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

1:10,000 Raster Mapping

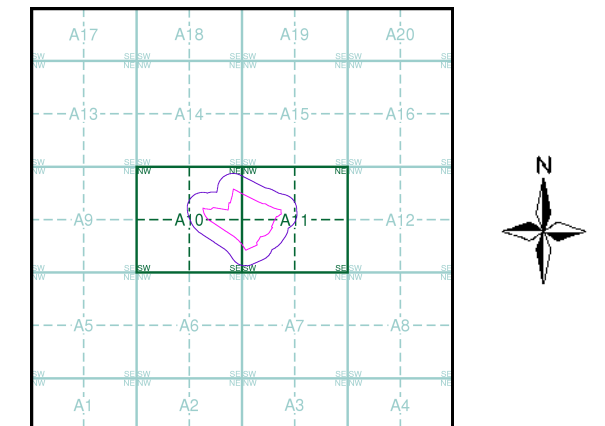
	Gravel Pit		Refuse tip or slag heap
	Rock		Rock (scattered)
	Boulders		Boulders (scattered)
	Shingle		Mud
	Sand		Sand Pit
	Slopes		Top of cliff
	General detail		Underground detail
	Overhead detail		Narrow gauge railway
	Multi-track railway		Single track railway
	County boundary (England only)		Civil,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

Intégral Géotechnique

Historical Mapping & Photography included:

Mapping Type	Scale	Date	Pg
Brecknockshire	1:10,560	1884 - 1885	2
Monmouthshire	1:10,560	1884	3
Glamorganshire	1:10,560	1885	4
Glamorganshire	1:10,560	1901	5
Brecknockshire	1:10,560	1905	6
Brecknockshire	1:10,560	1922	7
Brecknockshire	1:10,560	1938 - 1951	8
Historical Aerial Photography	1:10,560	1945	9
Brecknockshire	1:10,560	1951	10
Ordnance Survey Plan	1:10,000	1965	11
Ordnance Survey Plan	1:10,000	1977 - 1979	12
Ordnance Survey Plan	1:10,000	1983	13
Ordnance Survey Plan	1:10,000	1992	14
10K Raster Mapping	1:10,000	1999	15
10K Raster Mapping	1:10,000	2006	16
VectorMap Local	1:10,000	2022	17

Historical Map - Slice A



Order Details

Order Number: 310553660_1_1
Customer Ref: 14209/LP
National Grid Reference: 305020, 208310
Slice: A
Site Area (Ha): 9.34
Search Buffer (m): 1000

Site Details

Pen-Y-Dre High Comprehensive School, Gurnos, MERTHYR
TYDFIL, CF47 9BY

Landmark
INFORMATION GROUP

Tel: 0844 844 9952
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Web: www.envirocheck.co.uk

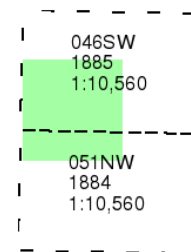
Brecknockshire

Published 1884 - 1885

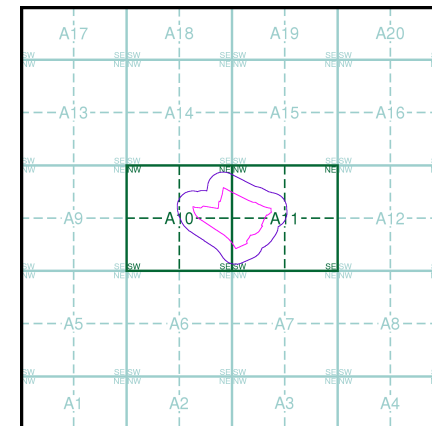
Source map scale - 1:10,560

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

Map Name(s) and Date(s)



Historical Map - Slice A



Order Details

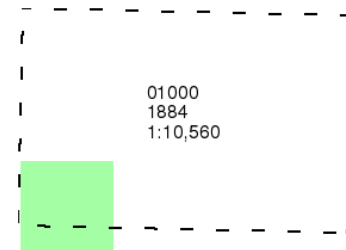
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Search Buffer (m): 1000

Site Details

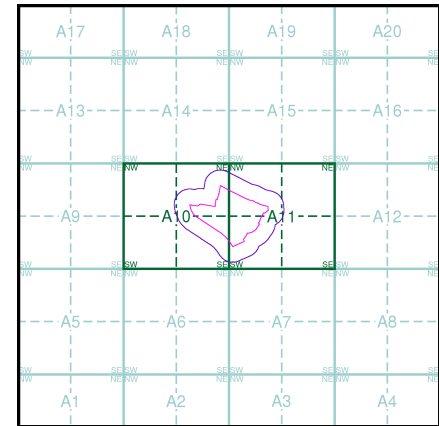
Pen-Y-Dre High Comprehensive School, Gurnos, MERTHYR TYDFIL, CF47 9BY

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

Map Name(s) and Date(s)



Historical Map - Slice A



Order Details

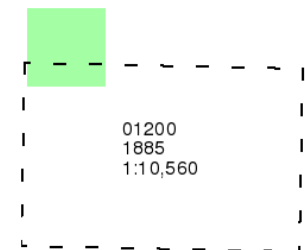
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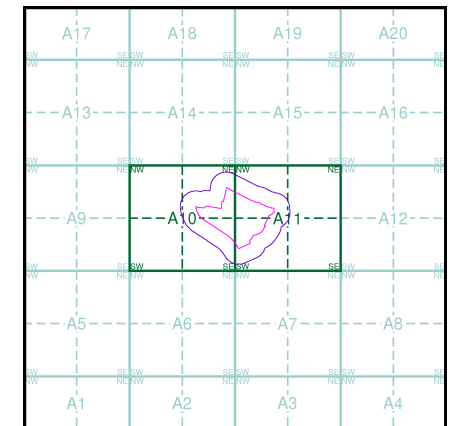
Pen-Y-Dre High Comprehensive School, Gurnos, MERTHYR
TYDFIL, CF47 9BY

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

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Historical Map - Slice A



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Intégral Géotechnique

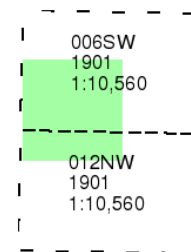
Glamorganshire

Published 1901

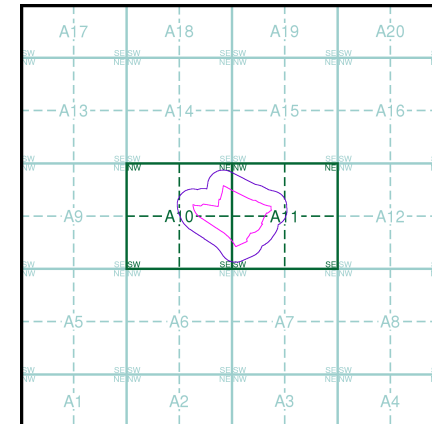
Source map scale - 1:10,560

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

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Landmark
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Intégral Géotechnique

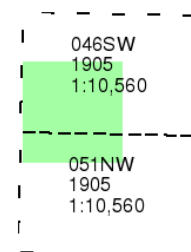
Brecknockshire

Published 1905

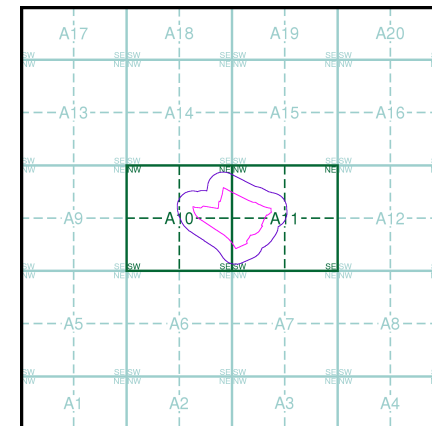
Source map scale - 1:10,560

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

Map Name(s) and Date(s)



Historical Map - Slice A



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Site Details

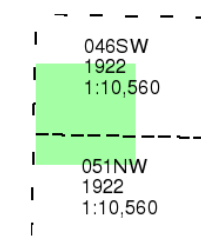
Pen-Y-Dre High Comprehensive School, Gurnos, MERTHYR TYDFIL, CF47 9BY

Landmark
INFORMATION GROUP

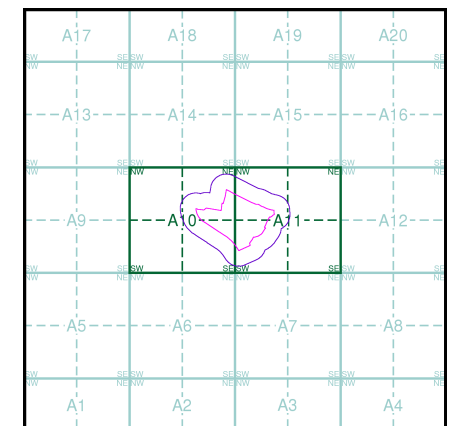
Tel: 0844 844 9952
Fax: 0844 844 9951
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The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas; these maps were used to update the 1:10,560 maps. The published date given therefore is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas. In the late 1940's, a Provisional Edition was produced, which updated the 1:10,560 mapping from a number of sources. The maps appear unfinished - with all military camps and other strategic sites removed. These maps were initially overprinted with the National Grid. In 1970, the first 1:10,000 maps were produced using the Transverse Mercator Projection. The revision process continued until recently, with new editions appearing every 10 years or so for urban areas.

Map Name(s) and Date(s)



Historical Map - Slice A



Order Details

Order Number: 310553660_1_1
Customer Ref: 14209/LP
National Grid Reference: 305020, 208310
Slice: A
Site Area (Ha): 9.34
Search Buffer (m): 1000

Site Details

Pen-Y-Dre High Comprehensive School, Gurnos, MERTHYR
TYDFIL, CF47 9BY