

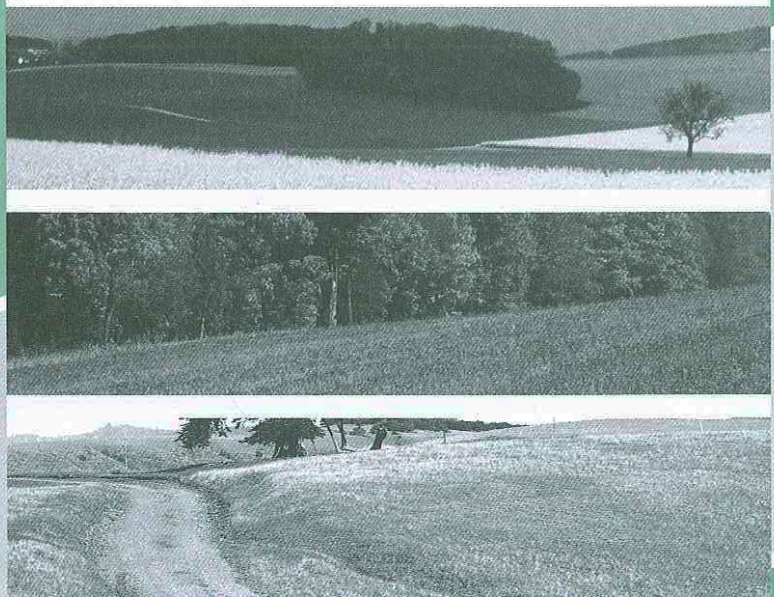
**Geotechnical & Geo-Environmental Site
Investigation Report:**
Leiros Park, Rhydding, Neath

Prepared For:
Hale Construction Limited



June 2017

Job No: 14156



REPORT TITLE : **Geotechnical and Geo-environmental
Site Investigation Report:**
Leiros Park, Rhydding, Neath

REPORT STATUS : **Final**

JOB NUMBER : **14156**

DATE : **June 2017**

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Executive Summary

Site Location	<i>The site situates on field land to the north of the Rhydding area of Neath at a National Grid Reference of 275340 199030. It occupies an approximate plan area of 11.09 hectares.</i>
Proposed Development	<i>Hale Construction Limited is proposing a residential development with associated access roads, car parking areas, garden and landscaped areas.</i>
Site History	<i>The site has been unoccupied since the earliest map apart from some agricultural buildings at the far south of the site.</i> <i>Fallout from local historic metal smelting is commonly found in the near-surface soils in the Neath area. It is therefore possible that elevated levels of arsenic and lead could be detected in the near-surface soil.</i> <i>Based upon the records of the Coal Authority, two mine shafts are located on site. Historical maps provide strong evidence that the area surrounding the site has been heavily mined for coal. Leiros Gravel Pit was also located at the far northwest of the site.</i>
Ground Conditions	<i>The site is covered by a mixture of clayey very sandy gravel/gravelly sand over mudstone or sandstone. Bedrock varies between 0.30m and >3.30m depth.</i>
Radon	<i>In lower probability radon areas of the site, no radon protection measures are required, and in intermediate probability radon areas of the site, basic protection measures are required.</i>
Mining	<i>The Coal Authority Report do not hold records of the workings in either Mountain or Garland coal seams. However, workings are recorded in seams at greater depth (62m to 137m) beneath the site.</i> <i>Ten mine entries are located within or within close proximity of the site boundary; two of which are located on site. A shaft is located roughly at the centre of the site, and another at the far west of the site.</i> <i>An unknown structure was recorded within close proximity of the agricultural buildings at the south of the site during a site walkover. The possibility of it being a shaft cannot be discounted</i>
Laboratory Chemical Testing	<i>All substances tested for were found to be present at concentrations below their respective human health threshold levels apart from ten samples of arsenic in the natural, near-surface soil.</i>
Remediation / Mitigation Measures	<i>Remedial measures will be required with regards to site soils which have been found to contain elevated levels of arsenic. The affected soils are the shallow surface soils that cover the entire site.</i> <i>In terms of the eventual site end users it is considered that there is a risk posed by the contaminated natural soil. Capping will therefore be required on the site. The capping is to consist of the proposed buildings, hard standing and in garden and landscaped areas 600mm of suitable clean imported subsoil/topsoil material. This material should ideally conform to the requirements of BS: 3882.</i> <i>An alternative approach would be to undertake more detailed analysis of the soil. This would include taking more samples of arsenic on a roughly 50m grid, undertaking bio-accessibility testing of the shallow soils, and processing the data into the CLEA (contaminated land exposure assessment) computer software to more accurately assess whether there is an actual risk to human health from the elevated concentrations of arsenic in the shallow soil.</i>
Foundation Solution	<i>The following foundation recommendations should be confirmed following the necessary intrusive coal mining risk assessment. At areas of the site affected by shallow mining or within influencing distance of mine entries, it will be necessary to use a reinforced concrete raft capable of spanning a remnant void of 3.0m with a cantilever effect on corners of 1.5m.</i> <i>Where the proposed plots are not affected by past shallow mining or mine entries, it is recommended that a strip and trench fill foundation be used. The foundations should be founded in either the sandstone bedrock at depths ranging between 0.25m and 1.90m or medium dense to very dense brown clayey sandy gravel/clayey gravelly sand.</i> <i>An allowable bearing pressure of 200kN/m² may be used for design purposes in the sandstone, and 100kN/m² may be used for design purposes in the gravel/sand.</i> <i>All foundations must sit at least 200mm within the founding horizon.</i> <i>In order to prevent damage from frost heave/and or thermal shrinkage foundations/edge beams should be taken down to a minimum depth of 450mm.</i> <i>For the given foundation solutions and bearing pressure, maximum total settlements of 30mm should result with differential movements of the superstructure not exceeding 1:750.</i> <i>The floor slabs can be designed as ground bearing.</i>

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SECTION 1 Introduction and Proposed Development

1.1 Introduction

Hale Construction Limited is proposing a residential development with associated access roads, car parking areas, garden and landscaped areas at a site in the Rhydding area of Neath.

CB³ Consult Limited is the Consulting Civil and Structural Engineer for the proposed development.

Terra Firma (Wales) Limited have been commissioned to undertake a geoenvironmental assessment and geotechnical investigation of the site.

The main objectives of the geoenvironmental assessment programme were to:

- Investigate the potential environmental liabilities at the site associated with any soil contamination
- Provide a summary of the 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 were to:

- Determine the type, strength and bearing characteristics of the shallow superficial and underlying solid geology
- Provide engineering foundation and floor slab recommendations for the development
- Provide recommendations with regard to any other geotechnical aspects pertaining to the development

In order to achieve the above objectives, Terra Firma (Wales) Limited carried out an assessment programme including a review of existing data, followed by a field investigation to collect geotechnical and environmental data from selected locations.

1.2 Limitations and Exceptions of Investigation

Hale Construction Limited has requested that a Geoenvironmental Site Assessment (GSA) and Geotechnical Investigation (GI) be performed in order to determine if contamination is present beneath the site and to determine an appropriate foundation and floor slab solution for the proposed development.

The GSA and GI were conducted and this report has been prepared for the sole internal reliance of Hale Construction Limited and its design and construction team. This report shall not be relied upon or transferred to any other parties without the express written authorisation of Terra Firma (Wales) 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. Terra Firma (Wales) 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.

SECTION 2 Review of Existing Data

2.1 Physical Setting and Current Site Use

The site sits on field land to the north of the Rhydding area of Neath at a National Grid Reference of 275340 199030. It occupies an approximate plan area of 11.09 hectares.

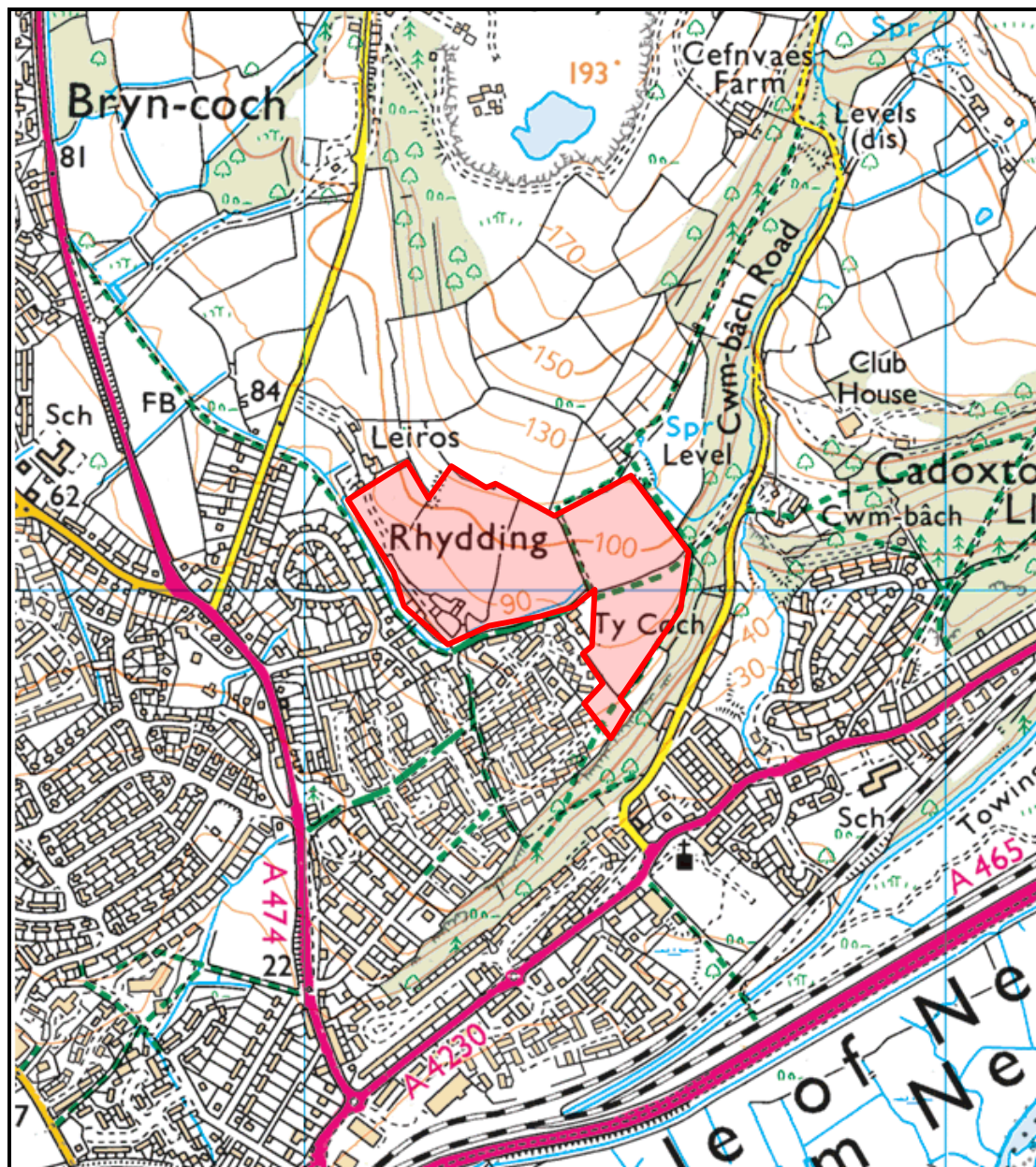


Figure 2.1: Site Location - OS Map

The site predominantly consists of fields, bounded by mature trees and hedgerows. A small parcel of land at the southwest of the site is occupied by old agricultural buildings and for storage and small scale agricultural use by local residents. A public right-of-way passes through the east of the site.

The far south of the site is covered by brambles and is separated from the remainder of the site by a damaged post and wire fence.

2.1 Physical Setting and Current Site Use

The site falls from approximately 115m AOD at the north, to approximately 90m AOD at the south, over a distance of approximately 200m.

The site is accessed from the southeast at the end of Daphne Road, or from the west at Gilfach Road via Leiros Farm.

The far southwest of the site is covered by brambles and is separated from the remainder of the site by a damaged post and wire fence.

The site is bound to the south and southwest by a large housing estate; to the north by fields; to the east by woodland; and to the northwest by Leiros Farm's buildings. The woodland to the east slopes very steeply from 84m AOD at the west, to 44m AOD to the east, over a horizontal distance of approximately 80m.

2.2 History

The history of the site has been traced using historical Ordnance Survey maps obtained from Landmark Information Group. These are presented in **Annex A**. A summary of the history of the site is given below. Distances, where quoted are approximate.

1877-81 (1:2,500 Scale)

The site in the earliest edition is seen to be unoccupied field land. A small cluster of buildings known as Rhydding is located at the far south of the site. Leiros Farm is located to the immediate northwest of the site, an old gravel pit is located straddling the northwest boundary of the site, and a spring is located at the site's southwest boundary.

The site is surrounded by signs of coal mining; a coal pit and nearby furnace are located approximately 150m southwest of the site, an old coal level approximately 60m north of the site, a coal pit 110m north of the site, an air shaft approximately 160m [?], another coal pit located 140m to the east, and an old coal level 180m to the east. Rhydding Colliery is located approximately 220m south of the site.

Most of the surrounding area comprises farmland and woodland, sporadic houses, springs and a few small quarries; possibly mining the sandstone. Small settlements are located approximately 60m to the southwest and 140m to the west. A small track bisects the site from the northeast to the southwest of the site.

1899 (1:2,500 Scale)

Little change has been made to the site or surrounding area since the previous edition. Rhydding Colliery is no longer in use.

1918-1919 (1:2,500 Scale)

Little change has been made to the site or surrounding area since the previous edition. A small settlement known as Rhydding is located around the former Rhydding Colliery. A hydraulic ram (water pump) is located at a spring on the sites northwest boundary.

1935 (1:2,500 Scale)

There are no significant changes to the site or the immediate surrounding area since the previous edition apart from the growth of the residential settlement to the southwest around Rhydding.

2.1 History (Continued)

1964-68 (1:2,500 Scale)

There are no significant changes to the site. However the residential settlement of Rhydding has grown significantly since 1935 and now forms the southwest boundary of the site. A large residential estate has also been constructed and the Leiros Farm has also grown, and the buildings at the south of the site are known as Rhydding Cottages.

1978-89 (1:2,500 Scale)

The site appears to remain unchanged, however the residential development to the southwest and east of the site have continued to grow.

1999 (1:10,000 Scale)

The site and surrounding area appear to remain unchanged,

2017 (1:10,000 Scale)

The site and surrounding area appear to remain unchanged,

2.3 Geological Setting

2.3.1 Geology

The 1:10,560 scale geological maps of the area (Sheets SS 79 NE) and the 1:50,000 scale geological map (Sheet 247) of the area was consulted.

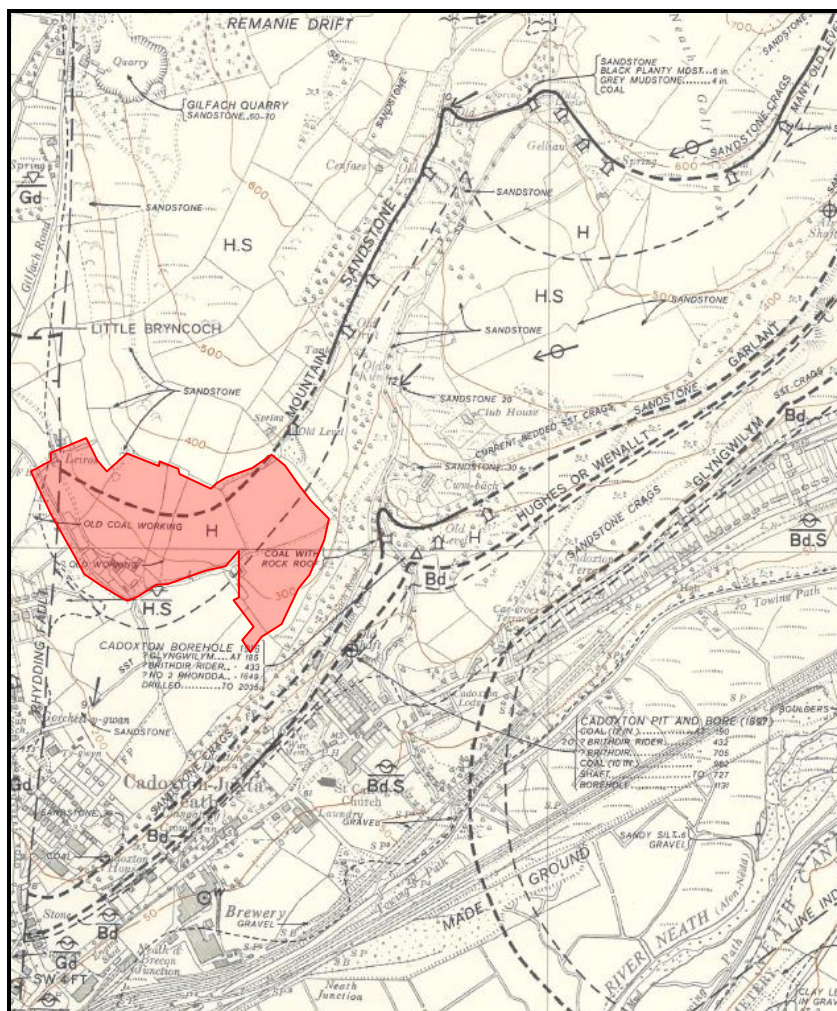


Figure 2.2: Extract from Geology Map (Sheet SS 79 NE)

The site is underlain by the Hughes Member of the Upper Coal Measures Formation. These sedimentary rocks were formed in the Carboniferous Period. The north and southeast of the site are underlain by sandstone, and the central area of the site is underlain by bands of mudstones, siltstones and sandstones.

The bedrock in this area is recorded as dipping to the north and west at between 9° and 12°.

The conjectural outcrop of the Mountain coal seam is shown crossing the middle of the site. The seam will therefore underlie the northern area of the site at shallow depth. A number of adits working the seam are shown in the area; the closest of which is located approximately 50m northeast of the site.

The Generalised Vertical Section shows a thin coal seam that lies approximately 12.5m beneath the Mountain coal seam and therefore it too may underlie the northern area of the site at shallow depth.

2.3 Geology (Continued)

The conjectured outcrop of the Garland coal seam is located approximately 40m to the southeast of the site and approximately 54m below the Mountain coal seam. A number of adits and shafts show that the seam is commonly worked in the area. Based upon the recorded dip of the bedrock, the Garland coal seam may lie at shallow depth beneath the south-eastern portion of the site.

The Bodwr coal seam (2ft to 3ft 6 in.) lies approximately 18m beneath the Garland, and the Hughes (3ft to 4ft) another 18m beneath the Bodwr. Both seams are likely to have been worked however they should lie at sufficient depth to not affect ground stability at the surface.

Various shafts, adits and 'old coal workings' are shown in close proximity to the site.

The north to south orientated Rhydding Fault crosses the far west of the site; downthrowing to the west.

No superficial deposits are recorded on the site; however a small area of Glacial Till is located to the immediate southwest of the site.

2.3.2 Radon

The Envirocheck Datasheet (**Annex B**) states that the site contains both a lower probability radon area (less than 1% of homes are estimated to be at or above the Action Level), and an intermediate probability radon area (3-5% of homes are estimated to be at or above the Action Level).

Radon is a colourless, odourless radioactive gas. It is formed by the radioactive decay of the small amounts of uranium that occur naturally in all rocks and soils. Radon affected areas are therefore affected by the geology beneath the site.

Based upon the co-ordinates designated for each of the affected areas, the intermediate probability radon area appears to stand within the Hughes Member – *Mudstone, Siltstone and Sandstone*, which runs through the central area of the site; and the lower probability radon area appears to stand within the Hughes Member – *Sandstone*, which lies at the north and south of the site.

2.3.2 Radon

Figure 2.3 shown below is taken from the BGS's Geology Viewer. The three pins illustrate the positions of the three affected areas.

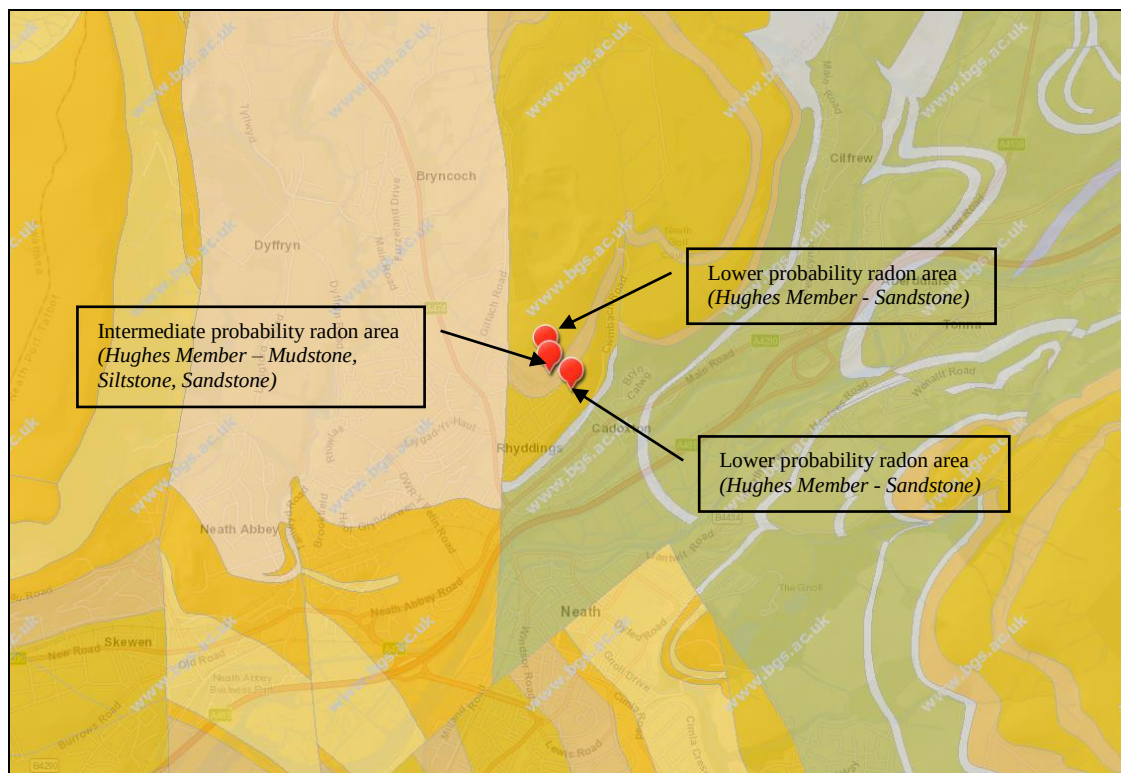


Figure 2.3: Extract from BGS Geology Viewer

In lower probability radon areas, **no** radon protection measures are required, and in intermediate probability radon areas **basic** protection measures are required.

It would therefore be prudent to investigate the need for radon protection measures more closely. This could be done by dividing the site into smaller areas based upon the geology, a field-by field basis, or even on a plot-by-plot basis.

2.3.3 Mining

A Coal Authority Mining Report was obtained for the site and is presented in **Annex C**.

The report states that there are two seams of coal beneath the site with records of them having been worked; Hughes coal seam (62-82m depth) and Mynyddislwyn Lower Leaf (137m depth). The Coal Authority report also states that there is one coal outcrop on site. Whilst the Coal Authority record the seam as Darren Ddu; it is most likely referring to the Mountain coal seam, which outcrops through the middle of the site.

The report also states that spine roadways are located at shallow depth.

Ten mine entries are located within or within close proximity of the site boundary; two of which are located on site. A shaft is located roughly at the centre of the site, and another at the far west of the site.

The Coal Authority do not hold records describing how the mine entries were treated.

2.3.3 Mining (Continued)

During the site walkover, a local resident who rents a small parcel of the site for agricultural/recreational use stated that an unknown hole was located within close proximity to old agricultural buildings; as described in Section 2.1. A tractor wheel had been placed over the hole to stop children or animals from falling into it.

Beneath the wheel was a water-filled void with wooden and metal beams spanning across it. The water level was recorded at around 1.0m depth below ground level. The shape, depth or diameter of the structure could not be established.

Whilst the Coal Authority do not hold records of a shaft in this area of the site, the possibility of this structure being a shaft cannot be discounted.

The approximate location of the unknown structure is presented on **Figure 2.3** below.

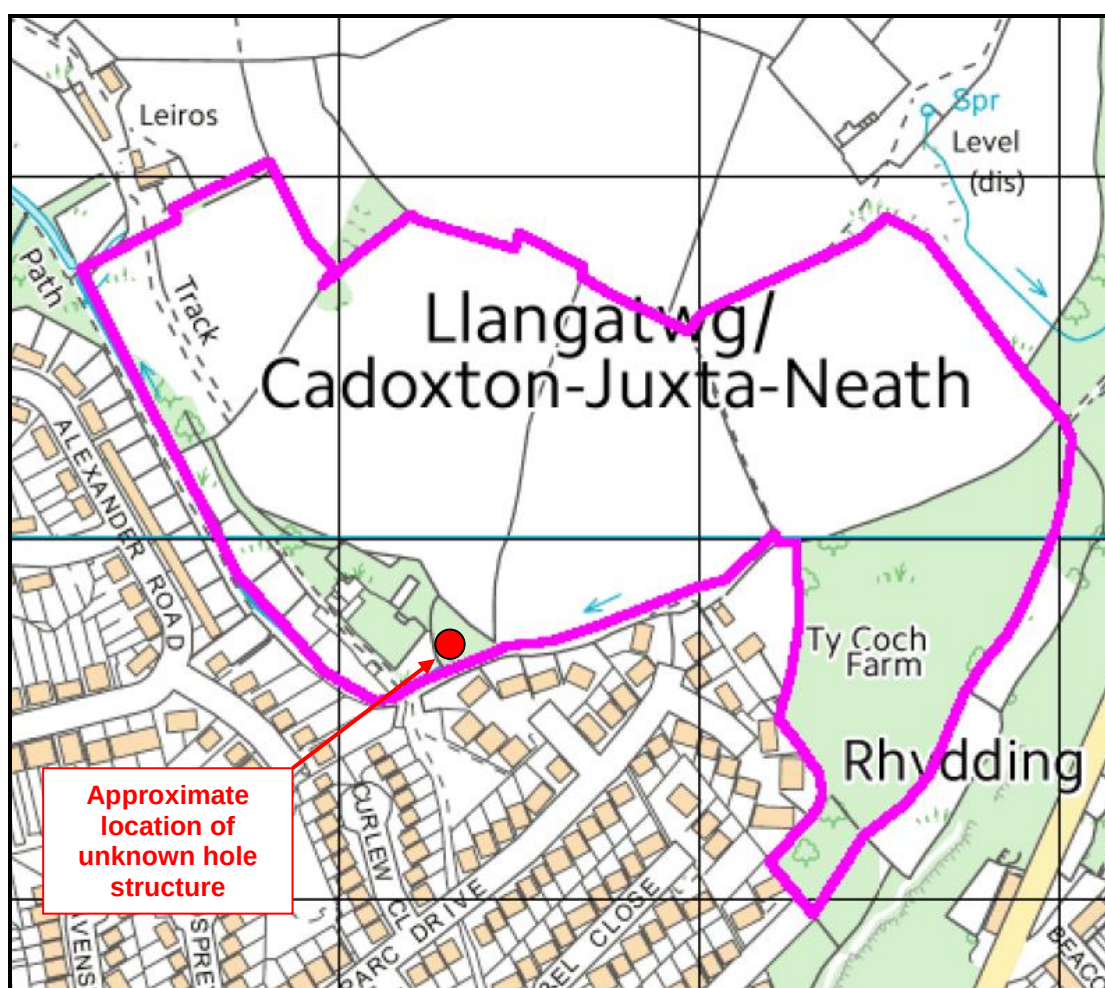


Figure 2.4: Approximate position of unknown hole structure

2.4 Environmental Setting

The following sections have been compiled using the Envirocheck Datasheet and maps which can be found in **Annex B**.

2.4.1 Hydrogeology and Hydrology

The nearest surface water feature recorded is located flowing along the southern boundary of the site. The unnamed stream starts at the middle of the southern boundary.

The topography of the general area falls to the east and south. Surface and shallow groundwater beneath the site is likely to flow in an easterly or southerly direction towards the River Neath, located at the bottom of the valley approximately 880m south of the site or Neath Canal 460m southeast of the site. Shallow groundwater or surface water may also be intercepted by the stream located at the southern boundary.

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 bedrock beneath the site has 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".

2.4.2 Groundwater

The Envirocheck Report does not place the site within 1km of a groundwater source protection zone.

2.4.3 Flooding

The site does not lie in an area prone to flooding or extreme flooding from rivers or sea without defences.

2.4.4 Waste

There are no active or historic landfill sites identified by the Envirocheck Report within 250m of the site.

There are four (non-water) areas of infilled land within 100m of the site boundary; the closest of which is located 6m northeast of the site. All four are infilled pits or quarries.

One area of (water) infilled land is identified at the far west boundary of the site where an old stream appears to have been infilled or culverted. Two more infilled water bodies (small streams) are identified 15m south and 35m west of the site.

2.4.5 Pollution

There are no pollution incidents located within 150m of the site.

SECTION 3 Preliminary Human Health and Environmental Risk Assessment

3.1 General

The contaminated land regime is set out in Part IIA 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 IIA was introduced to achieve two aims:

- (1) The identification of contaminated land
- (2) The remediation of contaminated land that poses an unacceptable risk to human health and/or the environment

Under Part IIA 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."

For land to be classified as 'Contaminated Land' there must be a 'pollutant linkage'.

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

3.2 Preliminary Site Conceptual Model

The preceding sections enable a preliminary conceptual model of the site to be drawn up, to illustrate the likely ground conditions beneath the site together with a preliminary assessment of the nature of any underlying aquifers and groundwater movement. The preliminary site conceptual model is used as a model for the design and implementation of the site investigation, whereby areas of potential contamination can be targeted as well as investigating the site as a whole.

3.3 Potential Sources of Contamination and Gas

The potential contamination beneath the site, whether in the matrix of soil or groundwater is related to the sites past use. The site has been unoccupied since the earliest map apart from some agricultural buildings at the far south of the site.

Fallout from local historic metal smelting is commonly found in the near-surface soils in the Neath area. It is therefore possible that elevated levels of arsenic and lead could be detected in the near-surface soil.

Based upon the records of the Coal Authority, two mine shafts are located on site. Historical maps provide strong evidence that the area surrounding the site has been heavily mined for coal. Leiros Gravel Pit was also located at the far northwest of the site.

The site should therefore be tested for a standard suite of common contaminants such as metals, metalloids, polycyclic aromatic hydrocarbons, and phenol. If any Made Ground is encountered on site, it should also be screened for asbestos.

3.3 Potential Sources of Contamination and Gas (Continued)

Whilst several small areas of infilled ground are located near to the site, it is considered unlikely that these areas will present a significant source of ground gas as the infilled material is likely to be either coal mining waste or farm waste of significant age. Any decomposable material within this infill material is likely to be of very small quantity and of an age where it will have already broken down and will no longer be a source of methane or carbon dioxide.

3.4 Potential Receptors and Pollution Pathways

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

Construction workers will be excavating in soils and will be exposed via dermal contact with soils and dust, ingestion of soil dust and inhalation of soil dust.

A residential end use is proposed. Once developed, future site users (residents and visitors) will potentially be at risk from contaminated soils through the same pathways as well as through consumption of site grown produce and potable drinking water. Landfill gas, ground gas and radon gas may also present a risk to site end users through inhalation or from the risk of explosion of gases in confined spaces.

Neighbouring site users and passers-by may potentially be exposed to soil dust.

If contamination is identified it may be leachable, enabling it to mobilise through perched groundwater within site soils and impact on deeper groundwater or surface water.

A Preliminary Human Health and Environmental Risk Assessment summarises the above and is detailed in the **Table 3.1** below and on the following pages.

3.5 Preliminary Human Health and Environmental Risk Assessment

Table 3.1 Preliminary Human Health Risk Assessment			
Potential Source	Potential Pathway	Potential Target	Preliminary Risk Assessment
Human Health			
Site Soil	Dermal contact with soil, ingestion of soil/soil dust, inhalation of soil dust	Construction workers	Low Risk COSHH assessment and good level of PPE/ hygiene by site workers/ staff; dust suppression measures if required
Site Soil	Dermal contact with soil, ingestion of soil/soil dust inhalation of soil dust	Passers - by/neighbouring site users	Low Risk Made Ground is not anticipated on the site.
Site Soil	Dermal contact with soil, ingestion of soil/soil dust or site grown vegetables, inhalation of soil dust	Site End Users – Residents and visitors.	Low Risk Made Ground is not anticipated on the site.
Radon Gas from underlying bedrock	Migration into indoor air	Site End Users – Residents and visitors	Medium Risk BGS Radon Report confirms basic radon protection measures are required across some areas of the site and no radon protection across others.
Landfill gas	Migration through superficial deposits and bedrock and accumulation indoors	Site End Users – Residents and visitors	Negligible Risk There are no historic landfills located within 250m of the site.
Ground gas	Direct from any made ground/buried organic matter on site and accumulation indoors	Site End Users – Residents and visitors	Very low Risk Infilled land is located on and surrounding the site but is not considered to present a significant ground gas risk.
Vapours	Migration into indoor air	Site End Users – Residents and visitors	Very Low Risk Made Ground and industrial processes are not anticipated on site.
Site Soils	Permeation of drinking water pipes	Site End Users – Residents and visitors	Low Risk Made Ground is not anticipated on the site.

3.5 Preliminary Human Health and Environmental Risk Assessment (Continued)

Table 3.2 Preliminary Environmental Risk Assessment			
Aquatic Environment			
Site Soils	Surface runoff and leaching of contamination into the perched groundwater	Perched groundwater beneath the site	Low Risk Made Ground is not anticipated on the site.
Site Soils	Groundwater transport	Unnamed stream located at southern boundary of site.	Low Risk Made Ground is not anticipated on the site.
Site Soils	Groundwater transport	Underlying Bedrock: Secondary A Aquifer (Hughes Member)	Low Risk Made Ground is not anticipated on the site.
Vegetation			
Site Soils	Uptake of phytotoxic contaminants	Vegetation	Negligible Risk Made Ground is not anticipated on the site.
Building Materials			
Site Soils	Damage of building materials	New buildings	Low Risk Correct class of concrete to be chosen

3.6 Preliminary Illustrative Site Conceptual Model

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

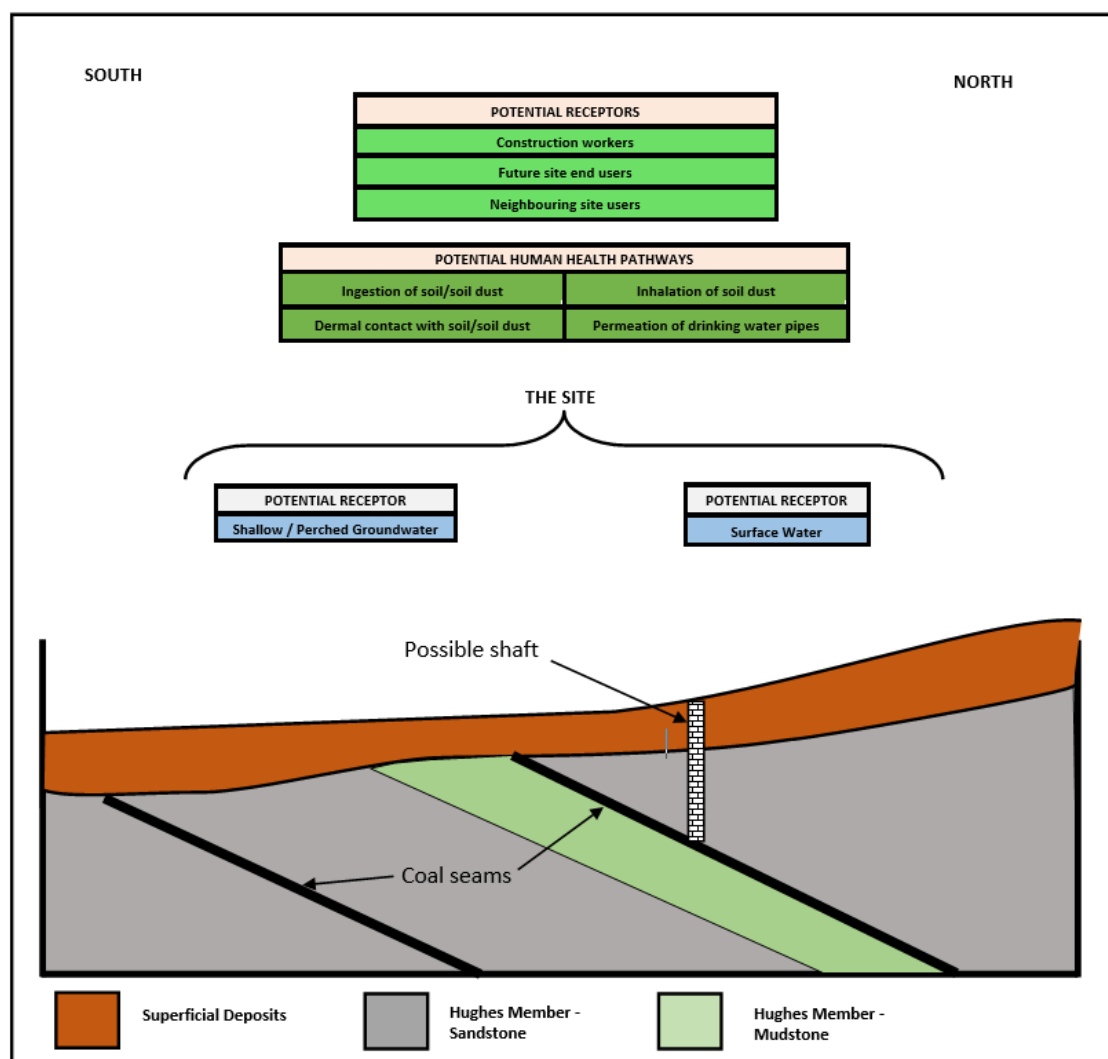


Figure 3.1 Preliminary Illustrative Site Conceptual Model (not to scale)

SECTION 4 Field Investigation

4.1 Site Works

A geotechnical and geo-environmental site investigation comprising sixteen machine excavated trial pits was undertaken on the 5th April 2017. Five soakaway tests were also undertaken during the trial pitting site works.

The trial pits were excavated with a JCB 3CX mechanical excavator.

The fieldworks were also supervised by Terra Firma (Wales) Limited, who logged the exploratory holes to the requirements of BS5930:2015. The locations of the exploratory holes were determined by Terra Firma (Wales) Limited.

The trial pit logs are presented in **Annex E**, and their locations are shown on **Drawing 01**.

4.2 Exploratory Strategy

Since the majority of the site has been undeveloped during the years researched, a non-targeted grid fashion was adopted. Any areas that have been developed by agricultural buildings have not been investigated and should be targeted during a second phase of investigation.

4.3 Ground Conditions

The ground conditions encountered by the exploratory holes can in general be summarised as shown in **Table 4.1**.

Table 4.1 Summary of Ground Conditions – Above Sandstone				
Depth (m)			Thickness (m)	Stratum
GL	-	0.20/0.30	0.20/0.35	Grass over soft dark brown organic-rich slightly sandy slightly gravelly CLAY /dark brown organic-rich clayey slightly gravelly SAND .
0.80/1.70	-	1.90/2.80	Absent/1.50	[Medium dense to very dense] brown clayey very gravelly SAND /sandy GRAVEL with low cobble and boulder content / soft to firm brown and grey sandy slightly gravelly CLAY .
0.25/0.30	-	0.55/2.30	Absent/>1.60	[Medium dense to very dense] grey clayey SAND & GRAVEL / clayey or silty sandy GRAVEL of angular sandstone / COBBLES & BOULDERS .
0.30/>2.30	-	>0.40/>2.30	-	Grey mottled orangish brown SANDSTONE

4.3 Ground Conditions (Continued)

Table 4.2 Summary of Ground Conditions – Above Mudstone				
Depth (m)			Thickness (m)	Stratum
GL	-	0.25/0.35	0.25/0.35	Grass over soft dark brown organic-rich clayey slightly gravelly SAND
0.25/0.35	-	0.80/0.85	0.55	[Medium dense] brownish orange clayey very sandy GRAVEL / gravelly SAND of angular sandstone.
0.35/0.85	-	>3.00/>3.30	-	[Medium dense to dense] brownish grey clayey gravelly SAND / sandy GRAVEL .

4.4 Water Strikes

Groundwater was not encountered in the majority of the exploratory holes, however a groundwater inflow was encountered in TP15. The information has been summarised below.

Table 4.3 Summary of Water Strike Information		
Location	Strike Depth (m)	Strike Description
TP15	1.50m	Medium groundwater inflow.

4.5 Stability and Obstructions

Most of the trial pits were stable throughout the excavation, however TP02 was slightly unstable between 0.25m and 0.75m, and TP16 was slightly unstable whilst excavating the sandstone.

4.6 Laboratory Chemical Testing

4.6.1 Quality Assurance

During the intrusive investigation, seven small disturbed soil samples were collected.

Care was taken to ensure that sampling quality assurance occurred during site works. This included the following measures:

- Soil samples were collected by hand with nitrile gloves.
- Clean gloves were used for each sample.
- Soil samples were stored at a temperature below 4 degrees.
- No head space was left in sample containers.
- Appropriate sample containers were used.
- Samples were submitted for laboratory testing within holding times.

4.6.2 Sampling Regime

The sampling regime was conducted in accordance with BS5930:2015 in order to satisfy the following criteria:

- Investigate suspected sources of contamination
- Investigate type and concentration of contamination
- Ensure good representation of the site
- Provide data to inform on remedial measures if necessary

The sample locations and depths are illustrated in the following table:

Table 4.4 Sample Locations and Depths		
Sample	Depth (m)	MCERTS Sample Description
TP01	0.1	Dark brown gravelly, sandy CLAY including odd rootlets
TP02	0.5	Dark brown gravelly, sandy CLAY including odd rootlets
TP05	0.1	Dark brown gravelly, sandy CLAY including odd rootlets
TP06	0.4	Dark brown gravelly, sandy CLAY including odd rootlets
TP07	0.1	Dark brown gravelly, sandy CLAY including odd rootlets
TP09	0.5	Brown gravelly, sandy CLAY including odd rootlets
TP10	0.1	Dark brown gravelly, sandy CLAY including odd rootlets
TP11	0.4	Dark brown gravelly, sandy CLAY including odd rootlets
TP12	0.4	Brown gravelly, sandy CLAY including odd rootlets
TP13	0.1	Dark brown gravelly, sandy CLAY including odd rootlets
TP14	0.1	Dark brown gravelly, sandy CLAY including odd rootlets
TP15	0.1	Dark brown gravelly, sandy CLAY including odd rootlets
TP15	0.3	Brown gravelly, sandy CLAY including odd rootlets
TP16	0.3	Brown gravelly, sandy CLAY including odd rootlets

4.6.3 Laboratory Soil Analysis

During the site works 14 No. soil samples were taken and despatched to the laboratories of Derwentside Environmental Testing Services (DETS) for laboratory chemical testing;

Metals and Metalloids

Lead
Arsenic
Mercury
Cadmium
Chromium III
Chromium VI
Copper
Nickel
Zinc
Selenium

In-Organics

Cyanide
Sulphate

Others

pH (acidity)

Organic Chemicals

Phenols
Polyaromatic Hydrocarbons (PAH)

The results are discussed in detail in **Section 5** and the laboratory test result certificates are found in **Annex F**.

4.7 Soil Property Testing

4.7.1 Soakaway Testing

During the site investigation five soakaway tests were undertaken in TP01, TP02, TP04, TP08 and TP09 to depths of 0.40m, 0.75m, 1.55m, 1.45m and 2.30m respectively.

The results of the soakaway tests are discussed in **Section 8.6** of this report. The results are presented in **Annex G**

4.7.2 Soil Plasticity Testing

During the site investigation three samples were taken from TP04, TP06 and TP15 at depths of 0.70m, 1.00m and 2.00m respectively.

The plasticity test results are discussed in **Section 8.2** of this report and the results in their entirety are presented in **Annex H**.

4.7.3 Dynamic Cone Penetrometer Testing

Six dynamic cone penetrometer tests were undertaken on 11th April 2017 at the following trial pit locations; TP02, TP03, TP06, TP08, TP09, TP11, TP13, TP14, TP15 and TP16.

The results were used for California Bearing Ratio correlations and are discussed further in Section 8.6 of the report. The results are presented in **Annex I**.

SECTION 5 Evaluation of Soil Analytical Results

5.1 Soil Assessment Methodology

Comparison of the analytical results has been made with Soil Guideline Values (SGVs) for a residential scenario, sourced from The Environment Agency Contaminated Land Exposure Assessment (CLEA). Where SGV values are not available reference has been made to the 2015 residential Suitable 4 Use Levels (S4ULs) provided by Land Quality Management Limited and the Chartered Institute of Environmental Health (CIEH) or Category 4 Screening Levels (C4SLs).

Sulphate results have been compared to British Research Establishment (BRE) guidelines as sulphate levels need only be considered for buried concrete risk assessment only, not human health related.

5.2 Soil Test Results

A summary of the chemical test results which include the regulatory soil guideline values used in the Tier 1 assessment are given in **Tables 5.1 to 5.2** and can be found in **Annex F**.

Table 5.1 Summary of Soil Chemical Test Results: Standard Suite					
Substance	SGV/GAC (mg/kg)	Source	Measured Concentrations of Tested Substances (mg/kg)		Number of Exceedances
			Minimum	Maximum	
Arsenic	32	CLEA	10	160	10
Cadmium	10	CLEA	0.1	1.9	0
Chromium III	910	LQM/CIEH	15	20	0
Chromium VI	6	LQM/CIEH	<1.0	<1.0	0
Copper	2400	LQM/CIEH	24	1500	0
Lead	200	C4SL	14	94	0
Mercury	170	CLEA	0.06	0.16	0
Nickel	180	LQM/CIEH	17	33	0
Selenium	350	CLEA	0.6	1.2	0
Zinc	3700	LQM/CIEH	65	710	0
Cyanide	8	CLEA	0.2	0.8	0
Phenols	420	CLEA	<0.3	7.7	0
Sulphate	-	-	300	1300	-
Organic Matter	-	-	1.7	8.6	-
pH	-	-	5.5	6.5	-
Total PAH	0.1	LDL	<0.10	0.71	See Table 5.2

Notes:

- CLEA-Soil guideline values for a residential development with plant uptake
- LQM/CIEH - Generic Assessment Criteria for a residential development with plant uptake
- C4SL - category four screening level for a residential development with plant uptake
- LDL - Laboratory Detection Limit
- A total of 14 samples were tested
- - no available guideline

5.2 Soil Test Results (Continued)

All eight of the samples had levels of polyaromatic hydrocarbons (PAH) above laboratory detection limits and were therefore tested for speciated PAH.

Table 5.2 Summary of Soil Chemical Test Results: Polyaromatic Hydrocarbons					
Substance	GAC (mg/kg)	Source	Measured Concentrations of Tested Substances (mg/kg)		Number of Exceedances
			Minimum	Maximum	
Naphthalene	2.3	LQM/CIEH	<0.03	<0.03	0
Acenaphthylene	170	LQM/CIEH	<0.03	<0.03	0
Acenaphthene	210	LQM/CIEH	<0.03	<0.03	0
Fluorene	170	LQM/CIEH	<0.03	<0.03	0
Phenanthrene	95	LQM/CIEH	<0.03	0.14	0
Anthracene	2400	LQM/CIEH	<0.03	<0.03	0
Fluoranthene	280	LQM/CIEH	<0.03	0.19	0
Pyrene	620	LQM/CIEH	<0.03	0.15	0
Benzo(a)anthracene	7.2	LQM/CIEH	<0.03	0.06	0
Chrysene	15	LQM/CIEH	<0.03	0.09	0
Benzo(b)fluoranthene	2.6	LQM/CIEH	<0.03	0.06	0
Benzo(k)fluoranthene	77	LQM/CIEH	<0.03	<0.03	0
Benzo(a)pyrene	2.2	LQM/CIEH	<0.03	<0.03	0
Indeno(123cd)pyrene	27	LQM/CIEH	<0.03	<0.03	0
Dibenzo(ah)anthracene	0.24	LQM/CIEH	<0.03	<0.03	0
Benzo(ghi)perylene	320	LQM/CIEH	<0.03	<0.03	0
Total PAH	-	-	<0.10	0.71	-

Notes:

- LQM/CIEH - Generic Assessment Criteria for a residential development with plant uptake.
- Guidelines for a residential land use with plant uptake.
- Thresholds based on 1% SOM
- 14 samples were tested for Speciated PAH

SECTION 6 Quantitative Risk Assessment

6.1 Contaminants of Concern

6.1.1 Contaminants of Concern in Soil

All substances tested for were found to be present at concentrations below their respective human health threshold levels apart from ten samples of arsenic in the natural, near-surface soil.

Methods to deal with the soil contamination are detailed **Section 6.3** below.

6.1.2 Leachable Contaminants of Concern

Based upon the relatively low concentrations of the substances tested for, it is considered that there is no risk to the aquatic environment through leaching.

6.1.3 Gas and Vapours

There are no active or historic landfills within 250m of the site and significant amounts of infilled land is not expected to be located on or surrounding the site. The desk study determined that the risk of landfill and ground gas is negligible and very low risk respectively.

Basic radon protection measures are required across some areas of the site and no radon protection measures across others, as detailed in Section 2.3.2.

6.2 Potential Receptors and Pathways

6.2.1 Human Receptors

Human receptors are potentially at risk from the arsenic contamination identified. The human receptors include construction workers, neighbouring site users and site end users.

6.2.2 Aquatic Environment

Based upon the relatively low concentrations of the substances tested for, it is considered that there is no risk to the aquatic environment through leaching.

6.3 Mitigation and Remedial Measures

6.3.1 Human Health

Remedial measures will be required with regards to site soils which have been found to contain elevated levels of arsenic. The affected soils are the shallow surface soils that cover the entire site.

In terms of the eventual site end users it is considered that there is a risk posed by the contaminated natural soil. Capping will therefore be required on the site. The capping is to consist of the proposed buildings, hard standing and in garden and landscaped areas 600mm of suitable clean imported subsoil/topsoil material. This material should ideally conform to the requirements of BS: 3882.

An alternative approach would be to undertake more detailed analysis of the soil. This would include taking more samples of arsenic on a roughly 50m grid, undertaking bio-accessibility testing of the shallow soils, and processing the data into the CLEA (contaminated land exposure assessment) computer software to more accurately assess whether there is an actual risk to human health from the elevated concentrations of arsenic in the shallow soil.

As good practise, 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.

Neighbouring site occupants and passers-by can be protected by site screening and dust suppression measures if necessary.

Any imported soils should be tested and validated as suitable prior to use in accordance with 'Requirements for the Chemical Testing of Imported Materials for Various End Uses and Validation Cover Systems' published by the Welsh Contaminated Land Working Group.

In order to protect construction workers good site management, COSHH, good standards of hygiene and appropriate health & safety on site should be adhered to, with personal protection equipment (PPE) and dust suppression where appropriate.

If during development works any unexpected ground conditions or evidence of additional contamination is found, inspection by a geo-environmental engineer should be made, and any required testing or investigation carried out prior to continuation of works.

For proposed new water supply 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.

6.3.2 Aquatic Environment

There are not considered to be any risks to the aquatic environment from site soils.

During the construction period, there is a risk to the environment/adjacent sites from de-watering, digging foundations, moving contaminated soil, drainage misconnections, 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 or boreholes. 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

6.4 Refined Illustrative Site Conceptual Model

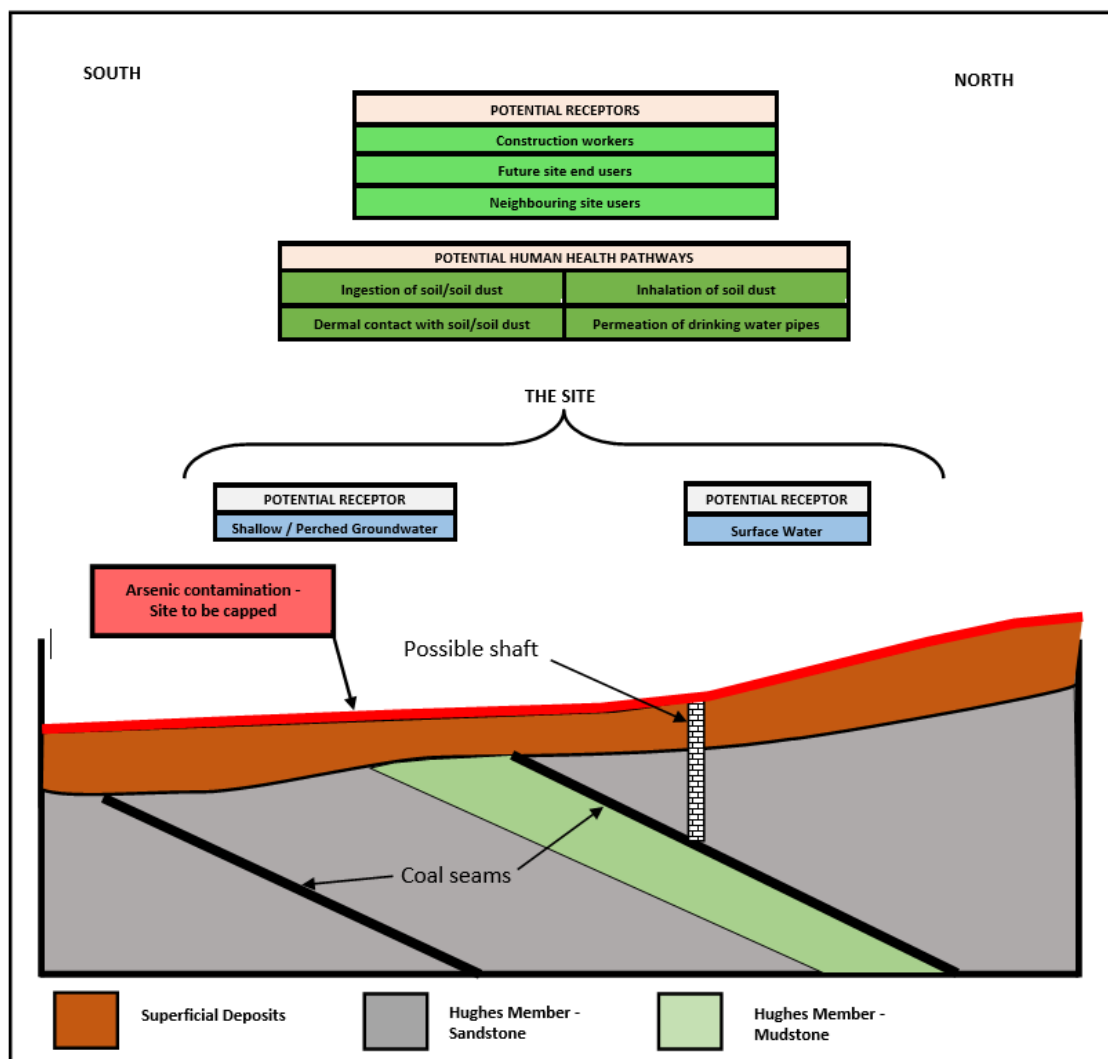


Figure 6.1: Refined Illustrative Site Conceptual Model (not to scale)

SECTION 7 Assessment of the Risk from Past Shallow Coal Mining and Mine Entries

7.1 Past Shallow Coal Mining

Based upon the geological and desk study information the stratigraphical sequence beneath the site and within 100m of the ground surface is taken to be:

- Measures
- **Mountain coal seam**
- Measures
- **Unnamed thin coal seam**
- Measures
- **Garlant coal seam**
- Measures
- **Bodwr coal seam**
- Measures
- **Hughes coal seam**

When assessing the risks from shallow mine workings, as a rule of thumb to prevent the future collapse of mine workings migrating to the surface and forming crown holes there should be a 10:1 rock head to void ratio.

It is unlikely that this criterion would be achieved over the Mountain and Unnamed coal seams across the north of the site. There may also be insufficient rockhead above the Garlant coal seam at the south-eastern area of the site.

Given the amount of mining features shown on both the historical maps and geological maps for the area, and the mining report for the site, it is considered highly likely that unrecorded shallow workings may have taken place beneath the site. Consequently, it is concluded that there is a significant risk to the surface stability of the site from past unrecorded coal workings and mine entries.

A site investigation comprising rotary probeholes should therefore be carried out to quantify the risk from past shallow workings.

7.2 Mine Entries

Investigation of the mine shafts and determination of their backfill/treatment should be completed. An excavator could be used to strip the ground to reveal any evidence of shafts on the site. In this way any mining feature should become visible. However, it would be prudent to complete a geophysical survey prior to any intrusive works to minimise intrusive activity in the interest of safety.

If shaft features are identified rotary probehole drilling on the shaft areas should be undertaken to confirm the presence of any fill or voids, and depths of the shafts. The depth to bedrock adjacent to the shafts would also need to be confirmed so that the shaft exclusion zone to building may be determined.

7.2 Mine Entries (Continued)

There is a risk of collapse of superficial deposits/Made Ground around the abandoned mine shafts and of any deposits within the shafts. Collapse is typically radial around a shaft. An exclusion zone to development will therefore need to be applied around the mine shaft. To ascertain the minimum exclusion zone around each shaft, the area potentially at risk from collapse must be confirmed. This can be determined by knowing the depth of the superficial deposits. As a guide, a 45° line taken from the superficial soil and rockhead interface up to the surface defines this radial zone of potential collapse, i.e. the depth down to bedrock equals the radial length around the shaft.

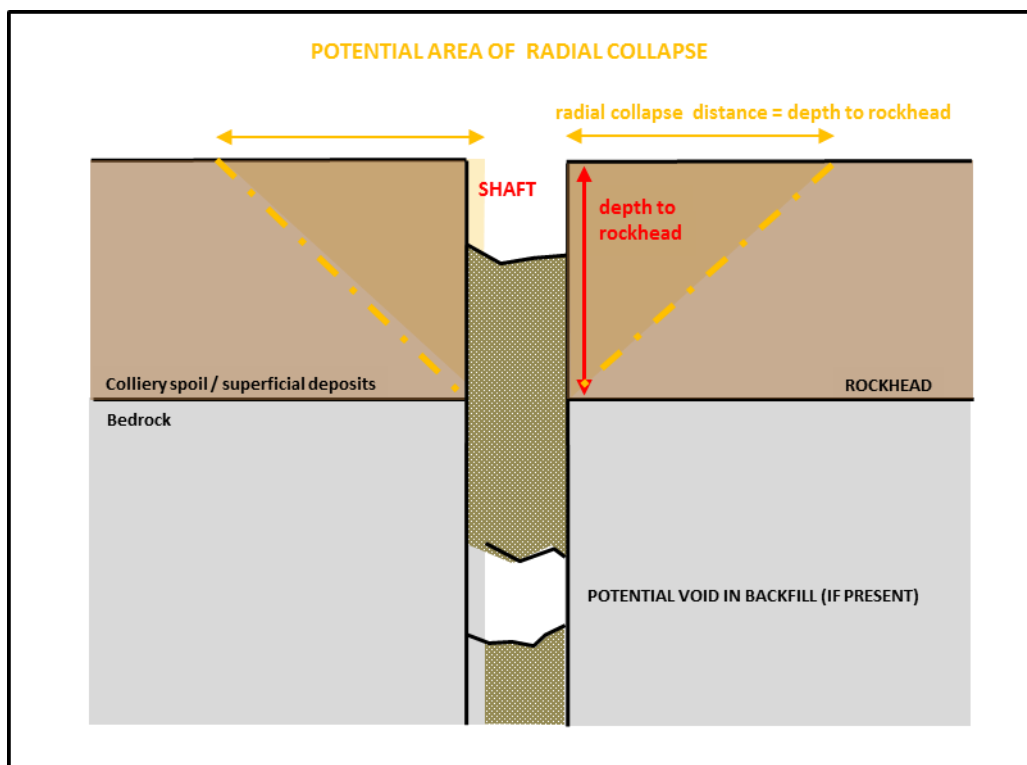


Figure 7.1: Mine Shaft Potential Area of Collapse

SECTION 8 Engineering Recommendations

8.1 General

The following recommendations are based on the condition that an intrusive coal mining risk assessment is carried out at the site, including an investigation of both the shallow mining at the site and any mine entries.

The following recommendations also need to be confirmed by more exploratory holes, which will allow a greater coverage of the site to be assessed.

8.2 Preparation of Site

All scrub vegetation including all roots should be stripped and removed from beneath the proposed buildings and areas of hard standing. Any buried obstructions should also be excavated and removed.

Contingencies should be made for the protection/diversion of any underground/overhead services 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.

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 (Wales) Ltd offer this service if required.

8.3 Foundation and Floor Slab Solution

The following foundation recommendations should be confirmed following the necessary intrusive coal mining risk assessment. At areas of the site affected by shallow mining or within influencing distance of mine entries, it will be necessary to use a reinforced concrete raft capable of spanning a remnant void of 3.0m with a cantilever effect on corners of 1.5m.

Where the proposed plots are not affected by past shallow mining or mine entries, it is recommended that a strip and trench fill foundation be used. The foundations should be founded in either the sandstone bedrock at depths ranging between 0.25m and 1.90m or medium dense to very dense brown clayey sandy gravel/clayey gravelly sand.

An allowable bearing pressure of 200kN/m² may be used for design purposes in the sandstone, and 100kN/m² may be used for design purposes in the gravel/sand.

All foundations must sit at least 200mm within the founding horizon.

8.3 Foundation and Floor Slab Solution (Continued)

In order to prevent damage from frost heave/and or thermal shrinkage foundations/edge beams should be taken down to a minimum depth of 900mm.

For the given foundation solutions and bearing pressure, maximum total settlements of 20mm should result with differential movements of the superstructure not exceeding 1:750.

Provided all grass/scrub vegetation including all roots are removed then the floor slabs can be designed as ground bearing.

It should be noted that if any soft ground or unusual ground conditions, which may suggest the possibility of a solution feature, is encountered during the groundworks, a suitably qualified engineer should be contacted as soon as possible.

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.

There are a number of trees along the boundary of the site. 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 five samples of the in-situ clay were taken and submitted for plasticity testing (**Annex H**). In line with the NHBC (Chapter 4.2), the modified plasticity index for each sample was calculated, and are presented in **Table 8.1** below.

Table 8.1 Plasticity Test Results						
Sample	Depth (m)	Laboratory Soil Description	Plasticity Index (%)	Passing 425µm Sieve (%)	Modified Plasticity Index (%)	Volume Change Potential
TP04	0.70	Brown fine to medium gravelly silty CLAY	32	93	30	Medium plasticity
TP06	1.00	Brown silty CLAY	31	100	31	Medium plasticity
TP15	2.00	Brown orange silty CLAY	25	100	25	Medium plasticity

For design purposes the clay soils on site should be assumed to have a medium volume change potential.

In order to prevent damage from the shrinking or swelling of the soil, foundations/edge beams should be taken down to a minimum depth of 900mm if founding in clay.

All foundation formations should be inspected by a suitably qualified Engineer before being concreted.

8.4 Excavations and Formations

Shallow excavations will be possible with normal soil excavating machinery however allowances should be made for larger excavators and a hydraulic breaker attachment if any buried bedrock is encountered.

Significant surface water, perched water and groundwater inflows were generally not encountered throughout the exploratory works apart from at TP15 at 1.50m depth. However, surface water is known to pool in the lowest standing areas of the site during wet periods, such as the southern boundary of the site to the north of Ty Coch Farm. Also, during periods of heavy rainfall a higher water table may be encountered. Any water inflows together with rainwater infiltration should be dealt with by conventional pumping techniques.

The trial pit walls were generally stable throughout, apart from some spalling of the weathered sandstone in TP02 and TP16. 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.

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

Allowances should also be made for special precautions to prevent formation deterioration in addition to the above.

8.5 Protection of Buried Concrete

Eight samples taken from depths ranging between 0.30m and 2.00m were tested for levels of Aqueous Extract Sulphate (as mg/l SO_4) within the in-situ materials. Measured concentrations of between <10mg/l and 20mg/l were recorded, and the pH varied between 7.11 and 8.33.

All eight samples were also tested for Acid Soluble Sulphate and Sulphur, and were used to determine the oxidisable sulphate of the shallow soil. Measured concentrations of between 0.01% and 0.12% were recorded, and it was therefore concluded that pyrite is probably not present in the underlying soils.

Using the Aqueous Extract Sulphate results and comparing them to Table C1 of BRE Digest 1:2005, it calculated that all buried concrete should conform to **Class AC-1**.

A copy of the sulphate and pH test results is presented in **Annex H**.

8.6 Access Roads and Car Parking Areas

Ten number dynamic cone penetrometer tests were undertaken to provide CBR correlations. The tests were positioned across the site alongside ten of the trial pit positions in order to provide a site wide assessment of soil stiffness. The CBR correlations are presented in **Annex I** of the report and can be used for design purposes. Values of typically more than 2% were achieved from depths of 0.19m depth. The CBR values tend to increase with depth.

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

8.7 Storm Water Drainage

During the site investigation soakaway tests were undertaken in TP01, TP02, TP04, TP08 and TP09.

A summary of the soakaway test results is presented in **Table 7.3**. The results in their entirety are presented in **Annex G**

Table 8.2 Soakaway Test Results		
Trial pit	Test	Rate of Infiltration
TP01	1 of 1	1.33E-05
TP02	1 of 1	5.36E-06
TP04	1 of 1	#
TP08	1 of 2	1.58E-04
	2 of 2	3.50E-05
TP09	1 of 1	2.25E-05

Notes:

- Due to a very slow rate of infiltration, a Soil Infiltration Rate could not be calculated.

Due to the variable ground conditions encountered at the site, the variable soil infiltration rates that were achieved, and the large area of the site, it is recommended that further soakaway testing is undertaken at the site at the specific locations and depths at which the proposed soakaways are to be positioned.

8.8 Slopes and Retaining Walls

Due to the sloping topography of the site retaining walls may be required.

The existing steepness of the site should not be increased. Any cuts should be undertaken in small sections and in such a way so as not to induce any instability of the ground.

The effective angles of shearing resistance of the encountered materials have been determined based upon past experience of the materials.

8.8 Slopes and Retaining Walls (Continued)

Table 8.3 Effective Shear Stress Parameters				
Stratum Description	Bulk Weight kN/m ³	Unit (γ)	Effective Cohesion kN/m ² (c')	Effective Angle of Shearing Resistance (φ') degrees
Soft to firm cohesive soils	18		0	20 – 25
Firm to stiff cohesive soils	18		0	25 – 30
Loose granular soils	18		0	22
Medium dense granular soils	18		0	25
Dense granular soils	19 - 20		0	30 - 35
Fresh/slightly weathered sandstone bedrock	19-24		5	35 - 40
Moderately / highly weathered mudstone/sandstone bedrock	19-24		0	20 - 30

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

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.

The cohesive deposits will have a tendency to flake and soften with weathering as they are less resistant. Measures should be put in place to prevent deterioration.

To prevent de-stabilisation due to surface water ingress and groundwater emergence upon the cutting/embankment face which will ultimately reduce the effective stress of the soil, cause erosion and instability, the following remedial measures are recommended:

1. Drainage channels should be installed at the top of the slope faces to intercept surface water running towards the excavation preventing it from running down and into the slope face.
2. Drainage channels should be installed at the bottom of the slope face to intercept any surface water flowing down the slope face and to collect any groundwater emerging from the slope face.
3. Consideration should be given to herringbone drainage should simple drainage channels be insufficient in intercepting surface water.

Particular attention should be given to whether the drainage channel should be lined to further prevent water ingress, diameter or capacity and gradient etc. A specialist should be consulted.

8.8 Slopes and Retaining Walls (Continued)

It is recommended that the construction of retaining walls be carried out in small sections.

During construction, surcharge of the retaining walls, retained soil and the crest and slope faces of the cuttings/embankments by construction machinery should be kept to a minimum, particularly during wet periods when slope de-stabilisation may be maximised.

During the site development/construction phases stability surveys should be undertaken at regular intervals, including pictorial records. Any evidence of slope instability should be reported to a qualified engineer and appropriate remedial measure implemented.

Unless incorporated into the design and build of any retaining walls, post development, the retaining walls, the retained soil or the top of the cutting/embankment slopes and slope faces themselves should not be surcharged with buildings, car parking or access roads etc.

If any future infrastructure developments become likely to impart a load upon the retaining walls/retained soils/slope crests or slope faces, appropriate slope face stability assessments should be undertaken to ensure their long term stability after such developments.

It is also recommended that periodic appraisal of the slope faces/retaining walls and drainage systems be undertaken by a qualified engineer to ensure their continued integrity.

ANNEX A
Envirocheck History 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

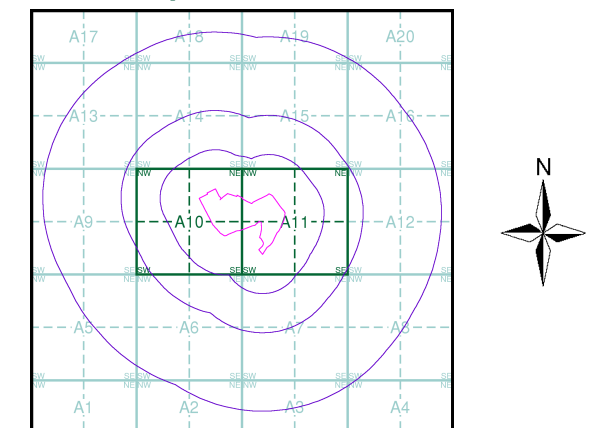
	Gravel Pit		Refuse tip or slag heap
	Rock		Rock (scattered)
	Boulders		Boulders (scattered)
	Shingle		Mud
	Sand		Sand Pit
	Slopes		Top of cliff
	General detail		Underground detail
	Overhead detail		Narrow gauge railway
	Multi-track railway		Single track railway
	County boundary (England only)		Civil, 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



Historical Mapping & Photography included:

Mapping Type	Scale	Date	Pg
Glamorganshire	1:10,560	1884	2
Glamorganshire	1:10,560	1900	3
Glamorganshire	1:10,560	1921	4
Glamorganshire	1:10,560	1921	5
Glamorganshire	1:10,560	1935 - 1936	6
Glamorganshire	1:10,560	1938 - 1951	7
Historical Aerial Photography	1:10,560	1945 - 1949	8
Glamorganshire	1:10,560	1951 - 1952	9
Ordnance Survey Plan	1:10,000	1964 - 1965	10
Ordnance Survey Plan	1:10,000	1968	11
Ordnance Survey Plan	1:10,000	1970 - 1973	12
Ordnance Survey Plan	1:10,000	1980 - 1989	13
Ordnance Survey Plan	1:10,000	1992	14
10K Raster Mapping	1:10,000	1999	15
10K Raster Mapping	1:10,000	2006	16
VectorMap Local	1:10,000	2017	17

Historical Map - Slice A



Order Details

Order Number: 118892601_1_1
Customer Ref: 14156
National Grid Reference: 275340, 199030
Slice: A
Site Area (Ha): 11.09
Search Buffer (m): 1000

Site Details

Leiros Park, Bryncoch, Neath, SA10 7EX

Landmark
INFORMATION GROUP

Tel: 0844 844 9952
Fax: 0844 844 9951
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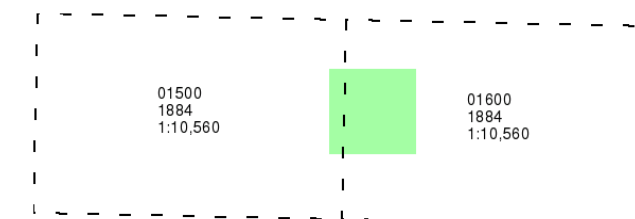
Glamorganshire

Published 1884

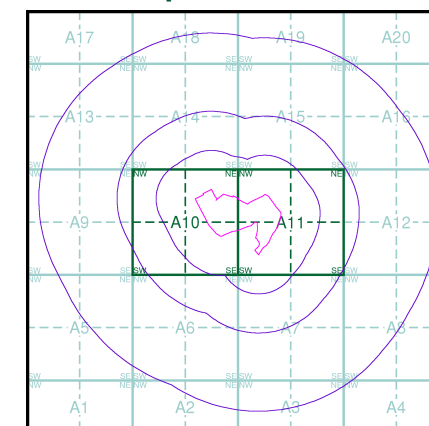
Source map scale - 1:10,560

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

Map Name(s) and Date(s)



Historical Map - Slice A



Order Details

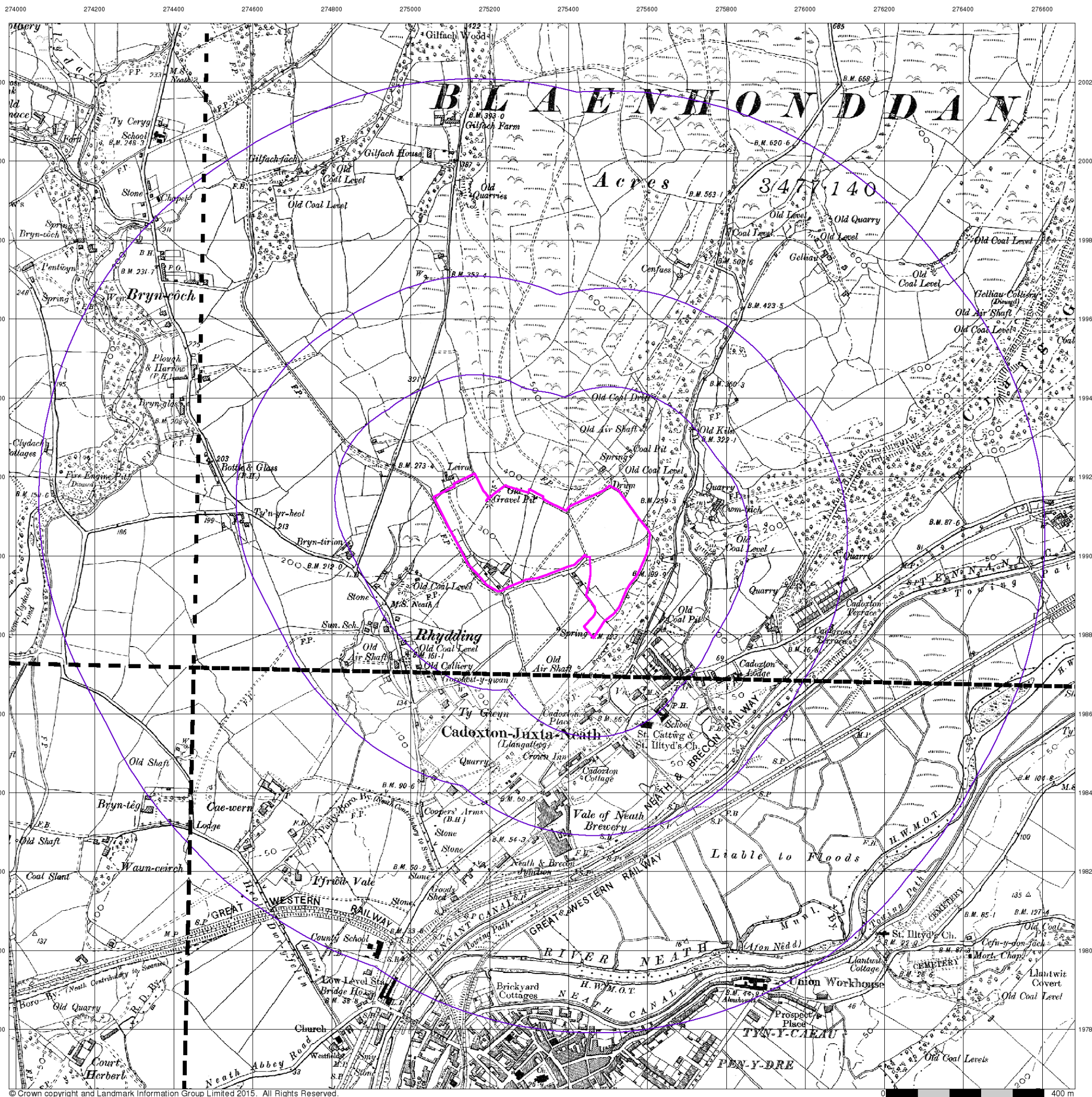
Order Number: 118892601_1_1
Customer Ref: 14156
National Grid Reference: 275340, 199030
Slice: A
Site Area (Ha): 11.09
Search Buffer (m): 1000

Site Details

Leiros Park, Bryncoch, Neath, SA10 7EX



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Glamorganshire

Published 1900

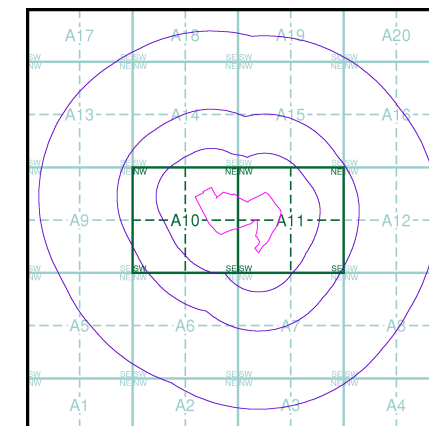
Source map scale - 1:10,560

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

Map Name(s) and Date(s)

015NE 1900 1:10,560	016NW 1900 1:10,560
015SE 1900 1:10,560	016SW 1900 1:10,560

Historical Map - Slice A



Order Details

Order Number: 118892601_1_1
Customer Ref: 14156
National Grid Reference: 275340, 199030
Slice: A
Site Area (Ha): 11.09
Search Buffer (m): 1000

Site Details

Leiros Park, Bryncoch, Neath, SA10 7EX

Landmark
INFORMATION GROUP

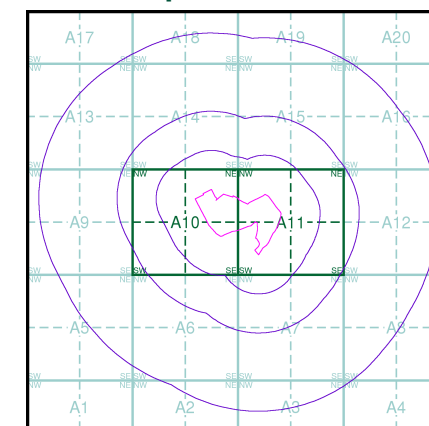
Tel: 0844 844 9952
Fax: 0844 844 9951
Web: www.envirocheck.co.uk

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Map Name(s) and Date(s)

015NE 1921 1:10,560	016NW 1921 1:10,560
015SE 1921 1:10,560	016SW 1921 1:10,560

Historical Map - Slice A

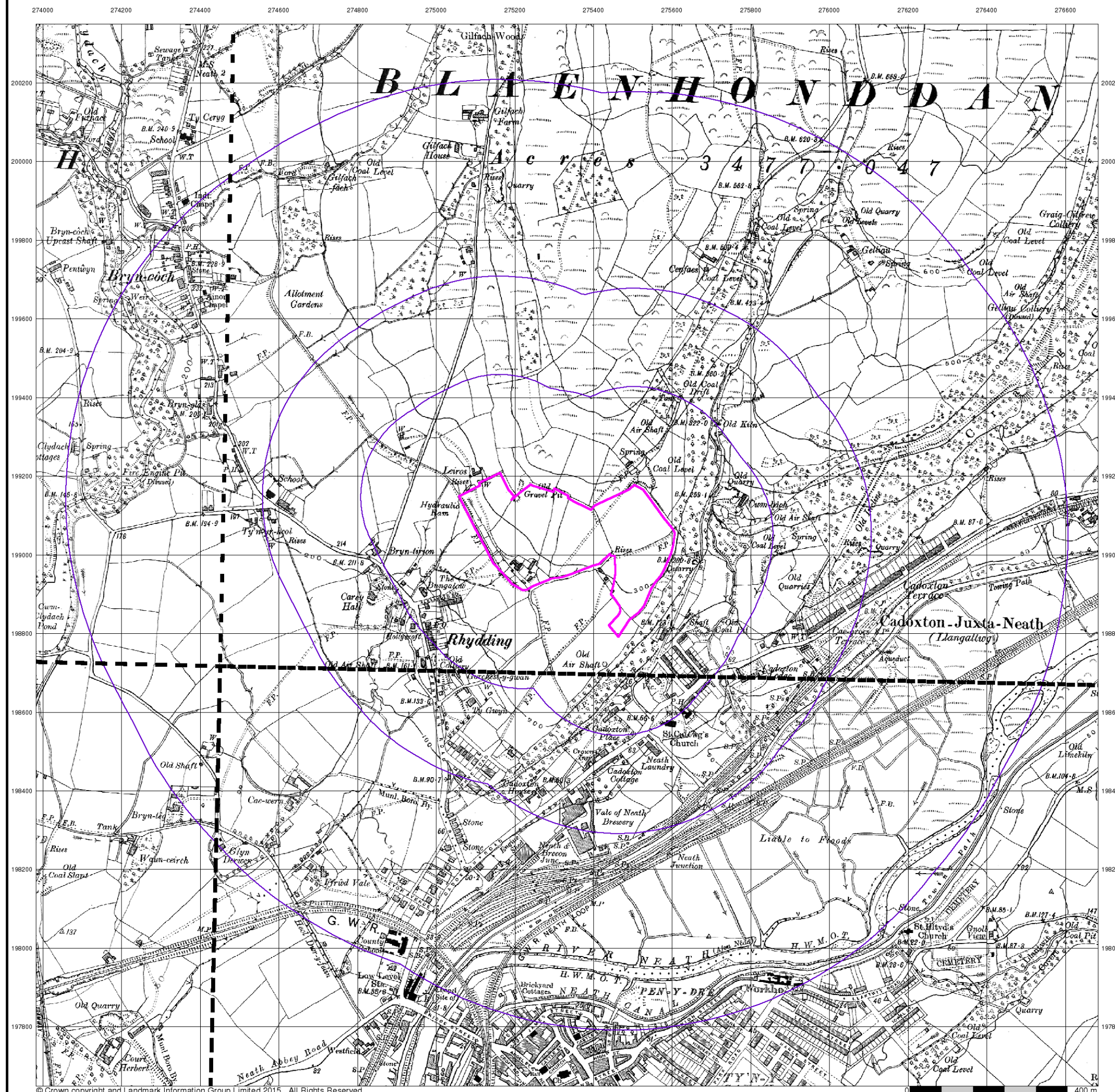


Order Details

Order Number: 118892601_1_1
 Customer Ref: 14156
 National Grid Reference: 275340, 199030
 Slice: A
 Site Area (Ha): 11.09
 Search Buffer (m): 1000

Site Details

Leiros Park, Bryncoch, Neath, SA10 7EX



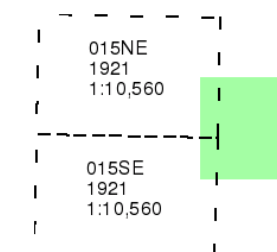
Glamorganshire

Published 1921

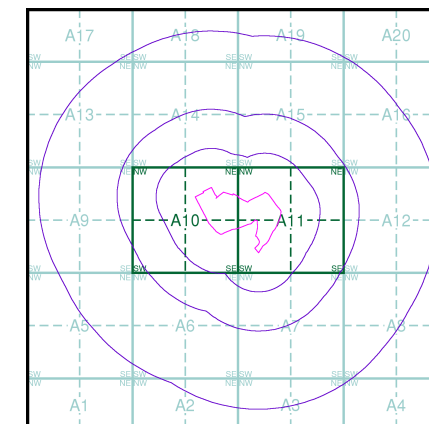
Source map scale - 1:10,560

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

Map Name(s) and Date(s)



Historical Map - Slice A

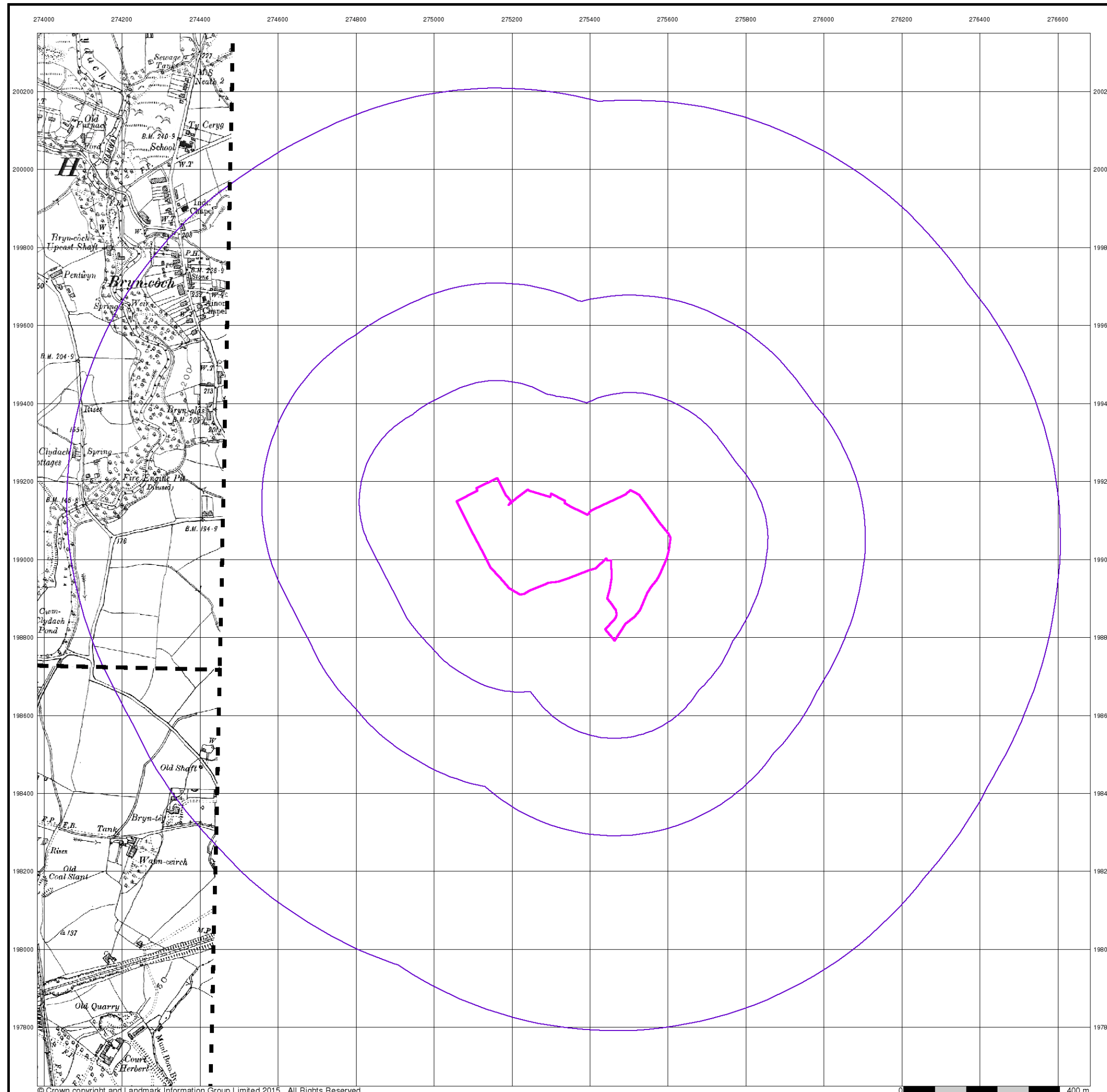


Order Details

Order Number: 118892601_1_1
 Customer Ref: 14156
 National Grid Reference: 275340, 199030
 Slice: A
 Site Area (Ha): 11.09
 Search Buffer (m): 1000

Site Details

Leiros Park, Bryncoch, Neath, SA10 7EX





Glamorganshire

Published 1935 - 1936

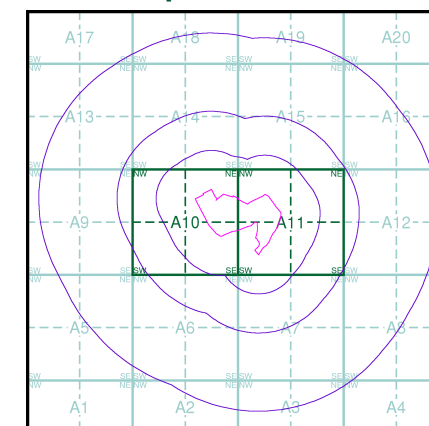
Source map scale - 1:10,560

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)

016NW	1935
1:10,560	
016SW	1936
1:10,560	

Historical Map - Slice A



Order Details

Order Number: 118892601_1_1
Customer Ref: 14156
National Grid Reference: 275340, 199030
Slice: A
Site Area (Ha): 11.09
Search Buffer (m): 1000

Site Details

Leiros Park, Bryncoch, Neath, SA10 7EX

Landmark
INFORMATION GROUP

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Glamorganshire

Published 1938 - 1951

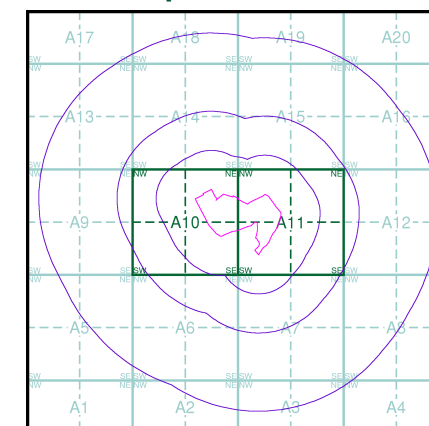
Source map scale - 1:10,560

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

Map Name(s) and Date(s)

015NE 1938 1:10,560	016NW 1951 1:10,560
015SE 1940 1:10,560	016SW 1938 1:10,560

Historical Map - Slice A



Order Details

Order Number: 118892601_1_1
Customer Ref: 14156
National Grid Reference: 275340, 199030
Slice: A
Site Area (Ha): 11.09
Search Buffer (m): 1000

Site Details

Leiros Park, Bryncoch, Neath, SA10 7EX

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INFORMATION GROUP

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Historical Aerial Photography

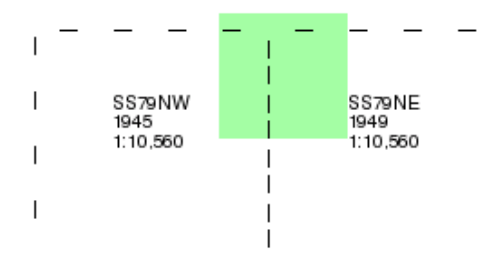
Published 1945 - 1949

Source map scale - 1:10,560

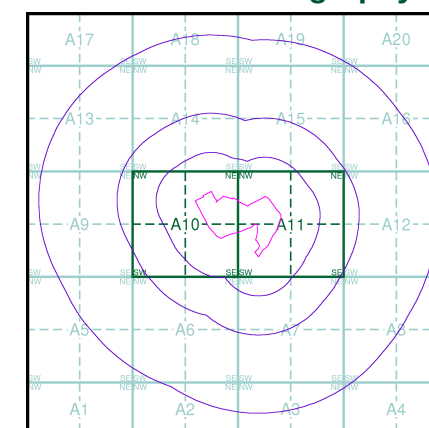
The Historical Aerial Photos were produced by the Ordnance Survey at a scale of 1:1,250 and 1:10,560 from Air Force photography. They were produced between 1944 and 1951 as an interim measure, pending preparation of conventional mapping, due to post war resource shortages. New security measures in the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

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Map Name(s) and Date(s)



Historical Aerial Photography - Slice A



Order Details

Order Number: 118892601_1_1
Customer Ref: 14156
National Grid Reference: 275340, 199030
Slice: A
Site Area (Ha): 11.09
Search Buffer (m): 1000

Site Details

Leiros Park, Bryncoch, Neath, SA10 7EX

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INFORMATION GROUP

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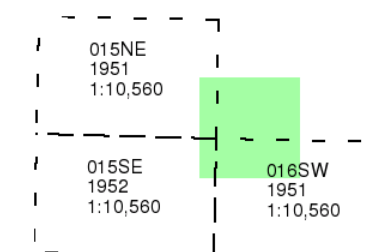
Glamorganshire

Published 1951 - 1952

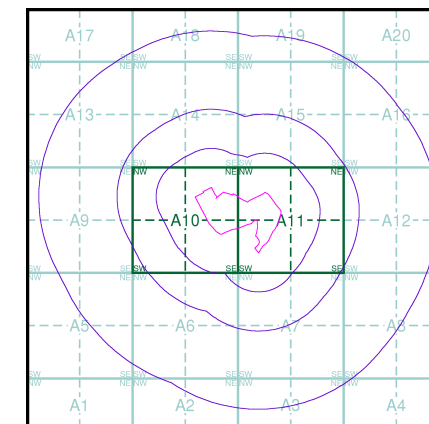
Source map scale - 1:10,560

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

Map Name(s) and Date(s)



Historical Map - Slice A



Order Details

Order Number: 118892601_1_1
Customer Ref: 14156
National Grid Reference: 275340, 199030
Slice: A
Site Area (Ha): 11.09
Search Buffer (m): 1000

Site Details

Leiros Park, Bryncoch, Neath, SA10 7EX

Landmark
INFORMATION GROUP

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Ordnance Survey Plan

Published 1964 - 1965

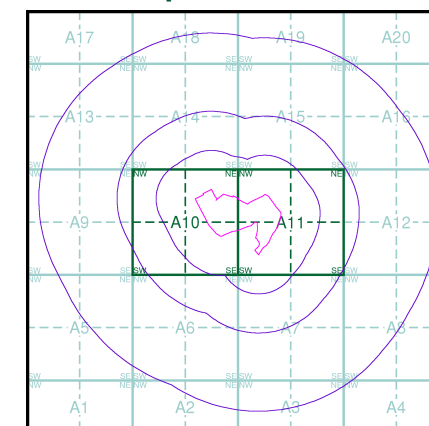
Source map scale - 1:10,000

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)

SN70SW	SN70SE
1964	1964
1:10,560	1:10,560
SS79NW	SS79NE
1965	1964
1:10,560	1:10,560

Historical Map - Slice A



Order Details

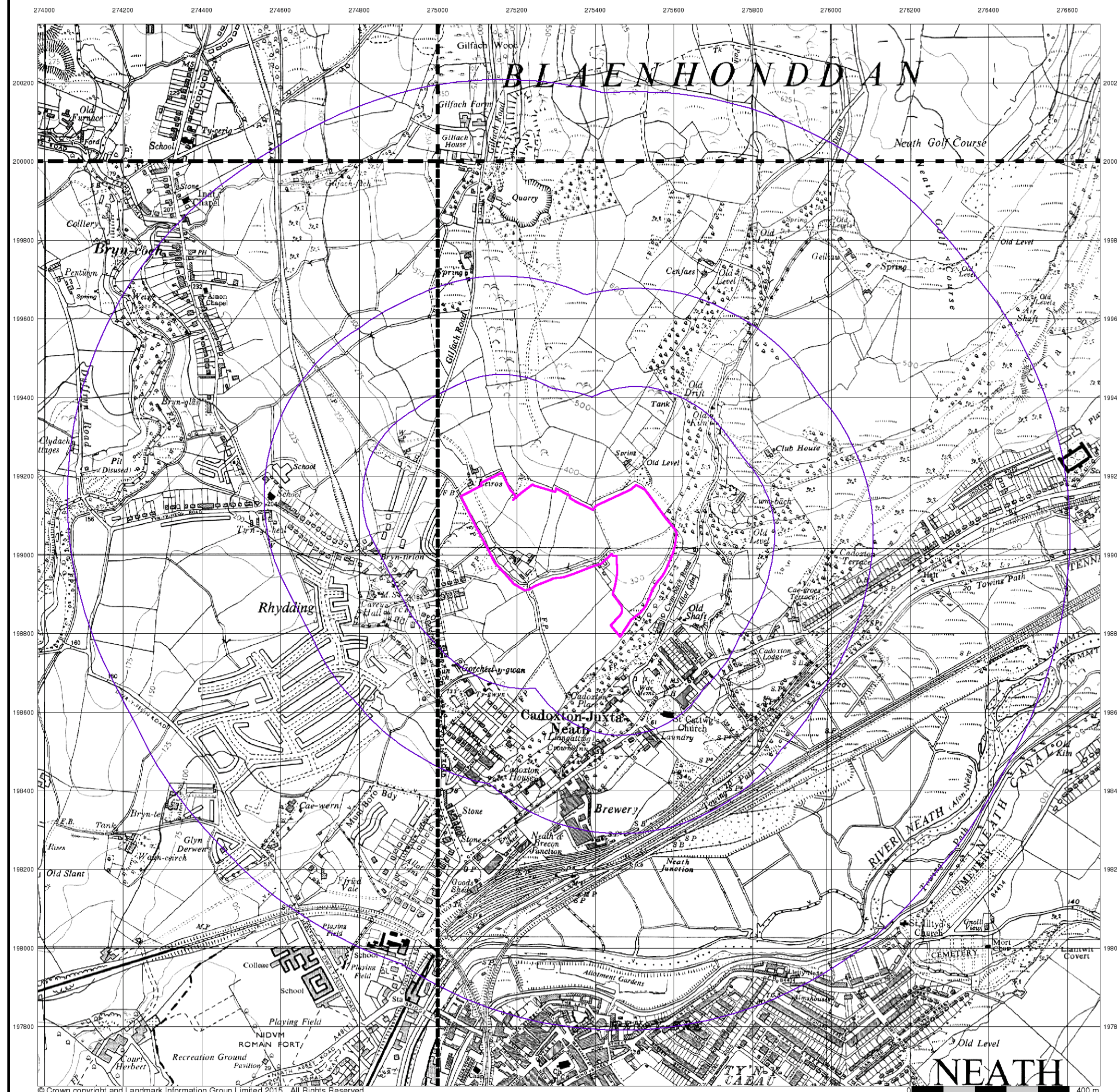
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Customer Ref: 14156
National Grid Reference: 275340, 199030
Slice: A
Site Area (Ha): 11.09
Search Buffer (m): 1000

Site Details

Leiros Park, Bryncoch, Neath, SA10 7EX

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INFORMATION GROUP

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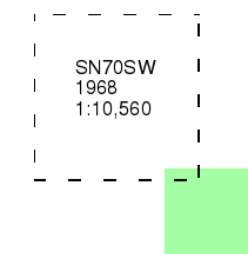
Ordnance Survey Plan

Published 1968

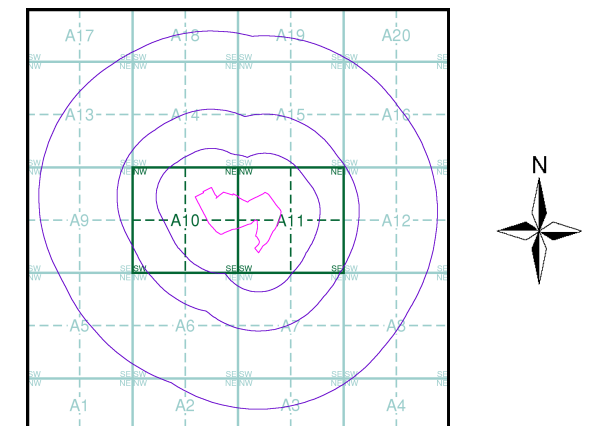
Source map scale - 1:10,000

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

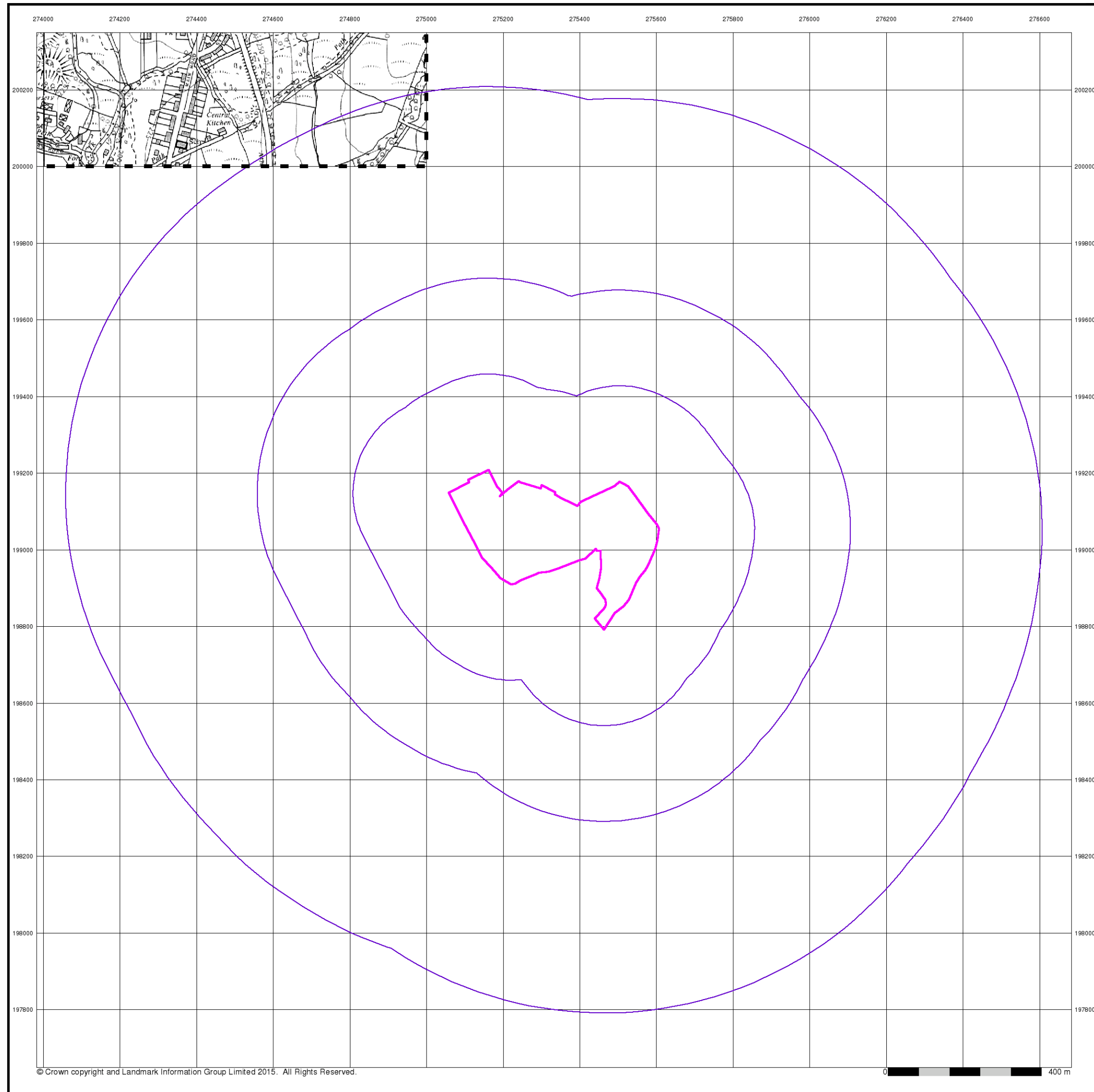
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National Grid Reference: 275340, 199030
Slice: A
Site Area (Ha): 11.09
Search Buffer (m): 1000

Site Details

Leiros Park, Bryncoch, Neath, SA10 7EX



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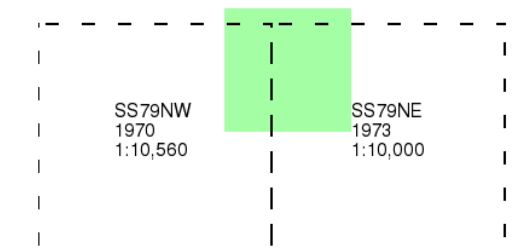
Ordnance Survey Plan

Published 1970 - 1973

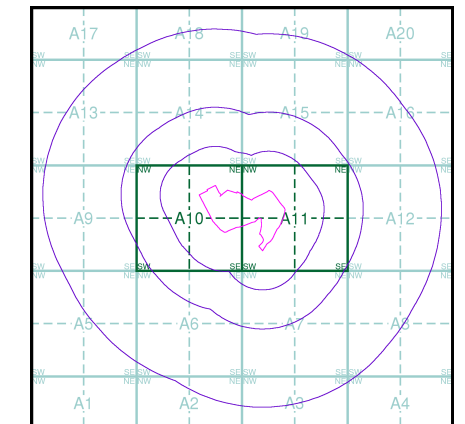
Source map scale - 1:10,000

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

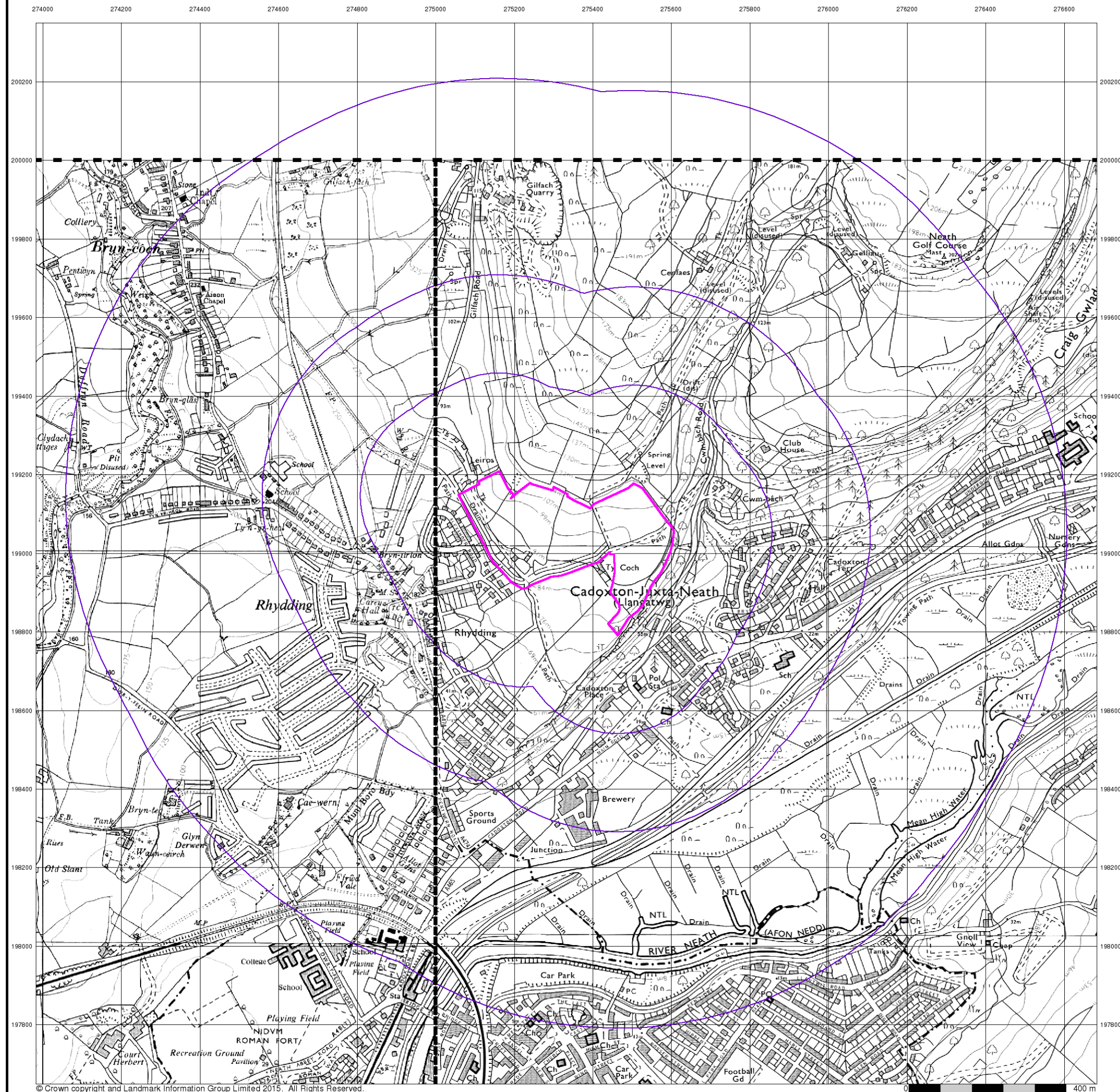


Order Details

Order Number: 118892601_1_1
 Customer Ref: 14156
 National Grid Reference: 275340, 199030
 Slice: A
 Site Area (Ha): 11.09
 Search Buffer (m): 1000

Site Details

Leiros Park, Bryncoch, Neath, SA10 7EX





Ordnance Survey Plan

Published 1980 - 1989

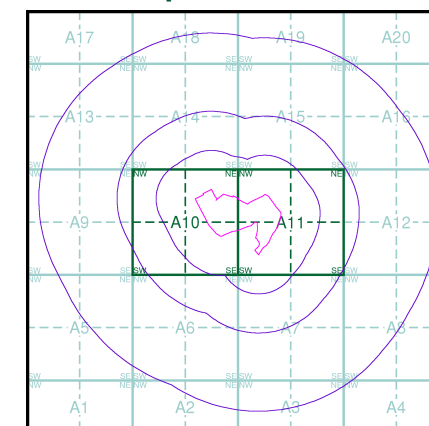
Source map scale - 1:10,000

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)

SN70SW	SN70SE
1982	1989
1:10,000	1:10,000
SS79NW	SS79NE
1980	1983
1:10,000	1:10,000

Historical Map - Slice A



Order Details

Order Number: 118892601_1_1
Customer Ref: 14156
National Grid Reference: 275340, 199030
Slice: A
Site Area (Ha): 11.09
Search Buffer (m): 1000

Site Details

Leiros Park, Bryncoch, Neath, SA10 7EX

Landmark
INFORMATION GROUP

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Ordnance Survey Plan

Published 1992

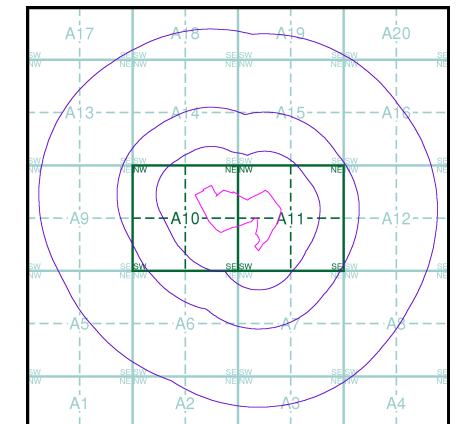
Source map scale - 1:10,000

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)

SN70SW	1992	1:10,000
SS79NW	1992	1:10,000
SS79NE	1992	1:10,000

Historical Map - Slice A



Order Details

Order Number: 118892601_1_1
Customer Ref: 14156
National Grid Reference: 275340, 199030
Slice: A
Site Area (Ha): 11.09
Search Buffer (m): 1000

Site Details

Leiros Park, Bryncoch, Neath, SA10 7EX

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10k Raster Mapping

Published 1999

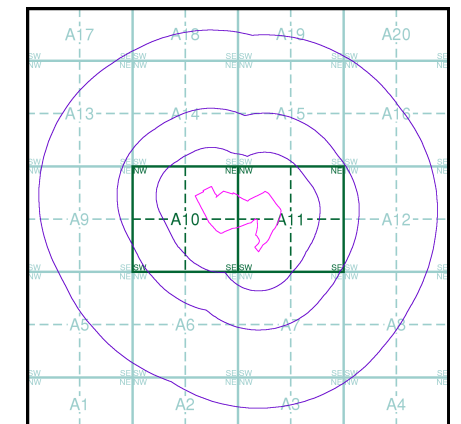
Source map scale - 1:10,000

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)

SN70SW	SN70SE
1999	1999
1:10,000	1:10,000
SS79NW	SS79NE
1999	1999
1:10,000	1:10,000

Historical Map - Slice A



Order Details

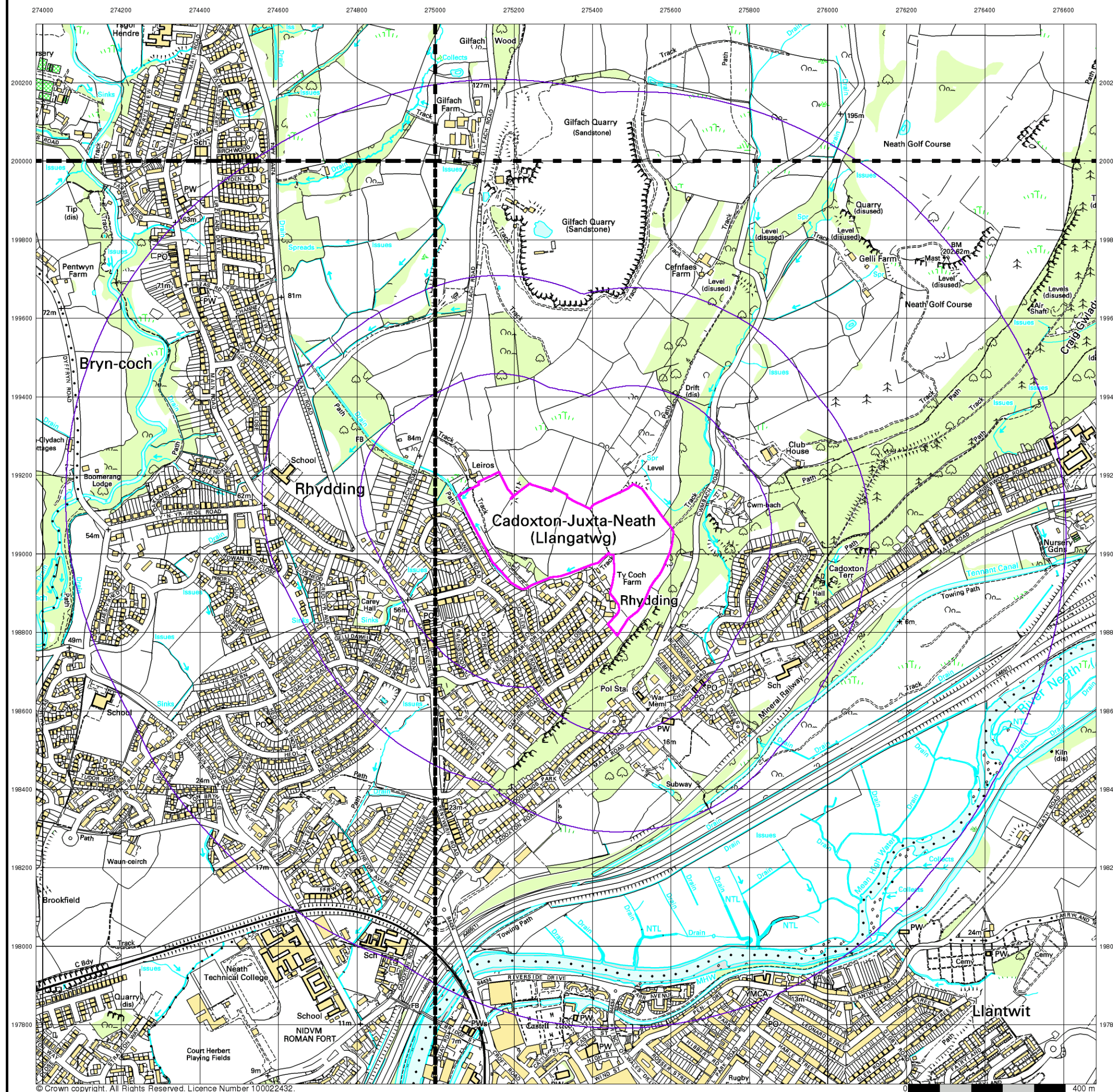
Order Number: 118892601_1_1
Customer Ref: 14156
National Grid Reference: 275340, 199030
Slice: A
Site Area (Ha): 11.09
Search Buffer (m): 1000

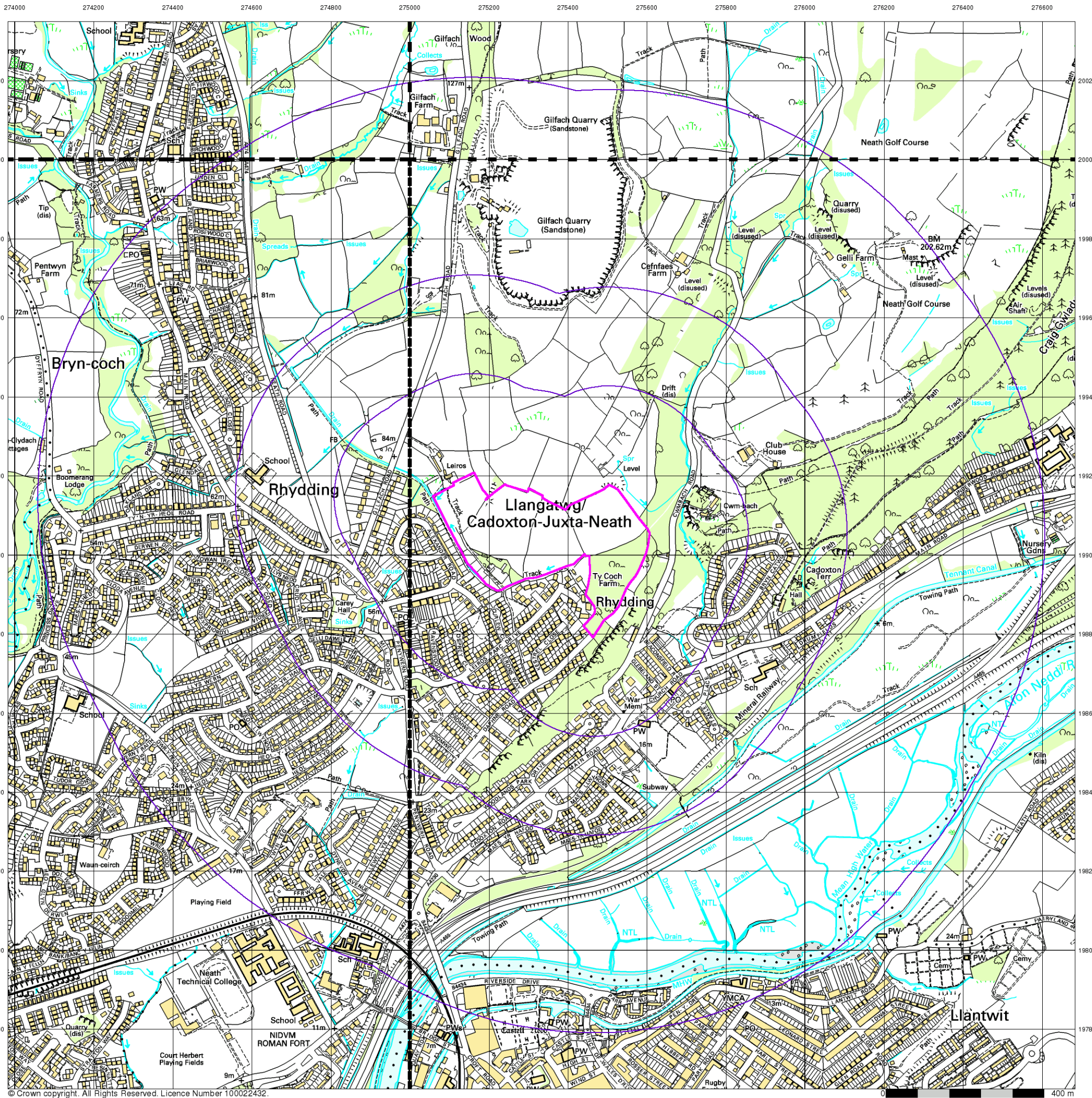
Site Details

Leiros Park, Bryncoch, Neath, SA10 7EX

Landmark
INFORMATION GROUP

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10k Raster Mapping

Published 2006

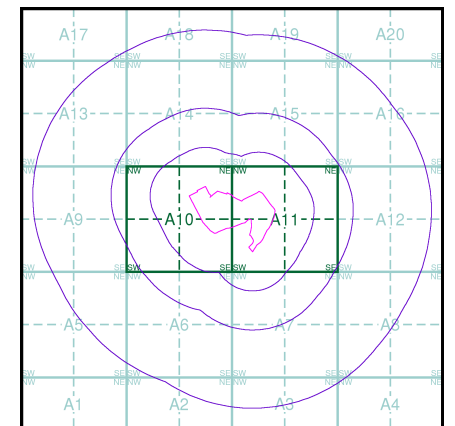
Source map scale - 1:10,000

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)

SN70SW	SN70SE
2006	2006
1:10,000	1:10,000
SS79NW	SS79NE
2006	2006
1:10,000	1:10,000

Historical Map - Slice A



Order Details

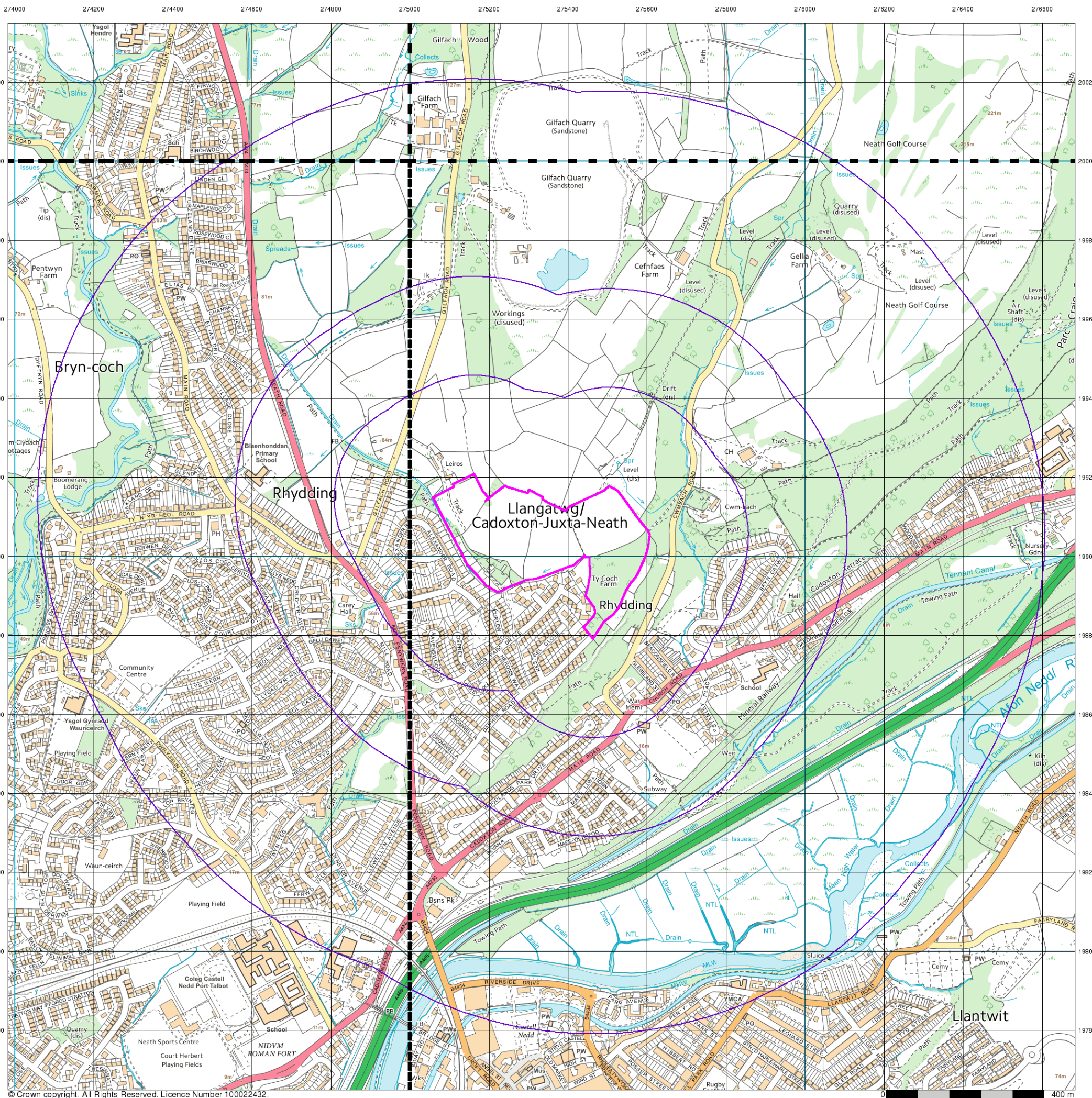
Order Number: 118892601_1_1
Customer Ref: 14156
National Grid Reference: 275340, 199030
Slice: A
Site Area (Ha): 11.09
Search Buffer (m): 1000

Site Details

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VectorMap Local

Published 2017

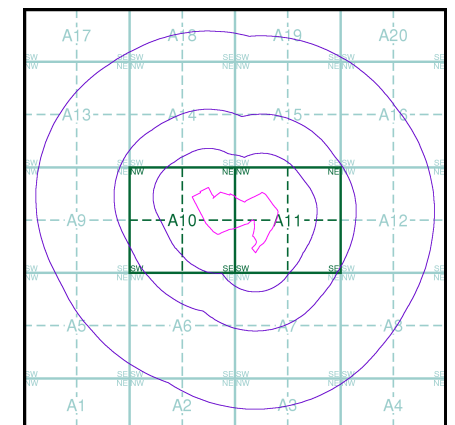
Source map scale - 1:10,000

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)

SN70SW 2017 Variable	SN70SE 2017 Variable
SS79NW 2017 Variable	SS79NE 2017 Variable

Historical Map - Slice A



Order Details

Order Number: 118892601_1_1
Customer Ref: 14156
National Grid Reference: 275340, 199030
Slice: A
Site Area (Ha): 11.09
Search Buffer (m): 1000

Site Details

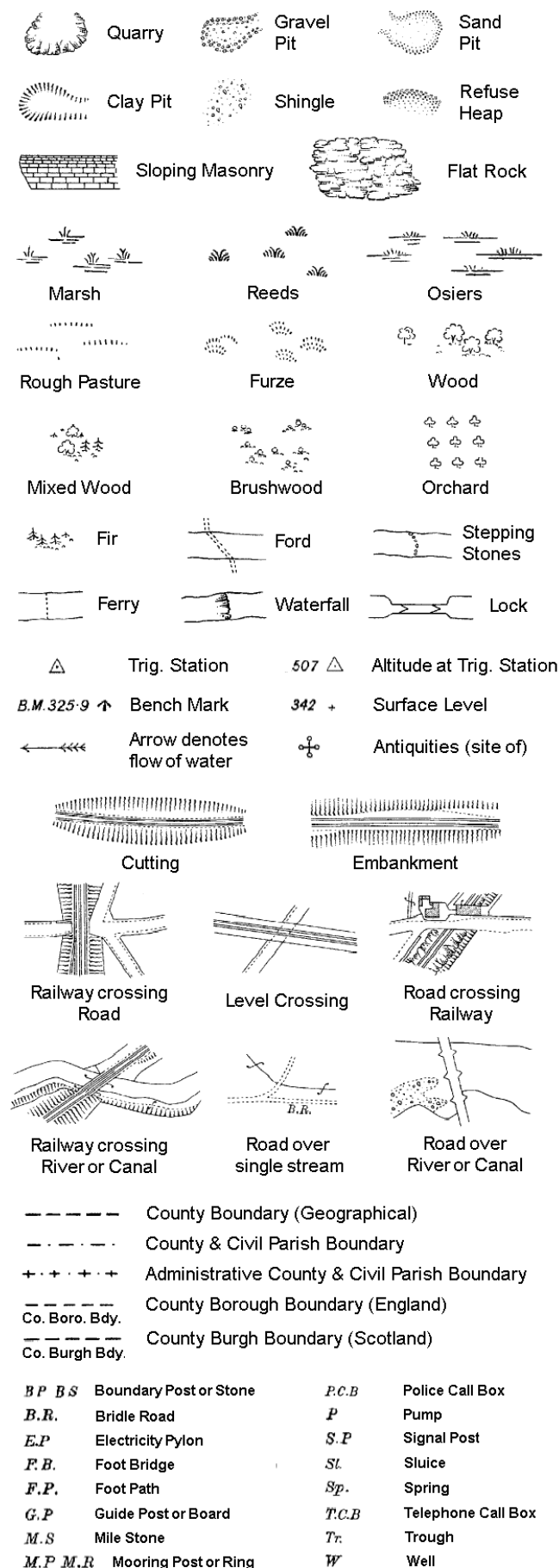
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Historical Mapping Legends

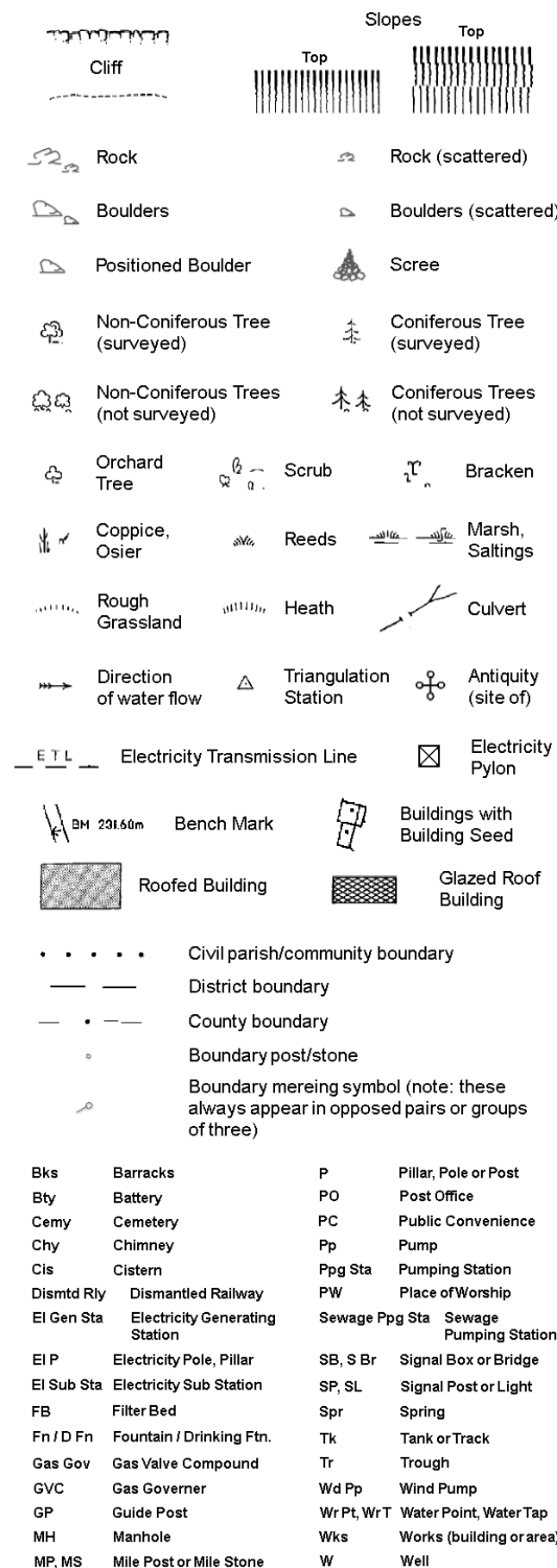
Ordnance Survey County Series and Ordnance Survey Plan 1:2,500



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



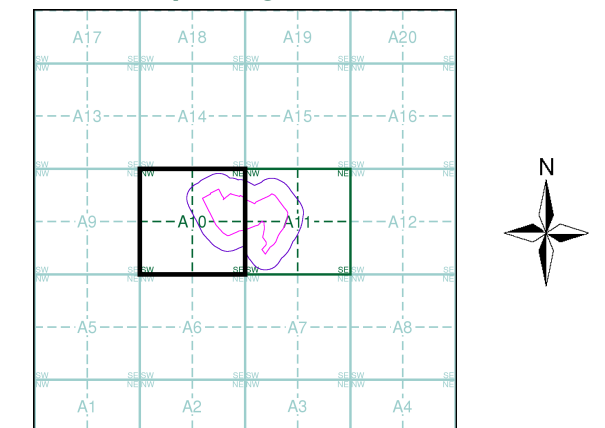
Large-Scale National Grid Data 1:2,500 and 1:1,250



Historical Mapping & Photography included:

Mapping Type	Scale	Date	Pg
Glamorganshire	1:2,500	1877 - 1881	2
Glamorganshire	1:2,500	1899	3
Glamorganshire	1:2,500	1918 - 1919	4
Glamorganshire	1:2,500	1935	5
Ordnance Survey Plan	1:2,500	1965 - 1968	6
Ordnance Survey Plan	1:1,250	1967 - 1972	7
Additional SIMs	1:1,250	1967 - 1989	8
Additional SIMs	1:2,500	1979	9
Ordnance Survey Plan	1:1,250	1989	10
Additional SIMs	1:1,250	1989	11
Large-Scale National Grid Data	1:2,500	1993	12
Large-Scale National Grid Data	1:1,250	1993	13
Large-Scale National Grid Data	1:1,250	1994	14
Large-Scale National Grid Data	1:1,250	1996	15
Historical Aerial Photography	1:2,500	2000	16

Historical Map - Segment A10



Order Details

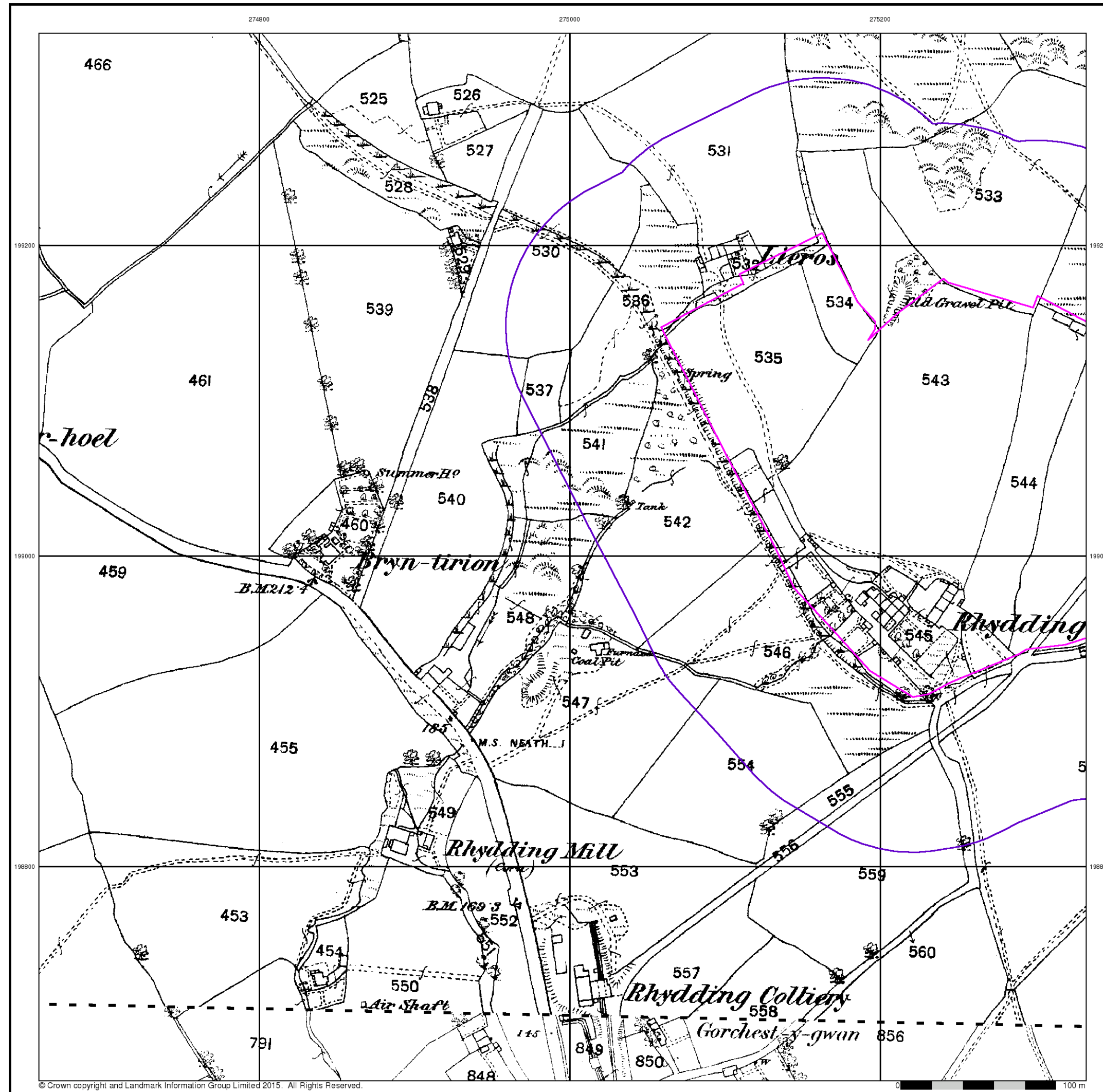
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Customer Ref: 14156
National Grid Reference: 275340, 199030
Slice: A
Site Area (Ha): 11.09
Search Buffer (m): 100

Site Details

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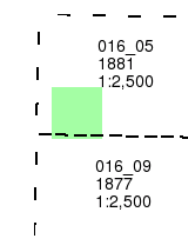
Glamorganshire

Published 1877 - 1881

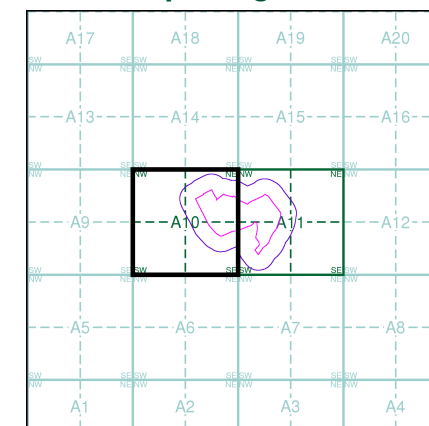
Source map scale - 1:2,500

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 A10



Order Details

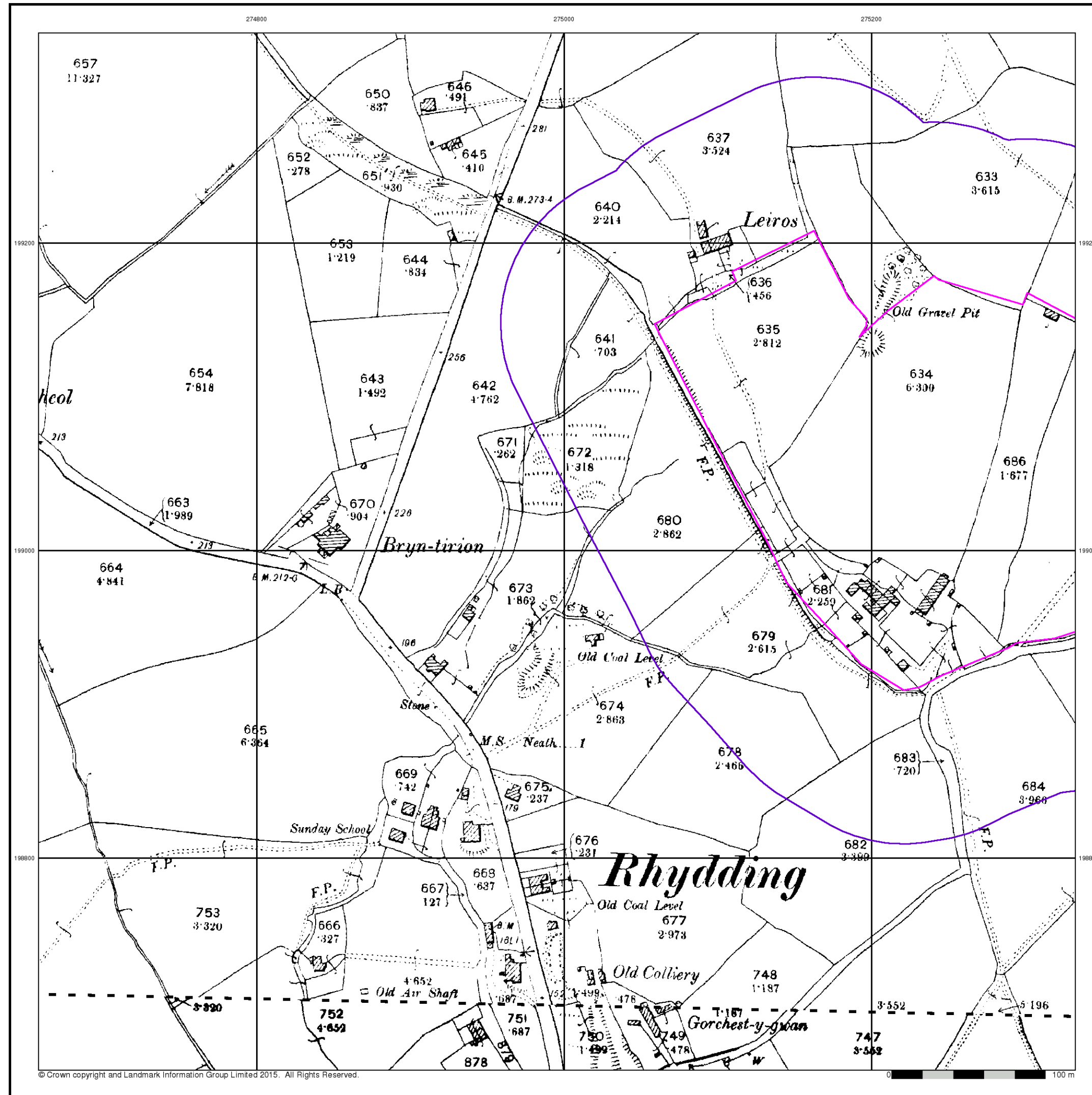
Order Number: 118892601_1_1
Customer Ref: 14156
National Grid Reference: 275340, 199030
Slice: A
Site Area (Ha): 11.09
Search Buffer (m): 100

Site Details

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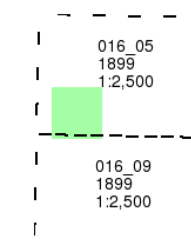
Glamorganshire

Published 1899

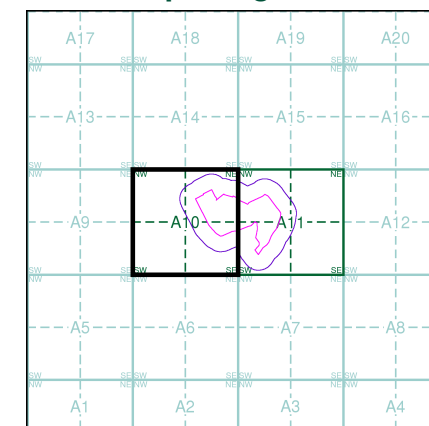
Source map scale - 1:2,500

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 A10



Order Details

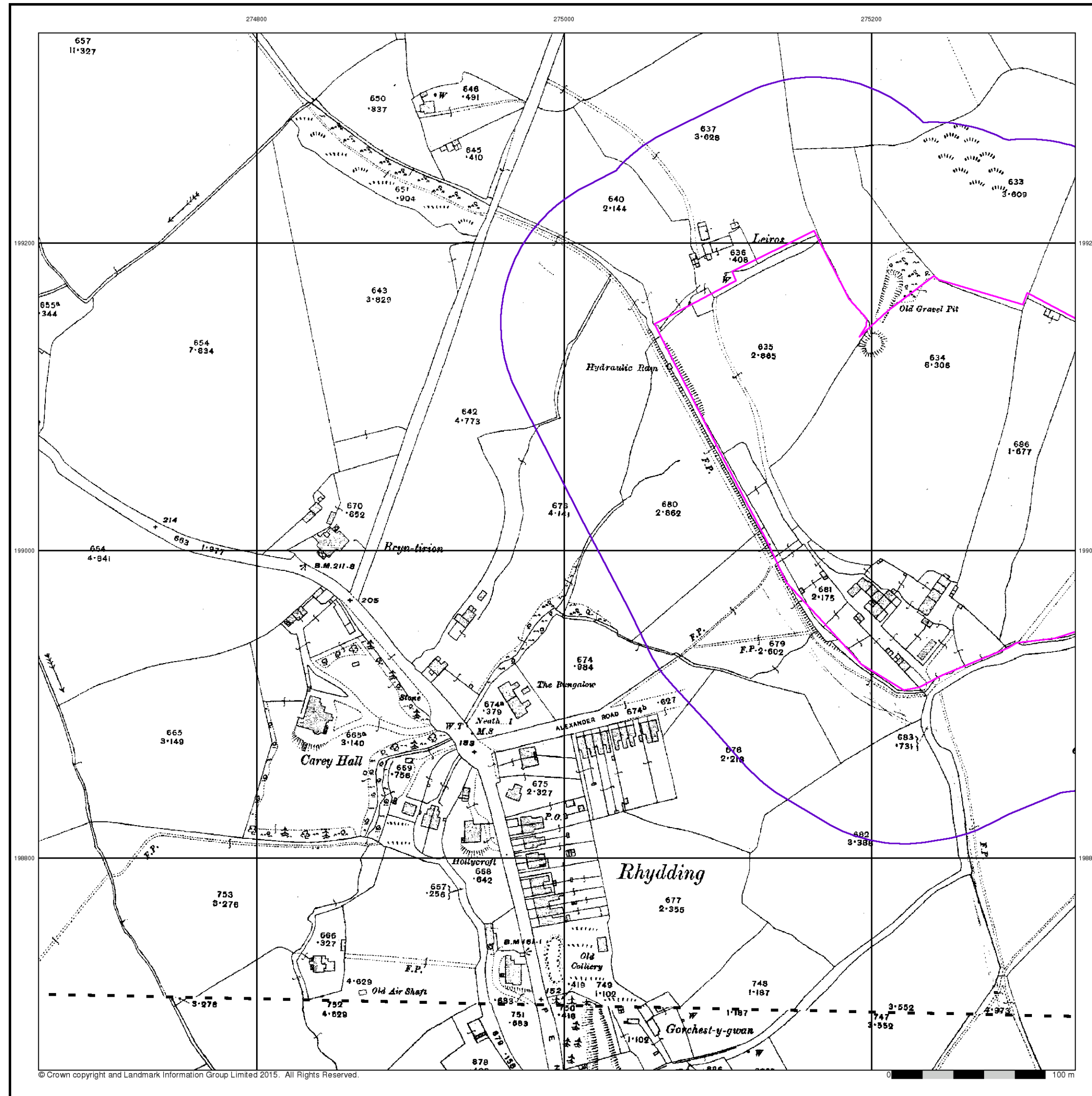
Order Number: 118892601_1_1
Customer Ref: 14156
National Grid Reference: 275340, 199030
Slice: A
Site Area (Ha): 11.09
Search Buffer (m): 100

Site Details

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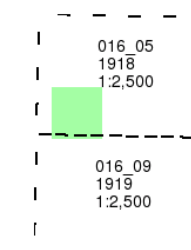
Glamorganshire

Published 1918 - 1919

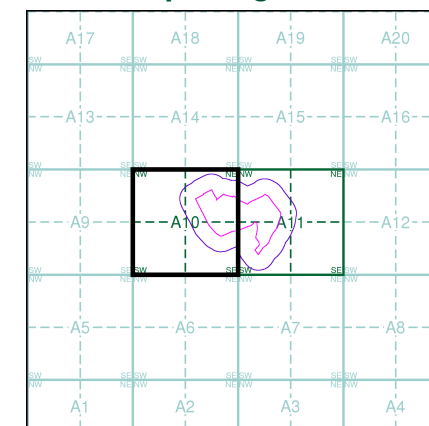
Source map scale - 1:2,500

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 A10



Order Details

Order Number: 118892601_1_1
Customer Ref: 14156
National Grid Reference: 275340, 199030
Slice: A
Site Area (Ha): 11.09
Search Buffer (m): 100

Site Details

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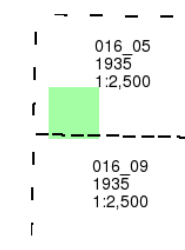
Glamorganshire

Published 1935

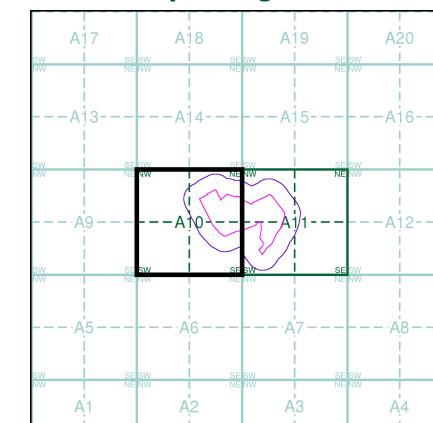
Source map scale - 1:2,500

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 A10



Order Details

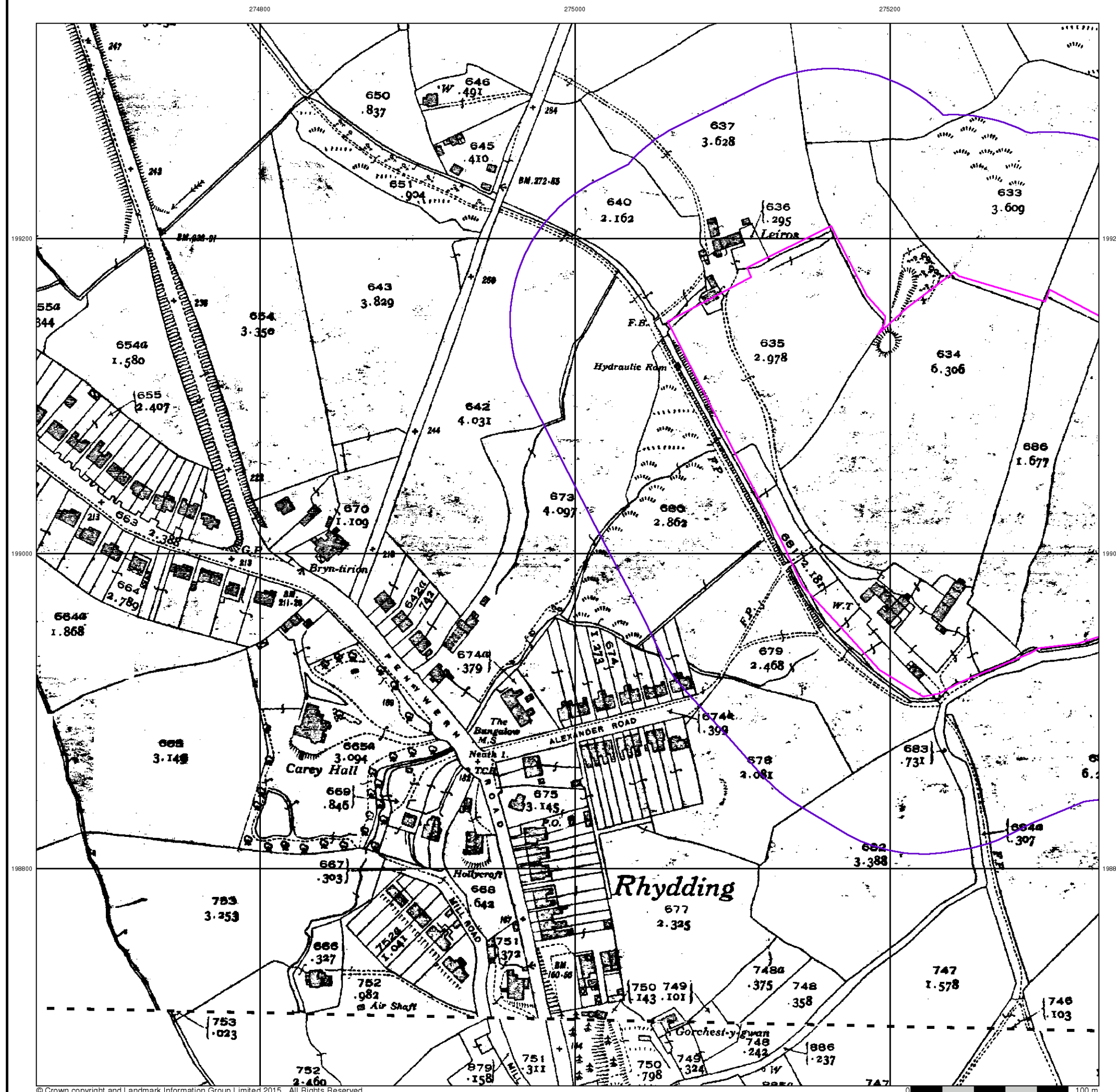
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Customer Ref: 14156
National Grid Reference: 275340, 199030
Slice: A
Site Area (Ha): 11.09
Search Buffer (m): 100

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Ordnance Survey Plan

Published 1965 - 1968

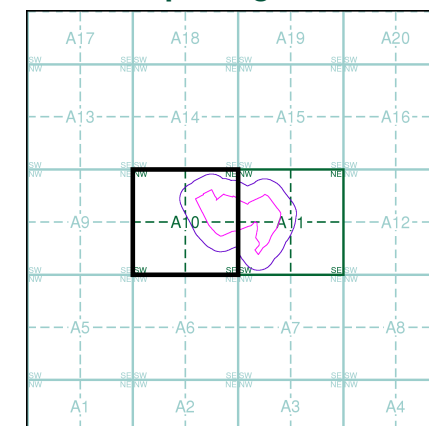
Source map scale - 1:2,500

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

Map Name(s) and Date(s)

SS7499 1965 12,500	SS7599 1965 12,500
SS7498 1968 12,500	SS7598 1968 12,500

Historical Map - Segment A10



Order Details

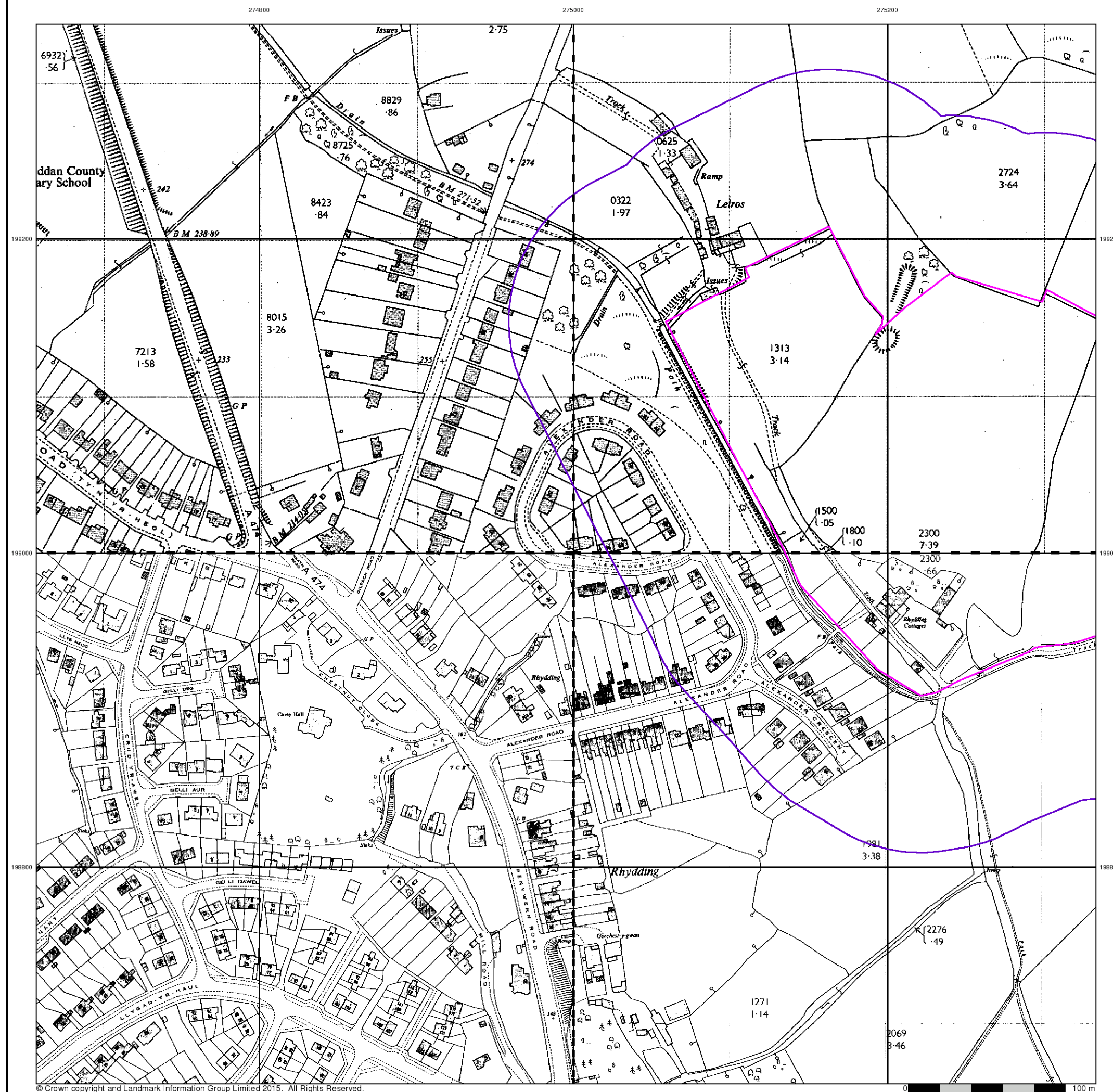
Order Number: 118892601_1_1
Customer Ref: 14156
National Grid Reference: 275340, 199030
Slice: A
Site Area (Ha): 11.09
Search Buffer (m): 100

Site Details

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Ordnance Survey Plan

Published 1967 - 1972

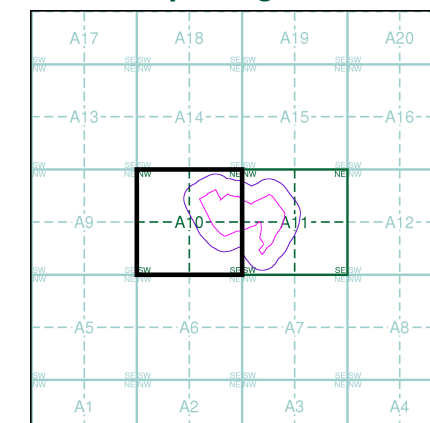
Source map scale - 1:1,250

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

Map Name(s) and Date(s)

SS7499SE	1972	1:1,250
SS7498NE	1967	1:1,250
SS7598NW	1967	1:1,250

Historical Map - Segment A10



Order Details

Order Number: 118892601_1_1
Customer Ref: 14156
National Grid Reference: 275340, 199030
Slice: A
Site Area (Ha): 11.09
Search Buffer (m): 100

Site Details

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Additional SIMs

Published 1967 - 1989

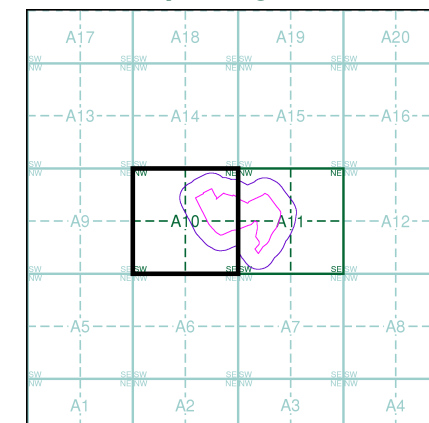
Source map scale - 1:1,250

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

Map Name(s) and Date(s)

SS7499SE	1989	1:1,250
SS7498NE	1967	1:1,250
SS7598NW	1978	1:1,250

Historical Map - Segment A10



Order Details

Order Number: 118892601_1_1
Customer Ref: 14156
National Grid Reference: 275340, 199030
Slice: A
Site Area (Ha): 11.09
Search Buffer (m): 100

Site Details

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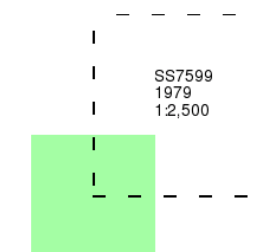
Additional SIMs

Published 1979

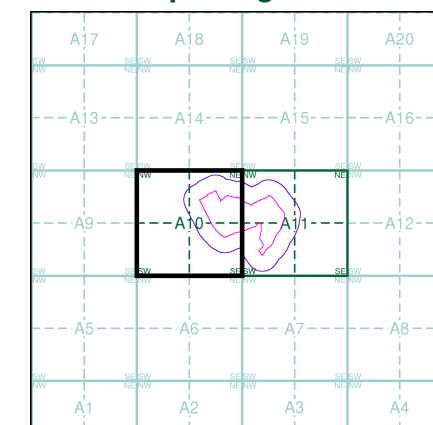
Source map scale - 1:2,500

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)



Historical Map - Segment A10



Order Details

Order Number: 118892601_1_1
Customer Ref: 14156
National Grid Reference: 275340, 199030
Slice: A
Site Area (Ha): 11.09
Search Buffer (m): 100

Site Details

Leiros Park, Bryncoch, Neath, SA10 7EX



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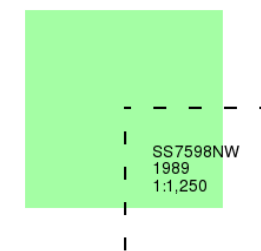
Ordnance Survey Plan

Published 1989

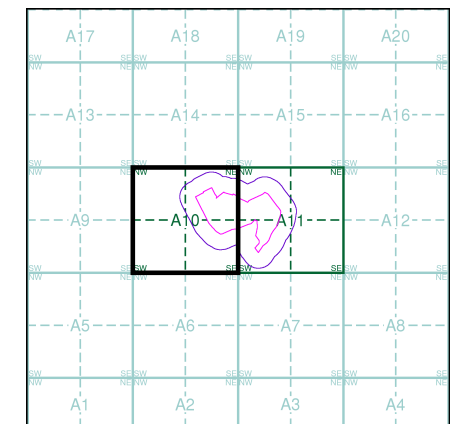
Source map scale - 1:1,250

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

Map Name(s) and Date(s)



Historical Map - Segment A10



Order Details

Order Number: 118892601_1_1
Customer Ref: 14156
National Grid Reference: 275340, 199030
Slice: A
Site Area (Ha): 11.09
Search Buffer (m): 100

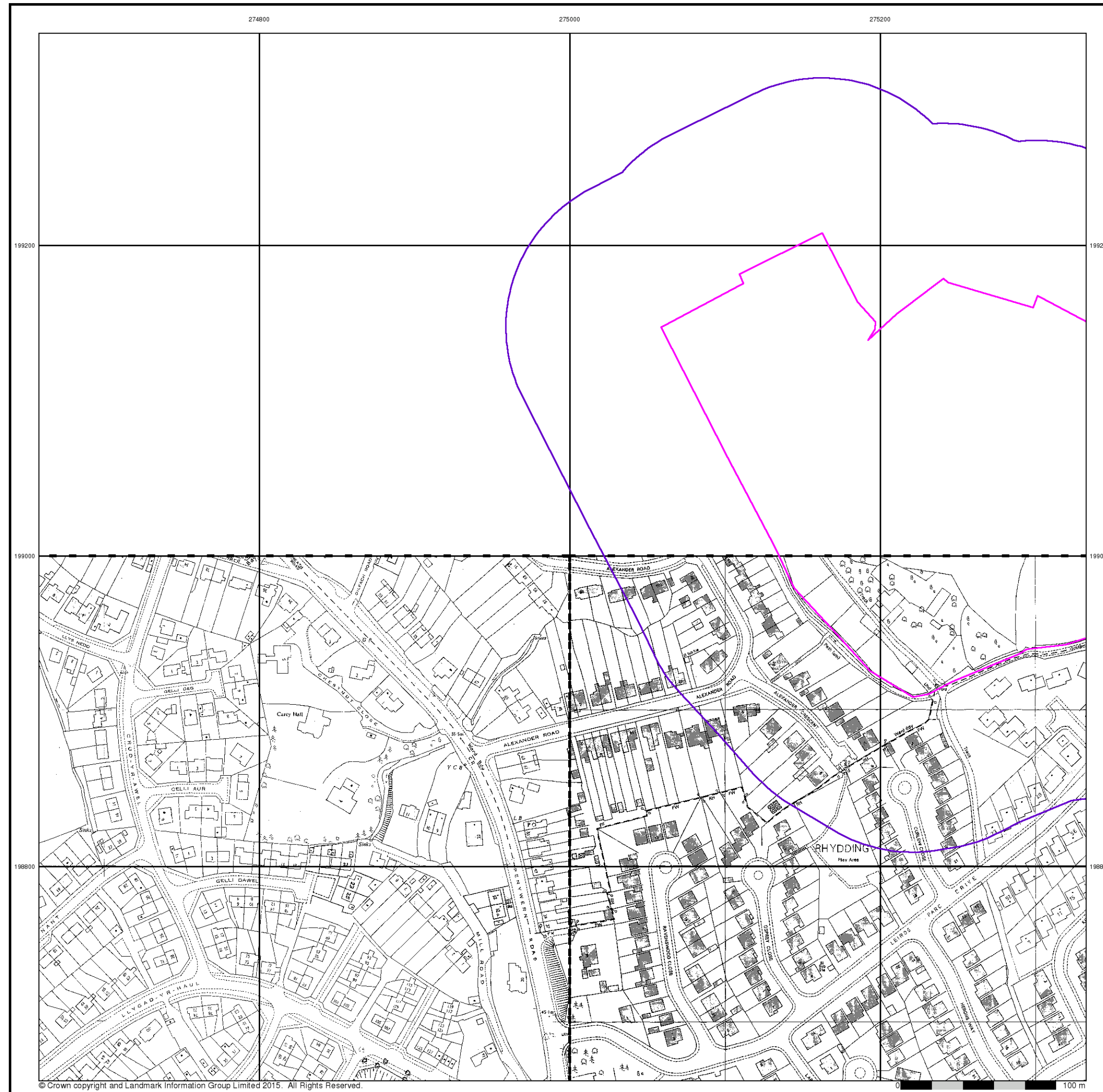
Site Details

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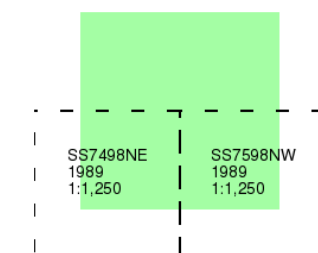
Additional SIMs

Published 1989

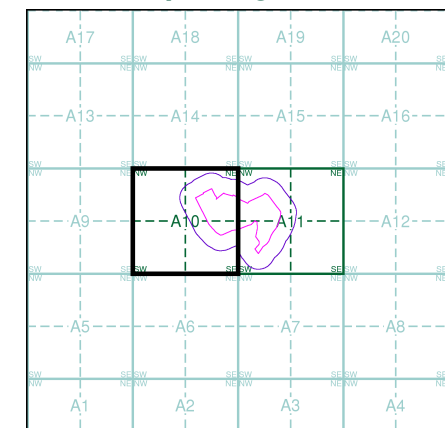
Source map scale - 1:1,250

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

Map Name(s) and Date(s)



Historical Map - Segment A10



Order Details

Order Number: 118892601_1_1
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Slice: A
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Site Details

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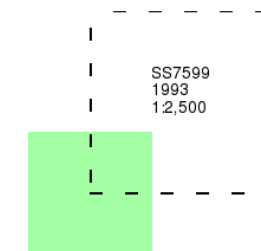
Large-Scale National Grid Data

Published 1993

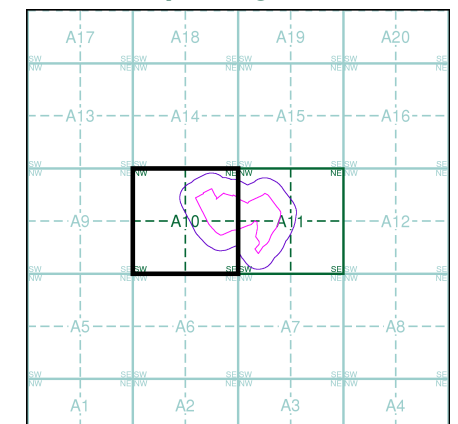
Source map scale - 1:2,500

'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)



Historical Map - Segment A10



Order Details

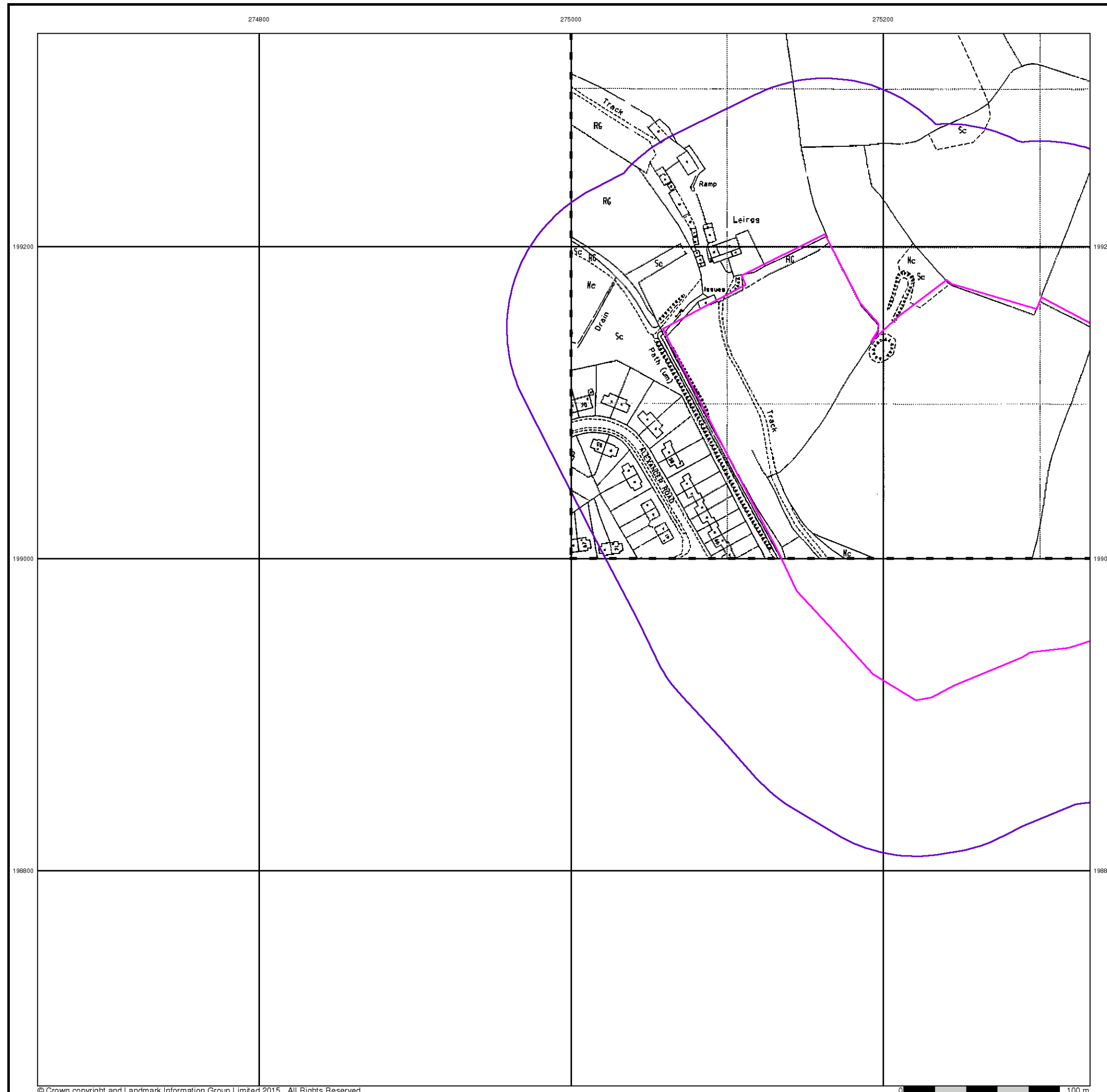
Order Number: 118892601_1_1
Customer Ref: 14156
National Grid Reference: 275340, 199030
Slice: A
Site Area (Ha): 11.09
Search Buffer (m): 100

Site Details

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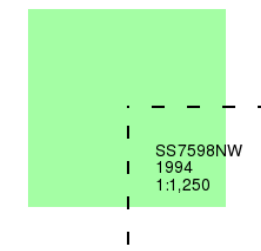
Large-Scale National Grid Data

Published 1994

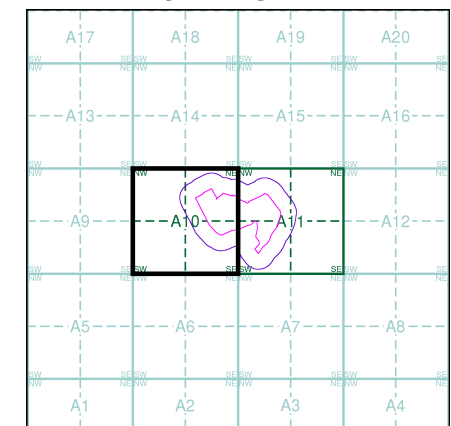
Source map scale - 1:1,250

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

Map Name(s) and Date(s)



Historical Map - Segment A10



Order Details

Order Number: 118892601_1_1
Customer Ref: 14156
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Slice: A
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0 100 m

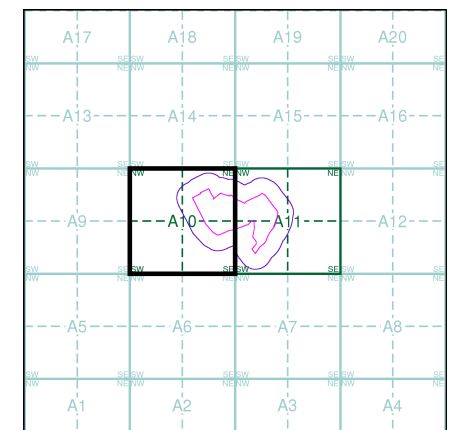


Historical Aerial Photography

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 A10



Order Details

Order Number: 118892601_1_1
Customer Ref: 14156
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Historical Mapping Legends

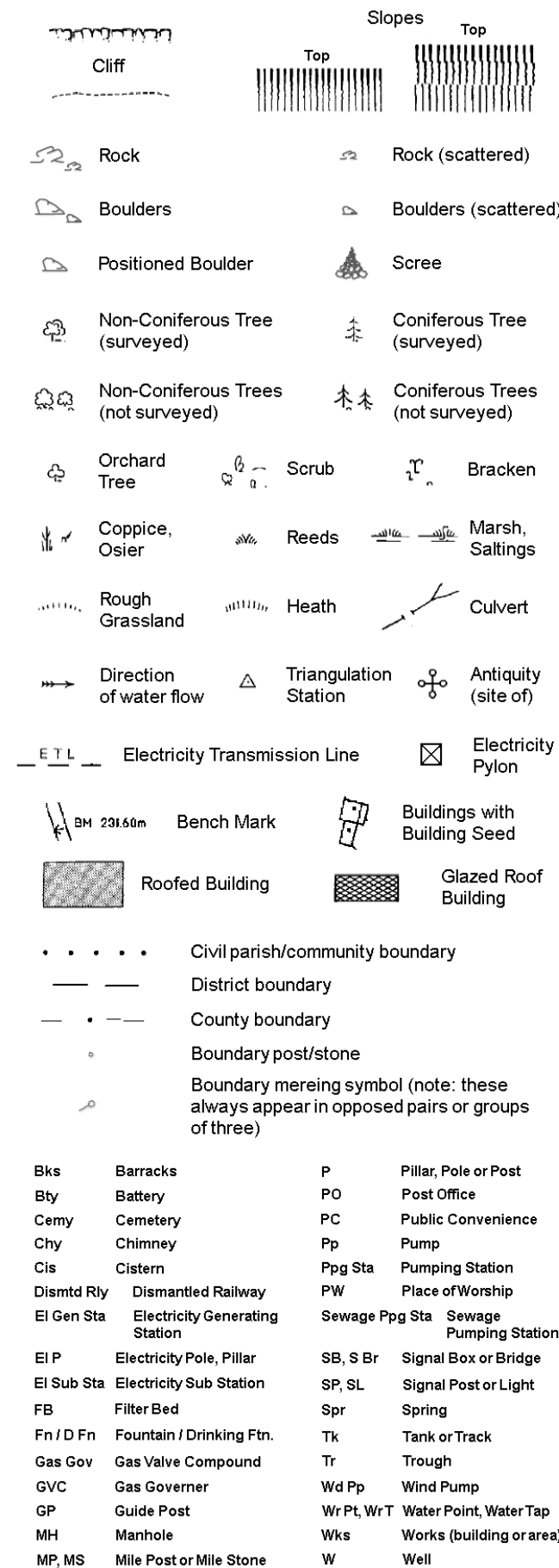
Ordnance Survey County Series and Ordnance Survey Plan 1:2,500



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



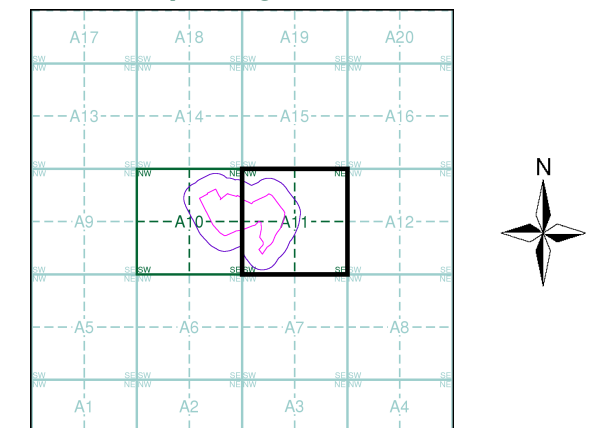
Large-Scale National Grid Data 1:2,500 and 1:1,250



Historical Mapping & Photography included:

Mapping Type	Scale	Date	Pg
Glamorganshire	1:2,500	1877 - 1881	2
Glamorganshire	1:2,500	1899	3
Glamorganshire	1:2,500	1918 - 1919	4
Glamorganshire	1:2,500	1935	5
Ordnance Survey Plan	1:2,500	1964 - 1968	6
Ordnance Survey Plan	1:1,250	1967	7
Ordnance Survey Plan	1:1,250	1971 - 1989	8
Additional SIMs	1:1,250	1978 - 1989	9
Additional SIMs	1:2,500	1978 - 1979	10
Ordnance Survey Plan	1:2,500	1984	11
Additional SIMs	1:2,500	1984 - 1987	12
Additional SIMs	1:1,250	1989	13
Large-Scale National Grid Data	1:2,500	1993	14
Large-Scale National Grid Data	1:1,250	1993	15
Large-Scale National Grid Data	1:2,500	1993	16
Large-Scale National Grid Data	1:1,250	1994	17
Large-Scale National Grid Data	1:2,500	1994	18
Historical Aerial Photography	1:2,500	2000	19

Historical Map - Segment A11



Order Details

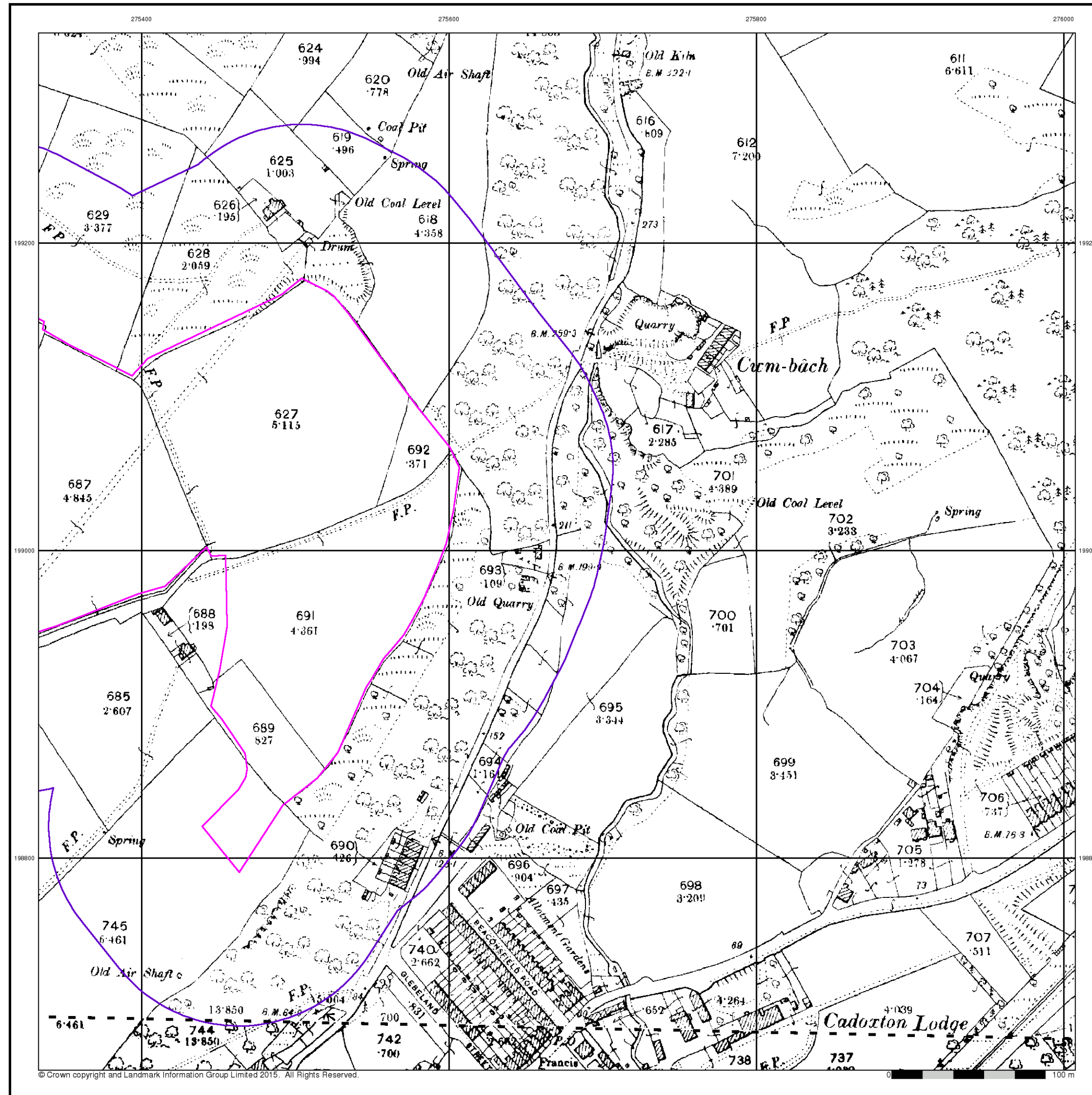
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Customer Ref: 14156
National Grid Reference: 275340, 199030
Slice: A
Site Area (Ha): 11.09
Search Buffer (m): 100

Site Details

Leiros Park, Bryncoch, Neath, SA10 7EX



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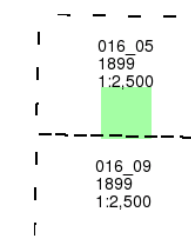
Glamorganshire

Published 1899

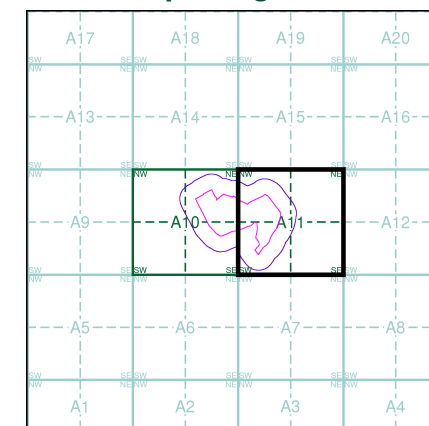
Source map scale - 1:2,500

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 A11



Order Details

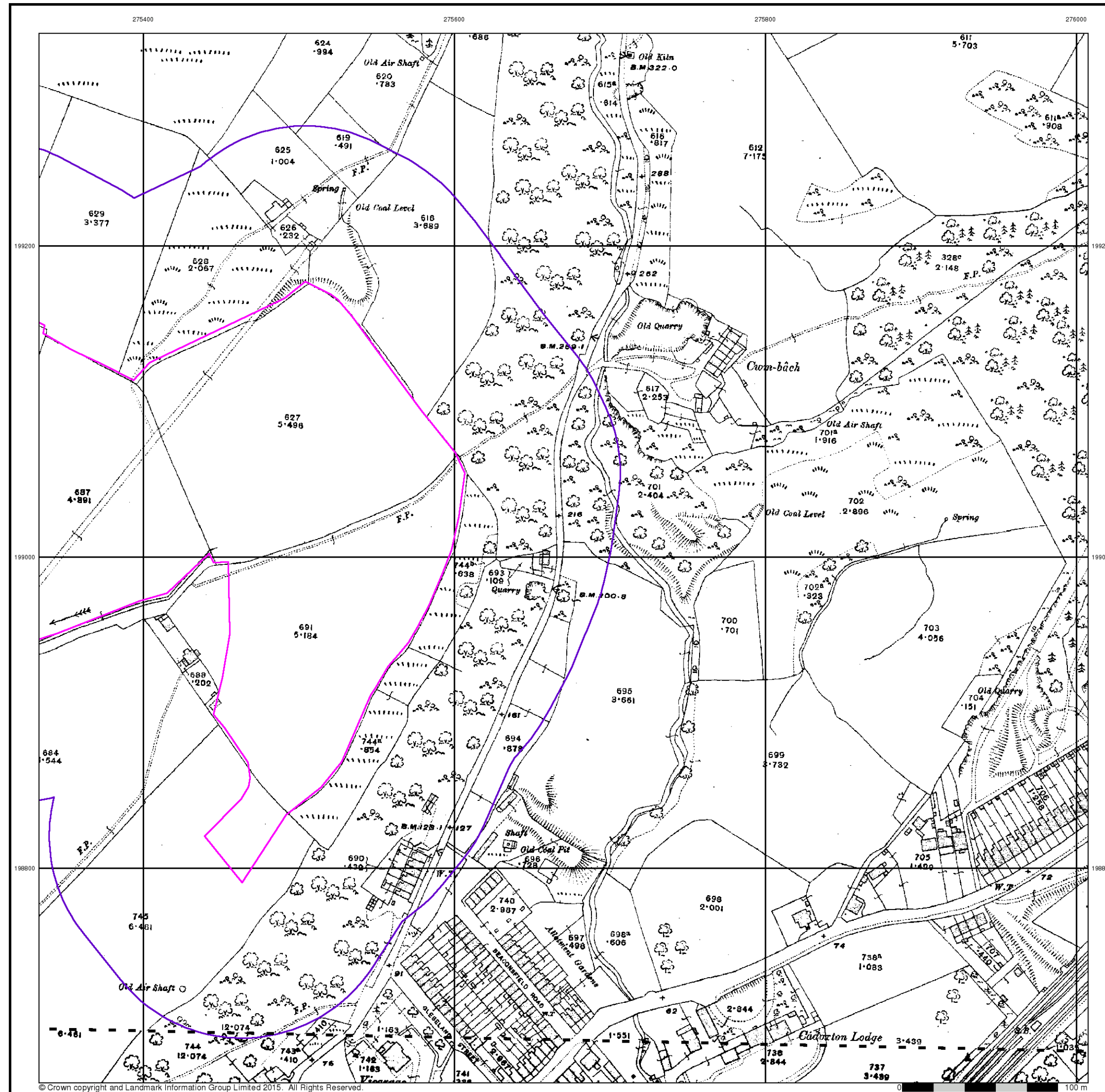
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National Grid Reference: 275340, 199030
Slice: A
Site Area (Ha): 11.09
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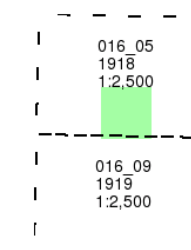
Glamorganshire

Published 1918 - 1919

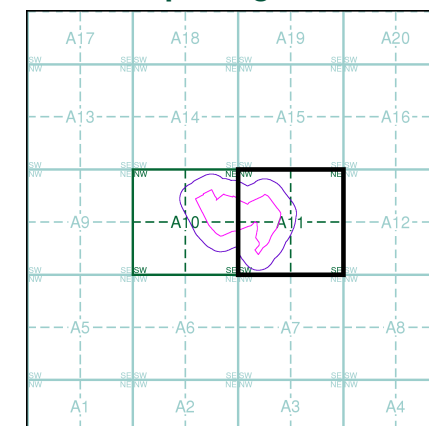
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The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas and by 1896 it covered the whole of what were considered 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 A11



Order Details

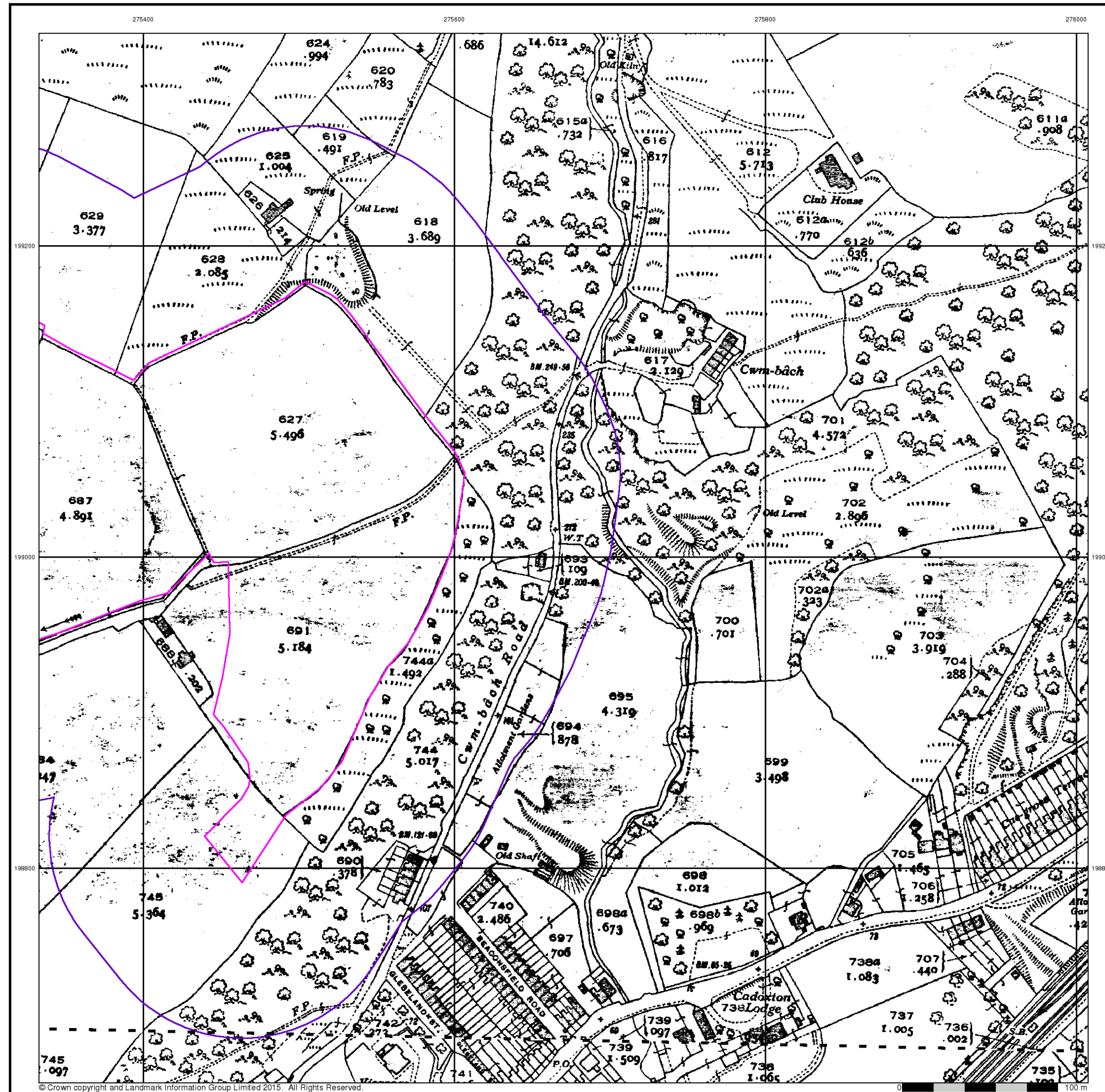
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National Grid Reference: 275340, 199030
Slice: A
Site Area (Ha): 11.09
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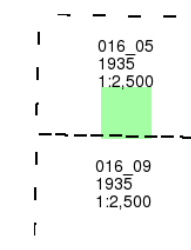
Glamorganshire

Published 1935

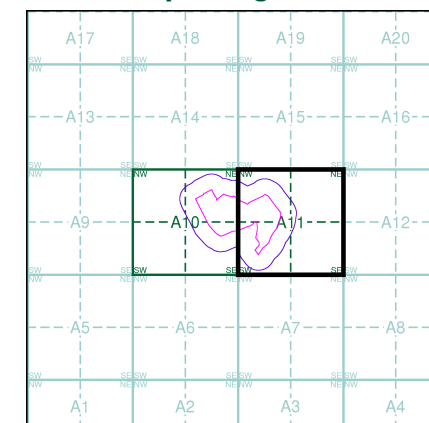
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The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas and by 1896 it covered the whole of what were considered 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 A11



Order Details

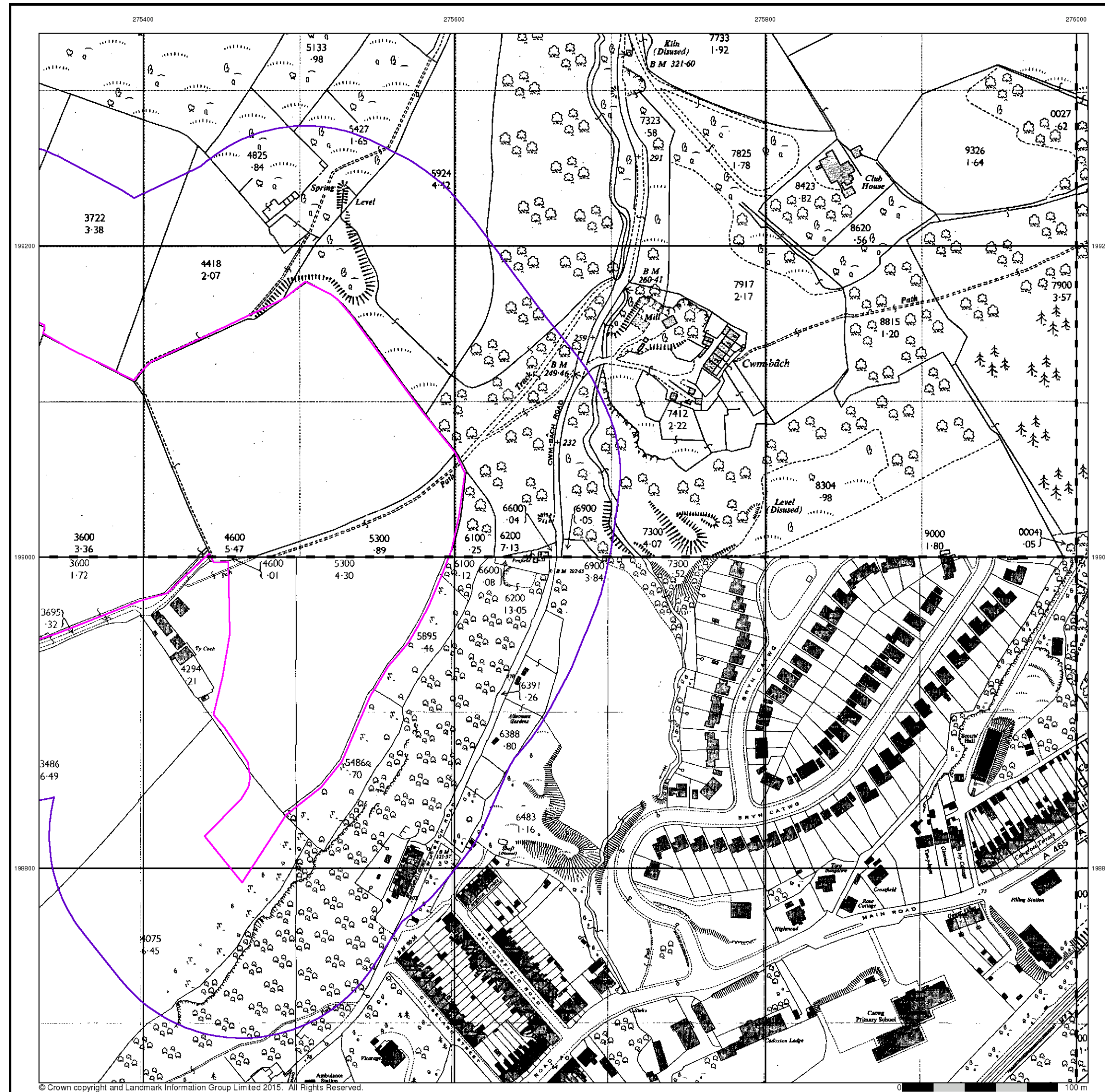
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National Grid Reference: 275340, 199030
Slice: A
Site Area (Ha): 11.09
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INFORMATION GROUP

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Ordnance Survey Plan

Published 1964 - 1968

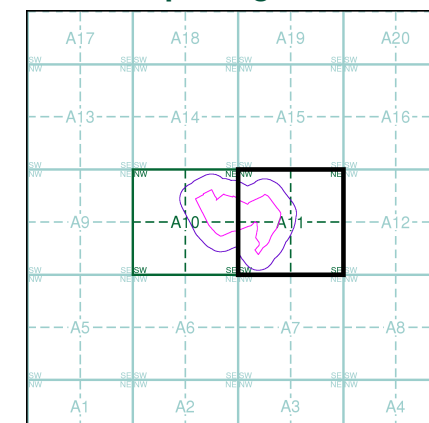
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The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas and by 1896 it covered the whole of what were considered 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)

SS7599 1965 12,500	SS7699 1964 12,500
SS7598 1968 12,500	SS7698 1964 12,500

Historical Map - Segment A11



Order Details

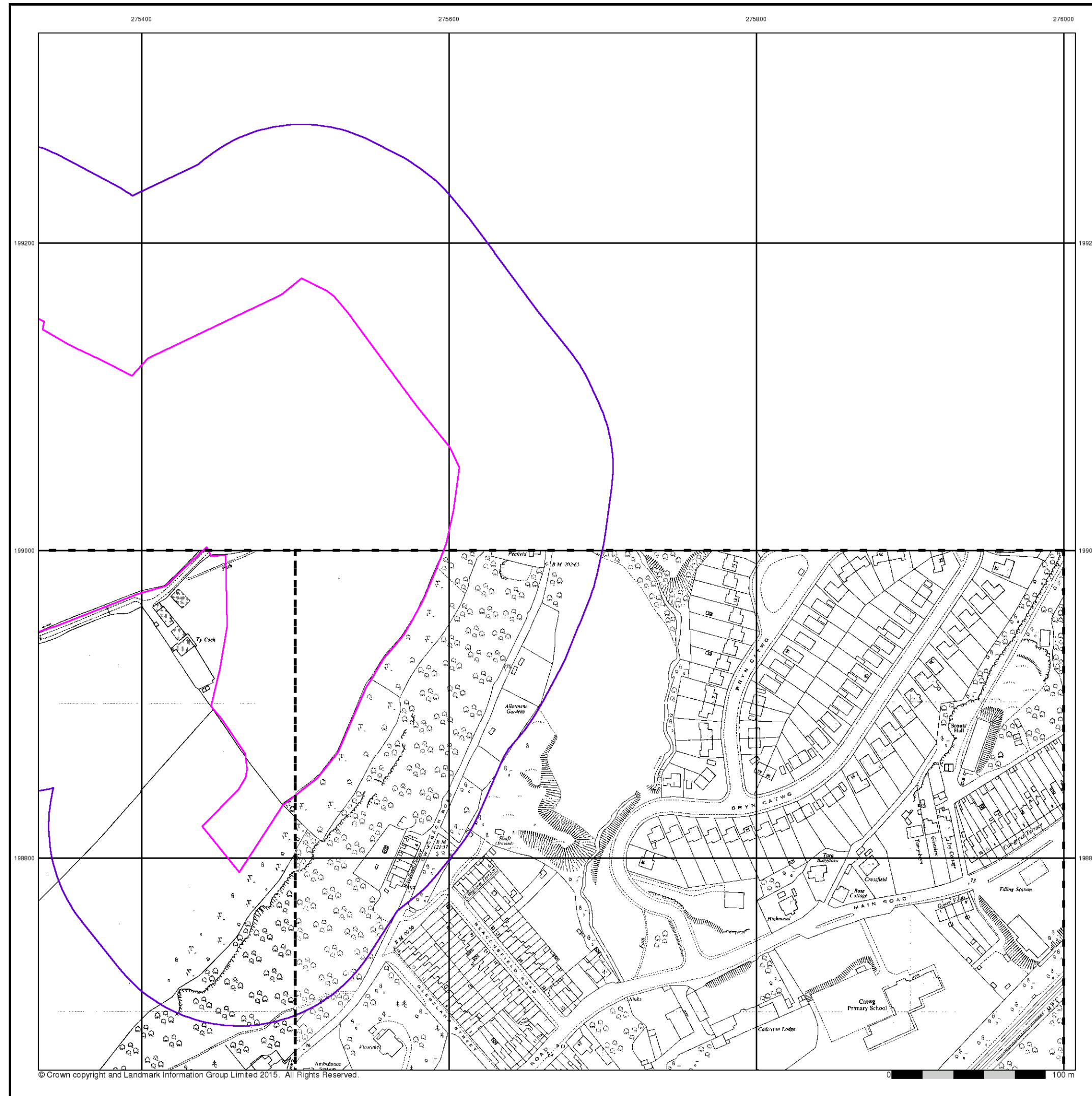
Order Number: 118892601_1_1
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National Grid Reference: 275340, 199030
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Site Area (Ha): 11.09
Search Buffer (m): 100

Site Details

Leiros Park, Bryncoch, Neath, SA10 7EX

Landmark
INFORMATION GROUP

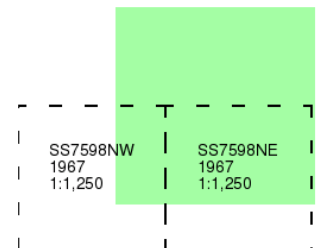
Tel: 0844 844 9952
Fax: 0844 844 9951
Web: www.envirocheck.co.uk



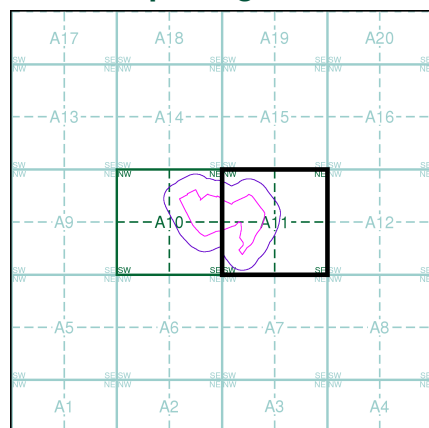
Ordnance Survey Plan
Published 1967
Source map scale - 1:1,250

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

Map Name(s) and Date(s)

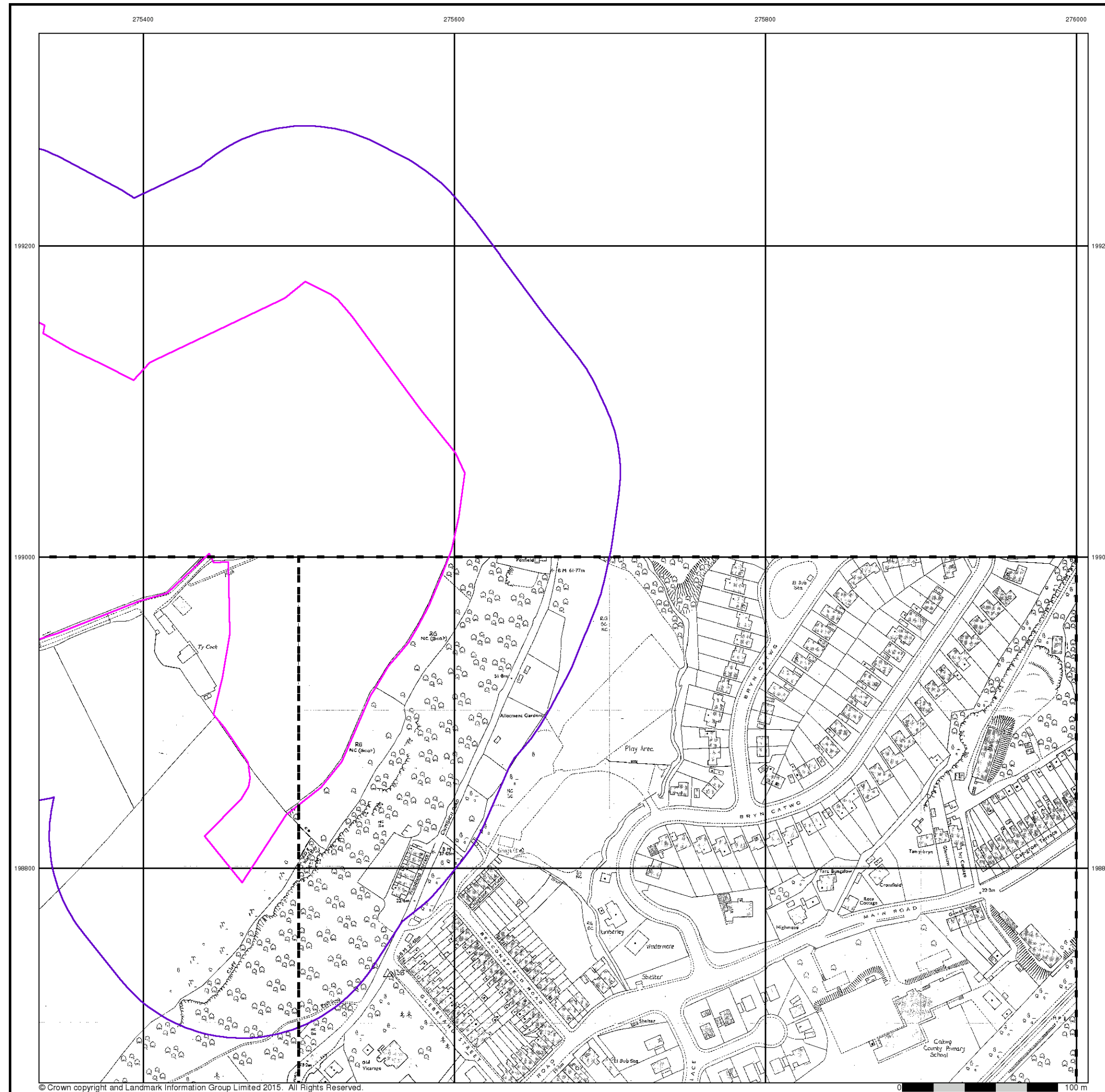


Historical Map - Segment A11



Order Details
Order Number: 118892601_1_1
Customer Ref: 14156
National Grid Reference: 275340, 199030
Slice: A
Site Area (Ha): 11.09
Search Buffer (m): 100

Site Details
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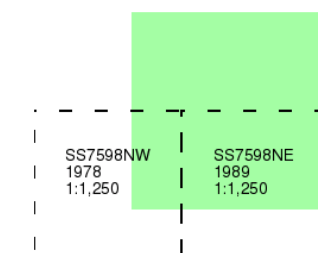
Additional SIMs

Published 1978 - 1989

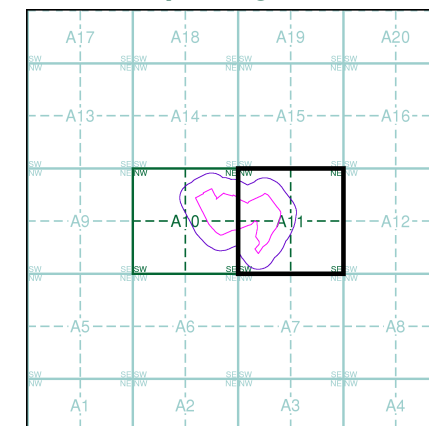
Source map scale - 1:1,250

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

Map Name(s) and Date(s)



Historical Map - Segment A11



Order Details

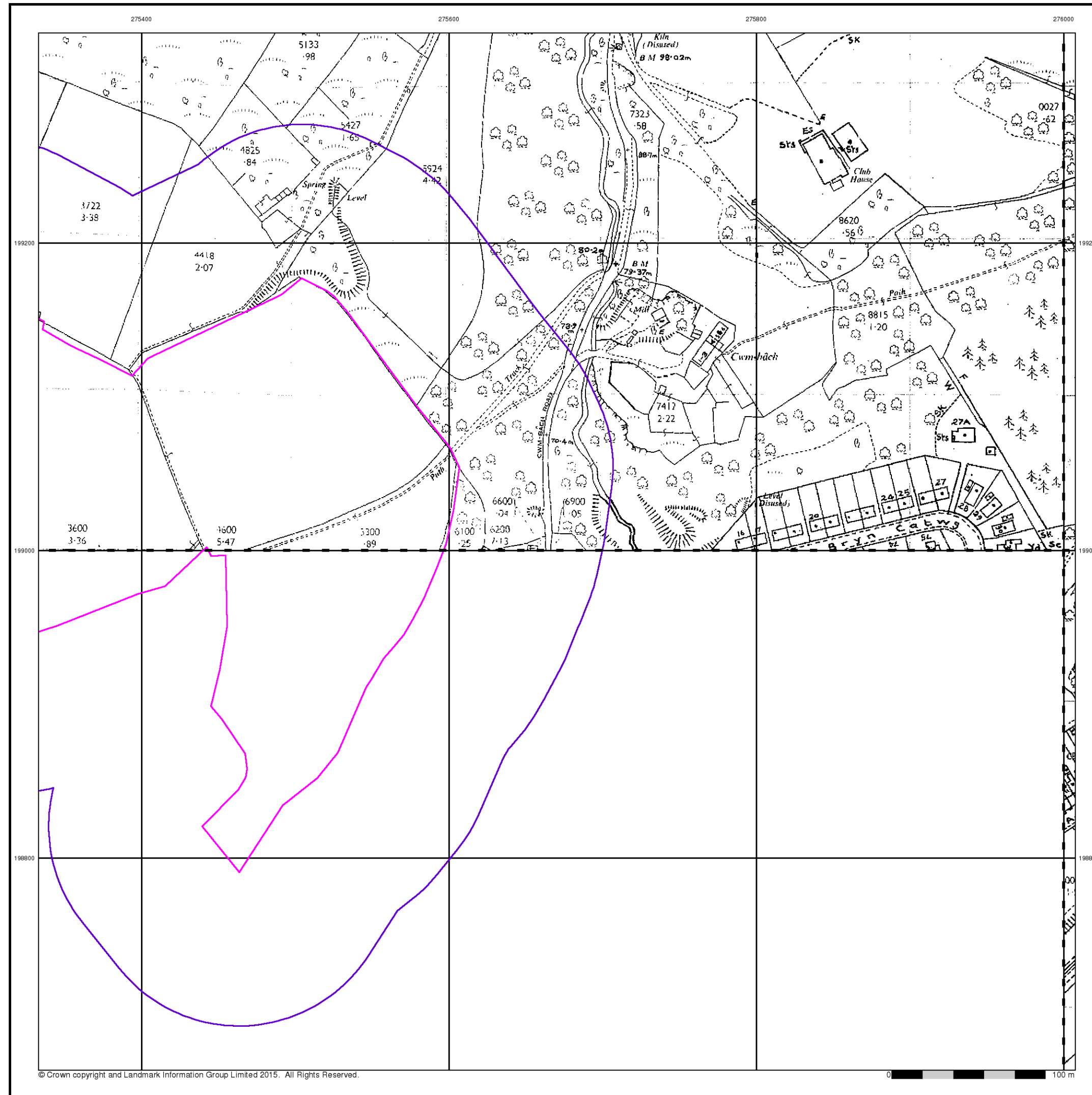
Order Number: 118892601_1_1
Customer Ref: 14156
National Grid Reference: 275340, 199030
Slice: A
Site Area (Ha): 11.09
Search Buffer (m): 100

Site Details

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Additional SIMs

Published 1978 - 1979

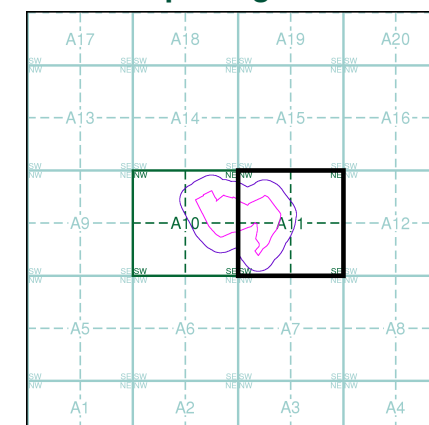
Source map scale - 1:2,500

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Map Name(s) and Date(s)

SS7599 1979 12,500	SS7699 1978 12,500
	SS7698 1978 12,500

Historical Map - Segment A11



Order Details

Order Number: 118892601_1_1
Customer Ref: 14156
National Grid Reference: 275340, 199030
Slice: A
Site Area (Ha): 11.09
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Site Details

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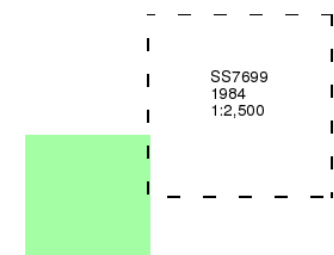
Ordnance Survey Plan

Published 1984

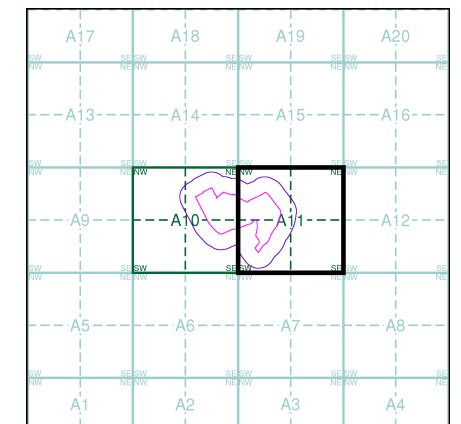
Source map scale - 1:2,500

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 A11



Order Details

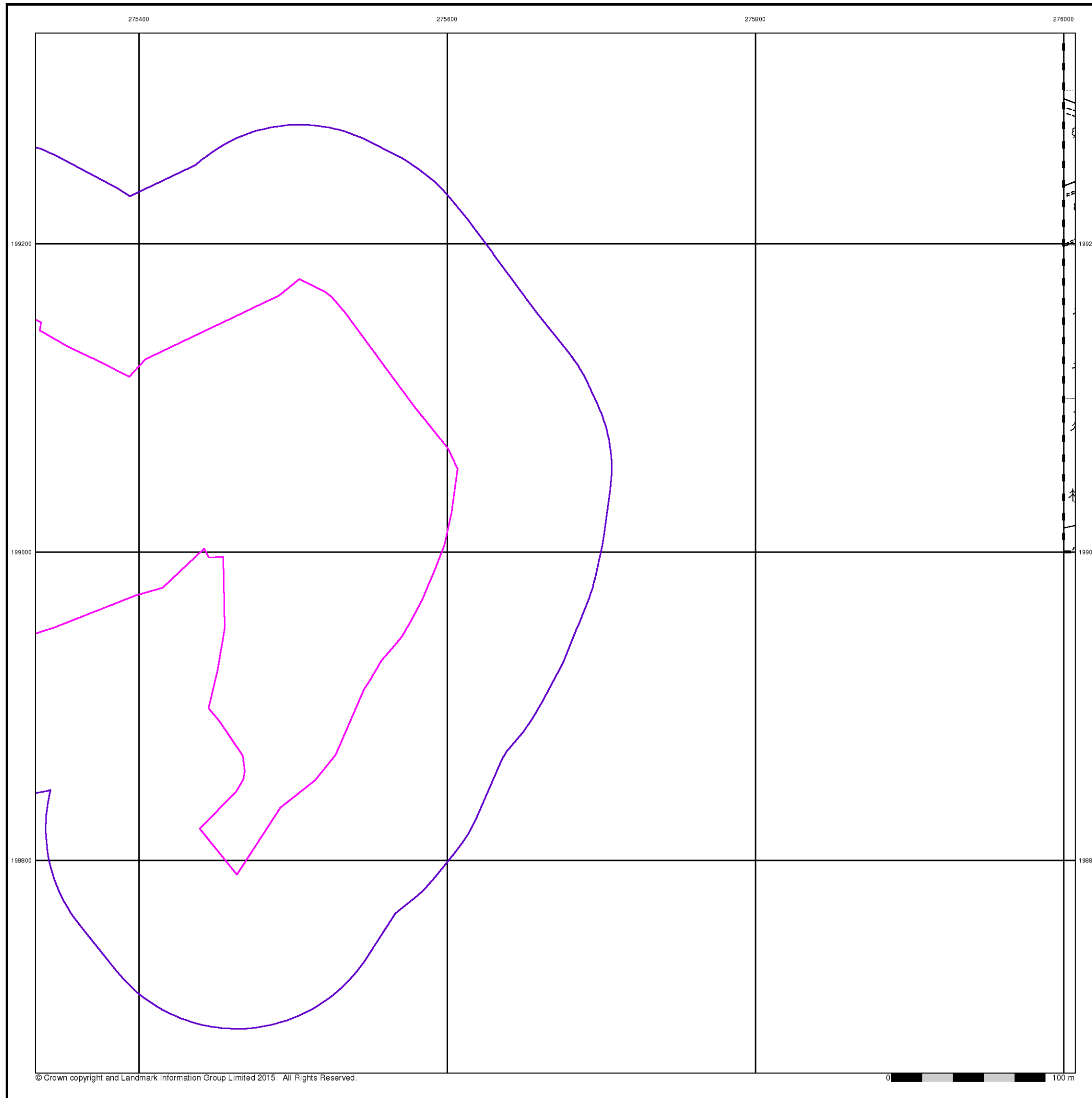
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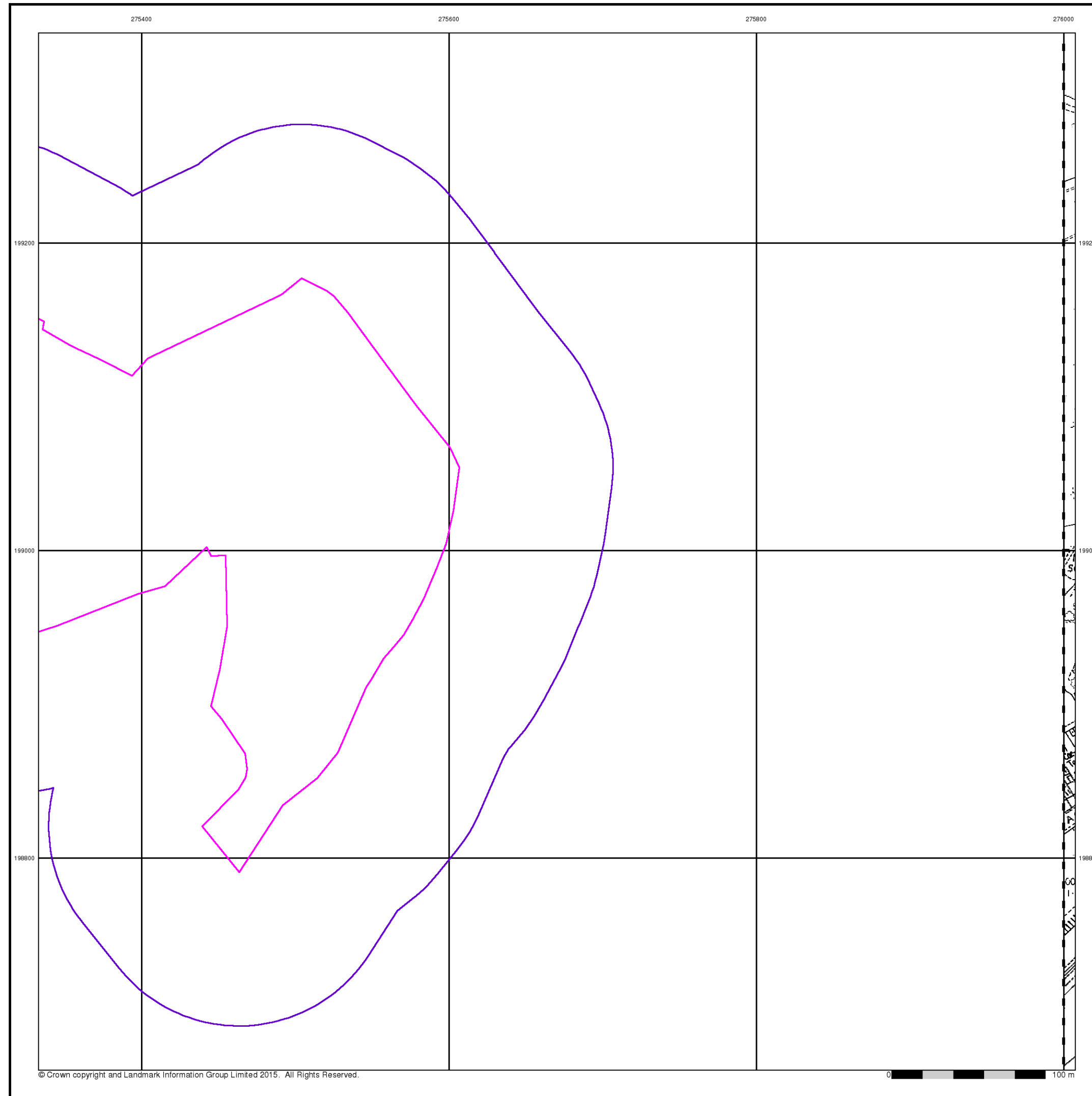
Site Details

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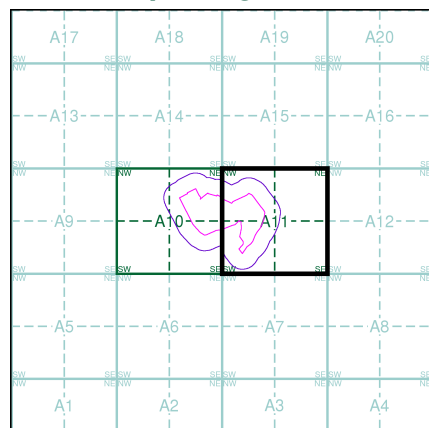
Additional SIMs
Published 1984 - 1987
Source map scale - 1:2,500

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)

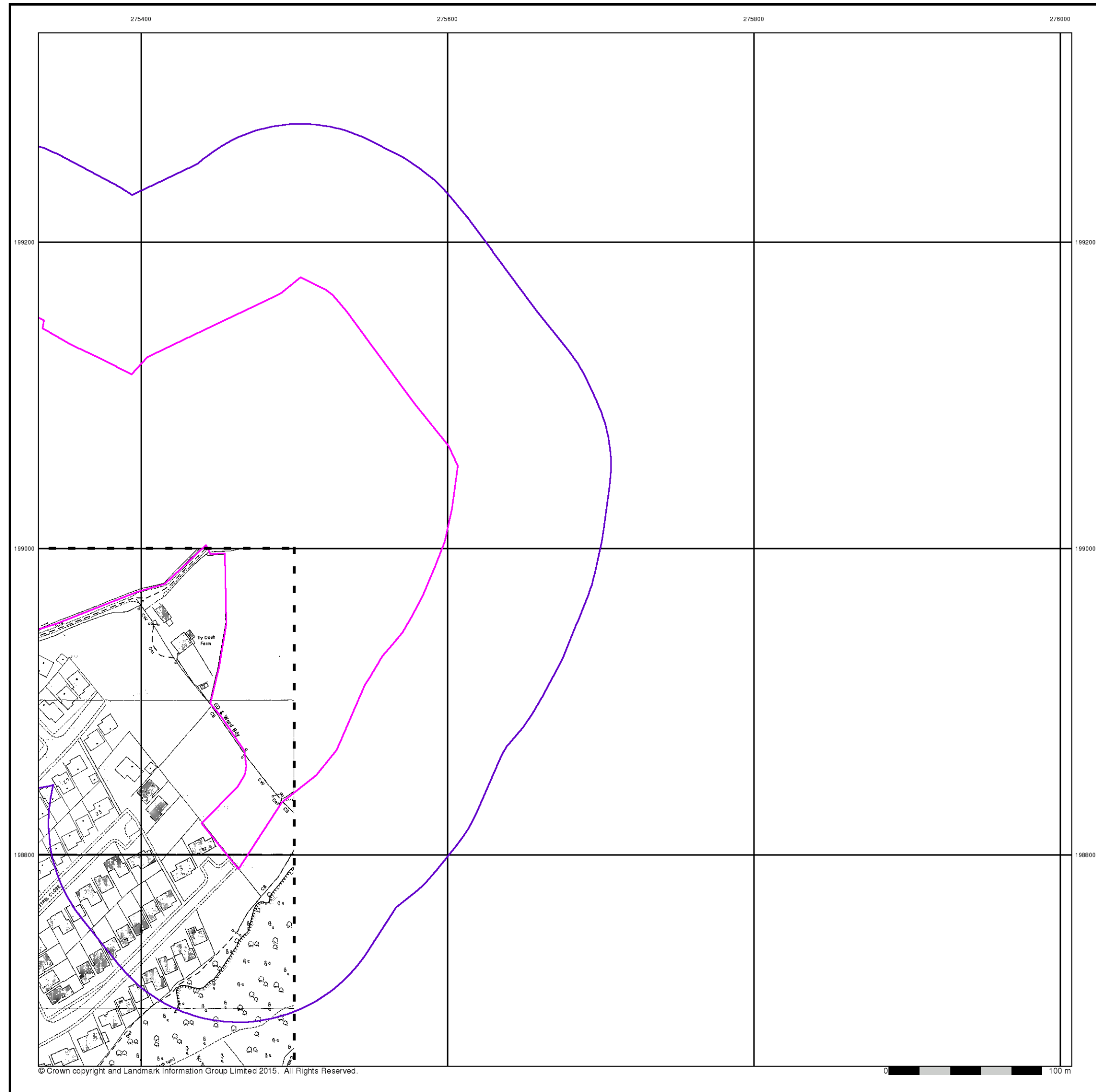
	SS7699 1984 12,500
	SS7698 1987 12,500

Historical Map - Segment A11



Order Details
Order Number: 118892601_1_1
Customer Ref: 14156
National Grid Reference: 275340, 199030
Slice: A
Site Area (Ha): 11.09
Search Buffer (m): 100

Site Details
Leiros Park, Bryncoch, Neath, SA10 7EX



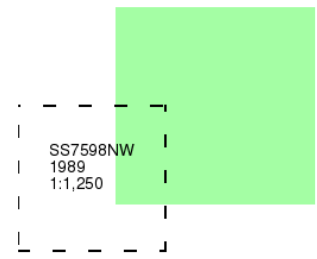
Additional SIMs

Published 1989

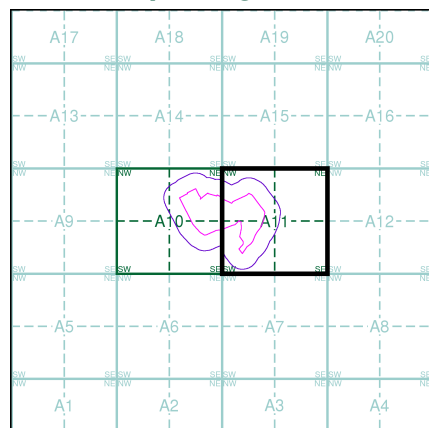
Source map scale - 1:1,250

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

Map Name(s) and Date(s)



Historical Map - Segment A11



Order Details

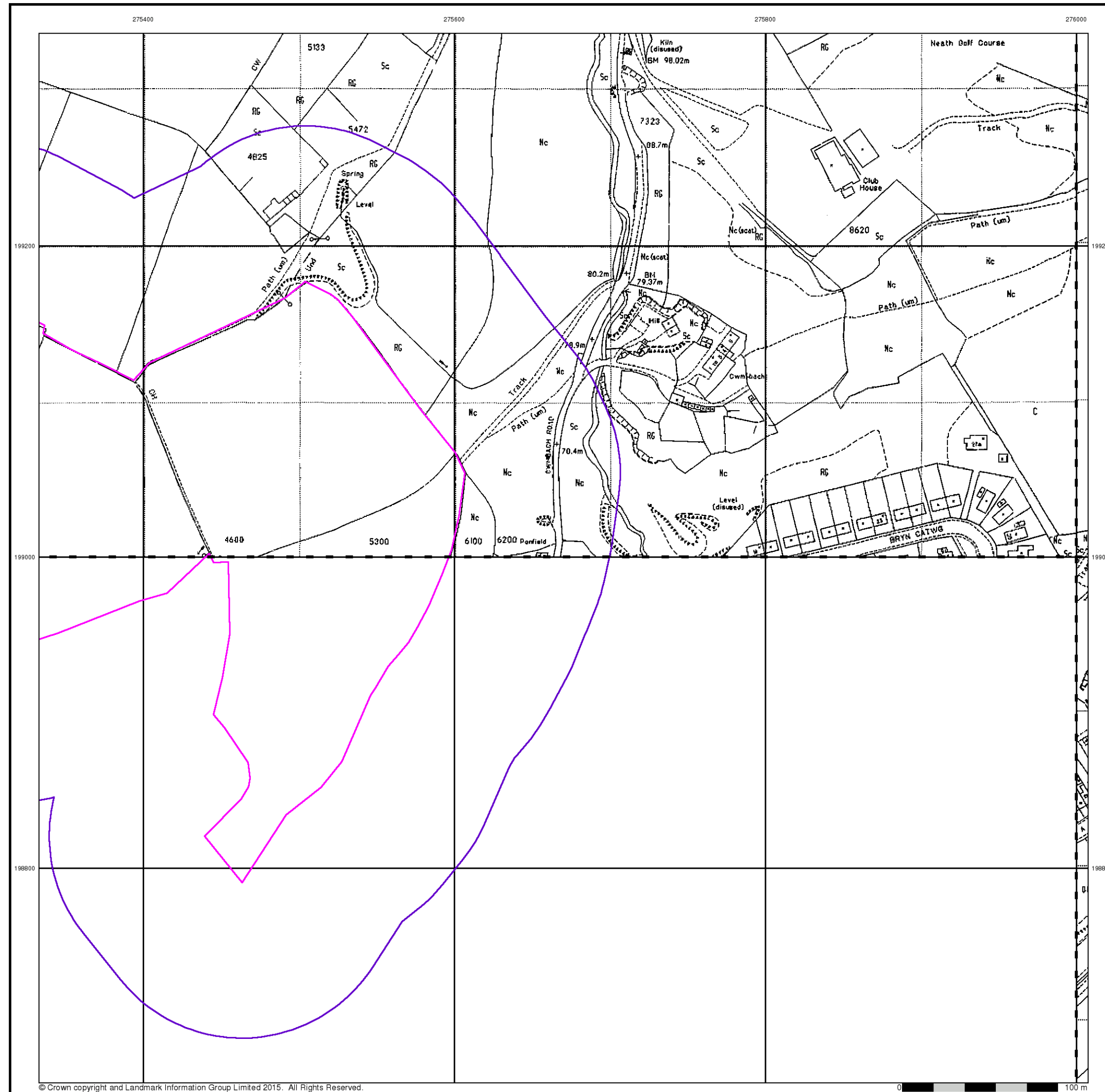
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National Grid Reference: 275340, 199030
Slice: A
Site Area (Ha): 11.09
Search Buffer (m): 100

Site Details

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Large-Scale National Grid Data

Published 1993

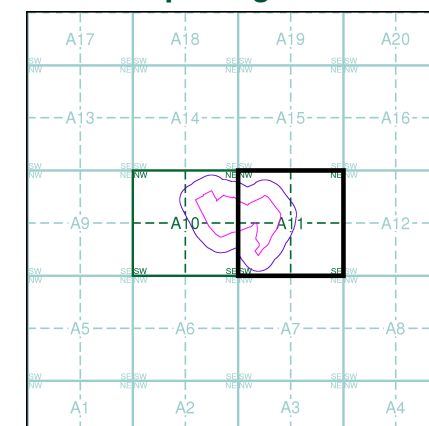
Source map scale - 1:2,500

'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)

SS7599 1993 12,500	SS7699 1993 12,500
SS7698 1993 12,500	

Historical Map - Segment A11



Order Details

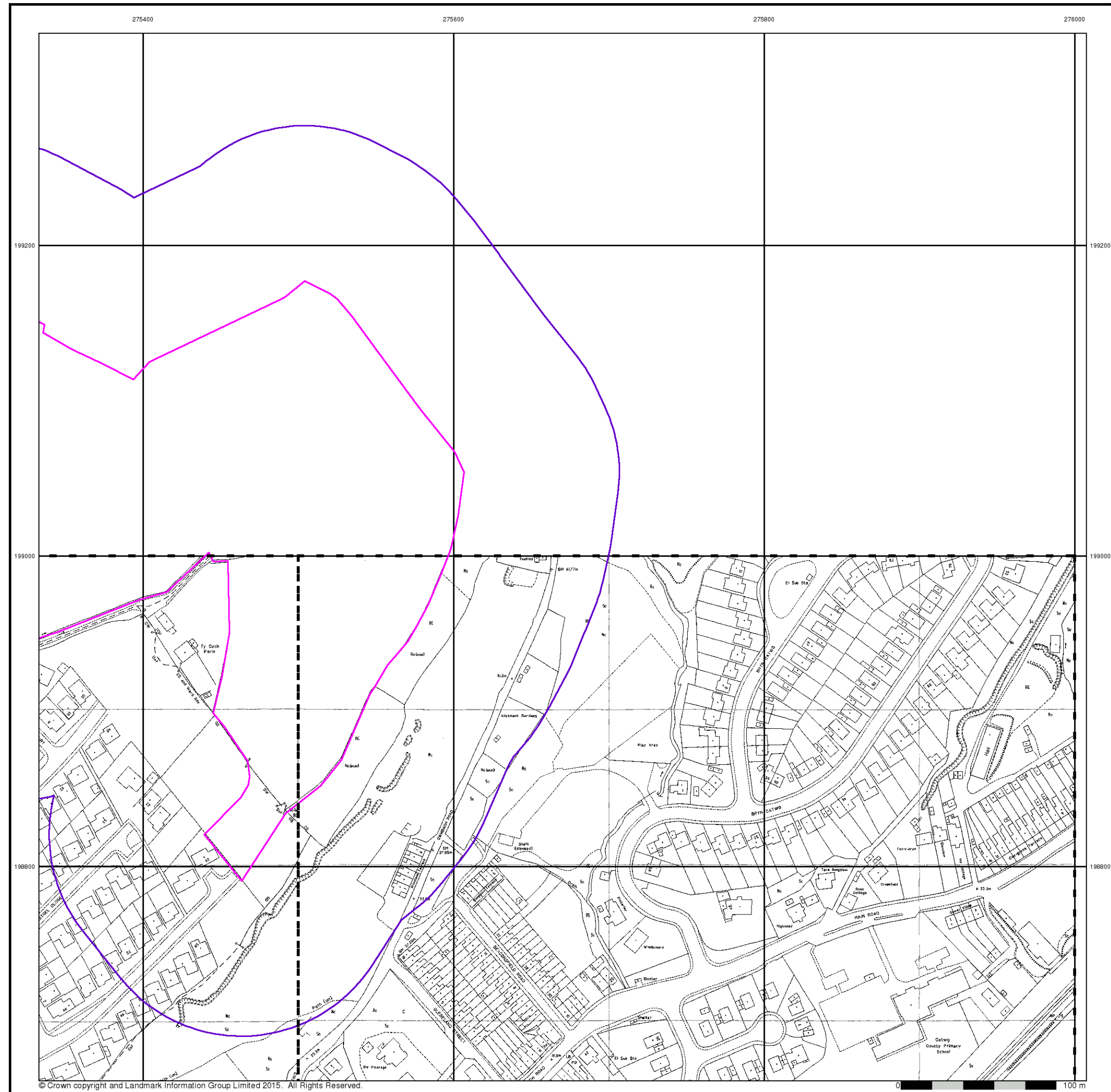
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Site Details

Leiros Park, Bryncoch, Neath, SA10 7EX

Landmark
INFORMATION GROUP

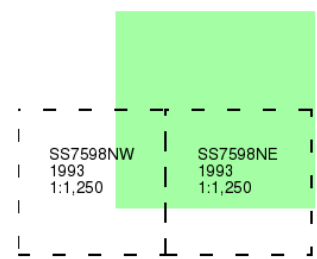
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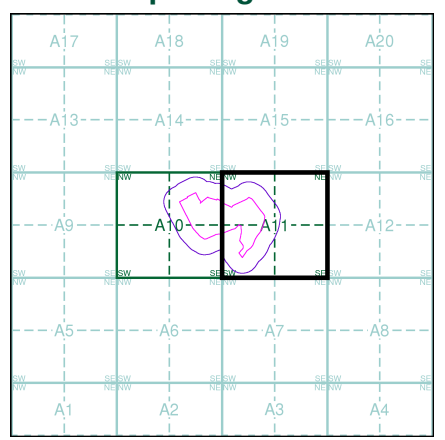
Large-Scale National Grid Data
Published 1993
Source map scale - 1:1,250

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

Map Name(s) and Date(s)



Historical Map - Segment A11



Order Details

Order Number: 118892601_1_1
Customer Ref: 14156
National Grid Reference: 275340, 199030
Slice: A
Site Area (Ha): 11.09
Search Buffer (m): 100

Site Details

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Large-Scale National Grid Data

Published 1993

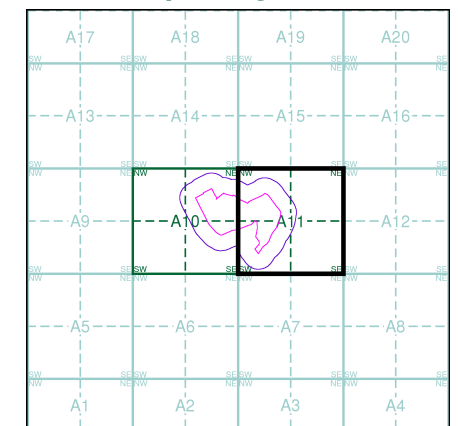
Source map scale - 1:2,500

'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)

	SS7699 1993 12,500
	SS7698 1993 12,500

Historical Map - Segment A11



Order Details

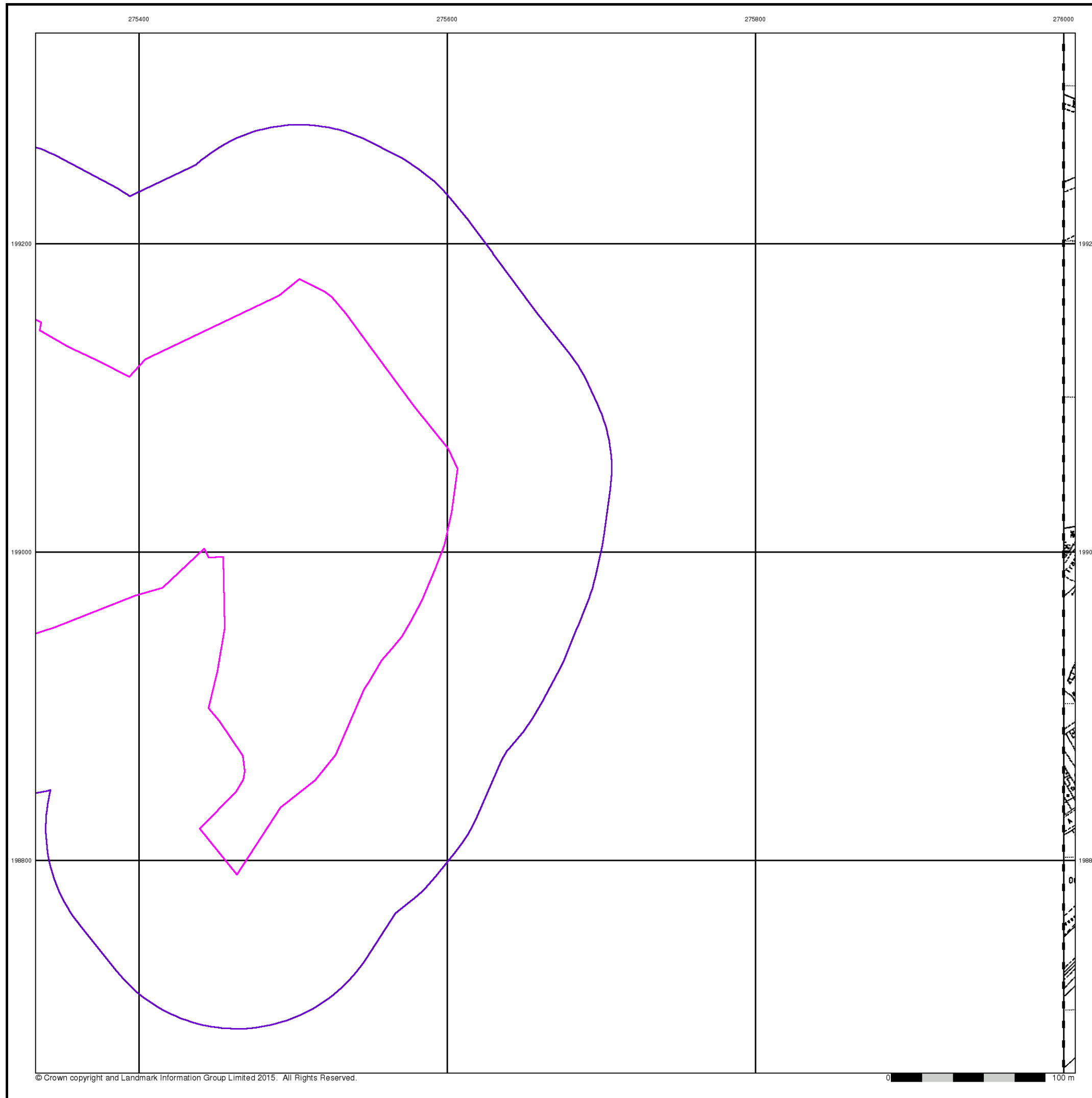
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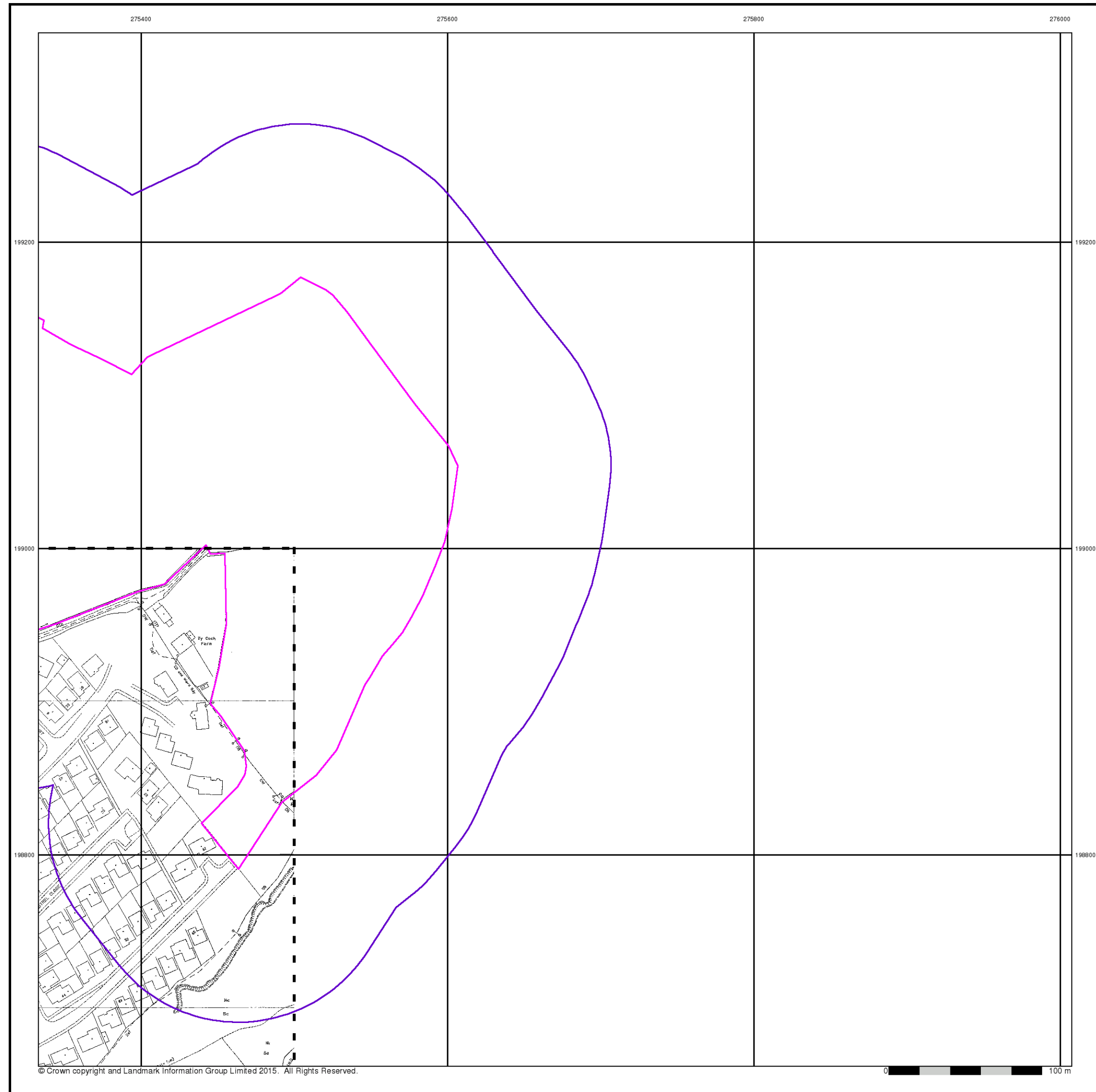
Site Details

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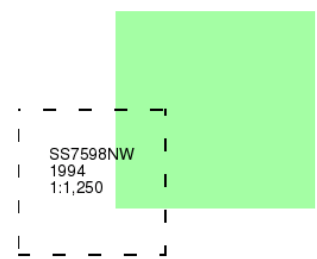




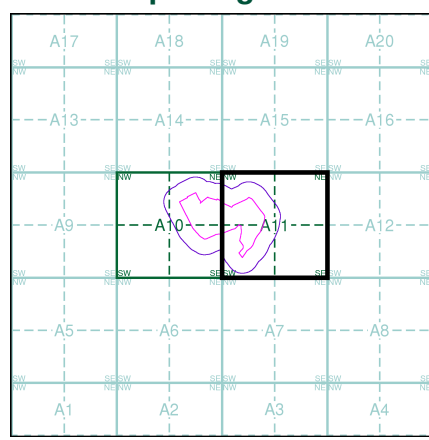
Large-Scale National Grid Data
Published 1994
Source map scale - 1:1,250

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

Map Name(s) and Date(s)



Historical Map - Segment A11



Order Details

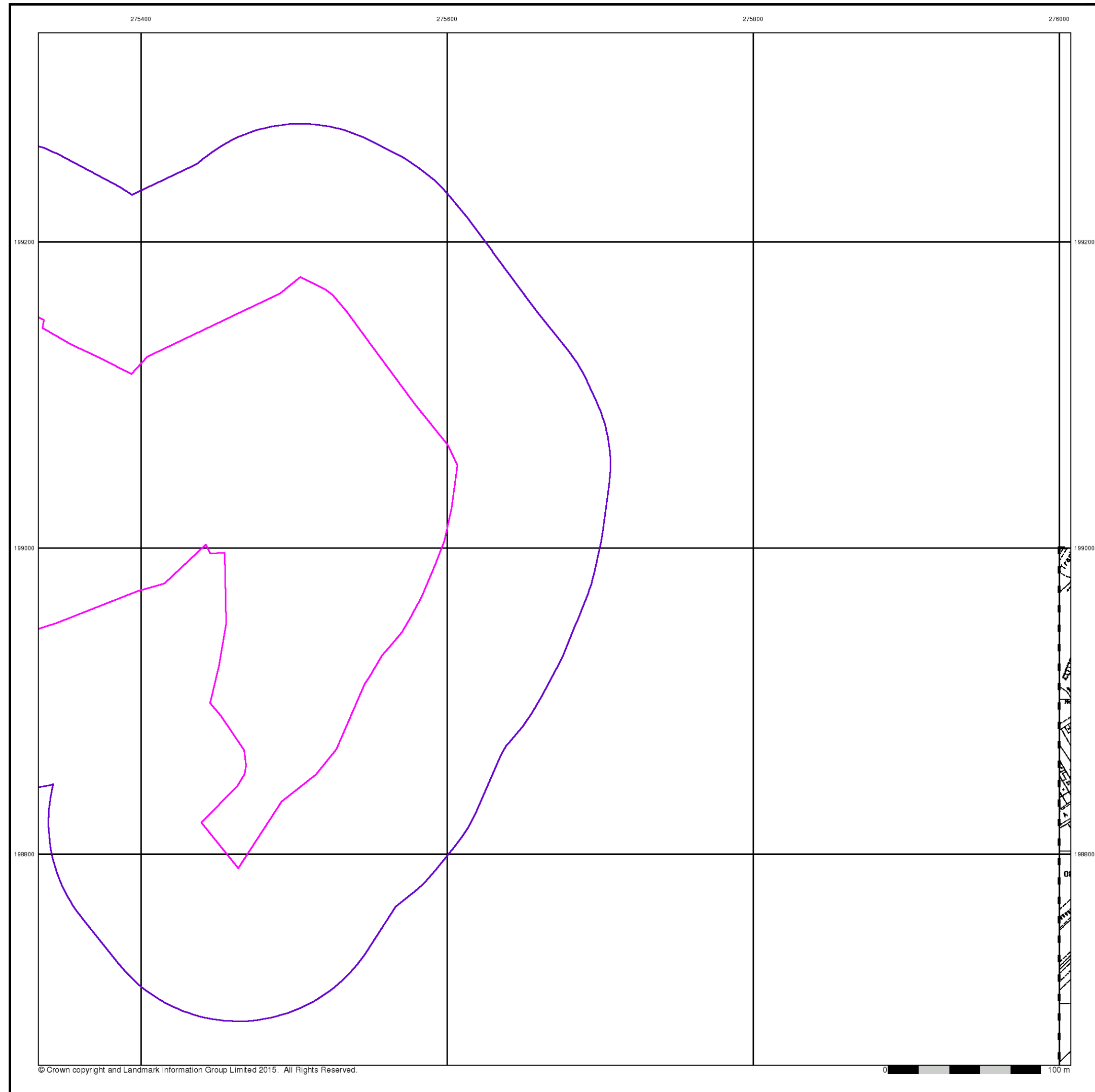
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Customer Ref: 14156
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Slice: A
Site Area (Ha): 11.09
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Site Details

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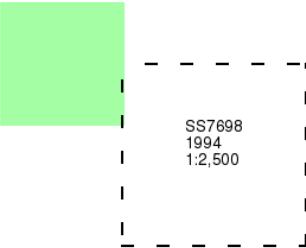
Large-Scale National Grid Data

Published 1994

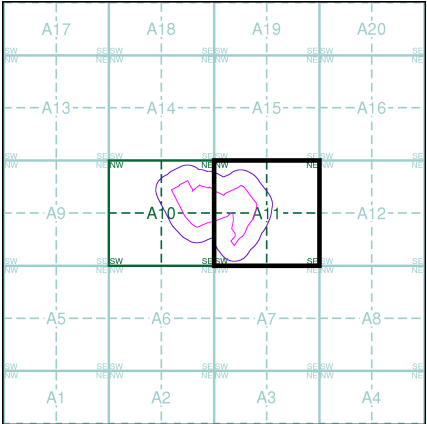
Source map scale - 1:2,500

'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 A11



Order Details

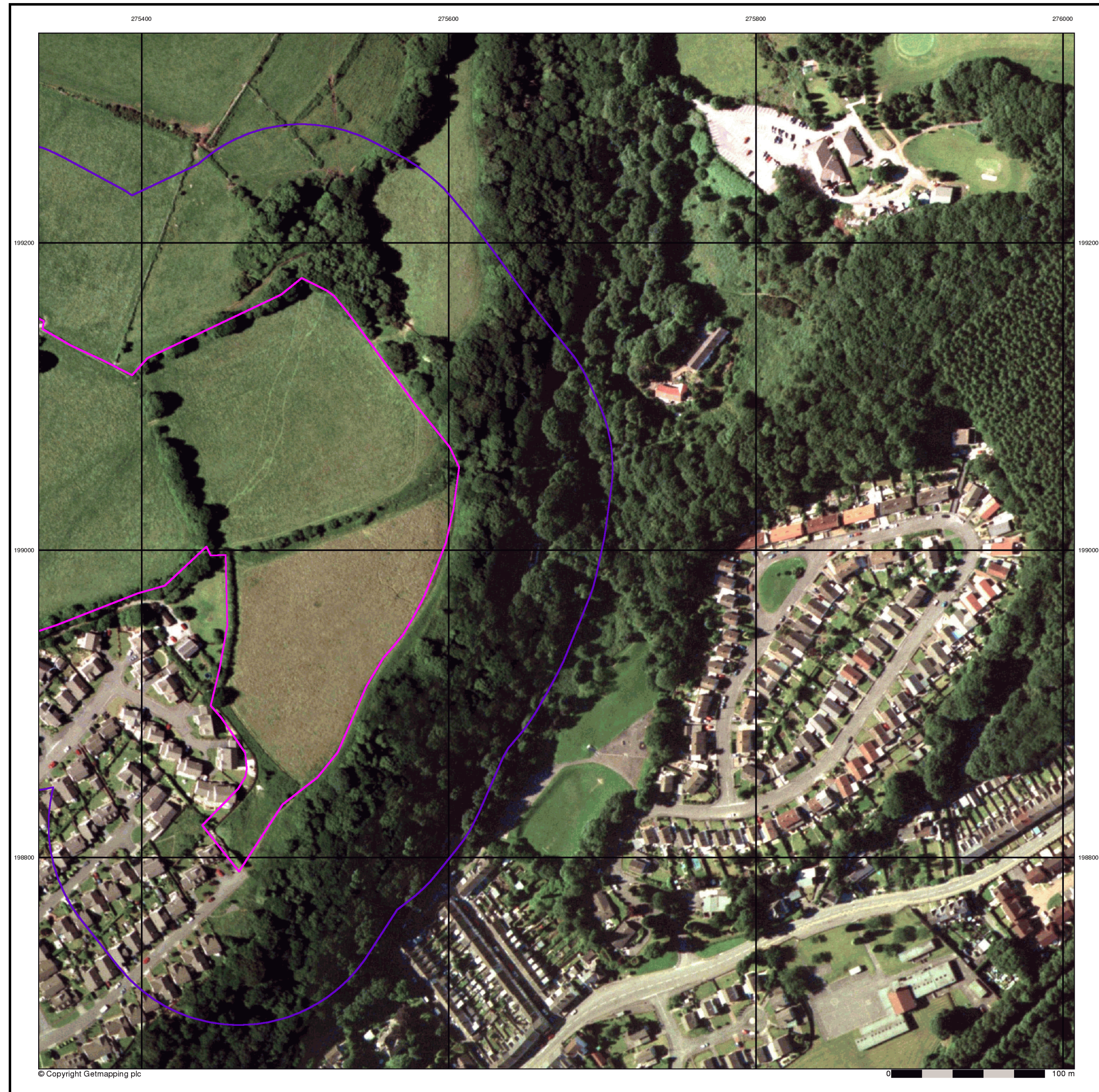
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Slice: A
Site Area (Ha): 11.09
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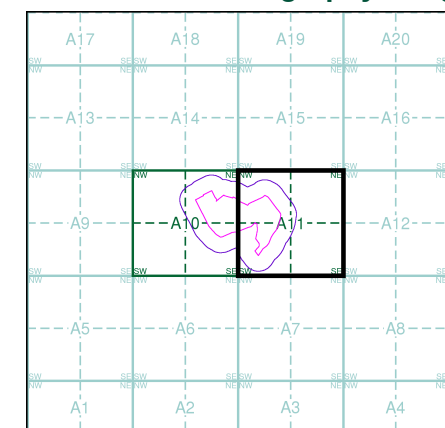


Historical Aerial Photography

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 A11



Order Details

Order Number: 118892601_1_1
Customer Ref: 14156
National Grid Reference: 275340, 199030
Slice: A
Site Area (Ha): 11.09
Search Buffer (m): 100

Site Details

Leiros Park, Bryncoch, Neath, SA10 7EX



Tel: 0844 844 9952
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ANNEX B**Envirocheck Datasheet and Maps**

Envirocheck[®] Report:

Datasheet

Order Details:

Order Number:

120078810_1_1

Customer Reference:

14156

National Grid Reference:

275340, 199030

Slice:

A

Site Area (Ha):

11.09

Search Buffer (m):

1000

Site Details:

Leiros Park

Bryncoch

Neath

SA10 7EX

Client Details:

Ms N Thomas

Terra Firma (Wales) Ltd

5 Deryn Court

Wharfdale Road

Pentwyn

Cardiff

CF23 7HB

Report Section	Page Number
Summary	-
Agency & Hydrological	1
Waste	27
Hazardous Substances	-
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Industrial Land Use	48
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Introduction

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

In the attached 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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Radon Potential dataset Copyright Notice

Information supplied from a joint dataset compiled by The British Geological Survey and Public Health England.

Report Version v50.0

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 5		1	10	21
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 13				2
Local Authority Pollution Prevention and Control Enforcements					
Nearest Surface Water Feature	pg 13	Yes			
Pollution Incidents to Controlled Waters	pg 14		2	4	30
Prosecutions Relating to Authorised Processes					
Registered Radioactive Substances					
River Quality	pg 20				3
River Quality Biology Sampling Points					
River Quality Chemistry Sampling Points					
Substantiated Pollution Incident Register	pg 20				2
Water Abstractions	pg 20			4	2 (*16)
Water Industry Act Referrals					
Groundwater Vulnerability	pg 26	Yes	n/a	n/a	n/a
Drift Deposits			n/a	n/a	n/a
Bedrock Aquifer Designations	pg 26	Yes	n/a	n/a	n/a
Superficial Aquifer Designations			n/a	n/a	n/a
Source Protection Zones					
Extreme Flooding from Rivers or Sea without Defences				n/a	n/a
Flooding from Rivers or Sea without Defences				n/a	n/a
Areas Benefiting from Flood Defences				n/a	n/a
Flood Water Storage Areas				n/a	n/a
Flood Defences				n/a	n/a

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 27			1	
Integrated Pollution Control Registered Waste Sites					
Licensed Waste Management Facilities (Landfill Boundaries)					
Licensed Waste Management Facilities (Locations)					
Local Authority Landfill Coverage	pg 27	1	n/a	n/a	n/a
Local Authority Recorded Landfill Sites	pg 27				1
Potentially Infilled Land (Non-Water)	pg 27		8	1	6
Potentially Infilled Land (Water)	pg 28	1	2	11	14
Registered Landfill Sites	pg 30				1
Registered Waste Transfer Sites					
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 31	Yes	n/a	n/a	n/a
BGS Estimated Soil Chemistry	pg 31	Yes	Yes	Yes	Yes
BGS Recorded Mineral Sites	pg 39	1	8	4	17
BGS Urban Soil Chemistry	pg 44		Yes	Yes	Yes
BGS Urban Soil Chemistry Averages	pg 46	Yes			
CBSCB Compensation District			n/a	n/a	n/a
Coal Mining Affected Areas	pg 46	Yes	n/a	n/a	n/a
Mining Instability	pg 46	Yes	n/a	n/a	n/a
Man-Made Mining Cavities					
Natural Cavities					
Non Coal Mining Areas of Great Britain				n/a	n/a
Potential for Collapsible Ground Stability Hazards	pg 46	Yes	Yes	n/a	n/a
Potential for Compressible Ground Stability Hazards				n/a	n/a
Potential for Ground Dissolution Stability Hazards				n/a	n/a
Potential for Landslide Ground Stability Hazards	pg 46	Yes	Yes	n/a	n/a
Potential for Running Sand Ground Stability Hazards	pg 47	Yes	Yes	n/a	n/a
Potential for Shrinking or Swelling Clay Ground Stability Hazards	pg 47	Yes	Yes	n/a	n/a
Radon Potential - Radon Affected Areas	pg 47	Yes	n/a	n/a	n/a
Radon Potential - Radon Protection Measures	pg 47	Yes	n/a	n/a	n/a
Industrial Land Use					
Contemporary Trade Directory Entries	pg 48		2	2	11
Fuel Station Entries	pg 49				1
Points of Interest - Commercial Services	pg 49				4
Points of Interest - Education and Health					
Points of Interest - Manufacturing and Production	pg 49		2	3	11
Points of Interest - Public Infrastructure	pg 51			1	4
Points of Interest - Recreational and Environmental	pg 51		4	2	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 53	1	2		3
Areas of Adopted Green Belt					
Areas of Unadopted Green Belt					
Areas of Outstanding Natural Beauty					
Environmentally Sensitive Areas					
Forest Parks					
Local Nature Reserves					
Marine Nature Reserves					
National Nature Reserves					
National Parks					
Nitrate Sensitive Areas					
Nitrate Vulnerable Zones					
Ramsar Sites					
Sites of Special Scientific Interest					
Special Areas of Conservation					
Special Protection Areas					
World Heritage Sites					

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding to Occur at Surface	A11NW (N)	0	2	275343 199050
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding to Occur at Surface	A11SW (SE)	0	2	275400 198950
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A11NW (N)	0	2	275343 199150
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A10NE (W)	0	2	275150 199100
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A10NE (NW)	0	2	275250 199100
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A10NE (NW)	0	2	275250 199150
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A10NE (N)	0	2	275300 199150
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding to Occur at Surface	A11NW (NE)	3	2	275400 199150
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A10NE (W)	9	2	275050 199100
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A11NW (NE)	10	2	275550 199150
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A11NW (N)	13	2	275350 199150
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A10NE (W)	30	2	275100 199000
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A11NW (NE)	51	2	275600 199150
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A10NE (NW)	51	2	275050 199200
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A10NE (W)	59	2	275000 199050
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A10SE (SW)	63	2	275200 198850
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A10NE (NW)	79	2	275000 199200
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A11NW (NE)	80	2	275600 199200
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A10NE (NW)	91	2	275050 199250
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A10NE (W)	97	2	275000 199032
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A11NW (NE)	113	2	275600 199250
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding to Occur at Surface	A11SW (SE)	115	2	275650 198850

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	A10NW (W)	142	2	274950 199032
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A11NW (NE)	150	2	275650 199250
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A10SE (S)	160	2	275250 198750
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A10SE (SW)	175	2	275150 198750
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A7NW (S)	181	2	275343 198650
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A11NE (NE)	190	2	275700 199250
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A10SE (SW)	191	2	275050 198800
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A11NE (E)	200	2	275750 199200
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A10SE (S)	210	2	275250 198700
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A10SE (SW)	211	2	275200 198700
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A6NE (S)	216	2	275300 198650
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A11NE (E)	216	2	275800 199150
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A11NE (NE)	221	2	275700 199300
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A14SE (NW)	221	2	275000 199400
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A14SE (NW)	222	2	275050 199400
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A7NW (S)	223	2	275343 198600
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A10SE (SW)	227	2	275050 198750
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A10SE (SW)	242	2	275100 198700
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A11NE (E)	262	2	275850 199150
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A10SW (SW)	265	2	274950 198800
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A6NE (SW)	269	2	275150 198650
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A14SW (NW)	291	2	274850 199350

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A7NW (S)	292	2	275400 198500
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A7NW (S)	294	2	275500 198500
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding to Occur at Surface	A7NW (S)	298	2	275350 198500
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A10SE (SW)	298	2	275000 198700
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding to Occur at Surface	A10SW (SW)	299	2	274950 198750
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A7NE (SE)	304	2	275700 198600
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A7NW (SE)	305	2	275650 198550
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A7NE (SE)	311	2	275750 198650
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A10NW (W)	314	2	274750 199200
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A7NW (SE)	322	2	275600 198500
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A10SW (SW)	333	2	274950 198700
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A15SE (NE)	334	2	275700 199450
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A7NE (SE)	338	2	275700 198550
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding to Occur at Surface	A11SE (E)	338	2	275900 198850
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A7NW (S)	341	2	275450 198450
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding to Occur at Surface	A11SE (SE)	341	2	275850 198750
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A7NW (S)	342	2	275343 198450
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A7NW (S)	343	2	275500 198450
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A7NW (S)	347	2	275350 198450
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A7NE (SE)	350	2	275800 198650
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A14SE (NW)	360	2	275050 199550
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A14SW (NW)	362	2	274800 199400

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A11SE (E)	368	2	275950 198900
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A11SE (SE)	383	2	275900 198750
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A10SW (SW)	389	2	274800 198800
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A7NE (SE)	390	2	275850 198650
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A11NE (E)	394	2	276000 199050
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A11NE (E)	394	2	276000 199032
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A11SE (E)	404	2	275950 198800
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A11SE (SE)	409	2	275900 198700
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding to Occur at Surface	A7NE (SE)	420	2	275850 198600
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A11SE (SE)	427	2	275950 198750
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A6NE (SW)	427	2	275100 198500
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A11SE (E)	431	2	276000 198850
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A7NE (SE)	432	2	275900 198650
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A12NW (E)	444	2	276050 199032
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A12NW (E)	444	2	276050 199050
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A7NE (SE)	445	2	275800 198500
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A15SE (NE)	445	2	275750 199550
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A6NE (S)	446	2	275250 198400
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A11SE (E)	450	2	276000 198800
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A11SE (SE)	452	2	275950 198700
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A12SW (E)	454	2	276050 198950
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A10SW (W)	455	2	274700 198850

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A7NW (S)	462	2	275600 198350
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A12SW (E)	464	2	276050 198900
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A15SE (NE)	473	2	275800 199550
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A6NE (SW)	475	2	275100 198450
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A7NE (SE)	476	2	275950 198650
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A9SE (W)	477	2	274650 198900
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A7NW (SE)	479	2	275650 198350
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A7NE (SE)	480	2	275800 198450
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A7NE (SE)	490	2	275900 198550
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A7SW (S)	492	2	275400 198300
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A11SE (SE)	495	2	276000 198700
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A7SW (S)	495	2	275343 198300
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding to Occur at Surface	A12NW (E)	497	2	276100 199000
1	Discharge Consents Operator: Davies L M Property Type: Undefined Or Other Location: Neath Tycoch Farmhouse The Rhydding, Tycoch Farmhouse The Rhyddings Authority: Natural Resources Wales Catchment Area: River Neath Reference: Bp0020001 Permit Version: 1 Effective Date: 17th June 1986 Issued Date: 17th June 1986 Revocation Date: 1st August 1994 Discharge Type: Unspecified Discharge Environment: Not Supplied Receiving Water: To Land Status: Consent expired Positional Accuracy: Located by supplier to within 100m	A11SW (SE)	45	3	275400 198900
2	Discharge Consents Operator: The Secretary Property Type: Public Houses & Bars Location: Neath Golf Club, Cadoxton, , Neath, Neath Port Talbot, Sa10 8ah Authority: Natural Resources Wales Catchment Area: Not Supplied Reference: Bb4023301 Permit Version: 5 Effective Date: 26th November 2012 Issued Date: 26th November 2012 Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Final/Treated Effluent - Not Water Company Discharge Environment: Onto Land Receiving Water: Land Status: Varied under EPR 2010 Positional Accuracy: Located by supplier to within 10m	A11NE (NE)	273	3	275814 199236

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
2	Discharge Consents Operator: The Secretary Property Type: Public Houses & Bars Location: Neath Golf Club, Cadoxton, ., Neath, Neath Port Talbot, Sa10 8ah Authority: Natural Resources Wales Catchment Area: Not Supplied Reference: Bb4023301 Permit Version: 4 Effective Date: 15th November 2011 Issued Date: 15th November 2011 Revocation Date: 25th November 2012 Discharge Type: Sewage Discharges - Final/Treated Effluent - Not Water Company Discharge: Onto Land Environment: Receiving Water: Land Status: Varied under EPR 2010 Positional Accuracy: Located by supplier to within 10m	A11NE (NE)	273	3	275814 199236
2	Discharge Consents Operator: The Secretary Property Type: Public Houses & Bars Location: Neath Golf Club, Cadoxton, ., Neath, Neath Port Talbot, Sa10 8ah Authority: Natural Resources Wales Catchment Area: Not Supplied Reference: Bb4023301 Permit Version: 3 Effective Date: 13th February 2002 Issued Date: 12th February 2002 Revocation Date: 14th November 2011 Discharge Type: Sewage And Trade Combined - Unspecified Discharge: Onto Land Environment: Receiving Water: Land Status: Varied by Application - (Water Resources Act 1991, Schedule 10 as amended by Environment Act 1995) Positional Accuracy: Located by supplier to within 10m	A11NE (NE)	273	3	275814 199236
3	Discharge Consents Operator: Neath Golf Club Property Type: Recreational & Cultural Location: Club House Neath Golf Club Cadoxton, Neath Golf Club, Cadoxton Neath Authority: Natural Resources Wales Catchment Area: Not Given Reference: BB4023301 Permit Version: 2 Effective Date: 9th August 1995 Issued Date: 8th August 1995 Revocation Date: 12th February 2002 Discharge Type: Unspecified Discharge: Not Supplied Environment: Receiving Water: Land Status: New Consent, by Application (Water Resources Act 1991, Section 88) Positional Accuracy: Located by supplier to within 100m	A11NE (NE)	301	3	275800 199300
4	Discharge Consents Operator: Dwr Cymru Cyfyngedig Property Type: Sewerage Network - Sewers - Water Company Location: Church Road Cso Church Road Neath, Church Road, Cadoxton Authority: Natural Resources Wales Catchment Area: Not Supplied Reference: Bp0353501 Permit Version: 1 Effective Date: 31st March 2006 Issued Date: 31st March 2006 Revocation Date: Not Supplied Discharge Type: Public Sewage: Storm Sewage Overflow Discharge: Freshwater Stream/River Environment: Receiving Water: Trib Of Tennant Canal 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 (SE)	420	3	275796 198535

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
5	Discharge Consents Operator: Cemex Uk Materials Ltd Property Type: Extraction Of Stone, Gravel Etc. Location: Gilfach Quarry Gilfach Road Neath Authority: Natural Resources Wales Catchment Area: River Neath Reference: BB4012201 Permit Version: 2 Effective Date: 8th March 1994 Issued Date: 8th March 1994 Revocation Date: Not Supplied Discharge Type: Trade Effluent Discharge: Freshwater Stream/River Environment: Receiving Water: Unnamed Trib Of River Clydach Status: New Consent, by Application (Water Resources Act 1991, Section 88) Positional Accuracy: Located by supplier to within 100m	A14SW (NW)	438	3	274800 199500
5	Discharge Consents Operator: Rmc Roadstone Ltd (South Wales) Property Type: Extraction Of Stone, Gravel Etc. Location: Gilfach Quarry Gilfach Road Neath Authority: Natural Resources Wales Catchment Area: River Neath Reference: Bb4012201 Permit Version: 1 Effective Date: 27th November 1974 Issued Date: 27th November 1974 Revocation Date: 7th March 1994 Discharge Type: Trade Effluent Discharge: Not Supplied Environment: Receiving Water: Unnamed Trib Of River Clydach Status: Authorisation revokedRevoked Positional Accuracy: Located by supplier to within 100m	A14SW (NW)	438	3	274800 199500
6	Discharge Consents Operator: Dwr Cymru Cyfyngedig Property Type: Sewerage Network - Sewers - Water Company Location: 25 Gelli Dawel Bryn Coch Neath P T, Bryncoch, Neath, Neath Port Talbot Authority: Natural Resources Wales Catchment Area: River Neath Reference: Bw2901301 Permit Version: 2 Effective Date: 31st March 2007 Issued Date: 7th March 2005 Revocation Date: Not Supplied Discharge Type: Public Sewage: Storm Sewage Overflow Discharge: Freshwater Stream/River Environment: Receiving Water: Surface Drain Status: New Consent (Water Resources Act 1991, Section 88 & Schedule 10 as amended by Environment Act 1995) Positional Accuracy: Located by supplier to within 100m	A10SW (SW)	444	3	274800 198700
6	Discharge Consents Operator: Dwr Cymru Cyfyngedig Property Type: Sewerage Network - Sewers - Water Company Location: 25 Gelli Dawel Bryn Coch Neath P T, Bryncoch, Neath, Neath Port Talbot Authority: Natural Resources Wales Catchment Area: River Neath Reference: Bw2901301 Permit Version: 1 Effective Date: 20th October 1989 Issued Date: 20th October 1989 Revocation Date: 30th March 2007 Discharge Type: Unspecified Discharge: Freshwater Stream/River Environment: Receiving Water: Surface Drain Status: Consent expired Positional Accuracy: Located by supplier to within 100m	A10SW (SW)	444	3	274800 198700

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
7	Discharge Consents Operator: Dwr Cymru Cyfyngedig Property Type: Sewage Disposal Works - Water Company Location: Heol Illtyd Cso Bryncoch Npt, Bryncoch, Neath, Neath Port Talbot, Sa10 7sg Authority: Natural Resources Wales Catchment Area: Not Supplied Reference: Bp0362001 Permit Version: 1 Effective Date: 31st March 2007 Issued Date: 21st March 2007 Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Stw Storm Overflow/Storm Tank - Water Company Discharge: Freshwater Stream/River Environment: Receiving Water: Trib River Neath 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	A6NW (SW)	489	3	274875 198555
8	Discharge Consents Operator: Dwr Cymru Cyfyngedig Property Type: Sewerage Network - Sewers - Water Company Location: Cso 8 Bryncoch Swo 7b Bryncoch, Adjacent 46 Main Road, Neath Port Talbot Cbc Authority: Natural Resources Wales Catchment Area: River Neath Reference: Bw2901501 Permit Version: 2 Effective Date: 1st April 2004 Issued Date: 31st March 2004 Revocation Date: Not Supplied Discharge Type: Public Sewage: Storm Sewage Overflow Discharge: Freshwater Stream/River Environment: Receiving Water: Tributary Of The River Clydach Status: Varied by Application - (Water Resources Act 1991, Schedule 10 as amended by Environment Act 1995) Positional Accuracy: Located by supplier to within 10m	A9NE (W)	637	3	274441 199300
9	Discharge Consents Operator: Dwr Cymru Cyfyngedig Property Type: Sewerage Network - Sewers - Water Company Location: Cadoxton Road Cso Cadoxton Road, Neath, Neath Port Talbot Authority: Natural Resources Wales Catchment Area: Not Supplied Reference: Bp0353601 Permit Version: 1 Effective Date: 31st March 2006 Issued Date: 31st March 2006 Revocation Date: Not Supplied Discharge Type: Public Sewage: Storm Sewage Overflow Discharge: Freshwater Stream/River Environment: Receiving Water: River Neath 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	A2NE (S)	855	3	275189 197982
9	Discharge Consents Operator: Lidl Uk Gmbh Property Type: Sewerage Network - Pumping Station - Water Company Location: Vale Of Neath Retail Park Ps, Cadoxton Road, Neath, Sa10 7ay Authority: Natural Resources Wales Catchment Area: Not Given Reference: BP027170101 Permit Version: 1 Effective Date: 21st August 1998 Issued Date: 21st August 1998 Revocation Date: Not Supplied Discharge Type: Public Sewage: Storm Sewage Overflow Discharge: Freshwater Stream/River Environment: Receiving Water: Neath Estuary Via Culvert 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	A6SE (S)	858	3	275157 197990

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
10	Discharge Consents Operator: Dwr Cymru Cyfyngedig Property Type: Sewerage Network - Pumping Station - Water Company Location: Farfield Ps Prince Of Wales Drive, Prince Of Wales Drive Neath Authority: Natural Resources Wales Catchment Area: River Neath Reference: BP0255701 Permit Version: 1 Effective Date: 31st December 1997 Issued Date: 19th September 1996 Revocation Date: Not Supplied Discharge Type: Public Sewage: Storm Sewage Overflow Discharge: Saline Estuary Environment: Receiving Water: River Neath Estuarial Waters Status: New Consent, by Application (Water Resources Act 1991, Section 88) Positional Accuracy: Located by supplier to within 100m	A3NW (S)	882	3	275440 197910
10	Discharge Consents Operator: Dwr Cymru Cyfyngedig Property Type: Sewerage Network - Sewers - Water Company Location: Fairfield Outfall Ty'N-Y-Caeau Neat, Ty'N-Y-Caeau Neath Authority: Natural Resources Wales Catchment Area: River Neath Reference: Bp0064307 Permit Version: 3 Effective Date: 29th March 1996 Issued Date: 28th March 1996 Revocation Date: 31st December 1997 Discharge Type: Unspecified Discharge: Not Supplied Environment: Receiving Water: Estuarial Waters Of River Neat Status: Consent expired Positional Accuracy: Located by supplier to within 10m	A3NW (S)	891	3	275470 197900
10	Discharge Consents Operator: Dwr Cymru Cyfyngedig Property Type: Sewerage Network - Sewers - Water Company Location: Fairfield Outfall Ty'N-Y-Caeau Neat, Ty'N-Y-Caeau Neath Authority: Natural Resources Wales Catchment Area: River Neath Reference: Bp0064307 Permit Version: 2 Effective Date: 28th November 1992 Issued Date: 28th August 1992 Revocation Date: 28th March 1996 Discharge Type: Unspecified Discharge: Not Supplied Environment: Receiving Water: Estuarial Waters Of River Neat Status: Authorisation revokedRevoked Positional Accuracy: Located by supplier to within 100m	A3NW (S)	891	3	275470 197900
10	Discharge Consents Operator: Dwr Cymru Cyfyngedig Property Type: Sewerage Network - Sewers - Water Company Location: Fairfield Outfall Ty'N-Y-Caeau Neat, Ty'N-Y-Caeau Neath Authority: Natural Resources Wales Catchment Area: River Neath Reference: Bp0064307 Permit Version: 1 Effective Date: 24th November 1987 Issued Date: 24th November 1987 Revocation Date: 27th November 1992 Discharge Type: Unspecified Discharge: Not Supplied Environment: Receiving Water: Estuarial Waters Of River Neat Status: Authorisation revokedRevoked Positional Accuracy: Located by supplier to within 10m	A3NW (S)	891	3	275470 197900

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
10	Discharge Consents Operator: Dwr Cymru Cyfyngedig Property Type: Sewerage Network - Sewers - Water Company Location: Gnoll Park Road Cso Gnoll Park Rd, Gnoll Park Road, Neath, Neath Port Talbot Authority: Natural Resources Wales Catchment Area: Not Supplied Reference: Bp0353801 Permit Version: 1 Effective Date: 31st March 2006 Issued Date: 31st March 2006 Revocation Date: Not Supplied Discharge Type: Public Sewage: Storm Sewage Overflow Discharge: Freshwater Stream/River Environment: Receiving Water: River Neath 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	A3NW (S)	895	3	275516 197898
10	Discharge Consents Operator: Dwr Cymru Cyfyngedig Property Type: Sewerage Network - Pumping Station - Water Company Location: Cso No 38 O/S Public Health Office, Dyfed Road, Neath Authority: Natural Resources Wales Catchment Area: Not Supplied Reference: Bp0303901 Permit Version: 1 Effective Date: 5th March 2003 Issued Date: 5th March 2003 Revocation Date: Not Supplied Discharge Type: Public Sewage: Storm Sewage Overflow Discharge: Freshwater Stream/River Environment: Receiving Water: The Afon Nedd 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	A3NW (S)	896	3	275516 197897
11	Discharge Consents Operator: Dwr Cymru Cyfyngedig Property Type: Sewerage Network - Sewers - Water Company Location: Boundary Sewer Overflow Swo 6c Authority: Natural Resources Wales Catchment Area: River Neath Reference: Bw2901701 Permit Version: 1 Effective Date: 8th November 1972 Issued Date: 8th November 1972 Revocation Date: 21st December 1992 Discharge Type: Unspecified Discharge: Not Supplied Environment: Receiving Water: River Neath Status: Consent expired Positional Accuracy: Located by supplier to within 100m	A8NE (E)	896	3	276400 198600
12	Discharge Consents Operator: Dwr Cymru Cyfyngedig Property Type: Sewerage Network - Sewers - Water Company Location: Bryncoch Swo 7b Main Rd Adj.4 Authority: Natural Resources Wales Catchment Area: River Neath Reference: BW2901501 Permit Version: 1 Effective Date: 17th June 1973 Issued Date: 17th June 1973 Revocation Date: 31st March 2004 Discharge Type: Unspecified Discharge: Not Supplied Environment: Receiving Water: Tributary Of The River Clydach Status: New Consent, by Application (Water Resources Act 1991, Section 88) Positional Accuracy: Located by supplier to within 100m	A13NE (NW)	928	3	274430 199830

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
13	Discharge Consents Operator: Dwr Cymru Cyfyngedig Property Type: Undefined Or Other Location: Llangatwg School (Storm) Cadoxton, Neath Authority: Natural Resources Wales Catchment Area: Not Supplied Reference: Bm0010801 Permit Version: 2 Effective Date: 11th November 1986 Issued Date: 11th November 1986 Revocation Date: 14th March 1994 Discharge Type: Unspecified Discharge: Not Supplied Environment: Receiving Water: Unnamed Trib. Neath Status: Consent expired Positional Accuracy: Located by supplier to within 10m	A12NE (E)	945	3	276550 199110
13	Discharge Consents Operator: Dwr Cymru Cyfyngedig Property Type: Sewerage Network - Sewers - Water Company Location: Cso 49 Llangatwg School Aberdulias, Neath, Neath Port Talbot Cbc Authority: Natural Resources Wales Catchment Area: River Neath Reference: Bw2902801 Permit Version: 4 Effective Date: 27th November 2008 Issued Date: 27th November 2008 Revocation Date: Not Supplied Discharge Type: Public Sewage: Storm Sewage Overflow Discharge: Freshwater Stream/River Environment: Receiving Water: River Dulais Status: Modified (Water Resources Act 1991, Schedule 10 as amended by Environment Act 1995) Positional Accuracy: Located by supplier to within 10m	A12NE (E)	948	3	276552 199114
13	Discharge Consents Operator: Dwr Cymru Cyfyngedig Property Type: Sewerage Network - Sewers - Water Company Location: Cso 49 Llangatwg School Aberdulias, Neath, Neath Port Talbot Cbc Authority: Natural Resources Wales Catchment Area: River Neath Reference: Bw2902801 Permit Version: 2 Effective Date: 31st March 2004 Issued Date: 31st March 2004 Revocation Date: 30th March 2005 Discharge Type: Public Sewage: Storm Sewage Overflow Discharge: Freshwater Stream/River Environment: Receiving Water: River Dulais Status: Varied by Application - (Water Resources Act 1991, Schedule 10 as amended by Environment Act 1995) Positional Accuracy: Located by supplier to within 10m	A12NE (E)	948	3	276552 199114
13	Discharge Consents Operator: Mr S R Jones Property Type: Domestic Property (Single) Location: 1 Ynysllynlladd Cottages Cadoxton, Neath, Wales, Sa10 8da Authority: Natural Resources Wales Catchment Area: Not Supplied Reference: Bp0325801 Permit Version: 1 Effective Date: 6th August 2004 Issued Date: 6th August 2004 Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Final/Treated Effluent - Not Water Company Discharge: Freshwater Stream/River Environment: Receiving Water: Trib Of River Neath 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	A12NE (E)	972	3	276576 199121

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
14	Discharge Consents Operator: Dwr Cymru Cyfyngedig Property Type: Sewerage Network - Sewers - Water Company Location: Bryncoch Swo 7c J'Tion Authority: Natural Resources Wales Catchment Area: River Neath Reference: BW2901401 Permit Version: 1 Effective Date: 7th January 1957 Issued Date: 7th January 1957 Revocation Date: 5th March 2003 Discharge Type: Unspecified Discharge: Not Supplied Environment: Receiving Water: Tributary Of River Clydach Status: New Consent, by Application (Water Resources Act 1991, Section 88) Positional Accuracy: Located by supplier to within 100m	A13NE (NW)	956	3	274360 199800
14	Discharge Consents Operator: Dwr Cymru Cyfyngedig Property Type: Sewerage Network - Sewers - Water Company Location: Cso No 10 30m U/S Roadbridge, Lamb & Flag Public House, Bryncoch Authority: Natural Resources Wales Catchment Area: River Neath Reference: Bw2901401 Permit Version: 2 Effective Date: 6th March 2003 Issued Date: 5th March 2003 Revocation Date: Not Supplied Discharge Type: Public Sewage: Storm Sewage Overflow Discharge: Freshwater Stream/River Environment: Receiving Water: Tributary Of The Afon Clydach Status: Varied by Application - (Water Resources Act 1991, Schedule 10 as amended by Environment Act 1995) Positional Accuracy: Located by supplier to within 10m	A13NE (NW)	970	3	274360 199820
14	Discharge Consents Operator: Dwr Cymru Cyfyngedig Property Type: Sewerage Network - Sewers - Water Company Location: Cso No 10 30m U/S Roadbridge, Lamb & Flag Public House, Bryncoch Authority: Natural Resources Wales Catchment Area: River Neath Reference: Bw2901401 Permit Version: 2 Effective Date: 6th March 2003 Issued Date: 5th March 2003 Revocation Date: Not Supplied Discharge Type: Public Sewage: Storm Sewage Overflow Discharge: Freshwater Stream/River Environment: Receiving Water: Tributary Of The Afon Clydach Status: Varied by Application - (Water Resources Act 1991, Schedule 10 as amended by Environment Act 1995) Positional Accuracy: Located by supplier to within 10m	A13NE (NW)	970	3	274360 199820
15	Discharge Consents Operator: Dwr Cymru Cyfyngedig Property Type: Sewerage Network - Sewers - Water Company Location: Swo.Point V. U/S Cemet. Lla Authority: Natural Resources Wales Catchment Area: River Neath Reference: BB4000510 Permit Version: 1 Effective Date: 8th November 1972 Issued Date: 8th November 1972 Revocation Date: 31st March 2003 Discharge Type: Unspecified Discharge: Not Supplied Environment: Receiving Water: River Neath Status: Revoked (Water Resources Act 1991, Section 88 & Schedule 10 as amended by Environment Act 1995) Positional Accuracy: Located by supplier to within 100m	A8NE (SE)	972	3	276450 198530

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
16	Discharge Consents Operator: Evans G Property Type: Domestic Property (Single) Location: Neath 4 Cwm Clydach Cottages Dyffry, 4 Cwm Clydach Cottages Dyffryn R, Dyffryn Rd Bryncoch Authority: Natural Resources Wales Catchment Area: River Neath Reference: Bp0021901 Permit Version: 1 Effective Date: 21st July 1986 Issued Date: 21st July 1986 Revocation Date: 10th October 1994 Discharge Type: Unspecified Discharge: Not Supplied Environment: Receiving Water: To Land Status: Consent expired Positional Accuracy: Located by supplier to within 10m	A9NW (W)	988	3	274080 199280
17	Discharge Consents Operator: Dwr Cymru Cyfyngedig Property Type: Sewerage Network - Sewers - Water Company Location: Swo Point A N.West Authority: Natural Resources Wales Catchment Area: River Neath Reference: BB4000503 Permit Version: 1 Effective Date: 8th November 1972 Issued Date: 8th November 1972 Revocation Date: 31st March 2003 Discharge Type: Unspecified Discharge: Not Supplied Environment: Receiving Water: River Neath Status: Revoked (Water Resources Act 1991, Section 88 & Schedule 10 as amended by Environment Act 1995) Positional Accuracy: Located by supplier to within 100m	A8SW (SE)	994	3	276090 198020
18	Prosecutions Relating to Controlled Waters Location: River Clydach, R/O Main Road, Bryncoch, Sa10 Prosecution Text: Casuing raw sewage to enter a watercourse Prosecution Act: Wra91 S85(1) Hearing Date: 14th March 2007 Verdict: Guilty Fine: 3500 Cost: 400 Positional Accuracy: Manually positioned to the road within the address or location	A13NE (NW)	968	5	274344 199800
19	Local Authority Pollution Prevention and Controls Name: Cemex Uk Materials Ltd Location: Gilfach Quarry, The Rhyddings, NEATH, West Glamorgan, SA10 8AD Authority: Neath Port Talbot County Borough Council, Environmental Health Department Permit Reference: E3/1/38 Dated: 6th April 1993 Process Type: Local Authority Air Pollution Control Description: PG3/8 Quarry processes including roadstone plants and the size reduction of bricks, tiles and concrete Status: Authorised Positional Accuracy: Manually positioned to the address or location	A14NE (N)	680	4	275173 199888
20	Local Authority Pollution Prevention and Controls Name: Wm Morrison Supermarkets Plc Location: Angel Street, NEATH, West Glamorgan, SA11 1RS Authority: Neath Port Talbot County Borough Council, Environmental Health Department Permit Reference: E3/1/67 Dated: 1st October 1998 Process Type: Local Authority Air Pollution Control Description: PG1/14 Petrol filling station Status: Authorised Positional Accuracy: Manually positioned to the address or location	A2NE (S)	905	4	275294 197902
	Nearest Surface Water Feature	A10SE (SW)	0	-	275236 198914

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
21	Pollution Incidents to Controlled Waters Property Type: Not Given Location: Tyn Yr Heolp S, BRYNCAE Authority: Environment Agency, Welsh Region Pollutant: Light Oil Note: Mechanical/Electrical Plant Failure Incident Date: 18th February 1996 Incident Reference: 27423 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	A10NW (W)	166	5	274900 199195
21	Pollution Incidents to Controlled Waters Property Type: Water Company Sewage: Other Location: Tyn Yr Heol, Pumping Station, BRYNCOCH Authority: Environment Agency, Welsh Region Pollutant: Light Oil Note: Mechanical Failure Incident Date: 18th February 1996 Incident Reference: 27423 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	A10NW (W)	168	5	274900 199200
22	Pollution Incidents to Controlled Waters Property Type: Quarrying (Hard Rock) Location: Gilfach Quarry Authority: Environment Agency, Welsh Region Pollutant: Crude Sewage Note: Weather Incident Date: 3rd January 1991 Incident Reference: 2560 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Effluent Discharge Incident Severity: Category 2 - Significant Incident Positional Accuracy: Located by supplier to within 100m	A10NW (NW)	301	5	274800 199300
23	Pollution Incidents to Controlled Waters Property Type: Not Given Location: Quarry Bryncoch Authority: Environment Agency, Welsh Region Pollutant: Unknown Note: Not Supplied Incident Date: 23rd June 1991 Incident Reference: 900 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Unknown Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A14SW (NW)	439	5	274700 199400
24	Pollution Incidents to Controlled Waters Property Type: Land Location: Cadoxton Tip, And Betts Authority: Environment Agency, Welsh Region Pollutant: Farm Effluent/Slurry Note: Deliberate Act Incident Date: 6th March 1991 Incident Reference: 2669 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	A7NE (SE)	445	5	275800 198500
24	Pollution Incidents to Controlled Waters Property Type: Land Location: Cadoxton Near, Betts, Nurseries Old Authority: Environment Agency, Welsh Region Pollutant: Farm Effluent/Slurry Note: Deliberate Act Incident Date: 11th March 1991 Incident Reference: 2672 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	A7NE (SE)	449	5	275800 198495

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
25	Pollution Incidents to Controlled Waters Property Type: Not Given Location: Sewage Pumping, St Teilo Street, Ty'n Heol Road, BRYNCOCH Authority: Environment Agency, Welsh Region Pollutant: Light Oil Note: Mechanical/Electrical Plant Failure Incident Date: 1st November 1996 Incident Reference: 30442 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	A9NE (W)	677	5	274400 199300
26	Pollution Incidents to Controlled Waters Property Type: Not Given Location: Location Description Not Available Authority: Environment Agency, Welsh Region Pollutant: Crude Sewage Note: River Clydach; Overflow Incident Date: 2nd January 1998 Incident Reference: 34481 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Mechanical/Electrical Plant Failure Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A9NE (W)	716	5	274350 199245
26	Pollution Incidents to Controlled Waters Property Type: Not Given Location: Bryncoch Pumping Station Authority: Environment Agency, Welsh Region Pollutant: Crude Sewage Note: River Clydach; Overflow Incident Date: 2nd January 1998 Incident Reference: 34481 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Mechanical/Electrical Plant Failure Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A9NE (W)	717	5	274350 199250
27	Pollution Incidents to Controlled Waters Property Type: Not Given Location: Manhole At Sewage Pumping Station, BRYNCOCH Authority: Environment Agency, Welsh Region Pollutant: Crude Sewage Note: River Clydach; Overflow Incident Date: 25th January 1998 Incident Reference: 34694 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Mechanical/Electrical Plant Failure Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A9NW (W)	756	5	274305 199195
27	Pollution Incidents to Controlled Waters Property Type: Not Given Location: Tyr Yr Awel Road, Bryncoch, NEATH Authority: Environment Agency, Welsh Region Pollutant: Crude Sewage Note: River Clydach; Overflow Incident Date: 25th January 1998 Incident Reference: 34694 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Mechanical/Electrical Plant Failure Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A9NW (W)	761	5	274300 199195
27	Pollution Incidents to Controlled Waters Property Type: Water Company Sewage: Other Location: Tyn Yr Heol, Pumping Station Authority: Environment Agency, Welsh Region Pollutant: Heavy Fuel Oil Note: Mechanical Failure Incident Date: 27th October 1994 Incident Reference: 21652 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	A9NW (W)	761	5	274300 199200

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
28	Pollution Incidents to Controlled Waters Property Type: Building Sites Location: Adjacent Dwr Y Felin Road, NEATH Authority: Environment Agency, Welsh Region Pollutant: Crude Sewage Note: Poor Operational Practise Incident Date: 11th November 1994 Incident Reference: 21783 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	A9SE (W)	791	5	274400 198700
29	Pollution Incidents to Controlled Waters Property Type: Miscellaneous Premises: Surface Runoff Location: Church Neath, B And Q Stores, LLANTWIT Authority: Environment Agency, Welsh Region Pollutant: Crude Sewage Note: Not Supplied Incident Date: 20th June 1996 Incident Reference: 28930 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	A7SW (S)	792	5	275500 198000
29	Pollution Incidents to Controlled Waters Property Type: Not Given Location: From Llantwit Church, NEATH Authority: Environment Agency, Welsh Region Pollutant: Crude Sewage Note: Not Supplied Incident Date: 20th June 1996 Incident Reference: 28930 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	A7SW (S)	797	5	275500 197995
30	Pollution Incidents to Controlled Waters Property Type: Not Given Location: Dwr Y Felin Road Authority: Environment Agency, Welsh Region Pollutant: Unknown Note: Not Supplied Incident Date: 25th August 1994 Incident Reference: 20815 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	A5NE (SW)	793	5	274600 198400
30	Pollution Incidents to Controlled Waters Property Type: Not Given Location: Dwr Y Felin Road Authority: Environment Agency, Welsh Region Pollutant: Oils - Other Oil Note: Not Supplied Incident Date: 12th September 1994 Incident Reference: 21148 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Unknown Incident Severity: Category 2 - Significant Incident Positional Accuracy: Located by supplier to within 100m	A5NE (SW)	797	5	274600 198395
31	Pollution Incidents to Controlled Waters Property Type: Not Given Location: Adjacent To, Parr Avenue, NEATH Authority: Environment Agency, Welsh Region Pollutant: Cesspit Contents Note: Not Supplied Incident Date: 16th January 1996 Incident Reference: 27136 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	A7SW (S)	803	5	275600 198000

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
31	Pollution Incidents to Controlled Waters Property Type: Other Location: Opposite, Safeways Neath Authority: Environment Agency, Welsh Region Pollutant: Oils - Diesel (Including Agricultural) Note: Not Supplied Incident Date: 31st March 1992 Incident Reference: 4011 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Unknown Incident Severity: Category 2 - Significant Incident Positional Accuracy: Located by supplier to within 100m	A7SW (S)	808	5	275600 197995
31	Pollution Incidents to Controlled Waters Property Type: Not Given Location: Adjacent To Parr Avenue, NEATH Authority: Environment Agency, Welsh Region Pollutant: Cesspit Contents Note: Not Supplied Incident Date: 16th January 1996 Incident Reference: 27136 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	A7SW (S)	809	5	275605 197995
32	Pollution Incidents to Controlled Waters Property Type: Not Given Location: Bridge Authority: Environment Agency, Welsh Region Pollutant: Crude Sewage Note: Not Supplied Incident Date: 19th June 1996 Incident Reference: 28932 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	A6SE (S)	831	5	275001 198101
32	Pollution Incidents to Controlled Waters Property Type: Not Given Location: Under Old Bridge, Along Footbridge Authority: Environment Agency, Welsh Region Pollutant: Crude Sewage Note: Not Supplied Incident Date: 19th June 1996 Incident Reference: 28932 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	A6SE (S)	835	5	275001 198096
33	Pollution Incidents to Controlled Waters Property Type: Water Company Sewage: Other Location: Tyn Yr Heol, Pumping Station, BRYNCOCH Authority: Environment Agency, Welsh Region Pollutant: Algae Note: Mechanical Failure Incident Date: 3rd February 1995 Incident Reference: 23345 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	A9NW (W)	856	5	274205 199205
33	Pollution Incidents to Controlled Waters Property Type: Water Company Sewage: Other Location: Tyn Yr Heol, Pumping Station Authority: Environment Agency, Welsh Region Pollutant: Farm Effluent/Slurry Note: Mechanical Failure Incident Date: 9th November 1994 Incident Reference: 21729 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	A9NW (W)	856	5	274205 199195

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
33	Pollution Incidents to Controlled Waters Property Type: Water Company Sewage: Other Location: Tyn Yr Heol, Pumping Station Authority: Environment Agency, Welsh Region Pollutant: Unknown Note: Mechanical Failure Incident Date: 3rd November 1994 Incident Reference: 21751 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	A9NW (W)	856	5	274205 199200
33	Pollution Incidents to Controlled Waters Property Type: Not Given Location: Tyn Yr Heol, Pumping Station Authority: Environment Agency, Welsh Region Pollutant: Algae Note: Not Supplied Incident Date: 2nd September 1994 Incident Reference: 20928 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	A9NW (W)	860	5	274200 199195
33	Pollution Incidents to Controlled Waters Property Type: Water Company Sewage: Other Location: Tyn Yr Heol, Pumping Station Authority: Environment Agency, Welsh Region Pollutant: Mud/Clay/Soil Note: Blocked Sewer Incident Date: 1st September 1994 Incident Reference: 20926 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	A9NW (W)	861	5	274200 199200
34	Pollution Incidents to Controlled Waters Property Type: Other Location: 14 Park Avenue, Maes Yr Afon Authority: Environment Agency, Welsh Region Pollutant: Mud/Clay/Soil Note: Deliberate Act Incident Date: 2nd February 1995 Incident Reference: 23042 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	A3NW (S)	902	5	275600 197900
34	Pollution Incidents to Controlled Waters Property Type: Not Given Location: Roundabout By, Safeways Near, Riverside Authority: Environment Agency, Welsh Region Pollutant: Crude Sewage Note: Not Supplied Incident Date: 2nd August 1994 Incident Reference: 21297 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Unknown Incident Severity: Category 2 - Significant Incident Positional Accuracy: Located by supplier to within 100m	A3NW (S)	907	5	275600 197895
35	Pollution Incidents to Controlled Waters Property Type: Not Given Location: Safeways Garage, Riverside Authority: Environment Agency, Welsh Region Pollutant: Unknown Note: Not Supplied Incident Date: 6th September 1994 Incident Reference: 21047 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	A2NE (S)	906	5	275300 197900

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
36	Pollution Incidents to Controlled Waters Property Type: Not Given Location: Location Description Not Available Authority: Environment Agency, Welsh Region Pollutant: Farm Effluent/Slurry Note: Not Supplied Incident Date: 10th July 1991 Incident Reference: 998 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Unknown Incident Severity: Category 2 - Significant Incident Positional Accuracy: Located by supplier to within 100m	A13SW (W)	929	5	274200 199500
37	Pollution Incidents to Controlled Waters Property Type: Not Given Location: Canal Overflows, To Neath At, Tonna Lock Authority: Environment Agency, Welsh Region Pollutant: Light Oil Note: Not Supplied Incident Date: 2nd July 1995 Incident Reference: 25058 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Unknown Incident Severity: Category 2 - Significant Incident Positional Accuracy: Located by supplier to within 100m	A8SW (SE)	940	5	276100 198100
38	Pollution Incidents to Controlled Waters Property Type: Water Company Sewage: Sewerage Location: 30 M Up Stream Of Road Bridge, Near Lamb And Flag Authority: Environment Agency, Welsh Region Pollutant: Crude Sewage Note: Not Supplied Incident Date: 21st January 1992 Incident Reference: 3747 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	A13NE (NW)	942	5	274380 199800
39	Pollution Incidents to Controlled Waters Property Type: Not Given Location: Tyn Yr Heol Pumping Station, Bryncoch, NEATH Authority: Environment Agency, Welsh Region Pollutant: Crude Sewage Note: Mechanical/Electrical Failure Incident Date: 6th May 1997 Incident Reference: 32177 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	A9NW (W)	960	5	274100 199100
40	Pollution Incidents to Controlled Waters Property Type: Domestic/Residential Location: Adjacent Lamb And, Flag Public House, BRYNCOCH Authority: Environment Agency, Welsh Region Pollutant: Mining Water Note: Deliberate Act Incident Date: 9th August 1995 Incident Reference: 25414 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	A13NW (NW)	969	5	274300 199750
41	Pollution Incidents to Controlled Waters Property Type: Building Sites Location: WATERFALL Authority: Environment Agency, Welsh Region Pollutant: Light Oil Note: Not Supplied Incident Date: 9th October 1994 Incident Reference: 21654 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	A9SW (W)	991	5	274100 198900

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	River Quality Name: Port Tennant Canal GQA Grade: River Quality B Reach: Neath Abbey - Conf.Neath Estimated Distance 4 (km): Flow Rate: Flow greater than 80 cumecs Flow Type: Canal Year: 2000	A7NE (SE)	549	5	275912 198473
	River Quality Name: Clydach GQA Grade: River Quality A Reach: Tidal Limit - Dyffryn Arms Bryncoch Estimated Distance 4.3 (km): Flow Rate: Flow less than 0.62 cumecs Flow Type: River Year: 2000	A9NW (W)	791	5	274270 199226
	River Quality Name: Neath Canal GQA Grade: River Quality D Reach: Conf.Neath - Aberdulais Aqueduct Estimated Distance 8 (km): Flow Rate: Flow greater than 80 cumecs Flow Type: Canal Year: 2000	A2NE (S)	907	5	275313 197888
42	Substantiated Pollution Incident Register Authority: Natural Resources Wales Incident Date: 7th November 2012 Incident Reference: 1054075 Water Impact: Category 2 - Significant Incident Air Impact: Category 4 - No Impact Land Impact: Category 4 - No Impact Positional Accuracy: Located by supplier to within 10m Pollutant: Inert Materials And Wastes: Soils And Clay	A14SW (NW)	534	3	274836 199640
43	Substantiated Pollution Incident Register Authority: Natural Resources Wales Incident Date: 27th July 2006 Incident Reference: 421608 Water Impact: Category 2 - Significant Incident Air Impact: Category 4 - No Impact Land Impact: Category 4 - No Impact Positional Accuracy: Located by supplier to within 10m Pollutant: Crude Sewage	A13SW (NW)	931	3	274239 199587
44	Water Abstractions Operator: Neath Golf Club Licence Number: 21/58/74/0027 Permit Version: 2 Location: U/G Strata, Pennant Measures Sandstone At Neath Golf Club Authority: Natural Resources Wales Abstraction: Golf Courses: Spray Irrigation - Direct 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 April Authorised End: 31 October Permit Start Date: 4th September 2008 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	A11NE (E)	355	3	275910 199240

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
44	Water Abstractions Operator: Neath Golf Club Licence Number: 21/58/74/0027 Permit Version: 1 Location: U/G Strata, Pennant Measures Sandstone At Neath Golf Club Authority: Environment Agency, Welsh Region Abstraction: Golf Courses: Spray Irrigation - Direct 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 April Authorised End: 31 October Permit Start Date: 1st April 2008 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	A11NE (E)	355	5	275910 199240
45	Water Abstractions Operator: Cemex Uk Materials Ltd Licence Number: 21/58/74/0017 Permit Version: 101 Location: Stream West Of Gilfach Quarry, Neath Authority: Natural Resources Wales Abstraction: Mineral Products: Mineral Washing Abstraction Type: Water may be abstracted from a single point Source: Surface Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Not Supplied Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 13th June 2008 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	A14SW (NW)	464	3	274950 199620
45	Water Abstractions Operator: Rmc Materials Limited Licence Number: 21/58/74/0017 Permit Version: 100 Location: Stream West Of Gilfach Quarry, Neath Authority: Environment Agency, Welsh Region Abstraction: Mineral Products: Mineral Washing Abstraction Type: Water may be abstracted from a single point Source: Surface Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Stream West Of Gilfach Quarry; Neath Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 1st April 2001 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m	A14SW (NW)	464	5	274950 199620
46	Water Abstractions Operator: Neath Golf Club Licence Number: 21/58/74/0018 Permit Version: 100 Location: Spring 1 Authority: Environment Agency, Welsh Region Abstraction: Golf Courses: Spray Irrigation - Direct Abstraction Type: Water may be abstracted from a single point Source: Surface Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Spring 1 Authorised Start: 01 April Authorised End: 31 October Permit Start Date: 1st April 2000 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m	A12NW (E)	589	5	276150 199280

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
47	Water Abstractions Operator: Neath Golf Club Licence Number: 21/58/74/0018 Permit Version: 100 Location: Spring 2 Authority: Environment Agency, Welsh Region Abstraction: Golf Courses: Spray Irrigation - Direct Abstraction Type: Water may be abstracted from a single point Source: Surface Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Spring 2 Authorised Start: 01 April Authorised End: 31 October Permit Start Date: 1st April 2000 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m	A16SW (NE)	820	5	276320 199460
	Water Abstractions Operator: Neath Canal Navigation Licence Number: 21/58/72/0007 Permit Version: 101 Location: Inland Water River Neath In The Community Of Tonna Authority: Environment Agency, Welsh Region Abstraction: Private Water Undertaking: General Use (Medium Loss) Abstraction Type: Water may be abstracted from a single point Source: Surface Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Not Supplied Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 1st April 2005 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	(E)	1314	5	276900 198820
	Water Abstractions Operator: Neath Canal Navigation Licence Number: 21/58/72/0007 Permit Version: 100 Location: Inland Water River Neath In The Community Of Tonna Authority: Environment Agency, Welsh Region Abstraction: Private Water Supply: General Use (High Loss) Abstraction Type: Water may be abstracted from a single point Source: Surface Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: River Neath Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 1st April 1994 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m	(E)	1314	5	276900 198820
	Water Abstractions Operator: Neath Canal Navigation Licence Number: 21/58/72/0035 Permit Version: 2 Location: River Neath At Tonna Lock Authority: Natural Resources Wales Abstraction: Private Water Undertaking: Transfer between sources Abstraction Type: Water may be abstracted from a single point Source: Surface Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Not Supplied Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 6th February 2009 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	(E)	1382	3	276970 198830

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Water Abstractions Operator: Neath Canal Navigation Licence Number: 21/58/72/0007 Permit Version: Not Supplied Location: Location Description Not Available Authority: Environment Agency, Welsh Region Abstraction: General Industrial Abstraction Type: Not Supplied Source: River Daily Rate (m3): 0 Yearly Rate (m3): 0 Details: Stream At Lock House; Tonna To Neath Can Authorised Start: Not Supplied Authorised End: Not Supplied Permit Start Date: Not Supplied Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m	(E)	1391	5	276970 198770
	Water Abstractions Operator: Neath Golf Club Licence Number: 21/58/74/0026 Permit Version: 100 Location: Land Drains In The Catchment Of The River Neath Authority: Environment Agency, Welsh Region Abstraction: Golf Courses: Spray Irrigation - Storage Abstraction Type: Water may be abstracted from a single point Source: Surface Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Reservoir Supplied By Land Drains At Neath Golf Course Authorised Start: 01 June Authorised End: 30 September Permit Start Date: 25th July 1996 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m	A20NW (NE)	1499	5	276210 200500
	Water Abstractions Operator: National Trust Licence Number: 21/58/73/0014 Permit Version: 100 Location: Afon Dulais At Aberdulais Falls Authority: Environment Agency, Welsh Region Abstraction: Production Of Energy: Hydroelectric Power Generation Abstraction Type: Water may be abstracted from a single point Source: Surface Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Afon Dulais At Aberdulais Falls Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 1st April 2004 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m	(E)	1622	5	277150 199550
	Water Abstractions Operator: The National Trust Licence Number: Wa/058/0073/001 Permit Version: 2 Location: Afon Dulais Authority: Natural Resources Wales Abstraction: Production Of Energy: Hydroelectric Power Generation Abstraction Type: Water may be abstracted from a single point Source: Surface Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Aberdulais, Neath, Glamorgan Authorised Start: 01 April Authorised End: 31 March Permit Start Date: 28th March 2014 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	(E)	1628	3	277152 199564

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Water Abstractions Operator: Port Tennant Co Ltd Licence Number: 21/58/74/0001 Permit Version: 103 Location: River Neath To Tennant Canal At Aberdulais Authority: Natural Resources Wales Abstraction: Private Water Undertaking: Raw Water Supply Abstraction Type: Water may be abstracted from a single point Source: Surface Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Not Supplied Authorised Start: 04 January Authorised End: 03 July Permit Start Date: 24th September 2014 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	(E)	1654	3	277239 199316
	Water Abstractions Operator: Port Tennant Co Ltd Licence Number: 21/58/74/0001 Permit Version: 103 Location: River Neath To Tennant Canal At Aberdulais Authority: Natural Resources Wales Abstraction: Private Water Undertaking: Raw Water Supply Abstraction Type: Water may be abstracted from a single point Source: Surface Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Not Supplied Authorised Start: 01 April Authorised End: 31 March Permit Start Date: 24th September 2014 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	(E)	1654	3	277239 199316
	Water Abstractions Operator: Port Tennant Co Ltd Licence Number: 21/58/74/0001 Permit Version: 103 Location: River Neath To Tennant Canal At Aberdulais Authority: Natural Resources Wales Abstraction: Private Water Undertaking: Raw Water Supply Abstraction Type: Water may be abstracted from a single point Source: Surface Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Tennant Canal Authorised Start: 01 April Authorised End: 31 March Permit Start Date: 24th September 2014 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	(E)	1654	3	277239 199316
	Water Abstractions Operator: The National Trust Licence Number: Wa/058/0073/001 Permit Version: 1 Location: Afon Dulais At Aberdulais Falls Authority: Environment Agency, Welsh Region Abstraction: Production Of Energy: Hydroelectric Power Generation Abstraction Type: Water may be abstracted from a single point Source: Surface Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Aberdulais, Neath, Glamorgan Authorised Start: 01 April Authorised End: 31 March Permit Start Date: 1st June 2011 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	(E)	1656	5	277159 199630

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Water Abstractions Operator: Alfred Mcalpine Construction Ltd Licence Number: 21/58/72/0032 Permit Version: Not Supplied Location: Location Description Not Available Authority: Environment Agency, Welsh Region Abstraction: General Industrial Abstraction Type: Not Supplied Source: River Daily Rate (m3): 0 Yearly Rate (m3): 0 Details: Inland Water Afon Nedd Neath West Glam Authorised Start: Not Supplied Authorised End: Not Supplied Permit Start Date: Not Supplied Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m	(E)	1670	5	277240 199400
	Water Abstractions Operator: Port Tennant Co Ltd Licence Number: 21/58/74/0001 Permit Version: 102 Location: River Neath To Tennant Canal At Aberdulais Authority: Natural Resources Wales Abstraction: Private Water Undertaking: Raw Water Supply Abstraction Type: Water may be abstracted from a single point Source: Surface Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Port Tennant Canal Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 1st April 2006 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	(E)	1698	3	277280 199340
	Water Abstractions Operator: Port Tennant Co Ltd Licence Number: 21/58/74/0001 Permit Version: 102 Location: River Neath To Tennant Canal At Aberdulais Authority: Natural Resources Wales Abstraction: Private Water Undertaking: Raw Water Supply Abstraction Type: Water may be abstracted from a single point Source: Surface Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Tennant Canal Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 1st April 2006 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	(E)	1698	3	277280 199340
	Water Abstractions Operator: Port Tennant Co. Ltd Licence Number: 21/58/74/0001 Permit Version: 101 Location: River Neath To Tennant Canal At Aberdulais Authority: Environment Agency, Welsh Region Abstraction: Private Water Undertaking: Raw Water Supply Abstraction Type: Water may be abstracted from a single point Source: Surface Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Tennant Canal Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 17th December 2003 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	(E)	1698	5	277280 199340

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Water Abstractions Operator: Port Tennant Co. Ltd Licence Number: 21/58/74/0001 Permit Version: 100 Location: River Neath To Tennant Canal At Aberdulais Authority: Environment Agency, Welsh Region Abstraction: Private Water Undertaking: Raw Water Supply Abstraction Type: Water may be abstracted from a single point Source: Surface Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: River Neath To Tennant Canal At Aberdulais Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 3rd January 1978 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m	(E)	1698	5	277280 199340
	Groundwater Vulnerability Soil Classification: Soils of High Leaching Potential (U) - Soil information for restored mineral workings and urban areas is based on fewer observations than elsewhere. A worst case vulnerability classification (H) assumed, until proved otherwise Map Sheet: Sheet 35 West Glamorgan Scale: 1:100,000	A10SE (SW)	0	5	275203 198929
	Groundwater Vulnerability Soil Classification: Soils of High Leaching Potential (H3)- Coarse textured or moderately shallow soils which readily transmit non-absorbed pollutants and liquid discharges but which have some ability to attenuate absorbed pollutants because of their large clay or organic matter contents Map Sheet: Sheet 35 West Glamorgan Scale: 1:100,000	A11NW (SE)	0	5	275343 199032
	Drift Deposits None				
	Bedrock Aquifer Designations Aquifer Designation: Secondary Aquifer - A	A11NW (SE)	0	2	275343 199032
	Superficial Aquifer Designations No Data Available				
	Extreme Flooding from Rivers or Sea without Defences None				
	Flooding from Rivers or Sea without Defences None				
	Areas Benefiting from Flood Defences None				
	Flood Water Storage Areas None				
	Flood Defences None				

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
48	Historical Landfill Sites Licence Holder: Neath Borough Council Location: Neath, West Glamorgan Name: Cadoxton Operator Location: Not Supplied Boundary Accuracy: As Supplied Provider Reference: EAHLD14875 First Input Date: 31st December 1971 Last Input Date: 1st April 1985 Specified Waste: Deposited Waste included Inert, Industrial, Commercial, Household and Type: Special Waste EA Waste Ref: 0 Regis Ref: Not Supplied WRC Ref: 6930/0002 BGS Ref: Not Supplied Other Ref: Not Supplied	A7NE (SE)	468	3	275885 198568
	Local Authority Landfill Coverage Name: Neath Port Talbot County Borough Council - Has supplied landfill data		0	4	275343 199032
49	Local Authority Recorded Landfill Sites Location: Cadoxton Landfill Site Reference: Not Supplied Authority: Neath Port Talbot County Borough Council, Environmental Health Department Last Reported Status: Not Supplied Types of Waste: Not Supplied Date of Closure: Not Supplied Positional Accuracy: Manually corrected supplier location Boundary Quality: Not Applicable	A7NE (SE)	600	4	276000 198500
50	Potentially Infilled Land (Non-Water) Bearing Ref: NE Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1992	A11NW (NE)	6	-	275490 199172
51	Potentially Infilled Land (Non-Water) Bearing Ref: S Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1992	A11SW (S)	90	-	275416 198715
52	Potentially Infilled Land (Non-Water) Bearing Ref: W Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1992	A10SE (W)	96	-	275068 198922
53	Potentially Infilled Land (Non-Water) Bearing Ref: NE Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1992	A11NW (NE)	100	-	275541 199270
54	Potentially Infilled Land (Non-Water) Bearing Ref: SE Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1992	A11SW (SE)	110	-	275635 198838
55	Potentially Infilled Land (Non-Water) Bearing Ref: NE Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1992	A11NW (NE)	157	-	275573 199317
56	Potentially Infilled Land (Non-Water) Bearing Ref: SW Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1992	A10SE (SW)	243	-	275007 198771
57	Potentially Infilled Land (Non-Water) Bearing Ref: E Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1992	A11NE (E)	248	-	275852 199092
58	Potentially Infilled Land (Non-Water) Bearing Ref: SW Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1992	A10SW (SW)	393	-	274860 198708
59	Potentially Infilled Land (Non-Water) Bearing Ref: W Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1992	A9NE (W)	698	-	274372 199271

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
60	Potentially Infilled Land (Non-Water) Bearing Ref: NE Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1992	A16NW (NE)	812	-	276020 199810
61	Potentially Infilled Land (Non-Water) Bearing Ref: NE Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1992	A15NE (NE)	821	-	275992 199841
62	Potentially Infilled Land (Non-Water) Bearing Ref: NW Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1992	A14NW (NW)	833	-	274688 199900
63	Potentially Infilled Land (Non-Water) Bearing Ref: NW Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1992	A14NW (NW)	890	-	274664 199951
64	Potentially Infilled Land (Non-Water) Bearing Ref: SW Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1992	A5NE (SW)	891	-	274403 198486
65	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1964	A10NE (NW)	0	-	275073 199161
66	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1964	A10NE (W)	15	-	275083 199070
67	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1935	A10NE (NW)	35	-	275028 199163
68	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1964	A10SE (SW)	290	-	275061 198668
69	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1965	A10SW (SW)	317	-	274875 198814
70	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1900	A7NE (SE)	350	-	275759 198594
71	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1965	A10NW (W)	377	-	274683 199175
72	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1921	A7NW (S)	383	-	275565 198422
73	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1965	A10NW (W)	386	-	274674 199175
74	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1965	A6NW (SW)	444	-	274863 198630
75	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1935	A10SW (SW)	465	-	274739 198708
76	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1965	A6NW (SW)	468	-	274861 198597
77	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1965	A9NE (W)	478	-	274587 199227
78	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1965	A14SW (NW)	483	-	274698 199469

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
79	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1884	A13SE (NW)	589	-	274623 199544
80	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1965	A13SE (NW)	639	-	274560 199547
81	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1965	A9SE (W)	697	-	274504 198705
82	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1935	A9SE (W)	701	-	274503 198697
83	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1965	A13NE (NW)	725	-	274584 199695
84	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1935	A6NW (SW)	747	-	274668 198380
85	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1965	A6NW (SW)	749	-	274739 198332
86	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1884	A13NE (NW)	767	-	274592 199755
87	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1965	A13NE (NW)	847	-	274474 199760
88	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1921	A3NW (S)	872	-	275471 197919
89	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1940	A5NE (SW)	872	-	274408 198513
90	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1965	A13NE (NW)	931	-	274587 199951
91	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1964	A13NE (NW)	948	-	274570 199960
92	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1965	A13NE (NW)	962	-	274418 199864

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
93	Registered Landfill Sites Licence Holder: Neath B.C. Licence Reference: 2 Site Location: Cadoxton Waste Disposal Site, Neath, West Glamorgan Licence Easting: 276200 Licence Northing: 198700 Operator Location: Civic Centre, NEATH, West Glamorgan, SA11 3QZ 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 1977 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: Commercial Waste Household Waste Industrial Wastes Prohibited Waste: Empty Used Containers Liquid Wastes Oily Waste Sludge Wastes Toxic/Poisonous Wastes	A12SW (E)	673	5	276200 198700

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS 1:625,000 Solid Geology Description: South Wales Upper Coal Measures Formation	A11NW (SE)	0	2	275343 199032
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic Concentration: 25 - 35 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <100 mg/kg Nickel Concentration: 30 - 45 mg/kg	A11NW (E)	0	2	275500 199067
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic Concentration: 35 - 45 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <100 mg/kg Nickel Concentration: 15 - 30 mg/kg	A11NW (E)	0	2	275500 199032
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic Concentration: 35 - 45 mg/kg Cadmium Concentration: 1.8 - 2.2 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <100 mg/kg Nickel Concentration: 15 - 30 mg/kg	A11NW (E)	0	2	275447 199000
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic Concentration: 35 - 45 mg/kg Cadmium Concentration: 1.8 - 2.2 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <100 mg/kg Nickel Concentration: 15 - 30 mg/kg	A10NE (NW)	0	2	275331 199057
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic Concentration: 25 - 35 mg/kg Cadmium Concentration: 1.8 - 2.2 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <100 mg/kg Nickel Concentration: 30 - 45 mg/kg	A11NW (SE)	0	2	275343 199032
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic Concentration: 45 - 60 mg/kg Cadmium Concentration: 2.2 - 3.0 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <100 mg/kg Nickel Concentration: 15 - 30 mg/kg	A11SW (SE)	0	2	275419 198964

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 2.2 - 3.0 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <100 mg/kg Nickel 30 - 45 mg/kg Concentration:	A11NW (S)	0	2	275343 199000
	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 - 2.2 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <100 mg/kg Nickel 15 - 30 mg/kg Concentration:	A11NW (E)	0	2	275500 199000
	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 - 2.2 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <100 mg/kg Nickel 30 - 45 mg/kg Concentration:	A10NE (W)	20	2	275086 199000
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic 35 - 45 mg/kg Concentration: Cadmium 2.2 - 3.0 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <100 mg/kg Nickel 30 - 45 mg/kg Concentration:	A10SE (SW)	28	2	275158 198924
	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:	A11NW (NE)	44	2	275500 199221
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic 25 - 35 mg/kg Concentration: Cadmium 2.2 - 3.0 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <100 mg/kg Nickel 15 - 30 mg/kg Concentration:	A10SE (SW)	47	2	275153 198901

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 - 2.2 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <100 mg/kg Nickel 30 - 45 mg/kg Concentration:	A11SW (SE)	57	2	275573 198830
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic 25 - 35 mg/kg Concentration: Cadmium 2.2 - 3.0 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <100 mg/kg Nickel 30 - 45 mg/kg Concentration:	A11SW (SE)	58	2	275500 198747
	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:	A11NW (E)	63	2	275667 199015
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic 25 - 35 mg/kg Concentration: Cadmium 2.2 - 3.0 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <100 mg/kg Nickel 30 - 45 mg/kg Concentration:	A10SE (SW)	109	2	275075 198895
	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 - 2.2 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <100 mg/kg Nickel 15 - 30 mg/kg Concentration:	A11SW (SE)	134	2	275669 198847
	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 - 2.2 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <100 mg/kg Nickel 15 - 30 mg/kg Concentration:	A11SW (SE)	139	2	275625 198769

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 2.2 - 3.0 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <100 mg/kg Nickel 15 - 30 mg/kg Concentration:	A7NW (S)	172	2	275500 198623
	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:	A11NE (E)	281	2	275882 199000
	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 - 2.2 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <100 mg/kg Nickel 30 - 45 mg/kg Concentration:	A11SE (SE)	357	2	275891 198787
	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 30 - 45 mg/kg Concentration:	A11NE (E)	394	2	276000 199032
	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 - 2.2 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <100 mg/kg Nickel 15 - 30 mg/kg Concentration:	A11SE (SE)	409	2	275933 198755
	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 30 - 45 mg/kg Concentration:	A11NE (E)	414	2	276000 199183

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 - 2.2 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <100 mg/kg Nickel 30 - 45 mg/kg Concentration:	A11SE (E)	415	2	276000 198904
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic 25 - 35 mg/kg Concentration: Cadmium 2.2 - 3.0 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <100 mg/kg Nickel 15 - 30 mg/kg Concentration:	A7NW (SE)	415	2	275644 198418
	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 - 2.2 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <100 mg/kg Nickel 30 - 45 mg/kg Concentration:	A7NE (SE)	454	2	275885 198589
	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 - 2.2 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <100 mg/kg Nickel 15 - 30 mg/kg Concentration:	A7NE (SE)	455	2	275851 198547
	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 - 2.2 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <100 mg/kg Nickel 15 - 30 mg/kg Concentration:	A7NE (SE)	463	2	275918 198620
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic 15 - 25 mg/kg Concentration: Cadmium 2.2 - 3.0 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <100 mg/kg Nickel 30 - 45 mg/kg Concentration:	A7NE (SE)	489	2	275856 198500

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 2.2 - 3.0 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <100 mg/kg Nickel 30 - 45 mg/kg Concentration:	A6NW (SW)	514	2	274871 198526
	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:	A12NW (E)	520	2	276123 199000
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic 35 - 45 mg/kg Concentration: Cadmium 3.0 - 6.0 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <100 mg/kg Nickel 30 - 45 mg/kg Concentration:	A9NE (W)	559	2	274500 199032
	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:	A12NW (E)	588	2	276192 199000
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic 25 - 35 mg/kg Concentration: Cadmium 2.2 - 3.0 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <100 mg/kg Nickel 30 - 45 mg/kg Concentration:	A7SE (SE)	736	2	276000 198288
	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 30 - 45 mg/kg Concentration:	A15NW (N)	792	2	275343 200000

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:	A14NE (N)	798	2	275065 200000
	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 30 - 45 mg/kg Concentration:	A16NW (NE)	802	2	276064 199760
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic 25 - 35 mg/kg Concentration: Cadmium 3.0 - 6.0 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <100 mg/kg Nickel 30 - 45 mg/kg Concentration:	A5NE (SW)	844	2	274500 198430
	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 30 - 45 mg/kg Concentration:	A12NE (E)	870	2	276459 199224
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic 45 - 60 mg/kg Concentration: Cadmium 2.2 - 3.0 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <100 mg/kg Nickel 15 - 30 mg/kg Concentration:	A5SE (SW)	871	2	274656 198241
	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:	A15NE (NE)	885	2	275923 199957

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: 2.2 - 3.0 mg/kg Concentration: Chromium: 60 - 90 mg/kg Concentration: Lead Concentration: <100 mg/kg Nickel: 15 - 30 mg/kg Concentration:	A12NE (E)	895	2	276500 199000
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic: 15 - 25 mg/kg Concentration: Cadmium: 3.0 - 6.0 mg/kg Concentration: Chromium: 60 - 90 mg/kg Concentration: Lead Concentration: <100 mg/kg Nickel: 15 - 30 mg/kg Concentration:	A6SE (S)	917	2	275000 198000
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic: 15 - 25 mg/kg Concentration: Cadmium: 2.2 - 3.0 mg/kg Concentration: Chromium: 60 - 90 mg/kg Concentration: Lead Concentration: <100 mg/kg Nickel: 15 - 30 mg/kg Concentration:	A3NE (S)	920	2	275745 197916
	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:	A19SW (N)	931	2	275655 200096
	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:	A19SE (NE)	940	2	275785 200074
	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:	A12NE (E)	983	2	276587 199000

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: 3.0 - 6.0 mg/kg Concentration: Chromium: 60 - 90 mg/kg Concentration: Lead Concentration: <100 mg/kg Nickel: 15 - 30 mg/kg Concentration:	A2NE (S)	992	2	275000 197914
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic: 15 - 25 mg/kg Concentration: Cadmium: 2.2 - 3.0 mg/kg Concentration: Chromium: 60 - 90 mg/kg Concentration: Lead Concentration: <100 mg/kg Nickel: 30 - 45 mg/kg Concentration:	A18SW (N)	993	2	274945 200176
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic: 25 - 35 mg/kg Concentration: Cadmium: 2.2 - 3.0 mg/kg Concentration: Chromium: 60 - 90 mg/kg Concentration: Lead Concentration: <100 mg/kg Nickel: 30 - 45 mg/kg Concentration:	A4NW (SE)	1000	2	276020 197961
94	BGS Recorded Mineral Sites Site Name: Leiros Gravel Pit Location: , Rhydding, Neath, West Glamorgan Source: British Geological Survey, National Geoscience Information Service Reference: 154272 Type: Opencast Status: Ceased Operator: Not Supplied Operator Location: Not Supplied Periodic Type: Carboniferous Geology: Hughes Member Commodity: Sand and Gravel Positional Accuracy: Located by supplier to within 10m	A10NE (NW)	0	2	275198 199132
95	BGS Recorded Mineral Sites Site Name: Cwm-Bach Location: , Rhydding, Neath, West Glamorgan Source: British Geological Survey, National Geoscience Information Service Reference: 154269 Type: Underground Status: Ceased Operator: Not Supplied Operator Location: Not Supplied Periodic Type: Carboniferous Geology: Hughes Member Commodity: Coal - Deep Positional Accuracy: Located by supplier to within 10m	A11NW (NE)	56	2	275532 199225
96	BGS Recorded Mineral Sites Site Name: Cwm-Bach Location: , Rhydding, Neath, West Glamorgan Source: British Geological Survey, National Geoscience Information Service Reference: 154296 Type: Opencast Status: Ceased Operator: Not Supplied Operator Location: Not Supplied Periodic Type: Carboniferous Geology: Hughes Member Commodity: Sandstone Positional Accuracy: Located by supplier to within 10m	A11SW (E)	66	2	275658 198979

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
97	BGS Recorded Mineral Sites Site Name: Cwm-Bach Location: , Rhydding, Neath, West Glamorgan Source: British Geological Survey, National Geoscience Information Service Reference: 154268 Type: Underground Status: Ceased Operator: Not Supplied Operator Location: Not Supplied Periodic Type: Carboniferous Geology: Hughes Member Commodity: Coal - Deep Positional Accuracy: Located by supplier to within 10m	A11NW (NE)	107	2	275558 199269
98	BGS Recorded Mineral Sites Site Name: Cadoxton Lodge Location: , Rhydding, Neath, West Glamorgan Source: British Geological Survey, National Geoscience Information Service Reference: 154277 Type: Underground Status: Ceased Operator: Not Supplied Operator Location: Not Supplied Periodic Type: Carboniferous Geology: Hughes Member Commodity: Coal - Deep Positional Accuracy: Located by supplier to within 10m	A11SW (SE)	121	2	275641 198827
98	BGS Recorded Mineral Sites Site Name: Cadoxton Lodge Location: , Rhydding, Neath, West Glamorgan Source: British Geological Survey, National Geoscience Information Service Reference: 154297 Type: Underground Status: Ceased Operator: Not Supplied Operator Location: Not Supplied Periodic Type: Carboniferous Geology: Brithdir Member Commodity: Coal - Deep Positional Accuracy: Located by supplier to within 10m	A11SE (SE)	168	2	275683 198806
99	BGS Recorded Mineral Sites Site Name: Cwm-Bach Location: , Rhydding, Neath, West Glamorgan Source: British Geological Survey, National Geoscience Information Service Reference: 154270 Type: Opencast Status: Ceased Operator: Not Supplied Operator Location: Not Supplied Periodic Type: Carboniferous Geology: Hughes Member Commodity: Sandstone Positional Accuracy: Located by supplier to within 10m	A11NE (E)	160	2	275738 199149
100	BGS Recorded Mineral Sites Site Name: Cwm-Bach Location: , Rhydding, Neath, West Glamorgan Source: British Geological Survey, National Geoscience Information Service Reference: 154271 Type: Underground Status: Ceased Operator: Not Supplied Operator Location: Not Supplied Periodic Type: Carboniferous Geology: Hughes Member Commodity: Coal - Deep Positional Accuracy: Located by supplier to within 10m	A11NE (E)	161	2	275764 199019
101	BGS Recorded Mineral Sites Site Name: Bryn-Tirion Location: , Rhydding, Neath, West Glamorgan Source: British Geological Survey, National Geoscience Information Service Reference: 154273 Type: Underground Status: Ceased Operator: Not Supplied Operator Location: Not Supplied Periodic Type: Carboniferous Geology: Grovesend Formation Commodity: Coal - Deep Positional Accuracy: Located by supplier to within 10m	A10SW (W)	174	2	274978 198925

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
102	BGS Recorded Mineral Sites Site Name: Bryn-Tirion Location: , Rhydding, Neath, West Glamorgan Source: British Geological Survey, National Geoscience Information Service Reference: 154274 Type: Underground Status: Ceased Operator: Not Supplied Operator Location: Not Supplied Periodic Type: Carboniferous Geology: Grovesend Formation Commodity: Coal - Deep Positional Accuracy: Located by supplier to within 10m	A10SW (SW)	265	2	274993 198753
103	BGS Recorded Mineral Sites Site Name: Cadoxton Lodge Location: , Rhydding, Neath, West Glamorgan Source: British Geological Survey, National Geoscience Information Service Reference: 154275 Type: Opencast Status: Ceased Operator: Not Supplied Operator Location: Not Supplied Periodic Type: Carboniferous Geology: Brithdir Member Commodity: Sandstone Positional Accuracy: Located by supplier to within 10m	A11SE (E)	353	2	275937 198908
104	BGS Recorded Mineral Sites Site Name: Crown Inn Location: , Rhydding, Neath, West Glamorgan Source: British Geological Survey, National Geoscience Information Service Reference: 154389 Type: Opencast Status: Ceased Operator: Not Supplied Operator Location: Not Supplied Periodic Type: Carboniferous Geology: Hughes Member Commodity: Sandstone Positional Accuracy: Located by supplier to within 10m	A6NE (S)	413	2	275204 198470
105	BGS Recorded Mineral Sites Site Name: Cadoxton Lodge Location: , Rhydding, Neath, West Glamorgan Source: British Geological Survey, National Geoscience Information Service Reference: 154276 Type: Opencast Status: Ceased Operator: Not Supplied Operator Location: Not Supplied Periodic Type: Carboniferous Geology: Brithdir Member Commodity: Sandstone Positional Accuracy: Located by supplier to within 10m	A12NW (E)	480	2	276084 199005
106	BGS Recorded Mineral Sites Site Name: Cenfaes Location: , Aberdulais, Neath, West Glamorgan Source: British Geological Survey, National Geoscience Information Service Reference: 154303 Type: Underground Status: Ceased Operator: Not Supplied Operator Location: Not Supplied Periodic Type: Carboniferous Geology: Hughes Member Commodity: Coal - Deep Positional Accuracy: Located by supplier to within 10m	A15NE (NE)	594	2	275799 199693
107	BGS Recorded Mineral Sites Site Name: Gylfach Quarry Location: The Rhyddingsgylfach Road, Neath, West Glamorgan, SA10 8AD Source: British Geological Survey, National Geoscience Information Service Reference: 3053 Type: Opencast Status: Dormant Operator: Not Supplied Operator Location: Not Supplied Periodic Type: Carboniferous Geology: Hughes Member Commodity: Sandstone Positional Accuracy: Located by supplier to within 10m	A15NW (N)	609	2	275370 199780

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
108	BGS Recorded Mineral Sites Site Name: Gilfach Quarries Location: The Rhyddingsgylfach Road, Neath, West Glamorgan Source: British Geological Survey, National Geoscience Information Service Reference: 228789 Type: Opencast Status: Ceased Operator: Not Supplied Operator Location: Not Supplied Periodic Type: Carboniferous Geology: Hughes Member Commodity: Sandstone Positional Accuracy: Located by supplier to within 10m	A14NE (N)	695	2	275145 199902
108	BGS Recorded Mineral Sites Site Name: Gilfach Quarry Location: The Rhyddingsgylfach Road, Neath, West Glamorgan, Sa10 8ad Source: British Geological Survey, National Geoscience Information Service Reference: 228790 Type: Opencast Status: Dormant Operator: Not Supplied Operator Location: Not Supplied Periodic Type: Carboniferous Geology: Hughes Member Commodity: Sandstone Positional Accuracy: Located by supplier to within 10m	A14NE (N)	727	2	275155 199935
108	BGS Recorded Mineral Sites Site Name: Gilfach Quarries Location: The Rhyddingsgylfach Road, Neath, West Glamorgan Source: British Geological Survey, National Geoscience Information Service Reference: 154255 Type: Opencast Status: Ceased Operator: Not Supplied Operator Location: Not Supplied Periodic Type: Carboniferous Geology: Hughes Member Commodity: Sandstone Positional Accuracy: Located by supplier to within 10m	A14NE (N)	731	2	275135 199938
109	BGS Recorded Mineral Sites Site Name: Gilfach Quarry Location: The Rhyddingsgylfach Road, Neath, West Glamorgan, Sa10 8ad Source: British Geological Survey, National Geoscience Information Service Reference: 228792 Type: Opencast Status: Dormant Operator: Not Supplied Operator Location: Not Supplied Periodic Type: Carboniferous Geology: Hughes Member Commodity: Sandstone Positional Accuracy: Located by supplier to within 10m	A14NE (N)	702	2	275240 199905
110	BGS Recorded Mineral Sites Site Name: Gelliau Location: , Rhydding, Neath, West Glamorgan Source: British Geological Survey, National Geoscience Information Service Reference: 154258 Type: Underground Status: Ceased Operator: Not Supplied Operator Location: Not Supplied Periodic Type: Carboniferous Geology: Hughes Member Commodity: Coal - Deep Positional Accuracy: Located by supplier to within 10m	A15NE (NE)	711	2	275806 199821
111	BGS Recorded Mineral Sites Site Name: Gilfach Quarry Location: The Rhyddingsgylfach Road, Neath, West Glamorgan, Sa10 8ad Source: British Geological Survey, National Geoscience Information Service Reference: 228791 Type: Opencast Status: Dormant Operator: Not Supplied Operator Location: Not Supplied Periodic Type: Carboniferous Geology: Hughes Member Commodity: Sandstone Positional Accuracy: Located by supplier to within 10m	A14NE (N)	723	2	275190 199930

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
112	BGS Recorded Mineral Sites Site Name: Gelliau Location: , Rhydding, Neath, West Glamorgan Source: British Geological Survey, National Geoscience Information Service Reference: 154261 Type: Underground Status: Ceased Operator: Not Supplied Operator Location: Not Supplied Periodic Type: Carboniferous Geology: Hughes Member Commodity: Coal - Deep Positional Accuracy: Located by supplier to within 10m	A16NW (NE)	817	2	276029 199808
113	BGS Recorded Mineral Sites Site Name: Gelliau Location: , Rhydding, Neath, West Glamorgan Source: British Geological Survey, National Geoscience Information Service Reference: 154259 Type: Underground Status: Ceased Operator: Not Supplied Operator Location: Not Supplied Periodic Type: Carboniferous Geology: Hughes Member Commodity: Coal - Deep Positional Accuracy: Located by supplier to within 10m	A15NE (NE)	824	2	275993 199843
114	BGS Recorded Mineral Sites Site Name: Fire Engine Pit Location: , Rhydding, Neath, West Glamorgan Source: British Geological Survey, National Geoscience Information Service Reference: 154181 Type: Underground Status: Ceased Operator: Not Supplied Operator Location: Not Supplied Periodic Type: Carboniferous Geology: Grovesend Formation Commodity: Coal - Deep Positional Accuracy: Located by supplier to within 10m	A9NW (W)	825	2	274239 199233
115	BGS Recorded Mineral Sites Site Name: Gilfach-Fach Coal Level Location: , Rhydding, Neath, West Glamorgan Source: British Geological Survey, National Geoscience Information Service Reference: 154257 Type: Underground Status: Ceased Operator: Not Supplied Operator Location: Not Supplied Periodic Type: Carboniferous Geology: Grovesend Formation Commodity: Coal - Deep Positional Accuracy: Located by supplier to within 10m	A14NW (NW)	838	2	274691 199908
116	BGS Recorded Mineral Sites Site Name: Gilfach-Fach Coal Level Location: , Rhydding, Neath, West Glamorgan Source: British Geological Survey, National Geoscience Information Service Reference: 154256 Type: Underground Status: Ceased Operator: Not Supplied Operator Location: Not Supplied Periodic Type: Carboniferous Geology: Grovesend Formation Commodity: Coal - Deep Positional Accuracy: Located by supplier to within 10m	A14NW (NW)	858	2	274780 199976
117	BGS Recorded Mineral Sites Site Name: Gelliau Location: , Rhydding, Neath, West Glamorgan Source: British Geological Survey, National Geoscience Information Service Reference: 154260 Type: Opencast Status: Ceased Operator: Not Supplied Operator Location: Not Supplied Periodic Type: Carboniferous Geology: Hughes Member Commodity: Sandstone Positional Accuracy: Located by supplier to within 10m	A16NW (NE)	872	2	276064 199850

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
118	BGS Recorded Mineral Sites Site Name: Gilfach Quarry Location: The Rhyddingsgilfach Road, Neath, West Glamorgan, SA10 8AD Source: British Geological Survey, National Geoscience Information Service Reference: 228793 Type: Opencast Status: Active Operator: Not Supplied Operator Location: Not Supplied Periodic Type: Carboniferous Geology: Hughes Member Commodity: Sandstone Positional Accuracy: Located by supplier to within 10m	A19SW (N)	886	2	275365 200070
119	BGS Recorded Mineral Sites Site Name: Bryn-Teg Location: , Rhydding, Neath, West Glamorgan Source: British Geological Survey, National Geoscience Information Service Reference: 154088 Type: Underground Status: Ceased Operator: Not Supplied Operator Location: Not Supplied Periodic Type: Carboniferous Geology: Grovesend Formation Commodity: Coal - Deep Positional Accuracy: Located by supplier to within 10m	A5NE (SW)	905	2	274395 198473
120	BGS Recorded Mineral Sites Site Name: Gelliau Location: , Aberdulais, Neath, West Glamorgan Source: British Geological Survey, National Geoscience Information Service Reference: 154262 Type: Underground Status: Ceased Operator: Not Supplied Operator Location: Not Supplied Periodic Type: Carboniferous Geology: Hughes Member Commodity: Coal - Deep Positional Accuracy: Located by supplier to within 10m	A16NW (NE)	972	2	276326 199718
	BGS Measured Urban Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Grid: 275260, 198730 Soil Sample Type: Topsoil Sample Area: Swansea Arsenic Measured 84.00 mg/kg Concentration: Cadmium Measured 1.50 mg/kg Concentration: Chromium Measured 65.20 mg/kg Concentration: Lead Measured 113.50 mg/kg Concentration: Nickel Measured 33.40 mg/kg Concentration:	A10SE (S)	184	2	275260 198730
	BGS Measured Urban Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Grid: 275740, 198740 Soil Sample Type: Topsoil Sample Area: Swansea Arsenic Measured 30.40 mg/kg Concentration: Cadmium Measured 1.00 mg/kg Concentration: Chromium Measured 70.00 mg/kg Concentration: Lead Measured 126.00 mg/kg Concentration: Nickel Measured 34.40 mg/kg Concentration:	A11SE (SE)	249	2	275740 198740

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS Measured Urban Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Grid: 274750, 198750 Soil Sample Type: Topsoil Sample Area: Swansea Arsenic Measured 57.10 mg/kg Concentration: Cadmium Measured 2.20 mg/kg Concentration: Chromium Measured 56.40 mg/kg Concentration: Lead Measured 90.00 mg/kg Concentration: Nickel Measured 28.30 mg/kg Concentration:	A10SW (SW)	457	2	274750 198750
	BGS Measured Urban Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Grid: 274750, 198730 Soil Sample Type: Topsoil Sample Area: Swansea Arsenic Measured 51.80 mg/kg Concentration: Cadmium Measured 1.40 mg/kg Concentration: Chromium Measured 74.40 mg/kg Concentration: Lead Measured 200.10 mg/kg Concentration: Nickel Measured 32.10 mg/kg Concentration:	A10SW (SW)	467	2	274750 198730
	BGS Measured Urban Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Grid: 275260, 198230 Soil Sample Type: Topsoil Sample Area: Swansea Arsenic Measured 48.30 mg/kg Concentration: Cadmium Measured 2.80 mg/kg Concentration: Chromium Measured 127.90 mg/kg Concentration: Lead Measured 661.00 mg/kg Concentration: Nickel Measured 106.90 mg/kg Concentration:	A6SE (S)	597	2	275260 198230
	BGS Measured Urban Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Grid: 275620, 198170 Soil Sample Type: Topsoil Sample Area: Swansea Arsenic Measured 118.10 mg/kg Concentration: Cadmium Measured 0.90 mg/kg Concentration: Chromium Measured 82.00 mg/kg Concentration: Lead Measured 233.20 mg/kg Concentration: Nickel Measured 54.00 mg/kg Concentration:	A7SW (S)	641	2	275620 198170
	BGS Measured Urban Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Grid: 274750, 198250 Soil Sample Type: Topsoil Sample Area: Swansea Arsenic Measured 90.60 mg/kg Concentration: Cadmium Measured 2.30 mg/kg Concentration: Chromium Measured 84.50 mg/kg Concentration: Lead Measured 447.70 mg/kg Concentration: Nickel Measured 47.80 mg/kg Concentration:	A6SW (SW)	809	2	274750 198250

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS Urban Soil Chemistry Averages Source: British Geological Survey, National Geoscience Information Service Sample Area: Swansea Count Id: 368 Arsenic Minimum Concentration: 8.00 mg/kg Arsenic Average Concentration: 79.00 mg/kg Arsenic Maximum Concentration: 2161.00 mg/kg Cadmium Minimum Concentration: 0.10 mg/kg Cadmium Average Concentration: 2.90 mg/kg Cadmium Maximum Concentration: 61.90 mg/kg Chromium Minimum Concentration: 13.00 mg/kg Chromium Average Concentration: 72.00 mg/kg Chromium Maximum Concentration: 562.00 mg/kg Lead Minimum Concentration: 23.00 mg/kg Lead Average Concentration: 413.00 mg/kg Lead Maximum Concentration: 10000.00 mg/kg Nickel Minimum Concentration: 8.00 mg/kg Nickel Average Concentration: 52.00 mg/kg Nickel Maximum Concentration: 384.00 mg/kg	A11NW (SE)	0	2	275343 199032
	Coal Mining Affected Areas Description: In an area which may be affected by coal mining activity. It is recommended that a coal mining report is obtained from the Coal Authority. Contact details are included in the Useful Contacts section of this report.	A11NW (SE)	0	6	275343 199032
	Mining Instability Mining Evidence: Inconclusive Coal Mining Source: Ove Arup & Partners Boundary Quality: As Supplied	A11NW (SE)	0	-	275343 199032
	Non Coal Mining Areas of Great Britain No Hazard				
	Potential for Collapsible Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A11NW (SE)	0	2	275343 199032
	Potential for Collapsible Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A10NE (W)	59	2	275000 199032
	Potential for Compressible Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A11NW (SE)	0	2	275343 199032
	Potential for Compressible Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A10NE (W)	59	2	275000 199032
	Potential for Ground Dissolution Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A11NW (SE)	0	2	275343 199032
	Potential for Ground Dissolution Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A10NE (W)	59	2	275000 199032
	Potential for Landslide Ground Stability Hazards Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service	A11NW (SE)	0	2	275343 199032
	Potential for Landslide Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A11NW (N)	0	2	275336 199059
	Potential for Landslide Ground Stability Hazards Hazard Potential: Moderate Source: British Geological Survey, National Geoscience Information Service	A11NW (E)	19	2	275621 199067

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Potential for Landslide Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A10NE (W)	59	2	275000 199032
	Potential for Landslide Ground Stability Hazards Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service	A11SW (SE)	73	2	275592 198830
	Potential for Landslide Ground Stability Hazards Hazard Potential: Moderate Source: British Geological Survey, National Geoscience Information Service	A11NW (NE)	127	2	275610 199259
	Potential for Landslide Ground Stability Hazards Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service	A11NE (NE)	236	2	275766 199238
	Potential for Running Sand Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A11NW (SE)	0	2	275343 199032
	Potential for Running Sand Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A10SE (SW)	0	2	275179 198894
	Potential for Running Sand Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A11NW (E)	19	2	275621 199067
	Potential for Running Sand Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A10NE (W)	59	2	275000 199032
	Potential for Running Sand Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A11SW (SE)	142	2	275594 198718
	Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A11NW (SE)	0	2	275343 199032
	Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A11NW (N)	0	2	275336 199059
	Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A10NE (W)	59	2	275000 199032
	Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A11NE (NE)	236	2	275766 199238
	Radon Potential - Radon Affected Areas Affected Area: The property is in a Lower probability radon area (less than 1% of homes are estimated to be at or above the Action Level). Source: British Geological Survey, National Geoscience Information Service	A10NE (N)	0	2	275323 199126
	Radon Potential - Radon Affected Areas Affected Area: The property is in an Intermediate probability radon area (3 to 5% of homes are estimated to be at or above the Action Level). Source: British Geological Survey, National Geoscience Information Service	A11NW (SE)	0	2	275343 199032
	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	A11SW (SE)	0	2	275473 198926
	Radon Potential - Radon Protection Measures Protection Measure: No radon protective measures are necessary in the construction of new dwellings or extensions Source: British Geological Survey, National Geoscience Information Service	A10NE (N)	0	2	275323 199126
	Radon Potential - Radon Protection Measures Protection Measure: Basic radon protective measures are necessary in the construction of new dwellings or extensions Source: British Geological Survey, National Geoscience Information Service	A11NW (SE)	0	2	275343 199032
	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	A11SW (SE)	0	2	275473 198926

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
121	Contemporary Trade Directory Entries Name: B G Lewis Location: 15, Kestrel Close, Bryncoch, Neath, West Glamorgan, SA10 8DX Classification: Gas Appliances - Sales & Service Status: Inactive Positional Accuracy: Automatically positioned to the address	A10SE (S)	120	-	275326 198782
122	Contemporary Trade Directory Entries Name: West Coast Cooling Location: 12, Gilfach Road, Neath, West Glamorgan, SA10 8EH Classification: Air Conditioning & Refrigeration Contractors Status: Active Positional Accuracy: Automatically positioned to the address	A10NW (W)	145	-	274926 199089
123	Contemporary Trade Directory Entries Name: Engineering Integrity Neath Ltd Location: 35, Stanley Place, Cadoxton, Neath, SA10 8BE Classification: Engineers - General Status: Active Positional Accuracy: Automatically positioned to the address	A11SE (SE)	283	-	275733 198673
124	Contemporary Trade Directory Entries Name: Country Style Blinds Location: 80, Llygad yr Haul, Neath, West Glamorgan, SA10 7SP Classification: Blinds, Awnings & Canopies Status: Inactive Positional Accuracy: Automatically positioned to the address	A10SW (SW)	450	-	274790 198703
125	Contemporary Trade Directory Entries Name: Pacetech Ltd Location: 11, Glendale, Neath, West Glamorgan, SA10 7PF Classification: Printers Status: Inactive Positional Accuracy: Automatically positioned to the address	A9NE (W)	677	-	274385 199204
126	Contemporary Trade Directory Entries Name: Cemex Gilfach Quarry & Asphalt Plant Location: Gilfach Quarry, Gilfach Road, Neath, SA10 8AD Classification: Sand, Gravel & Other Aggregates Status: Active Positional Accuracy: Automatically positioned to the address	A14NE (N)	680	-	275173 199888
126	Contemporary Trade Directory Entries Name: Cemex UK Location: Gilfach Quarry, Gilfach Road, NEATH, West Glamorgan, SA10 8AD Classification: Quarries Status: Inactive Positional Accuracy: Automatically positioned to the address	A14NE (N)	680	-	275173 199888
126	Contemporary Trade Directory Entries Name: R M C Ltd Location: Gilfach Quarry, Gilfach Road, NEATH, West Glamorgan, SA10 8AD Classification: Sand, Gravel & Other Aggregates Status: Inactive Positional Accuracy: Automatically positioned to the address	A14NE (N)	680	-	275173 199888
126	Contemporary Trade Directory Entries Name: Cemex Location: Gilfach Quarry, Gilfach Road, Neath, SA10 8AD Classification: Sand, Gravel & Other Aggregates Status: Inactive Positional Accuracy: Automatically positioned to the address	A14NE (N)	680	-	275173 199888
126	Contemporary Trade Directory Entries Name: Cemex Location: Gilfach Quarry, Gilfach Road, Neath, SA10 8AD Classification: Quarries Status: Active Positional Accuracy: Automatically positioned to the address	A14NE (N)	680	-	275173 199888
127	Contemporary Trade Directory Entries Name: Tynygarth Meat Supplies Location: 15, Ffrwd Vale, Neath, West Glamorgan, SA10 7BA Classification: Meat - Wholesale Status: Inactive Positional Accuracy: Automatically positioned to the address	A6SW (SW)	881	-	274772 198151
128	Contemporary Trade Directory Entries Name: Safeway Petrol Station Location: Riverside Dr, Neath, West Glamorgan, SA11 1RS Classification: Petrol Filling Stations Status: Inactive Positional Accuracy: Manually positioned to the road within the address or location	A2NE (S)	886	-	275304 197920

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
129	Contemporary Trade Directory Entries Name: Winking Clean Location: 34, Fernlea Park, Neath, West Glamorgan, SA10 7SX Classification: Cleaning Services - Domestic Status: Active Positional Accuracy: Automatically positioned to the address	A9SW (W)	970	-	274159 198786
130	Contemporary Trade Directory Entries Name: Cedryn James Of Neath Location: 54, Underwood Road, Cadoxton, Neath, West Glamorgan, SA10 8BY Classification: Wrought Ironwork Status: Active Positional Accuracy: Automatically positioned to the address	A12NE (E)	972	-	276557 199256
131	Contemporary Trade Directory Entries Name: Absolutley Steaming Wales Location: 35, Furzeland Drive, Neath, West Glamorgan, SA10 7UG Classification: Ironing & Home Laundry Services Status: Inactive Positional Accuracy: Automatically positioned to the address	A13NE (NW)	994	-	274416 199906
132	Fuel Station Entries Name: Morrisons Neath Location: Angel Street, Neath, West Glamorgan, SA11 1RS Brand: Morrisons Premises Type: Hypermarket Status: Open Positional Accuracy: Manually positioned to the address or location	A2NE (S)	904	-	275301 197902
133	Points of Interest - Commercial Services Name: A P Mobile Car Valeting Location: 52 Underwood Road, Cadoxton, Neath, SA10 8BY Category: Personal, Consumer and other Services Class Code: Vehicle Cleaning Services Positional Accuracy: Positioned to address or location	A12NE (E)	958	7	276545 199249
133	Points of Interest - Commercial Services Name: A P Mobile Car Valeting Location: 52 Underwood Road, Cadoxton, Neath, SA10 8BY Category: Personal, Consumer and other Services Class Code: Vehicle Cleaning Services Positional Accuracy: Positioned to address or location	A12NE (E)	958	7	276544 199249
133	Points of Interest - Commercial Services Name: Cedryn James of Neath Location: 54 Underwood Road, Cadoxton, Neath, SA10 8BY Category: Construction Services Class Code: Metalworkers Including Blacksmiths Positional Accuracy: Positioned to address or location	A12NE (E)	972	7	276557 199256
133	Points of Interest - Commercial Services Name: Cedryn James of Neath Location: 54 Underwood Road, Cadoxton, Neath, SA10 8BY Category: Construction Services Class Code: Metalworkers Including Blacksmiths Positional Accuracy: Positioned to address or location	A12NE (E)	972	7	276557 199255
134	Points of Interest - Manufacturing and Production Name: Shaft (Disused) Location: SA10 Category: Extractive Industries Class Code: Unspecified Quarries Or Mines Positional Accuracy: Positioned to address or location	A11SW (SE)	119	7	275634 198817
135	Points of Interest - Manufacturing and Production Name: Tank Location: SA10 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to an adjacent address or location	A15SW (NE)	243	7	275607 199397
136	Points of Interest - Manufacturing and Production Name: Sheep Wash Location: SA10 Category: Farming Class Code: Sheep Dips and Washes Positional Accuracy: Positioned to an adjacent address or location	A15SE (NE)	296	7	275729 199380
137	Points of Interest - Manufacturing and Production Name: Tank Location: SA10 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to an adjacent address or location	A9NE (W)	480	7	274585 199219

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
138	Points of Interest - Manufacturing and Production Name: Trevor G Thomas Location: Tyn yr Heol Farm, Main Road, Bryncoch, Neath, SA10 7PD Category: Farming Class Code: Livestock Farming Positional Accuracy: Positioned to address or location	A9NE (W)	480	7	274584 199082
139	Points of Interest - Manufacturing and Production Name: W J Leyshon Location: Cefnfaes, Cadoxton, Neath, SA10 8AH Category: Farming Class Code: Livestock Farming Positional Accuracy: Positioned to address or location	A15NE (NE)	563	7	275680 199712
139	Points of Interest - Manufacturing and Production Name: W J Leyshon Location: Cefnfaes, Cadoxton, Neath, SA10 8AH Category: Farming Class Code: Livestock Farming Positional Accuracy: Positioned to address or location	A15NE (NE)	563	7	275680 199712
140	Points of Interest - Manufacturing and Production Name: Gilfach Quarry (Sandstone) Location: SA10 Category: Extractive Industries Class Code: Stone Quarrying and Preparation Positional Accuracy: Positioned to an adjacent address or location	A15NW (N)	661	7	275342 199844
141	Points of Interest - Manufacturing and Production Name: Cemex UK Location: Gilfach Quarry, Gilfach Road, Neath, SA10 8AD Category: Extractive Industries Class Code: Unspecified Quarries Or Mines Positional Accuracy: Positioned to address or location	A14NE (N)	680	7	275173 199888
141	Points of Interest - Manufacturing and Production Name: Cemex Ltd Location: Gilfach Quarry, Gilfach Road, Neath, SA10 8AD Category: Extractive Industries Class Code: Unspecified Quarries Or Mines Positional Accuracy: Positioned to address or location	A14NE (N)	680	7	275172 199888
142	Points of Interest - Manufacturing and Production Name: Vale of Neath Business Park Location: SA10 Category: Industrial Features Class Code: Business Parks and Industrial Estates Positional Accuracy: Positioned to an adjacent address or location	A6SE (S)	769	7	275075 198128
143	Points of Interest - Manufacturing and Production Name: Quarry (Disused) Location: SA10 Category: Extractive Industries Class Code: Unspecified Quarries Or Mines Positional Accuracy: Positioned to address or location	A16NW (NE)	877	7	276062 199858
144	Points of Interest - Manufacturing and Production Name: W J Lewis Location: Gilfach Road, Neath, SA10 8AD Category: Farming Class Code: Livestock Farming Positional Accuracy: Positioned to address or location	A18SE (N)	892	7	275111 200098
145	Points of Interest - Manufacturing and Production Name: Tank Location: SA10 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to address or location	A16NW (NE)	943	7	276252 199765
145	Points of Interest - Manufacturing and Production Name: Tank Location: SA10 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to address or location	A16NW (NE)	945	7	276248 199773
145	Points of Interest - Manufacturing and Production Name: Tanks Location: SA10 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to an adjacent address or location	A16NW (NE)	954	7	276263 199770

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
146	Points of Interest - Public Infrastructure Name: Sluice Location: SA10 Category: Water Class Code: Weirs, Sluices and Dams Positional Accuracy: Positioned to an adjacent address or location	A7NE (SE)	459	7	275834 198520
147	Points of Interest - Public Infrastructure Name: Outfall Location: SA11 Category: Infrastructure and Facilities Class Code: Waste Storage, Processing and Disposal Positional Accuracy: Positioned to an adjacent address or location	A3NW (S)	900	7	275517 197893
148	Points of Interest - Public Infrastructure Name: W M Morrisons Petrol Station Location: Angel Street, Neath, Neath, SA11 1RS Category: Road And Rail Class Code: Petrol and Fuel Stations Positional Accuracy: Positioned to address or location	A2NE (S)	902	7	275301 197904
148	Points of Interest - Public Infrastructure Name: Morrisons Neath Location: Angel Street, Neath, SA11 1RS Category: Road And Rail Class Code: Petrol and Fuel Stations Positional Accuracy: Positioned to address or location	A2NE (S)	904	7	275301 197902
148	Points of Interest - Public Infrastructure Name: Sluice Location: SA11 Category: Water Class Code: Weirs, Sluices and Dams Positional Accuracy: Positioned to an adjacent address or location	A2NE (S)	967	7	275217 197856
149	Points of Interest - Recreational and Environmental Name: Play Area Location: Not Supplied Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to an adjacent address or location	A10SE (SW)	114	7	275180 198804
149	Points of Interest - Recreational and Environmental Name: Play Area Location: Curlew Close, SA10 Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to an adjacent address or location	A10SE (SW)	114	7	275180 198804
150	Points of Interest - Recreational and Environmental Name: Play Area Location: Not Supplied Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to an adjacent address or location	A11SE (E)	169	7	275725 198877
150	Points of Interest - Recreational and Environmental Name: Play Area Location: (Bryn Catwg), SA10 Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to an adjacent address or location	A11SE (E)	169	7	275725 198877
151	Points of Interest - Recreational and Environmental Name: Playground Location: (Heol-Y-Felin), SA10 Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to address or location	A6NW (SW)	471	7	274846 198608
151	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	A6NW (SW)	476	7	274840 198608
152	Points of Interest - Recreational and Environmental Name: Playground Location: Main Road, SA10 Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to an adjacent address or location	A12SW (E)	545	7	276131 198890

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
153	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	A13SE (NW)	791	7	274445 199646
153	Points of Interest - Recreational and Environmental Name: Playground Location: Elias Drive, SA10 Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to an adjacent address or location	A13SE (NW)	791	7	274445 199646
154	Points of Interest - Recreational and Environmental Name: Playground Location: (Llys Wern), SA10 Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to address or location	A9SE (W)	864	7	274335 198666

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
155	Ancient Woodland Name: Not Supplied Reference: 180 Area(m ²): 112818.49 Type: Ancient and Semi-Natural Woodland	A11NW (E)	0	3	275581 199094
156	Ancient Woodland Name: Not Supplied Reference: 173 Area(m ²): 362092.16 Type: Plantation on Ancient Woodland	A11NE (E)	83	3	275688 199068
157	Ancient Woodland Name: Not Supplied Reference: 205 Area(m ²): 11218.44 Type: Plantation on Ancient Woodland	A7NW (S)	173	3	275437 198620
158	Ancient Woodland Name: Not Supplied Reference: 175 Area(m ²): 15200.36 Type: Plantation on Ancient Woodland	A15NE (NE)	644	3	275843 199725
159	Ancient Woodland Name: Not Supplied Reference: 184 Area(m ²): 77660.02 Type: Ancient and Semi-Natural Woodland	A9NE (W)	709	3	274359 199261
160	Ancient Woodland Name: Not Supplied Reference: 160 Area(m ²): 24765.2 Type: Ancient and Semi-Natural Woodland	A18SE (N)	954	3	275158 200161

Agency & Hydrological	Version	Update Cycle
Contaminated Land Register Entries and Notices City and County of Swansea - Environmental Health Department Neath Port Talbot County Borough Council - Environmental Health Department	January 2015 March 2015	Annual Rolling Update Annual Rolling Update
Discharge Consents Environment Agency - Welsh Region Natural Resources Wales	August 2014 January 2017	Quarterly Quarterly
Enforcement and Prohibition Notices Environment Agency - Welsh Region	March 2013	As notified
Integrated Pollution Controls Environment Agency - Welsh Region	October 2008	Not Applicable
Integrated Pollution Prevention And Control Environment Agency - Welsh Region Natural Resources Wales	January 2017 November 2016	Quarterly Quarterly
Local Authority Integrated Pollution Prevention And Control Swansea Bay Port Health Authority Neath Port Talbot County Borough Council - Environmental Health Department City and County of Swansea - Environmental Health Department	April 2014 August 2012 June 2014	Annually Annual Rolling Update Annual Rolling Update
Local Authority Pollution Prevention and Controls Swansea Bay Port Health Authority City and County of Swansea - Environmental Health Department Neath Port Talbot County Borough Council - Environmental Health Department	April 2014 June 2014 March 2014	Annually Annual Rolling Update Annual Rolling Update
Local Authority Pollution Prevention and Control Enforcements Swansea Bay Port Health Authority City and County of Swansea - Environmental Health Department Neath Port Talbot County Borough Council - Environmental Health Department	April 2014 June 2014 March 2014	Annually Annual Rolling Update Annual Rolling Update
Pollution Incidents to Controlled Waters Environment Agency - Welsh Region	December 1998	Not Applicable
Prosecutions Relating to Authorised Processes Environment Agency - Welsh Region Natural Resources Wales	March 2013 March 2013	As notified As notified
Prosecutions Relating to Controlled Waters Environment Agency - Welsh Region Natural Resources Wales	March 2013 March 2013	As notified As notified
River Quality Environment Agency - Head Office	November 2001	Not Applicable
Substantiated Pollution Incident Register Environment Agency Wales - South West Area Natural Resources Wales	January 2017 January 2017	Quarterly Quarterly
Water Abstractions Natural Resources Wales Environment Agency - Welsh Region	November 2016 October 2016	Quarterly Quarterly
Water Industry Act Referrals Environment Agency - Welsh Region Natural Resources Wales	January 2017 October 2015	Quarterly Quarterly
Groundwater Vulnerability Environment Agency - Head Office	April 2015	Not Applicable
Drift Deposits Environment Agency - Head Office	January 1999	Not Applicable
Bedrock Aquifer Designations British Geological Survey - National Geoscience Information Service	August 2015	As notified
Superficial Aquifer Designations British Geological Survey - National Geoscience Information Service	August 2015	As notified

Agency & Hydrological	Version	Update Cycle
Source Protection Zones Natural Resources Wales	November 2016	Quarterly
Extreme Flooding from Rivers or Sea without Defences Natural Resources Wales	February 2017	Quarterly
Flooding from Rivers or Sea without Defences Natural Resources Wales	February 2017	Quarterly
Areas Benefiting from Flood Defences Natural Resources Wales	February 2017	Quarterly
Flood Water Storage Areas Natural Resources Wales	February 2017	Quarterly
Flood Defences Natural Resources Wales	February 2017	Quarterly
Surface Water 1 in 30 year Flood Extent Natural Resources Wales	October 2013	As notified
Surface Water 1 in 100 year Flood Extent Natural Resources Wales	October 2013	As notified
Surface Water 1 in 1000 year Flood Extent Natural Resources Wales	October 2013	As notified
Surface Water Suitability Natural Resources Wales	October 2013	As notified
BGS Groundwater Flooding Susceptibility British Geological Survey - National Geoscience Information Service	May 2013	Annually

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

Geological	Version	Update Cycle
BGS 1:625,000 Solid Geology British Geological Survey - National Geoscience Information Service	January 2009	Not Applicable
BGS Estimated Soil Chemistry British Geological Survey - National Geoscience Information Service	October 2015	As notified
BGS Recorded Mineral Sites British Geological Survey - National Geoscience Information Service	October 2016	Bi-Annually
BGS Urban Soil Chemistry British Geological Survey - National Geoscience Information Service	October 2015	As notified
BGS Urban Soil Chemistry Averages British Geological Survey - National Geoscience Information Service	October 2015	As notified
CBSCB Compensation District Cheshire Brine Subsidence Compensation Board (CBSCB)	August 2011	Not Applicable
Coal Mining Affected Areas The Coal Authority - Property Searches	March 2014	As notified
Mining Instability Ove Arup & Partners	October 2000	Not Applicable
Non Coal Mining Areas of Great Britain British Geological Survey - National Geoscience Information Service	May 2015	Not Applicable
Potential for Collapsible Ground Stability Hazards British Geological Survey - National Geoscience Information Service	June 2015	Annually
Potential for Compressible Ground Stability Hazards British Geological Survey - National Geoscience Information Service	June 2015	Annually
Potential for Ground Dissolution Stability Hazards British Geological Survey - National Geoscience Information Service	June 2015	Annually
Potential for Landslide Ground Stability Hazards British Geological Survey - National Geoscience Information Service	June 2015	Annually
Potential for Running Sand Ground Stability Hazards British Geological Survey - National Geoscience Information Service	June 2015	Annually
Potential for Shrinking or Swelling Clay Ground Stability Hazards British Geological Survey - National Geoscience Information Service	June 2015	Annually
Radon Potential - Radon Affected Areas British Geological Survey - National Geoscience Information Service	July 2011	As notified
Radon Potential - Radon Protection Measures British Geological Survey - National Geoscience Information Service	July 2011	As notified

Industrial Land Use	Version	Update Cycle
Contemporary Trade Directory Entries Thomson Directories	January 2017	Quarterly
Fuel Station Entries Catalist Ltd - Experian	February 2017	Quarterly
Gas Pipelines National Grid	July 2014	Quarterly
Points of Interest - Commercial Services PointX	December 2016	Quarterly
Points of Interest - Education and Health PointX	December 2016	Quarterly
Points of Interest - Manufacturing and Production PointX	December 2016	Quarterly
Points of Interest - Public Infrastructure PointX	December 2016	Quarterly
Points of Interest - Recreational and Environmental PointX	December 2016	Quarterly
Underground Electrical Cables National Grid	December 2015	Bi-Annually

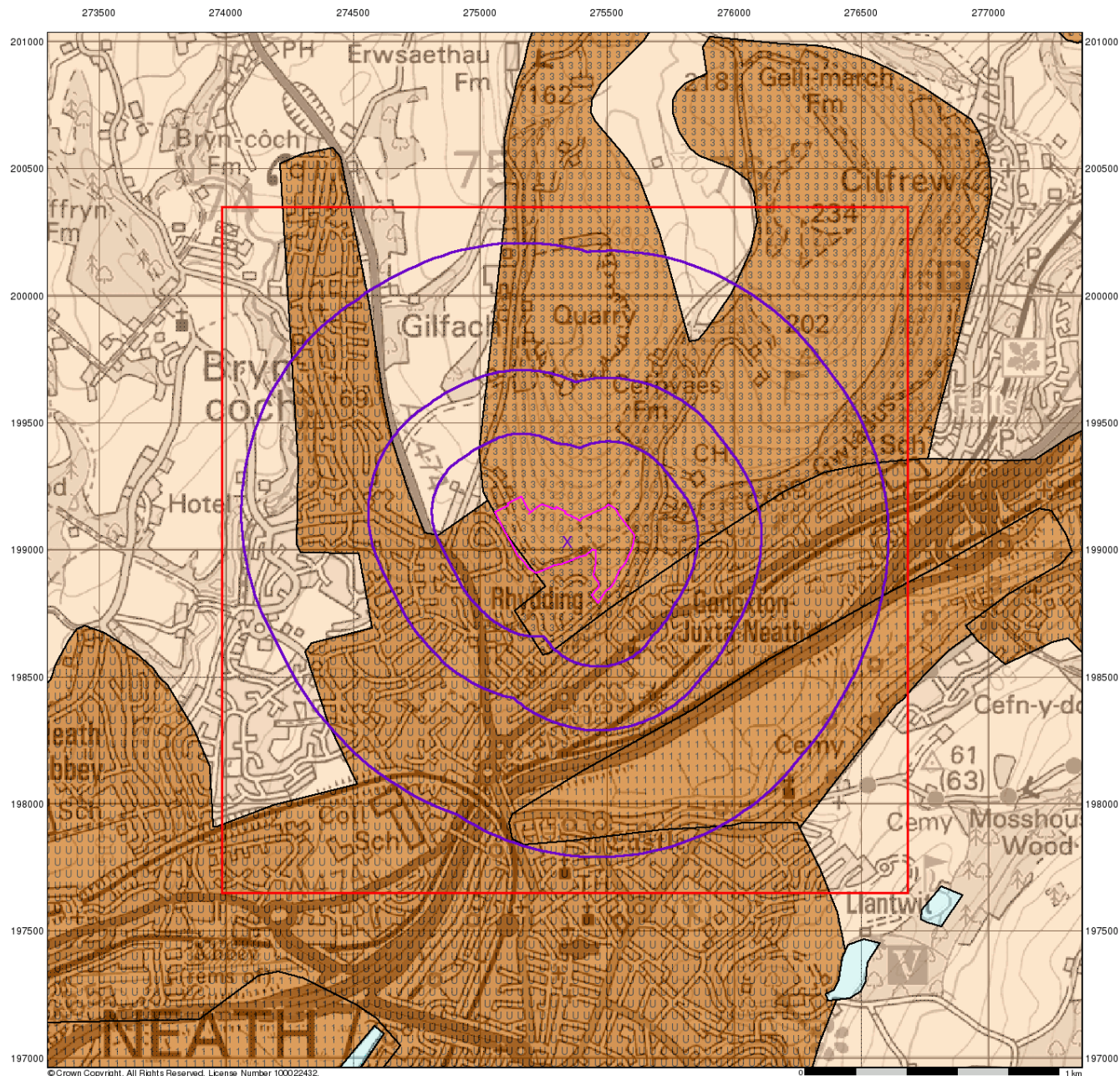
Sensitive Land Use	Version	Update Cycle
Ancient Woodland Natural Resources Wales	January 2014	Bi-Annually
Areas of Adopted Green Belt City and County of Swansea	February 2017	As notified
Areas of Outstanding Natural Beauty Natural Resources Wales	January 2017	Bi-Annually
Environmentally Sensitive Areas The National Assembly for Wales - GI Services (Department of Planning & Countryside)	January 2017	Annually
Forest Parks Forestry Commission	April 1997	Not Applicable
Local Nature Reserves City and County of Swansea Neath Port Talbot County Borough Council	January 2017 January 2017	Bi-Annually Bi-Annually
Marine Nature Reserves Natural Resources Wales	January 2017	Bi-Annually
National Nature Reserves Natural Resources Wales	January 2017	Bi-Annually
National Parks Natural Resources Wales	February 2017	Annually
Nitrate Sensitive Areas Department for Environment, Food and Rural Affairs (DEFRA - formerly FRCA)	April 2016	Not Applicable
Nitrate Vulnerable Zones The National Assembly for Wales - GI Services (Department of Planning & Countryside)	October 2005	Annually
Ramsar Sites Natural Resources Wales	January 2017	Bi-Annually
Sites of Special Scientific Interest Natural Resources Wales	January 2017	Bi-Annually
Special Areas of Conservation Natural Resources Wales	January 2017	Bi-Annually
Special Protection Areas Natural Resources Wales	January 2017	Bi-Annually

A selection of organisations who provide data within this report

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

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

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



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Groundwater Vulnerability

General

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

Agency and Hydrological

Geological Classes

Major Aquifer (Highly Permeable)

Minor Aquifer (Variably Permeable)

Non Aquifer (Negligibly Permeable)

Water or Sea

Drift Deposit

Soil Classes

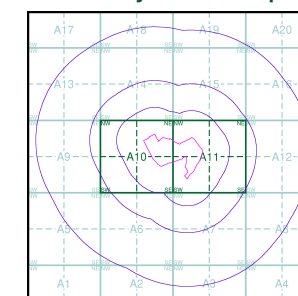
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Intermediate (I) 1, 2
Low

High (H) 1, 2, 3, U
Intermediate (I) 1, 2
Low

High (H) 1, 2, 3, U
Intermediate (I) 1, 2
Low

High (H) 1, 2, 3, U
Intermediate (I) 1, 2
Low

Site Sensitivity Context Map - Slice A



Order Details

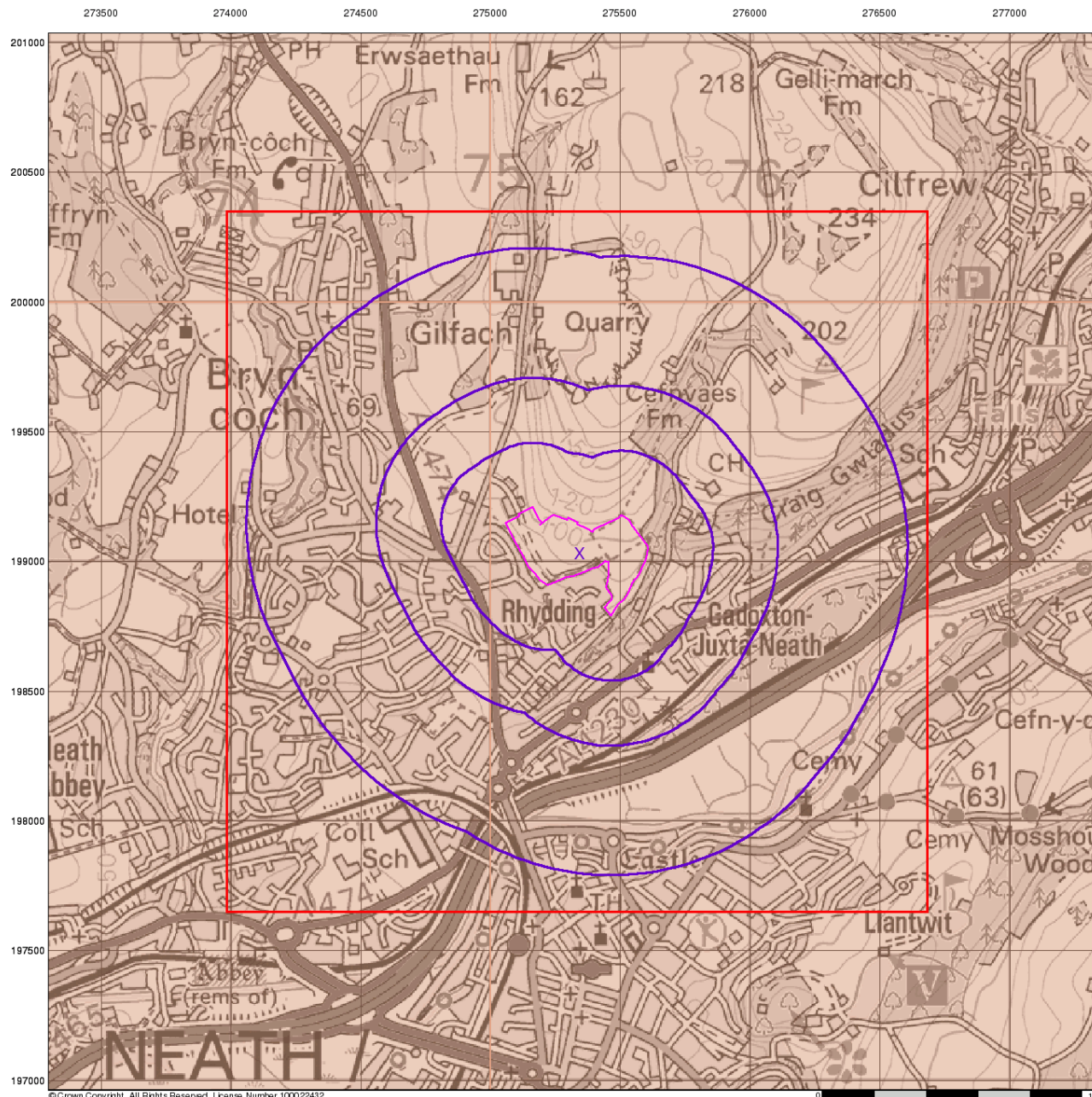
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National Grid Reference: 275340, 199030
Slice: A
Site Area (Ha): 11.09
Search Buffer (m): 1000

Site Details

Leiros Park, Bryncoch, Neath, SA10 7EX

Landmark
INFORMATION GROUP

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



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Bedrock Aquifer Designation

General

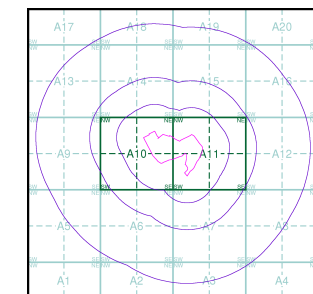
- Specified Site
- Specified Buffer(s)
- Bearing Reference Point
- Slice
- Map ID

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

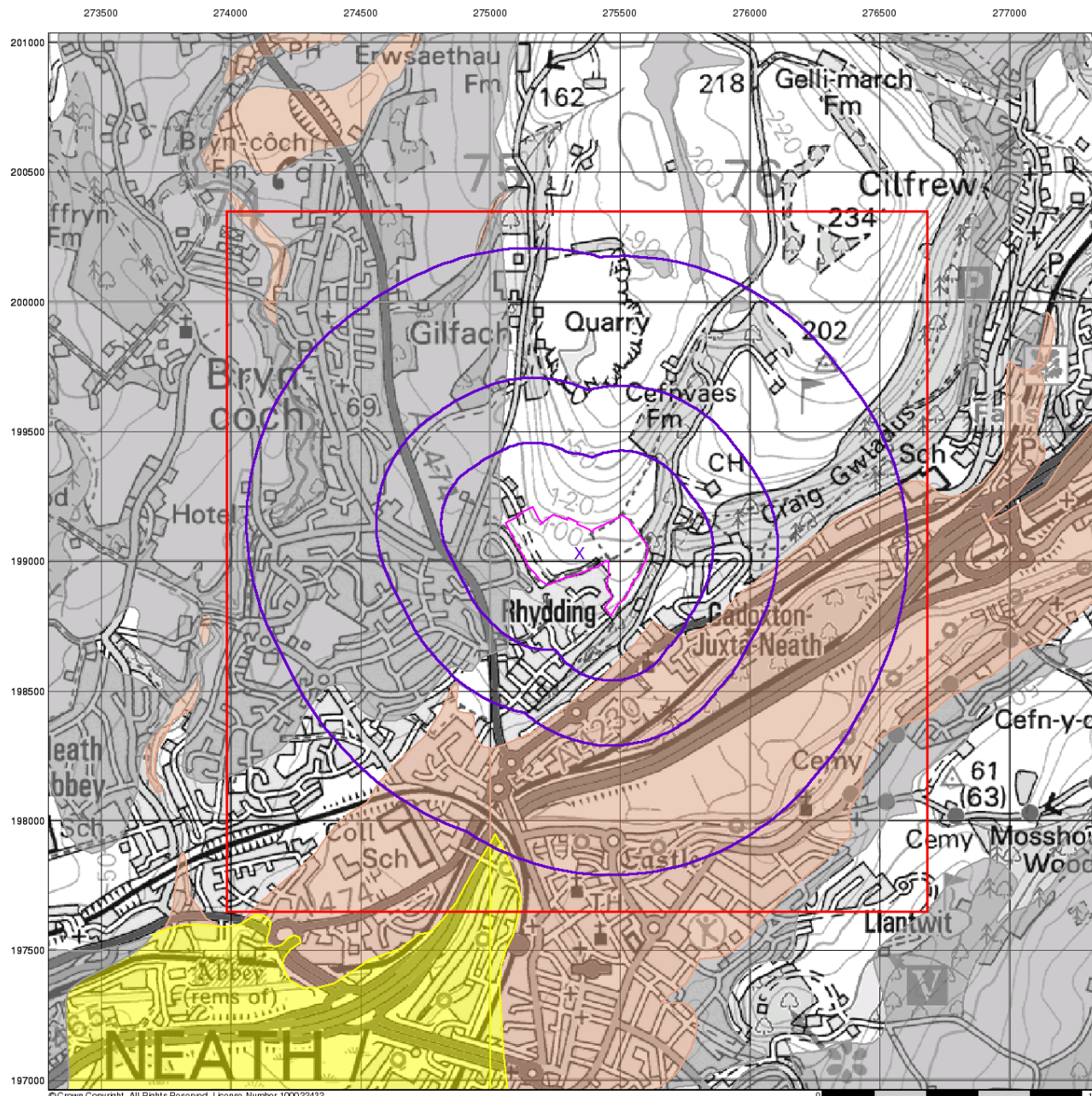
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Site Details

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Superficial Aquifer Designation

General

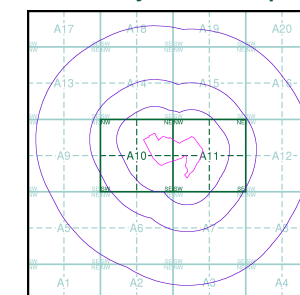
- Specified Site
- Specified Buffer(s)
- Bearing Reference Point
- Slice
- Map ID

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

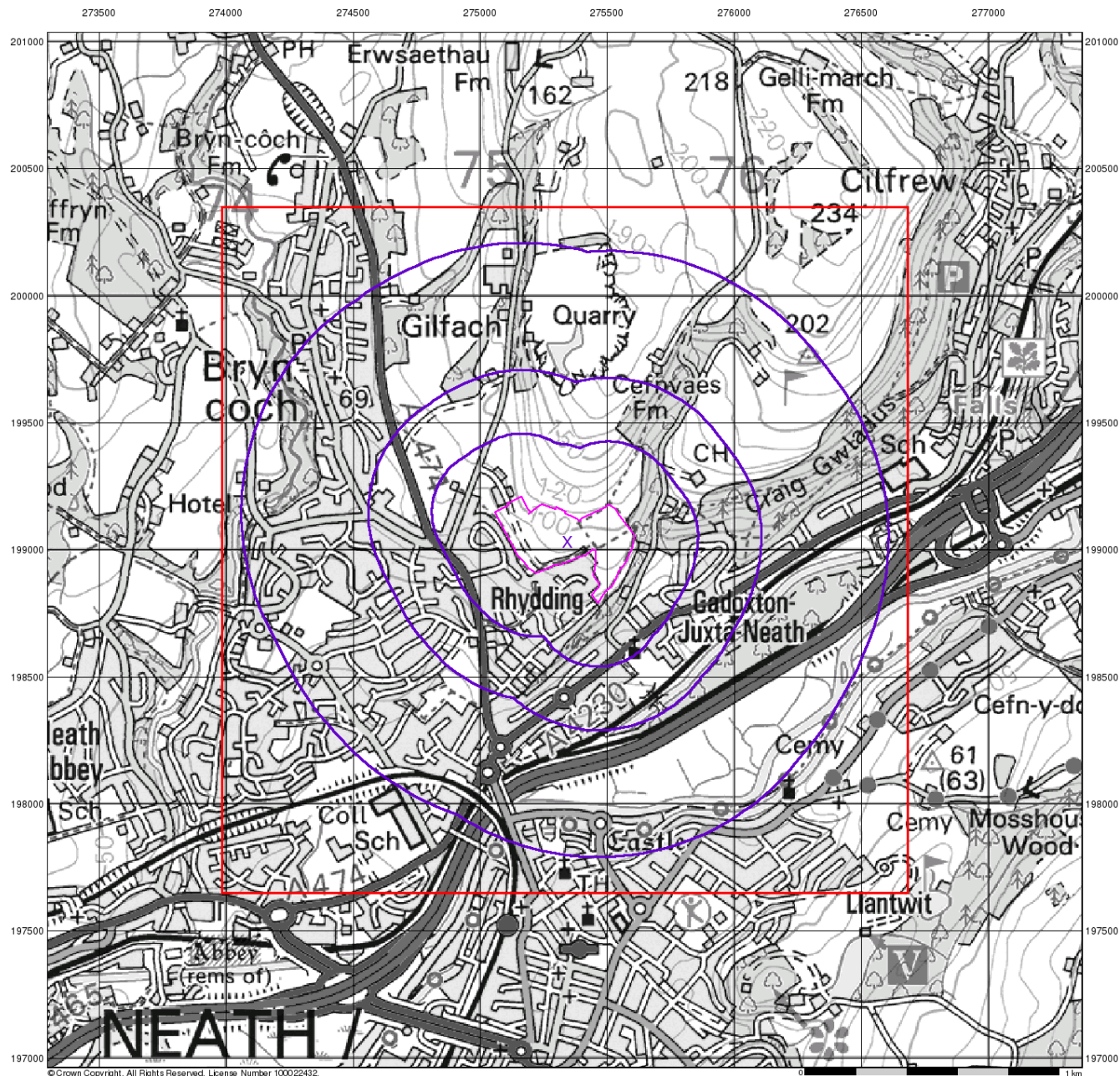
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 Site Area (Ha): 11.09
 Search Buffer (m): 1000

Site Details

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Source Protection Zones

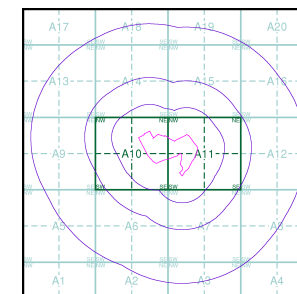
General

- 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)
- Source Protection Zone Borehole

Site Sensitivity Context Map - Slice A



Order Details

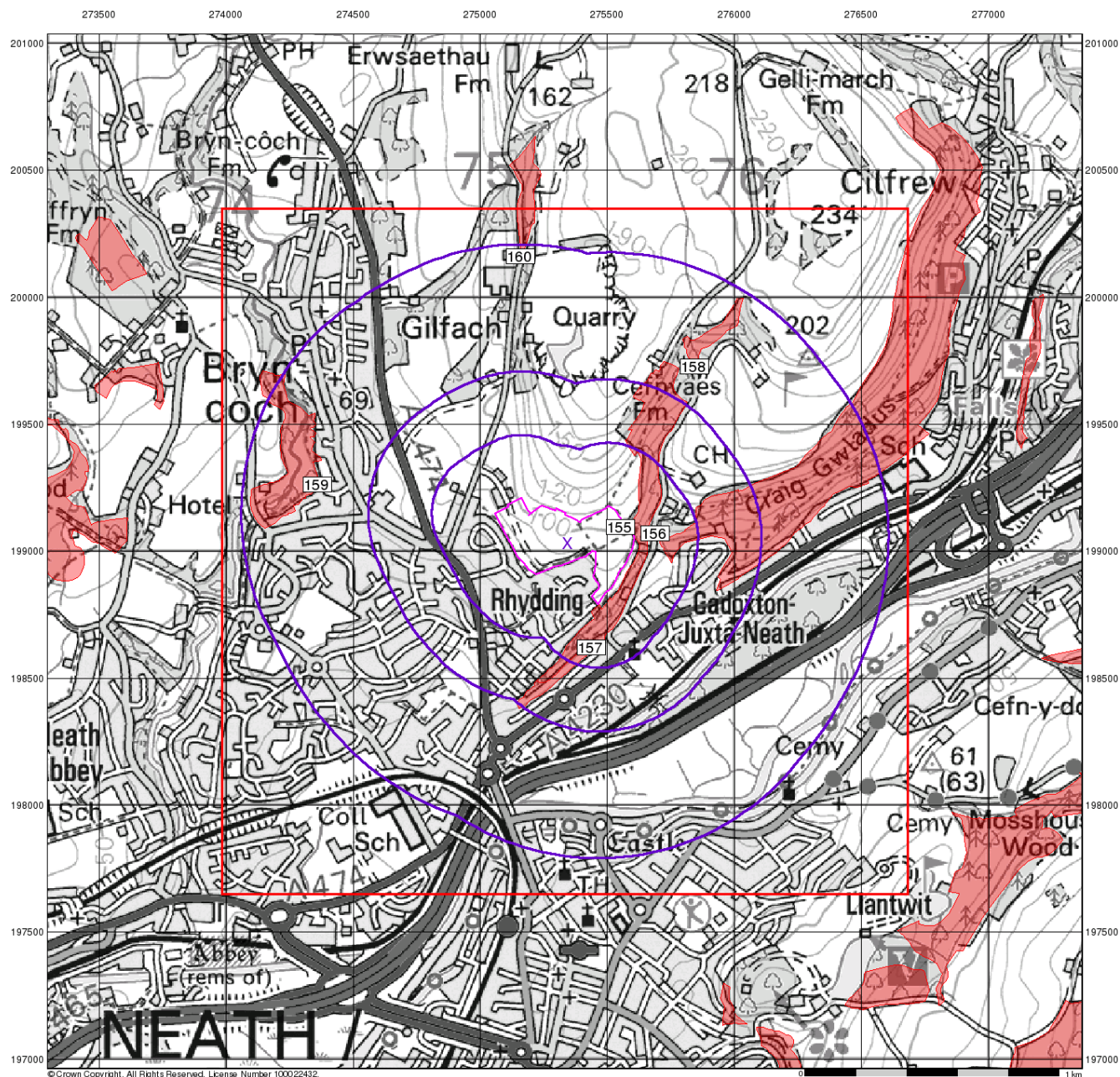
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 Search Buffer (m): 1000

Site Details

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Sensitive Land Uses

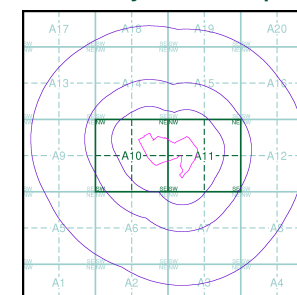
General

- 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

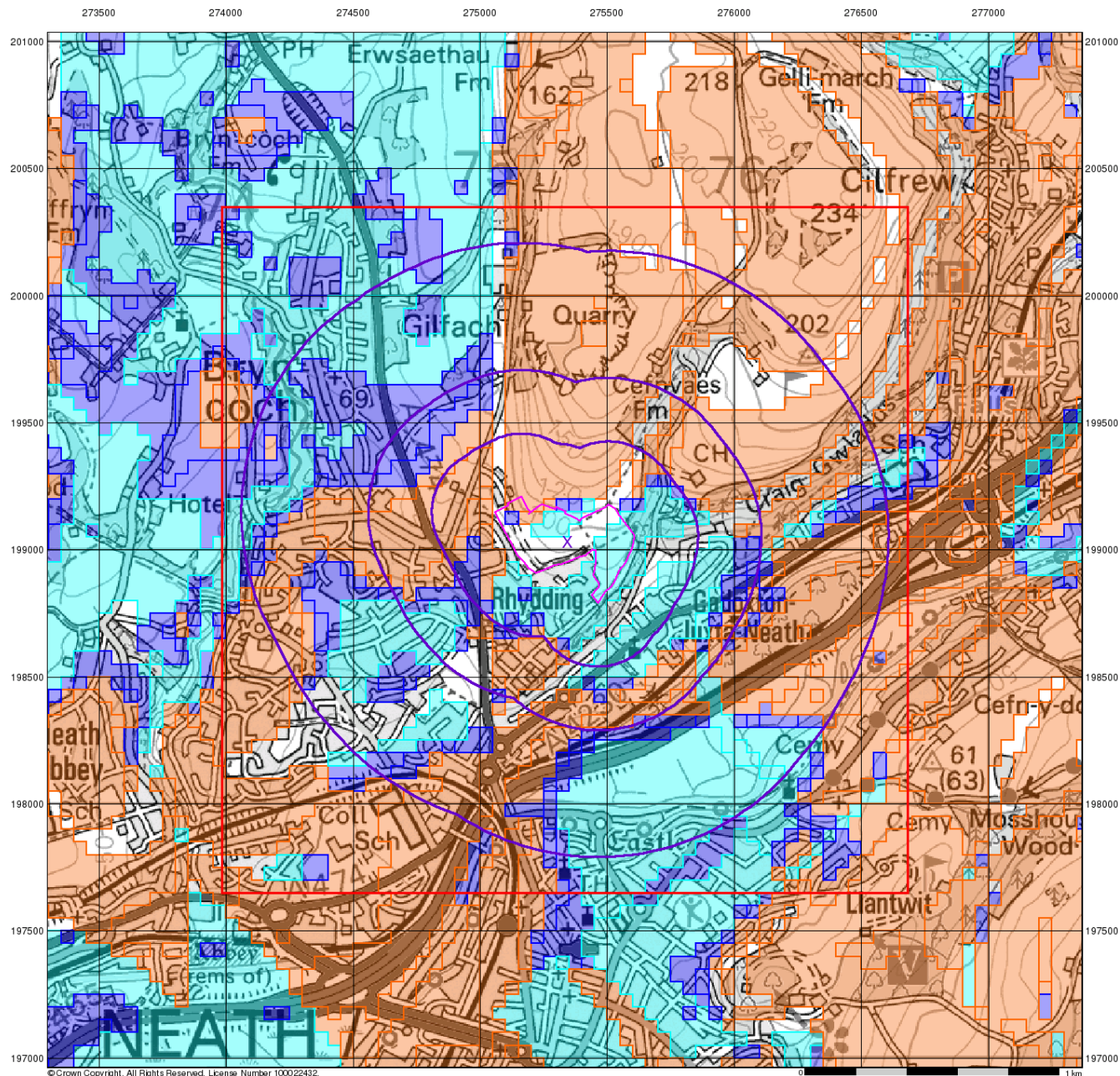
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 Site Area (Ha): 11.09
 Search Buffer (m): 1000

Site Details

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Landmark
 INFORMATION GROUP

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BGS Flood GFS Data

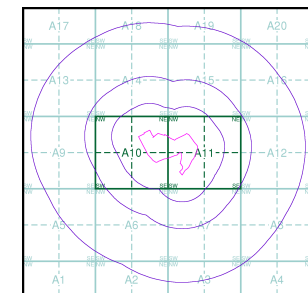
General

- 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

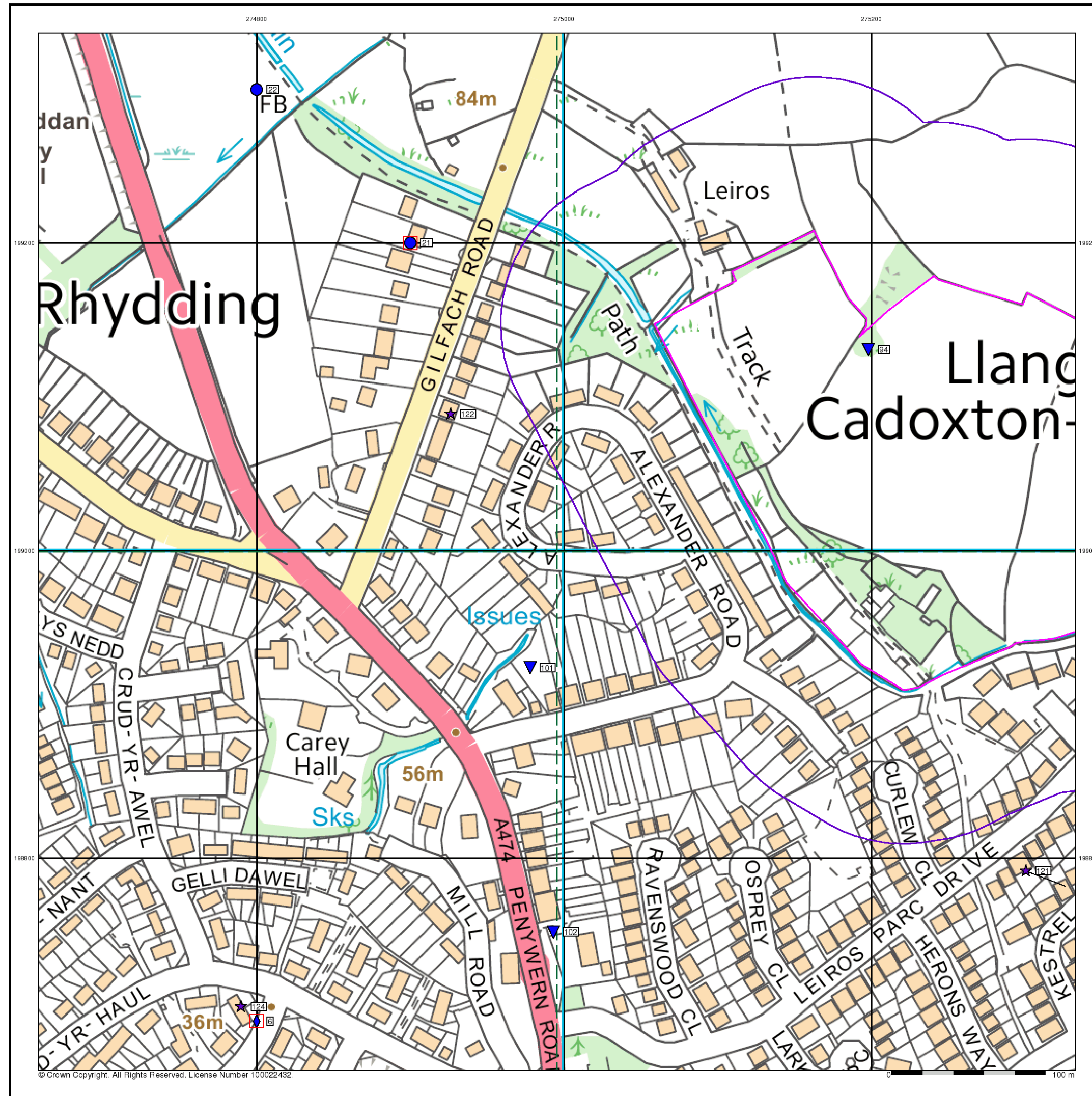
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 Slice: A
 Site Area (Ha): 11.09
 Search Buffer (m): 1000

Site Details

Leiros Park, Bryncoch, Neath, SA10 7EX



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



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 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
- 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

Hazardous Substances

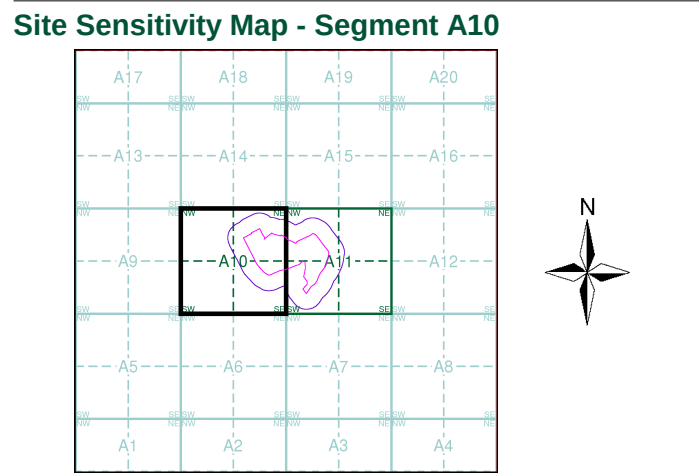
- COMAH Site
- Explosive Site
- NIHHS Site
- Planning Hazardous Substance Consent
- Planning Hazardous Substance Enforcement

Geological

- BGS Recorded Mineral Site

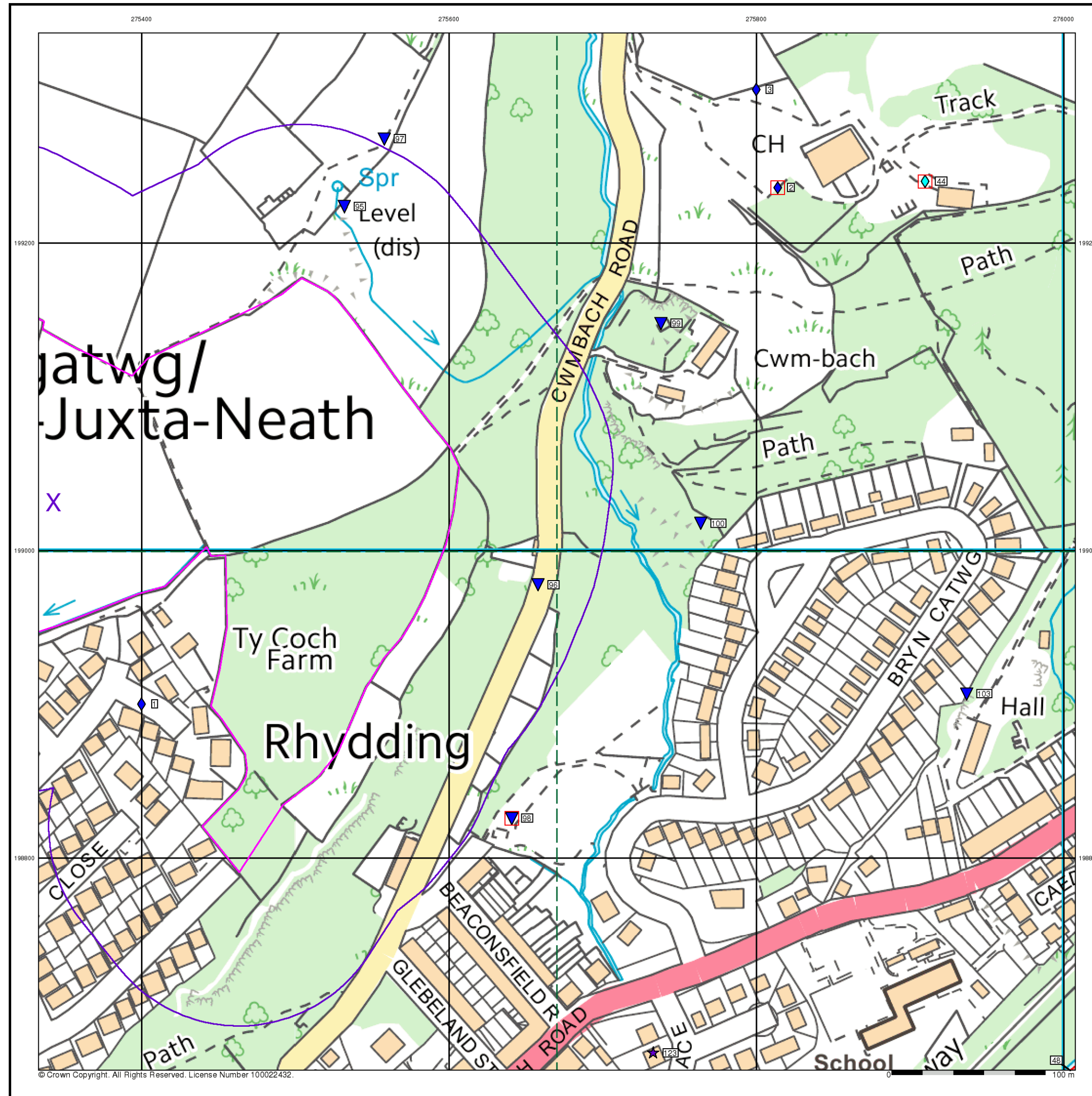
Industrial Land Use

- Contemporary Trade Directory Entry
- Fuel Station Entry



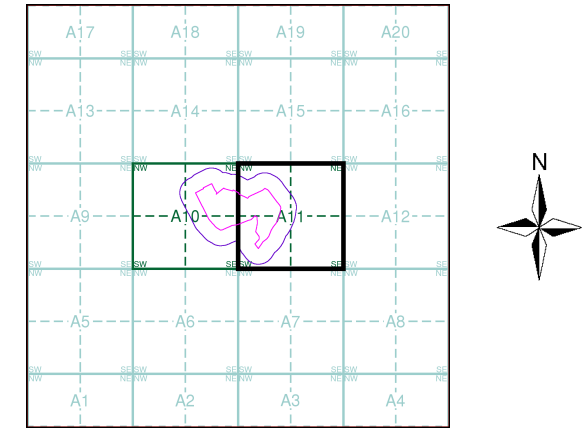
Order Details
Order Number: 120078810_1_1
Customer Ref: 14156
National Grid Reference: 275340, 199030
Slice: A
Site Area (Ha): 11.09

Site Details
Leiros Park, Bryncoch, Neath, SA10 7EX



- 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
 - 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
- Hazardous Substances**
 - COMAH Site
 - Explosive Site
 - NIHHS Site
 - Planning Hazardous Substance Consent
 - Planning Hazardous Substance Enforcement
- Geological**
 - BGS Recorded Mineral Site
- Industrial Land Use**
 - Contemporary Trade Directory Entry
 - Fuel Station Entry

Site Sensitivity Map - Segment A11

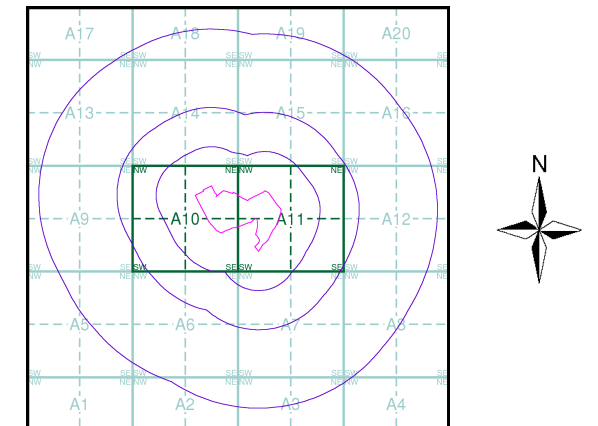


Order Details
Order Number: 120078810_1_1
Customer Ref: 14156
National Grid Reference: 275340, 199030
Slice: A
Site Area (Ha): 11.09

Site Details
Leiros Park, Bryncoch, Neath, SA10 7EX

- 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
- Geological**
- BGS Recorded Mineral Site

Site Sensitivity Map - Slice A

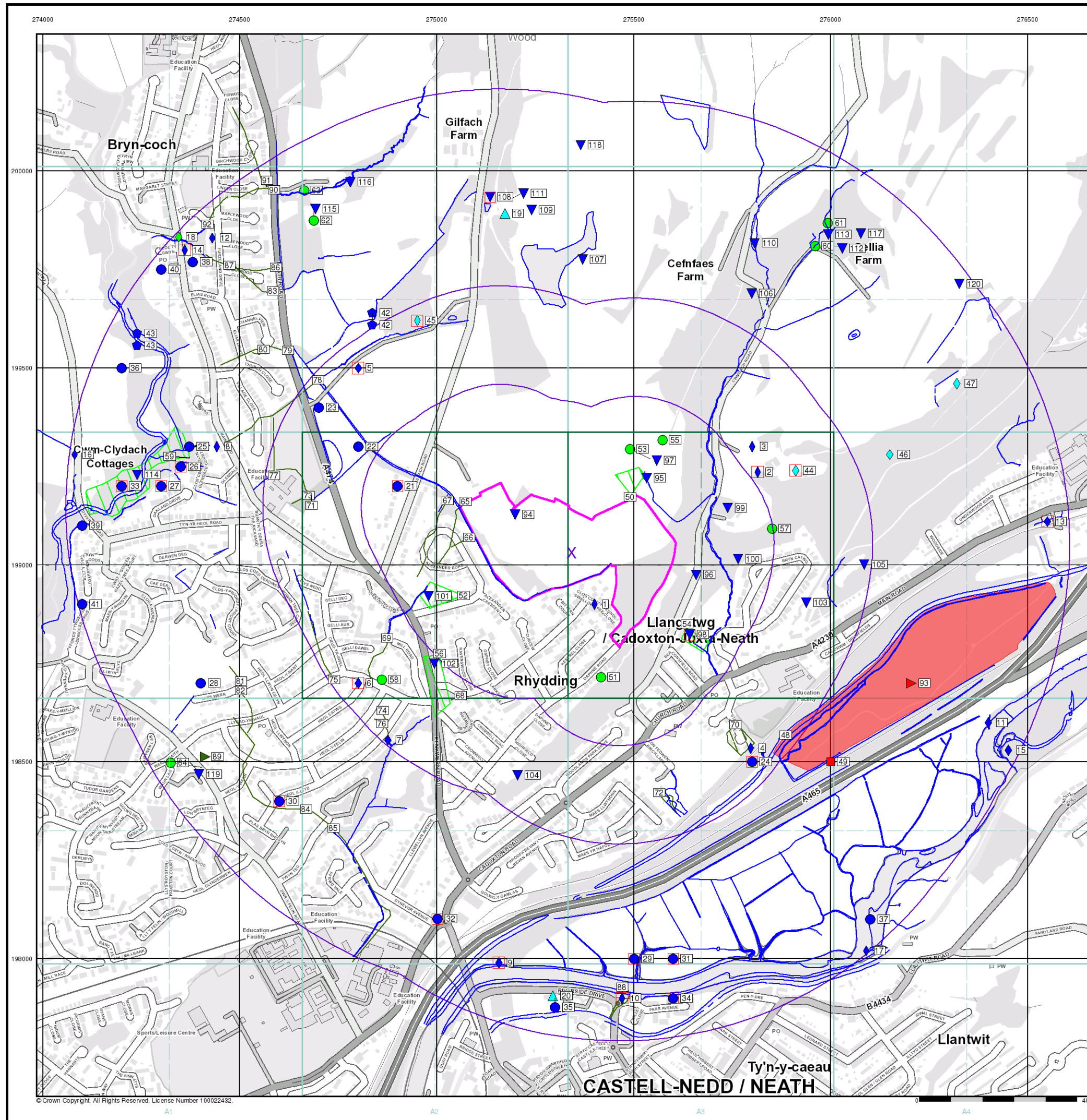


Order Details

Order Number: 120078810_1_1
 Customer Ref: 14156
 National Grid Reference: 275340, 199030
 Slice: A
 Site Area (Ha): 11.09
 Search Buffer (m): 1000

Site Details

Leiros Park, Bryncoch, Neath, SA10 7EX



Industrial Land Use Map

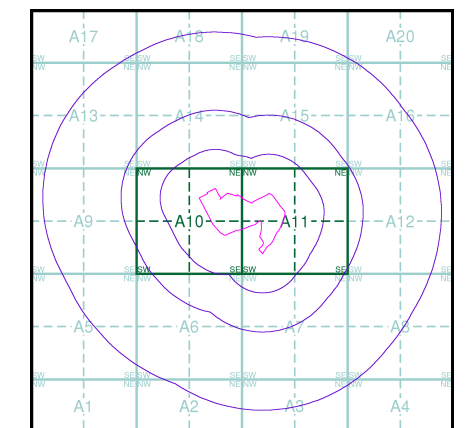
General

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

Industrial Land Use

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

Industrial Land Use Map - Slice A

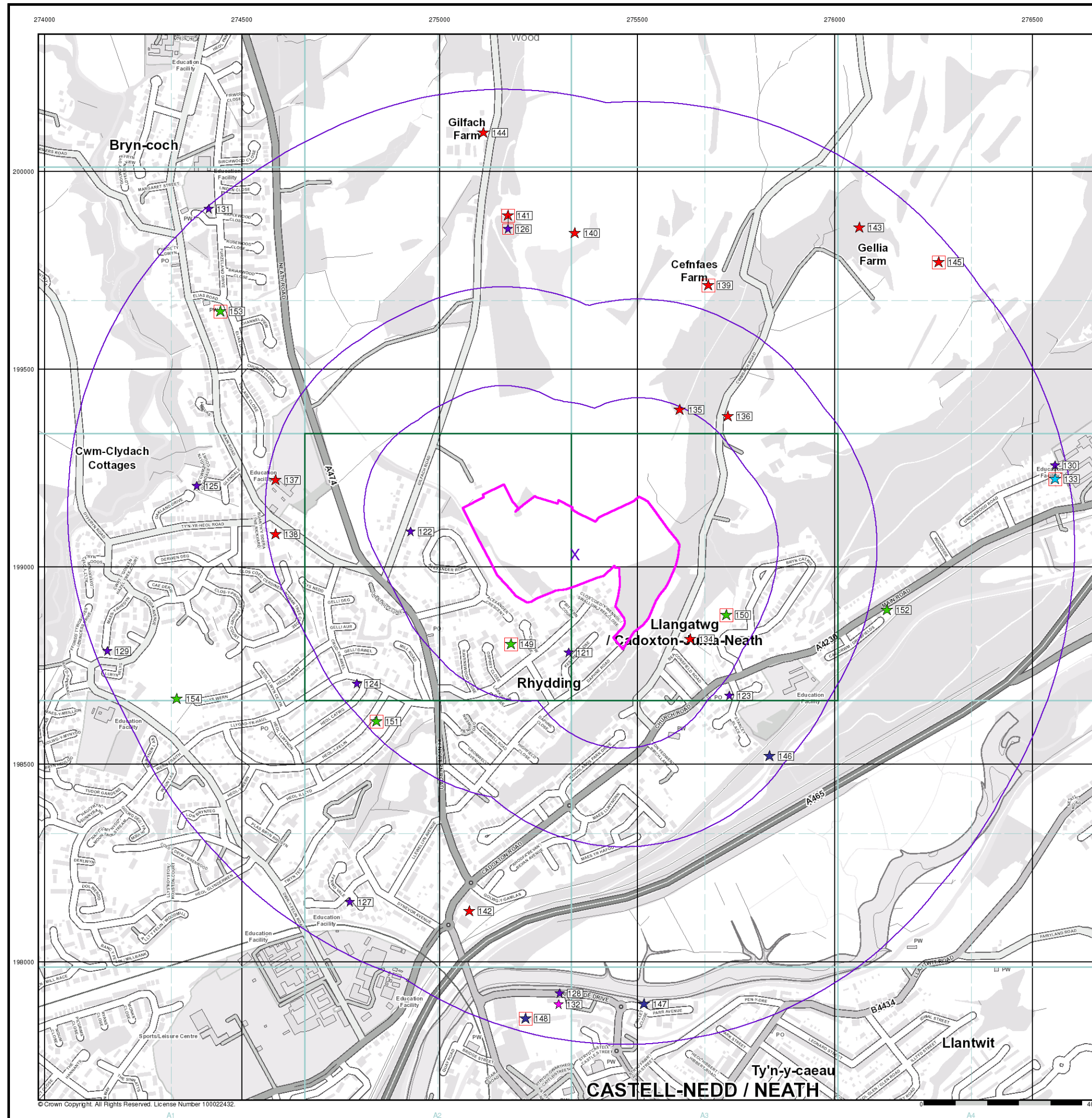


Order Details

Order Number: 120078810_1_1
 Customer Ref: 14156
 National Grid Reference: 275340, 199030
 Slice: A
 Site Area (Ha): 11.09
 Search Buffer (m): 1000

Site Details

Leiros Park, Bryncoch, Neath, SA10 7EX





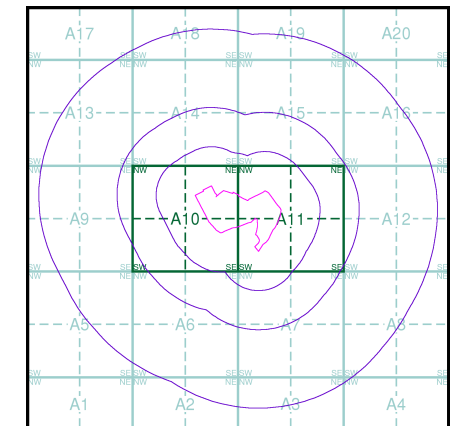
General

- 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

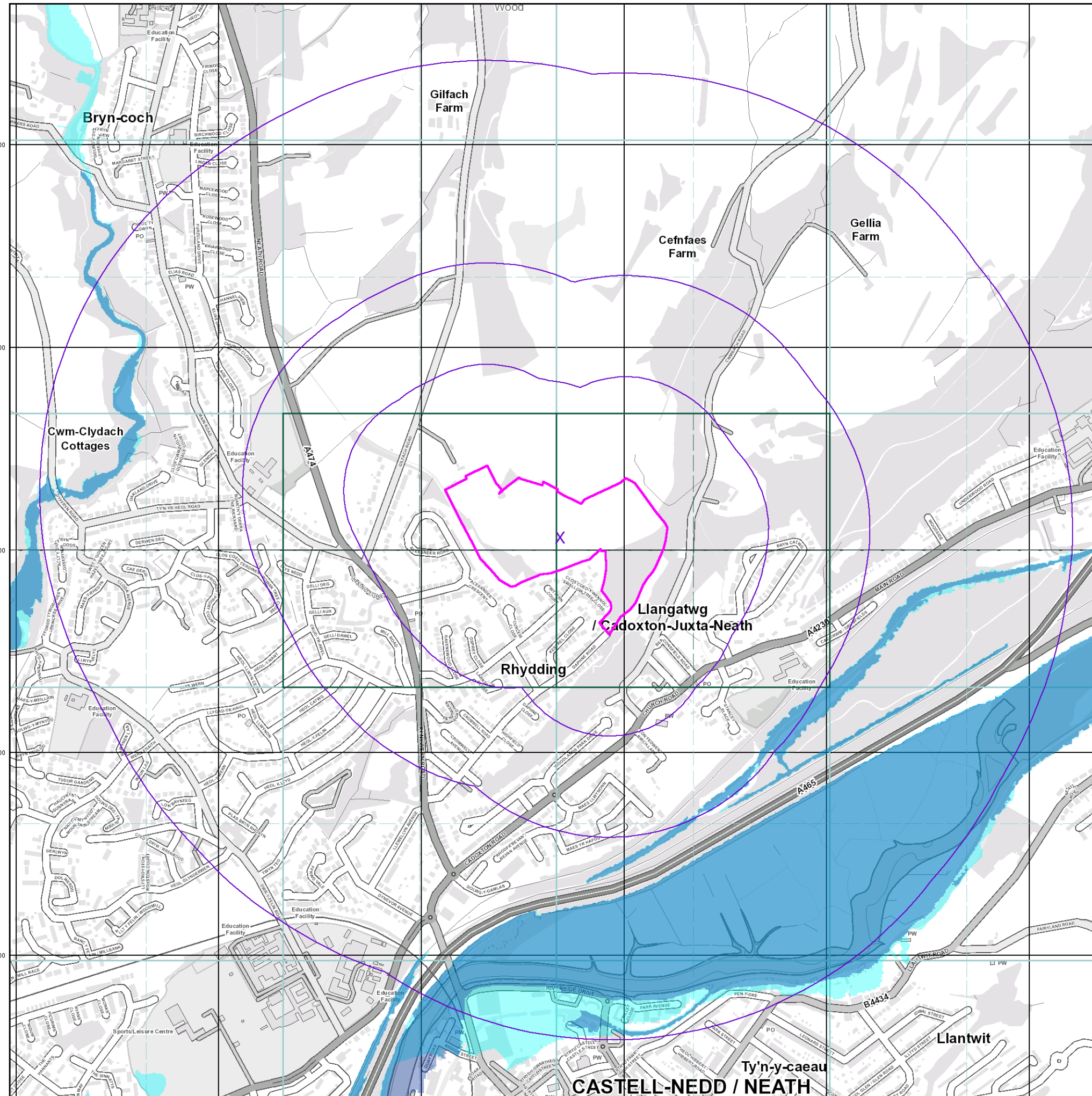
Order Number: 120078810_1_1
 Customer Ref: 14156
 National Grid Reference: 275340, 199030
 Slice: A
 Site Area (Ha): 11.09
 Search Buffer (m): 1000

Site Details

Leiros Park, Bryncoch, Neath, SA10 7EX



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



General

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

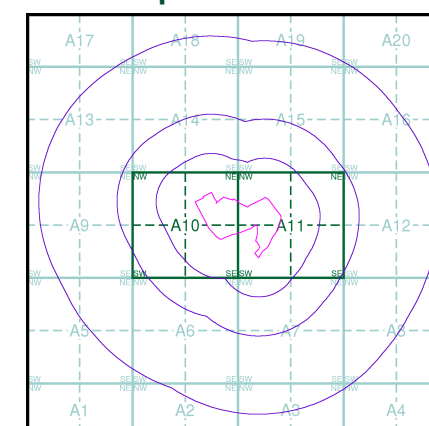
Agency and Hydrological (Boreholes)

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

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

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

Borehole Map - Slice A

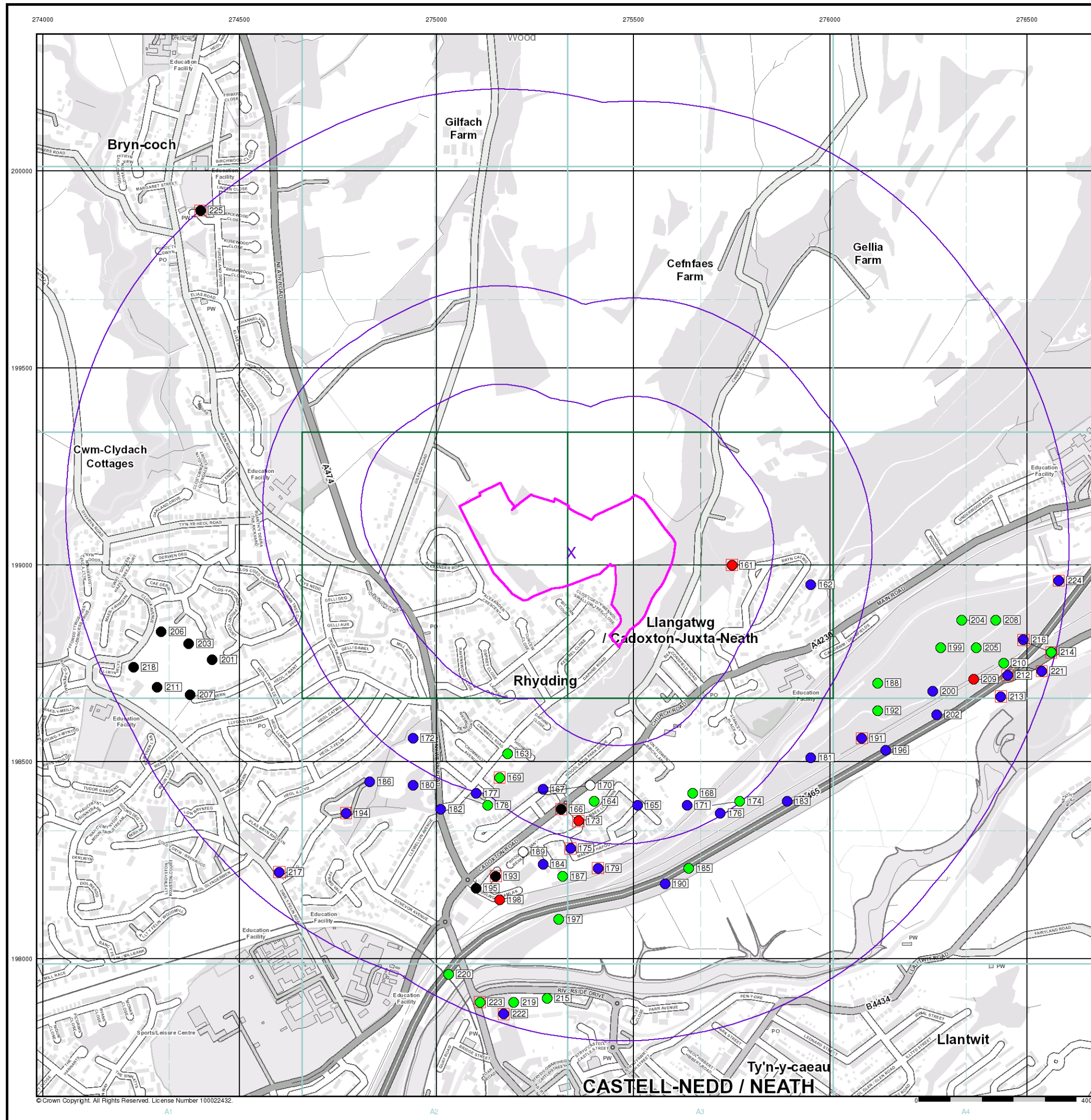


Order Details

Order Number: 120078810_1_1
 Customer Ref: 14156
 National Grid Reference: 275340, 199030
 Slice: A
 Site Area (Ha): 11.09
 Search Buffer (m): 1000

Site Details

Leiros Park, Bryncoch, Neath, SA10 7EX



General

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

Risk of Flooding from Surface Water

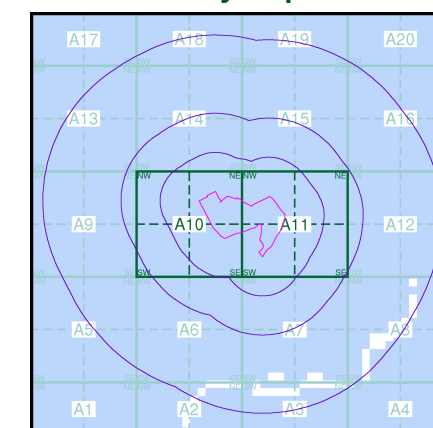
- High - 30 Year Return
- Medium - 100 Year Return
- Low - 1000 Year Return

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

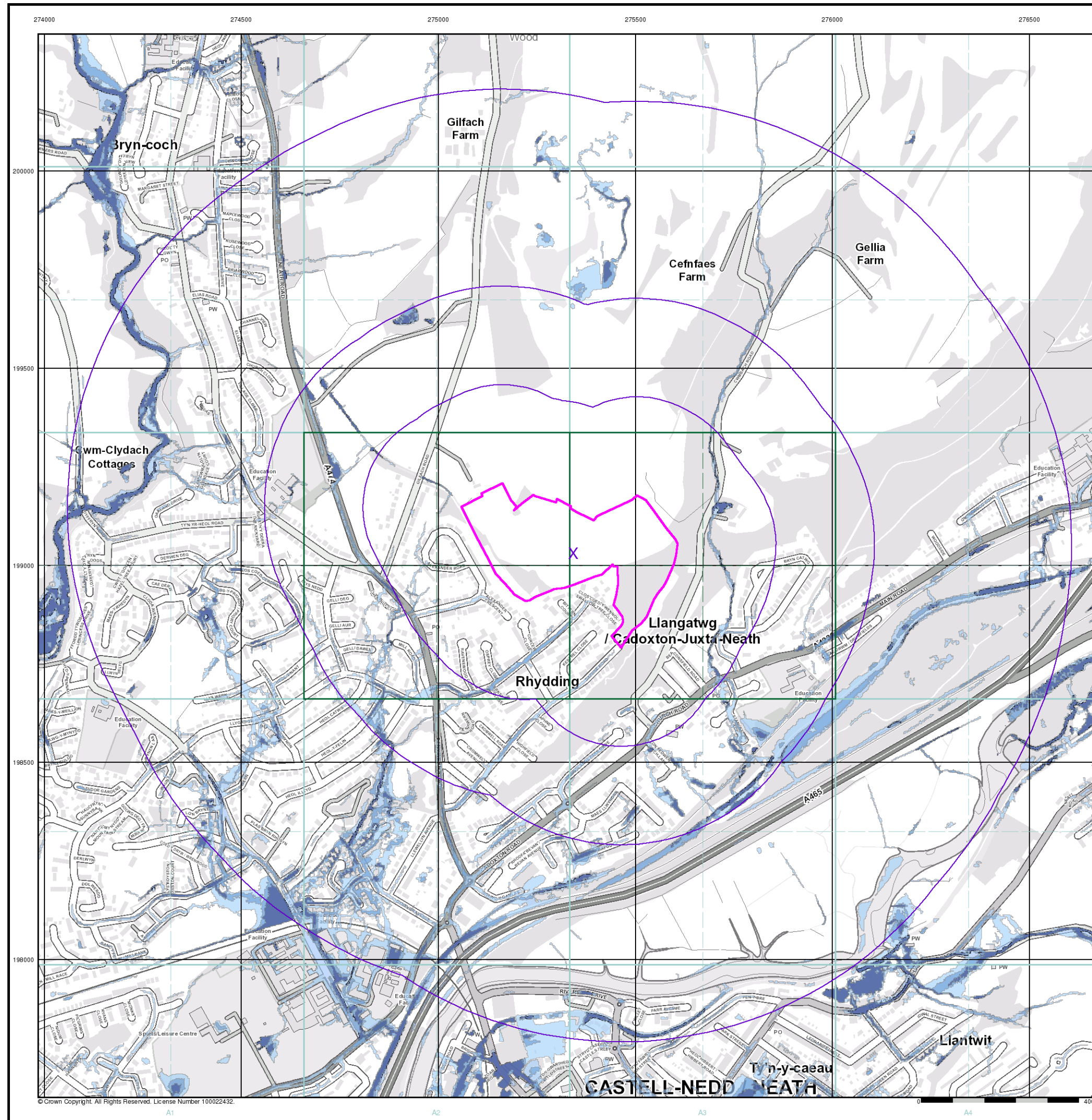


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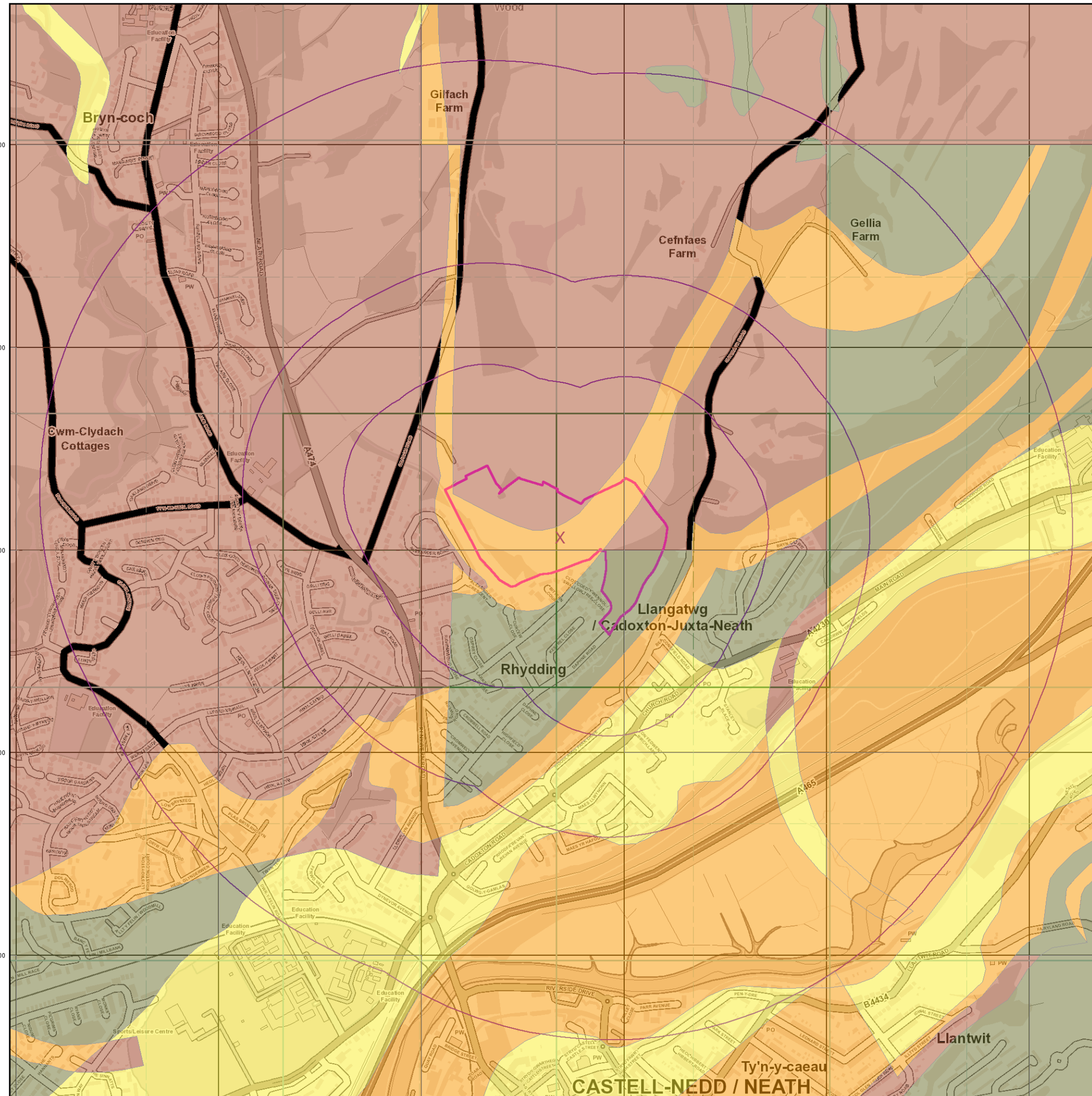
Order Number: 120078810_1_1
 Customer Ref: 14156
 National Grid Reference: 275340, 199030
 Slice: A
 Site Area (Ha): 11.09
 Search Buffer (m): 1000

Site Details

Leiros Park, Bryncoch, Neath, SA10 7EX



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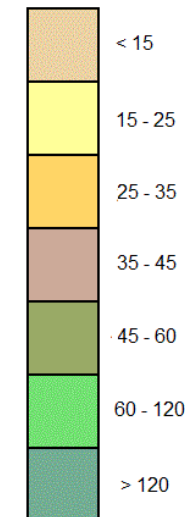


General

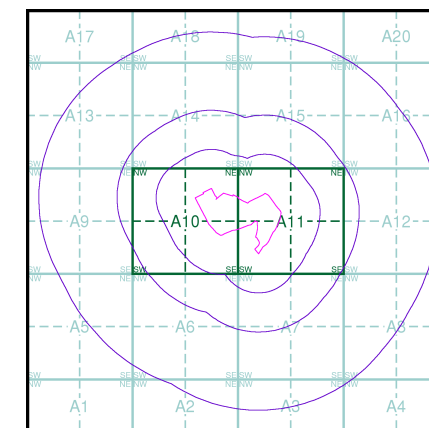
Specified Site Specified Buffer(s) Bearing Reference Point

Estimated Soil Chemistry Arsenic

Arsenic Concentrations mg/kg



Estimated Soil Chemistry Arsenic - Slice A



Order Details

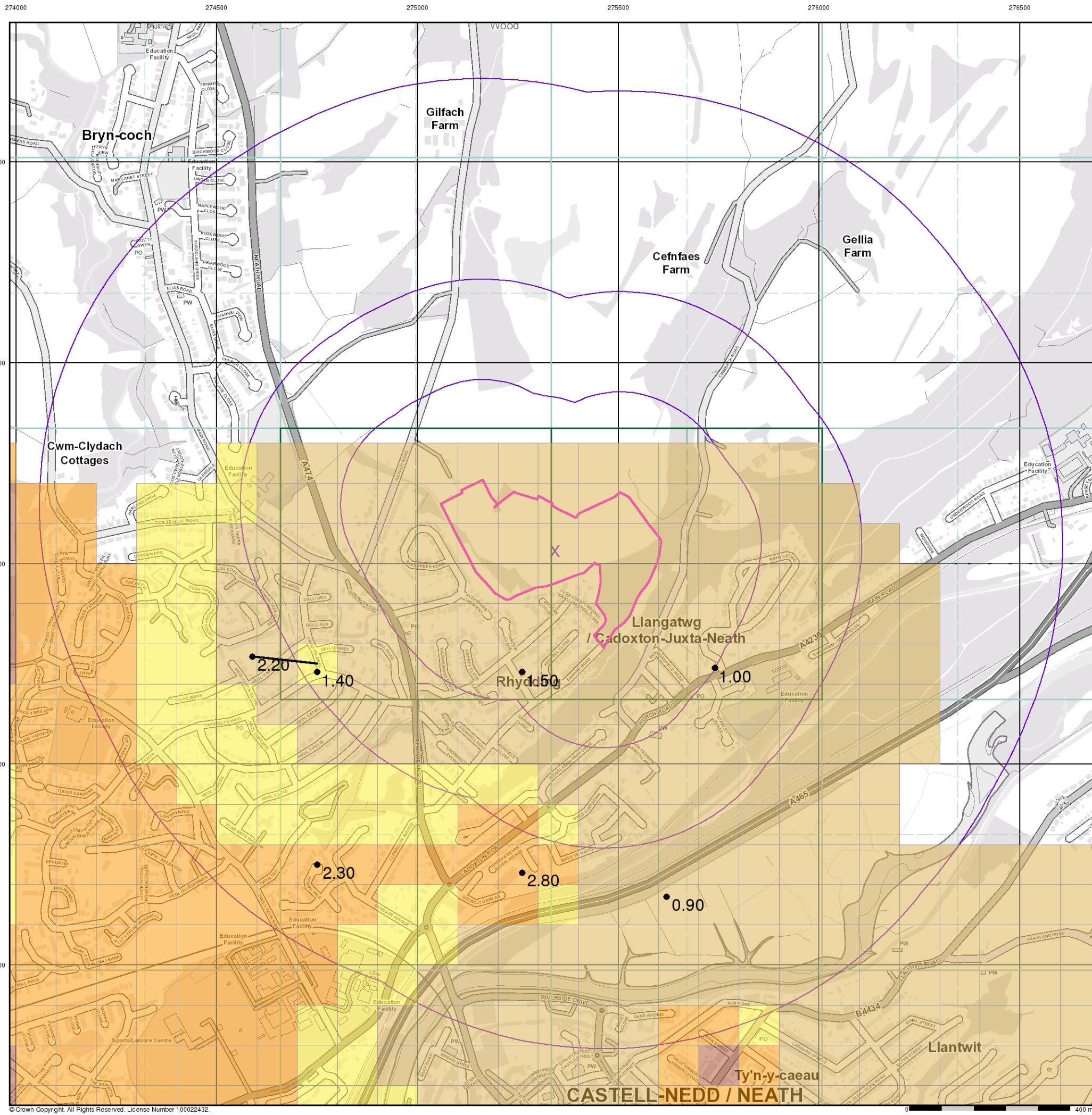
Order Details: 120078810_1_1
Customer Ref: 14156
National Grid Reference: 275340, 199030
Slice: A
Site Area (Ha): 11.09
Search buffer (m): 1000

Site Details

Leiros Park, Bryncoch, Neath, SA10 7EX



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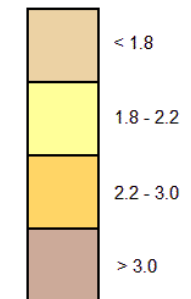
General

Specified Site Specified Buffer(s) Bearing Reference Point

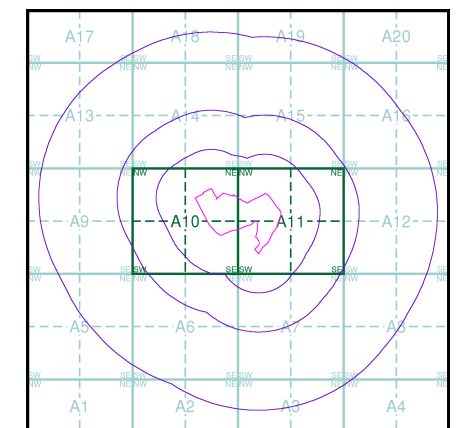
Urban Soil Chemistry Cadmium

BGS Urban Soil Chemistry Measured Concentration Values (mg/kg)

Cadmium Concentrations mg/kg



Urban Soil Chemistry Cadmium - Slice A



Order Details

Order Details: 120078810_1_1
Customer Ref: 14156
National Grid Reference: 275340, 199030
Slice: A
Site Area (Ha): 11.09
Search buffer (m): 1000

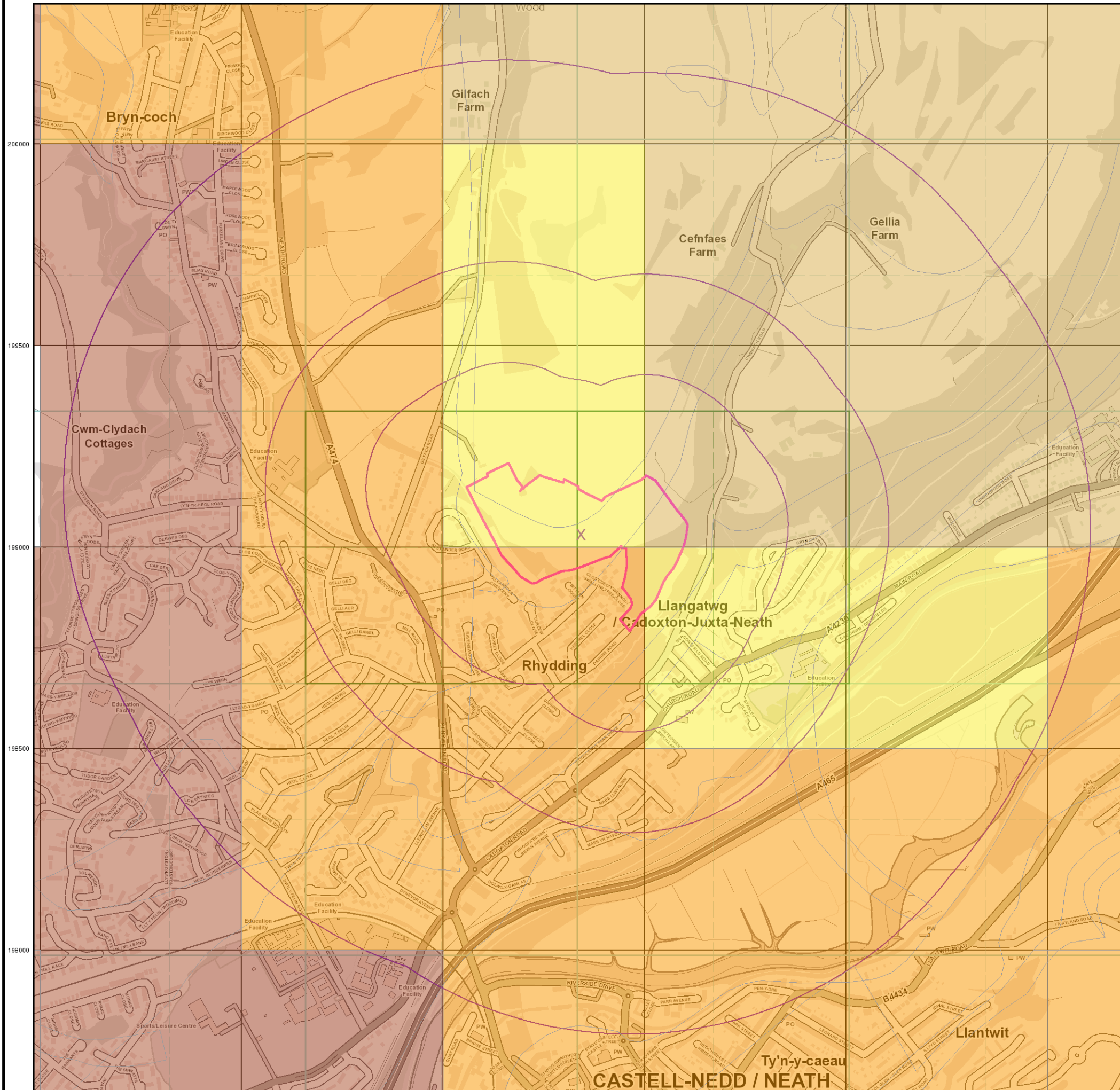
Site Details

Leiros Park, Bryncoch, Neath, SA10 7EX

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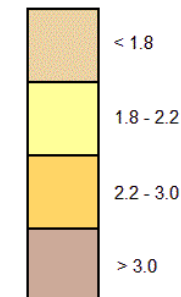


General

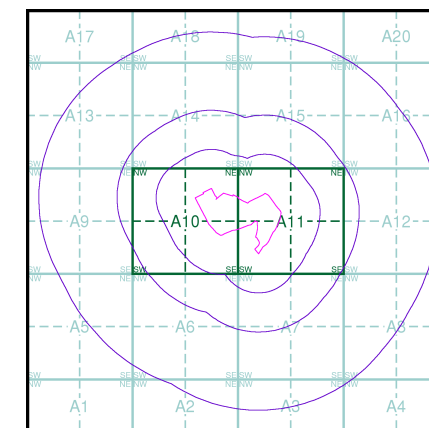
Specified Site Specified Buffer(s) Bearing Reference Point

Estimated Soil Chemistry Cadmium

Cadmium Concentrations mg/kg



Estimated Soil Chemistry Cadmium - Slice A



Order Details

Order Details: 120078810_1_1
Customer Ref: 14156
National Grid Reference: 275340, 199030
Slice: A
Site Area (Ha): 11.09
Search buffer (m): 1000

Site Details

Leiros Park, Bryncoch, Neath, SA10 7EX

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Web: www.envirocheck.co.uk



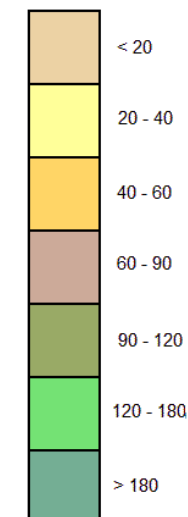
General

Specified Site Specified Buffer(s) Bearing Reference Point

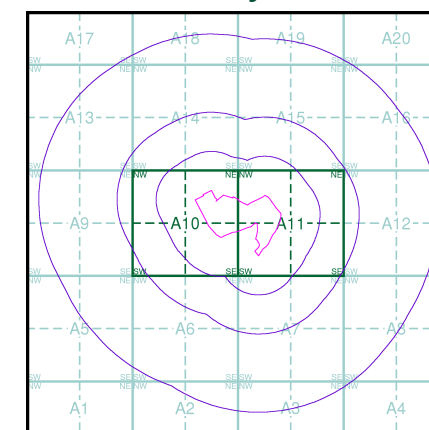
Urban Soil Chemistry Chromium

BGS Urban Soil Chemistry Measured Concentration Values (mg/kg)

Chromium Concentrations mg/kg



Urban Soil Chemistry Chromium - Slice A



Order Details

Order Details: 120078810_1_1
Customer Ref: 14156
National Grid Reference: 275340, 199030
Slice: A
Site Area (Ha): 11.09
Search buffer (m): 1000

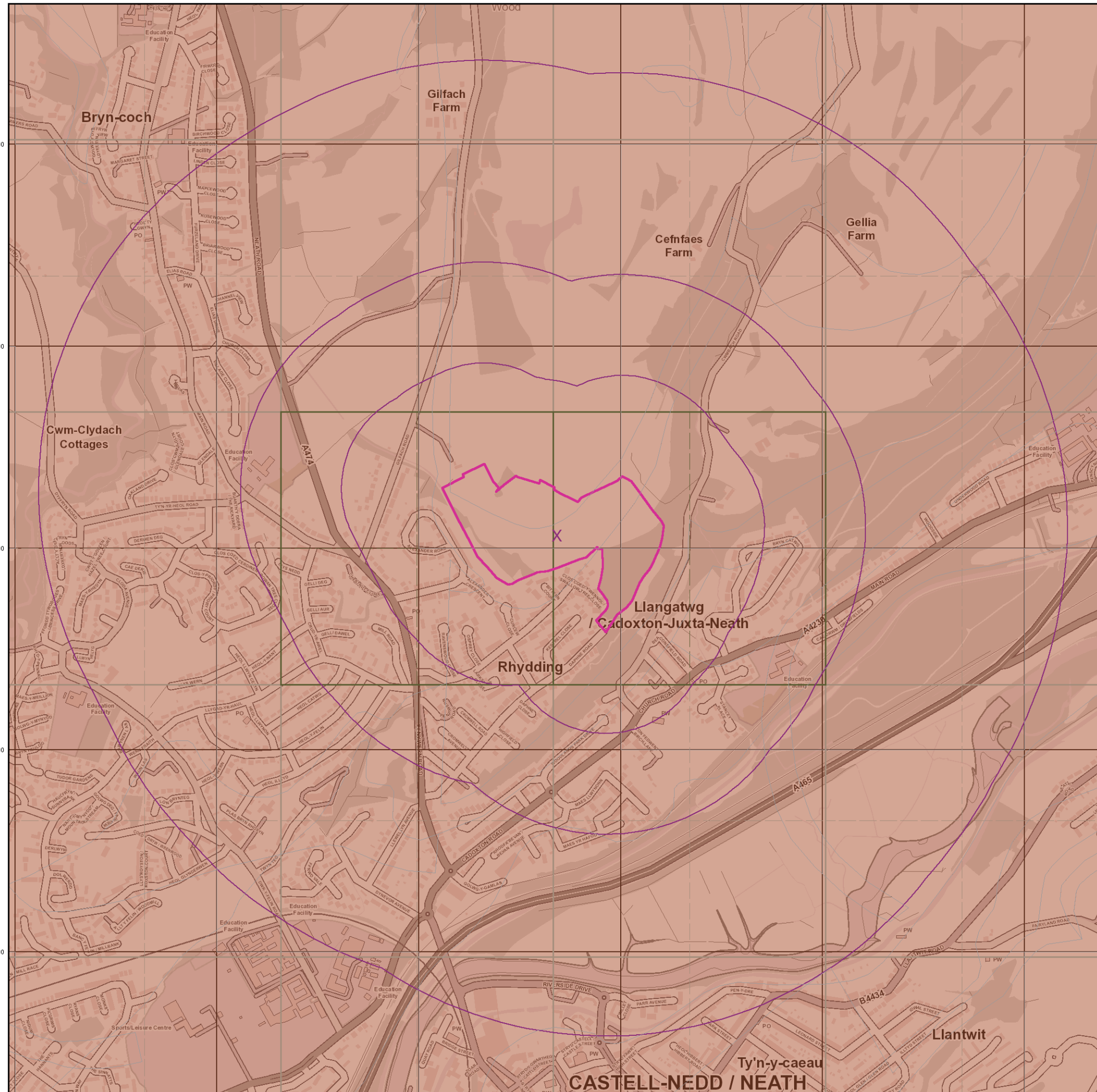
Site Details

Leiros Park, Bryncoch, Neath, SA10 7EX

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Web: www.envirocheck.co.uk



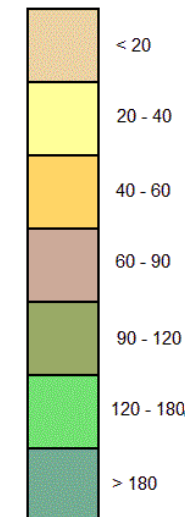


General

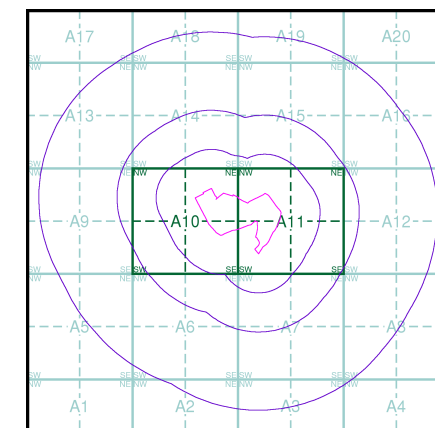
Specified Site Specified Buffer(s) Bearing Reference Point

Estimated Soil Chemistry Chromium

Chromium Concentrations mg/kg



Estimated Soil Chemistry Chromium - Slice A



Order Details

Order Details: 120078810_1_1
Customer Ref: 14156
National Grid Reference: 275340, 199030
Slice: A
Site Area (Ha): 11.09
Search buffer (m): 1000

Site Details

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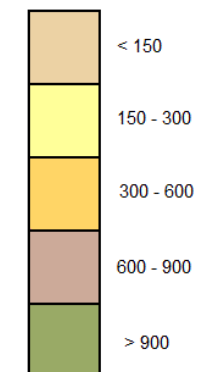
General

Specified Site Specified Buffer(s) Bearing Reference Point

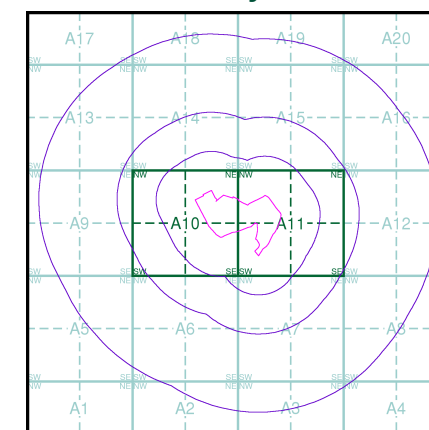
Urban Soil Chemistry Lead

BGS Urban Soil Chemistry Measured Concentration Values (mg/kg)

Lead Concentrations mg/kg



Urban Soil Chemistry Lead - Slice A



Order Details

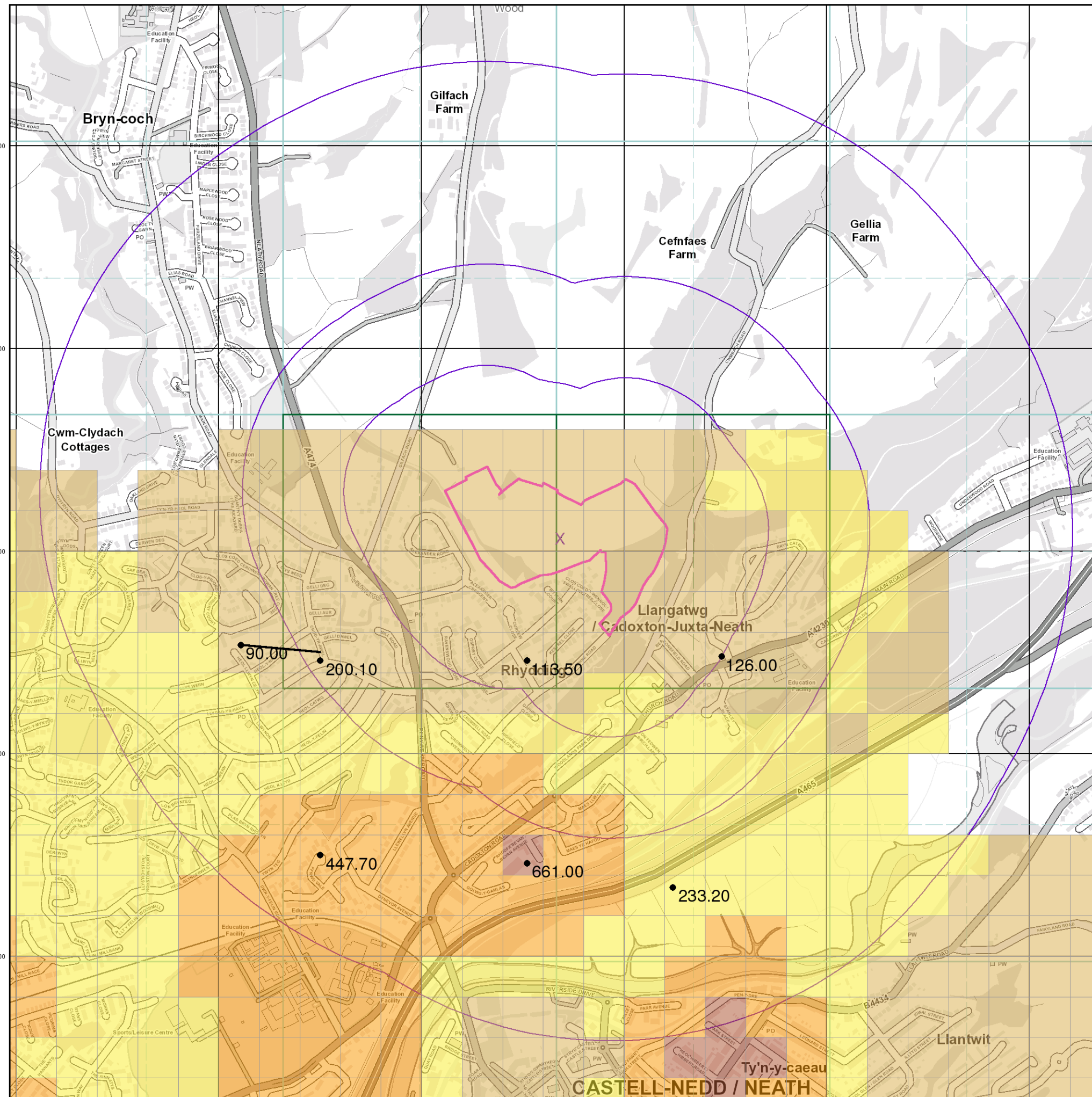
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Customer Ref: 14156
National Grid Reference: 275340, 199030
Slice: A
Site Area (Ha): 11.09
Search buffer (m): 1000

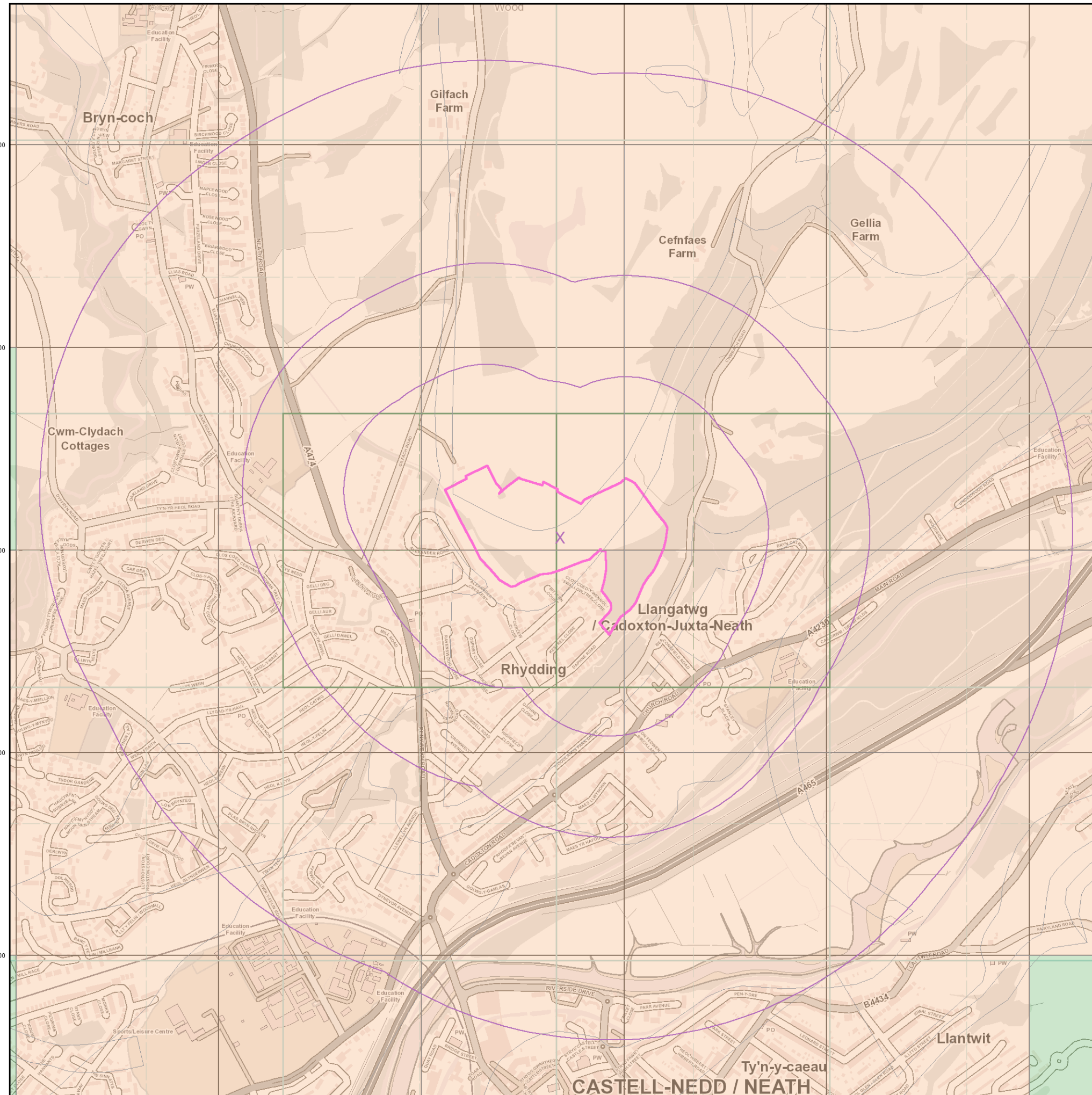
Site Details

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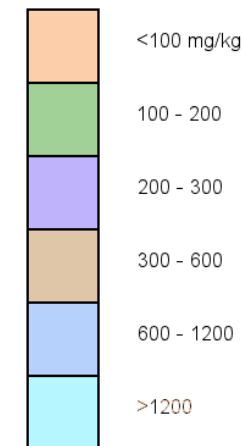


General

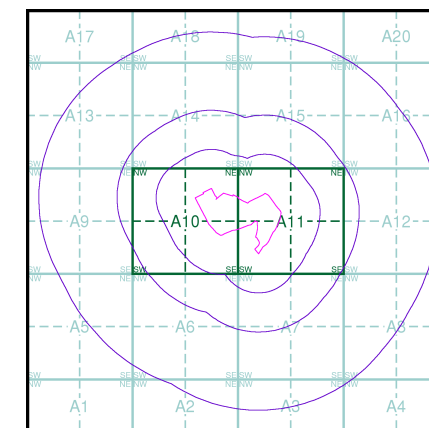
Specified Site Specified Buffer(s) Bearing Reference Point

Estimated Soil Chemistry Lead

Lead Concentrations mg/kg



Estimated Soil Chemistry Lead - Slice A



Order Details

Order Details: 120078810_1_1
Customer Ref: 14156
National Grid Reference: 275340, 199030
Slice: A
Site Area (Ha): 11.09
Search buffer (m): 1000

Site Details

Leiros Park, Bryncoch, Neath, SA10 7EX



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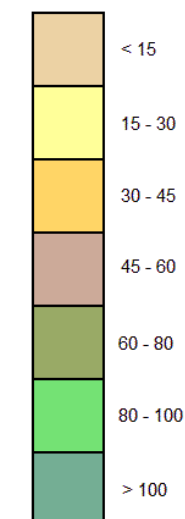
General

Specified Site Specified Buffer(s) Bearing Reference Point

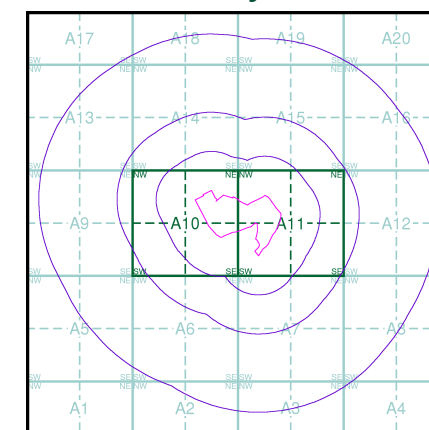
Urban Soil Chemistry Nickel

BGS Urban Soil Chemistry Measured Concentration Values (mg/kg)

Nickel Concentrations mg/kg



Urban Soil Chemistry Nickel - Slice A



Order Details

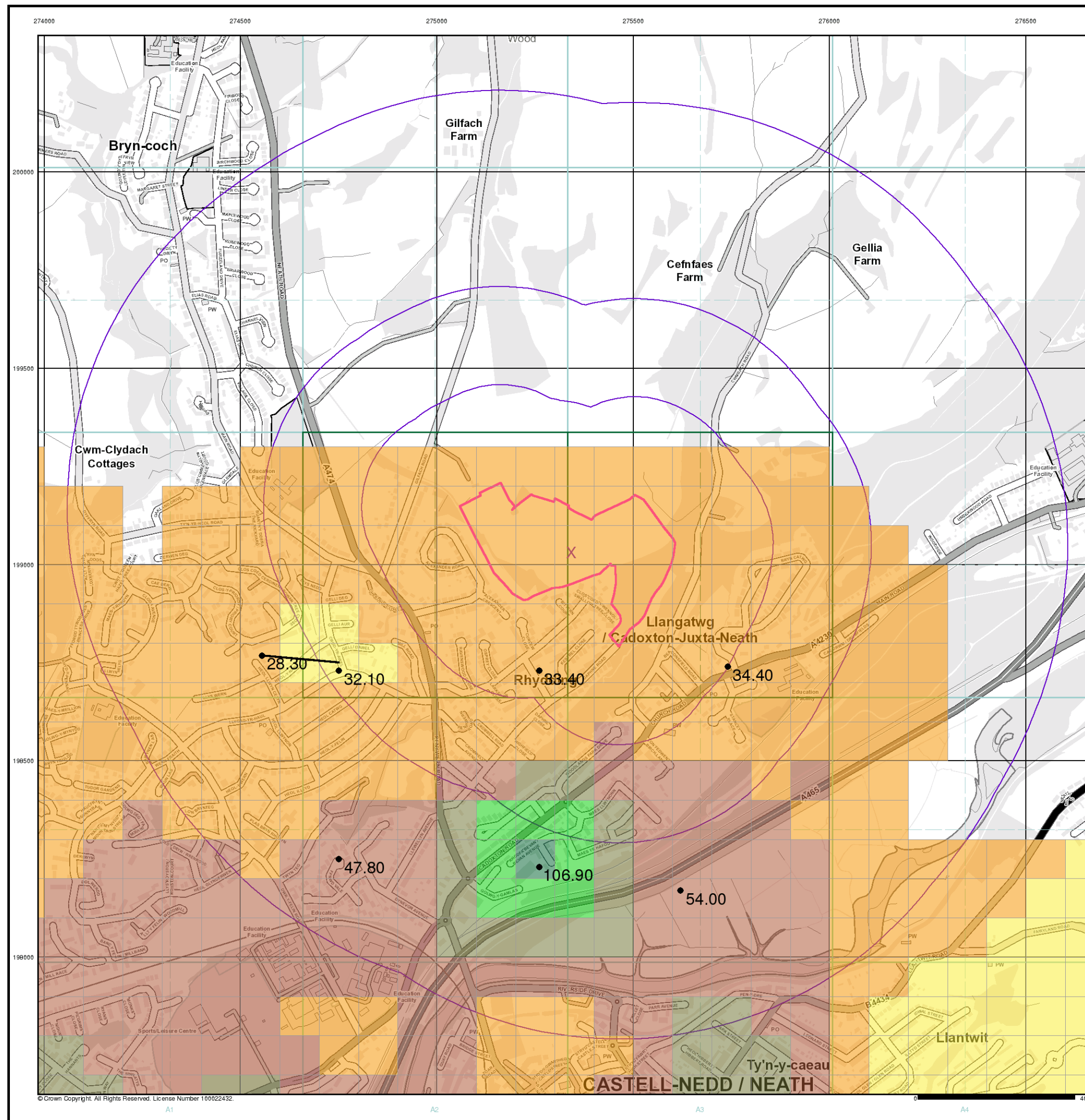
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Customer Ref: 14156
National Grid Reference: 275340, 199030
Slice: A
Site Area (Ha): 11.09
Search buffer (m): 1000

Site Details

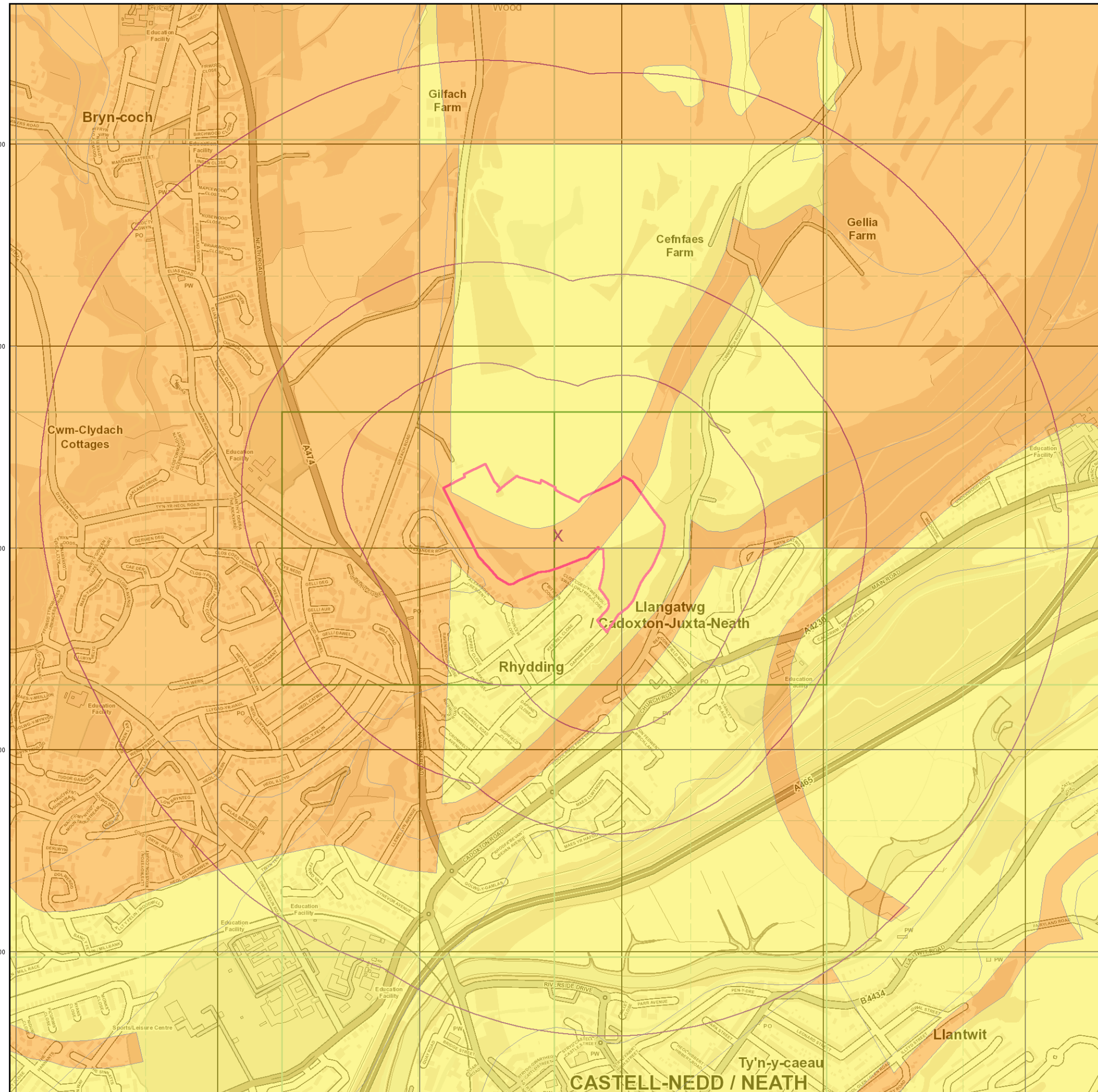
Leiros Park, Bryncoch, Neath, SA10 7EX

Landmark
INFORMATION GROUP

Tel: 0844 844 9952
Fax: 0844 844 9951
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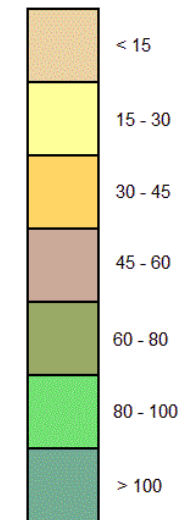


General

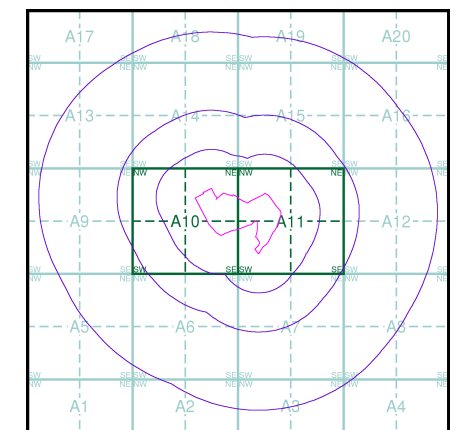
Specified Site Specified Buffer(s) Bearing Reference Point

Estimated Soil Chemistry Nickel

Nickel Concentrations mg/kg



Estimated Soil Chemistry Nickel - Slice A



Order Details

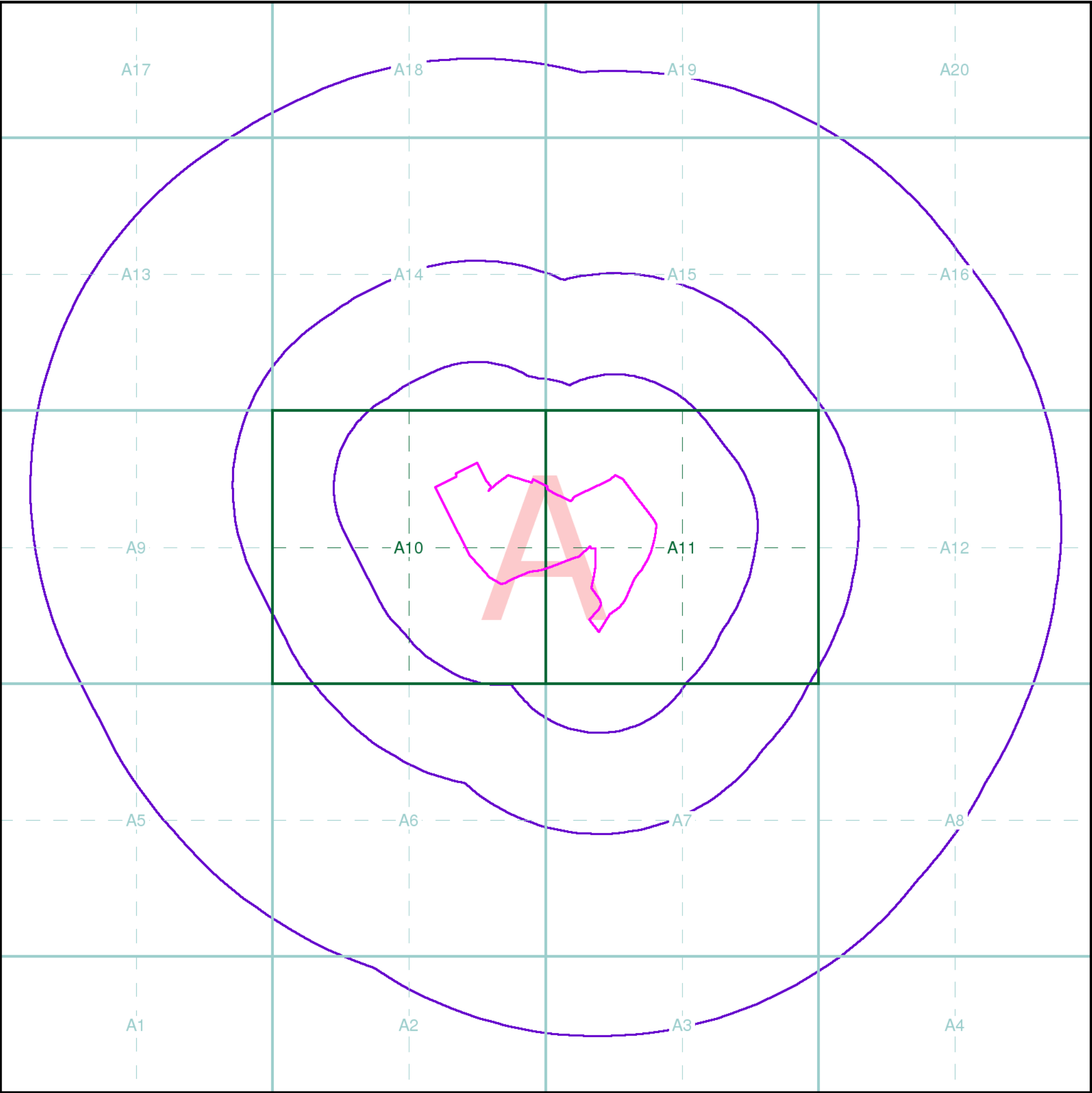
Order Details: 120078810_1_1
Customer Ref: 14156
National Grid Reference: 275340, 199030
Slice: A
Site Area (Ha): 11.09
Search buffer (m): 1000

Site Details

Leiros Park, Bryncoch, Neath, SA10 7EX



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Web: www.envirocheck.co.uk



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 N Thomas, Terra Firma (Wales) Ltd, 5 Deryn Court, Wharfdale Road, Pentwyn, Cardiff, CF23 7HB

Order Details

Order Number: 120078810_1_1
Customer Ref: 14156
National Grid Reference: 275350, 199040
Site Area (Ha): 11.09
Search Buffer (m): 1000

Site Details

Leiros Park, Bryncoch, Neath, SA10 7EX

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



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ANNEX C
Mining Report



The Coal
Authority

Resolving the **impacts** of mining

Non-Residential Coal Mining Consultants Report



LEIROS PARK, BRYNCOCH, NEATH, NEATH PORT TALBOT,
SA10 7EX

Date of enquiry:	23 March 2017
Date enquiry received:	23 March 2017
Issue date:	23 March 2017

Our reference:	51001400175001
Your reference:	14156

Non-Residential Coal Mining Consultants 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

Terra Firma (Wales) Ltd

Enquiry address

LEIROS PARK, BRYNCOCH, NEATH, NEATH PORT TALBOT, SA10 7EX

How to contact us

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

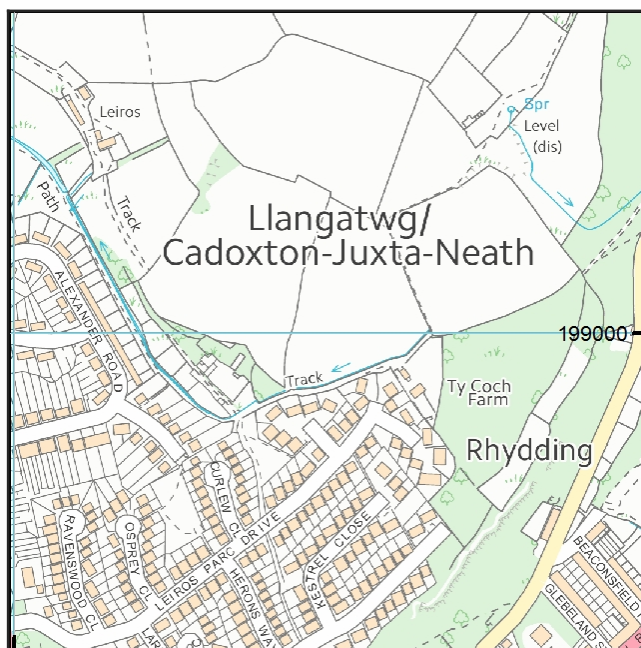
200 Lichfield Lane
Mansfield
Nottinghamshire
NG18 4RG

www.groundstability.com

[in /company/the-coal-authority](https://www.linkedin.com/company/the-coal-authority)

[f /thecoalauthority](https://www.facebook.com/thecoalauthority)

[t /coalauthority](https://twitter.com/coalauthority)



Approximate position of property



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Detailed findings

Past underground coal mining

Colliery	Seam	Mineral	Panel	Depth (m)	Direction to working	Disposition	Extraction thickness (cm)	Year
unnamed	HUGHES	Coal	4JEL	62	Beneath Property	0.0	110	1900
unnamed	HUGHES	Coal	4KEZ	69	Beneath Property	0.0	145	1901
unnamed	HUGHES	Coal	4JEK	82	Beneath Property	0.0	110	1900
RYDDING	MYNYDDISLWYN LOWER LEAF	Coal	4JM5	137	SW	0.5	200	1882

Probable unrecorded shallow workings

None.

Outcrops

Seam name	Mineral	Thin indicator	Distance to outcrop (m)	Direction to outcrop	Bearing of outcrop
DARREN DDU	Coal	False	Beneath property	N/A	114

Spine roadways at shallow depth

Yes.

Future underground mining

None recorded.

Licence details (AOR)

None recorded.

Section 46 notices

None recorded.

Geology

Fault under or close to the property recorded.

Mine entries

Entry type	Reference	Grid reference	Treatment description	Mineral	Conveyance details
Adit	275199-019	275709 199028		Coal	
Shaft	275199-026	275094 199112		Coal	
Shaft	275198-005	275422 198723		Coal	
Shaft	275199-025	275046 199130		Coal	
Shaft	275199-024	275051 199054		Coal	
Shaft	275199-027	275320 199075		Coal	
Adit	275199-002	275527 199225		Coal	
Shaft	275199-007	275545 199275		Coal	
Adit	275198-016	275618 198871		Coal	
Adit	275199-020	275704 199006		Coal	

Court orders

None recorded.

Worked out opencast sites

None recorded.

Coal mining related hazards

None recorded.

Coal mining subsidence

The Coal Authority has not received a damage notice or claim for the subject property, or any property within 50 metres, 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.

Enquiry boundary

Key

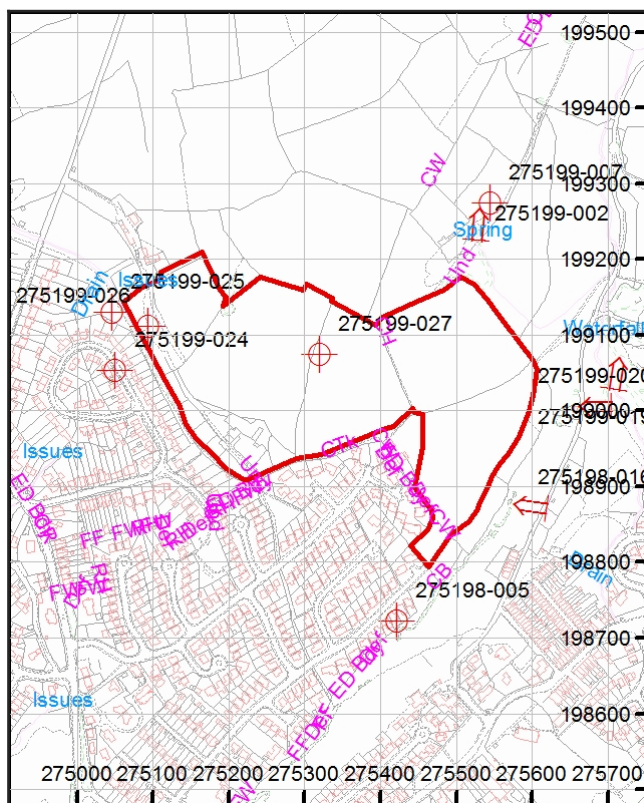
Approximate position of enquiry boundary shown



Disused adit



Disused mineshaft



How to contact us

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/thecoalauthority



/coalauthority



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VAT receipt

Issued by	The Coal Authority 200 Lichfield Lane Mansfield Nottinghamshire NG18 4RG
Tax point date	23 March 2017
Issued to	TERRA FIRMA (WALES) LTD 5 DERYN COURT WHARFEDALE ROAD PENTWYN CARDIFF CARDIFF CF23 7HA
Property search for	LEIROS PARK BRYNCOCH NEATH NEATH PORT TALBOT SA10 7EX
Reference number	51001400175001
Date of issue	23 March 2017
Cost	£100.00
VAT @ 20%	£20.00
Total received	£120.00
VAT registration	598 5850 68

ANNEX D
Risk Assessment Definitions

Risk Assessment Definitions

Environmental risk assessment evaluates the risk to receptors via an analysis of the 'source-pathway-receptor' linkage.

- (1) A **CONTAMINANT** (hazard) - a substance that is in, on or under the land and has the potential to cause harm or to cause pollution of controlled waters
- (2) A **RECEPTOR** (target) - something which could be adversely affected by a contaminant
- (3) A **PATHWAY** - a route or means which either allows the contaminant to cause significant harm to that receptor, or that there is a significant possibility of such harm being caused to the receptor, or that pollution of controlled waters is being or likely to be caused.

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'.

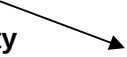
A 'Hazard' is defined as *'a property or situation that in particular circumstances could lead to harm'.*

The classification of consequences and probability and determining the risk category are defined in the following sections.

Table 1 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
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

Table 2 Classification of Probability	
Classification	Definition
High	• 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
Medium	• 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	• 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
Negligible	• There is a complete pollution linkage but circumstances are such that it is improbable that an event would occur even in the long term

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 3** below.

Table 3 Risk Assessment Matrix					
Increasing acceptability 		Consequence			
		Severe	Medium	Mild	Negligible
Probability	High	High	High	Medium / Low	Near zero
	Medium	High	Medium	Low	Near zero
	Low	High / medium	Medium / Low	Low	Near zero
	Negligible	High / medium / Low	Medium / Low	Low	Near zero

High Risk

There is a high probability that severe harm could risk a receptor, or there is evidence that a receptor is being 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.

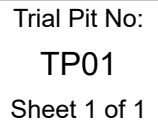
Low Risk

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

ANNEX E
Trial Pit Logs



Date:
05/04/2017

Scale:
1:25

Logged:
MW

[illegible]

Remarks: 1] Consistency, strength and density indicators are based upon field judgement. 2] Density indicator is in brackets and is for guidance only, and is not in accordance with BS 5930:2015. 3] Trial pit terminated to perform infiltration test. 4] Trial pit backfilled with arisings on completion of test.



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

Trial Pit No:

TP03

Sheet 1 of 1

Project Name: Leiros Park

Project No:
14156

Co-ords: -
Level:

Date:
05/04/2017

Location: Rhydding, Neath

Dimensions: 1.70

Depth
0.65

0.70

Scale:
1:25

Logged:
MW

Client: Hale Construction Limited

Water Strike	Samples & In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
	Depth	Type	Results				
				0.20			Soft dark brown organic-rich slightly sandy slightly gravelly CLAY. Moist.
				0.60			Soft to firm brown sandy slightly gravelly CLAY. Gravel is angular sandstone. Moist.
				0.65			Grey mottled orangish brown SANDSTONE.
							End of Pit at 0.650m
							1
							2
							3
							4
							5

Stability: Stable.

Remarks: 1] Consistency, strength and density indicators are based upon field judgement. 2] Density indicator is in brackets and is for guidance only, and is not in accordance with BS 5930:2015. 3] Trial pit terminated due to hard strata and very slow progress. 4] Trial pit backfilled with arisings.



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Trial Pit No:

TP04

Sheet 1 of 1

Project Name: Leiros Park

Project No:
14156

Co-ords: -
Level:

Date:
05/04/2017

Location: Rhydding, Neath

Dimensions:
2.10
Depth 0.70
1.55

Scale:
1:25

Logged:
MW

Client: Hale Construction Limited

Water Strike	Samples & In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
	Depth	Type	Results				
	0.70	D		0.20			Soft dark brown organic-rich slightly sandy slightly gravelly CLAY. Moist.
							Firm brownish grey and orangish brown slightly sandy slightly gravelly CLAY.
				1.50			Grey mottled orangish brown SANDSTONE.
				1.55			End of Pit at 1.550m

Stability: Stable.

Remarks: 1] Consistency, strength and density indicators are based upon field judgement. 2] Density indicator is in brackets and is for guidance only, and is not in accordance with BS 5930:2015. 3] Trial pit terminated to perform infiltration test. 4] Trial pit backfilled with arisings on completion of test.

Project Name: Leiros Park	Project No: 14156	Co-ords: - Level:	Date: 05/04/2017
Location: Rhydding, Neath		Dimensions: 2.00 Depth 2.00	Scale: 1:25 Logged: MW
Client: Hale Construction Limited			

Water Strike	Samples & In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	
	Depth	Type	Results					
	0.40	ES		0.25 0.50			Dark brown organic-rich clayey slightly gravelly SAND. Moist. [Medium dense] grey and brown very clayey gravelly SAND. Gravel is angular sandstone. Moist. Firm grey and orangish brown slightly sandy slightly gravelly CLAY with low cobble content. Gravel and cobbles are angular sandstone. Moist.	1
	1.00	D		1.10 1.90 2.00			[Dense] grey mottled brown clayey sandy GRAVEL of angular sandstone. Moist. Grey mottled orangish brown SANDSTONE. End of Pit at 2.000m	2
								3
								4
								5

Stability: Stable.

Remarks: 1] Consistency, strength and density indicators are based upon field judgement. 2] Density indicator is in brackets and is for guidance only, and is not in accordance with BS 5930:2015. 3] Trial pit terminated due to hard strata and very slow progress. 4] Trial pit backfilled with arisings.

Project Name: Leiros Park	Project No: 14156	Co-ords: - Level:	Date: 05/04/2017
Location: Rhydding, Neath		Dimensions: 2.70 Depth 3.30	Scale: 1:25 Logged: MW
Client: Hale Construction Limited		0.70	

Water Strike	Samples & In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	
	Depth	Type	Results					
	0.10	ES		0.25			Dark brown organic-rich clayey slightly gravelly SAND. Moist.	
				0.80			[Medium dense] brownish orange clayey very sandy GRAVEL of angular sandstone. Moist.	
				1.55			[Medium dense] greyish brown clayey very gravelly SAND. Gravel is angular sandstone. Moist.	1
				2.00			[Medium dense] grey and brown clayey very gravelly SAND. Gravel is fine angular mudstone.	
				3.30			[Dense] dark grey and brown slightly clayey gravelly SAND. Gravel is tabular and angular mudstone and mudstone lithorelicts. Moist.	2
							End of Pit at 3.300m	3
								4
								5

Stability: Stable.

Remarks: 1] Consistency, strength and density indicators are based upon field judgement. 2] Density indicator is in brackets and is for guidance only, and is not in accordance with BS 5930:2015. 3] Trial pit terminated at extent of excavator's reach. 4] Trial pit backfilled with arisings.



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Trial Pit No:
TP08
Sheet 1 of 1

Project Name: Leiros Park	Project No: 14156	Co-ords: - Level:	Date: 05/04/2017
---------------------------	-------------------	----------------------	------------------

Location: Rhydding, Neath	Dimensions: 1.80 Depth 1.45	0.70	Scale: 1:25 Logged: MW
---------------------------	--------------------------------	------	---------------------------

Water Strike	Samples & In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
	Depth	Type	Results				
				0.25			Dark brown organic-rich clayey slightly gravelly SAND. Moist.
				0.60			[Medium dense] brown and grey clayey gravelly SAND. Gravel is angular sandstone. Moist.
				1.40			Firm grey and orangish brown slightly sandy slightly gravelly CLAY with medium cobble and boulder content. Gravel, cobbles and boulders are angular to subrounded sandstone.
				1.45			Grey mottled orangish brown SANDSTONE.
							End of Pit at 1.450m

Stability: Stable.

Remarks: 1] Consistency, strength and density indicators are based upon field judgement. 2] Density indicator is in brackets and is for guidance only, and is not in accordance with BS 5930:2015. 3] Trial pit terminated to perform infiltration test. 4] Trial pit backfilled with arisings on completion of test.



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Trial Pit No:
TP09
Sheet 1 of 1

Project Name: Leiros Park				Project No: 14156		Co-ords: - Level:		Date: 05/04/2017	
Location: Rhydding, Neath						Dimensions: 1.80 Depth 2.30 0.70			Scale: 1:25
Client: Hale Construction Limited									Logged: MW
Water Strike	Samples & In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description		
	Depth	Type	Results						
	0.50	ES		0.25			Dark brown organic-rich clayey slightly gravelly SAND. Moist.		1 2 3 4 5
				0.70			[Medium dense] brownish orange clayey very sandy GRAVEL of angular sandstone. Moist.		
							[Dense] brownish grey clayey very sandy GRAVEL with medium cobble and low boulder content. Gravel, cobbles and boulders are angular sandstone. Moist.		
				2.30			End of Pit at 2.300m		
Stability: Stable.									
Remarks: 1] Consistency, strength and density indicators are based upon field judgement. 2] Density indicator is in brackets and is for guidance only, and is not in accordance with BS 5930:2015. 3] Trial pit terminated to perform infiltration test. 4] Trial pit backfilled with arisings on completion of test.									



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Trial Pit No:
TP10
Sheet 1 of 1

Project Name: Leiros Park	Project No: 14156	Co-ords: - Level:	Date: 05/04/2017
Location: Rhydding, Neath		Dimensions: 1.80 Depth 0.90	Scale: 1:25 Logged: MW
Client: Hale Construction Limited			

Water Strike	Samples & In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	
	Depth	Type	Results					
	0.10	ES		0.30			Dark brown organic-rich clayey slightly gravelly SAND. Moist.	
	0.50	D		0.90			[Very dense] dark grey silty sandy GRAVEL with high cobble content. Gravel and cobbles are angular sandstone.	
							End of Pit at 0.900m	1
								2
								3
								4
								5

Stability: Stable.

Remarks: 1] Consistency, strength and density indicators are based upon field judgement. 2] Density indicator is in brackets and is for guidance only, and is not in accordance with BS 5930:2015. 3] Trial pit terminated due to hard strata and very slow progress. 4] Trial pit backfilled with arisings.



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Trial Pit No:
TP11
Sheet 1 of 1

Project Name: Leiros Park	Project No: 14156	Co-ords: - Level:	Date: 05/04/2017
---------------------------	-------------------	----------------------	------------------

Location: Rhydding, Neath	Dimensions: 1.50 Depth 0.70	Scale: 1:25 Logged: MW
---------------------------	--------------------------------	---------------------------

Client: Hale Construction Limited

Water Strike	Samples & In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
	Depth	Type	Results				
				0.25			Dark brown organic-rich clayey slightly gravelly SAND. Moist.
	0.40	ES					Grey mottled orangish brown SANDSTONE. Open fractures are filled with clayey gravelly SAND.
	0.60	D		0.70			End of Pit at 0.700m
							1
							2
							3
							4
							5

Stability: Stable.

Remarks: 1] Consistency, strength and density indicators are based upon field judgement. 2] Density indicator is in brackets and is for guidance only, and is not in accordance with BS 5930:2015. 3] Trial pit terminated due to hard strata and very slow progress. 4] Trial pit backfilled with arisings.



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Trial Pit No:

TP12

Sheet 1 of 1

Project Name: Leiros Park	Project No: 14156	Co-ords: - Level:	Date: 05/04/2017
---------------------------	-------------------	----------------------	------------------

Location: Rhydding, Neath	Dimensions: 1.70 Depth 0.45	0.70	Scale: 1:25 Logged: MW
---------------------------	--------------------------------	------	---------------------------

Water Strike	Samples & In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
	Depth	Type	Results				
	0.40	ES		0.30 0.40 0.45		   End of Pit at 0.450m	1 2 3 4 5

Stability: Stable.

Remarks: 1] Consistency, strength and density indicators are based upon field judgement. 2] Density indicator is in brackets and is for guidance only, and is not in accordance with BS 5930:2015. 3] Trial pit terminated due to hard strata and very slow progress. 4] Trial pit backfilled with arisings.

Project Name: Leiros Park	Project No: 14156	Co-ords: - Level:	Date: 05/04/2017
---------------------------	-------------------	----------------------	------------------

Location: Rhydding, Neath	Dimensions: 1.80 Depth 1.70	Scale: 1:25 Logged: MW
Client: Hale Construction Limited		

Water Strike	Samples & In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
	Depth	Type	Results				
	0.10	ES		0.25			Dark brown organic-rich clayey slightly gravelly SAND. Moist.
	0.60	D		0.80			[Loose] brownish orange clayey gravelly SAND. Gravel is angular sandstone. Moist.
				1.40			Firm grey and orangish brown slightly sandy slightly gravelly CLAY with medium cobble and boulder content. Moist.
				1.70			[Dense] brownish grey clayey SAND & GRAVEL of angular sandstone.
							End of Pit at 1.700m

Stability: Stable.

Remarks: 1] Consistency, strength and density indicators are based upon field judgement. 2] Density indicator is in brackets and is for guidance only, and is not in accordance with BS 5930:2015. 3] Trial pit terminated due to hard strata and very slow progress. 4] Trial pit backfilled with arisings.



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Trial Pit No:
TP14
Sheet 1 of 1

Project Name: Leiros Park				Project No: 14156		Co-ords: - Level:		Date: 05/04/2017	
Location: Rhydding, Neath						Dimensions: 2.00		Scale: 1:25	
Client: Hale Construction Limited						Depth 3.00		0.70 Logged: MW	
Water Strike	Samples & In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description		
	Depth	Type	Results						
	0.10	ES		0.30			Dark brown organic-rich clayey slightly gravelly SAND. Moist.		
				0.85			[Medium dense] orangish brown clayey gravelly SAND. Gravel is angular sandstone. Moist.		
				1.30			[Medium dense] brownish grey clayey sandy GRAVEL with medium cobble content. Gravel and cobbles are angular and tabular sandstone. Moist.		
				3.00			[Medium dense] grey and brown clayey gravelly SAND. Gravel is fine to medium angular mudstone. Slightly wet.		
							End of Pit at 3.000m		
Stability: Stable.									
Remarks: 1] Consistency, strength and density indicators are based upon field judgement. 2] Density indicator is in brackets and is for guidance only, and is not in accordance with BS 5930:2015. 3] Trial pit terminated at extent of excavator's reach. 4] Trial pit backfilled with arisings.									

Project Name: Leiros Park	Project No: 14156	Co-ords: - Level:	Date: 05/04/2017
Location: Rhydding, Neath		Dimensions: 2.50 Depth 3.00 0.70	Scale: 1:25 Logged: MW
Client: Hale Construction Limited			

Water Strike	Samples & In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	
	Depth	Type	Results					
	0.10	ES		0.35			Dark brown organic-rich clayey slightly gravelly SAND. Moist.	
	0.30	ES					[Medium dense] brown clayey SAND & GRAVEL of angular and tabular sandstone. Moist.	
	0.60	D						
				0.90			Firm black SILT.	
				1.00			Possible weathered coal seam.	
							[Medium dense] brownish grey clayey very sandy GRAVEL of fine to medium mudstone. Wet.	1
							Some lenses of stiff grey and brown slightly sandy slightly gravelly CLAY. Gravel is fine to medium mudstone.	2
	2.00	D						
				3.00			End of Pit at 3.000m	3
								4
								5

Stability: Stable.

Remarks: 1] Consistency, strength and density indicators are based upon field judgement. 2] Density indicator is in brackets and is for guidance only, and is not in accordance with BS 5930:2015. 3] Trial pit terminated at extent of excavator's reach. 4] Trial pit backfilled with arisings. 5] Medium groundwater inflow from 1.50m depth.



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Trial Pit No:

TP16

Sheet 1 of 1

Project Name: Leiros Park

Project No:
14156

Co-ords: -
Level:

Date:
05/04/2017

Location: Rhydding, Neath

Dimensions: 1.50

Depth
0.70

0.70

Scale:
1:25

Logged:
MW

Client: Hale Construction Limited

Water Strike	Samples & In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
	Depth	Type	Results				
	0.30 0.30	D ES		0.20			Soft dark brown organic-rich slightly sandy slightly gravelly CLAY. Moist.
				0.45			[Medium dense] brown and orangish brown clayey gravelly SAND. Moist.
				0.70			Grey mottled orangish brown SANDSTONE.
							End of Pit at 0.700m

Stability: Slightly unstable during excavation of sandstone.

Remarks: 1] Consistency, strength and density indicators are based upon field judgement. 2] Density indicator is in brackets and is for guidance only, and is not in accordance with BS 5930:2015. 3] Trial pit terminated due to hard strata and very slow progress. 4] Trial pit backfilled with arisings.

ANNEX F**Laboratory Soil Chemical Test Results**



Certificate of Analysis

Certificate Number 17-96561

18-Apr-17

Client Terra Firma (Wales) Ltd
5 Deryn Court
Wharfdale Road
Pentwyn
Cardiff
CF23 7HB

Our Reference 17-96561

Client Reference (not supplied)

Order No (not supplied)

Contract Title 14156 LEIROS PARK, NEATH

Description 14 Soil samples.

Date Received 07-Apr-17

Date Started 07-Apr-17

Date Completed 18-Apr-17

Test Procedures Identified by prefix DETSn (details on request).

Notes Opinions and interpretations are outside the scope of UKAS accreditation. 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. Observations and interpretations are outside the scope of ISO 17025. This certificate shall not be reproduced except in full, without the prior written approval of the laboratory.

Approved By

A handwritten signature in black ink, appearing to read "Rob Brown".

Rob Brown
Business Manager



Summary of Chemical Analysis

Matrix Descriptions

Our Ref 17-96561

Client Ref

Contract Title 14156 LEIROS PARK, NEATH

Sample ID	Depth	Lab No	Completed	Matrix Description
TP01	0.1	1155989	18/04/2017	Dark brown gravelly, sandy CLAY including odd rootlets
TP02	0.5	1155990	18/04/2017	Dark brown gravelly, sandy CLAY including odd rootlets
TP05	0.1	1155991	18/04/2017	Dark brown gravelly, sandy CLAY including odd rootlets
TP06	0.4	1155992	18/04/2017	Dark brown gravelly, sandy CLAY including odd rootlets
TP07	0.1	1155993	18/04/2017	Dark brown gravelly, sandy CLAY including odd rootlets
TP09	0.5	1155994	18/04/2017	Brown gravelly, sandy CLAY including odd rootlets
TP10	0.1	1155995	18/04/2017	Dark brown gravelly, sandy CLAY including odd rootlets
TP11	0.4	1155996	18/04/2017	Dark brown gravelly, sandy CLAY including odd rootlets
TP12	0.4	1155997	18/04/2017	Brown gravelly, sandy CLAY including odd rootlets
TP13	0.1	1155998	18/04/2017	Dark brown gravelly, sandy CLAY including odd rootlets
TP14	0.1	1155999	18/04/2017	Dark brown gravelly, sandy CLAY including odd rootlets
TP15	0.1	1156000	18/04/2017	Dark brown gravelly, sandy CLAY including odd rootlets
TP15	0.3	1156001	18/04/2017	Brown gravelly, sandy CLAY including odd rootlets
TP16	0.3	1156002	18/04/2017	Brown gravelly, sandy CLAY including odd rootlets

Summary of Chemical Analysis

Soil Samples

Our Ref 17-96561

Client Ref

Contract Title 14156 LEIROS PARK, NEATH

Lab No	1155989	1155990	1155991	1155992	1155993	1155994
Sample ID	TP01	TP02	TP05	TP06	TP07	TP09
Depth	0.10	0.50	0.10	0.40	0.10	0.50
Other ID						
Sample Type	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
Sampling Date	n/s	n/s	n/s	n/s	n/s	n/s
Sampling Time	n/s	n/s	n/s	n/s	n/s	n/s

Test	Method	LOD	Units						
Metals									
Arsenic	DETSC 2301#	0.2	mg/kg	160	45	54	59	75	10
Cadmium	DETSC 2301#	0.1	mg/kg	1.7	0.8	1.0	1.3	1.2	0.1
Chromium	DETSC 2301#	0.15	mg/kg	17	17	17	18	14	17
Chromium III	DETSC 2301*	0.15	mg/kg	17	17	17	18	14	17
Chromium, Hexavalent	DETSC 2204*	1	mg/kg	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Copper	DETSC 2301#	0.2	mg/kg	1500	240	70	71	87	15
Lead	DETSC 2301#	0.3	mg/kg	94	42	74	47	75	14
Mercury	DETSC 2325#	0.05	mg/kg	0.06	0.07	0.09	0.06	0.16	< 0.05
Nickel	DETSC 2301#	1	mg/kg	22	29	21	17	22	33
Selenium	DETSC 2301#	0.5	mg/kg	1.2	1.2	0.7	0.9	< 0.5	< 0.5
Zinc	DETSC 2301#	1	mg/kg	710	180	130	110	100	75
Inorganics									
pH	DETSC 2008#			6.5	6.4	5.4	5.9	5.4	6.0
Cyanide, Total	DETSC 2130#	0.1	mg/kg	0.3	0.3	0.8	0.3	0.6	0.1
Organic matter	DETSC 2002#	0.1	%	4.9	5.6	8.6	5.1	7.7	1.3
Sulphate as SO4, Total	DETSC 2321#	0.01	%	0.08	0.06	0.13	0.07	0.10	0.03
PAHs									
Naphthalene	DETSC 3303#	0.03	mg/kg	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03
Acenaphthylene	DETSC 3303#	0.03	mg/kg	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03
Acenaphthene	DETSC 3303#	0.03	mg/kg	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03
Fluorene	DETSC 3303	0.03	mg/kg	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03
Phenanthrene	DETSC 3303#	0.03	mg/kg	< 0.03	< 0.03	< 0.03	0.14	0.06	< 0.03
Anthracene	DETSC 3303	0.03	mg/kg	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03
Fluoranthene	DETSC 3303#	0.03	mg/kg	< 0.03	0.04	0.07	0.19	0.13	< 0.03
Pyrene	DETSC 3303#	0.03	mg/kg	< 0.03	< 0.03	0.06	0.15	0.10	< 0.03
Benzo(a)anthracene	DETSC 3303#	0.03	mg/kg	< 0.03	< 0.03	< 0.03	0.06	0.04	< 0.03
Chrysene	DETSC 3303	0.03	mg/kg	< 0.03	< 0.03	< 0.03	0.09	0.05	< 0.03
Benzo(b)fluoranthene	DETSC 3303#	0.03	mg/kg	< 0.03	< 0.03	< 0.03	0.06	0.04	< 0.03
Benzo(k)fluoranthene	DETSC 3303#	0.03	mg/kg	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03
Benzo(a)pyrene	DETSC 3303#	0.03	mg/kg	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03
Indeno(1,2,3-c,d)pyrene	DETSC 3303#	0.03	mg/kg	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03
Dibenzo(a,h)anthracene	DETSC 3303#	0.03	mg/kg	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03
Benzo(g,h,i)perylene	DETSC 3303#	0.03	mg/kg	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03
PAH - USEPA 16, Total	DETSC 3303	0.1	mg/kg	< 0.10	< 0.10	0.12	0.71	0.42	< 0.10
Phenols									
Phenol - Monohydric	DETSC 2130#	0.3	mg/kg	< 0.3	0.3	0.3	0.8	< 0.3	< 0.3

Summary of Chemical Analysis

Soil Samples

Our Ref 17-96561

Client Ref

Contract Title 14156 LEIROS PARK, NEATH

Lab No	1155995	1155996	1155997	1155998	1155999	1156000
Sample ID	TP10	TP11	TP12	TP13	TP14	TP15
Depth	0.10	0.40	0.40	0.10	0.10	0.10
Other ID						
Sample Type	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
Sampling Date	n/s	n/s	n/s	n/s	n/s	n/s
Sampling Time	n/s	n/s	n/s	n/s	n/s	n/s

Test	Method	LOD	Units						
Metals									
Arsenic	DETSC 2301#	0.2	mg/kg	72	51	17	52	66	89
Cadmium	DETSC 2301#	0.1	mg/kg	1.3	1.1	0.3	1.0	1.7	1.9
Chromium	DETSC 2301#	0.15	mg/kg	15	15	15	15	15	17
Chromium III	DETSC 2301*	0.15	mg/kg	15	15	15	15	15	17
Chromium, Hexavalent	DETSC 2204*	1	mg/kg	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Copper	DETSC 2301#	0.2	mg/kg	110	72	24	73	81	110
Lead	DETSC 2301#	0.3	mg/kg	84	49	19	63	61	77
Mercury	DETSC 2325#	0.05	mg/kg	0.07	< 0.05	< 0.05	0.10	0.13	0.06
Nickel	DETSC 2301#	1	mg/kg	26	27	20	17	20	25
Selenium	DETSC 2301#	0.5	mg/kg	1.0	0.6	1.2	0.8	0.8	1.0
Zinc	DETSC 2301#	1	mg/kg	120	120	65	98	130	150
Inorganics									
pH	DETSC 2008#			5.3	6.3	6.3	5.5	5.9	5.6
Cyanide, Total	DETSC 2130#	0.1	mg/kg	0.6	0.3	0.3	0.5	0.4	0.5
Organic matter	DETSC 2002#	0.1	%	5.6	2.7	2.0	6.4	5.5	7.1
Sulphate as SO ₄ , Total	DETSC 2321#	0.01	%	0.08	0.04	0.03	0.10	0.08	0.08
PAHs									
Naphthalene	DETSC 3303#	0.03	mg/kg	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03
Acenaphthylene	DETSC 3303#	0.03	mg/kg	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03
Acenaphthene	DETSC 3303#	0.03	mg/kg	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03
Fluorene	DETSC 3303	0.03	mg/kg	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03
Phenanthrene	DETSC 3303#	0.03	mg/kg	0.04	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03
Anthracene	DETSC 3303	0.03	mg/kg	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03
Fluoranthene	DETSC 3303#	0.03	mg/kg	0.06	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03
Pyrene	DETSC 3303#	0.03	mg/kg	0.05	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03
Benzo(a)anthracene	DETSC 3303#	0.03	mg/kg	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03
Chrysene	DETSC 3303	0.03	mg/kg	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03
Benzo(b)fluoranthene	DETSC 3303#	0.03	mg/kg	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03
Benzo(k)fluoranthene	DETSC 3303#	0.03	mg/kg	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03
Benzo(a)pyrene	DETSC 3303#	0.03	mg/kg	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03
Indeno(1,2,3-c,d)pyrene	DETSC 3303#	0.03	mg/kg	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03
Dibenzo(a,h)anthracene	DETSC 3303#	0.03	mg/kg	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03
Benzo(g,h,i)perylene	DETSC 3303#	0.03	mg/kg	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03
PAH - USEPA 16, Total	DETSC 3303	0.1	mg/kg	0.15	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Phenols									
Phenol - Monohydric	DETSC 2130#	0.3	mg/kg	< 0.3	< 0.3	0.5	7.7	0.3	< 0.3

Summary of Chemical Analysis

Soil Samples

Our Ref 17-96561

Client Ref

Contract Title 14156 LEIROS PARK, NEATH

Lab No	1156001	1156002
Sample ID	TP15	TP16
Depth	0.30	0.30
Other ID		
Sample Type	SOIL	SOIL
Sampling Date	n/s	n/s
Sampling Time	n/s	n/s

Test	Method	LOD	Units		
Metals					
Arsenic	DETSC 2301#	0.2	mg/kg	15	23
Cadmium	DETSC 2301#	0.1	mg/kg	0.3	0.5
Chromium	DETSC 2301#	0.15	mg/kg	15	20
Chromium III	DETSC 2301*	0.15	mg/kg	15	20
Chromium, Hexavalent	DETSC 2204*	1	mg/kg	< 1.0	< 1.0
Copper	DETSC 2301#	0.2	mg/kg	25	35
Lead	DETSC 2301#	0.3	mg/kg	14	23
Mercury	DETSC 2325#	0.05	mg/kg	0.08	< 0.05
Nickel	DETSC 2301#	1	mg/kg	21	24
Selenium	DETSC 2301#	0.5	mg/kg	< 0.5	0.8
Zinc	DETSC 2301#	1	mg/kg	69	90
Inorganics					
pH	DETSC 2008#			6.2	6.2
Cyanide, Total	DETSC 2130#	0.1	mg/kg	0.3	0.2
Organic matter	DETSC 2002#	0.1	%	1.7	2.3
Sulphate as SO ₄ , Total	DETSC 2321#	0.01	%	0.03	0.05
PAHs					
Naphthalene	DETSC 3303#	0.03	mg/kg	< 0.03	< 0.03
Acenaphthylene	DETSC 3303#	0.03	mg/kg	< 0.03	< 0.03
Acenaphthene	DETSC 3303#	0.03	mg/kg	< 0.03	< 0.03
Fluorene	DETSC 3303	0.03	mg/kg	< 0.03	< 0.03
Phenanthrene	DETSC 3303#	0.03	mg/kg	< 0.03	< 0.03
Anthracene	DETSC 3303	0.03	mg/kg	< 0.03	< 0.03
Fluoranthene	DETSC 3303#	0.03	mg/kg	< 0.03	< 0.03
Pyrene	DETSC 3303#	0.03	mg/kg	< 0.03	< 0.03
Benzo(a)anthracene	DETSC 3303#	0.03	mg/kg	< 0.03	< 0.03
Chrysene	DETSC 3303	0.03	mg/kg	< 0.03	< 0.03
Benzo(b)fluoranthene	DETSC 3303#	0.03	mg/kg	< 0.03	< 0.03
Benzo(k)fluoranthene	DETSC 3303#	0.03	mg/kg	< 0.03	< 0.03
Benzo(a)pyrene	DETSC 3303#	0.03	mg/kg	< 0.03	< 0.03
Indeno(1,2,3-c,d)pyrene	DETSC 3303#	0.03	mg/kg	< 0.03	< 0.03
Dibenzo(a,h)anthracene	DETSC 3303#	0.03	mg/kg	< 0.03	< 0.03
Benzo(g,h,i)perylene	DETSC 3303#	0.03	mg/kg	< 0.03	< 0.03
PAH - USEPA 16, Total	DETSC 3303	0.1	mg/kg	< 0.10	< 0.10
Phenols					
Phenol - Monohydric	DETSC 2130#	0.3	mg/kg	< 0.3	< 0.3

Information in Support of the Analytical Results

Our Ref 17-96561

Client Ref

Contract 14156 LEIROS PARK, NEATH

Containers Received & Deviating Samples

Lab No	Sample ID	Date Sampled	Containers Received	Holding time exceeded for tests	Inappropriate container for tests
1155989	TP01 0.10 SOIL		GJ 250ml, PT 1L	Sample date not supplied, Chromium, Hexavalent (365 days), Mercury (365 days), Total Sulphate ICP (730 days), Metals ICP (365 days), Metals ICP Prep (365 days), Kone Cr6 (1095 days), Naphthalene (14 days), Organic Matter (Manual) (730 days), PAH MS (14 days), pH + Conductivity (7 days), Cyanide/Mono pHoh (365 days)	
1155990	TP02 0.50 SOIL		GJ 250ml, PT 1L	Sample date not supplied, Chromium, Hexavalent (365 days), Mercury (365 days), Total Sulphate ICP (730 days), Metals ICP (365 days), Metals ICP Prep (365 days), Kone Cr6 (1095 days), Naphthalene (14 days), Organic Matter (Manual) (730 days), PAH MS (14 days), pH + Conductivity (7 days), Cyanide/Mono pHoh (365 days)	
1155991	TP05 0.10 SOIL		GJ 250ml, PT 1L	Sample date not supplied, Chromium, Hexavalent (365 days), Mercury (365 days), Total Sulphate ICP (730 days), Metals ICP (365 days), Metals ICP Prep (365 days), Kone Cr6 (1095 days), Naphthalene (14 days), Organic Matter (Manual) (730 days), PAH MS (14 days), pH + Conductivity (7 days), Cyanide/Mono pHoh (365 days)	
1155992	TP06 0.40 SOIL		GJ 250ml, PT 1L	Sample date not supplied, Chromium, Hexavalent (365 days), Mercury (365 days), Total Sulphate ICP (730 days), Metals ICP (365 days), Metals ICP Prep (365 days), Kone Cr6 (1095 days), Naphthalene (14 days), Organic Matter (Manual) (730 days), PAH MS (14 days), pH + Conductivity (7 days), Cyanide/Mono pHoh (365 days)	
1155993	TP07 0.10 SOIL		GJ 250ml, PT 1L	Sample date not supplied, Chromium, Hexavalent (365 days), Mercury (365 days), Total Sulphate ICP (730 days), Metals ICP (365 days), Metals ICP Prep (365 days), Kone Cr6 (1095 days), Naphthalene (14 days), Organic Matter (Manual) (730 days), PAH MS (14 days), pH + Conductivity (7 days), Cyanide/Mono pHoh (365 days)	
1155994	TP09 0.50 SOIL		GJ 250ml, PT 1L	Sample date not supplied, Chromium, Hexavalent (365 days), Mercury (365 days), Total Sulphate ICP (730 days), Metals ICP (365 days), Metals ICP Prep (365 days), Kone Cr6 (1095 days), Naphthalene (14 days), Organic Matter (Manual) (730 days), PAH MS (14 days), pH + Conductivity (7 days), Cyanide/Mono pHoh (365 days)	

Information in Support of the Analytical Results

Our Ref 17-96561

Client Ref

Contract 14156 LEIROS PARK, NEATH

Lab No	Sample ID	Date		Containers Received	Holding time exceeded for tests	Inappropriate container for tests
		Sampled				
1155995	TP10 0.10 SOIL			GJ 250ml, PT 1L	Sample date not supplied, Chromium, Hexavalent (365 days), Mercury (365 days), Total Sulphate ICP (730 days), Metals ICP (365 days), Metals ICP Prep (365 days), Kone Cr6 (1095 days), Naphthalene (14 days), Organic Matter (Manual) (730 days), PAH MS (14 days), pH + Conductivity (7 days), Cyanide/Mono pHoh (365 days)	
1155996	TP11 0.40 SOIL			GJ 250ml, PT 1L	Sample date not supplied, Chromium, Hexavalent (365 days), Mercury (365 days), Total Sulphate ICP (730 days), Metals ICP (365 days), Metals ICP Prep (365 days), Kone Cr6 (1095 days), Naphthalene (14 days), Organic Matter (Manual) (730 days), PAH MS (14 days), pH + Conductivity (7 days), Cyanide/Mono pHoh (365 days)	
1155997	TP12 0.40 SOIL			GJ 250ml, PT 1L	Sample date not supplied, Chromium, Hexavalent (365 days), Mercury (365 days), Total Sulphate ICP (730 days), Metals ICP (365 days), Metals ICP Prep (365 days), Kone Cr6 (1095 days), Naphthalene (14 days), Organic Matter (Manual) (730 days), PAH MS (14 days), pH + Conductivity (7 days), Cyanide/Mono pHoh (365 days)	
1155998	TP13 0.10 SOIL			GJ 250ml, PT 1L	Sample date not supplied, Chromium, Hexavalent (365 days), Mercury (365 days), Total Sulphate ICP (730 days), Metals ICP (365 days), Metals ICP Prep (365 days), Kone Cr6 (1095 days), Naphthalene (14 days), Organic Matter (Manual) (730 days), PAH MS (14 days), pH + Conductivity (7 days), Cyanide/Mono pHoh (365 days)	
1155999	TP14 0.10 SOIL			GJ 250ml, PT 1L	Sample date not supplied, Chromium, Hexavalent (365 days), Mercury (365 days), Total Sulphate ICP (730 days), Metals ICP (365 days), Metals ICP Prep (365 days), Kone Cr6 (1095 days), Naphthalene (14 days), Organic Matter (Manual) (730 days), PAH MS (14 days), pH + Conductivity (7 days), Cyanide/Mono pHoh (365 days)	
1156000	TP15 0.10 SOIL			GJ 250ml, PT 1L	Sample date not supplied, Chromium, Hexavalent (365 days), Mercury (365 days), Total Sulphate ICP (730 days), Metals ICP (365 days), Metals ICP Prep (365 days), Kone Cr6 (1095 days), Naphthalene (14 days), Organic Matter (Manual) (730 days), PAH MS (14 days), pH + Conductivity (7 days), Cyanide/Mono pHoh (365 days)	

Information in Support of the Analytical Results

Our Ref 17-96561

Client Ref

Contract 14156 LEIROS PARK, NEATH

1156001	TP15 0.30 SOIL		GJ 250ml, PT 1L	Sample date not supplied, Chromium, Hexavalent (365 days), Mercury (365 days), Total Sulphate ICP (730 days), Metals ICP (365 days), Metals ICP Prep (365 days), Kone Cr6 (1095 days), Naphthalene (14 days), Organic Matter (Manual) (730 days), PAH MS (14 days), pH + Conductivity (7 days), Cyanide/Mono pHoh (365 days)	
1156002	TP16 0.30 SOIL		GJ 250ml, PT 1L	Sample date not supplied, Chromium, Hexavalent (365 days), Mercury (365 days), Total Sulphate ICP (730 days), Metals ICP (365 days), Metals ICP Prep (365 days), Kone Cr6 (1095 days), Naphthalene (14 days), Organic Matter (Manual) (730 days), PAH MS (14 days), pH + Conductivity (7 days), Cyanide/Mono pHoh (365 days)	

Key: G-Glass P-Plastic J-Jar T-Tub

DETS cannot be held responsible for the integrity of samples received whereby the laboratory did not undertake the sampling. In this instance samples received may be deviating. Deviating Sample criteria are based on British and International standards and laboratory trials in conjunction with the UKAS note 'Guidance on Deviating Samples'. All samples received are listed above. However, those samples that have additional comments in relation to hold time, inappropriate containers etc are deviating due to the reasons stated. This means that the analysis is accredited where applicable, but results may be compromised due to sample deviations. If no sampled date (soils) or date+time (waters) has been supplied then samples are deviating. However, if you are able to supply a sampled date (and time for waters) this will prevent samples being reported as deviating where specific hold times are not exceeded and where the container supplied is suitable.

Soil Analysis Notes

Inorganic soil analysis was carried out on a dried sample, crushed to pass a 425µm sieve, in accordance with BS1377.

Organic soil analysis was carried out on an 'as received' sample. Organics results are corrected for moisture and expressed on a dry weight basis.

The Loss on Drying, used to express organics analysis on an air dried basis, is carried out at a temperature of 28°C +/-2°C.

Disposal

From the issue date of this test certificate, samples will be held for the following times prior to disposal :-

Soils - 1 month, Liquids - 2 weeks, Asbestos (test portion) - 6 months

Appendix A - Details of Analysis

Method	Parameter	Units	Limit of Detection	Sample Preparation	Sub-Contracted	UKAS	MCERTS
DETSC 2002	Organic matter	%	0.1	Air Dried	No	Yes	Yes
DETSC 2003	Loss on ignition	%	0.01	Air Dried	No	Yes	Yes
DETSC 2008	pH	pH Units	1	Air Dried	No	Yes	Yes
DETSC 2024	Sulphide	mg/kg	10	Air Dried	No	Yes	Yes
DETSC 2076	Sulphate Aqueous Extract as SO ₄	mg/l	10	Air Dried	No	Yes	Yes
DETSC 2084	Total Carbon	%	0.5	Air Dried	No	Yes	Yes
DETSC 2084	Total Organic Carbon	%	0.5	Air Dried	No	Yes	Yes
DETSC 2119	Ammoniacal Nitrogen as N	mg/kg	0.5	Air Dried	No	Yes	Yes
DETSC 2130	Cyanide free	mg/kg	0.1	Air Dried	No	Yes	Yes
DETSC 2130	Cyanide total	mg/kg	0.1	Air Dried	No	Yes	Yes
DETSC 2130	Phenol - Monohydric	mg/kg	0.3	Air Dried	No	Yes	Yes
DETSC 2130	Thiocyanate	mg/kg	0.6	Air Dried	No	Yes	Yes
DETSC 2321	Total Sulphate as SO ₄	%	0.01	Air Dried	No	Yes	Yes
DETSC 2325	Mercury	mg/kg	0.05	Air Dried	No	Yes	Yes
DETSC 3049	Sulphur (free)	mg/kg	0.75	Air Dried	No	Yes	Yes
DETSC2123	Boron (water soluble)	mg/kg	0.2	Air Dried	No	Yes	Yes
DETSC2301	Arsenic	mg/kg	0.2	Air Dried	No	Yes	Yes
DETSC2301	Barium	mg/kg	1.5	Air Dried	No	Yes	Yes
DETSC2301	Beryllium	mg/kg	0.2	Air Dried	No	Yes	Yes
DETSC2301	Cadmium Available	mg/kg	0.1	Air Dried	No	Yes	Yes
DETSC2301	Cadmium	mg/kg	0.1	Air Dried	No	Yes	Yes
DETSC2301	Cobalt	mg/kg	0.7	Air Dried	No	Yes	Yes
DETSC2301	Chromium	mg/kg	0.15	Air Dried	No	Yes	Yes
DETSC2301	Copper	mg/kg	0.2	Air Dried	No	Yes	Yes
DETSC2301	Manganese	mg/kg	20	Air Dried	No	Yes	Yes
DETSC2301	Molybdenum	mg/kg	0.4	Air Dried	No	Yes	Yes
DETSC2301	Nickel	mg/kg	1	Air Dried	No	Yes	Yes
DETSC2301	Lead	mg/kg	0.3	Air Dried	No	Yes	Yes
DETSC2301	Selenium	mg/kg	0.5	Air Dried	No	Yes	Yes
DETSC2301	Zinc	mg/kg	1	Air Dried	No	Yes	Yes
DETSC 3072	Ali/Aro C10-C35	mg/kg	10	As Received	No	Yes	Yes
DETSC 3072	Aliphatic C10-C12	mg/kg	1.5	As Received	No	Yes	Yes
DETSC 3072	Aliphatic C10-C12	mg/kg	10	As Received	No	Yes	Yes
DETSC 3072	Aliphatic C10-C35	mg/kg	10	As Received	No	Yes	Yes
DETSC 3072	Aliphatic C12-C16	mg/kg	1.2	As Received	No	Yes	Yes
DETSC 3072	Aliphatic C12-C16	mg/kg	10	As Received	No	Yes	Yes
DETSC 3072	Aliphatic C16-C21	mg/kg	1.5	As Received	No	Yes	Yes
DETSC 3072	Aliphatic C16-C21	mg/kg	10	As Received	No	Yes	Yes
DETSC 3072	Aliphatic C21-C35	mg/kg	3.4	As Received	No	Yes	Yes
DETSC 3072	Aliphatic C21-C35	mg/kg	3.4	As Received	No	Yes	Yes
DETSC 3072	Aromatic C10-C12	mg/kg	0.9	As Received	No	Yes	Yes
DETSC 3072	Aromatic C10-C12	mg/kg	10	As Received	No	Yes	Yes
DETSC 3072	Aromatic C10-C35	mg/kg	10	As Received	No	Yes	Yes
DETSC 3072	Aromatic C12-C16	mg/kg	0.5	As Received	No	Yes	Yes
DETSC 3072	Aromatic C12-C16	mg/kg	10	As Received	No	Yes	Yes
DETSC 3072	Aromatic C16-C21	mg/kg	0.6	As Received	No	Yes	Yes
DETSC 3072	Aromatic C16-C21	mg/kg	10	As Received	No	Yes	Yes
DETSC 3072	Aromatic C21-C35	mg/kg	1.4	As Received	No	Yes	Yes
DETSC 3072	Aromatic C21-C35	mg/kg	1.4	As Received	No	Yes	Yes
DETS 062	Benzene	mg/kg	0.01	As Received	No	Yes	Yes
DETS 062	Ethylbenzene	mg/kg	0.01	As Received	No	Yes	Yes
DETS 062	Toluene	mg/kg	0.01	As Received	No	Yes	Yes
DETS 062	Xylene	mg/kg	0.01	As Received	No	Yes	Yes
DETS 062	m+p Xylene	mg/kg	0.01	As Received	No	Yes	Yes
DETS 062	o Xylene	mg/kg	0.01	As Received	No	Yes	Yes
DETSC 3311	C10-C24 Diesel Range Organics (DRO)	mg/kg	10	As Received	No	Yes	Yes
DETSC 3311	C24-C40 Lube Oil Range Organics (LORO)	mg/kg	10	As Received	No	Yes	Yes
DETSC 3311	EPH (C10-C40)	mg/kg	10	As Received	No	Yes	Yes

Appendix A - Details of Analysis

Method	Parameter	Units	Limit of Detection	Sample Preparation	Sub-Contracted	UKAS	MCERTS
DETSC 3303	Acenaphthene	mg/kg	0.03	As Received	No	Yes	Yes
DETSC 3303	Acenaphthylene	mg/kg	0.03	As Received	No	Yes	Yes
DETSC 3303	Benzo(a)pyrene	mg/kg	0.03	As Received	No	Yes	Yes
DETSC 3303	Benzo(a)anthracene	mg/kg	0.03	As Received	No	Yes	Yes
DETSC 3303	Benzo(b)fluoranthene	mg/kg	0.03	As Received	No	Yes	Yes
DETSC 3303	Benzo(k)fluoranthene	mg/kg	0.03	As Received	No	Yes	Yes
DETSC 3303	Benzo(g,h,i)perylene	mg/kg	0.03	As Received	No	Yes	Yes
DETSC 3303	Dibenzo(a,h)anthracene	mg/kg	0.03	As Received	No	Yes	Yes
DETSC 3303	Fluoranthene	mg/kg	0.03	As Received	No	Yes	Yes
DETSC 3303	Indeno(1,2,3-c,d)pyrene	mg/kg	0.03	As Received	No	Yes	Yes
DETSC 3303	Naphthalene	mg/kg	0.03	As Received	No	Yes	Yes
DETSC 3303	Phenanthrene	mg/kg	0.03	As Received	No	Yes	Yes
DETSC 3303	Pyrene	mg/kg	0.03	As Received	No	Yes	Yes
DETSC 3401	PCB 28 + PCB 31	mg/kg	0.01	As Received	No	Yes	Yes
DETSC 3401	PCB 52	mg/kg	0.01	As Received	No	Yes	Yes
DETSC 3401	PCB 101	mg/kg	0.01	As Received	No	Yes	Yes
DETSC 3401	PCB 118	mg/kg	0.01	As Received	No	Yes	Yes
DETSC 3401	PCB 153	mg/kg	0.01	As Received	No	Yes	Yes
DETSC 3401	PCB 138	mg/kg	0.01	As Received	No	Yes	Yes
DETSC 3401	PCB 180	mg/kg	0.01	As Received	No	Yes	Yes
DETSC 3401	PCB Total	mg/kg	0.01	As Received	No	Yes	Yes

Method details are shown only for those determinands listed in Annex A of the MCERTS standard. Anything not included on this list falls outside the scope of MCERTS. No Recovery Factors are used in the determination of results. Results reported assume 100% recovery. Full method statements are available on request.

Annex G
Soakaway Test Results

Site Name: Leiros Park, Neath

Number: TP1

Date Undertaken: 5/4/17

Test No.: 1

Depth to Water (m)	Time (Mins)	
0.19	0	(Test restarted at 0.19m due to water spill)
0.2	9	
0.22	33	
0.23	54	
0.26	93	
0.32	159	
0.32	159	
0.32	159	
0.32	159	
0.32	159	
0.350	207	Achieved

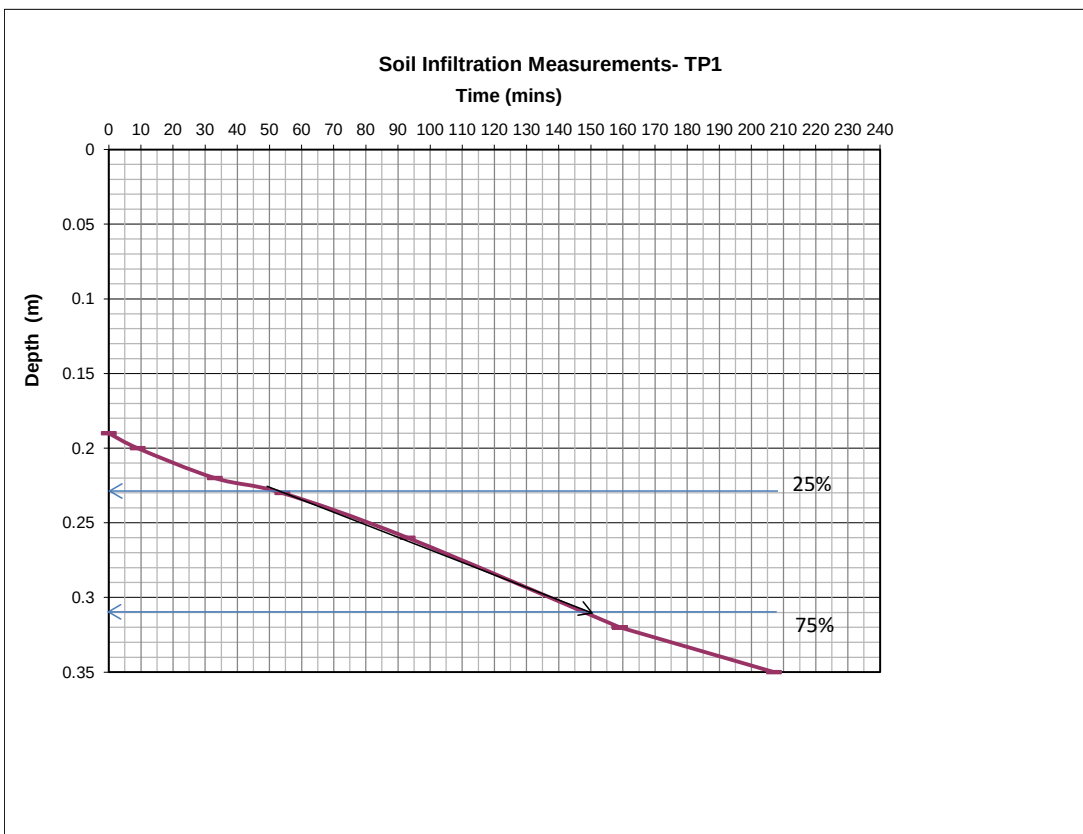
Length of Trial Pit (m)	1.20
Width of Trial Pit (m)	0.70
Depth of Trial Pit (m)	0.35

Effective Storage Depth (m)	0.160
Vp25	0.2300
Vp75	0.3100
Vp75-25	0.067

50% effective depth (m)	0.080
Mean Surface area ap50 (m ²)	1.144

Time for 25% Outflow (tp25)	55	Achieved
Time for 75% Outflow (tp75)	150	Achieved
tp75 - 25	95	Achieved
Soil Infiltration Rate (m/s)	1.03055E-05	Achieved

Soil Infiltration Worksheet: This worksheet has been produced in combination with the document 'BRE Digest 365- September 1991'. Worksheet options are identified by a green background. This worksheet can be used to determine soil infiltration rates from trial pit field measurements.



Site Name: Leiros Park, Neath

Number: TP2

Date Undertaken: 5/4/17

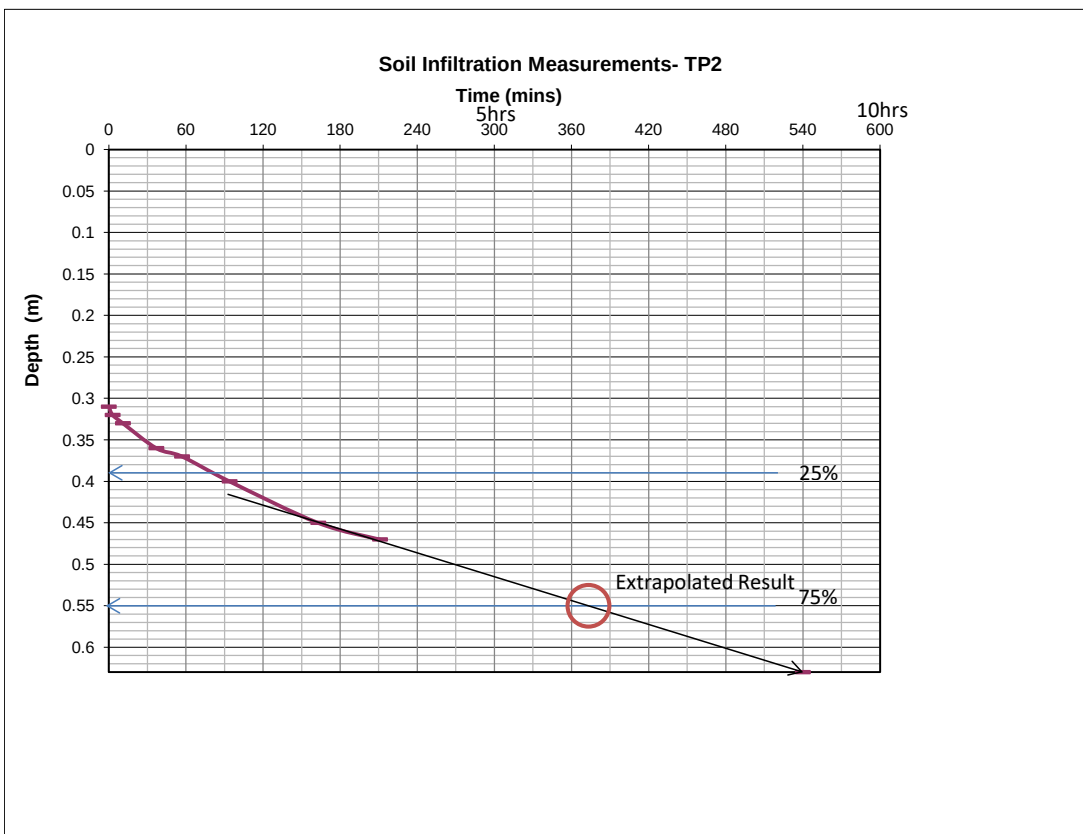
Test No.: 1

Depth to Water (m)	Time (Mins)	
0.31	0	
0.32	3	
0.33	11	
0.36	37	
0.37	57	
0.4	94	
0.45	163	
0.47	211	Last Reading of Working Day
(Base of pit / effective depth - 0%) 0.630	540	Not Achieved Within Working Day

Length of Trial Pit (m)	1.40
Width of Trial Pit (m)	0.70
Depth of Trial Pit (m)	0.63
Effective Storage Depth (m)	0.320
Vp25	0.3900
Vp75	0.5500
Vp75-25	0.157
50% effective depth (m)	0.160
Mean Surface area ap50 (m2)	1.652

Time for 25% Outflow (tp25)	80	Achieved
Time for 75% Outflow (tp75)	375	(Extrapolated from Graph)
tp75 - 25	295	(Extrapolated from Graph)
Soil Infiltration Rate (m/s)	5.36244E-06	(Extrapolated from Graph)

Soil Infiltration Worksheet: This worksheet has been produced in combination with the document 'BRE Digest 365- September 1991'. Worksheet options are identified by a green background. This worksheet can be used to determine soil infiltration rates from trial pit field measurements.



Site Name: Leiros Park, Neath

Number: TP4

Date Undertaken: 5/4/17

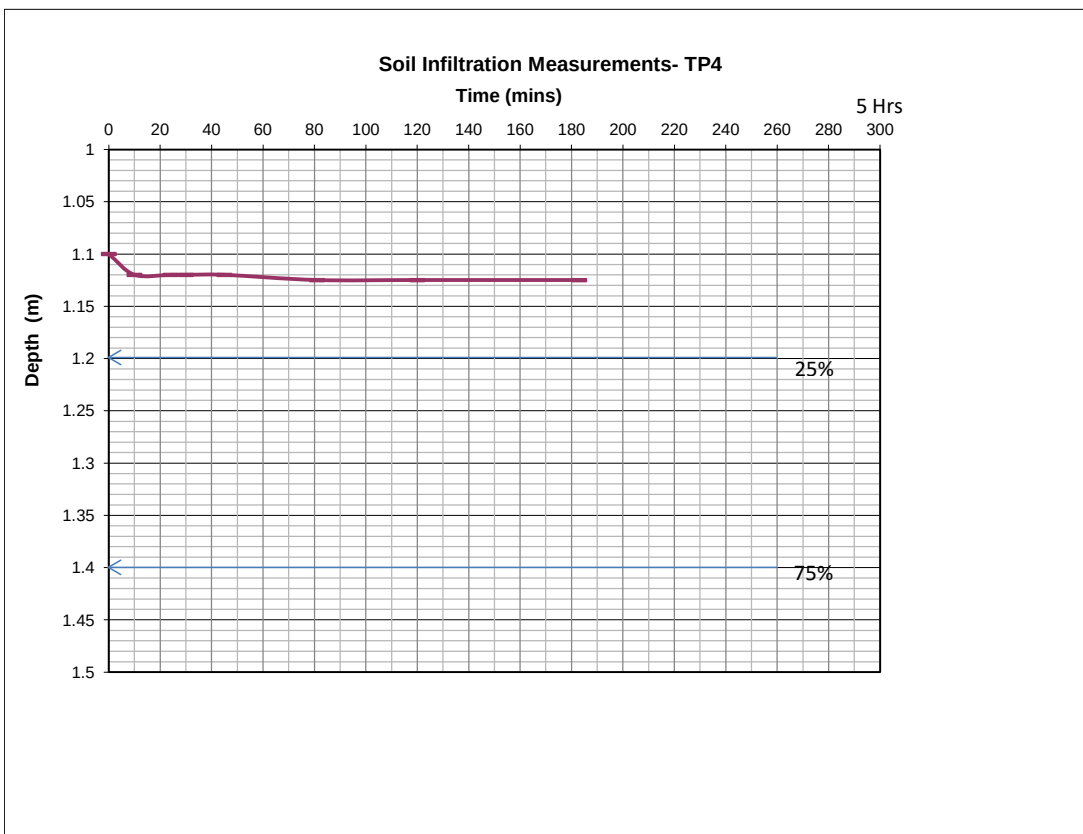
Test No.: 1

Depth to Water (m)	Time (Mins)	
1.1	0	
1.12	10	
1.12	24	
1.12	30	
1.12	45	
1.125	81	
1.125	120	
1.125	183	Soakaway Test Terminated after 3hrs
(Base of pit / effective depth - 0%) 1.500		Not Achieved

Length of Trial Pit (m)	1.70
Width of Trial Pit (m)	0.70
Depth of Trial Pit (m)	1.50
Effective Storage Depth (m)	0.400
Vp25	1.2000
Vp75	1.4000
Vp75-25	0.238
50% effective depth (m)	0.200
Mean Surface area ap50 (m2)	2.150

Time for 25% Outflow (tp25)	N/A	Not Achieved
Time for 75% Outflow (tp75)	N/A	Not Achieved
tp75 - 25	#VALUE!	Not Achieved
Soil Infiltration Rate (m/s)	#VALUE!	Could not be calculated

Soil Infiltration Worksheet: This worksheet has been produced in combination with the document 'BRE Digest 365- September 1991'. Worksheet options are identified by a green background. This worksheet can be used to determine soil infiltration rates from trial pit field measurements.



Site Name: Leiros Park, Neath

Number: TP8

Date Undertaken: 5/4/17

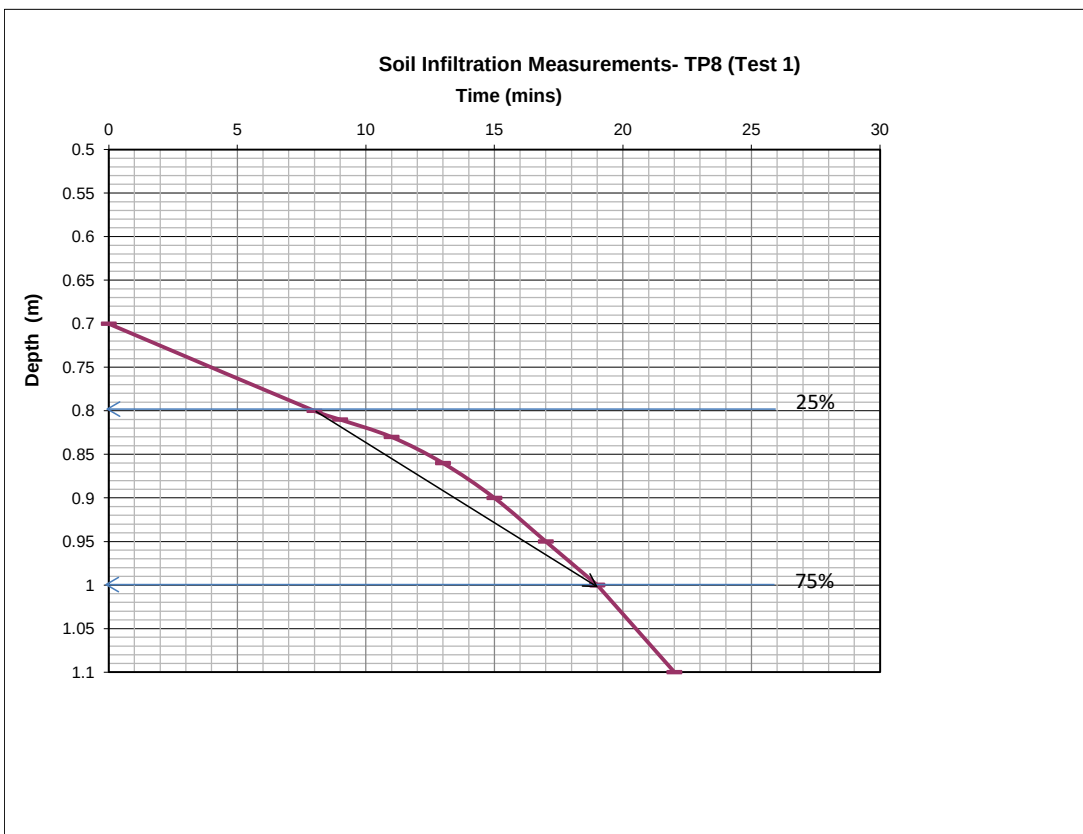
Test No.: 1

	Depth to Water (m)	Time (Mins)	
(Top of test / effective depth - 100%)	0.7	0	
	0.8	8	
	0.81	9	
	0.83	11	
	0.86	13	
	0.9	15	
	0.95	17	
	1	19	
	1	19	
	1.100	22	Achieved
(Base of pit / effective depth - 0%)			

Length of Trial Pit (m)	1.60
Width of Trial Pit (m)	0.60
Depth of Trial Pit (m)	1.10
Effective Storage Depth (m)	0.400
Vp25	0.8000
Vp75	1.0000
Vp75-25	0.192
50% effective depth (m)	0.200
Mean Surface area ap50 (m ²)	1.840

Time for 25% Outflow (tp25)	8	Achieved
Time for 75% Outflow (tp75)	19	Achieved
tp75 - 25	11	Achieved
Soil Infiltration Rate (m/s)	0.000158103	Achieved
		1.58E-04

Soil Infiltration Worksheet: This worksheet has been produced in combination with the document 'BRE Digest 365- September 1991'. Worksheet options are identified by a green background. This worksheet can be used to determine soil infiltration rates from trial pit field measurements.



Site Name: Leiros Park, Neath

Number: TP8

Date Undertaken: 5/4/17

Test No.: 2

Depth to Water (m)	Time (Mins)
0.55	0
0.55	3
0.6	19
0.69	46
0.8	78
0.95	101
1	111
(Base of pit / effective depth - 0%) 1.100	132 Extrapolated

Length of Trial Pit (m)	1.60
Width of Trial Pit (m)	0.60
Depth of Trial Pit (m)	1.10

Effective Storage Depth (m) 0.550

Vp25 0.6875

Vp75 0.9625

Vp75-25 0.264

50% effective depth (m) 0.275

Mean Surface area ap50 (m2) 2.170

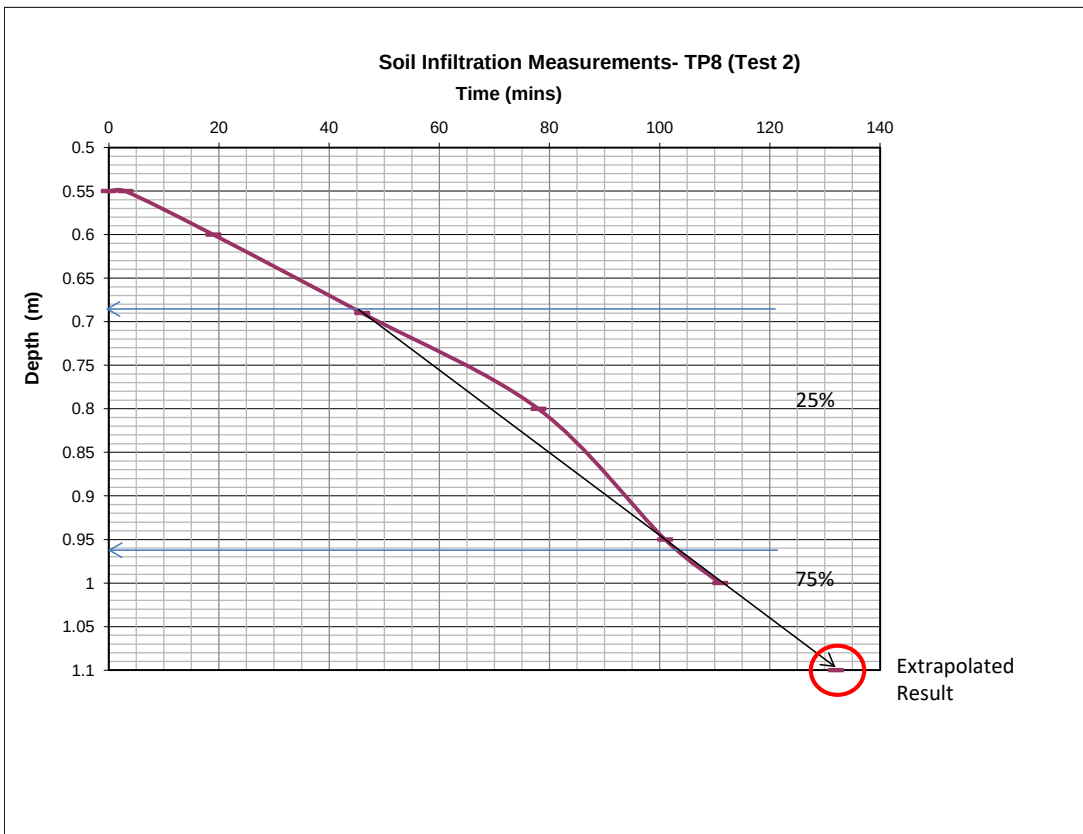
Time for 25% Outflow (tp25) 45 Achieved

Time for 75% Outflow (tp75) 103 Achieved

tp75 - 25 58 Achieved

Soil Infiltration Rate (m/s) 3.49595E-05 Achieved

Soil Infiltration Worksheet: This worksheet has been produced in combination with the document 'BRE Digest 365- September 1991'. Worksheet options are identified by a green background. This worksheet can be used to determine soil infiltration rates from trial pit field measurements.



Site Name: Leiros Park, Neath

Number: TP9

Date Undertaken: 5/4/17

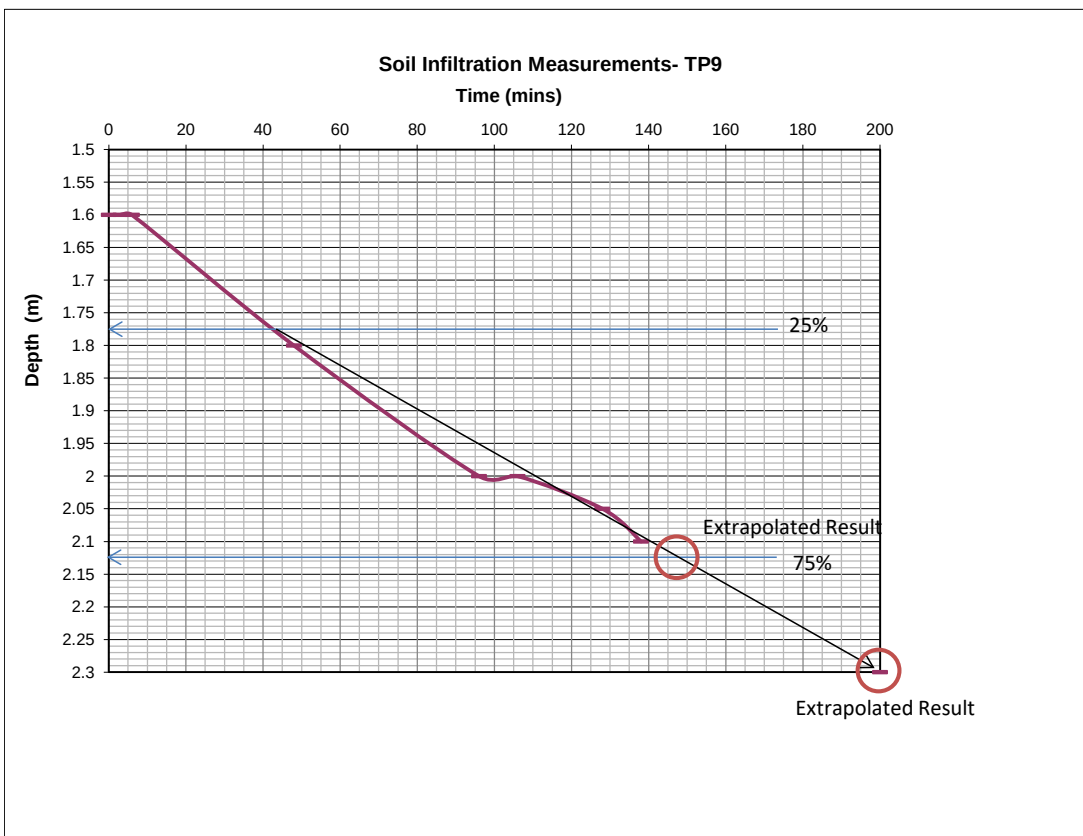
Test No.: 1

Depth to Water (m)	Time (Mins)
1.6	0
1.6	3
1.6	6
1.8	48
2	96
2	106
2.05	128
2.1	138
(Base of pit / effective depth - 0%) 2.300	200 (Extrapolated from Graph)

Length of Trial Pit (m)	1.50
Width of Trial Pit (m)	0.70
Depth of Trial Pit (m)	2.30 (Groundwater observed at 2.3m)
Effective Storage Depth (m)	0.700
Vp25	1.7750
Vp75	2.1250
Vp75-25	0.368
50% effective depth (m)	0.350
Mean Surface area ap50 (m2)	2.590

Time for 25% Outflow (tp25)	43	Achieved
Time for 75% Outflow (tp75)	148	(Extrapolated from Graph)
tp75 - 25	105	(Extrapolated from Graph)
Soil Infiltration Rate (m/s)	2.25225E-05	(Extrapolated from Graph)

Soil Infiltration Worksheet: This worksheet has been produced in combination with the document 'BRE Digest 365- September 1991'. Worksheet options are identified by a green background. This worksheet can be used to determine soil infiltration rates from trial pit field measurements.



ANNEX H**Laboratory Geotechnical Test Results**



Contract Number: 34825

Client's Reference: **14111**

Report Date: **24-04-2017**

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

Contract Title: **Leiros Park, Neath**
For the attention of: **Michael Watkins**

Date Received: **08-04-2017**
Date Commenced: **08-04-2017**
Date Completed: **24-04-2017**

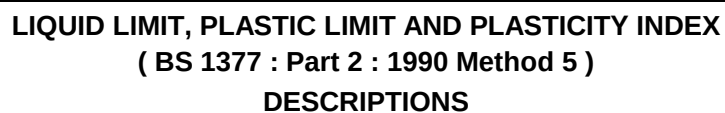
Test Description	Qty
Moisture Content 1377 : 1990 Part 2 : 3.2 - * UKAS	3
4 Point Liquid & Plastic Limit (LL/PL) 1377 : 1990 Part 2 : 4.3 & 5.3 - * UKAS	3
(GI) BRE SD1 Reduced Suite pH, Acid Soluble Sulphate, Water Soluble Sulphate and Total Sulphur 1377 : 1990 Part 3 & BRE CP2/79 - @ Non Accredited Test	8
Disposal of Samples on Project	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:

Alex Wynn (Associate Director) - Ben Sharp (Contracts Manager) - Emma Sharp (Office Manager)
Paul Evans (Quality/Technical Manager) - Richard John (Advanced Testing Manager) - Sean Penn (Administrative/Quality Assistant)
Vaughan Edwards (Managing Director) - Wayne Honey (Administrative/Quality Assistant)

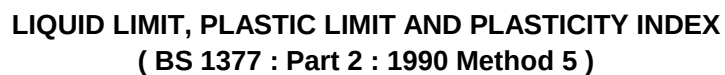


34825

14111

Operators	Checked	23-04-17	Ben Sharp	
RO/MH	Approved	24-04-17	Paul Evans	





Contract Number

34825

Site Name

14111

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

The figure is a semi-logarithmic plot of Plasticity Index (%) versus Liquid Limit (%). The y-axis is logarithmic, ranging from 0 to 90. The x-axis is linear, ranging from 0 to 120. The plot is divided into regions by vertical lines at Liquid Limit = 35, 50, 70, and 90. The regions are labeled as follows:

- CL** (Low Plasticity Clay) for Liquid Limit < 35
- CI** (Intermediate Plasticity Clay) for 35 < Liquid Limit < 50
- CH** (High Plasticity Clay) for 50 < Liquid Limit < 70
- CV** (Very High Plasticity Clay) for 70 < Liquid Limit < 90
- CE** (Extremely High Plasticity Clay) for Liquid Limit > 90
- ML** (Low Plasticity Silty Clay) for Liquid Limit < 35
- MI** (Intermediate Plasticity Silty Clay) for 35 < Liquid Limit < 50
- MH** (High Plasticity Silty Clay) for 50 < Liquid Limit < 70
- MV** (Very High Plasticity Silty Clay) for 70 < Liquid Limit < 90
- ME** (Extremely High Plasticity Silty Clay) for Liquid Limit > 90

A straight line (A-line) is drawn through the plot, starting at (0, 6) and passing through (100, 60). A horizontal line (U-line) is drawn at Plasticity Index = 4. Data points are plotted at (0, 0), (45, 25), (58, 32), and (60, 30).



ANNEX I**Dynamic Cone Penetrometer Test Results**

terrafirma

TP02

Project Number: 14156

Date: 11/04/2017

[illegible]

REMARKS:

Test carried out in accordance with operating instructions for the dynamic cone penetrometer Model A2465 by CNS Farnell Ltd.

CBR correlation based on the relationship $\text{Log}_{10}(\text{CBR}) = 2.48 - 1.057 * \text{Log}_{10}(\text{mm/blow})$ developed by TRL taken from The

Highways Agency Interim Advice Note 73/06 - Design Guidance for Road Pavement Foundations (2009)



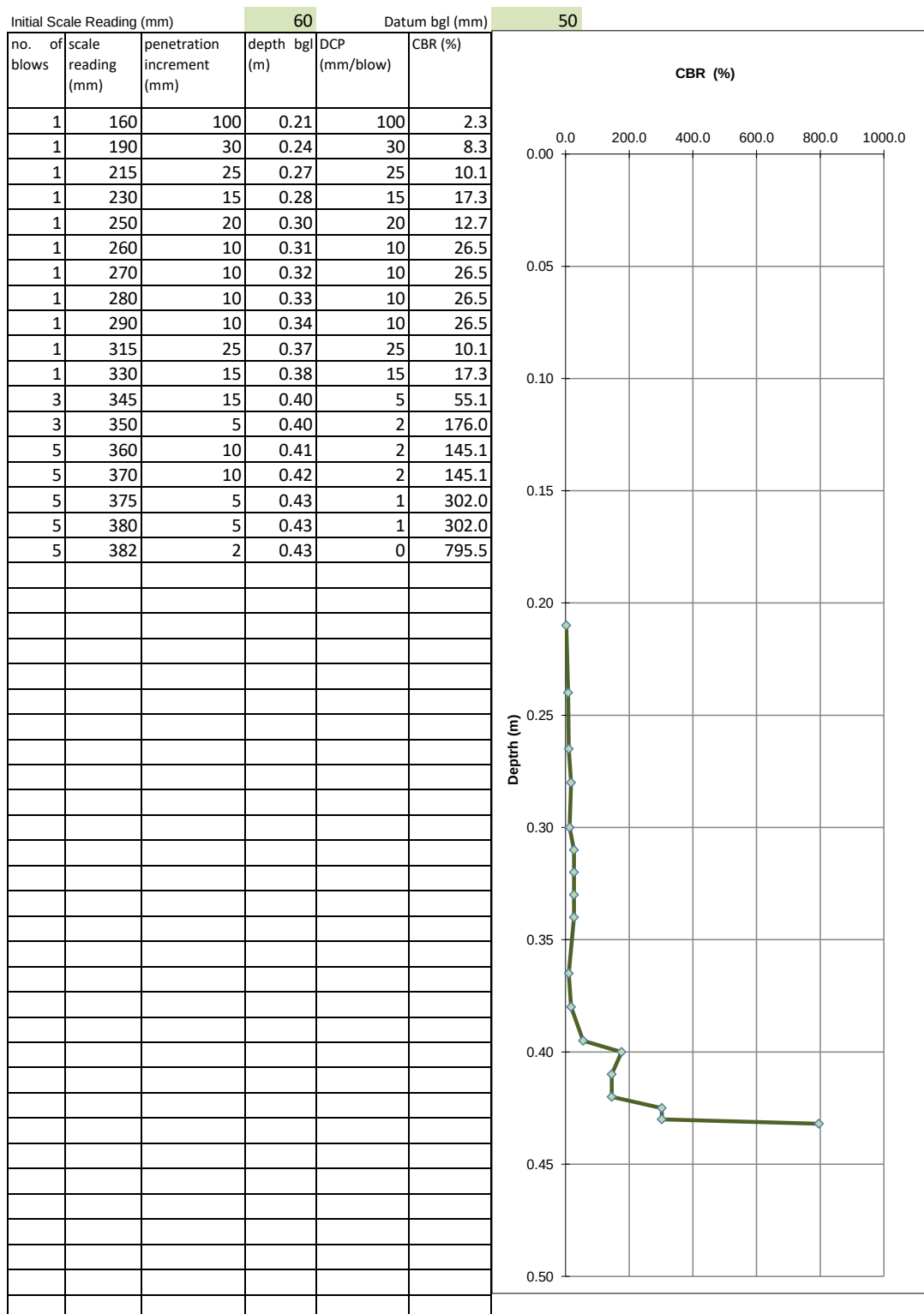
Client: Hale Construction Limited

Site Name: Leiros Park

Project Number: 14156

Date: 11/04/2017

TP03



REMARKS:

Test carried out in accordance with operating instructions for the dynamic cone penetrometer Model A2465 by CNS Farnell Ltd.

CBR correlation based on the relationship $\text{Log}_{10}(\text{CBR}) = 2.48 - 1.057 * \text{Log}_{10}(\text{mm/blow})$ developed by TRL taken from The

Highways Agency Interim Advice Note 73/06 - Design Guidance for Road Pavement Foundations (2009)

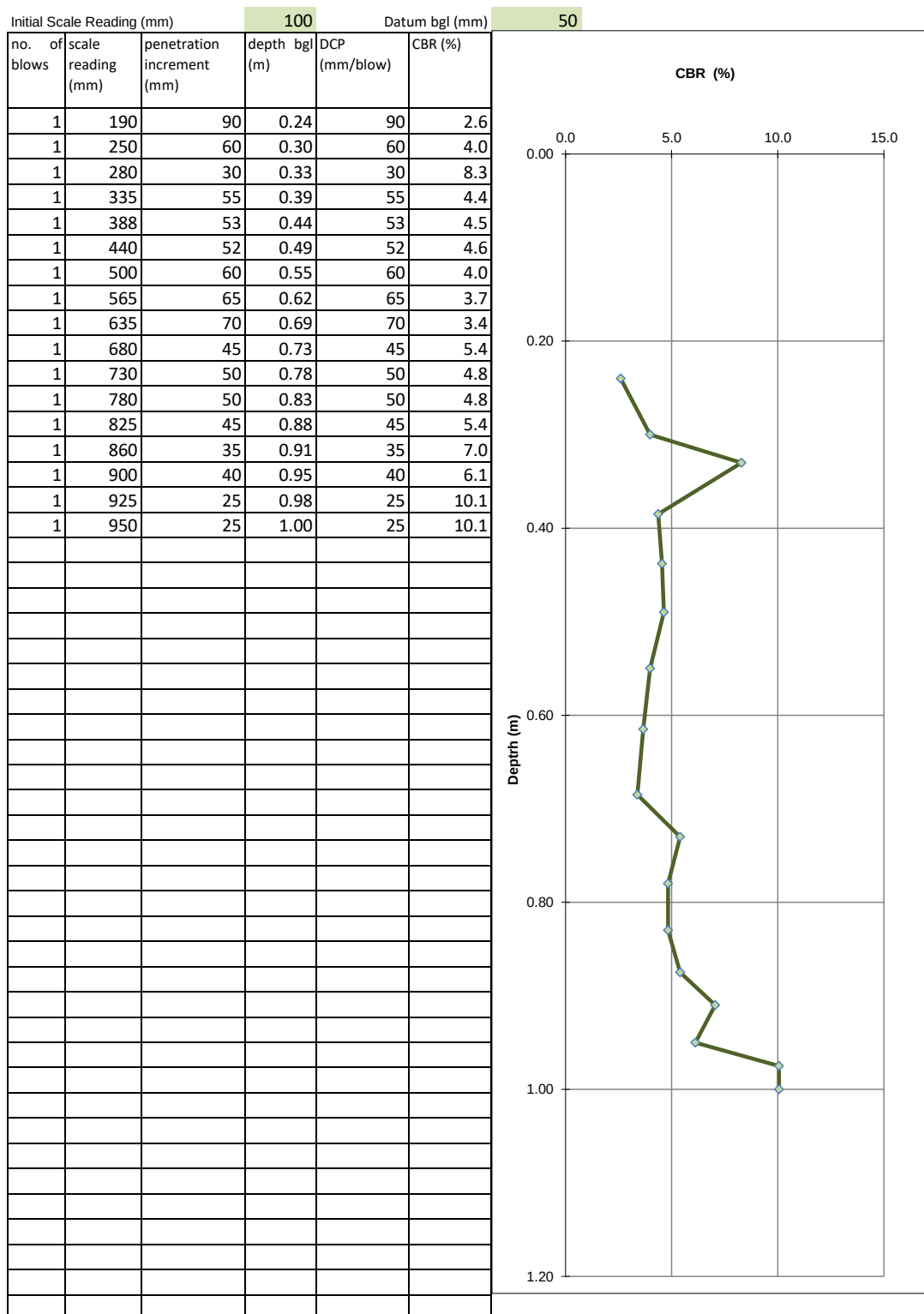
Client: Hale Construction Limited

Site Name: Leiros Park

Project Number: 14156

Date: 11/04/2017

TP06



REMARKS:

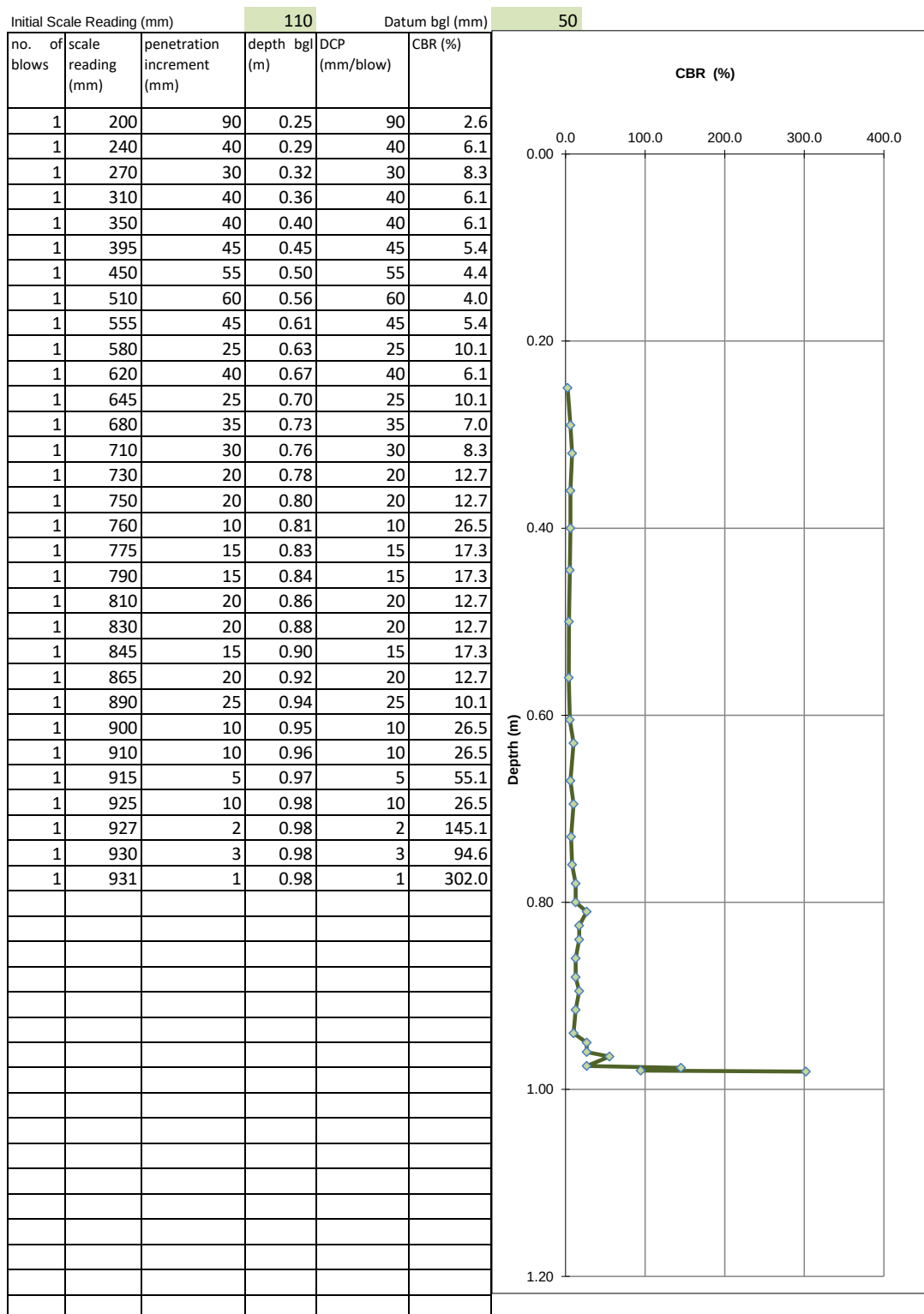
Test carried out in accordance with operating instructions for the dynamic cone penetrometer Model A2465 by CNS Farnell Ltd.

CBR correlation based on the relationship $\text{Log}_{10}(\text{CBR}) = 2.48 - 1.057 * \text{Log}_{10}(\text{mm/blow})$ developed by TRL taken from The

Highways Agency Interim Advice Note 73/06 - Design Guidance for Road Pavement Foundations (2009)



TP08



Highways Agency Interim Advice Note 73/06 - Design Guidance for Road Pavement Foundations (2009)

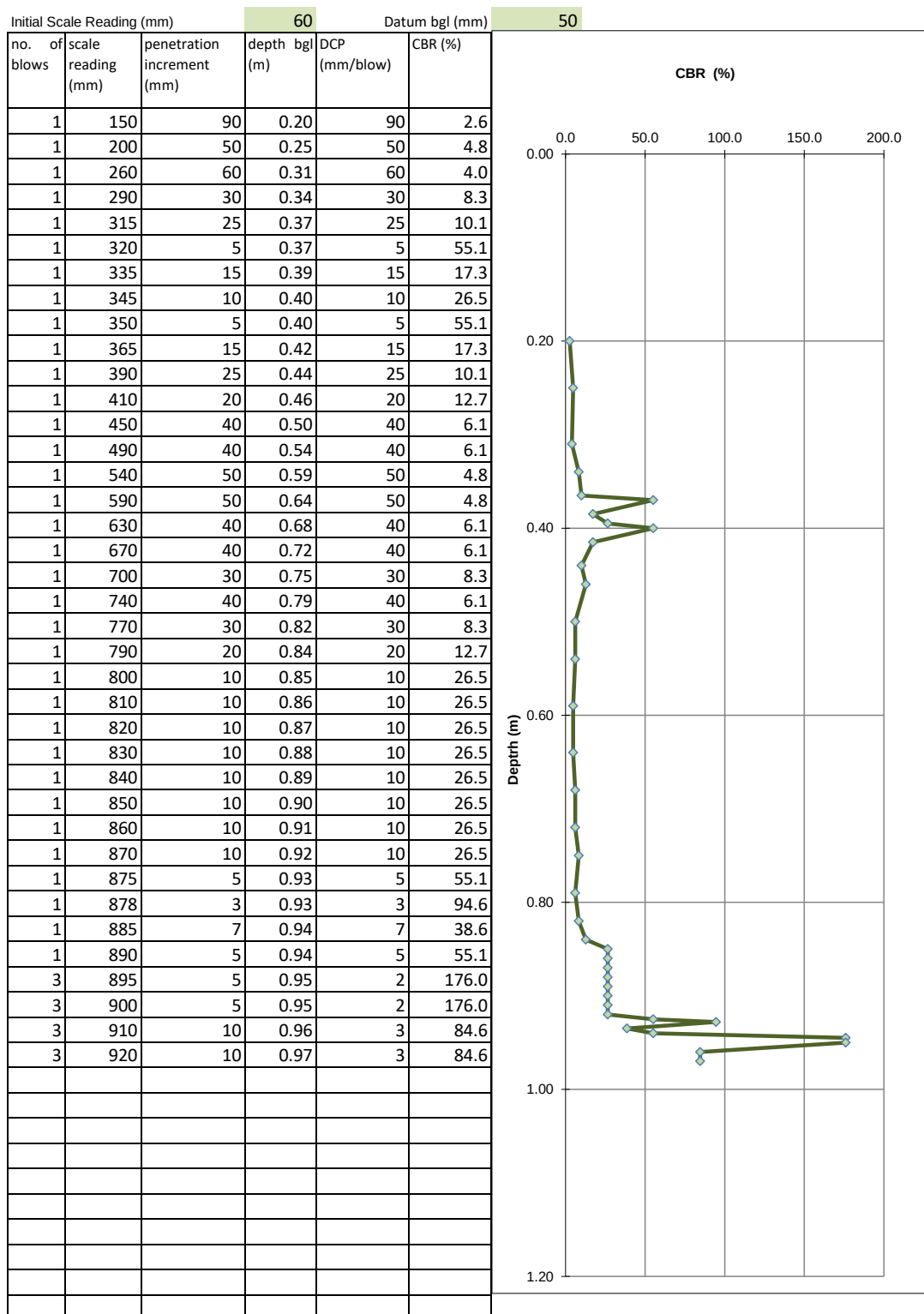
Client: Hale Construction Limited

Site Name: Leiros Park

Project Number: 14156

Date: 11/04/2017

TP09



REMARKS:

Test carried out in accordance with operating instructions for the dynamic cone penetrometer Model A2465 by CNS Farnell Ltd.

CBR correlation based on the relationship $\text{Log}_{10}(\text{CBR}) = 2.48 - 1.057 * \text{Log}_{10}(\text{mm/blow})$ developed by TRL taken from The

Highways Agency Interim Advice Note 73/06 - Design Guidance for Road Pavement Foundations (2009)

Dynamic Cone Penetrometer Testing



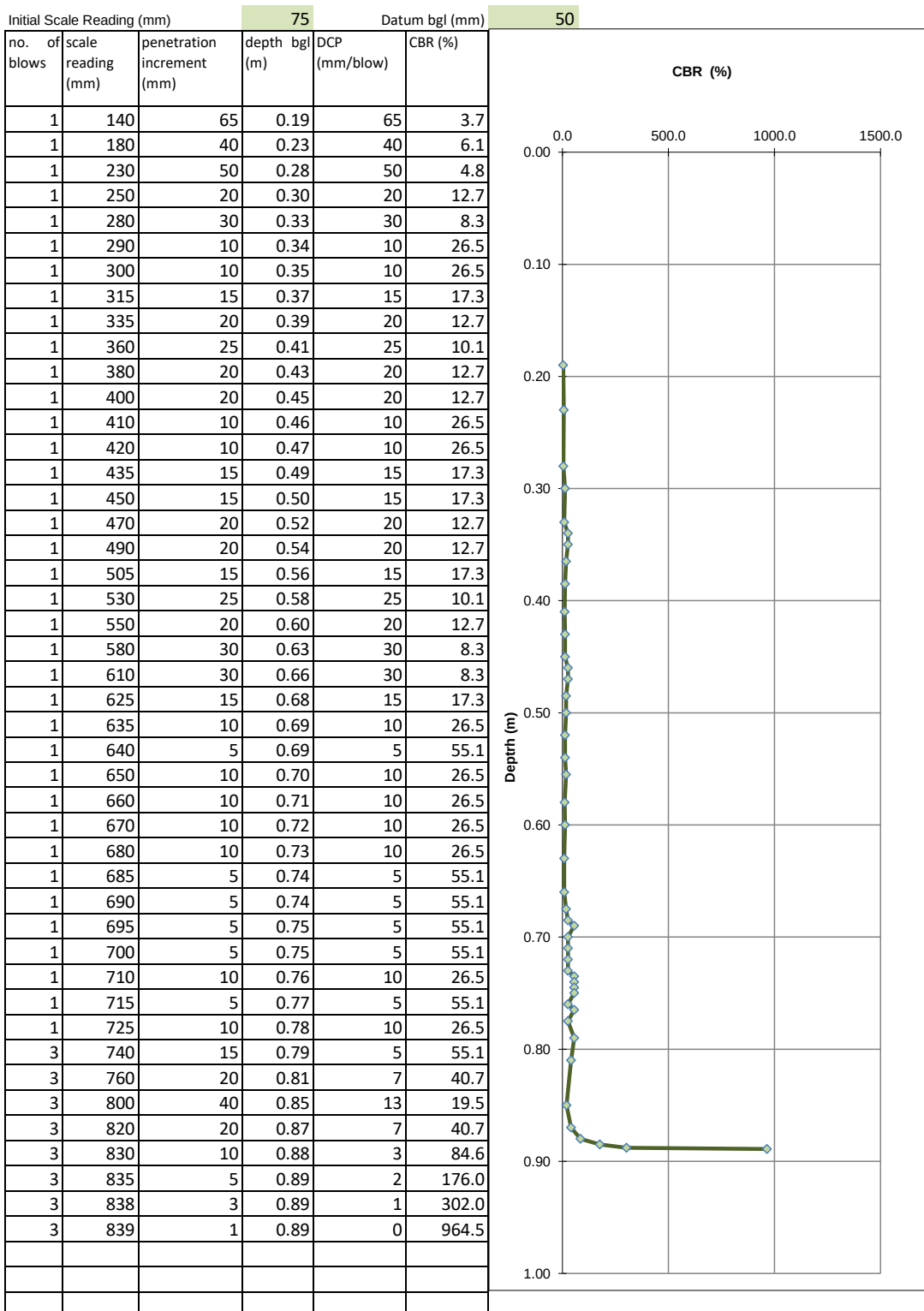
Client: Hale Construction Limited

Site Name: Leiros Park

Project Number: 14156

Date: 11/04/2017

TP11



REMARKS:

Test carried out in accordance with operating instructions for the dynamic cone penetrometer Model A2465 by CNS Farnell Ltd.

CBR correlation based on the relationship $\text{Log}_{10}(\text{CBR}) = 2.48 - 1.057 * \text{Log}_{10}(\text{mm/blow})$ developed by TRL taken from The

Highways Agency Interim Advice Note 73/06 - Design Guidance for Road Pavement Foundations (2009)

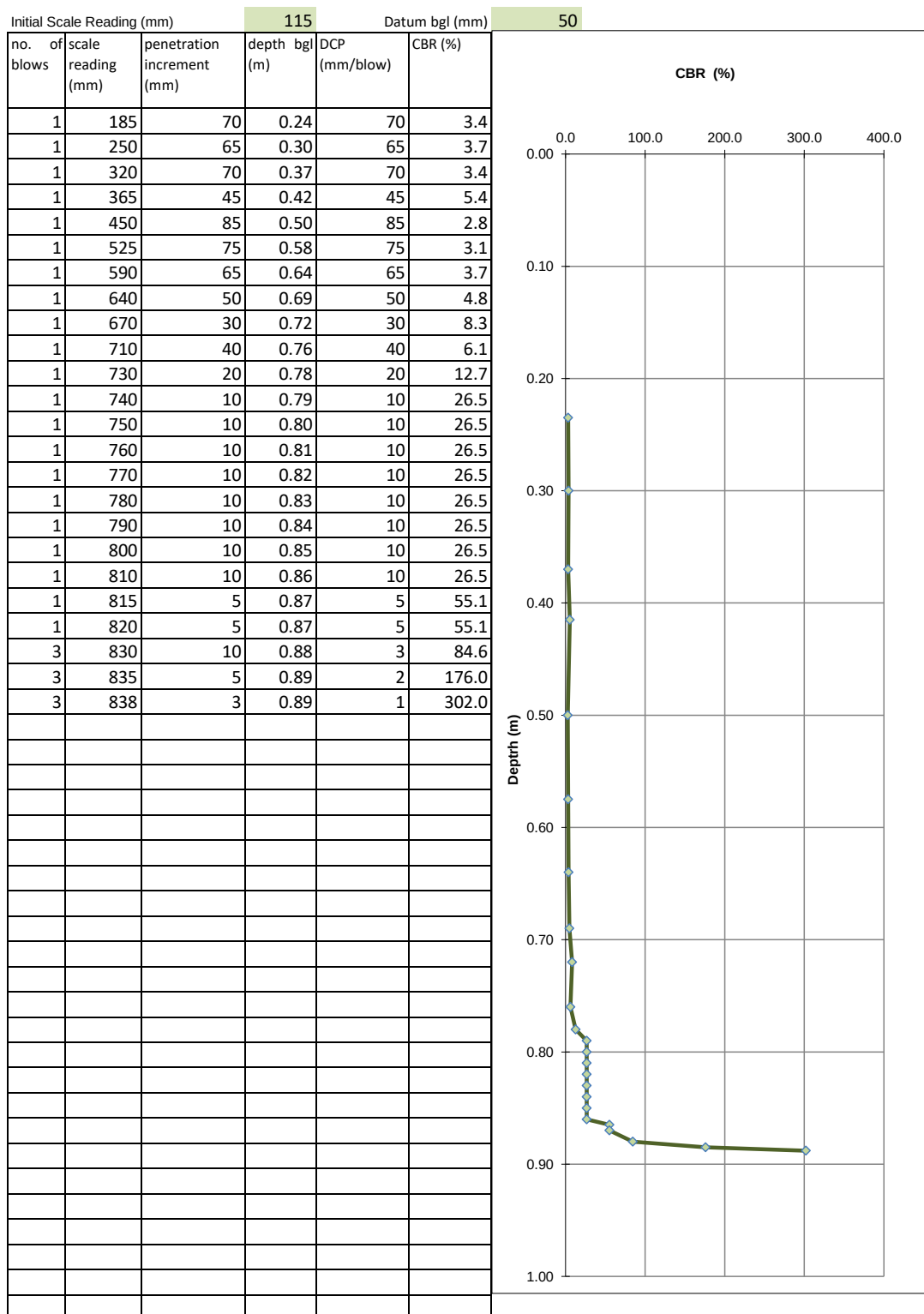
Client: Hale Construction Limited

Site Name: Leiros Park

Project Number: 14156

Date: 11/04/2017

TP13



REMARKS:

Test carried out in accordance with operating instructions for the dynamic cone penetrometer Model A2465 by CNS Farnell Ltd.

CBR correlation based on the relationship $\text{Log}_{10}(\text{CBR}) = 2.48 - 1.057 * \text{Log}_{10}(\text{mm/blow})$ developed by TRL taken from The

Highways Agency Interim Advice Note 73/06 - Design Guidance for Road Pavement Foundations (2009)

Dynamic Cone Penetrometer Testing



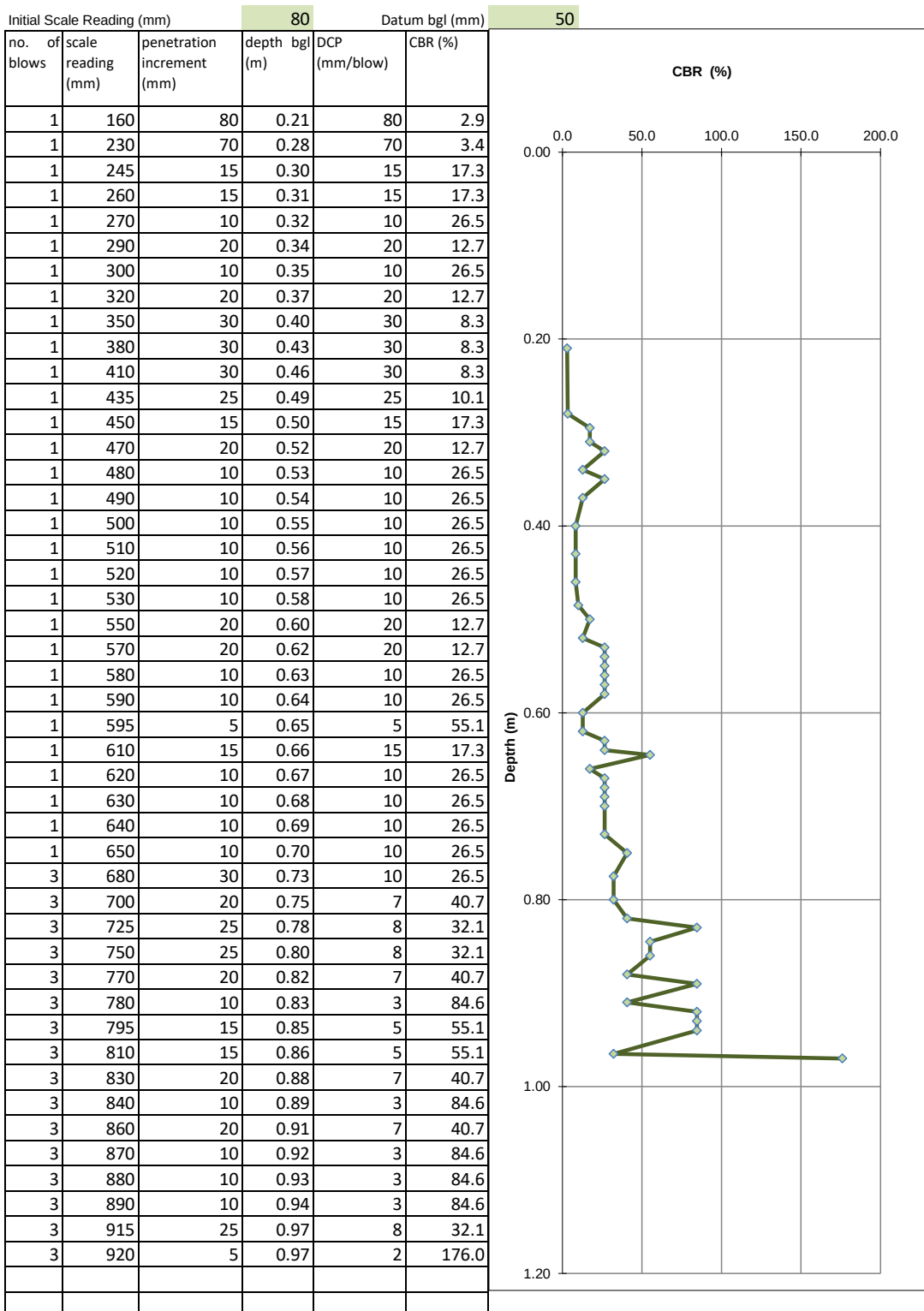
Client: Hale Construction Limited

Site Name: Leiros Park

Project Number: 14156

Date: 11/04/2017

TP14



REMARKS:

Test carried out in accordance with operating instructions for the dynamic cone penetrometer Model A2465 by CNS Farnell Ltd.

CBR correlation based on the relationship $\text{Log}_{10}(\text{CBR}) = 2.48 - 1.057 * \text{Log}_{10}(\text{mm/blow})$ developed by TRL taken from The

Highways Agency Interim Advice Note 73/06 - Design Guidance for Road Pavement Foundations (2009)

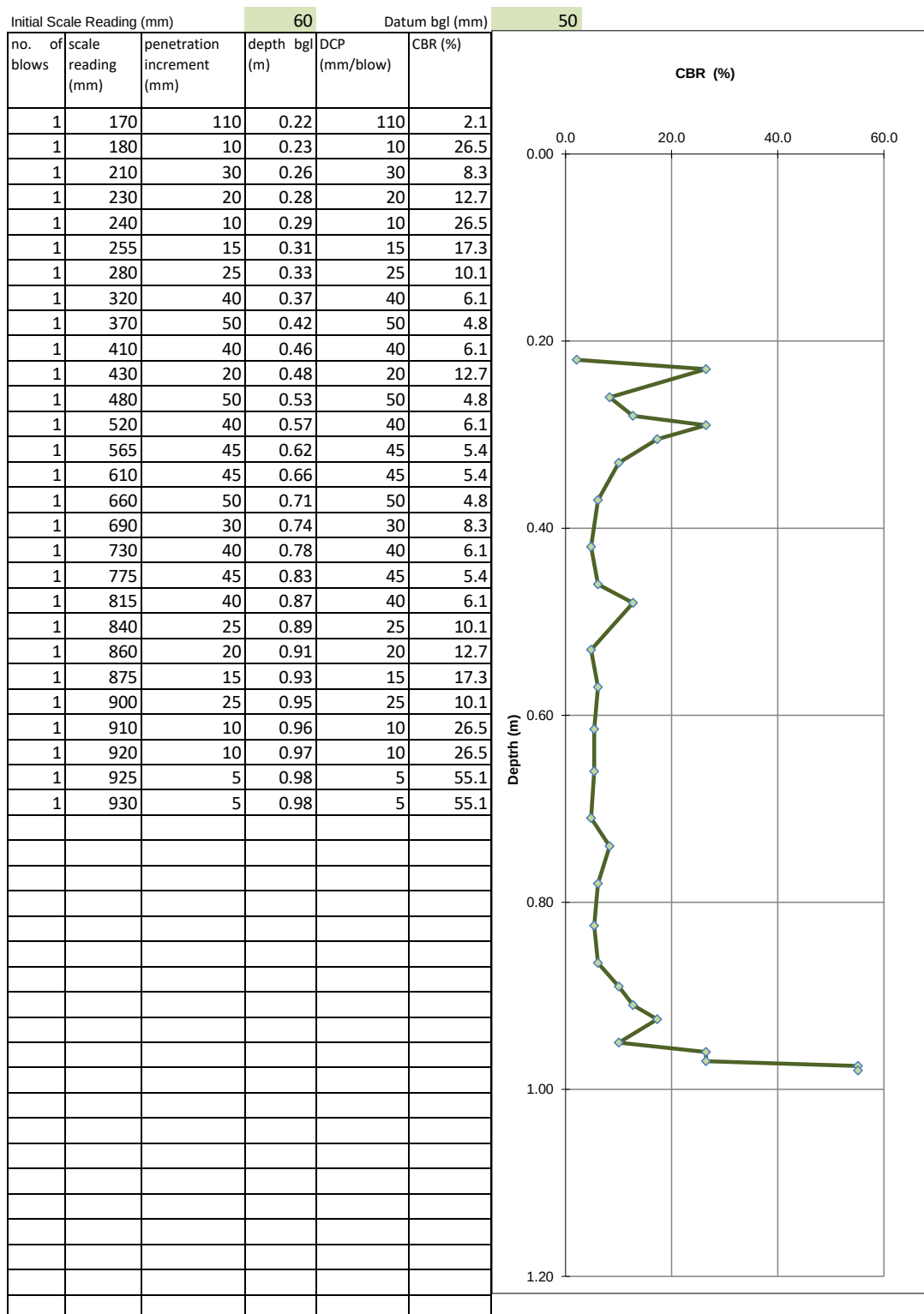
Client: Hale Construction Limited

Site Name: Leiros Park

Project Number: 14156

Date: 11/04/2017

TP15



REMARKS:

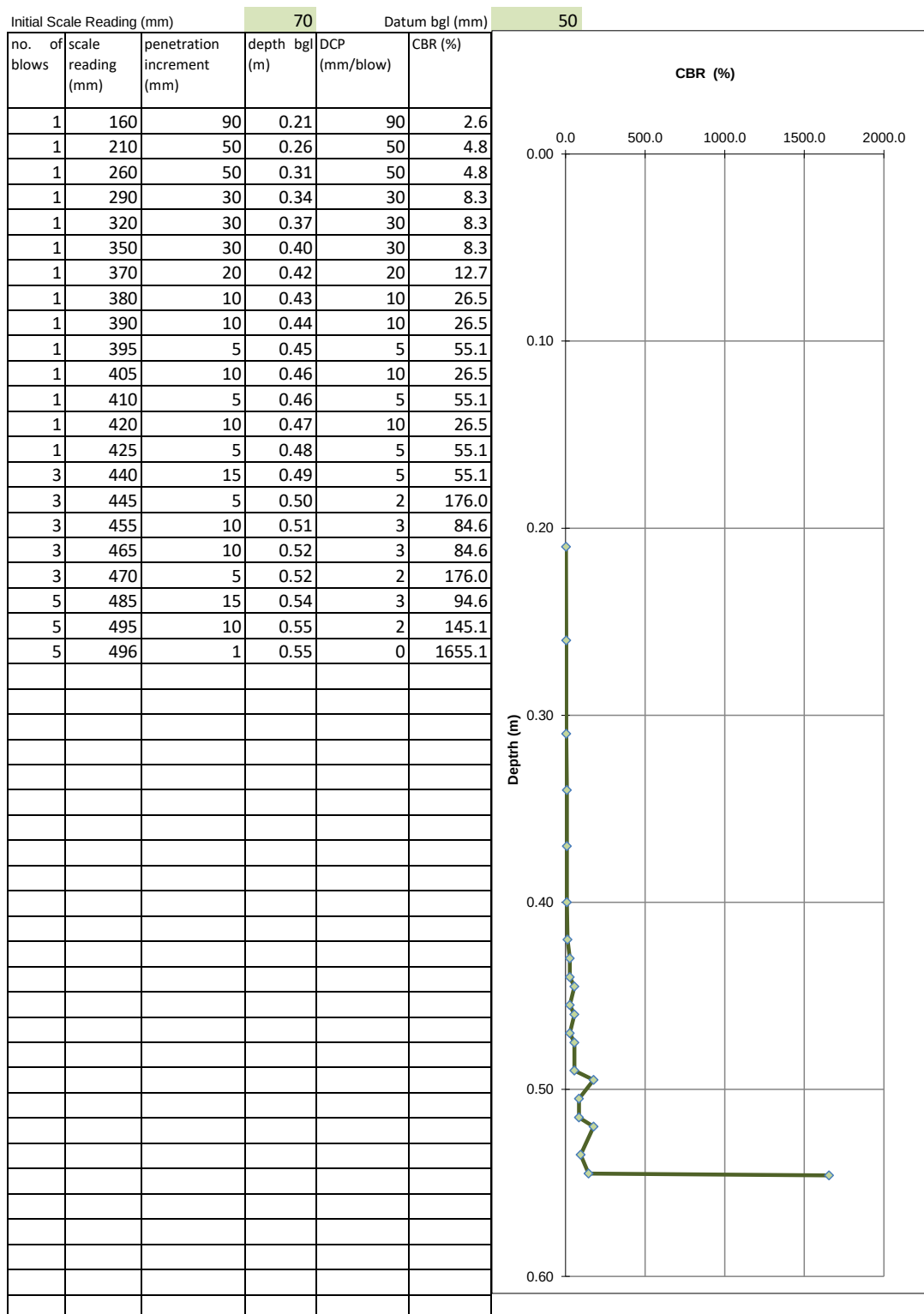
Test carried out in accordance with operating instructions for the dynamic cone penetrometer Model A2465 by CNS Farnell Ltd.

CBR correlation based on the relationship $\text{Log}_{10}(\text{CBR}) = 2.48 - 1.057 * \text{Log}_{10}(\text{mm/blow})$ developed by TRL taken from The

Highways Agency Interim Advice Note 73/06 - Design Guidance for Road Pavement Foundations (2009)



TP16



Highways Agency Interim Advice Note 73/06 - Design Guidance for Road Pavement Foundations (2009)

DRAWINGS

Job Number:

14156

Job Title:

Leiros Park, Rhydding, Neath

Drawing Title:

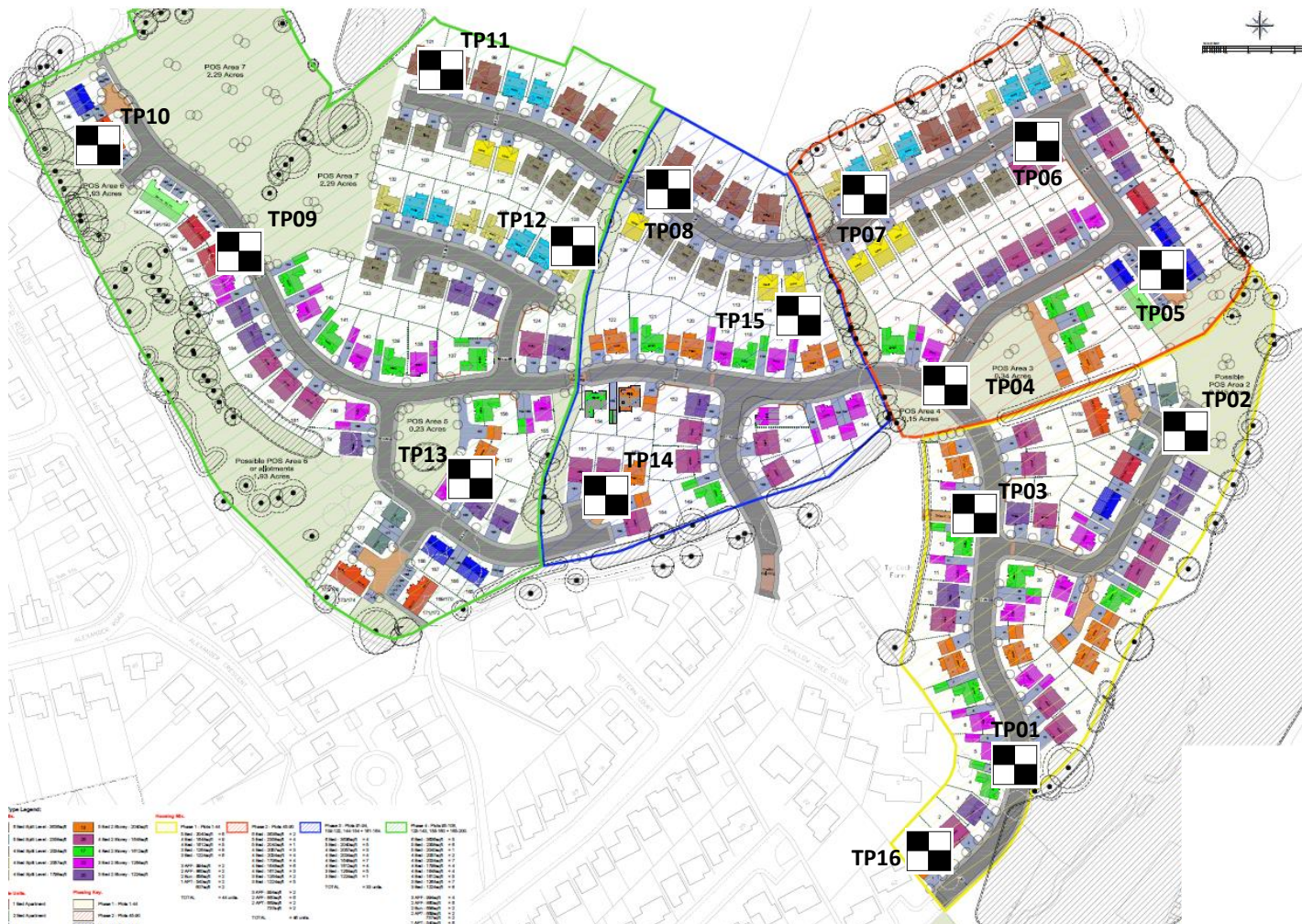
Exploratory Hole Layout

Drawing Number:

01

Scale:

Not To Scale



North

