

Tai Tarian

GERAINT HOUSE, KNIGHTS ROAD, MARGAM

Site Investigation Report

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CLIENT: Tai Tarian

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1.0 INTRODUCTION

1.1 GENERAL

Tai Tarian are proposing to extend existing flats off Knights Road in Margam for residential end-use.

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

This report presents the findings of the 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 proposed development will comprise an extension of the existing Geraint House. A new access from Knights Road and car parking areas are also to be provided as part of the development. Significant landscaping is not proposed, however, some mature tree planting is intended as part of the development.

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 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 Radon Report obtained from the British Geological Survey;

1.3 SCOPE OF WORKS (CONTINUED)

- A Coal Authority Mining Report;
- Geological maps of the area provided by the British Geological Survey;
- the Environment Agency groundwater vulnerability map and aquifer database for the area;
- Existing site investigation data.

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 BS5930+A2:2010, the Code of Practice for Site Investigations, BS10175:2011, 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 included:

- An intrusive investigation carried out during February 2020 comprising the drilling of five windowless sample boreholes, six dynamic probes and continuous CPT's at two locations; and
- Sampling of soil for laboratory chemical and geotechnical testing.

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, Natural Resources Wales, and the NHBC as 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.

1.4 LIMITATIONS (CONTINUED)

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 limited at the time due to active buildings, areas of hardstanding and services. There was no access at the time of the intrusive investigation for large excavating machinery such as a JCB mechanical excavator or similar.

2.0 THE SITE

2.1 SITE LOCATION AND DESCRIPTION

The site is located to the west of Knights Road in Margam at a National Grid Reference of 278220, 187440, see Figure 1.

The site is roughly rectangular in shape and occupies an area of approximately 0.09 hectares. The boundaries of the site are defined by Knights Road to the east, other residential housing to the south, an access road into the playing fields and sports facilities of Margam football club to the north and the sports fields and club buildings to the west.

The rear gardens of residential properties off Knights Road and Knox Street bound the playing fields. Other residential properties are present in the surrounding areas to the east, south and north. A site plan is presented in Figure 2.

The site is situated on relatively level ground at an approximate elevation of 8m AOD.

The site is occupied by a two-storey block of six flats known as Geraint House. The building is a T shaped building that sits in the centre of the site. The external area to the rear of the building is part concrete and part rough grass. The west boundary of the site is variably vegetated with occasional semi-mature trees and hedges. The northern and eastern areas are set to grass with an occasional tree. A low brick wall bounds the site to the north and east. Pedestrian access to the flats is via a footpath from Knights Road to the east.

2.2 SITE OPERATIONS

The site is occupied by an existing block of flats which is occupied and in use.

2.3 SURROUNDING LAND USE

In general, the surrounding areas are mainly developed for residential use. The area to the west is an existing sports club with associated playing fields.

2.4 AVAILABLE SITE INVESTIGATION DATA

There is no available site investigation data to our knowledge.

2.5 CONSULTATIONS WITH REGULATORS

The 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	1877, 1899, 1917-1918, 1940, 1953-1954, 1964
1:1,1250	1952-1953, 1962-1967, 1962-1991, 1967, 1968, 1993, 2001(aerial photo)
1:10,560	1885, 1900, 1921, 1938-1951, 1949, 1951
1:10,000	1965, 1982, 1993, 1999, 2006, 2020

The earliest edition of the map dated 1877 indicated that the site and the immediate surrounding areas were undeveloped land crossed by field boundaries and surface water features. A surface water feature was indicated to cross approximately through the centre of the site on a southeast to northwest orientation. A footpath was indicated to run parallel with the surface water feature. The Great Western Railway line was indicated approximately 140m to the west of the site running on an approximately north to south orientation.

The 1899 edition of the map indicated the surface water feature which formerly crossed the site to no longer be evident and therefore likely to have been infilled. The footpath was still indicated to cross the site. The site and the surrounding areas remained undeveloped. An additional railway line known as the Port Talbot Railway was indicated to have been constructed to run parallel to the Great Western Railway.

The 1917-1918 edition of the map indicated the site to have remained unchanged. The railway line to the west continued to expand.

By 1940 the historical map indicated the site to be rough grassland. Extensive residential development had been undertaken approximately 20m to the south along Knox Street, approximately 50m to the southeast and east along Maxim Road and Tollgate Road and approximately 100m to the north along Toronto Avenue. The areas directly adjacent to the site remained undeveloped.

3.0 SITE HISTORY (CONTINUED)

By the edition of the map dated 1968-1970 Knights Road had been constructed to the east of the site with residential properties now located along the length of the road including Geraint House within the site. The surrounding areas were now completely developed for residential use apart from the area to the west which remained undeveloped.

By the early 1980's the area to the west of the site was utilised as playing fields with an associated club building constructed to the northwest of the site. Additional club buildings were constructed to the west of the site by the 1990's.

The site and the surrounding areas have remained relatively unchanged between the 1990's and the present day.

4.0 SITE ENVIRONMENTAL SETTING

4.1 PHYSICAL SETTING

The site lies within a residential area of Margam on relatively low-lying ground at an approximate elevation of 8m AOD.

4.2 GEOLOGY

The 1:50,000 and 1:10,560 (Sheet SS 78 NE) scale geological maps of the area indicate the site to be underlain by South Wales Middle Coal Measures Formation of the Carboniferous period. These rocks typically comprise grey productive coal-bearing mudstones/siltstones, with seatearths and minor sandstones. The strata dips in the area are indicated to be 10° to the north.

A Conjectural Lag Fault is indicated approximately 130m to the north of the site which downthrows to the north. No conjectural outcrops are indicated in close proximity of the site. The conjectural outcrop of the Two Feet Nine seam is indicated approximately 950m to the south of the site.

The geological map indicates a borehole which was drilled approximately 170m to the northeast of the site. This borehole encountered coal at depths of 150ft(45m), 162ft(49m), 228ft(69m) and 315ft(96m).

Superficial Tidal Flat Deposits of the Quaternary period are indicated to overlie the solid strata. These deposits typically comprise normally consolidated soft silty clay, with layers of sand, gravel and peat.

A variable thickness of made ground is anticipated above the superficial deposits across most of the site due to the historical indication of infilling of a surface water feature and possible ground raising to create a development plateau.

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

4.2 GEOLOGY (CONTINUED)

Table 1: Summary of Anticipated Site Geology		
Geological unit	Horizon	Description
Recent	Made ground	Various materials
Quaternary	Tidal Flat Deposits	Consolidated soft silty clay, with layers of sand, gravel and peat.
Carboniferous	South Wales Middle Coal Measures Formation	Grey productive coal-bearing mudstones/siltstones, with seatearths and minor sandstones

4.3 RADON

Information with regard to Radon Protective Measures is provided within the Envirocheck Report and the BGS Radon Report as presented in Appendix B. The BGS report states that the site is within an intermediate probability area, as 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

A Coal Mining Report for the site has been obtained from the Coal Authority and a copy is included in Appendix C.

The Coal Authority states that the property is in a surface area that could be affected by underground mining in 1 seam of coal at 570m to 580m depth and last worked in 1908.

The Coal Authority mining report confirms that there are no known coal mine entries within, or within 20 metres of, the site boundary.

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

The geological maps do not indicate any conjectural outcrops in close proximity of the site, they are indicated much further to the south.

The Coal Authority Interactive Map indicates that the site does not lie within a high-risk development area.

4.4 MINING (CONTINUED)

Based on the information available it is considered that the risk to the site with regards to shallow underground mining is low.

4.5 HYDROLOGY, HYDROGEOLOGY AND FLOOD RISK

The Envirocheck Report indicates that the nearest surface water feature is located 83m to the north of the site. The OS Water Network Lines map indicates this feature to be Arnallt Brook.

The Environment Agency 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 Environment Agency groundwater vulnerability map and aquifer database classifies the superficial deposits beneath the site as a Secondary Aquifer-Undifferentiated. This classification has been assigned in cases where it has not been possible to attribute either category A or B to a strata 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 strata type.

A perched water body could be encountered within the made ground.

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

There are no discharge consents recorded within 250m of the site boundary. The nearest consent is recorded 377m to the northwest of the site and is an unspecified Dwr Cymru discharge received by Arnallt Brook.

The Envirocheck Report states that there is one water abstraction recorded within 1000m of the site boundary. A single point surface water abstraction is recorded 443m to the northwest of the site with the water used for dust suppression.

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
Arnallt Brook	83m north	Not known	Not known	No	Not known
Surface run-off	On site	Flows into site drainage	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	Not classified	Highly variable permeability and porosity. Perched water may be present with variable flow directions.	No	None
Tidal Flat Deposits	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 Middle Coal Measures Formation	Secondary A Aquifer	Variable permeability coal bearing mudstone/siltstone and sandstone	No	None

The Groundwater Vulnerability maps of the area indicate the combined aquifer to have a high vulnerability. The pollutant speed is high with well-connected fractures in the bedrock.

The Environment Agency Flood Risk Map as presented within the Envirocheck Report indicates that the site is not at risk to extreme flooding from rivers or sea without defences.

4.6 LANDFILL SITES

The Envirocheck Report indicates that there are no historical, BGS recorded or current landfill sites located within 1km of the site boundary.

4.6 LANDFILL SITES (CONTINUED)

Areas of potentially infilled land (water) are indicated on site and within 250m of the site boundary of the site. The former surface water feature, as indicated on the historical maps, which crossed the site is indicated to have been infilled in 1885. Additional surface water features were also indicated to have been infilled in the vicinity of the site

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.

Table 4: Potential Contaminants		
Land Use: Undeveloped land until late 1960's		
Material/Process	Contamination/Hazard	Evidence
Possible agricultural land	No potential contaminants	Historical maps
Surface water feature infilled by 1885 with unknown materials	Metals, semi metals, non-metals, PAH, asbestos	Historical maps
Land Use: Construction of Geraint House by late 1960's		
Material/Process	Contamination/Hazard	Evidence
Imported made ground/earthworks and construction works disturbing the ground	Metals, semi metals, non-metals, PAH, asbestos	Historical maps

Existing Uses

The site is currently occupied by Geraint House which is utilised as residential flats.

4.7 POTENTIAL CONTAMINATION (CONTINUED)

Adjacent Site Uses

Table 5: Potential Contaminants: Adjacent Site Uses		
Potential Contamination Source	Boundary	Associated Contaminants and Hazards
Knights Road with residential properties beyond	Eastern	No Potential Contaminants
Residential properties and associated gardens	Southern	No Potential Contaminants
Playing Fields	Western	No Potential Contaminants
Access road with residential properties beyond	Northern	No Potential Contaminants

4.8 OTHER ENVIRONMENTAL ISSUES

Environmentally sensitive land has not been identified in close proximity of the site boundary.

The Envirocheck Report indicates that there have been no pollution incidents to controlled waters recorded on site or within 250m of the site boundary. The nearest incident was recorded 292m to the southeast of the site and was a Category 3-Minor Incident involving crude sewage.

There have been no substantiated pollution incidents registered on site or recorded within 250m of the site boundary.

The Envirocheck Report indicates that there have been no prosecutions relating to controlled waters or to authorised processes recorded on site or within 1km of the site boundary.

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, make decisions on, and take appropriate action to deal with land contamination, in accordance with the procedures specified in the Environment Agency document '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 the CLR-11 framework, risk is defined as:

'a combination of the probability, or frequency, of occurrence of a defined hazard and the magnitude of the consequence of the occurrence'.

The three essential elements to any risk are defined by CLR-11 as follows:

- A contaminant, or hazard, which is in, on, or under the land and has the potential to cause harm (Source)
- A means by which a receptor can be exposed to, or affected by a contaminant or hazard (Pathway)
- A receptor, i.e. something which could be adversely affected by a contaminant or hazard, such as human health or groundwater (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.

5.1 RISK ASSESSMENT FRAMEWORK (CONTINUED)

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.

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.

5.1 RISK ASSESSMENT FRAMEWORK (CONTINUED)

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.

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 a residential end use. Therefore, the critical sensitive receptor from a human health perspective is an on-site residential receptor.

In accordance with S4UL/C4SL and CLEA guidance for a standard residential with 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.

The standard residential end use with homegrown produce conceptual model defined by S4UL/C4SL and CLEA is assumed to be suitable for the purposes of this assessment.

5.4 CRITICAL SENSITIVE RECEPTOR – CONTROLLED WATERS

Based on the proposed redevelopment of the site for a residential 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 Middle Coal Measures Formation.

5.4 CRITICAL SENSITIVE RECEPTOR – CONTROLLED WATERS (CONTINUED)

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

5.5 POTENTIAL CONTAMINANT SOURCES

As identified in the desk study, the site remained undeveloped until the construction of Geraint House in the late 1960's. The historical maps indicated the presence of a surface water feature that was infilled circa 1885 and so made ground would be anticipated within the site.

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; and
- Asbestos within the shallow made ground.

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 and/or soil attached to home-grown produce;
- Ingestion of home-grown produce;
- Inhalation of soil derived dust;
- Inhalation of vapours – indoor and outdoor air;
- Leaching of contaminants from made ground to groundwater; and
- Transportation of contaminants within groundwater.

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

- Ground gas generation and migration; and
- 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 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 and/or soil attached to home-grown produce	✓
			Ingestion of home-grown produce	✓
			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

An intrusive site investigation was designed in accordance with BS5930+A2:2010, the Code of Practice for Site Investigations, BS10175:2011, 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 intrusive site investigation was also designed to provide information to support and refine the preliminary conceptual site model/conceptual exposure model.

An intrusive investigation comprising the drilling of five windowless sample boreholes, was carried out on the 11th February 2020. The boreholes were located across the site and drilled to a maximum depth of 2.0m below existing ground level.

The purpose of the boreholes was to prove the shallow ground conditions and allow an assessment of the most appropriate foundation type for the proposed development. In situ strength testing was carried out as part of the intrusive site investigation works. Due to the shallow refusal within the made ground of WS1 and WS2, dynamic probing was undertaken adjacent to the windowless sample boreholes at these locations. Continuous CPT's were undertaken adjacent to WS3 and WS4 down to 4.2m depth. In-situ CPT's were undertaken within WS5 down to 2.0m depth.

Falling head soakaway tests were carried out in three of the windowless sample boreholes in order to assess/monitor the likely permeability of the materials. It should be noted that the falling head tests were undertaken within made ground materials. Repeat tests were undertaken within WS3 and WS4 when the water successfully drained from the borehole.

Representative soil samples were taken from the 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 windowless sample boreholes and prepared their detailed engineering logs in accordance with the requirements of BS5930+A2: 2010. 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.

6.1 FIELDWORKS (CONTINUED)

The approximate locations of the windowless sample boreholes are shown on Figure 2, while their logs are presented in Appendix D. The results of the falling head tests are presented in Appendix E.

6.2 FIELD OBSERVATIONS

No visual or olfactory evidence of any contamination was observed during the drilling of the windowless sample boreholes.

6.3 LABORATORY CHEMICAL TESTING

Representative soil samples were taken from the windowless sample boreholes across the site, stored at the appropriate temperature and dispatched to the UKAS 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)	
Asbestos	

The results of all the soil testing are presented in Appendix F.

6.4 LABORATORY GEOTECHNICAL TESTING

A sample of the natural ground was dispatched to the UKAS accredited laboratories of i2 Analytical and scheduled for analysis of moisture content, Atterberg Limits, water soluble sulphate and pH.

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

7.0 GROUND CONDITIONS

7.1 SUMMARY OF SHALLOW GROUND CONDITIONS

The ground conditions generally comprised a thin layer of topsoil overlying variable made ground which proved difficult to penetrate across the majority of the site. In-situ materials were encountered within WS5 at 1.5m depth and considered to be representative of the Tidal Flat Deposits. WS1 and WS2 refused at shallow depth within the made ground at 0.9m and 1.2m depths respectively. Due to the very gravelly nature of the made ground, recovery was poor within WS2 and WS4.

7.2 MADE GROUND

The made ground was variable in nature but typically comprised soft to firm in areas stiff grey brown in areas orange brown silty sandy gravelly clay. Gravel is fine to coarse angular in areas rounded brick, coal and sandstone in areas with concrete, slag and ceramic. Locally, the made ground was more granular in nature and comprised dense grey and dark grey brown very silty very clayey gravel with medium cobble content. Gravels and cobbles angular to sub angular brick, slag, clinker and sandstone.

The more cohesive made ground material was found to contain occasional pockets of sand.

WS2 encountered loose to medium dense with depth becoming dense grey silty sandy gravel and cobbles. Gravels and cobbles are angular and sub angular concrete and brick beneath the topsoil to refusal at 1.2m depth.

WS1 encountered medium dense to dense grey silty very clayey very sandy gravel. Gravel is fine to coarse angular brick and concrete below 0.7m depth to refusal at 0.9m depth.

Three dynamic probes were located around both WS1 and WS2. The dynamic probes also refused at a maximum depth of 0.92m adjacent to WS1 and at a maximum depth of 1.31m adjacent to WS2.

7.3 SUPERFICIAL SOILS

Superficial soils were only encountered/proved within WS5 at 1.5m depth. The materials comprised soft to firm grey in pockets light grey and light orange silty sandy slightly gravelly clay in pockets of more sandy and/or pockets of sand. Gravel is fine to coarse angular to rounded and sub rounded of sandstone. It is considered likely that this material represents the Tidal Flat Deposits.

7.3 SUPERFICIAL SOILS (CONTINUED)

The dynamic probing data was assessed and an equivalent SPT with depth plot derived as illustrated in Figure 3. The inference from this data is that in the rear area of the plot the ground is covered by made ground deposits of a medium dense to dense state (probably with a coarser fraction also) overlying soft and very soft clays, becoming firm clays. These latter deposits improve in strength to stiff consistency below approximately 4m depth suggesting 2 to 3m of softer deposits are present.

The laboratory plasticity test results indicate that the one sample of superficial soil which was tested has plasticity index of 15%. The modified plasticity index has been calculated as 12.6%, indicating that the volume change potential of superficial soils underlying the site to be low.

7.4 GROUNDWATER

Groundwater was encountered at 1.8m depth within WS3 and 1.7m depth within WS4.

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.

7.5 FALLING HEAD TEST RESULTS

Falling head tests were undertaken with WS3, WS4 and WS5. It should be noted that the tests were undertaken within the variable made ground material.

Repeat tests were undertaken within WS3 and WS4 when the water drained away. An infiltration rate of 1.10×10^{-3} m/s was calculated for the third cycle within WS3 and of 1.65×10^{-3} m/s on the third cycle with WS4.

The falling head test within WS5 was undertaken within the made ground and the underlying less permeable in-situ clays. Repeat tests were not possible with the water not draining after three hours. An infiltration rate of 2.14×10^{-6} m/s was calculated.

It should 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. The test should be undertaken within full sized trial pits, which would be depth and location specific, and should fully comply with BRE 365, in order to confirm the suitability of the site and to satisfy the local authority.

8.0 CONTAMINATION

8.1 AVERAGING AREAS

In order 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 residential 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 with the consumption of home grown produce end use have been adopted, where considered appropriate.

Since the results of the testing indicate total organic carbon content (TOC) in the range of 1.0% to 2.9%, the results have been compared to the respective guidelines, where applicable, for 1% soil organic matter content.

The soil test results have been summarised and are shown in Appendix H.

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

All four samples recorded elevated levels for Benzo(b)fluoranthene of between 3.4mg/kg in WS3 at 0.8m to 25mg/kg in WS4 at 0.6m which is above the recommended threshold level of 2.6mg/kg.

All four samples also recorded elevated levels for Dibenzo(ah)anthracene of between 0.34mg/kg in WS3 at 0.8m to 2.8mg/kg in WS4 at 0.6m which is above the recommended threshold level of 0.2mg/kg.

8.2 SOIL CONTAMINATION (CONTINUED)

Three samples, from WS2 at 1.0m, WS4 at 0.6m and WS5 at 0.5m, recorded elevated levels of Benzo(a)pyrene of between 6.7mg/kg and 13mg/kg which is above the recommended threshold level of 5.0mg/kg.

Three samples, from WS2 at 1.0m, WS4 at 0.6m and WS5 at 0.5m, recorded elevated levels of Benzo(a)anthracene of between 11mg/kg and 21mg/kg which is above the recommended threshold level of 7.2mg/kg.

One sample from WS4 at 0.6m depth recorded an elevated level of Chrysene of 16mg/kg which is above the recommended threshold of 15mg/kg.

No further exceedances were detected within the samples of made ground. Asbestos was not detected in the soil samples tested.

No visual or olfactory evidence of contamination of the in-situ natural ground was identified during the drilling of the windowless sample boreholes. At the time of writing this report no samples of natural ground had been tested. It is considered likely that concentrations of determinands 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.

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, soil leachate, groundwater and gas monitoring. Pathways identified as a relevant pollutant linkage require appropriate risk assessment or mitigation measures (see Section 10).

Table 10: Revised Conceptual Exposure Model						
Source		Receptor	Pathway	Preliminary Active Pathway? (see Sect. 5.8)	Relevant Pollutant Linkage	Justification/ Mitigation
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	✓	✓	Elevated concentrations of PAH compounds identified within the made ground – risk assess.
			Ingestion of soil and/or soil attached to home-grown produce	✓	✓	
			Ingestion of home-grown produce	✓	✓	
			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	✓	✓	Possibility of elevated leachate concentrations- risk assess
	Metals, semi-metals, inorganics, PAH	Surface water quality	Transportation within groundwater	✓	✓	Possibility of elevated leachate concentrations- risk assess

9.0 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 – 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	✓	X	Potential gas producing materials not encountered. No off-site sources identified

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*

The site does not pose any risks to casual visitors or trespassers. The site is largely covered by grass, hard surfacing or an existing building.

10.3 HUMAN HEALTH RISK ASSESSMENT (CONTINUED)

10.3.2 Future Site Users

The contamination test results and investigation observations show elevated concentration levels in the made ground of a number of speciated PAH compounds.

However, since the development proposals comprise a building extension and areas of hardstanding/carparking, there is not considered to be a potential risk to future site end users since the existing made ground would be capped and not exposed at the surface.

Significant areas of landscaping are not proposed within the site. However, it is intended to plant a number of mature trees within the site, and these will require a planting pocket of suitably clean subsoil/topsoil, as discussed below in Section 10.4.

This assessment should be reviewed if development proposals change and areas of landscaping and/or gardens are proposed.

10.3.3 Construction Workers

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. 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:

- 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.

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.

10.3 HUMAN HEALTH RISK ASSESSMENT (CONTINUED)

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

The concentrations of copper and zinc in the shallow made ground materials indicate the potential for adverse effects to vegetation. Also, the physical nature of the existing made ground does not provide a suitable growing medium for vegetation. Although no significant areas of landscaping are proposed, it is intended to plant a number of mature trees. In order to promote plant growth, trees should be planted within a planting pockets comprising suitably clean imported subsoil and topsoil.

10.5 GROUNDWATER RISK ASSESSMENT

Significant groundwater inflows were not encountered during the drilling of the windowless sample boreholes. The made ground recorded elevated levels of a number of speciated PAH compounds.

The made ground is underlain by low permeability tidal flat deposits and the proposed development comprises a building extension and a car park.

Based on the history of the site, the cohesive, low permeability nature of the underlying natural soils at depth, and the nature of the proposed development, the potential risk to controlled waters is considered to be low.

10.6 GROUND GAS RISK ASSESSMENT

During the investigation, there was no evidence of any significant organic material or made ground that could give rise to potential ground gas. Additionally, no off-site sources of potential ground gas migration have been identified in the vicinity of the site.

10.6 GROUND GAS RISK ASSESSMENT (CONTINUED)

Accordingly, the potential risk from ground gas at the site is considered to be low. It is therefore considered that any methane/carbon dioxide ground gas protective measures are not required at the site.

No radon protective measures would be required within any buildings constructed within 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 water soluble sulphate, and pH, which may adversely affect the durability of building materials is presented in Appendix H.

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.

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 770mg/l.

Using Table C2 of BRE Digest SD1:2005, this characteristic value corresponds to Design Sulphate Class DS-2 within the made ground.

The groundwater regime of the site has been assessed as 'mobile' and a characteristic pH value within the made ground of 7.7 has been determined (adopting the lowest test result).

The Design Sulphate Class has been modified to give a site ACEC class of AC-2 for concrete structures constructed within the made ground.

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.

10.7 RISKS TO BUILDINGS AND MATERIALS DURABILITY (CONTINUED)

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.

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 of the existing made ground are likely to be classified as non-hazardous waste. 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.

Depending on the waste classification, waste acceptance criteria (WAC) testing may be required, in order to determine which class of landfill site the waste can be sent to.

It is recommended that the results of the waste classification and any WAC test results 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.

The near-surface drainage patterns have not been fully established.

Leachate testing has not been undertaken as part of this investigation. If it is proposed to design soakaways within the made ground the leachability characteristics of the material would need to be determined.

11.0 ENGINEERING CONSIDERATIONS AND RECOMMENDATIONS

11.1 DETAILS OF PROPOSED DEVELOPMENT

The proposed development will comprise an extension of the existing Geraint House. A new access from Knights Road and car parking areas are also to be provided as part of the development. Significant landscaping is not proposed, however, some mature tree planting is intended as part of the development.

11.2 SITE PREPARATION

It is our understand that no significant changes in ground level are planned and that the proposed development levels will match the existing building.

All existing underground services, including drainage runs and manholes, should be identified and either be removed or protected and/or diverted from beneath the development area. Any diversionary works should be carried out under the supervision of, and to the specification of, the appropriate statutory authorities.

Any topsoil should be stripped off and removed from beneath the proposed buildings, access roads and car parking areas. These excavated materials will be unacceptable as structural fill and should either be removed from site, or stockpiled on site for potential re-use in landscaped areas, subject to appropriate testing and risk assessment.

There are many semi-mature and mature trees/hedges within and around the site. Where it becomes necessary to remove any of these existing trees or hedges, then the stumps should be appropriately 'grubbed out'. Allowances should be made for the removal of any associated roots that may become exposed in the proposed earthworks and foundation excavations. Any such works should be conducted in accordance with the code of practice recommended by the National House Building Council (NHBC).

The reduced levels should be brought up to the required levels with well compacted imported granular materials. As a minimum, Department of Transport Type 2 Sub-base, or similar approved, could be used and should be compacted in layers in accordance with the current DTP Specification for Highway Works.

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.

11.2 SITE PREPARATION (CONTINUED)

During construction, any airborne nuisance caused by dust from site must be controlled on account of the health and safety of site operatives and the general public who are occupying the properties adjacent to the site.

Any soft spots/areas should be removed and the reduced levels should be proof rolled and brought up to the required levels with either well compacted imported granular materials, or acceptable materials excavated from the site.

A system should be established for identification and dealing with any unforeseen contamination encountered during the site works. Any contamination, or suspected contamination, should be reported to the site manager, so that appropriate action may be taken, following specialist advice if necessary. Careful consideration of the re-use of made ground material should be undertaken prior to undertaking any earthworks activities.

Allowances should be made for encountering and dealing with existing land drains and springs.

11.3 FOUNDATIONS AND FLOOR SLABS

Foundations for the new structures need to take account of the following factors:

- Presence of variable made ground with coarse boulder sized materials present;
- Variable depth and character of the underlying superficial deposits; and
- Site preparation requirements and associated disturbance.

The windowless sample boreholes refused on obstructions within the made ground and could not prove the nature of the underlying deposits. However, dynamic probing/continuous CPT testing identified soft and very soft deposits beneath the made ground to an approximate depth of 4m.

Consideration could be given to the use of a raft foundation on re-engineered fill, subject to confirmation of the underlying ground conditions.

To confirm, or otherwise, the adequacy of this approach, once site access to excavator plant has been afforded, a series of trial pits should be excavated to allow direct observation and assessment of the soils to approximately 4m.

11.3 FOUNDATIONS AND FLOOR SLABS (CONTINUED)

If the trial pit works confirm the deeper strata is suitable, it may be necessary to excavate, sort and process the existing made ground beneath the proposed structure, and replace the acceptable materials in well compacted engineered layers, compacted in accordance with Department of Transport (DTp) Specification for Highway Works.

Subject to the results of confirmatory plate load testing on prepared formations, the proposed rafts should be designed to an allowable maximum bearing pressure of 50kN/m^2 , with an average pressure of less than 30kN/m^2 . At this intensity of loading, the total settlements should not exceed 30mm and any angular distortions caused by differential movements should be less than 1:750.

All foundations should be designed for low shrinkability tree influence criteria in accordance with NHBC guidelines.

All formations should be proof rolled with any soft spots and / or any obstructions that could form hard spots removed.

Thickening of the raft is likely to be required beneath the load bearing walls/columns.

If the ground conditions are found to be unsuitable for this foundation solution, consideration should be given to reverting to a piled foundation.

Radon protective measures are not required at the site.

11.4 EXCAVATIONS AND FORMATIONS

Most of the excavations should be possible with normal soil excavating machinery. However, allowances should be made for the use of pneumatic breaker attachments, or similar tools, if any buried obstructions are encountered.

Excavations to depths of typically 1m are unlikely to encounter significant groundwater inflows. Any groundwater inflows/seepages are likely to be slight and these together with any rainfall infiltrations should be dealt with by conventional pumping techniques.

For deeper excavation works adequate pumping facilities will need to be available to control flows and maintain excavation stability.

The sides of excavations deeper than 1.0m should be fully supported by trench boxes, or temporarily battered at gradients of typically 30° .

11.5 ACCESS ROADS AND CAR PARKING AREAS

For the access road and car parking formations, within the medium dense upper layer of fill, a California Bearing Ratio (CBR) value of between 2% and 4% can be used.

Within re-engineered fill a CBR value of 5% should be achievable.

It is recommended that a flexible road construction should be used. Allowances should be made for the removal of any 'soft spots/areas' and their replacement with well compacted imported granular materials as previously described.

It is recommended that a geogrid soil reinforcement layer be included in the construction in order to assist in maintaining the integrity of the road base.

11.6 DRAINAGE

Indicative falling head permeability tests were carried out in the windowless sample boreholes drilled across the site and the results indicate soil permeabilities of the order of 1.10×10^{-3} m/s, 1.65×10^{-3} m/s and 2.14×10^{-6} m/s.

Note that the permeability test results are specific to the locations and depths of the tests undertaken. It should also be appreciated that due to the nature of the windowless sampling drilling technique, only a very small diameter of the ground has been tested with a very limited quantity of water. The results can only be used to give a preliminary indication of the drainage potential of the ground (at the depths and locations tested) and should not be used for drainage design.

In order to confirm the suitability of soakaway drainage systems for the proposed development, it is recommended that BRE365 compliant soakaway tests are undertaken within machine excavated trial pits.

It is not normally recommended that soakaways are constructed within made ground materials due to the inherent composition, relative density and soil chemistry of these materials and so follow up soakaway tests should be undertaken within the natural ground. If it is proposed to construct soakaways within the made ground, as part of the follow up tests, samples of made ground should also be tested for their leachability potential.

11.7 RECOMMENDED FURTHER WORKS

When access allows, it is recommended that a number of machine excavated trial pits are completed in the vicinity of the proposed extension in order to prove the nature, and thickness of the made ground, and the nature of the underlying natural soils in order to assess the potential use of raft foundation on re-engineered fill. At this time BRE365 compliant soakaway tests should also be undertaken. If the infiltration rates within the natural ground are not deemed satisfactory and soakaways within the made ground are proposed, then leachate testing would also need to be undertaken.

If any further uncertainty arises from the excavation of the trial pits, then deeper shell and auger boreholes may be required in order to inform pile design.

APPENDIX A

ENVIROCHECK REPORT

Envirocheck[®] Report:

Datasheet

Order Details:

Order Number:

233818109_1_1

Customer Reference:

12608/LP

National Grid Reference:

278220, 187440

Slice:

A

Site Area (Ha):

0.09

Search Buffer (m):

1000

Site Details:

Knights Road
PORT TALBOT
SA13 2DT

Client Details:

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

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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	n/a
Contaminated Land Register Entries and Notices					
Discharge Consents	pg 1			4	6
Prosecutions Relating to Controlled Waters			n/a	n/a	n/a
Enforcement and Prohibition Notices	pg 3				2
Integrated Pollution Controls	pg 4			5	8
Integrated Pollution Prevention And Control	pg 6				31
Local Authority Integrated Pollution Prevention And Control					
Local Authority Pollution Prevention and Controls	pg 18			2	
Local Authority Pollution Prevention and Control Enforcements					
Nearest Surface Water Feature	pg 18		Yes		
Pollution Incidents to Controlled Waters	pg 18			3	6
Prosecutions Relating to Authorised Processes					
Registered Radioactive Substances	pg 19				2
River Quality					
River Quality Biology Sampling Points					
River Quality Chemistry Sampling Points					
Substantiated Pollution Incident Register	pg 20			1	3
Water Abstractions	pg 20			1	(*23)
Water Industry Act Referrals					
Groundwater Vulnerability Map	pg 26	Yes	n/a	n/a	n/a
Bedrock Aquifer Designations	pg 26	Yes	n/a	n/a	n/a
Superficial Aquifer Designations	pg 26	Yes	n/a	n/a	n/a
Source Protection Zones					
Extreme Flooding from Rivers or Sea without Defences	pg 26		Yes	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 27		8	6	64

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					
Integrated Pollution Control Registered Waste Sites					
Licensed Waste Management Facilities (Landfill Boundaries)					
Licensed Waste Management Facilities (Locations)	pg 36				1
Local Authority Landfill Coverage	pg 36	1	n/a	n/a	n/a
Local Authority Recorded Landfill Sites					
Potentially Infilled Land (Non-Water)	pg 36				2
Potentially Infilled Land (Water)	pg 36	1	7	19	48
Registered Landfill Sites					
Registered Waste Transfer Sites					
Registered Waste Treatment or Disposal Sites					
Hazardous Substances					
Control of Major Accident Hazards Sites (COMAH)	pg 40				2
Explosive Sites					
Notification of Installations Handling Hazardous Substances (NIHHS)	pg 40				1
Planning Hazardous Substance Consents	pg 40			2	3
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 42	Yes	n/a	n/a	n/a
BGS Estimated Soil Chemistry	pg 42	Yes	Yes	Yes	Yes
BGS Recorded Mineral Sites	pg 45				3
BGS Urban Soil Chemistry					
BGS Urban Soil Chemistry Averages					
CBSCB Compensation District			n/a	n/a	n/a
Coal Mining Affected Areas	pg 46	Yes	n/a	n/a	n/a
Mining Instability	pg 46	Yes	n/a	n/a	n/a
Man-Made Mining Cavities					
Natural Cavities					
Non Coal Mining Areas of Great Britain				n/a	n/a
Potential for Collapsible Ground Stability Hazards	pg 46		Yes	n/a	n/a
Potential for Compressible Ground Stability Hazards	pg 46	Yes		n/a	n/a
Potential for Ground Dissolution Stability Hazards				n/a	n/a
Potential for Landslide Ground Stability Hazards	pg 46	Yes		n/a	n/a
Potential for Running Sand Ground Stability Hazards	pg 46	Yes	Yes	n/a	n/a
Potential for Shrinking or Swelling Clay Ground Stability Hazards	pg 46	Yes		n/a	n/a
Radon Potential - Radon Affected Areas	pg 47	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 48		3	3	10
Fuel Station Entries					
Points of Interest - Commercial Services	pg 49		1		
Points of Interest - Education and Health	pg 49				2
Points of Interest - Manufacturing and Production	pg 49			11	67
Points of Interest - Public Infrastructure	pg 56				7
Points of Interest - Recreational and Environmental	pg 56		1		3
Gas Pipelines					
Underground Electrical Cables					

Data Type	Page Number	On Site	0 to 250m	251 to 500m	501 to 1000m (*up to 2000m)
Sensitive Land Use					
Ancient Woodland	pg 58				13
Areas of Adopted Green Belt					
Areas of Unadopted Green Belt					
Areas of Outstanding Natural Beauty					
Environmentally Sensitive Areas					
Forest Parks					
Local Nature Reserves					
Marine Nature Reserves					
National Nature Reserves					
National Parks					
Nitrate Sensitive Areas					
Nitrate Vulnerable Zones					
Ramsar Sites					
Sites of Special Scientific Interest					
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: Potential for Groundwater Flooding to Occur at Surface	A13SW (W)	0	1	278220 187440
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A12NE (W)	353	1	277850 187450
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A12NE (W)	406	1	277800 187500
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A13NE (NE)	435	1	278550 187750
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A14NW (NE)	443	1	278600 187700
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A12NE (W)	464	1	277750 187550
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A18SE (NE)	479	1	278500 187850
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A18SE (NE)	497	1	278450 187900
1	Discharge Consents Operator: Dwr Cymru Cyfyngedig Property Type: Sewerage Network - Sewers - Water Company Location: Margam Toronto Ave. Emergency Ov, Toronto Ave. Emergency Over Authority: Natural Resources Wales Catchment Area: Afon Kenfig Reference: BP0046201 Permit Version: 1 Effective Date: 20th August 1987 Issued Date: 20th August 1987 Revocation Date: 7th February 2003 Discharge Type: Unspecified Discharge: Not Supplied Environment: Receiving Water: Arnallt Brook Status: New Consent, by Application (Water Resources Act 1991, Section 88) Positional Accuracy: Located by supplier to within 100m	A13NW (NW)	377	2	277930 187710
1	Discharge Consents Operator: Dwr Cymru Cyfyngedig Property Type: Sewerage Network - Sewers - Water Company Location: Swo. Knights Road Soccer Pitch Marg, Soccer Pitch Margam Authority: Natural Resources Wales Catchment Area: Arnallt Brook Reference: Bw0202101 Permit Version: 1 Effective Date: 20th October 1989 Issued Date: 20th October 1989 Revocation Date: 14th March 1994 Discharge Type: Unspecified Discharge: Not Supplied Environment: Receiving Water: River Afan Status: Consent expired Positional Accuracy: Located by supplier to within 100m	A13NW (NW)	392	2	277900 187700
2	Discharge Consents Operator: Tata Steel Uk Limited Property Type: Education Location: Stp @ Tata Steel Strip Products, Limited, Tata Steel, Port Talbot Steelworks, Port Talbot, Sa13 3ng Authority: Natural Resources Wales Catchment Area: Not Supplied Reference: Eprxp3522xr Permit Version: 1 Effective Date: 19th December 2012 Issued Date: 19th December 2012 Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Final/Treated Effluent - Not Water Company Discharge: Freshwater Stream/River Environment: Receiving Water: Arnallt Brook Status: New issued under EPR 2010 Positional Accuracy: Located by supplier to within 10m	A12NE (NW)	480	2	277776 187670

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
2	Discharge Consents Operator: Tata Steel Uk Limited Property Type: Recreational & Cultural Location: Stp @ Tata Steel Strip Products, Limited, Tata Steel, Port Talbot Steelworks, Port Talbot, Sa13 3ng Authority: Natural Resources Wales Catchment Area: FFRWD WYLLT - HEADWATERS TO TIDAL LIMIT Reference: Xp3522xr Permit Version: 1 Effective Date: 19th December 2012 Issued Date: 19th December 2012 Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Final/Treated Effluent - Not Water Company Discharge: Freshwater Stream/River Environment: Receiving Water: Arnallt Brook Status: Effective Positional Accuracy: Located by supplier to within 10m	A12NE (NW)	480	2	277776 187670
3	Discharge Consents Operator: Dwr Cymru Cyfyngedig Property Type: Sewerage Network - Sewers - Water Company Location: Cso 122 18 Duke Street Afan, 18 Duke Street, Neath Port Talbot Authority: Natural Resources Wales Catchment Area: Not Supplied Reference: Bp0320201 Permit Version: 2 Effective Date: 31st March 2010 Issued Date: 31st March 2009 Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Stw Storm Overflow/Storm Tank - Water Company Discharge: Freshwater Stream/River Environment: Receiving Water: Undesignated Water Status: Surrendered Positional Accuracy: Located by supplier to within 10m	A12NW (W)	684	2	277519 187440
3	Discharge Consents Operator: Dwr Cymru Cyfyngedig Property Type: Sewerage Network - Sewers - Water Company Location: Cso 122 18 Duke Street Afan, 18 Duke Street, Neath Port Talbot Authority: Natural Resources Wales Catchment Area: Not Supplied Reference: Bp0320201 Permit Version: 2 Effective Date: 31st March 2010 Issued Date: 31st March 2009 Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Stw Storm Overflow/Storm Tank - Water Company Discharge: Freshwater Stream/River Environment: Receiving Water: Undesignated Water Status: Surrendered Positional Accuracy: Located by supplier to within 10m	A12NW (W)	684	2	277519 187440
3	Discharge Consents Operator: Dwr Cymru Cyfyngedig Property Type: Sewerage Network - Sewers - Water Company Location: Cso 122 18 Duke Street Afan, 18 Duke Street, Neath Port Talbot Authority: Natural Resources Wales Catchment Area: Not Supplied Reference: Bp0320201 Permit Version: 1 Effective Date: 31st March 2009 Issued Date: 7th March 2005 Revocation Date: 30th March 2010 Discharge Type: Sewage Discharges - Stw Storm Overflow/Storm Tank - Water Company Discharge: Freshwater Stream/River Environment: Receiving Water: Undesignated Water Status: Consent without application (Water Resources Act 1991, Schedule 10) Positional Accuracy: Located by supplier to within 10m	A12NW (W)	684	2	277519 187440

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
3	Discharge Consents Operator: Dwr Cymru Cyfyngedig Property Type: Sewerage Network - Sewers - Water Company Location: Cso 122 18 Duke Street Afan, 18 Duke Street, Neath Port Talbot Authority: Natural Resources Wales Catchment Area: Not Supplied Reference: Bp0046201 Permit Version: 2 Effective Date: 8th February 2003 Issued Date: 7th February 2003 Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Stw Storm Overflow/Storm Tank - Water Company Discharge: Freshwater Stream/River Environment: Receiving Water: Croeserw Brook Status: Effective Positional Accuracy: Located by supplier to within 10m	A12NW (W)	684	2	277519 187440
3	Discharge Consents Operator: Dwr Cymru Cyfyngedig Property Type: Sewerage Network - Sewers - Water Company Location: Cso 122 18 Duke Street Afan, 18 Duke Street, Neath Port Talbot Authority: Natural Resources Wales Catchment Area: Not Supplied Reference: Bp0046201 Permit Version: 2 Effective Date: 8th February 2003 Issued Date: 7th February 2003 Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Stw Storm Overflow/Storm Tank - Water Company Discharge: Freshwater Stream/River Environment: Receiving Water: Croeserw Brook Status: Effective Positional Accuracy: Located by supplier to within 10m	A12NW (W)	684	2	277519 187440
4	Discharge Consents Operator: Dwr Cymru Cyfyngedig Property Type: Sewerage Network - Sewers - Water Company Location: Swo. Brombil& Prince St M Authority: Natural Resources Wales Catchment Area: Arnallt Brook Reference: BW0202201 Permit Version: 1 Effective Date: 20th October 1989 Issued Date: 20th October 1989 Revocation Date: 31st March 2004 Discharge Type: Unspecified Discharge: Not Supplied Environment: Receiving Water: River Afan Status: Revoked (Water Resources Act 1991, Section 88 & Schedule 10 as amended by Environment Act 1995) Positional Accuracy: Located by supplier to within 100m	A17NE (NW)	851	2	277800 188200
5	Enforcement and Prohibition Notices Location: Port Talbot Works, Morfa Beach, Port Talbot, Sa13 2ng Permit Reference: Not Given Enforcement Date: 7th February 2002 Details: Followed A Lengthy Investigation Into An Oil Release From The Port Talbot Works To Morfa Beach. Positional Accuracy: Manually positioned to the address or location	A8NW (S)	508	3	278154 186919
6	Enforcement and Prohibition Notices Location: Port Talbot Works, Grange coke oven battery, P O Box 42, PORT TALBOT, West Glamorgan, SA13 2YS Permit Reference: SM136/99LR Enforcement Date: 17th May 1999 Details: EA Data 20/05/1999, Repeated breaches of emission limits and notification requirements in the operation of the Grange coke oven battery in the final quarter of 1998 and the first quarter of 1999. (EPA90 s13) Positional Accuracy: Manually positioned to the address or location	A7NE (SW)	670	3	277680 187013

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
7	Integrated Pollution Controls Name: Corus Uk Ltd Location: Morfa Coke Oven Plant, Port Talbot Works, PORT TALBOT, West Glamorgan, SA13 2NG Authority: Environment Agency, Welsh Region Permit Reference: BF8097 Dated: 31st March 1999 Process Type: IPC minor (non-substantial) variation to previous variation Description: 1.2 A (A) Carbonisation and associated processes within the Fuel & Power Industry Status: Authorisation superseded by a substantial or non substantial variation Positional Accuracy: Manually positioned to the address or location	A8NW (S)	391	3	278163 187036
8	Integrated Pollution Controls Name: Multiserv (Asr) Ltd Location: Abbey Steelworks, PORT TALBOT, West Glamorgan, SA13 2NG Authority: Environment Agency, Welsh Region Permit Reference: AV2005 Dated: 19th November 1996 Process Type: IPC minor (non-substantial) variation to previous variation Description: 2.1 A (L) Iron and Steel processes within the Metal Industry Status: Authorisation superseded by a substantial or non substantial variation Positional Accuracy: Manually positioned to the address or location	A13SW (SW)	444	3	277900 187105
8	Integrated Pollution Controls Name: Multiserv (Asr) Ltd Location: Abbey Steelworks, PORT TALBOT, West Glamorgan, SA13 2NG Authority: Environment Agency, Welsh Region Permit Reference: BD5534 Dated: 24th November 1998 Process Type: IPC minor (non-substantial) variation to previous variation Description: 2.1 A (L) Iron and Steel processes within the Metal Industry Status: Authorisation revoked Positional Accuracy: Manually positioned to the address or location	A13SW (SW)	448	3	277895 187105
9	Integrated Pollution Controls Name: Multiserv Group Ltd Location: Abbey Steelworks, PORT TALBOT, West Glamorgan, SA13 2NG Authority: Environment Agency, Welsh Region Permit Reference: AQ9880 Dated: 24th July 1995 Process Type: IPC application for process that was regulated by HMIP for air releases under previous legislation Description: 2.1 A Iron and Steel processes within the Metal Industry Status: Authorisation revoked Positional Accuracy: Unknown	A8NW (SW)	448	3	277905 187095
9	Integrated Pollution Controls Name: Multiserv (Asr) Ltd Location: Abbey Steelworks, PORT TALBOT, West Glamorgan, SA13 2NG Authority: Environment Agency, Welsh Region Permit Reference: AQ9901 Dated: 24th July 1995 Process Type: IPC application for process that was regulated by HMIP for air releases under previous legislation Description: 2.1 A (L) Iron and Steel processes within the Metal Industry Status: Authorisation superseded by a substantial or non substantial variation Positional Accuracy: Manually positioned to the address or location	A8NW (SW)	451	3	277900 187095
10	Integrated Pollution Controls Name: Corus Uk Ltd Location: Abbey Works, Margam, Port Talbot, West Glamorgan, SA13 2NG Authority: Environment Agency, Welsh Region Permit Reference: Bx0458 Dated: Not Supplied Process Type: IPC major (substantial) variation Description: 2.1 A (G) Iron and Steel processes within the Metal Industry Status: Application has met the requirements for authorisation (but not yet authorised) Positional Accuracy: Automatically positioned to the address	A8NW (S)	506	3	278154 186921
11	Integrated Pollution Controls Name: Cambrian Stone Ltd Location: Port Talbot Steelworks, P O Box 12, PORT TALBOT, West Glamorgan, SA12 6RL Authority: Environment Agency, Welsh Region Permit Reference: BI2645 Dated: Not Supplied Process Type: IPC major (substantial) variation Description: 2.1 A (L) Iron and Steel processes within the Metal Industry Status: Application has met the requirements for authorisation (but not yet authorised) Positional Accuracy: Manually positioned to the address or location	A8NW (SW)	580	3	277907 186929

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
11	Integrated Pollution Controls Name: Multiserv (Asr) Ltd Location: British Steel Strip Products, Port Talbot Works, PORT TALBOT, West Glamorgan, SA13 2NG Authority: Environment Agency, Welsh Region Permit Reference: Bk2291 Dated: 25th January 2001 Process Type: IPC minor (non-substantial) variation to previous variation Description: 2.1 A (B) Iron and Steel processes within the Metal Industry Status: Revoked - Now IPPC Positional Accuracy: Manually positioned to the address or location	A8NW (SW)	586	3	277884 186936
12	Integrated Pollution Controls Name: Multiserv (Asr) Ltd Location: British Steel Strip Products, Port Talbot Works, PORT TALBOT, West Glamorgan, SA13 2NG Authority: Environment Agency, Welsh Region Permit Reference: BE4690 Dated: 24th November 1998 Process Type: IPC minor (non-substantial) variation to previous variation Description: 2.1 A Iron and Steel processes within the Metal Industry Status: Authorisation superseded by a substantial or non substantial variation Positional Accuracy: Manually positioned to the address or location	A7NE (SW)	667	3	277676 187023
12	Integrated Pollution Controls Name: Multiserv (Asr) Ltd Location: British Steel Strip Products, Port Talbot Works, PORT TALBOT, West Glamorgan, SA13 2NG Authority: Environment Agency, Welsh Region Permit Reference: BD9718 Dated: 24th November 1998 Process Type: IPC minor (non-substantial) variation to previous variation Description: 2.1 A (B) Iron and Steel processes within the Metal Industry Status: Authorisation superseded by a substantial or non substantial variation Positional Accuracy: Manually positioned to the address or location	A7NE (SW)	670	3	277676 187018
12	Integrated Pollution Controls Name: Multiserv (Asr) Ltd Location: Port Talbot Works, PORT TALBOT, West Glamorgan, SA13 2NG Authority: Environment Agency, Welsh Region Permit Reference: BB2640 Dated: 20th October 1998 Process Type: IPC minor (non-substantial) variation to previous variation Description: 2.1 A Iron and Steel processes within the Metal Industry Status: Authorisation superseded by a substantial or non substantial variation Positional Accuracy: Manually positioned to the address or location	A7NE (SW)	673	3	277676 187013
12	Integrated Pollution Controls Name: Multiserv (Asr) Ltd Location: British Steel Strip Products, Port Talbot Works, PORT TALBOT, West Glamorgan, SA13 1RE Authority: Environment Agency, Welsh Region Permit Reference: AY8263 Dated: 3rd October 1997 Process Type: IPC new application Description: 2.1 A (B) Iron and Steel processes within the Metal Industry Status: Authorisation superseded by a substantial or non substantial variation Positional Accuracy: Manually positioned to the address or location	A7NE (SW)	674	3	277671 187018
12	Integrated Pollution Controls Name: Multiserv (Asr) Ltd Location: British Steel Strip Products, Port Talbot Works, PORT TALBOT, West Glamorgan, SA13 2NG Authority: Environment Agency, Welsh Region Permit Reference: AY8247 Dated: 2nd October 1997 Process Type: IPC new application Description: 2.1 A Iron and Steel processes within the Metal Industry Status: Authorisation superseded by a substantial or non substantial variation Positional Accuracy: Manually positioned to the address or location	A7NE (SW)	677	3	277671 187013

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
13	Integrated Pollution Prevention And Control Name: Port Talbot Steel Works Location: Port Talbot Work, Port Talbot, PORT TALBOT, Neath Port Talbot, SA13 2NG Authority: Natural Resources Wales Permit Reference: BP3635MR Original Permit Ref: Wp3132ev Effective Date: 2nd March 2016 Status: Effective Application Type: Bespoke App. Sub Type: Not Supplied Positional Accuracy: Automatically positioned to the address Activity Code: 5.4 PART A (1) B (III) Activity Description: Not Supplied Primary Activity: Y Activity Code: 0.0 Associated Process Activity Description: Not Supplied Primary Activity: N	A8NW (S)	506	2	278154 186921
13	Integrated Pollution Prevention And Control Name: Sun Coke Company Location: Port Talbot Steel Works, Strip Products, Port Talbot, West Glamorgan, SA13 2NG Authority: Natural Resources Wales Permit Reference: Bx6987ib Original Permit Ref: Bx6987ib Effective Date: 8th July 2005 Status: Superseded By Variation Application Type: Application App. Sub Type: New Positional Accuracy: Automatically positioned to the address Activity Code: 3.5 B (B) (I) Activity Description: Other Mineral Activities; Crushing Etc Of Coal Etc (Unless Exempt Location) Primary Activity: N Activity Code: 1.2 A(1) (A) Activity Description: Gasification, Liquifac. And Refining; Refining Gas Greater Or Equal To 1000 Te/12 Months Primary Activity: Y Activity Code: 1.2 A(1) c) (A) Activity Description: Gasification, Liquifac. And Refining; Operating Coke Ovens Primary Activity: N	A8NW (S)	506	2	278154 186921
13	Integrated Pollution Prevention And Control Name: Tata Steel Uk Limited Location: Port Talbot Steel Works, Strip Products, Port Talbot, West Glamorgan, SA13 2NG Authority: Natural Resources Wales Permit Reference: Ap3330be Original Permit Ref: Bf7108im Effective Date: 8th November 2004 Status: Superseded By Variation Application Type: Variation App. Sub Type: Standard Positional Accuracy: Automatically positioned to the address Activity Code: 2.1 A(1) (D) Activity Description: Ferrous Metals; Handling Etc Greater Than 500,000 Tonnes/12 Months Primary Activity: N Activity Code: 2.1 A(1) (B) Activity Description: Ferrous Metals; Producing, Melting Or Refining Primary Activity: N Activity Code: 2.1 A(1) (A) Activity Description: Ferrous Metals; Roasting/Sintering Iron Ore, Including Mixtures And Sulphide Ore Primary Activity: Y Activity Code: 2.1 A(1) (C) Activity Description: Ferrous Metals; Hot Rolling Greater Than 20T/Hr Primary Activity: N	A8NW (S)	506	2	278154 186921

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
13	Integrated Pollution Prevention And Control Name: Short Bros (Plant) Ltd Location: Port Talbot Steel Works, Strip Products, Port Talbot, West Glamorgan, SA13 2NG Authority: Natural Resources Wales Permit Reference: Bx9374it Original Permit Ref: BI7191iq Effective Date: 23rd July 2004 Status: Superseded By Variation Application Type: Variation App. Sub Type: Minor Positional Accuracy: Automatically positioned to the address Activity Code: 3.5 B (A) Activity Description: Other Mineral Activities; Any Processing With Release Of Particulates Into Air (Unless A(1) Or A(2)), (Except Stone Ecutting) Primary Activity: N Activity Code: 0.0 Associated Process Activity Description: Associated Process Primary Activity: Y	A8NW (S)	506	2	278154 186921
13	Integrated Pollution Prevention And Control Name: Corus Uk Ltd Location: Abbey Works, Margam, Port Talbot, West Glamorgan, SA13 2NG Authority: Environment Agency, Welsh Region Permit Reference: Bw2692 Original Permit Ref: Bw2692im Effective Date: Not Supplied Status: Valid Application Type: Not Supplied App. Sub Type: Not Supplied Positional Accuracy: Automatically positioned to the address Activity Code: 5.2 A(1) (A) Activity Description: Waste Landfilling; Greater Than 10 T/D With Capacity Greater Than 25,000T Excluding Inert Waste Primary Activity: Not Supplied	A8NW (S)	506	3	278154 186921
13	Integrated Pollution Prevention And Control Name: Port Talbot Steel Works Location: Port Talbot Steel Works Ea/Epr/BI7108im/V008, Strip Products, PORT TALBOT, West Glamorgan, SA13 2NG Authority: Natural Resources Wales Permit Reference: BI7108im Original Permit Ref: Jp3631zk Effective Date: 26th June 2018 Status: Effective Application Type: Bespoke App. Sub Type: Not Supplied Positional Accuracy: Automatically positioned to the address Activity Code: 2.3 A(1) (A) Activity Description: Not Supplied Primary Activity: N Activity Code: 2.1 PART A (1) A) Activity Description: Not Supplied Primary Activity: Y Activity Code: 0.0 Associated Process Activity Description: Not Supplied Primary Activity: N Activity Code: 5.4 PART A (1) B) (III) Activity Description: Not Supplied Primary Activity: N Activity Code: 5.3 A(1) a) (ii) Activity Description: Not Supplied Primary Activity: N Activity Code: 3.5 PART B B) (III) Activity Description: Not Supplied Primary Activity: N Activity Code: 1.1 A(1) (A) Activity Description: Not Supplied Primary Activity: N Activity Code: 2.1 PART A (1) B) (II) Activity Description: Not Supplied Primary Activity: N Activity Code: 2.1 PART A (1) C) Activity Description: Not Supplied Primary Activity: N Activity Code: 1.2 PART A (1) C) Activity Description: Not Supplied Primary Activity: N Activity Code: 2.1 PART A (1) D) Activity Description: Not Supplied Primary Activity: N	A8NW (S)	507	2	278154 186921

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
13	Integrated Pollution Prevention And Control Name: Morfa Non-Hazardous Landfill Location: Abbey Works, Margam, PORT TALBOT, West Glamorgan, SA13 2NG Authority: Natural Resources Wales Permit Reference: Bv7311ie Original Permit Ref: Gp3430mh Effective Date: 22nd September 2017 Status: Effective Application Type: Bespoke App. Sub Type: Not Supplied Positional Accuracy: Automatically positioned to the address Activity Code: 5.2 A(1) (A) Activity Description: Not Supplied Primary Activity: Y	A8NW (S)	507	2	278154 186921
13	Integrated Pollution Prevention And Control Name: Morfa Hazardous Landfill Location: Abbey Works, Margam, PORT TALBOT, West Glamorgan, SA13 2NG Authority: Natural Resources Wales Permit Reference: Bw2692im Original Permit Ref: Zp3939eb Effective Date: 1st December 2016 Status: Effective Application Type: Bespoke App. Sub Type: Not Supplied Positional Accuracy: Automatically positioned to the address Activity Code: 5.2 A(1) (A) Activity Description: Not Supplied Primary Activity: Y	A8NW (S)	507	2	278154 186921
13	Integrated Pollution Prevention And Control Name: Tata Steel Uk Limited Location: Port Talbot Steel Works, Corus Strip Products, Port Talbot Works,,, Port Talbot, SA13 2NG Authority: Natural Resources Wales Permit Reference: ZP3939EB Original Permit Ref: Bw2692im Effective Date: 31st October 2013 Status: Effective Application Type: Variation App. Sub Type: Standard Positional Accuracy: Automatically positioned to the address Activity Code: 5.2 A(1) (A) Activity Description: Waste Landfilling; Greater Than 10 T/D With Capacity Greater Than 25,000T Excluding Inert Waste Primary Activity: Y	A8NW (S)	507	2	278154 186921

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
13	Integrated Pollution Prevention And Control Name: Tata Steel Uk Limited Location: Port Talbot Steel Works, Strip Products, PORT TALBOT, West Glamorgan, SA13 2NG Authority: Natural Resources Wales Permit Reference: JP3631ZK Original Permit Ref: BL7108im Effective Date: 26th June 2013 Status: Effective Application Type: Variation App. Sub Type: Minor Positional Accuracy: Automatically positioned to the address Activity Code: 3.5 B (B) (III) Activity Description: Other Mineral Activities; Loadingetc Coal Etc (Except On Retail Sale) (Unless Exempt Location) Primary Activity: N Activity Code: 1.1 A(1) (A) Activity Description: Combustion; Any Fuel Greater Or Equal To 50Mw Primary Activity: N Activity Code: 0.0 Associated Process Activity Description: Associated Process Primary Activity: N Activity Code: 2.1 A(1) (A) Activity Description: Ferrous Metals; Roasting/Sintering Iron Ore, Including Mixtures And Sulphide Ore Primary Activity: Y Activity Code: 2.1 A(1) b) (ii) Activity Description: Ferrous Metals; Producing Etc In Crucibles Etc (Unless2.1 A (2) (A) Or (D)) Primary Activity: N Activity Code: 5.3 A(1) a) (ii) Activity Description: DISPOSAL OR RECOVERY OF HAZARDOUS WASTE WITH A CAPACITY EXCEEDING 10 TONNES PER DAY INVOLVING PHYSICO-CHEMICAL TREATMENT Primary Activity: N Activity Code: 2.1 A(1) (C) Activity Description: Ferrous Metals; Hot Rolling Greater Than 20T/Hr Primary Activity: N Activity Code: 2.1 A(1) (D) Activity Description: Ferrous Metals; Handling Etc Greater Than 500,000 Tonnes/12 Months Primary Activity: N Activity Code: 2.3 A(1) (A) Activity Description: Surface Treating Metals And Plastics; Electrolytic/Chemical Greater Than 30 Cubic Metres Primary Activity: N Activity Code: 1.2 A(1) (C) Activity Description: Gasification, Liquifac And Refining Primary Activity: N	A8NW (S)	507	2	278154 186921

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
13	Integrated Pollution Prevention And Control Name: Tata Steel Uk Limited Location: Port Talbot Steel Works, Strip Products, PORT TALBOT, West Glamorgan, SA13 2NG Authority: Natural Resources Wales Permit Reference: AP3734CK Original Permit Ref: BL7108im Effective Date: 12th July 2012 Status: Superseded By Variation Application Type: Variation App. Sub Type: Standard Positional Accuracy: Automatically positioned to the address Activity Code: 1.2 A(1) (C) Activity Description: Gasification, Liquifac And Refining Primary Activity: N Activity Code: 2.1 A(1) (C) Activity Description: Ferrous Metals; Hot Rolling Greater Than 20T/Hr Primary Activity: N Activity Code: 5.3 A(1) (A) Activity Description: Other Waste Disposal; Hazardous Waste Greater Than 10T/D Primary Activity: N Activity Code: 3.5 B (B) (III) Activity Description: Other Mineral Activities; Loadingetc Coal Etc (Except On Retail Sale) (Unless Exempt Location) Primary Activity: N Activity Code: 2.1 A(1) (D) Activity Description: Ferrous Metals; Handling Etc Greater Than 500,000 Tonnes/12 Months Primary Activity: N Activity Code: 2.1 A(1) (A) Activity Description: Ferrous Metals; Roasting/Sintering Iron Ore, Including Mixtures And Sulphide Ore Primary Activity: Y Activity Code: 2.3 A(1) (A) Activity Description: Surface Treating Metals And Plastics; Electrolytic/Chemical Greater Than 30 Cubic Metres Primary Activity: N Activity Code: 1.1 A(1) (A) Activity Description: Combustion; Any Fuel Greater Or Equal To 50Mw Primary Activity: N Activity Code: 2.1 A(1) b) (ii) Activity Description: Ferrous Metals; Producing Etc In Crucibles Etc (Unless2.1 A (2) (A) Or (D)) Primary Activity: N	A8NW (S)	507	2	278154 186921
13	Integrated Pollution Prevention And Control Name: Harsco Metals Group Ltd Location: Port Talbot Steel Works, Shorts Bros (Plant) Ltd, Port Talbot Work,,, PORT TALBOT, Neath Port Talbot, SA13 2NG Authority: Natural Resources Wales Permit Reference: UP3033CC Original Permit Ref: Bp3635mr Effective Date: 16th June 2012 Status: Superseded By Variation Application Type: Variation App. Sub Type: Substantial Positional Accuracy: Automatically positioned to the address Activity Code: 0.0 Associated Process Activity Description: Associated Process Primary Activity: N Activity Code: 3.5 B (A) Activity Description: Other Mineral Activities; Any Processing With Release Of Particulates Into Air (Unless A(1) Or A(2)), (Except Stone Ecutting) Primary Activity: Y	A8NW (S)	507	2	278154 186921
13	Integrated Pollution Prevention And Control Name: Cambrian Stone Limited Location: Port Talbot Steel Works, Port Talbot Steel Works, Abbey Works,,Margam, PORT TALBOT, West Glamorgan, SA13 2NG Authority: Natural Resources Wales Permit Reference: GP3433CX Original Permit Ref: BL5636if Effective Date: 6th February 2012 Status: Effective Application Type: Variation App. Sub Type: Standard Positional Accuracy: Automatically positioned to the address Activity Code: 3.5 B (A) Activity Description: Other Mineral Activities; Any Processing With Release Of Particulates Into Air (Unless A(1) Or A(2)), (Except Stone Ecutting) Primary Activity: Y	A8NW (S)	507	2	278154 186921

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
13	Integrated Pollution Prevention And Control Name: Tata Steel Uk Limited Location: Port Talbot Steel Works, Strip Products, PORT TALBOT, West Glamorgan, SA13 2NG Authority: Natural Resources Wales Permit Reference: GP3933CV Original Permit Ref: BL7108im Effective Date: 2nd February 2012 Status: Superseded By Variation Application Type: Variation App. Sub Type: Standard 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: N Activity Code: 1.1 A(1) (A) Activity Description: Combustion; Any Fuel Greater Or Equal To 50Mw Primary Activity: N Activity Code: 1.2 A(1) (C) Activity Description: Gasification, Liquifac And Refining Primary Activity: N Activity Code: 2.1 A(1) (A) Activity Description: Ferrous Metals; Roasting/Sintering Iron Ore, Including Mixtures And Sulphide Ore Primary Activity: Y Activity Code: 2.1 A(1) b) (ii) Activity Description: Ferrous Metals; Producing Etc In Crucibles Etc (Unless 2.1 A (2) (A) Or (D)) Primary Activity: N Activity Code: 2.1 A(1) (D) Activity Description: Ferrous Metals; Handling Etc Greater Than 500,000 Tonnes/12 Months Primary Activity: N Activity Code: 3.5 B (B) (III) Activity Description: Other Mineral Activities; Loadingetc Coal Etc (Except On Retail Sale) (Unless Exempt Location) Primary Activity: N Activity Code: 5.3 A(1) (A) Activity Description: Other Waste Disposal; Hazardous Waste Greater Than 10T/D Primary Activity: N Activity Code: 2.1 A(1) (C) Activity Description: Ferrous Metals; Hot Rolling Greater Than 20T/Hr Primary Activity: N	A8NW (S)	507	2	278154 186921

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
13	Integrated Pollution Prevention And Control Name: Tata Steel Uk Limited Location: Port Talbot Steel Works, Strip Products, PORT TALBOT, West Glamorgan, SA13 2NG Authority: Natural Resources Wales Permit Reference: ZP3535HC Original Permit Ref: BL7108im Effective Date: 19th November 2010 Status: Superseded By Variation Application Type: Variation App. Sub Type: Minor Positional Accuracy: Automatically positioned to the address Activity Code: 1.1 A(1) (A) Activity Description: Combustion; Any Fuel Greater Or Equal To 50Mw Primary Activity: N Activity Code: 1.2 A(1) (C) Activity Description: Gasification, Liquifac And Refining Primary Activity: N Activity Code: 2.3 A(1) (A) Activity Description: Surface Treating Metals And Plastics; Electrolytic/Chemical Greater Than 30 Cubic Metres Primary Activity: N Activity Code: 2.1 A(1) (A) Activity Description: Ferrous Metals; Roasting/Sintering Iron Ore, Including Mixtures And Sulphide Ore Primary Activity: Y Activity Code: 2.1 A(1) b) (ii) Activity Description: Ferrous Metals; Producing Etc In Crucibles Etc (Unless 2.1 A (2) (A) Or (D)) Primary Activity: N Activity Code: 2.1 A(1) (C) Activity Description: Ferrous Metals; Hot Rolling Greater Than 20T/Hr Primary Activity: N Activity Code: 2.1 A(1) (D) Activity Description: Ferrous Metals; Handling Etc Greater Than 500,000 Tonnes/12 Months Primary Activity: N Activity Code: 5.3 A(1) (A) Activity Description: Other Waste Disposal; Hazardous Waste Greater Than 10T/D Primary Activity: N Activity Code: 3.5 B (B) (III) Activity Description: Other Mineral Activities; Loadingetc Coal Etc (Except On Retail Sale) (Unless Exempt Location) Primary Activity: N	A8NW (S)	507	2	278154 186921

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
13	Integrated Pollution Prevention And Control Name: Tata Steel Uk Limited Location: Port Talbot Steel Works, Corus Strip Products, Abbey Works,,Margam, PORT TALBOT, Neath Port Talbot, SA13 2NG Authority: Natural Resources Wales Permit Reference: UP3130TB Original Permit Ref: BL7108im Effective Date: 9th August 2010 Status: Superseded By Variation Application Type: Variation App. Sub Type: Standard Positional Accuracy: Automatically positioned to the address Activity Code: 3.5 B (B) (III) Activity Description: Other Mineral Activities; Loadingetc Coal Etc (Except On Retail Sale) (Unless Exempt Location) Primary Activity: N Activity Code: 1.1 A(1) (A) Activity Description: Combustion; Any Fuel Greater Or Equal To 50Mw Primary Activity: N Activity Code: 5.3 A(1) (A) Activity Description: Other Waste Disposal; Hazardous Waste Greater Than 10T/D Primary Activity: N Activity Code: 2.3 A(1) (A) Activity Description: Surface Treating Metals And Plastics; Electrolytic/Chemical Greater Than 30 Cubic Metres Primary Activity: N Activity Code: 2.1 A(1) (C) Activity Description: Ferrous Metals; Hot Rolling Greater Than 20T/Hr Primary Activity: N Activity Code: 2.1 A(1) b) (ii) Activity Description: Ferrous Metals; Producing Etc In Crucibles Etc (Unless2.1 A (2) (A) Or (D)) Primary Activity: N Activity Code: 2.1 A(1) (A) Activity Description: Ferrous Metals; Roasting/Sintering Iron Ore, Including Mixtures And Sulphide Ore Primary Activity: Y Activity Code: 2.1 A(1) (D) Activity Description: Ferrous Metals; Handling Etc Greater Than 500,000 Tonnes/12 Months Primary Activity: N Activity Code: 1.2 A(1) (C) Activity Description: Gasification, Liquifac And Refining Primary Activity: N	A8NW (S)	507	2	278154 186921
13	Integrated Pollution Prevention And Control Name: Tata Steel Uk Limited Location: Abbey Works, Margam, Port Talbot, West Glamorgan, SA13 2NG Authority: Natural Resources Wales Permit Reference: GP3430MH Original Permit Ref: Bv7311ie Effective Date: 29th March 2010 Status: Effective Application Type: Variation App. Sub Type: Minor Positional Accuracy: Automatically positioned to the address Activity Code: 5.2 A(1) (A) Activity Description: Waste Landfilling; Greater Than 10 T/D With Capacity Greater Than 25,000T Excluding Inert Waste Primary Activity: Y	A8NW (S)	507	2	278154 186921

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
13	Integrated Pollution Prevention And Control Name: Tata Steel Uk Limited Location: Port Talbot Steel Works, Corus Strip Products, Abbey Works,,Margam, PORT TALBOT, Neath Port Talbot, SA13 2NG Authority: Natural Resources Wales Permit Reference: NP3938GZ Original Permit Ref: BI7108im Effective Date: 29th June 2009 Status: Superseded By Variation Application Type: Variation App. Sub Type: Substantial Positional Accuracy: Automatically positioned to the address Activity Code: 3.5 B (B) (III) Activity Description: Other Mineral Activities; Loadingetc Coal Etc (Except On Retail Sale) (Unless Exempt Location) Primary Activity: N Activity Code: 5.3 A(1) (A) Activity Description: Other Waste Disposal; Hazardous Waste Greater Than 10T/D Primary Activity: N Activity Code: 2.1 A(1) (C) Activity Description: Ferrous Metals; Hot Rolling Greater Than 20T/Hr Primary Activity: N Activity Code: 2.1 A(1) b) (ii) Activity Description: Ferrous Metals; Producing Etc In Crucibles Etc (Unless2.1 A (2) (A) Or (D)) Primary Activity: N Activity Code: 2.1 A(1) (A) Activity Description: Ferrous Metals; Roasting/Sintering Iron Ore, Including Mixtures And Sulphide Ore Primary Activity: Y Activity Code: 1.2 A(1) (C) Activity Description: Gasification, Liquifac And Refining Primary Activity: N Activity Code: 1.1 A(1) (A) Activity Description: Combustion; Any Fuel Greater Or Equal To 50Mw Primary Activity: N Activity Code: 2.3 A(1) (A) Activity Description: Surface Treating Metals And Plastics; Electrolytic/Chemical Greater Than 30 Cubic Metres Primary Activity: N Activity Code: 2.1 A(1) (D) Activity Description: Ferrous Metals; Handling Etc Greater Than 500,000 Tonnes/12 Months Primary Activity: N	A8NW (S)	507	2	278154 186921
13	Integrated Pollution Prevention And Control Name: Tata Steel Uk Limited Location: Abbey Works, Margam, Port Talbot, West Glamorgan, SA13 2NG Authority: Natural Resources Wales Permit Reference: TP3139XJ Original Permit Ref: BI7108im Effective Date: 21st December 2007 Status: Superseded By Variation Application Type: Variation App. Sub Type: Minor Positional Accuracy: Automatically positioned to the address Activity Code: 5.3 A(1) (A) Activity Description: Other Waste Disposal; Hazardous Waste Greater Than 10T/D Primary Activity: N Activity Code: 2.1 A(1) (C) Activity Description: Ferrous Metals; Hot Rolling Greater Than 20T/Hr Primary Activity: N Activity Code: 1.1 A(1) (A) Activity Description: Combustion; Any Fuel Greater Or Equal To 50Mw Primary Activity: N Activity Code: 2.1 A(1) (D) Activity Description: Ferrous Metals; Handling Etc Greater Than 500,000 Tonnes/12 Months Primary Activity: N Activity Code: 2.1 A(1) b) (ii) Activity Description: Ferrous Metals; Producing Etc In Crucibles Etc (Unless2.1 A (2) (A) Or (D)) Primary Activity: N Activity Code: 2.1 A(1) (A) Activity Description: Ferrous Metals; Roasting/Sintering Iron Ore, Including Mixtures And Sulphide Ore Primary Activity: Y Activity Code: 1.2 A(1) (C) Activity Description: Gasification, Liquifac And Refining Primary Activity: N Activity Code: 3.5 B (B) (III) Activity Description: Other Mineral Activities; Loadingetc Coal Etc (Except On Retail Sale) (Unless Exempt Location) Primary Activity: N Activity Code: 2.3 A(1) (A) Activity Description: Surface Treating Metals And Plastics; Electrolytic/Chemical Greater Than 30 Cubic Metres Primary Activity: N	A8NW (S)	507	2	278154 186921

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
13	Integrated Pollution Prevention And Control Name: Tata Steel Uk Limited Location: Abbey Works, Margam, PORT TALBOT, West Glamorgan, SA13 2NG Authority: Natural Resources Wales Permit Reference: SP3633MK Original Permit Ref: Bw2692im Effective Date: 24th May 2007 Status: Superseded By Variation Application Type: Variation App. Sub Type: Minor Positional Accuracy: Automatically positioned to the address Activity Code: 5.2 A(1) (A) Activity Description: Waste Landfilling; Greater Than 10 T/D With Capacity Greater Than 25,000T Excluding Inert Waste Primary Activity: Y	A8NW (S)	507	2	278154 186921
13	Integrated Pollution Prevention And Control Name: Tata Steel Uk Limited Location: Port Talbot Steel Works, Stripworks (Morfa Non-Hazardous Landfill), Abbey Works, Margam, PORT TALBOT, West Glamorgan, SA13 2NG Authority: Natural Resources Wales Permit Reference: KP3033MC Original Permit Ref: Bv7311ie Effective Date: 5th December 2006 Status: Superseded By Variation Application Type: Variation App. Sub Type: Simple Standard Variation Positional Accuracy: Automatically positioned to the address Activity Code: 5.2 A(1) (A) Activity Description: Waste Landfilling; Greater Than 10 T/D With Capacity Greater Than 25,000T Excluding Inert Waste Primary Activity: Y	A8NW (S)	507	2	278154 186921
13	Integrated Pollution Prevention And Control Name: Tata Steel Uk Limited Location: Abbey Works, Margam, Port Talbot, West Glamorgan, SA13 2NG Authority: Natural Resources Wales Permit Reference: PP3837SQ Original Permit Ref: BI7108im Effective Date: 12th May 2006 Status: Superseded By Variation Application Type: Variation App. Sub Type: Simple Standard Variation Positional Accuracy: Automatically positioned to the address Activity Code: 2.1 A(1) (D) Activity Description: Ferrous Metals; Handling Etc Greater Than 500,000 Tonnes/12 Months Primary Activity: N Activity Code: 2.1 A(1) (C) Activity Description: Ferrous Metals; Hot Rolling Greater Than 20T/Hr Primary Activity: N Activity Code: 2.1 A(1) (B) Activity Description: Ferrous Metals; Producing, Melting Or Refining Primary Activity: N Activity Code: 2.1 A(1) (A) Activity Description: Ferrous Metals; Roasting/Sintering Iron Ore, Including Mixtures And Sulphide Ore Primary Activity: Y	A8NW (S)	507	2	278154 186921
13	Integrated Pollution Prevention And Control Name: Tata Steel Uk Limited Location: Abbey Works, Margam, Port Talbot, West Glamorgan, SA13 2NG Authority: Natural Resources Wales Permit Reference: FP3935LM Original Permit Ref: BI7108im Effective Date: 3rd February 2006 Status: Superseded By Variation Application Type: Variation App. Sub Type: Minor Positional Accuracy: Automatically positioned to the address Activity Code: 2.1 A(1) (D) Activity Description: Ferrous Metals; Handling Etc Greater Than 500,000 Tonnes/12 Months Primary Activity: N Activity Code: 2.1 A(1) (B) Activity Description: Ferrous Metals; Producing, Melting Or Refining Primary Activity: N Activity Code: 2.1 A(1) (A) Activity Description: Ferrous Metals; Roasting/Sintering Iron Ore, Including Mixtures And Sulphide Ore Primary Activity: Y Activity Code: 2.1 A(1) (C) Activity Description: Ferrous Metals; Hot Rolling Greater Than 20T/Hr Primary Activity: N	A8NW (S)	507	2	278154 186921

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
13	Integrated Pollution Prevention And Control Name: Tata Steel Uk Limited Location: Corus Strip Products, Abbey Works, Margam, PORT TALBOT, West Glamorgan, SA13 2NG Authority: Natural Resources Wales Permit Reference: Bp3933ld Original Permit Ref: Bl7108im Effective Date: 1st October 2005 Status: Superseded By Variation Application Type: Variation App. Sub Type: Minor Positional Accuracy: Automatically positioned to the address Activity Code: 2.1 A(1) (D) Activity Description: Ferrous Metals; Handling Etc Greater Than 500,000 Tonnes/12 Months Primary Activity: N Activity Code: 2.1 A(1) (A) Activity Description: Ferrous Metals; Roasting/Sintering Iron Ore, Including Mixtures And Sulphide Ore Primary Activity: Y Activity Code: 2.1 A(1) (C) Activity Description: Ferrous Metals; Hot Rolling Greater Than 20T/Hr Primary Activity: N Activity Code: 2.1 A(1) (B) Activity Description: Ferrous Metals; Producing, Melting Or Refining Primary Activity: N	A8NW (S)	507	2	278154 186921
13	Integrated Pollution Prevention And Control Name: Tata Steel Uk Limited Location: Corus Strip Products, Port Talbot Steel Works, Port Talbot, West Glamorgan, SA13 2NG Authority: Natural Resources Wales Permit Reference: Rp3730bv Original Permit Ref: Bl7108im Effective Date: 20th February 2005 Status: Superseded By Variation Application Type: Variation App. Sub Type: Substantial Positional Accuracy: Automatically positioned to the address Activity Code: 2.1 A(1) (A) Activity Description: Ferrous Metals; Roasting/Sintering Iron Ore, Including Mixtures And Sulphide Ore Primary Activity: Y Activity Code: 2.1 A(1) (B) Activity Description: Ferrous Metals; Producing, Melting Or Refining Primary Activity: N Activity Code: 2.1 A(1) (C) Activity Description: Ferrous Metals; Hot Rolling Greater Than 20T/Hr Primary Activity: N Activity Code: 2.1 A(1) (D) Activity Description: Ferrous Metals; Handling Etc Greater Than 500,000 Tonnes/12 Months Primary Activity: N	A8NW (S)	507	2	278154 186921
13	Integrated Pollution Prevention And Control Name: Port Talbot Steel Works Location: Abbey Works, Margam, PORT TALBOT, West Glamorgan, SA13 2NG Authority: Natural Resources Wales Permit Reference: Bl5636if Original Permit Ref: Gp3433cx Effective Date: 2nd March 2016 Status: Effective Application Type: Bespoke App. Sub Type: Not Supplied Positional Accuracy: Located by supplier to within 10m Activity Code: 5.4 PART A (1) B) (III) Activity Description: Not Supplied Primary Activity: Y Activity Code: 0.0 Associated Process Activity Description: Not Supplied Primary Activity: N	A8NW (S)	508	2	278150 186920

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
13	Integrated Pollution Prevention And Control Name: Cambrian Stone Limited Location: Port Talbot Steel Works, Port Talbot Steel Works, Abbey Works,,Margam, PORT TALBOT, West Glamorgan, SA13 2NG Authority: Natural Resources Wales Permit Reference: UP3430TG Original Permit Ref: BL5636if Effective Date: 9th August 2010 Status: Superseded By Variation Application Type: Variation App. Sub Type: Standard Positional Accuracy: Located by supplier to within 100m Activity Code: 3.5 B (A) Activity Description: Other Mineral Activities; Any Processing With Release Of Particulates Into Air (Unless A(1) Or A(2)), (Except Stone Ecutting) Primary Activity: Y	A8NW (S)	508	2	278150 186920
14	Integrated Pollution Prevention And Control Name: Cambrian Stone Ltd Location: Port Talbot Steelworks, P O Box, Port Talbot, West Glamorgan, SA12 6RL Authority: Environment Agency, Welsh Region Permit Reference: BL5636 Original Permit Ref: BL5636 Effective Date: 24th December 2002 Status: Superseded By Variation Application Type: PPC APPLICATION App. Sub Type: Not Supplied Positional Accuracy: Manually positioned to the address or location Activity Code: 3.5 B (A) Activity Description: Other Mineral Activities; Any Processing With Release Of Particulates Into Air (Unless A(1) Or A(2)), (Except Stone Ecutting) Primary Activity: Not Supplied	A8NW (SW)	572	3	277892 186948
15	Integrated Pollution Prevention And Control Name: Nu Rock Sonics Ltd Location: Port Talbot Steel Works, Strip Products, Port Talbot, West Glamorgan, SA13 2NG Authority: Natural Resources Wales Permit Reference: Bs6165iw Original Permit Ref: Bs6165iw Effective Date: 31st March 2005 Status: Revoked Application Type: Application App. Sub Type: New Positional Accuracy: Automatically positioned to the address Activity Code: 2.1 A(1) (C) Activity Description: Ferrous Metals; Hot Rolling Greater Than 20T/Hr Primary Activity: Y	A7NW (SW)	886	2	277541 186842
15	Integrated Pollution Prevention And Control Name: Short Bros (Plant) Ltd Location: Port Talbot Steel Works, Shorts Bros, Port Talbot Work, Port Talbot, SA13 2NG Authority: Natural Resources Wales Permit Reference: Bv4037id Original Permit Ref: BL7191iq Effective Date: 17th October 2003 Status: Superseded By Variation Application Type: Variation App. Sub Type: Minor Positional Accuracy: Automatically positioned to the address Activity Code: 0.0 Associated Process Activity Description: Associated Process Primary Activity: Y	A7NW (SW)	886	2	277541 186842
15	Integrated Pollution Prevention And Control Name: Short Bros (Plant) Ltd Location: Port Talbot Steel Works, Strip Products, Port Talbot, West Glamorgan, SA13 2NG Authority: Natural Resources Wales Permit Reference: BL7191iq Original Permit Ref: BL7191iq Effective Date: 6th June 2003 Status: Superseded By Variation Application Type: Application App. Sub Type: New Positional Accuracy: Automatically positioned to the address Activity Code: 0.0 Associated Process Activity Description: Associated Process Primary Activity: Y	A7NW (SW)	886	2	277541 186842

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
16	Local Authority Pollution Prevention and Controls Name: Texturing Technology Ltd Location: Port Talbot Works, PORT TALBOT, West Glamorgan, SA13 2NG Authority: Neath Port Talbot County Borough Council, Environmental Health Department Permit Reference: Not Given Dated: Not Supplied Process Type: Local Authority Air Pollution Control Description: PG6/10 Coating manufacturing Status: Authorisation revoked Positional Accuracy: Manually positioned to the address or location	A8NW (S)	454	4	278083 186988
17	Local Authority Pollution Prevention and Controls Name: British Steel Limited Location: Port Talbot Works, PORT TALBOT, West Glamorgan, SA13 2NG Authority: Neath Port Talbot County Borough Council, Environmental Health Department Permit Reference: E3/1/6 Dated: 14th October 1994 Process Type: Local Authority Air Pollution Control Description: PG2/2 Hot dip galvanising processes Status: Authorisation has varied Positional Accuracy: Manually positioned to the address or location	A8NW (SW)	455	4	277905 187085
	Nearest Surface Water Feature	A13NE (N)	83	-	278253 187535
18	Pollution Incidents to Controlled Waters Property Type: Not Given Location: Near Twelve Nights Hotel, MARGAM Authority: Environment Agency, Welsh Region Pollutant: Crude Sewage Note: Not Supplied Incident Date: 30th April 1996 Incident Reference: 28247 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	A13SE (SE)	292	3	278500 187300
19	Pollution Incidents to Controlled Waters Property Type: Not Given Location: Houses In Brombil Gardens Estate, Upstream Of Footbridge, Opposite Council Offices, TYWYN Authority: Environment Agency, Welsh Region Pollutant: Unknown Note: Inadequate Design/Capacity Incident Date: 6th August 1996 Incident Reference: 29359 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	A13NE (NE)	350	3	278550 187600
20	Pollution Incidents to Controlled Waters Property Type: Not Given Location: Margam Road, MARGAM Authority: Environment Agency, Welsh Region Pollutant: Oils - Petrol Note: Accident Incident Date: 28th January 1997 Incident Reference: 31009 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Spillage Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A8NW (SW)	473	3	278000 187000
21	Pollution Incidents to Controlled Waters Property Type: Not Given Location: 200 Yards From, Brombil Gardens Margam Authority: Environment Agency, Welsh Region Pollutant: Stagnant Water Note: Not Supplied Incident Date: 25th April 1995 Incident Reference: 23788 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	A14SW (E)	567	3	278800 187350

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
22	Pollution Incidents to Controlled Waters Property Type: Not Given Location: Eglwys Nunydd Authority: Environment Agency, Welsh Region Pollutant: Light Oil Note: Not Supplied Incident Date: 27th January 1995 Incident Reference: 22553 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	A18SE (NE)	608	3	278500 188000
23	Pollution Incidents to Controlled Waters Property Type: Not Given Location: Bronmill Farm, Manweb Sub Station, PORT TALBOT Authority: Environment Agency, Welsh Region Pollutant: Mud/Clay/Soil Note: Not Supplied Incident Date: 27th April 1996 Incident Reference: 28139 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	A14NE (E)	779	3	279000 187595
23	Pollution Incidents to Controlled Waters Property Type: Cattle (Dairy) Farming: Slurry Store/Waste Tank Location: Bronmill Farm, Margam, PORT TALBOT Authority: Environment Agency, Welsh Region Pollutant: Mud/Clay/Soil Note: Not Supplied Incident Date: 27th April 1996 Incident Reference: 28139 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	A14NE (E)	780	3	279000 187600
24	Pollution Incidents to Controlled Waters Property Type: Not Given Location: Smallholding At End Of Brombil Lane, MARGAM Authority: Environment Agency, Welsh Region Pollutant: Farm Effluent/Slurry Note: Poor Management; Afon Kenfig Incident Date: 24th November 1998 Incident Reference: 37281 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	A14NE (E)	878	3	279100 187600
25	Pollution Incidents to Controlled Waters Property Type: Not Given Location: Margam British Rail Yards, Porthcawl Road Authority: Environment Agency, Welsh Region Pollutant: Crude Sewage Note: Not Supplied Incident Date: 15th December 1991 Incident Reference: 1666 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Unknown Incident Severity: Category 2 - Significant Incident Positional Accuracy: Located by supplier to within 100m	A17SW (NW)	892	3	277500 188000
26	Registered Radioactive Substances Name: Corus Uk Ltd Location: Abbey Works, Margam, Port Talbot, West Glamorgan, SA13 2NG Authority: Natural Resources Wales Permit Reference: Bw8895 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 superseded by a substantial or non substantial variation Positional Accuracy: Automatically positioned to the address	A8NW (S)	506	2	278154 186921

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
26	Registered Radioactive Substances Name: Corus Uk Ltd Location: Strip Products, Port Talbot, West Glamorgan, SA13 2NG Authority: Natural Resources Wales Permit Reference: CB8405 Dated: 14th November 2008 Process Type: Authorisation under S13 RSA for the disposal of Radioactive waste (was RSA60 S7) Description: Substantial variation to authorisation under RSA Status: Authorisation either revoked or cancelled Positional Accuracy: Manually positioned to the address or location	A8NW (S)	508	2	278153 186920
27	Substantiated Pollution Incident Register Authority: Natural Resources Wales Incident Date: 15th September 2018 Incident Reference: 1805921 Water Impact: Category 4 - No Impact Air Impact: Category 3 - Minor Incident Land Impact: Category 4 - No Impact Positional Accuracy: Located by supplier to within 10m Pollutant: Atmospheric Pollutants And Effects: Dust	A18SW (N)	472	2	278113 187914
28	Substantiated Pollution Incident Register Authority: Natural Resources Wales Incident Date: 7th August 2014 Incident Reference: 1265950 Water Impact: Category 4 - No Impact Air Impact: Category 2 - Significant Incident Land Impact: Category 4 - No Impact Positional Accuracy: Located by supplier to within 10m Pollutant: Other Pollutant: Noise	A8NW (SW)	581	2	277920 186920
29	Substantiated Pollution Incident Register Authority: Natural Resources Wales Incident Date: 28th February 2019 Incident Reference: 1901284 Water Impact: Category 4 - No Impact Air Impact: Category 3 - Minor Incident Land Impact: Category 4 - No Impact Positional Accuracy: Located by supplier to within 10m Pollutant: Atmospheric pollutants and Effects: Noise	A18NW (N)	954	2	278026 188388
30	Substantiated Pollution Incident Register Authority: Natural Resources Wales Incident Date: 8th January 2014 Incident Reference: 1191891 Water Impact: Category 4 - No Impact Air Impact: Category 2 - Significant Incident Land Impact: Category 4 - No Impact Positional Accuracy: Located by supplier to within 10m Pollutant: Other Pollutant: Noise	A17NE (NW)	1000	2	277684 188305
31	Water Abstractions Operator: Costain Limited Licence Number: Wa/058/0034/001 Permit Version: 1 Location: Arnallt Culvert-Brook Port Talbot Authority: Environment Agency, Welsh Region Abstraction: Construction: Dust Suppression Abstraction Type: Water may be abstracted from a single point Source: Surface Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Margam Moors, Port Talbot, West Glamorgan Authorised Start: 01 April Authorised End: 31 March Permit Start Date: 5th August 2011 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	A12NE (NW)	443	3	277820 187673

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Water Abstractions Operator: Tata Steel Uk Limited Licence Number: 21/58/34/0002 Permit Version: 101 Location: Ditch Passing Through Abbey Works (Mother Ditch Point B) Authority: Natural Resources Wales Abstraction: Metal: Evaporative Cooling 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: 12th November 2010 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	A7SE (SW)	1077	2	277730 186460
	Water Abstractions Operator: Tata Steel Uk Limited Licence Number: 21/58/34/0002 Permit Version: 101 Location: Ditch Passing Through Abbey Works (Mother Ditch Point B) Authority: Natural Resources Wales Abstraction: Metal: Process Water 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: 12th November 2010 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	A7SE (SW)	1077	2	277730 186460
	Water Abstractions Operator: Corus Uk Strip Products Licence Number: 21/58/34/0002 Permit Version: 100 Location: Ditch Passing Through Abbey Works (Mother Ditch Point B) Authority: Environment Agency, Welsh Region Abstraction: Metal: Evaporative Cooling Abstraction Type: Water may be abstracted from a single point Source: Surface Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Ditch Passing Through Abbey Wks Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 1st April 2000 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m	A7SE (SW)	1077	3	277730 186460
	Water Abstractions Operator: Tata Steel Uk Limited Licence Number: 21/58/34/0002 Permit Version: Not Supplied Location: Land At British Steel At Port Talbot Authority: Natural Resources Wales Abstraction: Metal: Evaporative Cooling Abstraction Type: Water may be abstracted from any point within an area 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	A7SE (SW)	1077	2	277730 186460

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Water Abstractions Operator: Tata Steel Uk Limited Licence Number: 21/58/34/0002 Permit Version: Not Supplied Location: Land At British Steel At Port Talbot Authority: Natural Resources Wales Abstraction: Metal: Process Water Abstraction Type: Water may be abstracted from any point within an area 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	A7SE (SW)	1077	2	277730 186460
	Water Abstractions Operator: Corus Uk Strip Products Licence Number: 21/58/34/0002 Permit Version: 100 Location: Ditch Passing Through Abbey Works (Mother Ditch Point B) Authority: Environment Agency, Welsh Region Abstraction: Metal: Process Water Abstraction Type: Water may be abstracted from a single point Source: Surface Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Licenced from 01-Jan to 31-Dec Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 1st April 2000 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	A7SE (SW)	1081	3	277730 186455
	Water Abstractions Operator: Corus Uk Strip Products Licence Number: 21/58/61/0012 Permit Version: 100 Location: Port Talbot Docks Authority: Environment Agency, Welsh Region Abstraction: Metal: Process Water Abstraction Type: Water may be abstracted from a single point Source: Surface Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Licenced from 01-Jan to 31-Dec Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 1st April 2000 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	A21SE (NW)	1735	3	276890 188585
	Water Abstractions Operator: Tata Steel Uk Limited Licence Number: 21/58/61/0012 Permit Version: 101 Location: Port Talbot Docks Authority: Natural Resources Wales Abstraction: Metal: Non-Evaporative Cooling 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: 12th November 2010 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	A21SE (NW)	1738	2	276890 188590

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Water Abstractions Operator: Tata Steel Uk Limited Licence Number: 21/58/61/0012 Permit Version: 101 Location: Port Talbot Docks Authority: Natural Resources Wales Abstraction: Metal: Process Water 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: 12th November 2010 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	A21SE (NW)	1738	2	276890 188590
	Water Abstractions Operator: Corus Uk Strip Products Licence Number: 21/58/61/0012 Permit Version: 100 Location: Port Talbot Docks Authority: Environment Agency, Welsh Region Abstraction: Metal: Non-Evaporative Cooling Abstraction Type: Water may be abstracted from a single point Source: Surface Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Port Talbot Docks Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 1st April 2000 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m	A21SE (NW)	1738	3	276890 188590
	Water Abstractions Operator: Tata Steel Uk Limited Licence Number: 21/58/61/0012 Permit Version: Not Supplied Location: Land At British Steel Authority: Natural Resources Wales Abstraction: Metal: Non-Evaporative Cooling Abstraction Type: Water may be abstracted from any point within an area 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	A21SE (NW)	1738	2	276890 188590
	Water Abstractions Operator: Tata Steel Uk Limited Licence Number: 21/58/61/0012 Permit Version: Not Supplied Location: Land At British Steel Authority: Natural Resources Wales Abstraction: Metal: Process Water Abstraction Type: Water may be abstracted from any point within an area 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	A21SE (NW)	1738	2	276890 188590

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Water Abstractions Operator: Corus Uk Strip Products Licence Number: 21/58/61/0024 Permit Version: 100 Location: River Ffrwdwyllt Authority: Environment Agency, Welsh Region Abstraction: Metal: Evaporative Cooling Abstraction Type: Water may be abstracted from a single point Source: Surface Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Licenced from 01-Jan to 31-Dec Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 1st April 2000 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	A21NE (NW)	1763	3	277150 188865
	Water Abstractions Operator: Tata Steel Uk Limited Licence Number: 21/58/61/0024 Permit Version: 101 Location: River Ffrwdwyllt Authority: Natural Resources Wales Abstraction: Metal: Evaporative Cooling 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: 12th November 2010 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	A21NE (NW)	1767	2	277150 188870
	Water Abstractions Operator: Tata Steel Uk Limited Licence Number: 21/58/61/0024 Permit Version: 101 Location: River Ffrwdwyllt Authority: Natural Resources Wales Abstraction: Metal: Process Water 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: 12th November 2010 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	A21NE (NW)	1767	2	277150 188870
	Water Abstractions Operator: Corus Uk Strip Products Licence Number: 21/58/61/0024 Permit Version: 100 Location: River Ffrwdwyllt Authority: Environment Agency, Welsh Region Abstraction: Metal: Process Water Abstraction Type: Water may be abstracted from a single point Source: Surface Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: River Ffrwdwyllt Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 1st April 2000 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m	A21NE (NW)	1767	3	277150 188870

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Water Abstractions Operator: Tata Steel Uk Limited Licence Number: 21/58/61/0024 Permit Version: Not Supplied Location: Land At British Steel, Port Talbot Authority: Natural Resources Wales Abstraction: Metal: Evaporative Cooling Abstraction Type: Water may be abstracted from any point within an area 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	A21NE (NW)	1767	2	277150 188870
	Water Abstractions Operator: Tata Steel Uk Limited Licence Number: 21/58/61/0024 Permit Version: Not Supplied Location: Land At British Steel, Port Talbot Authority: Natural Resources Wales Abstraction: Metal: Process Water Abstraction Type: Water may be abstracted from any point within an area 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	A21NE (NW)	1767	2	277150 188870
	Water Abstractions Operator: Boc Limited Licence Number: 21/58/34/0003 Permit Version: 1 Location: Borehole 1 At Boc Margam Authority: Natural Resources Wales Abstraction: Other Industrial/Commercial/Public Services: Evaporative Cooling Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Not Supplied Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 16th January 2009 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	(S)	1862	2	278900 185690
	Water Abstractions Operator: Boc Limited Licence Number: 21/58/34/0003 Permit Version: Not Supplied Location: Boreholes At Boc Ltd, Longlands Lane, Margam For Evaporative Cooling, B O C Gases, Longland Lane, Port Talbot, Neath Port Talbot, Sa13 2ns Authority: Natural Resources Wales Abstraction: Other Industrial/Commercial/Public Services: Evaporative Cooling Abstraction Type: Water may be abstracted from any point within an area Source: Groundwater Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Not Supplied Authorised Start: 01 January Authorised End: 31 December Permit Start Date: Not Supplied Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	(S)	1862	2	278900 185690

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Water Abstractions Operator: Boc Limited Licence Number: 21/58/34/0003 Permit Version: 1 Location: Borehole 2 At Boc Margam Authority: Natural Resources Wales Abstraction: Other Industrial/Commercial/Public Services: Evaporative Cooling Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Not Supplied Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 16th January 2009 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	(SE)	1871	2	279040 185740
	Water Abstractions Operator: Boc Limited Licence Number: 21/58/34/0003 Permit Version: Not Supplied Location: Boreholes At Boc Ltd, Longlands Lane, Margam For Evaporative Cooling, B O C Gases, Longland Lane, Port Talbot, Neath Port Talbot, Sa13 2ns Authority: Natural Resources Wales Abstraction: Other Industrial/Commercial/Public Services: Evaporative Cooling Abstraction Type: Water may be abstracted from any point within an area Source: Groundwater Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Not Supplied Authorised Start: 01 January Authorised End: 31 December Permit Start Date: Not Supplied Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	(SE)	1871	2	279040 185740
	Water Abstractions Operator: Costain Limited Licence Number: Wa/058/0061/004 Permit Version: 1 Location: Port Talbot Dock At Margam Moors Authority: Environment Agency, Welsh Region Abstraction: Construction: Dust Suppression Abstraction Type: Water may be abstracted from a single point Source: Surface Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Margam Moors - Port Talbot Authorised Start: 01 April Authorised End: 31 March Permit Start Date: 5th August 2011 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	A21NE (NW)	1930	3	276967 188933
	Groundwater Vulnerability Map Combined Classification: Secondary Superficial Aquifer - High Vulnerability Combined Vulnerability: High Combined Aquifer: Productive Bedrock Aquifer, Productive Superficial Aquifer Pollutant Speed: High Bedrock Flow: Well Connected Fractures Dilution: >550 mm/year Baseflow Index: >70% Superficial Patchiness: >90% Superficial Thickness: >10m Superficial Recharge: No Data	A13SW (W)	0	2	278220 187440
	Bedrock Aquifer Designations Aquifer Designation: Secondary Aquifer - A	A13SW (W)	0	2	278220 187440
	Superficial Aquifer Designations Aquifer Designation: Secondary Aquifer - Undifferentiated	A13SW (W)	0	2	278220 187440
	Extreme Flooding from Rivers or Sea without Defences Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Tidal Models Boundary Accuracy: As Supplied	A13NE (N)	63	2	278238 187517

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Extreme Flooding from Rivers or Sea without Defences Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial/Tidal Models Boundary Accuracy: As Supplied	A13SW (SW)	125	2	278098 187366
	Extreme Flooding from Rivers or Sea without Defences Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Tidal Models Boundary Accuracy: As Supplied	A13SW (SW)	160	2	278063 187360
	Flooding from Rivers or Sea without Defences None				
	Areas Benefiting from Flood Defences None				
	Flood Water Storage Areas None				
	Flood Defences None				
32	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 69.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Arnallt Brook Catchment Name: Afan Primacy: 1	A13NE (N)	84	5	278253 187536
33	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 196.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Arnallt Brook Catchment Name: Afan Primacy: 1	A13NW (N)	89	5	278181 187538
34	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 4.3 Watercourse Level: Underground Permanent: True Watercourse Name: Arnallt Brook Catchment Name: Afan Primacy: 1	A13NE (NE)	92	5	278284 187530
35	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 171.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Arnallt Brook Catchment Name: Afan Primacy: 1	A13NE (NE)	93	5	278288 187528
36	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 290.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Arnallt Brook Catchment Name: Afan Primacy: 1	A13NW (W)	169	5	278037 187481
37	OS Water Network Lines Watercourse Form: Lake Watercourse Length: 109.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Afan Primacy: 1	A13SW (W)	216	5	277998 187377
38	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 8.9 Watercourse Level: Underground Permanent: True Watercourse Name: Arnallt Brook Catchment Name: Afan Primacy: 1	A13NE (NE)	229	5	278435 187561

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
39	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 22.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Arnallt Brook Catchment Name: Afan Primacy: 1	A13NE (NE)	238	5	278443 187565
40	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 8.0 Watercourse Level: Underground Permanent: True Watercourse Name: Arnallt Brook Catchment Name: Afan Primacy: 1	A13NE (NE)	261	5	278461 187578
41	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 233.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Afan Primacy: 1	A13NW (W)	269	5	277935 187466
42	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 293.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Arnallt Brook Catchment Name: Afan Primacy: 1	A13NE (NE)	269	5	278469 187581
43	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 15.8 Watercourse Level: Underground Permanent: True Watercourse Name: Arnallt Brook Catchment Name: Afan Primacy: 1	A13NW (NW)	411	5	277916 187745
44	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: Kenfig Primacy: 1	A8NE (S)	411	5	278362 187039
45	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 642.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Arnallt Brook Catchment Name: Afan Primacy: 1	A13NW (NW)	427	5	277907 187758
46	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 170.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Arnallt Brook Catchment Name: Afan Primacy: 1	A14NW (E)	503	5	278733 187519
47	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 125.8 Watercourse Level: Not Supplied Permanent: True Watercourse Name: Not Supplied Catchment Name: Afan Primacy: 1	A14NW (E)	503	5	278733 187520

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
48	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 7.4 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Kenfig Primacy: 1	A8NE (S)	517	5	278401 186940
49	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 99.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Kenfig Primacy: 1	A8NE (S)	525	5	278404 186933
50	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 191.9 Watercourse Level: Not Supplied Permanent: True Watercourse Name: Not Supplied Catchment Name: Afan Primacy: 1	A14NW (NE)	538	5	278692 187732
51	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 172.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Afan Primacy: 1	A19SW (NE)	545	5	278645 187808
52	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 140.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Afan Primacy: 1	A14NW (E)	548	5	278746 187645
53	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 59.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Kenfig Primacy: 1	A8NE (SE)	602	5	278517 186897
54	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 49.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Afan Primacy: 1	A18SE (NE)	613	5	278468 188020
55	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: Kenfig Primacy: 1	A8NE (S)	623	5	278442 186842
56	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 1.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Kenfig Primacy: 1	A8NE (S)	623	5	278442 186842

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
57	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 1.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Kenfig Primacy: 1	A8NE (S)	624	5	278439 186840
58	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 104.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Kenfig Primacy: 1	A8NE (S)	624	5	278444 186842
59	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 58.7 Watercourse Level: Not Supplied Permanent: True Watercourse Name: Not Supplied Catchment Name: Kenfig Primacy: 1	A8NE (S)	626	5	278439 186838
60	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 339.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Afan Primacy: 1	A17SE (NW)	635	5	277692 187827
61	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 72.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Afan Primacy: 1	A14NW (NE)	643	5	278793 187769
62	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 54.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Afan Primacy: 1	A14NW (NE)	643	5	278793 187769
63	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 44.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Arnallt Brook Catchment Name: Afan Primacy: 1	A14NW (E)	653	5	278891 187456
64	OS Water Network Lines Watercourse Form: Lake Watercourse Length: 36.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Kenfig Primacy: 1	A8NE (S)	656	5	278400 186795
65	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 55.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Kenfig Primacy: 1	A9NW (SE)	659	5	278560 186856

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
66	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 78.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Kenfig Primacy: 1	A8NE (S)	677	5	278375 186768
67	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 14.1 Watercourse Level: Underground Permanent: True Watercourse Name: Arnallt Brook Catchment Name: Afan Primacy: 1	A14NE (E)	682	5	278918 187489
68	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 26.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Arnallt Brook Catchment Name: Afan Primacy: 1	A14NE (E)	689	5	278923 187502
69	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 6.0 Watercourse Level: Underground Permanent: True Watercourse Name: Arnallt Brook Catchment Name: Afan Primacy: 1	A14NE (E)	708	5	278941 187521
70	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 48.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Arnallt Brook Catchment Name: Afan Primacy: 1	A14NE (E)	713	5	278945 187525
71	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 45.0 Watercourse Level: Underground Permanent: True Watercourse Name: Upper Mother Ditch Catchment Name: Kenfig Primacy: 1	A8SE (S)	743	5	278349 186695
72	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 1.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Upper Mother Ditch Catchment Name: Kenfig Primacy: 1	A8SE (S)	744	5	278359 186696
73	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 86.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Upper Mother Ditch Catchment Name: Kenfig Primacy: 1	A8SE (S)	744	5	278361 186697
74	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 9.4 Watercourse Level: Not Supplied Permanent: True Watercourse Name: Not Supplied Catchment Name: Afan Primacy: 1	A14NE (E)	748	5	278975 187560

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
75	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 375.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Arnallt Brook Catchment Name: Afan Primacy: 1	A14NE (E)	748	5	278975 187560
76	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 22.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Upper Mother Ditch Catchment Name: Kenfig Primacy: 1	A8SE (S)	750	5	278317 186683
77	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 7.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Afan Primacy: 1	A14NE (E)	756	5	278983 187556
78	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 335.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Afan Primacy: 1	A14NE (E)	759	5	278988 187551
79	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 7.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Upper Mother Ditch Catchment Name: Kenfig Primacy: 1	A8SE (S)	764	5	278302 186666
80	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 4.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Middle Mother Ditch Catchment Name: Kenfig Primacy: 1	A8SE (S)	765	5	278304 186665
81	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 600.8 Watercourse Level: Underground Permanent: True Watercourse Name: Upper Mother Ditch Catchment Name: Kenfig Primacy: 1	A8SE (S)	765	5	278297 186664
82	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 4.3 Watercourse Level: Underground Permanent: True Watercourse Name: Middle Mother Ditch Catchment Name: Kenfig Primacy: 1	A8SE (S)	768	5	278308 186663
83	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 4.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Middle Mother Ditch Catchment Name: Kenfig Primacy: 1	A8SE (S)	768	5	278312 186663

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
84	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 247.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Middle Mother Ditch Catchment Name: Kenfig Primacy: 1	A8SE (S)	772	5	278315 186660
85	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 18.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Kenfig Primacy: 1	A8SE (S)	820	5	278455 186640
86	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 6.6 Watercourse Level: Underground Permanent: True Watercourse Name: Upper Mother Ditch Catchment Name: Kenfig Primacy: 1	A8SE (S)	823	5	278405 186625
87	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 41.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Upper Mother Ditch Catchment Name: Kenfig Primacy: 1	A8SE (S)	823	5	278405 186625
88	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 11.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Upper Mother Ditch Catchment Name: Kenfig Primacy: 1	A8SE (S)	832	5	278447 186625
89	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: Kenfig Primacy: 2	A8SE (S)	838	5	278458 186622
90	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 195.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Upper Mother Ditch Catchment Name: Kenfig Primacy: 1	A8SE (S)	838	5	278458 186622
91	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 17.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Kenfig Primacy: 2	A8SE (S)	841	5	278458 186619
92	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 153.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Kenfig Primacy: 2	A8SE (S)	858	5	278460 186602

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
93	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 93.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Afan Primacy: 1	A18NW (N)	863	5	278123 188312
94	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 71.3 Watercourse Level: Not Supplied Permanent: True Watercourse Name: Not Supplied Catchment Name: Afan Primacy: 1	A18NW (N)	865	5	278129 188314
95	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 185.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Afan Primacy: 1	A18NW (N)	879	5	278198 188334
96	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 24.5 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Afan Primacy: 1	A18NW (N)	891	5	278047 188328
97	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 12.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Afan Primacy: 1	A18NW (N)	894	5	278022 188326
98	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 381.6 Watercourse Level: Not Supplied Permanent: True Watercourse Name: Not Supplied Catchment Name: Afan Primacy: 1	A18NW (N)	896	5	278010 188325
99	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 21.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Upper Mother Ditch Catchment Name: Kenfig Primacy: 1	A9SW (SE)	908	5	278651 186623
100	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 4.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Kenfig Primacy: 1	A9SW (SE)	908	5	278651 186623
101	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 25.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Kenfig Primacy: 1	A9SW (SE)	911	5	278650 186619

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
102	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 215.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Kenfig Primacy: 1	A9SW (SE)	919	5	278633 186600
103	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 14.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Kenfig Primacy: 1	A9SW (SE)	927	5	278667 186608
104	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: Kenfig Primacy: 1	A9SW (SE)	927	5	278669 186610
105	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 1.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Upper Mother Ditch Catchment Name: Kenfig Primacy: 1	A9SW (SE)	927	5	278669 186610
106	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 183.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Kenfig Primacy: 1	A9SW (SE)	928	5	278672 186610
107	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 118.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Upper Mother Ditch Catchment Name: Kenfig Primacy: 1	A9SW (SE)	929	5	278670 186608
108	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 158.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Kenfig Primacy: 1	A9SW (SE)	932	5	278657 186598
109	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 46.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Kenfig Primacy: 1	A9SW (SE)	970	5	278818 186652

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
110	Licensed Waste Management Facilities (Locations) Licence Number: JB3932AF Location: Harbour Way Project, Port Talbot, West Glamorgan, Neath Port Talbot, SA13 1RE Operator Name: Costain Ltd Operator Location: Not Supplied Authority: Natural Resources Wales Site Category: Not Supplied Licence Status: Surrendered Issued: 7th August 2012 Last Modified: Not Supplied Expires: Not Supplied Suspended: Not Supplied Revoked: Not Supplied Surrendered: 3rd January 2014 IPPC Reference: Not Supplied Positional Accuracy: Located by supplier to within 10m	A17SE (NW)	773	2	277640 187980
	Local Authority Landfill Coverage Name: Neath Port Talbot County Borough Council - Has supplied landfill data		0	4	278220 187440
111	Potentially Infilled Land (Non-Water) Bearing Ref: NE Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1993	A19SW (NE)	681	-	278631 188006
112	Potentially Infilled Land (Non-Water) Bearing Ref: N Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1993	A18NE (N)	872	-	278265 188326
113	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1885	A13NE (N)	0	-	278223 187449
114	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1951	A13NE (NE)	17	-	278250 187456
115	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1885	A13NW (NW)	17	-	278187 187457
116	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1965	A13NE (N)	95	-	278226 187550
117	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1965	A13NW (NW)	106	-	278117 187512
118	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1965	A13NW (NW)	202	-	278095 187621
119	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1965	A13NW (NW)	226	-	278007 187564
120	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1921	A13NW (NW)	241	-	278050 187636
121	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1951	A13SE (S)	254	-	278315 187188
122	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1951	A13SW (W)	255	-	277948 187438
123	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1951	A13SW (W)	315	-	277913 187315
124	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1921	A18SE (N)	333	-	278265 187786
125	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1951	A12SE (W)	338	-	277865 187430

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
126	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1965	A13NE (NE)	346	-	278531 187627
127	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1951	A13SW (SW)	350	-	277966 187172
128	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1965	A18SW (N)	366	-	278082 187796
129	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1900	A12NE (W)	392	-	277819 187526
130	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1965	A8NE (S)	397	-	278359 187053
131	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1951	A8NW (SW)	418	-	278019 187052
132	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1951	A12NE (W)	430	-	277780 187529
133	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1921	A12NE (W)	443	-	277788 187605
134	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1951	A12SE (W)	447	-	277761 187384
135	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1965	A18SW (NW)	477	-	277924 187837
136	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1951	A14NW (E)	480	-	278707 187533
137	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1951	A12NE (NW)	488	-	277816 187748
138	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1951	A8NE (S)	489	-	278386 186964
139	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1951	A8NE (S)	493	-	278392 186962
140	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1885	A18SW (NW)	509	-	277905 187863
141	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1885	A17SE (NW)	524	-	277836 187824
142	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1965	A8NE (SE)	558	-	278447 186913
143	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1900	A18SW (NW)	560	-	277943 187946
144	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1951	A8NW (SW)	585	-	277936 186907
145	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1951	A7NE (SW)	586	-	277751 187057
146	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1965	A8NE (S)	588	-	278367 186857

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
147	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1951	A7NE (SW)	589	-	277750 187055
148	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1965	A8NE (S)	597	-	278365 186847
149	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1965	A8NE (SE)	610	-	278514 186886
150	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1951	A7NE (SW)	628	-	277821 186930
151	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1965	A8NE (S)	680	-	278379 186766
152	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1951	A7NE (SW)	694	-	277852 186829
153	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1951	A12NW (W)	697	-	277506 187453
154	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1951	A9NW (SE)	703	-	278713 186912
155	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1965	A9NW (SE)	707	-	278708 186902
156	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1951	A8SW (S)	711	-	278193 186713
157	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1951	A8SE (S)	751	-	278336 186685
158	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1951	A12NW (W)	754	-	277455 187542
159	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1951	A8SW (S)	767	-	277930 186710
160	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1885	A12NW (W)	771	-	277437 187535
161	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1921	A12NW (W)	776	-	277437 187576
162	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1900	A17SW (NW)	789	-	277545 187886
163	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1885	A17NE (NW)	789	-	277786 188120
164	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1951	A12SW (W)	791	-	277463 187161
165	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1885	A17SE (NW)	794	-	277711 188073
166	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1951	A7NW (SW)	796	-	277503 187057
167	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1951	A17SE (NW)	798	-	277657 188032

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
168	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1900	A12NW (W)	799	-	277411 187560
169	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1900	A7SE (SW)	811	-	277771 186741
170	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1900	A7SE (SW)	828	-	277795 186708
171	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1951	A7NE (SW)	829	-	277566 186901
172	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1951	A7SE (SW)	829	-	277795 186706
173	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1921	A7NE (SW)	842	-	277556 186892
174	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1921	A17NE (NW)	845	-	277745 188160
175	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1951	A8SW (S)	857	-	278209 186567
176	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1951	A8SW (S)	869	-	278051 186570
177	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1951	A12NW (W)	870	-	277333 187478
178	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1900	A7SE (SW)	877	-	277766 186667
179	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1951	A8SE (S)	878	-	278349 186558
180	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1951	A8SW (S)	886	-	277965 186573
181	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1951	A8SW (S)	909	-	278014 186536
182	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1951	A8SW (S)	930	-	278118 186499
183	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1951	A7SE (SW)	942	-	277801 186575
184	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1900	A7NW (SW)	954	-	277324 187068
185	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1951	A17NE (NW)	957	-	277563 188162
186	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1900	A12SW (W)	967	-	277254 187263
187	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1900	A12SW (W)	976	-	277241 187285

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
188	Control of Major Accident Hazards Sites (COMAH) Name: Tata Steel UK Limited Location: Port Talbot Works, PORT TALBOT, West Glamorgan, SA13 2NG Reference: Not Supplied Type: Upper Tier Status: Active Positional Accuracy: Manually positioned to the address or location	A7NE (SW)	665	6	277679 187022
189	Control of Major Accident Hazards Sites (COMAH) Name: British Steel Strip Products Location: Port Talbot Works, PORT TALBOT, West Glamorgan, SA13 2NG Reference: Not Supplied Type: Lower Tier Status: Record Ceased To Be Supplied Under COMAH Regulations Positional Accuracy: Manually positioned to the address or location	A9NE (SE)	989	6	279000 186800
190	Notification of Installations Handling Hazardous Substances (NIHHS) Name: British Steel Strip Mill Products Location: Port Talbot Works, PORT TALBOT, West Glamorgan, SA13 2NG Status: Not Active Positional Accuracy: Manually positioned to the address or location	A9NE (SE)	996	6	279005 186795
191	Planning Hazardous Substance Consents Name: British Steel (Corus) Location: Margam, Port Talbot Authority: Neath Port Talbot County Borough Council, Planning Department Application Ref: 99/1162 Hazardous: Unknown at time of report Substance: Maximum Quantity: 0 Application date: Not Supplied Decision: Deemed Consent Granted Positional Accuracy: Manually positioned to the address or location	A8NW (S)	458	7	278073 186987
191	Planning Hazardous Substance Consents Name: British Steel Plc Location: P O Box 42, Margam, PORT TALBOT, West Glamorgan, SA13 2YS Authority: Neath Port Talbot County Borough Council, Planning Department Application Ref: 92/8975 Hazardous: Unknown at time of report Substance: Maximum Quantity: 0 Application date: 30th November 1992 Decision: Deemed Consent Granted Positional Accuracy: Manually positioned to the address or location	A8NW (S)	463	7	278073 186982
192	Planning Hazardous Substance Consents Name: British Steel Plc Location: P O Box 42, PORT TALBOT, West Glamorgan, SA13 2YS Authority: Neath Port Talbot County Borough Council, Planning Department Application Ref: 92/8975 Hazardous: Part C, Flammable Substance (Not in Parts A&B), Liquefied petroleum gas Substance: held refrigerated at 1.4 bar or less, where amount held >= 50 tonnes Maximum Quantity: 0 Application date: 30th November 1992 Decision: Deemed consent granted between June 1992 and November 1992 Positional Accuracy: Located by supplier to within 10m	A12SW (W)	949	7	277255 187415
192	Planning Hazardous Substance Consents Name: British Steel Plc Location: P O Box 42, PORT TALBOT, West Glamorgan, SA13 2YS Authority: Neath Port Talbot County Borough Council, Planning Department Application Ref: 92/8975 Hazardous: Part C, Flammable Substance (Not in Parts A&B), Liquefied petroleum gas Substance: held refrigerated at 1.4 bar or less, where amount held >= 50 tonnes Maximum Quantity: 0 Application date: 30th November 1992 Decision: Deemed consent granted between June 1992 and November 1992 Positional Accuracy: Located by supplier to within 10m	A12SW (W)	949	7	277255 187420

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
192	Planning Hazardous Substance Consents Name: British Steel Plc Location: P O Box 42, PORT TALBOT, West Glamorgan, SA13 2YS Authority: Neath Port Talbot County Borough Council, Planning Department Application Ref: 92/8975 Hazardous Substance: Part C, Flammable Substance (Not in Parts A&B), Gas or gases flammable in air, when held as a gas, where amount held is >= 15tonnes Maximum Quantity: 0 Application date: 30th November 1992 Decision: Deemed consent granted between June 1992 and November 1992 Positional Accuracy: Located by supplier to within 10m	A12SW (W)	954	7	277250 187415

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS 1:625,000 Solid Geology Description: Pennine Middle Coal Measures Formation And South Wales Middle Coal Measures Formation (Undifferentiated)	A13SW (W)	0	1	278220 187440
	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: 30 - 45 mg/kg Concentration:	A13SW (W)	0	1	278220 187440
	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:	A13SE (SE)	23	1	278237 187404
	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:	A13NW (NW)	283	1	278000 187648
	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: 30 - 45 mg/kg Concentration:	A8NW (S)	424	1	278220 187000
	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:	A13NE (NE)	443	1	278557 187754
	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 (E)	475	1	278696 187559

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 25 - 35 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <100 mg/kg Nickel 30 - 45 mg/kg Concentration:	A14NW (E)	499	1	278729 187523
	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:	A18SW (N)	499	1	278147 187948
	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 30 - 45 mg/kg Concentration:	A18SE (NE)	502	1	278477 187892
	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:	A14NW (E)	503	1	278728 187542
	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 30 - 45 mg/kg Concentration:	A14NW (E)	519	1	278725 187618
	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:	A18SE (N)	581	1	278323 188029

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 25 - 35 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <100 mg/kg Nickel 30 - 45 mg/kg Concentration:	A18SW (N)	586	1	278000 188000
	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 30 - 45 mg/kg Concentration:	A19SW (NE)	639	1	278631 187953
	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:	A14NE (E)	659	1	278896 187471
	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:	A14SE (E)	762	1	279000 187440
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic 35 - 45 mg/kg Concentration: Cadmium 2.2 - 3.0 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <100 mg/kg Nickel 15 - 30 mg/kg Concentration:	A14NE (E)	765	1	279000 187500
	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 30 - 45 mg/kg Concentration:	A9NW (SE)	784	1	278681 186784

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 25 - 35 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <100 mg/kg Nickel 30 - 45 mg/kg Concentration:	A18NE (N)	821	1	278288 188274
	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:	A18NW (N)	911	1	278076 188354
	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:	A12SW (W)	913	1	277333 187165
	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 30 - 45 mg/kg Concentration:	A9NE (SE)	953	1	279099 187022
193	BGS Recorded Mineral Sites Site Name: Craig Groeswen Location: Talbach, Port Talbot, West Glamorgan Source: British Geological Survey, National Geoscience Information Service Reference: 160097 Type: Underground Status: Ceased Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Carboniferous Geology: Llynfi Member Commodity: Coal - Deep Positional Accuracy: Located by supplier to within 10m	A19SW (NE)	674	1	278630 187998
194	BGS Recorded Mineral Sites Site Name: Glanafon Location: Talbach, Port Talbot, West Glamorgan Source: British Geological Survey, National Geoscience Information Service Reference: 160095 Type: Opencast Status: Ceased Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Carboniferous Geology: Llynfi Member Commodity: Sandstone Positional Accuracy: Located by supplier to within 10m	A18NE (N)	884	1	278257 188339

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
195	BGS Recorded Mineral Sites Site Name: Glanafon Location: Taibach, Port Talbot, West Glamorgan Source: British Geological Survey, National Geoscience Information Service Reference: 160094 Type: Opencast Status: Ceased Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Carboniferous Geology: Llynfi Member Commodity: Sandstone Positional Accuracy: Located by supplier to within 10m	A18NW (N)	977	1	278203 188432
	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.	A13SW (W)	0	8	278220 187440
	Mining Instability Mining Evidence: Inconclusive Coal Mining Source: Ove Arup & Partners Boundary Quality: As Supplied	A13SW (W)	0	-	278220 187440
	Non Coal Mining Areas of Great Britain No Hazard				
	Potential for Collapsible Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13SW (W)	0	1	278220 187440
	Potential for Collapsible Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13NE (NE)	109	1	278269 187557
	Potential for Collapsible Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13SW (S)	123	1	278181 187304
	Potential for Compressible Ground Stability Hazards Hazard Potential: Moderate Source: British Geological Survey, National Geoscience Information Service	A13SW (W)	0	1	278220 187440
	Potential for Compressible Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13SW (W)	2	1	278204 187436
	Potential for Ground Dissolution Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13SW (W)	0	1	278220 187440
	Potential for Landslide Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13SW (W)	0	1	278220 187440
	Potential for Running Sand Ground Stability Hazards Hazard Potential: Moderate Source: British Geological Survey, National Geoscience Information Service	A13SW (W)	0	1	278220 187440
	Potential for Running Sand Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13SW (W)	2	1	278204 187436
	Potential for Running Sand Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13SE (SE)	15	1	278237 187413
	Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13SW (W)	0	1	278220 187440
	Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13SE (SE)	15	1	278237 187413

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13NE (NE)	109	1	278269 187557
	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	A13SW (W)	0	1	278220 187440
	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	A13SW (W)	0	1	278220 187440

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
196	Contemporary Trade Directory Entries Name: Tollgate Industrial Services Ltd Location: 270-272, Margam Road, Port Talbot, West Glamorgan, SA13 2DB Classification: Timber Preservation Services Status: Inactive Positional Accuracy: Automatically positioned to the address	A13NE (E)	93	-	278330 187446
197	Contemporary Trade Directory Entries Name: P S & Sons Location: 9, Byass Street, Port Talbot, West Glamorgan, SA13 2DW Classification: Rubbish Clearance Status: Inactive Positional Accuracy: Automatically positioned to the address	A13SW (S)	179	-	278210 187246
198	Contemporary Trade Directory Entries Name: M W Air Conditioning & Refrigeration Location: 34, Pant Celydd, Margam, Port Talbot, West Glamorgan, SA13 2DJ Classification: Air Conditioning & Refrigeration Contractors Status: Inactive Positional Accuracy: Automatically positioned to the address	A13NW (N)	235	-	278193 187688
199	Contemporary Trade Directory Entries Name: Stallcourt Garage Location: Stallcourt Garage, Margam Road, Port Talbot, West Glamorgan, SA13 2BU Classification: Garage Services Status: Inactive Positional Accuracy: Automatically positioned to the address	A18SW (N)	364	-	278206 187819
200	Contemporary Trade Directory Entries Name: Jetting Services Location: 188, Margam Road, Port Talbot, West Glamorgan, SA13 2BU Classification: Steam Cleaning Services Status: Inactive Positional Accuracy: Automatically positioned to the address	A18SW (N)	416	-	278187 187870
201	Contemporary Trade Directory Entries Name: Tech-Print Ltd Location: E R Building, Unit T14 Cefn Gwrgan Road, Margam, Port Talbot, West Glamorgan, SA13 2BZ Classification: Printers Status: Active Positional Accuracy: Manually positioned to the road within the address or location	A8NE (SE)	438	-	278484 187069
202	Contemporary Trade Directory Entries Name: Abbey Industrial Solutions Ltd Location: 55, Geifr Road, Margam, Port Talbot, West Glamorgan, SA13 2BE Classification: Air Compressors Status: Inactive Positional Accuracy: Automatically positioned to the address	A18SE (N)	503	-	278234 187958
203	Contemporary Trade Directory Entries Name: D B Schenker Location: Margam, Port Talbot, West Glamorgan, SA13 2NG Classification: Freight Forwarders Status: Inactive Positional Accuracy: Manually positioned within the geographical locality	A8NW (S)	506	-	278154 186921
203	Contemporary Trade Directory Entries Name: J W Morris Location: Abbey Works, Margam, Port Talbot, West Glamorgan, SA13 2NG Classification: Electrical Engineers Status: Active Positional Accuracy: Manually positioned within the geographical locality	A8NW (S)	506	-	278154 186921
203	Contemporary Trade Directory Entries Name: Tata Steel Location: Abbey Works, Margam, Port Talbot, West Glamorgan, SA13 2NG Classification: Stainless Steel Manufacturers Status: Active Positional Accuracy: Automatically positioned to the address	A8NW (S)	507	-	278154 186921
203	Contemporary Trade Directory Entries Name: Corus Ltd Location: Abbey Works, Margam, Port Talbot, West Glamorgan, SA13 2NG Classification: Steel Manufacturers Status: Inactive Positional Accuracy: Automatically positioned to the address	A8NW (S)	507	-	278154 186921

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
203	Contemporary Trade Directory Entries Name: O C S Cleaning Ltd Location: Abbey Works, Margam, Port Talbot, West Glamorgan, SA13 2NG Classification: Commercial Cleaning Services Status: Inactive Positional Accuracy: Automatically positioned to the address	A8NW (S)	507	-	278154 186921
203	Contemporary Trade Directory Entries Name: Faber Prest Steel Distribution Location: Abbey Works, Margam, Port Talbot, West Glamorgan, SA13 2NG Classification: Road Haulage Services Status: Inactive Positional Accuracy: Automatically positioned to the address	A8NW (S)	507	-	278154 186921
204	Contemporary Trade Directory Entries Name: Groeswen Hospital Location: Margam Road, Port Talbot, West Glamorgan, SA13 2LB Classification: Hospitals Status: Inactive Positional Accuracy: Automatically positioned to the address	A18NW (N)	783	-	278031 188215
204	Contemporary Trade Directory Entries Name: Groeswen Hospital Location: Margam Road, Port Talbot, West Glamorgan, SA13 2LB Classification: Hospitals Status: Inactive Positional Accuracy: Automatically positioned to the address	A18NW (N)	783	-	278031 188215
205	Contemporary Trade Directory Entries Name: Sparks Fire Protection Location: Cornubia, Groeswen Lane, Port Talbot, West Glamorgan, SA13 2LA Classification: Firefighting Equipment Status: Inactive Positional Accuracy: Automatically positioned to the address	A18NW (N)	990	-	278004 188420
206	Points of Interest - Commercial Services Name: P S P S & Sons Location: 9 Byass Street, Port Talbot, SA13 2DW Category: Recycling Services Class Code: Recycling, Reclamation and Disposal Positional Accuracy: Positioned to address or location	A13SW (S)	179	9	278210 187246
207	Points of Interest - Education and Health Name: Groeswen Hospital Location: Margam Road, Port Talbot, SA13 2LB Category: Health Practitioners and Establishments Class Code: Hospitals Positional Accuracy: Positioned to address or location	A18NW (N)	783	9	278031 188215
207	Points of Interest - Education and Health Name: Groeswen Hospital Location: Margam Road, Port Talbot, SA13 2LB Category: Health Practitioners and Establishments Class Code: Hospitals Positional Accuracy: Positioned to address or location	A18NW (N)	783	9	278031 188215
208	Points of Interest - Manufacturing and Production Name: Works Location: Not Supplied Category: Industrial Features Class Code: Unspecified Works Or Factories Positional Accuracy: Positioned to an adjacent address or location	A8NW (SW)	366	9	278064 187088
208	Points of Interest - Manufacturing and Production Name: Works Location: SA13 Category: Industrial Features Class Code: Unspecified Works Or Factories Positional Accuracy: Positioned to an adjacent address or location	A8NW (SW)	367	9	278064 187087
209	Points of Interest - Manufacturing and Production Name: Tanks Location: SA13 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to an adjacent address or location	A12SE (W)	366	9	277842 187391
209	Points of Interest - Manufacturing and Production Name: Tanks Location: SA13 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to an adjacent address or location	A12SE (W)	369	9	277837 187408

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
209	Points of Interest - Manufacturing and Production Name: Tank Location: SA13 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to address or location	A12SE (W)	376	9	277832 187390
209	Points of Interest - Manufacturing and Production Name: Tank Location: SA13 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to address or location	A12SE (W)	377	9	277829 187406
209	Points of Interest - Manufacturing and Production Name: Tank Location: SA13 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to address or location	A12SE (W)	382	9	277824 187405
210	Points of Interest - Manufacturing and Production Name: Tank Location: SA13 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to an adjacent address or location	A13NW (NW)	374	9	277927 187703
211	Points of Interest - Manufacturing and Production Name: Works Location: Not Supplied Category: Industrial Features Class Code: Unspecified Works Or Factories Positional Accuracy: Positioned to an adjacent address or location	A12SE (W)	425	9	277809 187280
211	Points of Interest - Manufacturing and Production Name: Works Location: SA13 Category: Industrial Features Class Code: Unspecified Works Or Factories Positional Accuracy: Positioned to an adjacent address or location	A12SE (W)	425	9	277809 187280
211	Points of Interest - Manufacturing and Production Name: Tanks Location: SA13 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to an adjacent address or location	A12SE (SW)	438	9	277817 187227
212	Points of Interest - Manufacturing and Production Name: Steel Works Location: SA13 Category: Industrial Features Class Code: Unspecified Works Or Factories Positional Accuracy: Positioned to an adjacent address or location	A8NW (S)	548	9	278051 186900
213	Points of Interest - Manufacturing and Production Name: Tank Location: SA13 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to an adjacent address or location	A8NE (S)	594	9	278315 186840
214	Points of Interest - Manufacturing and Production Name: Works Location: Not Supplied Category: Industrial Features Class Code: Unspecified Works Or Factories Positional Accuracy: Positioned to an adjacent address or location	A8NE (SE)	682	9	278524 186811
214	Points of Interest - Manufacturing and Production Name: Works Location: SA13 Category: Industrial Features Class Code: Unspecified Works Or Factories Positional Accuracy: Positioned to an adjacent address or location	A8NE (SE)	683	9	278524 186810
215	Points of Interest - Manufacturing and Production Name: Tanks Location: SA13 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to an adjacent address or location	A12SE (W)	684	9	277555 187224

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
215	Points of Interest - Manufacturing and Production Name: Tank Location: SA13 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to address or location	A12SE (W)	687	9	277567 187178
215	Points of Interest - Manufacturing and Production Name: Tanks Location: SA13 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to an adjacent address or location	A12SE (SW)	689	9	277568 187170
215	Points of Interest - Manufacturing and Production Name: Tank Location: SA13 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to address or location	A12SE (W)	691	9	277546 187228
215	Points of Interest - Manufacturing and Production Name: Tank Location: SA13 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to address or location	A12SE (W)	691	9	277564 187176
215	Points of Interest - Manufacturing and Production Name: Tank Location: SA13 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to address or location	A12SE (W)	693	9	277562 187174
215	Points of Interest - Manufacturing and Production Name: Tank Location: SA13 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to address or location	A12SE (W)	696	9	277559 187174
215	Points of Interest - Manufacturing and Production Name: Tank Location: SA13 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to an adjacent address or location	A12SW (W)	708	9	277528 187228
215	Points of Interest - Manufacturing and Production Name: Tank Location: SA13 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to an adjacent address or location	A12SW (W)	712	9	277521 187239
215	Points of Interest - Manufacturing and Production Name: Tank Location: SA13 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to an adjacent address or location	A12SW (W)	718	9	277530 187189
216	Points of Interest - Manufacturing and Production Name: Works Location: Not Supplied Category: Industrial Features Class Code: Unspecified Works Or Factories Positional Accuracy: Positioned to an adjacent address or location	A12NW (W)	695	9	277545 187673
216	Points of Interest - Manufacturing and Production Name: Works Location: SA13 Category: Industrial Features Class Code: Unspecified Works Or Factories Positional Accuracy: Positioned to an adjacent address or location	A12NW (W)	701	9	277538 187672
217	Points of Interest - Manufacturing and Production Name: Tank Location: SA13 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to an adjacent address or location	A12SW (W)	716	9	277492 187369

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
217	Points of Interest - Manufacturing and Production Name: Tanks Location: SA13 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to an adjacent address or location	A12SW (W)	720	9	277495 187321
217	Points of Interest - Manufacturing and Production Name: Tank Location: SA13 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to address or location	A12SW (W)	725	9	277491 187315
217	Points of Interest - Manufacturing and Production Name: Tank Location: SA13 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to address or location	A12SW (W)	727	9	277487 187326
218	Points of Interest - Manufacturing and Production Name: Tank Location: SA13 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to an adjacent address or location	A8SW (S)	744	9	277961 186723
219	Points of Interest - Manufacturing and Production Name: Works Location: Not Supplied Category: Industrial Features Class Code: Unspecified Works Or Factories Positional Accuracy: Positioned to an adjacent address or location	A8SW (S)	754	9	278120 186676
219	Points of Interest - Manufacturing and Production Name: Tank Location: SA13 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to address or location	A8SW (S)	799	9	278055 186640
219	Points of Interest - Manufacturing and Production Name: Tanks Location: SA13 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to an adjacent address or location	A8SW (S)	800	9	278063 186638
219	Points of Interest - Manufacturing and Production Name: Tank Location: SA13 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to address or location	A8SW (S)	807	9	278057 186632
220	Points of Interest - Manufacturing and Production Name: Works Location: SA13 Category: Industrial Features Class Code: Unspecified Works Or Factories Positional Accuracy: Positioned to address or location	A7NE (SW)	754	9	277766 186814
220	Points of Interest - Manufacturing and Production Name: Tank Location: SA13 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to an adjacent address or location	A7NE (SW)	763	9	277824 186765
220	Points of Interest - Manufacturing and Production Name: Tank Location: SA13 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to an adjacent address or location	A7NE (SW)	763	9	277742 186820
220	Points of Interest - Manufacturing and Production Name: Works Location: Not Supplied Category: Industrial Features Class Code: Unspecified Works Or Factories Positional Accuracy: Positioned to an adjacent address or location	A7NE (SW)	781	9	277753 186790

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
221	Points of Interest - Manufacturing and Production Name: Tank Location: SA13 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to an adjacent address or location	A7NE (SW)	769	9	277547 187032
222	Points of Interest - Manufacturing and Production Name: Tank Location: SA13 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to address or location	A7SE (SW)	804	9	277834 186713
222	Points of Interest - Manufacturing and Production Name: Tanks Location: SA13 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to an adjacent address or location	A7SE (SW)	806	9	277827 186714
222	Points of Interest - Manufacturing and Production Name: Tank Location: SA13 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to address or location	A7SE (SW)	811	9	277824 186710
223	Points of Interest - Manufacturing and Production Name: Tank Location: SA13 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to address or location	A8SW (S)	824	9	277924 186651
223	Points of Interest - Manufacturing and Production Name: Tank Location: SA13 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to address or location	A8SW (S)	826	9	277921 186650
223	Points of Interest - Manufacturing and Production Name: Tank Location: SA13 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to address or location	A8SW (S)	828	9	277919 186649
223	Points of Interest - Manufacturing and Production Name: Tanks Location: SA13 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to an adjacent address or location	A8SW (S)	833	9	277924 186641
223	Points of Interest - Manufacturing and Production Name: Tanks Location: SA13 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to an adjacent address or location	A8SW (S)	850	9	277934 186620
223	Points of Interest - Manufacturing and Production Name: Tank Location: SA13 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to address or location	A8SW (S)	856	9	277937 186613
224	Points of Interest - Manufacturing and Production Name: Tank Location: SA13 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to an adjacent address or location	A17SW (NW)	831	9	277471 187845
225	Points of Interest - Manufacturing and Production Name: Tank Location: SA13 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to address or location	A8SW (S)	858	9	277934 186612

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
225	Points of Interest - Manufacturing and Production Name: Tank Location: SA13 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to an adjacent address or location	A7SE (SW)	910	9	277850 186588
226	Points of Interest - Manufacturing and Production Name: Works Location: Not Supplied Category: Industrial Features Class Code: Unspecified Works Or Factories Positional Accuracy: Positioned to an adjacent address or location	A12NW (W)	907	9	277322 187668
226	Points of Interest - Manufacturing and Production Name: Works Location: SA13 Category: Industrial Features Class Code: Unspecified Works Or Factories Positional Accuracy: Positioned to an adjacent address or location	A12NW (W)	907	9	277322 187668
227	Points of Interest - Manufacturing and Production Name: Tanks Location: SA13 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to an adjacent address or location	A7NW (SW)	915	9	277496 186850
228	Points of Interest - Manufacturing and Production Name: Tank Location: SA13 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to address or location	A8SW (S)	920	9	278095 186511
228	Points of Interest - Manufacturing and Production Name: Tank Location: SA13 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to address or location	A8SW (S)	926	9	278113 186503
228	Points of Interest - Manufacturing and Production Name: Tank Location: SA13 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to address or location	A8SW (S)	933	9	278115 186496
228	Points of Interest - Manufacturing and Production Name: Tank Location: SA13 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to address or location	A8SW (S)	936	9	278121 186493
228	Points of Interest - Manufacturing and Production Name: Tanks Location: SA13 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to an adjacent address or location	A8SW (S)	942	9	278113 186487
228	Points of Interest - Manufacturing and Production Name: Tank Location: SA13 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to address or location	A8SW (S)	943	9	278120 186486
228	Points of Interest - Manufacturing and Production Name: Tank Location: SA13 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to address or location	A8SW (S)	948	9	278123 186480
228	Points of Interest - Manufacturing and Production Name: Tank Location: SA13 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to address or location	A8SW (S)	952	9	278109 186478

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
228	Points of Interest - Manufacturing and Production Name: Tank Location: SA13 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to address or location	A8SW (S)	970	9	278130 186458
228	Points of Interest - Manufacturing and Production Name: Tanks Location: SA13 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to an adjacent address or location	A8SW (S)	974	9	278132 186453
228	Points of Interest - Manufacturing and Production Name: Tank Location: SA13 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to address or location	A8SW (S)	980	9	278133 186447
228	Points of Interest - Manufacturing and Production Name: Tank Location: SA13 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to address or location	A8SW (S)	984	9	278135 186443
229	Points of Interest - Manufacturing and Production Name: Tank Location: SA13 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to address or location	A12SW (W)	955	9	277302 187124
229	Points of Interest - Manufacturing and Production Name: Tank Location: SA13 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to address or location	A12SW (W)	959	9	277298 187122
230	Points of Interest - Manufacturing and Production Name: Tanks Location: SA13 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to an adjacent address or location	A12SW (W)	956	9	277298 187134
230	Points of Interest - Manufacturing and Production Name: Works Location: Not Supplied Category: Industrial Features Class Code: Unspecified Works Or Factories Positional Accuracy: Positioned to an adjacent address or location	A12SW (W)	981	9	277252 187207
230	Points of Interest - Manufacturing and Production Name: Works Location: SA13 Category: Industrial Features Class Code: Unspecified Works Or Factories Positional Accuracy: Positioned to an adjacent address or location	A12SW (W)	990	9	277243 187205
231	Points of Interest - Manufacturing and Production Name: Tank Location: SA13 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to address or location	A7NW (SW)	989	9	277463 186774
231	Points of Interest - Manufacturing and Production Name: Tank Location: SA13 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to address or location	A7NW (SW)	994	9	277458 186773
231	Points of Interest - Manufacturing and Production Name: Tanks Location: SA13 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to an adjacent address or location	A7NW (SW)	998	9	277459 186766

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
231	Points of Interest - Manufacturing and Production Name: Tank Location: SA13 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to address or location	A7NW (SW)	999	9	277453 186771
232	Points of Interest - Manufacturing and Production Name: Tanks Location: SA13 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to an adjacent address or location	A7SW (SW)	999	9	277526 186695
233	Points of Interest - Public Infrastructure Name: Weirs Location: SA13 Category: Water Class Code: Weirs, Sluices and Dams Positional Accuracy: Positioned to an adjacent address or location	A14NW (E)	647	9	278885 187461
233	Points of Interest - Public Infrastructure Name: Weirs Location: SA13 Category: Water Class Code: Weirs, Sluices and Dams Positional Accuracy: Positioned to an adjacent address or location	A14NW (E)	652	9	278889 187462
234	Points of Interest - Public Infrastructure Name: Sluice Location: SA13 Category: Water Class Code: Weirs, Sluices and Dams Positional Accuracy: Positioned to an adjacent address or location	A8SE (S)	763	9	278310 186668
234	Points of Interest - Public Infrastructure Name: Sluice Location: SA13 Category: Water Class Code: Weirs, Sluices and Dams Positional Accuracy: Positioned to an adjacent address or location	A8SE (S)	765	9	278302 186665
234	Points of Interest - Public Infrastructure Name: Sluice Location: SA13 Category: Water Class Code: Weirs, Sluices and Dams Positional Accuracy: Positioned to an adjacent address or location	A8SE (S)	770	9	278320 186663
234	Points of Interest - Public Infrastructure Name: Sluice Location: SA13 Category: Water Class Code: Weirs, Sluices and Dams Positional Accuracy: Positioned to an adjacent address or location	A8SE (S)	771	9	278315 186661
235	Points of Interest - Public Infrastructure Name: Sludge Tanks Location: SA13 Category: Infrastructure and Facilities Class Code: Waste Storage, Processing and Disposal Positional Accuracy: Positioned to an adjacent address or location	A12SW (W)	957	9	277254 187325
236	Points of Interest - Recreational and Environmental Name: Play Area Location: SA13 Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to an adjacent address or location	A13SE (E)	142	9	278377 187401
237	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	A17SE (NW)	636	9	277874 187995
237	Points of Interest - Recreational and Environmental Name: Playground Location: SA13 Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to an adjacent address or location	A17SE (NW)	639	9	277867 187994

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
237	Points of Interest - Recreational and Environmental Name: Playground Location: (Tal-Y-Wern), SA13 Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to address or location	A17SE (NW)	640	9	277871 187998

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
238	Ancient Woodland Name: Not Supplied Reference: 18226 Area(m²): 358291.79 Type: Ancient and Semi-Natural Woodland	A14SE (E)	714	2	278949 187362
239	Ancient Woodland Name: Not Supplied Reference: 41896 Area(m²): 11544.54 Type: Plantation on Ancient Woodland	A14SE (E)	719	2	278957 187394
240	Ancient Woodland Name: Not Supplied Reference: 15778 Area(m²): 6947.23 Type: Ancient and Semi-Natural Woodland	A14NE (E)	742	2	278955 187623
241	Ancient Woodland Name: Not Supplied Reference: 39703 Area(m²): 2369.33 Type: Plantation on Ancient Woodland	A14SE (E)	797	2	279035 187410
242	Ancient Woodland Name: Not Supplied Reference: 8429 Area(m²): 3537.29 Type: Ancient and Semi-Natural Woodland	A14SE (E)	842	2	279074 187333
243	Ancient Woodland Name: Not Supplied Reference: 41896 Area(m²): 5173.13 Type: Plantation on Ancient Woodland	A14SE (E)	865	2	279078 187223
244	Ancient Woodland Name: Not Supplied Reference: 39703 Area(m²): 12105.85 Type: Plantation on Ancient Woodland	A14SE (E)	895	2	279124 187299
245	Ancient Woodland Name: Not Supplied Reference: 50291 Area(m²): 24954.78 Type: Ancient Woodland Site of Unknown Category	A14SE (E)	925	2	279156 187315
246	Ancient Woodland Name: Not Supplied Reference: 22151 Area(m²): 20020 Type: Restored Ancient Woodland Site	A9SW (SE)	926	2	278671 186611
247	Ancient Woodland Name: Not Supplied Reference: 8429 Area(m²): 144.45 Type: Ancient and Semi-Natural Woodland	A14SE (E)	973	2	279178 187181
248	Ancient Woodland Name: Not Supplied Reference: 15777 Area(m²): 3353 Type: Ancient and Semi-Natural Woodland	A9NE (SE)	982	2	279070 186909
249	Ancient Woodland Name: Not Supplied Reference: 13931 Area(m²): 6532.3 Type: Ancient and Semi-Natural Woodland	A18NW (N)	990	2	277957 188410
250	Ancient Woodland Name: Not Supplied Reference: 41896 Area(m²): 586.61 Type: Plantation on Ancient Woodland	A14SE (E)	996	2	279196 187157

Agency & Hydrological	Version	Update Cycle
Contaminated Land Register Entries and Notices Bridgend County Borough Council - Environmental Health Department Neath Port Talbot County Borough Council - Environmental Health Department	January 2020 March 2015	Annual Rolling Update Annual Rolling Update
Discharge Consents Environment Agency - Welsh Region Natural Resources Wales	August 2014 November 2019	Quarterly Quarterly
Enforcement and Prohibition Notices Environment Agency - Welsh Region	March 2013	Annual Rolling Update
Integrated Pollution Controls Environment Agency - Welsh Region	October 2008	Variable
Integrated Pollution Prevention And Control Natural Resources Wales Environment Agency - Welsh Region	November 2019 October 2019	Quarterly Quarterly
Local Authority Integrated Pollution Prevention And Control Neath Port Talbot County Borough Council - Environmental Health Department Bridgend County Borough Council - Environmental Health Department	August 2012 July 2015	Variable Variable
Local Authority Pollution Prevention and Controls Bridgend County Borough Council - Environmental Health Department Neath Port Talbot County Borough Council - Environmental Health Department	July 2015 March 2014	Not Applicable Annual Rolling Update
Local Authority Pollution Prevention and Control Enforcements Bridgend County Borough Council - Environmental Health Department Neath Port Talbot County Borough Council - Environmental Health Department	July 2015 March 2014	Variable Variable
Nearest Surface Water Feature Ordnance Survey	November 2019	
Pollution Incidents to Controlled Waters Environment Agency - Welsh Region	December 1998	Not Applicable
Prosecutions Relating to Authorised Processes Environment Agency - Welsh Region Natural Resources Wales	March 2013 March 2013	Annual Rolling Update Annual Rolling Update
Prosecutions Relating to Controlled Waters Environment Agency - Welsh Region Natural Resources Wales	March 2013 March 2013	Annual Rolling Update Annual Rolling Update
Registered Radioactive Substances Natural Resources Wales Environment Agency - Welsh Region	January 2015 June 2016	Annually
Substantiated Pollution Incident Register Environment Agency Wales - South West Area Natural Resources Wales	October 2019 October 2019	Quarterly Quarterly
Water Abstractions Natural Resources Wales Environment Agency - Welsh Region	November 2019 October 2019	Quarterly Quarterly
Water Industry Act Referrals Natural Resources Wales Environment Agency - Welsh Region	November 2019 October 2017	Quarterly Quarterly
Groundwater Vulnerability Map Natural Resources Wales	June 2018	As notified
Bedrock Aquifer Designations Natural Resources Wales	January 2018	Annually
Superficial Aquifer Designations Natural Resources Wales	January 2018	Annually
Source Protection Zones Natural Resources Wales	November 2016	Annual Rolling Update

Agency & Hydrological	Version	Update Cycle
Extreme Flooding from Rivers or Sea without Defences Natural Resources Wales	August 2019	Quarterly
Flooding from Rivers or Sea without Defences Natural Resources Wales	November 2019	Quarterly
Areas Benefiting from Flood Defences Natural Resources Wales	November 2019	Quarterly
Flood Water Storage Areas Natural Resources Wales	August 2019	Quarterly
Flood Defences Natural Resources Wales	November 2019	Quarterly
OS Water Network Lines Ordnance Survey	October 2019	Quarterly
Surface Water 1 in 30 year Flood Extent Natural Resources Wales	October 2013	Annually
Surface Water 1 in 100 year Flood Extent Natural Resources Wales	October 2013	Annually
Surface Water 1 in 1000 year Flood Extent Natural Resources Wales	October 2013	Annually
Surface Water Suitability Natural Resources Wales	October 2013	Annually
BGS Groundwater Flooding Susceptibility British Geological Survey - National Geoscience Information Service	May 2013	Annually

Waste	Version	Update Cycle
BGS Recorded Landfill Sites British Geological Survey - National Geoscience Information Service	June 1996	Not Applicable
Historical Landfill Sites Natural Resources Wales	July 2017	Quarterly
Integrated Pollution Control Registered Waste Sites Environment Agency - Welsh Region	October 2008	Not Applicable
Licensed Waste Management Facilities (Landfill Boundaries) Environment Agency Wales - South West Area Natural Resources Wales	November 2019 November 2019	Quarterly Quarterly
Licensed Waste Management Facilities (Locations) Natural Resources Wales Environment Agency Wales - South West Area	November 2019 October 2019	Quarterly Quarterly
Local Authority Landfill Coverage Bridgend County Borough Council Neath Port Talbot County Borough Council - Environmental Health Department	May 2000 May 2000	Not Applicable Not Applicable
Local Authority Recorded Landfill Sites Bridgend County Borough Council Neath Port Talbot County Borough Council - Environmental Health Department	May 2000 September 2003	Not Applicable Not Applicable
Potentially Infilled Land (Non-Water) Landmark Information Group Limited	December 1999	Not Applicable
Potentially Infilled Land (Water) Landmark Information Group Limited	December 1999	Not Applicable
Registered Landfill Sites Environment Agency Wales - South West Area	March 2003	Not Applicable
Registered Waste Transfer Sites Environment Agency Wales - South West Area	March 2003	Not Applicable
Registered Waste Treatment or Disposal Sites Environment Agency Wales - South West Area	March 2003	Not Applicable
Hazardous Substances	Version	Update Cycle
Control of Major Accident Hazards Sites (COMAH) Health and Safety Executive	April 2018	Bi-Annually
Explosive Sites Health and Safety Executive	March 2017	Annually
Notification of Installations Handling Hazardous Substances (NIHHS) Health and Safety Executive	November 2000	Not Applicable
Planning Hazardous Substance Enforcements Bridgend County Borough Council - Planning Department Neath Port Talbot County Borough Council - Planning Department	February 2016 October 2015	Variable Variable
Planning Hazardous Substance Consents Bridgend County Borough Council - Planning Department Neath Port Talbot County Borough Council - Planning Department	February 2016 October 2015	Variable Variable

Geological	Version	Update Cycle
BGS 1:625,000 Solid Geology British Geological Survey - National Geoscience Information Service	January 2009	Not Applicable
BGS Estimated Soil Chemistry British Geological Survey - National Geoscience Information Service	October 2015	Annually
BGS Recorded Mineral Sites British Geological Survey - National Geoscience Information Service	October 2019	Bi-Annually
CBSCB Compensation District Cheshire Brine Subsidence Compensation Board (CBSCB)	August 2011	Not Applicable
Coal Mining Affected Areas The Coal Authority - Property Searches	March 2014	Annual Rolling Update
Mining Instability Ove Arup & Partners	October 2000	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	January 2019	Annually
Potential for Compressible Ground Stability Hazards British Geological Survey - National Geoscience Information Service	January 2019	Annually
Potential for Ground Dissolution Stability Hazards British Geological Survey - National Geoscience Information Service	January 2019	Annually
Potential for Landslide Ground Stability Hazards British Geological Survey - National Geoscience Information Service	January 2019	Annually
Potential for Running Sand Ground Stability Hazards British Geological Survey - National Geoscience Information Service	January 2019	Annually
Potential for Shrinking or Swelling Clay Ground Stability Hazards British Geological Survey - National Geoscience Information Service	January 2019	Annually
Radon Potential - Radon Affected Areas British Geological Survey - National Geoscience Information Service	July 2011	Annually
Radon Potential - Radon Protection Measures British Geological Survey - National Geoscience Information Service	July 2011	Annually
Industrial Land Use	Version	Update Cycle
Contemporary Trade Directory Entries Thomson Directories	October 2019	Quarterly
Fuel Station Entries Catalist Ltd - Experian	December 2019	Quarterly
Gas Pipelines National Grid	July 2014	
Points of Interest - Commercial Services PointX	December 2019	Quarterly
Points of Interest - Education and Health PointX	December 2019	Quarterly
Points of Interest - Manufacturing and Production PointX	December 2019	Quarterly
Points of Interest - Public Infrastructure PointX	December 2019	Quarterly
Points of Interest - Recreational and Environmental PointX	December 2019	Quarterly
Underground Electrical Cables National Grid	December 2015	

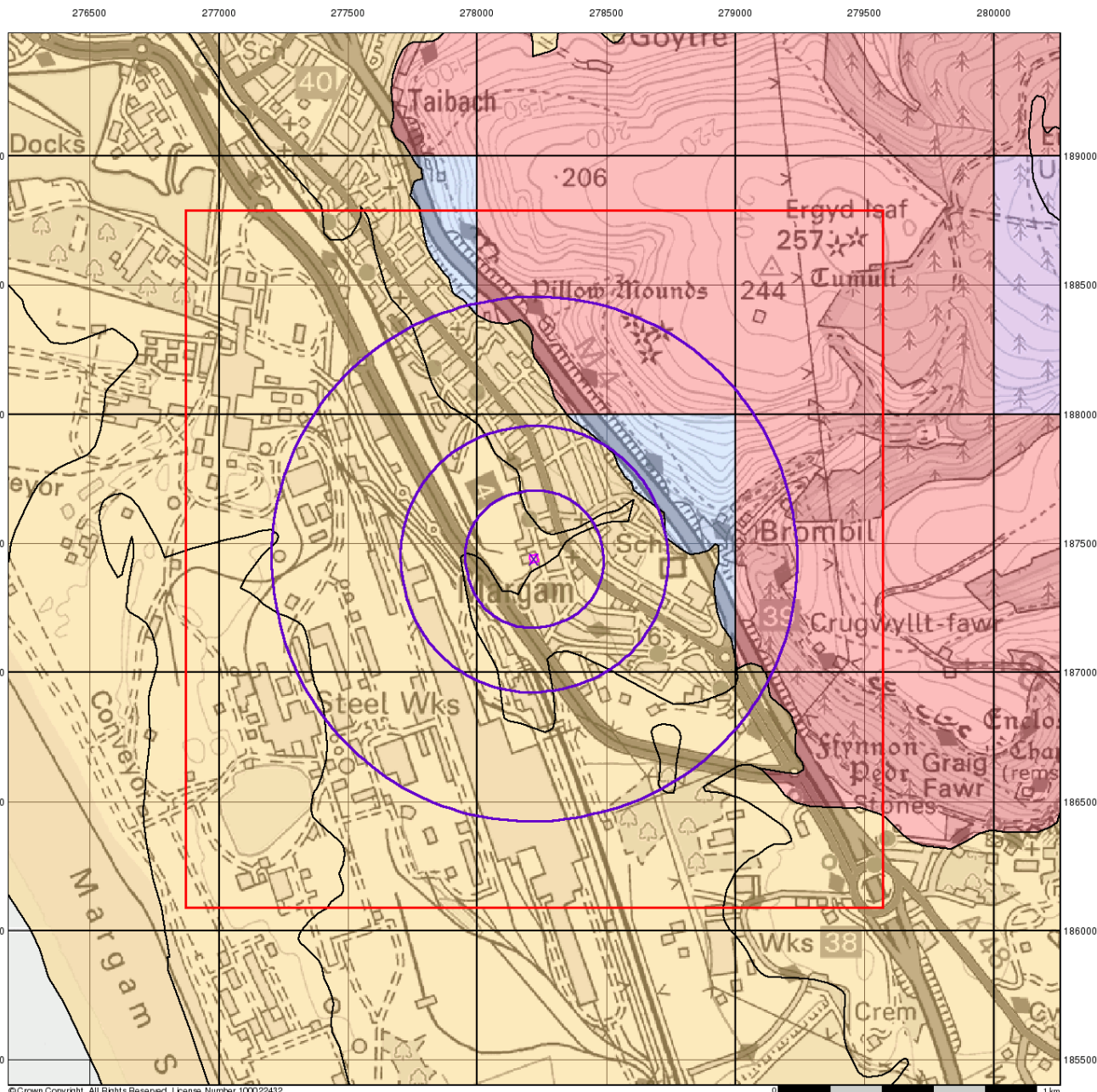
Sensitive Land Use	Version	Update Cycle
Ancient Woodland Natural Resources Wales	August 2018	Bi-Annually
Areas of Adopted Green Belt Bridgend County Borough Council Neath Port Talbot County Borough Council - Planning Services	February 2020 February 2020	As notified As notified
Areas of Unadopted Green Belt Bridgend County Borough Council Neath Port Talbot County Borough Council - Planning Services	February 2020 February 2020	As notified As notified
Areas of Outstanding Natural Beauty Natural Resources Wales	June 2019	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 Bridgend County Borough Council Neath Port Talbot County Borough Council	August 2018 August 2018	Bi-Annually Bi-Annually
Marine Nature Reserves Natural Resources Wales	August 2018	Bi-Annually
National Nature Reserves Natural Resources Wales	June 2019	Bi-Annually
National Parks Natural Resources Wales	August 2018	Annually
Nitrate Vulnerable Zones Natural Resources Wales The National Assembly for Wales - GI Services (Department of Planning & Countryside)	July 2019 October 2005	Bi-Annually
Ramsar Sites Natural Resources Wales	July 2019	Bi-Annually
Sites of Special Scientific Interest Natural Resources Wales	March 2019	Bi-Annually
Special Areas of Conservation Natural Resources Wales	August 2018	Bi-Annually
Special Protection Areas Natural Resources Wales	August 2018	Bi-Annually

A selection of organisations who provide data within this report

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

Contact	Name and Address	Contact Details
1	British Geological Survey - Enquiry Service British Geological Survey, Environmental Science Centre, Keyworth, Nottingham, Nottinghamshire, NG12 5GG	Telephone: 0115 936 3143 Fax: 0115 936 3276 Email: enquiries@bgs.ac.uk Website: www.bgs.ac.uk
2	Natural Resources Wales Ty Cambria, 29 Newport Road, Cardiff, CF24 0TP	Telephone: 0300 065 3000 Email: enquiries@naturalresourceswales.gov.uk
3	Environment Agency - National Customer Contact Centre (NCCC) PO Box 544, Templeborough, Rotherham, S60 1BY	Telephone: 03708 506 506 Email: enquiries@environment-agency.gov.uk
4	Neath Port Talbot County Borough Council - Environmental Health Department Room 322, Neath Civic Centre, Neath, West Glamorgan, SA11 3QZ	Telephone: 01639 763333 Fax: 01693 763444 Website: www.neath-porttalbot.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	Health and Safety Executive 5S.2 Redgrave Court, Merton Road, Bootle, L20 7HS	Website: www.hse.gov.uk
7	Neath Port Talbot County Borough Council - Planning Department Port Talbot Civic Centre, Port Talbot, SA13 1PJ	Telephone: 01639 763333 Fax: 01639 763444 Website: www.neath-porttalbot.gov.uk
8	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
9	PointX 7 Abbey Court, Eagle Way, Sowton, Exeter, Devon, EX2 7HY	Website: www.pointx.co.uk
-	Public Health England - Radon Survey, Centre for Radiation, Chemical and Environmental Hazards Chilton, Didcot, Oxfordshire, OX11 0RQ	Telephone: 01235 822622 Fax: 01235 833891 Email: radon@phe.gov.uk Website: www.ukradon.org
-	Landmark Information Group Limited Imperium, Imperial Way, Reading, Berkshire, RG2 0TD	Telephone: 0844 844 9952 Fax: 0844 844 9951 Email: customerservices@landmarkinfo.co.uk Website: www.landmarkinfo.co.uk

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



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0 1 km

Intégral Géotechnique

Groundwater Vulnerability

General

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

Agency and Hydrological

Bedrock Aquifers

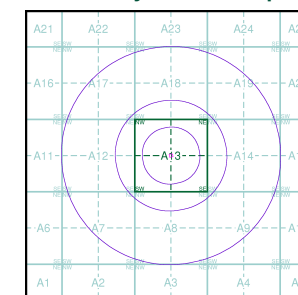
- High Vulnerability, Principal Aquifer
- High Vulnerability, Secondary Aquifer
- Medium Vulnerability, Principal Aquifer
- Medium Vulnerability, Secondary Aquifer
- Low Vulnerability, Principal Aquifer
- Low Vulnerability, Secondary Aquifer

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

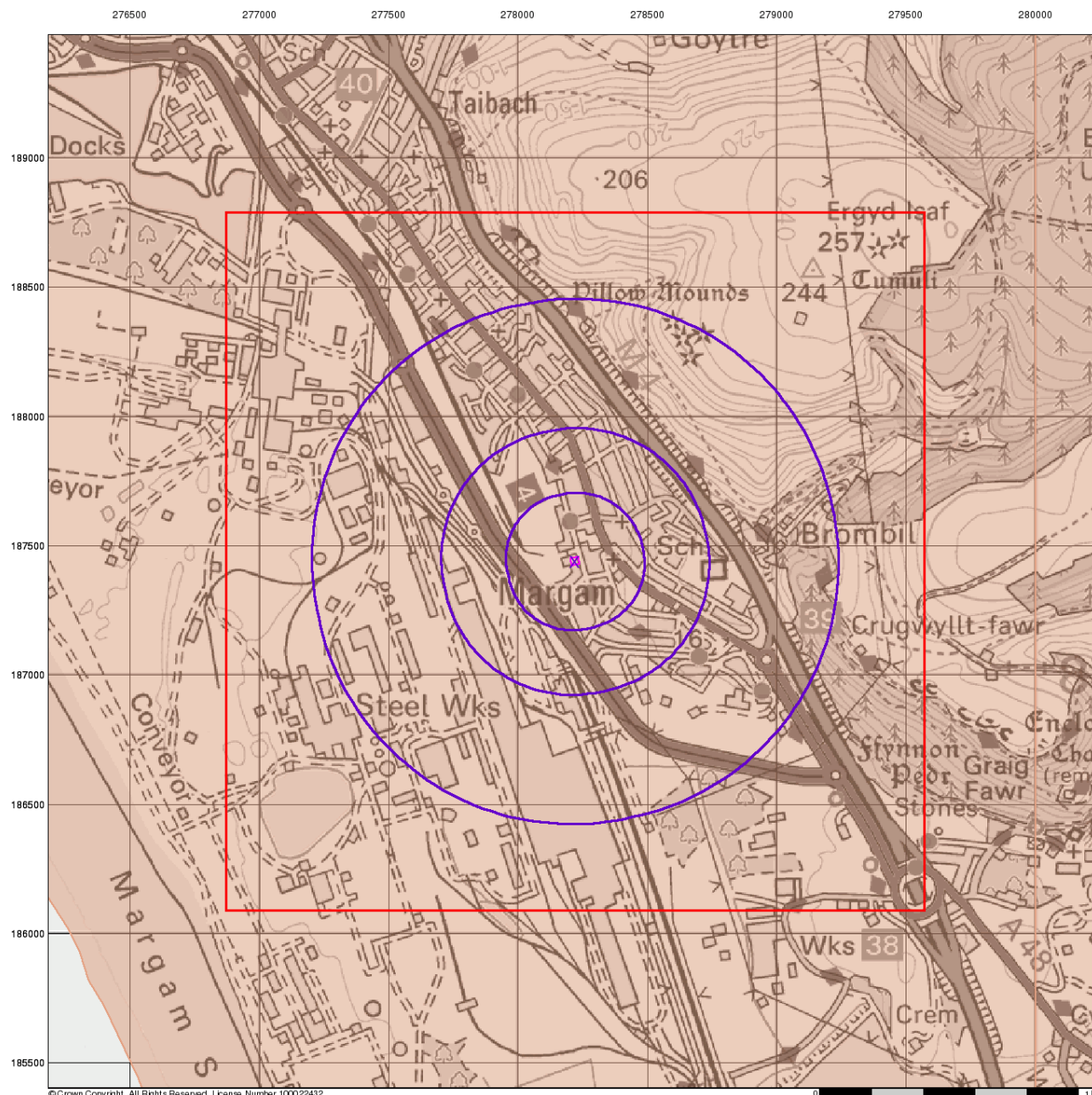
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Customer Ref: 12608/LP
National Grid Reference: 278220, 187440
Slice: A
Site Area (Ha): 0.09
Search Buffer (m): 1000

Site Details

Knights Road, PORT TALBOT, SA13 2DT

Landmark
INFORMATION GROUP

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



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0 1 km

Intégral Géotechnique

Bedrock Aquifer Designation

General

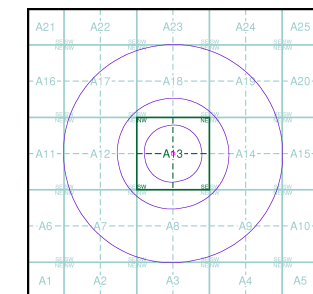
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- Specified Buffer(s)
- Bearing Reference Point
- Slice
- Map ID

Agency and Hydrological

Geological Classes

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

Site Sensitivity Context Map - Slice A



Order Details

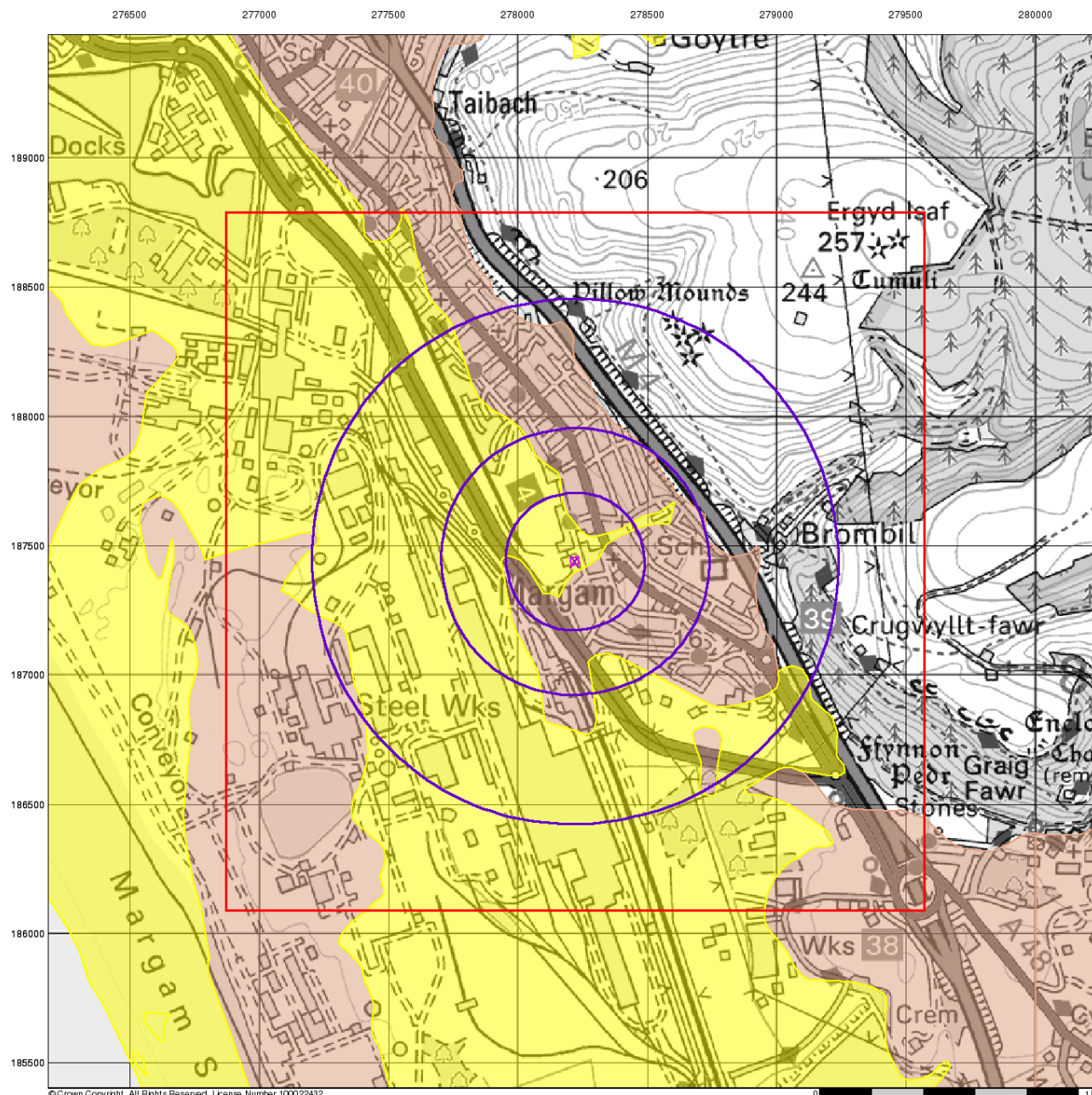
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Customer Ref: 12608/LP
National Grid Reference: 278220, 187440
Slice: A
Site Area (Ha): 0.09
Search Buffer (m): 1000

Site Details

Knights Road, PORT TALBOT, SA13 2DT

Landmark
INFORMATION GROUP

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



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0 1 km

Intégral Géotechnique

Superficial Aquifer Designation

General

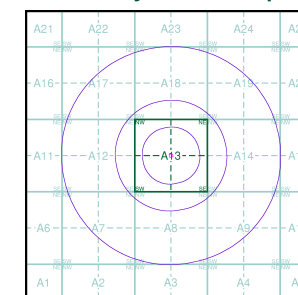
- Specified Site
- Specified Buffer(s)
- Bearing Reference Point
- Slice
- Map ID

Agency and Hydrological

Geological Classes

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

Site Sensitivity Context Map - Slice A



Order Details

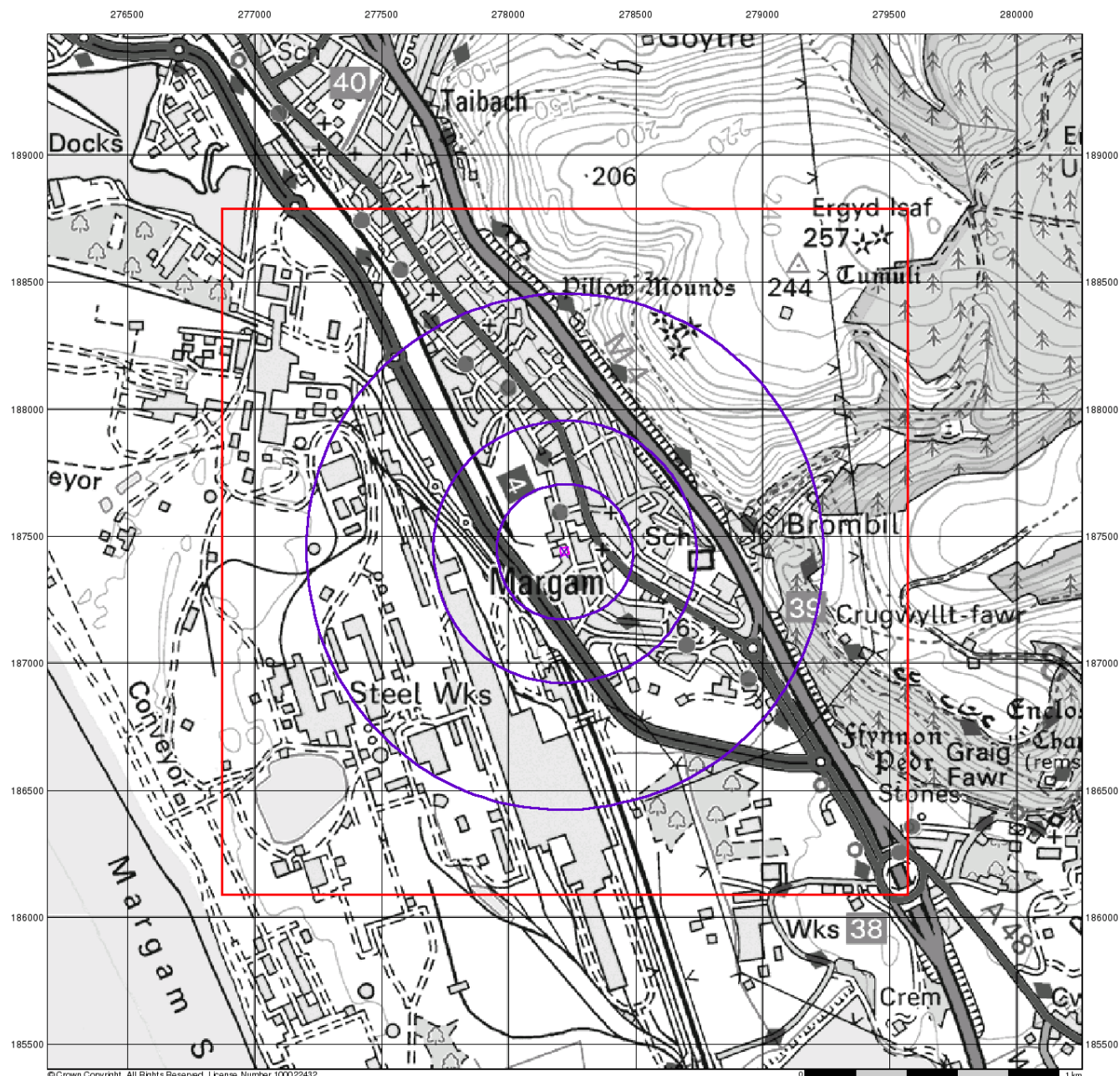
Order Number: 233818109_1_1
Customer Ref: 12608/LP
National Grid Reference: 278220, 187440
Slice: A
Site Area (Ha): 0.09
Search Buffer (m): 1000

Site Details

Knights Road, PORT TALBOT, SA13 2DT

Landmark
INFORMATION GROUP

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



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Intégral Géotechnique

Source Protection Zones

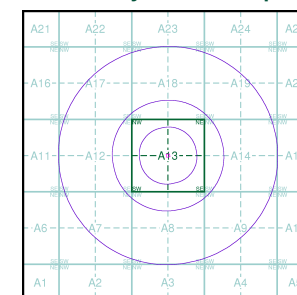
General

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

Agency and Hydrological

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

Site Sensitivity Context Map - Slice A



Order Details

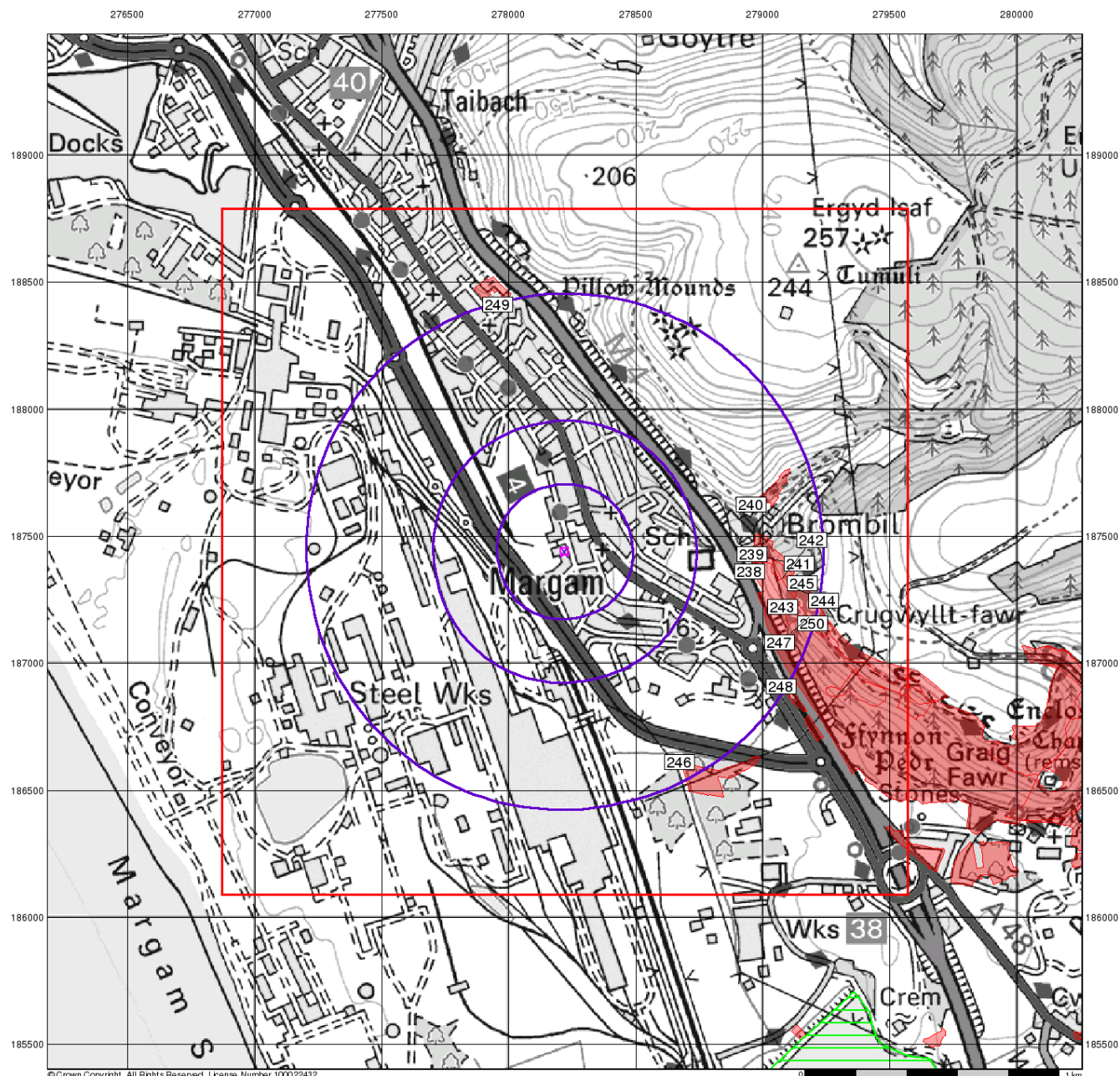
Order Number: 233818109_1_1
 Customer Ref: 12608/LP
 National Grid Reference: 278220, 187440
 Slice: A
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 Search Buffer (m): 1000

Site Details

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Intégral Géotechnique

Sensitive Land Uses

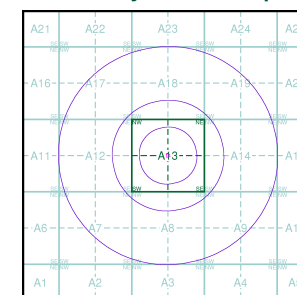
General

- 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

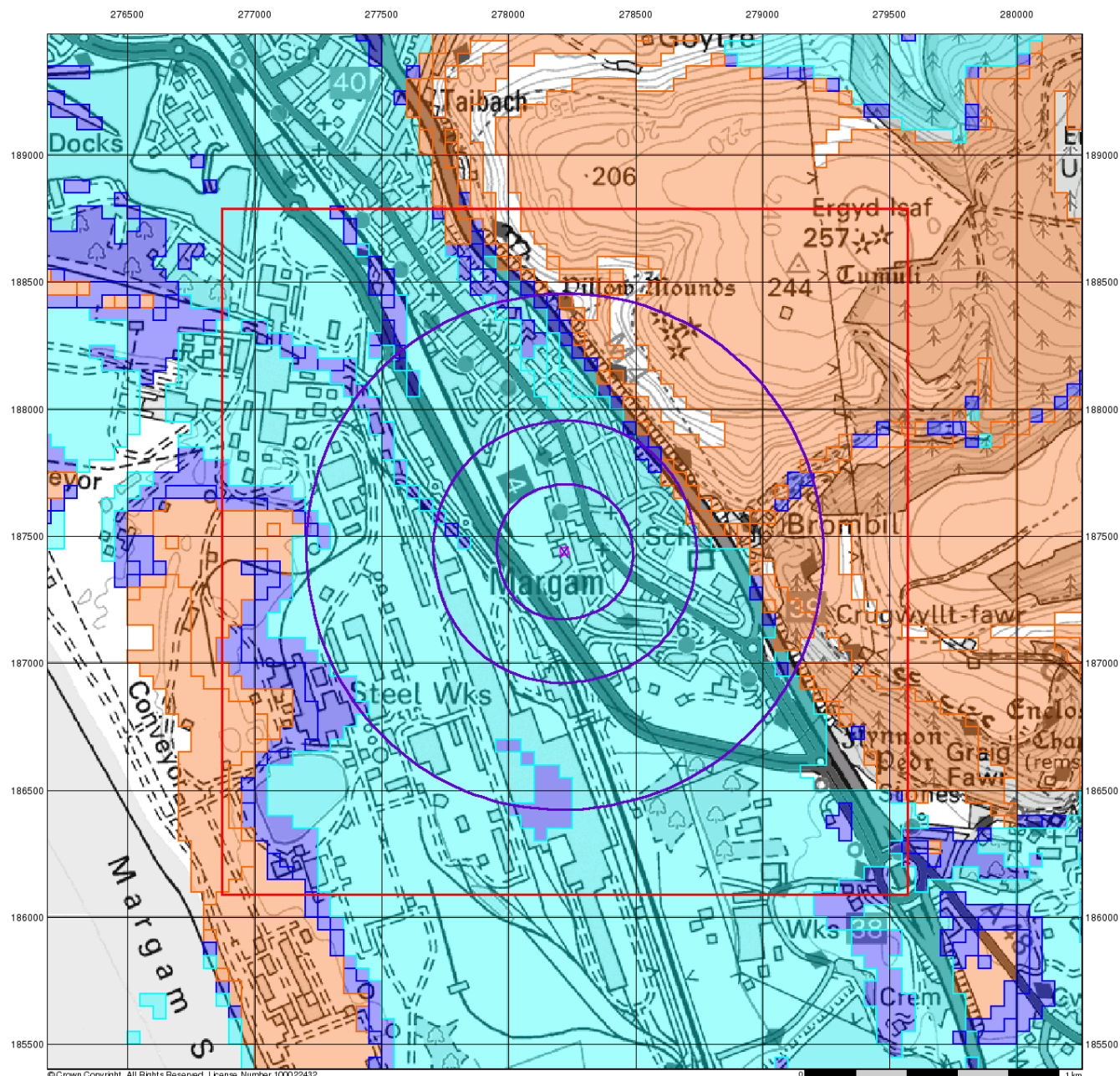
Order Number: 233818109_1_1
 Customer Ref: 12608/LP
 National Grid Reference: 278220, 187440
 Slice: A
 Site Area (Ha): 0.09
 Search Buffer (m): 1000

Site Details

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Intégral Géotechnique

BGS Flood GFS Data

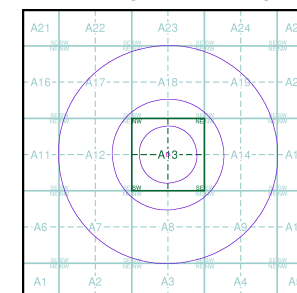
General

- 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: 233818109_1_1
 Customer Ref: 12608/LP
 National Grid Reference: 278220, 187440
 Slice: A
 Site Area (Ha): 0.09
 Search Buffer (m): 1000

Site Details

Knights Road, PORT TALBOT, SA13 2DT

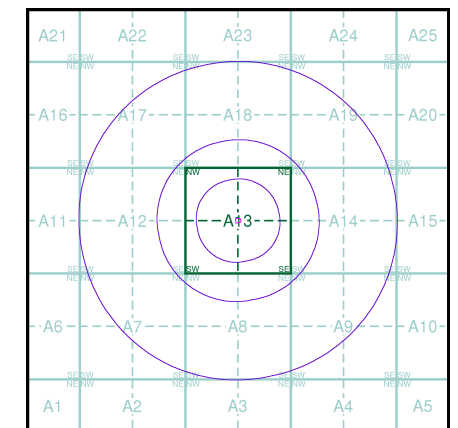
Landmark
 INFORMATION GROUP

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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
- 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)
 - 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

Site Sensitivity Map - Slice A



Order Details

Order Number: 233818109_1_1
Customer Ref: 12608/LP
National Grid Reference: 278220, 187440
Slice: A
Site Area (Ha): 0.09
Search Buffer (m): 1000

Site Details

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Landmark
INFORMATION GROUP

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Intégral Géotechnique

Industrial Land Use Map

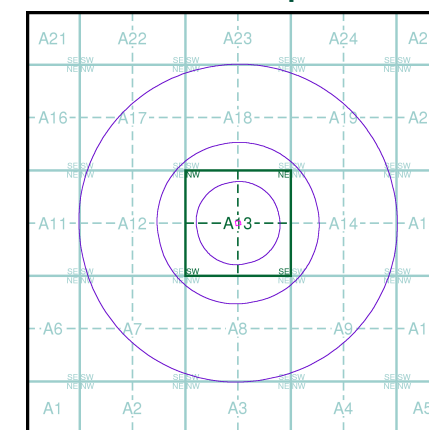
General

- 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: 233818109_1_1
Customer Ref: 12608/LP
National Grid Reference: 278220, 187440
Slice: A
Site Area (Ha): 0.09
Search Buffer (m): 1000

Site Details

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Intégral Géotechnique

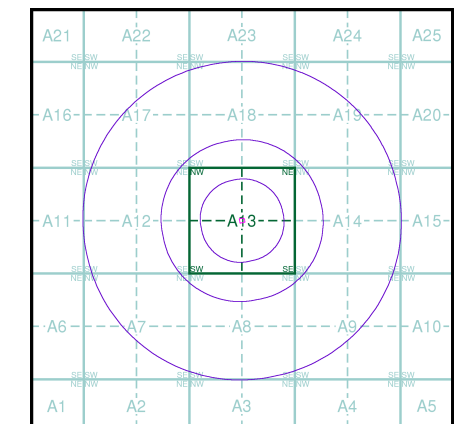
General

- 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: 233818109_1_1
Customer Ref: 12608/LP
National Grid Reference: 278220, 187440
Slice: A
Site Area (Ha): 0.09
Search Buffer (m): 1000

Site Details

Knights Road, PORT TALBOT, SA13 2DT

Landmark
INFORMATION GROUP

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Web: www.envirocheck.co.uk

General

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

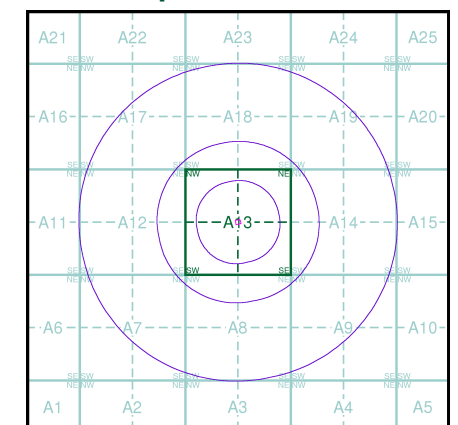
Agency and Hydrological (Boreholes)

- 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: 233818109_1_1
Customer Ref: 12608/LP
National Grid Reference: 278220, 187440
Slice: A
Site Area (Ha): 0.09
Search Buffer (m): 1000

Site Details

Knights Road, PORT TALBOT, SA13 2DT

Intégral Géotechnique

General

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

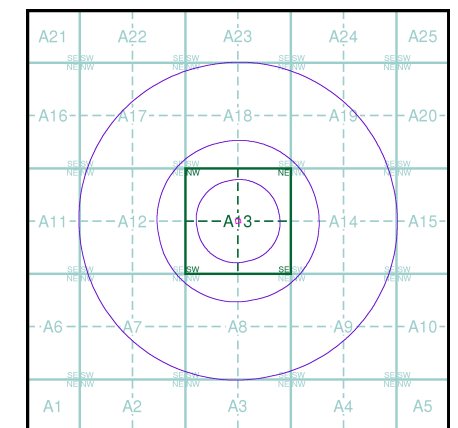
OS Water Network Data

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

Contours (height in meters)

- Standard Contour
- Master Contour
- Spot Height
- MLW Mean Low Water
- MHW Mean High Water

OS Water Network Map - Slice A



Order Details

Order Number: 233818109_1_1
Customer Ref: 12608/LP
National Grid Reference: 278220, 187440
Slice: A
Site Area (Ha): 0.09
Search Buffer (m): 1000

Site Details

Knights Road, PORT TALBOT, SA13 2DT

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General

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

Risk of Flooding from Surface Water

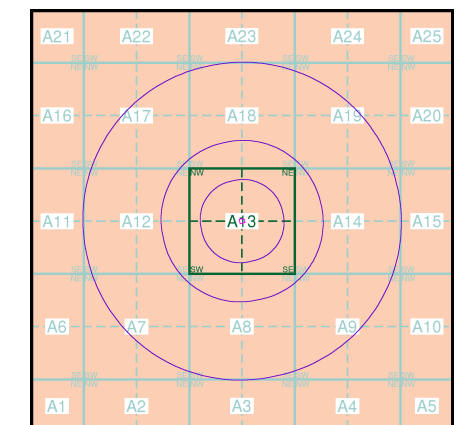
- High - 30 Year Return
- Medium - 100 Year Return
- Low - 1000 Year Return

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: 233818109_1_1
Customer Ref: 12608/LP
National Grid Reference: 278220, 187440
Slice: A
Site Area (Ha): 0.09
Search Buffer (m): 1000

Site Details

Knights Road, PORT TALBOT, SA13 2DT

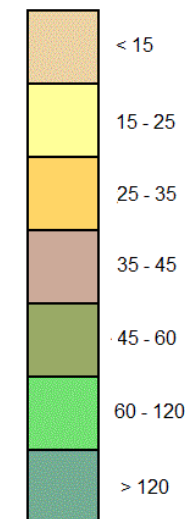
Intégral Géotechnique

General

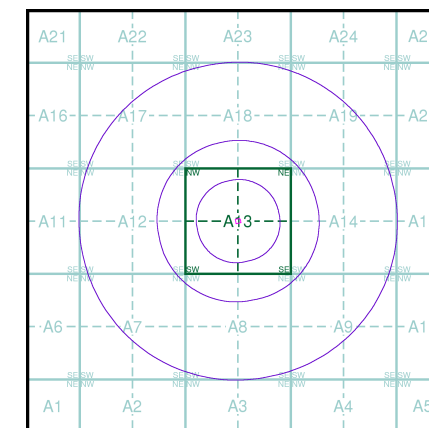
Specified Site Specified Buffer(s) Bearing Reference Point

Estimated Soil Chemistry Arsenic

Arsenic Concentrations mg/kg



Estimated Soil Chemistry Arsenic - Slice A



Order Details

Order Details: 233818109_1_1
Customer Ref: 12608/LP
National Grid Reference: 278220, 187440
Slice: A
Site Area (Ha): 0.09
Search Buffer (m): 1000

Site Details

Knights Road, PORT TALBOT, SA13 2DT

Landmark
INFORMATION GROUP

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

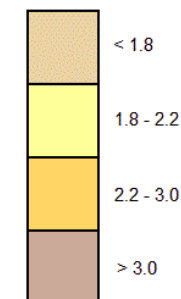
Intégral Géotechnique

General

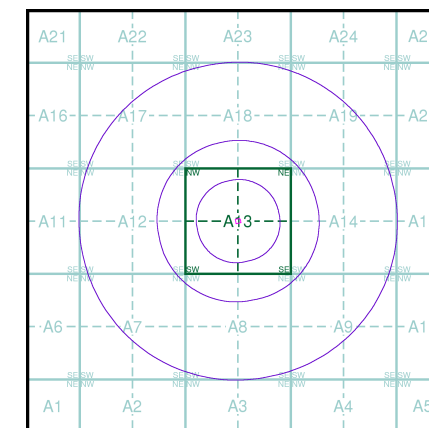
Specified Site Specified Buffer(s) Bearing Reference Point

Estimated Soil Chemistry Cadmium

Cadmium Concentrations mg/kg



Estimated Soil Chemistry Cadmium - Slice A



Order Details

Order Details: 233818109_1_1
Customer Ref: 12608/LP
National Grid Reference: 278220, 187440
Slice: A
Site Area (Ha): 0.09
Search Buffer (m): 1000

Site Details

Knights Road, PORT TALBOT, SA13 2DT

Landmark
INFORMATION GROUP

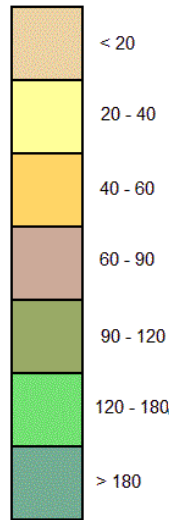
Tel: 0844 844 9952
Fax: 0844 844 9951
Web: www.envirocheck.co.uk

General

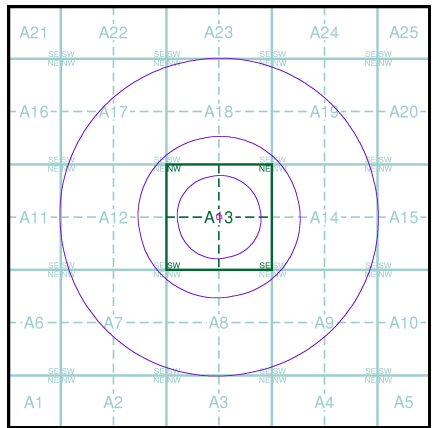
Specified Site Specified Buffer(s) Bearing Reference Point

Estimated Soil Chemistry Chromium

Chromium Concentrations mg/kg



Estimated Soil Chemistry Chromium - Slice A



Order Details

Order Details: 233818109_1_1
Customer Ref: 12608/LP
National Grid Reference: 278220, 187440
Slice: A
Site Area (Ha): 0.09
Search Buffer (m): 1000

Site Details

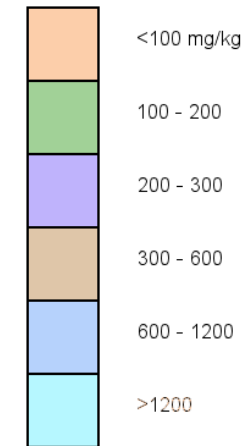
Knights Road, PORT TALBOT, SA13 2DT

General

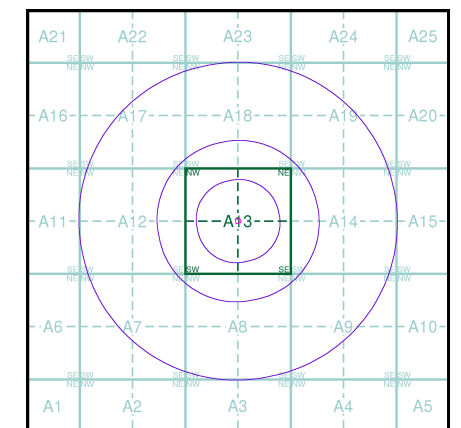
Specified Site Specified Buffer(s) Bearing Reference Point

Estimated Soil Chemistry Lead

Lead Concentrations mg/kg



Estimated Soil Chemistry Lead - Slice A



Order Details

Order Details: 233818109_1_1
Customer Ref: 12608/LP
National Grid Reference: 278220, 187440
Slice: A
Site Area (Ha): 0.09
Search Buffer (m): 1000

Site Details

Knights Road, PORT TALBOT, SA13 2DT

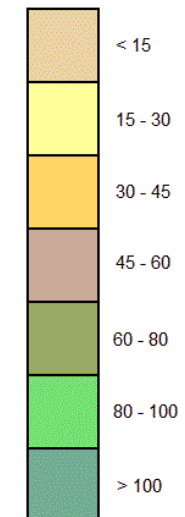
Intégral Géotechnique

General

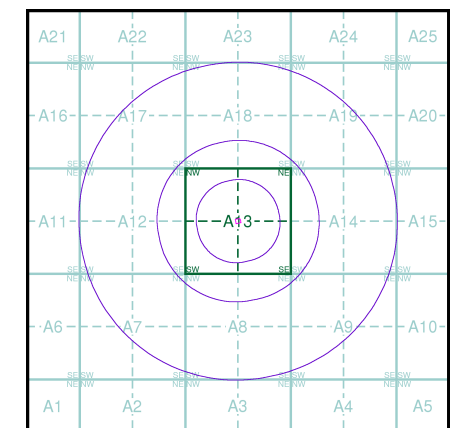
Specified Site Specified Buffer(s) Bearing Reference Point

Estimated Soil Chemistry Nickel

Nickel Concentrations mg/kg



Estimated Soil Chemistry Nickel - Slice A



Order Details

Order Details: 233818109_1_1
Customer Ref: 12608/LP
National Grid Reference: 278220, 187440
Slice: A
Site Area (Ha): 0.09
Search Buffer (m): 1000

Site Details

Knights Road, PORT TALBOT, SA13 2DT

Landmark
INFORMATION GROUP

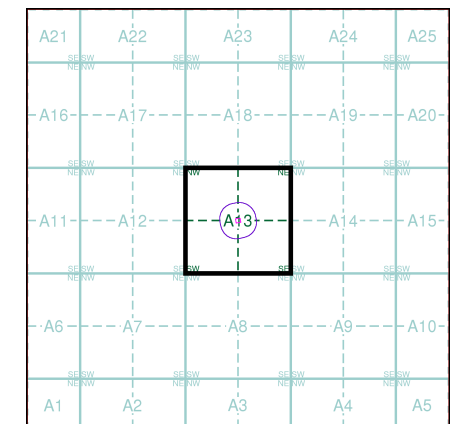
Tel: 0844 844 9952
Fax: 0844 844 9951
Web: www.envirocheck.co.uk

Intégral Géotechnique

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
 - 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 A13



Order Details

Order Number: 233818109_1_1
Customer Ref: 12608/LP
National Grid Reference: 278220, 187440
Slice: A
Site Area (Ha): 0.09
Plot Buffer (m): 100

Site Details

Knights Road, PORT TALBOT, SA13 2DT

Landmark
INFORMATION GROUP

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Web: www.envirocheck.co.uk

Geology 1:50,000 Maps Legends

Artificial Ground and Landslip

Map Colour	Lex Code	Rock Name	Rock Type	Min and Max Age
	LSGR	Landscaped Ground (Undivided)	Artificially Modified Ground	Not Supplied - Holocene
	WGR	Worked Ground (Undivided)	Void	Not Supplied - Holocene
	MGR	Made Ground (Undivided)	Artificial Deposit	Not Supplied - Holocene
	SLIP	Landslide Deposit	Unknown/Unclassified Entry	Not Supplied - Quaternary

Superficial Geology

Map Colour	Lex Code	Rock Name	Rock Type	Min and Max Age
	SUPNM	Superficial Theme Not Mapped [For Digital Map Use Only]	Unknown/Unclassified Entry	Not Supplied - Not Supplied
	TFD	Tidal Flat Deposits	Clay, Silt and Sand	Not Supplied - Holocene
	ALV	Alluvium	Clay, Silt, Sand and Gravel	Not Supplied - Holocene
	GFCD	Glaciofluvial Ice Contact Deposits, Devensian	Sand and Gravel	Not Supplied - Devensian
	GFDUD	Glaciofluvial Deposits, Devensian	Sand and Gravel	Not Supplied - Devensian
	TILLD	Till, Devensian	Diamicton	Not Supplied - Devensian
	ALF	Alluvial Fan Deposits	Sand and Gravel	Not Supplied - Quaternary
	BSA	Blown Sand	Sand	Not Supplied - Quaternary
	MBD	Marine Beach Deposits	Sand and Gravel	Not Supplied - Quaternary
	STOB	Storm Beach Deposits	Gravel	Not Supplied - Quaternary
	RSBD	Raised Storm Beach Deposits	Sand and Gravel	Not Supplied - Quaternary
	PEAT	Peat	Peat	Not Supplied - Quaternary

Bedrock and Faults

Map Colour	Lex Code	Rock Name	Rock Type	Min and Max Age
	BD	Brithdir Member	Sandstone	Not Supplied - Westphalian
	SWUCM	South Wales Upper Coal Measures Formation	Mudstone, Siltstone and Sandstone	Not Supplied - Westphalian

Map Colour	Lex Code	Rock Name	Rock Type	Min and Max Age
	SWUCM	South Wales Upper Coal Measures Formation	Sandstone	Not Supplied - Westphalian
	LLFB	Llynfi Member	Sandstone	Not Supplied - Westphalian
	LLFB	Llynfi Member	Mudstone, Siltstone and Sandstone	Not Supplied - Westphalian
	RA	Rhondda Member	Mudstone, Siltstone and Sandstone	Not Supplied - Westphalian
	RA	Rhondda Member	Sandstone	Not Supplied - Westphalian
	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
		Faults		
		Rock Segments		

Intégral Géotechnique

Geology 1:50,000 Maps

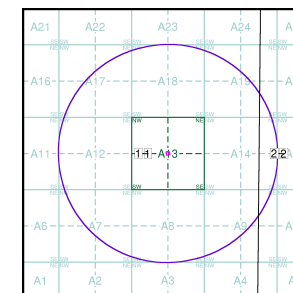
This report contains geological map extracts taken from the BGS Digital Geological map of Great Britain at 1:50,000 scale and is designed for users carrying out preliminary site assessments who require geological maps for the area around the site. This mapping may be more up to date than previously published 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 ID:	2
Map Sheet No:	247	Map Sheet No:	248
Map Name:	Swansea	Map Name:	Pontypridd
Map Date:	2011	Map Date:	1960
Bedrock Geology:	Available	Bedrock Geology:	Available
Superficial Geology:	Available	Superficial Geology:	Available
Artificial Geology:	Available	Artificial Geology:	Not Available
Faults:	Not Supplied	Faults:	Not Supplied
Landslip:	Available	Landslip:	Available
Rock Segments:	Not Supplied	Rock Segments:	Not Supplied

Geology 1:50,000 Maps - Slice A

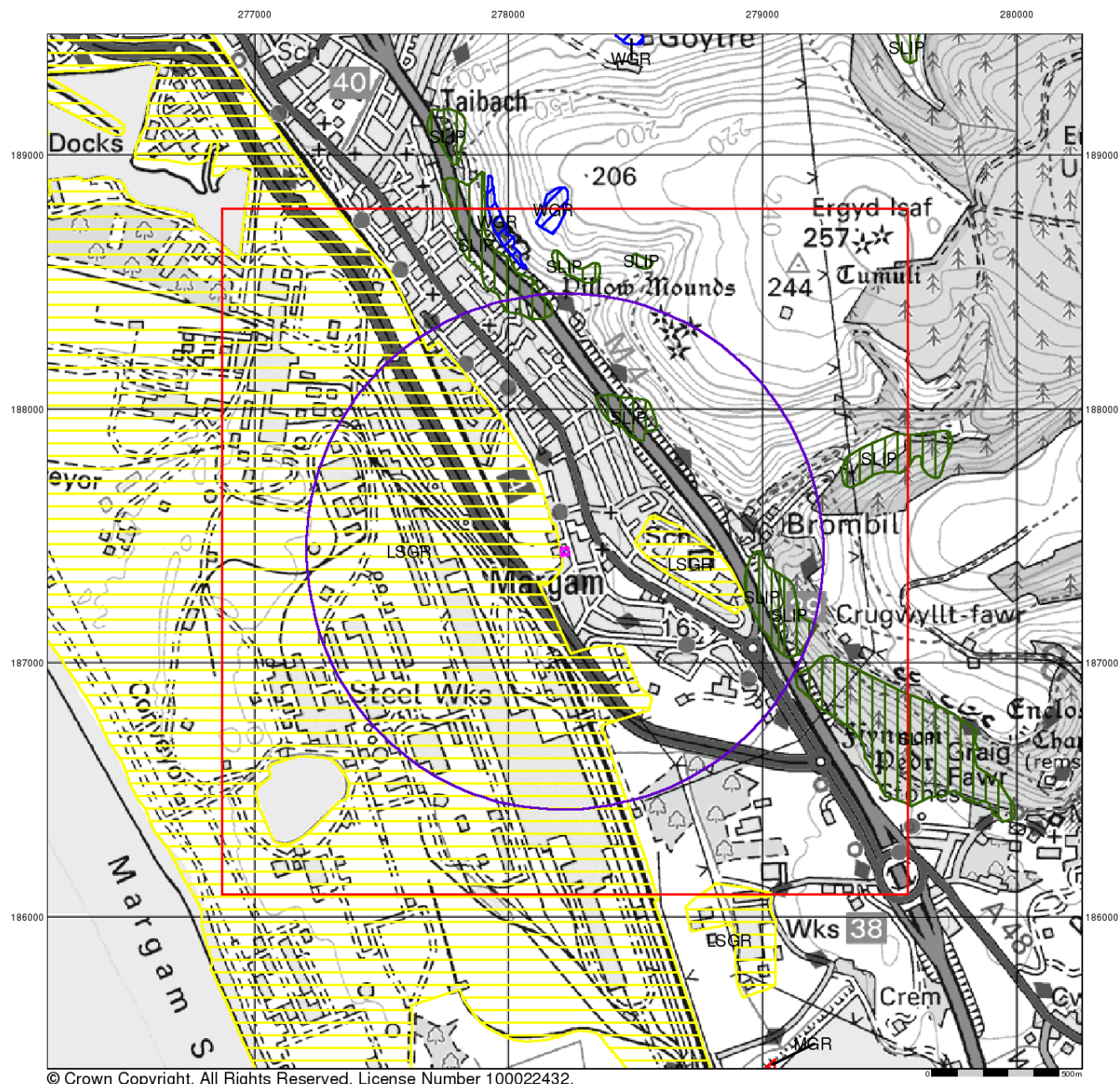


Order Details:

Order Number: 233818109_1_1
 Customer Reference: 12608/LP
 National Grid Reference: 278220, 187440
 Slice: A
 Site Area (Ha): 0.09
 Search Buffer (m): 1000

Site Details:

Knights Road, PORT TALBOT, SA13 2DT



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Intégral Géotechnique

Artificial Ground and Landslip

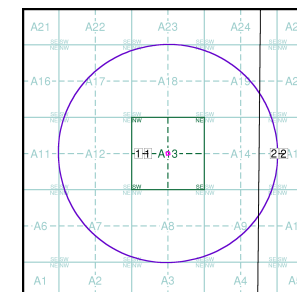
Artificial ground is a term used by BGS for those areas where the ground surface has been significantly modified by human activity. Information about previously developed ground is especially important, as it is often associated with potentially contaminated material, unpredictable engineering conditions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

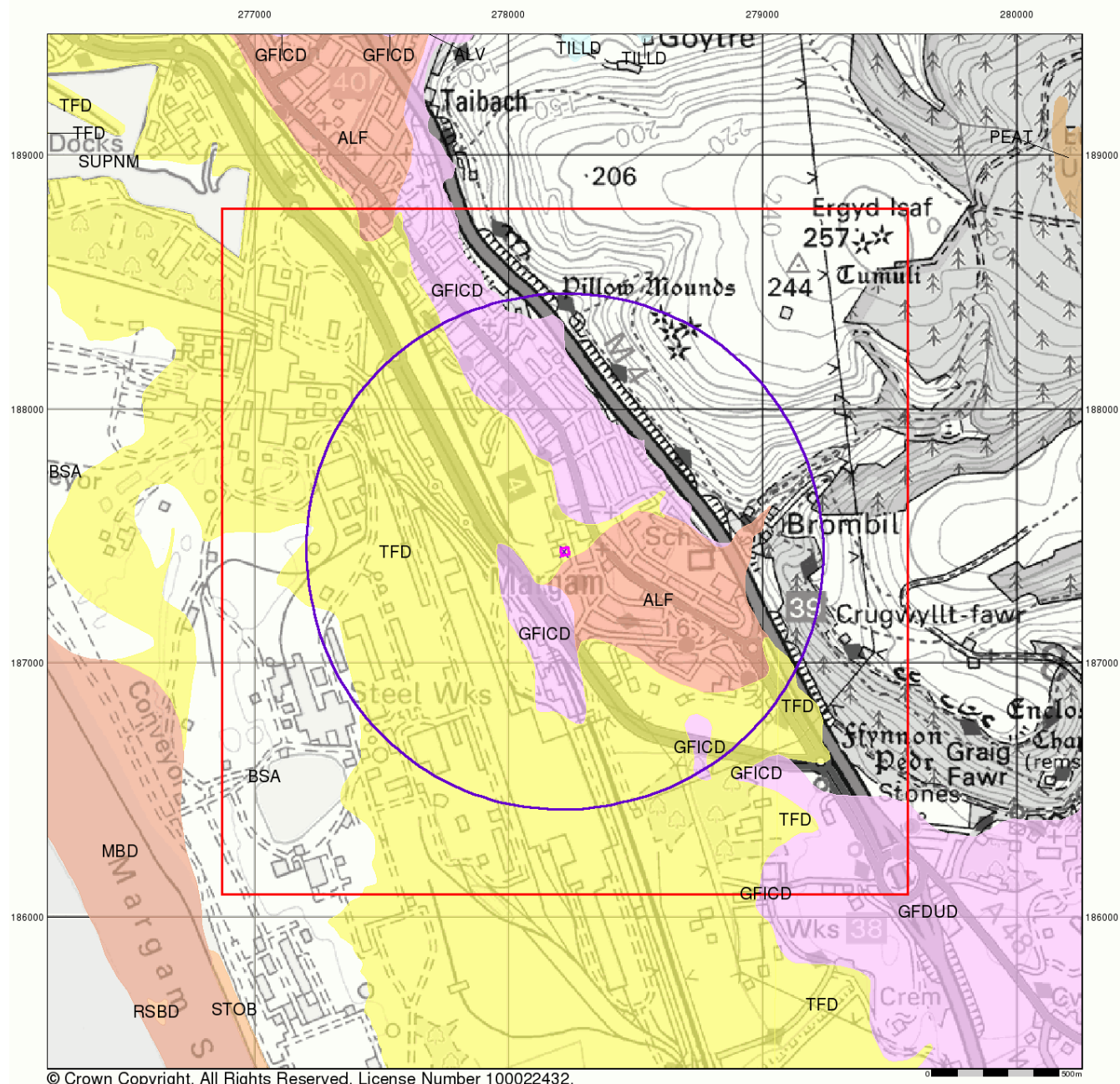
Order Number: 233818109_1_1
Customer Reference: 12608/LP
National Grid Reference: 278220, 187440
Slice: A
Site Area (Ha): 0.09
Search Buffer (m): 1000

Site Details:

Knights Road, PORT TALBOT, SA13 2DT

Landmark
INFORMATION GROUP

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



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Intégral Géotechnique

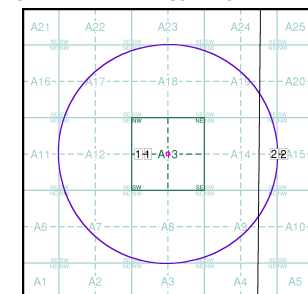
Superficial Geology

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



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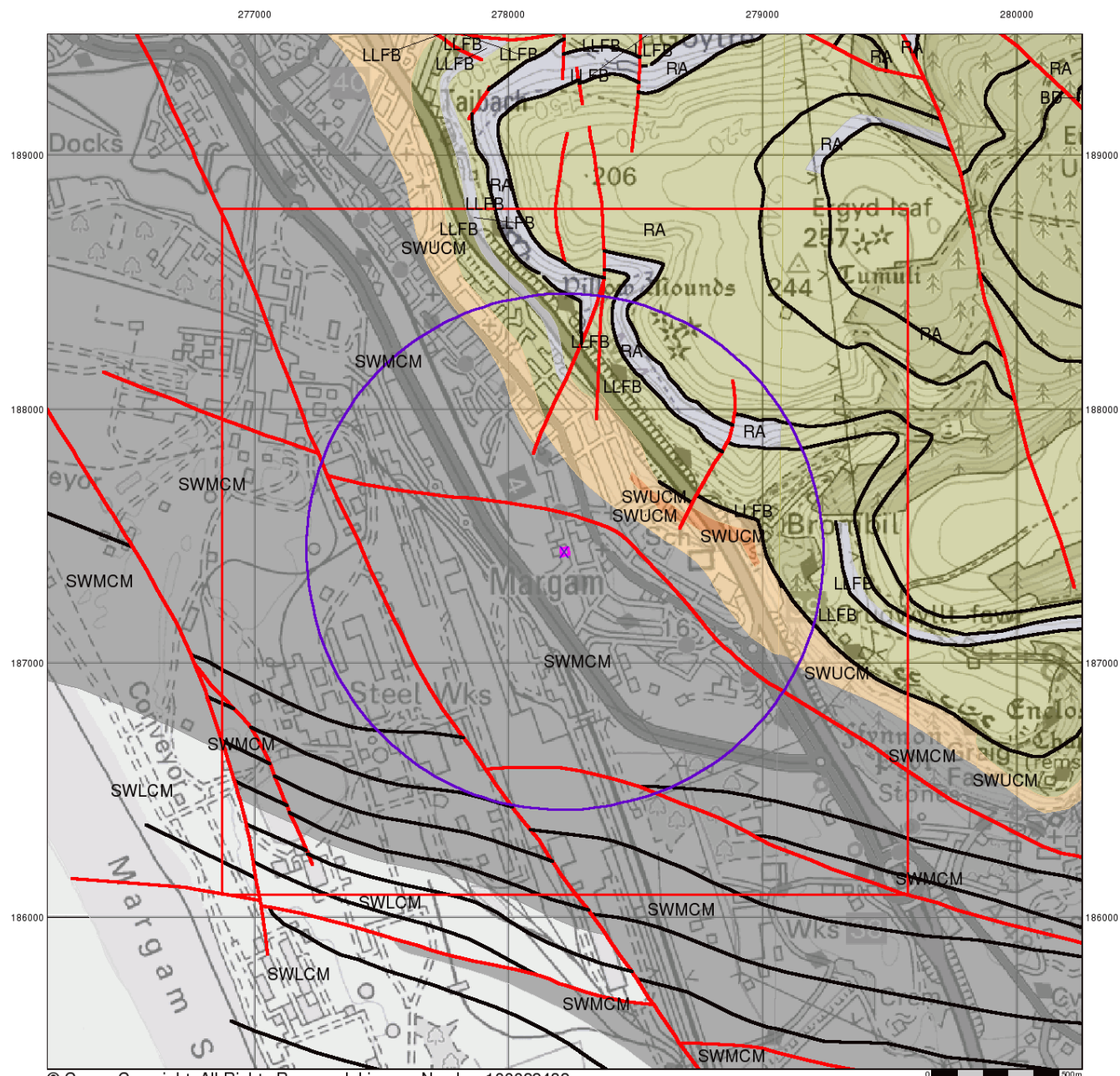
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Intégral Géotechnique

Bedrock and Faults

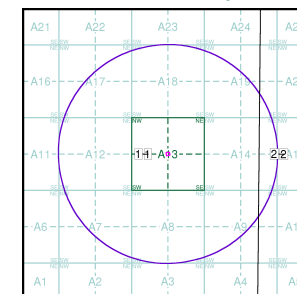
Bedrock geology is a term used for the main mass of rocks forming the Earth and are present everywhere, whether exposed at the surface in outcrops or concealed beneath superficial deposits or water.

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



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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		
	BP, BS Boundary Post or Stone		Police Station
	Church		Post Office
	Club House		Public Convenience
	Fire Engine Station		Public House
	Foot Bridge		Signal Box
	Fountain		Spring
	Guide Post		Telephone Call Box
	Mile Post		Telephone Call Post
	Mile Stone		Well

1:10,000 Raster Mapping

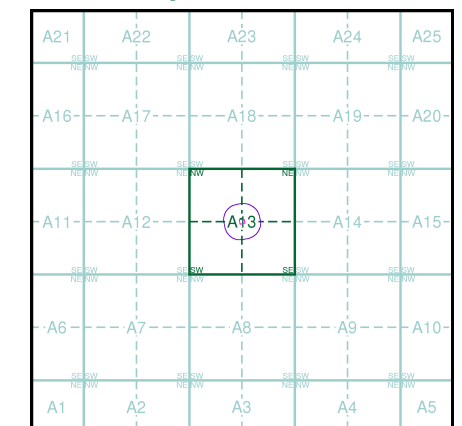
	Gravel Pit		Refuse tip or slag heap
	Rock		Rock (scattered)
	Boulders		Boulders (scattered)
	Shingle		Mud
	Sand		Sand Pit
	Slopes		Top of cliff
	General detail		Underground detail
	Overhead detail		Narrow gauge railway
	Multi-track railway		Single track railway
	County boundary (England only)		Civil,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

Intégral Géotechnique

Historical Mapping & Photography included:

Mapping Type	Scale	Date	Pg
Glamorganshire	1:10,560	1885	2
Glamorganshire	1:10,560	1900	3
Glamorganshire	1:10,560	1921	4
Glamorganshire	1:10,560	1938 - 1951	5
Historical Aerial Photography	1:10,560	1949	6
Glamorganshire	1:10,560	1951	7
Ordnance Survey Plan	1:10,000	1965	8
Ordnance Survey Plan	1:10,000	1982	9
Ordnance Survey Plan	1:10,000	1993	10
10K Raster Mapping	1:10,000	1999	11
10K Raster Mapping	1:10,000	2006	12
VectorMap Local	1:10,000	2020	13

Historical Map - Slice A



Order Details

Order Number: 233818109_1_1
Customer Ref: 12608/LP
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Slice: A
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Site Details

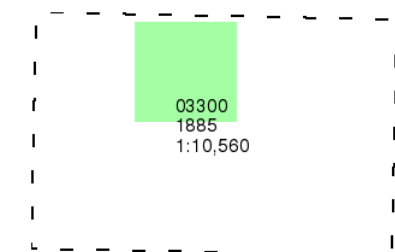
Knights Road, PORT TALBOT, SA13 2DT

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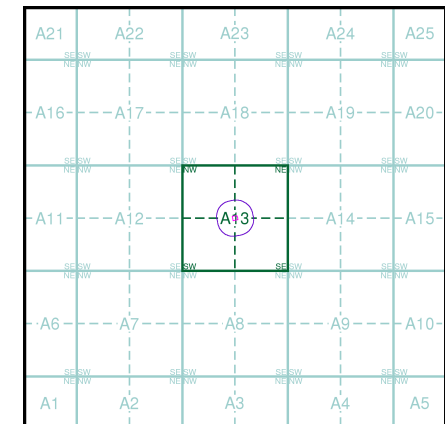
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Map Name(s) and Date(s)



Historical Map - Slice A

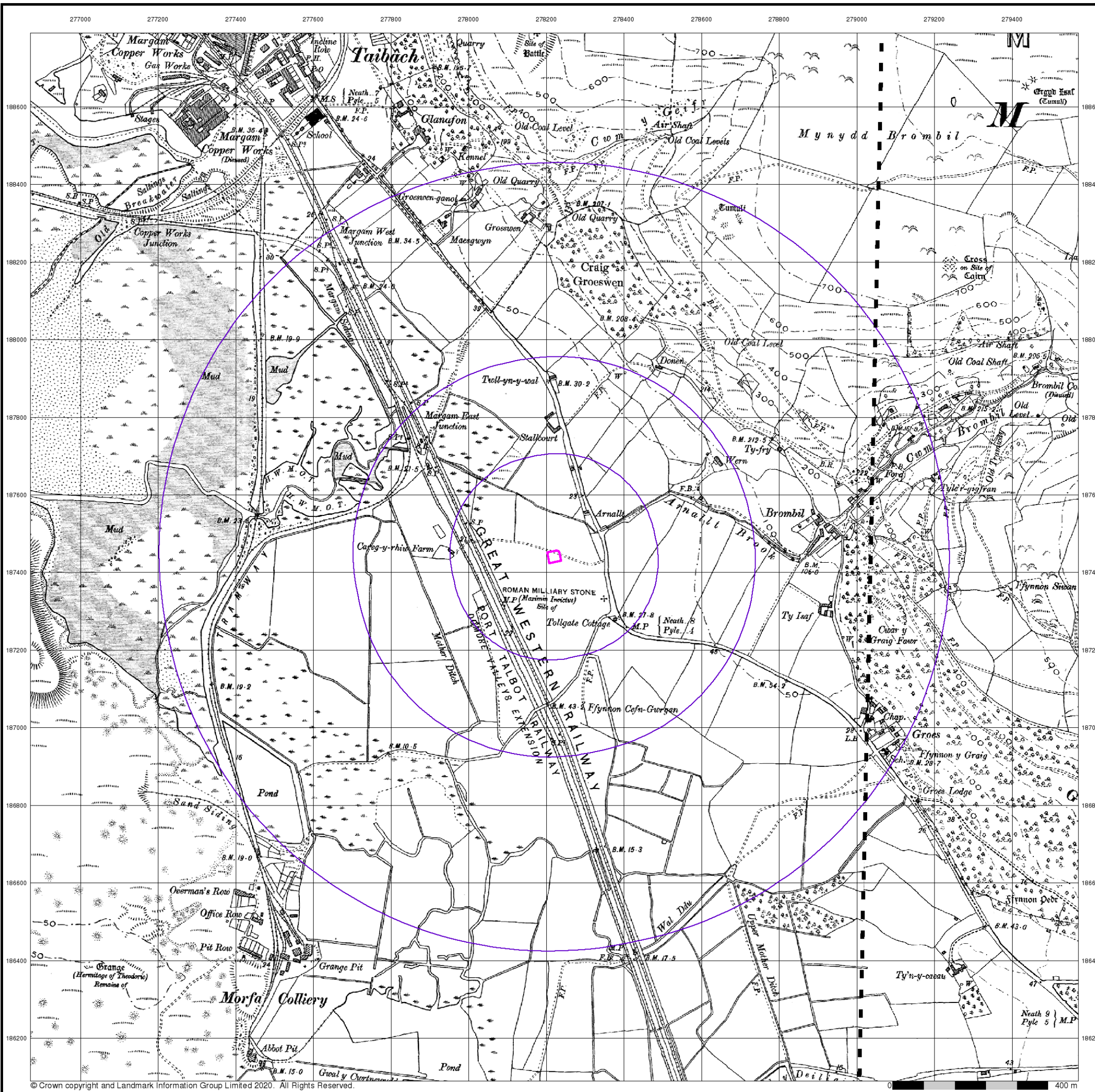


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Intégral Géotechnique

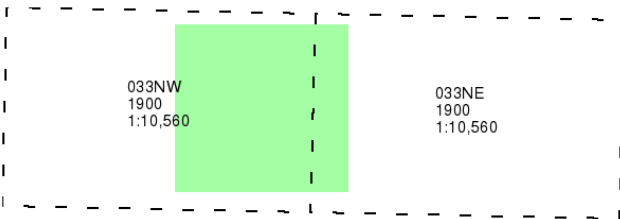
Glamorganshire

Published 1900

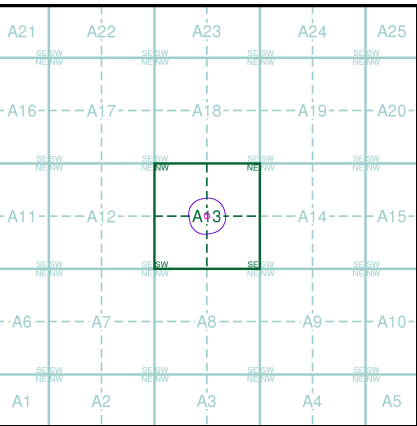
Source map scale - 1:10,560

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

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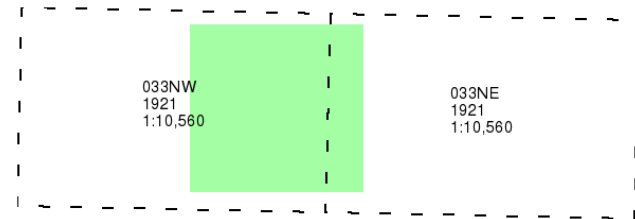
Glamorganshire

Published 1921

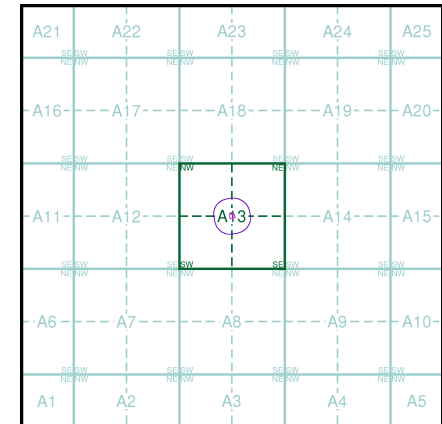
Source map scale - 1:10,560

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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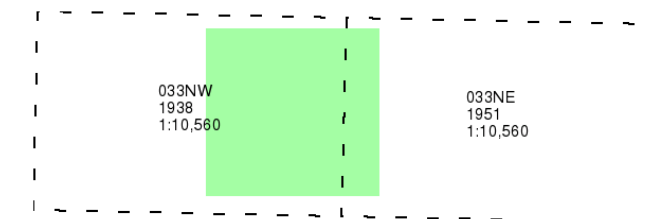
Glamorganshire

Published 1938 - 1951

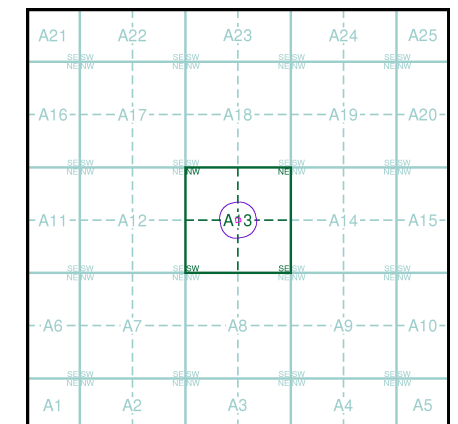
Source map scale - 1:10,560

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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Historical Aerial Photography

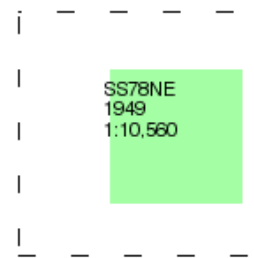
Published 1949

Source map scale - 1:10,560

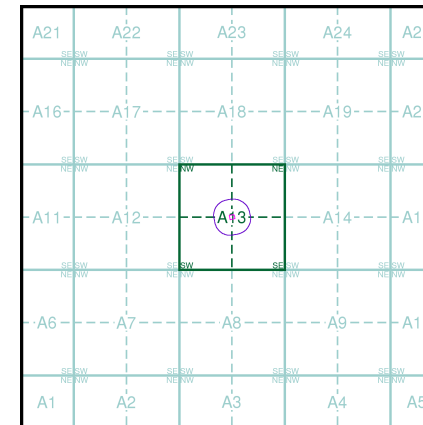
The Historical Aerial Photos were produced by the Ordnance Survey at a scale of 1:1,250 and 1:10,560 from Air Force photography. They were produced between 1944 and 1951 as an interim measure, pending preparation of conventional mapping, due to post war resource shortages. New security measures in the 1950's meant that every photograph was re-checked for potentially unsafe information with security sites replaced by fake fields or clouds. The original editions were withdrawn and only later made available after a period of fifty years although due to the accuracy of the editing, without viewing both revisions it is not easy to spot the edits. Where available Landmark have included both revisions.

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Map Name(s) and Date(s)



Historical Aerial Photography - Slice A



Order Details

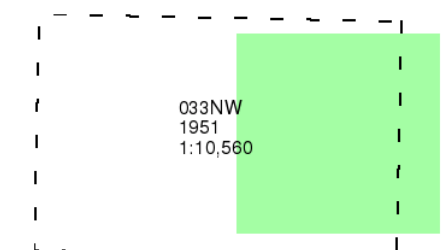
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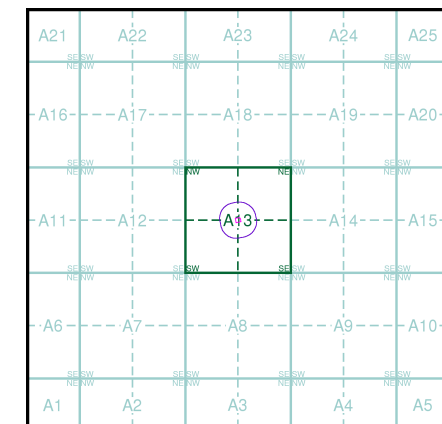
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Historical Map - Slice A

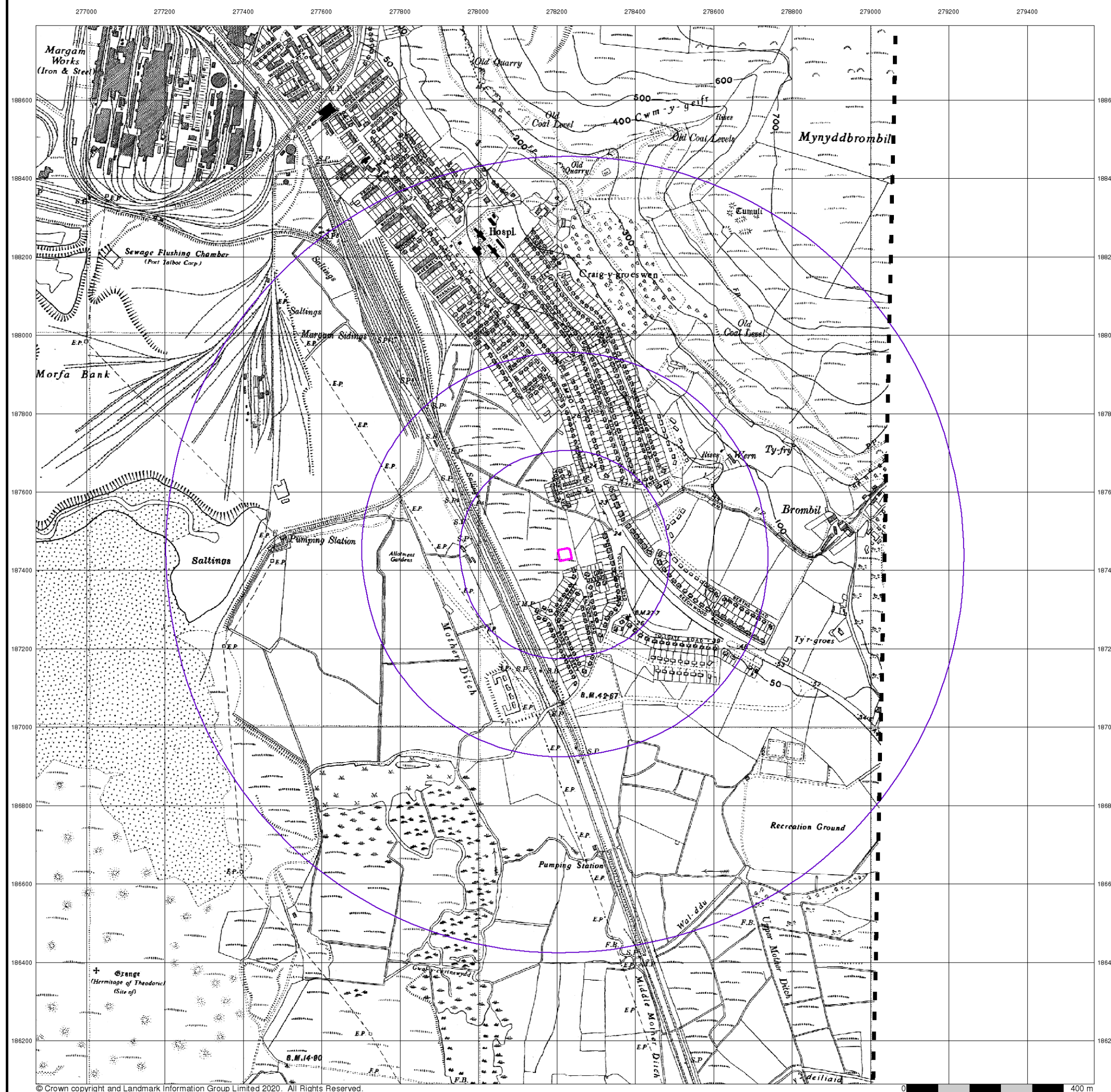


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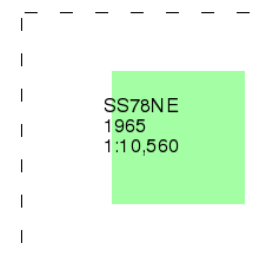
Ordnance Survey Plan

Published 1965

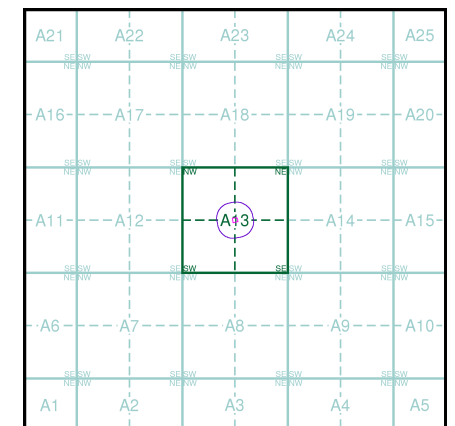
Source map scale - 1:10,000

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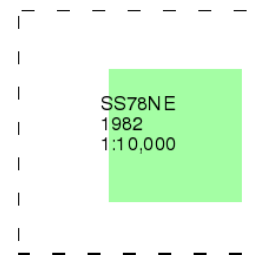
Ordnance Survey Plan

Published 1982

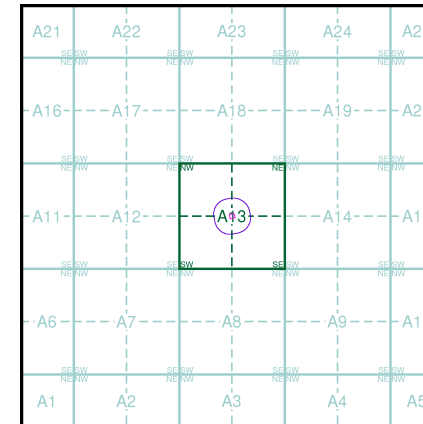
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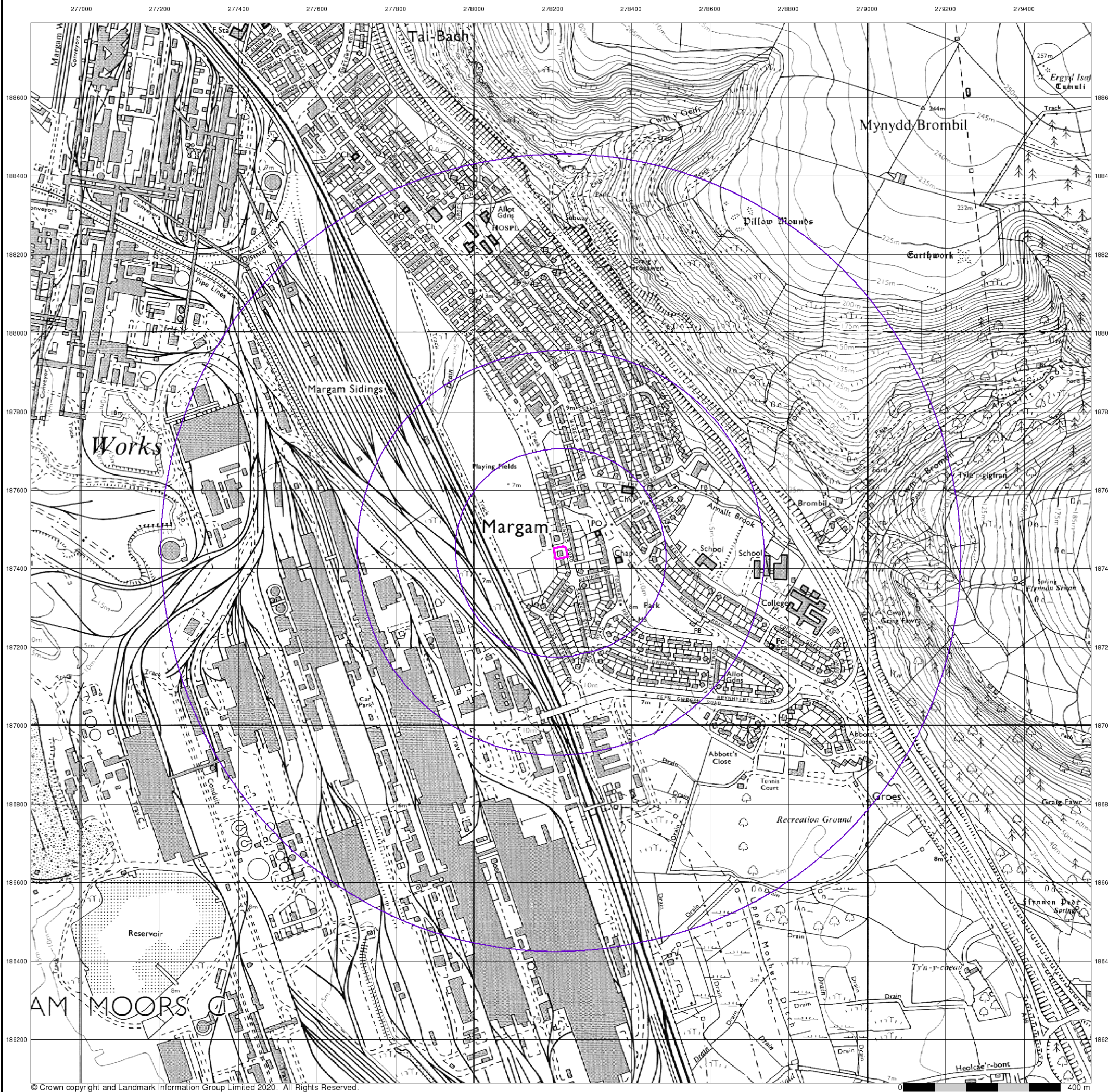


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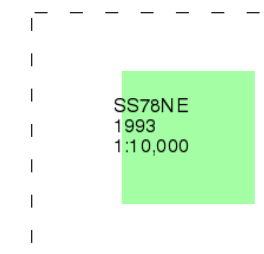
Ordnance Survey Plan

Published 1993

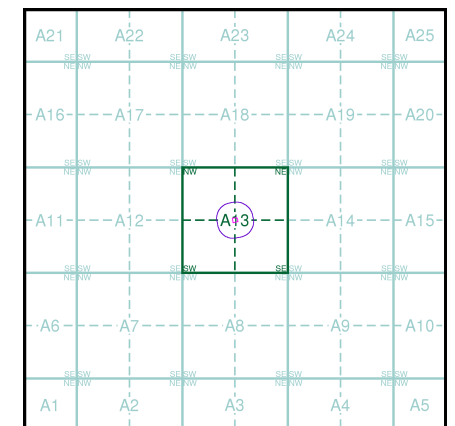
Source map scale - 1:10,000

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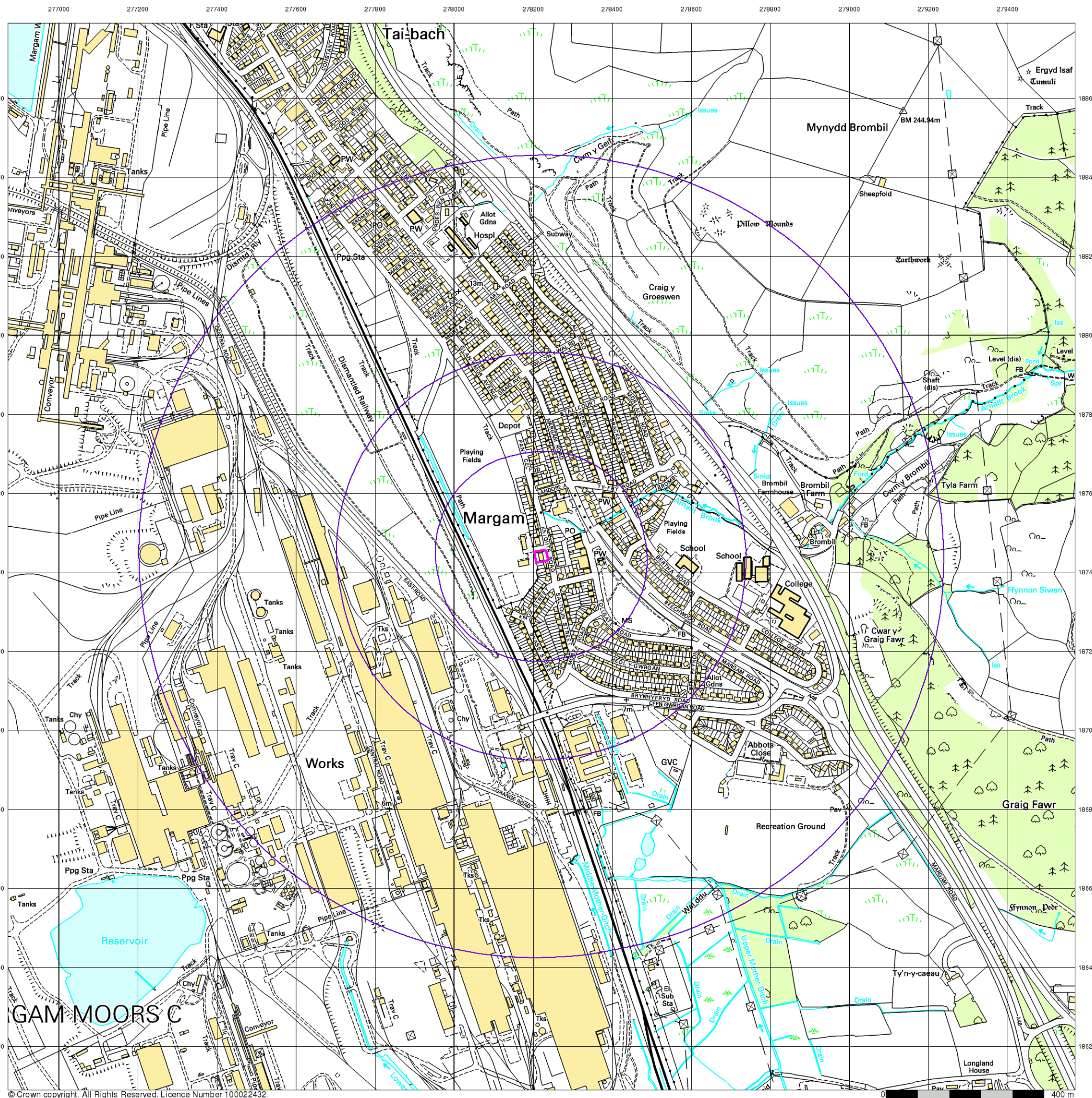


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Intégral Géotechnique

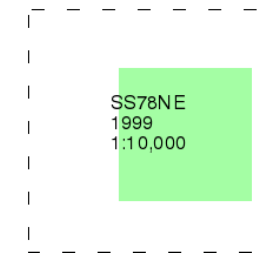
10k Raster Mapping

Published 1999

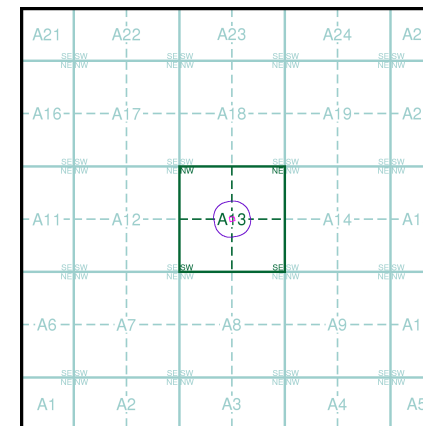
Source map scale - 1:10,000

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

Map Name(s) and Date(s)



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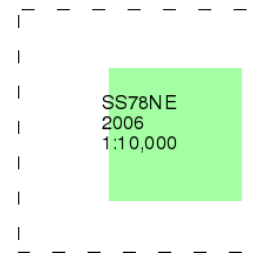
Knights Road, PORT TALBOT, SA13 2DT

Landmark
INFORMATION GROUP

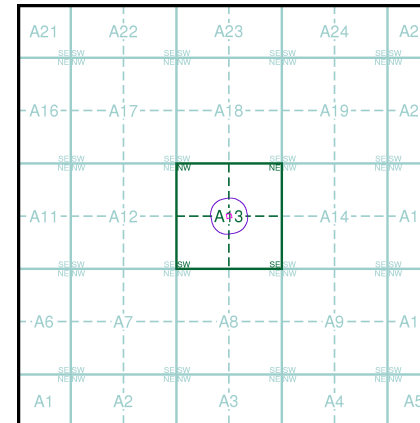
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Fax: 0844 844 9951
Web: www.envirocheck.co.uk

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

Map Name(s) and Date(s)



Historical Map - Slice A

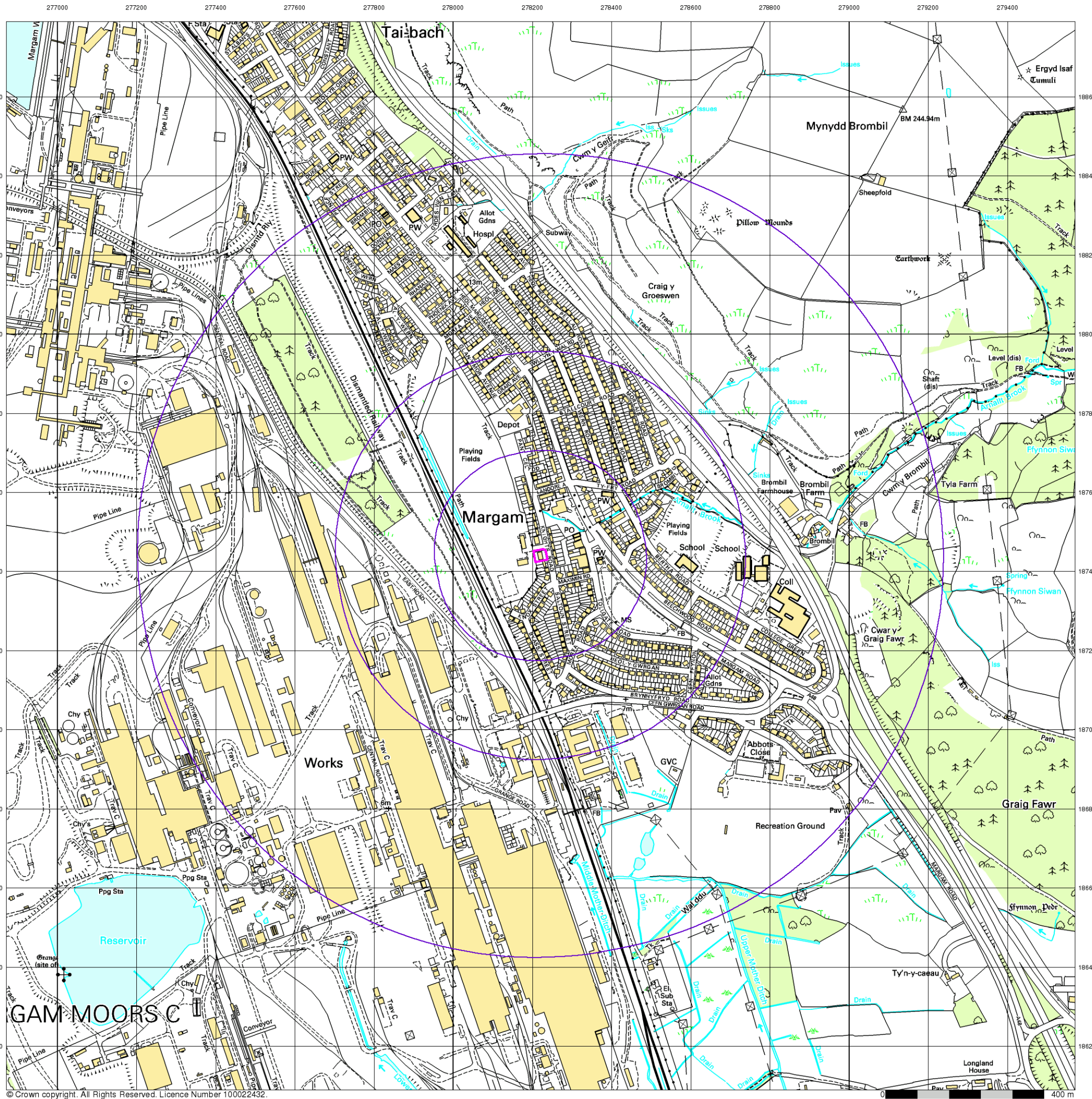


Order Details

Order Number: 233818109_1_1
Customer Ref: 12608/LP
National Grid Reference: 278220, 187440
Slice: A
Site Area (Ha): 0.09
Search Buffer (m): 1000

Site Details

Knights Road, PORT TALBOT, SA13 2DT





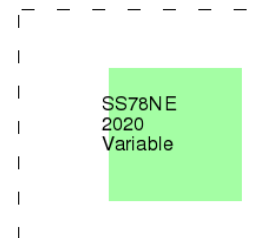
VectorMap Local

Published 2020

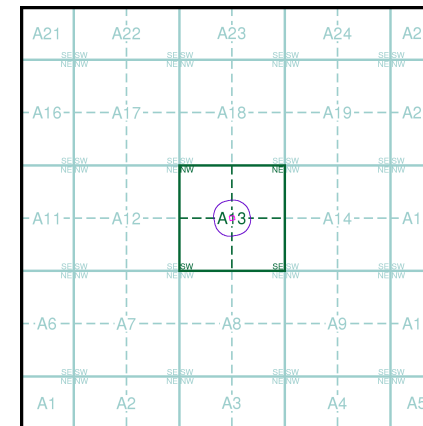
Source map scale - 1:10,000

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

Map Name(s) and Date(s)



Historical Map - Slice A



Order Details

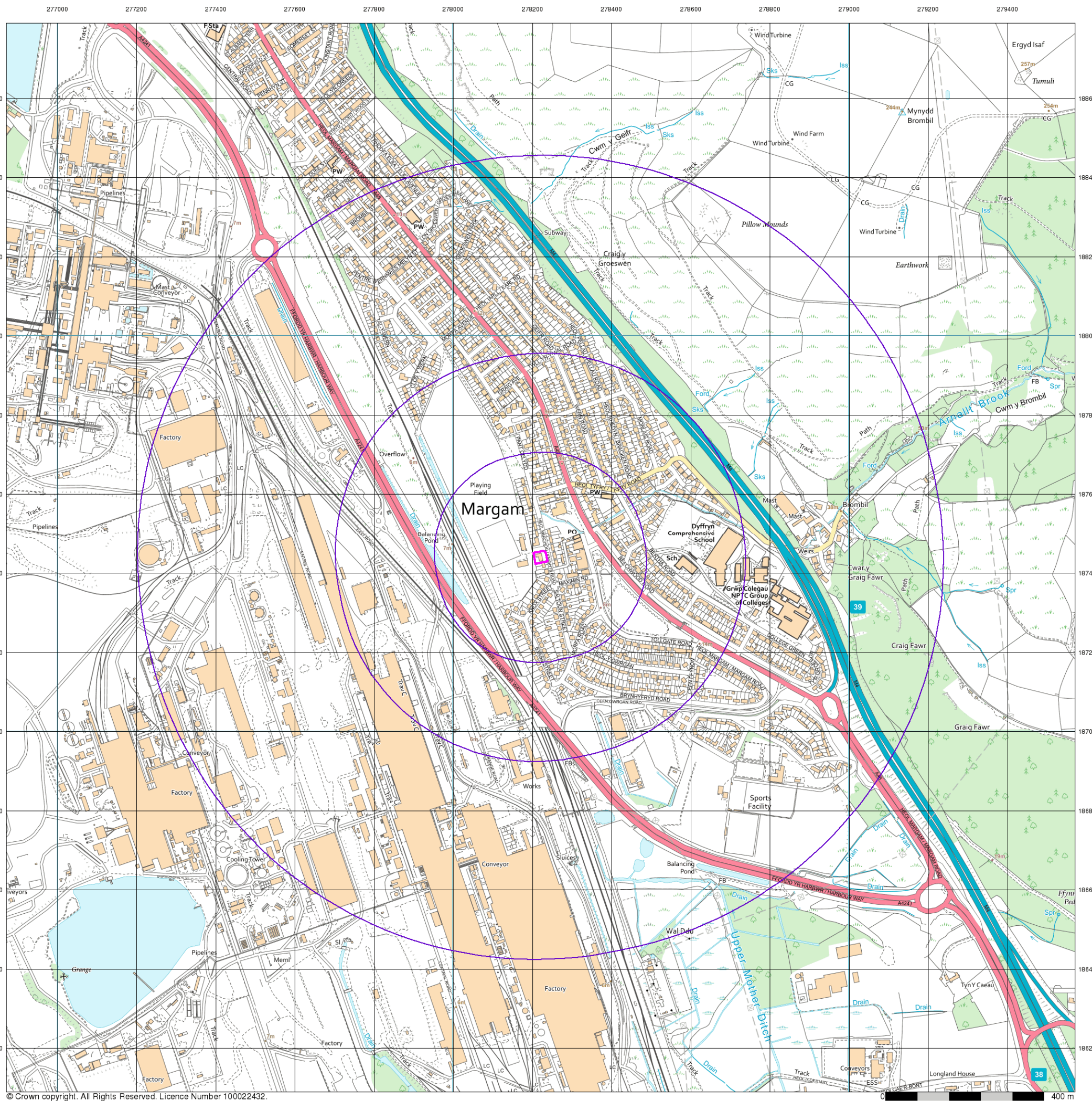
Order Number: 233818109_1_1
Customer Ref: 12608/LP
National Grid Reference: 278220, 187440
Slice: A
Site Area (Ha): 0.09
Search Buffer (m): 1000

Site Details

Knights Road, PORT TALBOT, SA13 2DT

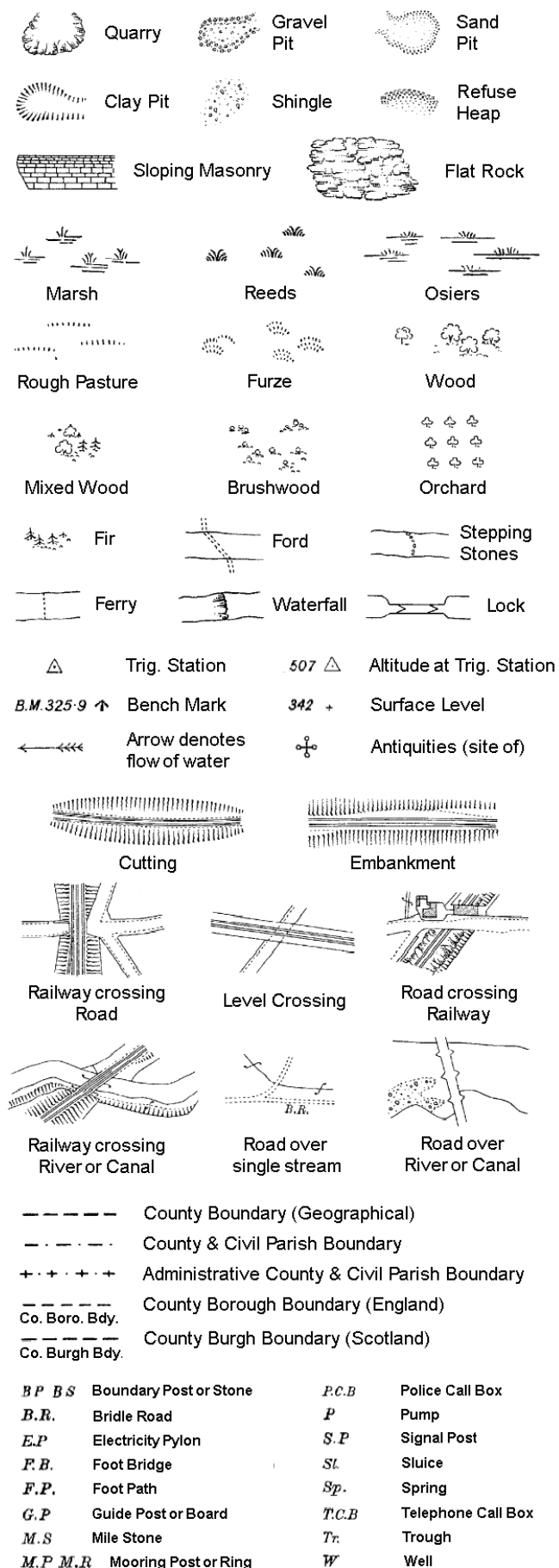


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Historical Mapping Legends

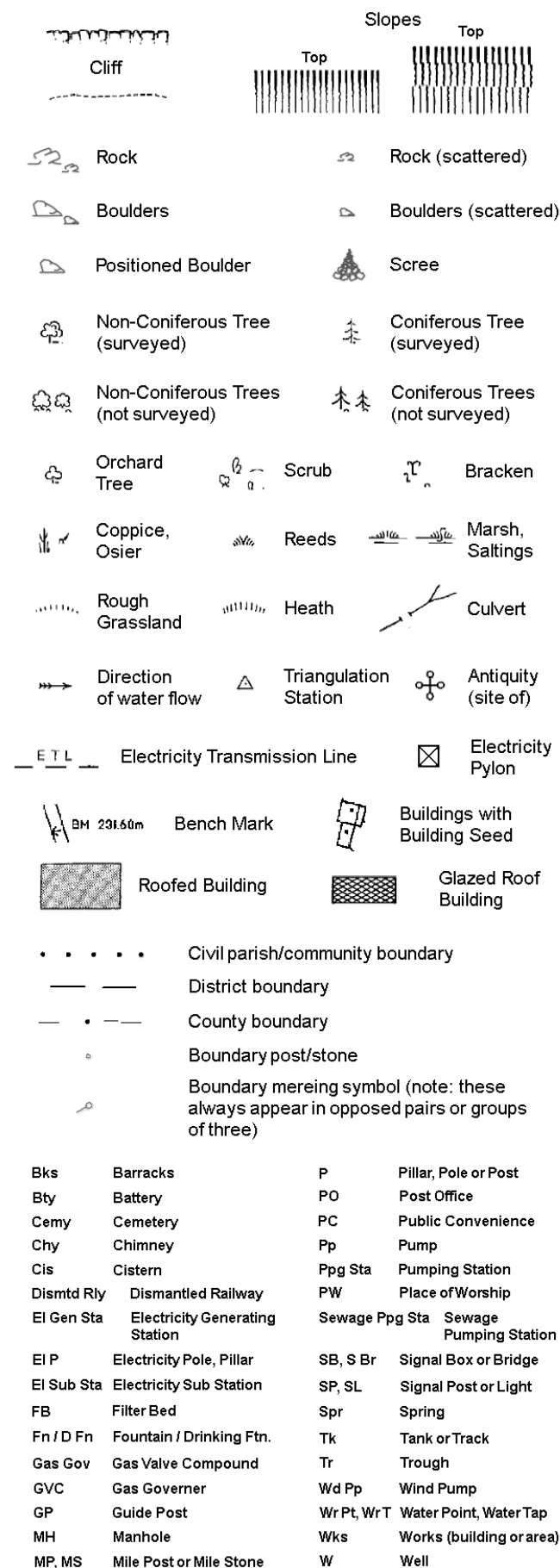
Ordnance Survey County Series and Ordnance Survey Plan 1:2,500



Ordnance Survey Plan, Additional SIMs and Supply of Unpublished Survey Information 1:2,500 and 1:1,250



Large-Scale National Grid Data 1:2,500 and 1:1,250

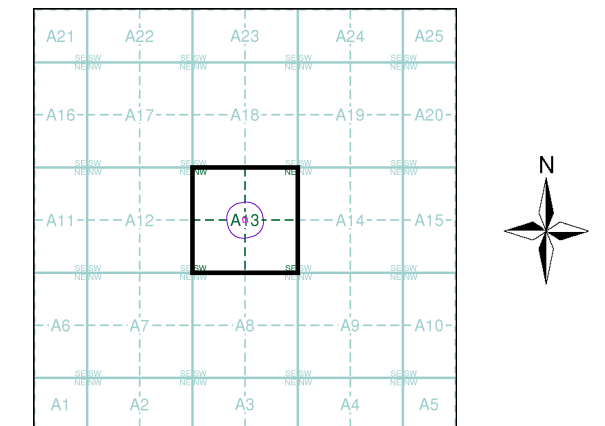


Intégral Géotechnique

Historical Mapping & Photography included:

Mapping Type	Scale	Date	Pg
Glamorganshire	1:2,500	1877	2
Glamorganshire	1:2,500	1899	3
Glamorganshire	1:2,500	1917 - 1918	4
Glamorganshire	1:2,500	1940	5
Ordnance Survey Plan	1:1,250	1952 - 1953	6
Ordnance Survey Plan	1:2,500	1953 - 1954	7
Ordnance Survey Plan	1:1,250	1962 - 1967	8
Additional SIMs	1:1,250	1962 - 1991	9
Ordnance Survey Plan	1:2,500	1964	10
Ordnance Survey Plan	1:1,250	1967	11
Ordnance Survey Plan	1:2,500	1968	12
Additional SIMs	1:1,250	1991	13
Large-Scale National Grid Data	1:1,250	1993	14
Large-Scale National Grid Data	1:1,250	1994 - 1995	15
Historical Aerial Photography	1:2,500	2001	16

Historical Map - Segment A13



Order Details

Order Number: 233818109_1_1
Customer Ref: 12608/LP
National Grid Reference: 278220, 187440
Slice: A
Site Area (Ha): 0.09
Search Buffer (m): 100

Site Details

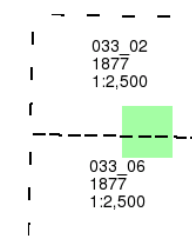
Knights Road, PORT TALBOT, SA13 2DT

Landmark
INFORMATION GROUP

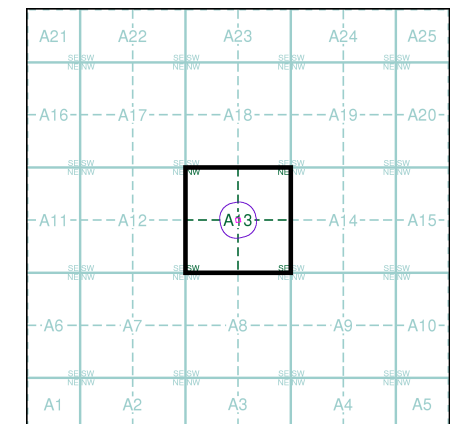
Tel: 0844 844 9952
Fax: 0844 844 9951
Web: www.envirocheck.co.uk

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

Map Name(s) and Date(s)



Historical Map - Segment A13

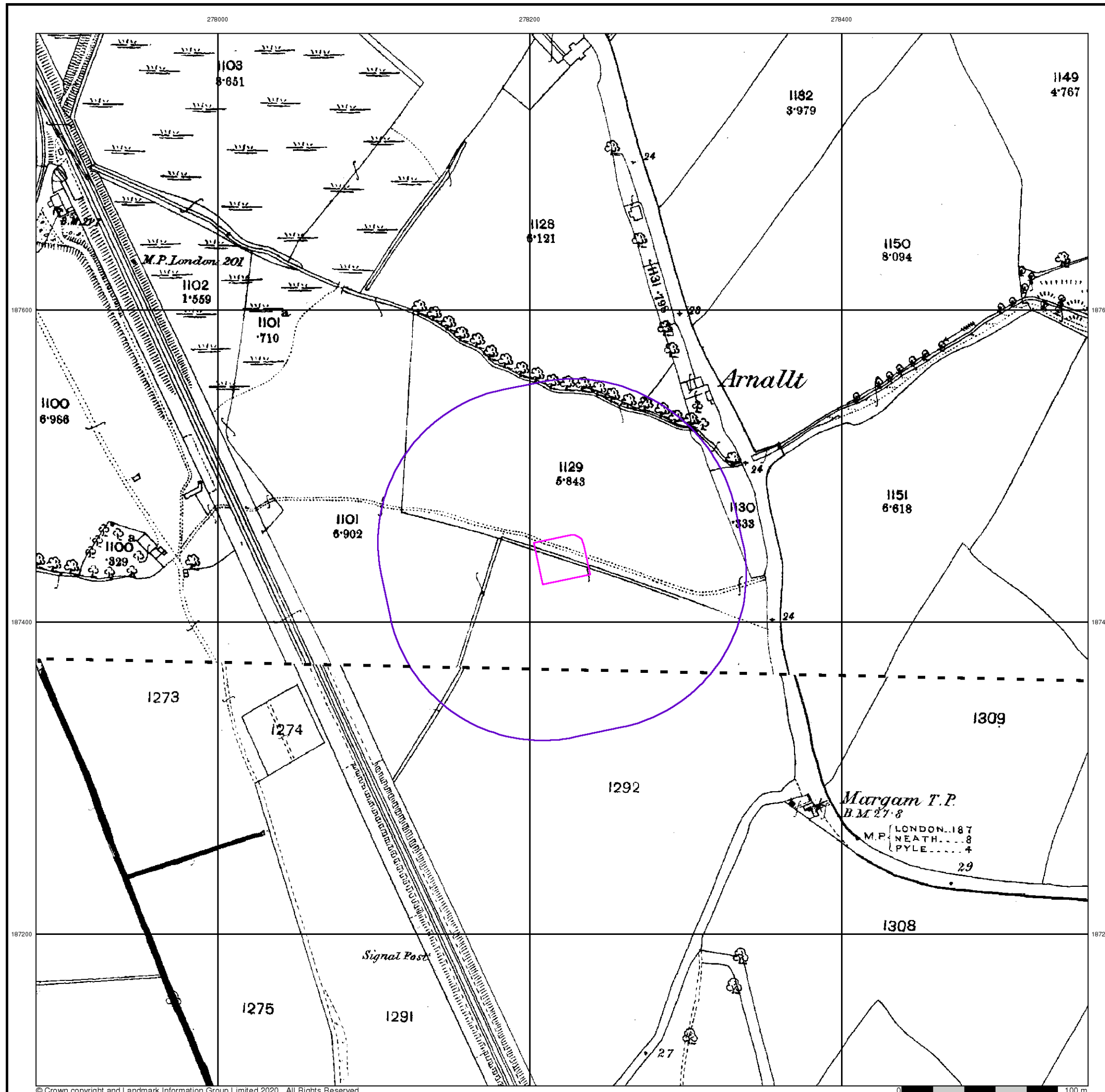


Order Details

Order Number: 233818109_1_1
Customer Ref: 12608/LP
National Grid Reference: 278220, 187440
Slice: A
Site Area (Ha): 0.09
Search Buffer (m): 100

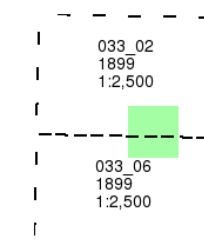
Site Details

Knights Road, PORT TALBOT, SA13 2DT

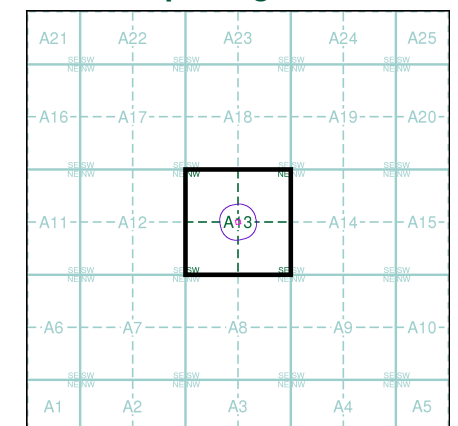


The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas and by 1896 it covered the whole of what were considered to be the cultivated parts of Great Britain.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

Map Name(s) and Date(s)



Historical Map - Segment A13

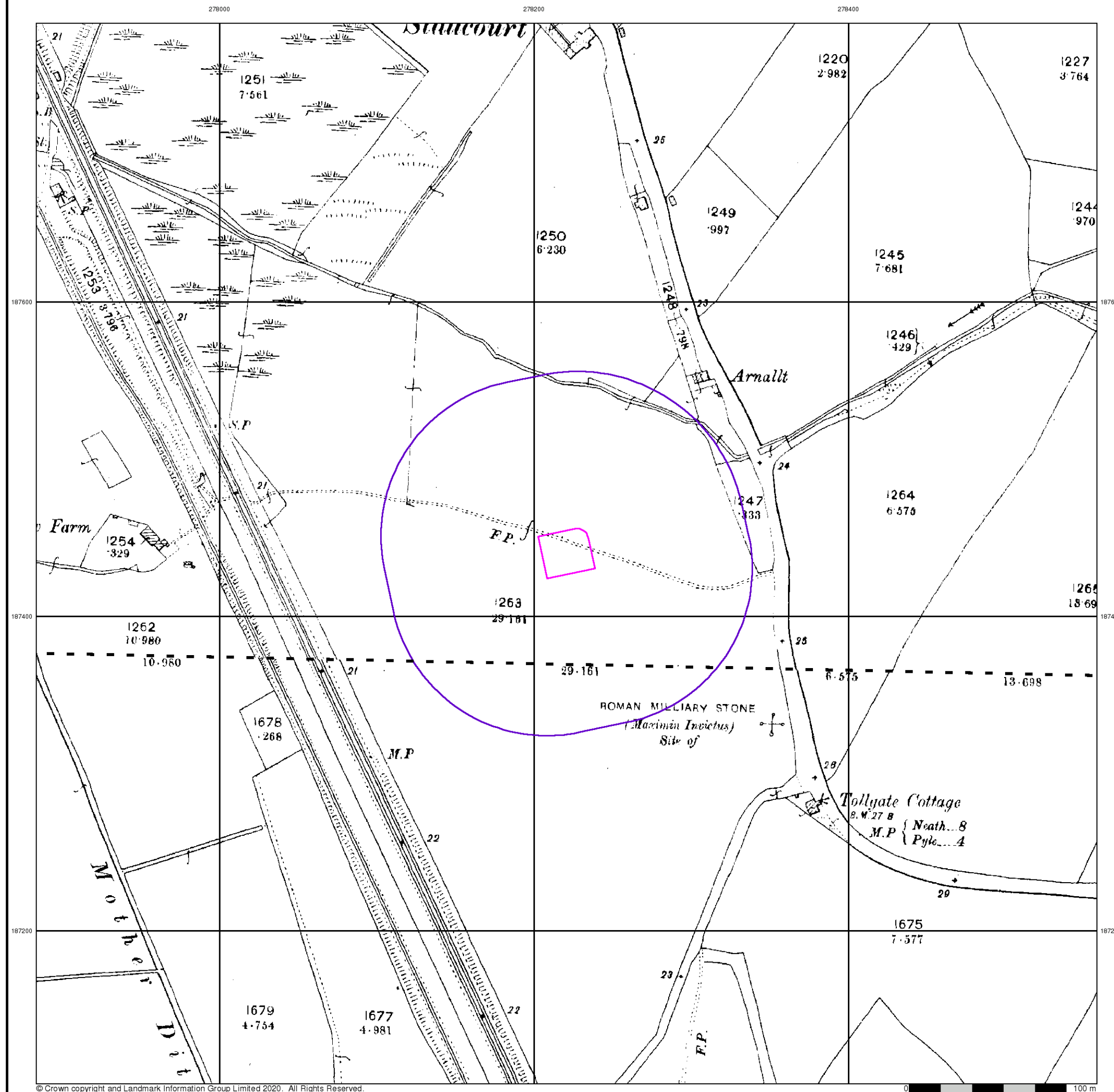


Order Details

Order Number: 233818109_1_1
Customer Ref: 12608/LP
National Grid Reference: 278220, 187440
Slice: A
Site Area (Ha): 0.09
Search Buffer (m): 100

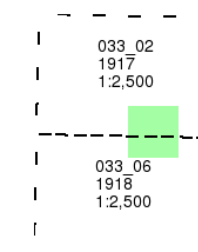
Site Details

Knights Road, PORT TALBOT, SA13 2DT

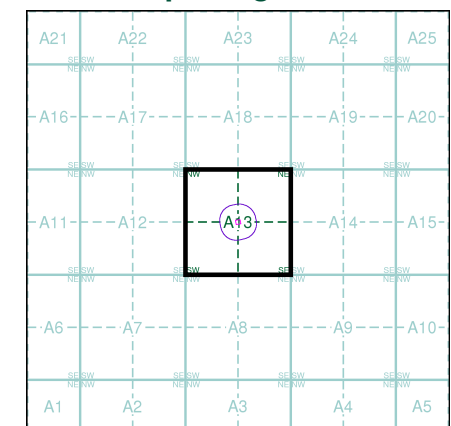


The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas and by 1896 it covered the whole of what were considered to be the cultivated parts of Great Britain.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

Map Name(s) and Date(s)



Historical Map - Segment A13

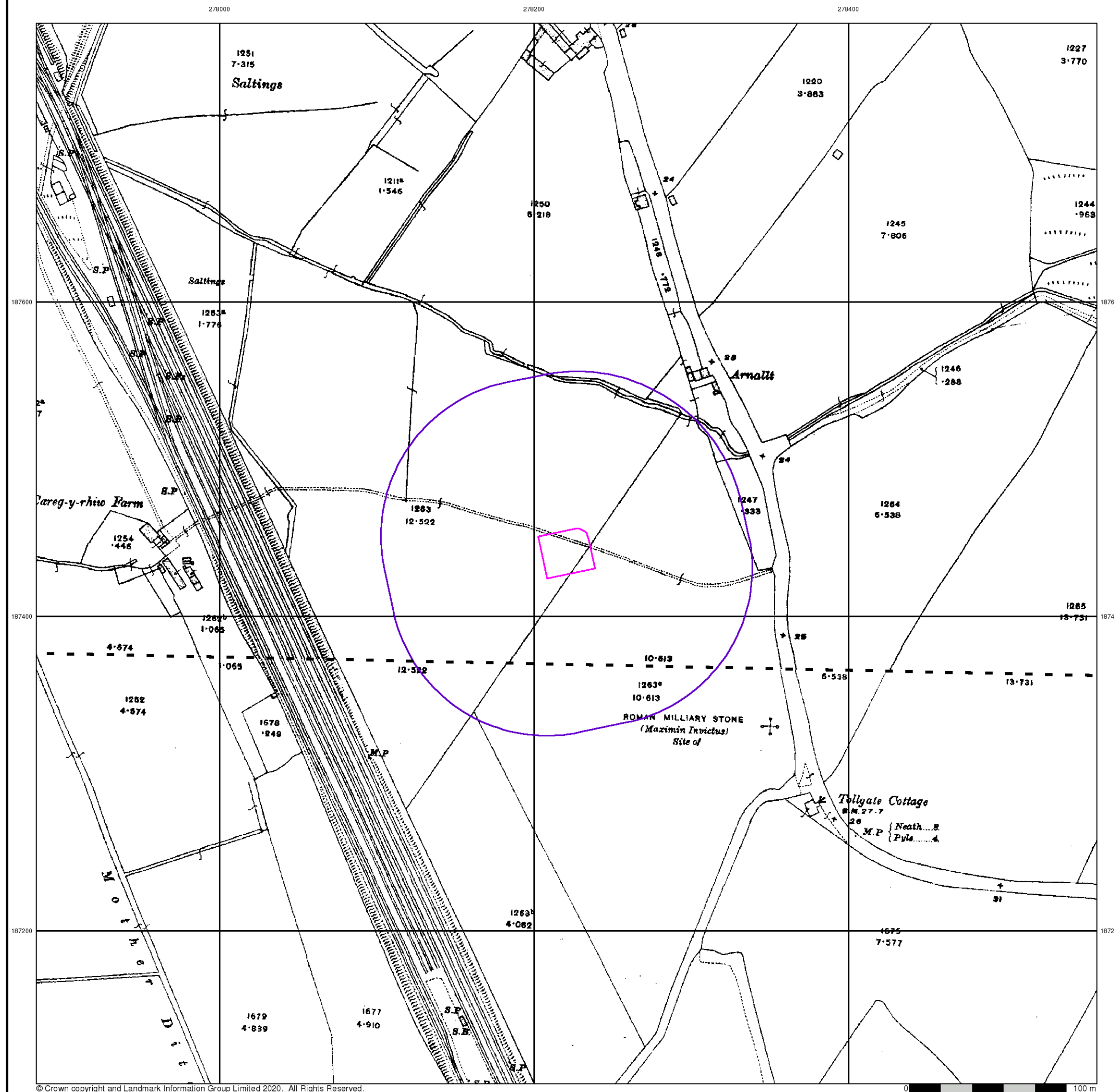


Order Details

Order Number: 233818109_1_1
Customer Ref: 12608/LP
National Grid Reference: 278220, 187440
Slice: A
Site Area (Ha): 0.09
Search Buffer (m): 100

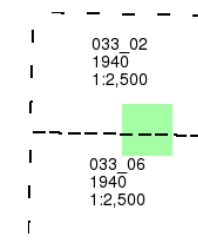
Site Details

Knights Road, PORT TALBOT, SA13 2DT

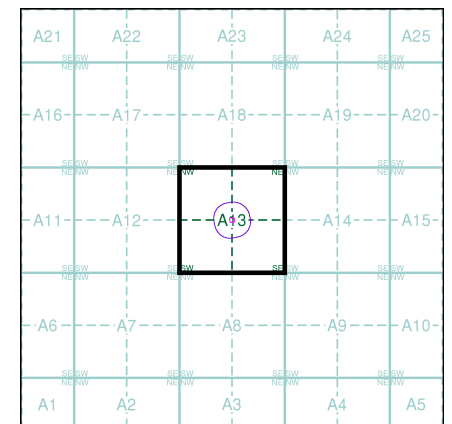


The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas and by 1896 it covered the whole of what were considered to be the cultivated parts of Great Britain.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

Map Name(s) and Date(s)



Historical Map - Segment A13

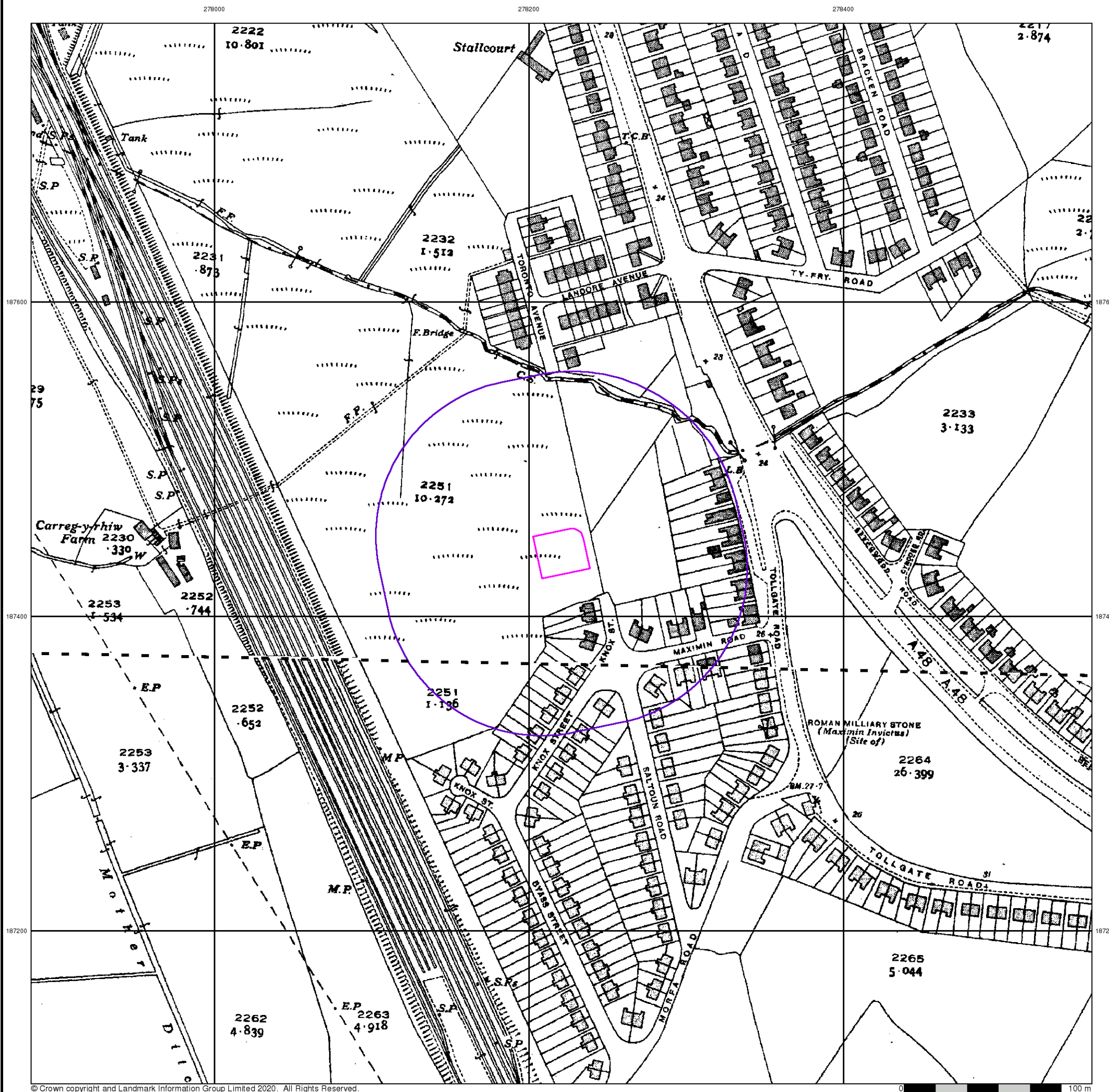


Order Details

Order Number: 233818109_1_1
Customer Ref: 12608/LP
National Grid Reference: 278220, 187440
Slice: A
Site Area (Ha): 0.09
Search Buffer (m): 100

Site Details

Knights Road, PORT TALBOT, SA13 2DT





Ordnance Survey Plan

Published 1952 - 1953

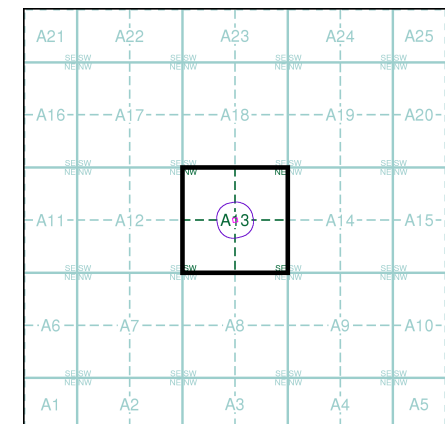
Source map scale - 1:1,250

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

Map Name(s) and Date(s)

SS7787NE 1953 1:1,250	SS7887NW 1952 1:1,250	SS7887NE 1952 1:1,250
SS7787SE 1953 1:1,250	SS7887SW 1952 1:1,250	SS7887SE 1952 1:1,250

Historical Map - Segment A13



Order Details

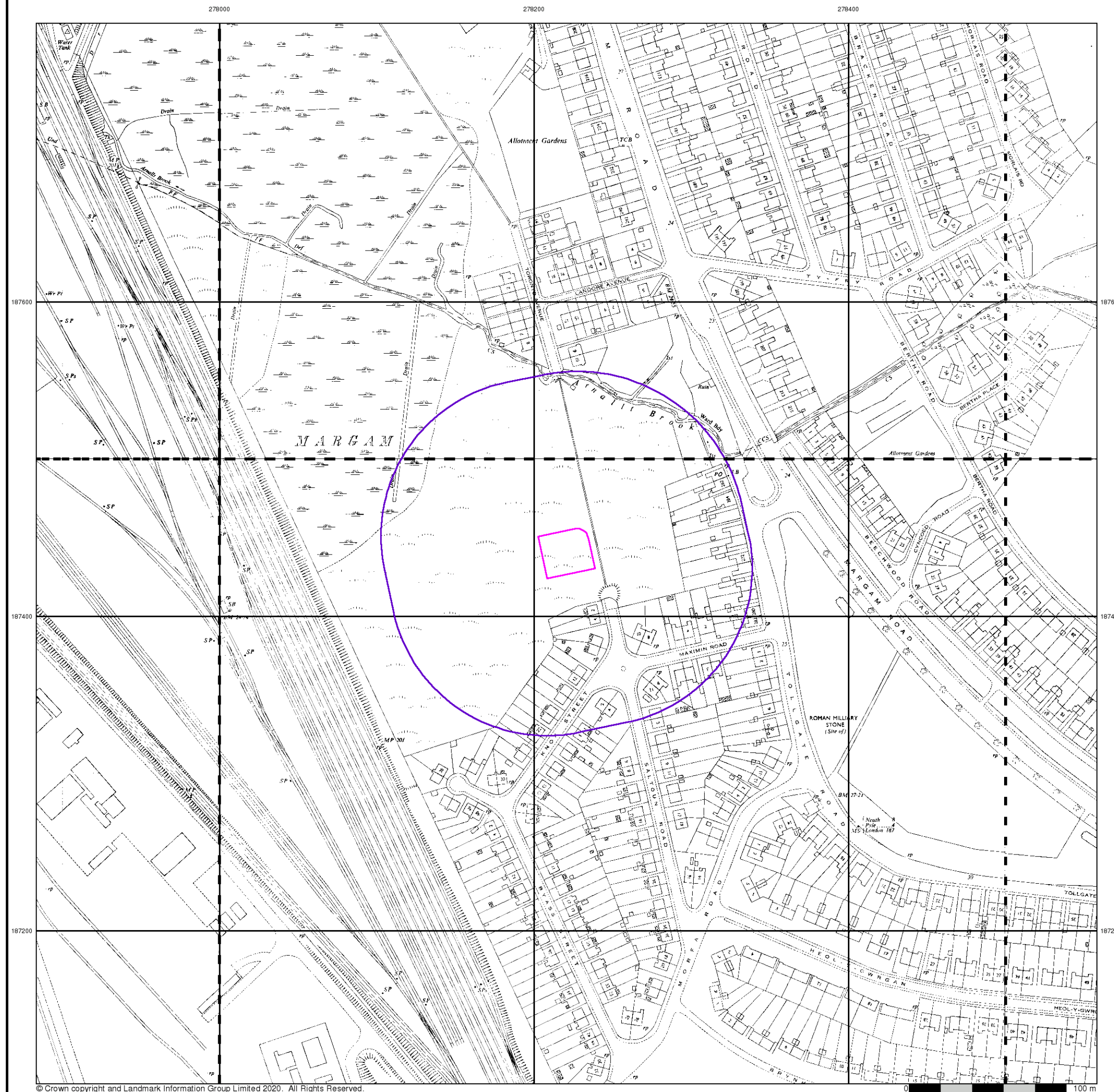
Order Number: 233818109_1_1
Customer Ref: 12608/LP
National Grid Reference: 278220, 187440
Slice: A
Site Area (Ha): 0.09
Search Buffer (m): 100

Site Details

Knights Road, PORT TALBOT, SA13 2DT



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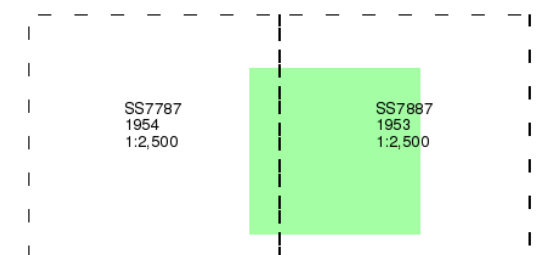
Ordnance Survey Plan

Published 1953 - 1954

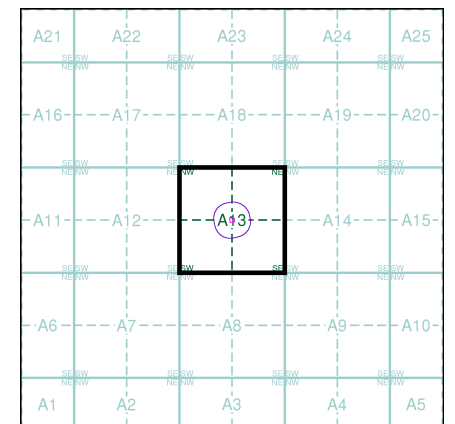
Source map scale - 1:2,500

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

Map Name(s) and Date(s)



Historical Map - Segment A13



Order Details

Order Number: 233818109_1_1
Customer Ref: 12608/LP
National Grid Reference: 278220, 187440
Slice: A
Site Area (Ha): 0.09
Search Buffer (m): 100

Site Details

Knights Road, PORT TALBOT, SA13 2DT



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Web: www.envirocheck.co.uk

Ordnance Survey Plan

Published 1962 - 1967

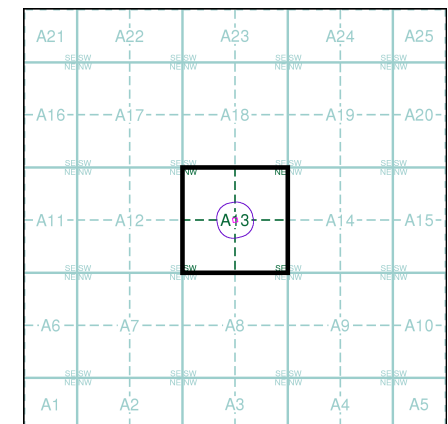
Source map scale - 1:1,250

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

Map Name(s) and Date(s)

SS7787NE 1962 1:1,250	SS7887NW 1967 1:1,250	SS7887NE 1967 1:1,250
SS7787SE 1962 1:1,250	SS7887SW 1962 1:1,250	SS7887SE 1962 1:1,250

Historical Map - Segment A13



Order Details

Order Number: 233818109_1_1
Customer Ref: 12608/LP
National Grid Reference: 278220, 187440
Slice: A
Site Area (Ha): 0.09
Search Buffer (m): 100

Site Details

Knights Road, PORT TALBOT, SA13 2DT

Additional SIMs

Published 1962 - 1991

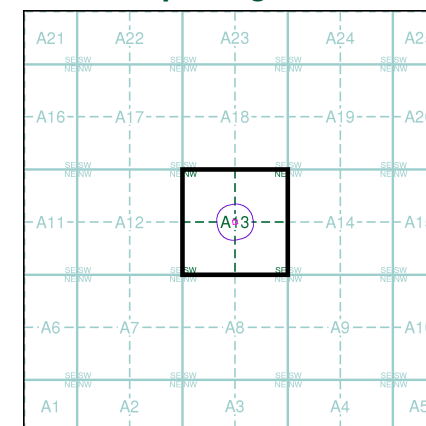
Source map scale - 1:1,250

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

Map Name(s) and Date(s)

SS7787NE 1989 1:1,250	SS7887NW 1983 1:1,250	SS7887NE 1980 1:1,250
SS7787SE 1962 1:1,250	SS7887SW 1991 1:1,250	SS7887SE 1979 1:1,250

Historical Map - Segment A13



Order Details

Order Number: 233818109_1_1
Customer Ref: 12608/LP
National Grid Reference: 278220, 187440
Slice: A
Site Area (Ha): 0.09
Search Buffer (m): 100

Site Details

Knights Road, PORT TALBOT, SA13 2DT



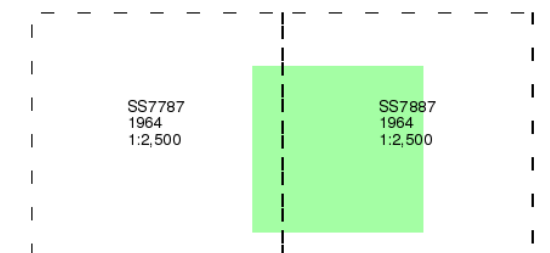
Ordnance Survey Plan

Published 1964

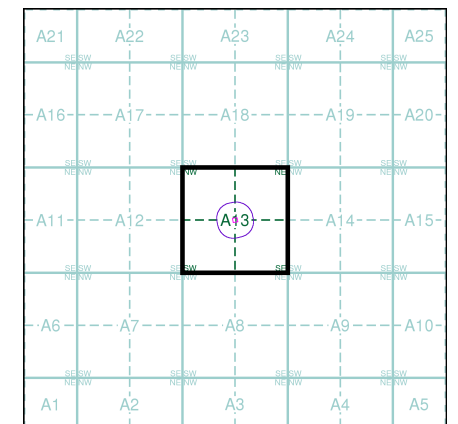
Source map scale - 1:2,500

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

Map Name(s) and Date(s)



Historical Map - Segment A13



Order Details

Order Number: 233818109_1_1
Customer Ref: 12608/LP
National Grid Reference: 278220, 187440
Slice: A
Site Area (Ha): 0.09
Search Buffer (m): 100

Site Details

Knights Road, PORT TALBOT, SA13 2DT



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

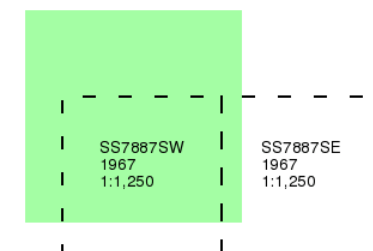
Ordnance Survey Plan

Published 1967

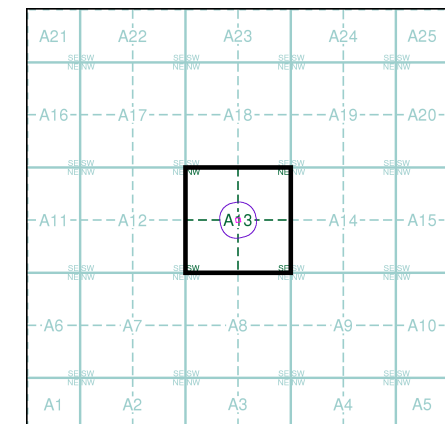
Source map scale - 1:1,250

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

Map Name(s) and Date(s)



Historical Map - Segment A13



Order Details

Order Number: 233818109_1_1
Customer Ref: 12608/LP
National Grid Reference: 278220, 187440
Slice: A
Site Area (Ha): 0.09
Search Buffer (m): 100

Site Details

Knights Road, PORT TALBOT, SA13 2DT

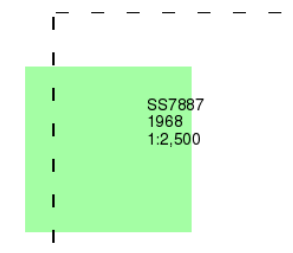
Ordnance Survey Plan

Published 1968

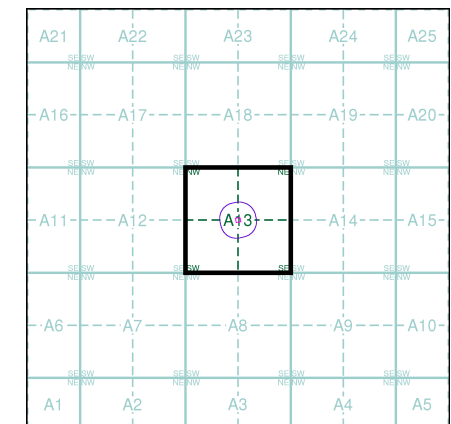
Source map scale - 1:2,500

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

Map Name(s) and Date(s)



Historical Map - Segment A13



Order Details

Order Number: 233818109_1_1
Customer Ref: 12608/LP
National Grid Reference: 278220, 187440
Slice: A
Site Area (Ha): 0.09
Search Buffer (m): 100

Site Details

Knights Road, PORT TALBOT, SA13 2DT

Additional SIMs

Published 1991

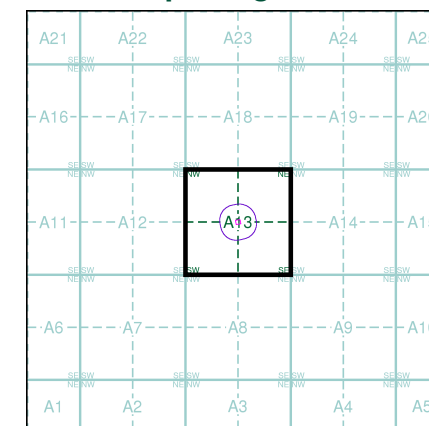
Source map scale - 1:1,250

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

Map Name(s) and Date(s)

SS7787NE 1991 1:1,250	SS7887NW 1991 1:1,250	SS7887NE 1991 1:1,250
SS7787SE 1991 1:1,250		SS7887SE 1991 1:1,250

Historical Map - Segment A13

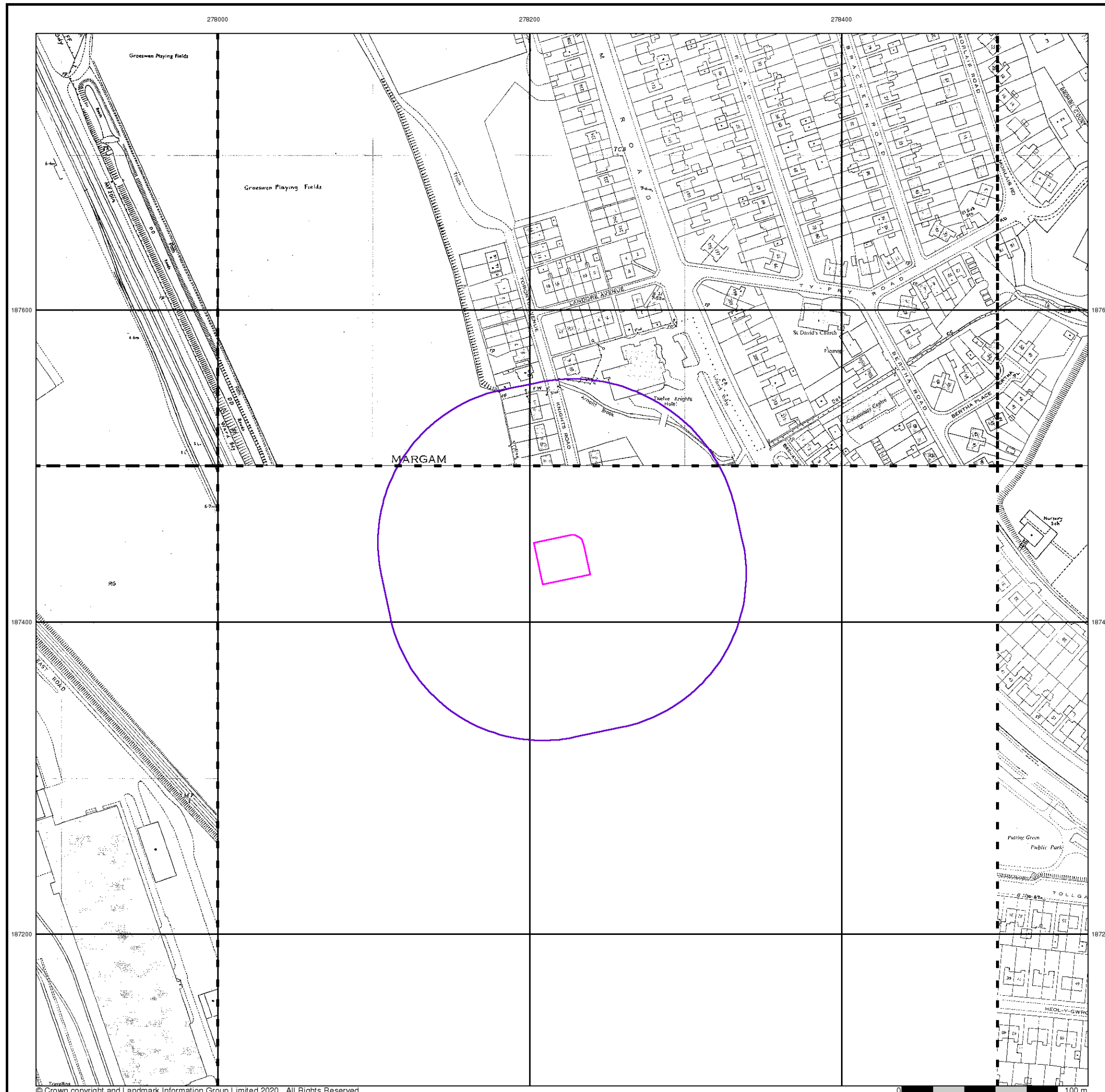


Order Details

Order Number: 233818109_1_1
Customer Ref: 12608/LP
National Grid Reference: 278220, 187440
Slice: A
Site Area (Ha): 0.09
Search Buffer (m): 100

Site Details

Knights Road, PORT TALBOT, SA13 2DT



Large-Scale National Grid Data

Published 1993

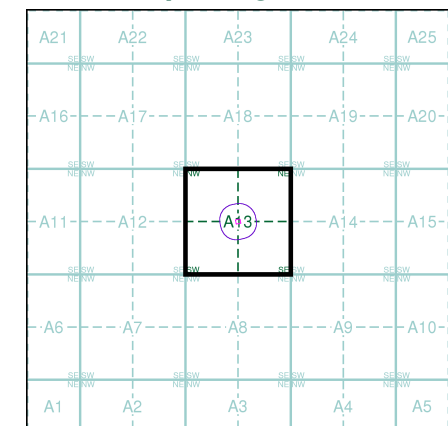
Source map scale - 1:1,250

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

Map Name(s) and Date(s)

SS7787NE 1993 1:1,250	SS7887NW 1993 1:1,250	SS7887NE 1993 1:1,250
SS7787SE 1993 1:1,250	SS7887SW 1993 1:1,250	SS7887SE 1993 1:1,250

Historical Map - Segment A13



Order Details

Order Number: 233818109_1_1
Customer Ref: 12608/LP
National Grid Reference: 278220, 187440
Slice: A
Site Area (Ha): 0.09
Search Buffer (m): 100

Site Details

Knights Road, PORT TALBOT, SA13 2DT



Large-Scale National Grid Data

Published 1994 - 1995

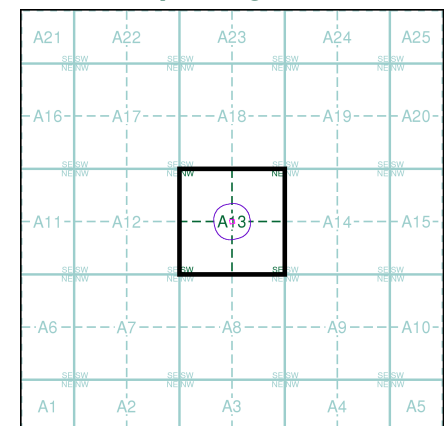
Source map scale - 1:1,250

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

Map Name(s) and Date(s)

SS7787NE	SS7887NW	SS7887NE
1995	1994	1995
1:1,250	1:1,250	1:1,250
SS7787SE		
1995		
1:1,250		

Historical Map - Segment A13



Order Details

Order Number: 233818109_1_1
Customer Ref: 12608/LP
National Grid Reference: 278220, 187440
Slice: A
Site Area (Ha): 0.09
Search Buffer (m): 100

Site Details

Knights Road, PORT TALBOT, SA13 2DT

Landmark
INFORMATION GROUP

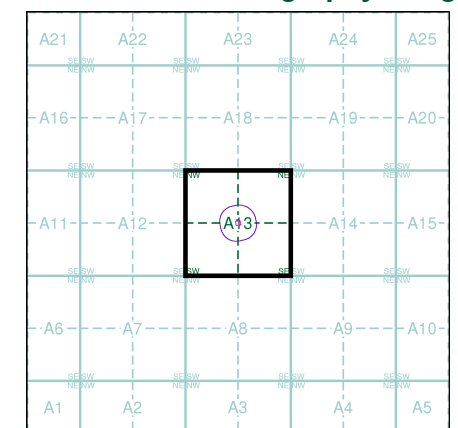
Tel: 0844 844 9952
Fax: 0844 844 9951
Web: www.envirocheck.co.uk

Historical Aerial Photography

Published 2001

This aerial photography was produced by Getmapping, these vertical aerial photographs provide a seamless, full colour survey of the whole of Great Britain

Historical Aerial Photography - Segment A13



Order Details

Order Number: 233818109_1_1
Customer Ref: 12608/LP
National Grid Reference: 278220, 187440
Slice: A
Site Area (Ha): 0.09
Search Buffer (m): 100

Site Details

Knights Road, PORT TALBOT, SA13 2DT

Envirocheck[®] Report:

Mining and Ground Stability Datasheet

Order Details:

Order Number:

233818109_1_1

Customer Reference:

12608/LP

National Grid Reference:

278220, 187440

Slice:

A

Site Area (Ha):

0.09

Search Buffer (m):

1000

Site Details:

Knights Road
PORT TALBOT
SA13 2DT

Client Details:

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

Report Section and Details	Page Number
Summary	-
The Summary section provides an overview of the data contained within the report, detailing the number of data set features or the existence of a data set in relation to the buffer selected. For ease of reference, the report is broken down into 4 sections of data; Mining and Natural Cavities Data, Historical Land Use Information (1:2,500), Historical Land Use Information (1:10,000) and Ground Stability Data (1:50,000).	
Mining and Natural Cavities Data	1
The Mining and Natural Cavities Data section features data sets related to the existence of mining areas and their potential hazards; and details of naturally formed cavities. Data sets within this section are not plotted, with the exception of BGS Recorded Mineral Sites and Potential Mining Areas which feature on the Historical Land Use Information (1:10,000) map.	
Historical Land Use Information (1:2,500)	3
The Historical Land Use Information (1:2,500) section contains data captured from analysis carried out by Landmark of 1:1,250 and 1:2,500 scale historical Ordnance Survey mapping, identifying areas where, historically, the land uses were potentially contaminative. For the purpose of this Envirocheck module, only historical data relating to mining and ground stability has been included and plotted on the corresponding Historical Land Use Information (1:2,500) map. This section also includes the Subterranean Features data set, which details various man-made and man-used underground spaces obtained from the Subterranea Britannica society.	
Historical Land Use Information (1:10,000)	4
The Historical Land Use (1:10,000) section covers data captured from the systematic analysis carried out by Landmark of 1:10, 560 and 1:10,000 scale historical Ordnance Survey mapping dating back to the mid-19th century, identifying potentially contaminative past industrial land uses. For the purpose of this Envirocheck module, only data relating to mining and ground stability has been included and plotted on the accompanying Historical Land Use Information (1:10,000) map.	
Ground Stability Data (1:50,000)	9
The Ground Stability (1:50,000) section includes the BGS Geosure data suite, reporting features to 250m and plotted onto 3 separate maps. Also reported is brine subsidence, brine mining and salt mining data sets, of which Brine Pumping and Salt Mining Related Features are plotted, and subsidence insurance claims and insurance investigations data, which is not plotted.	
Historical Map List	10
The Historical Map List section details the historical mapping that has been analysed for your site, in relation to the Historical Land Use Information sections.	
Data Currency	11
Data Suppliers	12
Useful Contacts	13

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The brine subsidence data relating to the Driotwich area as provided in this report is derived from JPB studies and physical monitoring undertaken annually over more than 35 years. For more detailed interpretation contact enquiries@jpb.co.uk. JPB retain the copyright and intellectual rights to this data and accept no liability for any loss or damage, including in direct or consequential loss, arising from the use of this data.

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Data Type	Page Number	On Site	0 to 250m	251 to 500m	501 to 1000m
Mining and Natural Cavities Data					
BGS Recorded Mineral Sites	pg 1				3
Coal Mining Affected Areas	pg 1	Yes	n/a	n/a	n/a
Man Made Mining Cavities					
Mining Instability	pg 1	Yes	n/a	n/a	n/a
Natural Cavities					
Non Coal Mining Areas of Great Britain				n/a	n/a
Potential Mining Areas	pg 1		2	6	2
Historical Land Use Information (1:2,500)					
Extractive Industries or Potential Excavations from 1855-1909 (100m)				n/a	n/a
Extractive Industries or Potential Excavations from 1893-1915 (100m)				n/a	n/a
Extractive Industries or Potential Excavations from 1906-1937 (100m)				n/a	n/a
Extractive Industries or Potential Excavations from 1924-1949 (100m)				n/a	n/a
Extractive Industries or Potential Excavations from 1950-1980 (100m)	pg 3		1	n/a	n/a
Subterranean Features (100m)				n/a	n/a
Historical Land Use Information (1:10,000)					
Air Shafts					
Disturbed Ground					
General Quarrying	pg 4				4
Heap, unknown constituents	pg 4				2
Mineral Railway	pg 4			3	3
Mining & quarrying general					
Mining of coal & lignite	pg 4				2
Quarrying of sand & clay, operation of sand & gravel pits					
Former Marshes	pg 4				7
Potentially Infilled Land (Non-Water)	pg 5				2
Potentially Infilled Land (Water)	pg 5	1	7	19	48
Ground Stability Data (1:50,000)					
CBSCB Compensation District			n/a	n/a	n/a
Brine Pumping Related Features					
Brine Subsidence Solution Area					
Potential for Collapsible Ground Stability Hazards	pg 9	Yes	Yes	n/a	n/a
Potential for Compressible Ground Stability Hazards	pg 9	Yes	Yes	n/a	n/a
Potential for Ground Dissolution Stability Hazards	pg 9	Yes		n/a	n/a
Potential for Landslide Ground Stability Hazards	pg 9	Yes		n/a	n/a
Potential for Running Sand Ground Stability Hazards	pg 9	Yes	Yes	n/a	n/a
Potential for Shrinking or Swelling Clay Ground Stability Hazards	pg 9	Yes	Yes	n/a	n/a
Salt Mining Related Features					

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
1	BGS Recorded Mineral Sites Site Name: Craig Groeswen Location: Taibach, Port Talbot, West Glamorgan Source: British Geological Survey, National Geoscience Information Service Reference: 160097 Type: Underground Status: Ceased Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Carboniferous Geology: Llynfi Member Commodity: Coal - Deep Positional Accuracy: Located by supplier to within 10m	A19SW (NE)	674	1	278630 187998
2	BGS Recorded Mineral Sites Site Name: Glanafon Location: Taibach, Port Talbot, West Glamorgan Source: British Geological Survey, National Geoscience Information Service Reference: 160095 Type: Opencast Status: Ceased Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Carboniferous Geology: Llynfi Member Commodity: Sandstone Positional Accuracy: Located by supplier to within 10m	A18NE (N)	884	1	278257 188339
3	BGS Recorded Mineral Sites Site Name: Glanafon Location: Taibach, Port Talbot, West Glamorgan Source: British Geological Survey, National Geoscience Information Service Reference: 160094 Type: Opencast Status: Ceased Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Carboniferous Geology: Llynfi Member Commodity: Sandstone Positional Accuracy: Located by supplier to within 10m	A18NW (N)	977	1	278203 188432
	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.	A13SW (W)	0	2	278220 187440
	Mining Instability Mining Evidence: Inconclusive Coal Mining Source: Ove Arup & Partners Boundary Quality: As Supplied	A13SW (W)	0	3	278220 187440
	Non Coal Mining Areas of Great Britain No Hazard				
4	Potential Mining Areas Name: Morfa Ceased Operation: 1913 Commodity: Coal; North Fawr; South Fawr; Six Feet; Three Feet; Clay; Four Feet; Cribbwr Fawr Reference: Not Supplied Alternate: Not Supplied Name/Mine: Not Supplied Custodian: Baldwins Ltd., 45 Wind Street, Swansea.	A13SW (S)	55	4	278219 187369
5	Potential Mining Areas Name: Morfa Ceased Operation: Not Supplied Commodity: Coal; North Fawr; South Fawr; Third; Six Feet; Nine Feet; Five Quarter; Cribbwr Reference: Not Supplied Alternate: Not Supplied Name/Mine: Not Supplied Custodian: Lawrence Davies and Causton, 6 Park Place, Cardiff.	A13SW (S)	55	4	278219 187369
6	Potential Mining Areas Name: Margam Ceased Operation: Not Supplied Commodity: Coal Reference: Not Supplied Alternate: Not Supplied Name/Mine: Not Supplied Custodian: Not Supplied	A13NE (N)	316	4	278239 187771

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
7	Potential Mining Areas Name: Morfa Ceased Operation: 1911 Commodity: Coal; Nine Feet Reference: 5851 Alternate: Abbot Name/Mine: Grange Alternate: Grange Name/Mine: Not Supplied Custodian: Not Supplied	A12NE (W)	373	4	277830 187448
8	Potential Mining Areas Name: Morfa Ceased Operation: 1914 Commodity: Coal; Cribbwr Fach; Cribbwr Fawr; Four Feet Reference: 6252 Alternate: Abbot Name/Mine: Grange Alternate: Grange Name/Mine: Not Supplied Custodian: Not Supplied	A12NE (W)	373	4	277830 187448
9	Potential Mining Areas Name: Morfa Ceased Operation: 1854-1865 Commodity: Coal; North Fawr; South Fawr; Six Feet; Three Feet; Clay Reference: Not Supplied Alternate: Not Supplied Name/Mine: Mynydd Newydd Coal Co. Ltd., Fforest Fach, Swansea. Custodian: Mynydd Newydd Coal Co. Ltd., Fforest Fach, Swansea.	A12SE (W)	382	4	277828 187378
10	Potential Mining Areas Name: Morfa Ceased Operation: 1864 Commodity: Coal; North Fawr; South Fawr; Three Feet Reference: Not Supplied Alternate: Abbot Name/Mine: Grange Alternate: Grange Name/Mine: Ed. Daniel and Co., Worcester Chambers, Swansea. Custodian: Ed. Daniel and Co., Worcester Chambers, Swansea.	A12SE (W)	382	4	277828 187378
11	Potential Mining Areas Name: Morfa Ceased Operation: 1897 Commodity: Coal; Four Feet Reference: 3654 Alternate: Grange Name/Mine: Not Supplied Custodian: Not Supplied	A12SE (W)	382	4	277828 187378
12	Potential Mining Areas Name: Brombil and Goitre Ceased Operation: 1883 Commodity: Coal; Seam unnamed Reference: 1518 Alternate: Tyle-cigfran Name/Mine: Not Supplied Custodian: Not Supplied	A14SE (E)	798	4	279036 187422
13	Potential Mining Areas Name: Morfa Ceased Operation: Not Supplied Commodity: Coal; Nine Feet Reference: Not Supplied Alternate: Not Supplied Name/Mine: The Executors of W.E. Morgan, 79 Caemawr, Morriston, Swansea. Custodian: The Executors of W.E. Morgan, 79 Caemawr, Morriston, Swansea.	A8SW (S)	860	4	278201 186565

Historical Land Use Information (1:2,500)

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
14	Extractive Industries or Potential Excavations from 1950-1980 Use: Unspecified Deposited Material First Map Published 1952 Date: Last Map Published N/A Date:	A13SE (SE)	13	-	278243 187418

Historical Land Use Information (1:10,000)

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
15	General Quarrying Use: Not Supplied Date of Mapping: 1885 - 1993	A14SE (E)	855	-	279089 187347
16	General Quarrying Use: Not Supplied Date of Mapping: 1921	A18NE (N)	872	-	278265 188326
16	General Quarrying Use: Not Supplied Date of Mapping: 1885	A18NE (N)	882	-	278266 188336
17	General Quarrying Use: Not Supplied Date of Mapping: 1885	A18NW (N)	973	-	278209 188428
18	Heap, unknown constituents Use: Not Supplied Date of Mapping: 1965	A12NW (W)	961	-	277248 187551
19	Heap, unknown constituents Use: Not Supplied Date of Mapping: 1921	A7NW (SW)	985	-	277395 186869
20	Mineral Railway Use: Not Supplied Date of Mapping: 1885	A13NW (NW)	383	-	277889 187671
21	Mineral Railway Use: Not Supplied Date of Mapping: 1900 - 1951	A12NE (NW)	408	-	277851 187656
22	Mineral Railway Use: Not Supplied Date of Mapping: 1885 - 1951	A12NE (W)	423	-	277806 187598
23	Mineral Railway Use: Not Supplied Date of Mapping: 1921	A19SW (NE)	571	-	278680 187808
24	Mineral Railway Use: Not Supplied Date of Mapping: 1951	A12SW (W)	890	-	277335 187253
25	Mineral Railway Use: Not Supplied Date of Mapping: 1885 - 1921	A12SW (W)	894	-	277332 187250
26	Mining of coal & lignite Use: Not Supplied Date of Mapping: 1885	A19SW (NE)	681	-	278631 188006
27	Mining of coal & lignite Use: Not Supplied Date of Mapping: 1885	A7SE (SW)	948	-	277596 186700
28	Former Marshes Use: Former Marsh Date of Mapping: 1951	A8NW (S)	698	-	277960 186772
29	Former Marshes Use: Former Marsh Date of Mapping: 1951	A8SW (S)	743	-	278095 186691
30	Former Marshes Use: Former Marsh Date of Mapping: 1951	A7SE (SW)	768	-	277839 186751
31	Former Marshes Use: Former Marsh Date of Mapping: 1951	A8SW (S)	813	-	278012 186636
32	Former Marshes Use: Former Marsh Date of Mapping: 1951	A7SE (SW)	867	-	277689 186731
33	Former Marshes Use: Former Marsh Date of Mapping: 1951	A8SW (S)	887	-	278009 186560
34	Former Marshes Use: Former Marsh Date of Mapping: 1951	A8SW (S)	992	-	277957 186464

Historical Land Use Information (1:10,000)

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
35	Potentially Infilled Land (Non-Water) Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1993	A19SW (NE)	681	-	278631 188006
36	Potentially Infilled Land (Non-Water) Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1993	A18NE (N)	872	-	278265 188326
37	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1885	A13NE (N)	0	-	278223 187449
38	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1951	A13NE (NE)	17	-	278250 187456
39	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1885	A13NW (NW)	17	-	278187 187457
40	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1965	A13NE (N)	95	-	278226 187550
41	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1965	A13NW (NW)	106	-	278117 187512
42	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1965	A13NW (NW)	202	-	278095 187621
43	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1965	A13NW (NW)	226	-	278007 187564
44	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1921	A13NW (NW)	241	-	278050 187636
45	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1951	A13SE (S)	254	-	278315 187188
46	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1951	A13SW (W)	255	-	277948 187438
47	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1951	A13SW (W)	315	-	277913 187315
48	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1921	A18SE (N)	333	-	278265 187786
49	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1951	A12SE (W)	338	-	277865 187430
50	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1965	A13NE (NE)	346	-	278531 187627
51	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1951	A13SW (SW)	350	-	277966 187172
52	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1965	A18SW (N)	366	-	278082 187796
53	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1900	A12NE (W)	392	-	277819 187526
54	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1965	A8NE (S)	397	-	278359 187053
55	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1951	A8NW (SW)	418	-	278019 187052

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
56	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1951	A12NE (W)	430	-	277780 187529
57	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1921	A12NE (W)	443	-	277788 187605
58	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1951	A12SE (W)	447	-	277761 187384
59	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1965	A18SW (NW)	477	-	277924 187837
60	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1951	A14NW (E)	480	-	278707 187533
61	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1951	A12NE (NW)	488	-	277816 187748
62	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1951	A8NE (S)	489	-	278386 186964
63	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1951	A8NE (S)	493	-	278392 186962
64	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1885	A18SW (NW)	509	-	277905 187863
65	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1885	A17SE (NW)	524	-	277836 187824
66	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1965	A8NE (SE)	558	-	278447 186913
67	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1900	A18SW (NW)	560	-	277943 187946
68	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1951	A8NW (SW)	585	-	277936 186907
69	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1951	A7NE (SW)	586	-	277751 187057
70	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1965	A8NE (S)	588	-	278367 186857
71	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1951	A7NE (SW)	589	-	277750 187055
72	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1965	A8NE (S)	597	-	278365 186847
73	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1965	A8NE (SE)	610	-	278514 186886
74	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1951	A7NE (SW)	628	-	277821 186930
75	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1965	A8NE (S)	680	-	278379 186766
76	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1951	A7NE (SW)	694	-	277852 186829

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
77	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1951	A12NW (W)	697	-	277506 187453
78	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1951	A9NW (SE)	703	-	278713 186912
79	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1965	A9NW (SE)	707	-	278708 186902
80	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1951	A8SW (S)	711	-	278193 186713
81	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1951	A8SE (S)	751	-	278336 186685
82	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1951	A12NW (W)	754	-	277455 187542
83	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1951	A8SW (S)	767	-	277930 186710
84	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1885	A12NW (W)	771	-	277437 187535
85	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1921	A12NW (W)	776	-	277437 187576
86	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1900	A17SW (NW)	789	-	277545 187886
87	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1885	A17NE (NW)	789	-	277786 188120
88	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1951	A12SW (W)	791	-	277463 187161
89	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1885	A17SE (NW)	794	-	277711 188073
90	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1951	A7NW (SW)	796	-	277503 187057
91	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1951	A17SE (NW)	798	-	277657 188032
92	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1900	A12NW (W)	799	-	277411 187560
93	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1900	A7SE (SW)	811	-	277771 186741
94	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1900	A7SE (SW)	828	-	277795 186708
95	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1951	A7NE (SW)	829	-	277566 186901
96	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1951	A7SE (SW)	829	-	277795 186706
97	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1921	A7NE (SW)	842	-	277556 186892

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
98	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1921	A17NE (NW)	845	-	277745 188160
99	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1951	A8SW (S)	857	-	278209 186567
100	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1951	A8SW (S)	869	-	278051 186570
101	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1951	A12NW (W)	870	-	277333 187478
102	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1900	A7SE (SW)	877	-	277766 186667
103	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1951	A8SE (S)	878	-	278349 186558
104	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1951	A8SW (S)	886	-	277965 186573
105	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1951	A8SW (S)	909	-	278014 186536
106	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1951	A8SW (S)	930	-	278118 186499
107	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1951	A7SE (SW)	942	-	277801 186575
108	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1900	A7NW (SW)	954	-	277324 187068
109	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1951	A17NE (NW)	957	-	277563 188162
110	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1900	A12SW (W)	967	-	277254 187263
111	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1900	A12SW (W)	976	-	277241 187285

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	CBSCB Compensation District The site does not fall within the brine compensation area.				
	Brine Subsidence Solution Area The site does not fall within the brine subsidence solution area.				
112	Potential for Collapsible Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13NE (NE)	109	1	278269 187557
113	Potential for Collapsible Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13SW (S)	123	1	278181 187304
	Potential for Collapsible Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13SW (W)	0	1	278220 187440
114	Potential for Compressible Ground Stability Hazards Hazard Potential: Moderate Source: British Geological Survey, National Geoscience Information Service	A13SW (W)	0	1	278220 187440
	Potential for Compressible Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13SW (W)	2	1	278204 187436
	Potential for Ground Dissolution Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13SW (W)	0	1	278220 187440
115	Potential for Landslide Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13SW (W)	0	1	278220 187440
116	Potential for Running Sand Ground Stability Hazards Hazard Potential: Moderate Source: British Geological Survey, National Geoscience Information Service	A13SW (W)	0	1	278220 187440
117	Potential for Running Sand Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13SE (SE)	15	1	278237 187413
	Potential for Running Sand Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13SW (W)	2	1	278204 187436
118	Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13SW (W)	0	1	278220 187440
	Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13SE (SE)	15	1	278237 187413
	Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13NE (NE)	109	1	278269 187557

The following mapping has been analysed for Historical Land Use Information (1:2,500):

1:2,500	Mapsheet	Published Date
Glamorganshire	033_02	1877
Glamorganshire	033_06	1877
Glamorganshire	033_02	1899
Glamorganshire	033_06	1899
Glamorganshire	033_02	1917
Glamorganshire	033_06	1918
Glamorganshire	033_02	1940
Glamorganshire	033_06	1940

The following mapping has been analysed for Historical Land Use Information (1:10,000):

1:10,560	Mapsheet	Published Date
Glamorganshire	033_00	1885
Glamorganshire	033_NE	1900
Glamorganshire	033_NW	1900
Glamorganshire	033_NE	1921
Glamorganshire	033_NW	1921
Glamorganshire	033_NE	1951
Glamorganshire	033_NW	1951
Ordnance Survey Plan	SS78NE	1965
1:10,000	Mapsheet	Published Date
Ordnance Survey Plan	SS78NE	1993

Mining and Cavities Data	Version	Update Cycle
BGS Recorded Mineral Sites British Geological Survey - National Geoscience Information Service	October 2019	Bi-Annually
Coal Mining Affected Areas The Coal Authority - Property Searches	March 2014	Annual Rolling Update
Man Made Mining Cavities Peter Brett Associates	December 2019	Bi-Annually
Mining Instability Ove Arup & Partners	October 2000	Not Applicable
Natural Cavities Peter Brett Associates	December 2019	Bi-Annually
Non Coal Mining Areas of Great Britain British Geological Survey - National Geoscience Information Service	May 2015	Not Applicable
Historical Land Use Information (1:2,500)	Version	Update Cycle
Subterranean Features Landmark Information Group Limited	March 2019	Bi-Annually
Ground Stability Data (1:50,000)	Version	Update Cycle
CBSCB Compensation District Cheshire Brine Subsidence Compensation Board (CBSCB)	August 2011	Not Applicable
Potential for Collapsible Ground Stability Hazards British Geological Survey - National Geoscience Information Service	January 2019	Annually
Potential for Compressible Ground Stability Hazards British Geological Survey - National Geoscience Information Service	January 2019	Annually
Potential for Ground Dissolution Stability Hazards British Geological Survey - National Geoscience Information Service	January 2019	Annually
Potential for Landslide Ground Stability Hazards British Geological Survey - National Geoscience Information Service	January 2019	Annually
Potential for Running Sand Ground Stability Hazards British Geological Survey - National Geoscience Information Service	January 2019	Annually
Potential for Shrinking or Swelling Clay Ground Stability Hazards British Geological Survey - National Geoscience Information Service	January 2019	Annually
Brine Subsidence Solution Area Johnson Poole & Bloomer	January 2015	Annual Rolling Update

A selection of organisations who provide data within this report

Data Supplier	Data Supplier Logo
Ordnance Survey	
British Geological Survey	 British Geological Survey NATURAL ENVIRONMENT RESEARCH COUNCIL
The Coal Authority	 The Coal Authority
Ove Arup	
Peter Brett Associates	
Wardell Armstrong	 wardell armstrong your earth our world
Johnson Poole & Bloomer	

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	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
3	Ove Arup & Partners Central Square, Forth Street, Newcastle upon Tyne, Tyne and Wear, NE1 3PL	Telephone: 0191 261 6080 Fax: 0191 261 7879
4	Landmark Information Group Limited Imperium, Imperial Way, Reading, Berkshire, RG2 0TD	Telephone: 0844 844 9960 Fax: 0844 844 9951 Email: customerservice@promap.co.uk Website: www.landmarkinfo.co.uk
-	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

Historical Land Use Information (1:2,500)

General

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

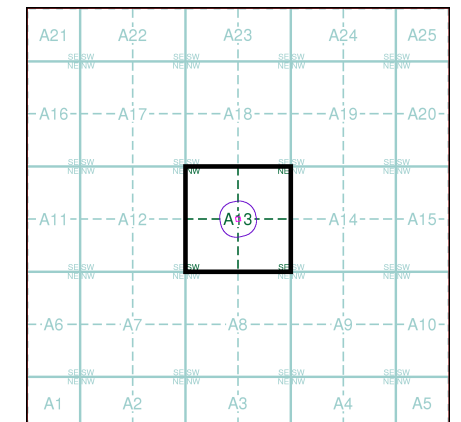
Potentially Contaminative Industrial Uses (Extractive Industries Activity)

	Point	Line	Polygon
Extractive Industries Activity from 1855 - 1909	▲	—	■
Extractive Industries Activity from 1893 - 1915	▲	—	■
Extractive Industries Activity from 1906 - 1937	▲	—	■
Extractive Industries Activity from 1924 - 1949	▲	—	■
Extractive Industries Activity from 1950 - 1980	▲	—	■

Subterranean Features

	Point	Line	Polygon
Subterranean Features	▼	---	■

Mining and Ground Stability - Segment A13

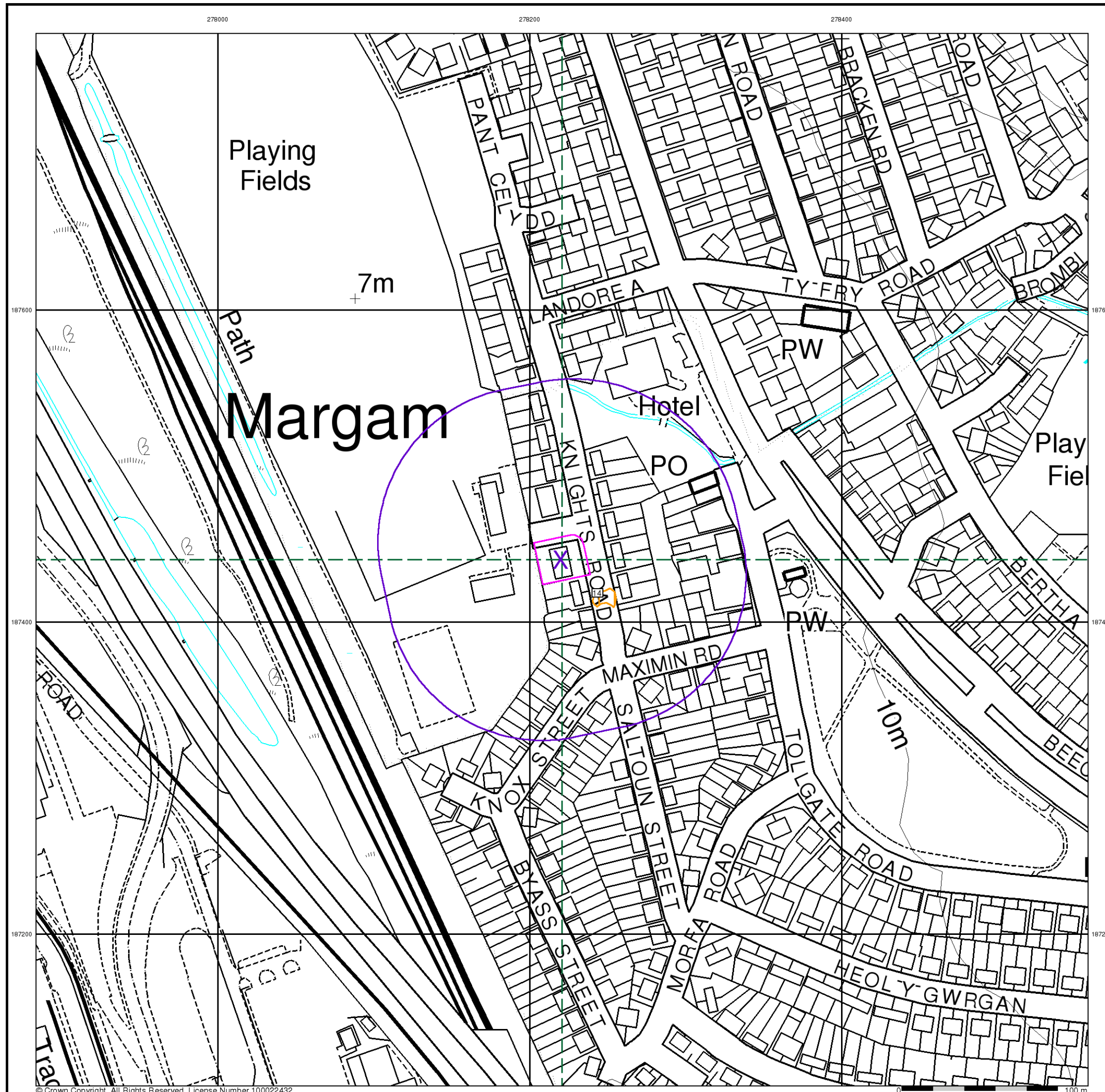


Order Details

Order Number: 233818109_1_1
Customer Ref: 12608/LP
National Grid Reference: 278220, 187440
Slice: A
Site Area (Ha): 0.09
Plot Buffer (m): 100

Site Details

Knights Road, PORT TALBOT, SA13 2DT



General

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

Potentially Contaminative Industrial Uses (Past Land Uses - Mining)

	Point	Line	Polygon
Air Shafts			
Disturbed Ground			
General Quarrying			
Heap, unknown constituents			
Mineral Railway			
Mining and Quarrying General			
Mining of Coal & Lignite			
Quarrying of Sand and Clay, Operation of Sand and Gravel Pits			

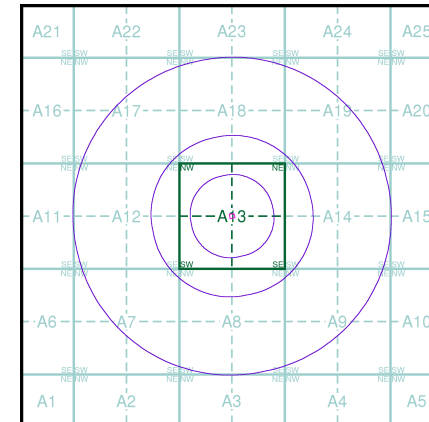
Historical Land Use

	Point	Line	Polygon
Potentially Infilled Land (Non-Water)			
Potentially Infilled Land (Water)			
Former Marsh			

Mining Data

Potential Mining Area
BGS Recorded Mineral Site

Mining and Ground Stability - Slice A

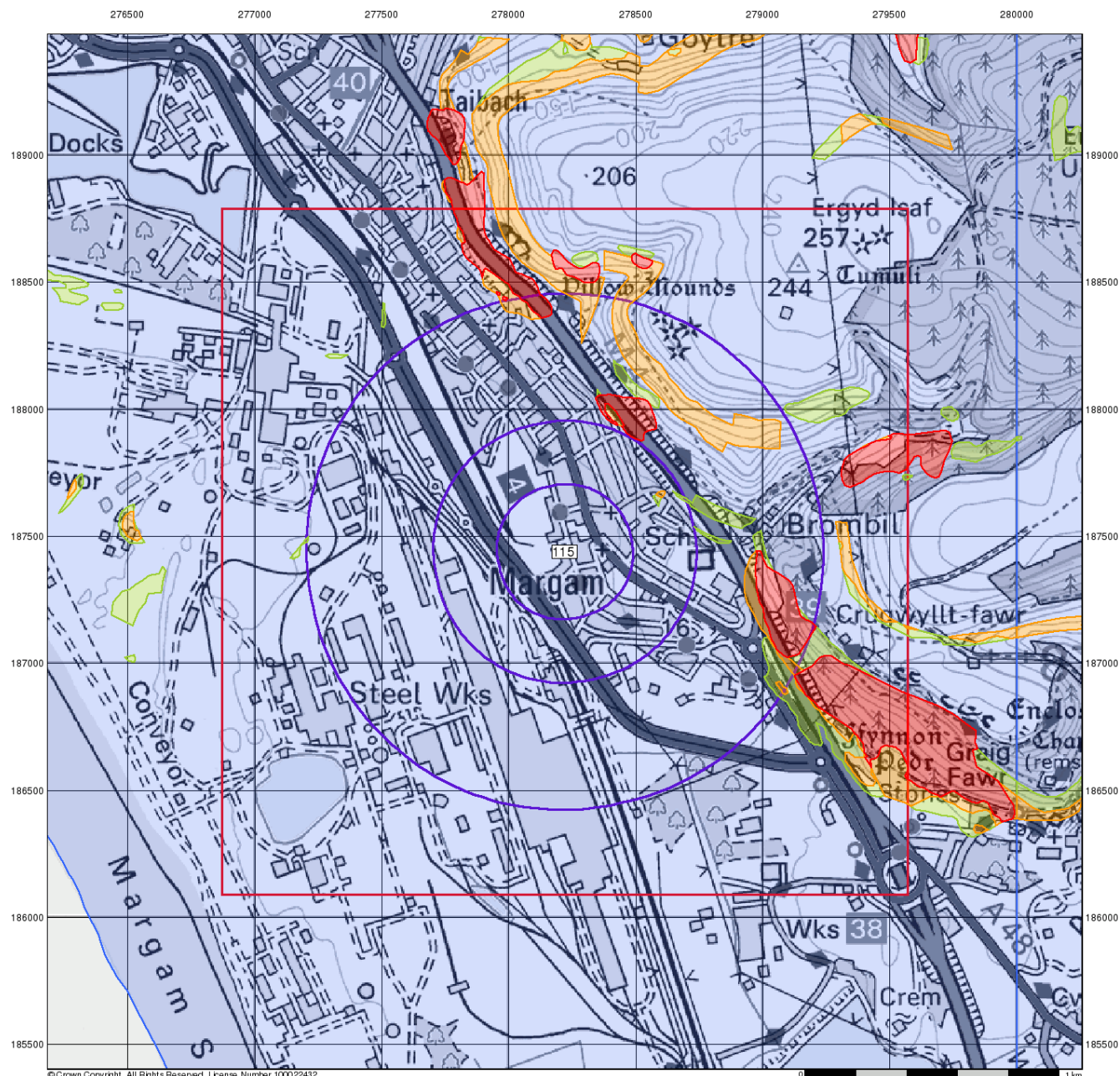


Order Details

Order Number: 233818109_1_1
Customer Ref: 12608/LP
National Grid Reference: 278220, 187440
Slice: A
Site Area (Ha): 0.09
Search Buffer (m): 1000

Site Details

Knights Road, PORT TALBOT, SA13 2DT



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0 1 km

Intégral Géotechnique

Ground Stability Data (1:50,000)

General

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

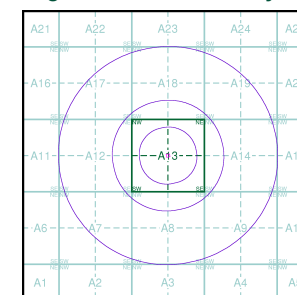
Potential for Landslide Ground Stability Hazards

- High
- Moderate
- Low
- Very Low

Potential for Ground Dissolution Stability Hazards

- High
- Moderate
- Low
- Very Low

Mining and Ground Stability - Slice A



Order Details

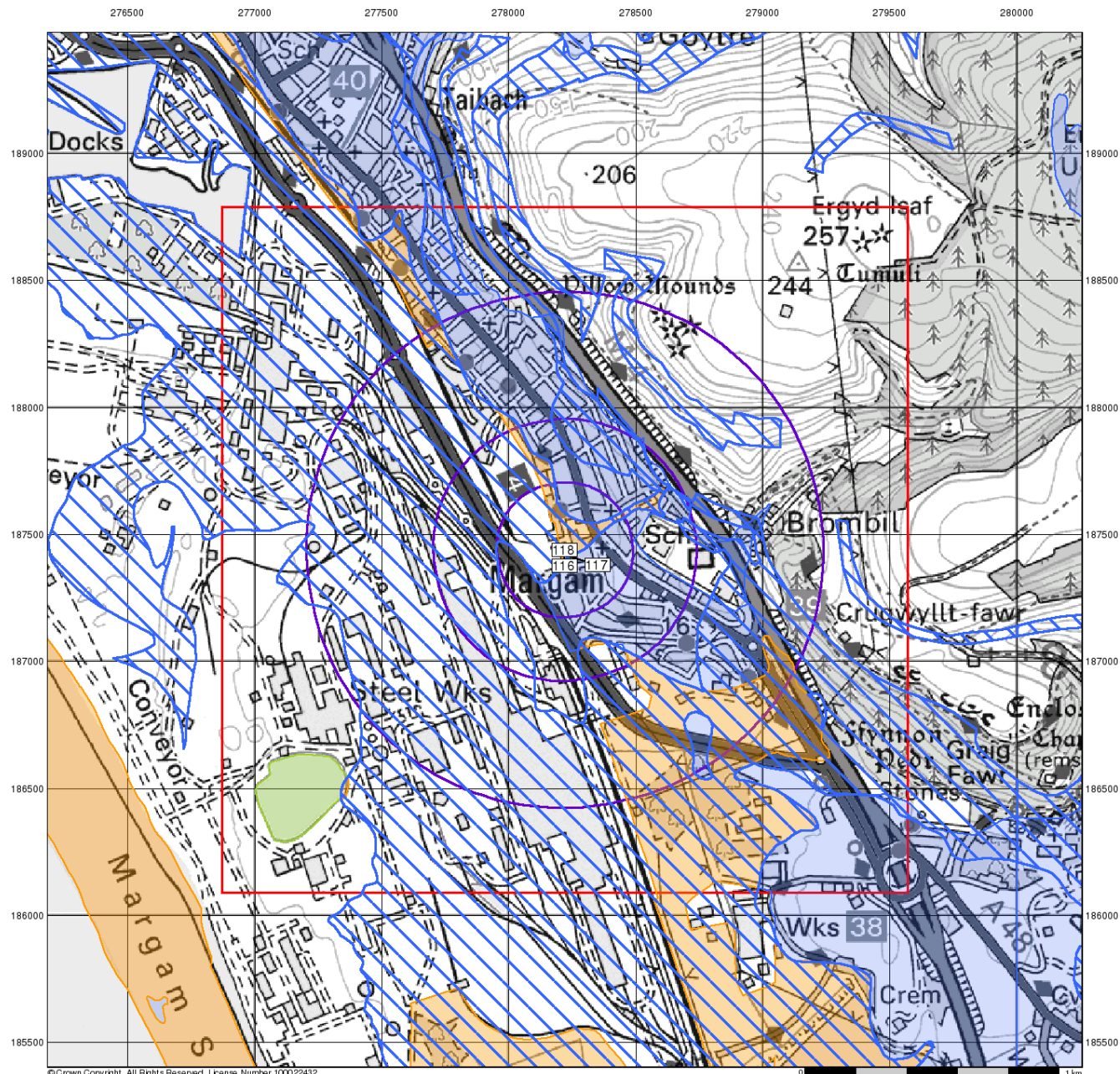
Order Number: 233818109_1_1
 Customer Ref: 12608/LP
 National Grid Reference: 278220, 187440
 Slice: A
 Site Area (Ha): 0.09
 Search Buffer (m): 1000

Site Details

Knights Road, PORT TALBOT, SA13 2DT

Landmark
 INFORMATION GROUP

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



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Intégral Géotechnique

Ground Stability Data (1:50,000)

General

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

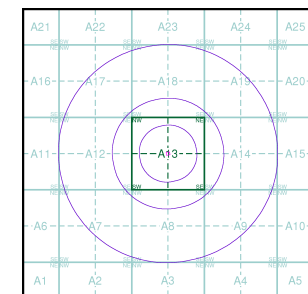
Potential for Running Sand Ground Stability Hazards

- High
- Low
- Moderate
- Very Low

Potential for Shrinking or Swelling Clay Ground Stability Hazards

- High
- Low
- Moderate
- Very Low

Mining and Ground Stability - Slice A



Order Details

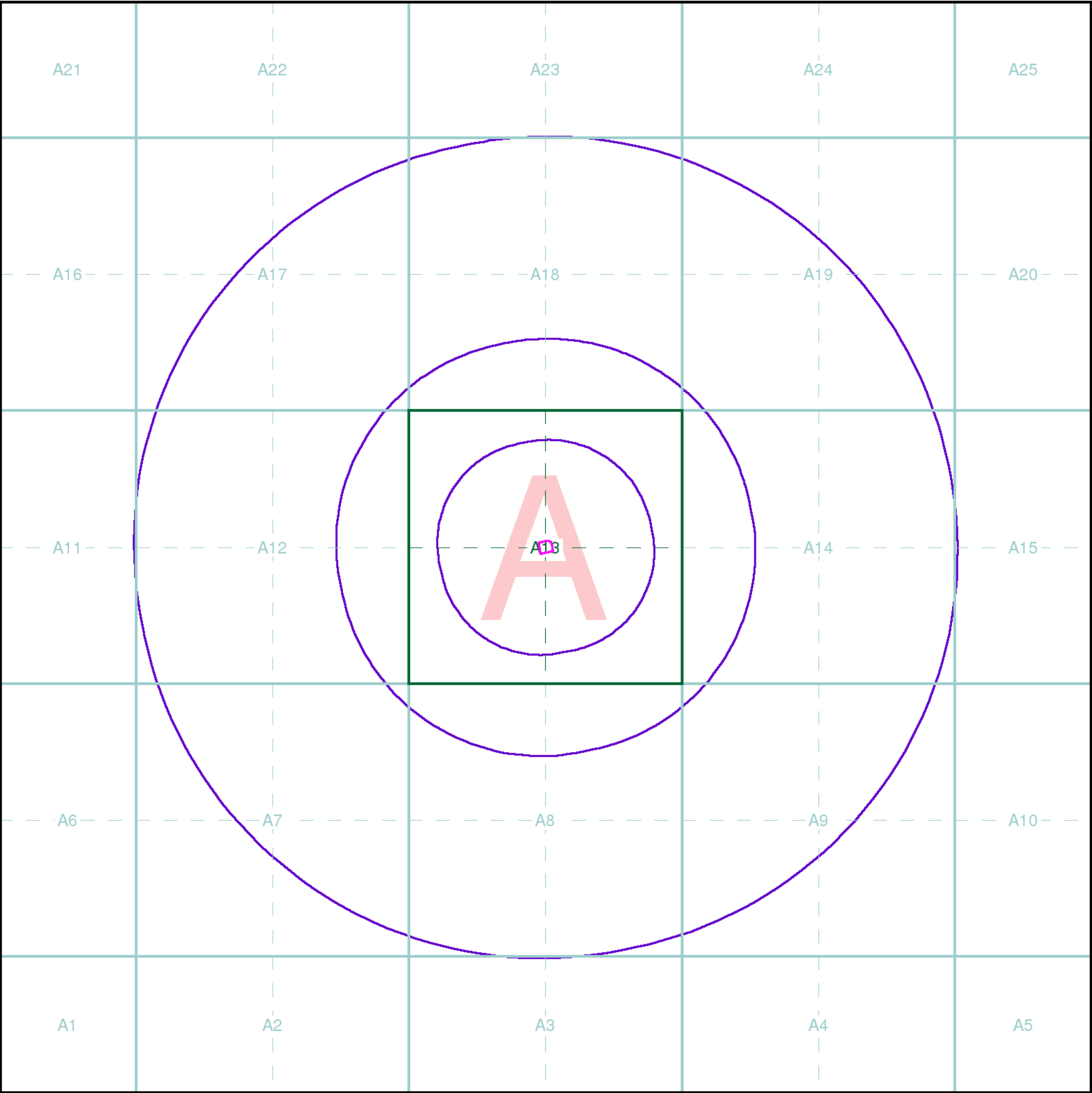
Order Number: 233818109_1_1
 Customer Ref: 12608/LP
 National Grid Reference: 278220, 187440
 Slice: A
 Site Area (Ha): 0.09
 Search Buffer (m): 1000

Site Details

Knights Road, PORT TALBOT, SA13 2DT

Landmark
 INFORMATION GROUP

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Intégral Géotechnique

Index Map

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

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

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

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

A selection of organisations who provide data within this report:



Envirocheck reports are compiled from 136 different sources of data.

Client Details

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

Order Details

Order Number: 233818109_1_1
Customer Ref: 12608/LP
National Grid Reference: 278220, 187440
Site Area (Ha): 0.09
Search Buffer (m): 1000

Site Details

Knights Road, PORT TALBOT, SA13 2DT

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



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

APPENDIX B

BGS RADON REPORT



**British
Geological Survey**
Expert | Impartial | Innovative

GeoReports

**Laura Pullin
Integral Geotechnique
7 Beddau Way
Castlegate Business Park
Caerphilly
CF83 2AX**

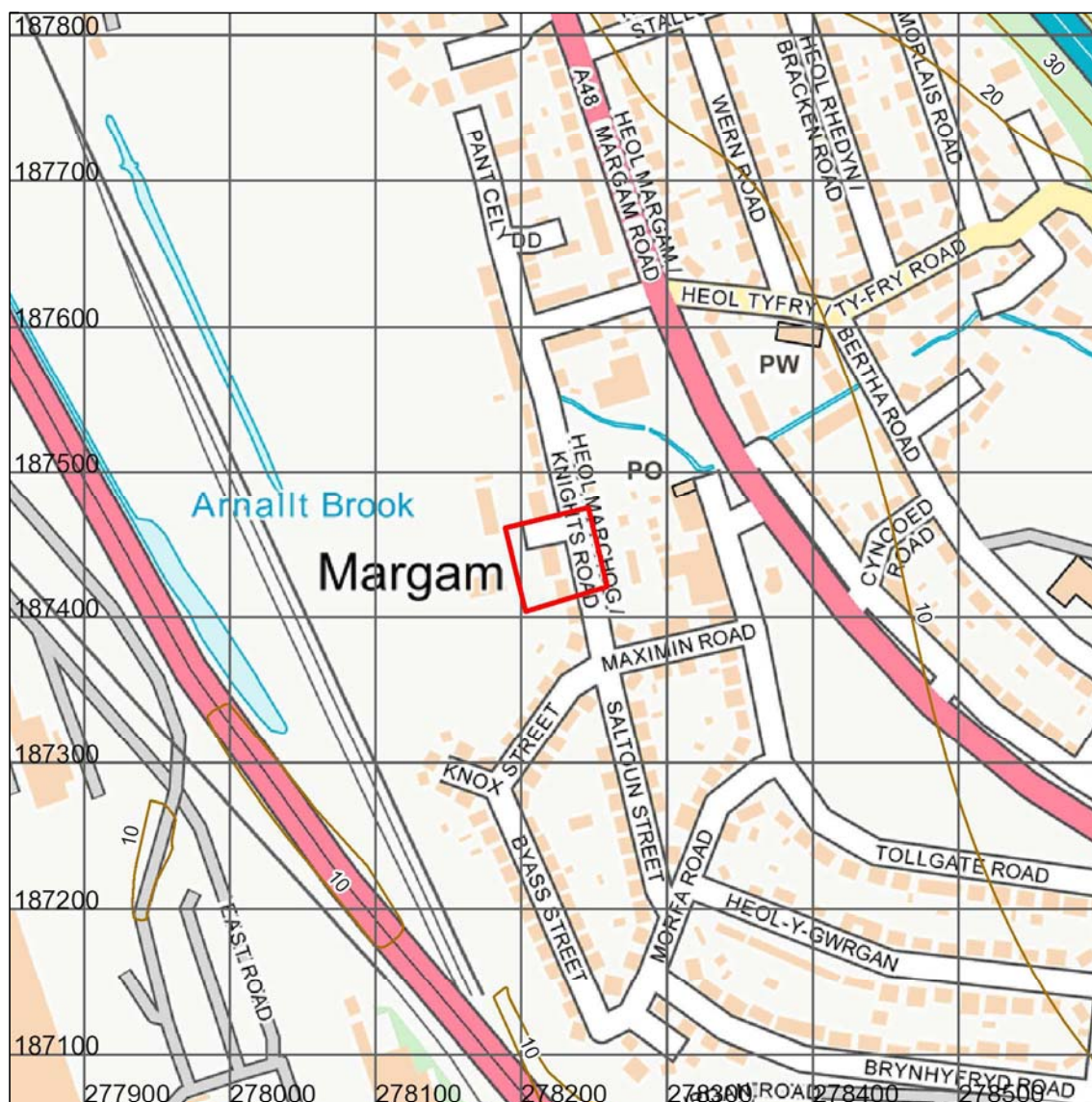
Radon Report

Advisory report on the requirement for radon protective measures in new buildings, conversions and extensions to existing buildings. The report also indicates whether a site is located within a radon Affected Area

Report Id: *BGS_307206/9587*

Client reference: Job no. 12608

Search location



Contains OS data © Crown Copyright and database right 2020. OS OpenMap Local: Scale: 1:5 000 (1cm = 50 m)

Search location indicated in red

This report describes a site located at National Grid Reference 278224, 187440. Note that for sites of irregular shape, this point may lie outside the site boundary. Where the client has submitted a site plan the assessment will be based on the area given.



Radon Report: UK

When extensions are made to existing buildings in high radon areas, or new buildings are constructed in these areas, the Building Regulations for England, Wales, Scotland and Northern Ireland require that protective measures are taken against radon entering the building.

This report provides information on whether radon protective measures are required. Depending on the probability of buildings having high radon levels, the Regulations may require either:

1. No protective measures
2. Basic protective measures
3. Full protective measures

This is an advisory report on the requirement for radon protective measures in new buildings, conversions and extensions. The report also indicates whether a site is located within a radon Affected Area

Requirement for radon protective measures

The determination below follows advice in *BR211 Radon: Guidance on protective measures for new buildings (2015 edition)*, which also provides guidance on what to do if the result indicates that protective measures are required.

Is the property in an area where radon protective measures are required for new buildings or extensions to existing ones as described in publication BR211 (2015 edition) Radon: Guidance on protective measures for new buildings?

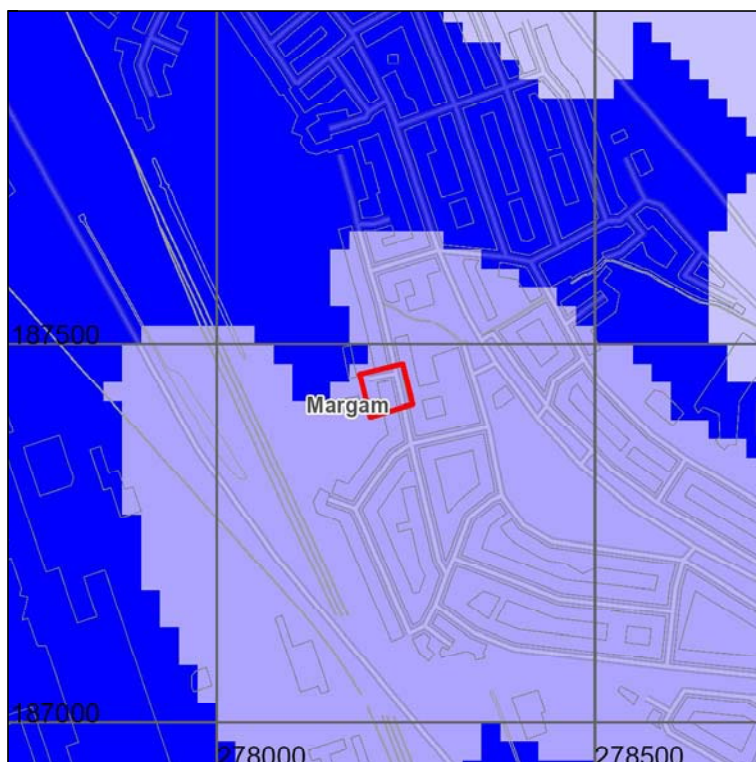
NO RADON PROTECTIVE MEASURES ARE REQUIRED FOR THE REPORT AREA.

More details of the protective measures required are available in *BR211 Radon: Guidance on protective measures for new buildings (2015 Edition)*. Additional information and guidance is available from the Building Research Establishment website (<http://www.bre.co.uk/radon/>).

Whether or not the radon level in a building is above or below the radon Action Level can only be established by having the building tested. The PHE provides a radon testing service which can be accessed at www.ukradon.org or by telephone (01235 822622).

If you require further information or guidance, you should contact your local authority building control officer or approved inspector.

Radon Affected Area



	% Homes estimated to be at or above the action level
Dark Blue	0-1%
Light Blue	1-3%
Very Light Blue	3-5%
Light Orange	5-10%
Orange	10-30%
Red	30-100%

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Scale: 1:10 000 (1cm = 100 m)

Search area indicated in red

Is the property in a radon Affected Area as defined by Public Health England (PHE) and if so what percentage of homes are estimated to be above the Action Level? YES

Additional Information

THE PROPERTY IS IN A RADON AFFECTED AREAS WHERE 1 TO 3% OF HOMES ARE ESTIMATED TO BE AT OR ABOVE THE ACTION LEVEL.

PHE recommends a radon 'Action Level' of 200 Becquerels per cubic metre of air (Bq m^{-3}) for the annual average of the radon gas concentration in a home. Where 1% or more of homes are estimated to exceed the Action Level the area should be regarded as a radon Affected Area.

This report informs you whether the property is in a radon Affected Area and the percentage of homes that are estimated to be at or above the radon Action Level at this location. Being in an Affected Area does not necessarily mean there is a radon problem in the property; the only way to find out whether the radon level is above or below the Action Level is to carry out a radon measurement.



PHE advises that radon gas should be measured in all properties within radon Affected Areas and that homes with radon levels above the Action Level (200 Bq m⁻³) should be remediated. Householders with levels between the Target Level (100 Bq m⁻³) and Action Level should seriously consider reducing their radon level, especially if they are at greater risk, such as if they are current or ex smokers. Whether or not a home is in fact above or below the Action Level or Target Level can only be established by having the building tested. PHE provides a validated radon testing service which can be accessed at www.ukradon.org.

The information in this report provides an answer to one of the standard legal enquiries on house purchase in England and Wales, known as Law Society CON29 Enquiries of the Local Authority (2016); 3.14 Radon Gas: Do records indicate that the property is in a “Radon Affected Area” as identified by PHE. The data can also be used to advise house buyers and sellers in Scotland and Northern Ireland.

If you are buying a new build property in a Radon Affected Area, you should ask the builder whether radon protective measures were incorporated in the construction of the property.

If you are buying a currently occupied property in a radon Affected Area, you should ask the present owner whether radon levels have been measured in the property. If they have, ask whether the results were above the radon Action Level and if so, whether remedial measures were installed, radon levels were re-tested, and if the results of re-testing confirmed the effectiveness of the measures.

Further information on radon is available from PHE at www.ukradon.org.



What is radon?

Radon is a naturally occurring radioactive gas, which is produced by the radioactive decay of radium which, in turn, is derived from the radioactive decay of uranium. Uranium is found in small quantities in all soils and rocks, although the amount varies from place to place. Radon released from rocks and soils is quickly diluted in the atmosphere. Concentrations in the open air are normally very low and do not present a hazard. Radon that enters enclosed spaces such as some buildings (particularly basements), caves, mines, and tunnels may reach high concentrations in some circumstances. The construction method and degree of ventilation will influence radon levels in individual buildings. A person's exposure to radon will also vary according to how particular buildings and spaces are used.

Inhalation of the radioactive decay products of radon gas increases the chance of developing lung cancer. If individuals are exposed to high concentrations for significant periods of time, there may be cause for concern. In order to limit the risk to individuals, the Government has adopted an Action Level for radon in homes of 200 becquerels per cubic metre (Bq m^{-3}). The Government advises householders that, where the radon level exceeds the Action Level, measures should be taken to reduce the concentration.

Radon in workplaces

The Ionising Radiation Regulations, 1999, require employers to take action when radon is present above a defined level in the workplace. Advice may be obtained from your local Health and Safety Executive Area Office or the Environmental Health Department of your local authority. The BRE publishes a guide (BR293): **Radon in the workplace**. BRE publications may be obtained from the BRE Bookshop, Tel: 01923 664262, email: bookshop@bre.co.uk website: www.brebookshop.com



Contact Details

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Wallingford
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OX10 8BB
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Email: hydroenq@bgs.ac.uk

Edinburgh Office

British Geological Survey
Lyell Centre
Research Avenue South
Edinburgh
EH14 4AP
Tel: 0131 6671000
Email: enquiry@bgs.ac.uk



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General Terms & Conditions

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- The data, information and related records supplied in this Report by BGS can only be indicative and should not be taken as a substitute for specialist interpretations, professional advice and/or detailed site investigations. You must seek professional advice before making technical interpretations on the basis of the materials provided.
- Geological observations and interpretations are made according to the prevailing understanding of the subject at the time. The quality of such observations and interpretations may be affected by the availability of new data, by subsequent advances in knowledge, improved methods of interpretation, and better access to sampling locations.
- Raw data may have been transcribed from analogue to digital format, or may have been acquired by means of automated measuring techniques. Although such processes are subjected to quality control to ensure reliability where possible, some raw data may have been processed without human intervention and may in consequence contain undetected errors.
- Detail, which is clearly defined and accurately depicted on large-scale maps, may be lost when small-scale maps are derived from them.
- Although samples and records are maintained with all reasonable care, there may be some deterioration in the long term.
- The most appropriate techniques for copying original records are used, but there may be some loss of detail and dimensional distortion when such records are copied.
- Data may be compiled from the disparate sources of information at BGS's disposal, including material donated to BGS by third parties, and may not originally have been subject to any verification or other quality control process.
- Data, information and related records, which have been donated to BGS, have been produced for a specific purpose, and that may affect the type and completeness of the data recorded and any interpretation. The nature and purpose of data collection, and the age of the resultant material may render it unsuitable for certain applications/uses. You must verify the suitability of the material for your intended usage.
- If a report or other output is produced for you on the basis of data you have provided to BGS, or your own data input into a BGS system, please do not rely on it as a source of information about other areas or geological features, as the report may omit important details.
- The topography shown on any map extracts is based on the latest OS mapping and is not necessarily the same as that used in the original compilation of the BGS geological map, and to which the geological linework available at that time was fitted.
- Note that for some sites, the latest available records may be historical in nature, and while every effort is made to place the analysis in a modern geological context, it is possible in some cases that the detailed geology at a site may differ from that described.

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**Report issued by
BGS Enquiry Service**

APPENDIX C

COAL AUTHORITY MINING REPORT



The Coal
Authority

CON29M

coal mining report

KNIGHTS ROAD, PORT TALBOT, NEATH PORT TALBOT, SA13 2DT



Known or potential coal mining risks

Past underground coal mining	Page 3
Future underground coal mining	Page 3



Further action

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

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



Professional opinion

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

Your reference: **233818109_2**
Our reference: **51002254068001**
Date: **11 February 2020**

Client name:
NLIS Hub

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

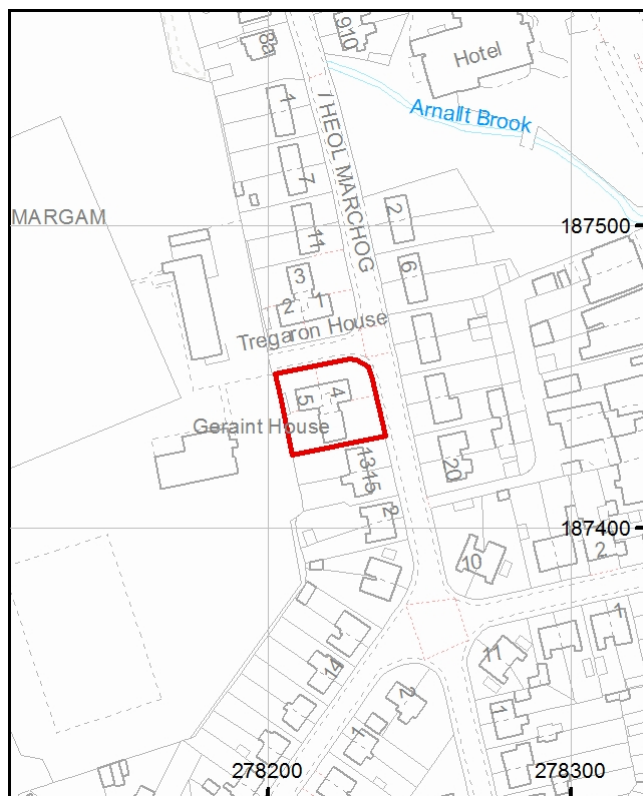


The Law
Society

Enquiry boundary

Key

Approximate position of enquiry boundary shown



We can confirm that the location is
on the coalfield



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



Accessibility

If you would like this information in an alternative format, please contact our communications team on 0345 762 6848 or email communications@coal.gov.uk.

Detailed findings

Information provided by the Coal Authority in this report is compiled in response to the Law Society's CON29M Coal Mining enquiries. The said enquiries are protected by copyright owned by the Law Society of 113 Chancery Lane, London WC2A 1PL.

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1 Past underground coal mining

The property is in a surface area that could be affected by underground mining in 1 seam of coal at 570m to 580m depth, and last worked in 1908.

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

2 Present underground coal mining

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

3 Future underground coal mining

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

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

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

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

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

4 Mine entries

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

5 Coal mining geology

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

6 Past opencast coal mining

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

7 Present opencast coal mining

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

8 Future opencast coal mining

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

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

9 Coal mining subsidence

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

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

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

10 Mine gas

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

11 Hazards related to coal mining

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

12 Withdrawal of support

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

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

13 Working facilities order

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

14 Payments to owners of former copyhold land

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

Statutory cover



Coal mining subsidence

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

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

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

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



Coal mining hazards

Our public safety and subsidence team provide a 24 hour a day, 7 days a week hazard reporting service, to help protect the public from hazards caused by past coal workings, such as a mine shaft or shallow working collapse. To report any hazards please call **01623 646 333**. Further information can be found on our website: www.gov.uk/coalauthority.

Glossary



Key terms

adit - horizontal or sloped entrance to a mine

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

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

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

coal seams - bed of coal of varying thickness

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

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

mine entries - collective name for shafts and adits

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

shaft - vertical entry into a mine

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

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

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

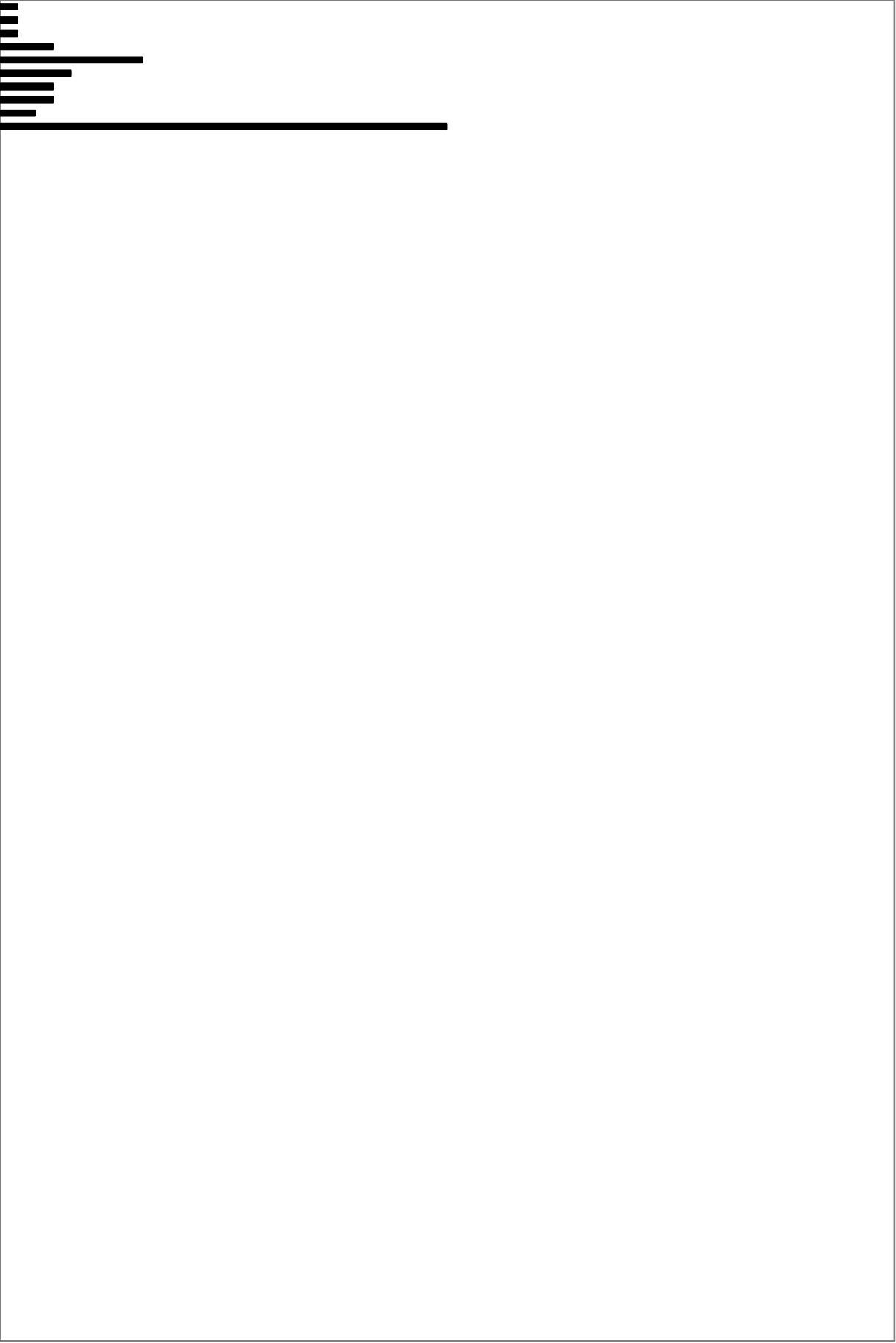
withdrawal of support - a historic notice informing landowners that the coal beneath their property was going to be worked

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

APPENDIX D

WINDOWLESS SAMPLE BOREHOLE AND DYNAMIC PROBE LOGS

[illegible]

Depth(m)	BLOWS (100mm)	DIAGRAM DPSH N100 VALUES
	1	
	1	
	1	
	3	
	8	
	4	
	3	
	3	
	2	
1.00	25	
2.00		
3.00		
4.00		
5.00		
6.00		
7.00		
8.00		
9.00		
10.00		
		
REMARKS: Refusal on hard strata at 0.92m		PROBE NUMBER: DP 1
CONTRACT: Geraint House, Margam		DATE: 11.02.20
		PAGE 1 of 1

SOUTHERN GROUND TESTING

DYNAMIC PROBE RECORD

Depth(m)	BLOWS (100mm)	DIAGRAM DPSH N100 VALUES
	1	
	1	
	2	
	4	
	6	
	9	
	7	
	4	
	4	
1.00	25	
2.00		
3.00		
4.00		
5.00		
6.00		
7.00		
8.00		
9.00		
10.00		
		
REMARKS: Refusal on hard strata at 0.91m		PROBE NUMBER: DP 1A DATE: 11.02.20
CONTRACT: Geraint House, Margam		PAGE 1 of 1

Depth(m)	BLOWS (100mm)	DIAGRAM DPSH N100 VALUES
	1	
	1	
	3	
	8	
	4	
	4	
	7	
	12	
	7	
1.00	25	
2.00		
3.00		
4.00		
5.00		
6.00		
7.00		
8.00		
9.00		
10.00		
		
REMARKS: Refusal on hard strata at 0.91m		PROBE NUMBER: DP 1B
CONTRACT: Geraint House, Margam		DATE: 11.02.20
		PAGE 1 of 1

		Intégral House, 7 Beddau Way Castlegate Business Park Caerphilly CF83 2AX Tel. 029 20807991 Fax. 029 20862176 mail@integralgeotec.com		Project Name: Geraint House		Project No.: 12608		Borehole No.: WS2 Sheet 1 of 1	
Location: Margam				Client: Tai Tarian		Coordinates:		Hole Type: WLS	
Equipment: Geo 032				Diameter of Casing:		Level:		Scale 1:25	
Diameter of Boring: 101mm				Depth of Casing:		Dates 11/02/2020 -		Logged By: LP	

Well	Water Strikes	Samples & In situ Testing			Depth (m)	Level (m AOD)	Legend	Stratum Description	
		Depth (m)	Type	Results					
		1.00	ES		0.20		TOPSOIL: Soft to firm grey brown silty sandy slightly gravelly CLAY with fine roots. Gravel is fine to coarse angular sandstone	1	
					1.20		MADE GROUND: (Loose to medium dense with depth becoming dense) grey silty sandy GRAVEL and COBBLES. Gravels and cobbles are angular and sub angular concrete and brick	2	
							End of Borehole at 1.20 m	3	
								4	
								5	

Remarks: 1. Windowless sample refused at 1.2m depth with poor recovery due to nature of the made ground 2. Dynamic probing undertaken at 3 locations around WS2 and refused on hard strata at 1.21-1.31m depths		Key: D - Small disturbed sample B - Bulk disturbed sample ES - Environmental soil sample SPT - Standard Penetration Test (split spoon) CPT - Standard Penetration Test (solid cone)		W - Water sample U - Undisturbed sample TCR - Total Core Recovery SCR - Solid Core Recovery RQD - Rock Quality Designation		
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Depth(m)	BLOWS (100mm)	DIAGRAM DPSH N100 VALUES
	0	
	0	
	4	
	10	
	9	
	6	
	6	
	5	
	3	
1.00	5	
	4	
	7	
	25	
2.00		
3.00		
4.00		
5.00		
6.00		
7.00		
8.00		
9.00		
10.00		
		
REMARKS: Refusal on hard strata at 1.21m		PROBE NUMBER: DP 2
CONTRACT: Geraint House, Margam		DATE: 11.02.20
		PAGE 1 of 1

Depth(m)	BLOWS (100mm)	DIAGRAM DPSH N100 VALUES
	0	
	1	
	1	
	4	
	8	
	8	
	7	
	6	
	4	
1.00	6	
	6	
	8	
	25	
2.00		
3.00		
4.00		
5.00		
6.00		
7.00		
8.00		
9.00		
10.00		
		
REMARKS: Refusal on hard strata at 1.22m		PROBE NUMBER: DP 2A
CONTRACT: Geraint House, Margam		DATE: 11.02.20
		PAGE 1 of 1

SOUTHERN GROUND TESTING

DYNAMIC PROBE RECORD

Depth(m)	BLOWS (100mm)	DIAGRAM DPSH N100 VALUES
	1	
	1	
	0	
	2	
	12	
1.00	8	
	8	
	8	
	7	
	6	
	9	
	10	
	18	
	25	
2.00		
3.00		
4.00		
5.00		
6.00		
7.00		
8.00		
9.00		
10.00		



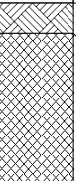
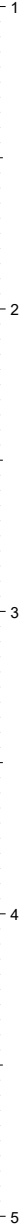
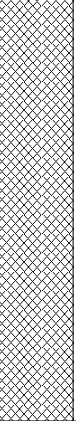
REMARKS: Refusal on hard strata at 1.31m	PROBE NUMBER: DP 2B DATE: 11.02.20
CONTRACT: Geraint House, Margam	PAGE 1 of 1

		Intégral House, 7 Beddau Way Castlegate Business Park Caerphilly CF83 2AX Tel. 029 20807991 Fax. 029 20862176 mail@integralgeotec.com		Project Name: Geraint House		Project No.: 12608		Borehole No.: WS3 Sheet 1 of 1	
Location: Margam				Client: Tai Tarian		Coordinates:		Hole Type: WLS	
Equipment: Geo 032				Diameter of Casing:		Level:		Scale 1:25	
Diameter of Boring: 101mm				Depth of Casing:		Dates 11/02/2020 -		Logged By: LP	

Well	Water Strikes	Samples & In situ Testing			Depth (m)	Level (m AOD)	Legend	Stratum Description			
		Depth (m)	Type	Results							
		0.00	C	N=9 (0 for 0mm/1,2,3,3)	0.10			TOPSOIL: Soft brown silty sandy CLAY with fine roots			
		0.30	C	N=29 (0 for 0mm/6,7,12,4)				MADE GROUND: Firm brown grey silty sandy very gravelly CLAY. Gravel is fine to coarse angular brick, concrete, sandstone and coal			
		0.60	C	N=11 (0 for 0mm/4,3,2,2)	0.70			MADE GROUND: Firm orange brown becoming light grey brown and dark grey silty very sandy very gravelly CLAY. Gravel is fine to coarse angular to rounded of sandstone and occasional coal. Becoming more sandy with depth			
		0.80	ES								
		0.90	C	N=8 (0 for 0mm/2,2,2,2)							
				1.20	C	N=5 (0 for 0mm/2,2,1,0)					
				1.50	C	N=2 (0 for 0mm/0,1,0,1)					
				1.80	C	N=2 (0 for 0mm/1,0,0,1)	2.00				
				2.10	C	N=1 (0 for 0mm/1,0,0,0)			End of Borehole at 2.00 m		
				2.40	C	N=0 (0 for 0mm/0,0,0,0)					
				2.70	C	N=4 (0 for 0mm/1,1,1,1)					
				3.00	C	N=9 (0 for 0mm/2,2,2,3)					
				3.30	C	N=10 (0 for 0mm/3,2,3,2)					
				3.60	C	N=11 (0 for 0mm/3,2,3,3)					
		3.90	C	N=14 (0 for 0mm/3,3,4,4)							

Remarks: 1. Windowless sample refused at 2.0m depth 2. Continuous CPT's undertaken from GL to 4.2m depth 3. Falling head test undertaken		Key: D - Small disturbed sample B - Bulk disturbed sample ES - Environmental soil sample SPT - Standard Penetration Test (split spoon) CPT - Standard Penetration Test (solid cone)		W - Water sample U - Undisturbed sample TCR - Total Core Recovery SCR - Solid Core Recovery RQD - Rock Quality Designation		
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		Intégral House, 7 Beddau Way Castlegate Business Park Caerphilly CF83 2AX Tel. 029 20807991 Fax. 029 20862176 mail@integralgeotec.com		Project Name: Geraint House		Project No.: 12608		Borehole No.: WS4 Sheet 1 of 1	
Location: Margam				Client: Tai Tarian		Coordinates:		Hole Type: WLS	
Equipment: Geo 032				Diameter of Casing:		Level:		Scale 1:25	
Diameter of Boring: 101mm				Depth of Casing:		Dates 11/02/2020 -		Logged By: LP	

Well	Water Strikes	Samples & In situ Testing			Depth (m)	Level (m AOD)	Legend	Stratum Description	
		Depth (m)	Type	Results					
		0.00	C	N=31 (0 for 0mm/1,3,7,20)	0.10			TOPSOIL: Firm brown very sandy very gravelly CLAY with fine roots. Gravel is fine to coarse angular of brick and sandstone	
		0.30	C	N=44 (0 for 0mm/16,11,11,6)				MADE GROUND: (Dense) dark grey and grey brown very silty very clayey GRAVEL with medium cobble content. Gravel and cobbles angular and sub angular brick, slag, clinker, sandstone and fragments of wood	
		0.60	ES		0.60			MADE GROUND: Firm grey brown silty sandy gravelly CLAY. Gravel is fine to coarse angular to sub rounded sandstone, brick and ceramic	
		0.60	C	N=13 (0 for 0mm/4,3,3,3)					
		0.90	C	N=10 (0 for 0mm/2,3,2,3)					
		1.20	C	N=3 (0 for 0mm/1,0,1,1)					
		1.50	C	N=3 (0 for 0mm/1,1,0,1)					
		1.70							
		1.80	C	N=4 (0 for 0mm/0,1,1,2)					
		2.10	C	N=15 (0 for 0mm/3,6,5,1)	2.00			End of Borehole at 2.00 m	
		2.40	C	N=3 (0 for 0mm/1,1,0,1)					
		2.70	C	N=6 (0 for 0mm/1,1,2,2)					
3.00	C	N=10 (0 for 0mm/3,2,2,3)							
3.30	C	N=8 (0 for 0mm/2,2,2,2)							
3.60	C	N=12 (0 for 0mm/3,3,3,3)							
3.90	C	N=17 (0 for 0mm/4,4,4,5)							

Remarks: 1. Windowless sample refused at 2.0m depth with poor recovery due to the nature of the made ground 2. Continuous CPT's undertaken from GL to 4.2m depth 3. Falling head test undertaken		Key: D - Small disturbed sample B - Bulk disturbed sample ES - Environmental soil sample SPT - Standard Penetration Test (split spoon) CPT - Standard Penetration Test (solid cone)		W - Water sample U - Undisturbed sample TCR - Total Core Recovery SCR - Solid Core Recovery RQD - Rock Quality Designation		
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		Intégral House, 7 Beddau Way Castlegate Business Park Caerphilly CF83 2AX Tel. 029 20807991 Fax. 029 20862176 mail@integralgeotec.com		Project Name: Geraint House		Project No.: 12608		Borehole No.: WS5 Sheet 1 of 1	
Location: Margam				Client: Tai Tarian		Coordinates:		Hole Type: WLS	
Equipment: Geo 032				Diameter of Casing:		Level:		Scale 1:25	
Diameter of Boring: 101mm				Depth of Casing:		Dates 11/02/2020 -		Logged By: LP	

Well	Water Strikes	Samples & In situ Testing			Depth (m)	Level (m AOD)	Legend	Stratum Description	
		Depth (m)	Type	Results					
					0.20			TOPSOIL: Firm brown silty sandy gravelly CLAY with fine roots. Gravel is fine to coarse angular gravel of sandstone	
		0.50	ES					MADE GROUND: Stiff dark grey brown silty sandy gravelly CLAY. Gravels are coarse angular of slag, concrete, brick and sandstone	
		0.80							
		1.00	C	N=8 (2,2/1,2,2,3)				MADE GROUND: Firm brown grey in pockets light orange silty sandy gravelly CLAY. Gravel is angular to sub rounded sandstone and brick. In pockets very sandy or tending towards sand	1
		1.50	D						
		2.00	C	N=9 (1,1/2,2,3,2)	2.00			Firm with depth becoming soft to firm grey in pockets light grey and light orange silty sandy slightly gravelly CLAY in pockets more sandy and/or pockets of sand. Gravel is fine to coarse angular to rounded and sub rounded of sandstone (Tidal Flat Deposits)	
								End of Borehole at 2.00 m	2
									3
									4
									5

Remarks: 1. Windowless sample terminated at 2.0m depth 2. Falling head test undertaken				Key: D - Small disturbed sample B - Bulk disturbed sample ES - Environmental soil sample SPT - Standard Penetration Test (split spoon) CPT - Standard Penetration Test (solid cone)				W - Water sample U - Undisturbed sample TCR - Total Core Recovery SCR - Solid Core Recovery RQD - Rock Quality Designation			
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APPENDIX E

FALLING HEAD TEST RESULTS

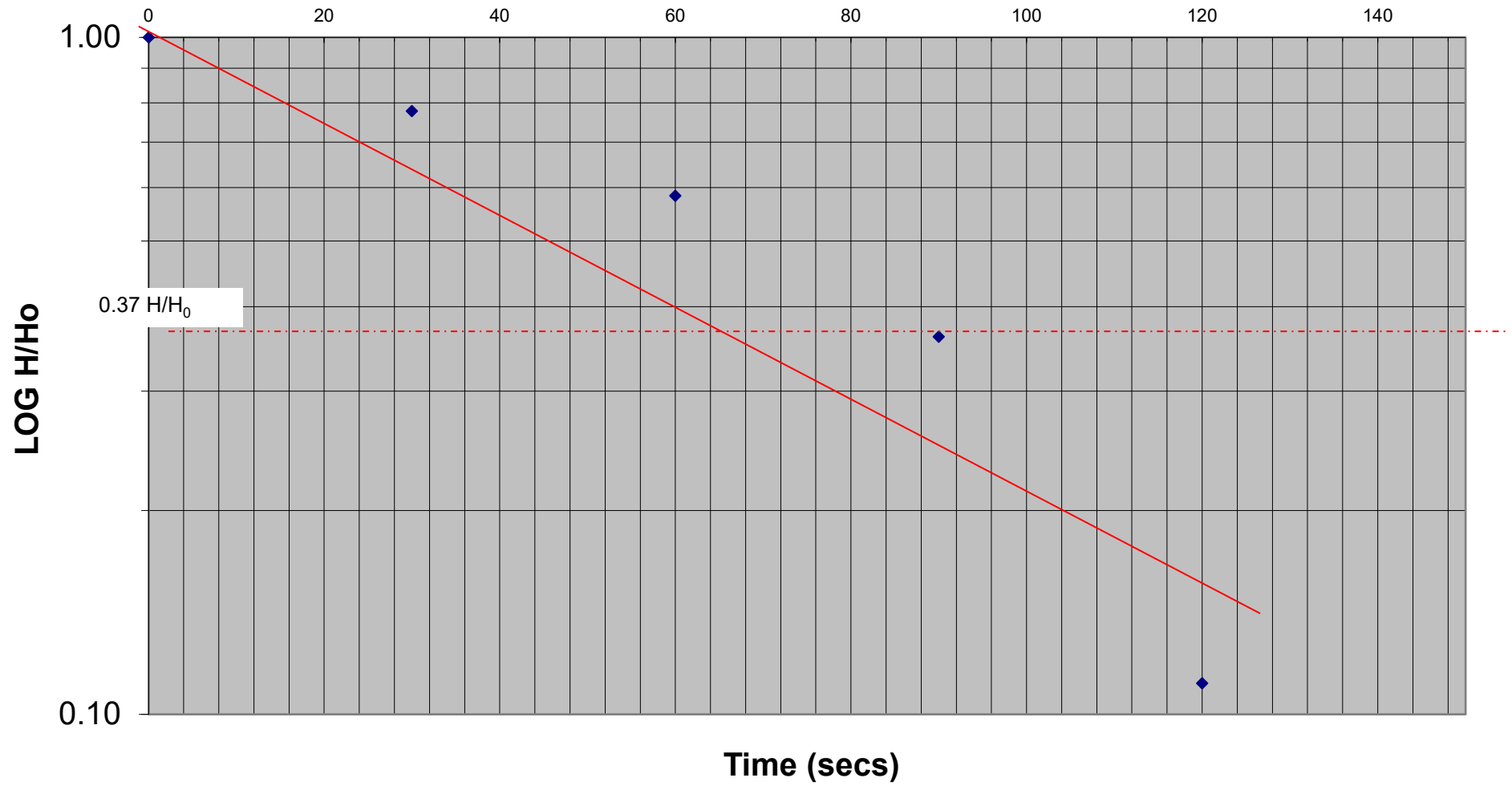
PERMEABILITY TEST DATA

PROJECT	Geraint House, Margam	JOB No.	12608
TYPE	FALLING		
DATE	17/02/2020	TIME	hrs
BOREHOLE NUMBER	WS1	TEST No.	1
Depth of borehole at start of test (mBGL) h_i	2.00 m		From top of casing
Depth of borehole at end of test (mBGL) h_e	2.00 m		From top of casing
Borehole diameter (m) D	0.101 m		OK
Piezometer diameter (m) d	m		
Filter Backfill	No		Pea gravel
Soil in casing (m) L	0.00 m		
L/D Ratio	19.8		
Hole in Soil below base of casing (m) L	2.00 m		
Depth of casing (mBGL) h_c	0.00 m		From top of casing
Height of casing above ground level h_{uc}	0.00 m		
Ground water level (mBGL) H_g	1.80 m		
Water level at start of test below top of casing h_o	0.00 m		
	$H_{g\text{ TEST}}$	1.80 m	

Elapsed Time		Depth of water below top of casing	Head of Water	Ratio
t (mins)	t (s)	h (m)	H = ($H_g - h$) (m)	H/H ₀
0	0	0.00	1.8	1.00
0.5	30	0.40	1.4	0.78
1	60	0.75	1.1	0.58
1.5	90	1.15	0.7	0.36
2	120	1.60	0.2	0.11
2.5	150	1.80	0.0	0.00
180	10800			

TEST SECTION	
Length	L = 2.00 m
Area	A = 0.6426 m ²
INTAKE FACTOR	Refer to BS 5930 Figure 7
Type	Special
F =	$\frac{D^2 \cdot 2.32 \cdot T}{L \cdot D}$
F =	3.89
TIME LAG	T = Time from start of test when h = 0.37 h_o
	See graph opposite
T =	64 s
PERMEABILITY	
K = A / (F * T)	
K =	2.58E-03 m/s
COMMENTS	Windowless sample borehole refilled for test 2

Borehole WS1



PERMEABILITY TEST DATA

PROJECT	Geraint House, Margam	JOB No.	12608
TYPE	FALLING		
DATE	17/02/2020	TIME	hrs
BOREHOLE NUMBER	WS1	TEST No.	2
Depth of borehole at start of test (mBGL) h_i	2.00 m		From top of casing
Depth of borehole at end of test (mBGL) h_e	2.00 m		From top of casing
Borehole diameter (m) D	0.101 m		OK
Piezometer diameter (m) d	m		
Filter Backfill	No		Pea gravel
Soil in casing (m) L		0.00 m	
L/D Ratio		19.8	
Hole in Soil below base of casing (m) L		2.00 m	
Depth of casing (mBGL) h_c	0.00 m		From top of casing
Height of casing above ground level h_{uc}	0.00 m		
Ground water level (mBGL) H_g	1.80 m		
Water level at start of test below top of casing h_o	0.00 m		
		$H_{g\text{ TEST}}$	1.80 m

Elapsed Time		Depth of water below top of casing	Head of Water	Ratio
t	t	h	H = ($H_g - h$)	H/H ₀
(mins)	(s)	(m)	(m)	
0	0	0.00	1.8	1.00
0.5	30	0.35	1.5	0.81
1	60	0.52	1.3	0.71
1.5	90	0.74	1.1	0.59
2	120	0.92	0.9	0.49
2.5	150	1.21	0.6	0.33
3	180	1.40	0.4	0.22
3.5	210	1.67	0.1	0.07
4	240	1.80	0.0	0.00

180 10800

TEST SECTION	
Length	L = 2.00 m
Area	A = 0.6426 m ²

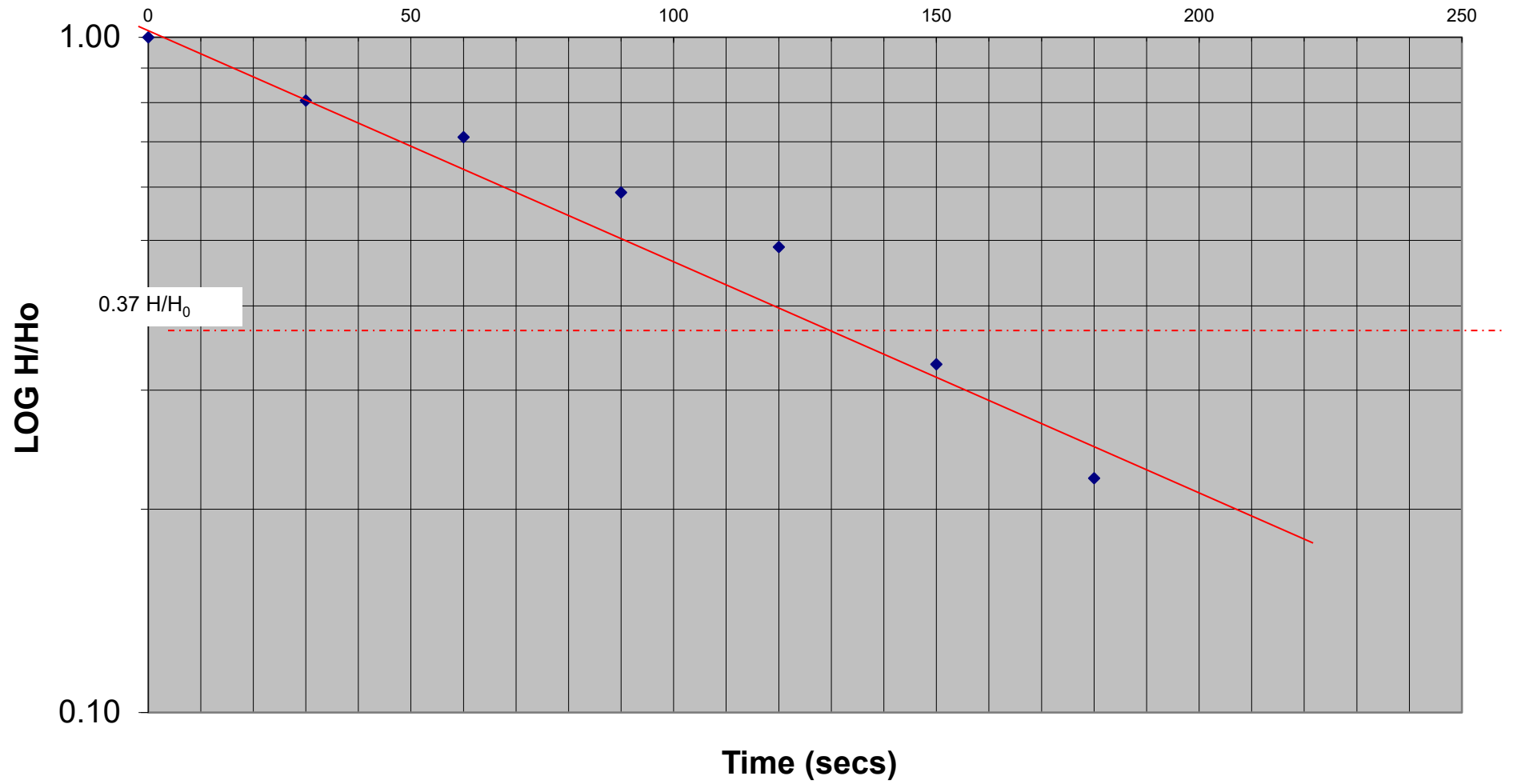
INTAKE FACTOR	Refer to BS 5930 Figure 7
Type	Special
F =	$\frac{D^2 \cdot 2.32 \cdot T}{L \cdot D}$
F =	3.89

TIME LAG	T = Time from start of test when $h = 0.37 h_o$
See graph opposite	
T =	130 s

PERMEABILITY	
K = A / (F * T)	
K =	1.27E-03 m/s

COMMENTS	Windowless sample borehole refilled for test 3
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Borehole WS1



PERMEABILITY TEST DATA

PROJECT	Geraint House, Margam	JOB No.	12608
TYPE	FALLING		
DATE	17/02/2020	TIME	hrs
BOREHOLE NUMBER	WS1	TEST No.	3
Depth of borehole at start of test (mBGL) h_i	2.00 m		From top of casing
Depth of borehole at end of test (mBGL) h_e	2.00 m		From top of casing
Borehole diameter (m) D	0.101 m		OK
Piezometer diameter (m) d	m		
Filter Backfill	No		Pea gravel
Soil in casing (m) L	0.00 m		
L/D Ratio	19.8		
Hole in Soil below base of casing (m) L	2.00 m		
Depth of casing (mBGL) h_c	0.00 m		From top of casing
Height of casing above ground level h_{uc}	0.00 m		
Ground water level (mBGL) H_g	1.80 m		
Water level at start of test below top of casing h_o	0.00 m		
	H_g TEST	1.80 m	

Elapsed Time		Depth of water below top of casing	Head of Water	Ratio
t (mins)	t (s)	h (m)	H = ($H_g - h$) (m)	H/H ₀
0	0	0.00	1.8	1.00
0.5	30	0.34	1.5	0.81
1	60	0.50	1.3	0.72
1.5	90	0.72	1.1	0.60
2	120	0.89	0.9	0.51
2.5	150	1.15	0.7	0.36
3	180	1.37	0.4	0.24
3.5	210	1.56	0.2	0.13
4	240	1.69	0.1	0.06
4.5	270	1.75	0.1	0.03
5	300	1.80	0.0	0.00

180 10800

TEST SECTION	
Length	L = 2.00 m
Area	A = 0.6426 m ²

INTAKE FACTOR	Refer to BS 5930 Figure 7
Type	Special
F =	$\frac{D^2 \cdot 2.32 \cdot T}{L/D}$
F =	3.89

TIME LAG	T = Time from start of test when h = 0.37 h_o
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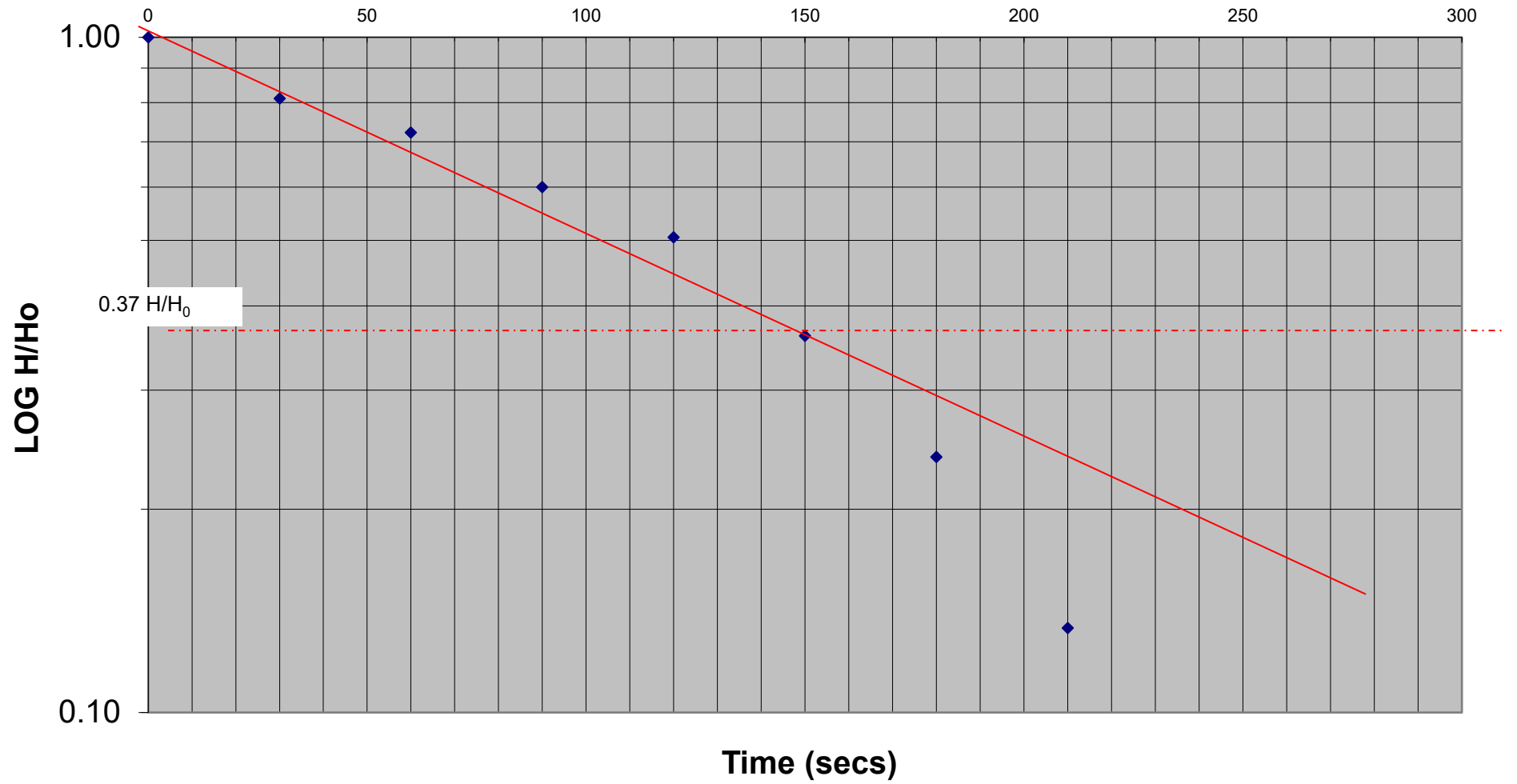
See graph opposite

T = 150 s

PERMEABILITY	
K = A / (F * T)	
K =	1.10E-03 m/s

COMMENTS

Borehole WS1



PERMEABILITY TEST DATA

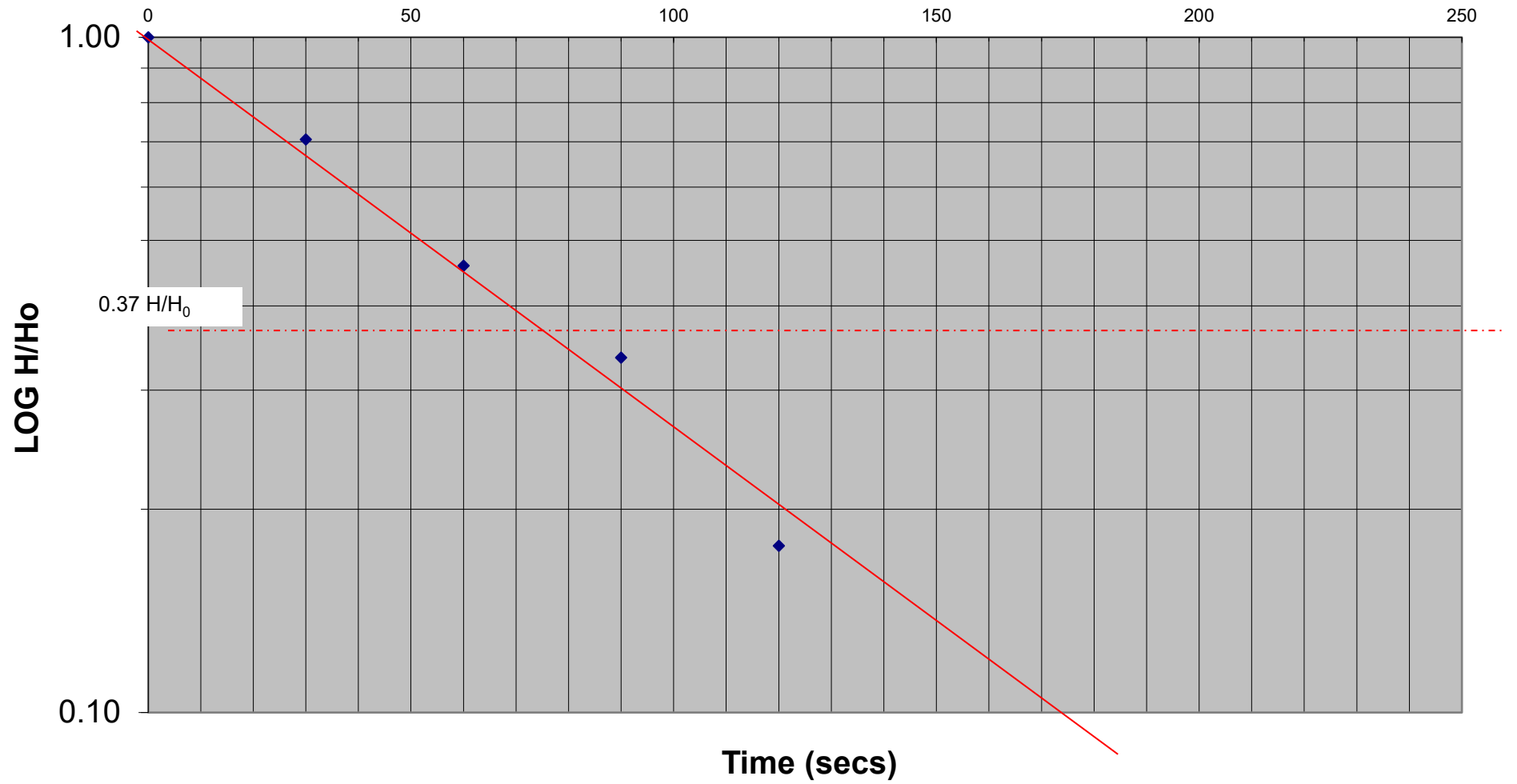
PROJECT	Geraint House, Margam		JOB No.	12608
TYPE	FALLING			
DATE	17/02/2020	TIME		
BOREHOLE NUMBER	WS4	TEST No.	1	
Depth of borehole at start of test (mBGL) h_i	2.00 m		From top of casing	
Depth of borehole at end of test (mBGL) h_e	2.00 m		From top of casing OK	
Borehole diameter (m) D	0.101 m			
Piezometer diameter (m) d				
Filter Backfill	No		Pea gravel	
Soil in casing (m) L	0.00 m			
L/D Ratio	19.8			
Hole in Soil below base of casing (m) L	2.00 m			
Depth of casing (mBGL) h_c	0.00 m		From top of casing	
Height of casing above ground level h_{uc}	0.00 m			
Ground water level (mBGL) H_g	1.70 m			
Water level at start of test below top of casing h_o	0.00 m			
	$H_{g\text{ TEST}}$	1.70 m		

Elapsed Time		Depth of water below top of casing	Head of Water	Ratio
t (mins)	t (s)	h (m)	H = ($H_g - h$) (m)	H/ H_o
0	0	0.00	1.7	1.00
0.5	30	0.50	1.2	0.71
1	60	0.92	0.8	0.46
1.5	90	1.13	0.6	0.34
2	120	1.40	0.3	0.18
2.5	150	1.55	0.2	0.09
3	180	1.62	0.1	0.05
3.5	210	1.70	0.0	0.00

180	10800	
-----	-------	--

TEST SECTION	
Length	L = 2.00 m
Area	A = 0.6426 m ²
INTAKE FACTOR	
	Refer to BS 5930 Figure 7
Type	Special
F =	$\frac{D^2 \cdot 3.2 \cdot T^* (L/D)}{4 \cdot T}$
F =	3.89
TIME LAG	
	T = Time from start of test when h = 0.37 h_o
	See graph opposite
T =	75 s
PERMEABILITY	
	$K = A / (F \cdot T)$
K =	2.20E-03 m/s
COMMENTS	Windowless sample borehole refilled for test 2

Borehole WS4



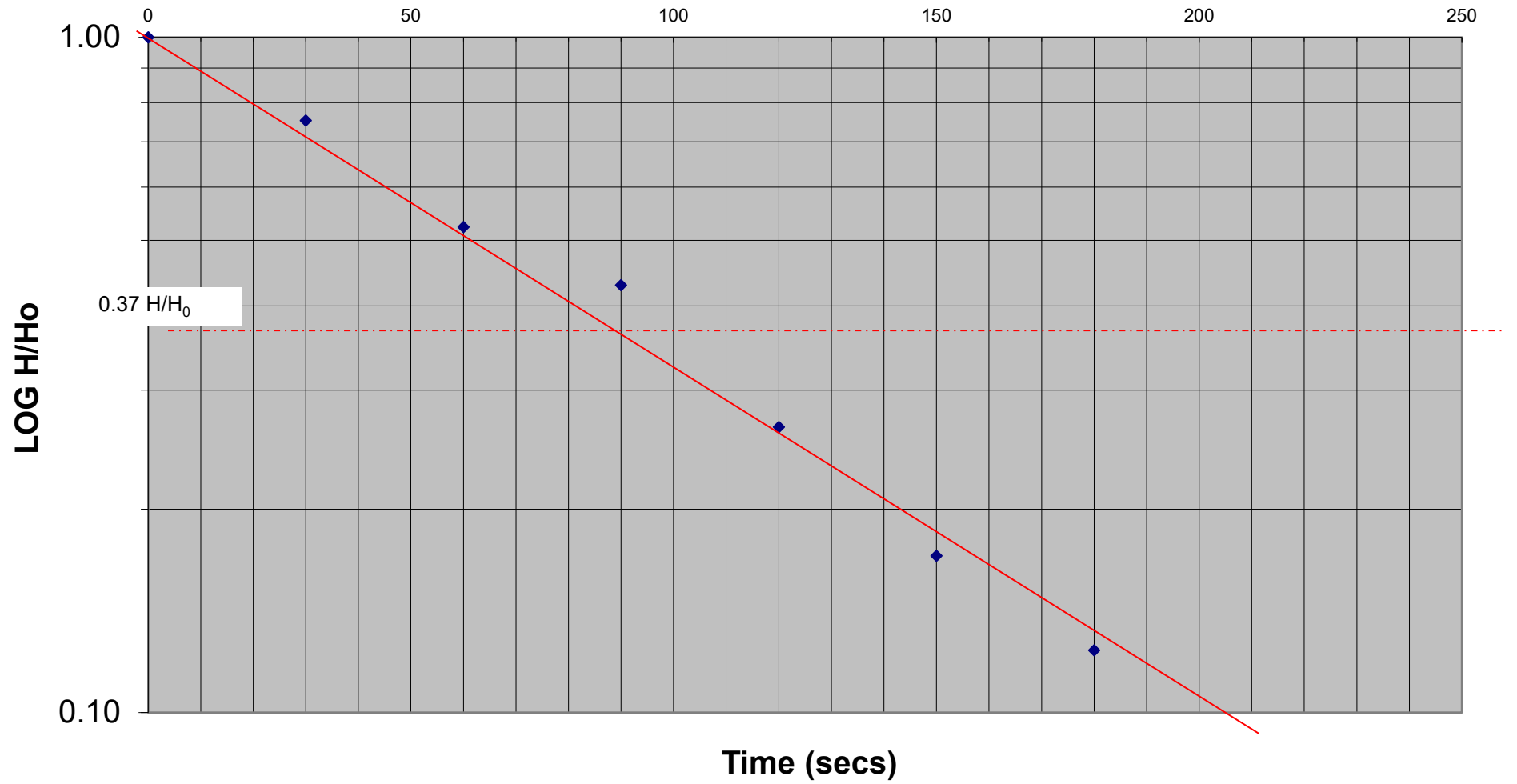
PERMEABILITY TEST DATA

PROJECT	Geraint House, Margam		JOB No.	12608
TYPE	FALLING			
DATE	17/02/2020	TIME		
BOREHOLE NUMBER	WS4	TEST No.	2	
Depth of borehole at start of test (mBGL) h_i	2.00 m		From top of casing	
Depth of borehole at end of test (mBGL) h_e	2.00 m		From top of casing	
Borehole diameter (m) D	0.101 m		OK	
Piezometer diameter (m) d				
Filter Backfill	No		Pea gravel	
Soil in casing (m) L	0.00 m			
L/D Ratio	19.8			
Hole in Soil below base of casing (m) L	2.00 m			
Depth of casing (mBGL) h_c	0.00 m		From top of casing	
Height of casing above ground level h_{uc}	0.00 m			
Ground water level (mBGL) H_0	1.70 m			
Water level at start of test below top of casing h_0	0.00 m			
	H_0 TEST	1.70 m		

Elapsed Time		Depth of water below top of casing	Head of Water	Ratio
t (mins)	t (s)	h (m)	H = ($H_0 - h$) (m)	H/H ₀
0	0	0.00	1.7	1.00
0.5	30	0.42	1.3	0.75
1	60	0.81	0.9	0.52
1.5	90	0.97	0.7	0.43
2	120	1.25	0.5	0.26
2.5	150	1.41	0.3	0.17
3	180	1.49	0.2	0.12
3.5	210	1.57	0.1	0.08
4	240	1.64	0.1	0.04
4.5	270	1.70	0.0	0.00
180	10800			

TEST SECTION	
Length	L = 2.00 m
Area	A = 0.6426 m ²
INTAKE FACTOR	
	Refer to BS 5930 Figure 7
Type	Special
F =	$\frac{D^2 \cdot 2.32 \cdot T}{L \cdot D}$
F =	3.89
TIME LAG	
	T = Time from start of test when $h = 0.37 h_0$
	See graph opposite
T =	90 s
PERMEABILITY	
	$K = A / (F \cdot T)$
K =	1.84E-03 m/s
COMMENTS	Windowless sample borehole refilled for test 3

Borehole WS4



PERMEABILITY TEST DATA

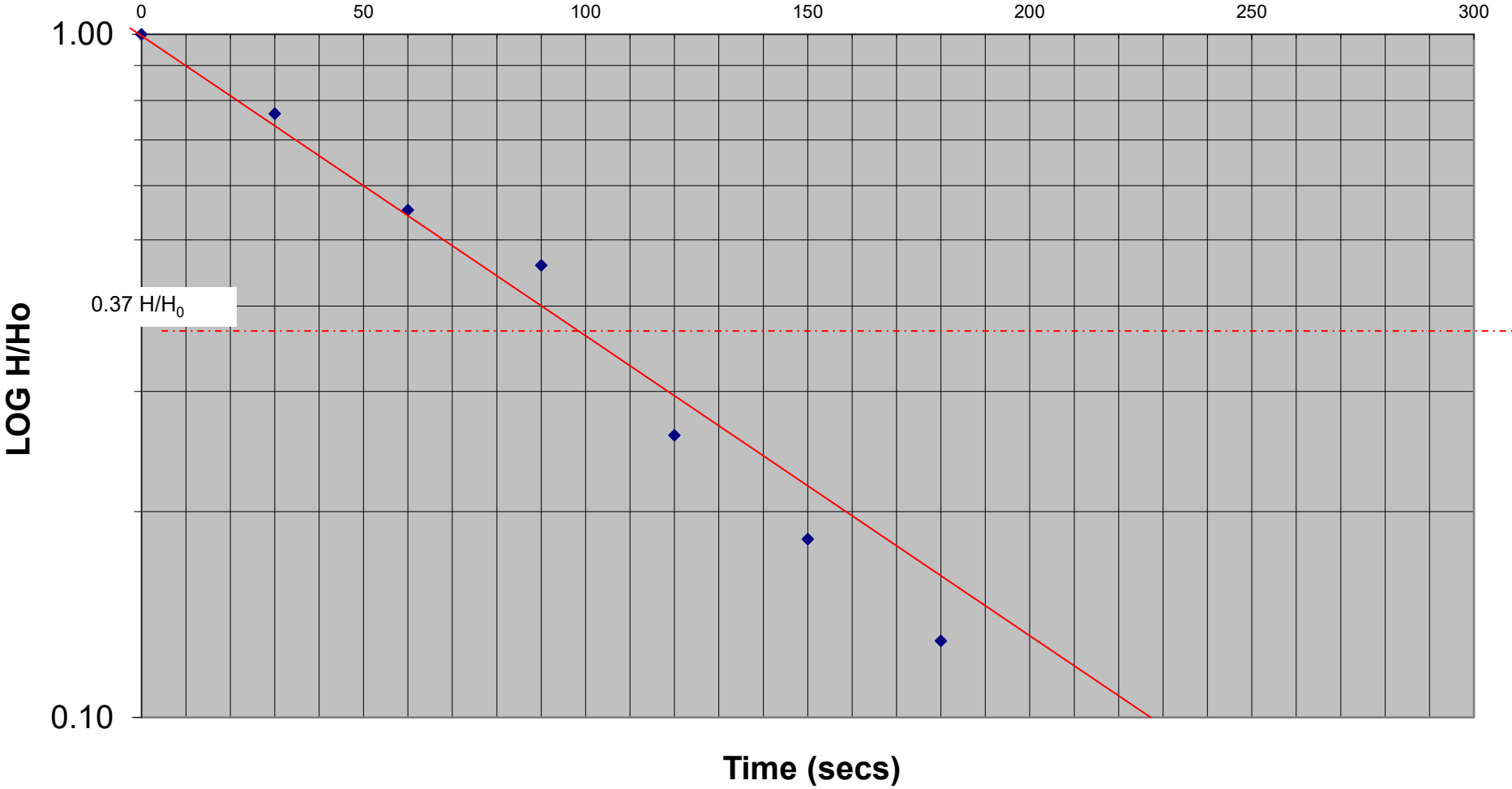
PROJECT	Geraint House, Margam		JOB No.	12608
TYPE	FALLING			
DATE	17/02/2020	TIME		
BOREHOLE NUMBER	WS4	TEST No.	3	
Depth of borehole at start of test (mBGL) h_i	2.00 m		From top of casing	
Depth of borehole at end of test (mBGL) h_e	2.00 m		From top of casing OK	
Borehole diameter (m) D	0.101 m			
Piezometer diameter (m) d				
Filter Backfill	No		Pea gravel	
Soil in casing (m) L		0.00 m		
L/D Ratio		19.8		
Hole in Soil below base of casing (m) L		2.00 m		
Depth of casing (mBGL) h_c	0.00 m		From top of casing	
Height of casing above ground level h_{uc}	0.00 m			
Ground water level (mBGL) H_0	1.70 m			
Water level at start of test below top of casing h_0	0.00 m			
		H_0 TEST	1.70 m	

Elapsed Time		Depth of water below top of casing	Head of Water	Ratio
t (mins)	t (s)	h (m)	H = ($H_0 - h$) (m)	H/ H_0
0	0	0.00	1.7	1.00
0.5	30	0.40	1.3	0.76
1	60	0.76	0.9	0.55
1.5	90	0.92	0.8	0.46
2	120	1.26	0.4	0.26
2.5	150	1.39	0.3	0.18
3	180	1.48	0.2	0.13
3.5	210	1.55	0.2	0.09
4	240	1.59	0.1	0.06
4.5	270	1.63	0.1	0.04
5	300	1.70	0.0	0.00

180	10800	
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TEST SECTION	
Length	L = 2.00 m
Area	A = 0.6426 m ²
INTAKE FACTOR	
	Refer to BS 5930 Figure 7
Type	Special
F =	$\frac{D^2 \cdot 2.32 \cdot T}{L \cdot D}$
F =	3.89
TIME LAG	
	T = Time from start of test when h = 0.37 h_0
	See graph opposite
T =	100 s
PERMEABILITY	
	$K = A / (F \cdot T)$
K =	1.65E-03 m/s
COMMENTS	

Borehole WS4



PERMEABILITY TEST DATA

PROJECT	Geraint House, Margam	JOB No.	12608
TYPE	FALLING		
DATE	17/02/2020	TIME	hrs
BOREHOLE NUMBER	WS5	TEST No.	1
Depth of borehole at start of test (mBGL) h_i	2.00		From top of casing
Depth of borehole at end of test (mBGL) h_e	2.00		From top of casing
Borehole diameter (m) D	0.101		OK
Piezometer diameter (m) d			
Filter Backfill	No		Pea gravel
Soil in casing (m) L		0.00	
L/D Ratio		19.8	
Hole in Soil below base of casing (m) L		2.00	
Depth of casing (mBGL) h_c	0.00		From top of casing
Height of casing above ground level h_{uc}	0.00		
Ground water level (mBGL) H_g	2.00		
Water level at start of test below top of casing h_o	0.19		
	$H_{g\text{ TEST}}$	2.00	

Elapsed Time		Depth of water below top of casing	Head of Water	Ratio
t (mins)	t (s)	h (m)	H = (H ₀ - h) (m)	H/H ₀
0	0	0.19	1.8	1.00
0.5	30	0.23	1.8	0.98
1	60	0.25	1.8	0.97
1.5	90	0.27	1.7	0.96
2	120	0.29	1.7	0.94
2.5	150	0.32	1.7	0.93
3	180	0.33	1.7	0.92
3.5	210	0.34	1.7	0.92
4	240	0.35	1.7	0.91
4.5	270	0.35	1.7	0.91
5	300	0.36	1.6	0.91
6	360	0.37	1.6	0.90
7	420	0.38	1.6	0.90
8	480	0.40	1.6	0.88
9	540	0.41	1.6	0.88
10	600	0.42	1.6	0.87
11	660	0.43	1.6	0.87
12	720	0.44	1.6	0.86
13	780	0.45	1.6	0.86
14	840	0.45	1.6	0.86
15	900	0.46	1.5	0.85
20	1200	0.47	1.5	0.85
25	1500	0.48	1.5	0.84
30	1800	0.48	1.5	0.84
35	2100	0.50	1.5	0.83
40	2400	0.52	1.5	0.82
45	2700	0.53	1.5	0.81
50	3000	0.54	1.5	0.81
60	3600	0.55	1.5	0.80
120	7200	0.59	1.4	0.78
180	10800	0.62	1.4	0.76

TEST SECTION	
Length	L = 1.81 m
Area	A = 0.5823 m ²

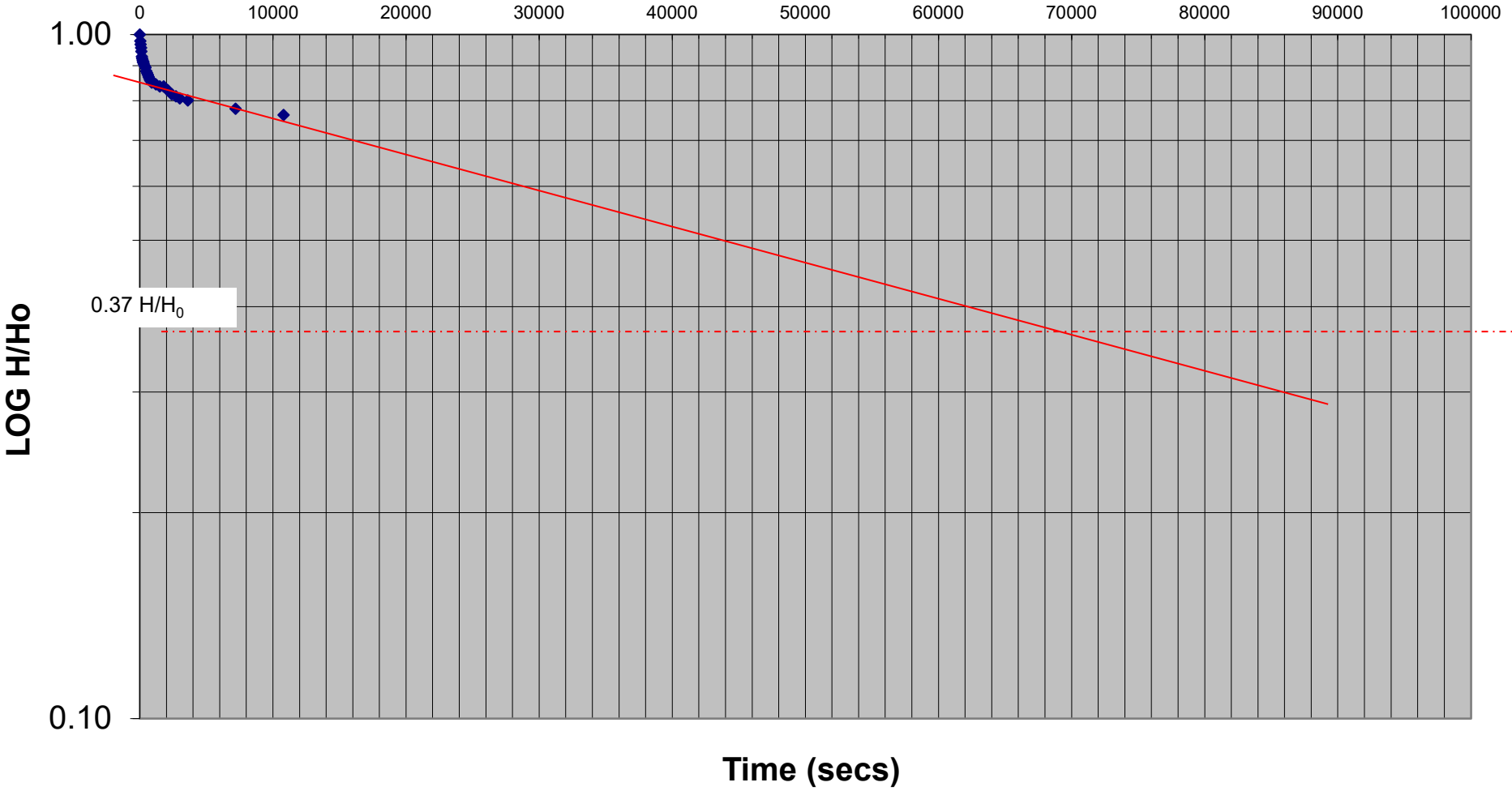
INTAKE FACTOR	Refer to BS 5930 Figure 7
Type	Special
F =	$D \cdot 2.32 \cdot IT \cdot (L/D)$
F =	3.89

TIME LAG	T = Time from start of test when $h = 0.37 h_o$
	See graph opposite
T =	70000 s

PERMEABILITY	
K = A / (F * T)	
K =	2.14E-06 m/s

COMMENTS	No repeat test undertaken
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Borehole WS5



APPENDIX F

LABORATORY CHEMICAL TEST RESULTS



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Analytical Report Number : 20-87271

Project / Site name:	Geraint House, Margam	Samples received on:	17/02/2020
Your job number:	12608	Samples instructed on:	17/02/2020
Your order number:		Analysis completed by:	25/02/2020
Report Issue Number:	1	Report issued on:	25/02/2020
Samples Analysed:	4 soil samples		

Signed:

Zina Abdul Razzak
Senior Quality Specialist

For & on behalf of i2 Analytical Ltd.

Standard Geotechnical, Asbestos and Chemical Testing Laboratory located at: ul. Pionierów 39, 41 -711 Ruda Śląska, Poland.

Accredited tests are defined within the report, opinions and interpretations expressed herein are outside the scope of accreditation.

Standard sample disposal times, unless otherwise agreed with the laboratory, are :

soils	- 4 weeks from reporting
leachates	- 2 weeks from reporting
waters	- 2 weeks from reporting
asbestos	- 6 months from reporting

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Any assessments of compliance with specifications are based on actual analytical results with no contribution from uncertainty of measurement. Application of uncertainty of measurement would provide a range within which the true result lies. An estimate of measurement uncertainty can be provided on request.

Analytical Report Number: 20-87271

Project / Site name: Geraint House, Margam

Lab Sample Number				1444111	1444112	1444113	1444114	
Sample Reference				WS2	WS3	WS4	WS5	
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	
Depth (m)				1.00	0.80	0.60	0.50	
Date Sampled				13/02/2020	13/02/2020	13/02/2020	13/02/2020	
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
Stone Content	%	0.1	NONE	< 0.1	< 0.1	< 0.1	< 0.1	
Moisture Content	%	N/A	NONE	11	12	13	15	
Total mass of sample received	kg	0.001	NONE	0.40	0.48	0.41	0.45	

Asbestos in Soil	Type	N/A	ISO 17025	Not-detected	Not-detected	Not-detected	Not-detected	
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General Inorganics

pH - Automated	pH Units	N/A	MCERTS	9.9	8.2	7.8	7.7	
Total Cyanide	mg/kg	1	MCERTS	< 1	< 1	< 1	< 1	
Total Sulphate as SO ₄	mg/kg	50	MCERTS	2300	770	2000	760	
Water Soluble SO ₄ 16hr extraction (2:1 Leachate Equivalent)	g/l	0.00125	MCERTS	0.16	0.087	0.77	0.44	
Sulphide	mg/kg	1	MCERTS	76	< 1.0	120	22	
Total Sulphur	mg/kg	50	MCERTS	1300	260	3500	1000	
Total Organic Carbon (TOC)	%	0.1	MCERTS	2.2	1.0	2.9	2.3	
Loss on Ignition @ 450°C	%	0.2	MCERTS	5.5	3.0	6.1	5.5	

Total Phenols

Total Phenols (monohydric)	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	
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Analytical Report Number: 20-87271

Project / Site name: Geraint House, Margam

Lab Sample Number				1444111	1444112	1444113	1444114	
Sample Reference				WS2	WS3	WS4	WS5	
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	
Depth (m)				1.00	0.80	0.60	0.50	
Date Sampled				13/02/2020	13/02/2020	13/02/2020	13/02/2020	
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	
Analytical Parameter (Soil Analysis)				Units	Limit of detection	Accreditation Status		
Speciated PAHs								
Naphthalene	mg/kg	0.05	MCERTS	0.91	< 0.05	1.3	0.57	
Acenaphthylene	mg/kg	0.05	MCERTS	0.15	0.25	0.40	0.20	
Acenaphthene	mg/kg	0.05	MCERTS	1.3	0.64	3.5	2.4	
Fluorene	mg/kg	0.05	MCERTS	1.7	0.81	4.2	2.6	
Phenanthrene	mg/kg	0.05	MCERTS	21	4.9	21	13	
Anthracene	mg/kg	0.05	MCERTS	3.9	0.74	4.9	2.1	
Fluoranthene	mg/kg	0.05	MCERTS	25	5.6	29	17	
Pyrene	mg/kg	0.05	MCERTS	19	4.0	23	12	
Benzo(a)anthracene	mg/kg	0.05	MCERTS	15	2.8	21	11	
Chrysene	mg/kg	0.05	MCERTS	12	2.7	16	8.0	
Benzo(b)fluoranthene	mg/kg	0.05	MCERTS	14	3.4	25	11	
Benzo(k)fluoranthene	mg/kg	0.05	MCERTS	5.9	1.2	6.1	4.6	
Benzo(a)pyrene	mg/kg	0.05	MCERTS	9.2	1.9	13	6.7	
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	4.4	1.2	7.0	3.8	
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	1.6	0.34	2.8	1.4	
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	4.8	1.4	7.4	3.9	
Total PAH								
Speciated Total EPA-16 PAHs	mg/kg	0.8	MCERTS	140	31.9	186	99.7	

Analytical Report Number: 20-87271

Project / Site name: Geraint House, Margam

Lab Sample Number				1444111	1444112	1444113	1444114	
Sample Reference				WS2	WS3	WS4	WS5	
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	
Depth (m)				1.00	0.80	0.60	0.50	
Date Sampled				13/02/2020	13/02/2020	13/02/2020	13/02/2020	
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	
Analytical Parameter (Soil Analysis)				Units	Limit of detection	Accreditation Status		
Heavy Metals / Metalloids								
Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	15	16	19	17	
Beryllium (aqua regia extractable)	mg/kg	0.06	MCERTS	1.3	0.72	0.72	0.71	
Boron (water soluble)	mg/kg	0.2	MCERTS	0.5	0.8	2.6	2.8	
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	1.1	< 0.2	1.1	0.8	
Chromium (hexavalent)	mg/kg	4	MCERTS	< 4.0	< 4.0	< 4.0	< 4.0	
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	99	40	37	42	
Copper (aqua regia extractable)	mg/kg	1	MCERTS	93	41	310	140	
Lead (aqua regia extractable)	mg/kg	1	MCERTS	130	40	120	93	
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	< 0.3	< 0.3	< 0.3	< 0.3	
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	24	27	24	22	
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	
Vanadium (aqua regia extractable)	mg/kg	1	MCERTS	110	56	39	40	
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	390	150	510	210	



Analytical Report Number : 20-87271

Project / Site name: Geraint House, Margam

* These descriptions are only intended to act as a cross check if sample identities are questioned. The major constituent of the sample is intended to act with respect to MCERTS validation. The laboratory is accredited for sand, clay and loam (MCERTS) soil types. Data for unaccredited types of solid should be interpreted with care.

Stone content of a sample is calculated as the % weight of the stones not passing a 10 mm sieve. Results are not corrected for stone content.

Lab Sample Number	Sample Reference	Sample Number	Depth (m)	Sample Description *
1444111	WS2	None Supplied	1.00	Brown sand with gravel.
1444112	WS3	None Supplied	0.80	Brown clay and sand with gravel.
1444113	WS4	None Supplied	0.60	Brown loam with gravel and vegetation.
1444114	WS5	None Supplied	0.50	Brown clay and loam with gravel.

Analytical Report Number : 20-87271

Project / Site name: Geraint House, Margam

Water matrix abbreviations: Surface Water (SW) Potable Water (PW) Ground Water (GW) Process Water (PrW)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
Asbestos identification in soil	Asbestos Identification with the use of polarised light microscopy in conjunction with disperion staining techniques.	In house method based on HSG 248	A001-PL	D	ISO 17025
Boron, water soluble, in soil	Determination of water soluble boron in soil by hot water extract followed by ICP-OES.	In-house method based on Second Site Properties version 3	L038-PL	D	MCERTS
Hexavalent chromium in soil	Determination of hexavalent chromium in soil by extraction in water then by acidification, addition of 1,5 diphenylcarbazide followed by colorimetry.	In-house method	L080-PL	W	MCERTS
Loss on ignition of soil @ 450oC	Determination of loss on ignition in soil by gravimetrically with the sample being ignited in a muffle furnace.	In house method.	L047-PL	D	MCERTS
Metals in soil by ICP-OES	Determination of metals in soil by aqua-regia digestion followed by ICP-OES.	In-house method based on MEWAM 2006 Methods for the Determination of Metals in Soil.	L038-PL	D	MCERTS
Moisture Content	Moisture content, determined gravimetrically. (30 oC)	In house method.	L019-UK/PL	W	NONE
Monohydric phenols in soil	Determination of phenols in soil by extraction with sodium hydroxide followed by distillation followed by colorimetry.	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton (skalar)	L080-PL	W	MCERTS
pH in soil (automated)	Determination of pH in soil by addition of water followed by automated electrometric measurement.	In house method.	L099-PL	D	MCERTS
Speciated EPA-16 PAHs in soil	Determination of PAH compounds in soil by extraction in dichloromethane and hexane followed by GC-MS with the use of surrogate and internal standards.	In-house method based on USEPA 8270	L064-PL	D	MCERTS
Stones content of soil	Standard preparation for all samples unless otherwise detailed. Gravimetric determination of stone > 10 mm as % dry weight.	In-house method based on British Standard Methods and MCERTS requirements.	L019-UK/PL	D	NONE
Sulphate, water soluble, in soil (16hr extraction)	Determination of water soluble sulphate by ICP-OES. Results reported directly (leachate equivalent) and corrected for extraction ratio (soil equivalent).	In house method.	L038-PL	D	MCERTS
Sulphide in soil	Determination of sulphide in soil by acidification and heating to liberate hydrogen sulphide, trapped in an alkaline solution then assayed by ion selective electrode.	In-house method	L010-PL	D	MCERTS
Total cyanide in soil	Determination of total cyanide by distillation followed by colorimetry.	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton (Skalar)	L080-PL	W	MCERTS
Total organic carbon (Automated) in soil	Determination of organic matter in soil by oxidising with potassium dichromate followed by titration with iron (II) sulphate.	In house method.	L009-PL	D	MCERTS
Total sulphate (as SO4 in soil)	Determination of total sulphate in soil by extraction with 10% HCl followed by ICP-OES.	In house method.	L038-PL	D	MCERTS
Total Sulphur in soil	Determination of total sulphur in soil by extraction with aqua-regia, potassium bromide/bromate followed by ICP-OES.	In house method.	L038-PL	D	MCERTS

For method numbers ending in 'UK' analysis have been carried out in our laboratory in the United Kingdom.

For method numbers ending in 'PL' analysis have been carried out in our laboratory in Poland.

Soil analytical results are expressed on a dry weight basis. Where analysis is carried out on as-received the results obtained are multiplied by a moisture correction factor that is determined gravimetrically using the moisture content which is carried out at a maximum of 30oC.



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Analytical Report Number : 20-87489

Project / Site name:	Geraint House, Margam	Samples received on:	17/02/2020
Your job number:	12608	Samples instructed on:	17/02/2020
Your order number:		Analysis completed by:	26/02/2020
Report Issue Number:	1	Report issued on:	26/02/2020
Samples Analysed:	1 soil sample		


Signed:

Rachel Bradley

Deputy Quality Manager
For & on behalf of i2 Analytical Ltd.

Standard Geotechnical, Asbestos and Chemical Testing Laboratory located at: ul. Pionierów 39, 41 -711 Ruda Śląska, Poland.

Accredited tests are defined within the report, opinions and interpretations expressed herein are outside the scope of accreditation.

Standard sample disposal times, unless otherwise agreed with the laboratory, are :

soils	- 4 weeks from reporting
leachates	- 2 weeks from reporting
waters	- 2 weeks from reporting
asbestos	- 6 months from reporting

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Any assessments of compliance with specifications are based on actual analytical results with no contribution from uncertainty of measurement. Application of uncertainty of measurement would provide a range within which the true result lies. An estimate of measurement uncertainty can be provided on request.

Analytical Report Number: 20-87489

Project / Site name: Geraint House, Margam

Lab Sample Number				1445524				
Sample Reference				WS5				
Sample Number				None Supplied				
Depth (m)				1.50				
Date Sampled				13/02/2020				
Time Taken				None Supplied				
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
Stone Content	%	0.1	NONE	< 0.1				
Moisture Content	%	N/A	NONE	20				
Total mass of sample received	kg	0.001	NONE	0.68				

General Inorganics

pH - Automated	pH Units	N/A	MCERTS	7.7				
Water Soluble SO ₄ 16hr extraction (2:1 Leachate Equivalent)	g/l	0.00125	MCERTS	0.063				



Analytical Report Number : 20-87489

Project / Site name: Geraint House, Margam

* These descriptions are only intended to act as a cross check if sample identities are questioned. The major constituent of the sample is intended to act with respect to MCERTS validation. The laboratory is accredited for sand, clay and loam (MCERTS) soil types. Data for unaccredited types of solid should be interpreted with care.

Stone content of a sample is calculated as the % weight of the stones not passing a 10 mm sieve. Results are not corrected for stone content.

Lab Sample Number	Sample Reference	Sample Number	Depth (m)	Sample Description *
1445524	W55	None Supplied	1.50	Brown clay and loam with gravel.

Analytical Report Number : 20-87489

Project / Site name: Geraint House, Margam

Water matrix abbreviations: Surface Water (SW) Potable Water (PW) Ground Water (GW) Process Water (PrW)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
Moisture Content	Moisture content, determined gravimetrically. (30 oC)	In house method.	L019-UK/PL	W	NONE
pH in soil (automated)	Determination of pH in soil by addition of water followed by automated electrometric measurement.	In house method.	L099-PL	D	MCERTS
Stones content of soil	Standard preparation for all samples unless otherwise detailed. Gravimetric determination of stone > 10 mm as % dry weight.	In-house method based on British Standard Methods and MCERTS requirements.	L019-UK/PL	D	NONE
Sulphate, water soluble, in soil (16hr extraction)	Determination of water soluble sulphate by ICP-OES. Results reported directly (leachate equivalent) and corrected for extraction ratio (soil equivalent).	In house method.	L038-PL	D	MCERTS

For method numbers ending in 'UK' analysis have been carried out in our laboratory in the United Kingdom.

For method numbers ending in 'PL' analysis have been carried out in our laboratory in Poland.

Soil analytical results are expressed on a dry weight basis. Where analysis is carried out on as-received the results obtained are multiplied by a moisture correction factor that is determined gravimetrically using the moisture content which is carried out at a maximum of 30oC.

APPENDIX G

LABORATORY GEOTECHNICAL TEST RESULTS



TEST CERTIFICATE

Liquid and Plastic Limits

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB



Environmental Science

4041

Tested in Accordance with: BS 1377-2: 1990: Clause 4.3 and 5

Client: Integral Geotechnique
Client Address: Integral House, 7 Beddau Way,
Castlegate Business Park, CF83 2AX

Client Reference: 12608
Job Number: 20-87487
Date Sampled: 13/02/2020
Date Received: 17/02/2020
Date Tested: 25/02/2020
Sampled By: LP

Contact: Laura Pullin
Site Address: Geraint House, Margam

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

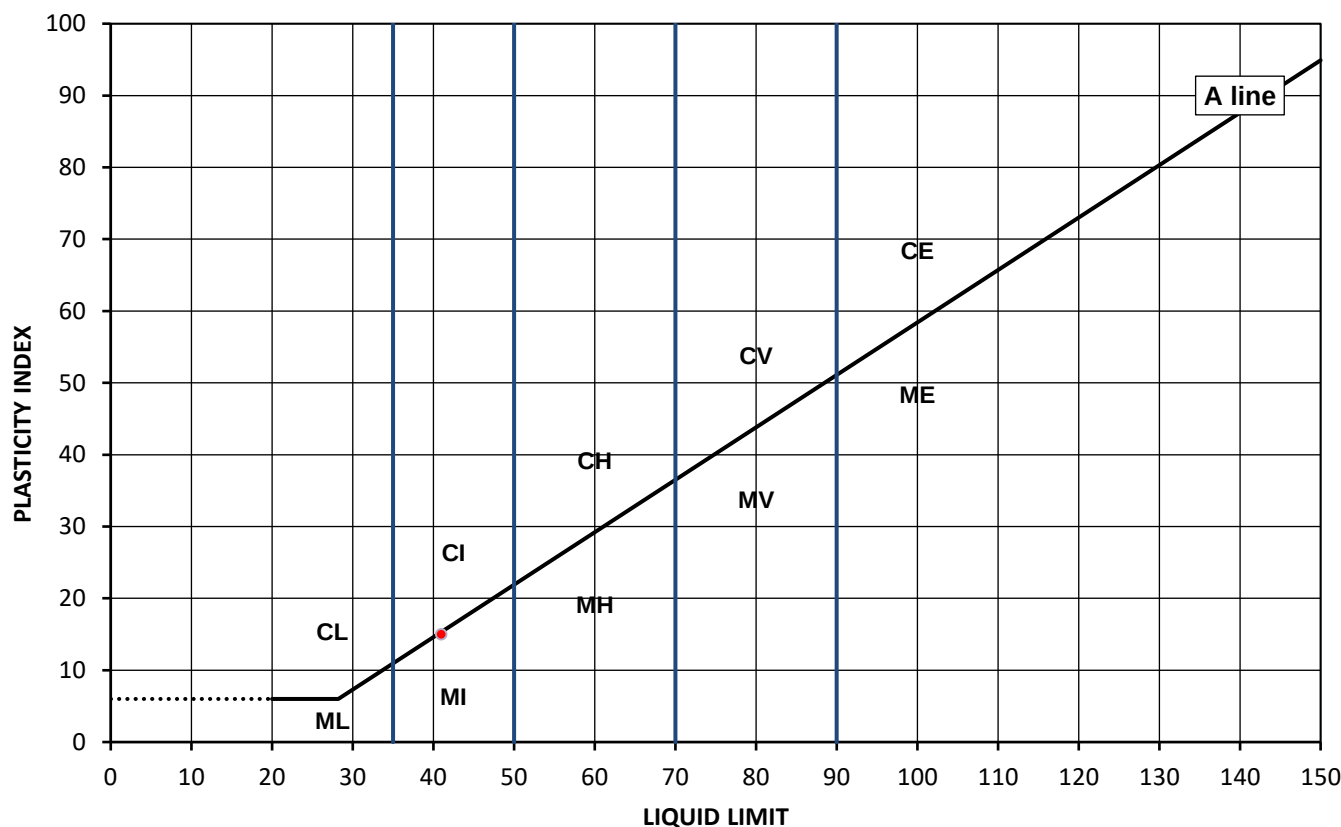
Test Results:

Laboratory Reference: 1445522
Hole No.: WS5
Sample Reference: Not Given
Soil Description: Greyish brown slightly gravelly sandy CLAY

Depth Top [m]: 1.50
Depth Base [m]: Not Given
Sample Type: D

Sample Preparation: Tested after >425um removed by hand

As Received Moisture Content [%]	Liquid Limit [%]	Plastic Limit [%]	Plasticity Index [%]	% Passing 425µm BS Test Sieve
27	41	26	15	84



Legend, based on BS 5930:2015 Code of practice for site investigations

C	Clay	Plasticity	Liquid Limit
M	Silt	L	Low
		I	Medium
		H	High
		V	Very high
		E	Extremely high
			below 35
			35 to 50
			50 to 70
			70 to 90
			exceeding 90
	Organic	O	append to classification for organic material (eg CHO)

Note: Moisture Content by BS 1377-2: 1990: Clause 3.2

Remarks:

Signed:

Dariusz Piotrowski
PL Geotechnical Laboratory Manager
for and on behalf of i2 Analytical Ltd

Opinions and interpretations expressed herein are outside of the scope of the UKAS Accreditation. This report may not be reproduced other than in full without the prior written approval of the issuing laboratory. The results included within the report are representative of the samples submitted for analysis.

APPENDIX H

SUMMARY OF LABORATORY CHEMICAL TEST RESULTS

SUMMARY OF LABORATORY SOIL TEST RESULTS

METALS AND SEMI-METALS

Job No.: 12608
 Site: Geraint House, Margam
 Soil Type: Made Ground
 Soil Organic Matter: 1%

No.	Location	Depth (m)	Arsenic (mg/kg)	Boron (mg/kg)	Beryllium (mg/kg)	Cadmium (mg/kg)	Chromium (mg/kg)	Chromium (VI) (mg/kg)	Copper (mg/kg)	Lead (mg/kg)	Mercury (Elemental) (mg/kg)	Nickel (mg/kg)	Selenium (mg/kg)	Vanadium (mg/kg)	Zinc (mg/kg)
1	WS2	1.00	15	0.5	1.3	1.1	99	< 4.0	93	130	< 0.3	24	< 1.0	110	390
2	WS3	0.80	16	0.8	0.72	< 0.2	40	< 4.0	41	40	< 0.3	27	< 1.0	56	150
3	WS4	0.60	19	2.6	0.72	1.1	37	< 4.0	310	120	< 0.3	24	< 1.0	39	510
4	WS5	0.50	17	2.8	0.71	0.8	42	< 4.0	140	93	< 0.3	22	< 1.0	40	210
Screening Criteria Value			37.0	290.0	1.7	11.0	-	6.0	2400.0	200.0	1.2	180.0	250.0	410.0	3700.0
Source of Screening Criteria Value			S4UL	S4UL	S4UL	S4UL	-	S4UL	S4UL	C4SL	S4UL	S4UL	S4UL	S4UL	S4UL

SUMMARY OF LABORATORY SOIL TEST RESULTS

INORGANIC CHEMICALS & OTHERS

Job No.: 12608
Site: Geraint House, Margam
Soil Type: Made Ground
Soil Organic Matter: 1%

No.	Location	Depth (m)	Cyanide (mg/kg)	Loss on ignition, dried solids (%)	Moisture content at 30 C (%)	Phenol (mg/kg)	pH (pH units)	Water Soluble Sulphate (g/l)	Sulphate Total as SO4 (mg/kg)	Sulphide (mg/kg)	Total Sulphur (mg/kg)	TOC by Ignition in O2 (%)	Equivalent SOM (%)	Asbestos in Soil	Asbestos Quantification (%)
1	WS2	1.00	< 1	5.5	11	< 1.0	9.9	0.16	2300	76	1300	2.2	3.78	Not-detected	#N/A
2	WS3	0.80	< 1	3.0	12	< 1.0	8.2	0.087	770	< 1.0	260	1.0	1.72	Not-detected	#N/A
3	WS4	0.60	< 1	6.1	13	< 1.0	7.8	0.77	2000	120	3500	2.9	4.99	Not-detected	#N/A
4	WS5	0.50	< 1	5.5	15	< 1.0	7.7	0.44	760	22	1000	2.3	3.96	Not-detected	#N/A
Screening Criteria Value			34.0	-	-	280.0	-	-	-	-	-	-	-	-	0.001
Source of Screening Criteria Value			ATRISK	-	-	S4UL	-	-	-	-	-	-	-	-	IOM

SUMMARY OF LABORATORY SOIL TEST RESULTS

POLYAROMATIC HYDROCARBONS (PAH)

Job No.: 12608
 Site: Geraint House, Margam
 Soil Type: Made Ground
 Soil Organic Matter: 1%

No.	Location	Depth (m)	Acenaphthene (mg/kg)	Acenaphthylene (mg/kg)	Anthracene (mg/kg)	Benzo(a)anthracene (mg/kg)	Benzo(a)pyrene (mg/kg)	Benzo(b)fluoranthene (mg/kg)	Benzo(ghi)perylene (mg/kg)	Benzo(k)fluoranthene (mg/kg)	Chrysene (mg/kg)	Dibenzo(ah)anthracene (mg/kg)	Fluoranthene (mg/kg)	Fluorene (mg/kg)	Indeno(123cd)pyrene (mg/kg)	Naphthalene (mg/kg)	Phenanthrene (mg/kg)	Pyrene (mg/kg)
1	WS2	1.00	1.3	0.15	3.9	15	9.2	14	4.8	5.9	12	1.6	25	1.7	4.4	0.91	21	19
2	WS3	0.80	0.64	0.25	0.74	2.8	1.9	3.4	1.4	1.2	2.7	0.34	5.6	0.81	1.2	< 0.05	4.9	4.0
3	WS4	0.60	3.5	0.40	4.9	21	13	25	7.4	6.1	16	2.8	29	4.2	7.0	1.3	21	23
4	WS5	0.50	2.4	0.20	2.1	11	6.7	11	3.9	4.6	8.0	1.4	17	2.6	3.8	0.57	13	12
Screening Criteria Value			210.0	170.0	2400.0	7.2	2.2	2.6	320.0	77.0	15.0	0.2	280.0	170.0	27.0	2.3	95.0	620.0
Source of Screening Criteria Value			S4UL	S4UL	S4UL	S4UL	S4UL	S4UL	S4UL	S4UL	S4UL	S4UL	S4UL	S4UL	S4UL	S4UL	S4UL	S4UL

FIGURES



NORTH

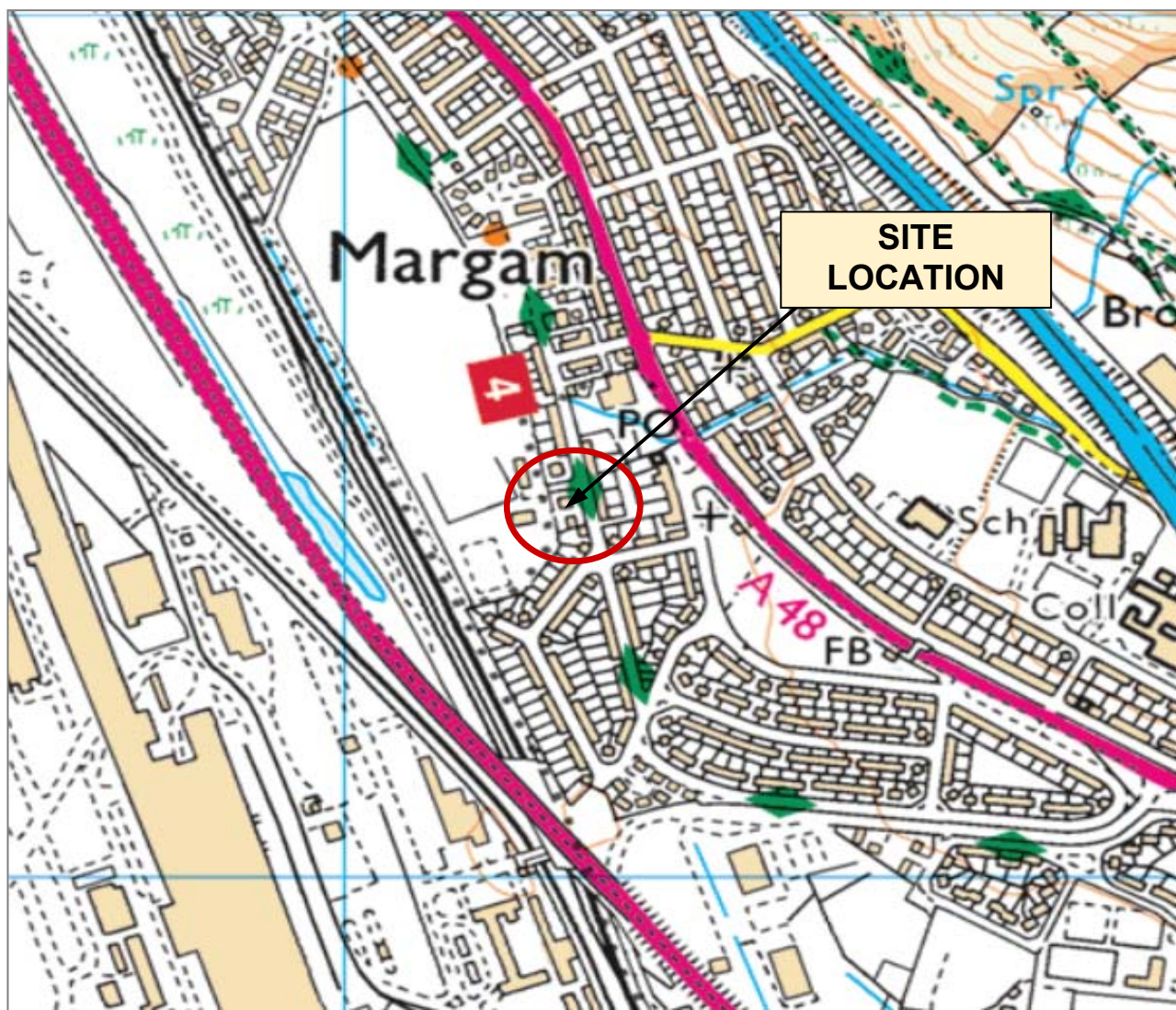
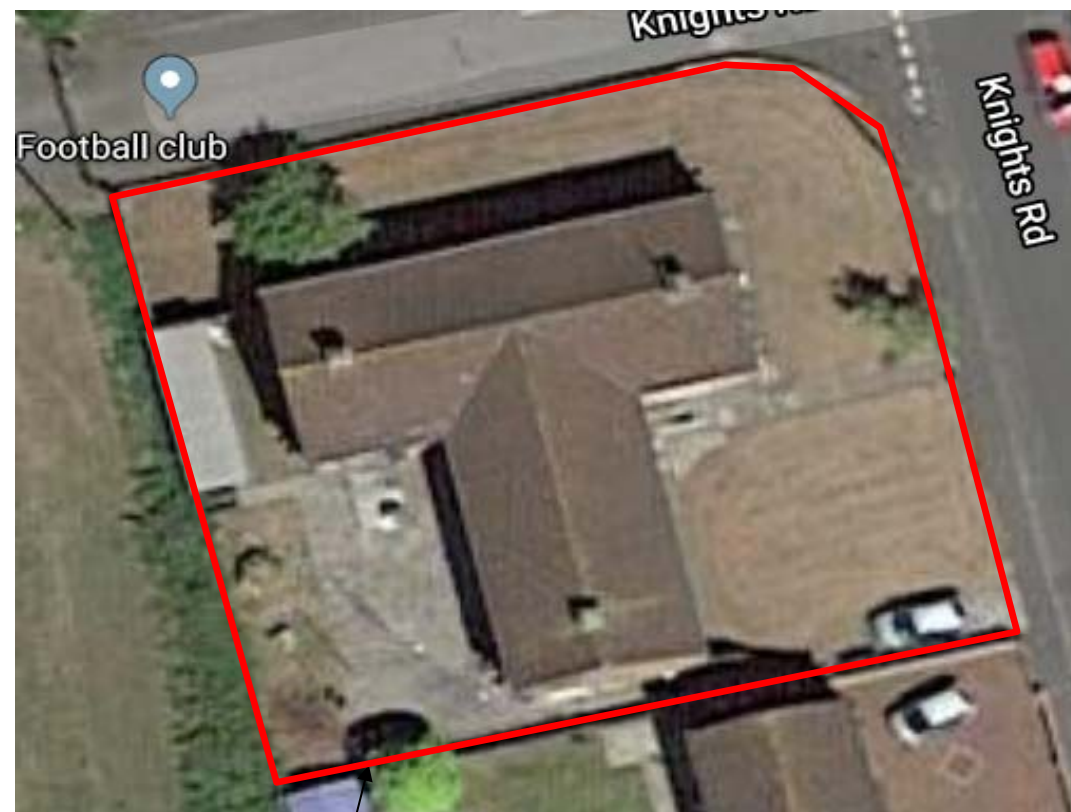


FIGURE 1 - SITE LOCATION

Geraint House, Margam

Intégral
Géotechnique

Intégral House
7 Beddau Way
Castlegate Business Park
Caerphilly
CF83 2AX
Tel: 029 2080 7991
Fax: 029 2086 2176



SITE BOUNDARY

LEGEND

- WS 5** **Location of Windowless Sampling Boreholes and Dynamic Probes**
- WS4 (P)** **Falling Head Permeability Test**

NOT TO SCALE

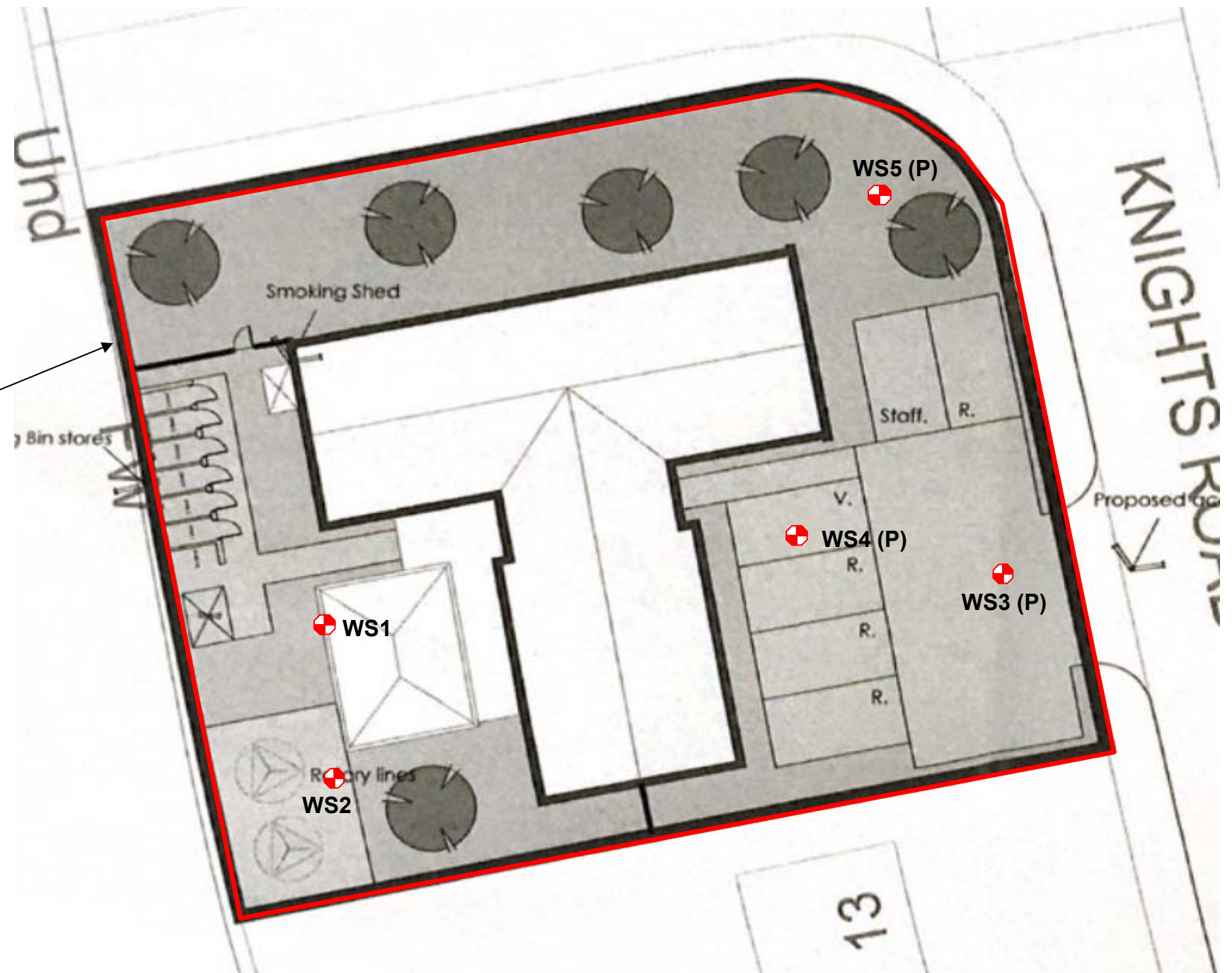


FIGURE 2 - SITE PLAN

14/02/2020

Geraint House, Margam

Intégral
Géotechnique

Intégral House
7 Beddau Way
Castlegate Business Park
Caerphilly
CF83 2AX
Tel: 029 2080 7991
Fax: 029 2086 2176

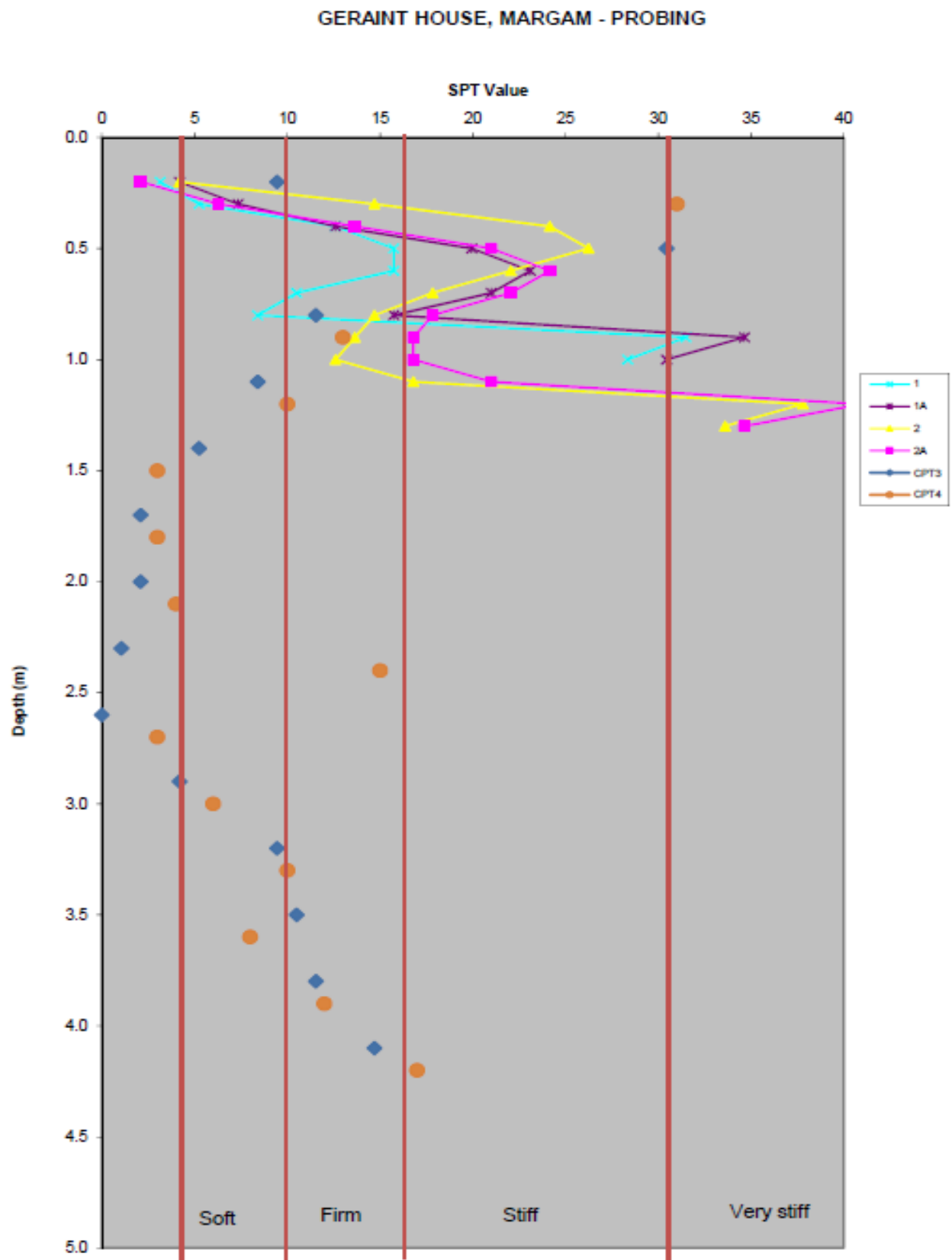


FIGURE 3 - DYNAMIC PROBING DATA

Geraint House, Margam

Intégral
Géotechnique

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Fax: 029 2086 2176