



Geotechnical and Geoenvironmental Report

Site: Land off Tabernacle Terrace, Cwmafan

Prepared For: Edwards Properties South Wales

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Proposed Residential Development, Land off
Tabernacle Terrace, Cwmafan, Port Talbot**

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	Name	Signature
Prepared	James Rhys-Williams BSc FGS SGPV	
Checked	Mathew Lake MEng FGS Tech IOSH	
Approved	Gwyn Lake BSc (Hons). PhD, CGeol, FGS	



Executive Summary

Site Location and Proposed Development	Edwards Properties South Wales is proposing the development of five detached split level properties with associated car parking and hard landscaped garden areas. The site is located to the east of Tabernacle Terrace, Cwmafan, Port Talbot.
Site History	The earliest edition shows the site to be occupied by a terrace of structures which were subsequently removed in the 1960s. A number of minor structures are added to the site and steps are seen to be present in the southern half of the site, post 1960. However, the site stands undeveloped at the present day.
Geology	Shallow soils consist of made ground over superficial deposits of Alluvium and Glacial Till. Bedrock geology consists of the mudstones and sandstones of South Wales Lower Coal Measures.
Radon	Radon protection is not required for the proposed buildings.
Coal Mining Risk Assessment	It is therefore concluded that there is a negligible risk to the proposed development from past unrecorded underground mining.
Ground Conditions	Ground conditions typically comprise variable made ground to a depth of between 0.90-1.50m over natural clays, sands and gravel of variable strength or consistency. Bedrock was encountered at 7.50-9.50m depth and recorded as measures with coal seams up to 1m thick.
Contamination of Concern	Shallow made ground soils were found to contain minor contaminants exceedances of arsenic, lead, non volatile PAH, EPH >C16-C21 Arom, 1,1-Dichloroethane and 2-Methyl-4,6-Dinitrophenol. A remedial solution will be required.
Ground & Mine Gas Risk Assessment	The site should be classified as CS1, requiring no special gas protection measures to be installed within the structures. In light of the collated evidence, no risk from mine gas has been established.
Foundation Solution	Due to the variability of the deposits encountered on the site, it is recommended that engineering of the fill/natural material will be required in order to allow construction of a raft foundation. It is proposed that the variable soils are excavated and sieved on site to remove the fine fraction. Following removal of the fines, the granular remains should be compacted in layers in accordance with series 600. The acceptability of the compaction should be confirmed by in situ plate load tests. Following success engineering of the variable deposits, a raft may be used for the development.

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Drawing 01 Exploratory Hole Location Plan
Drawing 02 Proposed Site Layout

SECTION 1 Introduction and Proposed Development

1.1 Introduction

Edwards Properties South Wales (The Client) is proposing the development of five detached split-level properties on land off Tabernacle Terrace, Cwmafan, Port Talbot. The initial proposal was for four properties with a fifth (plot 1A) subsequently added.

TFW Group Limited have been commissioned by the Client to undertake a geoenvironmental assessment and geotechnical investigation of the site.

The main objectives of the geoenvironmental assessment programme are:

- Investigate the potential human health and environmental liabilities at the site associated with any contamination.
- Provide a summary of the human health and environmental conditions at the site, together with any necessary further intrusive works and / or remediation works to render the site fit for its intended use.

The main objectives of the geotechnical site investigation are:

- Investigated the type, strength and bearing characteristics of the shallow superficial and underlying solid geology.
- Investigate the risk, if any, from historical shallow underground mining features.
- Provide engineering foundation and floor slab recommendations for the proposed development.
- Provide infiltration rates and stormwater drainage viability.
- Provide recommendations regarding any other geotechnical aspects pertaining to the development.

In order to achieve the above objectives, TFW Group Limited carried out an assessment programme including a review of existing data, followed by a field investigation to collect geotechnical and geoenvironmental data from selected locations.

1.2 Limitations and Exceptions of Investigation

The Client has requested that a Geoenvironmental Site Assessment (GSA) and Geotechnical Investigation (GI) be performed to enable the outlined main objectives.

The GSA and GI were conducted, and this report has been prepared for the sole internal reliance of the Client and their design and construction team. This report shall not be relied upon or transferred to any other parties without the express written authorisation of TFW Group Limited. If an unauthorised third party comes into possession of this report, they rely on it at their peril and the authors owe them no duty of care and skill. The report represents the findings and opinions of experienced geoenvironmental and geotechnical consultants. TFW Group Limited does not provide legal advice and the advice of lawyers may be required.

The subsurface geological profiles, any contamination and other plots are generalised by necessity and have been based on the information found at the locations of the exploratory holes and depths sampled and tested.

1.3 Quality Assurance

The quality and environmental aspects of the assessment comply with TFW Group Ltd business management system which is UKAS Accredited to ISO 9001:2015 and ISO 14001:2015 standards.

SECTION 2 Review of Existing Data

2.1 Physical Setting and Current Site Use

The development site is triangular in shape and centres on an approximate National Grid Reference of 277890 192180, occupying a plan area of approximately 0.17 Hectares.

The site is confined within a parcel of land bound to the northwest by Tabernacle Terrace, residential housing to the southeast and mature woodland to the northeast adjacent to the playing field.

The site is currently occupied by a building site as construction has already commenced for the initial four houses.

The site level is between 40-45m AOD and descending steeply towards the southeast.

The site location can be seen on **Figure 2.1** along with the proposed site layout on **Drawing 01**.

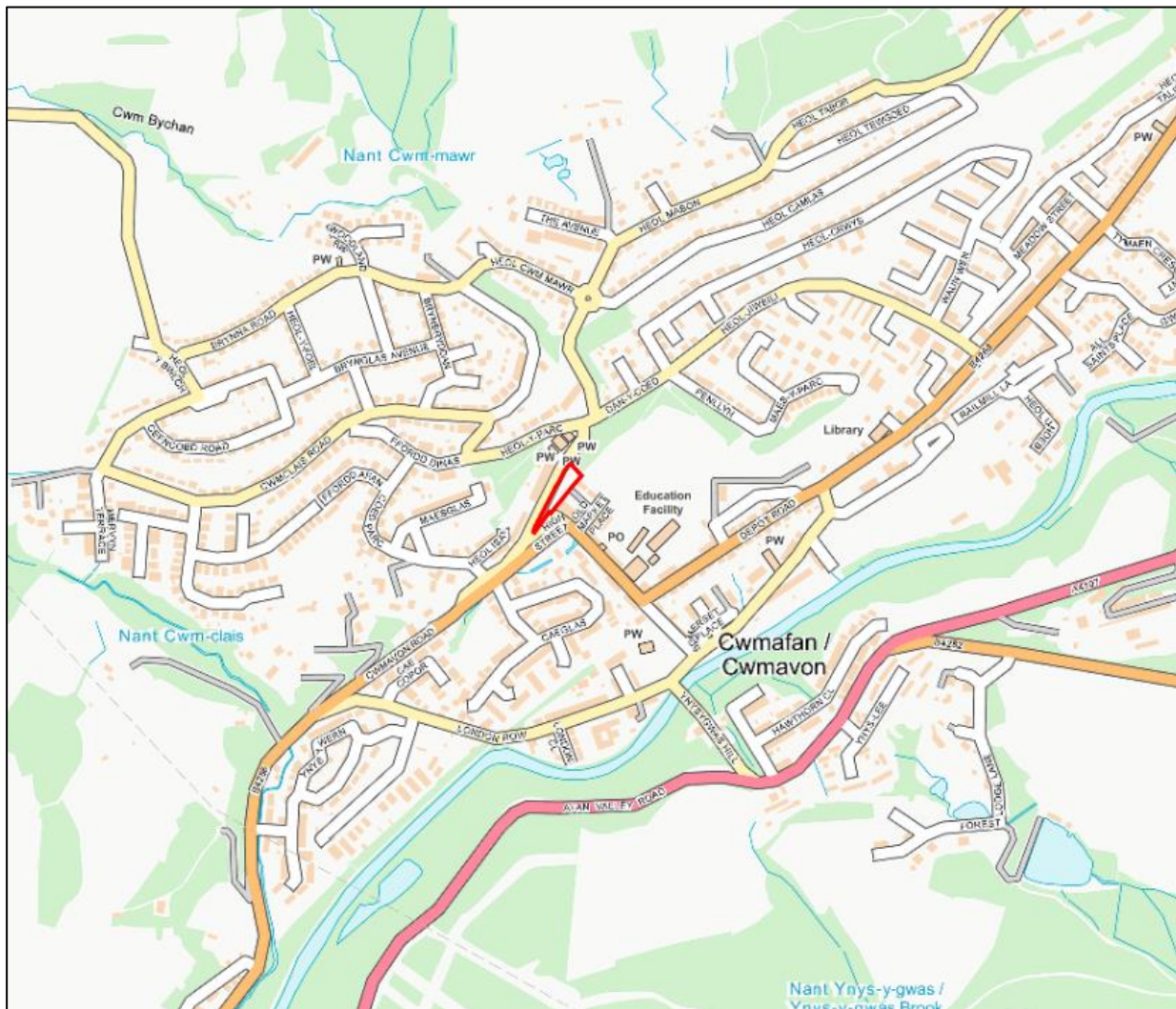


Figure 2.1 Site Location

2.2 Site History

Historical maps of the site have been obtained in an Envirocheck Report, provided by Landmark Information Group. The history plans are supplied in **Annex A** of this report, and the most relevant editions are summarised in **Table 2.1**. Distances, where quoted are approximate, and any changes in-between map editions may not be recorded.

Table 2.1 Historical Development from Map Information

Map Edition & Scale	Key Features on Site	Key Features off Site
1877-78 1:2,500	A series of terraced structures, possibly housing, locates centrally across the site	Earliest mapping indicates that the No.1 Tin Works locates immediately to the northeast. Another tin works (the Express Tin Works) is present 215m to the southwest. There are stable blocks located immediately to the east. Tabernacle Terrace delineates the site's north-western boundary. There is a chapel 25m to north. There are railway lines located southeast of the stables, 38m from the site boundary. Residential housing locates immediately to the north, west and southwest. A brick works is located 105m to the northeast. To the southeast, there is a depot with associated workshops and further railway sidings. An air shaft is present 190m east. A chemical works is also present 190m to the northeast with associated railway sidings. A girls' school is present 140m north and a boys' school is present 170m southeast. Further afield, the Meadow Coal Pit is located 527m northeast of the site.
1899 1:2,500	Site remains unchanged.	The surrounding area remains mostly unchanged. The Meadow Coal Pit is now labelled as disused.
1918-19 1:2,500	Three additional structures have been built towards the north of site.	Part of the stable has now redeveloped to housing southeast of the site. Additional residential housing developed to northwest. The depot 130m to the southeast has been developed to contain a much larger school and the original boys' school has been altered to an infants' school. The associated workshops have now been dismantled.
1936-37 1:2,500	Site remains unchanged.	Tin Works to northeast, brickworks to the east, and chemical works to the northeast are now partly dismantled. Much of the associated railway sidings and lines have also been dismantled. Allotment Gardens now developed 25m to the north. The airshaft is now no longer labelled.
1951-52 1:10,560	Site remains unchanged.	Residential housing has been constructed on the previous site of the chemical works.
1965-67 1:2,500	The buildings that previously occupied the site are no longer present and a shelter is now located centrally adjacent to Tabernacle Terrace. Steps now locate between Tabernacle Terrace and High Street towards the south of site. .	Remaining stable structure now redeveloped. Allotment gardens now removed. All remaining Tin and Brick Works structures have now been removed.
1978 1:2,500	A square structure is present towards the northeast of the site.	A council yard 7m to the east is now in the location of the previous stable. Playing field are developed to northeast and boundaries reprofiled.
1983 1:2,500	The site remains unchanged.	The surrounding area remains mostly unchanged.
1993 1:2,500	The site remains unchanged.	Council yard now redeveloped to residential housing.

2000 Aerial Photo	No structures are evident on site	The surrounding area remains mostly unchanged.
2006 1:10,000	Structures removed to northeast of site.	The surrounding area remains mostly unchanged.
2018 1:10,000	The site remains unchanged.	The surrounding area remains mostly unchanged.
2023 Aerial photo	Much of the site is now occupied by building works.	The surrounding area remains mostly unchanged.

2.3 Geological Setting

2.3.1 Geology

The 1:10,560 scale British Geological Map of the area (Sheet SS79SE) was consulted for geology underlying the site. The site is shown to be underlain by mudstone rock. Detailed stratigraphical information is provided in **Table 2.2**.

Table 2.2 Detailed Stratigraphical Information

Period	Group	Formation
Holocene	-	Alluvium – Poorly sorted clay, silt, sand, and gravel
Holocene	-	Glacial Till – Poorly sorted clay, silt, and sand
Carboniferous	South Wales Coal Measures	South Wales Lower Coal Measures – Grey coal bearing mudstone and siltstone with seatearth and minor sandstone.

Strata are typically dipping approximately 60-70° to the north-northeast in the local area.

Made ground comprising colliery and mineral smelting spoil may be encountered towards the north of the site.

The nearest conjectured coal, the Gellideg, outcrops 130m southwest and dips towards the site. The Gellideg has a recorded thickness of 0.9-1.2m. The combined Four and Five Feet conjectured coal seams outcrop approximately 360m east-southeast, along strike. Although these seams abruptly terminate at this distance from site, it is assumed these coals continue along strike and outcrop beneath the site. The Four and Five Feet coal is stratigraphically younger than the Gellideg and is separated by some 180m of measures. A number of thin coals are recorded between the two above named seams.

2.3.2 BGS Borehole Information

There are no boreholes within 200m of the site.

2.3.3 Radon

The Envirocheck datasheet (**Annex A**) details that the site is in an intermediate probability radon area, as between 3-5% of homes are above the action level.

However, radon mapping has since been updated by the BGS. With reference to the indicative radon map for the area (ukradon.org) the site is now classified as low probability, as less than 1% of dwellings are below the action level.

Therefore, no protective measures are necessary in the construction of new dwellings or extensions.

2.3.4 Mining

Relevant BGS mineral sites as recorded in the Envirocheck Report datasheets (**Annex A**) are summarised in **Table 2.3**.

Table 2.3 BGS Recorded Mineral Sites

Site Name	Distance/ Direction from site	Type	Commodity
Meadow Pit	527m NE	Deep Mine	Coal

2.3.5 Coal Authority Coal Mining Data

The Coal Authority online viewer indicates the site is located within a coal mining reporting area, within a development high risk area.

A Coal Authority consultants coal mining report (**Annex B**) was acquired for the site as part of this assessment. Pertinent information is summarised below.

Underground Mining

Past underground mining in proximity to the site, as recorded by the Coal Authority, is summarised in **Table 2.4**.

Table 2.4 Underground Mining

Seam	Mineral	Depth (m)	Direction to working	Dip of Worked Seam (degrees)	Extraction Thickness (m)	Year last Mined
Lower Nine Foot (Top Leaf) - <i>Synonymous with the Lower Four Foot</i>	Coal	28	Off-site to the North	27	1.4	1900

The Lower Nine Foot (Top Leaf) is synonymous with the Lower Four Feet seam across the wider district. In this context, it is likely to represent the combined Four and Five Feet coal seam recorded on maps.

The Coal Authority consider the probability of unrecorded shallow workings to be none.

Spine roadways are not recorded beneath the site.

Mine Entries

The Coal Authority identify no mine entries within 100m of the site.

The nearest recorded Air Shaft (278192-069) is located approximately 180m east of the site, identified on the Coal Authority Online Viewer.

Outcrops

Outcrops in proximity to the site, as recorded by the Coal Authority, are summarised in **Table 2.5**.

Table 2.5 Outcrops

Seam Name	Mineral	Workable?	Distance to Outcrop (m)	Direction to Outcrop (m)	Bearing of Outcrop (degrees)
Five Foot	Coal	Yes	Within	-	98
Lower Nine Foot (Top Leaf) <i>Synonymous with the Lower Four Foot</i>	Coal	Yes	Within	-	97

The Lower Nine Foot (Top Leaf) is synonymous with the Lower Four Feet seam across the wider district. In this context, it is likely to represent the Four Feet seam, the bottom seam of the combined Four and Five Feet coal seam recorded on maps.

2.3.6 Natural Hazards

The Envirocheck Report identifies a potential moderate risk of compressible ground at the site.

The underlying geology is not prone to dissolution.

No other significant natural hazards were identified.

2.4 Environmental Setting

The following sections have been compiled using the Landmark Information Group Envirocheck datasheet and maps which can be found in **Annex A**.

2.4.1 Hydrogeology

The bedrock and superficial deposits beneath the site have an aquifer designation of 'Secondary A'. These 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. Locally the superficial aquifer designation is recorded as unproductive.

Deeper groundwater flow within the underlying bedrock will be controlled by the strata dip and any fractures or bedding planes within the rock units.

The hydraulic gradient will be at its steepest during periods of heavy rainfall and aquifer recharge.

There are no groundwater abstraction points within 500m of the site.

The site does not locate within a groundwater source protection zone.

2.4.2 Hydrology

The Envirocheck Report records the nearest surface water feature to locate 50m to the south. This feature comprises a river within the Afan catchment area.

The topography of the site generally slopes steeply towards the southeast; therefore, the likely flow of surface and shallow groundwater would also be in this direction.

2.4.3 Flooding

The Envirocheck Report records the site is not at risk from extreme flooding from rivers or sea. However, the site is at risk from surface water flooding from 1 in -30, -100, and -1000 year flood events.

BGS groundwater flooding and susceptibility maps record the site to have potential for groundwater flooding to occur at the surface.

2.4.4 Waste

There are no recorded historical or currently active landfill sites within a 250m of the site.

There are no licensed waste management facilities or waste transfer sites within 250m of the site.

There are no discharge consents within 250m of the site.

2.4.5 Pollution

The Envirocheck Reports records no pollution incidents to have occurred to controlled waters within 250m radius of the site.

2.4.6 Sensitive Land Use

The Envirocheck Report details the site to not locate within a designated sensitive land use area.

2.4.7 Industrial Land Use

There are no relevant contemporary trade directory entries recorded within proximity to the site.

2.4.8 Infilled Land

Potentially infilled land features within 250m of the site are summarised in **Table 2.6**.

Table 2.6 Potentially Infilled Land

Feature	Distance/Direction
Unknown filled ground (pit, quarry, etc.)	On site
Unknown filled ground (pit, quarry, etc.)	98m northeast
Unknown filled ground (pond, marsh, river, stream, dock, etc.)	66m south
Unknown filled ground (pond, marsh, river, stream, dock, etc.)	163m northeast

2.5 Previous Investigations or Nearby Sites

Potential risks to the proposed development from past historical mining have been considered by others and reported separately. Details may be found in Blandford Consulting Mining Risk Assessment Report - Land at Tabernacle Terrace, Cwmavon, Port Talbot (Report No. BC/MB/02.17.08).

SECTION 3 Preliminary Coal Mining Risk Assessment

3.1 Geotechnical Risk

3.1.1 Underground Mining

Based upon geological map data, the stratigraphical sequence within 50m of the ground surface of the site is illustrated in **Figure 3.1**.

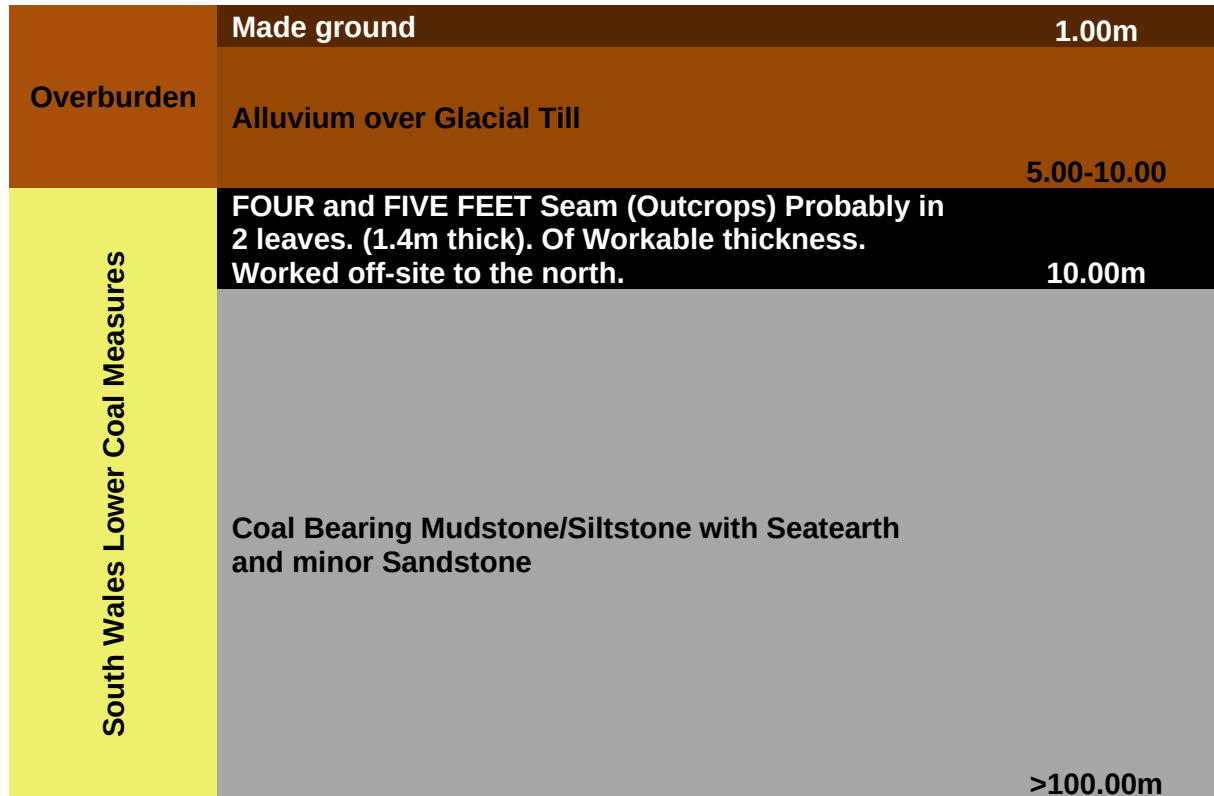


Figure 3.1 Geology and Strata Base below Ground Level

The Coal Authority Report states that there are two coal seams outcropping on the site, and that the site is in an area where there is coal at or close to the surface which may have been worked at some time in the past. These seams can be seen in **Figure 3.2** and are projected to outcrop perpendicular to the site's length, in the southernmost extent and centrally, striking approximately east-west. Due to the steep 60-70° north-northeast dip of the local geology, this puts the entirety of the site at risk of potential shallow mine workings.



Figure 3.2 Coal Authority Report Map Extract (Annex B)

The seams outcropping on site are likely to be the Four-Foot and Five-Foot seams. This is based on information from the 1:10,560 geological map. However, the geological map of the area conflates these two seams into one, which also appears to terminate abruptly 360m to the east of the site. It can be confidently assumed that this seam would extend along strike and outcrop beneath the site. Whereas the geological map records the Four and Five Feet seams combined, the Coal Authority offer an alternative representation, showing the two seams separately. This difference in records suggest these two seams to be separate but stratigraphically very close together. Furthermore, the Coal Authority records the lower seam as the Lower Nine Foot (Top Leaf), but with reference to geological mapping it is understood to be synonymous with the Lower Four Feet seam across the wider district. In this context, it is likely to represent the Four Foot seam

Mining of the Four and Five Foot seam is recorded to have taken place off-site to the north, at a depth of 28m with an extraction thickness of 1.4m. As this seam continues beneath the site, at shallow depth, it is possible for underground workings to be present at depths which could affect the stability of proposed structures on site.

The Coal Authority has not received any damage notice or claim for the site or any property within 50m of the site since 31st October 1994.

3.1.2 Shafts & Adits

No known mine entries are recorded within 100m of the site boundary. The nearest recorded Air Shaft (278192-069) is located approximately 180m east of the site and remains untreated.

3.1.3 Spine Roadways

No spine roadways are recorded at shallow depth beneath the site.

3.1.4 Conclusion

Based on the presence of the Four- and Five-Foot seams on site, the potential for surface mining, and a potential risk of shallow underground mining, the site is considered to be at high risk from coal mining related subsidence.

It is recommended that an investigation takes place to establish the risk to the surface from these mines. This should comprise rotary boreholes extended to a minimum depth of 30m below rockhead.

3.2 Geoenvironmental Risk

3.2.1 Mine Gas Risk Assessment

A detailed Mine Gas Risk Assessment will be carried out post-investigation works, as the primary data gathered during the investigation would give a higher degree of certainty in relation to gas risks. This full assessment may be found in **Section 9**.

SECTION 4 Preliminary Human Health and Environmental Risk Assessment

4.1 General

The preliminary human health and environmental risk assessment is a qualitative evaluation of unacceptable risks to human health or the environment from potential 'contaminated land', based on reviewed information in preceding sections of this report.

For 'contaminated land' to exist as defined in Part 2A of the Environmental Protection Act (EPA) 1990, a Pollutant Linkage needs to be identified. Pollutant linkages are defined by having a valid 'source – pathway – receptor' as established in the preliminary conceptual site model.

For our definitions of pollution linkage and how we define risk please refer to **Annex C** which includes our classifications of consequence and probability, and risk assessment matrix.

4.2 Potential Sources of Contamination

Potential or known sources of contamination associated the sites current and historical land use are summarised in **Table 4.1**.

Table 4.1 Contamination Sources

ID	Source	Contaminant
S1	Made ground – Historical development	Metals, Metalloids, PAHs, TPHs, VPHs, PCBs Asbestos Sulphates Phenols (Made ground can generally contain elevated levels of contaminants due to the history of the site and the unknown nature of the man made ground)
S2	Infilled land, on and extending off site to the NE. Mine tailings, associated with made ground soils	Methane, Carbon Dioxide (infilled land can sometimes contain high levels of organics, which overtime may decay top produce gasses). Metals, Metalloids, PAHs, Asbestos Sulphates
S3	Abandoned Coal Mines	Methane, Carbon Dioxide, Hydrogen Sulphide

No other significant potential on-site or off-site sources of contamination have been identified during the desk study.

4.3 Potential Pollution Pathways

Potential contaminant pathways associated with a residential with home grown produce land use are as follows:

- P1 – Direct soil and dust ingestion
- P2 – Consumption of home grown produce
- P3 – Dermal contact
- P4 – Inhalation of dust and vapours
- P5 – Vertical migration of leachates (unsaturated zone)
- P6 – Horizontal and vertical migration of contaminants (saturated zone)
- P7 – Artificial contaminant pathway (borehole, pile, excavation etc)
- P8 – Surface run-off
- P9 – Plant uptake
- P10 – Horizontal and vertical migration of ground gasses and vapours
- P11 – Direct contact with construction materials
- P12 – Inhalation of asbestos fibres

4.4 Potential Receptors

There are human and hydrological receptors to any contamination that may be present on site.

Potential receptors include:

- R1 – Construction and maintenance workers
- R2 – Future site users (residents)
- R3 – Passers-by or neighbouring site users
- R4 – Groundwater (aquifer)
- R5 – Surface waters (river/lake)
- R6 – Area of public open space
- R7 – Construction materials (concrete/potable water pipes)

4.5 Preliminary Conceptual Site Model

The preliminary conceptual site model establishes potential pollutant linkages between contaminants (source), pathways and receptors, realised during the preparation of the desk study report. Where a potential pollutant linkage is identified an assessment of risk is subsequently undertaken. The preliminary conceptual site model is tabulated in **Table 4.2** and an illustrated version is presented in **Figure 4.1**.

Outcomes of the preliminary conceptual site model are used as a basis for the design and implementation of the site investigation, whereby areas of potential contamination can be targeted as well as investigating the wider site.

Findings of the site investigation can in turn be used to develop and refine the conceptual site model.

Table 4.2 Preliminary Conceptual Site Model

Source	Pathway	Receptor	Preliminary Risk Assessment		
			Consequence	Probability	Risk
Human Health					
Contaminated Soils S1 S2	Direct soil and dust ingestion P1 Dermal contact P3 Inhalation of dust and vapours P4	Construction and maintenance workers R1	Medium	Low Likelihood	Medium Risk - COSHH assessment and good level of PPE/ hygiene by site workers/ staff; dust suppression measures if required. Suitably designed site investigation recommended
		Passers-by or neighbouring site users R3	Medium	Unlikely	Low Risk - Dust suppression measures if required.
		Future site users (residents) R2	Medium	Low Likelihood	Medium Risk - Suitably designed site investigation recommended.
Hazardous Ground Gas S1 S2	Horizontal and vertical migration of ground gasses and vapours	Future site users (residents) R2	Severe	Unlikely	Low Risk – Made ground/infilled not considered a significant source of ground gas, finite, negligible flow
Vapours S1				Unlikely	Low Risk – No obvious source potential
Mine Gas S3				Low Likelihood	Medium Risk – Mine gas risk assessment required
Impacted Groundwaters S1 S2	Horizontal and vertical migration of contaminants (saturated zone) P6 Dermal contact P3	Construction and maintenance workers R1	Medium	Unlikely	Low Risk
Contaminated Soils S1 S2	Plant uptake P9 Consumption of home grown produce P2	Future site users (residents) R2	Medium	Unlikely	Low Risk
Contaminated Soils S1 S2	Direct Contact P11	Construction materials (water pipes) R7	Mild	Low Likelihood	Low Risk
Aggressive ground conditions - Sulphates S1 S2		Construction materials (concrete) R7			
Aquatic Environment					
Contaminated Soils S1 S2	Vertical migration of leachates (unsaturated zone) P5	Groundwater (aquifer) R4	Mild	Unlikely	Low risk – filtration and attenuation of contaminants likely to occur before reaching aquifer
	Surface run-off P8	Surface waters (river/lake) R5			

	Horizontal and vertical migration of contaminants (saturated zone) P6			Low Likelihood	Low Risk – significant attenuation will occur before any mobile contaminants reach the River Afan.
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4.6 Preliminary Illustrative Conceptual Site Model

The following illustration represents a theorised cross section through the site. The drawing is generalised and not to scale.

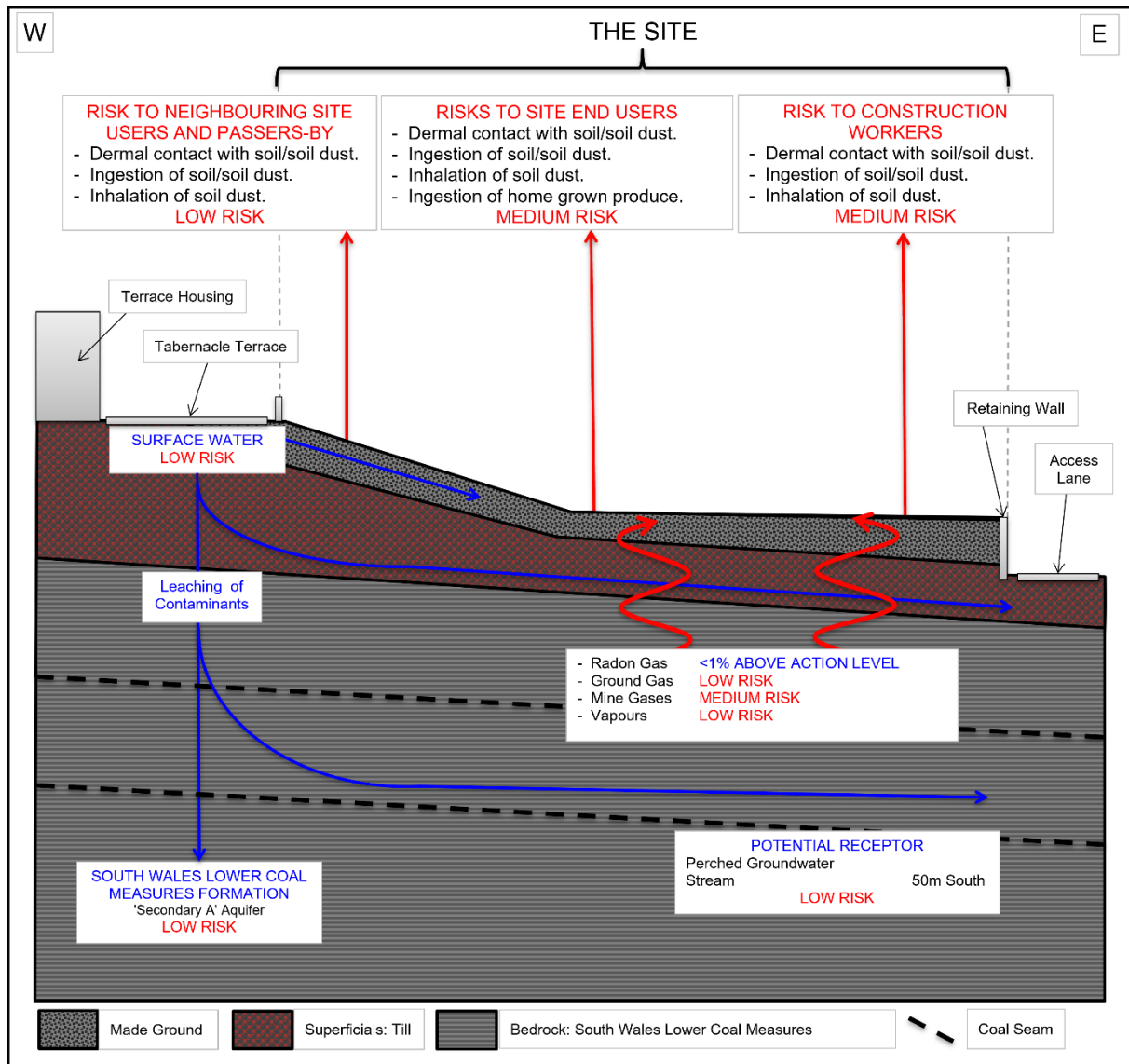


Figure 4.1 Preliminary Illustrative Site Conceptual Model (not to scale)

SECTION 5 Field Investigation

5.1 Site Works

A geotechnical and geoenvironmental site investigation comprising six trial pits and three rotary percussive boreholes was undertaken on 31st January to 12th February 2019. These works were to inform the initial four houses in the plan. The most recent investigation was conducted on the 8th of March 2024 to investigate ground conditions in the vicinity of the fifth house (Plot 1A).

The fieldwork was supervised by TFW Group Limited, who logged the exploratory holes to the requirements of BS 5930:2015+A1:2020. The proposed locations of the exploratory holes were determined by TFW Group Ltd in general accordance with BS 10175:2011+A2:2017 in order to assess the findings of the preliminary conceptual site model.

Exploratory hole locations are shown on **Drawing 01**.

5.1.1 Trial Pits

Trial pits referenced TP01 to TP08, were formed using a 3-tonne tracked excavator.

Representative disturbed samples were taken and retained in airtight containers for environmental and geotechnical testing.

On completion all trial pits were backfilled with materials arisings compacted in layers using the excavator bucket.

The trial pit logs are presented in **Annex D**.

5.1.2 Rotary Boreholes

Boreholes reference BH01 to BH03 were formed using a track mounted rotary openhole drilling rig. The borehole was advanced from surface using tri-cone bit downhole hammer with water as the flushing medium.

Boreholes were monitored for groundwater ingress as drilling proceeded.

The borehole logs are presented in **Annex E**.

5.1.3 Mini Percussive Boreholes

The boreholes referenced WS01 to WS03, were formed using a Terrier 2000 rig. Dynamic sampling techniques were employed from surface to produce a continuous disturbed sample.

Standard penetration tests (SPT) were carried out at regular intervals in general accordance with BS1377: Part 9:1990:3.3. SPT results summarised as N values are presented on the borehole log.

Boreholes were monitored for groundwater ingress as drilling proceeded.

Representative disturbed samples were taken and retained in airtight containers for environmental and geotechnical testing.

On completion, boreholes WS01 and WS03 were installed with slotted standpipes consisting of a 50mm ID HDPE slotted tube set in a granular filter zone and sealed above with a bentonite plug. Installations were protected at surface with a protective cover. Full installation details are recorded on the relevant logs.

The installations were tested for carbon dioxide, methane, oxygen, hydrogen sulphide and carbon monoxide using a gas analyser. Atmospheric pressure and gas flow were also recorded. Subsequent monitoring readings are presented in **Annex H**.

The installations were all monitored on the 16th June 2019 for volatile organic compounds (VOC) using photo-ionisation detector with a 10.6eV lamp. No VOC's were detected.

The borehole logs are presented in **Annex E**.

5.2 Ground Conditions

The ground conditions encountered by the exploratory holes can in general be summarised as shown in **Table 5.1**.

Table 5.1 Summary of Typical Shallow Ground Conditions

Depth (m)			Thickness (m)	Stratum
0.00	-	0.90/1.50	0.90/1.50	VARIABLE MADE GROUND: Loose, brown, clayey sandy GRAVEL with brick, concrete, and occasional slag. Soft to firm, dark brown, gravelly cobbly CLAY with brick, concrete and occasional metal pipe, glass, ceramic and plastic / Firm, dark brown, very sandy gravelly CLAY with brick, concrete and occasional slag / (Loose to medium dense), greyish brown, ashy clayey gravelly SAND with concrete, brick and large building stone / (Medium dense to dense), dark brown, clayey sandy GRAVEL with brick and concrete
0.90/1.50	-	>2.30	Unknown	VARIABLE NATURAL: Firm to stiff, grey green and brown, slightly gravelly CLAY with occasional cobble / (Medium dense), grey, brown, clayey SAND and GRAVEL / Medium dense, grey silty SAND / Stiff, light grey, laminated slightly sandy silty CLAY / Soft to firm, greyish brown, silty sandy CLAY / Very soft, orangey brown and grey, sandy slightly gravelly CLAY

Deeper ground conditions encountered by the rotary boreholes can in general be summarised as shown in **Table 5.2**.

Table 5.2 Summary of Typical Ground Conditions Encountered by Rotary Boreholes

Depth (m)			Thickness (m)	Stratum
0.00	-	1.20/2.00	1.20/2.00	FILL
1.20/2.00	-	7.50/9.50	6.30/7.50	Gravelly CLAY
7.50/9.50	-	16.50/22.60	7.00/14.00	MUDSTONE and SANDSTONE
16.50/22.60	-	17.50/23.60	1.00	COAL (not in BH01)
17.50/23.60	-	20.30/25.10	1.50/2.80	MUDSTONE and SANDSTONE
20.30/25.10	-	21.00/25.80	0.70	COAL (not in BH01)
21.00/25.80	-	>37.00/40.00	Unknown	MUDSTONE and SANDSTONE

Notes: Driller's descriptions of strata encountered

5.3 Groundwater

Groundwater information recorded during the site investigation is summarised in **Table 5.3**.

Table 5.3 Groundwater Summary

Location	Depth (m)	Details
TP01	1.20	Large inflow, possibly from an old pipe
TP02	1.00	Small seepage and inflow from base of made ground
TP04	0.80	Moderate inflow possible from old pipe, with hydrocarbon sheen and odour
TP05	1.20	Small inflow
TP06	0.90	Small inflow
BH01	6.50 & 7.50	-
BH02	7.00 & 10.00	-
BH03	6.00 & 8.00	-

All remaining exploratory holes did not encounter groundwater.

5.4 Stability and Obstructions

Short term instabilities were seen in the trial pits and collapses of the made ground were observed.

The sand and gravel deposits were seen to be strong in-situ, however, upon excavation and with the addition of the water become quite unstable.

A concrete obstruction, possibly a foundation, was also encountered in trial pit TP01 at 1.40m.

5.5 Installation Well Construction

Ground gas well locations were selected on a targeted basis to investigate suspected sources of contamination and potential contamination migration pathways.

Gas installation well construction details are summarised in **Table 5.4**.

Table 5.4 Installation Well Summary

Location	Response Zone		Stratum/ Target
	From (m)	To (m)	
WS01	1.00	3.00	MADE GROUND and sandy gravelly CLAY S1, S2, S3
WS03	1.00	3.00	

5.6 Laboratory Chemical Testing

5.6.1 Sampling Strategy

Soil sampling locations were selected on a targeted basis to investigate suspected sources of contamination or potential contamination migration pathways.

Sample locations, depths and suspected/known contamination source targets are summarised in **Table 5.5**:

Table 5.5 Sample Locations, Depths and Targets

Location	Depth (m)	Contamination Targets
TP01	0.50	S1, S2
TP02	0.40	

TP03	0.30	
TP03	1.00	
TP04	0.30	
TP04	0.80	
TP05	0.60	
TP06	0.60	
TP07	0.40	
TP07	0.80	
TP08	0.20	
TP08	1.00	

5.6.2 Soil Laboratory Analysis

During the site investigation works soil samples were taken and despatched to the accredited laboratories of Eurofins Chemtest for laboratory chemical testing. Soil samples were tested for the determinants listed in **Table 5.6**.

Table 5.6 Soil Laboratory Analysis

Metals & Metalloids	In-Organics	Organics	Others
Arsenic	Cyanide	Phenols	pH (acidity)
Cadmium	Sulphate	PAH	Asbestos
Chromium III		Petroleum Hydrocarbons	
Chromium VI		VOCs and SVOCs	
Copper		Polychlorinated Biphenyls (PCBs)	
Lead			
Mercury			
Nickel			
Selenium			
Zinc			

The results are discussed in detail in **SECTION 6** and the laboratory test results certificates may be found in **Annex F**.

5.6.3 Soil Leachate Laboratory Analysis

Substances found to be elevated in soils were further scheduled for leachate laboratory testing of the determinants listed in **Table 5.7**.

Table 5.7 Leachate Laboratory Analysis

Metals & Metalloids
Arsenic
Lead

The results are discussed in detail in **SECTION 6** and the laboratory test results certificates may be found in **Annex F**.

5.7 Soil Property Testing

5.7.1 Laboratory Geotechnical Testing

A schedule of laboratory tests was prepared by TFW Group Ltd and samples were despatched to the accredited laboratories of GSTL. A summary of the testing carried out is presented in **Table 5.8**.

Table 5.8 Summary of Geotechnical Testing

Geotechnical Test	Standard (BS1377:1990)	No. Tested
Moisture Content	Part 2, Clause 3.2	3
4 Point Liquid and Plastic Limit	Part 2, Clause 4.3 & 5.3	3

The test results are presented in **Annex G** and discussed in **SECTION 7** of this report.

5.8 Monitoring Results

Three ground gas monitoring wells were installed in WS01, WS02, and WS02. Installation details are shown on the relevant log.

Six rounds of gas monitoring have been carried out between February 2019 and May 2019, on a fortnightly basis.

Recorded gas concentrations are summarised in **Table 5.9**.

Table 5.9 Measured Gas Concentration Summary

Gas	Minimum (% V/V)	Maximum (% V/V)
Methane	0.0	0.3
Carbon Dioxide	0.0	10.5
Oxygen	5.5	19.9

Methane levels peaked at 0.3% V/V. Carbon dioxide levels varied between 0.0% and 10.5% V/V. Oxygen concentrations varied between 5.5% and 19.9% V/V.

The gas flow rate from the boreholes was also assessed, no positive flow rate was recorded.

Boreholes were dry during all monitoring visits.

The results are presented in **Annex H**.

SECTION 6 Evaluation of Geoenvironmental Analytical Results

6.1 Assessment Methodology

Comparison of the analytical results has been made with the 2015 Suitable 4 Use Levels (S4UL) provided by Land Quality Management (LQM) Limited and the Chartered Institute of Environmental Health (CIEH) or provisional Category 4 Screening Levels (pC4SL).

Soil leachate and groundwater analytical results have been compared with available published guidelines in the Water Framework Directive (Standards and Classification) Directions (England and Wales) 2015 and Drinking Water Directive (98/83/EC).

Sulphate results have been compared to guidelines presented in British Research Establishment (BRE SD1:2015). Sulphate levels need only be considered for buried concrete risk assessment and are not human health related.

Soils subjected to a UK Water Industry Research (UKWIR) suite of testing have been compared with guidelines set out in UKWIR Guidance for the Selection of Water Supply Pipes to be Used in Brownfield Sites (Ref 10/WM/03/21).

6.2 Soil Test Results

A summary of the chemical test results which include the regulatory soil guideline values used in a residential setting with plant uptake are given in the following tables. The complete results can be found in **Annex F**.

6.2.1 Inorganics

Twelve samples were tested for a standard suite of inorganics, pH and organic matter. The summarised results are in **Table 6.1**.

Table 6.1 Summary of Soil Chemical Test Results – Inorganics

Substance	Threshold Value (mg/kg)	Source	Measured Concentrations (mg/kg)		Number of Exceedances
			Minimum	Maximum	
Arsenic	37	LQM/CIEH	7.0	43	1
Cadmium	11	LQM/CIEH	<0.1	2.4	0
Chromium III	910	LQM/CIEH	10	33	0
Chromium VI	6	LQM/CIEH	<0.5	<0.5	0
Copper	2400	LQM/CIEH	9.0	210	0
Lead	200	pC4SL	20	340	3
Mercury (inorganic)	40	LQM/CIEH	0.05	0.26	0
Nickel	180	LQM/CIEH	16	65	0
Selenium	250	LQM/CIEH	<0.20	0.63	0
Zinc	3700	LQM/CIEH	36	950	0
Cyanide	-	-	<0.5	2.0	-
Sulphate (%)	0.24	BRE	<0.01	0.23	0
Organic Matter (%)	-	-	1.0	4.6	-
pH	-	-	7.2	8.9	-
Phenols	120	LQM/CIEH	<0.10	<0.30	0
Notes:					
- No available guideline					

6.2.2 Organics

Nine samples were tested for speciated polycyclic aromatic hydrocarbons. The summarised results are in **Table 6.2**.

Table 6.2 Summary of Soil Chemical Test Results – Speciated Polycyclic Aromatic Hydrocarbons

Substance	Threshold Value (mg/kg)	Source	Measured Concentrations (mg/kg)		Number of Exceedances
			Minimum	Maximum	
Naphthalene	2.3	LQM/CIEH	<0.1	1.3	0
Acenaphthylene	170	LQM/CIEH	<0.1	0.70	0
Acenaphthene	210	LQM/CIEH	<0.1	0.88	0
Fluorene	170	LQM/CIEH	<0.1	1.20	0
Phenanthrene	95	LQM/CIEH	<0.1	9.2	0
Anthracene	2400	LQM/CIEH	<0.1	1.6	0
Fluoranthene	280	LQM/CIEH	<0.1	12	0
Pyrene	620	LQM/CIEH	<0.1	9.2	0
Benzo(a)anthracene	7.2	LQM/CIEH	<0.1	6.1	0
Chrysene	15	LQM/CIEH	<0.1	6.6	0
Benzo(b)fluoranthene	2.6	LQM/CIEH	<0.1	5.3	3
Benzo(k)fluoranthene	77	LQM/CIEH	<0.1	2.3	0
Benzo(a)pyrene	2.2	LQM/CIEH	<0.1	4.1	3
Indeno(123cd)pyrene	27	LQM/CIEH	<0.1	2.6	0
Dibenzo(ah)anthracene	0.24	LQM/CIEH	<0.1	2.2	5
Benzo(ghi)perylene	320	LQM/CIEH	<0.1	3.0	0
Total PAH	-	-	<2.0	66	-
Notes:					
Thresholds based on 1.0% soil organic matter					
- No available guidelines					

Twelve samples were tested for petroleum hydrocarbon. The summarised results are shown in **Table 6.3**.

Table 6.3 Summary of Soil Chemical Test Results – Petroleum Hydrocarbons

Substance	Threshold Value (mg/kg)	Source	Measured Concentrations (mg/kg)		Number of Exceedances
			Minimum	Maximum	
Aliphatic					
VPH C5 – C6	42	LQM/CIEH	<1.0	<1.0	0
VPH C6 – C8	100	LQM/CIEH	<1.0	<1.0	0
VPH C8 – C10	27	LQM/CIEH	<1.0	10	0
EPH C10 – C12	130	LQM/CIEH	<1.0	28	0
EPH C12 – C16	1100	LQM/CIEH	<1.0	67	0
EPH C16 – C21	65000	LQM/CIEH	<1.0	40	0
EPH C21– C35	65000	LQM/CIEH	<1.0	81	0
EPH C35– C44	65000	LQM/CIEH	<1.0	<1.0	0
Aromatic					
VPH >C5-C7	70	LQM/CIEH	<1.0	<1.0	0

VPH >C7-C8	130	LQM/CIEH	<1.0	<1.0	0
VPH >C8-C10	34	LQM/CIEH	<1.0	<1.0	0
EPH >C10-C12	74	LQM/CIEH	<1.0	2.3	0
EPH >C12-C16	140	LQM/CIEH	<1.0	55	0
EPH >C16-C21	260	LQM/CIEH	<1.0	470	1
EPH >C21-C35	1100	LQM/CIEH	<1.0	710	0
EPH >C35-C44	1100	LQM/CIEH	<1.0	<1.0	0
Notes: VPH – Volatile Petroleum Hydrocarbon EPH –Extractable Petroleum Hydrocarbon Thresholds based on 1.0% soil organic matter * – Ali C16-21 and C21-C35 based on criteria for Ali EC >16-35					

Eight samples were tested for a full suite of volatile and semi-volatile organic compounds. Noteworthy compounds exceeding laboratory limits of detection are summarised in **Table 6.4**.

Table 6.4 Summary of Soil Chemical Test Results – Noteworthy VOC & SVOC

Substance	Location	GAC (mg/kg)	Source	Measured Concentrations (mg/kg)	Number of Exceedances
1,1-Dichloroethane	TP03 0.30m	0.011*	LQM/CIEH	0.063	1
1,1,1-Trichloroethane	TP03 0.30m	18^	LQM/CIEH	0.12	0
1,2-Dichlorobenzene	TP01 0.50m	55"	LQM/CIEH	1.9	0
2-Methyl-4,6-Dinitrophenol	TP04 0.80	<0.50	LDL	1.5	ALoD
Notes: • * No guideline available, residential with plant uptake value for 1,2-Dichloroethane has been used (2.5% SOM) • ^ - Guideline value for residential with plant uptake (2.5% SOM) • " - Guideline value for residential with plant uptake (1% SOM) • LDL - No guideline available and Laboratory Detection Limit has been used • ALoD – Above Laboratory Limit of Detection					

Eight samples were tested for polychlorinated biphenyl (PCB). The testing has found all determinants in all samples to be below the laboratory detection limit of 0.001mg/kg.

6.2.3 Asbestos Testing

All made ground soil samples were scheduled for asbestos screening. Asbestos was not detected.

6.2.4 Leachate Test Results

Substances found to be elevated in soil samples were submitted for leachate testing. The results are summarised in **Table 6.5**.

Table 6.5 Summary of Leachate Chemical Test Results

Substance	Threshold Value (µg/l)	Location	Source	Measured Concentrations (µg/l)	Number of Exceedances
Arsenic	50	TP01 0.50m	WFD2	1.9	0
Lead	14	TP06 0.60m	WFD1	11	0
Notes: WFD1 - Water Framework Directive – Inland Surface Waters (MAC)					

WFD2 - Water Framework Directive – Freshwater (Long Term Mean)

SECTION 7 Geotechnical Testing Results

Geotechnical testing results are summarised in the following sections and presented in their entirety in **Annex F**.

7.1 Plasticity Testing

During the investigation three samples of the shallow clay material were taken and submitted for plasticity and moisture content testing. The test results are summarised in **Table 7.1**.

Table 7.1 Plasticity Content Test Results

Location	Depth (m)	Laboratory Principal Soil Type	Plasticity Index (%)	Passing 425µm Sieve (%)	Modified Plasticity Index (%)	Volume Change Potential
TP01	1.50	CLAY	14	100	14.00	Low
TP04	1.50	SILT	5	81	4.05	Non-plastic
TP05	1.50	CLAY	13	82	10.66	Low

Moisture contents varied from 21-42%.

In line with the NHBC (Chapter 4.2), the modified plasticity index for each sample was calculated. For design purposes the soils on site should be assumed to have a low volume change potential.

SECTION 8 Coal Mining Risk Assessment

8.1 Coal Seam Stratigraphy

Deep boreholes drilled across the site confirmed the presence of up to two coal seams within the top 20m of bedrock under areas of the site. The following generalised sequence of horizons has been recorded:

Based upon geological map data, the stratigraphical sequence within 40m of the ground surface of the site is illustrated in **Figure 3.1**.

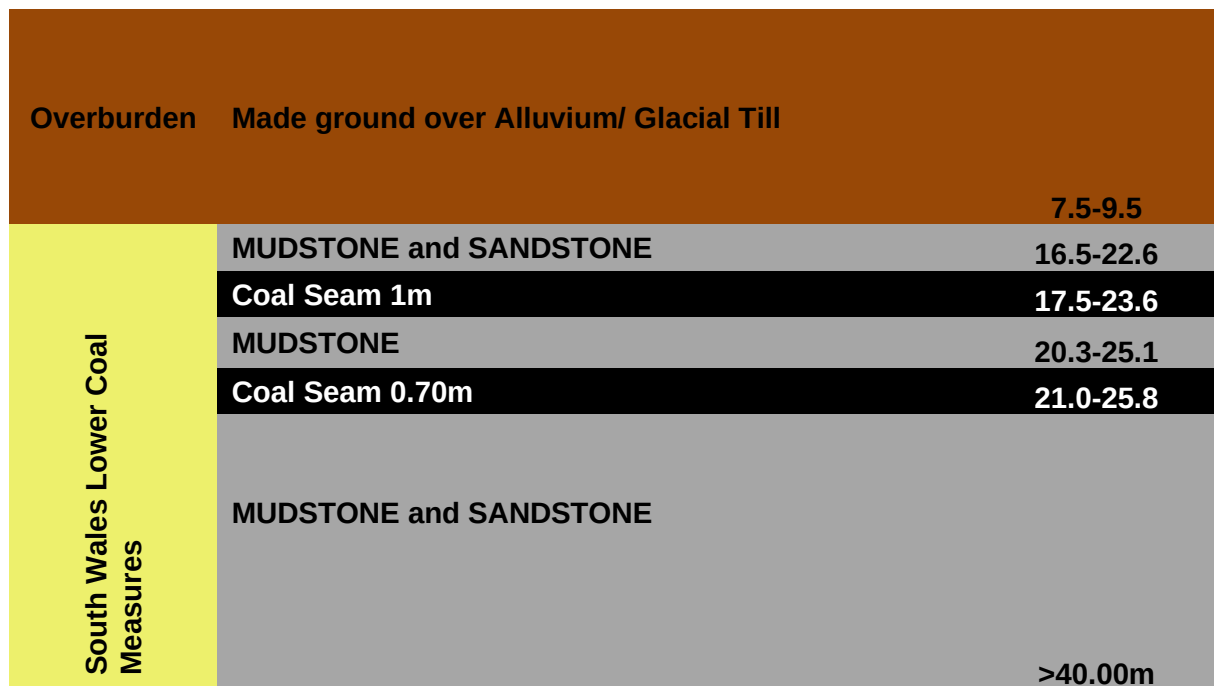


Figure 8.1 Geology and Strata Base below Ground Level

8.2 Summary of Boreholes

A summary of the boreholes sunk beneath the site with particular reference to coal seams is presented in **Table 8.1**.

Table 8.1 Summary of Site Investigation Boreholes

Borehole	Depth (m)	Feature	Thickness (m)
BH01	7.50-40.00	Measures	32.50
BH02	16.50-17.50	Coal	1.00
	20.30-21.00	Coal	0.70
BH03	22.60-23.60	Coal	1.00
	25.10-25.80	Coal	0.70

Strata are confirmed to be steeply dipping to the northeast

8.3 Conclusions

All three boreholes encountered intact sequences of measures and thin coals with rockhead to seam thicknesses of >32.50m, 27.50m and 32.10m, in boreholes BH01, BH02 and BH03 respectively.

The upper coal seam encountered at a depth of 16.50-22.6m with a thickness of 1m and the second coal seam at a depth of 20.3-25.1m with a thickness of 0.7m were all found to be intact. It is presumed these seams represent the Five Foot and Four Foot seams, collectively known as the Four and Five Foot.

Both seams outcrop on site between boreholes BH01 and BH02, striking east-west perpendicular to the length of the site.

No workings were encountered.

It is unlikely that these coals would have been worked at outcrop between borehole BH01 and BH02, where coal quality will diminish. It is however more likely that workings, if present, would be present down dip, to the north of borehole BH03. Rockhead north of borehole BH03 is 15m and increases with distance from site, therefore sufficient rockhead is present to resist any potential ground instability.

It is therefore concluded that there is a negligible risk to the proposed development from past unrecorded underground mining.

SECTION 9 Mine Gas Risk Assessment

9.1 Decision Support Tool

This assessment has been completed in accordance with guidance published in CL:AIRE, 2021, Good practice for risk assessment for coal mine gas emissions. In the first instance, the risk assessment process requires the screening out of 'potentially at risk sites' utilising the decision support tool for mine gas risk assessment, provided in Figure 13.1 - CLAIRE 2021. A summary of the decision tool and site outcome is presented in **Table 9.1**

Table 9.1 Mine Gas Risk Assessment Table

Step	Qualifier Question	Outcome	Comment
1	Is the site within a Coal Authority defined Coal Mining Reporting Area?	Yes	Go to step 2
2	Are all these statements true? Mine entries >50m from site boundary. Workings >150m depth. No faults or other potential pathways connecting surface to deeper unflooded workings. Outside area of past or probable shallow workings on Coal Authority Viewer.	No	Got to step 3
3	Are all these statements true? Workings between 30m and 150m but permanently flooded or covered by 10m+ of low permeable superficial deposits. Mine entries > 50m from site boundary. Low permeability superficial deposits of sufficient thickness - $<1 \times 10^{-4}$ m/s hydraulic conductivity.	Yes	Low Risk Zone

It is determined the site is in a low-risk zone from mine gas and no mitigation measures are required.

9.2 Gas Stoichiometric Assessment

Elevated levels of carbon dioxide derived from ambient air and/or microbial respiration of organic materials in soils may also be indicative of carbon dioxide migration from depth. Therefore, the data has been subject to stoichiometric assessment, as presented in **Figure 9.1**.

The assessment indicates carbon dioxide is not from a mine gas source.

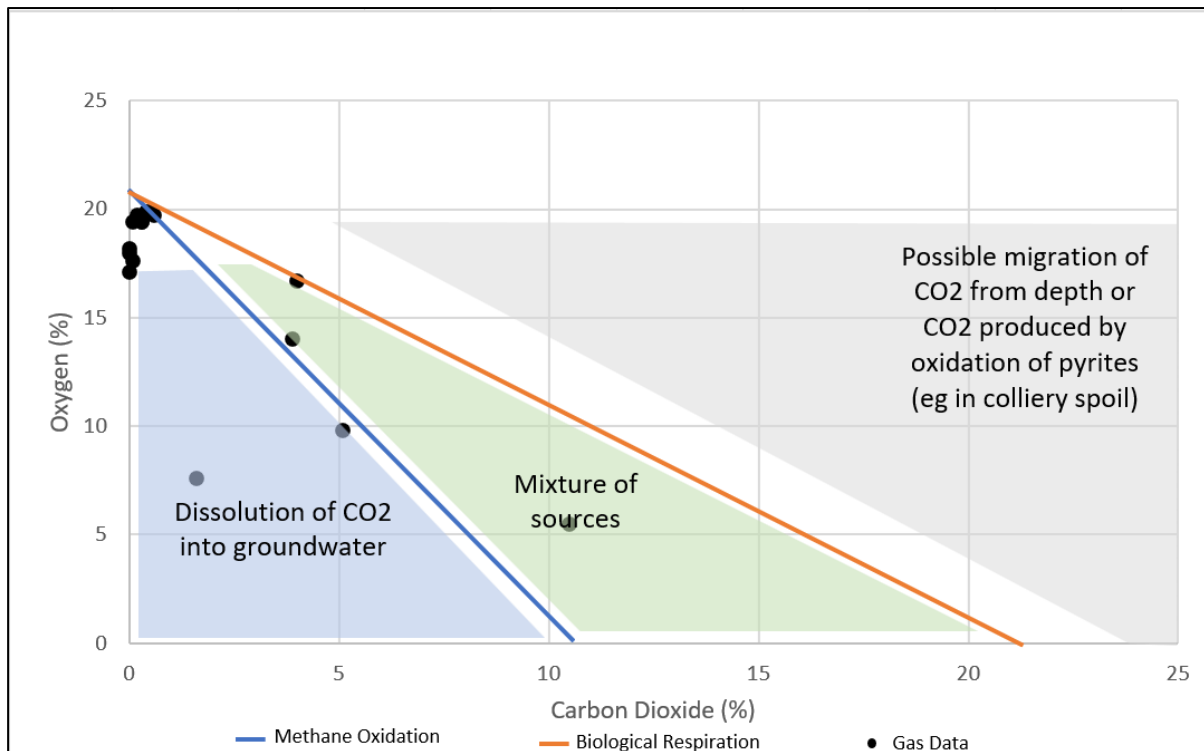


Figure 9.1 Stoichiometric Assessment

9.3 Conclusions

Stoichiometric assessment of the gas monitoring results is not indicative of a mine gas source

Working may well be present off-site to the north between 30-150m depth but will be permanently flooded, as demonstrated by recorded groundwater levels between 6.50-10m depth.

This may be further justified by the distances to the nearby River Afan. The site is located some 41m AOD, with the River Afan located ~35m AOD. The distances between the site and the river (5-6m) correlate with the encountered groundwater depths and the natural expected groundwater levels, further confirming any potential workings would be flooded.

Boreholes encountered intact coals beneath the site, no workings were identified.

In light of the collated evidence, no risk from mine gas has been established.

SECTION 10 Gas & Volatiles Risk Assessment

The following detailed ground gas risk assessment is prepared with reference to information sources identified during the preliminary assessment, as well as encountered ground conditions and quantitative data obtained during subsequent phases of site investigation. Where possible, consideration has also been given to the proposed development and its potential influence on ground gas risk.

10.1 Gas Risk Characterisation

10.1.1 Gas Sources

Potential sources of ground gas that have been identified during this study, along with an interpretation of the gas generation potential and lateral migration potential (Wilson S *et al.*:2009) respectively, are as follows:

- made ground soils (Colliery spoils) with low degradable organic content (<5%) – very low – negligible.

The potential risk from mine gas has been removed, see **Section 9**.

The risk from Radon has also been dismissed, see **Section 2.3.3**.

10.1.2 Gas Migration Pathways

The potential for gas migration pathways is a factor of the prevailing geology and hydrogeology conditions encountered at the site and surrounding areas. Furthermore, potential gas migration pathways need not be natural, and may comprise artificial conduits such as buried utility pipes, stone columns, piles, boreholes, as well as mining related features.

Potential gas migration pathways identified as part of this study include:

- granular but variable made ground soils.

10.1.3 Receptors

Potential receptors identified as part of this study include:

- Future site users (Residents)

10.2 Gas Screening Value

Based on the detection limit of the gas monitor a flow rate of 0.1l/hr and the highest recorded carbon dioxide concentration of 10.5%, a gas screening value of 0.0105l/hr is calculated, as follows:

$$(10.5/100) \times 0.1 = 0.0105 \text{ l/hr}$$

When monitoring results are compared with BS8576:2013, the site is classified as 'gas characteristic situation 1' (CS1). However, as the peak carbon dioxide has periodically risen above the 5% screening threshold level, it is recommended that consideration be given to elevating the gas characteristic situation to CS2.

10.3 Ternary Plot

A ternary gas plot has been presented utilising the available gas data, the results are shown along with indicative gas sources in **Figure 10.1**.

It is evident that gas results are indicative of ambient air and/or microbial respiration of organic materials in soils.

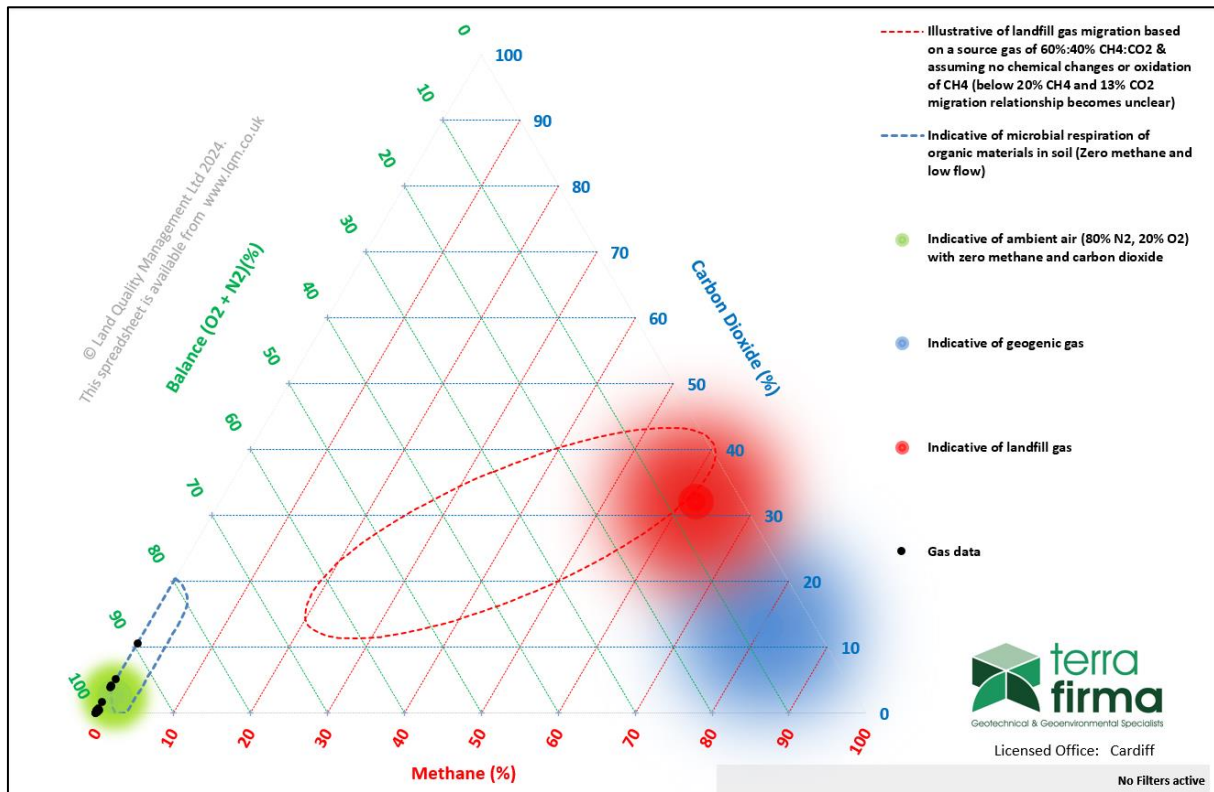


Figure 10.1 Ternary Plot

10.4 Volatiles

Exceedances of VOC encountered in soils are so low and of limited volume that it would not be a hazard to health through an inhalation pathway. 1,1-Dichloroethane is an organic chemical used as an intermediate in the production of 1,1,1-TCE, whereas 2-Methyl-4,6-Dinitrophenol is primarily used as a fungicide, insecticide or herbicide. All other exceedance of organic compounds are not volatile under STP. Nevertheless, boreholes were monitored for the presence of VOCs on the 14th June using a PID monitor, no volatiles were detected.

Site investigation works identified a redundant pipe which contained water with a hydrocarbon malodour and sheen. Historical maps show a row of terraced housing located on site which orientated parallel with and adjacent to the encountered pipe. It was therefore concluded that the pipe was a remaining section of pipe left in-situ following demolition of the houses. As such water accumulated in the pipe section over the years. Once excavated the accumulated water initially flowed into the trial pit with the flow diminishing with time, confirming that it was from water trapped in the pipe and subsequently finite in nature. In terms of hydrocarbon contamination and vapour risk, no evidence of hydrocarbon contamination was encountered in the samples taken from the pit, and as previously stated, no volatiles were detected during monitoring.

The pipe has since been removed by the client.

The risk to human receptors from volatiles is considered negligible and need not be considered further.

10.5 Conclusions

The preliminary source-pathway-receptor model indicated a linkage, albeit a weak one, which highlighted a possible made ground source with a very low gas generation potential and negligible lateral migration potential.

Gas monitoring was subsequently undertaken to establish the prevailing liability at the site.

Negligible flow was recorded.

Carbon dioxide gas was elevated above 5% v/v on one occasion, which coincided with the first round of monitoring. Based on this elevated value, further consideration was given to the need to increase the gas characteristic situation for the site, in line with published guidance.

Further consideration was given by way of a ternary plot of the data. The outcome of which demonstrated that recorded gas values were of ambient air or from microbial respiration.

As expected, microbial respiration dissipated within the dry boreholes by the second monitoring visit, after which time no elevated carbon dioxide values were recorded.

Microbial respiration of soils is a natural process and a consequence of recently exposed soils to air, and is not considered a risk of hazardous gas generation. As such, the site should be classified as CS1, requiring no special gas protection measures to be installed within the structures.

SECTION 11 Quantitative Risk Assessment

11.1 Contaminants of Concern

Contaminants identified as part of the investigation are summarised in **Table 11.1**, along with an interpretation of the likely contamination source. Where applicable, the contaminant, source relationship is based on the inferences made in the preliminary conceptual site model.

Table 11.1 Contaminants of Concern

Location and Depth	Contaminant	Source
TP01 0.50m	Lead, PAH	S1 S2
TP02 0.40m	PAH	
TP03 0.30m	1-1,Dichloroethane	
TP04 at 0.80m	PAH, 2-Methyl-4,6-Dinitrophenol	
TP06 at 0.60m	Arsenic, PAH	
TP07 at 0.40m	Lead	
TP08 at 0.20m	Lead, PAH, EPH >C16-C21	

11.2 Pollutant Linkages

Based on the findings of the intrusive site investigation and identified contaminants, the preliminary conceptual site model has been revised. Significant pollutant linkages are tabulated in the refined conceptual site model **Table 11.2**. Identified pollutant linkages will require detailed risk assessment, appropriate mitigation, or remedial measures.

Table 11.2 Refined Conceptual Site Model

Source	Pathway	Receptor
Contaminated Soils S1 S2	Direct soil and dust ingestion P1 Dermal contact P3 Inhalation of dust and vapours P4	Construction and maintenance workers R1
		Future site users (residents) R2

11.3 Refined Illustrative Conceptual Site Model

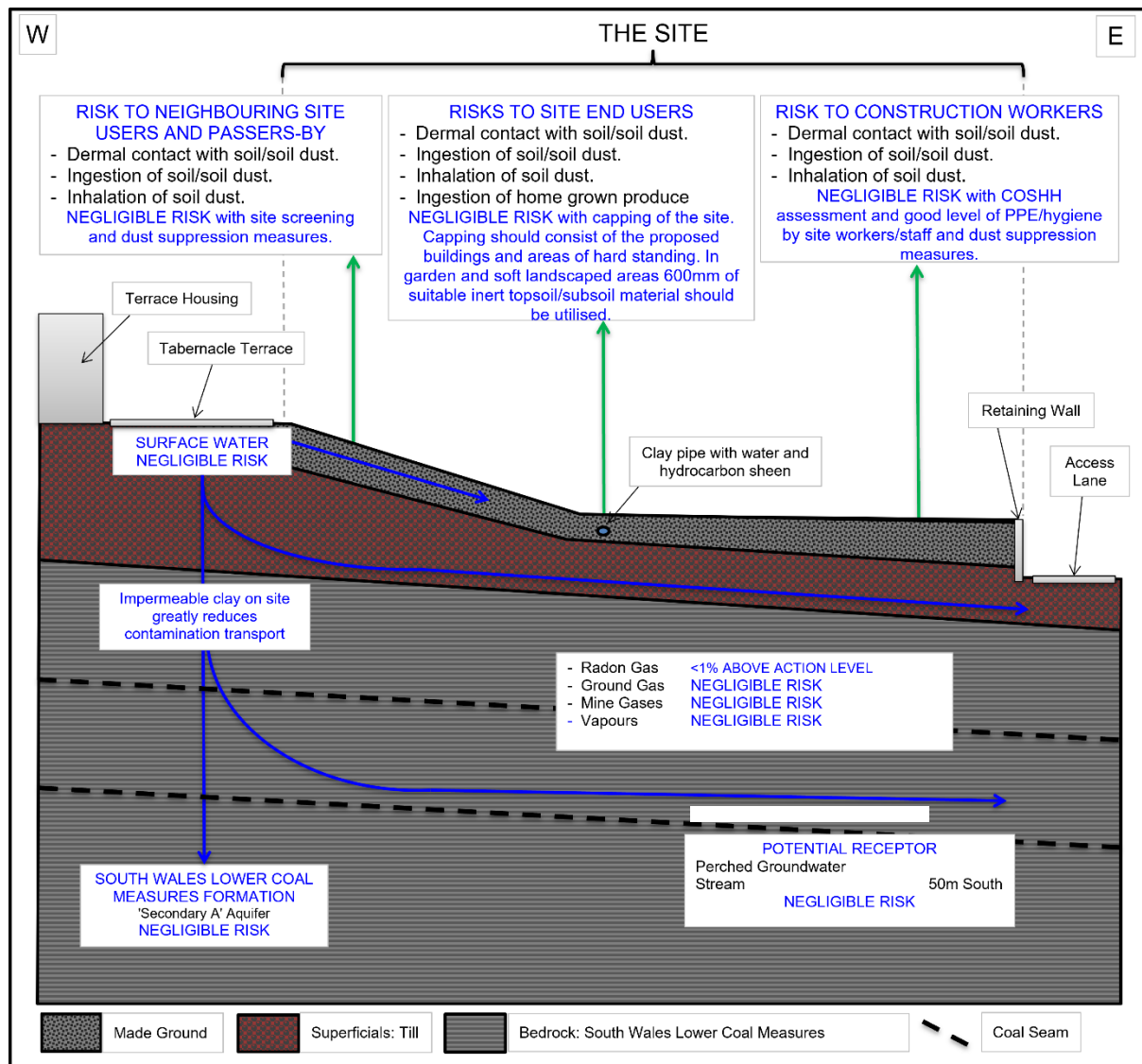


Figure 11.1 Refined Illustrative Conceptual Site Model

11.4 Mitigation and Remedial Measures

The following sections summarise the likely mitigation and remedial measures suitable for the identified contamination and proposed development. Detailed methodology to achieve the measures should be prescribed in a Remediation Strategy Report and the results presented in a Validation Report upon completion of the development.

11.4.1 Human Health

11.4.1.1 Contaminated Soils

To protect future site users from the identified contamination in soils the site will need to be capped. The capping should consist of the proposed buildings and hard standings. In garden and soft landscaped areas the capping should consist of 600mm of suitable inert topsoil, and subsoil.

The soils should also be physically suitable and contain no 'sharps' as defined in BS8332:2015 Specification for Topsoil and BS8601:2013 Specification for Subsoil and Requirements for Use.

As good practice, construction workers should adhere to good site management, COSHH, good standards of hygiene and appropriate health & safety on site, with personal protection equipment (PPE) and dust suppression where appropriate.

All imported soils should be validated as clean and suitable for use in accordance with 'Requirements for the Chemical Testing of Imported Soils for Various End Uses and Validation Cover Systems'.

For proposed new supply water pipes, the UK Water Industry Research publication 'Guidance for the Selection of Water Supply Pipes to be used in Brownfield Sites (Report 10/WM/03/21)' should be consulted.

In accordance with EC Regulation 1272/2008 and Environment Agency Guidance WM3 soils destined for off-site disposal should be classified on the basis of their hazard phrases prior to disposal. Soils are classified as a mirror entry waste and should be classified on the basis of their specific chemical properties.

If during earthworks ground conditions are encountered that are markedly different to those found during the investigation then the ground should be subject to additional sampling and testing and any necessary remedial measures designed and implemented before continuing with the works.

11.4.2 Aquatic Environment

A hydrocarbon sheen was seen on the perched water within the made ground in trial pit TP04. This water appeared to originate from a clay pipe that was encountered in the trial pit and slowed during the excavation. This is understood to be a finite volume of water. The pipe has since been removed by the Client.

Soil testing revealed no risk from leachate generation of metals.

The aquatic environment is not considered to be at risk from the organic contamination identified on the site as according to the CL:AIRE publication titled Petroleum Hydrocarbons in Groundwater, the determinants in exceedance have very low relative mobility in groundwater.

The underlying materials are also clayey in nature and will have a low permeability. In addition to this capping of the site with the proposed development will reduce the available water for infiltration into the ground.

The aquatic environment is therefore not considered to be a risk and any contaminants would soon be rendered insignificant through the effects of dilution and attenuation given the distance to the nearest surface water feature.

During the construction period, there is a risk to the environment/adjacent sites from de-watering, digging foundations, moving contaminated soil, drainage misconceptions, discharges to local surface waters or the ground, runoff from construction materials and/or exposed ground, wheel washings and oil or chemical spills.

The risk is considered to be negligible as any adverse effects will be easily preventable by due diligence to good construction practise and housekeeping in preventing surface runoff and the spillage of materials.

The basic measures that should be taken are as follows:

- Prepare a drainage plan and mark the manholes to prevent pollutants accidentally reaching the surface water sewers;
- Carry out any activities that could cause pollution in a designated, bunded area, away from rivers. Where possible it should drain to the foul sewer;
- Use settlement ponds to remove silty water;
- Store all oils and chemicals in a fully bunded area to prevent leaks or spills;
- Get advice on whether you need an environmental permit and apply in good time

SECTION 12 Engineering Recommendations

12.1 Preparation of Site

The existing retaining walls should be inspected by a suitably qualified structural engineer.

All existing hard standings, topsoil, scrub vegetation including all roots should be stripped and removed from beneath the proposed buildings and areas of hard standing.

Contingencies should be made for the protection/diversion any underground/overhead services and culvert present beneath the site brought about as a result of the proposed works.

Allowances should be made for the excavation of any soft spots/areas and their replacement with well compacted imported granular materials.

Allowances should also be made for the temporary or permanent support of existing structures.

Any reduced levels should be brought up to the required levels with suitable inert mainly granular materials. Department of Transport (DoT) type 2 sub-base or similar should be used and should be compacted in layers to the requirements of the Specification for Highway works.

In accordance with EC Regulation 1272/2008 and Environment Agency Guidance WM3 soils and other materials destined for off-site disposal should be classified on the basis of their hazard phrases prior to disposal. Soils are classified as a mirror entry waste and should be classified on the basis of their specific chemical properties. Terra Firma offer this service if required.

12.2 Foundation and Floor Slab Solution

Due to the variability of the deposits encountered on the site it is recommended that engineering of the fill/natural material will be required in order to allow construction of a raft foundation.

It is proposed that the variable soils are excavated and sieved on site to remove the fine (clay) fraction. Following removal of the fines, the granular remains should be compacted in layers in accordance with Series 600 at optimum moisture content. The acceptability of the compaction should be confirmed by in situ plate load tests. It is recommended that plate bearing tests are carried out at the base of the Engineering works and at 0.4m lifts thereafter. Three tests should be conducted across each plot footprint for each 0.4m lift. The plate bearing test shall be taken to 150 kPa in three increments on a three-cycle loading. A 6mm settlement criteria should be used as an acceptable limit for each lift. The engineering works should be supervised by a qualified Geotechnical Engineer.

Following successful engineering of the variable deposits, a raft may be used for the development. The raft should be limited to an allowable bearing capacity of 50 kPa and bedded upon a minimum of 0.3m type 1 material.

Allowances should be made for the removal of any 'soft spots' and their replacement with well-compacted granular materials. Department of Transport (DoT) Type 2 materials or similar could be used and should be compacted in layers to the specification for Highway Works.

The National House Building Council (NHBC) Chapter 4.2 gives guidelines as to the appropriate type of floor slab and void based on the type of tree, distance of the foundation from the tree and the plasticity index of the in-situ materials.

During the investigation samples of the in-situ clay was taken and submitted for plasticity testing (**Annex G**). In line with the NHBC (Chapter 4.2), the modified plasticity index for the sample was calculated. Soils on site should be assumed to have a low volume change potential and the foundations will need to penetrate a minimum of 750mm below ground level. All foundation formations should be inspected by a suitably qualified Engineer before being concreted.

12.3 Excavations and Formations

Excavations will be possible with normal soil excavating machinery however when dealing with historic foundations and areas of hard standing a mechanical breaker attachment will be required.

Groundwater was encountered in the majority of trial pits, any water inflows together with rainwater infiltration should be dealt with by conventional pumping techniques. It should be noted that during times of heavy rainfall a higher water table will be encountered.

Short term instabilities were seen in the trial pits and collapses of the made ground were observed. The sides of any excavations deeper than 1.0m, or shallower if unstable, should be supported by planking and strutting or other proprietary means.

The sub-formations/formations are likely to be susceptible to loosening, softening and deterioration by exposure to weather (rain, frost and drying conditions), the action of water (flood water or removal of groundwater) and site traffic.

Formations should never be left unprotected and continuously exposed to rain causing degradation, or left exposed/uncovered overnight, unless permitted by a qualified engineer.

Construction plant and other vehicular traffic should not be operated on unprotected formations.

As a minimum the formation/excavation surfaces must be protected by blinding concrete immediately after exposure. Once again this does not apply to areas of bedrock.

Allowances should be made for the removal of soft spots/areas and their replacement with well compacted granular materials.

12.4 Protection of Buried Concrete

Levels of total sulphate within the in-situ materials measured between <100mg/kg to 2300mg/kg and the pH varied between 7.2 and 8.4.

When these results are compared with Table C2 of BRE Digest 1:2005, it indicates that all buried concrete should as a minimum conform to Class AC-1.

12.5 Access Roads and Car Parking Areas

For access roads and car parking areas, formations within the shallow in-situ soils / made ground a CBR value of 2% may be used for design purposes. If the material is excavated and re-engineered an increased CBR value of 5% may be used.

Allowances should be made for the removal of any 'soft spots/areas' and their replacement with well-compacted granular materials as previously described.

12.6 Storm Water Drainage

It was beyond TFW Group's remit to undertake soakaway testing on the site.

However, given the ground conditions encountered and the sloping nature of the site soakaway drainage systems are not considered feasible.

Evidence of the low permeability was observed on site as the perched water encountered was seen to pool in the base of the trial pits.

12.7 Filling Works

Filling works may be required as part of the preparatory works for the site.

The site won materials will not be suitable for reuse on site without the engineering works detailed in **Section 12.2**.

The reduced levels should be brought up to the required levels with well, compacted imported granular materials. Department of Transport (DoT) Type 2 sub-base or similar may be used and should be compacted in layers, in accordance with the Specification for Highway Works. Alternatively, appropriately selected inert imported fill could be used.

The materials should be compacted into layers as per the requirements of the Series 600 of the Specification for Highway Works, placed at or close to its optimum moisture content/maximum dry density. Allowances should be made for the treatment/removal of soft spots.

The existing in-situ soils and the up-fill soils should be cut and benched into each-other to avoid the development of a preferential slip plane.

We recommend that a geotechnical engineer should have a watching brief of any earthworks activities to include inspections and in-situ testing to confirm the effectiveness of the compaction process. Terra Firma undertake this service if required.

12.8 Retaining Walls

Due to the sloping nature of the site retaining walls will be required. The effective angles of shearing resistance of the materials likely to be encountered have been determined based upon past experience of the materials and are presented in **Table 8.2**:

Stratum Description	Bulk Unit Weight (γ) kN/m ³	Effective Cohesion (c') kN/m ²	Effective Angle of Shearing Resistance (ϕ') degrees
Soft to firm cohesive soils	18	0	20 – 25
Firm to stiff cohesive soils	18	0	30
Loose granular soils	18	0	22
Medium dense granular soils	18	0	30
Well compacted, granular materials, compacted as per Specification for Highway Works and other relevant guidance such as British Standards (BS) 6031: 1981. Code of Practice for Earthworks.	19 – 20	0	30 - 35
Fresh/slightly weathered mudstone/siltstone bedrock	19-24	5	35 - 40
Moderately / highly weathered Mudstone/siltstone bedrock	19-24	0	30 – 35

The design and construction of the retaining walls and cut and fill should be in accordance with BS 6031: 1981 Code of Practice for Earthworks and other relevant guidance.

A 45° line taken from the outermost edge of the proposed foundation should not impinge on the face of the retaining walls unless they have been specifically designed to withstand these forces.

It is recommended that the construction of retaining walls be carried out in small sections. The cut face should be inspected by a suitably qualified engineer during the works to determine if any additional precautions are required.

Groundwater was not encountered in the trial pits however appropriate drainage measures should be constructed behind the walls to prevent the build-up of hydrostatic pressure.

If any wall is to be incorporated as part of the proposed building, then suitable 'tanking' should be incorporated in its construction.

Allowances should also be made for the removal of soft spots and their replacement with imported suitable selected inert granular materials or suitable inert site won materials.

It is recommended that the temporary cut face is covered with polythene sheeting to protect the face from weathering and also to prevent any minor debris falls impacting upon the site operatives.

The general condition of the temporary cut face should also be inspected on a regular basis. In addition the boundary walls and vicinity behind should be inspected for tension cracks indicative of movement of the temporary cut face. This is of critical importance with the public highway located topographically higher than the site.

**ANNEX A
Envirocheck Report**

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

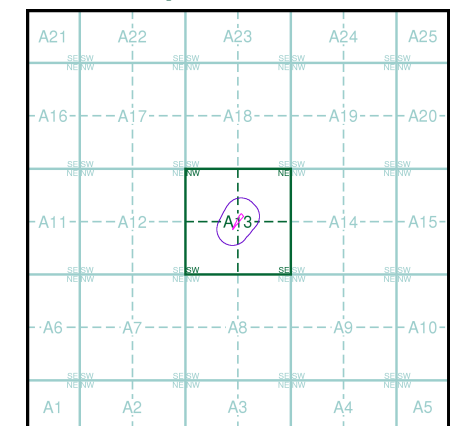


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Historical Mapping & Photography included:

Mapping Type	Scale	Date	Pg
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Glamorganshire	1:10,560	1900	3
Glamorganshire	1:10,560	1921	4
Glamorganshire	1:10,560	1936	5
Glamorganshire	1:10,560	1938 - 1952	6
Historical Aerial Photography	1:10,560	1949	7
Glamorganshire	1:10,560	1951	8
Ordnance Survey Plan	1:10,000	1964	9
Ordnance Survey Plan	1:10,000	1974	10
Ordnance Survey Plan	1:10,000	1980	11
Ordnance Survey Plan	1:10,000	1996	12
10K Raster Mapping	1:10,000	1999	13
10K Raster Mapping	1:10,000	2006	14
VectorMap Local	1:10,000	2023	15

Historical Map - Slice A



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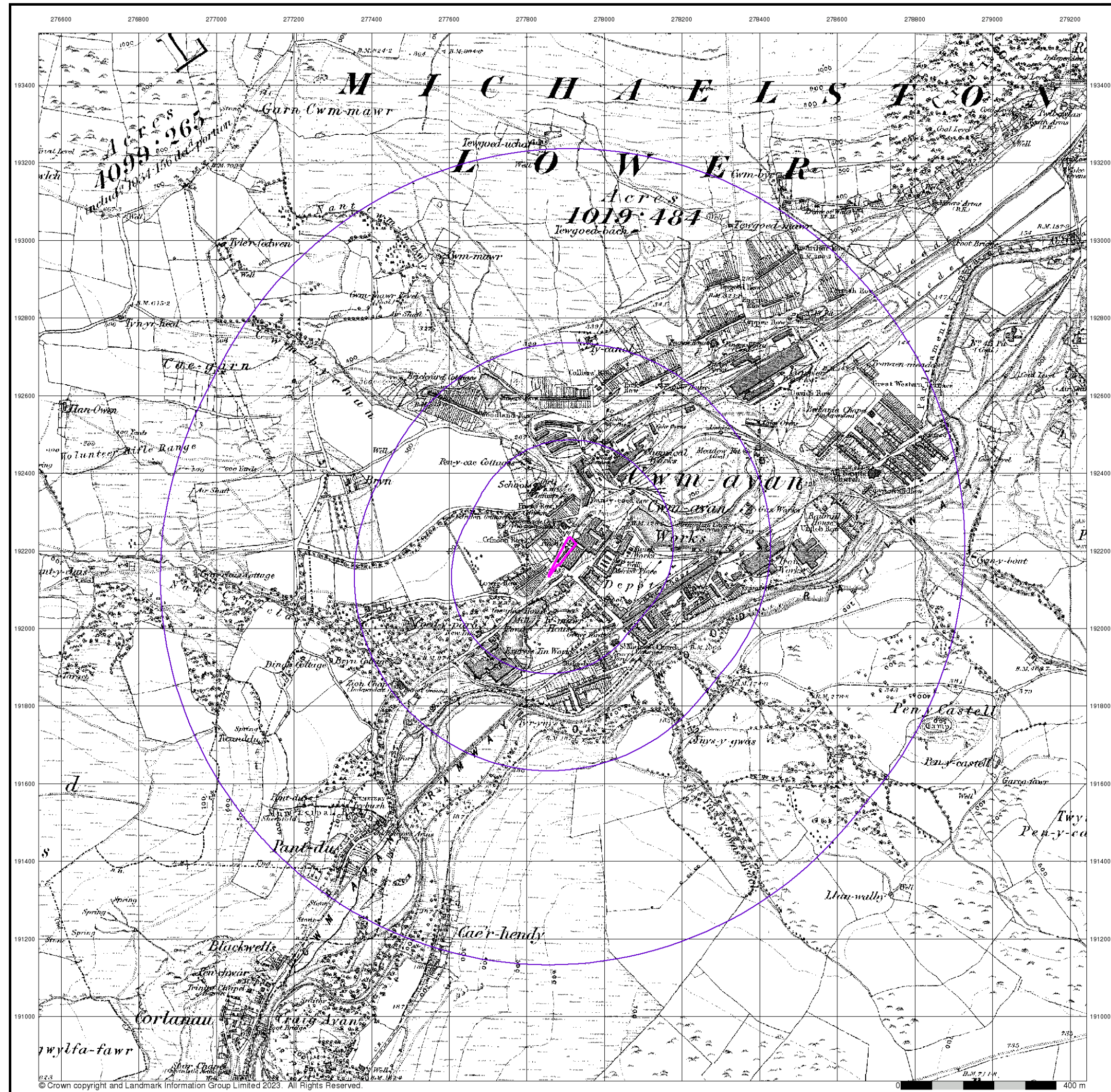
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Slice: A
Site Area (Ha): 0.17
Search Buffer (m): 1000

Site Details

Tabernacle terrace, Cwmavon, Port Talbot, SA12 9DA

Landmark
INFORMATION GROUP

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





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Glamorganshire

Published 1884

Source map scale - 1:10,560

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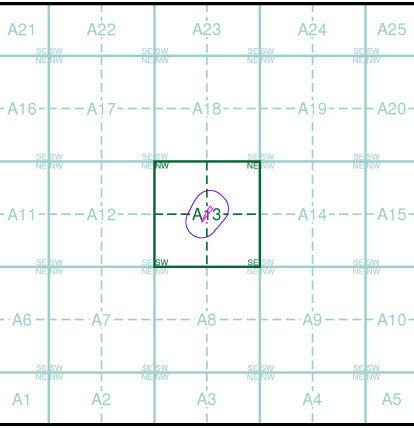
Map Name(s) and Date(s)

02500

1884

1:10,560

Historical Map - Slice A



Order Details

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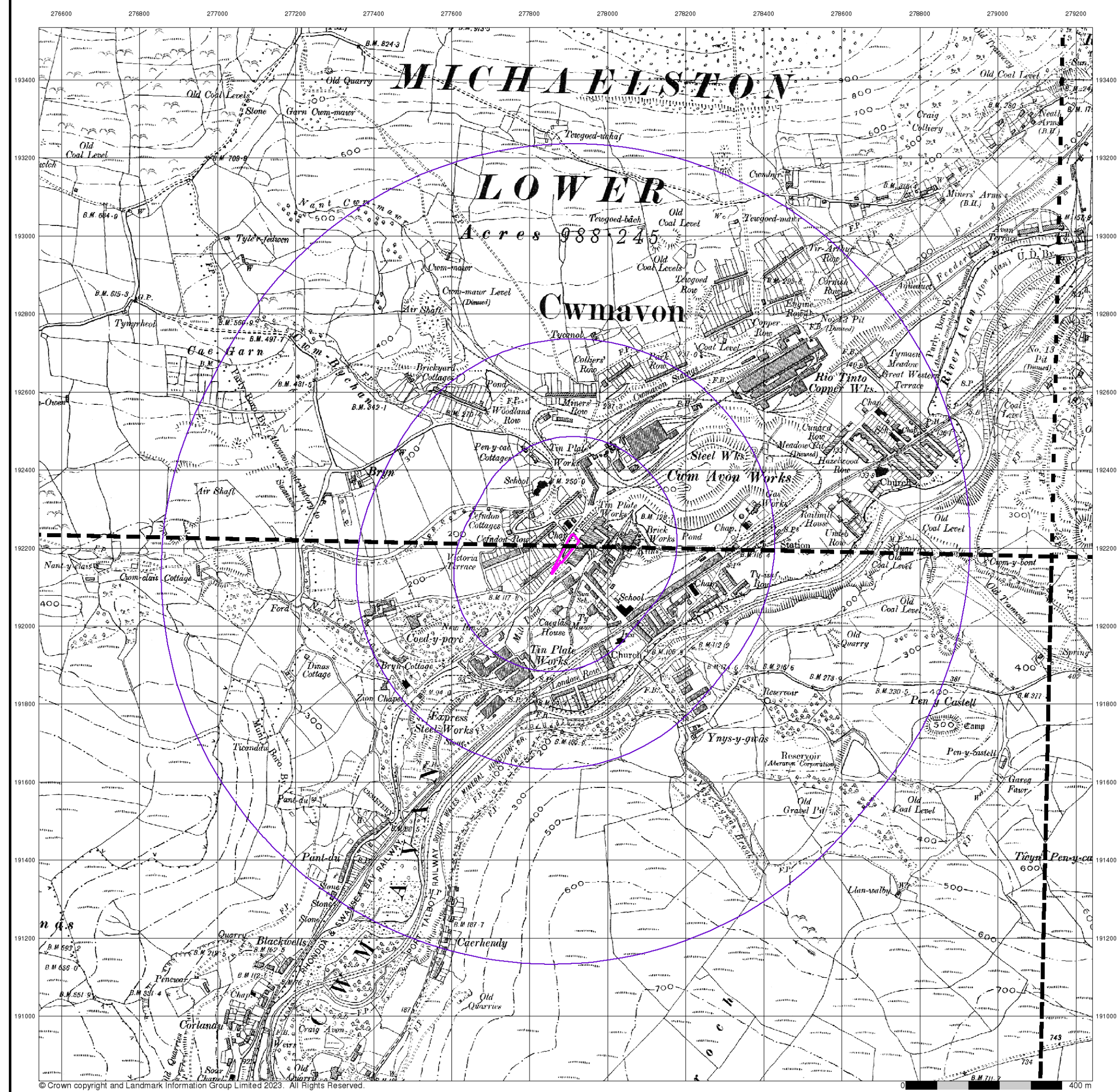
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Fax: 0844 844 9951
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Glamorganshire

Published 1900

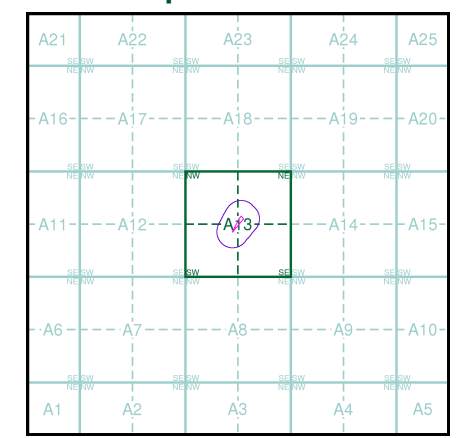
Source map scale - 1:10,560

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Map Name(s) and Date(s)

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025SW 1900 1:10,560	025SE 1900 1:10,560

Historical Map - Slice A



Order Details

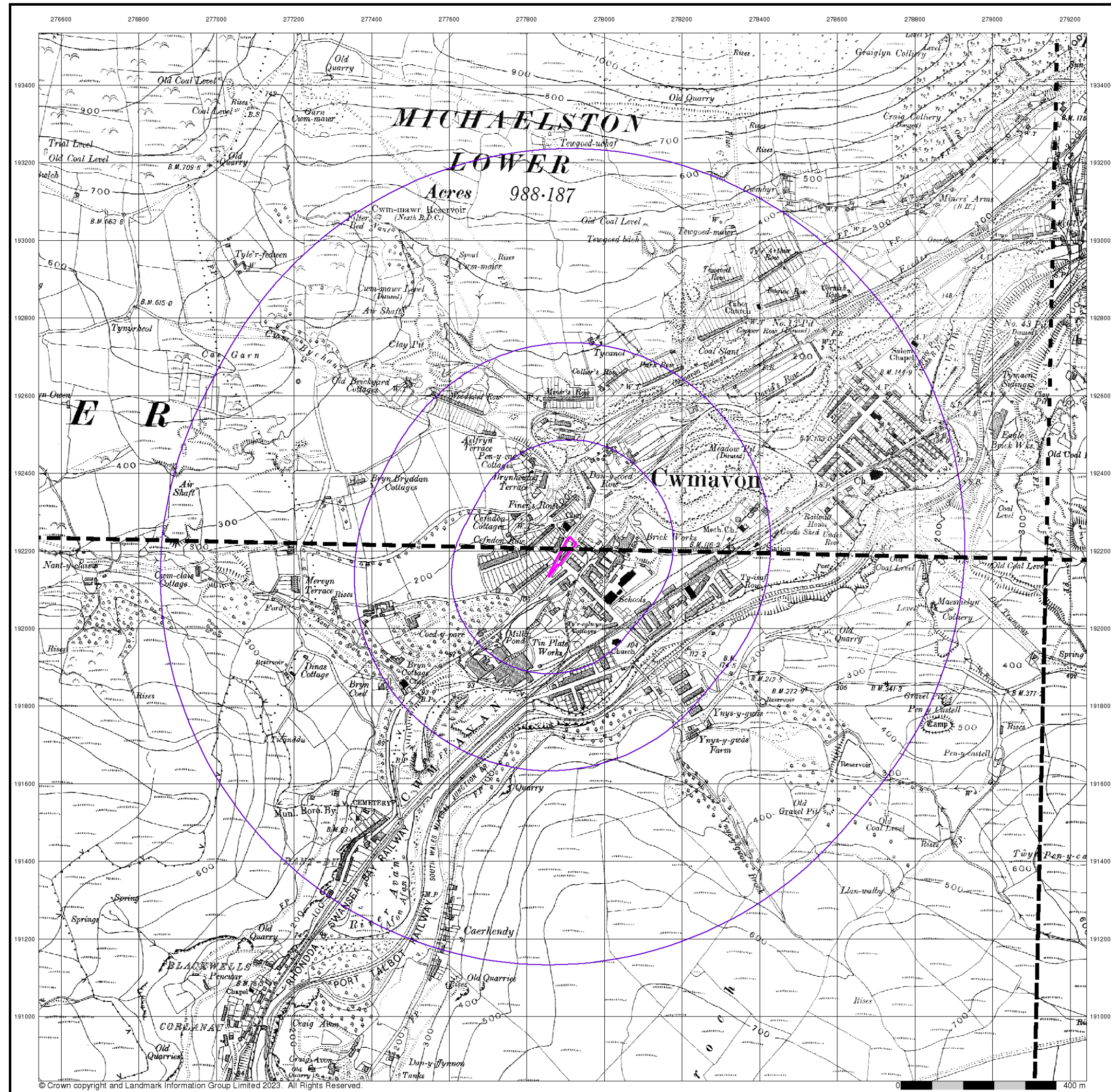
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Customer Ref: 14611 Tabernacle
National Grid Reference: 277890, 192180
Slice: A
Site Area (Ha): 0.17
Search Buffer (m): 1000

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



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Glamorganshire

Published 1921

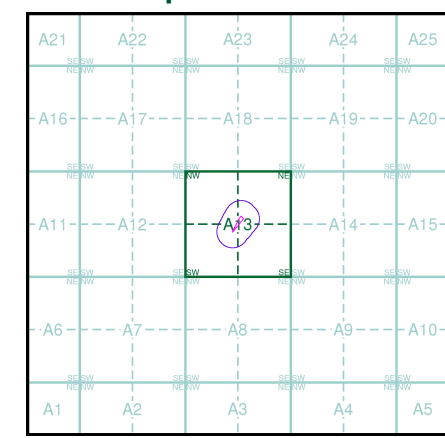
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Map Name(s) and Date(s)

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Historical Map - Slice A



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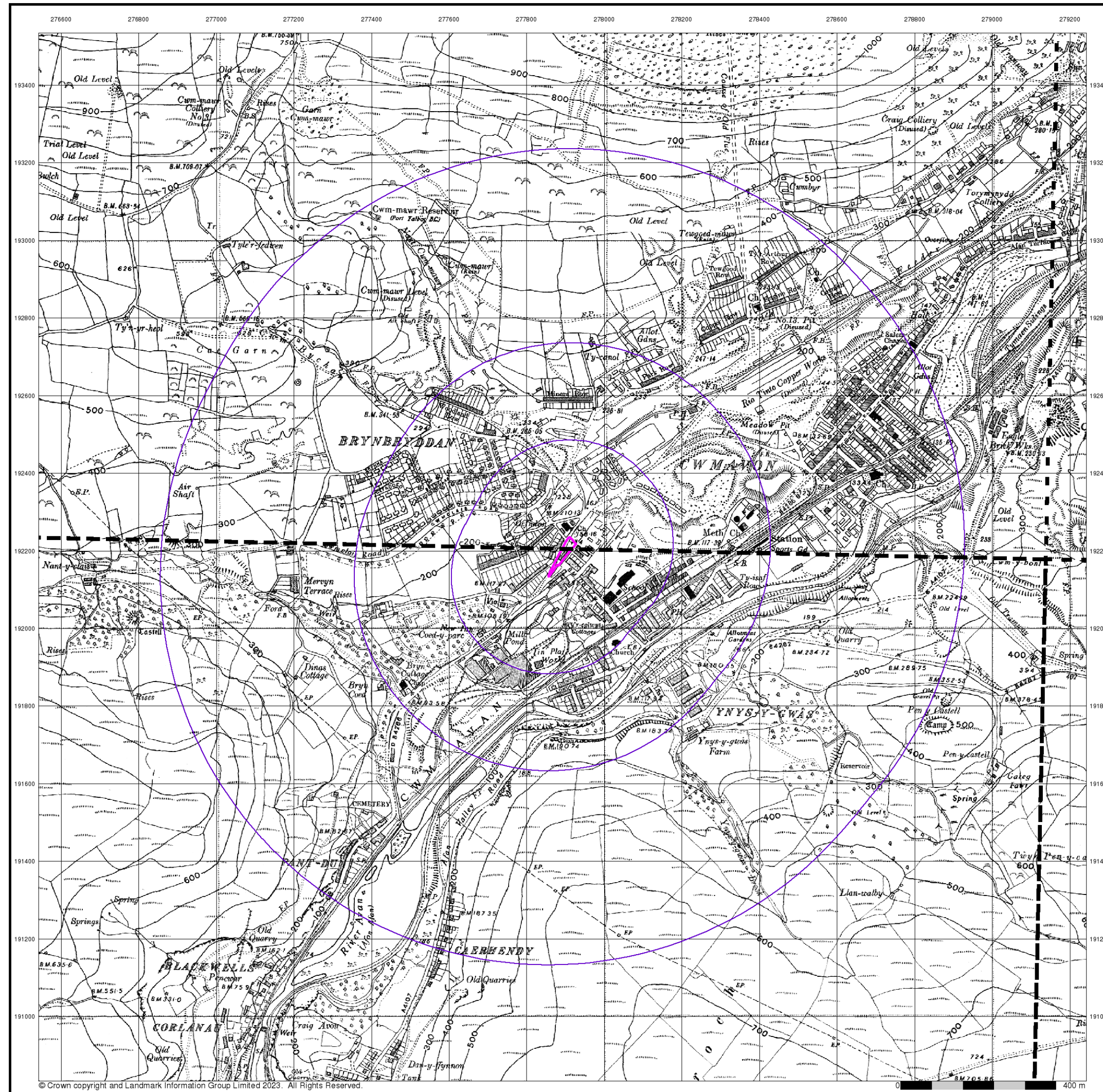
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Fax: 0844 844 9951
Web: www.envirocheck.co.uk



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Glamorganshire

Published 1938 - 1952

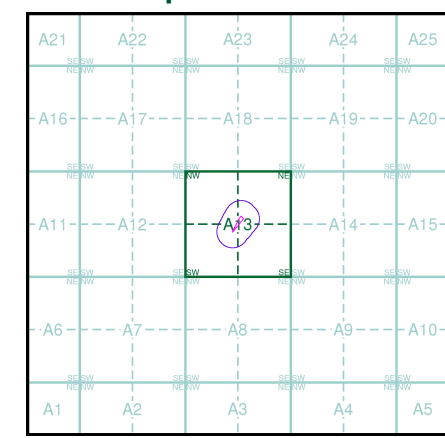
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Map Name(s) and Date(s)

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Historical Map - Slice A



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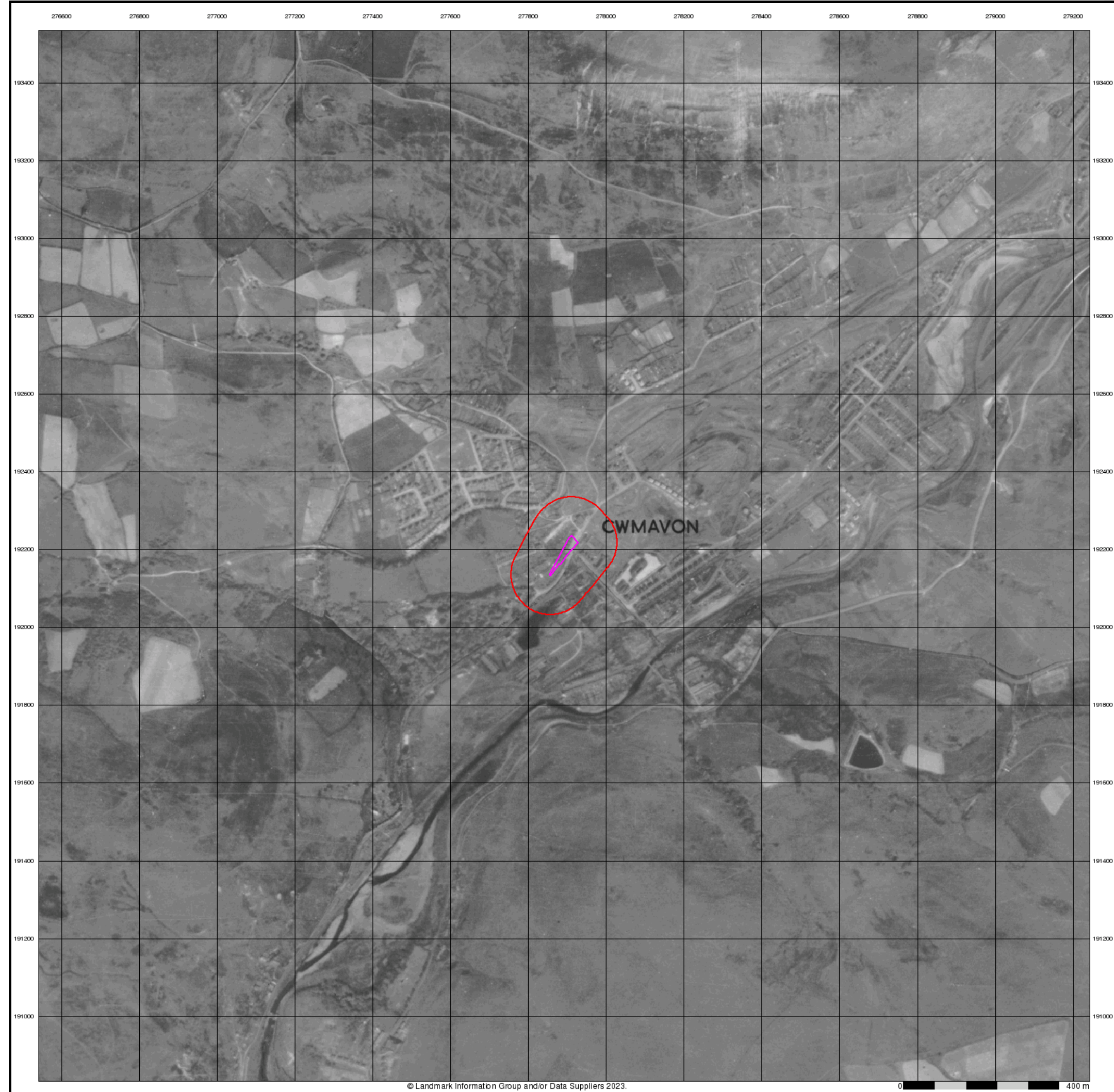
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Tel: 0844 844 9952
Fax: 0844 844 9951
Web: www.envirocheck.co.uk





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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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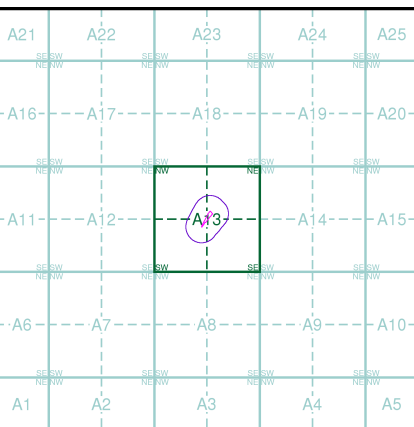
Map Name(s) and Date(s)

SS79SE

1949

1:10,560

Historical Aerial Photography - Slice A



Order Details

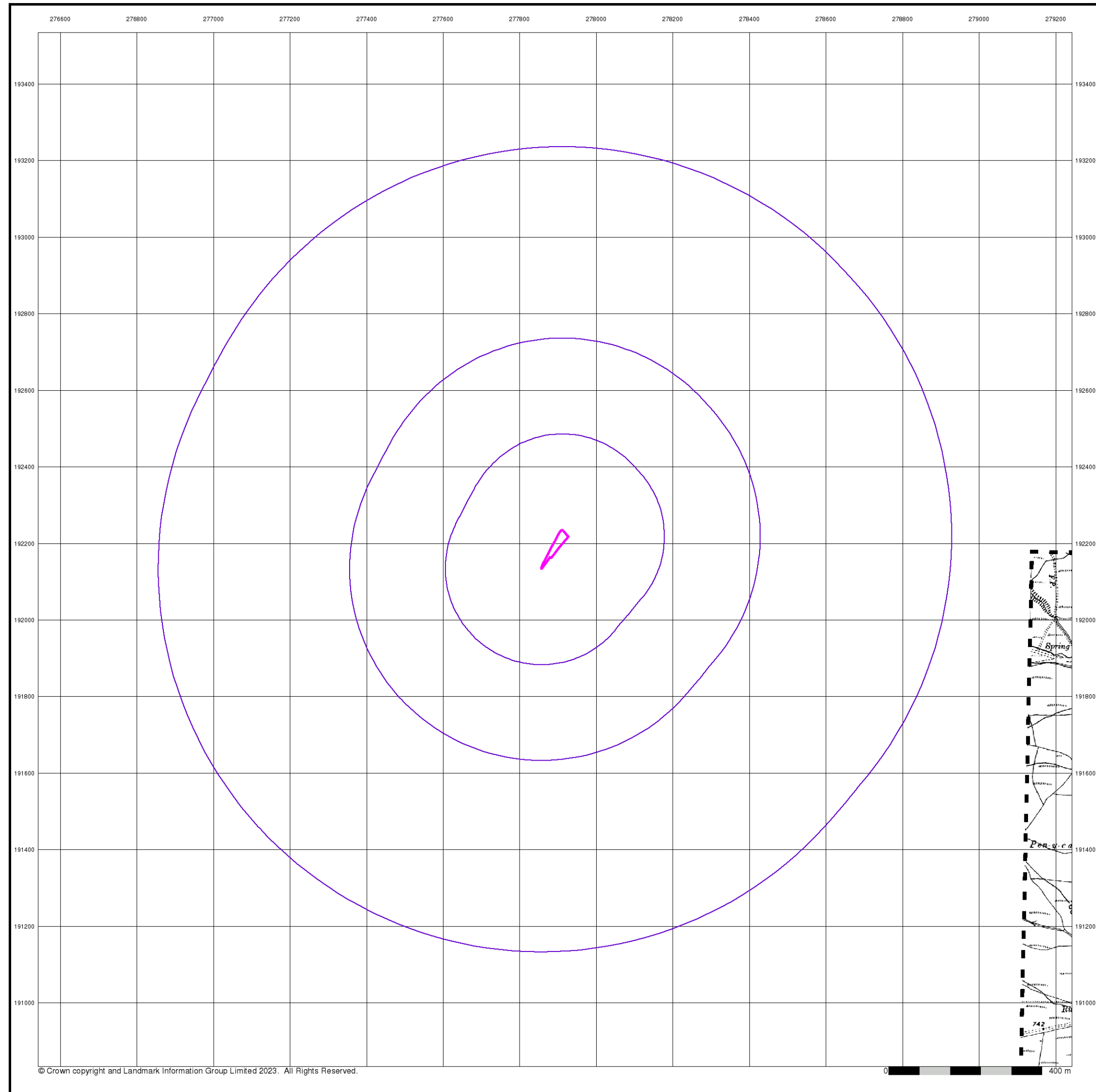
Order Number:	327557041_1_1
Customer Ref:	14611 Tabernacle
National Grid Reference:	277890, 192180
Slice:	A
Site Area (Ha):	0.17
Search Buffer (m):	1000

Site Details

Tabernacle terrace, Cwmavon, Port Talbot, SA12 9DA



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Glamorganshire

Published 1951

Source map scale - 1:10,560

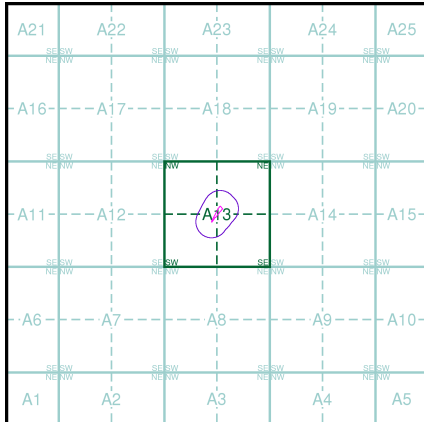
The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas; these maps were used to update the 1:10,560 maps. The published date given therefore is often some 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.

Map Name(s) and Date(s)



025SE
1951
1:10,560

Historical Map - Slice A



Order Details

Order Number:	327557041_1_1
Customer Ref:	14611 Tabernacle
National Grid Reference:	277890, 192180
Slice:	A
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Site Details

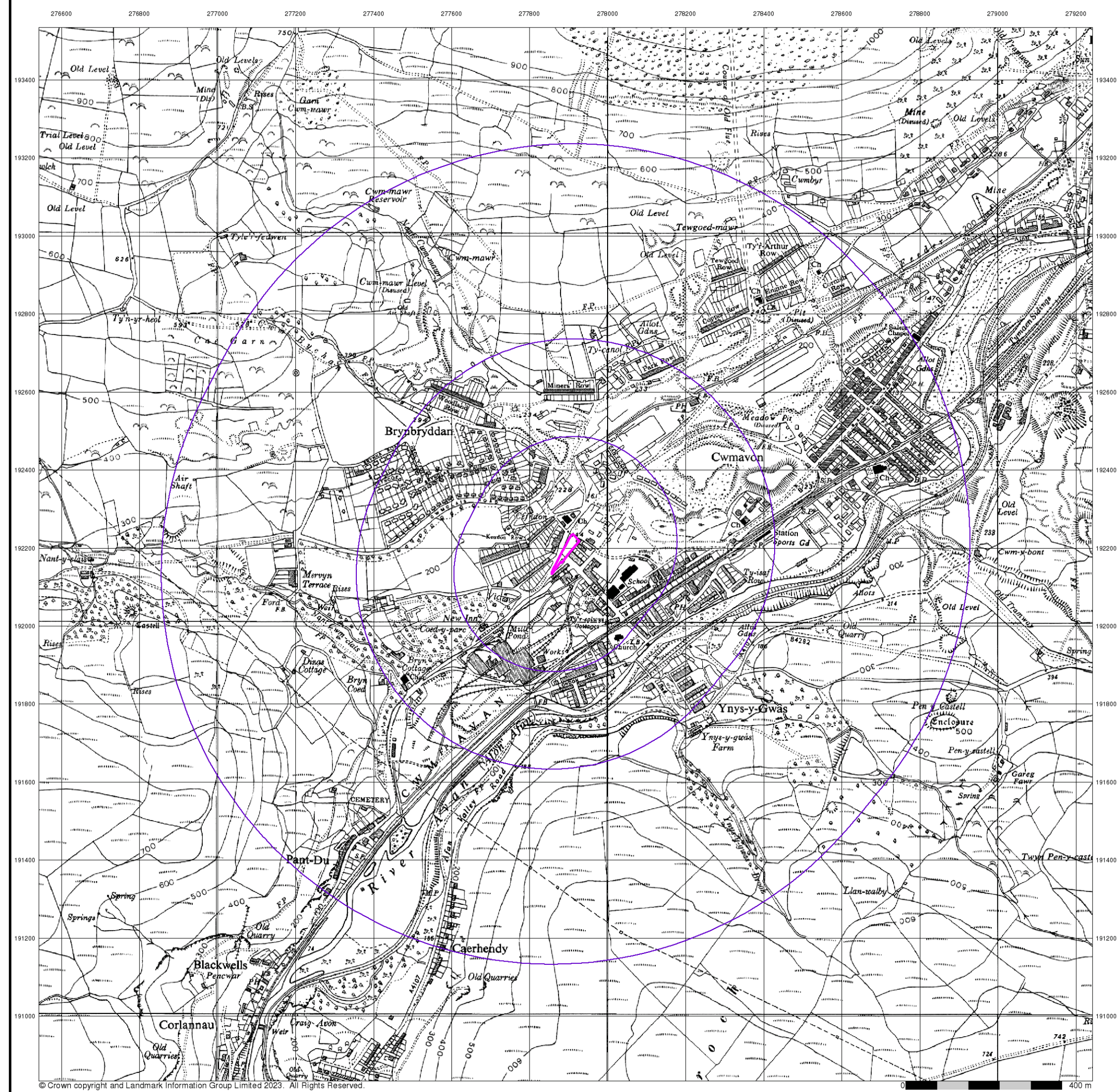
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A Landmark Information Group Service v50.0 06-Dec-2023 Page 8 of 15



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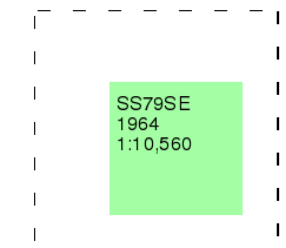
Ordnance Survey Plan

Published 1964

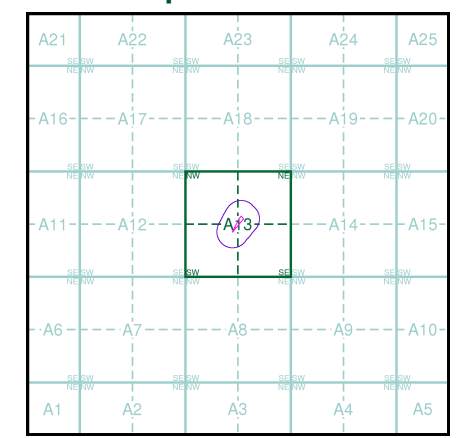
Source map scale - 1:10,000

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

Map Name(s) and Date(s)



Historical Map - Slice A



Order Details

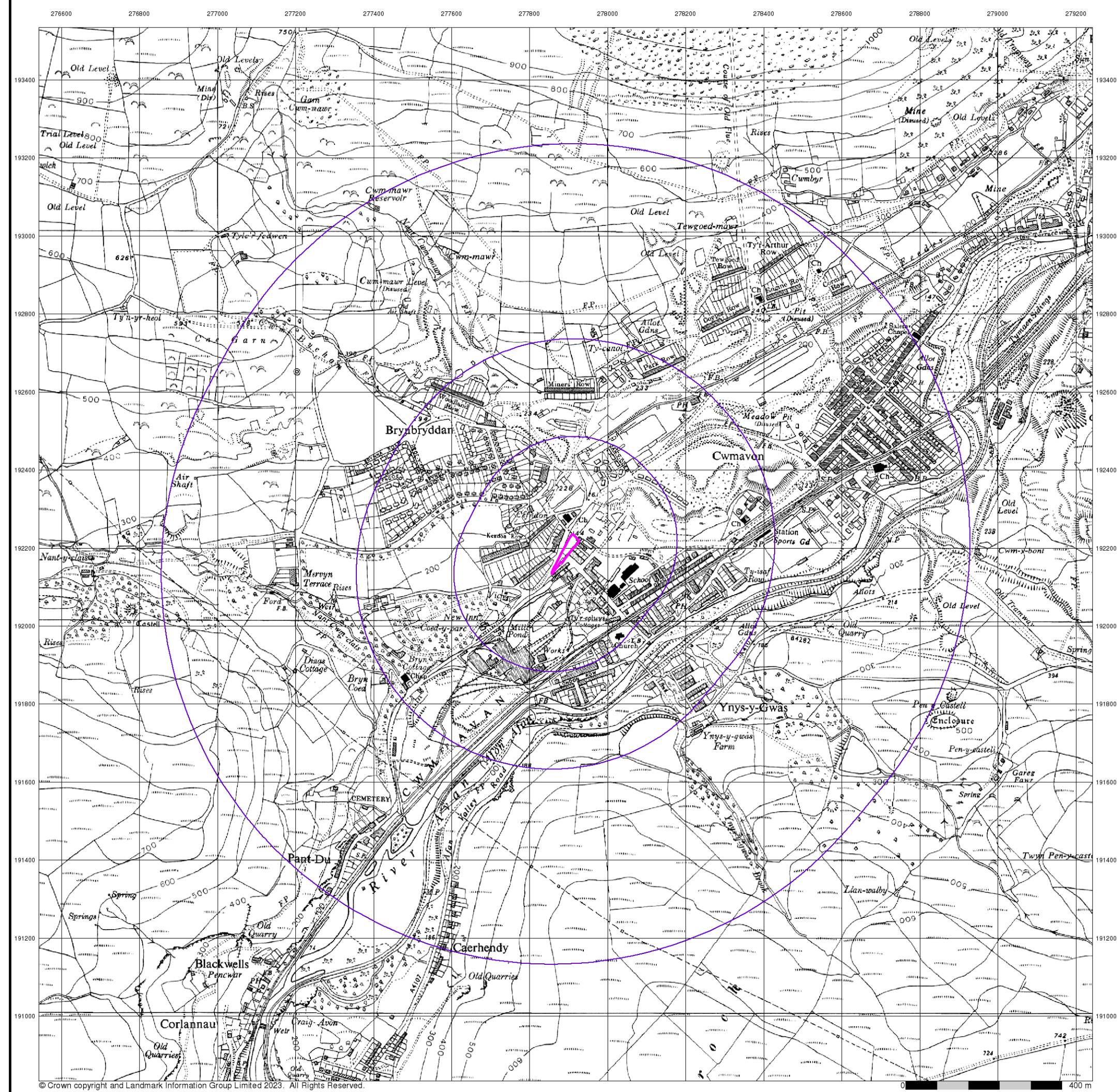
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Customer Ref: 14611 Tabernacle
National Grid Reference: 277890, 192180
Slice: A
Site Area (Ha): 0.17
Search Buffer (m): 1000

Site Details

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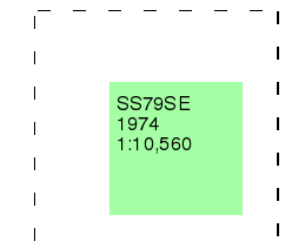
Ordnance Survey Plan

Published 1974

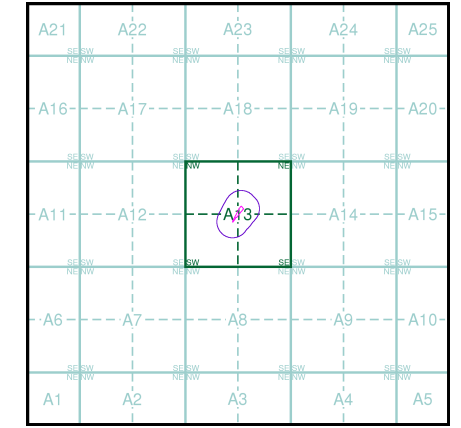
Source map scale - 1:10,000

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

Map Name(s) and Date(s)



Historical Map - Slice A



Order Details

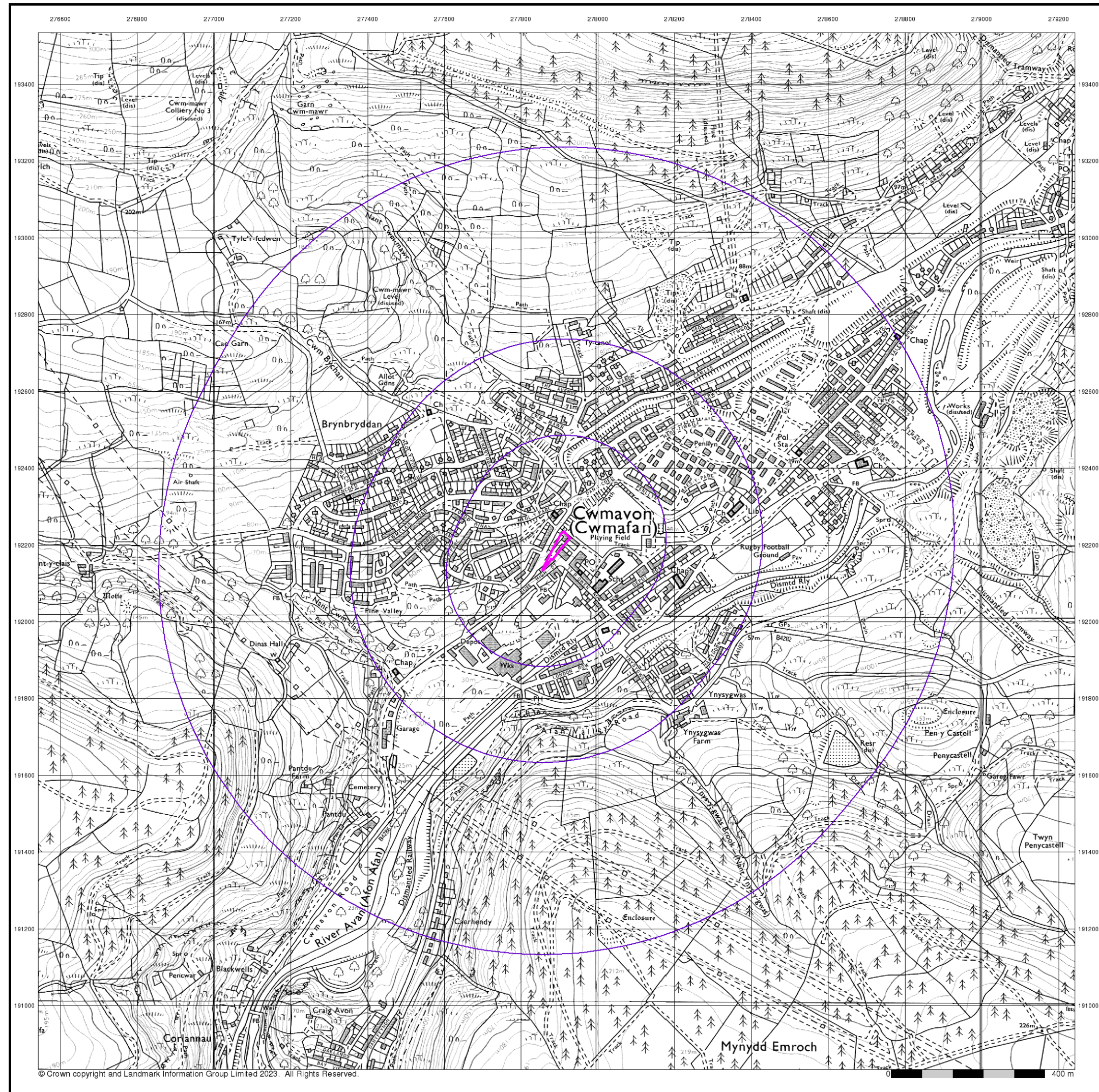
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National Grid Reference: 277890, 192180
Slice: A
Site Area (Ha): 0.17
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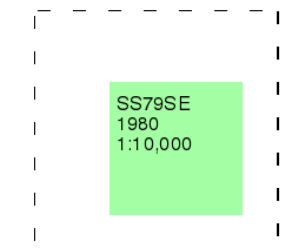
Ordnance Survey Plan

Published 1980

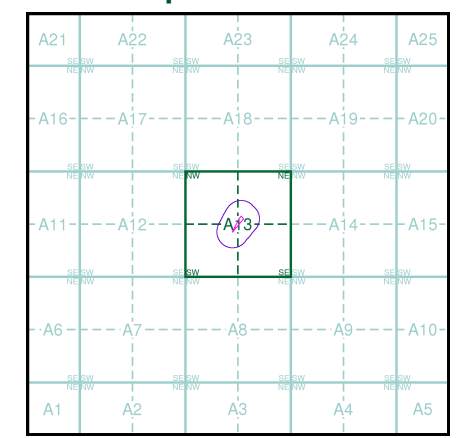
Source map scale - 1:10,000

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

Map Name(s) and Date(s)



Historical Map - Slice A



Order Details

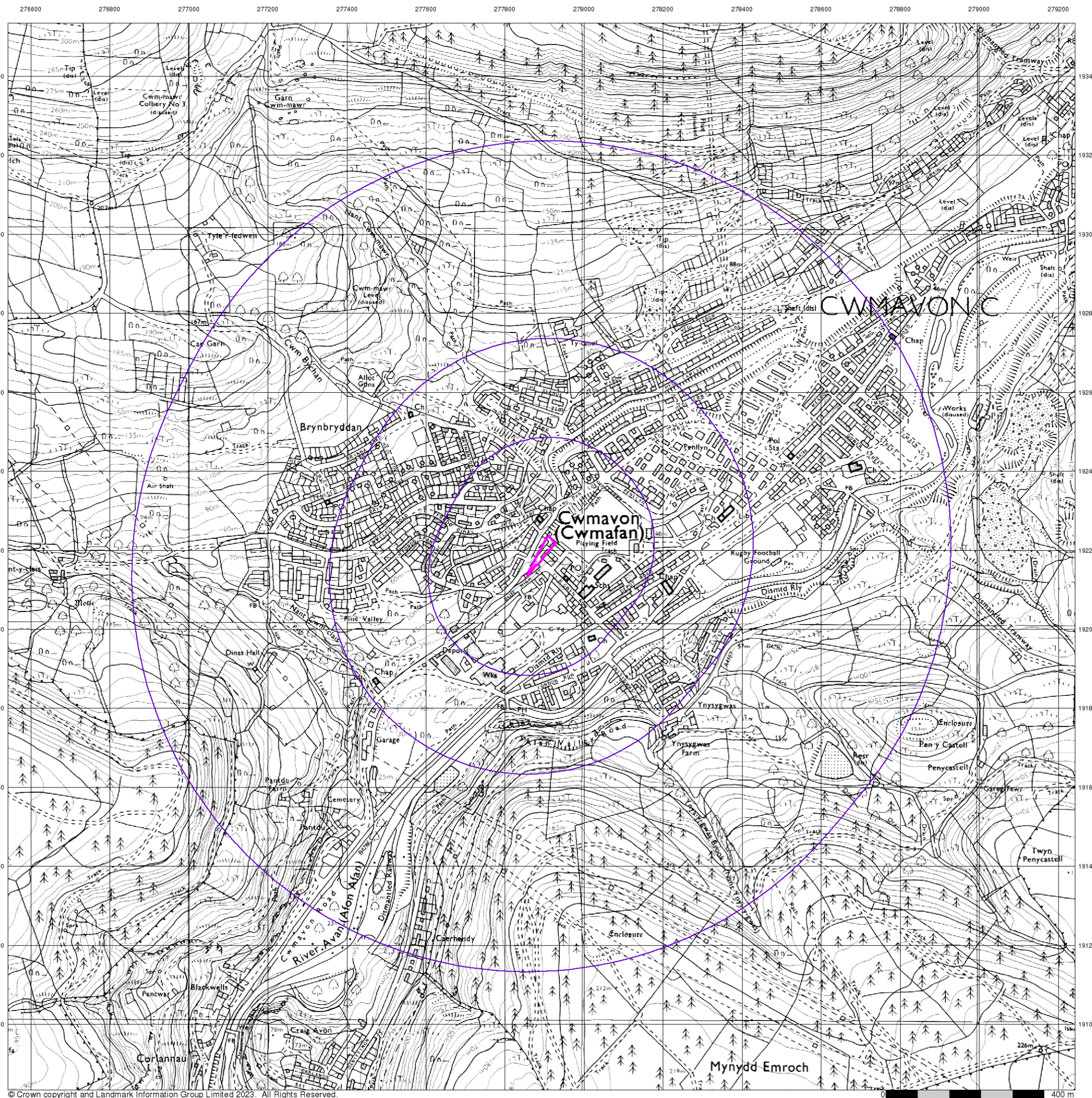
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Customer Ref: 14611 Tabernacle
National Grid Reference: 277890, 192180
Slice: A
Site Area (Ha): 0.17
Search Buffer (m): 1000

Site Details

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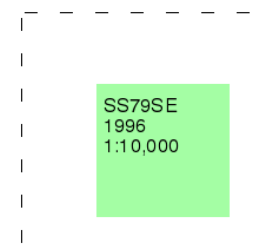
Ordnance Survey Plan

Published 1996

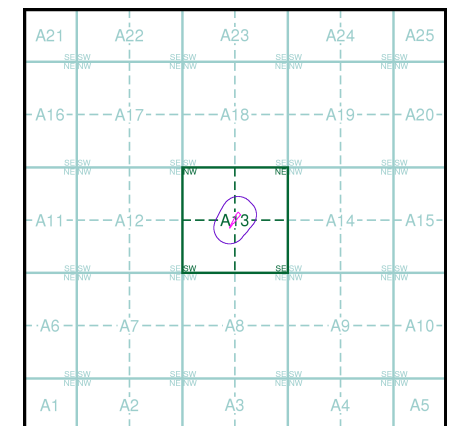
Source map scale - 1:10,000

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

Map Name(s) and Date(s)



Historical Map - Slice A



Order Details

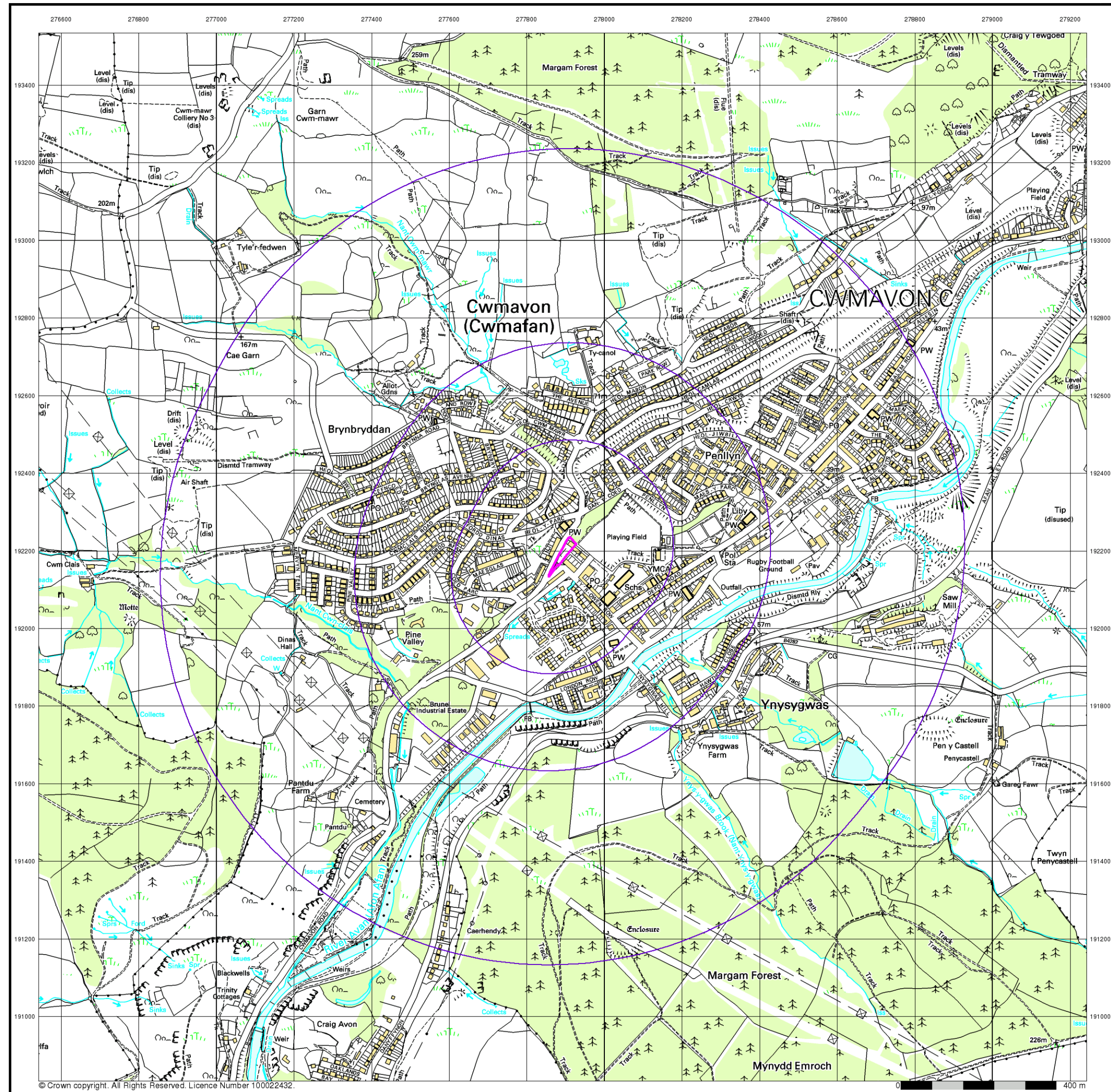
Order Number: 327557041_1_1
Customer Ref: 14611 Tabernacle
National Grid Reference: 277890, 192180
Slice: A
Site Area (Ha): 0.17
Search Buffer (m): 1000

Site Details

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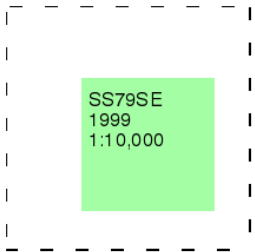
10k Raster Mapping

Published 1999

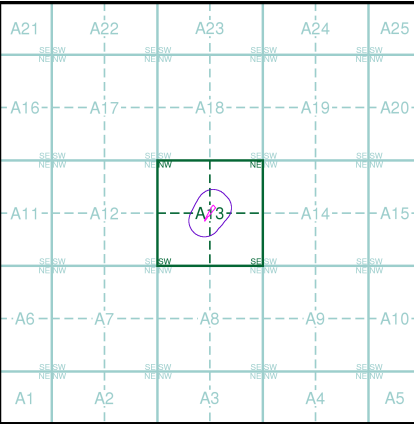
Source map scale - 1:10,000

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)



Historical Map - Slice A



Order Details

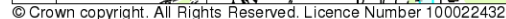
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Customer Ref: 14611 Tabernacle
National Grid Reference: 277890, 192180
Slice: A
Site Area (Ha): 0.17
Search Buffer (m): 1000

Site Details

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Published 2006

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.

SS79SE
2006
1:10,000

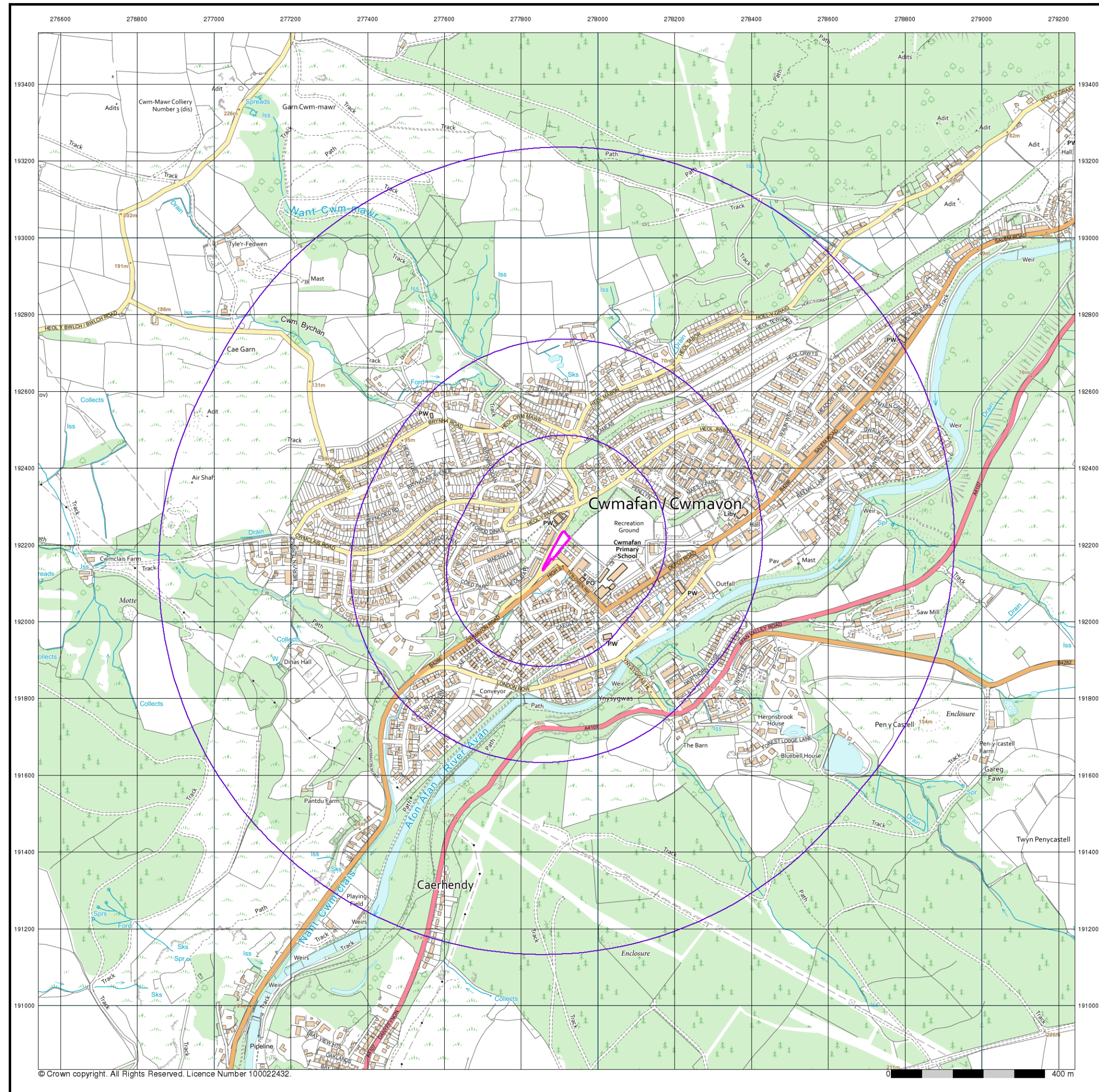
A 5x5 grid of points labeled A1 through A25. The grid is defined by horizontal and vertical dashed lines. A 3x3 subgrid is highlighted with a green border, and the center point A13 is circled in purple.



Order Number:	327557041_1_1
Customer Ref:	14611 Tabernacle
National Grid Reference:	277890, 192180
Slice:	A
Site Area (Ha):	0.17
Search Buffer (m):	1000

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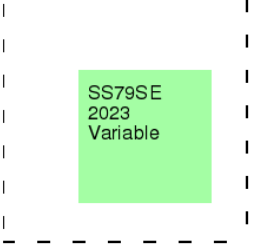
VectorMap Local

Published 2023

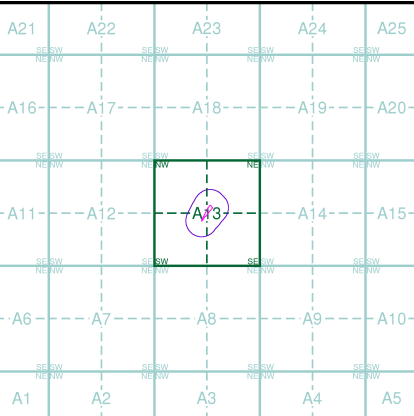
Source map scale - 1:10,000

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:	327557041_1_1
Customer Ref:	14611 Tabernacle
National Grid Reference:	277890, 192180
Slice:	A
Site Area (Ha):	0.17
Search Buffer (m):	1000

Site Details

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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

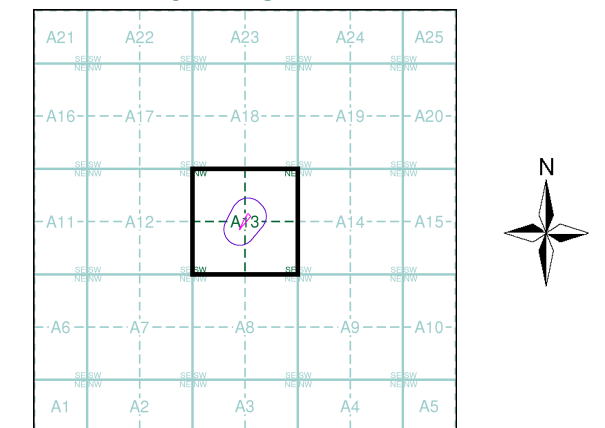


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Historical Mapping & Photography included:

Mapping Type	Scale	Date	Pg
Glamorganshire	1:2,500	1877 - 1878	2
Glamorganshire	1:2,500	1899	3
Glamorganshire	1:2,500	1918 - 1919	4
Glamorganshire	1:2,500	1936 - 1937	5
Ordnance Survey Plan	1:2,500	1965 - 1967	6
Ordnance Survey Plan	1:2,500	1969 - 1978	7
Supply of Unpublished Survey Information	1:2,500	1973	8
Ordnance Survey Plan	1:2,500	1975 - 1984	9
Additional SIMs	1:2,500	1978 - 1983	10
Additional SIMs	1:2,500	1984	11
Large-Scale National Grid Data	1:2,500	1993	12
Large-Scale National Grid Data	1:2,500	1994 - 1995	13
Historical Aerial Photography	1:2,500	2000	14

Historical Map - Segment A13



Order Details

Order Number: 327557041_1_1
Customer Ref: 14611 Tabernacle
National Grid Reference: 277890, 192180
Slice: A
Site Area (Ha): 0.17
Search Buffer (m): 100

Site Details

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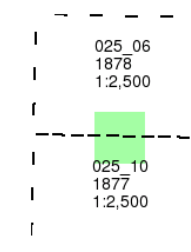
Glamorganshire

Published 1877 - 1878

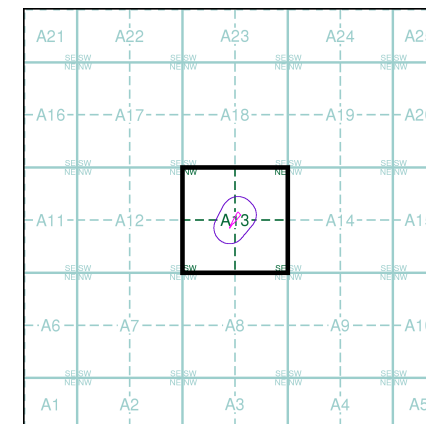
Source map scale - 1:2,500

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: 327557041_1_1
Customer Ref: 14611 Tabernacle
National Grid Reference: 277890, 192180
Slice: A
Site Area (Ha): 0.17
Search Buffer (m): 100

Site Details

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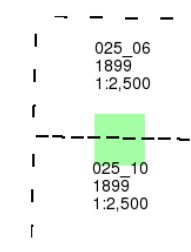
Glamorganshire

Published 1899

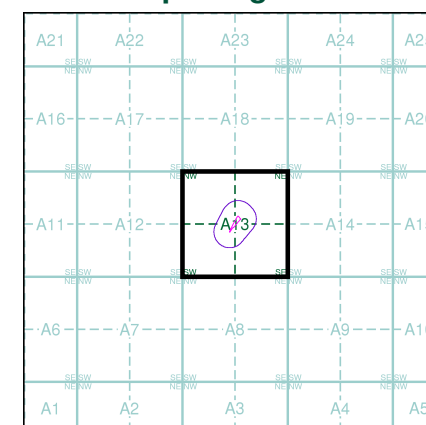
Source map scale - 1:2,500

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

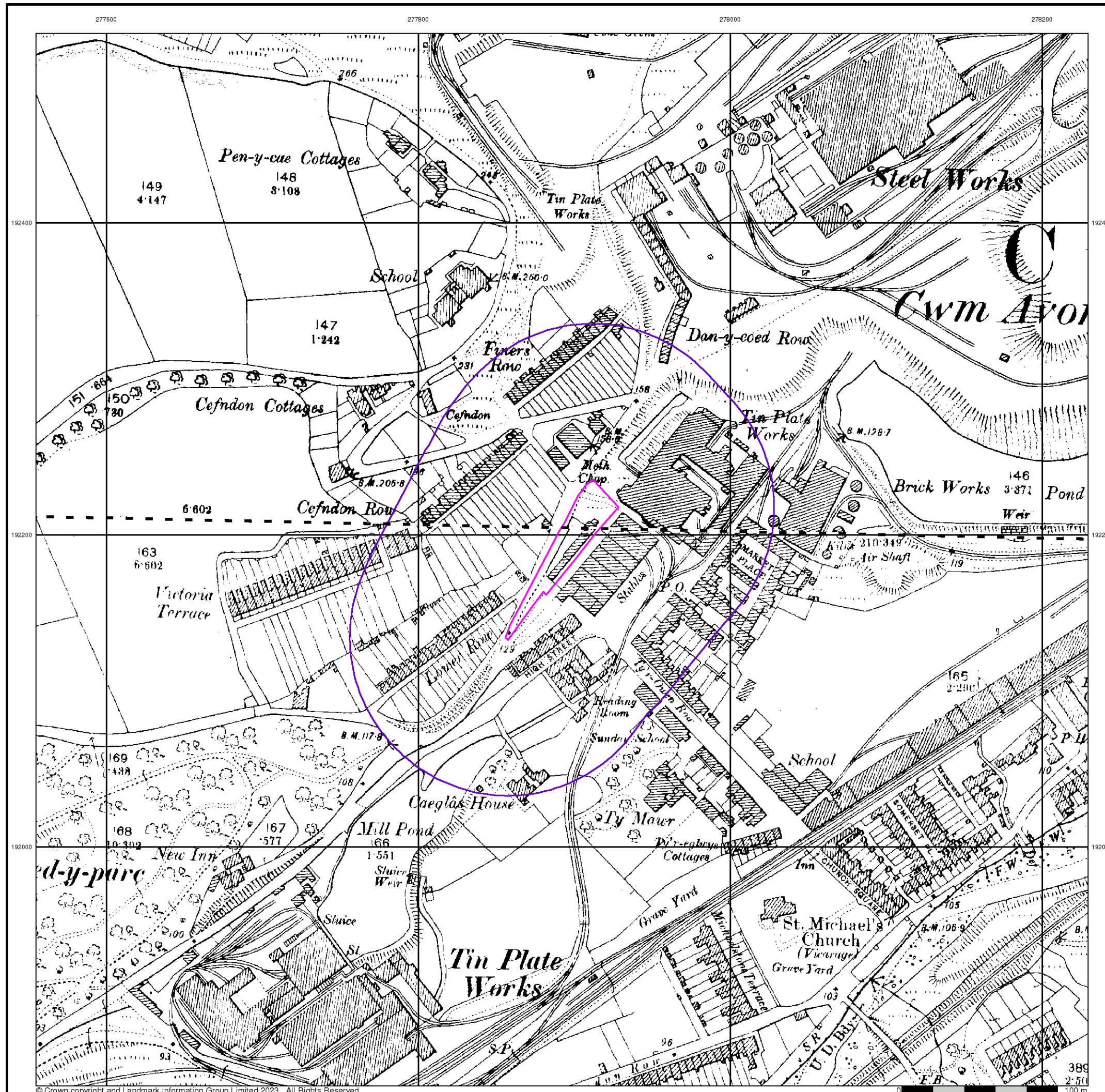
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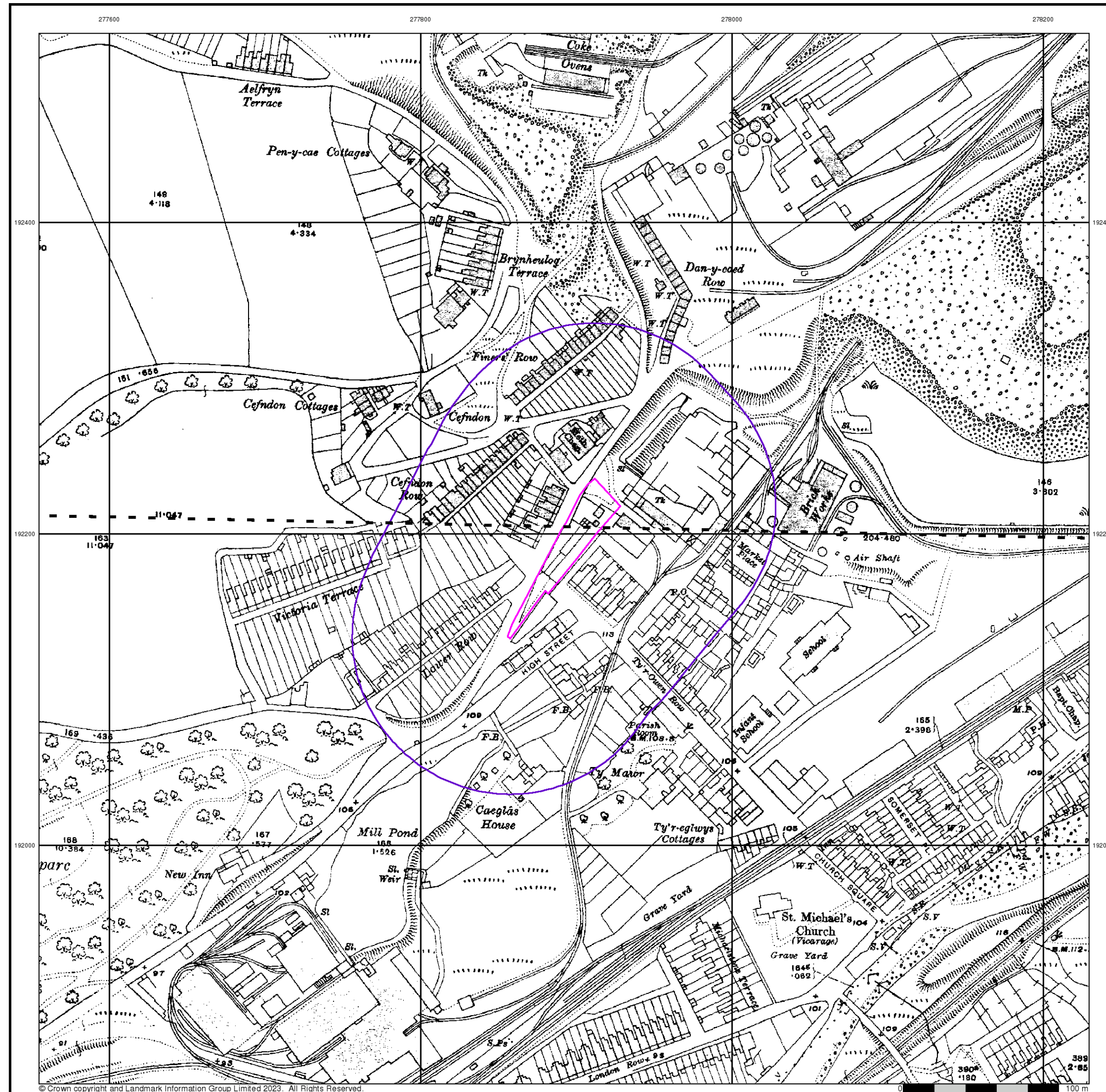
Site Details

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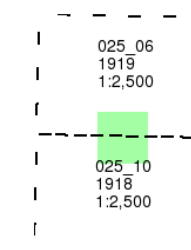
Glamorganshire

Published 1918 - 1919

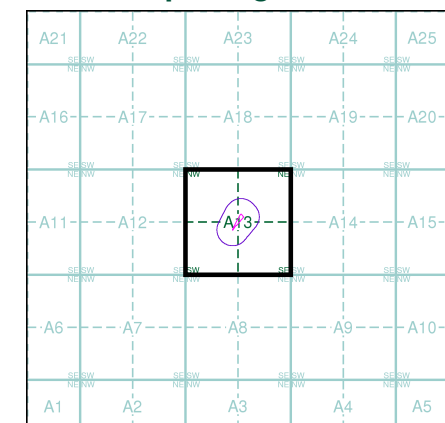
Source map scale - 1:2,500

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Map Name(s) and Date(s)



Historical Map - Segment A13



Order Details

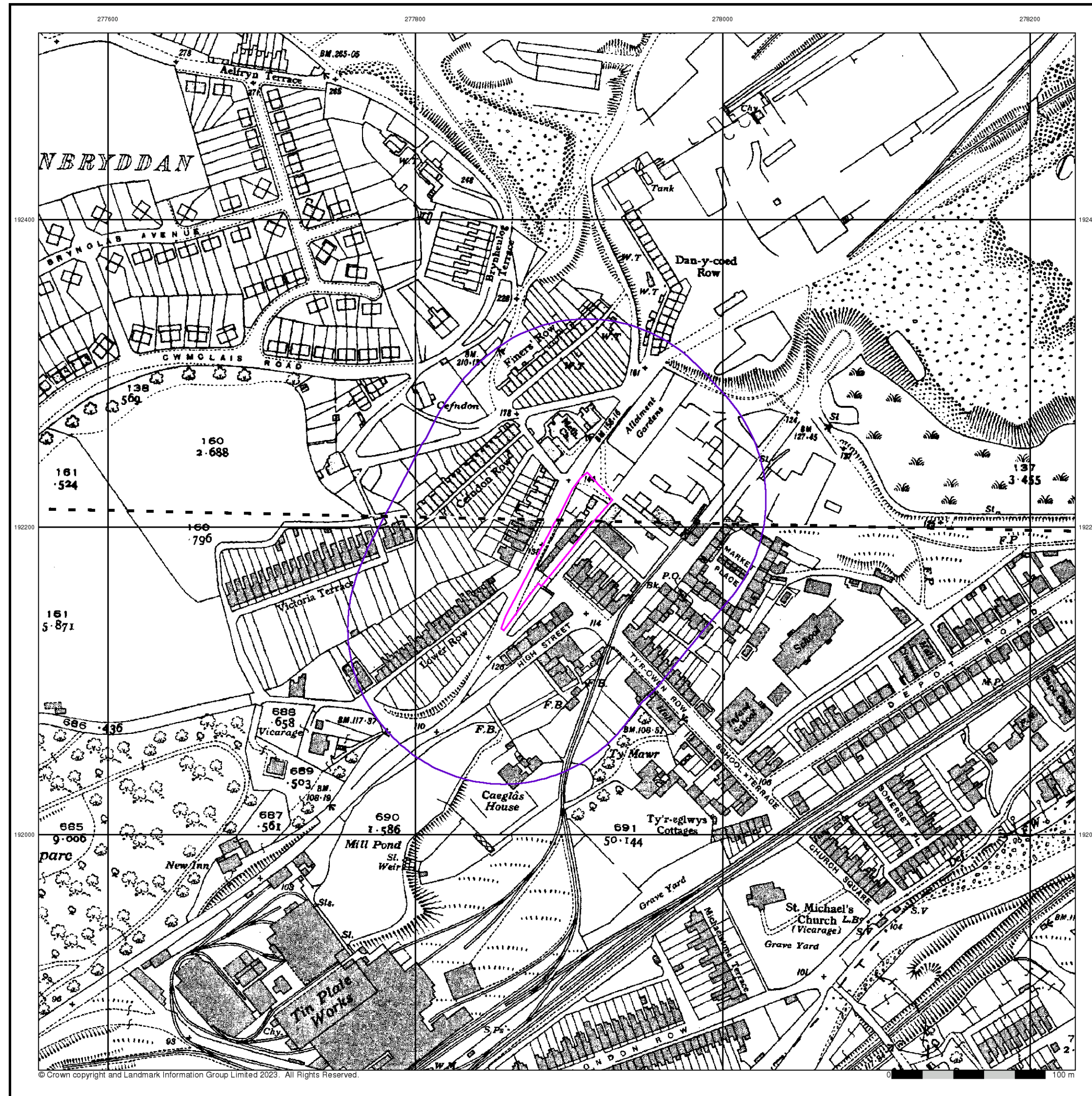
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Customer Ref: 14611 Tabernacle
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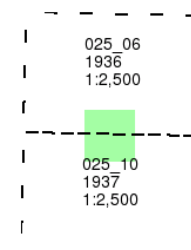
Glamorganshire

Published 1936 - 1937

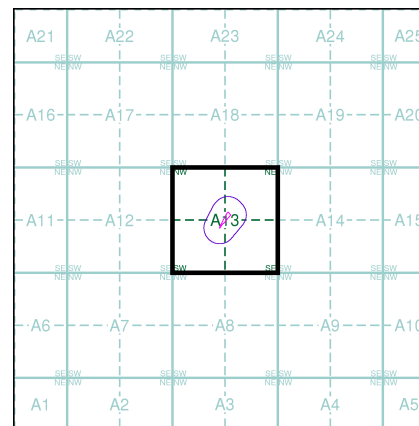
Source map scale - 1:2,500

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

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Ordnance Survey Plan

Published 1965 - 1967

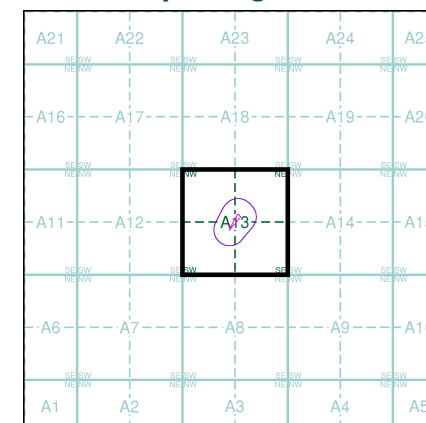
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Map Name(s) and Date(s)

SS7792 1967 12,500	SS7892 1965 12,500
SS7791 1967 12,500	SS7891 1965 12,500

Historical Map - Segment A13



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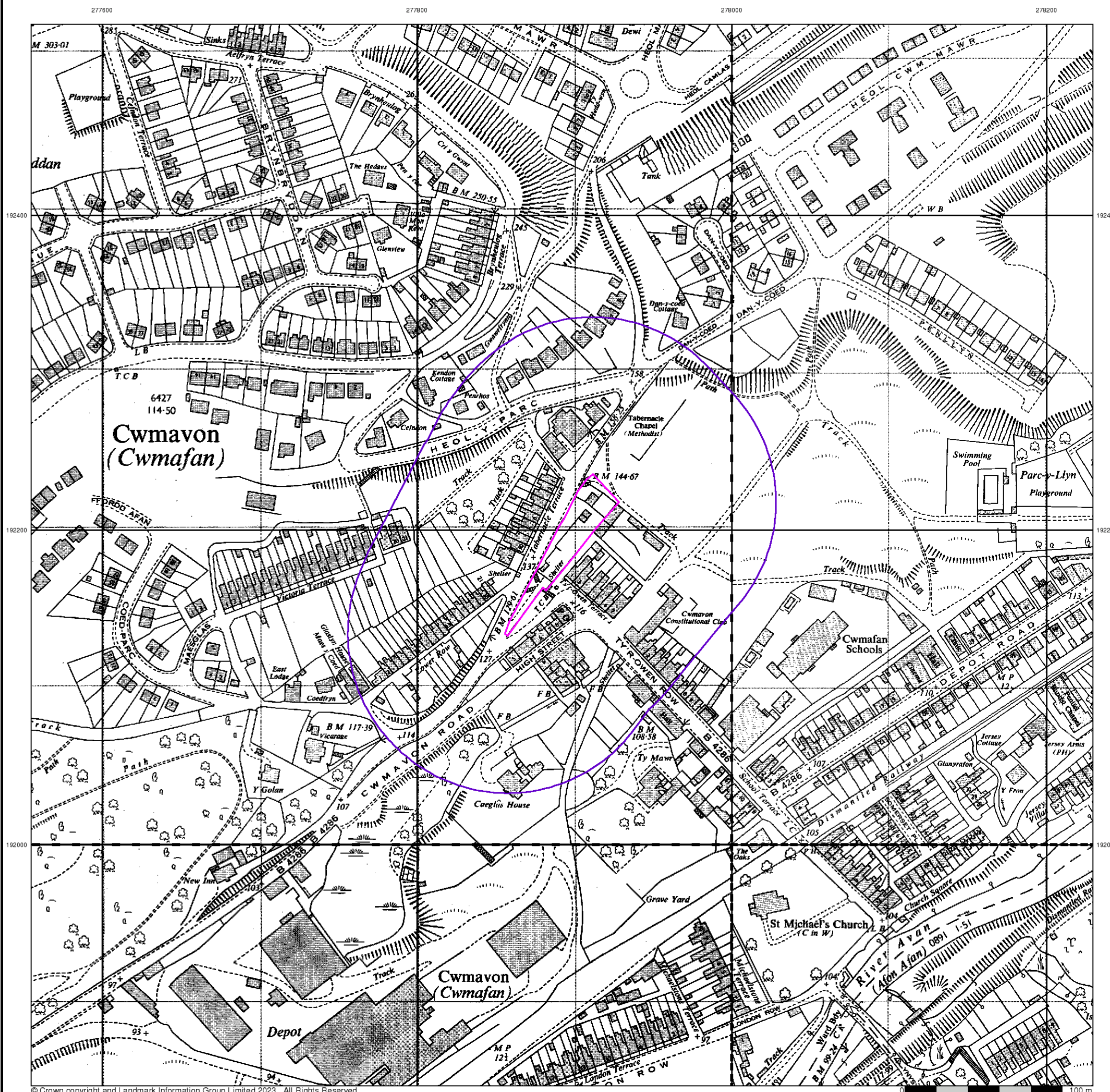
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National Grid Reference: 277890, 192180
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Geotechnical & Geoenvironmental Specialists

Ordnance Survey Plan

Published 1969 - 1978

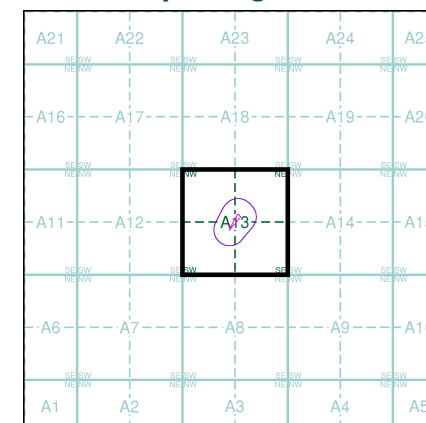
Source map scale - 1:2,500

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)

SS7792 1978 12,500	SS7892 1969 12,500
SS7791 1978 12,500	

Historical Map - Segment A13



Order Details

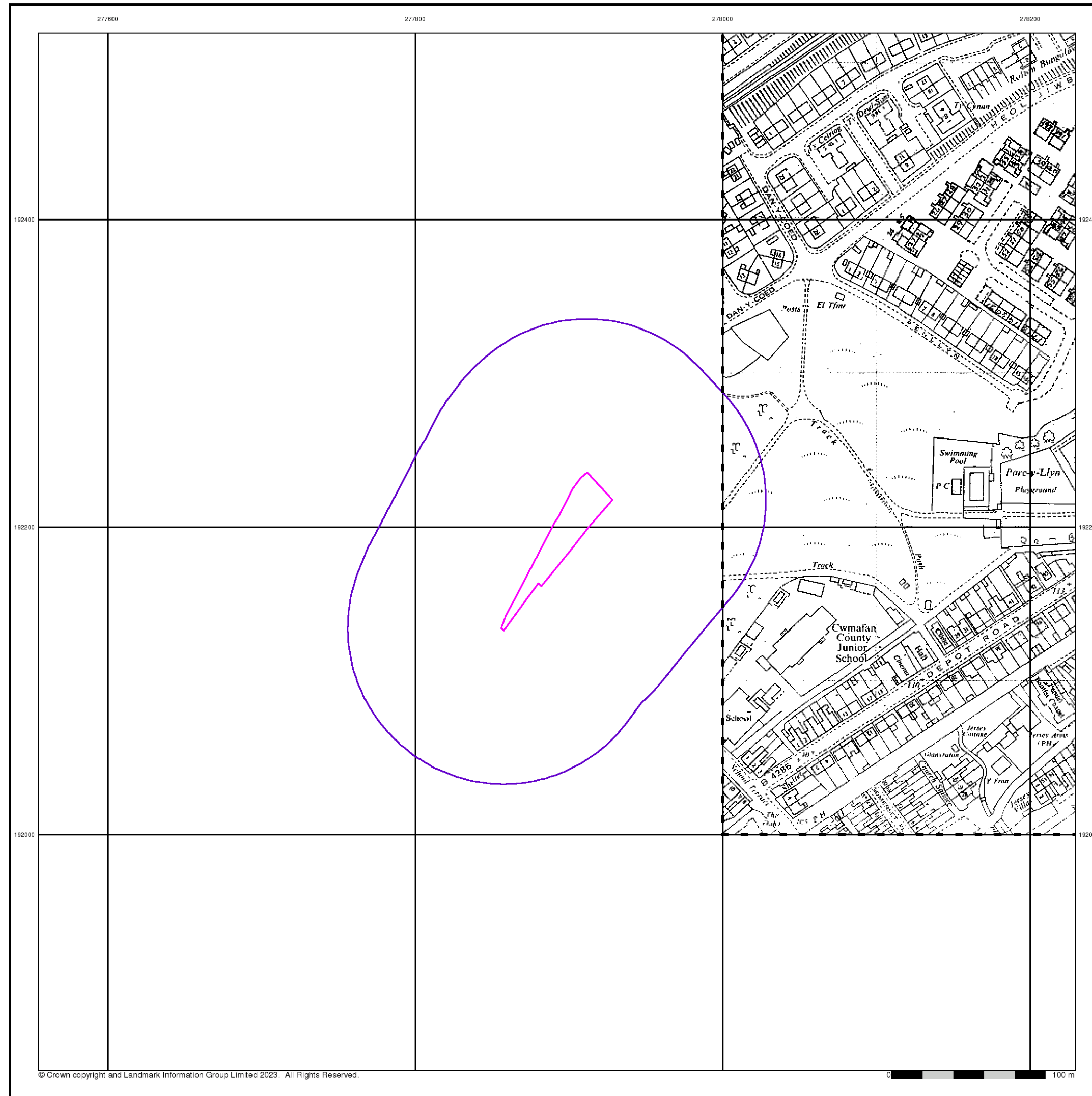
Order Number: 327557041_1_1
Customer Ref: 14611 Tabernacle
National Grid Reference: 277890, 192180
Slice: A
Site Area (Ha): 0.17
Search Buffer (m): 100

Site Details

Tabernacle terrace, Cwmavon, Port Talbot, SA12 9DA

Landmark
INFORMATION GROUP

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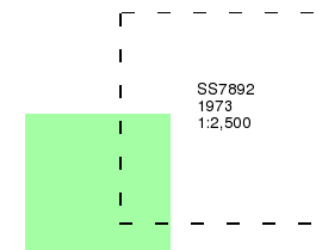
Supply of Unpublished Survey Information

Published 1973

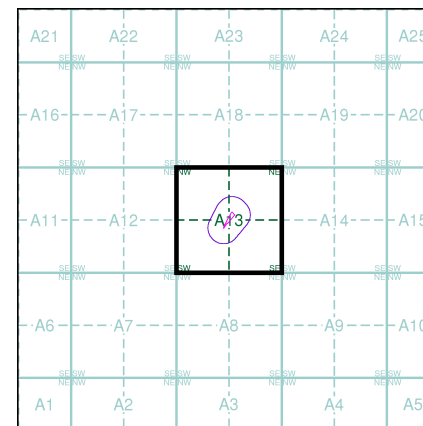
Source map scale - 1:2,500

SUSI maps (Supply of Unpublished Survey Information) were produced between 1972 and 1977, mainly for internal use at Ordnance Survey. These were more of a 'work-in-progress' plan as they showed updates of individual areas on a map. These maps were unpublished, and they do not represent a single moment in time. They were produced at both 1:2,500 and 1:1,250 scales.

Map Name(s) and Date(s)



Historical Map - Segment A13



Order Details

Order Number: 327557041_1_1
Customer Ref: 14611 Tabernacle
National Grid Reference: 277890, 192180
Slice: A
Site Area (Ha): 0.17
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Published 1975 - 1984

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.

SS7792
1983
12,500

SS7892
1975
12,500

SS7791
1984
12,500



Order Number:	327557041_1_1
Customer Ref:	14611 Tabernacle
National Grid Reference:	277890, 192180
Slice:	A
Site Area (Ha):	0.17
Search Buffer (m):	100

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Additional SIMs

Published 1978 - 1983

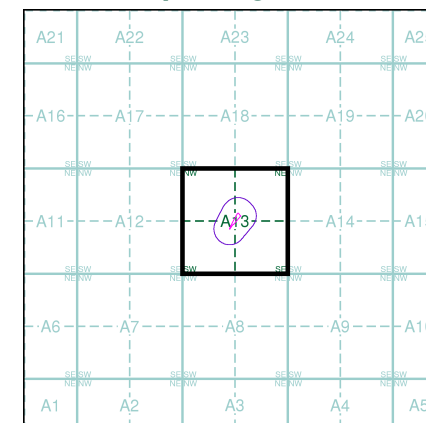
Source map scale - 1:2,500

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)

SS7792 1983 12,500	SS7892 1978 12,500
	SS7891 1978 12,500

Historical Map - Segment A13



Order Details

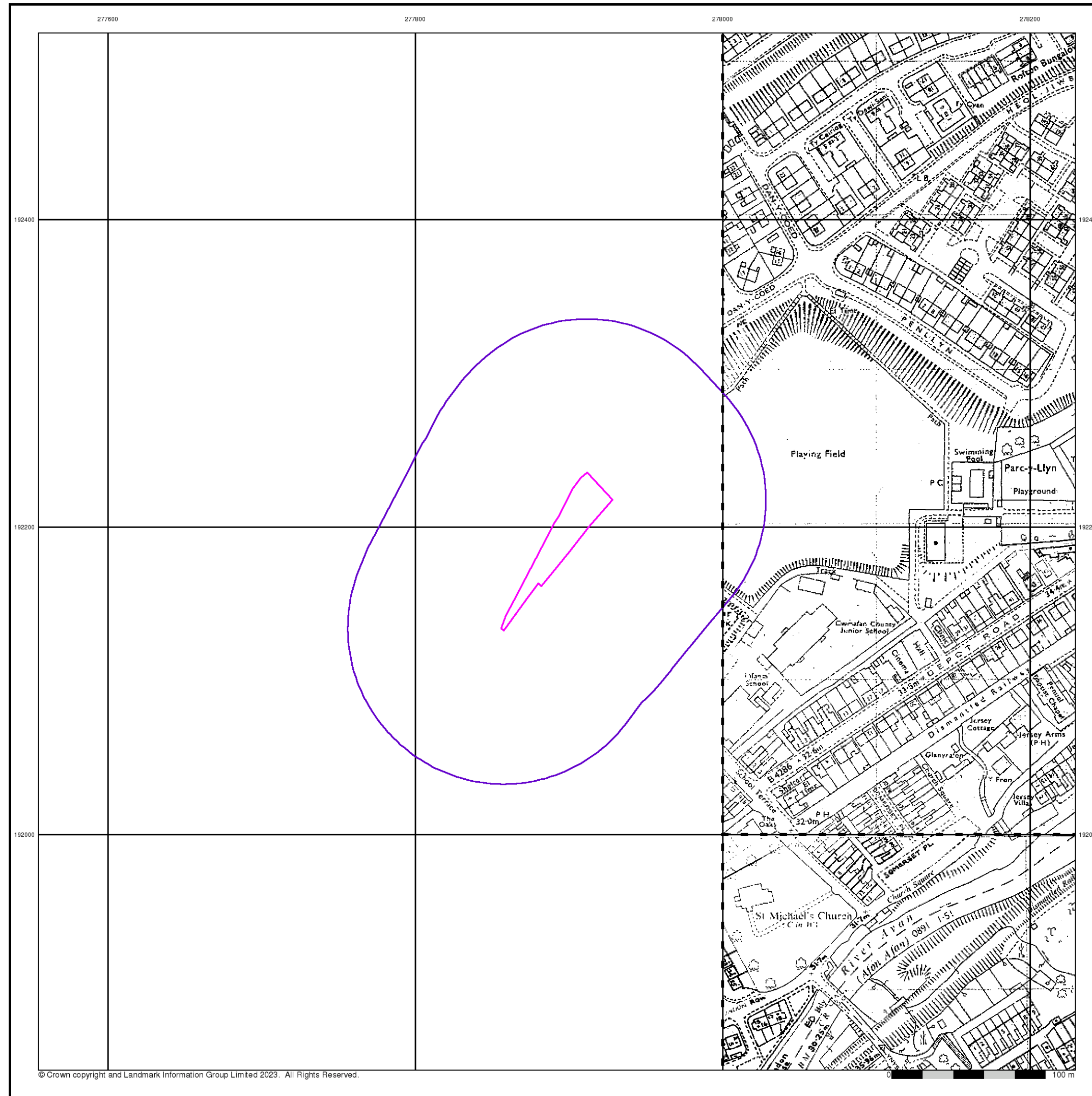
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Customer Ref: 14611 Tabernacle
National Grid Reference: 277890, 192180
Slice: A
Site Area (Ha): 0.17
Search Buffer (m): 100

Site Details

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Additional SIMs

Published 1984

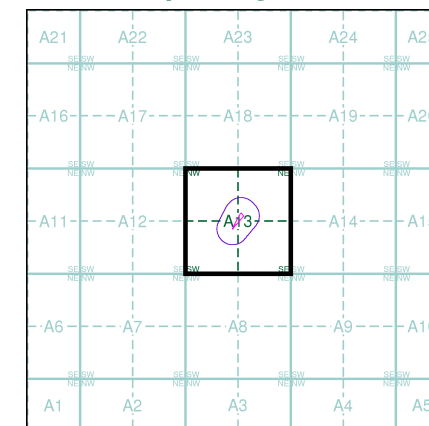
Source map scale - 1:2,500

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)

SS7892	1984	1:2,500
SS7891	1984	1:2,500

Historical Map - Segment A13



Order Details

Order Number: 327557041_1_1
Customer Ref: 14611 Tabernacle
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Search Buffer (m): 100

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Geotechnical & Geoenvironmental Specialists

Large-Scale National Grid Data

Published 1993

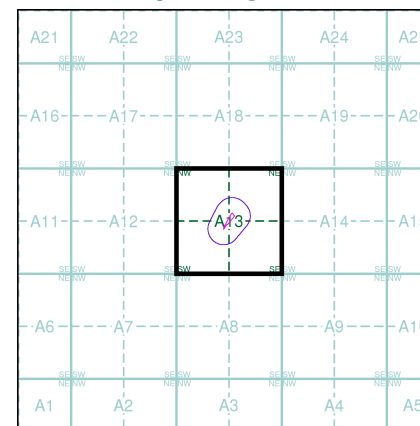
Source map scale - 1:2,500

'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)

SS7792 1993 12,500	SS7892 1993 12,500
SS7791 1993 12,500	SS7891 1993 12,500

Historical Map - Segment A13



Order Details

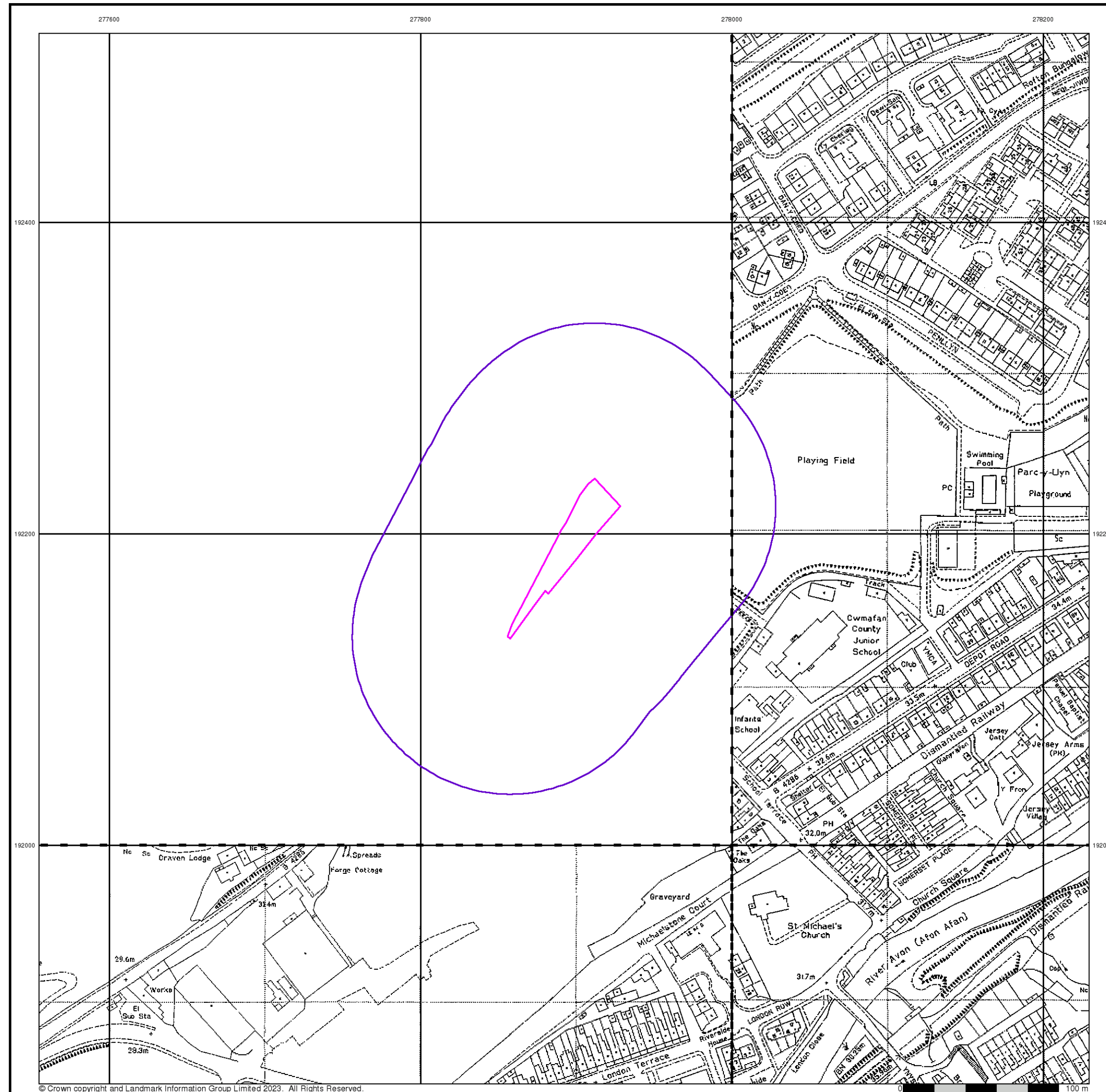
Order Number: 327557041_1_1
Customer Ref: 14611 Tabernacle
National Grid Reference: 277890, 192180
Slice: A
Site Area (Ha): 0.17
Search Buffer (m): 100

Site Details

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Geotechnical & Geoenvironmental Specialists

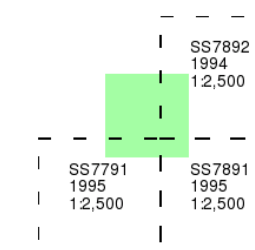
Large-Scale National Grid Data

Published 1994 - 1995

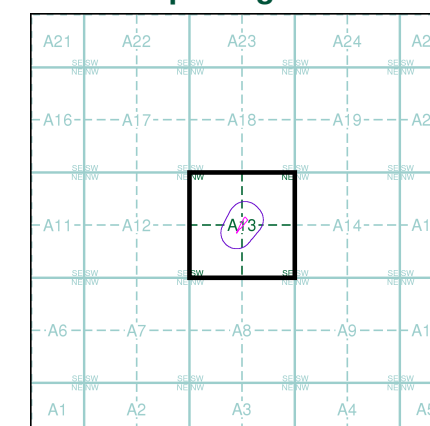
Source map scale - 1:2,500

'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)



Historical Map - Segment A13



Order Details

Order Number: 327557041_1_1
Customer Ref: 14611 Tabernacle
National Grid Reference: 277890, 192180
Slice: A
Site Area (Ha): 0.17
Search Buffer (m): 100

Site Details

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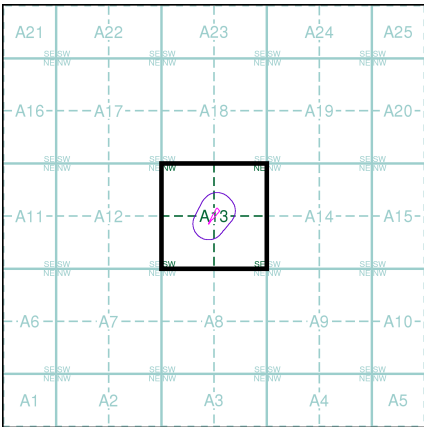
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Historical Aerial Photography

Published 2000

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

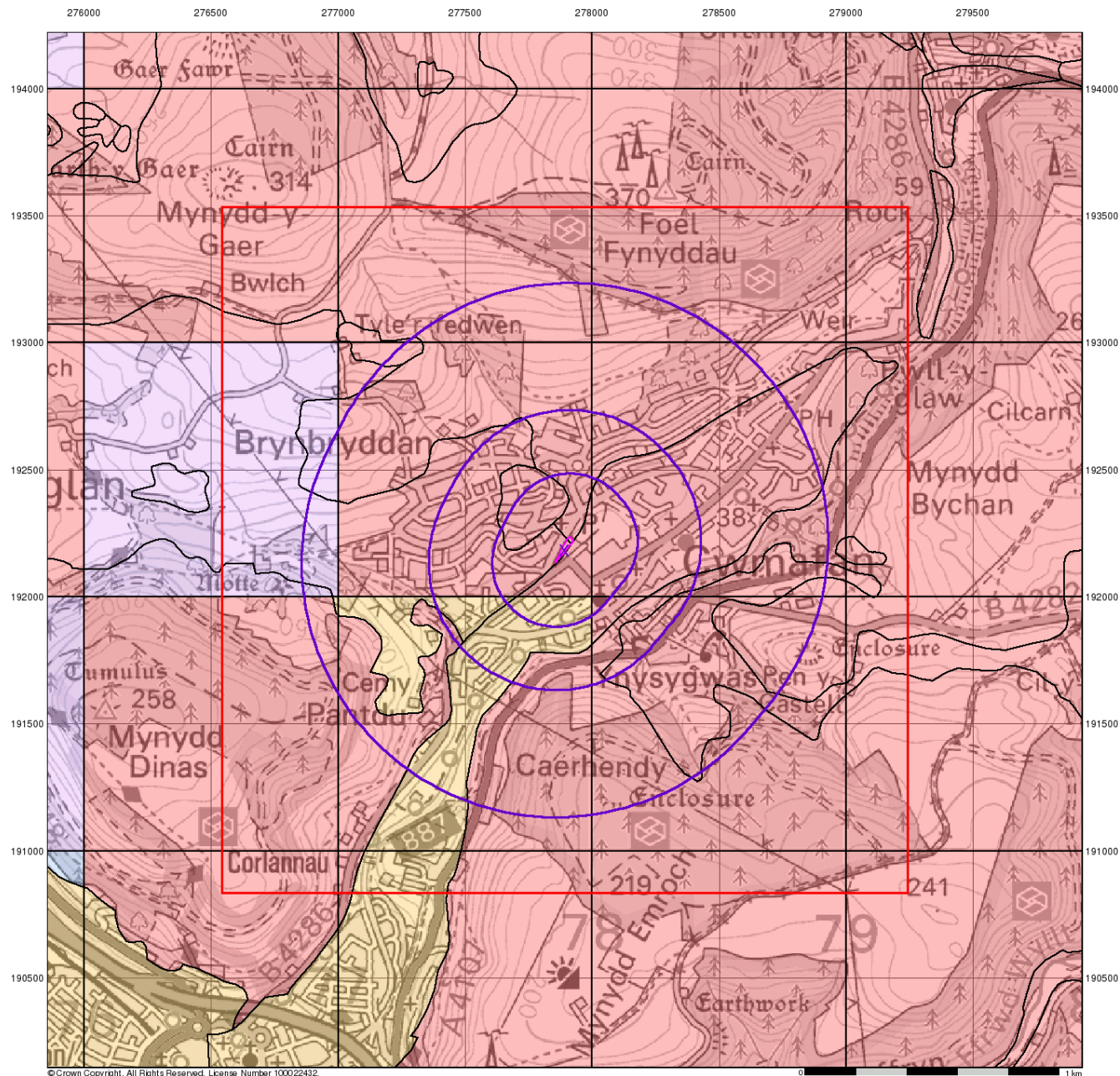
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Customer Ref: 14611 Tabernacle
National Grid Reference: 277890, 192180
Slice: A
Site Area (Ha): 0.17
Search Buffer (m): 100

Site Details

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Groundwater Vulnerability

General

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

Agency and Hydrological

Bedrock Aquifers

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

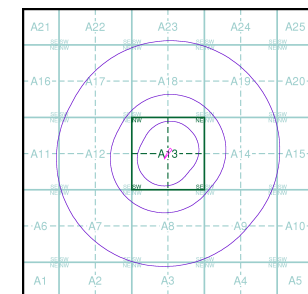
Superficial Aquifers

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

Unproductive Aquifer

Soluble Rock

Site Sensitivity Context Map - Slice A



Order Details

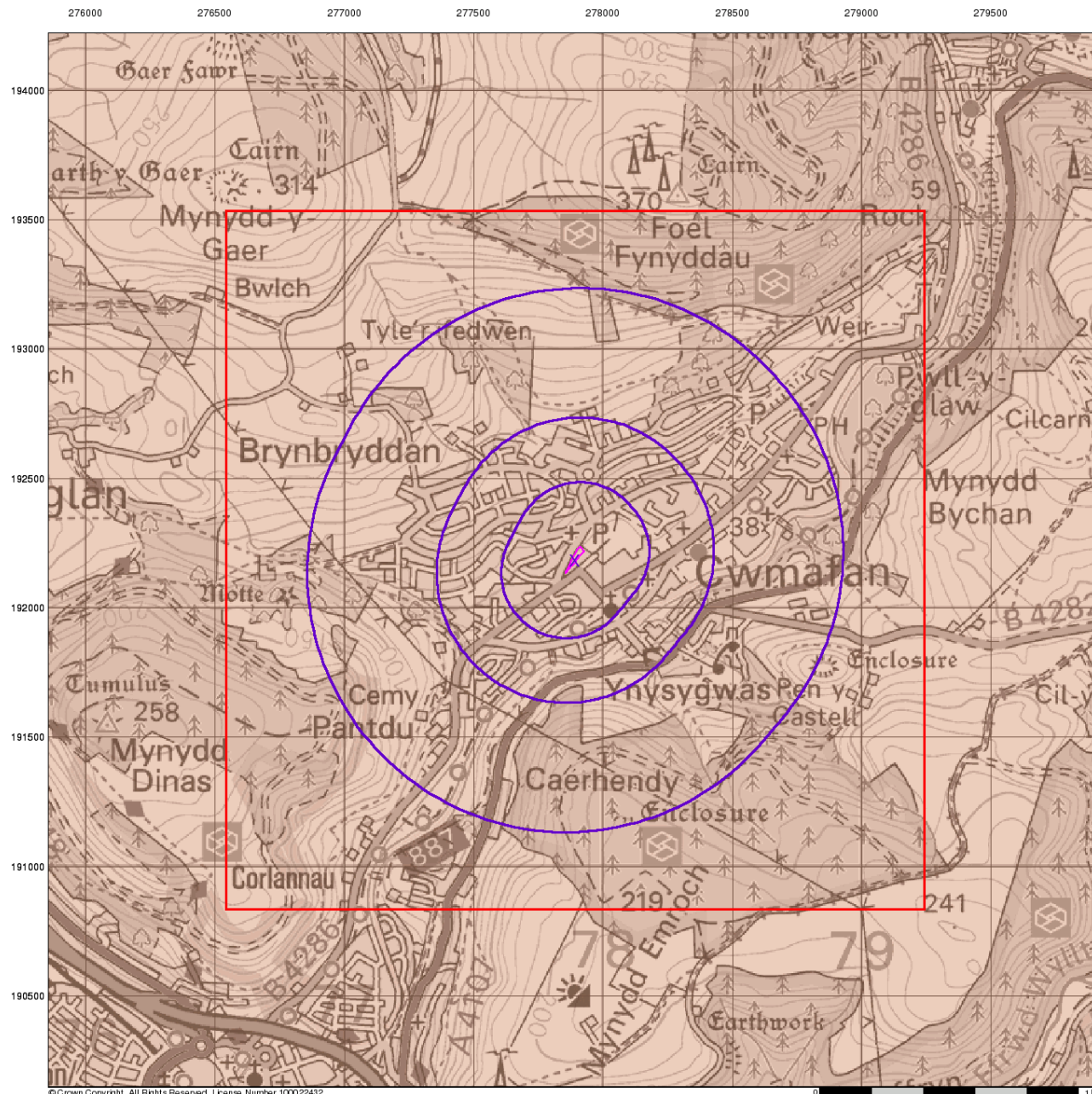
Order Number: 327557041_1_1
 Customer Ref: 14611 Tabernacle
 National Grid Reference: 277890, 192180
 Slice: A
 Site Area (Ha): 0.17
 Search Buffer (m): 1000

Site Details

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Geotechnical & Geoenvironmental Specialists

Bedrock Aquifer Designation

General

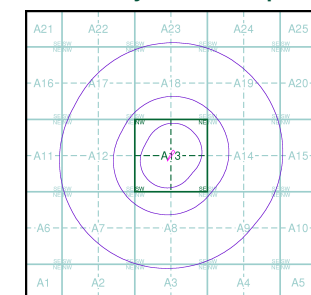
- Specified Site
- Specified Buffer(s)
- Bearing Reference Point
- Slice
- Map ID

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

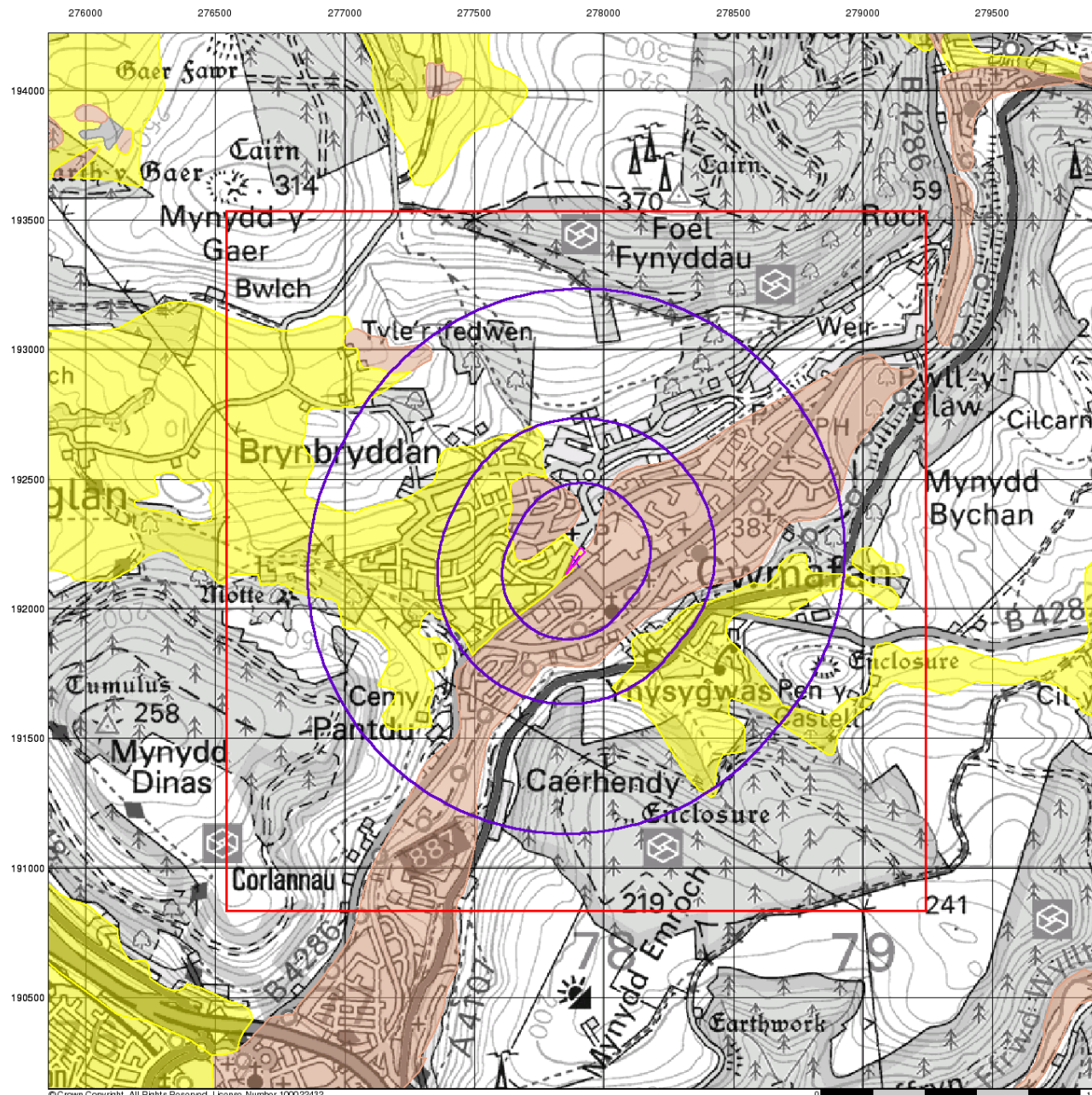
Order Number: 327557041_1_1
 Customer Ref: 14611 Tabernacle
 National Grid Reference: 277890, 192180
 Slice: A
 Site Area (Ha): 0.17
 Search Buffer (m): 1000

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Geotechnical & Geoenvironmental Specialists

Superficial Aquifer Designation

General

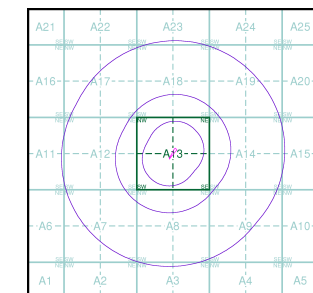
- Specified Site
- Specified Buffer(s)
- Bearing Reference Point
- Slice
- Map ID

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

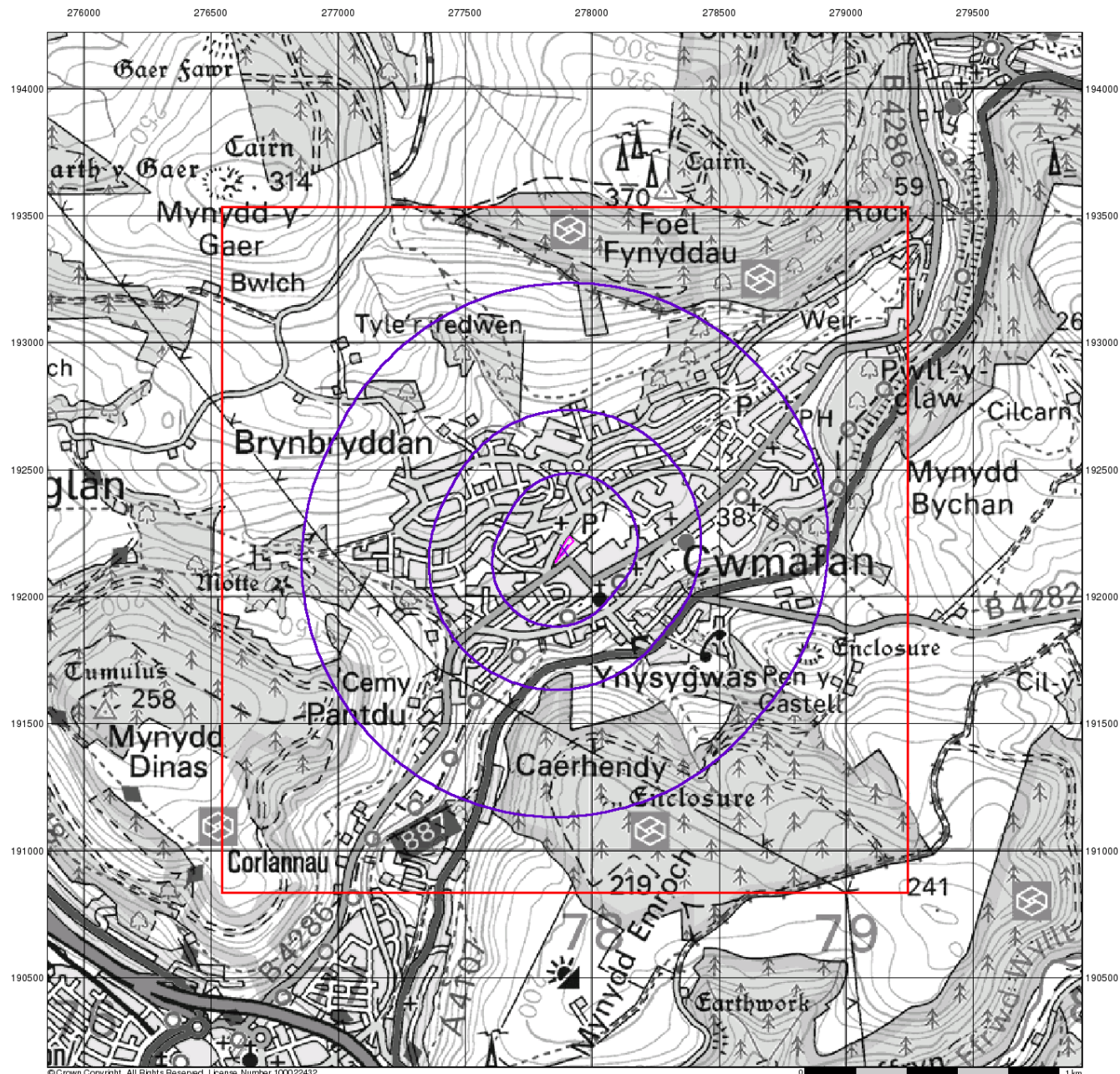
Order Number: 327557041_1_1
 Customer Ref: 14611 Tabernacle
 National Grid Reference: 277890, 192180
 Slice: A
 Site Area (Ha): 0.17
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Source Protection Zones

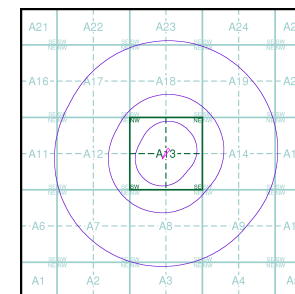
General

- 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

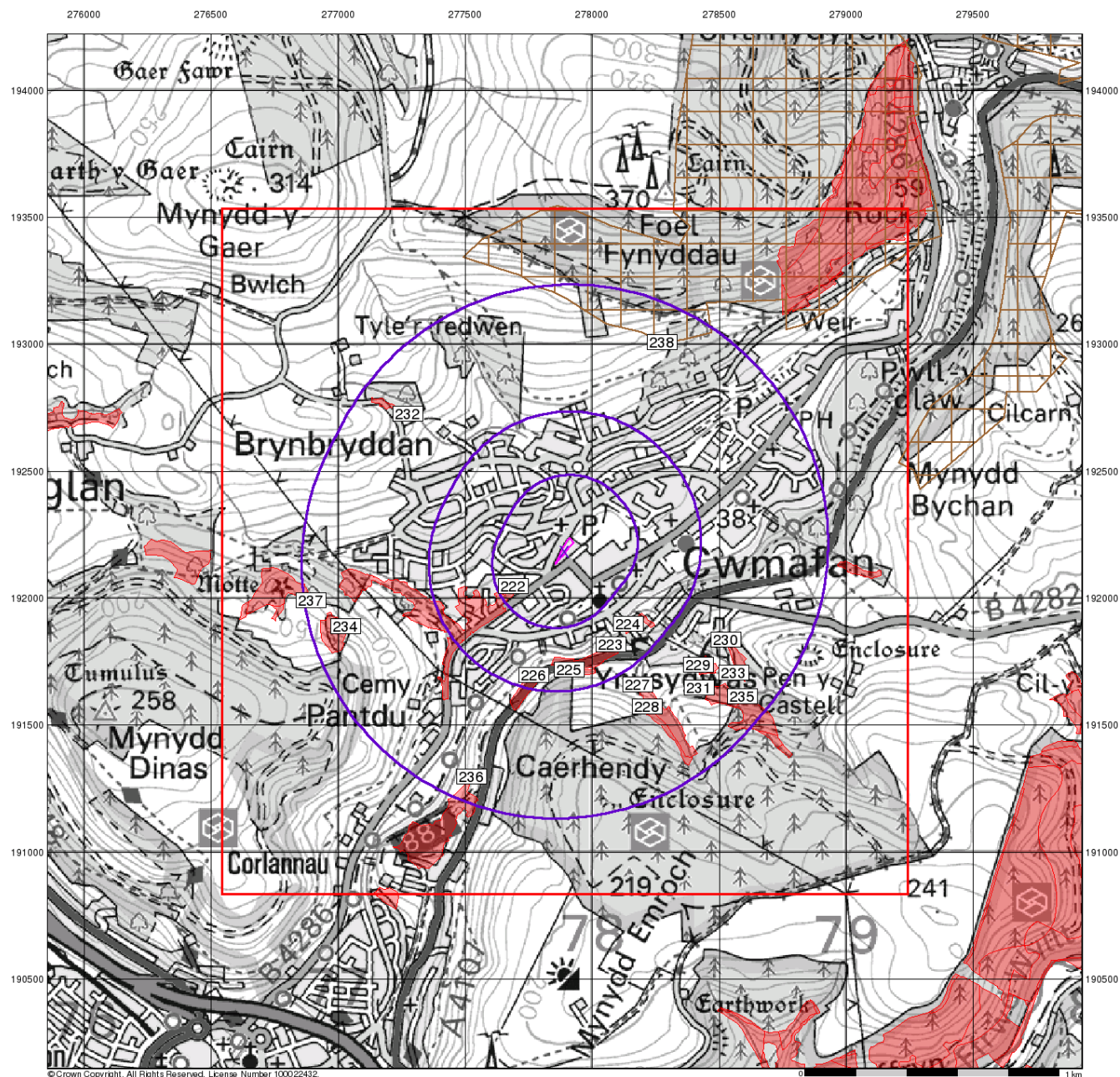
Order Number: 327557041_1_1
 Customer Ref: 14611 Tabernacle
 National Grid Reference: 277890, 192180
 Slice: A
 Site Area (Ha): 0.17
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Sensitive Land Uses

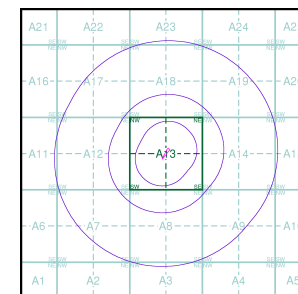
General

- 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

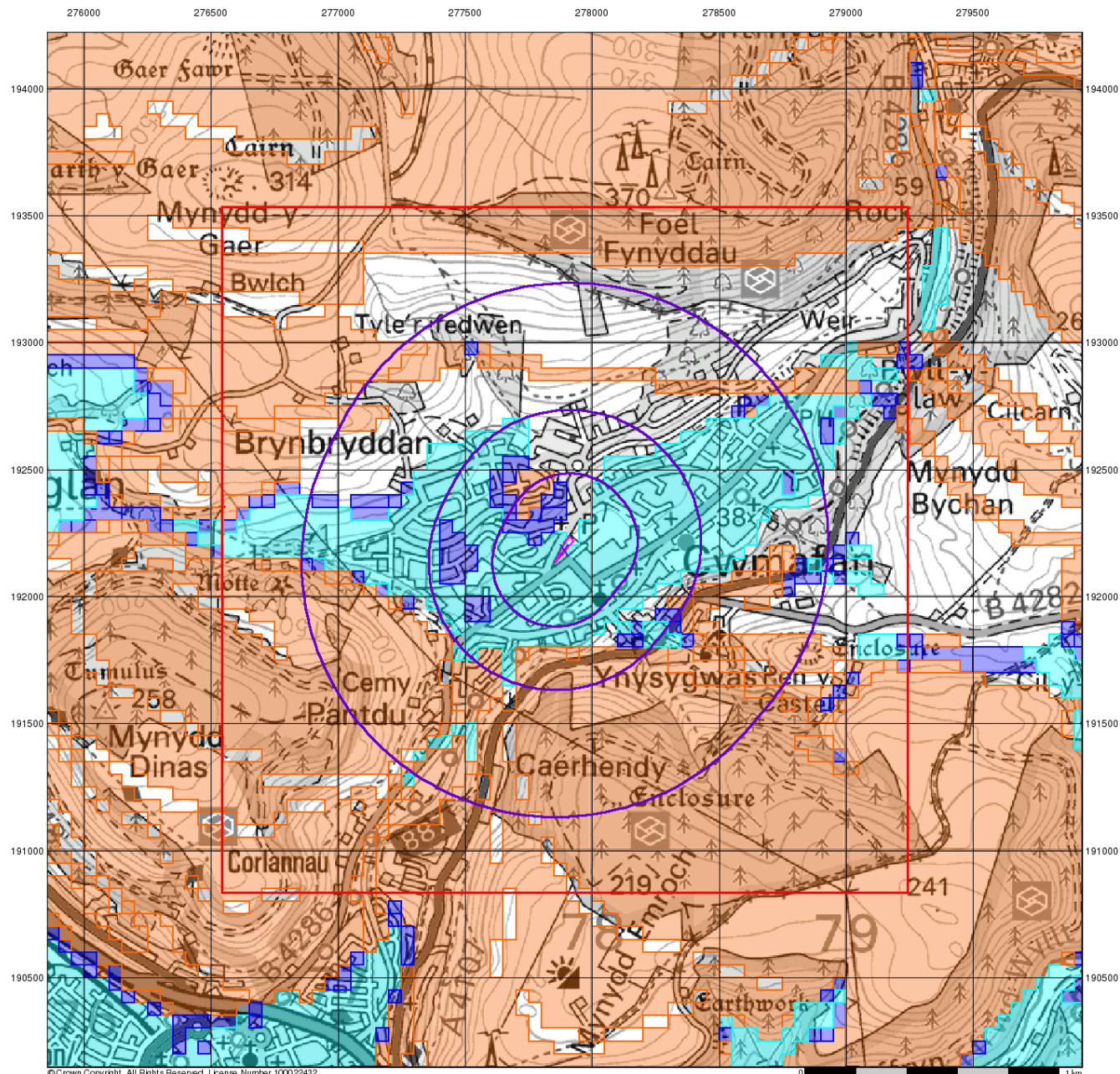
Order Number: 327557041_1_1
 Customer Ref: 14611 Tabernacle
 National Grid Reference: 277890, 192180
 Slice: A
 Site Area (Ha): 0.17
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Site Details

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BGS Flood GFS Data

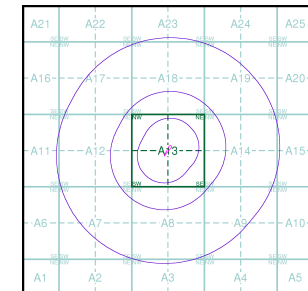
General

- 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: 327557041_1_1
 Customer Ref: 14611 Tabernacle
 National Grid Reference: 277890, 192180
 Slice: A
 Site Area (Ha): 0.17
 Search Buffer (m): 1000

Site Details

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Envirocheck[®] Report:

Datasheet

Order Details:

Order Number:

327557041_1_1

Customer Reference:

14611 Tabernacle

National Grid Reference:

277890, 192180

Slice:

A

Site Area (Ha):

0.17

Search Buffer (m):

1000

Site Details:

Tabernacle terrace

Cwmavon

Port Talbot

SA12 9DA

Client Details:

Ms R Liley

TFW Group Ltd

5 Deryn Court

Wharfdale Road

Pentwyn

Cardiff

CF23 7HB

Report Section	Page Number
Summary	-
Agency & Hydrological	1
Waste	30
Hazardous Substances	-
Geological	33
Industrial Land Use	45
Sensitive Land Use	52
Data Currency	54
Data Suppliers	60
Useful Contacts	61

Introduction

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

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Report Version v53.0

Data Type	Page Number	On Site	0 to 250m	251 to 500m	501 to 1000m (*up to 2000m)
Agency & Hydrological					
BGS Groundwater Flooding Susceptibility	pg 1	Yes	Yes	Yes	n/a
Contaminated Land Register Entries and Notices					
Discharge Consents	pg 2			8	19
Prosecutions Relating to Controlled Waters			n/a	n/a	n/a
Enforcement and Prohibition Notices					
Integrated Pollution Controls					
Integrated Pollution Prevention And Control					
Local Authority Integrated Pollution Prevention And Control					
Local Authority Pollution Prevention and Controls	pg 8			1	1
Local Authority Pollution Prevention and Control Enforcements					
Nearest Surface Water Feature	pg 8		Yes		
Pollution Incidents to Controlled Waters	pg 9			21	25
Prosecutions Relating to Authorised Processes					
Registered Radioactive Substances					
River Quality	pg 16			1	
River Quality Biology Sampling Points					
River Quality Chemistry Sampling Points					
Substantiated Pollution Incident Register	pg 16			1	
Water Abstractions	pg 17				1
Water Industry Act Referrals					
Groundwater Vulnerability Map	pg 17	Yes	n/a	n/a	n/a
Bedrock Aquifer Designations	pg 17	Yes	n/a	n/a	n/a
Superficial Aquifer Designations	pg 17	Yes	n/a	n/a	n/a
Source Protection Zones					
Extreme Flooding from Rivers or Sea without Defences	pg 18		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 18		6	30	66

Data Type	Page Number	On Site	0 to 250m	251 to 500m	501 to 1000m (*up to 2000m)
Waste					
BGS Recorded Landfill Sites					
Historical Landfill Sites	pg 30				2
Integrated Pollution Control Registered Waste Sites					
Licensed Waste Management Facilities (Landfill Boundaries)					
Licensed Waste Management Facilities (Locations)	pg 30			2	
Local Authority Landfill Coverage	pg 30	1	n/a	n/a	n/a
Local Authority Recorded Landfill Sites					
Potentially Infilled Land (Non-Water)	pg 30	1	1	2	8
Potentially Infilled Land (Water)	pg 31		2	2	6
Registered Landfill Sites	pg 32				1
Registered Waste Transfer Sites	pg 32			1	
Registered Waste Treatment or Disposal Sites					
Hazardous Substances					
Control of Major Accident Hazards Sites (COMAH)					
Explosive Sites					
Notification of Installations Handling Hazardous Substances (NIHHS)					
Planning Hazardous Substance Consents					
Planning Hazardous Substance Enforcements					

Data Type	Page Number	On Site	0 to 250m	251 to 500m	501 to 1000m (*up to 2000m)
Geological					
BGS 1:625,000 Solid Geology	pg 33	Yes	n/a	n/a	n/a
BGS Estimated Soil Chemistry	pg 33	Yes	Yes	Yes	Yes
BGS Recorded Mineral Sites	pg 41				11
BGS Urban Soil Chemistry					
BGS Urban Soil Chemistry Averages					
CBSCB Compensation District			n/a	n/a	n/a
Coal Mining Affected Areas	pg 43	Yes	n/a	n/a	n/a
Mining Instability	pg 43	Yes	n/a	n/a	n/a
Man-Made Mining Cavities					
Natural Cavities					
Non Coal Mining Areas of Great Britain	pg 43	Yes		n/a	n/a
Potential for Collapsible Ground Stability Hazards	pg 43	Yes		n/a	n/a
Potential for Compressible Ground Stability Hazards	pg 43		Yes	n/a	n/a
Potential for Ground Dissolution Stability Hazards				n/a	n/a
Potential for Landslide Ground Stability Hazards	pg 43	Yes	Yes	n/a	n/a
Potential for Running Sand Ground Stability Hazards	pg 43	Yes	Yes	n/a	n/a
Potential for Shrinking or Swelling Clay Ground Stability Hazards	pg 44	Yes		n/a	n/a
Radon Potential - Radon Affected Areas			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 45		3	18	10
Fuel Station Entries	pg 47				2
Points of Interest - Commercial Services	pg 48		3	7	
Points of Interest - Education and Health					
Points of Interest - Manufacturing and Production	pg 48		1	1	4
Points of Interest - Public Infrastructure	pg 49		2	4	8
Points of Interest - Recreational and Environmental	pg 50		2	3	4
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 52		1	4	11
Areas of Adopted Green Belt					
Areas of Unadopted Green Belt					
Areas of Outstanding Natural Beauty					
Environmentally Sensitive Areas					
Forest Parks	pg 53				1
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 (NW)	0	1	277890 192184
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A13NW (NW)	59	1	277850 192250
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A13NW (N)	116	1	277890 192350
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A13NW (NW)	127	1	277800 192300
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A13NW (NW)	160	1	277750 192300
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A13NW (NW)	214	1	277700 192300
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A13NW (NW)	282	1	277650 192350
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A13SW (SW)	290	1	277600 192000
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A13NW (NW)	302	1	277700 192450
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A12SE (W)	307	1	277550 192184
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A13NW (NW)	311	1	277750 192500
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A8NW (S)	333	1	277890 191800
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A8NE (S)	336	1	277900 191800
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding to Occur at Surface	A13SE (SE)	337	1	278100 191900
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A8NW (S)	350	1	277750 191800
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A13SE (SE)	373	1	278100 191850
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A13SE (SE)	374	1	278150 191900
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A8NW (SW)	393	1	277650 191800
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding to Occur at Surface	A13SE (SE)	412	1	278200 191900
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A14SW (SE)	419	1	278250 191950
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A14SW (SE)	431	1	278300 192000
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A14SW (SE)	490	1	278300 191900

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A12SE (SW)	496	1	277450 191850
1	Discharge Consents Operator: Dwr Cymru Cyfyngedig Property Type: Sewerage Network - Sewers - Water Company Location: Britannia P. H. Swo Cwmafan Port Ta, Cwmafan Port Talbot Authority: Natural Resources Wales Catchment Area: River Afan Reference: BM0003201 Permit Version: 1 Effective Date: 1st January 1901 Issued Date: 1st January 1901 Revocation Date: 11th March 2003 Discharge Type: Unspecified Discharge: Freshwater Stream/River Environment: Receiving Water: Afan Status: New Consent, by Application (Water Resources Act 1991, Section 88) Positional Accuracy: Located by supplier to within 100m	A8NW (S)	326	2	277820 191810
1	Discharge Consents Operator: Dwr Cymru Cyfyngedig Property Type: Sewerage Network - Sewers - Water Company Location: Britannia Inn Cso, Cwmafan, Opp Britannia Inn, London Row, Cwmafan, Port Talbot, Sa12 9ah Authority: Natural Resources Wales Catchment Area: Not Supplied Reference: Bm0003201 Permit Version: Not Supplied Effective Date: 29th August 2019 Issued Date: 29th August 2019 Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Stw Storm Overflow/Storm Tank - Water Company Discharge: Freshwater Stream/River Environment: Receiving Water: Afon Afan Status: Effective Positional Accuracy: Located by supplier to within 10m	A8NW (S)	333	2	277798 191806
1	Discharge Consents Operator: Dwr Cymru Cyfyngedig Property Type: Sewerage Network - Sewers - Water Company Location: Cso No 102 100m D/S Footbridge, Britannia Inn, Cwmafan Authority: Natural Resources Wales Catchment Area: AFAN - CONFLUENCE WITH PELENNIA TO TIDAL LIMIT Reference: Bm0003201 Permit Version: 2 Effective Date: 12th March 2003 Issued Date: 11th March 2003 Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Stw Storm Overflow/Storm Tank - Water Company Discharge: Freshwater Stream/River Environment: Receiving Water: Afan Status: Effective Positional Accuracy: Located by supplier to within 10m	A8NW (S)	333	2	277798 191806
1	Discharge Consents Operator: Dwr Cymru Cyfyngedig Property Type: Sewerage Network - Sewers - Water Company Location: Cso No 102 100m D/S Footbridge, Britannia Inn, Cwmafan Authority: Natural Resources Wales Catchment Area: AFAN - CONFLUENCE WITH PELENNIA TO TIDAL LIMIT Reference: Bm0003201 Permit Version: 2 Effective Date: 12th March 2003 Issued Date: 11th March 2003 Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Stw Storm Overflow/Storm Tank - Water Company Discharge: Freshwater Stream/River Environment: Receiving Water: Afan Status: Effective Positional Accuracy: Located by supplier to within 10m	A8NW (S)	333	2	277798 191806

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
1	Discharge Consents Operator: Dwr Cymru Cyfyngedig Property Type: Sewerage Network - Sewers - Water Company Location: Swo.Br'Nnia Inn Cwmafan Authority: Natural Resources Wales Catchment Area: River Afan Reference: Bw0203001 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	A8NW (S)	338	2	277800 191800
2	Discharge Consents Operator: Dwr Cymru Cyfyngedig Property Type: Sewerage Network - Sewers - Water Company Location: London Close Swo Cwmafan Port Talbo, Cwmafan Port Talbot Authority: Natural Resources Wales Catchment Area: River Afan Reference: Bm0003202 Permit Version: 1 Effective Date: 1st January 1901 Issued Date: 1st January 1901 Revocation Date: 14th March 1994 Discharge Type: Unspecified Discharge: Freshwater Stream/River Environment: Receiving Water: Afan Status: Consent expired Positional Accuracy: Located by supplier to within 10m	A8NE (S)	359	2	277920 191780
3	Discharge Consents Operator: Dwr Cymru Cyfyngedig Property Type: Sewerage Network - Sewers - Water Company Location: Swo Ynysygwas Bridge Approx Authority: Natural Resources Wales Catchment Area: River Afan Reference: Bw0202401 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	A8NE (S)	363	2	278000 191800
4	Discharge Consents Operator: Dwr Cymru Cyfyngedig Property Type: Undefined Or Other Location: Ebbw Vale Row Swo Cwmafan Port Talb, Cwmafan Port Talbot Authority: Natural Resources Wales Catchment Area: River Afan Reference: Bm0003203 Permit Version: 1 Effective Date: 1st January 1901 Issued Date: 1st January 1901 Revocation Date: 14th March 1994 Discharge Type: Unspecified Discharge: Freshwater Stream/River Environment: Receiving Water: Afan Status: Consent expired Positional Accuracy: Located by supplier to within 10m	A14SW (E)	438	2	278340 192070

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
5	Discharge Consents Operator: Dwr Cymru Cyfyngedig Property Type: Sewerage Network - Sewers - Water Company Location: Cwmafan Rfc Cso, Cwmavon Rfc, Cwmavon, Port Talbot, Sa12 9df Authority: Natural Resources Wales Catchment Area: Not Supplied Reference: Bw0200301 Permit Version: Not Supplied Effective Date: 29th August 2019 Issued Date: 29th August 2019 Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Stw Storm Overflow/Storm Tank - Water Company Discharge: Freshwater Stream/River Environment: Receiving Water: River Alyn Status: Effective Positional Accuracy: Located by supplier to within 10m	A14SW (E)	558	2	278476 192115
6	Discharge Consents Operator: The Owner Property Type: Undefined Or Other Location: Coppr Miners Tinplate Works Cwmavon, Cwmavon Port Talbot Authority: Natural Resources Wales Catchment Area: Not Supplied Reference: Bb4020801 Permit Version: 1 Effective Date: 31st January 1977 Issued Date: 31st January 1977 Revocation Date: 7th December 1993 Discharge Type: Unspecified Discharge: Not Supplied Environment: Receiving Water: Nant Cwn Clais Status: Consent expired Positional Accuracy: Located by supplier to within 10m	A7NE (SW)	709	2	277470 191540
6	Discharge Consents Operator: Dwr Cymru Cyfyngedig Property Type: Sewerage Network - Sewers - Water Company Location: Cso No 135 Below Pantdu Cwmafon, Below Pantdu, Neath Port Talbot Authority: Natural Resources Wales Catchment Area: AFAN - CONFLUENCE WITH PELENNIA TO TIDAL LIMIT Reference: Bp0305601 Permit Version: 1 Effective Date: 29th January 2003 Issued Date: 29th January 2003 Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Stw Storm Overflow/Storm Tank - Water Company Discharge: Freshwater Stream/River Environment: Receiving Water: The Afon Afan Status: Effective Positional Accuracy: Located by supplier to within 10m	A7NE (SW)	721	2	277478 191520
6	Discharge Consents Operator: Dwr Cymru Cyfyngedig Property Type: Sewerage Network - Sewers - Water Company Location: Cso No 135 Below Pantdu Cwmafon, Below Pantdu, Neath Port Talbot Authority: Natural Resources Wales Catchment Area: AFAN - CONFLUENCE WITH PELENNIA TO TIDAL LIMIT Reference: Bp0305601 Permit Version: 1 Effective Date: 29th January 2003 Issued Date: 29th January 2003 Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Stw Storm Overflow/Storm Tank - Water Company Discharge: Freshwater Stream/River Environment: Receiving Water: The Afon Afan Status: Effective Positional Accuracy: Located by supplier to within 10m	A7NE (SW)	721	2	277478 191520

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
6	Discharge Consents Operator: Dwr Cymru Cyfyngedig Property Type: Sewerage Network - Sewers - Water Company Location: Cso No 135 Below Pantdu Cwmafon, Below Pantdu, Neath Port Talbot Authority: Natural Resources Wales Catchment Area: Not Supplied Reference: Bp0305601 Permit Version: 1 Effective Date: 29th January 2003 Issued Date: 29th January 2003 Revocation Date: Not Supplied Discharge Type: Public Sewage: Storm Sewage Overflow Discharge: Freshwater Stream/River Environment: Receiving Water: The Afon Afan Status: New Consent (Water Resources Act 1991, Section 88 & Schedule 10 as amended by Environment Act 1995) Positional Accuracy: Located by supplier to within 10m	A7NE (SW)	721	2	277478 191520
7	Discharge Consents Operator: Dwr Cymru Cyfyngedig Property Type: Sewerage Network - Sewers - Water Company Location: Cso At Rear Of Ynys Y Wern, Cwmafon, Port Talbot, Sa12 9dq Authority: Natural Resources Wales Catchment Area: Not Supplied Reference: Bp0305601 Permit Version: Not Supplied Effective Date: 22nd July 2021 Issued Date: 22nd July 2021 Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Stw Storm Overflow/Storm Tank - Water Company Discharge: Freshwater Stream/River Environment: Receiving Water: Nant Cwm-Clais Status: Effective Positional Accuracy: Located by supplier to within 10m	A7SE (SW)	756	2	277466 191487
7	Discharge Consents Operator: Dwr Cymru Cyfyngedig Property Type: Sewerage Network - Sewers - Water Company Location: Cso No 135 Below Pantdu Cwmafon, Behind 49 Gwaun Afan, Port Talbot, Sa12 9ej Authority: Natural Resources Wales Catchment Area: AFAN - CONFLUENCE WITH PELENNIA TO TIDAL LIMIT Reference: Bp0305601 Permit Version: 2 Effective Date: 11th October 2019 Issued Date: 11th October 2019 Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Stw Storm Overflow/Storm Tank - Water Company Discharge: Freshwater Stream/River Environment: Receiving Water: The Afon Afan Status: Effective Positional Accuracy: Located by supplier to within 10m	A7SE (SW)	756	2	277466 191487
8	Discharge Consents Operator: Mr David Llewellyn John Property Type: Domestic Property (Single) Location: Pantdu Farm Pantdu Cwmafon Port Tal, Pantdu Cwmafon Port Talbot Authority: Natural Resources Wales Catchment Area: Not Given Reference: BM0031301 Permit Version: 1 Effective Date: 10th June 1983 Issued Date: 10th June 1983 Revocation Date: Not Supplied Discharge Type: Unspecified Discharge: Land/Soakaway Environment: Receiving Water: Underground Strata Status: New Consent, by Application (Water Resources Act 1991, Section 88) Positional Accuracy: Located by supplier to within 100m	A7NE (SW)	764	2	277330 191580

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
9	Discharge Consents Operator: Barratt (South Wales) Ltd Property Type: Undefined Or Other Location: Outfall 4, Land At The Waun, Cwmafan Authority: Natural Resources Wales Catchment Area: River Afan Reference: Bp0149204 Permit Version: 2 Effective Date: 2nd November 1989 Issued Date: 2nd November 1989 Revocation Date: 23rd October 1992 Discharge Type: Unspecified Discharge: Not Supplied Environment: Receiving Water: River Afan Status: Consent expired Positional Accuracy: Located by supplier to within 100m	A14NE (E)	794	2	278700 192400
9	Discharge Consents Operator: Barratt (South Wales) Ltd Property Type: Undefined Or Other Location: Outfall 4, Land At The Waun, Cwmafan Authority: Natural Resources Wales Catchment Area: River Afan Reference: Bp0149204 Permit Version: 1 Effective Date: 1st January 1901 Issued Date: 1st January 1901 Revocation Date: 1st November 1989 Discharge Type: Unspecified Discharge: Not Supplied Environment: Receiving Water: River Afan Status: Authorisation revoked Positional Accuracy: Located by supplier to within 100m	A14NE (E)	794	2	278700 192400
10	Discharge Consents Operator: Dwr Cymru Cyfyngedig Property Type: Sewerage Network - Sewers - Water Company Location: Cwm Afan Rfc. Sw0 3 Authority: Natural Resources Wales Catchment Area: River Afan Reference: BW0200301 Permit Version: 1 Effective Date: 20th October 1989 Issued Date: 20th October 1989 Revocation Date: 29th January 2003 Discharge Type: Unspecified Discharge: Not Supplied Environment: Receiving Water: River Afan Status: New Consent, by Application (Water Resources Act 1991, Section 88) Positional Accuracy: Located by supplier to within 100m	A9NW (SE)	881	2	278490 191520
11	Discharge Consents Operator: Barratt (South Wales) Ltd Property Type: Undefined Or Other Location: Cwmafan Land At The Waun Authority: Natural Resources Wales Catchment Area: River Afan Reference: Bp0149203 Permit Version: 1 Effective Date: 1st January 1901 Issued Date: 1st January 1901 Revocation Date: 1st November 1989 Discharge Type: Unspecified Discharge: Not Supplied Environment: Receiving Water: River Afan Status: Authorisation revoked Positional Accuracy: Located by supplier to within 100m	A14NE (E)	891	2	278800 192400

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
12	Discharge Consents Operator: Dwr Cymru Cyfyngedig Property Type: Sewerage Network - Sewers - Water Company Location: Pelly Street Swo Cwmafan Port Talbot, Cwmafan Port Talbot Authority: Natural Resources Wales Catchment Area: River Afan Reference: BM0003204 Permit Version: 1 Effective Date: 1st January 1901 Issued Date: 1st January 1901 Revocation Date: 11th March 2003 Discharge Type: Public Sewage: Storm Sewage Overflow Discharge: Freshwater Stream/River Environment: Receiving Water: Afan Status: New Consent, by Application (Water Resources Act 1991, Section 88) Positional Accuracy: Located by supplier to within 100m	A14NE (E)	933	2	278850 192360
12	Discharge Consents Operator: Dwr Cymru Cyfyngedig Property Type: Sewerage Network - Sewers - Water Company Location: Cso 101 The Waun 200m U/S Footbridge, Adj 48 Gwaun Afan, Cwmafan, Port Talbot, Sa12 9ej Authority: Natural Resources Wales Catchment Area: Not Supplied Reference: Bm0003204 Permit Version: Not Supplied Effective Date: 11th October 2019 Issued Date: 11th October 2019 Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Stw Storm Overflow/Storm Tank - Water Company Discharge: Freshwater Stream/River Environment: Receiving Water: Afon Afan Status: Effective Positional Accuracy: Located by supplier to within 10m	A14NE (E)	960	2	278873 192383
12	Discharge Consents Operator: Dwr Cymru Cyfyngedig Property Type: Sewerage Network - Sewers - Water Company Location: Cso 101 The Waun 200m U/S Footbridge, The Waun, 200m U/S Footbridge Pelly Street, Cwmafan Authority: Natural Resources Wales Catchment Area: AFAN - CONFLUENCE WITH PELENNIA TO TIDAL LIMIT Reference: Bm0003204 Permit Version: 2 Effective Date: 12th March 2003 Issued Date: 11th March 2003 Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Stw Storm Overflow/Storm Tank - Water Company Discharge: Freshwater Stream/River Environment: Receiving Water: Afan Status: Effective Positional Accuracy: Located by supplier to within 10m	A14NE (E)	960	2	278873 192383
12	Discharge Consents Operator: Dwr Cymru Cyfyngedig Property Type: Sewerage Network - Sewers - Water Company Location: Cso 101 The Waun 200m U/S Footbridge, The Waun, 200m U/S Footbridge Pelly Street, Cwmafan Authority: Natural Resources Wales Catchment Area: AFAN - CONFLUENCE WITH PELENNIA TO TIDAL LIMIT Reference: Bm0003204 Permit Version: 2 Effective Date: 12th March 2003 Issued Date: 11th March 2003 Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Stw Storm Overflow/Storm Tank - Water Company Discharge: Freshwater Stream/River Environment: Receiving Water: Afan Status: Effective Positional Accuracy: Located by supplier to within 10m	A14NE (E)	960	2	278873 192383

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
13	Discharge Consents Operator: Barratt (South Wales) Ltd Property Type: Undefined Or Other Location: Cwmafan Land At The Waun Authority: Natural Resources Wales Catchment Area: River Afan Reference: Bp0149203 Permit Version: 2 Effective Date: 2nd November 1989 Issued Date: 2nd November 1989 Revocation Date: 23rd October 1992 Discharge Type: Unspecified Discharge: Not Supplied Environment: Receiving Water: River Afan Status: Consent expired Positional Accuracy: Located by supplier to within 100m	A19SE (NE)	952	2	278800 192600
14	Discharge Consents Operator: Barratt (South Wales) Ltd Property Type: Undefined Or Other Location: Outfall 2, Land At The Waun, Cwmafan Authority: Natural Resources Wales Catchment Area: River Afan Reference: Bp0149202 Permit Version: 2 Effective Date: 2nd November 1989 Issued Date: 2nd November 1989 Revocation Date: 23rd October 1992 Discharge Type: Unspecified Discharge: Not Supplied Environment: Receiving Water: River Afan Status: Consent expired Positional Accuracy: Located by supplier to within 100m	A14NE (E)	989	2	278900 192400
14	Discharge Consents Operator: Barratt (South Wales) Ltd Property Type: Undefined Or Other Location: Outfall 2, Land At The Waun, Cwmafan Authority: Natural Resources Wales Catchment Area: River Afan Reference: Bp0149202 Permit Version: 1 Effective Date: 1st January 1901 Issued Date: 1st January 1901 Revocation Date: 1st November 1989 Discharge Type: Unspecified Discharge: Not Supplied Environment: Receiving Water: River Afan Status: Authorisation revoked Positional Accuracy: Located by supplier to within 100m	A14NE (E)	989	2	278900 192400
15	Local Authority Pollution Prevention and Controls Name: Davies Skips Limited Location: 1 Brunel Industrial Estate, Cwmavon, Port Talbot, Sa12 9db Authority: Neath Port Talbot County Borough Council, Environmental Health Department Permit Reference: E3/1/126 Dated: 10th December 2007 Process Type: Local Authority Pollution Prevention and Control Description: PG3/16 Mobile screening and crushing processes Status: Permitted Positional Accuracy: Located by supplier to within 10m	A8NW (S)	332	3	277764 191815
16	Local Authority Pollution Prevention and Controls Name: Western Logs Limited Location: Forest Products Centre, Cwmafan, PORT TALBOT, West Glamorgan, SA12 9AB Authority: Neath Port Talbot County Borough Council, Environmental Health Department Permit Reference: E3/1/13 Dated: 28th September 1994 Process Type: Local Authority Air Pollution Control Description: PG6/2 Manufacture of timber and wood-based products Status: Authorisation has varied Positional Accuracy: Automatically positioned to the address	A14SE (E)	782	3	278677 191995
	Nearest Surface Water Feature	A13SW (S)	49	-	277883 192092

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
17	Pollution Incidents to Controlled Waters Property Type: Not Given Location: Ynysygwas Bridge Authority: Environment Agency, Welsh Region Pollutant: Crude Sewage Note: Neglect; River Afan Incident Date: 16th November 1998 Incident Reference: 37164 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Leakage Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A13SE (SE)	272	4	278100 192000
18	Pollution Incidents to Controlled Waters Property Type: Not Given Location: Gwaun Afan Authority: Environment Agency, Welsh Region Pollutant: Sewage Debris/Litter Note: River Afan; Overflow Incident Date: 19th September 1997 Incident Reference: 33620 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Blocked Sewer Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A8NW (S)	330	4	277825 191805
18	Pollution Incidents to Controlled Waters Property Type: Not Given Location: Gwaun Afan Authority: Environment Agency, Welsh Region Pollutant: Crude Sewage Note: River Afan; Overflow Incident Date: 19th September 1997 Incident Reference: 33620 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Blocked Sewer Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A8NW (S)	331	4	277820 191805
18	Pollution Incidents to Controlled Waters Property Type: Not Given Location: Britannia Inn, CWMAFAN Authority: Environment Agency, Welsh Region Pollutant: Crude Sewage Note: River Afan; Overflow Incident Date: 6th May 1998 Incident Reference: 35535 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Blocked Sewer Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A8NW (S)	338	4	277800 191800
19	Pollution Incidents to Controlled Waters Property Type: Water Company Sewage: Treated Water Distribution System Location: Bridge By, Civic Centre Authority: Environment Agency, Welsh Region Pollutant: Contaminated Groundwater Note: Accidental Spillage/Leakage Incident Date: 14th June 1995 Incident Reference: 24554 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	A13SE (SE)	349	4	278200 192000
19	Pollution Incidents to Controlled Waters Property Type: Not Given Location: CWMAFAN Authority: Environment Agency, Welsh Region Pollutant: Oils - Diesel (Including Agricultural) Note: Not Supplied Incident Date: 23rd September 1994 Incident Reference: 21185 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)	381	4	278200 191950

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
20	Pollution Incidents to Controlled Waters Property Type: Not Given Location: Below Britannia Inn, CWMAFAN Authority: Environment Agency, Welsh Region Pollutant: Crude Sewage Note: Blockage Incident Date: 15th February 1997 Incident Reference: 31393 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Overflow Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A8NW (SW)	369	4	277700 191800
20	Pollution Incidents to Controlled Waters Property Type: Not Given Location: Pipe Below Britannia Inn Footbridge, CWMAFAN Authority: Environment Agency, Welsh Region Pollutant: Crude Sewage Note: Blockage Incident Date: 15th February 1997 Incident Reference: 31393 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Overflow Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A8NW (SW)	371	4	277705 191795
20	Pollution Incidents to Controlled Waters Property Type: Not Given Location: Crude Sewage Overflow, Below Britannia Inn Bridge, CWMAFAN Authority: Environment Agency, Welsh Region Pollutant: Crude Sewage Note: Blockage Incident Date: 15th February 1997 Incident Reference: 31393 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Overflow Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A8NW (SW)	373	4	277700 191795
21	Pollution Incidents to Controlled Waters Property Type: Waste Handling Facilities Location: Culvert Chute, Below Cwmafan Authority: Environment Agency, Welsh Region Pollutant: Sewage - Septic Tank Effluent Note: Inadequate Design/Capacity Incident Date: 27th October 1991 Incident Reference: 1595 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Direct Discharge Incident Severity: Category 2 - Significant Incident Positional Accuracy: Located by supplier to within 100m	A14NW (E)	373	4	278300 192200
22	Pollution Incidents to Controlled Waters Property Type: Not Given Location: Location Description Not Available Authority: Environment Agency, Welsh Region Pollutant: Unknown Note: Not Supplied Incident Date: 23rd September 1994 Incident Reference: 21185 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)	384	4	278200 191945
22	Pollution Incidents to Controlled Waters Property Type: Private Sewage (Non-PLC): Other Location: Ynys Y Gwas Authority: Environment Agency, Welsh Region Pollutant: Crude Sewage Note: Poor Operational Practise Incident Date: 18th February 1991 Incident Reference: 2649 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Spillage Incident Severity: Category 2 - Significant Incident Positional Accuracy: Located by supplier to within 100m	A13SE (SE)	412	4	278200 191900

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
22	Pollution Incidents to Controlled Waters Property Type: Process Location: Location Description Not Available Authority: Environment Agency, Welsh Region Pollutant: Sewage - Treated Effluent Note: Poor Operational Practise Incident Date: 16th March 1995 Incident Reference: 23258 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	A13SE (SE)	416	4	278200 191895
22	Pollution Incidents to Controlled Waters Property Type: Not Given Location: Ynysygwas, Cwmafan, PORT TALBOT Authority: Environment Agency, Welsh Region Pollutant: Crude Sewage Note: Accidental Spillage/Leakage Incident Date: 22nd February 1996 Incident Reference: 27418 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Burst Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A13SE (SE)	419	4	278205 191895
23	Pollution Incidents to Controlled Waters Property Type: Other Location: End Of Ebbw, Vale Row, CWMAFAN Authority: Environment Agency, Welsh Region Pollutant: Rubble/Litter Or Solids Note: Neglect Incident Date: 2nd September 1994 Incident Reference: 21130 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	A14SW (E)	391	4	278300 192100
23	Pollution Incidents to Controlled Waters Property Type: Other Location: End Of Ebbw, Vale Row On, John Edwards Authority: Environment Agency, Welsh Region Pollutant: Unknown Note: Neglect Incident Date: 2nd September 1994 Incident Reference: 21130 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	A14SW (E)	392	4	278300 192095
23	Pollution Incidents to Controlled Waters Property Type: Waste Handling Facilities Location: Cwmafan Jet, Wash Garage Authority: Environment Agency, Welsh Region Pollutant: Unknown Note: Inadequate Design/Capacity Incident Date: 5th December 1991 Incident Reference: 1659 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	A14SW (E)	397	4	278305 192095
24	Pollution Incidents to Controlled Waters Property Type: Water Company Sewage: Treated Water Distribution System Location: PORT TALBOT Authority: Environment Agency, Welsh Region Pollutant: Mud/Clay/Soil Note: Accidental Spillage/Leakage Incident Date: 12th June 1995 Incident Reference: 24513 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Burst Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A14SW (SE)	431	4	278300 192000

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
24	Pollution Incidents to Controlled Waters Property Type: Water Company Sewage: Treated Water Distribution System Location: Corlannau Weir Authority: Environment Agency, Welsh Region Pollutant: Crude Sewage Note: Accidental Spillage/Leakage Incident Date: 12th June 1995 Incident Reference: 24513 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Burst Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A14SW (SE)	434	4	278300 191995
24	Pollution Incidents to Controlled Waters Property Type: Not Given Location: Alongside Rafan At Ynys Y Gwas, Cwm-Yr-Onnen, PORT TALBOT Authority: Environment Agency, Welsh Region Pollutant: Agricultural: Carcasses Note: Inadequate Design/Capacity Incident Date: 7th March 1996 Incident Reference: 27698 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Burst Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A14SW (SE)	438	4	278305 191995
25	Pollution Incidents to Controlled Waters Property Type: Water Company Sewage: Sewerage Location: Northern End, Of Cwmafan Rfc Authority: Environment Agency, Welsh Region Pollutant: Crude Sewage Note: Blocked Sewer Incident Date: 18th May 1991 Incident Reference: 3812 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Overflow Incident Severity: Category 2 - Significant Incident Positional Accuracy: Located by supplier to within 100m	A14SW (E)	487	4	278400 192100
26	Pollution Incidents to Controlled Waters Property Type: Water Company Sewage: Storm Overflow Location: Cwmafan, Rugby Fields Authority: Environment Agency, Welsh Region Pollutant: Sewage - Treated Effluent Note: Blocked Sewer Incident Date: 11th August 1991 Incident Reference: 1353 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Overflow Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A14NW (E)	573	4	278500 192200
27	Pollution Incidents to Controlled Waters Property Type: Water Company Sewage: Surface Water Outfall Location: Fletchers Garage Garage, CWMAFAN Authority: Environment Agency, Welsh Region Pollutant: Mud/Clay/Soil Note: Inadequate Design/Capacity Incident Date: 5th October 1994 Incident Reference: 21539 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	A7NE (SW)	630	4	277400 191700
28	Pollution Incidents to Controlled Waters Property Type: Not Given Location: Hope Road Authority: Environment Agency, Welsh Region Pollutant: Mud/Clay/Soil Note: Poor Management Control Incident Date: 17th December 1996 Incident Reference: 30745 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	A9NW (SE)	631	4	278400 191800

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
29	Pollution Incidents to Controlled Waters Property Type: Water Company Sewage: Storm Overflow Location: Cwmafan Down Stream Of, Fletchers Garage Authority: Environment Agency, Welsh Region Pollutant: Crude Sewage Note: Blocked Sewer Incident Date: 27th June 1995 Incident Reference: 24917 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Overflow Incident Severity: Category 2 - Significant Incident Positional Accuracy: Located by supplier to within 100m	A7NE (SW)	660	4	277550 191550
29	Pollution Incidents to Controlled Waters Property Type: Water Company Sewage: Storm Overflow Location: Fletchers Garage, CWMAVON Authority: Environment Agency, Welsh Region Pollutant: Crude Sewage Note: Blocked Sewer Incident Date: 27th June 1995 Incident Reference: 24917 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Overflow Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A8NW (SW)	662	4	277555 191545
29	Pollution Incidents to Controlled Waters Property Type: Water Company Sewage: Storm Overflow Location: Fletchers Garage, CWMAFAN Authority: Environment Agency, Welsh Region Pollutant: Crude Sewage Note: Blocked Sewer Incident Date: 27th June 1995 Incident Reference: 24917 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Overflow Incident Severity: Category 2 - Significant Incident Positional Accuracy: Located by supplier to within 100m	A7NE (SW)	664	4	277550 191545
30	Pollution Incidents to Controlled Waters Property Type: Water Company Sewage: Sewerage Location: 20 Metres Down Stream Of, Ynysafan Bridge Authority: Environment Agency, Welsh Region Pollutant: Heavy Fuel Oil Note: Neglect Incident Date: 10th January 1991 Incident Reference: 2655 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Overflow Incident Severity: Category 2 - Significant Incident Positional Accuracy: Located by supplier to within 100m	A14NE (E)	697	4	278600 192400
31	Pollution Incidents to Controlled Waters Property Type: Not Given Location: PONTRHYDYFEN Authority: Environment Agency, Welsh Region Pollutant: Crude Sewage Note: Not Supplied Incident Date: 23rd March 1995 Incident Reference: 23270 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	A7SE (SW)	727	4	277500 191500
32	Pollution Incidents to Controlled Waters Property Type: Water Company Sewage: Sewerage Location: 20 Metres Down Stream Of, Ynysafan Bridge Authority: Environment Agency, Welsh Region Pollutant: Light Oil Note: Not Supplied Incident Date: 3rd January 1991 Incident Reference: 2647 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Overflow Incident Severity: Category 2 - Significant Incident Positional Accuracy: Located by supplier to within 100m	A14NE (E)	777	4	278700 192300

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
33	Pollution Incidents to Controlled Waters Property Type: Not Given Location: A4107 Top Road, Opposite Sawmills Authority: Environment Agency, Welsh Region Pollutant: Oils - Diesel (Including Agricultural) Note: Unnamed Ditch Near 'Western Log Saw Mills'; Run-Off Incident Date: 3rd February 1998 Incident Reference: 34731 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Weather Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A14SE (E)	781	4	278700 192100
34	Pollution Incidents to Controlled Waters Property Type: Water Company Sewage: Storm Overflow Location: New Barratt Houses, 400 Yards, Up Stream Of Ynysafan Authority: Environment Agency, Welsh Region Pollutant: Light Oil Note: Inadequate Design/Capacity Incident Date: 20th November 1994 Incident Reference: 21790 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Overflow Incident Severity: Category 2 - Significant Incident Positional Accuracy: Located by supplier to within 100m	A14NE (E)	792	4	278700 192395
34	Pollution Incidents to Controlled Waters Property Type: Water Company Sewage: Storm Overflow Location: Gwaun Afan Estate, PORT TALBOT Authority: Environment Agency, Welsh Region Pollutant: Chemicals - Alkali Note: Blocked Sewer Incident Date: 21st March 1996 Incident Reference: 27793 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Overflow Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A14NE (E)	794	4	278700 192400
34	Pollution Incidents to Controlled Waters Property Type: Not Given Location: Porset Brook, Gwaun Afan Estate Authority: Environment Agency, Welsh Region Pollutant: Chemicals - Alkali Note: Blocked Sewer Incident Date: 21st March 1996 Incident Reference: 27793 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Overflow Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A14NE (E)	795	4	278700 192405
34	Pollution Incidents to Controlled Waters Property Type: Water Company Sewage: Storm Overflow Location: All Saints Place Authority: Environment Agency, Welsh Region Pollutant: Oils - Diesel (Including Agricultural) Note: Blocked Sewer Incident Date: 22nd March 1995 Incident Reference: 23325 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Overflow Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A14NE (E)	797	4	278705 192395
34	Pollution Incidents to Controlled Waters Property Type: Not Given Location: CWMAFAN Authority: Environment Agency, Welsh Region Pollutant: Unknown Note: Blocked Sewer Incident Date: 24th June 1996 Incident Reference: 28926 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Overflow Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A14NE (E)	798	4	278705 192400

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
34	Pollution Incidents to Controlled Waters Property Type: Not Given Location: Location Description Not Available Authority: Environment Agency, Welsh Region Pollutant: Sewage - Treated Effluent Note: Blocked Sewer Incident Date: 6th June 1996 Incident Reference: 28644 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Overflow Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A14NE (E)	800	4	278705 192405
35	Pollution Incidents to Controlled Waters Property Type: Not Given Location: Gwaun Afan, Behind Gaerwen Arms Authority: Environment Agency, Welsh Region Pollutant: Farm Effluent/Slurry Note: Blocked Sewer Incident Date: 2nd July 1996 Incident Reference: 29466 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Overflow Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A14NE (E)	876	4	278800 192295
35	Pollution Incidents to Controlled Waters Property Type: Water Company Sewage: Storm Overflow Location: Opposite The, Waun Club Authority: Environment Agency, Welsh Region Pollutant: Crude Sewage Note: Blocked Sewer Incident Date: 27th March 1996 Incident Reference: 27701 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Overflow Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A14NE (E)	876	4	278800 192300
35	Pollution Incidents to Controlled Waters Property Type: Not Given Location: Opposite The Watertonie Authority: Environment Agency, Welsh Region Pollutant: Crude Sewage Note: Blocked Sewer Incident Date: 27th March 1996 Incident Reference: 27701 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Overflow Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A14NE (E)	881	4	278805 192295
35	Pollution Incidents to Controlled Waters Property Type: Not Given Location: Opposite The Waun Club, CWMAFAN Authority: Environment Agency, Welsh Region Pollutant: Crude Sewage Note: Blocked Sewer Incident Date: 27th March 1996 Incident Reference: 27701 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Overflow Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A14NE (E)	881	4	278805 192300
36	Pollution Incidents to Controlled Waters Property Type: Other Location: Tymian Street, CWMAFAN Authority: Environment Agency, Welsh Region Pollutant: Crude Sewage Note: Deliberate Act Incident Date: 14th June 1992 Incident Reference: 4798 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Direct Discharge Incident Severity: Category 2 - Significant Incident Positional Accuracy: Located by supplier to within 100m	A14NE (E)	890	4	278800 192395

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
36	Pollution Incidents to Controlled Waters Property Type: Water Company Sewage: Storm Overflow Location: Waunafan, Barretts, Site Cwmafan Authority: Environment Agency, Welsh Region Pollutant: Agricultural: Carcasses Note: Blocked Sewer Incident Date: 29th April 1992 Incident Reference: 4441 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Overflow Incident Severity: Category 2 - Significant Incident Positional Accuracy: Located by supplier to within 100m	A14NE (E)	891	4	278800 192400
37	Pollution Incidents to Controlled Waters Property Type: Not Given Location: Crude Sewage Overflow Near Footbridge At, Rear Of Barrat Housing Estate, CWMAFAN Authority: Environment Agency, Welsh Region Pollutant: Crude Sewage Note: River Afan; Overflow Incident Date: 5th December 1997 Incident Reference: 34342 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Blocked Sewer Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A14NE (E)	923	4	278840 192355
37	Pollution Incidents to Controlled Waters Property Type: Not Given Location: Gwaun Afan Cso, CWMAFAN Authority: Environment Agency, Welsh Region Pollutant: Miscellaneous - Fire water / Foam Note: Blocked Sewer Incident Date: 26th September 1996 Incident Reference: 30083 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Overflow Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A14NE (E)	923	4	278840 192360
38	Pollution Incidents to Controlled Waters Property Type: Not Given Location: Ynys Park, On Left Hand Side, Of River Bank Authority: Environment Agency, Welsh Region Pollutant: Stagnant Water Note: Neglect Incident Date: 10th January 1997 Incident Reference: 30933 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Leachate Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A7SE (SW)	951	4	277400 191300
	River Quality Name: Afan GQA Grade: River Quality A Reach: M4 Motorway - Conf. Pelena Estimated Distance (km): 5.6 Flow Rate: Flow less than 5 cumecs Flow Type: River Year: 2000	A13SE (SE)	356	4	278132 191906
39	Substantiated Pollution Incident Register Authority: Natural Resources Wales Incident Date: 16th March 2004 Incident Reference: 223386 Water Impact: Category 2 - Significant Incident Air Impact: Category 3 - Minor Incident Land Impact: Category 2 - Significant Incident Positional Accuracy: Located by supplier to within 10m Pollutant: Crude Sewage	A13SE (SE)	343	2	278179 191984

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
40	Water Abstractions Operator: Ms Powell & Mr Spackman Licence Number: 21/58/61/0043 Permit Version: 1 Location: Unnamed Spring Authority: Environment Agency, Welsh Region Abstraction: Food And Drink: Water Bottling 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: 20th November 2004 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	A12SW (SW)	732	4	277170 191880
	Groundwater Vulnerability Map Combined Classification: Secondary Bedrock 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: 40-70% Superficial Patchiness: <90% Superficial Thickness: <3m Superficial Recharge: No Data	A13SW (NW)	0	2	277890 192184
	Groundwater Vulnerability Map Combined Classification: Secondary Bedrock 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: 40-70% Superficial Patchiness: <90% Superficial Thickness: <3m Superficial Recharge: No Data	A13SE (SE)	0	2	277899 192177
	Groundwater Vulnerability Map Combined Classification: Secondary Bedrock Aquifer - High Vulnerability Combined Vulnerability: High Combined Aquifer: Productive Bedrock Aquifer, No Superficial Aquifer Pollutant Speed: High Bedrock Flow: Well Connected Fractures Dilution: >550 mm/year Baseflow Index: 40-70% Superficial Patchiness: <90% Superficial Thickness: <3m Superficial Recharge: No Data	A13NE (NE)	0	2	277918 192209
	Bedrock Aquifer Designations Aquifer Designation: Secondary Aquifer - A	A13SW (NW)	0	2	277890 192184
	Superficial Aquifer Designations Aquifer Designation: Secondary Aquifer - Undifferentiated	A13SW (NW)	0	2	277890 192184
	Superficial Aquifer Designations Aquifer Designation: Secondary Aquifer - A	A13SE (SE)	0	2	277899 192177

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 Models Boundary Accuracy: As Supplied	A13SE (SE)	164	2	277993 192037
	Flooding from Rivers or Sea without Defences None				
	Areas Benefiting from Flood Defences None				
	Flood Water Storage Areas None				
	Flood Defences None				
41	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 35.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Afan Primacy: 1	A13SW (S)	50	5	277884 192091
42	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 20.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Afan Primacy: 1	A13SW (S)	61	5	277851 192072
43	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 45.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Afan Primacy: 1	A13SW (SW)	130	5	277779 192030
44	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 539.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Nant Cwm-mawr Catchment Name: Afan Primacy: 1	A13NE (NE)	185	5	278066 192341
45	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 146.4 Watercourse Level: Not Supplied Permanent: True Watercourse Name: Not Supplied Catchment Name: Afan Primacy: 1	A13NE (N)	247	5	277941 192480
46	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 243.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Nant Cwm-mawr Catchment Name: Afan Primacy: 1	A13NE (N)	247	5	277941 192480
47	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 64.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Afan Primacy: 1	A13SE (SE)	271	5	278154 192069

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
48	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 1342.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Afon Afan Catchment Name: Afan Primacy: 1	A13SE (SE)	322	5	278094 191915
49	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 265.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Afon Afan Catchment Name: Afan Primacy: 1	A13SE (SE)	322	5	278094 191915
50	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 40.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Nant Ynys-y-gwas Catchment Name: Afan Primacy: 1	A13SE (SE)	322	5	278094 191915
51	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 619.5 Watercourse Level: Not Supplied Permanent: True Watercourse Name: Not Supplied Catchment Name: Afan Primacy: 1	A14NW (E)	346	5	278273 192246
52	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 31.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Nant Ynys-y-gwas Catchment Name: Afan Primacy: 1	A13SE (SE)	360	5	278122 191888
53	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 160.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Afan Primacy: 1	A13SE (SE)	360	5	278122 191888
54	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 23.2 Watercourse Level: Underground Permanent: True Watercourse Name: Nant Ynys-y-gwas Catchment Name: Afan Primacy: 1	A13SE (SE)	385	5	278129 191860
55	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 47.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Afan Primacy: 1	A18SE (N)	390	5	277922 192625
56	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 6.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Nant Cwm-mawr Catchment Name: Afan Primacy: 1	A14SW (E)	398	5	278300 192078

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
57	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 30.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Nant Cwm-mawr Catchment Name: Afan Primacy: 1	A14SW (E)	401	5	278302 192072
58	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 76.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Nant Ynys-y-gwas Catchment Name: Afan Primacy: 1	A8NE (SE)	408	5	278144 191843
59	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 71.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Nant Cwm-mawr Catchment Name: Afan Primacy: 1	A18SW (N)	420	5	277726 192613
60	OS Water Network Lines Watercourse Form: Lake Watercourse Length: 17.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Afan Primacy: 1	A18SE (N)	426	5	277895 192660
61	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 35.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Afon Afan Catchment Name: Afan Primacy: 1	A14SW (E)	427	5	278321 192051
62	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 23.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Afan Primacy: 1	A18SE (N)	439	5	277905 192674
63	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 11.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Afan Primacy: 1	A14SW (E)	440	5	278346 192079
64	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: Afan Primacy: 1	A14SW (SE)	447	5	278248 191904
65	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 273.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Afon Afan Catchment Name: Afan Primacy: 1	A14SW (E)	449	5	278352 192070

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
66	OS Water Network Lines Watercourse Form: Lake Watercourse Length: 28.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Afan Primacy: 1	A18SW (N)	450	5	277883 192684
67	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: Afan Primacy: 1	A18SW (N)	457	5	277876 192691
68	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 17.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Afan Primacy: 2	A18SW (N)	465	5	277845 192695
69	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 254.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Afan Primacy: 1	A18SW (NW)	466	5	277682 192640
70	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 25.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Nant Cwm-mawr Catchment Name: Afan Primacy: 1	A18SW (NW)	468	5	277694 192649
71	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 41.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Afan Primacy: 1	A18SW (N)	470	5	277861 192702
72	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 364.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Nant Cwm-clais Catchment Name: Afan Primacy: 1	A12SE (SW)	477	5	277445 191892
73	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 59.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Nant Cwm-clais Catchment Name: Afan Primacy: 1	A12SE (SW)	478	5	277462 191865
74	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 81.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Nant Ynys-y-gwas Catchment Name: Afan Primacy: 1	A8NE (SE)	482	5	278186 191781

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
75	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 543.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Nant Cwm-clais Catchment Name: Afan Primacy: 1	A7NE (SW)	486	5	277492 191813
76	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 17.3 Watercourse Level: Underground Permanent: True Watercourse Name: Nant Cwm-mawr Catchment Name: Afan Primacy: 1	A18SW (NW)	491	5	277683 192669
77	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 91.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Afan Primacy: 1	A18SW (N)	505	5	277694 192690
78	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 3.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Nant Cwm-mawr Catchment Name: Afan Primacy: 1	A18SW (N)	507	5	277682 192686
79	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 55.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Nant Cwm-mawr Catchment Name: Afan Primacy: 1	A18SW (N)	510	5	277682 192690
80	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 202.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Afan Primacy: 1	A18SE (N)	511	5	278086 192716
81	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 118.4 Watercourse Level: Not Supplied Permanent: True Watercourse Name: Not Supplied Catchment Name: Afan Primacy: 1	A18SE (N)	511	5	278086 192716
82	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 64.3 Watercourse Level: Not Supplied Permanent: True Watercourse Name: Not Supplied Catchment Name: Afan Primacy: 1	A14SW (SE)	524	5	278304 191851
83	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 61.3 Watercourse Level: Not Supplied Permanent: True Watercourse Name: Not Supplied Catchment Name: Afan Primacy: 1	A14SW (SE)	524	5	278304 191851

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
84	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 5.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Afan Primacy: 1	A18SE (NE)	539	5	278201 192690
85	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 58.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Afan Primacy: 1	A9NW (SE)	539	5	278275 191793
86	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 93.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Afan Primacy: 1	A18SE (NE)	540	5	278198 192693
87	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 102.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Afan Primacy: 1	A18SE (NE)	540	5	278198 192693
88	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 29.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Afan Primacy: 1	A18SE (NE)	540	5	278198 192693
89	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 246.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Nant Ynys-y-gwas Catchment Name: Afan Primacy: 1	A8NE (SE)	545	5	278189 191700
90	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 10.5 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Afan Primacy: 1	A17SE (NW)	549	5	277478 192573
91	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 44.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Afan Primacy: 1	A17SE (NW)	551	5	277470 192566
92	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 136.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Nant Cwm-mawr Catchment Name: Afan Primacy: 1	A18SW (NW)	559	5	277647 192728

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
93	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 245.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Afan Primacy: 1	A18SW (NW)	559	5	277647 192728
94	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 6.1 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Afan Primacy: 1	A18SW (N)	570	5	277699 192763
95	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 131.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Afan Primacy: 1	A18SW (N)	573	5	277703 192768
96	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 41.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Afan Primacy: 1	A9NW (SE)	585	5	278356 191819
97	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 22.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Afan Primacy: 1	A18SE (NE)	590	5	278140 192779
98	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 3.0 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Afan Primacy: 1	A17SE (NW)	590	5	277430 192577
99	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 495.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Afan Primacy: 1	A17SE (NW)	593	5	277429 192580
100	OS Water Network Lines Watercourse Form: Lake Watercourse Length: 6.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Afan Primacy: 1	A18SE (NE)	609	5	278145 192797
101	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 54.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Afan Primacy: 1	A18SE (NE)	615	5	278148 192803

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
102	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 102.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Afan Primacy: 1	A9NW (SE)	623	5	278394 191805
103	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 43.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Afan Primacy: 1	A12SW (W)	647	5	277211 192089
104	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: Afan Primacy: 1	A12SW (W)	662	5	277216 191966
105	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 42.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Nant Cwm-clais Catchment Name: Afan Primacy: 1	A12SW (W)	676	5	277185 192056
106	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 67.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Afan Primacy: 1	A14SE (E)	687	5	278610 192146
107	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 221.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Afon Afan Catchment Name: Afan Primacy: 1	A14SE (E)	687	5	278610 192146
108	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 781.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Nant Cwm-mawr Catchment Name: Afan Primacy: 1	A18SW (NW)	691	5	277569 192835
109	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 41.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Afan Primacy: 1	A18SW (NW)	691	5	277569 192835
110	OS Water Network Lines Watercourse Form: Lake Watercourse Length: 36.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Afan Primacy: 1	A9NW (SE)	706	5	278470 191766

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
111	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 6.7 Watercourse Level: Underground Permanent: True Watercourse Name: Nant Cwm-clais Catchment Name: Afan Primacy: 1	A12SW (W)	712	5	277147 192075
112	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 79.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Afan Primacy: 1	A12NW (W)	713	5	277149 192223
113	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 28.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Nant Cwm-clais Catchment Name: Afan Primacy: 1	A12SW (W)	717	5	277141 192078
114	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 42.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Afan Primacy: 1	A9NW (SE)	727	5	278470 191733
115	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 451.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Nant Cwm-clais Catchment Name: Afan Primacy: 1	A12SW (W)	744	5	277114 192083
116	OS Water Network Lines Watercourse Form: Lake Watercourse Length: 59.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Afan Primacy: 1	A9NW (SE)	756	5	278486 191707
117	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 645.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Afan Primacy: 1	A14NE (E)	768	5	278647 192488
118	OS Water Network Lines Watercourse Form: Lake Watercourse Length: 7.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Nant Ynys-y-gwas Catchment Name: Afan Primacy: 1	A9NW (SE)	771	5	278315 191513
119	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 664.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Nant Ynys-y-gwas Catchment Name: Afan Primacy: 1	A9SW (SE)	779	5	278321 191507

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
120	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 4.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Afan Afan Catchment Name: Afan Primacy: 1	A14NE (E)	790	5	278709 192331
121	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 103.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Afan Primacy: 1	A14NE (E)	794	5	278713 192333
122	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 323.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Afan Afan Catchment Name: Afan Primacy: 1	A14NE (E)	794	5	278713 192333
123	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 72.2 Watercourse Level: Not Supplied Permanent: True Watercourse Name: Not Supplied Catchment Name: Afan Primacy: 1	A9NW (SE)	803	5	278544 191703
124	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 52.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Afan Primacy: 1	A9NW (SE)	823	5	278565 191698
125	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 4.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Afan Primacy: 1	A14NE (E)	842	5	278769 192252
126	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 43.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Afan Primacy: 1	A14NE (E)	844	5	278770 192256
127	OS Water Network Lines Watercourse Form: Lake Watercourse Length: 109.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Afan Primacy: 1	A9NE (SE)	875	5	278603 191662
128	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 125.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Afan Primacy: 1	A14NE (E)	880	5	278807 192238

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
129	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 102.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Afan Primacy: 1	A14NE (E)	880	5	278807 192238
130	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 60.6 Watercourse Level: Not Supplied Permanent: True Watercourse Name: Not Supplied Catchment Name: Afan Primacy: 1	A14SE (E)	898	5	278821 192126
131	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 12.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Afan Primacy: 1	A14SE (E)	906	5	278821 192065
132	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 129.9 Watercourse Level: Not Supplied Permanent: True Watercourse Name: Not Supplied Catchment Name: Afan Primacy: 1	A14SE (E)	911	5	278824 192054
133	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 152.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Afan Primacy: 1	A19NW (NE)	927	5	278517 192938
134	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 47.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Afan Primacy: 1	A7SE (SW)	928	5	277316 191380
135	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 62.0 Watercourse Level: Not Supplied Permanent: True Watercourse Name: Not Supplied Catchment Name: Afan Primacy: 1	A7SE (SW)	928	5	277316 191380
136	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 315.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Nant Cwm-clais Catchment Name: Afan Primacy: 1	A7SE (SW)	940	5	277359 191336
137	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 15.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Afan Primacy: 1	A9NE (SE)	949	5	278647 191598

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
138	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 63.9 Watercourse Level: Not Supplied Permanent: True Watercourse Name: Not Supplied Catchment Name: Afan Primacy: 1	A14NE (E)	960	5	278887 192194
139	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 65.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Afan Primacy: 1	A9NE (SE)	965	5	278656 191584
140	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 3.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Afan Primacy: 1	A9NE (SE)	981	5	278701 191615
141	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 3.2 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Afan Primacy: 1	A9NE (SE)	984	5	278704 191613
142	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 23.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Afan Primacy: 1	A9NE (SE)	987	5	278706 191611

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
143	Historical Landfill Sites Licence Holder: Not Supplied Location: Cwmavon, Port Talbot Name: Disused Tip off Heol Tabor Operator Location: Not Supplied Boundary Accuracy: As Supplied Provider Reference: EAHL34825 First Input Date: Not Supplied Last Input Date: Not Supplied Specified Waste: Not Supplied Type: EA Waste Ref: 0 Regis Ref: Not Supplied WRC Ref: Not Supplied BGS Ref: Not Supplied Other Ref: Not Supplied	A18SE (NE)	560	2	278173 192730
144	Historical Landfill Sites Licence Holder: Not Supplied Location: Cwmavon Name: Tip - Disused Operator Location: Not Supplied Boundary Accuracy: As Supplied Provider Reference: EAHL34811 First Input Date: Not Supplied Last Input Date: Not Supplied Specified Waste: Not Supplied Type: EA Waste Ref: 0 Regis Ref: Not Supplied WRC Ref: Not Supplied BGS Ref: Not Supplied Other Ref: Not Supplied	A18NE (N)	746	2	278108 192955
145	Licensed Waste Management Facilities (Locations) Licence Number: FP3898FK Location: Brunel Ind Est, Cwmavon, Port Talbot, N P T, SA12 9DE Operator Name: Glenville Davies Operator Location: Not Supplied Authority: Natural Resources Wales Site Category: Household, Commercial And Industrial Transfer Stations Licence Status: Effective Issued: 1st June 1999 Last Modified: Not Supplied Expires: Not Supplied Suspended: Not Supplied Revoked: Not Supplied Surrendered: Not Supplied IPPC Reference: Not Supplied Positional Accuracy: Located by supplier to within 10m	A8NW (S)	322	2	277745 191832
145	Licensed Waste Management Facilities (Locations) Licence Number: 34157 Location: 1 Brunel Ind Est, Cwmavon, Port Talbot, SA12 9DE Operator Name: Davies Glenville Operator Location: Not Supplied Authority: Natural Resources Wales Site Category: Household, Commercial And Industrial Transfer Stations Licence Status: Modified Issued: 1st June 1999 Last Modified: 23rd August 2012 Expires: Not Supplied Suspended: Not Supplied Revoked: Not Supplied Surrendered: Not Supplied IPPC Reference: Not Supplied Positional Accuracy: Located by supplier to within 10m	A8NW (S)	322	2	277745 191832
	Local Authority Landfill Coverage Name: Neath Port Talbot County Borough Council - Has supplied landfill data		0	3	277890 192184
146	Potentially Infilled Land (Non-Water) Bearing Ref: NE Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1996	A13NE (NE)	0	-	277909 192204
147	Potentially Infilled Land (Non-Water) Bearing Ref: NE Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1996	A13NE (NE)	98	-	277985 192299

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
148	Potentially Infilled Land (Non-Water) Bearing Ref: NW Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1996	A18SW (NW)	457	-	277683 192631
149	Potentially Infilled Land (Non-Water) Bearing Ref: NE Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1996	A19SW (NE)	485	-	278234 192598
150	Potentially Infilled Land (Non-Water) Bearing Ref: NE Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1996	A19SW (NE)	557	-	278240 192685
151	Potentially Infilled Land (Non-Water) Bearing Ref: NE Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1996	A18SE (NE)	594	-	278185 192763
152	Potentially Infilled Land (Non-Water) Bearing Ref: NW Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1996	A17SE (NW)	727	-	277490 192828
153	Potentially Infilled Land (Non-Water) Bearing Ref: E Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1996	A14SE (E)	728	-	278612 191969
154	Potentially Infilled Land (Non-Water) Bearing Ref: E Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1996	A14SE (E)	761	-	278688 192183
155	Potentially Infilled Land (Non-Water) Bearing Ref: E Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1996	A14NE (E)	840	-	278766 192269
156	Potentially Infilled Land (Non-Water) Bearing Ref: E Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1996	A14SE (E)	887	-	278797 192041
157	Potentially Infilled Land (Non-Water) Bearing Ref: SE Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1996	A9NE (SE)	944	-	278585 191531
158	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1964	A13SW (S)	66	-	277857 192065
159	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1964	A13NE (NE)	163	-	278085 192266
160	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1952	A14SW (SE)	421	-	278245 191942
161	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1952	A14SW (SE)	483	-	278267 191869
162	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1900	A7NE (SW)	615	-	277422 191699
163	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1921	A9NW (SE)	633	-	278406 191804
164	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1884	A8SW (SW)	737	-	277566 191457
165	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1921	A7SE (SW)	751	-	277536 191455

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
166	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1964	A7SE (SW)	783	-	277464 191456
167	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1921	A14SE (E)	909	-	278826 192080
168	Registered Landfill Sites Licence Holder: K J Collier Licence Reference: 1/88 Site Location: Cwmbont 1 & 2 (Western Logs Ltd), Ynysygwas, Cwmafan, Port Talbot, West Glamorgan Licence Easting: 278800 Licence Northing: 192000 Operator Location: Ynysallan Farm, Llansamlet, Swansea, West Glamorgan Authority: Environment Agency Wales, South West Area Site Category: Landfill Max Input Rate: Undefined Waste Source: No known restriction on source of waste Restrictions: Status: Licence lapsed/cancelled/defunct/not applicable/surrenderedCancelled Dated: 1st June 1988 Preceded By: Not Given Licence: Superseded By: Not Given Licence: Positional Accuracy: Manually positioned to the road within the address or location Boundary Accuracy: Not Applicable Authorised Waste: Builders Rubble, Stone, Bricks, Mortar Topsoil/Subsoil Prohibited Waste: Putrescible Materials	A14SW (E)	649	4	278555 192052
169	Registered Waste Transfer Sites Licence Holder: G Davies - G Davies Skip Hire Licence Reference: SWW 174L Site Location: 1 Brunel Industrial Estate, Cwmavon, PORT TALBOT, West Glamorgan, SA12 9DB Operator Location: 1 Brunel Industrial Estate, Cwmavon, PORT TALBOT, West Glamorgan, SA12 9DB Authority: Environment Agency Wales, South West Area Site Category: Transfer Max Input Rate: Small (Equal to or greater than 10,000 and less than 25,000 tonnes per year) Waste Source: No known restriction on source of waste Restrictions: Licence Status: Operational as far as is knownOperational Dated: 1st June 1999 Preceded By: Not Given Licence: Superseded By: Not Given Licence: Positional Accuracy: Manually positioned to the address or location Boundary Quality: Not Supplied Authorised Waste: Construction/Demolition/Building Wastes, Stone Inert Waste Scrap Metal Timber, Paper, Cardboard, Plastics Prohibited Waste: Household Degradable Waste Liquid Wastes Powders Sludge Wastes Spec.Waste (Epa'90:S62/1996 Regs) Waste N.O.S.	A8NW (S)	350	4	277750 191800

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS 1:625,000 Solid Geology Description: Pennine Lower Coal Measures Formation And South Wales Lower Coal Measures Formation (Undifferentiated)	A13SW (NW)	0	1	277890 192184
	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:	A13SW (NW)	0	1	277890 192184
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic: 45 - 60 mg/kg Concentration: Cadmium: <1.8 mg/kg Concentration: Chromium: 60 - 90 mg/kg Concentration: Lead Concentration: <100 mg/kg Nickel: 15 - 30 mg/kg Concentration:	A13SE (SE)	0	1	277899 192177
	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:	A13SE (E)	72	1	278000 192184
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic: 45 - 60 mg/kg Concentration: Cadmium: <1.8 mg/kg Concentration: Chromium: 60 - 90 mg/kg Concentration: Lead Concentration: <100 mg/kg Nickel: 15 - 30 mg/kg Concentration:	A13NW (NW)	82	1	277823 192267
	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 - 200 mg/kg Nickel: 15 - 30 mg/kg Concentration:	A13SE (SE)	195	1	278000 192000
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic: <15 mg/kg Concentration: Cadmium: <1.8 mg/kg Concentration: Chromium: 60 - 90 mg/kg Concentration: Lead Concentration: <100 mg/kg Nickel: 15 - 30 mg/kg Concentration:	A13NE (NE)	197	1	278000 192411

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:	A13NW (N)	207	1	277890 192442
	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 - 200 mg/kg Nickel: 30 - 45 mg/kg Concentration:	A13SE (SE)	291	1	278084 191945
	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:	A13SE (S)	299	1	278000 191870
	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:	A13SE (SE)	320	1	278163 192000
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic: <15 mg/kg Concentration: Cadmium: <1.8 mg/kg Concentration: Chromium: 60 - 90 mg/kg Concentration: Lead Concentration: 100 - 200 mg/kg Nickel: 15 - 30 mg/kg Concentration:	A13SE (SE)	328	1	278116 191926
	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:	A8NE (S)	352	1	278000 191811

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:	A8NW (S)	355	1	277885 191778
	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 - 200 mg/kg Nickel: 15 - 30 mg/kg Concentration:	A13SE (SE)	359	1	278114 191883
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic: <15 mg/kg Concentration: Cadmium: <1.8 mg/kg Concentration: Chromium: 60 - 90 mg/kg Concentration: Lead Concentration: <100 mg/kg Nickel: 15 - 30 mg/kg Concentration:	A13SE (SE)	366	1	278222 192000
	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:	A8NW (S)	368	1	277758 191779
	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 - 200 mg/kg Nickel: 30 - 45 mg/kg Concentration:	A8NE (S)	378	1	278000 191784
	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:	A8NW (SW)	394	1	277682 191781

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic: 15 - 25 mg/kg Concentration: Cadmium: <1.8 mg/kg Concentration: Chromium: 60 - 90 mg/kg Concentration: Lead Concentration: <100 mg/kg Nickel: 15 - 30 mg/kg Concentration:	A8NW (SW)	405	1	277652 191785
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic: 45 - 60 mg/kg Concentration: Cadmium: <1.8 mg/kg Concentration: Chromium: 60 - 90 mg/kg Concentration: Lead Concentration: 100 - 200 mg/kg Nickel: 15 - 30 mg/kg Concentration:	A8NE (SE)	425	1	278121 191799
	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:	A8NW (SW)	445	1	277566 191797
	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:	A14SW (SE)	447	1	278318 192000
	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:	A7NE (SW)	486	1	277497 191808
	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:	A7NE (SW)	489	1	277488 191813

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 45 - 60 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <100 mg/kg Nickel 15 - 30 mg/kg Concentration:	A12SE (SW)	528	1	277411 191851
	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:	A12SE (SW)	561	1	277353 191888
	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 - 200 mg/kg Nickel 15 - 30 mg/kg Concentration:	A9NW (SE)	609	1	278395 191827
	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:	A14SW (E)	612	1	278500 192000
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic <15 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: 100 - 200 mg/kg Nickel 15 - 30 mg/kg Concentration:	A14SW (E)	616	1	278482 191950
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic <15 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <100 mg/kg Nickel 15 - 30 mg/kg Concentration:	A14SW (E)	623	1	278500 191971

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 45 - 60 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: 100 - 200 mg/kg Nickel 15 - 30 mg/kg Concentration:	A9NW (SE)	668	1	278476 191837
	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:	A14SW (SE)	673	1	278500 191863
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic 45 - 60 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <100 mg/kg Nickel 15 - 30 mg/kg Concentration:	A9NW (SE)	685	1	278500 191842
	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:	A9NW (SE)	697	1	278500 191820
	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)	698	1	278519 191846
	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:	A7SE (SW)	725	1	277515 191495

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: 45 - 60 mg/kg Concentration: Cadmium: <1.8 mg/kg Concentration: Chromium: 60 - 90 mg/kg Concentration: Lead Concentration: <100 mg/kg Nickel: 15 - 30 mg/kg Concentration:	A9NW (SE)	729	1	278500 191767
	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:	A7SE (SW)	774	1	277497 191448
	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 - 200 mg/kg Nickel: 30 - 45 mg/kg Concentration:	A9NW (SE)	794	1	278478 191638
	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)	812	1	278739 192206
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic: 45 - 60 mg/kg Concentration: Cadmium: <1.8 mg/kg Concentration: Chromium: 60 - 90 mg/kg Concentration: Lead Concentration: <100 mg/kg Nickel: 15 - 30 mg/kg Concentration:	A9NW (SE)	849	1	278500 191579
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic: <15 mg/kg Concentration: Cadmium: <1.8 mg/kg Concentration: Chromium: 60 - 90 mg/kg Concentration: Lead Concentration: <100 mg/kg Nickel: 15 - 30 mg/kg Concentration:	A14NE (E)	855	1	278783 192191

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 15 - 30 mg/kg Concentration:	A12SW (W)	857	1	277000 192184
	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)	888	1	276979 192000
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic 45 - 60 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <100 mg/kg Nickel 15 - 30 mg/kg Concentration:	A17NE (NW)	928	1	277333 192960
	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:	A17NE (NW)	943	1	277256 192913
	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:	A17NE (NW)	960	1	277331 193000
	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:	A7SE (SW)	986	1	277322 191306

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic: 35 - 45 mg/kg Concentration: Cadmium: <1.8 mg/kg Concentration: Chromium: 60 - 90 mg/kg Concentration: Lead Concentration: <100 mg/kg Nickel: 15 - 30 mg/kg Concentration:	A19SE (NE)	992	1	278714 192822
170	BGS Recorded Mineral Sites Site Name: Meadow Pit Location: Cwmafan, Neath, West Glamorgan Source: British Geological Survey, National Geoscience Information Service Reference: 156617 Type: Underground Status: Ceased Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Carboniferous Geology: South Wales Middle Coal Measures Formation Commodity: Coal - Deep Positional Accuracy: Located by supplier to within 10m	A14NW (NE)	526	1	278403 192444
171	BGS Recorded Mineral Sites Site Name: Cwm Avan Location: Port Talbot, West Glamorgan Source: British Geological Survey, National Geoscience Information Service Reference: 156670 Type: Opencast Status: Ceased Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Carboniferous Geology: Brithdir Member Commodity: Sandstone Positional Accuracy: Located by supplier to within 10m	A8NW (S)	550	1	277750 191594
172	BGS Recorded Mineral Sites Site Name: Copper Row Location: Cwmafan, Neath, West Glamorgan Source: British Geological Survey, National Geoscience Information Service Reference: 156572 Type: Underground Status: Ceased Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Carboniferous Geology: South Wales Middle Coal Measures Formation Commodity: Coal - Deep Positional Accuracy: Located by supplier to within 10m	A19SW (NE)	661	1	278349 192731
173	BGS Recorded Mineral Sites Site Name: Cwm-Mawr Location: Cwmafan, Neath, West Glamorgan Source: British Geological Survey, National Geoscience Information Service Reference: 156573 Type: Underground Status: Ceased Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Carboniferous Geology: South Wales Middle Coal Measures Formation Commodity: Coal - Deep Positional Accuracy: Located by supplier to within 10m	A18SW (NW)	699	1	277576 192848
174	BGS Recorded Mineral Sites Site Name: Pen Y Castell Location: Cwmafan, Port Talbot, West Glamorgan Source: British Geological Survey, National Geoscience Information Service Reference: 156646 Type: Opencast Status: Ceased Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Carboniferous Geology: South Wales Lower Coal Measures Formation Commodity: Sandstone Positional Accuracy: Located by supplier to within 10m	A14SE (E)	700	1	278583 191973

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
175	BGS Recorded Mineral Sites Site Name: Tewgoed-Bach Location: Cwmafan, Neath, West Glamorgan Source: British Geological Survey, National Geoscience Information Service Reference: 156571 Type: Underground Status: Ceased Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Carboniferous Geology: South Wales Middle Coal Measures Formation Commodity: Coal - Deep Positional Accuracy: Located by supplier to within 10m	A18NE (N)	769	1	278124 192974
175	BGS Recorded Mineral Sites Site Name: Tewgoed-Bach Location: Cwmafan, Neath, West Glamorgan Source: British Geological Survey, National Geoscience Information Service Reference: 156570 Type: Underground Status: Ceased Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Carboniferous Geology: South Wales Middle Coal Measures Formation Commodity: Coal - Deep Positional Accuracy: Located by supplier to within 10m	A18NE (N)	807	1	278158 193003
176	BGS Recorded Mineral Sites Site Name: Railmill House Location: Cwmafan, Neath, West Glamorgan Source: British Geological Survey, National Geoscience Information Service Reference: 156575 Type: Underground Status: Ceased Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Carboniferous Geology: South Wales Middle Coal Measures Formation Commodity: Coal - Deep Positional Accuracy: Located by supplier to within 10m	A14NE (E)	878	1	278805 192249
177	BGS Recorded Mineral Sites Site Name: Railmill House Location: Cwmafan, Neath, West Glamorgan Source: British Geological Survey, National Geoscience Information Service Reference: 156576 Type: Opencast Status: Ceased Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Carboniferous Geology: South Wales Middle Coal Measures Formation Commodity: Sandstone Positional Accuracy: Located by supplier to within 10m	A14NE (E)	882	1	278809 192192
178	BGS Recorded Mineral Sites Site Name: Pen Y Castell Location: Cwmafan, Port Talbot, West Glamorgan Source: British Geological Survey, National Geoscience Information Service Reference: 156649 Type: Underground Status: Ceased Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Carboniferous Geology: South Wales Lower Coal Measures Formation Commodity: Coal - Deep Positional Accuracy: Located by supplier to within 10m	A14SE (E)	902	1	278813 192044
179	BGS Recorded Mineral Sites Site Name: Pen Y Castell Gravel Pit Location: Cwmafan, Port Talbot, West Glamorgan Source: British Geological Survey, National Geoscience Information Service Reference: 156647 Type: Opencast Status: Ceased Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Carboniferous Geology: Brithdir Member Commodity: Sand and Gravel Positional Accuracy: Located by supplier to within 10m	A9NE (SE)	940	1	278578 191530

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	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 (NW)	0	6	277890 192184
	Mining Instability Mining Evidence: Inconclusive Coal Mining Source: Ove Arup & Partners Boundary Quality: As Supplied	A13SW (NW)	0	-	277890 192184
	Non Coal Mining Areas of Great Britain Risk: Highly Unlikely Source: British Geological Survey, National Geoscience Information Service	A13SW (NW)	0	1	277890 192184
	Potential for Collapsible Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13SW (NW)	0	1	277890 192184
	Potential for Collapsible Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13SE (SE)	15	1	277907 192170
	Potential for Compressible Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13SW (NW)	0	1	277890 192184
	Potential for Compressible Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13NE (NE)	5	1	277926 192226
	Potential for Compressible Ground Stability Hazards Hazard Potential: Moderate Source: British Geological Survey, National Geoscience Information Service	A13SE (SE)	15	1	277907 192170
	Potential for Compressible Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13SE (SE)	34	1	277915 192134
	Potential for Ground Dissolution Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13SW (NW)	0	1	277890 192184
	Potential for Landslide Ground Stability Hazards Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service	A13SW (NW)	0	1	277890 192184
	Potential for Landslide Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13SE (SE)	5	1	277907 192165
	Potential for Landslide Ground Stability Hazards Hazard Potential: Moderate Source: British Geological Survey, National Geoscience Information Service	A13NE (N)	75	1	277903 192310
	Potential for Landslide Ground Stability Hazards Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service	A13NE (N)	179	1	277897 192414
	Potential for Landslide Ground Stability Hazards Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service	A13NE (N)	249	1	277968 192477
	Potential for Running Sand Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13SW (NW)	0	1	277890 192184
	Potential for Running Sand Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13NE (NE)	0	1	277910 192220
	Potential for Running Sand Ground Stability Hazards Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service	A13SE (SE)	15	1	277907 192170
	Potential for Running Sand Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13NE (N)	179	1	277897 192414

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Potential for Running Sand Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13NE (N)	248	1	277965 192477
	Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13SW (NW)	0	1	277890 192184
	Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13NW (NW)	76	1	277831 192268
	Radon Potential - Radon Affected Areas Affected Area: The property is in a Lower probability radon area (less than 1% of homes are estimated to be at or above the Action Level). Source: British Geological Survey, National Geoscience Information Service	A13SW (NW)	0	1	277890 192184
	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 (NW)	0	1	277890 192184

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
180	Contemporary Trade Directory Entries Name: Brynbryddan Pest Control Services Location: 7, Brynbryddan, Cwmavon, Port Talbot, West Glamorgan, SA12 9LD Classification: Pest & Vermin Control Status: Inactive Positional Accuracy: Automatically positioned to the address	A13NW (NW)	206	-	277735 192345
181	Contemporary Trade Directory Entries Name: Sharpes Auto Electrical Co Ltd Location: London Terrace, Cwmavon, Port Talbot, West Glamorgan, SA12 9AN Classification: Garage Services Status: Inactive Positional Accuracy: Automatically positioned to the address	A13SE (S)	231	-	277949 191922
182	Contemporary Trade Directory Entries Name: Ibis Packaging Location: Craven Lodge, Cwmavon Road, Cwmavon, Port Talbot, West Glamorgan, SA12 9BT Classification: Packaging & Wrapping Equipment & Supplies Status: Inactive Positional Accuracy: Automatically positioned to the address	A13SW (SW)	236	-	277676 191982
183	Contemporary Trade Directory Entries Name: A & I Engineering Ltd Location: 49, Depot Road, Cwmavon, Port Talbot, West Glamorgan, SA12 9BA Classification: Precision Engineers Status: Inactive Positional Accuracy: Automatically positioned to the address	A13NE (E)	296	-	278222 192186
184	Contemporary Trade Directory Entries Name: Gwendraegh Valley Cars Location: Heol Cwmawr, Drefach, Llanelli, Dyfed, SA14 7AA Classification: Car Dealers - Used Status: Inactive Positional Accuracy: Manually positioned to the road within the address or location	A18SW (N)	299	-	277844 192526
185	Contemporary Trade Directory Entries Name: Richard Morris Car Sales Ltd Location: Unit 1/2, Brunel Industrial Estate, Cwmavon, Port Talbot, West Glamorgan, SA12 9DE Classification: Car Dealers - Used Status: Inactive Positional Accuracy: Automatically positioned to the address	A8NW (SW)	356	-	277712 191808
185	Contemporary Trade Directory Entries Name: Tidy Tyres Location: Unit 2, Brunel Industrial Estate, Cwmavon, Port Talbot, SA12 9DE Classification: Tyre Dealers Status: Inactive Positional Accuracy: Automatically positioned to the address	A8NW (SW)	365	-	277695 191806
186	Contemporary Trade Directory Entries Name: Wizard Chocolates Location: 53, Pine Valley, Cwmavon, Port Talbot, West Glamorgan, SA12 9NF Classification: Confectionery Manufacturers Status: Inactive Positional Accuracy: Automatically positioned to the address	A12SE (W)	360	-	277497 192159
186	Contemporary Trade Directory Entries Name: Wizard Chocolates Location: 53, Pine Valley, Cwmavon, Port Talbot, SA12 9NF Classification: Confectionery Manufacturers Status: Inactive Positional Accuracy: Automatically positioned to the address	A12SE (W)	360	-	277497 192159
187	Contemporary Trade Directory Entries Name: Millennium Motors Location: Unit 3, Brunel Industrial Estate, Cwmavon, PORT TALBOT, West Glamorgan, SA12 9DE Classification: Garage Services Status: Inactive Positional Accuracy: Automatically positioned to the address	A8NW (SW)	375	-	277708 191790
187	Contemporary Trade Directory Entries Name: K D Autos Location: Unit 3 Brunel Industrial Estate, Cwmavon, Port Talbot, West Glamorgan, SA12 9DE Classification: Mot Testing Centres Status: Active Positional Accuracy: Automatically positioned to the address	A8NW (SW)	375	-	277708 191790

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
187	Contemporary Trade Directory Entries Name: K D Autos Swansea Location: Unit 3 Brunel Industrial Estate, Cwmavon, Port Talbot, West Glamorgan, SA12 9DE Classification: Garage Services Status: Active Positional Accuracy: Automatically positioned to the address	A8NW (SW)	375	-	277708 191790
187	Contemporary Trade Directory Entries Name: R S Body Repair Centre Location: Unit 4, Brunel Industrial Estate, Cwmavon, Port Talbot, SA12 9DE Classification: Car Body Repairs Status: Inactive Positional Accuracy: Automatically positioned to the address	A8NW (SW)	401	-	277687 191771
187	Contemporary Trade Directory Entries Name: R & S Repair Location: Unit 4, Brunel Industrial Estate, Cwmavon, Port Talbot, SA12 9DE Classification: Car Body Repairs Status: Inactive Positional Accuracy: Automatically positioned to the address	A8NW (SW)	401	-	277687 191771
187	Contemporary Trade Directory Entries Name: Allen & Co Ltd Location: Unit 5/6, Brunel Industrial Estate, Cwmavon, Port Talbot, West Glamorgan, SA12 9DE Classification: Window Frame Manufacturers Status: Inactive Positional Accuracy: Automatically positioned to the address	A8NW (SW)	416	-	277674 191760
187	Contemporary Trade Directory Entries Name: Allan Ltd & Co Location: Unit 5, Brunel Industrial Estate, Cwmavon, Port Talbot, SA12 9DE Classification: Industrial Services Status: Inactive Positional Accuracy: Automatically positioned to the address	A8NW (SW)	416	-	277674 191760
187	Contemporary Trade Directory Entries Name: Barber Refrigeration Ltd Location: UNIT 7, BRUNEL INDUSTRIAL ESTATE, CWMAVON, SA12 9DE Classification: Refrigerators & Freezers - Servicing & Repairs Status: Active Positional Accuracy: Automatically positioned to the address	A8NW (SW)	452	-	277647 191733
187	Contemporary Trade Directory Entries Name: Barber Location: Unit 7, Brunel Industrial Estate, Cwmavon, Port Talbot, West Glamorgan, SA12 9DE Classification: Air Conditioning & Refrigeration Contractors Status: Inactive Positional Accuracy: Automatically positioned to the address	A8NW (SW)	452	-	277647 191733
188	Contemporary Trade Directory Entries Name: Boiler Maintenance Services Location: 8, Ynys y Gwas, Cwmavon, Port Talbot, West Glamorgan, SA12 9AB Classification: Boilers - Servicing, Replacements & Repairs Status: Inactive Positional Accuracy: Automatically positioned to the address	A13SE (SE)	426	-	278201 191880
189	Contemporary Trade Directory Entries Name: Fibreglass Roofing Supplies Ltd Location: 37a, Pine Valley, Cwmavon, Port Talbot, SA12 9NE Classification: Glass Fibre Moulding, Materials & Manufacturers Status: Active Positional Accuracy: Automatically positioned to the address	A12SE (W)	454	-	277422 192003
190	Contemporary Trade Directory Entries Name: The Private Cleaning Co Location: 71, Brynglas Avenue, Cwmavon, Port Talbot, West Glamorgan, SA12 9LF Classification: Cleaning Services - Domestic Status: Inactive Positional Accuracy: Automatically positioned to the address	A12NE (W)	468	-	277403 192251
191	Contemporary Trade Directory Entries Name: Gourlay Hire Ltd Location: Unit 10, Brunel Industrial Estate, Cwmavon, Port Talbot, West Glamorgan, SA12 9DE Classification: Fuel Dealers Status: Inactive Positional Accuracy: Automatically positioned to the address	A8NW (SW)	502	-	277608 191698

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
191	Contemporary Trade Directory Entries Name: Brunel Painting & Specialist Coatings Location: Unit 10, Brunel Industrial Estate, Cwmavon, Port Talbot, West Glamorgan, SA12 9DE Classification: Coating Specialists Status: Inactive Positional Accuracy: Automatically positioned to the address	A8NW (SW)	502	-	277608 191698
191	Contemporary Trade Directory Entries Name: The Patio Centre Location: Unit 12, Brunel Industrial Estate, Cwmavon, Port Talbot, West Glamorgan, SA12 9DE Classification: Concrete Products Status: Inactive Positional Accuracy: Automatically positioned to the address	A8NW (SW)	529	-	277587 191679
191	Contemporary Trade Directory Entries Name: European Plastics Ltd Location: Unit 13, Brunel Industrial Estate, Cwmavon, Port Talbot, SA12 9DE Classification: Mould Manufacturers Status: Active Positional Accuracy: Automatically positioned to the address	A8NW (SW)	548	-	277576 191663
191	Contemporary Trade Directory Entries Name: European Plastics Ltd Location: Unit 13, Brunel Industrial Estate, Cwmavon, Port Talbot, West Glamorgan, SA12 9DE Classification: Plastics - Extrusion Status: Inactive Positional Accuracy: Automatically positioned to the address	A8NW (SW)	548	-	277576 191663
191	Contemporary Trade Directory Entries Name: G R W Fabrications Ltd Location: Unit 14, Brunel Industrial Estate, Cwmavon, Port Talbot, West Glamorgan, SA12 9DE Classification: Engineers - General Status: Inactive Positional Accuracy: Automatically positioned to the address	A8NW (SW)	562	-	277563 191655
192	Contemporary Trade Directory Entries Name: Cwmavon Animal Feed Location: 15, Cefn Coed Road, Cwmavon, Port Talbot, SA12 9LR Classification: Pet Foods & Animal Feeds Status: Inactive Positional Accuracy: Automatically positioned to the address	A12NE (W)	507	-	277384 192320
193	Contemporary Trade Directory Entries Name: City Commercials Location: Abernant, Cwmavon Road, Cwmavon, Port Talbot, West Glamorgan, SA12 9HL Classification: Commercial Vehicle Dealers Status: Inactive Positional Accuracy: Automatically positioned to the address	A7NE (SW)	523	-	277474 191778
194	Contemporary Trade Directory Entries Name: Apex Cleaning & Pest Control Location: 26, Ynys-Lee, Cwmavon, Port Talbot, SA12 9AQ Classification: Commercial Cleaning Services Status: Active Positional Accuracy: Automatically positioned to the address	A14SW (SE)	590	-	278436 191919
195	Contemporary Trade Directory Entries Name: Washed4u Location: 41, Heol Jiwibili, Cwmavon, Port Talbot, West Glamorgan, SA12 9NR Classification: Laundries & Launderettes Status: Active Positional Accuracy: Automatically positioned to the address	A14NW (NE)	607	-	278492 192440
196	Fuel Station Entries Name: Pantdu Garage Location: Pantdu, Cwmavon, Port Talbot, Neath Port Talbot, SA12 9HN Brand: OBSOLETE Premises Type: Not Applicable Status: Obsolete Positional Accuracy: Manually positioned to the address or location	A7NE (SW)	591	-	277455 191700
197	Fuel Station Entries Name: Ageglory Service Station Location: Cunard Row, Cwmavon, Port Talbot, Neath Port Talbot, SA12 9ED Brand: Obsolete Premises Type: Not Applicable Status: Obsolete Positional Accuracy: Manually positioned to the road within the address or location	A14NE (E)	709	-	278591 192468

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
198	Points of Interest - Commercial Services Name: Brynbryddan Pest Control Services Location: 7 Brynbryddan, Cwmavon, Port Talbot, SA12 9LD Category: Contract Services Class Code: Pest and Vermin Control Positional Accuracy: Positioned to address or location	A13NW (NW)	206	7	277735 192344
199	Points of Interest - Commercial Services Name: Sharpes Auto Electrical Co Ltd Location: London Terrace, Cwmavon, Port Talbot, SA12 9AN Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A13SE (S)	231	7	277949 191922
199	Points of Interest - Commercial Services Name: Sharpes Auto Electrical Co Ltd Location: London Terrace, Cwmavon, Port Talbot, SA12 9AN Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A13SE (S)	231	7	277949 191922
200	Points of Interest - Commercial Services Name: K D Autos Location: Unit 3 Brunel Industrial Estate, Cwmavon, Port Talbot, SA12 9DE Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A8NW (SW)	375	7	277708 191790
200	Points of Interest - Commercial Services Name: K D Autos Swansea Location: Unit 3, Brunel Industrial Estate, Cwmavon, SA12 9DE Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A8NW (SW)	375	7	277708 191790
200	Points of Interest - Commercial Services Name: Fast Wax Detailing Location: Unit 3, Brunel Industrial Estate, Cwmavon, SA12 9DE Category: Personal, Consumer and other Services Class Code: Vehicle Cleaning Services Positional Accuracy: Positioned to address or location	A8NW (SW)	375	7	277708 191790
200	Points of Interest - Commercial Services Name: Millennium Motors Location: Unit 3, Brunel Industrial Estate, Cwmavon, Port Talbot, SA12 9DE Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A8NW (SW)	375	7	277708 191790
200	Points of Interest - Commercial Services Name: Millennium Motors Location: Unit 3, Brunel Industrial Estate, Cwmavon, Port Talbot, SA12 9DE Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A8NW (SW)	375	7	277708 191789
200	Points of Interest - Commercial Services Name: R & S Repair Location: Unit 4, Brunel Industrial Estate, Cwmavon, Port Talbot, SA12 9DE Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A8NW (SW)	401	7	277687 191771
200	Points of Interest - Commercial Services Name: R S Body Repair Centre Location: Unit 4, Brunel Industrial Estate, Cwmavon, SA12 9DE Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A8NW (SW)	401	7	277687 191771
201	Points of Interest - Manufacturing and Production Name: C R Mortimer & Sons Location: Cwmavon Post Office 5, Tyr Owen Row, Cwmavon, Port Talbot, SA12 9BE Category: Farming Class Code: Livestock Farming Positional Accuracy: Positioned to address or location	A13SE (SE)	93	7	277960 192111
202	Points of Interest - Manufacturing and Production Name: Brunel Industrial Estate Location: SA12 Category: Industrial Features Class Code: Business Parks and Industrial Estates Positional Accuracy: Positioned to an adjacent address or location	A8NW (SW)	440	7	277592 191783

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
203	Points of Interest - Manufacturing and Production Name: Shaft (Disused) Location: SA12 Category: Extractive Industries Class Code: Unspecified Quarries Or Mines Positional Accuracy: Positioned to an adjacent address or location	A19SW (NE)	811	7	278509 192783
204	Points of Interest - Manufacturing and Production Name: Tanks Location: SA12 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to an adjacent address or location	A14SE (E)	938	7	278832 191970
205	Points of Interest - Manufacturing and Production Name: Air Shaft Location: SA12 Category: Extractive Industries Class Code: Unspecified Quarries Or Mines Positional Accuracy: Positioned to an adjacent address or location	A12NW (W)	955	7	276927 192355
206	Points of Interest - Manufacturing and Production Name: Adit (Dis) Location: SA12 Category: Extractive Industries Class Code: Unspecified Quarries Or Mines Positional Accuracy: Positioned to an adjacent address or location	A17SW (W)	958	7	276985 192534
207	Points of Interest - Public Infrastructure Name: Graveyard Location: SA12 Category: Infrastructure and Facilities Class Code: Cemeteries and Crematoria Positional Accuracy: Positioned to an adjacent address or location	A13SE (S)	189	7	277948 191968
207	Points of Interest - Public Infrastructure Name: Graveyard Location: Not Supplied Category: Infrastructure and Facilities Class Code: Cemeteries and Crematoria Positional Accuracy: Positioned to an adjacent address or location	A13SE (S)	197	7	277961 191966
208	Points of Interest - Public Infrastructure Name: Cwmafan Police Office Location: 60 Depot Road, Cwmafan, Port Talbot, SA12 9BA Category: Central and Local Government Class Code: Police Stations Positional Accuracy: Positioned to address or location	A14SW (E)	347	7	278273 192178
209	Points of Interest - Public Infrastructure Name: Weir Location: SA12 Category: Water Class Code: Weirs, Sluices and Dams Positional Accuracy: Positioned to an adjacent address or location	A8NE (S)	349	7	278030 191830
210	Points of Interest - Public Infrastructure Name: Outfall Location: SA12 Category: Infrastructure and Facilities Class Code: Waste Storage, Processing and Disposal Positional Accuracy: Positioned to an adjacent address or location	A14SW (E)	428	7	278332 192078
210	Points of Interest - Public Infrastructure Name: Outfall Location: SA12 Category: Infrastructure and Facilities Class Code: Waste Storage, Processing and Disposal Positional Accuracy: Positioned to an adjacent address or location	A14SW (E)	440	7	278347 192085
211	Points of Interest - Public Infrastructure Name: Refuse Tip (Disused) Location: SA12 Category: Infrastructure and Facilities Class Code: Refuse Disposal Facilities Positional Accuracy: Positioned to an adjacent address or location	A18SE (NE)	639	7	278183 192814
212	Points of Interest - Public Infrastructure Name: Cemetery Location: Not Supplied Category: Infrastructure and Facilities Class Code: Cemeteries and Crematoria Positional Accuracy: Positioned to an adjacent address or location	A7NE (SW)	742	7	277391 191556

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
212	Points of Interest - Public Infrastructure Name: Cemetery Location: SA12 Category: Infrastructure and Facilities Class Code: Cemeteries and Crematoria Positional Accuracy: Positioned to an adjacent address or location	A7NE (SW)	748	7	277379 191558
213	Points of Interest - Public Infrastructure Name: Weir Location: SA12 Category: Water Class Code: Weirs, Sluices and Dams Positional Accuracy: Positioned to an adjacent address or location	A14NE (E)	751	7	278674 192297
214	Points of Interest - Public Infrastructure Name: Refuse Tip (Disused) Location: SA12 Category: Infrastructure and Facilities Class Code: Refuse Disposal Facilities Positional Accuracy: Positioned to an adjacent address or location	A18NE (N)	785	7	278142 192985
214	Points of Interest - Public Infrastructure Name: Tip Location: SA12 Category: Infrastructure and Facilities Class Code: Refuse Disposal Facilities Positional Accuracy: Positioned to an adjacent address or location	A18NE (N)	809	7	278138 193012
215	Points of Interest - Public Infrastructure Name: Heap (Dis) Location: SA12 Category: Infrastructure and Facilities Class Code: Refuse Disposal Facilities Positional Accuracy: Positioned to an adjacent address or location	A12NW (W)	959	7	276907 192268
215	Points of Interest - Public Infrastructure Name: Refuse Tip (Disused) Location: SA12 Category: Infrastructure and Facilities Class Code: Refuse Disposal Facilities Positional Accuracy: Positioned to an adjacent address or location	A12NW (W)	978	7	276884 192233
216	Points of Interest - Recreational and Environmental Name: Playground Location: (Cae Copor), SA12 Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to address or location	A13SW (SW)	184	7	277777 191968
217	Points of Interest - Recreational and Environmental Name: Skateboard Park Location: (Penllyn), SA12 Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to address or location	A13NE (E)	235	7	278160 192251
217	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	A13NE (E)	276	7	278204 192223
218	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	A13NW (NW)	396	7	277592 192471
218	Points of Interest - Recreational and Environmental Name: Playground Location: Nr Brynna Road, SA12 Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to address or location	A13NW (NW)	401	7	277591 192477
219	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	A9NW (SE)	513	7	278256 191810

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
219	Points of Interest - Recreational and Environmental Name: Playground Location: Afan Valley Road, SA12 Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to an adjacent address or location	A9NW (SE)	515	7	278257 191809
220	Points of Interest - Recreational and Environmental Name: Playground Location: (Ynys-Lee), SA12 Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to address or location	A14SW (SE)	613	7	278417 191849
221	Points of Interest - Recreational and Environmental Name: Playground Location: (Hoel-Y-Graig), SA12 Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to an adjacent address or location	A19SW (NE)	728	7	278395 192779

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
222	Ancient Woodland Name: Not Supplied Reference: 13958 Area(m ²): 62339.3 Type: Ancient and Semi-Natural Woodland	A13SW (SW)	186	2	277690 192047
223	Ancient Woodland Name: Not Supplied Reference: 13954 Area(m ²): 10223.86 Type: Ancient and Semi-Natural Woodland	A8NE (SE)	365	2	278072 191817
224	Ancient Woodland Name: Not Supplied Reference: 13955 Area(m ²): 3347.05 Type: Ancient and Semi-Natural Woodland	A13SE (SE)	368	2	278141 191897
225	Ancient Woodland Name: Not Supplied Reference: 41090 Area(m ²): 2279.87 Type: Plantation on Ancient Woodland	A8NW (S)	414	2	277875 191719
226	Ancient Woodland Name: Not Supplied Reference: 13951 Area(m ²): 5978.64 Type: Ancient and Semi-Natural Woodland	A8NW (S)	444	2	277771 191697
227	Ancient Woodland Name: Not Supplied Reference: 13949 Area(m ²): 14670.55 Type: Ancient and Semi-Natural Woodland	A8NE (SE)	574	2	278179 191658
228	Ancient Woodland Name: Not Supplied Reference: 41088 Area(m ²): 4871.4 Type: Plantation on Ancient Woodland	A8NE (SE)	667	2	278216 191571
229	Ancient Woodland Name: Not Supplied Reference: 13953 Area(m ²): 3146.76 Type: Ancient and Semi-Natural Woodland	A9NW (SE)	683	2	278417 191738
230	Ancient Woodland Name: Not Supplied Reference: 7873 Area(m ²): 4201.83 Type: Ancient and Semi-Natural Woodland	A9NW (SE)	710	2	278525 191834
231	Ancient Woodland Name: Not Supplied Reference: 13950 Area(m ²): 7830.74 Type: Ancient and Semi-Natural Woodland	A9NW (SE)	774	2	278456 191644
232	Ancient Woodland Name: Not Supplied Reference: 13960 Area(m ²): 2961.27 Type: Ancient and Semi-Natural Woodland	A17SE (NW)	803	2	277275 192725
233	Ancient Woodland Name: Not Supplied Reference: 13952 Area(m ²): 1745.05 Type: Ancient and Semi-Natural Woodland	A9NW (SE)	812	2	278558 191706
234	Ancient Woodland Name: Not Supplied Reference: 11529 Area(m ²): 10795.94 Type: Ancient and Semi-Natural Woodland	A12SW (W)	864	2	277029 191889
235	Ancient Woodland Name: Not Supplied Reference: 41089 Area(m ²): 14871.51 Type: Plantation on Ancient Woodland	A9NE (SE)	898	2	278591 191612

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
236	Ancient Woodland Name: Not Supplied Reference: 13948 Area(m ²): 38218.13 Type: Ancient and Semi-Natural Woodland	A7SE (S)	900	2	277524 191298
237	Ancient Woodland Name: Not Supplied Reference: 7874 Area(m ²): 22191.43 Type: Ancient and Semi-Natural Woodland	A12SW (W)	975	2	276892 191991
238	Forest Parks Name: Not Given Multiple Area: N Area (m2): 1600081 Source: Forestry Commission	A19NW (NE)	853	8	278276 193007

Agency & Hydrological	Version	Update Cycle
Contaminated Land Register Entries and Notices Bridgend County Borough Council - Environmental Health Department Natural Resources Wales Neath Port Talbot County Borough Council - Environmental Health Department	January 2020 November 2023 October 2017	Annual Rolling Update Annually Annual Rolling Update
Discharge Consents Environment Agency - Welsh Region Natural Resources Wales	August 2014 August 2023	Quarterly Quarterly
Enforcement and Prohibition Notices Environment Agency - Welsh Region	March 2013	
Integrated Pollution Controls Environment Agency - Welsh Region	January 2009	
Integrated Pollution Prevention And Control Natural Resources Wales Environment Agency - Welsh Region	August 2023 January 2021	Quarterly Quarterly
Local Authority Integrated Pollution Prevention And Control Bridgend County Borough Council - Environmental Health Department Neath Port Talbot County Borough Council - Environmental Health Department	July 2015 March 2014	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 2015	Variable Variable
Nearest Surface Water Feature Ordnance Survey	September 2023	
Pollution Incidents to Controlled Waters Environment Agency - Welsh Region	December 1998	
Prosecutions Relating to Authorised Processes Environment Agency - Welsh Region Natural Resources Wales	July 2015 July 2015	
Prosecutions Relating to Controlled Waters Environment Agency - Welsh Region Natural Resources Wales	March 2013 March 2013	
Registered Radioactive Substances Natural Resources Wales Environment Agency - Welsh Region	January 2015 June 2016	As notified
River Quality Environment Agency - Head Office	November 2001	Not Applicable
Substantiated Pollution Incident Register Natural Resources Wales Environment Agency Wales - South West Area	August 2023 January 2021	Quarterly Quarterly
Water Abstractions Natural Resources Wales Environment Agency - Welsh Region	June 2023 October 2023	Quarterly Quarterly
Water Industry Act Referrals Environment Agency - Welsh Region Natural Resources Wales	October 2017 October 2022	
Groundwater Vulnerability Map Natural Resources Wales	June 2018	As notified
Bedrock Aquifer Designations Natural Resources Wales	January 2018	As notified

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

Waste	Version	Update Cycle
BGS Recorded Landfill Sites British Geological Survey - National Geoscience Information Service	November 2002	As notified
Historical Landfill Sites Natural Resources Wales	March 2023	As notified
Integrated Pollution Control Registered Waste Sites Environment Agency - Welsh Region	January 2009	Not Applicable
Licensed Waste Management Facilities (Landfill Boundaries) Environment Agency Wales - South West Area Natural Resources Wales	January 2023 October 2021	Quarterly Quarterly
Licensed Waste Management Facilities (Locations) Natural Resources Wales Environment Agency Wales - South West Area	August 2023 July 2021	Quarterly Quarterly
Local Authority Landfill Coverage Bridgend County Borough Council Neath Port Talbot County Borough Council - Environmental Health Department	February 2003 February 2003	Not Applicable Not Applicable
Local Authority Recorded Landfill Sites Bridgend County Borough Council Neath Port Talbot County Borough Council - Environmental Health Department	October 2018 October 2018	
Potentially Infilled Land (Non-Water) Landmark Information Group Limited	December 1999	
Potentially Infilled Land (Water) Landmark Information Group Limited	December 1999	
Registered Landfill Sites Environment Agency Wales - South West Area	March 2006	Not Applicable
Registered Waste Transfer Sites Environment Agency Wales - South West Area	April 2018	
Registered Waste Treatment or Disposal Sites Environment Agency Wales - South West Area	June 2015	
Hazardous Substances	Version	Update Cycle
Control of Major Accident Hazards Sites (COMAH) Health and Safety Executive	March 2023	Bi-Annually
Explosive Sites Health and Safety Executive	March 2017	
Notification of Installations Handling Hazardous Substances (NIHHS) Health and Safety Executive	August 2001	
Planning Hazardous Substance Enforcements Bridgend County Borough Council - Planning Department Neath Port Talbot County Borough Council - Planning Department	March 2023 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	As notified
BGS Estimated Soil Chemistry British Geological Survey - National Geoscience Information Service	December 2015	As notified
BGS Recorded Mineral Sites British Geological Survey - National Geoscience Information Service	June 2023	Bi-Annually
CBSCB Compensation District Cheshire Brine Subsidence Compensation Board (CBSCB) Cheshire Brine Subsidence Compensation Board (CBSCB)	August 2011 November 2020	As notified
Coal Mining Affected Areas The Coal Authority - Property Searches	February 2023	Annual Rolling Update
Mining Instability Ove Arup & Partners	June 1998	Not Applicable
Non Coal Mining Areas of Great Britain British Geological Survey - National Geoscience Information Service	May 2015	Not Applicable
Potential for Collapsible Ground Stability Hazards British Geological Survey - National Geoscience Information Service	April 2020	As notified
Potential for Compressible Ground Stability Hazards British Geological Survey - National Geoscience Information Service	January 2019	As notified
Potential for Ground Dissolution Stability Hazards British Geological Survey - National Geoscience Information Service	January 2019	As notified
Potential for Landslide Ground Stability Hazards British Geological Survey - National Geoscience Information Service	January 2019	As notified
Potential for Running Sand Ground Stability Hazards British Geological Survey - National Geoscience Information Service	January 2019	As notified
Potential for Shrinking or Swelling Clay Ground Stability Hazards British Geological Survey - National Geoscience Information Service	January 2019	As notified
Radon Potential - Radon Affected Areas British Geological Survey - National Geoscience Information Service	October 2023	Annually
Radon Potential - Radon Protection Measures British Geological Survey - National Geoscience Information Service	October 2023	Annually

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

Sensitive Land Use	Version	Update Cycle
Ancient Woodland Natural Resources Wales	October 2023	Bi-Annually
Areas of Adopted Green Belt Bridgend County Borough Council Neath Port Talbot County Borough Council - Planning Services	August 2023 August 2023	Quarterly Quarterly
Areas of Unadopted Green Belt Bridgend County Borough Council Neath Port Talbot County Borough Council - Planning Services	August 2023 August 2023	Quarterly Quarterly
Areas of Outstanding Natural Beauty Natural Resources Wales	November 2023	Bi-Annually
Environmentally Sensitive Areas The National Assembly for Wales - GI Services (Department of Planning & Countryside)	January 2017	
Forest Parks Forestry Commission	May 2023	Not Applicable
Local Nature Reserves Bridgend County Borough Council Neath Port Talbot County Borough Council	August 2023 August 2023	Bi-Annually Bi-Annually
Marine Nature Reserves Natural Resources Wales	October 2023	Bi-Annually
National Nature Reserves Natural Resources Wales	September 2023	Bi-Annually
National Parks Natural Resources Wales	February 2018	Annually
Nitrate Vulnerable Zones The National Assembly for Wales - GI Services (Department of Planning & Countryside) Natural Resources Wales	April 2016 March 2023	Bi-Annually
Ramsar Sites Natural Resources Wales	October 2023	Bi-Annually
Sites of Special Scientific Interest Natural Resources Wales	October 2023	Bi-Annually
Special Areas of Conservation Natural Resources Wales	October 2023	Bi-Annually
Special Protection Areas Natural Resources Wales	October 2023	Bi-Annually

A selection of organisations who provide data within this report

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

Contact	Name and Address	Contact Details
1	British Geological Survey - Enquiry Service British Geological Survey, Environmental Science Centre, Keyworth, Nottingham, Nottinghamshire, NG12 5GG	Telephone: 0115 936 3143 Fax: 0115 936 3276 Email: enquiries@bgs.ac.uk Website: www.bgs.ac.uk
2	Natural Resources Wales Ty Cambria, 29 Newport Road, Cardiff, CF24 0TP	Telephone: 0300 065 3000 Email: enquiries@naturalresourceswales.gov.uk
3	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
4	Environment Agency - National Customer Contact Centre (NCCC) PO Box 544, Templeborough, Rotherham, S60 1BY	Telephone: 03708 506 506 Email: enquiries@environment-agency.gov.uk
5	Ordnance Survey Adanac Drive, Southampton, Hampshire, SO16 0AS	Telephone: 03456 05 05 05 Email: customerservices@ordnancesurvey.co.uk Website: www.ordnancesurvey.gov.uk
6	The Coal Authority - Property Searches 200 Lichfield Lane, Mansfield, Nottinghamshire, NG18 4RG	Telephone: 0345 762 6848 Fax: 01623 637 338 Email: groundstability@coal.gov.uk Website: www2.groundstability.com
7	PointX 7 Abbey Court, Eagle Way, Sowton, Exeter, Devon, EX2 7HY	Website: www.pointx.co.uk
8	Forestry Commission 231 Corstorphine Road, Edinburgh, Midlothian, EH12 7AT	Telephone: 0131 334 0303 Fax: 0131 334 4473
-	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.

General

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

Agency and Hydrological

- Contaminated Land Register Entry or Notice (Location)
- Contaminated Land Register Entry or Notice
- Discharge Consent
- Enforcement or Prohibition Notice
- Integrated Pollution Control
- Integrated Pollution Prevention Control
- Local Authority Integrated Pollution Prevention and Control
- Local Authority Pollution Prevention and Control
- Local Authority Pollution Prevention and Control Enforcement
- Pollution Incident to Controlled Waters
- Prosecution Relating to Authorised Processes
- Prosecution Relating to Controlled Waters
- Registered Radioactive Substance
- River Network or Water Feature
- River Quality Sampling Point
- Substantiated Pollution Incident Register
- Water Abstraction
- Water Industry Act Referral

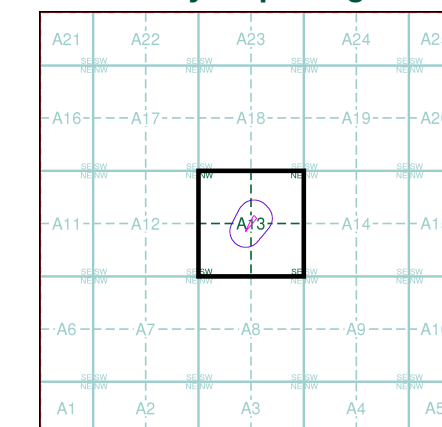
Hazardous Substances

- COMAH Site
- Explosive Site
- NIHHS Site
- Planning Hazardous Substance Consent
- Planning Hazardous Substance Enforcement
- BGS Recorded Mineral Site
- BGS Recorded Landfill Site (Location)
- BGS Recorded Landfill Site
- EA Historic Landfill (Buffered Point)
- EA Historic Landfill (Polygon)
- Integrated Pollution Control Registered Waste Site
- Licensed Waste Management Facility (Landfill Boundary)
- Licensed Waste Management Facility (Location)
- Local Authority Recorded Landfill Site (Location)
- Local Authority Recorded Landfill Site
- Potentially Infilled Land (Non-water)
- Potentially Infilled Land (Non-water)
- Potentially Infilled Land (Non-water)
- Potentially Infilled Land (Water)
- Potentially Infilled Land (Water)
- Potentially Infilled Land (Water)
- Registered Landfill Site
- Registered Landfill Site (Location)
- Registered Landfill Site (Point Buffered to 100m)
- Registered Landfill Site (Point Buffered to 250m)
- Registered Waste Transfer Site (Location)
- Registered Waste Transfer Site
- Registered Waste Treatment or Disposal Site (Location)
- Registered Waste Treatment or Disposal Site

Geological

- BGS Recorded Mineral Site

Site Sensitivity Map - Segment A13

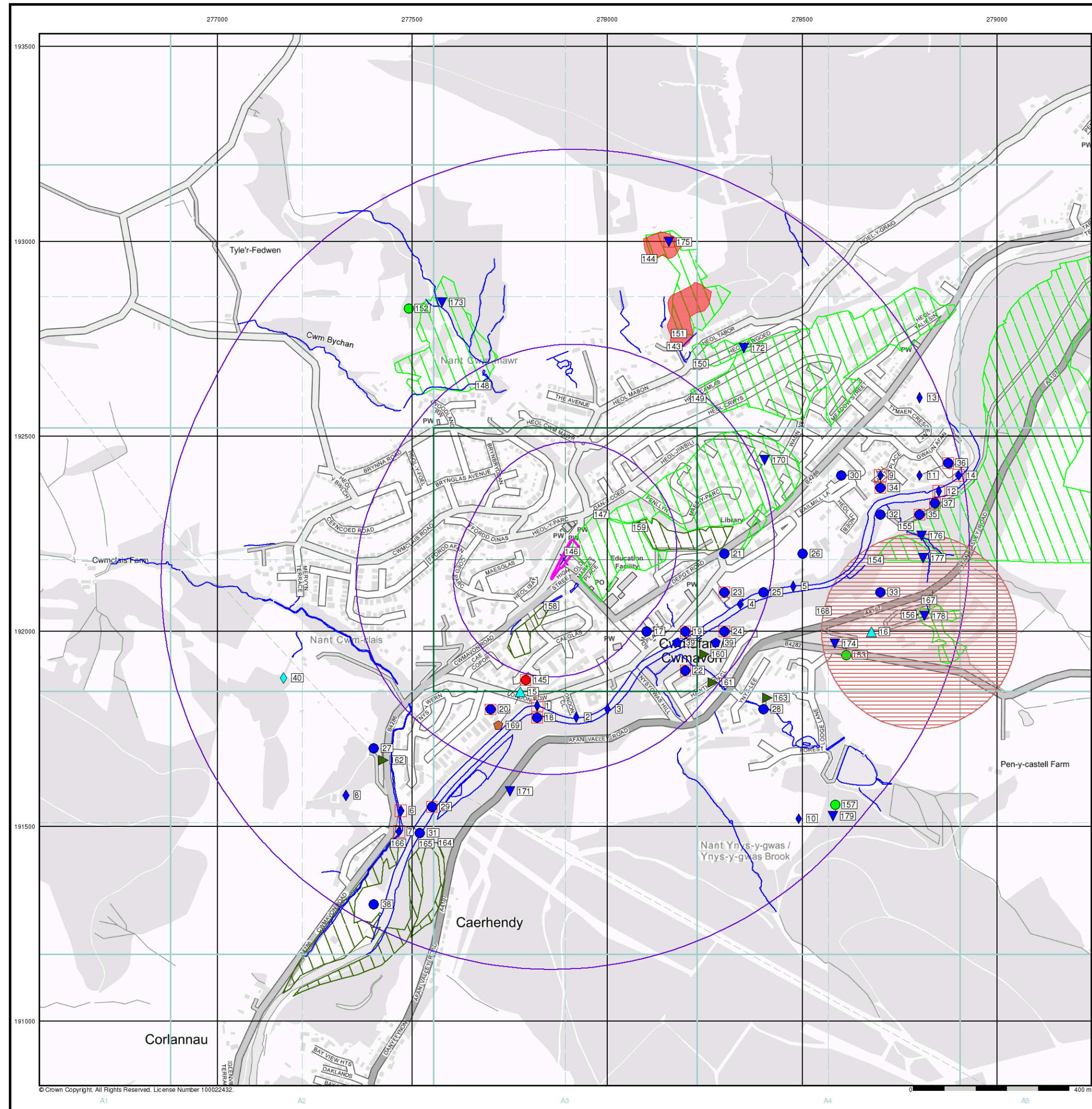


Order Details

Order Number: 327557041_1_1
Customer Ref: 14611 Tabernacle
National Grid Reference: 277890, 192180
Slice: A
Site Area (Ha): 0.17
Plot Buffer (m): 100

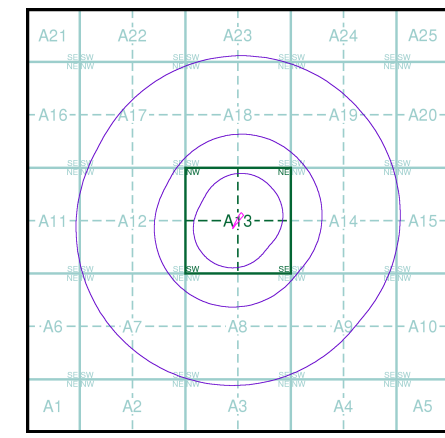
Site Details

Tabernacle terrace, Cwmavon, Port Talbot, SA12 9DA



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

Site Sensitivity Map - Slice A

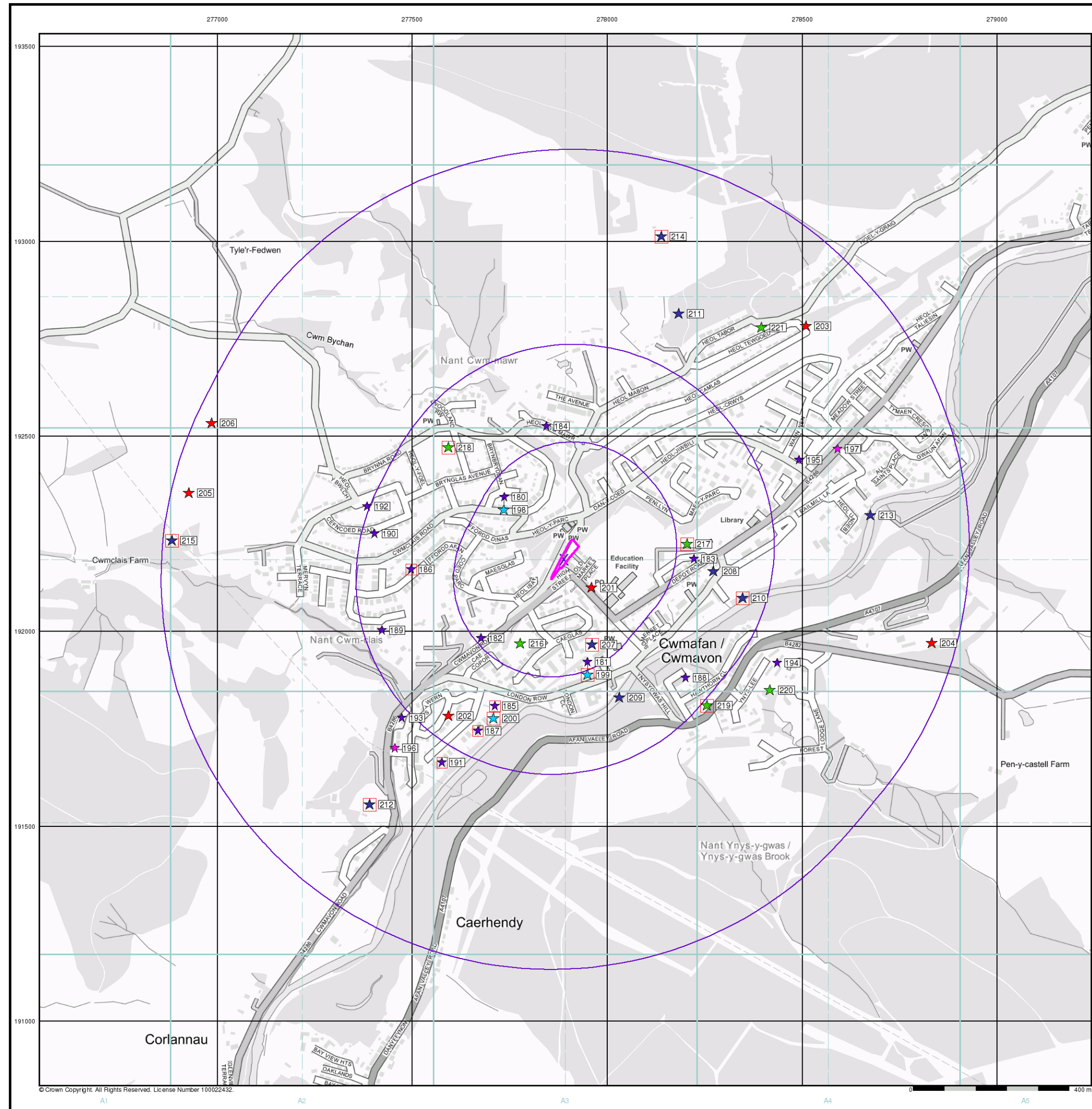


Order Details

Order Number: 327557041_1_1
Customer Ref: 14611 Tabernacle
National Grid Reference: 277890, 192180
Slice: A
Site Area (Ha): 0.17
Search Buffer (m): 1000

Site Details

Tabernacle terrace, Cwmavon, Port Talbot, SA12 9DA



Geotechnical & Geoenvironmental Specialists
Industrial Land Use Map

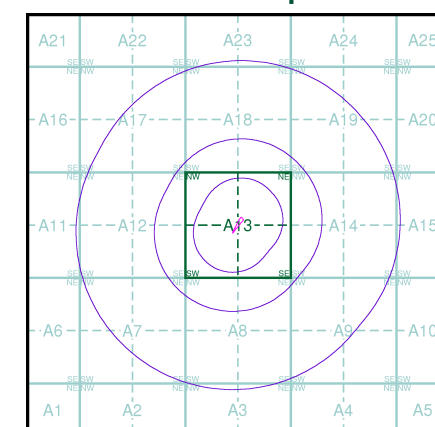
General

- 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

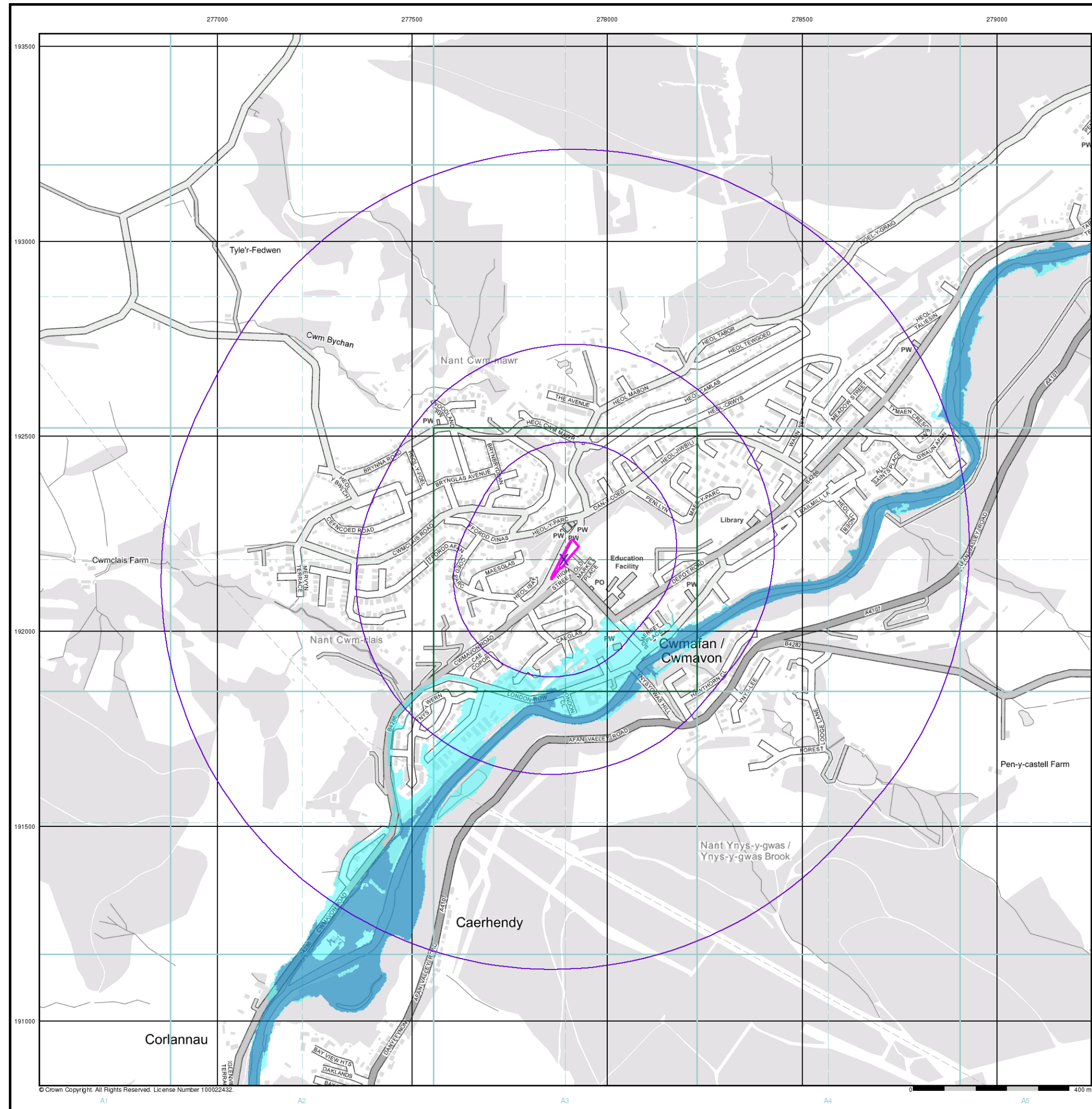
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Customer Ref: 14611 Tabernacle
National Grid Reference: 277890, 192180
Slice: A
Site Area (Ha): 0.17
Search Buffer (m): 1000

Site Details

Tabernacle terrace, Cwmavon, Port Talbot, SA12 9DA



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



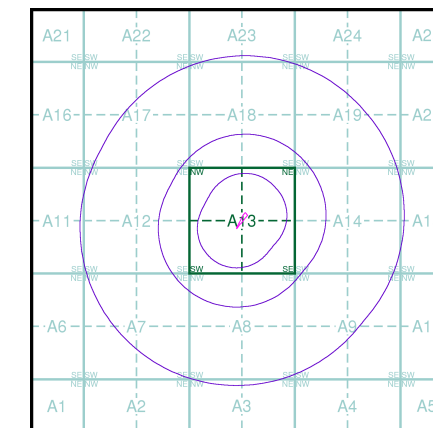
General

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

Agency and Hydrological (Flood)

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

Flood Map - Slice A

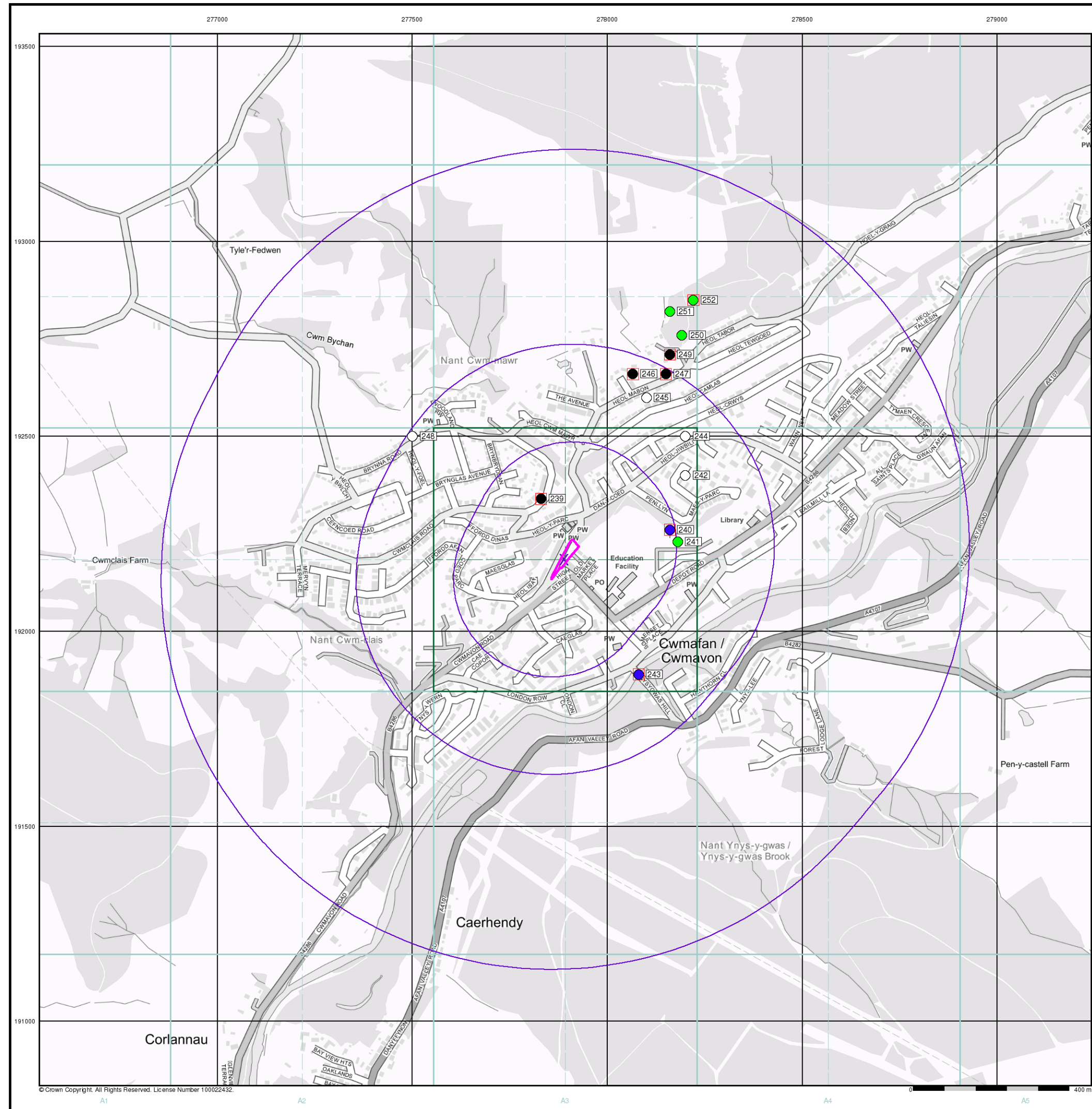


Order Details

Order Number: 327557041_1_1
Customer Ref: 14611 Tabernacle
National Grid Reference: 277890, 192180
Slice: A
Site Area (Ha): 0.17
Search Buffer (m): 1000

Site Details

Tabernacle terrace, Cwmavon, Port Talbot, SA12 9DA



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General

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

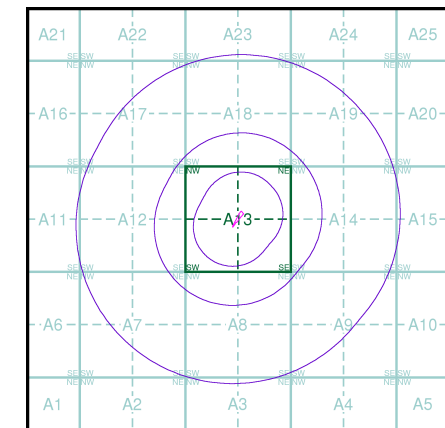
Agency and Hydrological (Boreholes)

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

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

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

Borehole Map - Slice A



Order Details

Order Number: 327557041_1_1
Customer Ref: 14611 Tabernacle
National Grid Reference: 277890, 192180
Slice: A
Site Area (Ha): 0.17
Search Buffer (m): 1000

Site Details

Tabernacle terrace, Cwmavon, Port Talbot, SA12 9DA



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

General

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

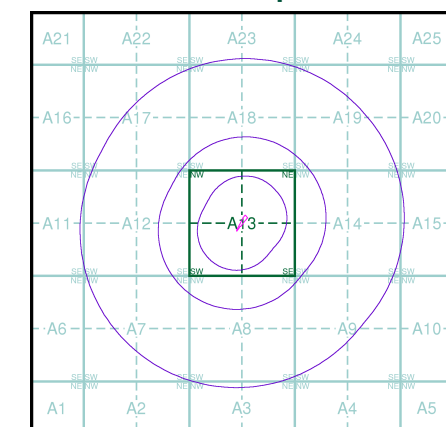
OS Water Network Data

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

Contours (height in meters)

- Standard Contour     Mean Low Water
- Master Contour     Mean High Water
- Spot Height  167.3

OS Water Network Map - Slice A

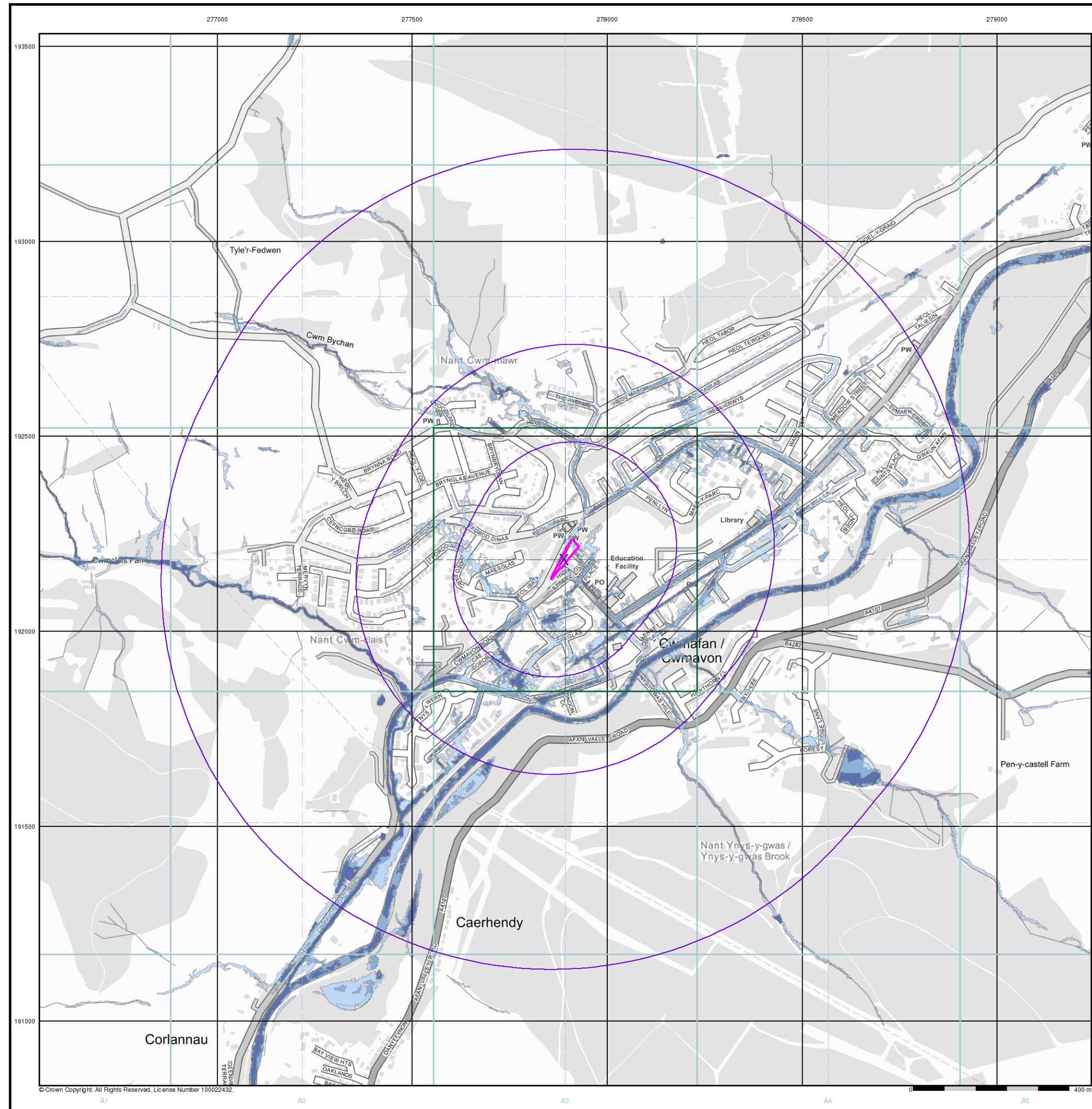


Order Details

Order Number: 327557041_1_1
 Customer Ref: 14611 Tabernacle
 National Grid Reference: 277890, 192180
 Slice: A
 Site Area (Ha): 0.17
 Search Buffer (m): 1000

Site Details

Tabernacle terrace, Cwmavon, Port Talbot, SA12 9DA



General

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

Risk of Flooding from Surface Water

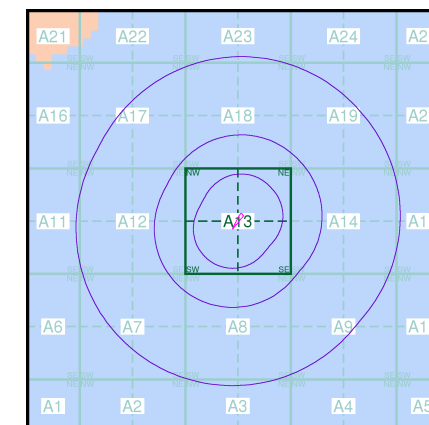
- High - 30 Year Return
- Medium - 100 Year Return
- Low - 1000 Year Return

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

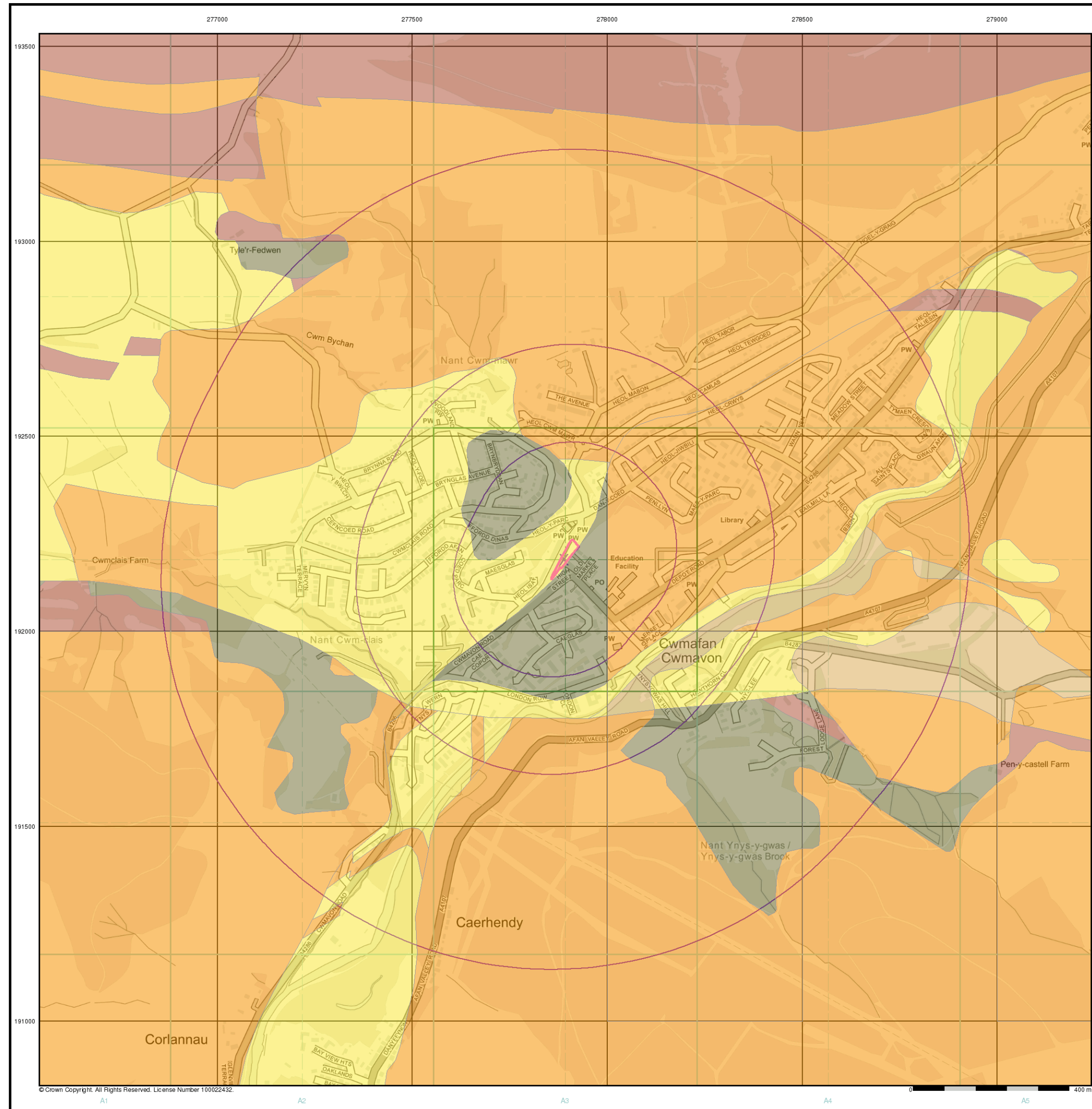


Order Details

Order Number: 327557041_1_1
Customer Ref: 14611 Tabernacle
National Grid Reference: 277890, 192180
Slice: A
Site Area (Ha): 0.17
Search Buffer (m): 1000

Site Details

Tabernacle terrace, Cwmavon, Port Talbot, SA12 9DA

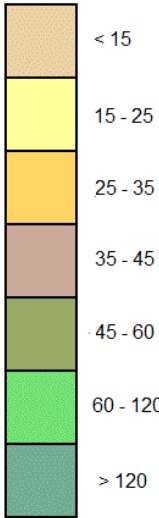


General

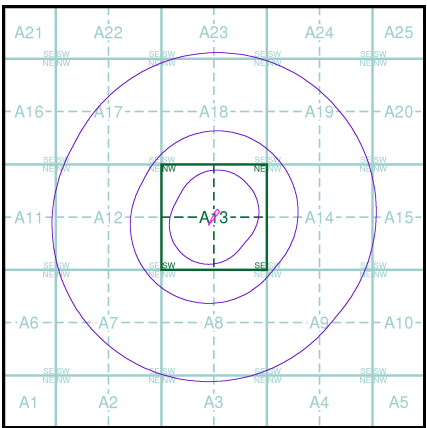
Specified Site Specified Buffer(s) Bearing Reference Point

Estimated Soil Chemistry Arsenic

Arsenic Concentrations mg/kg



Estimated Soil Chemistry Arsenic - Slice A

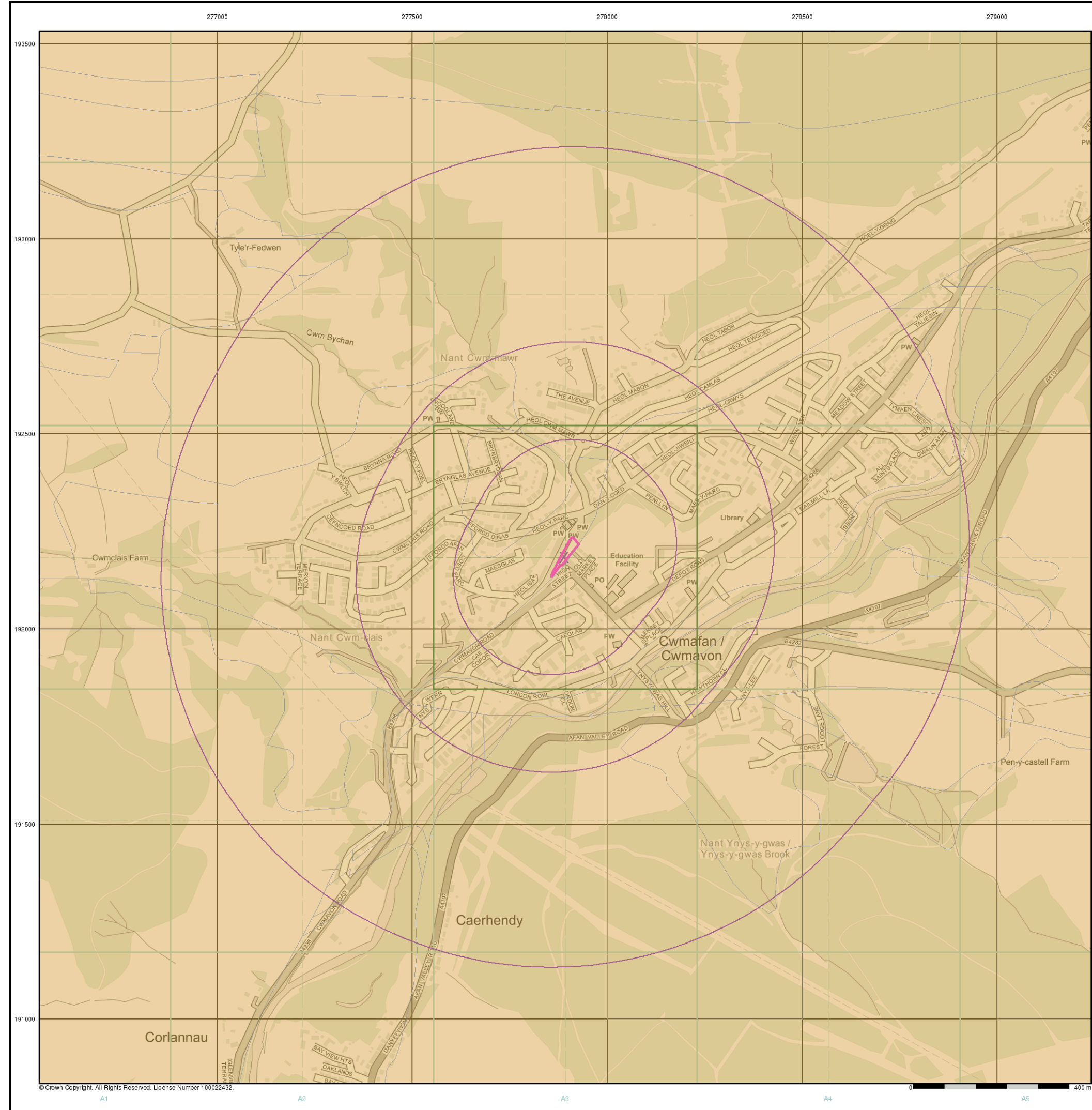


Order Details

Order Details: 327557041_1_1
Customer Ref: 14611 Tabernacle
National Grid Reference: 277890, 192180
Slice: A
Site Area (Ha): 0.17
Search Buffer (m): 1000

Site Details

Tabernacle terrace, Cwmavon, Port Talbot, SA12 9DA



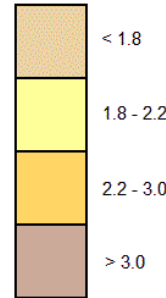
Geotechnical & Geoenvironmental Specialists

General

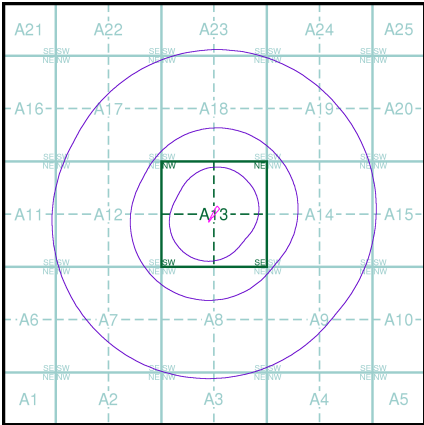
Specified Site Specified Buffer(s) Bearing Reference Point

Estimated Soil Chemistry Cadmium

Cadmium Concentrations mg/kg



Estimated Soil Chemistry Cadmium - Slice A



Order Details

Order Details: 327557041_1_1
Customer Ref: 14611 Tabernacle
National Grid Reference: 277890, 192180
Slice: A
Site Area (Ha): 0.17
Search Buffer (m): 1000

Site Details

Tabernacle terrace, Cwmavon, Port Talbot, SA12 9DA



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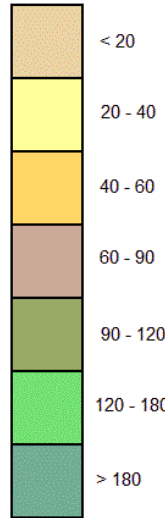
Geotechnical & Geoenvironmental Specialists

General

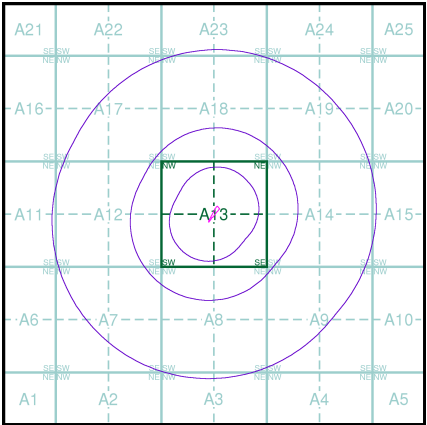
Specified Site Specified Buffer(s) Bearing Reference Point

Estimated Soil Chemistry Chromium

Chromium Concentrations mg/kg



Estimated Soil Chemistry Chromium - Slice A



Order Details

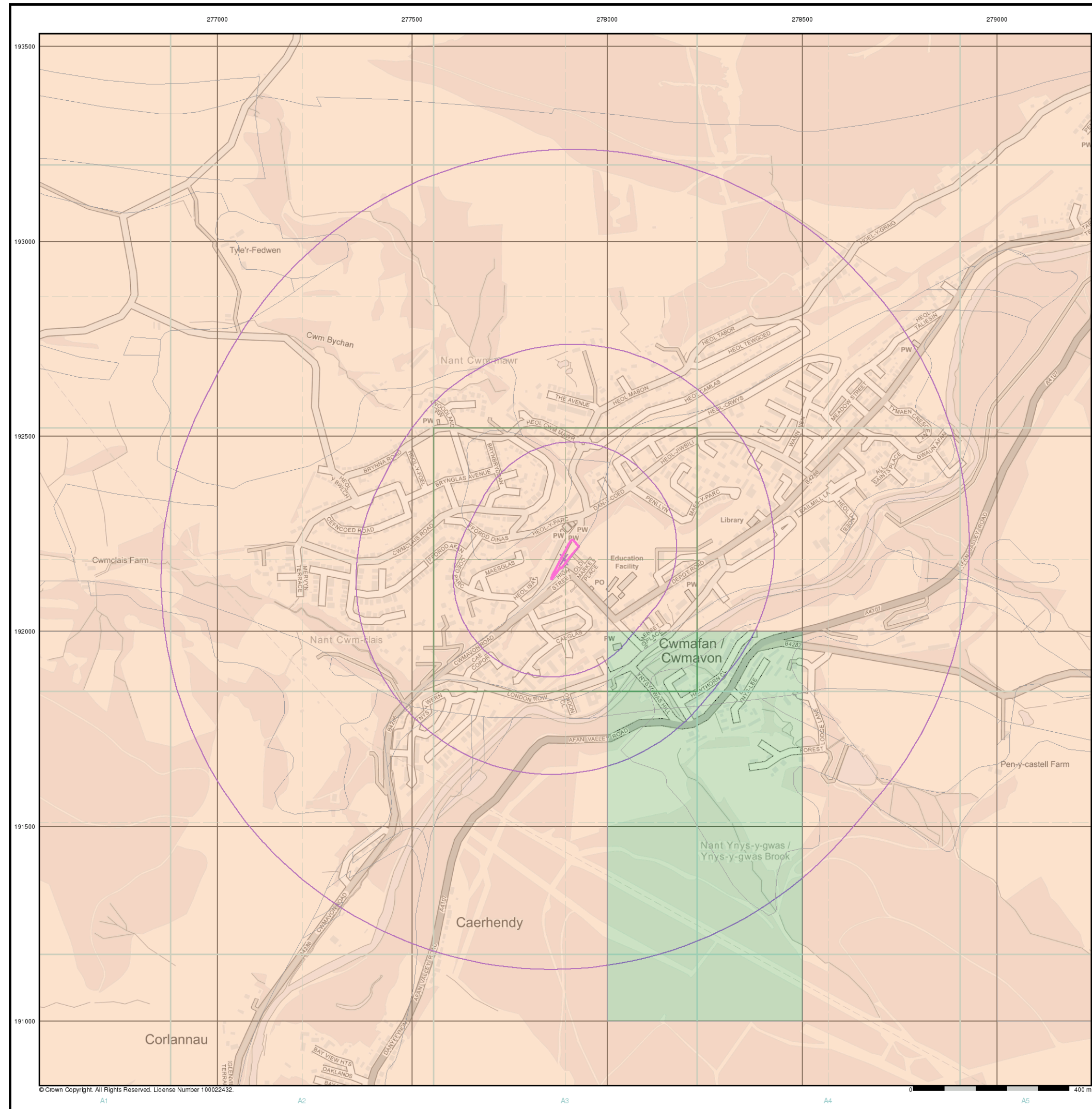
Order Details: 327557041_1_1
Customer Ref: 14611 Tabernacle
National Grid Reference: 277890, 192180
Slice: A
Site Area (Ha): 0.17
Search Buffer (m): 1000

Site Details

Tabernacle terrace, Cwmavon, Port Talbot, SA12 9DA



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

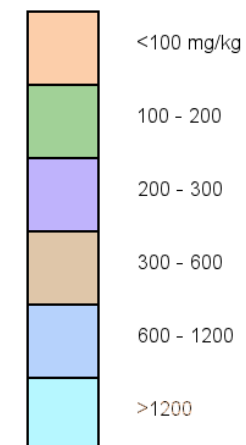


General

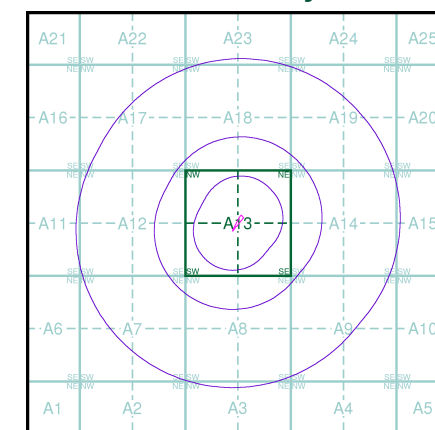
Specified Site Specified Buffer(s) Bearing Reference Point

Estimated Soil Chemistry Lead

Lead Concentrations mg/kg



Estimated Soil Chemistry Lead - Slice A

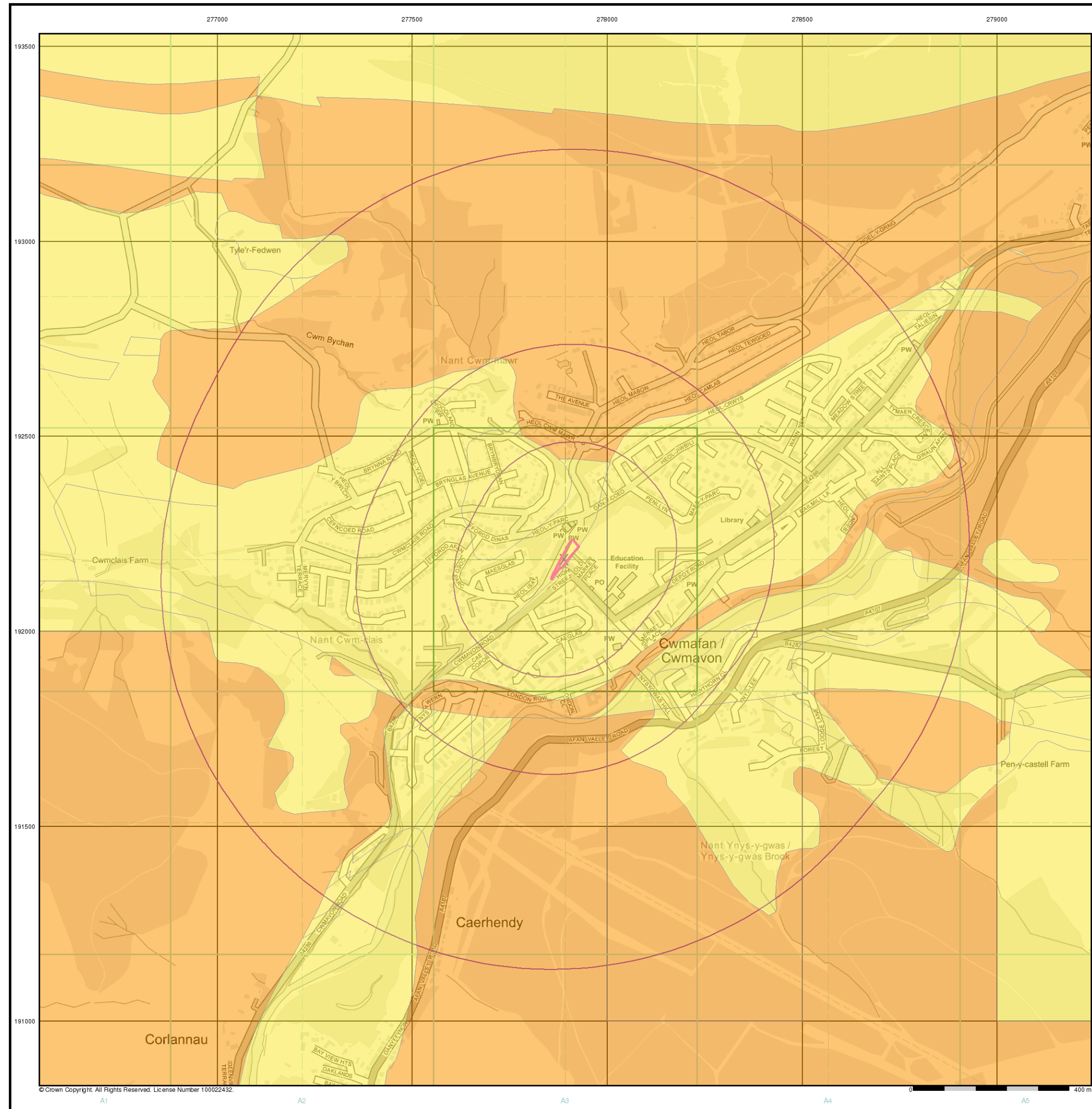


Order Details

Order Details: 327557041_1_1
Customer Ref: 14611 Tabernacle
National Grid Reference: 277890, 192180
Slice: A
Site Area (Ha): 0.17
Search Buffer (m): 1000

Site Details

Tabernacle terrace, Cwmavon, Port Talbot, SA12 9DA

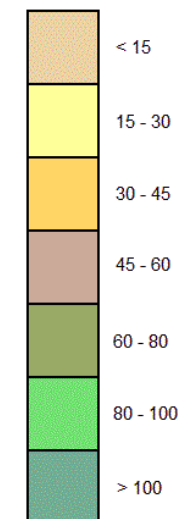


General

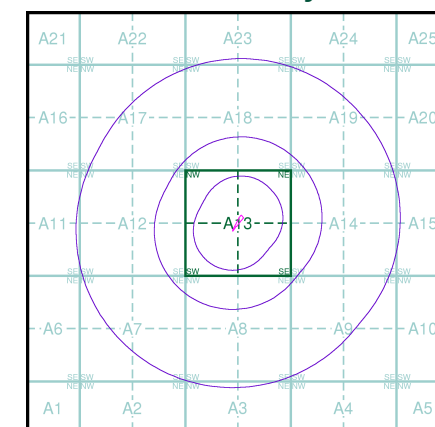
Specified Site Specified Buffer(s) Bearing Reference Point

Estimated Soil Chemistry Nickel

Nickel Concentrations mg/kg



Estimated Soil Chemistry Nickel - Slice A

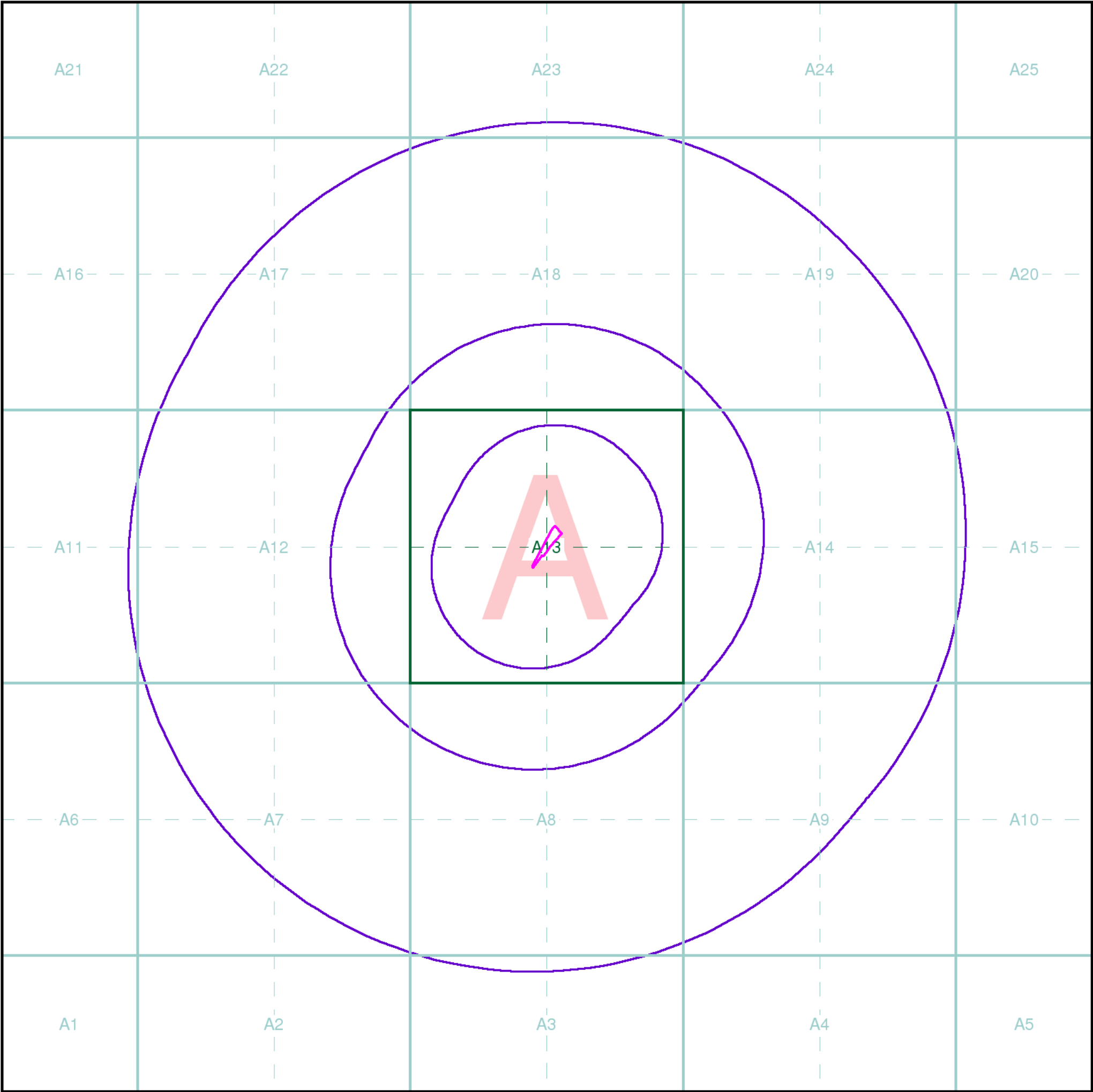


Order Details

Order Details: 327557041_1_1
Customer Ref: 14611 Tabernacle
National Grid Reference: 277890, 192180
Slice: A
Site Area (Ha): 0.17
Search Buffer (m): 1000

Site Details

Tabernacle terrace, Cwmavon, Port Talbot, SA12 9DA



Geotechnical & Geoenvironmental Specialists

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

Ms R Liley, TFW Group Ltd, 5 Deryn Court, Wharfdale Road, Pentwyn, Cardiff, CF23 7HB

Order Details

Order Number: 327557041_1_1
Customer Ref: 14611 Tabernacle
National Grid Reference: 277900, 192190
Site Area (Ha): 0.17
Search Buffer (m): 1000

Site Details

Tabernacle terrace, Cwmavon, Port Talbot, SA12 9DA

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

Geology 1:50,000 Maps Legends

Artificial Ground and Landslip

Map Colour	Lex Code	Rock Name	Rock Type	Min and Max Age
	MGR	Made Ground (Undivided)	Artificial Deposit	Not Supplied - Holocene
	LSGR	Landscaped Ground (Undivided)	Artificially Modified Ground	Not Supplied - Holocene
	WGR	Worked Ground (Undivided)	Void	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
	ALV	Alluvium	Clay, Silt, Sand and Gravel	Not Supplied - Holocene
	ALV	Alluvium	Sand and Gravel	Not Supplied - Holocene
	TFD	Tidal Flat Deposits	Clay, Silt and Sand	Not Supplied - Holocene
	TILLD	Till, Devensian	Diamicton	Not Supplied - Devensian
	GFICD	Glaciofluvial Ice Contact Deposits, Devensian	Sand and Gravel	Not Supplied - Devensian
	GFDUD	Glaciofluvial Deposits, Devensian	Sand and Gravel	Not Supplied - Devensian
	HEAD	Head	Clay, Silt, Sand and Gravel	Not Supplied - Quaternary
	ALF	Alluvial Fan 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
	BD	Brithdir 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

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



Geology 1:50,000 Maps

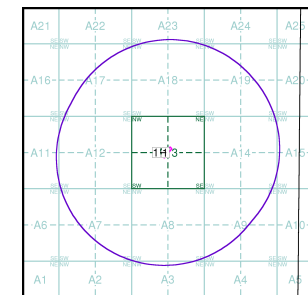
This report contains geological map extracts taken from the BGS Digital Geological map of Great Britain at 1:50,000 scale and is designed for users carrying out preliminary site assessments who require geological maps for the area around the site. This mapping may be more up to date than previously published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

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

Geology 1:50,000 Maps Coverage

Map ID: 1
Map Sheet No: 247
Map Name: Swansea
Map Date: 2011
Bedrock Geology: Available
Superficial Geology: Available
Artificial Geology: Available
Faults: Not Supplied
Landslip: Available
Rock Segments: Not Supplied

Geology 1:50,000 Maps - Slice A



Order Details:

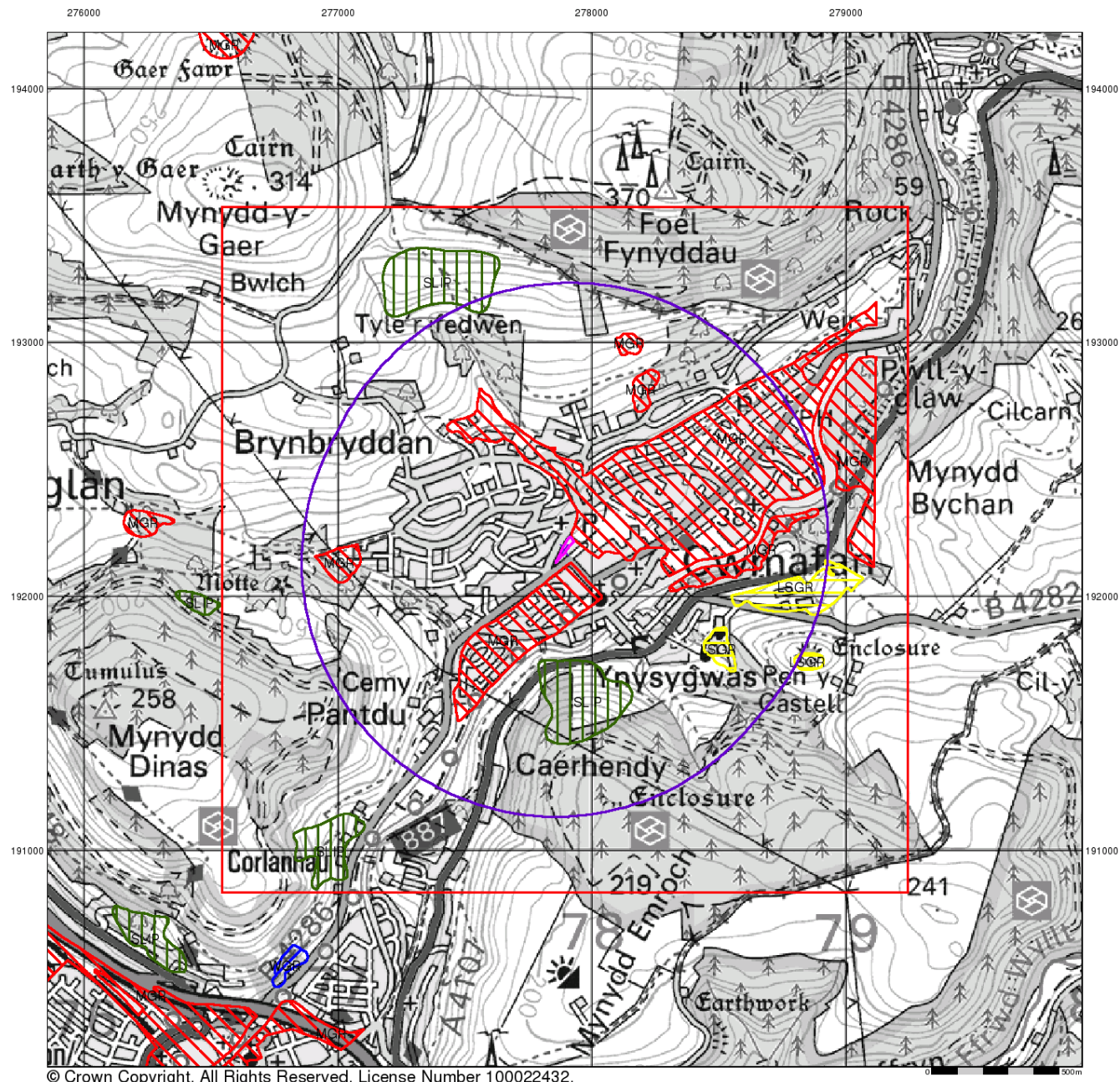
Order Number: 327557041_1_1
Customer Reference: 14611 Tabernacle
National Grid Reference: 277890, 192180
Slice: A
Site Area (Ha): 0.17
Search Buffer (m): 1000

Site Details:

Tabernacle terrace, Cwmavon, Port Talbot, SA12 9DA

Landmark
INFORMATION GROUP

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



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Geotechnical & Geoenvironmental Specialists

Artificial Ground and Landslip

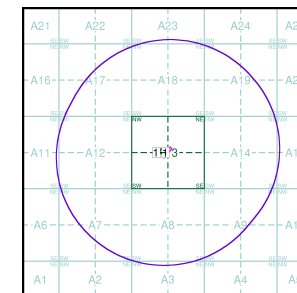
Artificial ground is a term used by BGS for those areas where the ground surface has been significantly modified by human activity. Information about previously developed ground is especially important, as it is often associated with potentially contaminated material, unpredictable engineering conditions 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: 327557041_1_1
 Customer Reference: 14611 Tabernacle
 National Grid Reference: 277890, 192180
 Slice: A
 Site Area (Ha): 0.17
 Search Buffer (m): 1000

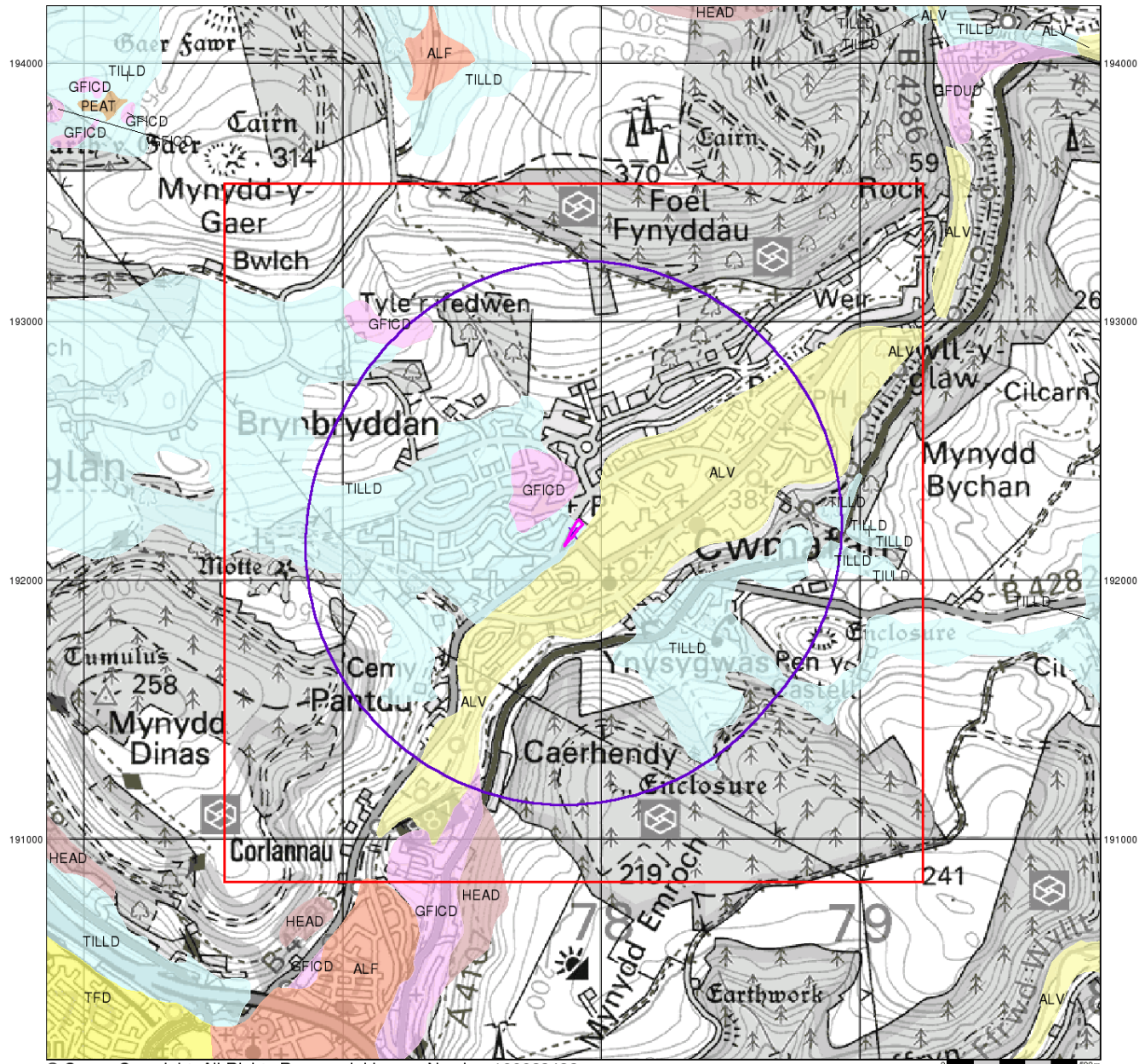
Site Details:

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276000 277000 278000 279000



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Geotechnical & Geoenvironmental Specialists

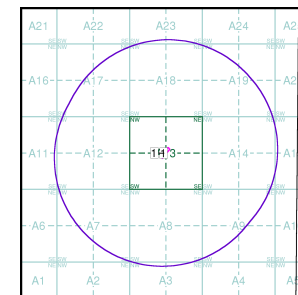
Superficial Geology

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

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

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

Superficial Geology Map - Slice A



Order Details:

Order Number: 327557041_1_1
Customer Reference: 14611 Tabernacle
National Grid Reference: 277890, 192180
Slice: A
Site Area (Ha): 0.17
Search Buffer (m): 1000

Site Details:

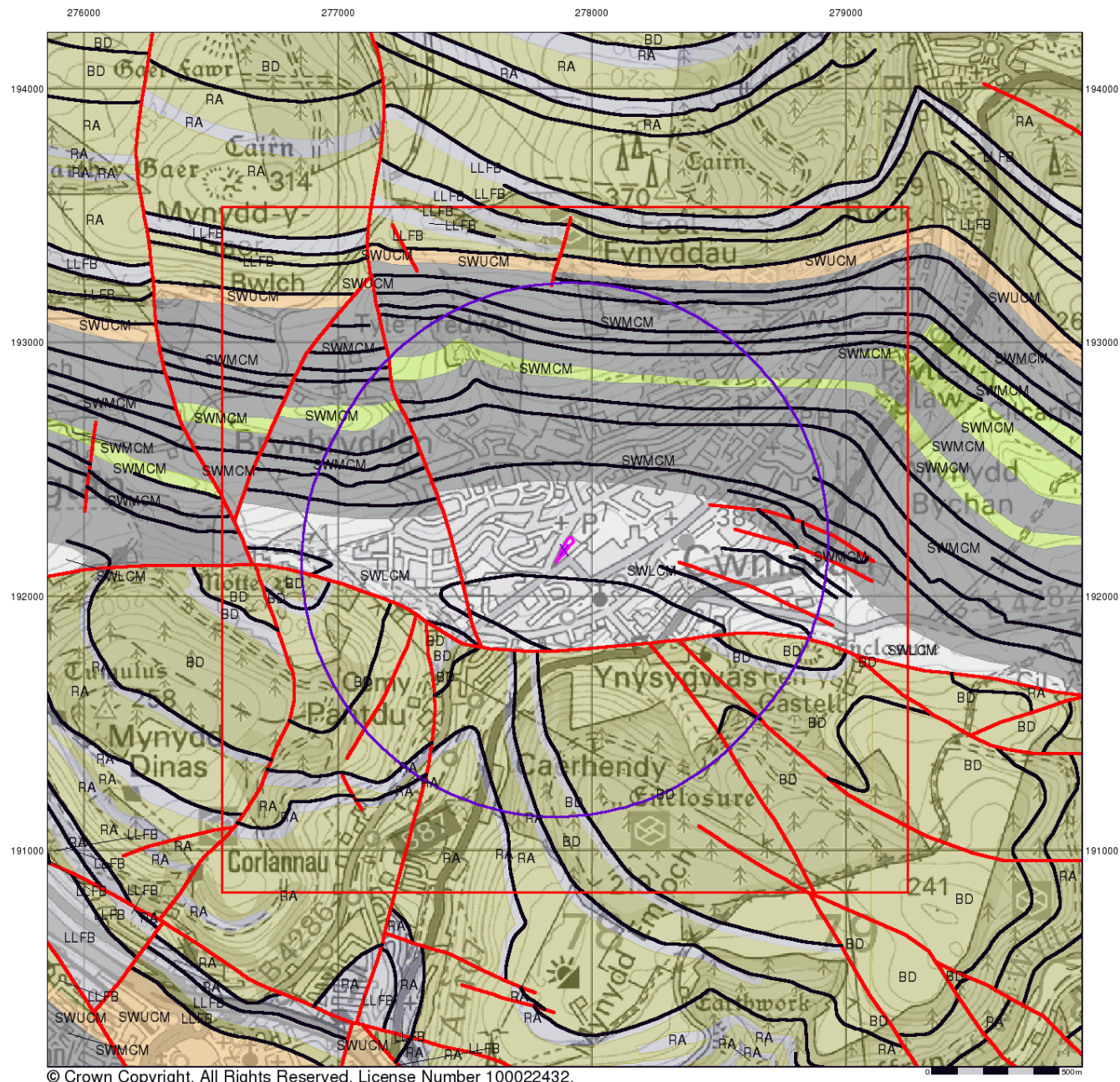
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Landmark
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Geotechnical & Geoenvironmental Specialists

Bedrock and Faults

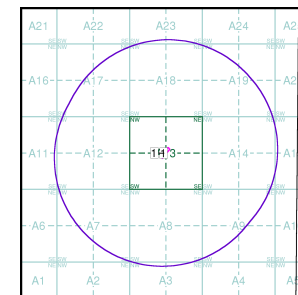
Bedrock geology is a term used for the main mass of rocks forming the Earth and are present everywhere, whether exposed at the surface in outcrops or concealed beneath superficial deposits or water.

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

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

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

Bedrock and Faults Map - Slice A



Order Details:

Order Number: 327557041_1_1
Customer Reference: 14611 Tabernacle
National Grid Reference: 277890, 192180
Slice: A
Site Area (Ha): 0.17
Search Buffer (m): 1000

Site Details:

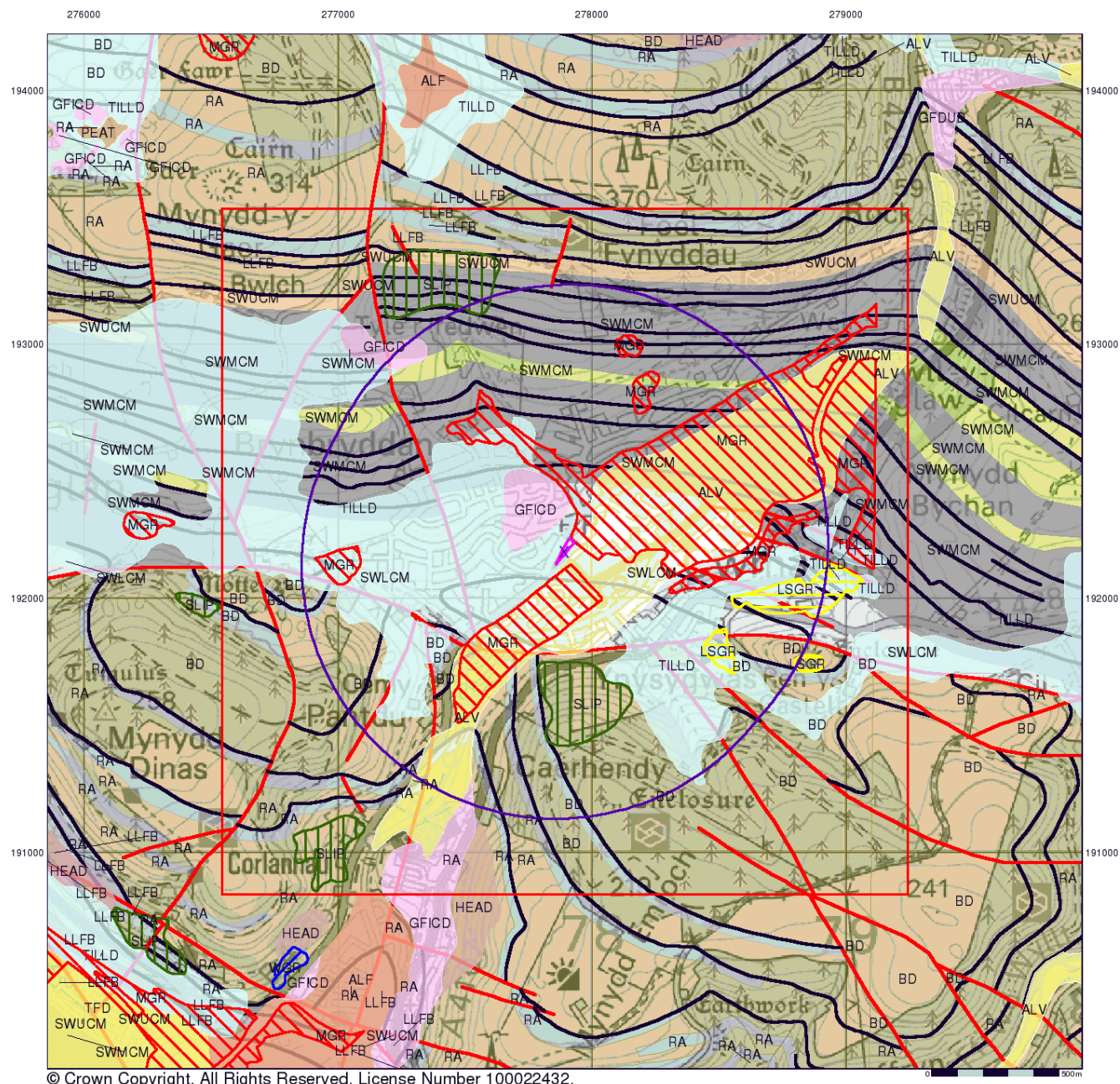
Tabernacle terrace, Cwmavon, Port Talbot, SA12 9DA



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Geotechnical & Geoenvironmental Specialists

Combined Surface Geology

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

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

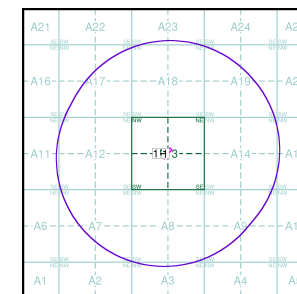
Additional Information

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

Contact

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

Combined Geology Map - Slice A



Order Details:

Order Number: 327557041_1_1
Customer Reference: 14611 Tabernacle
National Grid Reference: 277890, 192180
Slice: A
Site Area (Ha): 0.17
Search Buffer (m): 1000

Site Details:

Tabernacle terrace, Cwmavon, Port Talbot, SA12 9DA



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

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**ANNEX B
Coal Authority Report**

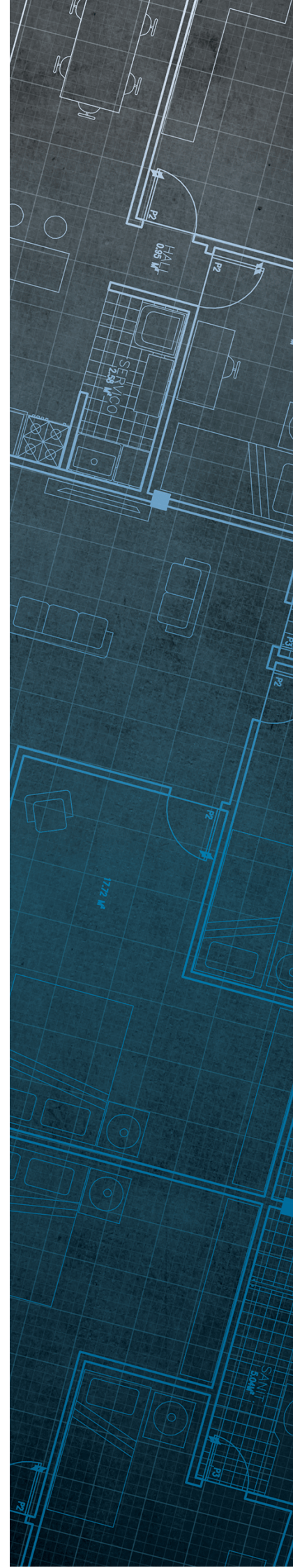


The Coal
Authority

Consultants Coal Mining Report

Tabernacle Terrace
CWMAVON
Port Talbot
Neath Port Talbot
SA12 9DA

Date of enquiry:	6 December 2023
Date enquiry received:	6 December 2023
Issue date:	6 December 2023
Our reference:	51003393698001
Your reference:	327557041_2



Consultants

Coal Mining Report

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

Client name

NLIS Hub

Enquiry address

Tabernacle Terrace
CWMAVON
Port Talbot
Neath Port Talbot
SA12 9DA

How to contact us

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

200 Lichfield Lane
Mansfield
Nottinghamshire
NG18 4RG

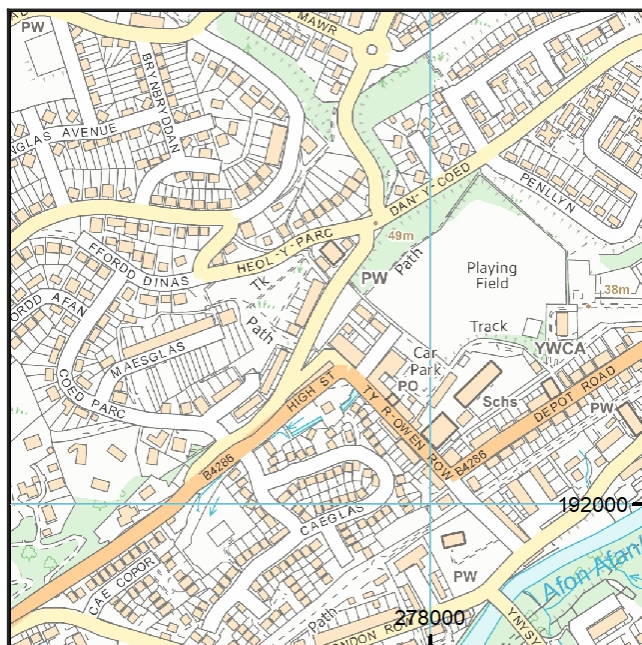
www.groundstability.com

 @coalauthority

 /company/the-coal-authority

 /thecoalauthority

 /thecoalauthority



Approximate position of property



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Section 1 – Mining activity and geology

Past underground mining

Colliery	Seam	Mineral	Coal Authority reference	Depth (m)	Direction to working	Dipping rate of seam worked (degrees)	Dipped direction of seam worked	Extraction thickness (cm)	Year last mined
unnamed	LOWER NINE FOOT (TOP LEAF)	Coal	4CY1	28	North	27.0	North	140	1900

Probable unrecorded shallow workings

None.

Spine roadways at shallow depth

No spine roadway recorded at shallow depth.

Mine entries

None recorded within 100 metres of the enquiry boundary.

Abandoned mine plan catalogue numbers

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

SWR2012	SWR2009	SWR2654
PO0	2680	SWR2093

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

Outcrops

Seam name	Mineral	Seam workable	Distance to outcrop (m)	Direction to outcrop	Bearing of outcrop
FIVE FOOT	Coal	Yes	Within	N/A	98
LOWER NINE FOOT (TOP LEAF)	Coal	Yes	Within	N/A	97

Geological faults, fissures and breaklines

No faults, fissures or breaklines recorded.

Opencast mines

None recorded within 500 metres of the enquiry boundary.

Coal Authority managed tips

None recorded within 500 metres of the enquiry boundary.

Section 2 – Investigative or remedial activity

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

Site investigations

Distance to site investigation (m)	Direction
Within	N/A

See Section 4 for further information.

Remediated sites

None recorded within 50 metres of the enquiry boundary.

Coal mining subsidence

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

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

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

Mine gas

None recorded within 500 metres of the enquiry boundary.

Mine water treatment schemes

None recorded within 500 metres of the enquiry boundary.

Section 3 – Licensing and future mining activity

Future underground mining

None recorded.

Coal mining licensing

None recorded within 200 metres of the enquiry boundary.

Court orders

None recorded.

Section 46 notices

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

Withdrawal of support notices

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

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

Payments to owners of former copyhold land

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

Section 4 – Further information

The following potential risks have been identified and as part of your risk assessment should be investigated further.

Future development

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

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

Development advice

The site is within an area of historical coal mining activity. Should you require advice and/or support on understanding the mining legacy, its risks to your development or what next steps you need to take, please contact us.

Site investigations

The site is within an area of previous interest. It is close to where the Coal Authority has received information relating to past site investigations.

The site requires further investigation and may influence how you approach your risk assessment.

For further information on specific site or ground investigations in relation to any issues raised in Section 4, please call us on 0345 762 6848 or email us at groundstability@coal.gov.uk.

Section 5 – Data definitions

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

Past underground coal mining

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

Probable unrecorded shallow workings

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

Spine roadways at shallow depth

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

Mine entries

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

Abandoned mine plan catalogue numbers

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

Outcrops

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

Geological faults, fissures and breaklines

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

Opencast mines

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

Coal Authority managed tips

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

Site investigations

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

Remediated sites

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

Coal mining subsidence

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

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

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

Mine gas

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

Mine water treatment schemes

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

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

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

Future underground mining

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

Coal mining licensing

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

Court orders

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

Section 46 notices

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

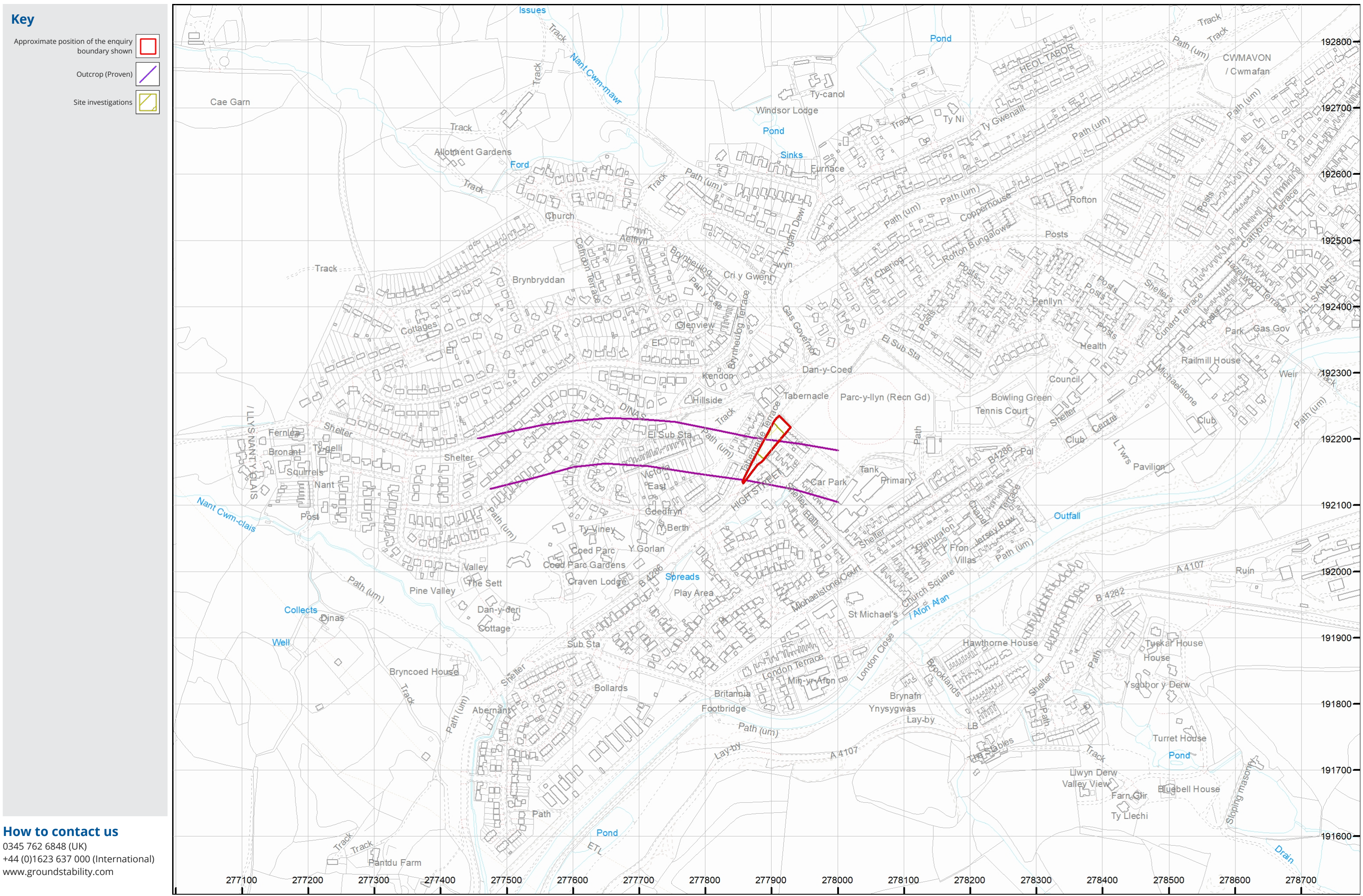
Withdrawal of support notices

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

Payment to owners of former copyhold land

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

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





The Coal
Authority

Permit to Enter or Disturb Coal Authority Mining Interests

Permit Reference Number 17554

Name and Address of Permit Holder:

*Terra Firma (Wales) Ltd
5 Deryn Court
Wharfdale Road
Pentwyn
Cardiff
CF23 7HA*

Site Location:

*Land at Tabernacle Terrace
Cwmafan
Neath Port Talbot*

This certificate hereby grants the above named Permit Holder a Permit to carry out:-

Investigation of shallow mine workings by three boreholes to 30m bgl

within the Authority's mining interests at the identified site location for the period of 12 months from the granted date shown below. The granting of this Permit does not constitute advice given by the Authority in relation to the proposed operations. It is the Applicant's responsibility to obtain appropriate health, safety, environmental, technical and legal advice.

Signed: Paul Heap Granted Date: 19/02/2019

For and on behalf of The Coal Authority

*Nominated Representative: Paul Heap, Permitting Manager;
The Coal Authority, Permitting Office, 200 Lichfield Lane, Mansfield, Notts, NG18 4RG
Tel: 01623 637339; E-Mail: permissions@coal.gov.uk*

ANNEX C
Risk Assessment Definitions

The contaminated land regime is set out in Part 2A of the Environmental Protection Act (EPA) 1990 and was introduced on the 1st April 2000 in England and 1st July 2001 in Wales. A similar regime was introduced in Scotland on 14th July 2000.

Part 2A was introduced to achieve three overarching objectives:

- (a) To identify and remove unacceptable risks to human health and the environment.
- (b) To seek to ensure that contaminated land is made suitable for its current use.
- (c) To ensure that the burdens faced by individuals, companies and society as a whole are proportionate, manageable and compatible with the principles of sustainable development.

Under Part 2A the statutory definition of 'contaminated land' is:

"any land which appears to the local authority in whose area it is situated, to be in such a condition, by reason of substances in, on, or under the land, that:

- (a) Significant harm is being caused or there is a significant possibility of such harm being caused; or
- (b) Pollution of controlled waters is being, or is likely to be, caused."

Under Part 2A, for land to be classified as 'Contaminated Land' there must be one or more contaminant, pathway, receptor linkages, known as the '**Pollutant Linkage**'. A pollutant linkage requires three essential elements:

- (a) A **CONTAMINANT** (SOURCE) – a substance that is in, on or under the land and has the potential to cause harm or to cause pollution of controlled waters.
- (b) A **RECEPTOR** – something which could be adversely affected by a contaminant.
- (c) A **PATHWAY** – a route by which a receptor is or might be exposed to or affected by a contaminant.

The term 'Risk' is widely used in different contexts and situations, but a prescriptive definition is given by the Guidelines for Environmental Risk Assessment and Management (DEFRA *et al*, 2000):

'Risk is a combination of the probability, or frequency, of occurrence of a defined hazard and the magnitude of the consequences of the occurrence'.

Model Procedures for the Management of Land Contamination – Contamination Land Report 11 (2004) defines a 'Hazard' as

'a property or situation that in particular circumstances could lead to harm'.

A framework for qualitative risk assessment is provided in CIRIA publication C552 Contaminated Land Risk Assessment – A Guide to Good Practice (2001). The method requires an assessment of the magnitude of the probability of the risk occurring and the magnitude of the potential consequence. Classifications of consequences and probability, levels and descriptions of risk have been devised from the above publication and are defined in the following sections.

Classification of Consequence

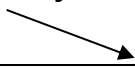
Table A Classification of Consequence	
Classification	Definition
Severe	• Short term (acute) risk to human health likely to result in significant harm • Short term risk to controlled waters • Catastrophic damage to buildings/structures • Short term risk to an ecosystem or organism within the particular ecosystem
Medium	• Chronic damage to human health (long term risk) • Pollution of a sensitive water resource • A significant change in an ecosystem or organism within the ecosystem
Mild	• Pollution of non-sensitive water resources • Significant damage to buildings/structures • Damage to sensitive buildings/structure/services or the environment
Negligible	• Harm (not necessarily significant) which may result in financial loss • Non-permanent health effects to humans (easily prevented by PPE for example) • Easily repairable effects of structural (building) damage

Classification of Probability

Table B Classification of Probability	
Classification	Definition
High Likelihood	• There is a complete pollution linkage and an event appears very likely to occur in the short term and is inevitable in the long term. • Evidence of harm to the receptor
Likely	• There is a complete pollution linkage which means that it is probable that an event will occur • The event is not inevitable but possible in short term and likely in the long term
Low Likelihood	• There is a complete pollution linkage and circumstances are possible under which an event could occur • It is not certain that an event will occur in the long term, and it is less likely to occur in the short term
Unlikely	• There is a complete pollution linkage but circumstances are such that it is improbable that an event would occur even in the long term

Risk Assessment Matrix

By comparing the consequences of a risk and the probability of the risk of a pollution linkage, the likely risk category can be determined as shown in **Table C** below.

Table C Risk Assessment Matrix					
Increasing acceptability 		Consequence			
		Severe	Medium	Mild	Negligible
Probability	High Likelihood	High risk	High risk	Medium risk	Low risk
	Likely	High risk	Medium risk	Low risk	Near zero risk
	Low Likelihood	Medium risk	Low risk	Low risk	Near zero risk
	Unlikely	Low risk	Near zero risk	Near zero risk	Near zero risk

Description of Risks and Likely Actions

High Risk

There is a high probability that severe harm could arise to a receptor, or there is evidence that a receptor is currently being severely harmed. The risk if realised is likely to result in liability, and urgent investigation or remediation will be required.

Medium Risk

It is probable that harm will arise to a receptor. However, it is relatively unlikely that such harm would be severe, or if harm does occur the harm is likely to be relatively mild. Investigation will be required to determine the liability, and some remedial works may be required in the long term.

Low Risk

It is possible that harm may arise to a receptor, but it is likely that the harm would be mild.

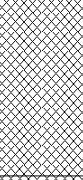
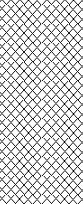
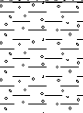
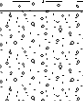
Near Zero Risk

There is a very low risk of harm to the receptor. In the event of harm being realised the harm is not likely to be severe.

**ANNEX D
Trial Pit Logs**

Project Name: Tabernacle Terrace	Project No: 14611	Co-ords: - Level:	Date: 31/01/2019
----------------------------------	-------------------	----------------------	------------------

Location: Cwmafan	Dimensions: Depth 2.10	Scale: 1:25 Logged: ADB
Client:		

Water Strike	Samples & In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
	Depth	Type	Results				
▼	0.50	ES		0.60			MADE GROUND: Soft to firm, dark brown, gravelly cobbly CLAY. Gravel is fine to coarse, angular to subrounded sandstone, brick and concrete. Contains brick, concrete and occasional metal pipe, glass, ceramic and plastic.
							MADE GROUND: Firm, dark brown, very sandy gravelly CLAY. Gravel is fine to coarse, angular brick and concrete. Contains brick, concrete and occasional slag.
				1.30			MADE GROUND: Flat laid bricks.
	1.50	D		1.40			Firm to stiff, grey green and brown, slightly gravelly CLAY with occasional cobble. Gravel is fine to coarse, subangular to rounded sandstone.
				1.80			(Medium dense), grey brown, clayey SAND and GRAVEL. Sand is fine to coarse grained. Gravel is fine to coarse, subangular to rounded sandstone and mudstone.
				2.10			End of Pit at 2.100m

Stability: The sand and gravel deposits are slightly unstable with water ingress.

Remarks: 1. Large groundwater inflow encountered at 1.20m. 2. Density indicator in brackets is based on field judgment and is not in accordance with BS5930:2015 but for guidance only. 3. Trial pit terminated at limit of excavators reach. 4. Trial pit backfilled with arisings.

Project Name: Tabernacle Terrace	Project No: 14611	Co-ords: - Level:	Date: 31/01/2019
----------------------------------	-------------------	----------------------	------------------

Location: Cwmafan	Dimensions: Depth 2.30	Scale: 1:25 Logged: ADB
Client:		

Water Strike	Samples & In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	
	Depth	Type	Results					
▼	0.40	ES					MADE GROUND: (Loose to medium dense), grey brown, ashy clayey gravelly SAND. Gravel is fine to coarse, angular sandstone, brick and concrete. Contains concrete, brick and large building stone.	
				1.00			(Medium dense), grey, silty SAND. Sand is fine grained.	1
				1.40			Firm, grey and brown, sandy gravelly CLAY with occasional cobble and boulder. Gravel is fine to coarse, subangular to rounded sandstone and mudstone.	
				1.80			(Medium dense), grey brown, slightly clayey SAND and GRAVEL with common cobbles. Gravel is fine to coarse, subangular to rounded sandstone.	2
				2.10			Stiff, light grey, laminated slightly sandy silty CLAY.	
				2.30			End of Pit at 2.300m	
								3
								4
								5

Stability: The sand and gravel deposits are slightly unstable with water ingress.

Remarks: 1. Small seepage and groundwater inflow encountered at 1.00m. 2. Density indicator in brackets is based on field judgment and is not in accordance with BS5930:2015 but for guidance only. 3. Trial pit terminated at limit of excavators reach. 4. Trial pit backfilled with arisings.

Project Name: Tabernacle Terrace	Project No: 14611	Co-ords: - Level:	Date: 31/01/2019
----------------------------------	-------------------	----------------------	------------------

Location: Cwmafan	Dimensions: Depth 2.30	Scale: 1:25 Logged: ADB
Client:		

Water Strike	Samples & In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	
	Depth	Type	Results					
	0.30	ES					MADE GROUND: (Medium dense), dark grey brown, clayey sandy GRAVEL with occasional cobble and boulder. Gravel is fine to coarse, angular to subrounded limestone and sandstone. Contains brick and concrete.	
	1.00	ES		0.90			PROBABLE REWORKED NATURAL: Firm with occasional soft patches, orange brown and grey, very sandy, slightly gravelly CLAY. Sand is fine to coarse grained. Gravel is fine to coarse, subangular to subrounded sandstone.	1
				2.30			End of Pit at 2.300m	2
								3
								4
								5

Stability: Trial pit walls are stable.

Remarks: 1. No groundwater encountered. 2. Density indicator in brackets is based on field judgment and is not in accordance with BS5930:2015 but for guidance only. 3. Trial pit terminated at limit of excavators reach. 4. Trial pit backfilled with arisings.

Project Name: Tabernacle Terrace	Project No: 14611	Co-ords: - Level:	Date: 31/01/2019
----------------------------------	-------------------	----------------------	------------------

Location: Cwmafan	Dimensions: Depth 2.30	Scale: 1:25 Logged: ADB
Client:		

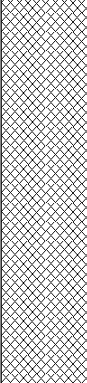
Water Strike	Samples & In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	
	Depth	Type	Results					
▼	0.30	ES		0.30			MADE GROUND: (Medium dense), dark brown, slightly clayey gravelly SAND. Gravel is fine to coarse, angular brick and concrete. Contains brick and concrete.	
	0.80	ES					MADE GROUND: (Medium dense to dense), grey and brown, clayey SAND and GRAVEL. Sand is fine to coarse grained. Gravel is fine to coarse, angular sandstone. Contains brick, concrete and large building stone.	1
	1.50	D		1.50			Soft to firm, grey brown, silty sandy CLAY.	2
				2.30			End of Pit at 2.300m	3
								4
								5

Stability: Trial pit walls are unstable in made ground.

Remarks: 1. Moderate groundwater inflow with hydrocarbon sheen and odour encountered at 0.80m associated with old pipe. 2. Density indicator in brackets is based on field judgment and is not in accordance with BS5930:2015 but for guidance only. 3. Trial pit terminated at limit of excavators reach. 4. Trial pit backfilled with arisings.

Project Name: Tabernacle Terrace	Project No: 14611	Co-ords: - Level:	Date: 31/01/2019
----------------------------------	-------------------	----------------------	------------------

Location: Cwmafan	Dimensions: Depth 2.30	Scale: 1:25 Logged: ADB
Client:		

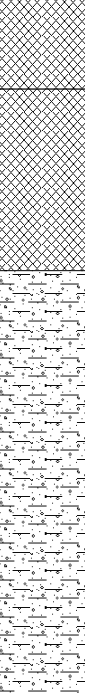
Water Strike	Samples & In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	
	Depth	Type	Results					
▼	0.60	ES		1.30			MADE GROUND: (Medium dense to dense), dark brown, slightly clayey sandy GRAVEL. Gravel is fine to coarse, angular limestone and slag. Contains brick, concrete, building stone and slag.	1
	1.50	D					Firm with soft patches, light grey and brown, very sandy CLAY. Sand is fine to coarse grained.	2
				2.30			End of Pit at 2.300m	3
								4
								5

Stability: Trial pit walls are stable.

Remarks: 1. Small groundwater inflow encountered at 1.20m. 2. Density indicator in brackets is based on field judgment and is not in accordance with BS5930:2015 but for guidance only. 3. Trial pit terminated at limit of excavators reach. 4. Trial pit backfilled with arisings.

Project Name: Tabernacle Terrace	Project No: 14611	Co-ords: - Level:	Date: 31/01/2019
----------------------------------	-------------------	----------------------	------------------

Location: Cwmafan	Dimensions: Depth 2.30	Scale: 1:25 Logged: ADB
Client:		

Water Strike	Samples & In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	
	Depth	Type	Results					
▼	0.60	ES		0.30			MADE GROUND: Soft, brown, gravelly CLAY with common cobbles and boulders. Gravel is fine to coarse, angular sandstone. Contains brick, concrete, building stone and occasional glass bottle.	1
				0.90			MADE GROUND: (Medium dense), red brown and grey, slightly clayey very sandy GRAVEL. Gravel is fine to coarse, angular limestone and sandstone. Contains brick and concrete.	
							Firm, yellow brown, very sandy slightly gravelly CLAY. Sand is fine to coarse grained. Gravel is fine to coarse, subangular to subrounded sandstone.	
							... becoming very gravelly and cobbles and boulders become common below 1.50m.	
				2.30			End of Pit at 2.300m	2
								3
								4
								5

Stability: Trial pit walls are slightly unstable in the made ground:

Remarks: 1. Small groundwater encountered at 0.90m. 2. Density indicator in brackets is based on field judgment and is not in accordance with BS5930:2015 but for guidance only. 3. Trial pit terminated at limit of excavators reach. 4. Trial pit backfilled with arisings.

Trial Pit Log

Trial Pit No:
TP07
Sheet 1 of 1

Project Name: Tabernacle Terrace

Project No:
14611

Co-ords: -
Level:

Date:
08/03/2024

Location: Cwmafan

Diagram of a rectangular box with dimensions: Depth 2.10, Width 0.60, and Length 2.00.

Scale:
1:25

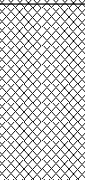
Logged:
JM

Client:

Water Strike	Samples & In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
	Depth	Type	Results				
	0.40	ES		0.60			MADE GROUND (Loose) grass over dark greyish brown ashy sandy silty angular to subrounded fine to coarse sandstone, mudstone, brick, ceramic, slag and metal fragment GRAVEL.
	0.80	ES		0.70			MADE GROUND (Medium dense) grey and brown clayey sandy angular to subrounded fine to coarse limestone, sandstone and concrete fragment GRAVEL. PROBABLE REWORKED NATURAL Medium dense locally loose orangish brown sandy clayey subrounded to rounded fine to coarse sandstone and quartzite GRAVEL.
				1.40			Firm to stiff orangish brown sandy gravelly CLAY. Gravels are subrounded and rounded fine to coarse sandstone.
				2.10			End of Pit at 2.100m

Stability:	Stable
------------	--------

Remarks: Trial Pit terminated at 2.10m depth due to reach of excavator on slope, upon completion, trial pit backfilled with materials arising.

 Tel: 02920 735354 info@terrafirmawales.co.uk www.terrafirmawales.co.uk Geotechnical & Geoenvironmental Specialists				Trial Pit Log			Trial Pit No: TP08 Sheet 1 of 1			
Project Name: Tabernacle Terrace				Project No: 14611		Co-ords: - Level:		Date: 08/03/2024		
Location: Cwmafan						Dimensions: 1.80			Scale: 1:25	
Client:						Depth 1.80			Logged: JM	
Water Strike	Samples & In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description			
	Depth	Type	Results							
	0.20	ES		0.30			MADE GROUND (Loose) grass over dark greyish brown ashy sandy silty angular to subrounded fine to coarse sandstone, mudstone, brick, ceramic, slag and metal fragment GRAVEL.			1
							PROBABLE REWORKED NATURAL Medium dense locally loose orangish brown sandy clayey subrounded to rounded fine to coarse sandstone and quartzite GRAVEL.			
	1.00	ES		0.90			Medium dense greyish brown clayey SAND and GRAVEL. Sand is fine to coarse. Gravels are subangular to rounded fine to coarse mudstone and sandstone.			
				1.80			End of Pit at 1.800m			2
										3
										4
										5
Stability: Stable										
Remarks: Trial Pit terminated at 1.80m depth due to reach of excavator on slope, upon completion, trial pit backfilled with materials arising.										

**ANNEX E
Borehole Logs**



Terra Firma (Wales) Limited
5 Deryn Court, Wharfedale Road
Pentwyn, Cardiff
CF23 7HA

Tel: 02920 735354
info@terrafirmawales.co.uk
www.terrafirmawales.co.uk

Borehole No.

WS01

Sheet 1 of 1

Project Name: Tabernacle Terrace	Project No: 14611	Co-ords:	Hole Type WLS
Location: Cwmafan		Level:	Scale 1:50
Client:		Dates: 15/02/2019 -	Logged By ADB

Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m)	Well	Legend	Stratum Description	
	Depth (m)	Type	Results						
	1.00	SPT	N=6 (44,4/2,1,1,2)					MADE GROUND: (Loose), brown, clayey sandy GRAVEL. Gravel is fine to coarse, angular to subrounded sandstone and limestone. Contains brick, concrete and occasional slag.	1
	2.00	SPT	N=0 (0,0/0,0,0,0)	1.40				Very soft becoming firm, orange brown and grey, sandy slightly gravelly CLAY. Gravel is fine to coarse, subangular to rounded sandstone. Sand is fine to coarse.	2
	3.00	SPT	N=13 (1,2/2,4,4,3)	3.00				End of Borehole at 3.000m	3
									4
									5
									6
									7
									8
									9
									10

Remarks: 1. No groundwater encountered. 2. Density indicator in brackets is based on field judgment and is not in accordance with BS5930:2015 but for guidance only. 3. Gas monitoring point installed in borehole



Terra Firma (Wales) Limited
5 Deryn Court, Wharfedale Road
Pentwyn, Cardiff
CF23 7HA

Tel: 02920 735354
info@terrafirmawales.co.uk
www.terrafirmawales.co.uk

Borehole No.

WS02

Sheet 1 of 1

Project Name: Tabernacle Terrace	Project No: 14611	Co-ords:	Hole Type WLS
Location: Cwmafan		Level:	Scale 1:50
Client:		Dates: 15/02/2019 -	Logged By ADB

Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m)	Well	Legend	Stratum Description	
	Depth (m)	Type	Results						
	1.00	SPT	N=0 (0,0/0,0,0,0)	1.30				MADE GROUND: Soft to firm, dark brown, ashy sandy gravelly CLAY. Gravel is fine to coarse, angular limestone. Contains brick, concrete and slag.	1
	2.00	SPT	N=2 (1,0/0,0,2,0)	2.50				Very soft, orange brown and grey, very sandy slightly gravelly CLAY. Sand is fine to coarse grained. Gravel is fine to coarse, subangular to rounded sandstone.	2
	3.00	SPT	N=4 (1,1/2,0,0,2)	3.00				Very soft to soft, brown, sandy CLAY. Sand is fine to coarse grained.	3
								End of Borehole at 3.000m	4
									5
									6
									7
									8
									9
									10

Remarks: 1. No groundwater encountered. 2. Density indicator in brackets is based on field judgment and is not in accordance with BS5930:2015 but for guidance only. 3. Gas monitoring point installed in borehole



Terra Firma (Wales) Limited
5 Deryn Court, Wharfedale Road
Pentwyn, Cardiff
CF23 7HA

Tel: 02920 735354
info@terrafirmawales.co.uk
www.terrafirmawales.co.uk

Borehole No.

WS03

Sheet 1 of 1

Project Name:	Tabernacle Terrace	Project No:	14611	Co-ords:		Hole Type	WLS
Location:	Cwmafan	Level:				Scale	1:50
Client:		Dates:	15/02/2019 -			Logged By	ADB

Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m)	Well	Legend	Stratum Description	
	Depth (m)	Type	Results						
	1.00	SPT	N=11 (2,4/2,2,3,4)	1.10				MADE GROUND: (Loose to medium dense), dark brown, ashy clayey sandy GRAVEL. Gravel is fine to coarse, angular sandstone. Contains brick and slag.	1
	2.00	SPT	N=22 (6,4/5,5,4,8)					Firm, grey brown, sandy slightly gravelly CLAY with occasional cobble. Gravel is fine to coarse, subangular to rounded sandstone.	2
	3.00	SPT	N=7 (1,2/4,0,0,3)	2.90 3.00				Soft, grey, sandy gravelly CLAY. Gravel is fine to coarse, subangular to rounded sandstone. End of Borehole at 3.000m	3
									4
									5
									6
									7
									8
									9
									10

Remarks: 1. No groundwater encountered. 2. Density indicator in brackets is based on field judgment and is not in accordance with BS5930:2015 but for guidance only. 3. Gas monitoring point installed in borehole



Terra Firma (Wales) Limited
5 Deryn Court, Wharfedale Road
Pentwyn, Cardiff
CF23 7HA

Tel: 02920 735354
info@terrafirmawales.co.uk
www.terrafirmawales.co.uk

Borehole No.

BH01

Sheet 1 of 2

Project Name: Tabernacle Terrace	Project No: 14611	Co-ords: 277889E - 192182N	Hole Type RO
Location: Cwmafan	Level:		Scale 1:100
Client:	Dates: 01/02/2019 -		Logged By Apex

Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m)	Well	Legend	Stratum Description	
	Depth (m)	Type	Results						
				1.20				Fill (Drillers Description)	1
								Gravelly CLAY (Drillers Description)	2
									3
									4
									5
									6
									7
				7.50				MUDSTONE and SANDSTONE (Drillers Description)	8
									9
									10
									11
									12
									13
									14
									15
									16
									17
									18
									19
									20

Remarks: 1. Borehole cased to 8.50m. 2. Groundwater encountered at 6.50m and 7.50m. 3. Description is provided by the drillers based on the arisings at the surface. 4. Borehole terminated at scheduled depth 5. Borehole backfilled with arisings. 6. Grid references are approximate and were obtained online



Terra Firma (Wales) Limited
5 Deryn Court, Wharfedale Road
Pentwyn, Cardiff
CF23 7HA

Tel: 02920 735354
info@terrafirmawales.co.uk
www.terrafirmawales.co.uk

Borehole No.

BH01

Sheet 2 of 2

Project Name: Tabernacle Terrace	Project No: 14611	Co-ords: 277889E - 192182N	Hole Type RO
Location: Cwmafan		Level:	Scale 1:100
Client:		Dates: 01/02/2019 -	Logged By Apex

Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m)	Well	Legend	Stratum Description	
	Depth (m)	Type	Results						
								MUDSTONE and SANDSTONE (Drillers Description)	21
									22
									23
									24
									25
									26
									27
									28
									29
									30
									31
									32
									33
									34
									35
									36
									37
									38
									39
				40.00				End of Borehole at 40.000m	40

Remarks: 1. Borehole cased to 8.50m. 2. Groundwater encountered at 6.50m and 7.50m. 3. Description is provided by the drillers based on the arisings at the surface. 4. Borehole terminated at scheduled depth 5. Borehole backfilled with arisings. 6. Grid references are approximate and were obtained online



Terra Firma (Wales) Limited
5 Deryn Court, Wharfedale Road
Pentwyn, Cardiff
CF23 7HA

Tel: 02920 735354
info@terrafirmawales.co.uk
www.terrafirmawales.co.uk

Borehole No.

BH02

Sheet 1 of 2

Project Name: Tabernacle Terrace	Project No: 14611	Co-ords: 277899E - 192199N	Hole Type RO
Location: Cwmafan		Level:	Scale 1:100
Client:		Dates: 31/01/2019 -	Logged By Apex

Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m)	Well	Legend	Stratum Description	
	Depth (m)	Type	Results						
				2.00				Fill (Drillers Description)	1
								Gravelly CLAY (Drillers Description)	2
									3
									4
									5
									6
▼									7
									8
									9
▼				9.50				MUDSTONE and SANDSTONE (Drillers Description)	10
									11
									12
									13
									14
									15
									16
				16.50				COAL (Drillers Description)	17
									18
				17.50				MUDSTONE and SANDSTONE (Drillers Description)	19
									20

Remarks: 1. Borehole cased to 10.00m. 2. Groundwater encountered at 7.00m and 10.00m. 3. Description is provided by the drillers based on the arisings at the surface. 4. Borehole terminated at scheduled depth 5. Borehole backfilled with arisings. 6. Grid references are approximate and were obtained online



Terra Firma (Wales) Limited
5 Deryn Court, Wharfedale Road
Pentwyn, Cardiff
CF23 7HA

Tel: 02920 735354
info@terrafirmawales.co.uk
www.terrafirmawales.co.uk

Borehole No.

BH02

Sheet 2 of 2

Project Name: Tabernacle Terrace	Project No: 14611	Co-ords: 277899E - 192199N	Hole Type RO
Location: Cwmafan	Level:		Scale 1:100
Client:	Dates: 31/01/2019 -		Logged By Apex

Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m)	Well	Legend	Stratum Description	
	Depth (m)	Type	Results						
				20.30				MUDSTONE and SANDSTONE (Drillers Description)	
								COAL (Drillers Description)	
				21.00				MUDSTONE and SANDSTONE (Drillers Description)	21
									22
									23
									24
									25
									26
									27
									28
									29
									30
									31
									32
									33
									34
									35
									36
				37.00				End of Borehole at 37.000m	37
									38
									39
									40

Remarks: 1. Borehole cased to 10.00m. 2. Groundwater encountered at 7.00m and 10.00m. 3. Description is provided by the drillers based on the arisings at the surface. 4. Borehole terminated at scheduled depth 5. Borehole backfilled with arisings. 6. Grid references are approximate and were obtained online



Terra Firma (Wales) Limited
5 Deryn Court, Wharfedale Road
Pentwyn, Cardiff
CF23 7HA

Tel: 02920 735354
info@terrafirmawales.co.uk
www.terrafirmawales.co.uk

Borehole No.

BH03

Sheet 1 of 2

Project Name: Tabernacle Terrace	Project No: 14611	Co-ords: 277906E - 192211N	Hole Type RO
Location: Cwmafan		Level:	Scale 1:100
Client:		Dates: 01/02/2019 -	Logged By Apex

Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m)	Well	Legend	Stratum Description	
	Depth (m)	Type	Results						
				1.40				Fill (Drillers Description)	1
								Gravelly CLAY (Drillers Description)	2
									3
									4
									5
▼									6
				7.00				GRAVEL (Drillers Description)	7
▼				7.90				MUDSTONE and SANDSTONE (Drillers Description)	8
									9
									10
									11
									12
									13
									14
									15
									16
									17
									18
									19
									20

Remarks: 1. Borehole cased to 8.50m. 2. Groundwater encountered at 6.00m and 8.00m. 3. Description is provided by the drillers based on the arisings at the surface. 4. Borehole terminated at scheduled depth 5. Borehole backfilled with arisings. 6. Grid references are approximate and were obtained online



Terra Firma (Wales) Limited
5 Deryn Court, Wharfedale Road
Pentwyn, Cardiff
CF23 7HA

Tel: 02920 735354
info@terrafirmawales.co.uk
www.terrafirmawales.co.uk

Borehole No.

BH03

Sheet 2 of 2

Project Name: Tabernacle Terrace	Project No: 14611	Co-ords: 277906E - 192211N	Hole Type RO
Location: Cwmafan		Level:	Scale 1:100
Client:		Dates: 01/02/2019 -	Logged By Apex

Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m)	Well	Legend	Stratum Description	
	Depth (m)	Type	Results						
								MUDSTONE and SANDSTONE (Drillers Description)	21
				22.60				COAL (Drillers Description)	23
				23.60				MUDSTONE (Drillers Description)	24
				25.10				COAL (Drillers Description)	25
				25.80				MUDSTONE and SANDSTONE (Drillers Description)	26
									27
									28
									29
									30
									31
									32
									33
									34
									35
									36
									37
									38
									39
				40.00				End of Borehole at 40.000m	40

Remarks: 1. Borehole cased to 8.50m. 2. Groundwater encountered at 6.00m and 8.00m. 3. Description is provided by the drillers based on the arisings at the surface. 4. Borehole terminated at scheduled depth 5. Borehole backfilled with arisings. 6. Grid references are approximate and were obtained online

ANNEX F
Laboratory Soil Chemical Test Results



Amended Report

Report No.:	19-03913-2		
Initial Date of Issue:	12-Feb-2019	Date of Re-Issue:	20-Feb-2019
Client	Terra Firma (Wales) Ltd		
Client Address:	5 Deryn Court Wharfedale Road Pentwyn Cardiff CF23 7HA		
Contact(s):	Alan@terrafirmawales.co.uk		
Project	Tabernacle Terrace, Cwmafan		
Quotation No.:	Q18-15369	Date Received:	04-Feb-2019
Order No.:	14611AB	Date Instructed:	04-Feb-2019
No. of Samples:	8		
Turnaround (Wkdays):	13	Results Due:	20-Feb-2019
Date Approved:	20-Feb-2019		
Approved By:			
Details:	Martin Dyer, Laboratory Manager Robert Monk, Technical Manager		

Project: Tabernacle Terrace, Cwmafan

Client: Terra Firma (Wales) Ltd	Chemtest Job No.:				19-03913	19-03913
Quotation No.: Q18-15369	Chemtest Sample ID.:				766594	766601
	Client Sample ID.:				TP01	TP06
	Sample Type:				SOIL	SOIL
	Top Depth (m):				0.50	0.60
	Date Sampled:				31-Jan-2019	31-Jan-2019
	Time Sampled:				0:00	0:00
Determinand	Accred.	SOP	Units	LOD		
Arsenic (Dissolved)	U	1450	µg/l	1.0		1.9
Lead (Dissolved)	U	1450	µg/l	1.0	11	

Project: **Tabernacle Terrace, Cwmafan**

Client: Terra Firma (Wales) Ltd	Chemtest Job No.:											
Quotation No.: Q18-15369	Chemtest Sample ID.:											
	Client Sample ID.:											
	Sample Type:											
	Top Depth (m):											
	Date Sampled:											
	Time Sampled:											
	Asbestos Lab:											
Determinand	Accred.	SOP	Units	LOD								
ACM Type	U	2192		N/A	-	-	-	-	-	-	-	-
Asbestos Identification	U	2192	%	0.001	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected
ACM Detection Stage	U	2192		N/A	-	-	-	-	-	-	-	-
Moisture	N	2030	%	0.020	25	22	18	24	11	24	26	28
Soil Colour	N	2040		N/A	Black	Black	Black	Brown	Black	Black	Black	Black
Other Material	N	2040		N/A	Stones	Stones	Stones	Stones	Stones	Stones	Stones	Stones
Soil Texture	N	2040		N/A	Sand	Sand	Sand	Clay	Sand	Clay	Sand	Sand
pH	M	2010		N/A	8.1	8.3	8.2	7.2	8.4	7.7	7.9	8.0
Cyanide (Total)	M	2300	mg/kg	0.50	2.0	0.50	< 0.50	< 0.50	0.60	< 0.50	< 0.50	0.80
Sulphate (Acid Soluble)	M	2430	%	0.010	0.078	0.23	0.036	< 0.010	0.11	0.040	0.042	0.10
Arsenic	M	2450	mg/kg	1.0	33	33	23	7.0	35	13	24	43
Cadmium	M	2450	mg/kg	0.10	2.4	0.84	< 0.10	< 0.10	0.53	< 0.10	< 0.10	0.78
Chromium	M	2450	mg/kg	1.0	33	14	13	14	15	15	10	24
Mercury Low Level	M	2450	mg/kg	0.05	0.26	0.21	0.12	0.05	0.09	0.06	0.07	0.19
Copper	M	2450	mg/kg	0.50	180	63	100	9.0	210	29	130	110
Nickel	M	2450	mg/kg	0.50	65	31	32	16	32	20	37	32
Lead	M	2450	mg/kg	0.50	330	180	140	15	69	20	180	130
Selenium	M	2450	mg/kg	0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	0.63
Zinc	M	2450	mg/kg	0.50	950	250	67	36	110	52	69	620
Chromium (Trivalent)	N	2490	mg/kg	1.0	33	14	13	14	15	15	10	24
Chromium (Hexavalent)	N	2490	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Aliphatic TPH >C5-C6	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C6-C8	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C8-C10	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	10	< 1.0	< 1.0
Aliphatic TPH >C10-C12	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	28	< 1.0	< 1.0
Aliphatic TPH >C12-C16	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	67	< 1.0	< 1.0
Aliphatic TPH >C16-C21	M	2680	mg/kg	1.0	< 1.0	1.2	< 1.0	< 1.0	< 1.0	40	< 1.0	< 1.0
Aliphatic TPH >C21-C35	M	2680	mg/kg	1.0	55	12	81	< 1.0	23	16	< 1.0	42
Aliphatic TPH >C35-C44	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Total Aliphatic Hydrocarbons	N	2680	mg/kg	5.0	56	13	82	< 5.0	23	160	< 5.0	42
Aromatic TPH >C5-C7	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C7-C8	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C8-C10	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C10-C12	M	2680	mg/kg	1.0	< 1.0	< 1.0	1.6	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C12-C16	M	2680	mg/kg	1.0	< 1.0	< 1.0	5.4	< 1.0	< 1.0	18	< 1.0	< 1.0
Aromatic TPH >C16-C21	U	2680	mg/kg	1.0	9.0	30	36	< 1.0	17	4.1	< 1.0	13
Aromatic TPH >C21-C35	M	2680	mg/kg	1.0	120	710	260	< 1.0	390	< 1.0	< 1.0	140

Project: **Tabernacle Terrace, Cwmafan**

Client: Terra Firma (Wales) Ltd	Chemtest Job No.:											
Quotation No.: Q18-15369	Chemtest Sample ID.:											
	Client Sample ID.:											
	Sample Type:											
	Top Depth (m):											
	Date Sampled:											
	Time Sampled:											
	Asbestos Lab:											
Determinand	Accred.	SOP	Units	LOD								
Aromatic TPH >C35-C44	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Total Aromatic Hydrocarbons	N	2680	mg/kg	5.0	130	740	310	< 5.0	400	23	< 5.0	150
Total Petroleum Hydrocarbons	N	2680	mg/kg	10.0	180	760	390	< 10	430	180	< 10	190
Naphthalene	M	2700	mg/kg	0.10	1.3	0.74	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	1.0
Acenaphthylene	M	2700	mg/kg	0.10	0.70	0.20	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	0.64
Acenaphthene	M	2700	mg/kg	0.10	0.53	0.17	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	0.88
Fluorene	M	2700	mg/kg	0.10	0.50	0.17	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	1.2
Phenanthrene	M	2700	mg/kg	0.10	3.4	1.5	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	9.2
Anthracene	M	2700	mg/kg	0.10	0.73	0.24	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	1.6
Fluoranthene	M	2700	mg/kg	0.10	4.5	2.0	0.40	< 0.10	0.52	1.5	< 0.10	12
Pyrene	M	2700	mg/kg	0.10	4.6	2.0	0.43	< 0.10	0.55	1.5	< 0.10	9.2
Benzo[a]anthracene	M	2700	mg/kg	0.10	3.7	1.7	< 0.10	< 0.10	< 0.10	1.9	< 0.10	6.1
Chrysene	M	2700	mg/kg	0.10	3.3	1.7	< 0.10	< 0.10	< 0.10	1.0	< 0.10	6.6
Benzo[b]fluoranthene	M	2700	mg/kg	0.10	4.5	2.2	< 0.10	< 0.10	< 0.10	1.7	< 0.10	5.3
Benzo[k]fluoranthene	M	2700	mg/kg	0.10	1.5	0.89	< 0.10	< 0.10	< 0.10	0.79	< 0.10	2.3
Benzo[a]pyrene	M	2700	mg/kg	0.10	3.1	1.4	< 0.10	< 0.10	< 0.10	1.2	< 0.10	4.1
Indeno(1,2,3-c,d)Pyrene	M	2700	mg/kg	0.10	2.6	1.5	< 0.10	< 0.10	< 0.10	0.83	< 0.10	2.5
Dibenz(a,h)Anthracene	M	2700	mg/kg	0.10	2.2	0.72	< 0.10	< 0.10	< 0.10	1.3	< 0.10	1.4
Benzo[g,h,i]perylene	M	2700	mg/kg	0.10	3.0	1.7	< 0.10	< 0.10	< 0.10	1.4	< 0.10	2.3
Total Of 16 PAH's	M	2700	mg/kg	2.0	40	19	< 2.0	< 2.0	< 2.0	13	< 2.0	66
Dichlorodifluoromethane	U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Chloromethane	M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Vinyl Chloride	M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Bromomethane	M	2760	µg/kg	20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20
Chloroethane	U	2760	µg/kg	2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Trichlorofluoromethane	M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,1-Dichloroethene	M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Trans 1,2-Dichloroethene	N	2760	µg/kg	0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
1,1-Dichloroethane	M	2760	µg/kg	1.0	< 1.0	< 1.0	63	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
cis 1,2-Dichloroethene	M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,1,1-Trichloroethane	M	2760	µg/kg	1.0	< 1.0	< 1.0	120	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,1-Dichloropropene	U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Benzene	M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,2-Dichloroethane	M	2760	µg/kg	2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Trichloroethene	N	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,2-Dichloropropane	M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Dibromomethane	M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Bromodichloromethane	M	2760	µg/kg	5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0

Project: **Tabernacle Terrace, Cwmafan**

Client: Terra Firma (Wales) Ltd	Chemtest Job No.: 19-03913											
Quotation No.: Q18-15369	Chemtest Sample ID.: 766594											
	Client Sample ID.: TP01											
	Sample Type: SOIL											
	Top Depth (m): 0.50											
	Date Sampled: 31-Jan-2019											
	Time Sampled: 0:00											
	Asbestos Lab: DURHAM											
Determinand	Accred.	SOP	Units	LOD								
cis-1,3-Dichloropropene	N	2760	µg/kg	10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
Toluene	M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Trans-1,3-Dichloropropene	N	2760	µg/kg	10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
1,1,2-Trichloroethane	M	2760	µg/kg	10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
Tetrachloroethene	M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,3-Dichloropropane	U	2760	µg/kg	2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Dibromochloromethane	U	2760	µg/kg	10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
1,2-Dibromoethane	M	2760	µg/kg	5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Chlorobenzene	M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,1,1,2-Tetrachloroethane	N	2760	µg/kg	0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
Ethylbenzene	M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
m & p-Xylene	M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
o-Xylene	M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Styrene	M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Isopropylbenzene	M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Bromobenzene	M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,2,3-Trichloropropane	N	2760	µg/kg	50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50
N-Propylbenzene	U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
2-Chlorotoluene	M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,3,5-Trimethylbenzene	M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
4-Chlorotoluene	U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Tert-Butylbenzene	U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,2,4-Trimethylbenzene	M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Sec-Butylbenzene	U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,3-Dichlorobenzene	M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
4-Isopropyltoluene	U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,4-Dichlorobenzene	M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
N-Butylbenzene	U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,2-Dichlorobenzene	M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,2-Dibromo-3-Chloropropane	U	2760	µg/kg	50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50
1,2,4-Trichlorobenzene	M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Hexachlorobutadiene	U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,2,3-Trichlorobenzene	U	2760	µg/kg	2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Carbon Disulphide	N	2760	µg/kg	50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50
Tertiary Butyl Methyl Ether (TBME)	N	2760	µg/kg	10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
Tetrahydrofuran	N	2760	µg/kg	10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
trans-1,4-Dichloro-2butene	N	2760	µg/kg	10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
Naphthalene	N	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0

Project: **Tabernacle Terrace, Cwmafan**

Client: Terra Firma (Wales) Ltd	Chemtest Job No.: 19-03913											
Quotation No.: Q18-15369	Chemtest Sample ID.: 766594											
	Client Sample ID.: TP01											
	Sample Type: SOIL											
	Top Depth (m): 0.50											
	Date Sampled: 31-Jan-2019											
	Time Sampled: 0:00											
	Asbestos Lab: DURHAM											
Determinand	Accred.	SOP	Units	LOD								
2-Hexanone	N	2760	µg/kg	10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
2-Nitropropane	N	2760	µg/kg	10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
4-Methyl-2-Pentanone (MIBK)	N	2760	µg/kg	10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
1,1,2,2-Tetrachloroethane	N	2760	µg/kg	2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Pentachloroethane	N	2760	µg/kg	10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
Ethyl Methacrylate	N	2760	µg/kg	2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Methyl Methacrylate	N	2760	µg/kg	2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Acetone	N	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Allyl Chloride	N	2760	µg/kg	10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
Bromoform	N	2760	µg/kg	10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
2-Butanone (MEK)	N	2760	µg/kg	10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
Carbon Tetrachloride	N	2760	µg/kg	10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
1-Chlorobutane	N	2760	µg/kg	10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
Chloroform	N	2760	µg/kg	10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
2,2-Dichloropropane	N	2760	µg/kg	10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
Diethyl Ether	N	2760	µg/kg	10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
Freon 113	N	2760	µg/kg	10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
Hexachloroethane	N	2760	µg/kg	10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
Methylene Chloride	N	2760	µg/kg	10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
N-Nitrosodimethylamine	M	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Phenol	M	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
2-Chlorophenol	M	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Bis-(2-Chloroethyl)Ether	M	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
1,3-Dichlorobenzene	M	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
1,4-Dichlorobenzene	N	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
1,2-Dichlorobenzene	M	2790	mg/kg	0.50	1.9	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
2-Methylphenol	M	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Bis(2-Chloroisopropyl)Ether	M	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Hexachloroethane	N	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
N-Nitrosodi-n-propylamine	M	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
4-Methylphenol	M	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Nitrobenzene	M	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Isophorone	M	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
2-Nitrophenol	N	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
2,4-Dimethylphenol	N	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Bis(2-Chloroethoxy)Methane	M	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
2,4-Dichlorophenol	M	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
1,2,4-Trichlorobenzene	M	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50

Project: **Tabernacle Terrace, Cwmafan**

Client: Terra Firma (Wales) Ltd	Chemtest Job No.:				19-03913	19-03913	19-03913	19-03913	19-03913	19-03913	19-03913	19-03913
Quotation No.: Q18-15369	Chemtest Sample ID.:				766594	766595	766596	766597	766598	766599	766600	766601
	Client Sample ID.:				TP01	TP02	TP03	TP03	TP04	TP04	TP05	TP06
	Sample Type:				SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	Top Depth (m):				0.50	0.40	0.30	1.00	0.30	0.80	0.60	0.60
	Date Sampled:				31-Jan-2019	31-Jan-2019	31-Jan-2019	31-Jan-2019	31-Jan-2019	31-Jan-2019	31-Jan-2019	31-Jan-2019
	Time Sampled:				0:00	0:00	0:00	0:00	0:00	0:00	0:00	0:00
	Asbestos Lab:				DURHAM	DURHAM	DURHAM	DURHAM	DURHAM	DURHAM	DURHAM	DURHAM
Determinand	Accred.	SOP	Units	LOD								
Naphthalene	M	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
4-Chloroaniline	N	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Hexachlorobutadiene	M	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
4-Chloro-3-Methylphenol	M	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
2-Methylnaphthalene	M	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Hexachlorocyclopentadiene	N	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
2,4,6-Trichlorophenol	M	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
2,4,5-Trichlorophenol	M	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
2-Chloronaphthalene	M	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
2-Nitroaniline	M	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Acenaphthylene	M	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Dimethylphthalate	M	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
2,6-Dinitrotoluene	M	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Acenaphthene	M	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Acetophenone	N	2790	mg/kg	0.075	< 0.075	< 0.075	< 0.075	< 0.075	< 0.075	< 0.075	< 0.075	< 0.075
2-Acetylaminofluorene	N	2790	mg/kg	0.075	< 0.075	< 0.075	< 0.075	< 0.075	< 0.075	< 0.075	< 0.075	< 0.075
4-Aminobiphenyl	N	2790	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Aniline	N	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Chlorobenzilate	N	2790	mg/kg	0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13
m/p-Cresol	N	2790	mg/kg	0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13
o-Cresol	N	2790	mg/kg	0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13
Diallate cis/trans	N	2790	mg/kg	0.075	< 0.075	< 0.075	< 0.075	< 0.075	< 0.075	< 0.075	< 0.075	< 0.075
3,3-Dichlorobenzidine	N	2790	mg/kg	0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
Diphenylamine	N	2790	mg/kg	0.075	< 0.075	< 0.075	< 0.075	< 0.075	< 0.075	< 0.075	< 0.075	< 0.075
m-Dinitrobenzene	N	2790	mg/kg	0.075	< 0.075	< 0.075	< 0.075	< 0.075	< 0.075	< 0.075	< 0.075	< 0.075
Ethyl methane sulfonate	N	2790	mg/kg	0.075	< 0.075	< 0.075	< 0.075	< 0.075	< 0.075	< 0.075	< 0.075	< 0.075
Hexachloropropene	N	2790	mg/kg	0.075	< 0.075	< 0.075	< 0.075	< 0.075	< 0.075	< 0.075	< 0.075	< 0.075
Isodrin	N	2790	mg/kg	0.075	< 0.075	< 0.075	< 0.075	< 0.075	< 0.075	< 0.075	< 0.075	< 0.075
Isosafrole cis/trans	N	2790	mg/kg	0.075	< 0.075	< 0.075	< 0.075	< 0.075	< 0.075	< 0.075	< 0.075	< 0.075
Dibenzofuran	M	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
4-Chlorophenylphenylether	M	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
2,4-Dinitrotoluene	M	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Fluorene	M	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Diethyl Phthalate	M	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
4-Nitroaniline	M	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
2-Methyl-4,6-Dinitrophenol	N	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	1.5	< 0.50	< 0.50
Azobenzene	M	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
4-Bromophenylphenyl Ether	M	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50

Results - Soil

Project: **Tabernacle Terrace, Cwmafan**

Client: Terra Firma (Wales) Ltd	Chemtest Job No.: 19-03913											
Quotation No.: Q18-15369	Chemtest Sample ID.: 766594											
	Client Sample ID.: TP01											
	Sample Type: SOIL											
	Top Depth (m): 0.50											
	Date Sampled: 31-Jan-2019											
	Time Sampled: 0:00											
	Asbestos Lab: DURHAM											
Determinand	Accred.	SOP	Units	LOD								
Hexachlorobenzene	M	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Pentachlorophenol	N	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Phenanthrene	M	2790	mg/kg	0.50	1.0	1.7	1.5	< 0.50	0.58	< 0.50	< 0.50	1.4
Anthracene	M	2790	mg/kg	0.50	< 0.50	0.95	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Carbazole	M	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Di-N-Butyl Phthalate	M	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Fluoranthene	M	2790	mg/kg	0.50	2.0	4.6	2.7	< 0.50	1.1	< 0.50	< 0.50	2.8
Pyrene	M	2790	mg/kg	0.50	2.3	4.2	2.3	< 0.50	1.2	< 0.50	< 0.50	2.4
Butylbenzyl Phthalate	M	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Benzo[a]anthracene	M	2790	mg/kg	0.50	1.5	2.9	1.8	< 0.50	0.90	< 0.50	< 0.50	1.5
Chrysene	M	2790	mg/kg	0.50	2.3	3.1	1.8	< 0.50	1.1	< 0.50	< 0.50	1.8
Bis(2-Ethylhexyl)Phthalate	N	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Di-N-Octyl Phthalate	M	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Benzo[b]fluoranthene	M	2790	mg/kg	0.50	3.8	4.4	2.2	< 0.50	1.6	< 0.50	< 0.50	1.7
Benzo[k]fluoranthene	M	2790	mg/kg	0.50	1.7	1.9	0.80	< 0.50	0.67	< 0.50	< 0.50	0.72
Benzo[a]pyrene	M	2790	mg/kg	0.50	2.7	2.8	1.2	< 0.50	1.0	< 0.50	< 0.50	1.0
Indeno(1,2,3-c,d)Pyrene	M	2790	mg/kg	0.50	2.0	2.3	0.98	< 0.50	0.88	< 0.50	< 0.50	< 0.50
Dibenz(a,h)Anthracene	M	2790	mg/kg	0.50	0.67	0.74	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Benzo[g,h,i]perylene	M	2790	mg/kg	0.50	2.5	2.7	1.1	< 0.50	1.1	< 0.50	< 0.50	< 0.50
Methyl Methane sulfonate	N	2790	mg/kg	0.075	< 0.075	< 0.075	< 0.075	< 0.075	< 0.075	< 0.075	< 0.075	< 0.075
Methyl parathion	N	2790	mg/kg	0.075	< 0.075	< 0.075	< 0.075	< 0.075	< 0.075	< 0.075	< 0.075	< 0.075
N-Nitrosodi-n-butylamine	N	2790	mg/kg	0.075	< 0.075	< 0.075	< 0.075	< 0.075	< 0.075	< 0.075	< 0.075	< 0.075
N-Nitrosodiethylamine	N	2790	mg/kg	0.075	< 0.075	< 0.075	< 0.075	< 0.075	< 0.075	< 0.075	< 0.075	< 0.075
N-Nitrosomorpholine	N	2790	mg/kg	0.075	< 0.075	< 0.075	< 0.075	< 0.075	< 0.075	< 0.075	< 0.075	< 0.075
N-Nitrosopiperidine	N	2790	mg/kg	0.075	< 0.075	< 0.075	< 0.075	< 0.075	< 0.075	< 0.075	< 0.075	< 0.075
N-Nitrosopyrrolidine	N	2790	mg/kg	0.075	< 0.075	< 0.075	< 0.075	< 0.075	< 0.075	< 0.075	< 0.075	< 0.075
5-Nitro-o-toluidine	N	2790	mg/kg	0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25
Pentachlorobenzene	N	2790	mg/kg	5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Phenacetin	N	2790	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Pronamide	N	2790	mg/kg	0.075	< 0.075	< 0.075	< 0.075	< 0.075	< 0.075	< 0.075	< 0.075	< 0.075
Safrole	N	2790	mg/kg	0.075	< 0.075	< 0.075	< 0.075	< 0.075	< 0.075	< 0.075	< 0.075	< 0.075
1,2,3,5-Tetrachlorobenzene	N	2790	mg/kg	0.075	< 0.075	< 0.075	< 0.075	< 0.075	< 0.075	< 0.075	< 0.075	< 0.075
Disulfoton	N	2790	mg/kg	0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
Dinoseb	N	2790	mg/kg	0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050
Benzyl Alcohol	N	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Thionazin	N	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
o-Toluidine	N	2790	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
o,o,o-Triethyl phosphorothioate	N	2790	mg/kg	0.075	< 0.075	< 0.075	< 0.075	< 0.075	< 0.075	< 0.075	< 0.075	< 0.075

Results - Soil

Project: **Tabernacle Terrace, Cwmafan**

Client: Terra Firma (Wales) Ltd	Chemtest Job No.:											
Quotation No.: Q18-15369	Chemtest Sample ID.:											
	Client Sample ID.:			TP01	TP02	TP03	TP03	TP04	TP04	TP05	TP06	
	Sample Type:			SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	
	Top Depth (m):			0.50	0.40	0.30	1.00	0.30	0.80	0.60	0.60	
	Date Sampled:			31-Jan-2019	31-Jan-2019	31-Jan-2019	31-Jan-2019	31-Jan-2019	31-Jan-2019	31-Jan-2019	31-Jan-2019	
	Time Sampled:			0:00	0:00	0:00	0:00	0:00	0:00	0:00	0:00	
	Asbestos Lab:			DURHAM	DURHAM	DURHAM	DURHAM	DURHAM	DURHAM	DURHAM	DURHAM	
Determinand	Accred.	SOP	Units	LOD								
1,3,5-Trinitrobenzene	N	2790	mg/kg	0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13
Total PCBs (7 congeners)	N	2815	mg/kg	0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010
Phorate	N	2820	mg/kg	0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
Dimethoate	N	2820	mg/kg	0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
Parathion	N	2820	mg/kg	0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
Alpha-HCH	N	2840	mg/kg	0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
Gamma-HCH (Lindane)	N	2840	mg/kg	0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
Beta-HCH	N	2840	mg/kg	0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
Delta-HCH	N	2840	mg/kg	0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
Heptachlor	N	2840	mg/kg	0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
Aldrin	N	2840	mg/kg	0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
Heptachlor Epoxide	N	2840	mg/kg	0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
4,4-DDE	N	2840	mg/kg	0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
Dieldrin	N	2840	mg/kg	0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
Endrin	N	2840	mg/kg	0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
4,4-DDD	N	2840	mg/kg	0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
4,4-DDT	N	2840	mg/kg	0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
Endosulfan Sulphate	N	2840	mg/kg	0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
Methoxychlor	N	2840	mg/kg	0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
2,3,4,6-Tetrachlorophenol	N	2900	mg/kg	0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
Total Phenols	M	2920	mg/kg	0.30	< 0.30	< 0.30	< 0.30	< 0.30	< 0.30	< 0.30	< 0.30	< 0.30
Organic Matter BS1377	N	2930	%	0.10	2.3	3.3	3.5	1.7	2.6	2.3	3.2	3.3

SOP	Title	Parameters included	Method summary
1450	Metals in Waters by ICP-MS	Metals, including: Antimony; Arsenic; Barium; Beryllium; Boron; Cadmium; Chromium; Cobalt; Copper; Lead; Manganese; Mercury; Molybdenum; Nickel; Selenium; Tin; Vanadium; Zinc	Filtration of samples followed by direct determination by inductively coupled plasma mass spectrometry (ICP-MS).
2010	pH Value of Soils	pH	pH Meter
2030	Moisture and Stone Content of Soils(Requirement of MCERTS)	Moisture content	Determination of moisture content of soil as a percentage of its as received mass obtained at <37°C.
2040	Soil Description(Requirement of MCERTS)	Soil description	As received soil is described based upon BS5930
2120	Water Soluble Boron, Sulphate, Magnesium & Chromium	Boron; Sulphate; Magnesium; Chromium	Aqueous extraction / ICP-OES
2192	Asbestos	Asbestos	Polarised light microscopy / Gravimetry
2300	Cyanides & Thiocyanate in Soils	Free (or easy liberatable) Cyanide; total Cyanide; complex Cyanide; Thiocyanate	Alkaline extraction followed by colorimetric determination using Automated Flow Injection Analyser.
2430	Total Sulphate in soils	Total Sulphate	Acid digestion followed by determination of sulphate in extract by ICP-OES.
2450	Acid Soluble Metals in Soils	Metals, including: Arsenic; Barium; Beryllium; Cadmium; Chromium; Cobalt; Copper; Lead; Manganese; Mercury; Molybdenum; Nickel; Selenium; Vanadium; Zinc	Acid digestion followed by determination of metals in extract by ICP-MS.
2490	Hexavalent Chromium in Soils	Chromium [VI]	Soil extracts are prepared by extracting dried and ground soil samples into boiling water. Chromium [VI] is determined by 'Aquakem 600' Discrete Analyser using 1,5-diphenylcarbazide.
2680	TPH A/A Split	Aliphatics: >C5–C6, >C6–C8,>C8–C10, >C10–C12, >C12–C16, >C16–C21, >C21–C35, >C35– C44Aromatics: >C5–C7, >C7–C8, >C8– C10, >C10–C12, >C12–C16, >C16– C21, >C21– C35, >C35– C44	Dichloromethane extraction / GCxGC FID detection
2700	Speciated Polynuclear Aromatic Hydrocarbons (PAH) in Soil by GC-FID	Acenaphthene; Acenaphthylene; Anthracene; Benzo[a]Anthracene; Benzo[a]Pyrene; Benzo[b]Fluoranthene; Benzo[ghi]Perylene; Benzo[k]Fluoranthene; Chrysene; Dibenzo[ah]Anthracene; Fluoranthene; Fluorene; Indeno[123cd]Pyrene; Naphthalene; Phenanthrene; Pyrene	Dichloromethane extraction / GC-FID (GC-FID detection is non-selective and can be subject to interference from co-eluting compounds)
2760	Volatile Organic Compounds (VOCs) in Soils by Headspace GC-MS	Volatile organic compounds, including BTEX and halogenated Aliphatic/Aromatics.(cf. USEPA Method 8260)*please refer to UKAS schedule	Automated headspace gas chromatographic (GC) analysis of a soil sample, as received, with mass spectrometric (MS) detection of volatile organic compounds.
2790	Semi-Volatile Organic Compounds (SVOCs) in Soils by GC-MS	Semi-volatile organic compounds(cf. USEPA Method 8270)	Acetone/Hexane extraction / GC-MS
2815	Polychlorinated Biphenyls (PCB) ICES7Congeners in Soils by GC-MS	ICES7 PCB congeners	Acetone/Hexane extraction / GC-MS
2820	Organophosphorus (O-P) Pesticides in Soils by GC-MS	Organophosphorus pesticide representative suite including Parathion, Malathion etc, plus client specific determinands	Dichloromethane extraction / GC-MS
2840	Organochlorine (O-Cl) Pesticides in Soils by GC-MS	Organochlorine pesticide representative suite including DDT and its metabolites, 'drins' and HCH etc, plus client specific determinands	Dichloromethane extraction / GC-MS

SOP	Title	Parameters included	Method summary
2900	Phenols in Soils by GC-MS	Approximately 24 substituted Phenols, including Chlorophenols	Dichloromethane extraction / GC-MS
2920	Phenols in Soils by HPLC	Phenolic compounds including Resorcinol, Phenol, Methylphenols, Dimethylphenols, 1-Naphthol and Trimethylphenols Note: chlorophenols are excluded.	60:40 methanol/water mixture extraction, followed by HPLC determination using electrochemical detection.
2930	Organic Matter	Organic Matter	Acid Dichromate digestion/Titration
640	Characterisation of Waste (Leaching)	Waste material including soil, sludges and granular waste	Compliance Test for Leaching of Granular Waste Material and Sludge

Report Information

Key

- U UKAS accredited
- M MCERTS and UKAS accredited
- N Unaccredited
- S This analysis has been subcontracted to a UKAS accredited laboratory that is accredited for this analysis
- SN This analysis has been subcontracted to a UKAS accredited laboratory that is not accredited for this analysis
- T This analysis has been subcontracted to an unaccredited laboratory
- I/S Insufficient Sample
- U/S Unsuitable Sample
- N/E not evaluated
- < "less than"
- > "greater than"

Comments or interpretations are beyond the scope of UKAS accreditation

The results relate only to the items tested

Uncertainty of measurement for the determinands tested are available upon request

None of the results in this report have been recovery corrected

All results are expressed on a dry weight basis

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

For all other tests the samples were dried at < 37°C prior to analysis

All Asbestos testing is performed at the indicated laboratory

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

Sample Deviation Codes

- A - Date of sampling not supplied
- B - Sample age exceeds stability time (sampling to extraction)
- C - Sample not received in appropriate containers
- D - Broken Container
- E - Insufficient Sample (Applies to LOI in Trommel Fines Only)

Sample Retention and Disposal

All soil samples will be retained for a period of 45 days from the date of receipt

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

Charges may apply to extended sample storage

If you require extended retention of samples, please email your requirements to:

customerservices@chemtest.com



Amended Report

Report No.:	19-03913-4		
Initial Date of Issue:	12-Feb-2019	Date of Re-Issue:	22-Mar-2019
Client	Terra Firma (Wales) Ltd		
Client Address:	5 Deryn Court Wharfedale Road Pentwyn Cardiff CF23 7HA		
Contact(s):	Alan@terrafirmawales.co.uk		
Project	Tabernacle Terrace, Cwmafan		
Quotation No.:	Q18-15369	Date Received:	04-Feb-2019
Order No.:	14611AB	Date Instructed:	04-Feb-2019
No. of Samples:	8		
Turnaround (Wkdays):	32	Results Due:	19-Mar-2019
Date Approved:	22-Mar-2019		
Approved By:			
Details:	Martin Dyer, Laboratory Manager		

Project: **Tabernacle Terrace, Cwmafan**

Client: Terra Firma (Wales) Ltd	Chemtest Job No.: 19-03913											
Quotation No.: Q18-15369	Chemtest Sample ID.: 766594											
	Client Sample ID.: TP01											
	Sample Type: SOIL											
	Top Depth (m): 0.50											
	Date Sampled: 31-Jan-2019											
	Time Sampled: 0:00											
	Asbestos Lab: DURHAM											
Determinand	Accred.	SOP	Units	LOD								
ACM Type	U	2192		N/A	-	-	-	-	-	-	-	-
Asbestos Identification	U	2192	%	0.001	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected
ACM Detection Stage	U	2192		N/A	-	-	-	-	-	-	-	-
Moisture	N	2030	%	0.020	25	22	18	24	11	24	26	28
Soil Colour	N	2040		N/A	Black	Black	Black	Brown	Black	Black	Black	Black
Other Material	N	2040		N/A	Stones	Stones	Stones	Stones	Stones	Stones	Stones	Stones
Soil Texture	N	2040		N/A	Sand	Sand	Sand	Clay	Sand	Clay	Sand	Sand
pH	M	2010		N/A	8.1	8.3	8.2	7.2	8.4	7.7	7.9	8.0
Cyanide (Total)	M	2300	mg/kg	0.50	2.0	0.50	< 0.50	< 0.50	0.60	< 0.50	< 0.50	0.80
Sulphate (Acid Soluble)	M	2430	%	0.010	0.078	0.23	0.036	< 0.010	0.11	0.040	0.042	0.10
Arsenic	M	2450	mg/kg	1.0	33	33	23	7.0	35	13	24	43
Cadmium	M	2450	mg/kg	0.10	2.4	0.84	< 0.10	< 0.10	0.53	< 0.10	< 0.10	0.78
Chromium	M	2450	mg/kg	1.0	33	14	13	14	15	15	10	24
Mercury Low Level	M	2450	mg/kg	0.05	0.26	0.21	0.12	0.05	0.09	0.06	0.07	0.19
Copper	M	2450	mg/kg	0.50	180	63	100	9.0	210	29	130	110
Nickel	M	2450	mg/kg	0.50	65	31	32	16	32	20	37	32
Lead	M	2450	mg/kg	0.50	330	180	140	15	69	20	180	130
Selenium	M	2450	mg/kg	0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	0.63
Zinc	M	2450	mg/kg	0.50	950	250	67	36	110	52	69	620
Chromium (Trivalent)	N	2490	mg/kg	1.0	33	14	13	14	15	15	10	24
Chromium (Hexavalent)	N	2490	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Aliphatic TPH >C5-C6	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C6-C8	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C8-C10	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	10	< 1.0	< 1.0
Aliphatic TPH >C10-C12	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	28	< 1.0	< 1.0
Aliphatic TPH >C12-C16	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	67	< 1.0	< 1.0
Aliphatic TPH >C16-C21	M	2680	mg/kg	1.0	< 1.0	1.2	< 1.0	< 1.0	< 1.0	40	< 1.0	< 1.0
Aliphatic TPH >C21-C35	M	2680	mg/kg	1.0	55	12	81	< 1.0	23	16	< 1.0	42
Aliphatic TPH >C35-C44	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Total Aliphatic Hydrocarbons	N	2680	mg/kg	5.0	56	13	82	< 5.0	23	160	< 5.0	42
Aromatic TPH >C5-C7	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C7-C8	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C8-C10	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C10-C12	M	2680	mg/kg	1.0	< 1.0	< 1.0	1.6	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C12-C16	M	2680	mg/kg	1.0	< 1.0	< 1.0	5.4	< 1.0	< 1.0	18	< 1.0	< 1.0
Aromatic TPH >C16-C21	U	2680	mg/kg	1.0	9.0	30	36	< 1.0	17	4.1	< 1.0	13
Aromatic TPH >C21-C35	M	2680	mg/kg	1.0	120	710	260	< 1.0	390	< 1.0	< 1.0	140

Project: Tabernacle Terrace, Cwmafan

Client: Terra Firma (Wales) Ltd	Chemtest Job No.:				19-03913	19-03913	19-03913	19-03913	19-03913	19-03913	19-03913	19-03913
Quotation No.: Q18-15369	Chemtest Sample ID.:				766594	766595	766596	766597	766598	766599	766600	766601
	Client Sample ID.:				TP01	TP02	TP03	TP03	TP04	TP04	TP05	TP06
	Sample Type:				SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	Top Depth (m):				0.50	0.40	0.30	1.00	0.30	0.80	0.60	0.60
	Date Sampled:				31-Jan-2019	31-Jan-2019	31-Jan-2019	31-Jan-2019	31-Jan-2019	31-Jan-2019	31-Jan-2019	31-Jan-2019
	Time Sampled:				0:00	0:00	0:00	0:00	0:00	0:00	0:00	0:00
	Asbestos Lab:				DURHAM	DURHAM	DURHAM	DURHAM	DURHAM	DURHAM	DURHAM	DURHAM
Determinand	Accred.	SOP	Units	LOD								
Aromatic TPH >C35-C44	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Total Aromatic Hydrocarbons	N	2680	mg/kg	5.0	130	740	310	< 5.0	400	23	< 5.0	150
Total Petroleum Hydrocarbons	N	2680	mg/kg	10.0	180	760	390	< 10	430	180	< 10	190
Naphthalene	M	2700	mg/kg	0.10	1.3	0.74	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	1.0
Acenaphthylene	M	2700	mg/kg	0.10	0.70	0.20	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	0.64
Acenaphthene	M	2700	mg/kg	0.10	0.53	0.17	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	0.88
Fluorene	M	2700	mg/kg	0.10	0.50	0.17	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	1.2
Phenanthrene	M	2700	mg/kg	0.10	3.4	1.5	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	9.2
Anthracene	M	2700	mg/kg	0.10	0.73	0.24	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	1.6
Fluoranthene	M	2700	mg/kg	0.10	4.5	2.0	0.40	< 0.10	0.52	1.5	< 0.10	12
Pyrene	M	2700	mg/kg	0.10	4.6	2.0	0.43	< 0.10	0.55	1.5	< 0.10	9.2
Benzo[a]anthracene	M	2700	mg/kg	0.10	3.7	1.7	< 0.10	< 0.10	< 0.10	1.9	< 0.10	6.1
Chrysene	M	2700	mg/kg	0.10	3.3	1.7	< 0.10	< 0.10	< 0.10	1.0	< 0.10	6.6
Benzo[b]fluoranthene	M	2700	mg/kg	0.10	4.5	2.2	< 0.10	< 0.10	< 0.10	1.7	< 0.10	5.3
Benzo[k]fluoranthene	M	2700	mg/kg	0.10	1.5	0.89	< 0.10	< 0.10	< 0.10	0.79	< 0.10	2.3
Benzo[a]pyrene	M	2700	mg/kg	0.10	3.1	1.4	< 0.10	< 0.10	< 0.10	1.2	< 0.10	4.1
Indeno(1,2,3-c,d)Pyrene	M	2700	mg/kg	0.10	2.6	1.5	< 0.10	< 0.10	< 0.10	0.83	< 0.10	2.5
Dibenz(a,h)Anthracene	M	2700	mg/kg	0.10	2.2	0.72	< 0.10	< 0.10	< 0.10	1.3	< 0.10	1.4
Benzo[g,h,i]perylene	M	2700	mg/kg	0.10	3.0	1.7	< 0.10	< 0.10	< 0.10	1.4	< 0.10	2.3
Total Of 16 PAH's	M	2700	mg/kg	2.0	40	19	< 2.0	< 2.0	< 2.0	13	< 2.0	66
Dichlorodifluoromethane	U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Chloromethane	M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Vinyl Chloride	M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Bromomethane	M	2760	µg/kg	20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20
Chloroethane	U	2760	µg/kg	2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Trichlorofluoromethane	M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,1-Dichloroethene	M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Trans 1,2-Dichloroethene	N	2760	µg/kg	0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
1,1-Dichloroethane	M	2760	µg/kg	1.0	< 1.0	< 1.0	63	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
cis 1,2-Dichloroethene	M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,1,1-Trichloroethane	M	2760	µg/kg	1.0	< 1.0	< 1.0	120	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,1-Dichloropropene	U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Benzene	M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,2-Dichloroethane	M	2760	µg/kg	2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Trichloroethene	N	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,2-Dichloropropane	M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Dibromomethane	M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Bromodichloromethane	M	2760	µg/kg	5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0

Project: **Tabernacle Terrace, Cwmafan**

Client: Terra Firma (Wales) Ltd	Chemtest Job No.:											
Quotation No.: Q18-15369	Chemtest Sample ID.:											
	Client Sample ID.:											
	Sample Type:											
	Top Depth (m):											
	Date Sampled:											
	Time Sampled:											
	Asbestos Lab:											
Determinand	Accred.	SOP	Units	LOD								
cis-1,3-Dichloropropene	N	2760	µg/kg	10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
Toluene	M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Trans-1,3-Dichloropropene	N	2760	µg/kg	10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
1,1,2-Trichloroethane	M	2760	µg/kg	10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
Tetrachloroethene	M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,3-Dichloropropane	U	2760	µg/kg	2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Dibromochloromethane	U	2760	µg/kg	10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
1,2-Dibromoethane	M	2760	µg/kg	5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Chlorobenzene	M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,1,1,2-Tetrachloroethane	N	2760	µg/kg	0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
Ethylbenzene	M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
m & p-Xylene	M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
o-Xylene	M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Styrene	M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Isopropylbenzene	M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Bromobenzene	M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,2,3-Trichloropropane	N	2760	µg/kg	50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50
N-Propylbenzene	U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
2-Chlorotoluene	M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,3,5-Trimethylbenzene	M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
4-Chlorotoluene	U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Tert-Butylbenzene	U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,2,4-Trimethylbenzene	M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Sec-Butylbenzene	U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,3-Dichlorobenzene	M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
4-Isopropyltoluene	U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,4-Dichlorobenzene	M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
N-Butylbenzene	U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,2-Dichlorobenzene	M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,2-Dibromo-3-Chloropropane	U	2760	µg/kg	50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50
1,2,4-Trichlorobenzene	M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Hexachlorobutadiene	U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,2,3-Trichlorobenzene	U	2760	µg/kg	2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Carbon Disulphide	N	2760	µg/kg	50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50
Tertiary Butyl Methyl Ether (TBME)	N	2760	µg/kg	10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
Tetrahydrofuran	N	2760	µg/kg	10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
trans-1,4-Dichloro-2butene	N	2760	µg/kg	10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
Naphthalene	N	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0

Project: **Tabernacle Terrace, Cwmafan**

Client: Terra Firma (Wales) Ltd	Chemtest Job No.: 19-03913											
Quotation No.: Q18-15369	Chemtest Sample ID.: 766594											
	Client Sample ID.: TP01											
	Sample Type: SOIL											
	Top Depth (m): 0.50											
	Date Sampled: 31-Jan-2019											
	Time Sampled: 0:00											
	Asbestos Lab: DURHAM											
Determinand	Accred.	SOP	Units	LOD								
2-Hexanone	N	2760	µg/kg	10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
2-Nitropropane	N	2760	µg/kg	10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
4-Methyl-2-Pentanone (MIBK)	N	2760	µg/kg	10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
1,1,2,2-Tetrachloroethane	N	2760	µg/kg	2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Pentachloroethane	N	2760	µg/kg	10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
Ethyl Methacrylate	N	2760	µg/kg	2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Methyl Methacrylate	N	2760	µg/kg	2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Acetone	N	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Allyl Chloride	N	2760	µg/kg	10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
Bromoform	N	2760	µg/kg	10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
2-Butanone (MEK)	N	2760	µg/kg	10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
Carbon Tetrachloride	N	2760	µg/kg	10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
1-Chlorobutane	N	2760	µg/kg	10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
Chloroform	N	2760	µg/kg	10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
2,2-Dichloropropane	N	2760	µg/kg	10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
Diethyl Ether	N	2760	µg/kg	10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
Freon 113	N	2760	µg/kg	10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
Hexachloroethane	N	2760	µg/kg	10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
Methylene Chloride	N	2760	µg/kg	10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
N-Nitrosodimethylamine	M	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Phenol	M	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
2-Chlorophenol	M	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Bis-(2-Chloroethyl)Ether	M	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
1,3-Dichlorobenzene	M	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
1,4-Dichlorobenzene	N	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
1,2-Dichlorobenzene	M	2790	mg/kg	0.50	1.9	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
2-Methylphenol	M	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Bis(2-Chloroisopropyl)Ether	M	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Hexachloroethane	N	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
N-Nitrosodi-n-propylamine	M	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
4-Methylphenol	M	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Nitrobenzene	M	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Isophorone	M	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
2-Nitrophenol	N	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
2,4-Dimethylphenol	N	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Bis(2-Chloroethoxy)Methane	M	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
2,4-Dichlorophenol	M	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
1,2,4-Trichlorobenzene	M	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50

Project: **Tabernacle Terrace, Cwmafan**

Client: Terra Firma (Wales) Ltd	Chemtest Job No.:				19-03913	19-03913	19-03913	19-03913	19-03913	19-03913	19-03913	19-03913
Quotation No.: Q18-15369	Chemtest Sample ID.:				766594	766595	766596	766597	766598	766599	766600	766601
	Client Sample ID.:				TP01	TP02	TP03	TP03	TP04	TP04	TP05	TP06
	Sample Type:				SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	Top Depth (m):				0.50	0.40	0.30	1.00	0.30	0.80	0.60	0.60
	Date Sampled:				31-Jan-2019	31-Jan-2019	31-Jan-2019	31-Jan-2019	31-Jan-2019	31-Jan-2019	31-Jan-2019	31-Jan-2019
	Time Sampled:				0:00	0:00	0:00	0:00	0:00	0:00	0:00	0:00
	Asbestos Lab:				DURHAM	DURHAM	DURHAM	DURHAM	DURHAM	DURHAM	DURHAM	DURHAM
Determinand	Accred.	SOP	Units	LOD								
Naphthalene	M	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
4-Chloroaniline	N	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Hexachlorobutadiene	M	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
4-Chloro-3-Methylphenol	M	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
2-Methylnaphthalene	M	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Hexachlorocyclopentadiene	N	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
2,4,6-Trichlorophenol	M	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
2,4,5-Trichlorophenol	M	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
2-Chloronaphthalene	M	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
2-Nitroaniline	M	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Acenaphthylene	M	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Dimethylphthalate	M	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
2,6-Dinitrotoluene	M	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Acenaphthene	M	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Acetophenone	N	2790	mg/kg	0.075	< 0.075	< 0.075	< 0.075	< 0.075	< 0.075	< 0.075	< 0.075	< 0.075
2-Acetylaminofluorene	N	2790	mg/kg	0.075	< 0.075	< 0.075	< 0.075	< 0.075	< 0.075	< 0.075	< 0.075	< 0.075
4-Aminobiphenyl	N	2790	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Aniline	N	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Chlorobenzilate	N	2790	mg/kg	0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13
m/p-Cresol	N	2790	mg/kg	0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13
o-Cresol	N	2790	mg/kg	0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13
Diallate cis/trans	N	2790	mg/kg	0.075	< 0.075	< 0.075	< 0.075	< 0.075	< 0.075	< 0.075	< 0.075	< 0.075
3,3-Dichlorobenzidine	N	2790	mg/kg	0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
Diphenylamine	N	2790	mg/kg	0.075	< 0.075	< 0.075	< 0.075	< 0.075	< 0.075	< 0.075	< 0.075	< 0.075
m-Dinitrobenzene	N	2790	mg/kg	0.075	< 0.075	< 0.075	< 0.075	< 0.075	< 0.075	< 0.075	< 0.075	< 0.075
Ethyl methane sulfonate	N	2790	mg/kg	0.075	< 0.075	< 0.075	< 0.075	< 0.075	< 0.075	< 0.075	< 0.075	< 0.075
Hexachloropropene	N	2790	mg/kg	0.075	< 0.075	< 0.075	< 0.075	< 0.075	< 0.075	< 0.075	< 0.075	< 0.075
Isodrin	N	2790	mg/kg	0.075	< 0.075	< 0.075	< 0.075	< 0.075	< 0.075	< 0.075	< 0.075	< 0.075
Isosafrole cis/trans	N	2790	mg/kg	0.075	< 0.075	< 0.075	< 0.075	< 0.075	< 0.075	< 0.075	< 0.075	< 0.075
Dibenzofuran	M	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
4-Chlorophenylphenylether	M	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
2,4-Dinitrotoluene	M	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Fluorene	M	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Diethyl Phthalate	M	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
4-Nitroaniline	M	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
2-Methyl-4,6-Dinitrophenol	N	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	1.5	< 0.50	< 0.50
Azobenzene	M	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
4-Bromophenylphenyl Ether	M	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50

Project: Tabernacle Terrace, Cwmafan

Client: Terra Firma (Wales) Ltd	Chemtest Job No.:					19-03913	19-03913	19-03913	19-03913	19-03913	19-03913	19-03913
Quotation No.: Q18-15369	Chemtest Sample ID.:					766594	766595	766596	766597	766598	766599	766600
	Client Sample ID.:					TP01	TP02	TP03	TP03	TP04	TP04	TP05
	Sample Type:					SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	Top Depth (m):					0.50	0.40	0.30	1.00	0.30	0.80	0.60
	Date Sampled:					31-Jan-2019	31-Jan-2019	31-Jan-2019	31-Jan-2019	31-Jan-2019	31-Jan-2019	31-Jan-2019
	Time Sampled:					0:00	0:00	0:00	0:00	0:00	0:00	0:00
	Asbestos Lab:					DURHAM	DURHAM	DURHAM	DURHAM	DURHAM	DURHAM	DURHAM
Determinand	Accred.	SOP	Units	LOD								
Hexachlorobenzene	M	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Pentachlorophenol	N	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Phenanthrene	M	2790	mg/kg	0.50	1.0	1.7	1.5	< 0.50	0.58	< 0.50	< 0.50	1.4
Anthracene	M	2790	mg/kg	0.50	< 0.50	0.95	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Carbazole	M	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Di-N-Butyl Phthalate	M	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Fluoranthene	M	2790	mg/kg	0.50	2.0	4.6	2.7	< 0.50	1.1	< 0.50	< 0.50	2.8
Pyrene	M	2790	mg/kg	0.50	2.3	4.2	2.3	< 0.50	1.2	< 0.50	< 0.50	2.4
Butylbenzyl Phthalate	M	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Benzo[a]anthracene	M	2790	mg/kg	0.50	1.5	2.9	1.8	< 0.50	0.90	< 0.50	< 0.50	1.5
Chrysene	M	2790	mg/kg	0.50	2.3	3.1	1.8	< 0.50	1.1	< 0.50	< 0.50	1.8
Bis(2-Ethylhexyl)Phthalate	N	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Di-N-Octyl Phthalate	M	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Benzo[b]fluoranthene	M	2790	mg/kg	0.50	3.8	4.4	2.2	< 0.50	1.6	< 0.50	< 0.50	1.7
Benzo[k]fluoranthene	M	2790	mg/kg	0.50	1.7	1.9	0.80	< 0.50	0.67	< 0.50	< 0.50	0.72
Benzo[a]pyrene	M	2790	mg/kg	0.50	2.7	2.8	1.2	< 0.50	1.0	< 0.50	< 0.50	1.0
Indeno(1,2,3-c,d)Pyrene	M	2790	mg/kg	0.50	2.0	2.3	0.98	< 0.50	0.88	< 0.50	< 0.50	< 0.50
Dibenz(a,h)Anthracene	M	2790	mg/kg	0.50	0.67	0.74	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Benzo[g,h,i]perylene	M	2790	mg/kg	0.50	2.5	2.7	1.1	< 0.50	1.1	< 0.50	< 0.50	< 0.50
Methyl Methane sulfonate	N	2790	mg/kg	0.075	< 0.075	< 0.075	< 0.075	< 0.075	< 0.075	< 0.075	< 0.075	< 0.075
Methyl parathion	N	2790	mg/kg	0.075	< 0.075	< 0.075	< 0.075	< 0.075	< 0.075	< 0.075	< 0.075	< 0.075
N-Nitrosodi-n-butylamine	N	2790	mg/kg	0.075	< 0.075	< 0.075	< 0.075	< 0.075	< 0.075	< 0.075	< 0.075	< 0.075
N-Nitrosodiethylamine	N	2790	mg/kg	0.075	< 0.075	< 0.075	< 0.075	< 0.075	< 0.075	< 0.075	< 0.075	< 0.075
N-Nitrosomorpholine	N	2790	mg/kg	0.075	< 0.075	< 0.075	< 0.075	< 0.075	< 0.075	< 0.075	< 0.075	< 0.075
N-Nitrosopiperidine	N	2790	mg/kg	0.075	< 0.075	< 0.075	< 0.075	< 0.075	< 0.075	< 0.075	< 0.075	< 0.075
N-Nitrosopyrrolidine	N	2790	mg/kg	0.075	< 0.075	< 0.075	< 0.075	< 0.075	< 0.075	< 0.075	< 0.075	< 0.075
5-Nitro-o-toluidine	N	2790	mg/kg	0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25
Pentachlorobenzene	N	2790	mg/kg	5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Phenacetin	N	2790	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Pronamide	N	2790	mg/kg	0.075	< 0.075	< 0.075	< 0.075	< 0.075	< 0.075	< 0.075	< 0.075	< 0.075
Safrole	N	2790	mg/kg	0.075	< 0.075	< 0.075	< 0.075	< 0.075	< 0.075	< 0.075	< 0.075	< 0.075
1,2,3,5-Tetrachlorobenzene	N	2790	mg/kg	0.075	< 0.075	< 0.075	< 0.075	< 0.075	< 0.075	< 0.075	< 0.075	< 0.075
Disulfoton	N	2790	mg/kg	0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
Dinoseb	N	2790	mg/kg	0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050
Benzyl Alcohol	N	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Thionazin	N	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
o-Toluidine	N	2790	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
o,o,o-Triethyl phosphorothioate	N	2790	mg/kg	0.075	< 0.075	< 0.075	< 0.075	< 0.075	< 0.075	< 0.075	< 0.075	< 0.075

Results - Soil

Project: **Tabernacle Terrace, Cwmafan**

Client: Terra Firma (Wales) Ltd	Chemtest Job No.: 19-03913											
Quotation No.: Q18-15369	Chemtest Sample ID.: 766594											
	Client Sample ID.: TP01											
	Sample Type: SOIL											
	Top Depth (m): 0.50											
	Date Sampled: 31-Jan-2019											
	Time Sampled: 0:00											
	Asbestos Lab: DURHAM											
Determinand	Accred.	SOP	Units	LOD								
1,3,5-Trinitrobenzene	N	2790	mg/kg	0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13
Total PCBs (7 congeners)	N	2815	mg/kg	0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010
Phorate	N	2820	mg/kg	0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
Dimethoate	N	2820	mg/kg	0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
Parathion	N	2820	mg/kg	0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
Alpha-HCH	N	2840	mg/kg	0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
Gamma-HCH (Lindane)	N	2840	mg/kg	0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
Beta-HCH	N	2840	mg/kg	0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
Delta-HCH	N	2840	mg/kg	0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
Heptachlor	N	2840	mg/kg	0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
Aldrin	N	2840	mg/kg	0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
Heptachlor Epoxide	N	2840	mg/kg	0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
4,4-DDE	N	2840	mg/kg	0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
Dieldrin	N	2840	mg/kg	0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
Endrin	N	2840	mg/kg	0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
4,4-DDD	N	2840	mg/kg	0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
4,4-DDT	N	2840	mg/kg	0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
Endosulfan Sulphate	N	2840	mg/kg	0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
Methoxychlor	N	2840	mg/kg	0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
2,3,4,6-Tetrachlorophenol	N	2900	mg/kg	0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
Total Phenols	M	2920	mg/kg	0.30	< 0.30	< 0.30	< 0.30	< 0.30	< 0.30	< 0.30	< 0.30	< 0.30
Organic Matter BS1377	N	2930	%	0.10	2.3	3.3	3.5	1.7	2.6	2.3	3.2	3.3

Results - 2 Stage WAC

Project: Tabernacle Terrace, Cwmafan

Chemtest Job No: 19-03913							Landfill Waste Acceptance Criteria			
Chemtest Sample ID: 766594							Limits			
Sample Ref: TP01							Inert Waste Landfill	Stable, Non-reactive hazardous waste in non-hazardous Landfill	Hazardous Waste Landfill	
Sample ID: TP01										
Sample Location: 0.50										
Top Depth(m): 0.50										
Bottom Depth(m):										
Sampling Date: 31-Jan-2019										
Determinand	SOP	Accred.	Units							
Total Organic Carbon	2625	M	%				14	3	5	6
Loss On Ignition	2610	M	%				22	--	--	10
Total BTEX	2760	M	mg/kg				< 0.010	6	--	--
Total PCBs (7 Congeners)	2815	M	mg/kg				< 0.10	1	--	--
TPH Total WAC (Mineral Oil)	2670	M	mg/kg				180	500	--	--
Total (Of 17) PAH's	2700	N	mg/kg				40	100	--	--
pH	2010	M					8.1	--	>6	--
Acid Neutralisation Capacity	2015	N	mol/kg				0.021	--	To evaluate	To evaluate
Eluate Analysis			2:1 mg/l	8:1 mg/l	2:1 mg/kg	Cumulative mg/kg 10:1	Limit values for compliance leaching test using BS EN 12457 at L/S 10 l/kg			
Arsenic	1450	U	0.0018	0.0016	< 0.050	< 0.050	0.5	2	25	
Barium	1450	U	0.039	0.045	< 0.50	< 0.50	20	100	300	
Cadmium	1450	U	< 0.00010	< 0.00010	< 0.010	< 0.010	0.04	1	5	
Chromium	1450	U	< 0.0010	< 0.0010	< 0.050	< 0.050	0.5	10	70	
Copper	1450	U	0.0081	0.0077	< 0.050	< 0.050	2	50	100	
Mercury	1450	U	< 0.00050	< 0.00050	< 0.0010	< 0.0050	0.01	0.2	2	
Molybdenum	1450	U	0.015	0.0075	< 0.050	0.094	0.5	10	30	
Nickel	1450	U	0.0099	< 0.0010	< 0.050	< 0.050	0.4	10	40	
Lead	1450	U	< 0.0010	0.0062	< 0.010	0.045	0.5	10	50	
Antimony	1450	U	0.0038	0.0023	< 0.010	0.027	0.06	0.7	5	
Selenium	1450	U	< 0.0010	< 0.0010	< 0.010	< 0.010	0.1	0.5	7	
Zinc	1450	U	0.0049	0.011	< 0.50	< 0.50	4	50	200	
Chloride	1220	U	5.7	3.0	11	37	800	15000	25000	
Fluoride	1220	U	0.43	0.25	< 1.0	2.9	10	150	500	
Sulphate	1220	U	25	21	48	220	1000	20000	50000	
Total Dissolved Solids	1020	N	190	160	360	1700	4000	60000	100000	
Phenol Index	1920	U	< 0.030	< 0.030	< 0.30	< 0.50	1	-	-	
Dissolved Organic Carbon	1610	U	18	9.8	< 50	120	500	800	1000	

Solid Information	
Dry mass of test portion/kg	0.090
Moisture (%)	25

Leachate Test Information	
Leachant volume 1st extract/l	0.149
Leachant volume 2nd extract/l	0.720
Eluant recovered from 1st extract/l	0.232

Waste Acceptance Criteria

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

Results - 2 Stage WAC

Project: Tabernacle Terrace, Cwmafan

Chemtest Job No: 19-03913							Landfill Waste Acceptance Criteria		
Chemtest Sample ID: 766601							Limits		
Sample Ref: TP06							Inert Waste Landfill	Stable, Non-reactive hazardous waste in non-hazardous Landfill	Hazardous Waste Landfill
Sample ID: TP06									
Sample Location: 0.60									
Top Depth(m): 0.60									
Bottom Depth(m):									
Sampling Date: 31-Jan-2019									
Determinand	SOP	Accred.	Units						
Total Organic Carbon	2625	M	%				23		
Loss On Ignition	2610	M	%				13		
Total BTEX	2760	M	mg/kg				< 0.010		
Total PCBs (7 Congeners)	2815	M	mg/kg				< 0.10		
TPH Total WAC (Mineral Oil)	2670	M	mg/kg				190		
Total (Of 17) PAH's	2700	N	mg/kg				66		
pH	2010	M					8.0		
Acid Neutralisation Capacity	2015	N	mol/kg	0.049			--	To evaluate	To evaluate
Eluate Analysis			2:1 mg/l	8:1 mg/l	2:1 mg/kg	Cumulative mg/kg 10:1	Limit values for compliance leaching test using BS EN 12457 at L/S 10 l/kg		
Arsenic	1450	U	0.0023	0.0027	< 0.050	< 0.050	0.5	2	25
Barium	1450	U	0.015	0.0091	< 0.50	< 0.50	20	100	300
Cadmium	1450	U	< 0.00010	< 0.00010	< 0.010	< 0.010	0.04	1	5
Chromium	1450	U	< 0.0010	< 0.0010	< 0.050	< 0.050	0.5	10	70
Copper	1450	U	0.0016	0.0020	< 0.050	< 0.050	2	50	100
Mercury	1450	U	< 0.00050	< 0.00050	< 0.0010	< 0.0050	0.01	0.2	2
Molybdenum	1450	U	0.0079	0.0036	< 0.050	< 0.050	0.5	10	30
Nickel	1450	U	< 0.0010	< 0.0010	< 0.050	< 0.050	0.4	10	40
Lead	1450	U	< 0.0010	< 0.0010	< 0.010	< 0.010	0.5	10	50
Antimony	1450	U	0.0031	0.0016	< 0.010	0.020	0.06	0.7	5
Selenium	1450	U	0.0016	< 0.0010	< 0.010	< 0.010	0.1	0.5	7
Zinc	1450	U	0.0045	0.0030	< 0.50	< 0.50	4	50	200
Chloride	1220	U	3.2	1.6	< 10	20	800	15000	25000
Fluoride	1220	U	0.72	0.62	1.4	6.4	10	150	500
Sulphate	1220	U	44	19	83	260	1000	20000	50000
Total Dissolved Solids	1020	N	190	120	360	1400	4000	60000	100000
Phenol Index	1920	U	< 0.030	< 0.030	< 0.30	< 0.50	1	-	-
Dissolved Organic Carbon	1610	U	10	8.1	< 50	86	500	800	1000

Solid Information	
Dry mass of test portion/kg	0.090
Moisture (%)	28

Leachate Test Information	
Leachant volume 1st extract/l	0.146
Leachant volume 2nd extract/l	0.720
Eluant recovered from 1st extract/l	0.251

Waste Acceptance Criteria

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

SOP	Title	Parameters included	Method summary
1020	Electrical Conductivity and Total Dissolved Solids (TDS) in Waters	Electrical Conductivity and Total Dissolved Solids (TDS) in Waters	Conductivity Meter
1220	Anions, Alkalinity & Ammonium in Waters	Fluoride; Chloride; Nitrite; Nitrate; Total; Oxidisable Nitrogen (TON); Sulfate; Phosphate; Alkalinity; Ammonium	Automated colorimetric analysis using 'Aquakem 600' Discrete Analyser.
1450	Metals in Waters by ICP-MS	Metals, including: Antimony; Arsenic; Barium; Beryllium; Boron; Cadmium; Chromium; Cobalt; Copper; Lead; Manganese; Mercury; Molybdenum; Nickel; Selenium; Tin; Vanadium; Zinc	Filtration of samples followed by direct determination by inductively coupled plasma mass spectrometry (ICP-MS).
1610	Total/Dissolved Organic Carbon in Waters	Organic Carbon	TOC Analyser using Catalytic Oxidation
1920	Phenols in Waters by HPLC	Phenolic compounds including: Phenol, Cresols, Xylenols, Trimethylphenols Note: Chlorophenols are excluded.	Determination by High Performance Liquid Chromatography (HPLC) using electrochemical detection.
2010	pH Value of Soils	pH	pH Meter
2015	Acid Neutralisation Capacity	Acid Reserve	Titration
2030	Moisture and Stone Content of Soils(Requirement of MCERTS)	Moisture content	Determination of moisture content of soil as a percentage of its as received mass obtained at <37°C.
2040	Soil Description(Requirement of MCERTS)	Soil description	As received soil is described based upon BS5930
2120	Water Soluble Boron, Sulphate, Magnesium & Chromium	Boron; Sulphate; Magnesium; Chromium	Aqueous extraction / ICP-OES
2192	Asbestos	Asbestos	Polarised light microscopy / Gravimetry
2300	Cyanides & Thiocyanate in Soils	Free (or easy liberatable) Cyanide; total Cyanide; complex Cyanide; Thiocyanate	Alkaline extraction followed by colorimetric determination using Automated Flow Injection Analyser.
2430	Total Sulphate in soils	Total Sulphate	Acid digestion followed by determination of sulphate in extract by ICP-OES.
2450	Acid Soluble Metals in Soils	Metals, including: Arsenic; Barium; Beryllium; Cadmium; Chromium; Cobalt; Copper; Lead; Manganese; Mercury; Molybdenum; Nickel; Selenium; Vanadium; Zinc	Acid digestion followed by determination of metals in extract by ICP-MS.
2490	Hexavalent Chromium in Soils	Chromium [VI]	Soil extracts are prepared by extracting dried and ground soil samples into boiling water. Chromium [VI] is determined by 'Aquakem 600' Discrete Analyser using 1,5-diphenylcarbazide.
2610	Loss on Ignition	loss on ignition (LOI)	Determination of the proportion by mass that is lost from a soil by ignition at 550°C.
2625	Total Organic Carbon in Soils	Total organic Carbon (TOC)	Determined by high temperature combustion under oxygen, using an Eltra elemental analyser.
2670	Total Petroleum Hydrocarbons (TPH) in Soils by GC-FID	TPH (C6–C40); optional carbon banding, e.g. 3-band – GRO, DRO & LRO*TPH C8–C40	Dichloromethane extraction / GC-FID
2680	TPH A/A Split	Aliphatics: >C5–C6, >C6–C8,>C8–C10, >C10–C12, >C12–C16, >C16–C21, >C21–C35, >C35– C44Aromatics: >C5–C7, >C7–C8, >C8– C10, >C10–C12, >C12–C16, >C16– C21, >C21– C35, >C35– C44	Dichloromethane extraction / GCxGC FID detection

SOP	Title	Parameters included	Method summary
2700	Speciated Polynuclear Aromatic Hydrocarbons (PAH) in Soil by GC-FID	Acenaphthene; Acenaphthylene; Anthracene; Benzo[a]Anthracene; Benzo[a]Pyrene; Benzo[b]Fluoranthene; Benzo[ghi]Perylene; Benzo[k]Fluoranthene; Chrysene; Dibenzo[ah]Anthracene; Fluoranthene; Fluorene; Indeno[123cd]Pyrene; Naphthalene; Phenanthrene; Pyrene	Dichloromethane extraction / GC-FID (GC-FID detection is non-selective and can be subject to interference from co-eluting compounds)
2760	Volatile Organic Compounds (VOCs) in Soils by Headspace GC-MS	Volatile organic compounds, including BTEX and halogenated Aliphatic/Aromatics.(cf. USEPA Method 8260)*please refer to UKAS schedule	Automated headspace gas chromatographic (GC) analysis of a soil sample, as received, with mass spectrometric (MS) detection of volatile organic compounds.
2790	Semi-Volatile Organic Compounds (SVOCs) in Soils by GC-MS	Semi-volatile organic compounds(cf. USEPA Method 8270)	Acetone/Hexane extraction / GC-MS
2815	Polychlorinated Biphenyls (PCB) ICES7Congeners in Soils by GC-MS	ICES7 PCB congeners	Acetone/Hexane extraction / GC-MS
2820	Organophosphorus (O-P) Pesticides in Soils by GC-MS	Organophosphorus pesticide representative suite including Parathion, Malathion etc, plus client specific determinands	Dichloromethane extraction / GC-MS
2840	Organochlorine (O-Cl) Pesticides in Soils by GC-MS	Organochlorine pesticide representative suite including DDT and its metabolites, 'drins' and HCH etc, plus client specific determinands	Dichloromethane extraction / GC-MS
2900	Phenols in Soils by GC-MS	Approximately 24 substituted Phenols, including Chlorophenols	Dichloromethane extraction / GC-MS
2920	Phenols in Soils by HPLC	Phenolic compounds including Resorcinol, Phenol, Methylphenols, Dimethylphenols, 1-Naphthol and TrimethylphenolsNote: chlorophenols are excluded.	60:40 methanol/water mixture extraction, followed by HPLC determination using electrochemical detection.
2930	Organic Matter	Organic Matter	Acid Dichromate digestion/Titration
640	Characterisation of Waste (Leaching)	Waste material including soil, sludges and granular waste	ComplianceTest for Leaching of Granular Waste Material and Sludge

Report Information

Key

- U UKAS accredited
- M MCERTS and UKAS accredited
- N Unaccredited
- S This analysis has been subcontracted to a UKAS accredited laboratory that is accredited for this analysis
- SN This analysis has been subcontracted to a UKAS accredited laboratory that is not accredited for this analysis
- T This analysis has been subcontracted to an unaccredited laboratory
- I/S Insufficient Sample
- U/S Unsuitable Sample
- N/E not evaluated
- < "less than"
- > "greater than"

Comments or interpretations are beyond the scope of UKAS accreditation

The results relate only to the items tested

Uncertainty of measurement for the determinands tested are available upon request

None of the results in this report have been recovery corrected

All results are expressed on a dry weight basis

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

For all other tests the samples were dried at < 37°C prior to analysis

All Asbestos testing is performed at the indicated laboratory

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

Sample Deviation Codes

- A - Date of sampling not supplied
- B - Sample age exceeds stability time (sampling to extraction)
- C - Sample not received in appropriate containers
- D - Broken Container
- E - Insufficient Sample (Applies to LOI in Trommel Fines Only)

Sample Retention and Disposal

All soil samples will be retained for a period of 45 days from the date of receipt

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

Charges may apply to extended sample storage

If you require extended retention of samples, please email your requirements to:

customerservices@chemtest.com



Amended Report

Report No.: 24-07635-2

Initial Date of Issue: 25-Mar-2024 **Date of Re-Issue:** 21-Nov-2024

Re-Issue Details: This report has been revised and directly supersedes 24-07635-1 in its entirety

Client: Terra Firma

Client Address: 5 Deryn Court
Wharfedale Road
Pentwyn
Cardiff
CF23 7HA

Contact(s): j.mcananey@tfwgroup.co.uk

Project: 14611 Tabernacle Terrace 2024

Quotation No.: **Date Received:** 12-Mar-2024

Order No.: 14611 TABERNACLE TERRACE 2024 **Date Instructed:** 12-Mar-2024

No. of Samples: 4

Turnaround (Wkdays): 5 **Results Due:** 18-Mar-2024

Date Approved: 25-Mar-2024

Approved By:

Details: David Smith, Technical Director

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

Results - Soil

Project: 14611 Tabernacle Terrace 2024

Client: Terra Firma		Chemtest Job No.:		24-07635	24-07635	24-07635	24-07635
Quotation No.:		Chemtest Sample ID.:		1778875	1778876	1778877	1778878
Order No.: 14611 TABERNACLE TERRACE 2024		Client Sample Ref.:		TP07 0.40	TP07 0.80	TP08 0.20	TP08 1.00
		Client Sample ID.:		TP07 0.40	TP07 0.80	TP08 0.20	TP08 1.00
		Sample Location:		TP07 0.40	TP07 0.80	TP08 0.20	TP08 1.00
		Sample Type:		SOIL	SOIL	SOIL	SOIL
		Top Depth (m):		0.40	0.80	0.20	1.00
		Date Sampled:		08-Mar-2024	08-Mar-2024	08-Mar-2024	08-Mar-2024
		Time Sampled:		12:00	12:00	12:00	12:00
		Asbestos Lab:		DURHAM	DURHAM	DURHAM	DURHAM
Determinand	HWOL Code	Accred.	SOP	Units	LOD		
ACM Type		U	2192		N/A	-	-
Asbestos Identification		U	2192		N/A	No Asbestos Detected	No Asbestos Detected
Moisture		N	2030	%	0.020	8.4	49
Soil Colour		N	2040		N/A	Brown	Brown
Other Material		N	2040		N/A	Stones	Stones
Soil Texture		N	2040		N/A	Sand	Sand
pH at 20C		M	2010		4.0	8.9	8.0
Boron (Hot Water Soluble)		M	2120	mg/kg	0.40	0.67	0.60
Cyanide (Complex)		M	2300	mg/kg	0.50	< 0.50	0.70
Cyanide (Free)		M	2300	mg/kg	0.50	< 0.50	< 0.50
Cyanide (Total)		M	2300	mg/kg	0.50	< 0.50	0.70
Sulphate (Acid Soluble)		U	2430	%	0.010	0.12	0.10
Arsenic		M	2455	mg/kg	0.5	28	18
Beryllium		U	2455	mg/kg	0.5	0.6	< 0.5
Cadmium		M	2455	mg/kg	0.10	0.48	< 0.10
Chromium		M	2455	mg/kg	0.5	21	8.6
Mercury Low Level		N	2450	mg/kg	0.05	0.20	0.08
Manganese		M	2455	mg/kg	1.0	620	400
Molybdenum		M	2455	mg/kg	0.5	4.4	2.2
Antimony		N	2455	mg/kg	2.0	5.3	3.1
Copper		M	2455	mg/kg	0.50	98	21
Nickel		M	2455	mg/kg	0.50	99	14
Lead		M	2455	mg/kg	0.50	210	170
Selenium		M	2455	mg/kg	0.25	0.76	2.4
Zinc		M	2455	mg/kg	0.50	260	150
Chromium (Trivalent)		N	2490	mg/kg	1.0	21	8.6
Chromium (Hexavalent)		N	2490	mg/kg	0.50	< 0.50	< 0.50
Aliphatic VPH >C5-C6	HS_2D_AL	U	2780	mg/kg	0.05	< 0.05	< 0.05
Aliphatic VPH >C6-C7	HS_2D_AL	U	2780	mg/kg	0.05	< 0.05	< 0.05
Aliphatic VPH >C7-C8	HS_2D_AL	U	2780	mg/kg	0.05	< 0.05	< 0.05
Aliphatic VPH >C6-C8 (Sum)	HS_2D_AL	N	2780	mg/kg	0.10	< 0.10	< 0.10
Aliphatic VPH >C8-C10	HS_2D_AL	U	2780	mg/kg	0.05	< 0.05	< 0.05
Total Aliphatic VPH >C5-C10	HS_2D_AL	U	2780	mg/kg	0.25	< 0.25	< 0.25
Aliphatic EPH >C10-C12 MC	EH_2D_AL_#1	M	2690	mg/kg	2.00	5.8	12
Aliphatic EPH >C12-C16 MC	EH_2D_AL_#1	M	2690	mg/kg	1.00	1.6	2.6

Results - Soil

Project: 14611 Tabernacle Terrace 2024

Client: Terra Firma		Chemtest Job No.:				24-07635	24-07635	24-07635	24-07635
Quotation No.:		Chemtest Sample ID.:				1778875	1778876	1778877	1778878
Order No.: 14611 TABERNACLE TERRACE 2024		Client Sample Ref.:				TP07 0.40	TP07 0.80	TP08 0.20	TP08 1.00
		Client Sample ID.:				TP07 0.40	TP07 0.80	TP08 0.20	TP08 1.00
		Sample Location:				TP07 0.40	TP07 0.80	TP08 0.20	TP08 1.00
		Sample Type:				SOIL	SOIL	SOIL	SOIL
		Top Depth (m):				0.40	0.80	0.20	1.00
		Date Sampled:				08-Mar-2024	08-Mar-2024	08-Mar-2024	08-Mar-2024
		Time Sampled:				12:00	12:00	12:00	12:00
		Asbestos Lab:				DURHAM	DURHAM	DURHAM	DURHAM
Determinand	HWOL Code	Accred.	SOP	Units	LOD				
Aliphatic EPH >C16-C21 MC	EH_2D_AL_#1	M	2690	mg/kg	2.00	< 2.0	< 2.0	< 2.0	< 2.0
Aliphatic EPH >C21-C35 MC	EH_2D_AL_#1	M	2690	mg/kg	3.00	3.5	9.0	5.3	< 3.0
Aliphatic EPH >C35-C40 MC	EH_2D_AL_#1	N	2690	mg/kg	10.00	< 10	< 10	< 10	< 10
Total Aliphatic EPH >C10-C35 MC	EH_2D_AL_#1	M	2690	mg/kg	5.00	11	25	20	7.2
Total Aliphatic EPH >C10-C40 MC	EH_2D_AL_#1	N	2690	mg/kg	10.00	11	25	20	< 10
Aromatic VPH >C5-C7	HS_2D_AR	U	2780	mg/kg	0.05	< 0.05	< 0.05	< 0.05	< 0.05
Aromatic VPH >C7-C8	HS_2D_AR	U	2780	mg/kg	0.05	< 0.05	< 0.05	< 0.05	< 0.05
Aromatic VPH >C8-C10	HS_2D_AR	U	2780	mg/kg	0.05	< 0.05	< 0.05	< 0.05	< 0.05
Total Aromatic VPH >C5-C10	HS_2D_AR	U	2780	mg/kg	0.25	< 0.25	< 0.25	< 0.25	< 0.25
Aromatic EPH >C10-C12 MC	EH_2D_AR_#1	U	2690	mg/kg	1.00	< 1.0	< 1.0	2.3	< 1.0
Aromatic EPH >C12-C16 MC	EH_2D_AR_#1	U	2690	mg/kg	1.00	< 1.0	< 1.0	55	< 1.0
Aromatic EPH >C16-C21 MC	EH_2D_AR_#1	U	2690	mg/kg	2.00	2.5	< 2.0	470	< 2.0
Aromatic EPH >C21-C35 MC	EH_2D_AR_#1	U	2690	mg/kg	2.00	12	5.6	690	2.2
Aromatic EPH >C35-C40 MC	EH_2D_AR_#1	N	2690	mg/kg	1.00	11	2.1	99	1.0
Total Aromatic EPH >C10-C35 MC	EH_2D_AR_#1	U	2690	mg/kg	5.00	14	5.6	1200	< 5.0
Total Aromatic EPH >C10-C40 MC	EH_2D_AR_#1	N	2690	mg/kg	10.00	25	< 10	1300	< 10
Total VPH >C5-C10	HS_2D_Total	U	2780	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50
Total EPH >C10-C35 MC	EH_2D_Total_#1	U	2690	mg/kg	10.00	26	30	1200	11
Total EPH >C10-C40 MC	EH_2D_Total_#1	N	2690	mg/kg	10.00	36	32	1300	12
Aliphatic TPH >C5-C6	EH_2D_AL_#1	N	2680	mg/kg	0.010	< 0.010	< 0.010	< 0.010	< 0.010
Aliphatic TPH >C6-C8	EH_2D_AL_#1	N	2680	mg/kg	0.010	< 0.010	< 0.010	< 0.010	< 0.010
Aliphatic TPH >C8-C10	EH_2D_AL_#1	N	2680	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10
Aliphatic TPH >C10-C12	EH_2D_AL_#1	N	2680	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10
Aliphatic TPH >C12-C16	EH_2D_AL_#1	N	2680	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10
Aliphatic TPH >C16-C21	EH_2D_AL_#1	N	2680	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10
Aliphatic TPH >C21-C35	EH_2D_AL_#1	N	2680	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10
Aliphatic TPH >C35-C44	EH_2D_AL_#1	N	2680	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10
Total Aliphatic Hydrocarbons		N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C5-C7	EH_2D_AR_#1	N	2680	mg/kg	0.010	< 0.010	< 0.010	< 0.010	< 0.010
Aromatic TPH >C7-C8	EH_2D_AR_#1	N	2680	mg/kg	0.010	< 0.010	< 0.010	< 0.010	< 0.010
Aromatic TPH >C8-C10	EH_2D_AR_#1	N	2680	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10
Aromatic TPH >C10-C12	EH_2D_AR_#1	N	2680	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10
Aromatic TPH >C12-C16	EH_2D_AR_#1	N	2680	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10
Aromatic TPH >C16-C21	EH_2D_AR_#1	N	2680	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10
Aromatic TPH >C21-C35	EH_2D_AR_#1	N	2680	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10
Aromatic TPH >C35-C44	EH_2D_AR_#1	N	2680	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10

Results - Soil

Project: 14611 Tabernacle Terrace 2024

Client: Terra Firma		Chemtest Job No.:		24-07635	24-07635	24-07635	24-07635
Quotation No.:		Chemtest Sample ID.:		1778875	1778876	1778877	1778878
Order No.: 14611 TABERNACLE TERRACE 2024		Client Sample Ref.:		TP07 0.40	TP07 0.80	TP08 0.20	TP08 1.00
		Client Sample ID.:		TP07 0.40	TP07 0.80	TP08 0.20	TP08 1.00
		Sample Location:		TP07 0.40	TP07 0.80	TP08 0.20	TP08 1.00
		Sample Type:		SOIL	SOIL	SOIL	SOIL
		Top Depth (m):		0.40	0.80	0.20	1.00
		Date Sampled:		08-Mar-2024	08-Mar-2024	08-Mar-2024	08-Mar-2024
		Time Sampled:		12:00	12:00	12:00	12:00
		Asbestos Lab:		DURHAM	DURHAM	DURHAM	DURHAM
Determinand	HWOL Code	Accred.	SOP	Units	LOD		
Total Aromatic Hydrocarbons		N	2680	mg/kg	1.0	< 1.0	< 1.0
Total Petroleum Hydrocarbons	EH_2D_Total_#1	N	2680	mg/kg	2.0	< 2.0	< 2.0
Benzene		M	2760	µg/kg	1.0	< 1.0	< 1.0
Toluene		M	2760	µg/kg	1.0	< 1.0	< 1.0
Ethylbenzene		M	2760	µg/kg	1.0	< 1.0	< 1.0
m & p-Xylene		M	2760	µg/kg	1.0	< 1.0	< 1.0
o-Xylene		M	2760	µg/kg	1.0	< 1.0	< 1.0
Methyl Tert-Butyl Ether		M	2760	µg/kg	1.0	< 1.0	< 1.0
Naphthalene		M	2800	mg/kg	0.10	< 0.10	< 0.10
Acenaphthylene		N	2800	mg/kg	0.10	< 0.10	< 0.10
Acenaphthene		M	2800	mg/kg	0.10	< 0.10	< 0.10
Fluorene		M	2800	mg/kg	0.10	< 0.10	< 0.10
Phenanthrene		M	2800	mg/kg	0.10	0.79	4.2
Anthracene		M	2800	mg/kg	0.10	< 0.10	1.1
Fluoranthene		M	2800	mg/kg	0.10	1.3	8.0
Pyrene		M	2800	mg/kg	0.10	0.97	8.0
Benzo[a]anthracene		M	2800	mg/kg	0.10	0.64	3.3
Chrysene		M	2800	mg/kg	0.10	1.1	3.6
Benzo[b]fluoranthene		M	2800	mg/kg	0.10	1.3	3.7
Benzo[k]fluoranthene		M	2800	mg/kg	0.10	0.35	1.5
Benzo[a]pyrene		M	2800	mg/kg	0.10	1.0	2.9
Indeno(1,2,3-c,d)Pyrene		M	2800	mg/kg	0.10	0.82	1.8
Dibenz(a,h)Anthracene		N	2800	mg/kg	0.10	< 0.10	0.41
Benzo[g,h,i]perylene		M	2800	mg/kg	0.10	0.76	1.6
Total Of 16 PAH's		N	2800	mg/kg	2.0	9.0	40
Total Phenols		M	2920	mg/kg	0.10	< 0.10	< 0.10
Organic Matter BS1377		N	2930	%	0.10	4.6	3.4

Test Methods

SOP	Title	Parameters included	Method summary	Water Accred.
2010	pH Value of Soils	pH at 20°C	pH Meter	
2030	Moisture and Stone Content of Soils(Requirement of MCERTS)	Moisture content	Determination of moisture content of soil as a percentage of its as received mass obtained at <30°C.	
2040	Soil Description(Requirement of MCERTS)	Soil description	As received soil is described based upon BS5930	
2120	Water Soluble Boron, Sulphate, Magnesium & Chromium	Boron; Sulphate; Magnesium; Chromium	Aqueous extraction / ICP-OES	
2192	Asbestos	Asbestos	Polarised light microscopy / Gravimetry	
2300	Cyanides & Thiocyanate in Soils	Free (or easy liberatable) Cyanide; total Cyanide; complex Cyanide; Thiocyanate	Alkaline extraction followed by colorimetric determination using Automated Flow Injection Analyser.	
2430	Total Sulphate in soils	Total Sulphate	Acid digestion followed by determination of sulphate in extract by ICP-OES.	
2450	Acid Soluble Metals in Soils	Metals, including: Arsenic; Barium; Beryllium; Cadmium; Chromium; Cobalt; Copper; Lead; Manganese; Mercury; Molybdenum; Nickel; Selenium; Vanadium; Zinc	Acid digestion followed by determination of metals in extract by ICP-MS.	
2455	Acid Soluble Metals in Soils	Metals, including: Arsenic; Barium; Beryllium; Cadmium; Chromium; Cobalt; Copper; Lead; Manganese; Mercury; Molybdenum; Nickel; Selenium; Vanadium; Zinc	Acid digestion followed by determination of metals in extract by ICP-MS.	
2490	Hexavalent Chromium in Soils	Chromium [VI]	Soil extracts are prepared by extracting dried and ground soil samples into boiling water. Chromium [VI] is determined by 'Aquakem 600' Discrete Analyser using 1,5-diphenylcarbazine.	
2680	TPH A/A Split	Aliphatics: >C5–C6, >C6–C8,>C8–C10, >C10–C12, >C12–C16, >C16–C21, >C21–C35, >C35– C44Aromatics: >C5–C7, >C7–C8, >C8– C10, >C10–C12, >C12–C16, >C16– C21, >C21– C35, >C35– C44	Dichloromethane extraction / GCxGC FID detection	
2690	EPH A/A Split	Aliphatics: >C10–C12, >C12–C16, >C16–C21, >C21– C35, >C35– C40 Aromatics: >C10–C12, >C12–C16, >C16– C21, >C21– C35, >C35– C40	Acetone/Heptane extraction / GCxGC FID detection	
2760	Volatile Organic Compounds (VOCs) in Soils by Headspace GC-MS	Volatile organic compounds, including BTEX and halogenated Aliphatic/Aromatics.(cf. USEPA Method 8260)*please refer to UKAS schedule	Automated headspace gas chromatographic (GC) analysis of a soil sample, as received, with mass spectrometric (MS) detection of volatile organic compounds.	
2780	VPH A/A Split	Aliphatics: >C5–C6, >C6–C7,>C7–C8,>C8–C10 Aromatics: >C5–C7,>C7–C8,>C8–C10	Water extraction / Headspace GCxGC FID detection	
2800	Speciated Polynuclear Aromatic Hydrocarbons (PAH) in Soil by GC-MS	Acenaphthene*; Acenaphthylene; Anthracene*; Benzo[a]Anthracene*; Benzo[a]Pyrene*; Benzo[b]Fluoranthene*; Benzo[ghi]Perylene*; Benzo[k]Fluoranthene; Chrysene*; Dibenz[ah]Anthracene; Fluoranthene*; Fluorene*; Indeno[123cd]Pyrene*; Naphthalene*; Phenanthrene*; Pyrene*	Dichloromethane extraction / GC-MS	
2920	Phenols in Soils by HPLC	Phenolic compounds including Resorcinol, Phenol, Methylphenols, Dimethylphenols, 1-Naphthol and TrimethylphenolsNote: chlorophenols are excluded.	60:40 methanol/water mixture extraction, followed by HPLC determination using electrochemical detection.	
2930	Organic Matter	Organic Matter	Acid Dichromate digestion/Titration	

Report Information

Key

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

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

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

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

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

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

All results are expressed on a dry weight basis.

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

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

All Asbestos testing is performed at the indicated laboratory .

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

Sample Deviation Codes

- A - Date of sampling not supplied
- B - Sample age exceeds stability time (sampling to extraction)
- C - Sample not received in appropriate containers
- D - Broken Container
- E - Insufficient Sample (Applies to LOI in Trommel Fines Only)

Sample Retention and Disposal

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

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

Charges may apply to extended sample storage.

Water Sample Category Key for Accreditation

- DW - Drinking Water
- GW - Ground Water
- LE - Land Leachate
- NA - Not Applicable

Report Information

PL - Prepared Leachate
PW - Processed Water
RE - Recreational Water
SA - Saline Water
SW - Surface Water
TE - Treated Effluent
TS - Treated Sewage
UL - Unspecified Liquid

Clean Up Codes

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

HWOL Acronym System

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

If you require extended retention of samples, please email your requirements to:
customerservices@chemtest.com

ANNEX G
Laboratory Geotechnical Test Results



Laboratory Report



Contract Number: 42743

Client Ref: **14661AB**

Report Date: **13-02-2019**

Client PO: **14661AB**

Client **Terrafirma Wales Ltd**
5 Deryn Court
Wharfedale Road
Pentwyn
Cardiff
CF23 7HB

Contract Title: **14611- Cwmafan**
For the attention of: **Alan Beattie**

Date Received: **04-02-2019**
Date Commenced: **04-02-2019**
Date Completed: **13-02-2019**

Test Description	Qty
Moisture Content BS 1377:1990 - Part 2 : 3.2 - * UKAS	3
4 Point Liquid & Plastic Limit BS 1377:1990 - Part 2 : 4.3 & 5.3 - * UKAS	3
Disposal of samples for job	1

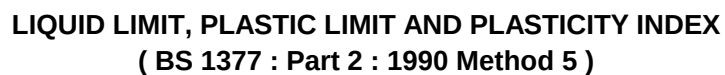
Notes: **Observations and Interpretations are outside the UKAS Accreditation**
* - denotes test included in laboratory scope of accreditation
- denotes test carried out by approved contractor
@ - denotes non accredited tests

This certificate is issued in accordance with the accreditation requirements of the United Kingdom Accreditation Service. The results reported herein relate only to the material supplied to the laboratory. This certificate shall not be reproduced except in full, without the prior written approval of the laboratory.

Approved Signatories:

Ben Sharp (Contracts Manager) - Emma Sharp (Office Manager) - Paul Evans (Quality/Technical Manager)

Richard John (Advanced Testing Manager) - Sean Penn (Administrative/Accounts Assistant) - Wayne Honey (Administrative/Quality Assistant)



Contract Number

42743

Site Name

Cwmafan

Symbols: NP : Non Plastic # : Liquid Limit and Plastic Limit Wet Sieved



ANNEX H
Ground Gas Monitoring Results

In-Situ Gas Monitoring Results

Job Number 14611
Job Name Tabernacle Terrace, Cwmafan



Round 1

Date: 19.02.2019

Barometric Pressure: 1014mb

Weather: Sunny

Gas Monitoring Well Number	Methane (CH ₄) (%)	Oxygen (O ₂) (%)	Carbon Dioxide (CO ₂) (%)	Flow (l/hr)	GW Level m bgl
WS01	N/D	7.6	1.6	No Flow	Dry
WS02	0.2	5.5	10.5	No Flow	Dry
WS03	0.1	9.8	5.1	No Flow	Dry

Round 2

Date: 07.03.2019

Barometric Pressure: 1005mb

Weather: Rain showers

Gas Monitoring Well Number	Methane (CH ₄) (%)	Oxygen (O ₂) (%)	Carbon Dioxide (CO ₂) (%)	Flow (l/hr)	GW Level m bgl
WS01	N/D	19.4	0.1	No Flow	Dry
WS02	0.3	19.4	0.3	No Flow	Dry
WS03	0.2	17.6	0.1	No Flow	Dry

Round 3

Date: 19.03.2019

Barometric Pressure: 1024mb

Weather: Sunny spells

Gas Monitoring Well Number	Methane (CH ₄) (%)	Oxygen (O ₂) (%)	Carbon Dioxide (CO ₂) (%)	Flow (l/hr)	GW Level m bgl
WS01	N/D	14.0	3.9	No Flow	Dry
WS02	N/D	16.7	4.0	No Flow	Dry
WS03	N/D	18.2	4.1	No Flow	Dry

Notes:

In-Situ Gas Monitoring Results

Job Number 14611

Job Name Tabernacle Terrace, Cwmafan



Round 4

Date: 03.04.2019

Barometric Pressure: 996mb

Weather: Overcast

Gas Monitoring	Methane (CH ₄)	Oxygen (O ₂)	Carbon Dioxide (CO ₂)	Flow	GW Level
Well Number	(%)	(%)	(%)	(l/hr)	m bgl
WS01	N/D	19.7	0.6	No Flow	Dry
WS02	0.1	19.9	0.5	No Flow	Dry
WS03	N/D	17.1	N/D	No Flow	Dry

Round 5

Date: 16.04.2019

Barometric Pressure: 997mb

Weather: Overcast

Gas Monitoring	Methane (CH ₄)	Oxygen (O ₂)	Carbon Dioxide (CO ₂)	Flow	GW Level
Well Number	(%)	(%)	(%)	(l/hr)	m bgl
WS01	N/D	19.6	0.2	No Flow	Dry
WS02	N/D	19.7	0.2	No Flow	Dry
WS03	N/D	18.2	N/D	No Flow	Dry

Round 6

Date: 01.05.2019

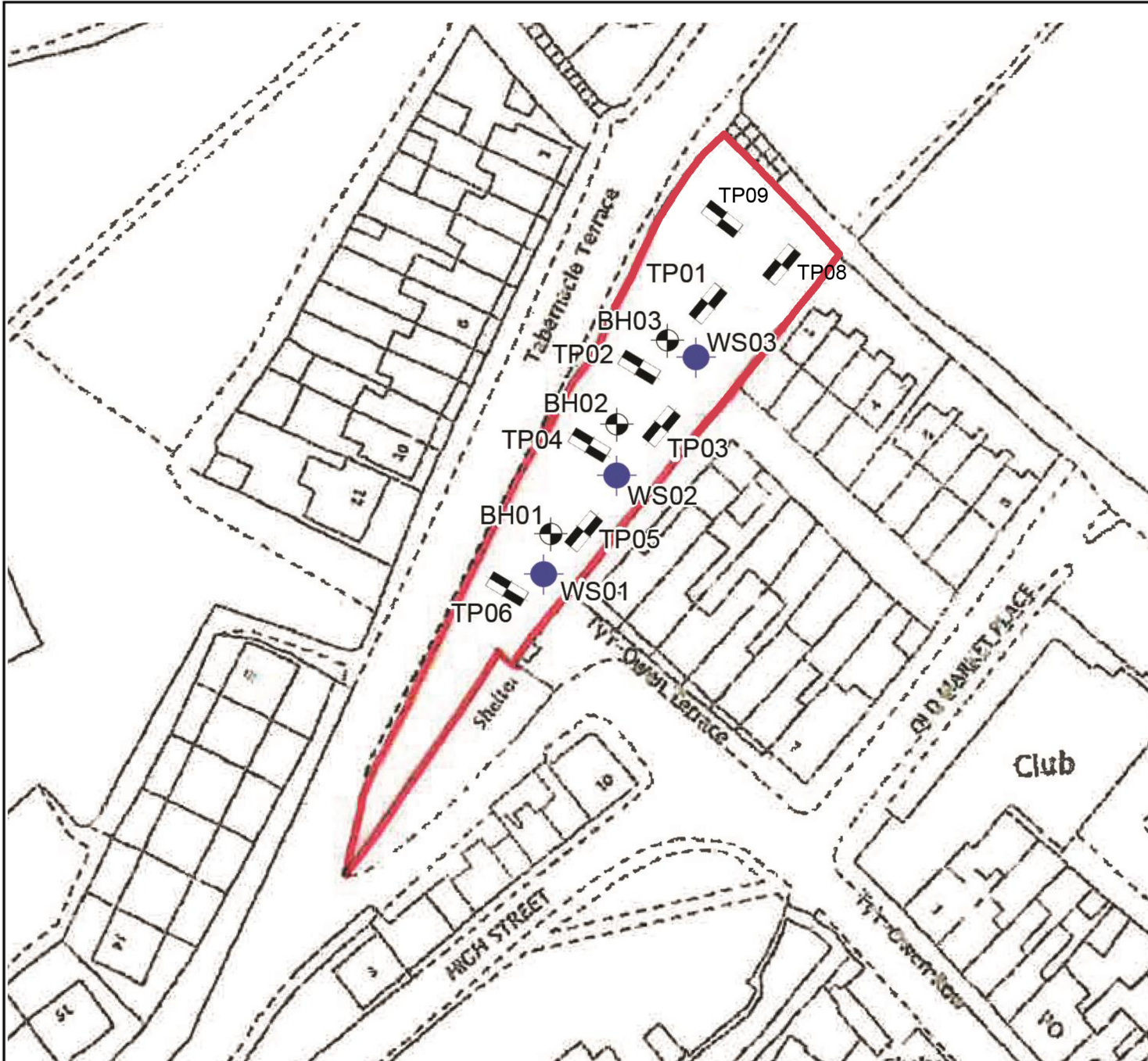
Barometric Pressure: 1005mb

Weather: Sunny

Gas Monitoring	Methane (CH ₄)	Oxygen (O ₂)	Carbon Dioxide (CO ₂)	Flow	GW Level
Well Number	(%)	(%)	(%)	(l/hr)	m bgl
WS01	N/D	19.9	0.4	No Flow	Dry
WS02	N/D	19.4	0.3	No Flow	Dry
WS03	N/D	18.0	N/D	No Flow	Dry

Notes:

DRAWINGS



Job Number:

14611

Job Title:

Tabernacle Terrace, Cwmafan

Drawing Title:

Current Site Layout

Drawing Number:

01

Scale:

Not To Scale

Legend:



Approximate position of machine excavated trial pit



Approximate position of mini percussive borehole



Approximate position of rotary percussive borehole



Terra Firma (Wales) Ltd. 5 Deryn Court, Wharfedale Road, Pentwyn, Cardiff CF23 7HA
Tel: 029 2073 5354 **Fax:** 029 2073 5433 **Email:** info@terrafirmawales.co.uk www.terrafirmawales.co.uk