

ABERMULE BUSINESS PARK

Phase 1 Geo-Environmental Desk Study for Powys County Council

DECEMBER 2017

CONTACTS

STEVEN JOTHAM
**Graduate Geo-Environmental
Consultant**

dd +44(0) 1215032725
m +44 (0) 7864 980419
e Steven.jotham@arcadis.com

Arcadis.
Aston Cross Business
Village
50 Rocky Lane,
Birmingham,
B6 5RQ,
UK

Abermule Business Park

Geo-environmental Desk Study Assessment

Author Steven Jotham

Checker Charlotte Wheatley

Approver Tony Windsor

Report No 0001-UA006590-26-UP32R-01

Date DECEMBER 2017

VERSION CONTROL

Version	Date	Author	Changes
01	November 2017	SJ	1 st issue
02	December 2017	SJ	Final

This report dated 30th November 2017 has been prepared for Powys County Council in accordance with the terms and conditions of appointment dated 24st October 2017 between the Client and Arcadis Consulting (UK) Limited ("Arcadis") for the purposes specified in the Appointment. For avoidance of doubt, no other person(s) may use or rely upon this report or its contents, and Arcadis accepts no responsibility for any such use or reliance thereon by any other third party.

CONTENTS

1	INTRODUCTION	1
1.1	Terms of Reference	1
1.2	Scope of Works.....	1
1.3	Sources of Information	1
1.4	Limitations and Expectations.....	1
2	SITE SETTING	2
2.1	Proposed Development.....	2
2.2	Site Location	2
2.3	Site Walkover Survey	3
3	PHYSICAL SETTINGS	6
3.1	Published Geology	6
3.2	Radon.....	7
3.3	Mining	7
3.4	Hydrogeology and Hydrology	7
3.5	Flood Risk.....	8
3.6	Unexploded Ordnance (UXO)	8
3.7	Ecologically Sensitive Areas	8
4	SITE HISTORY	9
4.1	Summary of Site History	9
5	ENVIRONMENTAL SETTING	11
6	ENVIRONMENTAL RISK ASSESSMENT.....	14
6.1	Potential Contaminant Sources	14
6.2	Potential Receptors	15
6.3	Exposure Pathways.....	15
6.4	Potential Contaminant Linkages	16
7	OTHER CONSIDERATIONS	20
7.1	Geotechnical	20
8	CONCLUSIONS AND RECOMMENDATIONS	21
8.1	Conclusions	21
8.2	Recommendations.....	21

APPENDICES

FIGURES

Figure 1 – Site Location

Figure 2 – Site Boundary

Figure 3 – Site Layout

APPENDIX A

Site walkover survey photographs

APPENDIX B

Envirocheck reports

APPENDIX C

Historical maps

APPENDIX D

UXO map

APPENDIX E

Historic logs

1 Introduction

1.1 Terms of Reference

Arcadis Consulting (UK) Limited (Arcadis) was instructed by Powys County Council (PCC) on 24th October 2017 to undertake a Phase 1 Geo-Environmental desk study, to assess the potential risks associated with the Site, in order to inform Powys County Council in the purchase the land from the Welsh Government, the intention being to construct business units and a waste bulking facility.

1.2 Scope of Works

This Phase 1 desk study is based on information derived from a Site walkover survey and a desk based review of information available at the time of writing. The report collates details of the Site in relation to its environmental and historical setting, geology, hydrogeology, hydrology and other features of relevance. Using this information, potential sources of contamination (both On-Site and in close proximity) and the risks associated with them have been identified and assessed in accordance with current UK guidance relating to contaminated land assessment and remediation.

1.3 Sources of Information

The following sources of information have been included as part of this study, as follows:

- Site walkover survey, photographs (Appendix A)
- Public register and geographical information provided by Landmark Group (Appendix B)
- Historical Ordnance Survey maps provided by Landmark Group (Appendix C)
- Zetica Regional Unexploded Bomb Risk Map of Mid Wales (Appendix D)
- British Geological Survey (BGS) Geoindex (Ref.1)
- Coal Authority Website (Ref.2)
- Environment Agency aquifer maps (Ref. 3)
- UK Radon website (Ref. 4)
- BGS maps Portal (Ref. 5)

1.4 Limitations and Expectations

This report has been compiled from a number of sources, which Arcadis believes to be trustworthy. However, Arcadis is unable to guarantee the accuracy of information provided by others. The report is based on information available at the time of writing. Additional information may become available in the future which may have a bearing on the conclusions of this report and for which Arcadis cannot be held responsible.

The report does not consider building structure quality / materials, nor infrastructure quality nor suitability for purpose. It does not provide an asbestos survey.

2 Site Setting

2.1 Proposed Development

Powys County Council's proposed development onsite will comprise a waste bulking facility to the south-western section of the site and business units to the north-eastern section of the site. Infrastructure (services and road) has previously been installed onsite to accommodate a business park by the Welsh Government.

2.2 Site Location

The Site is located approximately 0.6km to the south west of Abermule village. The National Grid Reference for the centre of the Site is SO 15749 94213. The nearest postcode to the Site is SY15 6NU and is associated with Maesderwen Farm. A Site location plan is presented in Figure 1 and 2 shows the Site boundary and the layout of the Site.

The Site lies immediately south of the A483 and B4386 with their junction on the boundary of the Site. A railway runs along the southern boundary of the Site. The Site covers an area of approximately 2.09 Ha. The majority of the Site and the surrounding area comprises farmland. The topography of the Site is generally flat, low lying land within the floodplain of the River Severn.

2.2.1 Surrounding Land Use

The Site boundary (Fig. 2 & 3) is defined by the A483 and B4386 to the west and north-west, the railway line to the east and south-east, a cluster of trees to the north-east and a fenced off track to the south-west. Around the entire Site perimeter is a fence allowing for the Site area to be identified.

The Site is on level ground on the edge of the floodplain of the River Severn, which is approximately 200.0m north of the Site. The ground rises approximately 100m south of the Site.

The A483 and B4386 are immediately north west of the Site boundary, with fields/farmland to the west and north west, with horses and other livestock. Approximately 5m to the north of the Site is a series of farm buildings associated with Maesderwen Farm, with relatively new metal barns to store farm machinery and older brick buildings converted into stables and conjoined paddocks. An additional set of farm buildings is located approximately 5m to the north-west of the Site associated with Bryn-y-meas Farm.

Just beyond the property boundary of the southern boundary of the Site is a railway track with associated pylons on an embankment. Between the raised railway and the Site boundary is a row of mature deciduous trees. Access and visibility through the trees was difficult and the embankment (raised approximately 3-4m in height) prevented viewing other features beyond.

Just beyond the property boundary to the north-east of the Site is a cluster of deciduous trees with a drainage channel, orientated north-west to south-east. A gated path is adjacent to the trees which leads to a compound containing farm machinery, and a railway bridge into fields with livestock (cows and sheep).

Approximately 1.0-2.0m south-west of the Site boundary is a pathway from the roadside orientated west to east and running below a railway bridge.

North-east (approximately 360-440m) of the Site, and adjacent to the B4386 is an area of land used for commercial purposes including storage of locked shipping containers and vehicles. Adjacent to this is an area of residential properties.

2.3 Site Walkover Survey

A Site walkover survey was undertaken by a Geo-Environmental Consultant from Arcadis on the 9th of November 2017. A summary of the findings of the walkover is provided below and the photographs from the visit are provided in Appendix A. Information obtained prior to the walkover from the client stated there is infrastructure onsite consisting of a road, electrical substation and services.

2.3.1 On-Site

During the Site walkover it was considered suitable to separate the site into five areas (Fig 3.) as follows:

1. Livestock grazing field in the north-eastern end of the Site (Image 12).
2. A roadway (roughly 'L' shaped) enabling access to an electrical substation, with associated services (identified by manhole covers and secure above ground units), potential underground unidentified tanks beneath a compound along the south-eastern boundary (Image 11).
3. One large field towards the centre south-eastern of the Site (Image 5).
4. Former roadway used for storage of farm equipment, soil stockpile and hay bales along the north-western boundary of the Site (Image 7).
5. One small field in the south-west of the Site.

The Site is accessed via the B4386 onto the L-shaped roadway Site. At the entrance of the Site there are two fixed bollards on either side of the pavement and four fixed lockable bollards on the road to prevent unauthorised entry. At the time of the visit there were sheep in the north-eastern field and the other fields were empty of livestock. The fields are fenced off with barbed wire/ wire connected by wooden fence posts, with saplings/ young trees growing around the circumference of the fencing. In both fields there was an odour of animal faeces and evidence of a geotextile underlying the topsoil being held in place by wooden stakes resting on the surrounding fencing, potentially used as a former plastic fence to stop the migration of newts during construction works of the road.

The L-shaped roadway runs along the southern boundary of the Site approximately 140.0-160.0m orientated north-east to south-west. Near to the junction of the road there is a rectangular double gated compound with four lockable bollards blocking the entrance. The compound contains two electrical substation metering units/telephone exchange box, one above ground double skinned plastic tank (containing flammable and harmful material), concrete pipes/materials and potentially two underground storage tanks (marked by circular

scarring). The contents of the tanks onsite were not identified due to restriction of access to compound. Crossing the compound in a north-west to south-east orientation are concrete bollards to prevent vehicle access onto the underground storage tank area. Approximately 5.0-7.0m south-west of the gated compound is an electrical substation, constructed of brick with two vents on each wall (two sets of vents at the base of the hut and 1 set of vents at the top).

Along the roadway On-Site and within 2.0m of the road in the adjacent field, there are a large number of manhole covers for various services. These appear to include BT communications and possibly water, gas and electricity, as well as surface water drains. There are street lamps along either side of the road. There are no overhead cables across the Site.

Along the north-western part of the Site in the central field is a broken tarmac road orientated north east-south west, which is an abandoned section of a road. This is now used for storage by the farmer, including; a mound which appears to comprise of soil with turf cover which has been disturbed at the south-western side of the mound, a pile which appears to comprise of concrete, gravel and soil, haylage/hay bales protected by a small electrified fence, tractor tyres and metal farm machinery/livestock feeders/chicken coops.

In the far south-west of the Site there is a small field separated by an open gate and a row of deciduous trees across the Site orientated north-west to south-east. In the south-western section of the Site is a gated area which leads onto a footpath that passes below a railway bridge.

On-Site activities observed during the Site Walkover included landscape maintenance workers/gardeners and general public walking dogs along the strip of road.

An image from 'Google Streetview' dated April 2010 appears to show the construction of the L-shaped roadway and possibly a compound for other construction works. It also shows a protection fence for newts and other amphibians, the remnants of which were observed during the walkover (Image 6 & 10).

3 Physical Settings

3.1 Published Geology

According to the British Geological Survey (BGS) Geoindex (Ref. 1), and BGS Solid and Drift, 1:50,000 scale map reference 165 (Ref. 5), the following geological strata are anticipated beneath the Site.

- Superficial deposits comprising Alluvial Fan Deposits, likely to comprise various amounts of sand, clay and silt.
- The solid geology beneath the Site comprises the Nantglyn Flags Formation, comprising of mudstone, siltstone and sandstone.

With reference to the geological mapping there is one inferred fault line at rock head located approximately 250.0m south east of the Site, downthrown to the east.

The BGS website (Ref. 1) provides records for several boreholes located on and near to the Site, as summarised in Table 3.1 below, the logs are included in Appendix E.

Table 3.1 – Summary of BGS Borehole Logs

Reference	On or distance from centre of Site (m)	Depth (m)	Geology and groundwater descriptions on the log
SO19SE18	On-Site	4.88	<p><i>Sandy brown topsoil with rootlets to 0.30m</i></p> <p><i>Very stiff grey/green gravel with pebble sized pieces of mudstone and sandy grey/green clay inclusions to 2.13m</i></p> <p><i>Compact poorly graded brown sand and gravel proven to 4.88m</i></p> <p><i>Log reports 'water table not encountered'</i></p>
SO19SE17	120	4.88	<p><i>Sandy brown clay with occasional gravel to 1.83m</i></p> <p><i>Compact sand and gravel proven to 4.88m</i></p> <p><i>Log reports 'water table not encountered'</i></p>
SO19SE16	250	3.05	<p><i>Firm fissured light brown/yellow clay with traces of sand and patches of silt to 2.44m.</i></p> <p><i>Compact well graded sand and gravel proven to 3.05m</i></p> <p><i>Log reports 'water table not encountered'</i></p>
SO19SE6		6.10	<p><i>Dry topsoil to 0.61m</i></p> <p><i>Compact light brown sandy clay to 1.52m</i></p> <p><i>Dense 'boulder bed' to 6.10m. Boulder driven to 5.49m. It is not clear if this just pushing a boulder, or whether this is indicative of dense gravels with occasional boulders.</i></p> <p><i>Water was encountered at 1.52m and from 5.49m</i></p>

Reference	On or distance from centre of Site (m)	Depth (m)	Geology and groundwater descriptions on the log
SO19SE2	290	12.66	<p><i>Topsoil – to 0.46m</i></p> <p><i>Firm brown sandy clay to 1.37m</i></p> <p><i>Firm brown sandy stoney clay with occasional cobbles to 3.50m</i></p> <p><i>Dense sand and gravel to 9.14m. Dense to compact from 7.31m. Compact to dense. Proven to 12.66m</i></p> <p><i>Water was encountered at 2.4m and from 7.31m</i></p>

* - base of stratum not proven

3.2 Radon

The Site is located within an intermediate probability radon area (5 to 10% of homes are estimated to be at or above the action level). The BRE211 guidance document (Ref. 4) indicates that basic radon protection measures should be considered for all new developments on this Site. It is recommended that the level of protection required is confirmed with the Local Authority Building Control Department, and that will depend on the design of any structures and buildings including the inherent ventilation. The BRE211 guidance document includes guidance on how the measures should be designed and what factors should be considered.

3.3 Mining

No productive Coal Measures are shown on the BGS mapping (Ref. 1) and the Coal Authority Website (Ref. 2) indicates that the Site is not within a Coal Mining Reporting Area. No active mines or quarries are noted within 2.0km of the Site boundary. The Envirocheck report (Appendix B) list four BGS recorded mineral sites within 1.0km of the Site boundary, the closest being an open cast mine for clay and shale 632.0m to the north, activities are now ceased.

3.4 Hydrogeology and Hydrology

The Envirocheck report (Appendix B) has recorded the superficial deposits to be a Secondary undifferentiated aquifer and the bedrock to be a Secondary B aquifer.

Secondary B aquifers are defined by the Environmental Agency (Ref.3) as predominantly lower permeability layers which may store and yield limited amounts of groundwater due to localised features such as fissures, thin permeable horizons and weathering.

The Site is not located within a groundwater source protection zone (SPZ) and no SPZs are noted within 1km of the Site.

One groundwater abstraction licence is recorded approximately 360.0m south west of the Site, used for farming and domestic, with Powys County Council being the licence holder.

The nearest mapped natural surface water features are immediately to the east, west and approximately 14.0m south east of the Site boundary. Two ponds are located approximately 70.0m south and approximately 20.0m north west of the Site. The River Severn is located approximately 200.0m north of the Site, the Mule river is approximately 500.0m east, and there are unnamed streams located approximately 200.0m to the north west and approximately 20.0-250.0m southeast of the Site. Several mapped streams/drains appear to be culverted. All surface water courses near to the Site are likely to drain north and eastwards towards the River Severn.

The nearest discharge consent is located approximately 300.0m south east of the Site. It is not clear where this discharges and, therefore, whether it could impact the Site.

Based on the topography of the Site within a valley and the location of surface water features, it is considered that the direction of hydraulic gradient is likely to be south-east and north-west towards the depression of the valley.

3.5 Flood Risk

The Envirocheck Report (Appendix B) indicates that the Site is located within an area that is susceptible to extreme flooding from rivers without defences (Zone 2). A high risk, 30-year return area is located in the south-west. A medium risk, 100-year return is located in the centre and north-east of the Site.

3.6 Unexploded Ordnance (UXO)

Zetica's online preliminary Regional Unexploded Bomb Risk of Mid Wales (Appendix D) indicates that the Site is within an area denoted as "low" bomb risk area. Low risk areas are those which have seen a bombing density of up to 10 bombs per 1000 acres. Further action to mitigate the risk is considered prudent, but not essential.

Prior to any below ground works, it is considered prudent for site workers to be briefed as part of On-Site inductions and risk assessments on the potential risks of encountering UXO and a watching brief undertaken.

3.7 Ecologically Sensitive Areas

According to the Envirocheck Report (Appendix B), the Site is not located within a designated Environmentally Sensitive Area. However, ancient woodland has been identified located approximately 413.0m to the north-west and 453.0m to the north of the Site.

4 Site History

4.1 Summary of Site History

The Site history and that of the surrounding area has been derived from historical maps obtained from the Landmark Envirocheck Report. The maps are dated between 1884 and 2017 and include 1:2,500 and 1:10,560 scale Ordnance Survey Maps. It appears that the Site boundary marked on the historical maps is not accurate because it does not align with the field boundaries. The maps are included in Appendix C.

It is not the intention of this report to provide a full history of the Site, but to identify those past uses on and within the vicinity of the Site that could have resulted in contamination of the Site. Table 4.1 summarises the Site history.

Table 4.1 – Summary of Site History

Map Dates	On-Site	Off-Site
1884 - 1885	On-Site is an open field with no apparent use. An unnamed road cuts across the north-west of the Site.	<p>Approximately 1.5-3.0m south of the field boundary is the Cambrian Railway with a north-east to south-west orientation</p> <p>An unnamed road to Abermule which cuts across the north of the Site.</p> <p>A reservoir located approximately 80m south of the Site on the other side of the railway. A drain is marked as running west into the reservoir, and another exiting the reservoir towards and then along the bottom of the railway embankment, and then northwards along the eastern boundary of the Site. There is another separate drain which appears to originate through a break in the railway embankment, which runs along the western boundary of the Site. This remains the configuration at present.</p> <p>Three ponds are located approximately 60m and 250m north-west (2) and 230m west of the Site (1). The River Severn is located approximately 250m north of the Site.</p> <p>Approximately 20-200m to the north-east is a series of farm related buildings (The Court).</p>
1903	No significant change.	The two ponds approximately 60m north-west and 230m east of the Site are no longer present (may be infilled).
1938 - 1953		A set of 3 buildings, with an unknown use are located approximately 60m north-west of the Site.
1963 -1964		No significant changes.
1983 - 1984	In the north-west of the Site the unnamed road is no longer in use Site.	<p>The two farm identified farms are first noted to have names (Brn-y-maes to the north-west and Maesderwen to the north east).</p> <p>Approximately 2-5m to the north of the Site the junction of the A483 and B4386 has been reconfigured.</p>
2000	No significant change.	Maesderwen has been expanded to include a large commercial building where there were previously smaller

		<p>farm buildings. Approximately 220-250m east of the Site is predominately residential property and an associated area for commercial use.</p> <p>It appears that the former reservoir south of the Site has been partially or fully infilled and appears vegetated.</p>
2006	No significant change.	Bryn-y-maes farm now has a cylindrical structure On-Site.
2017	The Site is now labelled as Abermule Business Park with a road cutting south-east and along the western boundary of the Site.	No significant change.

The historical review reveals that the Site has not undergone any significant development since the earliest available maps (1884-1885). The only significant change shown on the Site is the abandonment of an unnamed road which cut across the north-western part of the Site, when the B4386 and A483 were reconfigured in 1983 -1984. More recent development on the Site, not shown on the maps, includes the construction of an access road and infrastructure, as outlined above. It appears, based on the Google maps data, that this was carried out around 2010.

Potential sources of contamination near to the Site include; the railway on an embankment approximately 50.0m south, Maesderwen Farm buildings 20-200m north-east, farm buildings (Bryn-y-maes) 60.0m north-west.

There was a reservoir approximately 60m south of the Site, and there are several drainage ditches near to and adjacent to the Site which generally flow north and eastward towards the River Severn.

5 Environmental Setting

Public register information for the Site and the surrounding area has been obtained from a Landmark Envirocheck Report (Appendix B). The data has been reviewed and is summarised in Table 5.1 where the information is considered to be relevant to the context of this study. Features assessed as having potential to have impacted the Site are considered further in the risk assessment.

Table 5.1 – Summary of Environmental Data

Feature	Description	Likelihood of Significant Impact to the Site
Discharge consents	There are no recorded discharge consents within approximately 250.0m of the Site. The nearest is approximately 300.0m south east of the Site and is for discharge of sewage to the surface water course which runs past the eastern boundary of the Site.	Low Likelihood
Local Authority Pollution Prevention and Controls	There are no recorded Local Authority Pollution Prevention and Controls within approximately 250.0m of the Site.	N/A
Pollution incidents to controlled waters	There are no recorded Pollution incidents to controlled waters within approximately 250m of the Site. The closest incident occurred 475.0m north west in relation to a sheep farm resulting in a minor incident.	Unlikely
Landfill Sites (current and historical)	There are no recorded Landfill Sites (current and historical) within approximately 250.0m of the Site.	N/A
Licensed Waste Management Facilities	There are no recorded Licensed Waste Management Facilities within approximately 250.0m of the Site.	N/A
Potentially Infilled Land	There are no recorded Potentially Infilled Land within approximately 250.0m of the Site. The closest identified infilled land is 336.0m north-east of the Site in 1964 in relation to a waterbody.	N/A
BGS Recorded Mineral Sites	There are no recorded BGS Recorded Mineral Sites within approximately 250.0m of the Site.	N/A
Radon	To the north-east On-Site there is an intermediate probability of radon (3 to 5% of homes are estimated to be at or above action level) and to the west On-Site is an intermediate probability of radon (1 to 3% of homes estimated to be at or above the action level).	Moderate BRE211 guidance (Ref. 4) indicates that basic radon protection measures should be installed in all new development. The need and design of measures in individual buildings and structures will depend on their inherent design and therefore the

Feature	Description	Likelihood of Significant Impact to the Site
		potential for radon to enter and accumulate.
Potential for Collapsible or Compressible Ground and Landslides	<p>There is a very low potential for compressible ground stability hazards and a very low to moderate potential for compressible ground stability hazards On-Site.</p> <p>On-Site there is a very low potential of landslides, however Off-Site within 250.0m there are six potential areas of land sliding with a low to high risk.</p>	<p>Very Low to moderate</p> <p>Identified areas of risk are highest to the south and north of the Site. Due to the distance from the Site being 43.0-179.0m it is unlikely to impact the Site.</p>
Contemporary Trade Directory Entries and Commercial Points of Interest	<p>There are no recorded Contemporary Trade Directory Entries within approximately 250.0m of the Site.</p> <p>Maesderwyn farm is marked as a commercial point of interest – 50.0-80.0m north east</p>	Low Likelihood

6 Environmental Risk Assessment

Geo-environmental assessments are required to consider the significance of potential contamination in terms of plausible contaminant source-pathway-receptor linkages. As part of this process, it is necessary to develop a conceptual model of these potential contaminant linkages by identifying the potential contamination sources, sensitive receptors and potential exposure pathways. A risk assessment is then undertaken to determine the likelihood and significance of these potential contaminant linkages.

6.1 Potential Contaminant Sources

Based on the information obtained from the Site walkover as well as the historical and environmental research, the following potential contaminant sources have been identified, as summarised in Table 6.1 and Table 6.2. These are considered in the risk assessment Table 6.4.

Table 6.1 – On-Site Potential Contaminant Sources

Potential Contaminant Sources	Potential Contaminants
Made Ground On-Site associated with abandoned roadway and use of the Site by the farmer to store rusted farm equipment.	TPH (Total Petroleum Hydrocarbons) Metals – arsenic, aluminium, cadmium, chromium, copper, iron, lead, mercury, nickel, zinc. Fly ash, slag, clinker associated with railway activities PAHs (Polycyclic aromatic hydrocarbon) Asbestos
Spills from filling/removal of contaminating liquids from underground tanks in compound area and electrical substation.	Organics – TPH Metals – arsenic, aluminium, cadmium, chromium, copper, iron, lead, mercury, nickel, zinc. PCBs (Polychlorinated biphenyl)
Underlying Geology	Radon gas

Table 6.2 – Off-Site Potential Contaminant Sources

Potential Contaminant Sources	Potential Contaminants
Maesderwen and Bryn-y-maes farms	Organics – TPH (Total Petroleum Hydrocarbons) Metals. PAHs (Polycyclic aromatic hydrocarbon) Nitrates, Bacteria and Coliforms from livestock
Railway line	Organics – TPH (Total Petroleum Hydrocarbons) Metals. Fly ash, slag, clinker associated with railway activities PAHs (Polycyclic aromatic hydrocarbon)

6.2 Potential Receptors

The potential receptors detailed below take into consideration the future land use for the Site. The Site is proposed to occupy a waste disposal unit and commercial business units, as proposed by Powys County Council.

Humans

- Future Site visitors, staff of business units.
- Maintenance workers and contractors following development.
- The risk to construction workers during development would be governed by Health and Safety Legislation and mitigated by the appropriate use of Personal Protective Equipment (PPE) and mitigation measures. The risk to construction workers has, therefore, not been considered in this assessment.

Controlled waters

- Surface water: Reservoir and associated drainage around the Site <50m north-east, south-east, south and north-west of the Site. River Severn approximately 230-250m north-east.
- Groundwater beneath the Site: Superficial deposits is a secondary undifferentiated aquifer and the bedrock is a secondary B aquifer.

Buildings

- Building foundations.
- Underground services such as water supply, drainage, gas, electricity and telecommunications.

6.3 Exposure Pathways

Potential exposure pathways are the routes that link the receptor to the contamination. The potential pathways for this Site are considered to be those listed within Table 6.3.

Table 6.3 – Potential Contaminant Exposure Pathways

Receptor	Pathway
Human health	Accidental ingestion of contaminants within soil, water and dust Inhalation of dusts, vapours or hazardous ground gas Dermal contact with contaminants in soil, water and dust
Controlled waters (groundwater and surface water)	Leaching of contaminants from Made Ground and vertical migration into groundwater Horizontal migration of contaminants in groundwater

Infrastructure	<p>Direct contact of buildings, services or foundations with contaminants in the soil and shallow groundwater.</p> <p>Migration and accumulation of ground gas which may lead to an explosive risk within confined spaces of buildings or services.</p>
----------------	---

6.4 Potential Contaminant Linkages

This study has identified potential sources of contamination from On-Site (although limited) and Off-Site sources of contamination which could impact Site end-users, controlled waters and foundations.

Potential contaminant linkages for the Site are presented in Table 6.3 below.

Table 6.4 – Potential Contaminant Linkages

Potential Contaminant Source	Potential Pathway	Receptor	Likelihood of Potentially Complete Pollutant Linkage
On-Site Made Ground on Site from roadway abandonment and rubble mounds. TPH (Total Petroleum Hydrocarbons) Metals – arsenic, aluminium, cadmium, chromium, copper, iron, lead, mercury, nickel, zinc. Fly ash, slag, clinker associated with railway activities PAHs (Polycyclic aromatic hydrocarbon) Asbestos	Dermal contact with contaminants in soil, water and dust Inhalation of dusts, vapours or hazardous ground gas	Human Health Site users and visitors including children Maintenance workers/contractors	Low Likelihood The proposed development will predominantly be hardstanding, therefore, it is unlikely that a pathway will be present.
	Leaching of contaminants from Made Ground and vertical migration into groundwater	Groundwater Underlying Secondary B aquifer and Secondary Undifferentiated aquifer	Low Likelihood The underlying superficial deposits are likely to comprise a clay component which would provide some protection to the underlying aquifers from the vertical migration of contaminants. The potential sources of contaminants are in localised locations onsite therefore this reduces the potential for widespread contamination.
	Direct contact of buildings, services or foundations with contaminants in the soil and shallow groundwater.	Buildings/Underground Services Utilities, foundations and confined spaces	Unlikely The presence of Made Ground On-Site was localised and the Site history reflects the Site has mostly been greenfield; therefore, it is unlikely that building foundations and services will come in direct contact with the contaminants.
On-Site Spills/leaks from underground and above Ground storage tanks in compound area and electrical substation. TPH	Leaching of contaminants from Made Ground and vertical migration into groundwater	Groundwater Underlying Secondary B aquifer and Secondary Undifferentiated aquifer	Low Likelihood Given the structures appear to be relatively new, within the past 10 years, it is unlikely that the integrity of the tanks and substation has been compromised. Providing maintenance is continued and the structures were constructed to specification there is a low likelihood of leaks.
	Dermal contact with contaminants in soil, water and dust Inhalation of dusts, vapours or hazardous ground gas	Human Health Site users and visitors including children – Asphyxiation Maintenance workers/contractors	

Metals – arsenic, aluminium, cadmium, chromium, copper, iron, lead, mercury, nickel, zinc. PCBs (Polychlorinated biphenyl)	Migration and accumulation of ground gas which may lead to an explosive risk within confined spaces of buildings or services.	Explosion Buildings and underground services.	
On-Site and Off-Site Underlying Geology Radon gas	Inhalation of dusts, vapours or hazardous ground gas	Human Health – Asphyxiation Site users and visitors including children Maintenance workers/contractors	Likely BRE guidance indicates that there are elevated concentrations of naturally produced radon gas in this area and basic protection measures are required in all new buildings.
	Migration and accumulation of ground gas which may lead to an explosive risk within confined spaces of buildings or services	Buildings/Underground Services – Explosion Utilities, foundations and confined spaces	
Off-Site Maesderwen and Bryn-y-maes farms TPH (Total Petroleum Hydrocarbons) Metals – arsenic, aluminium, cadmium, chromium, copper, iron, lead, mercury, nickel, zinc. PAHs (Polycyclic aromatic hydrocarbon) Nitrates, Bacteria and Coliforms from livestock	Leaching of contaminants and vertical migration into groundwater	Groundwater/ surface water Underlying Secondary B aquifer and Secondary Undifferentiated aquifer Migration into drainage water/streams/River Severn	Likely Due to the topography of the Site and the surrounding valley it is likely that groundwater maybe encountered On-Site. The Site is in an area of flood risk, however the underlying superficial deposits are likely to comprise a clay component which would provide some protection to the underlying aquifers from the vertical migration of contaminants.
Off-Site Historic and modern-day railway line/ Made Ground	Migration and accumulation of ground gas which may lead to an explosive risk within confined spaces of buildings or services	Buildings/Underground Services – Explosion Utilities, foundations and confined spaces	

<p>TPH (Total Petroleum Hydrocarbons)</p> <p>Metals – arsenic, aluminium, cadmium, chromium, copper, iron, lead, mercury, nickel, zinc.</p> <p>Fly ash, slag, clinker associated with railway activities</p> <p>PAHs (Polycyclic aromatic hydrocarbon)</p>	Inhalation of dusts, vapours or hazardous ground gas inhalation vapours	<p>Human Health</p> <p>Site users and visitors including children</p> <p>Maintenance workers/contractors</p>	<p>Low Likelihood</p> <p>Given the nature of the development, the Site is located on an area with potential radon gas from bedrock, it is possible radon may accumulate within buildings. Appropriate measures should be taken to reduce the risk of radon risk On-Site.</p>
	Horizontal and vertical migration of contaminants in groundwater	<p>Groundwater</p> <p>Underlying Secondary B aquifer and Secondary Undifferentiated aquifer</p>	<p>Likely</p> <p>Due to the topography of the Site and the surrounding valley it is likely that groundwater may be encountered On-Site. The Site is in an area of flood risk, however the underlying superficial deposits are likely to comprise a clay component which would provide some protection to the underlying aquifers from the vertical migration of contaminants.</p>
	Direct contact of buildings, services or foundations from contaminants.	<p>Buildings/Underground Services</p> <p>Utilities, foundations and confined spaces</p>	<p>Low Likelihood</p> <p>The underlying superficial deposits are likely to comprise a clay component which would provide some protection to the underlying aquifers from the vertical migration of contaminants. Leachate and groundwater are less likely to migrate beneath the Site and come into contact with the buildings and services.</p>

7 Other Considerations

7.1 Geotechnical

The following provides an indication of the ground conditions beneath the Site, but this is based on old borehole logs the majority of which were not located within the Site.

The Site has undergone little development and is predominantly grazing land so that the extent of Made Ground materials is likely to be limited. During the Site walkover evidence of underground services were identified along the south-eastern boundary of the Site and towards the north of the Site, and a former roadway runs along the north-western boundary of the Site.

Borehole logs supplied by the BGS indicate that that sandy clay, with occasional 'inclusions/patches' of clay or sand were identified from ground level to between 1.5-2.5m. These are underlain by 'compact to dense' sand and gravel with occasional horizons of cobbles and boulders.

Groundwater was encountered, apparently perched, within the alluvial deposits, and at a depth of approximately 5.5m and 7.3m within the underlying Glacial Deposits.

The south-eastern boundary of the Site is bordered by a railway embankment. The condition and bearing capabilities of the platform, along with the slope stability of the ground will need to be taken into consideration before any development is undertaken near to this structure. Construction will be required to comply with Network Rail's safe working distance, when working near the railway line.

8 Conclusions and Recommendations

8.1 Conclusions

The proposed commercial development will comprise business units and a waste bulking facility and associated infrastructure.

The Site is located in an area where BRE guidance indicates basic radon protection measures are required. The Site is underlain by sandy clay to approximately 1.5-2.5m, underlain by 'compact to dense' sand and gravel. Groundwater was encountered perched in the sandy clay and in the sand and gravel.

The superficial deposits on the Site and in the surrounding area are classified by the Environment Agency as a Secondary Undifferentiated Aquifer and the underlying bedrock is classified as a Secondary B Aquifer.

Potential sources of contamination identified on the Site include localised area of made ground associated with an abandoned roadway and stockpiles, and fuel storage. Potential sources of contamination identified near to the site include two farms, commercial units, and a railway line.

8.2 Recommendations

The risk levels assessed in this report are heavily dependent on the actual presence (or absence) and nature of contaminants in the soil and groundwater beneath the Site. No chemical information on soil or groundwater quality currently exists, but potential sources of contamination have been identified on and near to the. It is, therefore, recommended that an intrusive investigation of the Site is carried out to better characterise the potential risk levels and establish a land quality baseline for the Site which can be used in the planning application process. Contamination impacts, if present, may require remediation, depending on the form of the proposed development and magnitude of impacts.

It is also recommended that the intrusive investigation includes consideration of geotechnical constraints including pavement and foundation design. The stability of the railway embankment will need to be considered in development design.

During construction, a watching brief should be undertaken to identify the presence of any previously undiscovered contamination. If this is encountered, all works should cease immediately until the advice of a suitably qualified professional can be sought.

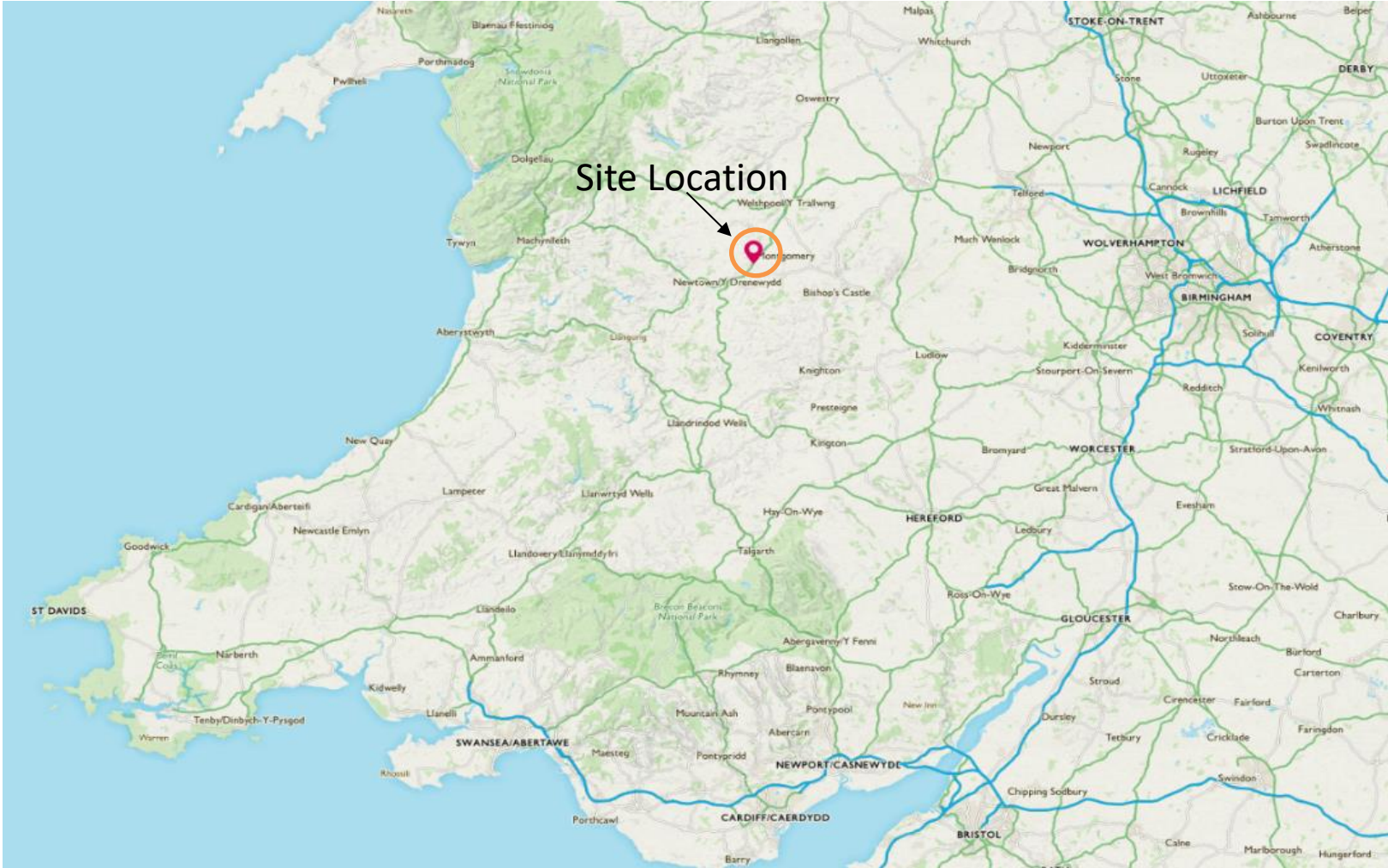
Construction workers should use appropriate PPE and follow the site-specific contractors risk assessment, which should include risks to human health from potential contamination including asbestos.

9 References

1. British Geological Survey, Geoindex Website, <http://www.bgs.ac.uk/geoindex/>, accessed November 2017.
2. Coal Authority website, interactive map viewer <http://mapapps2.bgs.ac.uk/coalauthority/home.html>, accessed November 2017.
3. Environment Agency, Whats in Your Backyard, Aquifers, <http://apps.environment-agency.gov.uk/wiyby/117020.aspx>, accessed November 2017.
4. UK Radon, <http://www.ukradon.org/information/ukmaps>, accessed November 2017.
5. BGS maps Portal, <http://www.bgs.ac.uk/data/maps/home.html>, accessed November 2017

Figures

Figure 1 – Site Location



Reproduced from the Ordnance Survey Map with Permission of the Controller of Her Majesty's Stationary Office.
Crown Copyright Reserved. Licence No. AL813400

Client
Powys County Council

Project
Abermule Business Park

Title
Site Location

Scale NT	Datum N/A
-------------	--------------

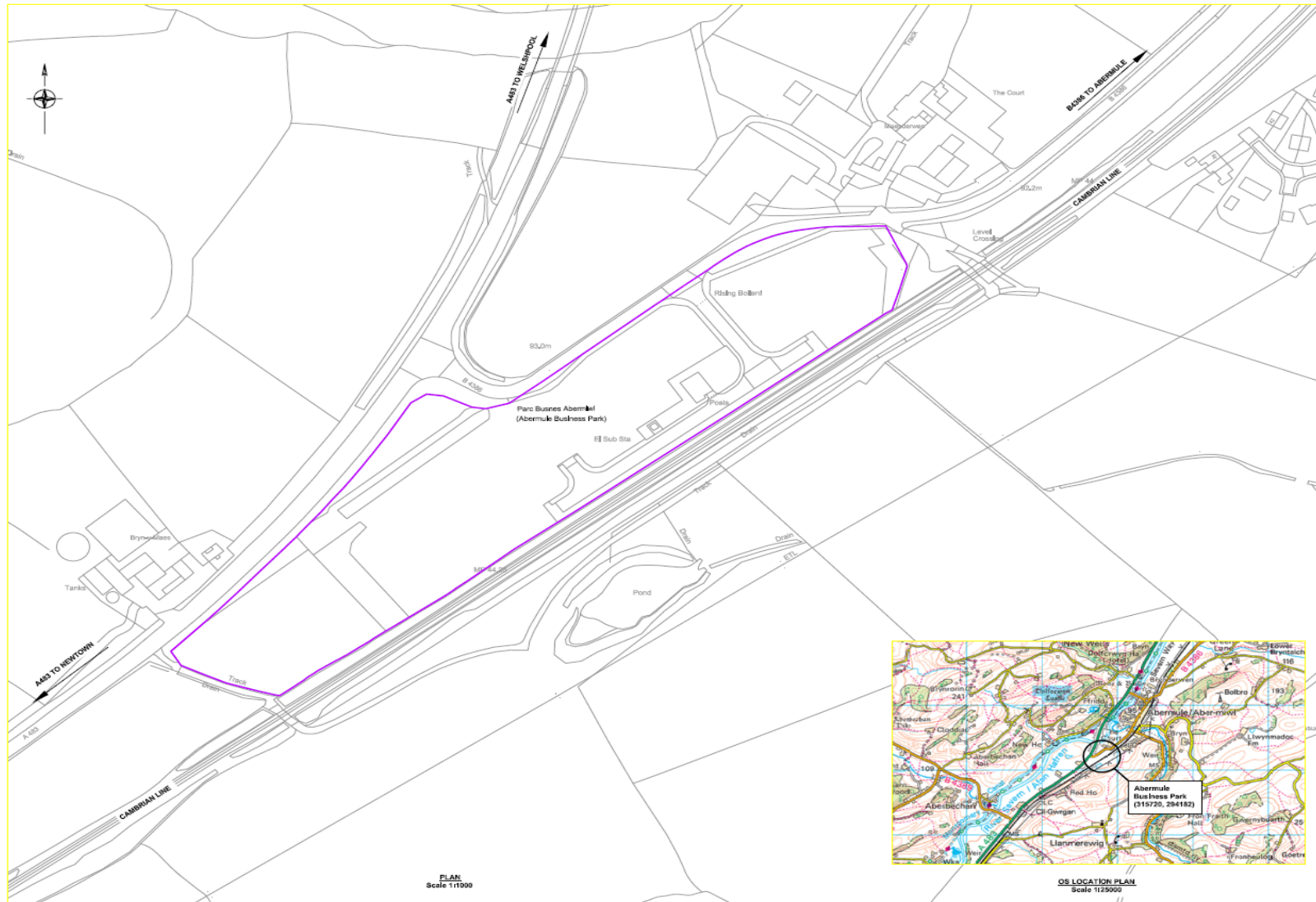
ARCADIS Design & Consultancy for natural and built assets

Arcadis Consulting Ltd
Aston Cross Business Village
50 Rocky Lane
Birmingham B6 5RQ
United Kingdom

Project
1001034

Drawing ..	Issue
Figure 1	01

Figure 2 – Site Boundary



Reproduced from the Ordnance Survey Map with Permission of the Controller of Her Majesty's Stationary Office.
Crown Copyright Reserved. Licence No. AL813400

Client

Powys County Council

Project

Abermule Business Park

Title

Site Boundary

Scale

NT

Datum

N/A

ARCADIS | Design & Consultancy
for natural and built assets

Arcadis Consulting Ltd
Aston Cross
Business Village
50 Rocky Lane
Birmingham
B6 5RQ
United Kingdom

Project

1001034

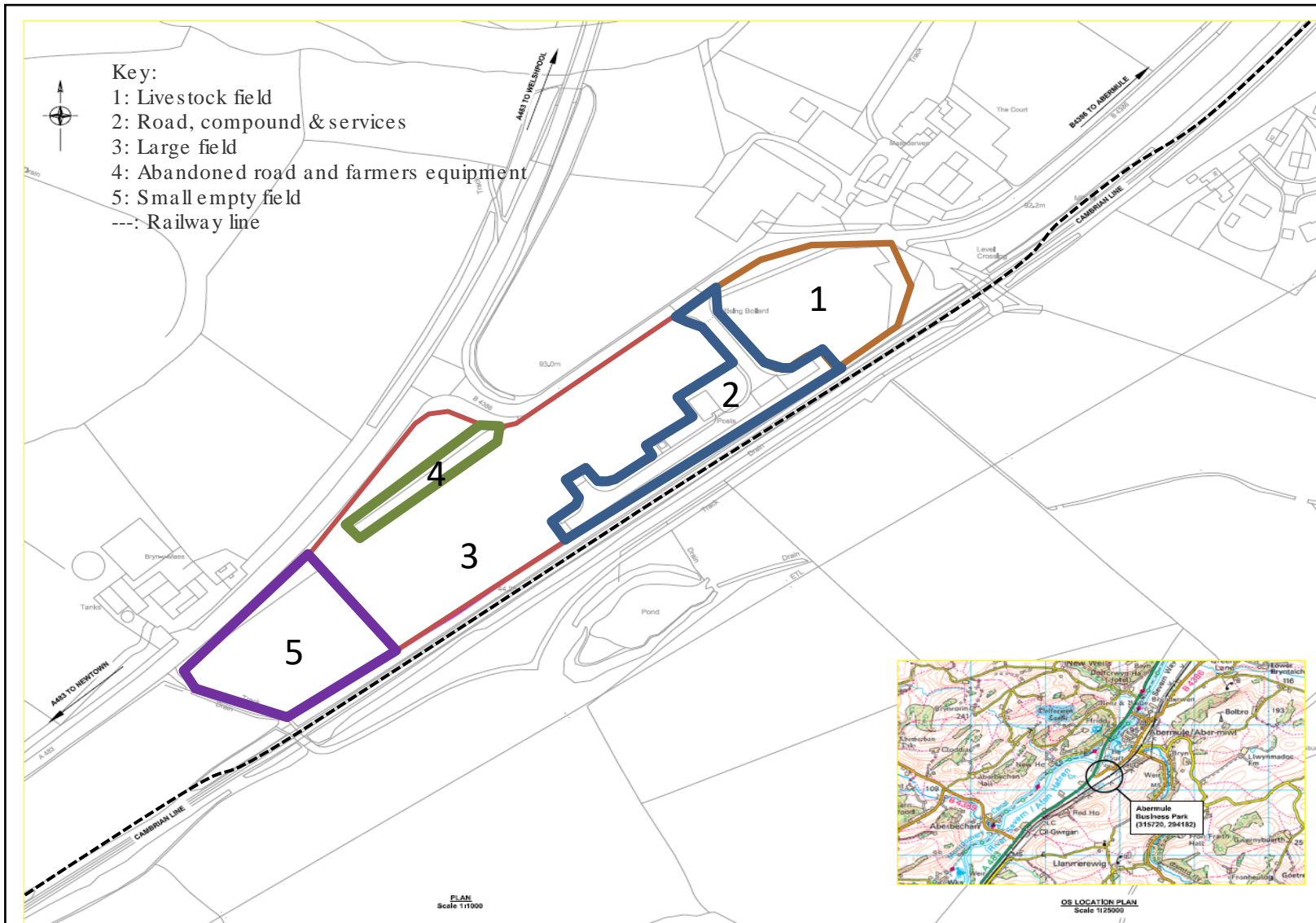
Drawing No.

Figure 2

Issue

01

Figure 3 – Site Layout



Reproduced from the Ordnance Survey Map with Permission of the Controller of Her Majesty's Stationary Office.
Crown Copyright Reserved. Licence No. AL813400

Client

**Powys County
Council**

Project

**Abermule
Business Park**

Title

**Site Area - Five
Zones**

Scale

NT

Datum

N/A



Arcadis Consulting
Ltd
Aston Cross
Business Village
50 Rocky Lane
Birmingham
B6 5RQ
United Kingdom

Project

1001034

Drawing
Figure 3

Issue
01

Appendix A

Site Walkover Survey Photographs

Image 1: Entrance facing south west along B4386



Image 2: Compound. Image taken facing north-west.



Image 3: The pipes standing from the ground and the man hole covers imply there is something below ground



Image 4: Electrical substation with vent at base. Facing west.



Image 5: Vehicle tracks, manhole and hay bales in the central large field. Facing west.



Image 6: Geotextile supported by wooden poles. Facing south.



Image 7: Historic roadway, farm equipment, turf covered mound and hay bales. Facing south-west.



Image 8: Made Ground mound in the central field adjacent to the unused road. Facing north-west.



Image 9: Restricted view of raised railway track. Facing south-east.



Image 10: Geotextile terminating at treeline in the south-west of the central field. Facing south-west.



Image 11: View of road along southern boundary of the site. Facing south-west.



Image 12: Sheep field in the north-eastern field. Facing north-east.



Appendix B

Envirocheck reports

Envirocheck[®] Report:

Datasheet

Order Details:

Order Number:

145441795_1_1

Customer Reference:

10010344

National Grid Reference:

315710, 294180

Slice:

A

Site Area (Ha):

2.09

Search Buffer (m):

1000

Site Details:

Maes Derwyn, Abermule

MONTGOMERY

SY15 6NT

Client Details:

Miss F Waldron

Arcadis Consulting (UK) Ltd

1st Floor

2 Glass Wharf

Temple Quay

Bristol

BS2 0FR

Report Section	Page Number
Summary	-
Agency & Hydrological	1
Waste	18
Hazardous Substances	19
Geological	20
Industrial Land Use	23
Sensitive Land Use	25
Data Currency	28
Data Suppliers	33
Useful Contacts	34

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.

Copyright Notice

© Landmark Information Group Limited 2017. The Copyright on the information and data and its format as contained in this Envirocheck® Report ("Report") is the property of Landmark Information Group Limited ("Landmark") and several other Data Providers, including (but not limited to) Ordnance Survey, British Geological Survey, the Environment Agency/Natural Resources Wales and Natural England, and must not be reproduced in whole or in part by photocopying or any other method. The Report is supplied under Landmark's Terms and Conditions accepted by the Customer.

A copy of Landmark's Terms and Conditions can be found with the Index Map for this report. Additional copies of the Report may be obtained from Landmark, subject to Landmark's charges in force from time to time. The Copyright, design rights and any other intellectual rights shall remain the exclusive property of Landmark and /or other Data providers, whose Copyright material has been included in this Report.

Natural England Copyright Notice

Site of Special Scientific Interest, National Nature Reserve, Ramsar, Special Protection Area, Special Conservation Area, Marine Nature Reserve data (derived from Ordnance Survey 1:10000 raster) is provided by, and used with the permission of, Natural England who retain the copyright and Intellectual Property Rights for the data.

Ove Arup Copyright Notice

The Data provided in this report was obtained on Licence from Ove Arup & Partners Limited (for further information, contact mining.review@arup.com). No reproduction or further use of such Data is to be made without the prior written consent of Ove Arup & Partners Limited. The information and data supplied in the product are derived from publicly available records and other third party sources and neither Ove Arup & Partners nor Landmark warrant the accuracy or completeness of such information or data.

Peter Brett Associates Copyright Notice

The cavity data presented has been extracted from the PBA enhanced version of the original DEFRA national cavity databases. PBA/DEFRA retain the copyright & intellectual property rights in the data. Whilst all reasonable efforts are made to check that the information contained in the cavity databases is accurate we do not warrant that the data is complete or error free. The information is based upon our own researches and those collated from a number of external sources and is continually being augmented and updated by PBA. In no event shall PBA/DEFRA or Landmark be liable for any loss or damage including, without limitation, indirect or consequential loss or damage arising from the use of this data.

Radon Potential dataset Copyright Notice

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

Report Version v53.0

Data Type	Page Number	On Site	0 to 250m	251 to 500m	501 to 1000m (*up to 2000m)
Agency & Hydrological					
BGS Groundwater Flooding Susceptibility	pg 1	Yes	Yes	Yes	n/a
Contaminated Land Register Entries and Notices					
Discharge Consents	pg 3			13	3
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					
Local Authority Pollution Prevention and Control Enforcements					
Nearest Surface Water Feature	pg 7		Yes		
Pollution Incidents to Controlled Waters	pg 7			1	3
Prosecutions Relating to Authorised Processes					
Registered Radioactive Substances					
River Quality	pg 8		1	3	
River Quality Biology Sampling Points	pg 8			1	
River Quality Chemistry Sampling Points					
Substantiated Pollution Incident Register					
Water Abstractions	pg 9			1	
Water Industry Act Referrals					
Groundwater Vulnerability	pg 9	Yes	n/a	n/a	n/a
Drift Deposits			n/a	n/a	n/a
Bedrock Aquifer Designations	pg 9	Yes	n/a	n/a	n/a
Superficial Aquifer Designations	pg 9	Yes	n/a	n/a	n/a
Source Protection Zones					
Extreme Flooding from Rivers or Sea without Defences	pg 9	Yes	Yes	n/a	n/a
Flooding from Rivers or Sea without Defences	pg 9		Yes	n/a	n/a
Areas Benefiting from Flood Defences				n/a	n/a
Flood Water Storage Areas				n/a	n/a
Flood Defences				n/a	n/a
OS Water Network Lines	pg 9		16	20	36

Data Type	Page Number	On Site	0 to 250m	251 to 500m	501 to 1000m (*up to 2000m)
Waste					
BGS Recorded Landfill Sites					
Historical Landfill Sites					
Integrated Pollution Control Registered Waste Sites					
Licensed Waste Management Facilities (Landfill Boundaries)					
Licensed Waste Management Facilities (Locations)					
Local Authority Landfill Coverage	pg 18	1	n/a	n/a	n/a
Local Authority Recorded Landfill Sites					
Potentially Infilled Land (Non-Water)					
Potentially Infilled Land (Water)	pg 18			2	1
Registered Landfill Sites					
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	pg 19			1	
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 20	Yes	n/a	n/a	n/a
BGS Estimated Soil Chemistry	pg 20	Yes			Yes
BGS Recorded Mineral Sites	pg 20				4
BGS Urban Soil Chemistry					
BGS Urban Soil Chemistry Averages					
CBSCB Compensation District			n/a	n/a	n/a
Coal Mining Affected Areas			n/a	n/a	n/a
Mining Instability			n/a	n/a	n/a
Man-Made Mining Cavities					
Natural Cavities					
Non Coal Mining Areas of Great Britain	pg 21	Yes		n/a	n/a
Potential for Collapsible Ground Stability Hazards	pg 21		Yes	n/a	n/a
Potential for Compressible Ground Stability Hazards	pg 21	Yes	Yes	n/a	n/a
Potential for Ground Dissolution Stability Hazards				n/a	n/a
Potential for Landslide Ground Stability Hazards	pg 21	Yes	Yes	n/a	n/a
Potential for Running Sand Ground Stability Hazards	pg 22	Yes	Yes	n/a	n/a
Potential for Shrinking or Swelling Clay Ground Stability Hazards	pg 22	Yes	Yes	n/a	n/a
Radon Potential - Radon Affected Areas	pg 22	Yes	n/a	n/a	n/a
Radon Potential - Radon Protection Measures	pg 22	Yes	n/a	n/a	n/a
Industrial Land Use					
Contemporary Trade Directory Entries	pg 23			5	2
Fuel Station Entries	pg 23				1
Points of Interest - Commercial Services	pg 23			5	
Points of Interest - Education and Health					
Points of Interest - Manufacturing and Production	pg 24		2	1	5
Points of Interest - Public Infrastructure	pg 24				1
Points of Interest - Recreational and Environmental					
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 25			2	25
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	pg 27			1	
Special Areas of Conservation	pg 27			1	
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	A13NW (W)	0	1	315650 294200
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding to Occur at Surface	A13SE (E)	18	1	315800 294150
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding to Occur at Surface	A13NW (N)	42	1	315710 294350
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A13NW (N)	78	1	315700 294300
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A13SW (SW)	96	1	315600 293950
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A13SW (SW)	97	1	315550 293950
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A13SW (S)	103	1	315650 293950
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A13SW (SW)	112	1	315500 293950
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A13NW (N)	126	1	315710 294400
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A13SW (S)	128	1	315700 293950
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A13SE (SE)	146	1	315850 294000
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A13SE (S)	147	1	315750 294000
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A13SW (S)	158	1	315710 293950
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A13SE (SE)	166	1	315850 294050
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A13SE (SE)	177	1	315800 294000
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A13SE (E)	185	1	315950 294100
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A13SE (SE)	195	1	315900 294050
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A13NW (NW)	202	1	315600 294400
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A13NW (N)	214	1	315710 294500
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A18SE (N)	248	1	315750 294550
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A14SW (E)	284	1	316050 294050
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A13SE (SE)	295	1	316000 294000

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	A14NW (E)	309	1	316200 294200
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A14SW (E)	320	1	316150 294100
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A14NW (E)	324	1	316200 294182
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A14SW (SE)	325	1	316050 294000
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A13SE (SE)	335	1	316000 293950
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A13SE (SE)	346	1	315950 293900
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A14SW (SE)	354	1	316100 294000
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A13SE (SE)	357	1	315900 293850
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A14NW (E)	359	1	316250 294250
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A14NW (E)	363	1	316250 294350
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A14SW (SE)	365	1	316050 293950
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A12NE (W)	370	1	315250 294300
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A14NW (E)	373	1	316250 294400
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding to Occur at Surface	A13SE (SE)	375	1	316000 293900
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A12SE (W)	383	1	315150 294150
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding to Occur at Surface	A13SE (SE)	386	1	315950 293850
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A8NE (SE)	397	1	315900 293800
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding to Occur at Surface	A19SW (NE)	401	1	316100 294650
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A14SW (SE)	405	1	316050 293900
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A8NE (S)	408	1	315850 293750
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A13SE (SE)	416	1	316000 293850
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A14NW (E)	421	1	316300 294400

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	A12NE (W)	426	1	315150 294250
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding to Occur at Surface	A8NE (SE)	437	1	315900 293750
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A8NE (S)	448	1	315850 293700
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding to Occur at Surface	A12NE (W)	451	1	315150 294300
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A8NE (SE)	456	1	316000 293800
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A8NE (S)	461	1	315800 293650
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A8NE (SE)	467	1	315950 293750
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A14NW (NE)	483	1	316350 294450
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding to Occur at Surface	A8NE (S)	489	1	315850 293650
1	Discharge Consents Operator: Paramount Plc Property Type: Undefined Or Other Location: Waterloo Arms, Abermule, Abermule Authority: Natural Resources Wales Catchment Area: Severn Upper Reference: Ds/2335 Permit Version: 1 Effective Date: 24th May 1963 Issued Date: 24th May 1963 Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Final/Treated Effluent - Not Water Company Discharge Environment: Freshwater Stream/River Receiving Water: The Mule Status: Pre National Rivers Authority Legislation where issue date < 01/09/1989 Positional Accuracy: Approximate location provided by supplier	A13SE (SE)	295	2	316000 294000
1	Discharge Consents Operator: Paramount Plc Property Type: Undefined Or Other Location: Waterloo Arms, Abermule, Abermule Authority: Environment Agency, Midlands Region Catchment Area: Upper Severn Catchment (Above Montford) Reference: Ds/2335 Permit Version: 1 Effective Date: 24th May 1963 Issued Date: 24th May 1963 Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Final/Treated Effluent - Not Water Company Discharge Environment: Freshwater Stream/River Receiving Water: The Mule Status: Pre National Rivers Authority Legislation where issue date < 01/09/1989 Positional Accuracy: Approximate location provided by supplier	A13SE (SE)	295	3	316000 294000

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
2	Discharge Consents Operator: Whitbread Flowers Limited Property Type: Not Given Location: Abermule Hotel, Abermule, NEWTOWN, Powys Authority: Environment Agency, Midlands Region Catchment Area: Not Given Reference: WQ/72/915 /1 Permit Version: Not Supplied Effective Date: Not Supplied Issued Date: 22nd December 1976 Revocation Date: Not Supplied Discharge Type: Sewage Effluent Discharge: Groundwater Environment: Receiving Water: Not Supplied Status: Not Supplied Positional Accuracy: Located by supplier to within 100m	A19SW (NE)	360	3	316100 294600
3	Discharge Consents Operator: British Waterways Board Property Type: Domestic Property (Single) Location: Canal Lock Cottage, Byles Lock, Abermule, Montgomery, Powys Authority: Natural Resources Wales Catchment Area: Severn Upper Reference: Wq/72/245 Permit Version: 1 Effective Date: 10th December 1975 Issued Date: 10th December 1975 Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Final/Treated Effluent - Not Water Company Discharge: Land/Soakaway Environment: Receiving Water: Underground Strata Status: Pre National Rivers Authority Legislation where issue date < 01/09/1989 Positional Accuracy: Located by supplier to within 100m	A18SW (N)	376	2	315600 294600
3	Discharge Consents Operator: British Waterways Board Property Type: Domestic Property (Single) Location: Canal Lock Cottage Byles Lock, Abermule, Montgomery Authority: Environment Agency, Midlands Region Catchment Area: Upper Severn Catchment (Above Montford) Reference: Wq/72/245 Permit Version: 1 Effective Date: 10th December 1975 Issued Date: 10th December 1975 Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Final/Treated Effluent - Not Water Company Discharge: Land/Soakaway Environment: Receiving Water: Underground Strata Status: Pre National Rivers Authority Legislation where issue date < 01/09/1989 Positional Accuracy: Located by supplier to within 100m	A18SW (N)	376	3	315600 294600
4	Discharge Consents Operator: Severn Trent Water Limited Property Type: Sewerage Network - Pumping Station - Water Company Location: Abermule Sewage Pumping Station, Montgomery, Powys Authority: Natural Resources Wales Catchment Area: Severn Upper Reference: S/01/56062/O Permit Version: 1 Effective Date: 10th February 2005 Issued Date: 10th February 2005 Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Pumping Station - Water Company Discharge: Freshwater Stream/River Environment: Receiving Water: The Mule 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	A19SW (NE)	463	2	316200 294650

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
4	Discharge Consents Operator: Severn Trent Water Limited Property Type: Sewerage Network - Pumping Station - Water Company Location: Abermule Sewage Pumping Station, Abermule, Montgomery, Powys Authority: Environment Agency, Midlands Region Catchment Area: Upper Severn Catchment (Above Montford) Reference: S/01/56062/O Permit Version: 1 Effective Date: 10th February 2005 Issued Date: 10th February 2005 Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Pumping Station - Water Company Discharge: Freshwater Stream/River Environment: Receiving Water: The Mule 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	A19SW (NE)	463	3	316200 294650
4	Discharge Consents Operator: Severn Trent Water Limited Property Type: Sewerage Network - Pumping Station - Water Company Location: Abermule Sewage Pumping Station, Montgomeryshire Authority: Natural Resources Wales Catchment Area: Severn Upper Reference: S/01/12196/O Permit Version: 1 Effective Date: 26th April 1989 Issued Date: 26th April 1989 Revocation Date: 10th February 2005 Discharge Type: Sewage Discharges - Pumping Station - Water Company Discharge: Freshwater Stream/River Environment: Receiving Water: The Mule Status: Revoked (Water Resources Act 1991, Section 88 & Schedule 10 as amended by Environment Act 1995) Positional Accuracy: Located by supplier to within 10m	A19SW (NE)	464	2	316180 294670
4	Discharge Consents Operator: Severn Trent Water Limited Property Type: Sewerage Network - Pumping Station - Water Company Location: Abermule Sewage Pumping Station, Abermule, Montgomeryshire Authority: Environment Agency, Midlands Region Catchment Area: Upper Severn Catchment (Above Montford) Reference: S/01/12196/O Permit Version: 1 Effective Date: 26th April 1989 Issued Date: 26th April 1989 Revocation Date: 10th February 2005 Discharge Type: Sewage Discharges - Pumping Station - Water Company Discharge: Freshwater Stream/River Environment: Receiving Water: The Mule Status: Revoked (Water Resources Act 1991, Section 88 & Schedule 10 as amended by Environment Act 1995) Positional Accuracy: Located by supplier to within 100m	A19SW (NE)	464	3	316180 294670
4	Discharge Consents Operator: Severn Trent Water Limited Property Type: Sewage Disposal Works - Water Company Location: Abermule Sewage Treatment Works, Powys Authority: Natural Resources Wales Catchment Area: Severn Upper Reference: S/01/55507/R Permit Version: 1 Effective Date: 30th August 2001 Issued Date: 30th August 2001 Revocation Date: 7th April 2006 Discharge Type: Sewage Discharges - Final/Treated Effluent - Water Company Discharge: Freshwater Stream/River Environment: Receiving Water: River Mule Status: Revoked (Water Resources Act 1991, Section 88 & Schedule 10 as amended by Environment Act 1995) Positional Accuracy: Located by supplier to within 10m	A19SW (NE)	469	2	316210 294650

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
4	Discharge Consents Operator: Severn Trent Water Limited Property Type: Sewage Disposal Works - Water Company Location: Abermule Sewage Treatment Works, Abermule, Powys, Powys Authority: Environment Agency, Midlands Region Catchment Area: Upper Severn Catchment (Above Montford) Reference: S/01/55507/R Permit Version: 1 Effective Date: 30th August 2001 Issued Date: 30th August 2001 Revocation Date: 7th April 2006 Discharge Type: Sewage Discharges - Final/Treated Effluent - Water Company Discharge: Freshwater Stream/River Environment: Receiving Water: River Mule Status: Revoked (Water Resources Act 1991, Section 88 & Schedule 10 as amended by Environment Act 1995) Positional Accuracy: Located by supplier to within 10m	A19SW (NE)	469	3	316210 294650
4	Discharge Consents Operator: Severn Trent Water Limited Property Type: Sewage Disposal Works - Water Company Location: Abermule Sewage Treatment Works, Powys Authority: Natural Resources Wales Catchment Area: Severn Upper Reference: S/01/50099/R Permit Version: 1 Effective Date: 10th April 1995 Issued Date: 10th April 1995 Revocation Date: 29th August 2001 Discharge Type: Sewage Discharges - Final/Treated Effluent - Water Company Discharge: Freshwater Stream/River Environment: Receiving Water: River Mule Status: Modified (Water Resources Act 1991, Schedule 10 as amended by Environment Act 1995) Positional Accuracy: Located by supplier to within 10m	A19SW (NE)	469	2	316210 294650
4	Discharge Consents Operator: Severn Trent Water Limited Property Type: Sewage Disposal Works - Water Company Location: Abermule Sewage Treatment Works, Abermule, Powys, Powys Authority: Environment Agency, Midlands Region Catchment Area: Upper Severn Catchment (Above Montford) Reference: S/01/50099/R Permit Version: 1 Effective Date: 10th April 1995 Issued Date: 10th April 1995 Revocation Date: 29th August 2001 Discharge Type: Sewage Discharges - Final/Treated Effluent - Water Company Discharge: Freshwater Stream/River Environment: Receiving Water: River Mule Status: Modified (Water Resources Act 1991, Schedule 10 as amended by Environment Act 1995) Positional Accuracy: Located by supplier to within 100m	A19SW (NE)	469	3	316210 294650
5	Discharge Consents Operator: Mr G Lewis Property Type: Not Given Location: Trustee Of Morish Chapel Abermule, Ivycot, MONTGOMERY, Powys Authority: Environment Agency, Midlands Region Catchment Area: Not Given Reference: WQ/72/1481 /1 Permit Version: Not Supplied Effective Date: Not Supplied Issued Date: 20th October 1977 Revocation Date: Not Supplied Discharge Type: Sewage Effluent Discharge: Groundwater Environment: Receiving Water: Not Supplied Status: Not Supplied Positional Accuracy: Located by supplier to within 100m	A19SE (NE)	814	3	316600 294700

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
6	Discharge Consents Operator: J & M Morris Property Type: Domestic Property (Single) Location: Pwllprwnt, Abermule, Montgomery, Powys Authority: Natural Resources Wales Catchment Area: Severn Upper Reference: Wq/72/2113 Permit Version: 1 Effective Date: 26th September 1978 Issued Date: 26th September 1978 Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Final/Treated Effluent - Not Water Company Discharge: Land/Soakaway Environment: Receiving Water: Underground Strata Status: Pre National Rivers Authority Legislation where issue date < 01/09/1989 Positional Accuracy: Located by supplier to within 100m	A23SE (N)	993	2	315800 295300
6	Discharge Consents Operator: J & M Morris Property Type: Domestic Property (Single) Location: Pwllprwnt, Abermule, Montgomery, Powys Authority: Environment Agency, Midlands Region Catchment Area: Upper Severn Catchment (Above Montford) Reference: Wq/72/2113 Permit Version: 1 Effective Date: 26th September 1978 Issued Date: 26th September 1978 Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Final/Treated Effluent - Not Water Company Discharge: Land/Soakaway Environment: Receiving Water: Underground Strata Status: Pre National Rivers Authority Legislation where issue date < 01/09/1989 Positional Accuracy: Located by supplier to within 100m	A23SE (N)	993	3	315800 295300
	Nearest Surface Water Feature	A13NE (NE)	14	-	315899 294314
7	Pollution Incidents to Controlled Waters Property Type: Sheep Location: Location Description Not Available Authority: Environment Agency, Midlands Region Pollutant: Organic Wastes: Animal Carcasses Note: Abstraction Affected; Public Health Risk Incident Date: 14th September 1995 Incident Reference: 1500077 Catchment Area: Severn Catchment : Upper Severn (Above Montford) Receiving Water: Watercourse Cause of Incident: Miscellaneous/Other Pollution Type Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A12NE (NW)	475	3	315200 294400
8	Pollution Incidents to Controlled Waters Property Type: Miscellaneous Premises: Unknown Location: Kerry Road Abbermule Authority: Environment Agency, Midlands Region Pollutant: Miscellaneous - Unknown Note: Cwm Mule; River Opaque Green In Colour Incident Date: 17th May 1999 Incident Reference: 2504615 Catchment Area: Severn Catchment : Upper Severn (Above Montford) Receiving Water: Watercourse Cause of Incident: Other Incident/Unknown Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A9NE (SE)	780	3	316500 293800
9	Pollution Incidents to Controlled Waters Property Type: Miscellaneous Premises: Other Location: Location Description Not Available Authority: Environment Agency, Midlands Region Pollutant: Miscellaneous - Natural Note: Amenity Affected Incident Date: 9th September 1995 Incident Reference: 1000261 Catchment Area: Severn Catchment : Upper Severn (Above Montford) Receiving Water: Watercourse Cause of Incident: Miscellaneous/Other Pollution Type Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A19NW (NE)	806	3	316301 295001

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
10	Pollution Incidents to Controlled Waters Property Type: Sheep Location: Location Description Not Available Authority: Environment Agency, Midlands Region Pollutant: Organic Wastes: Animal Carcasses Note: Abstraction Affected; Public Health Risk Incident Date: 14th September 1995 Incident Reference: 1500076 Catchment Area: Severn Catchment : Upper Severn (Above Montford) Receiving Water: Watercourse Cause of Incident: Miscellaneous/Other Pollution Type Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A6NE (SW)	997	3	314600 293700
	River Quality Name: Severn R GQA Grade: River Quality A Reach: Newtown Stw To Conf. The Mule Estimated Distance (km): 3.5 Flow Rate: Flow less than 20 cumecs Flow Type: River Year: 2000	A13NE (N)	152	3	315743 294431
	River Quality Name: Mule R GQA Grade: River Quality A Reach: A489 Gilfach Br Kerry To R.Severn Estimated Distance (km): 11 Flow Rate: Flow less than 1.25 cumecs Flow Type: River Year: 2000	A18SE (NE)	379	3	316011 294670
	River Quality Name: Shrop. Union (Montgomery) GQA Grade: River Quality B Reach: Welshpool Marina To B4389 Aberbechan Estimated Distance (km): 15.5 Flow Rate: Flow greater than 80 cumecs Flow Type: Canal Year: 2000	A18SW (NW)	436	3	315505 294615
	River Quality Name: Severn R GQA Grade: River Quality A Reach: Conf. The Mule To Welshpool Stw Estimated Distance (km): 20.3 Flow Rate: Flow less than 20 cumecs Flow Type: River Year: 2000	A18SE (N)	492	3	315940 294800
11	River Quality Biology Sampling Points Name: Severn Reach: Confluence The Mule To Welshpool Sewage Treatment Works Estimated Distance: 20.30 Positional Accuracy: Located by supplier to within 10m Year: 1990 GQA Grade: River Quality Biology GQA Grade Not Supplied Year: 1995 GQA Grade: River Quality Biology GQA Grade B - Good Year: 2000 GQA Grade: River Quality Biology GQA Grade C - Fairly Good Year: 2002 GQA Grade: River Quality Biology GQA Grade Not Supplied Year: 2003 GQA Grade: River Quality Biology GQA Grade Not Supplied Year: 2004 GQA Grade: River Quality Biology GQA Grade A - Very Good Year: 2005 GQA Grade: River Quality Biology GQA Grade A - Very Good Year: 2006 GQA Grade: River Quality Biology GQA Grade A - Very Good Year: 2007 GQA Grade: River Quality Biology GQA Grade B - Good Year: 2008 GQA Grade: River Quality Biology GQA Grade B - Good Year: 2009 GQA Grade: River Quality Biology GQA Grade B - Good	A18SE (N)	492	3	315940 294800

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
12	Water Abstractions Operator: Powys County Council Licence Number: 18/54/01/0455 Permit Version: 100 Location: Maeshafren, Abermule - Borehole Authority: Environment Agency, Midlands Region Abstraction: General Farming And Domestic Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Maeshafren, Abermule - Borehole Authorised Start: 01 April Authorised End: 31 March Permit Start Date: 1st May 1979 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m	A12SE (SW)	366	3	315200 293900
	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 21 West Shropshire Scale: 1:100,000	A13NW (NE)	0	3	315710 294182
	Drift Deposits None				
	Bedrock Aquifer Designations Aquifer Designation: Secondary Aquifer - B	A13NW (NE)	0	1	315710 294182
	Superficial Aquifer Designations Aquifer Designation: Secondary Aquifer - Undifferentiated	A13NW (NE)	0	1	315710 294182
	Extreme Flooding from Rivers or Sea without Defences Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial Models Boundary Accuracy: As Supplied	A13NW (NE)	0	2	315710 294182
	Extreme Flooding from Rivers or Sea without Defences Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial Models and Fluvial Events Boundary Accuracy: As Supplied	A13NE (N)	49	2	315775 294388
	Extreme Flooding from Rivers or Sea without Defences Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial Models and Fluvial Events Boundary Accuracy: As Supplied	A13NW (W)	159	2	315499 294270
	Extreme Flooding from Rivers or Sea without Defences Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial Models Boundary Accuracy: As Supplied	A13NW (W)	210	2	315436 294267
	Flooding from Rivers or Sea without Defences Type: Extent of Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial Models Boundary Accuracy: As Supplied	A13NW (W)	32	2	315589 294189
	Areas Benefiting from Flood Defences None				
	Flood Water Storage Areas None				
	Flood Defences None				
13	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 107.8 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Severn Primacy: 1	A13NE (NE)	11	4	315889 294324

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
14	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 83.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Severn Primacy: 1	A13NE (E)	14	4	315892 294243
15	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 51.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Severn Primacy: 1	A13SW (SW)	19	4	315560 294028
16	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 10.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Severn Primacy: 1	A13SW (SW)	26	4	315507 294046
17	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 150.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Severn Primacy: 1	A13SE (SE)	35	4	315772 294152
18	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 121.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Severn Primacy: 1	A13NE (E)	35	4	315892 294243
19	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 49.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Severn Primacy: 1	A13SE (SE)	38	4	315747 294133
20	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 42.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Severn Primacy: 1	A13SE (SE)	38	4	315772 294152
21	OS Water Network Lines Watercourse Form: Lake Watercourse Length: 57.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Severn Primacy: 1	A13SE (SE)	80	4	315764 294090
22	OS Water Network Lines Watercourse Form: Lake Watercourse Length: 9.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Severn Primacy: 1	A13SE (SE)	80	4	315793 294115

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
23	OS Water Network Lines Watercourse Form: Lake Watercourse Length: 61.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Severn Primacy: 1	A13SE (SE)	86	4	315791 294106
24	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 87.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Severn Primacy: 1	A13NE (NE)	89	4	315829 294394
25	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 149.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Severn Primacy: 1	A13SE (E)	155	4	315981 294160
26	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 352.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Severn Primacy: 1	A13NW (NW)	161	4	315505 294277
27	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 285.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Afon Hafren Catchment Name: Severn Primacy: 1	A13NE (N)	166	4	315739 294443
28	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 423.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Afon Hafren Catchment Name: Severn Primacy: 1	A13NE (N)	168	4	315789 294465
29	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 163.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Severn Primacy: 1	A14SW (E)	266	4	316125 294164
30	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 141.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Severn Primacy: 1	A14SW (E)	266	4	316125 294164
31	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 30.4 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Severn Primacy: 1	A13NW (NW)	292	4	315512 294462

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
32	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 1738.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Severn Primacy: 1	A18SE (NE)	304	4	316002 294592
33	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 393.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Afon Hafren Catchment Name: Severn Primacy: 1	A13NW (NW)	314	4	315521 294491
34	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 525.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Severn Primacy: 1	A13SE (SE)	339	4	316036 293936
35	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 23.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Severn Primacy: 1	A14SW (E)	343	4	316113 294025
36	OS Water Network Lines Watercourse Form: Canal Watercourse Length: 711.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Shropshire Union Canal Catchment Name: Severn Primacy: 1	A18SW (N)	375	4	315570 294586
37	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 63.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Severn Primacy: 1	A7NE (SW)	403	4	315271 293751
38	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 106.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Severn Primacy: 1	A7NE (SW)	410	4	315274 293739
39	OS Water Network Lines Watercourse Form: Canal Watercourse Length: 62.3 Watercourse Level: Not Supplied Permanent: True Watercourse Name: Shropshire Union Canal Catchment Name: Severn Primacy: 1	A18SE (N)	435	4	315809 294741
40	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 353.1 Watercourse Level: Not Supplied Permanent: True Watercourse Name: Not Supplied Catchment Name: Severn Primacy: 1	A7NE (SW)	437	4	315220 293751

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
41	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 42.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Severn Primacy: 1	A18SW (N)	444	4	315532 294632
42	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 104.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Severn Primacy: 1	A7NE (SW)	447	4	315325 293661
43	OS Water Network Lines Watercourse Form: Canal Watercourse Length: 479.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Shropshire Union Canal Catchment Name: Severn Primacy: 1	A18SE (N)	470	4	315857 294780
44	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 57.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Severn Primacy: 1	A18SW (N)	481	4	315522 294671
45	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 518.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Afon Hafren Catchment Name: Severn Primacy: 1	A12NE (W)	482	4	315166 294373
46	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 13.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Afon Hafren Catchment Name: Severn Primacy: 2	A12NE (W)	482	4	315166 294373
47	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 26.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Afon Hafren Catchment Name: Severn Primacy: 2	A12NE (W)	494	4	315158 294384
48	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 160.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Afon Hafren Catchment Name: Severn Primacy: 1	A18SE (N)	496	4	315931 294804
49	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 60.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Severn Primacy: 1	A8NW (SW)	509	4	315439 293552

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
50	OS Water Network Lines Watercourse Form: Lake Watercourse Length: 17.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Severn Primacy: 1	A8NW (SW)	510	4	315384 293566
51	OS Water Network Lines Watercourse Form: Canal Watercourse Length: 46.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Shropshire Union Canal Catchment Name: Severn Primacy: 1	A12NE (NW)	518	4	315177 294439
52	OS Water Network Lines Watercourse Form: Canal Watercourse Length: 487.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Shropshire Union Canal Catchment Name: Severn Primacy: 1	A12NE (W)	519	4	315141 294404
53	OS Water Network Lines Watercourse Form: Canal Watercourse Length: 3.3 Watercourse Level: Not Supplied Permanent: True Watercourse Name: Shropshire Union Canal Catchment Name: Severn Primacy: 1	A12NE (NW)	519	4	315179 294441
54	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 95.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Severn Primacy: 1	A12NE (W)	520	4	315143 294406
55	OS Water Network Lines Watercourse Form: Canal Watercourse Length: 3.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Shropshire Union Canal Catchment Name: Severn Primacy: 1	A12NE (W)	520	4	315143 294406
56	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 216.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Severn Primacy: 1	A17SE (NW)	594	4	315214 294608
57	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 50.5 Watercourse Level: Not Supplied Permanent: True Watercourse Name: Not Supplied Catchment Name: Severn Primacy: 1	A17SE (NW)	606	4	315226 294638
58	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 439.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Severn Primacy: 1	A12NE (NW)	610	4	315094 294484

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
59	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 33.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Severn Primacy: 1	A19NW (NE)	620	4	316062 294906
60	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 414.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Afon Hafren Catchment Name: Severn Primacy: 1	A12SW (W)	620	4	314922 293940
61	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 10.4 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Severn Primacy: 1	A19NW (NE)	622	4	316078 294903
62	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 765.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Severn Primacy: 1	A19NW (NE)	622	4	316089 294902
63	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 29.7 Watercourse Level: Not Supplied Permanent: True Watercourse Name: Not Supplied Catchment Name: Severn Primacy: 1	A19NW (NE)	628	4	316049 294917
64	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 195.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Severn Primacy: 1	A17SE (NW)	638	4	315234 294688
65	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 552.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Afon Hafren Catchment Name: Severn Primacy: 1	A18NE (NE)	638	4	316025 294934
66	OS Water Network Lines Watercourse Form: Canal Watercourse Length: 510.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Shropshire Union Canal Catchment Name: Severn Primacy: 1	A12SW (W)	679	4	314852 294029
67	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 114.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Severn Primacy: 1	A12SW (W)	679	4	314852 294029

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
68	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 226.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Severn Primacy: 1	A14SE (SE)	723	4	316461 293842
69	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 12.4 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Severn Primacy: 1	A14SE (E)	747	4	316514 293878
70	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 29.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Severn Primacy: 1	A9NW (SE)	772	4	316163 293528
71	OS Water Network Lines Watercourse Form: Lake Watercourse Length: 18.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Severn Primacy: 1	A9NW (SE)	779	4	316236 293573
72	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 5.2 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Severn Primacy: 1	A12SW (W)	780	4	314751 294078
73	OS Water Network Lines Watercourse Form: Lake Watercourse Length: 45.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Severn Primacy: 1	A9NW (SE)	783	4	316192 293536
74	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 128.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Severn Primacy: 1	A12SW (W)	784	4	314746 294081
75	OS Water Network Lines Watercourse Form: Lake Watercourse Length: 10.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Severn Primacy: 1	A9NW (SE)	792	4	316233 293555
76	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 125.7 Watercourse Level: Not Supplied Permanent: True Watercourse Name: Not Supplied Catchment Name: Severn Primacy: 1	A9NW (SE)	796	4	316243 293557

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
77	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 443.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Severn Primacy: 1	A7SE (SW)	834	4	315129 293325
78	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 707.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Severn Primacy: 1	A18NW (N)	839	4	315575 295149
79	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 276.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Severn Primacy: 1	A9NW (SE)	855	4	316367 293575
80	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 285.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: The Mule Catchment Name: Severn Primacy: 1	A9NE (SE)	874	4	316556 293721
81	OS Water Network Lines Watercourse Form: Canal Watercourse Length: 2281.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Severn Primacy: 1	A19NW (NE)	877	4	316172 295140
82	OS Water Network Lines Watercourse Form: Lake Watercourse Length: 5.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Severn Primacy: 1	A11SE (W)	901	4	314631 294127
83	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 358.1 Watercourse Level: Not Supplied Permanent: True Watercourse Name: Not Supplied Catchment Name: Severn Primacy: 1	A6NE (SW)	989	4	314685 293546
84	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 19.2 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Severn Primacy: 1	A7SW (SW)	995	4	314833 293348

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Local Authority Landfill Coverage Name: Powys County Council - Has supplied landfill data		0	5	315710 294182
85	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1964	A18SE (NE)	336	-	316014 294622
86	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1964	A19SW (NE)	468	-	316179 294675
87	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1963	A17SW (NW)	809	-	314941 294613

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
88	Planning Hazardous Substance Consents Name: Dalgety Agriculture Ltd Location: Station House, Abermule, Powys, SY15 6NH Authority: Powys County Council, Planning Department Application Ref: M/22882 Hazardous Substance: Part B, Highly Reactive and Explosive Substance, Ammonium nitrate and mixtures of, where amount held is greater than or equal to 500 tonnes Maximum Quantity: 3742 Application date: 19th November 1992 Decision: Withdrawn Positional Accuracy: Manually positioned within the geographical locality	A19SW (NE)	416	6	316195 294588

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS 1:625,000 Solid Geology Description: Wenlock Rocks (Undifferentiated)	A13NW (NE)	0	1	315710 294182
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic Concentration: <15 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	A13NW (NE)	0	1	315710 294182
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic Concentration: <15 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: 100 - 200 mg/kg Nickel Concentration: 15 - 30 mg/kg	A12NW (NW)	690	1	315000 294500
89	BGS Recorded Mineral Sites Site Name: Cefn-Gwastad Location: , Abermule, Montgomery, Powys Source: British Geological Survey, National Geoscience Information Service Reference: 113383 Type: Opencast Status: Ceased Operator: Not Supplied Operator Location: Not Supplied Periodic Type: Silurian Geology: Nantglyn Flags Formation Commodity: Common Clay and Shale Positional Accuracy: Located by supplier to within 10m	A18NW (N)	632	1	315641 294905
90	BGS Recorded Mineral Sites Site Name: Yewtree Location: , Abermule, Montgomery, Powys Source: British Geological Survey, National Geoscience Information Service Reference: 113382 Type: Opencast Status: Ceased Operator: Not Supplied Operator Location: Not Supplied Periodic Type: Silurian Geology: Nantglyn Flags Formation Commodity: Sand Positional Accuracy: Located by supplier to within 10m	A18NW (N)	781	1	315419 294966
91	BGS Recorded Mineral Sites Site Name: Pwll-Brwnt Location: , Abermule, Newtown, Powys Source: British Geological Survey, National Geoscience Information Service Reference: 187961 Type: Opencast Status: Ceased Operator: Not Supplied Operator Location: Not Supplied Periodic Type: Silurian Geology: Nantglyn Flags Formation Commodity: Slate Positional Accuracy: Located by supplier to within 10m	A23SE (N)	946	1	315784 295252

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
92	BGS Recorded Mineral Sites Site Name: Penyfridd Location: , Abermule, Newtown, Powys Source: British Geological Survey, National Geoscience Information Service Reference: 187960 Type: Opencast Status: Ceased Operator: Not Supplied Operator Location: Not Supplied Periodic Type: Silurian Geology: Mottled Mudstone Member , Wenlock Age Commodity: Slate Positional Accuracy: Located by supplier to within 10m	A23SW (N)	963	1	315591 295236
	BGS Measured Urban Soil Chemistry No data available				
	BGS Urban Soil Chemistry Averages No data available				
	Coal Mining Affected Areas In an area that might not be affected by coal mining				
	Non Coal Mining Areas of Great Britain Risk: Highly Unlikely Source: British Geological Survey, National Geoscience Information Service	A13NW (NE)	0	1	315710 294182
	Potential for Collapsible Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13NW (NE)	0	1	315710 294182
	Potential for Collapsible Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13SE (SE)	35	1	315749 294126
	Potential for Compressible Ground Stability Hazards Hazard Potential: Moderate Source: British Geological Survey, National Geoscience Information Service	A13NW (NE)	0	1	315710 294182
	Potential for Compressible Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13NW (NW)	19	1	315645 294226
	Potential for Compressible Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13SE (SE)	35	1	315749 294126
	Potential for Compressible Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13NW (N)	189	1	315686 294461
	Potential for Ground Dissolution Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13NW (NE)	0	1	315710 294182
	Potential for Landslide Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13NW (NE)	0	1	315710 294182
	Potential for Landslide Ground Stability Hazards Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service	A13SE (SE)	43	1	315749 294126
	Potential for Landslide Ground Stability Hazards Hazard Potential: Moderate Source: British Geological Survey, National Geoscience Information Service	A13SW (S)	76	1	315698 293995
	Potential for Landslide Ground Stability Hazards Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service	A13SW (SW)	109	1	315498 293954
	Potential for Landslide Ground Stability Hazards Hazard Potential: High Source: British Geological Survey, National Geoscience Information Service	A13SW (S)	109	1	315679 293949
	Potential for Landslide Ground Stability Hazards Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service	A13NW (N)	144	1	315683 294396
	Potential for Landslide Ground Stability Hazards Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service	A13NE (N)	179	1	315742 294467

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Potential for Running Sand Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13NW (NE)	0	1	315710 294182
	Potential for Running Sand Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13SE (SE)	43	1	315749 294126
	Potential for Running Sand Ground Stability Hazards Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service	A13NE (N)	59	1	315728 294366
	Potential for Running Sand Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13NW (N)	189	1	315686 294461
	Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service	A13NW (NE)	0	1	315710 294182
	Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13SE (SE)	43	1	315749 294126
	Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13NE (N)	59	1	315728 294366
	Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13SW (SW)	76	1	315604 293972
	Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13SW (S)	102	1	315681 294002
	Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13SE (S)	109	1	315758 294012
	Radon Potential - Radon Affected Areas Affected Area: The property is 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	A13NW (NE)	0	1	315710 294182
	Radon Potential - Radon Affected Areas Affected Area: The property is in an Intermediate probability radon area (1 to 3% of homes are estimated to be at or above the Action Level). Source: British Geological Survey, National Geoscience Information Service	A13NW (W)	0	1	315700 294182
	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	A13NW (NE)	0	1	315710 294182
	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	A13NW (W)	0	1	315700 294182

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
93	Contemporary Trade Directory Entries Name: F J Edwards Location: Station Yard, Abermule, Montgomery, Powys, SY15 6NH Classification: Road Haulage Services Status: Inactive Positional Accuracy: Automatically positioned to the address	A19SW (NE)	395	-	316222 294517
93	Contemporary Trade Directory Entries Name: G M Profiles & Supplies Location: Station Yard, Abermule, Montgomery, Powys, SY15 6NH Classification: Agricultural Merchants Status: Inactive Positional Accuracy: Automatically positioned to the address	A19SW (NE)	395	-	316222 294517
93	Contemporary Trade Directory Entries Name: Morris Rogers & Sons Abermule Ltd Location: Abermule, Montgomery, Powys, SY15 6NH Classification: Agricultural Engineers Status: Active Positional Accuracy: Automatically positioned to the address	A14NW (NE)	414	-	316256 294496
94	Contemporary Trade Directory Entries Name: M E Poston Motors Location: Hotel Garage, Abermule, Montgomery, Powys, SY15 6ND Classification: Engine Rebuilding & Reconditioning Status: Active Positional Accuracy: Automatically positioned to the address	A19SW (NE)	415	-	316152 294630
95	Contemporary Trade Directory Entries Name: Newtown Damp Proofing Co Ltd Location: Station House, Abermule, Montgomery, Powys, SY15 6NH Classification: Damp & Dry Rot Control Status: Inactive Positional Accuracy: Automatically positioned to the address	A19SW (NE)	423	-	316198 294596
96	Contemporary Trade Directory Entries Name: G M Profiles Location: Agrimont Depot Station Yard, Abermule, Montgomery, Powys, SY15 6NH Classification: Seal & Joint Manufacturers Status: Active Positional Accuracy: Manually positioned within the geographical locality	A19SW (NE)	508	-	316327 294561
97	Contemporary Trade Directory Entries Name: D R Jones Ltd Location: Abermule Garage, Abermule, Montgomery, Powys, SY15 6ND Classification: Garage Services Status: Inactive Positional Accuracy: Automatically positioned to the address	A19SW (NE)	524	-	316195 294734
98	Fuel Station Entries Name: Abermule Garage Location: Abermule Garage, Abermule, Montgomery, Powys, SY15 6ND Brand: Obsolete Premises Type: Not Applicable Status: Obsolete Positional Accuracy: Automatically positioned to the address	A19SW (NE)	524	-	316195 294734
99	Points of Interest - Commercial Services Name: F T M Location: Station Yard, Abermule, Montgomery, SY15 6NH Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A19SW (NE)	395	7	316222 294517
99	Points of Interest - Commercial Services Name: F J Edwards Location: Station Yard, Abermule, Montgomery, SY15 6NH Category: Transport, Storage and Delivery Class Code: Distribution and Haulage Positional Accuracy: Positioned to address or location	A19SW (NE)	395	7	316222 294517
99	Points of Interest - Commercial Services Name: F J Edwards Location: Station Yard, Abermule, Montgomery, SY15 6NH Category: Transport, Storage and Delivery Class Code: Distribution and Haulage Positional Accuracy: Positioned to address or location	A19SW (NE)	395	7	316222 294517
100	Points of Interest - Commercial Services Name: M E Poston Motors Location: Hotel Garage, Abermule, Montgomery, SY15 6ND Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A19SW (NE)	414	7	316151 294629

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
100	Points of Interest - Commercial Services Name: M E Poston Location: Hotel Garage, Abermule, Montgomery, SY15 6ND Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A19SW (NE)	415	7	316152 294630
101	Points of Interest - Manufacturing and Production Name: G & A Orrells Location: Maesderwyn, Abermule, Montgomery, Powys, SY15 6ND Category: Farming Class Code: Arable Farming Positional Accuracy: Positioned to address or location	A13NE (NE)	82	7	315912 294389
101	Points of Interest - Manufacturing and Production Name: G & A Orrells Location: Maes Derwyn, Abermule, Montgomery, SY15 6NT Category: Farming Class Code: Livestock Farming Positional Accuracy: Positioned to address or location	A13NE (NE)	82	7	315912 294389
102	Points of Interest - Manufacturing and Production Name: Quarry (Disused) Location: SY15 Category: Extractive Industries Class Code: Unspecified Quarries Or Mines Positional Accuracy: Positioned to address or location	A18SW (N)	440	7	315578 294662
103	Points of Interest - Manufacturing and Production Name: Quarry (Disused) Location: SY15 Category: Extractive Industries Class Code: Unspecified Quarries Or Mines Positional Accuracy: Positioned to an adjacent address or location	A17SE (NW)	652	7	315199 294675
104	Points of Interest - Manufacturing and Production Name: A G & M J Mountford & Son Location: Cwm Mule, Abermule, Montgomery, SY15 6NS Category: Farming Class Code: Livestock Farming Positional Accuracy: Positioned to address or location	A9NW (SE)	744	7	316196 293587
105	Points of Interest - Manufacturing and Production Name: Quarry (Disused) Location: SY15 Category: Extractive Industries Class Code: Unspecified Quarries Or Mines Positional Accuracy: Positioned to address or location	A19SE (E)	783	7	316641 294522
106	Points of Interest - Manufacturing and Production Name: Quarry (Disused) Location: SY15 Category: Extractive Industries Class Code: Unspecified Quarries Or Mines Positional Accuracy: Positioned to address or location	A23SE (N)	949	7	315790 295256
107	Points of Interest - Manufacturing and Production Name: Quarry (Disused) Location: SY15 Category: Extractive Industries Class Code: Unspecified Quarries Or Mines Positional Accuracy: Positioned to address or location	A23SW (N)	968	7	315589 295240
108	Points of Interest - Public Infrastructure Name: Weir Location: SY15 Category: Water Class Code: Weirs, Sluices and Dams Positional Accuracy: Positioned to an adjacent address or location	A14NE (E)	772	7	316663 294298

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
109	Ancient Woodland Name: Not Supplied Reference: 35396 Area(m²): 24269.04 Type: Restored Ancient Woodland Site	A18SW (NW)	413	2	315511 294593
110	Ancient Woodland Name: Not Supplied Reference: 28743 Area(m²): 30507.79 Type: Restored Ancient Woodland Site	A18SW (N)	453	2	315551 294660
111	Ancient Woodland Name: Not Supplied Reference: 30452 Area(m²): 6930.68 Type: Ancient and Semi-Natural Woodland	A12NE (W)	507	2	315123 294360
112	Ancient Woodland Name: Not Supplied Reference: 46583 Area(m²): 5952.4 Type: Plantation on Ancient Woodland	A17SE (NW)	585	2	315299 294673
113	Ancient Woodland Name: Not Supplied Reference: 30091 Area(m²): 13962.64 Type: Ancient and Semi-Natural Woodland	A14SE (E)	603	2	316388 293948
114	Ancient Woodland Name: Not Supplied Reference: 30456 Area(m²): 3017.48 Type: Ancient and Semi-Natural Woodland	A18NE (N)	603	2	315818 294911
115	Ancient Woodland Name: Not Supplied Reference: 45251 Area(m²): 18240.93 Type: Plantation on Ancient Woodland	A14NE (E)	614	2	316505 294258
116	Ancient Woodland Name: Not Supplied Reference: 27682 Area(m²): 37341.05 Type: Ancient and Semi-Natural Woodland	A18NE (N)	645	2	315753 294945
117	Ancient Woodland Name: Not Supplied Reference: 35178 Area(m²): 14540.63 Type: Restored Ancient Woodland Site	A14SE (SE)	658	2	316413 293878
118	Ancient Woodland Name: Not Supplied Reference: 35393 Area(m²): 8199.69 Type: Restored Ancient Woodland Site	A9NE (SE)	744	2	316461 293809
119	Ancient Woodland Name: Not Supplied Reference: 28628 Area(m²): 36091.89 Type: Restored Ancient Woodland Site	A9NE (SE)	750	2	316471 293812
120	Ancient Woodland Name: Not Supplied Reference: 35179 Area(m²): 17962.22 Type: Restored Ancient Woodland Site	A14NE (E)	787	2	316677 294273
121	Ancient Woodland Name: Not Supplied Reference: 46581 Area(m²): 3309.71 Type: Plantation on Ancient Woodland	A12NW (W)	787	2	314883 294510
122	Ancient Woodland Name: Not Supplied Reference: 46510 Area(m²): 7367.49 Type: Plantation on Ancient Woodland	A14NE (E)	788	2	316679 294290

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
123	Ancient Woodland Name: Not Supplied Reference: 46582 Area(m²): 7228.54 Type: Plantation on Ancient Woodland	A17SW (NW)	789	2	314964 294617
124	Ancient Woodland Name: Not Supplied Reference: 44823 Area(m²): 22208.09 Type: Plantation on Ancient Woodland	A12NW (W)	790	2	314869 294496
125	Ancient Woodland Name: Not Supplied Reference: 44431 Area(m²): 16698.3 Type: Plantation on Ancient Woodland	A12NW (W)	806	2	314796 294390
126	Ancient Woodland Name: Not Supplied Reference: 27679 Area(m²): 6053.75 Type: Ancient and Semi-Natural Woodland	A12NW (W)	812	2	314748 294276
127	Ancient Woodland Name: Not Supplied Reference: 35398 Area(m²): 12152.16 Type: Restored Ancient Woodland Site	A17SW (NW)	814	2	315001 294695
128	Ancient Woodland Name: Not Supplied Reference: 28744 Area(m²): 31181.61 Type: Restored Ancient Woodland Site	A17SW (NW)	820	2	314995 294698
129	Ancient Woodland Name: Not Supplied Reference: 35177 Area(m²): 2368.57 Type: Restored Ancient Woodland Site	A9NE (E)	848	2	316599 293821
130	Ancient Woodland Name: Not Supplied Reference: 30457 Area(m²): 1562.11 Type: Ancient and Semi-Natural Woodland	A18NE (N)	877	2	315878 295188
131	Ancient Woodland Name: Not Supplied Reference: 46509 Area(m²): 5049.18 Type: Plantation on Ancient Woodland	A9NE (SE)	877	2	316527 293678
132	Ancient Woodland Name: Not Supplied Reference: 45317 Area(m²): 21102.72 Type: Plantation on Ancient Woodland	A17NE (N)	906	2	315367 295082
133	Ancient Woodland Name: Not Supplied Reference: 30451 Area(m²): 1413.65 Type: Ancient and Semi-Natural Woodland	A11NE (W)	962	2	314602 294309
134	Ancient Woodland Name: Not Supplied Reference: 27683 Area(m²): 5848.36 Type: Ancient and Semi-Natural Woodland	A23SW (N)	968	2	315594 295241
135	Ancient Woodland Name: Not Supplied Reference: 44432 Area(m²): 1267.37 Type: Plantation on Ancient Woodland	A23SW (N)	968	2	315575 295237

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
136	Sites of Special Scientific Interest Name: Montgomery Canal Multiple Areas: Y Total Area (m2): 558451.66 Source: Natural Resources Wales Reference: 11132wpp Designation Details: Biological Designation Date: 1st January 1959 Date Type: Notified	A18SW (N)	367	2	315569 294576
137	Special Areas of Conservation Name: Montgomery Canal Multiple Areas: Y Total Area (m2): 558451.66 Source: Natural Resources Wales Reference: Uk0030213 Status: Designated	A18SW (N)	367	2	315569 294576

Agency & Hydrological	Version	Update Cycle
Contaminated Land Register Entries and Notices Powys County Council - Public Protection Department	February 2015	Annual Rolling Update
Discharge Consents Natural Resources Wales Environment Agency - Midlands Region	August 2017 July 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 Natural Resources Wales Environment Agency - Welsh Region	August 2017 July 2017	Quarterly Quarterly
Local Authority Integrated Pollution Prevention And Control Powys County Council - Public Protection Department	May 2014	Annual Rolling Update
Local Authority Pollution Prevention and Controls Powys County Council - Public Protection Department	May 2014	Annual Rolling Update
Local Authority Pollution Prevention and Control Enforcements Powys County Council - Public Protection Department	May 2014	Annual Rolling Update
Nearest Surface Water Feature Ordnance Survey	May 2017	
Pollution Incidents to Controlled Waters Environment Agency - Midlands Region	December 1999	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
Registered Radioactive Substances Natural Resources Wales Environment Agency - Welsh Region	January 2015 January 2015	As notified
River Quality Environment Agency - Head Office	November 2001	Not Applicable
River Quality Biology Sampling Points Environment Agency - Head Office	July 2012	Annually
Substantiated Pollution Incident Register Natural Resources Wales Environment Agency Wales - North Area	August 2018 July 2017	Quarterly Quarterly
Water Abstractions Natural Resources Wales Environment Agency - Midlands Region	July 2017 October 2017	Quarterly Quarterly
Water Industry Act Referrals Natural Resources Wales Environment Agency - Welsh Region	August 2017 July 2017	Quarterly Quarterly
Groundwater Vulnerability Environment Agency - Head Office	April 2015	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	As notified
Extreme Flooding from Rivers or Sea without Defences Natural Resources Wales	August 2017	Quarterly
Flooding from Rivers or Sea without Defences Natural Resources Wales	August 2017	Quarterly
Areas Benefiting from Flood Defences Natural Resources Wales	August 2017	Quarterly
Flood Water Storage Areas Natural Resources Wales	August 2017	Quarterly
Flood Defences Natural Resources Wales	August 2017	Quarterly
OS Water Network Lines Ordnance Survey	July 2017	6 Weekly
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	July 2017	Quarterly
Integrated Pollution Control Registered Waste Sites Environment Agency - Welsh Region	October 2008	Not Applicable
Licensed Waste Management Facilities (Landfill Boundaries) Environment Agency Wales - North Area Natural Resources Wales	July 2017 July 2017	Quarterly Quarterly
Licensed Waste Management Facilities (Locations) Natural Resources Wales Environment Agency Wales - North Area	August 2017 July 2017	Quarterly Quarterly
Local Authority Landfill Coverage Powys County Council	May 2000	Not Applicable
Local Authority Recorded Landfill Sites Powys County Council	May 2000	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 - North Area	March 2003	Not Applicable
Registered Waste Transfer Sites Environment Agency Wales - North Area	March 2003	Not Applicable
Registered Waste Treatment or Disposal Sites Environment Agency Wales - North Area	March 2003	Not Applicable
Hazardous Substances	Version	Update Cycle
Control of Major Accident Hazards Sites (COMAH) Health and Safety Executive	September 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 Powys County Council - Planning Department	February 2016	Annual Rolling Update
Planning Hazardous Substance Consents Powys County Council - Planning Department	February 2016	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	April 2017	Bi-Annually
CBSCB Compensation District Cheshire Brine Subsidence Compensation Board (CBSCB)	August 2011	Not Applicable
Coal Mining Affected Areas The Coal Authority - Property Searches	March 2014	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	September 2017	Quarterly
Fuel Station Entries Catalist Ltd - Experian	August 2017	Quarterly
Gas Pipelines National Grid	July 2014	Quarterly
Points of Interest - Commercial Services PointX	September 2017	Quarterly
Points of Interest - Education and Health PointX	September 2017	Quarterly
Points of Interest - Manufacturing and Production PointX	September 2017	Quarterly
Points of Interest - Public Infrastructure PointX	September 2017	Quarterly
Points of Interest - Recreational and Environmental PointX	September 2017	Quarterly
Underground Electrical Cables National Grid	December 2015	Bi-Annually

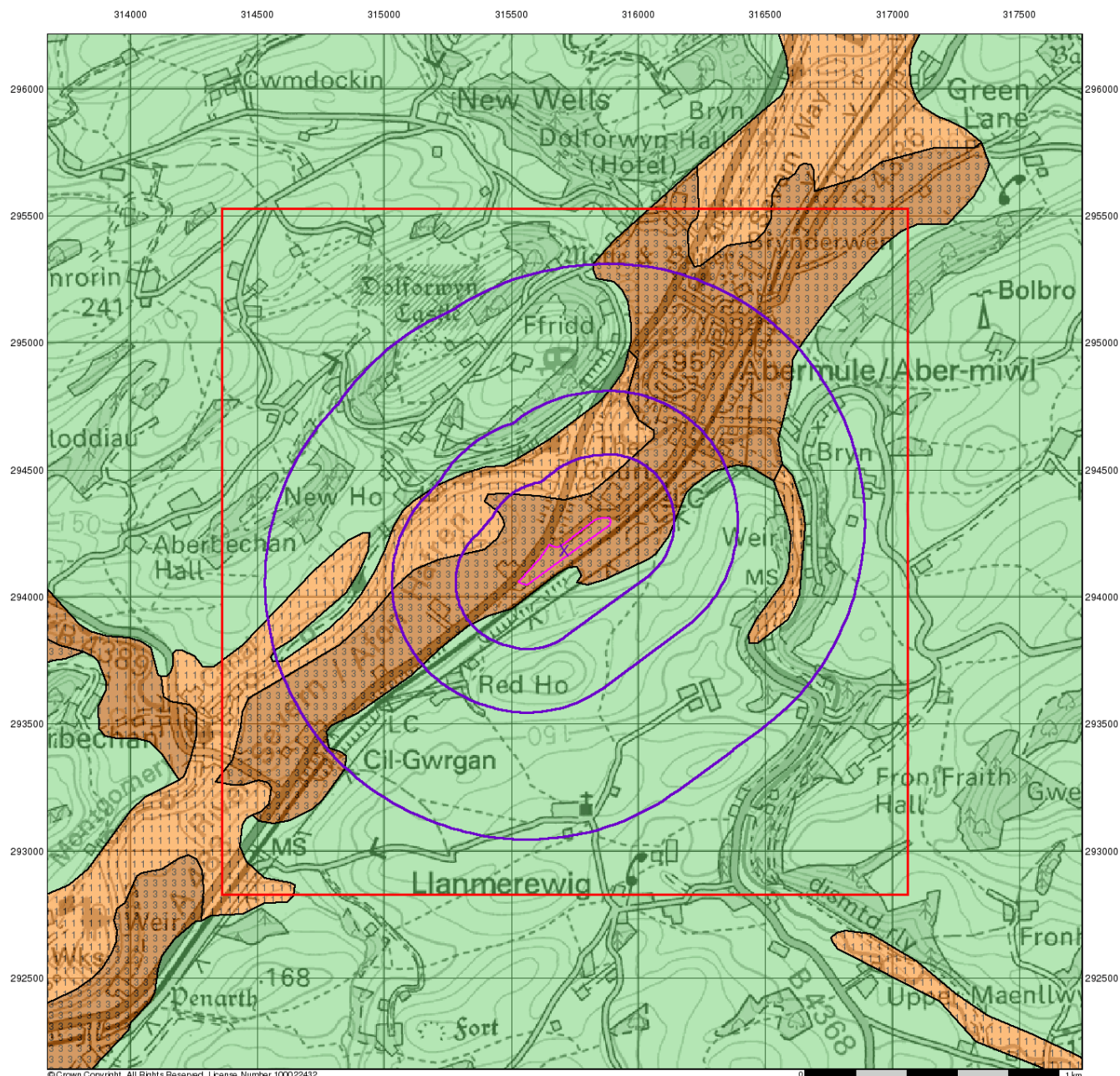
Sensitive Land Use	Version	Update Cycle
Ancient Woodland Natural Resources Wales	May 2017	Bi-Annually
Areas of Outstanding Natural Beauty Natural Resources Wales	August 2017	Bi-Annually
Environmentally Sensitive Areas The National Assembly for Wales - GI Services (Department of Planning & Countryside)	January 2017	Annually
Forest Parks Forestry Commission	April 1997	Not Applicable
Local Nature Reserves Powys County Council	August 2017	Bi-Annually
Marine Nature Reserves Natural Resources Wales	August 2017	Bi-Annually
National Nature Reserves Natural Resources Wales	August 2017	Bi-Annually
National Parks Natural Resources Wales	August 2017	Annually
Nitrate Vulnerable Zones Natural Resources Wales The National Assembly for Wales - GI Services (Department of Planning & Countryside)	June 2017 October 2005	Bi-Annually
Ramsar Sites Natural Resources Wales	August 2017	Bi-Annually
Sites of Special Scientific Interest Natural Resources Wales	August 2017	Bi-Annually
Special Areas of Conservation Natural Resources Wales	August 2017	Bi-Annually
Special Protection Areas Natural Resources Wales	August 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
1	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
2	Natural Resources Wales Ty Cambria, 29 Newport Road, Cardiff, CF24 0TP	Telephone: 0300 065 3000 Email: enquiries@naturalresourceswales.gov.uk
3	Environment Agency - National Customer Contact Centre (NCCC) PO Box 544, Templeborough, Rotherham, S60 1BY	Telephone: 03708 506 506 Email: enquiries@environment-agency.gov.uk
4	Ordnance Survey Adanac Drive, Southampton, Hampshire, SO16 0AS	Telephone: 023 8079 2000 Email: customerservices@ordnancesurvey.co.uk Website: www.ordnancesurvey.gov.uk
5	Powys County Council County Hall, Llandrindod Wells, Powys, LD1 5LG	Telephone: 01597 826000 Fax: 01597 826230 Website: www.powys.gov.uk
6	Powys County Council - Planning Department Brecknockshire Office, Neuadd Brycheiniog, Cambrian Way, Brecon, LD3 7HR	Website: www.powys.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.



© Crown Copyright. All Rights Reserved. License Number 100022432.

Envirocheck®

LANDMARK INFORMATION GROUP®

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

High (H) 1, 2, 3, U

Intermediate (I) 1, 2

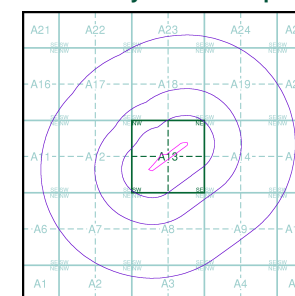
Low

High (H) 1, 2, 3, U

Intermediate (I) 1, 2

Low

Site Sensitivity Context Map - Slice A



Order Details

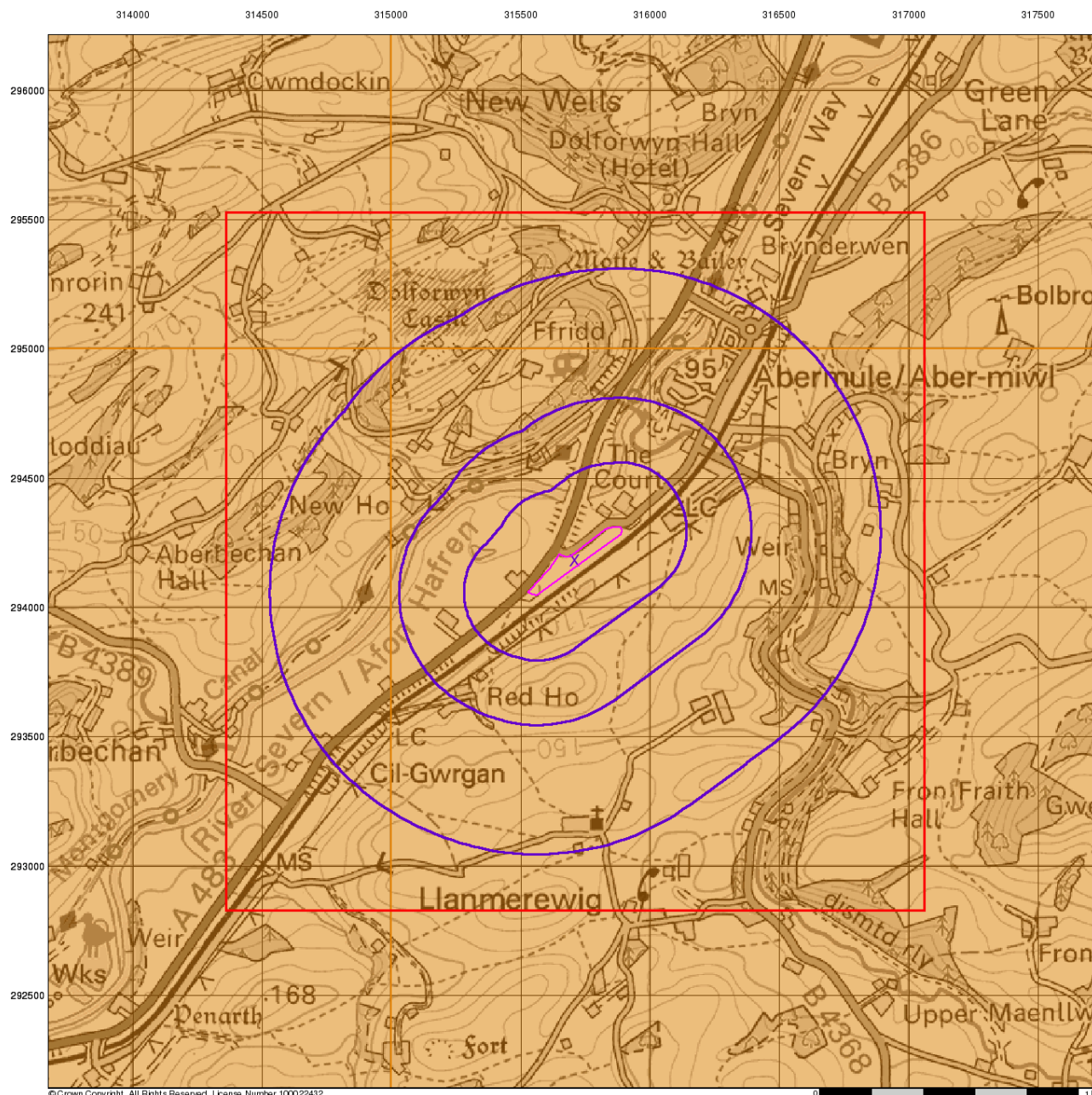
Order Number: 145441795_1_1
 Customer Ref: 10010344
 National Grid Reference: 315710, 294180
 Slice: A
 Site Area (Ha): 2.09
 Search Buffer (m): 1000

Site Details

Maes Derwyn, Abermule, MONTGOMERY, SY15 6NT

Landmark®
 INFORMATION GROUP

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



© Crown Copyright. All Rights Reserved. License Number 100022432.

0 1 km

Envirocheck[®]

LANDMARK INFORMATION GROUP[®]

Bedrock Aquifer Designation

General

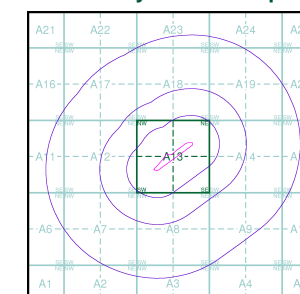
- Specified Site
- Specified Buffer(s)
- Bearing Reference Point
- Slice
- Map ID

Agency and Hydrological

Geological Classes

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

Site Sensitivity Context Map - Slice A



Order Details

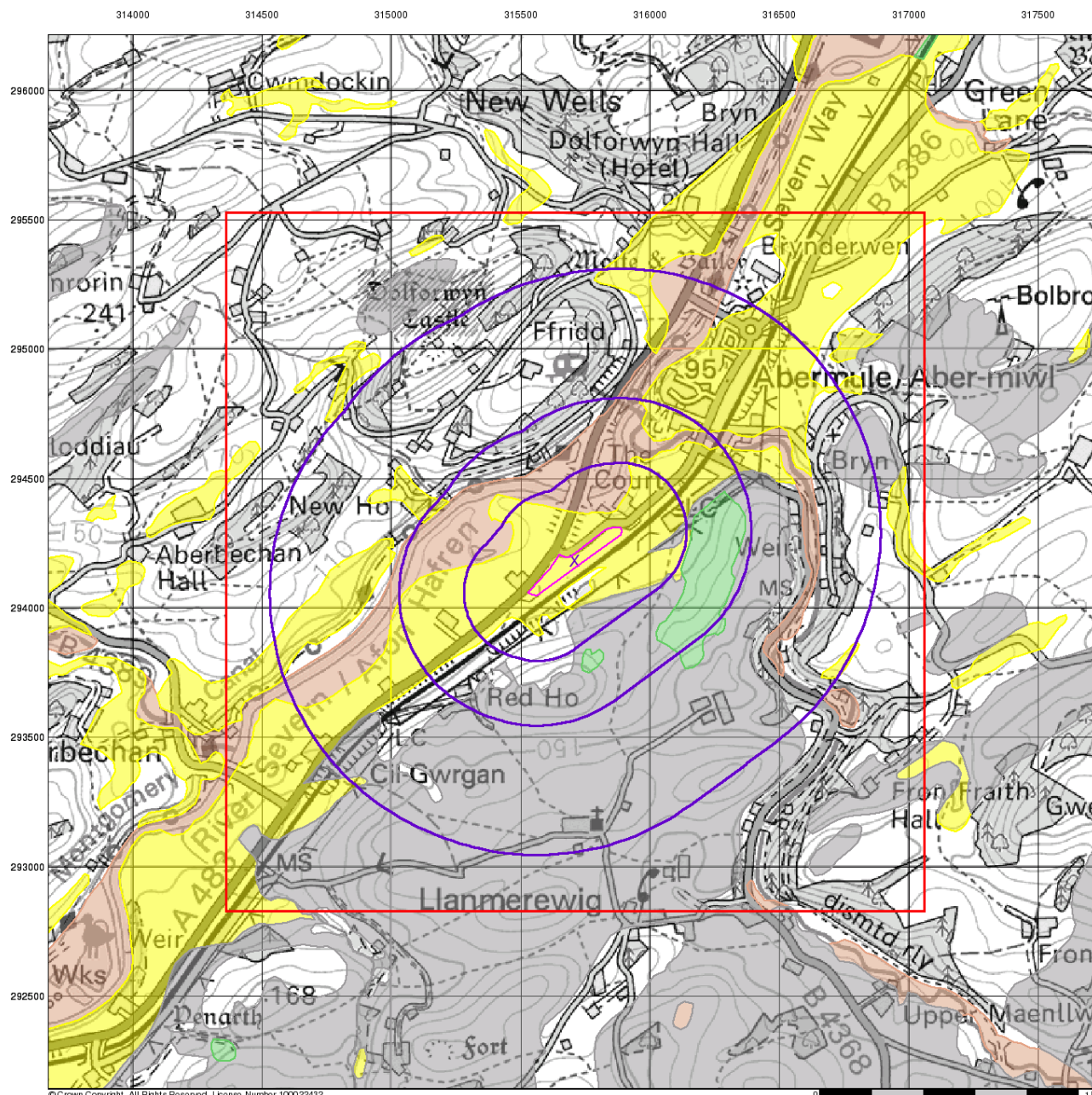
Order Number: 145441795_1_1
 Customer Ref: 10010344
 National Grid Reference: 315710, 294180
 Slice: A
 Site Area (Ha): 2.09
 Search Buffer (m): 1000

Site Details

Maes Derwyn, Abermule, MONTGOMERY, SY15 6NT

Landmark[®]
 LANDMARK INFORMATION GROUP

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



© Crown Copyright. All Rights Reserved. License Number 100022432.

0 1 km

Envirocheck[®]

LANDMARK INFORMATION GROUP[®]

Superficial Aquifer Designation

General

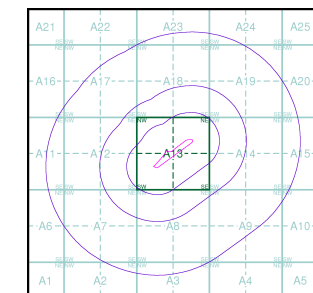
- ◇ Specified Site
- Specified Buffer(s)
- X Bearing Reference Point
- Slice
- B Map ID

Agency and Hydrological

Geological Classes

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

Site Sensitivity Context Map - Slice A



Order Details

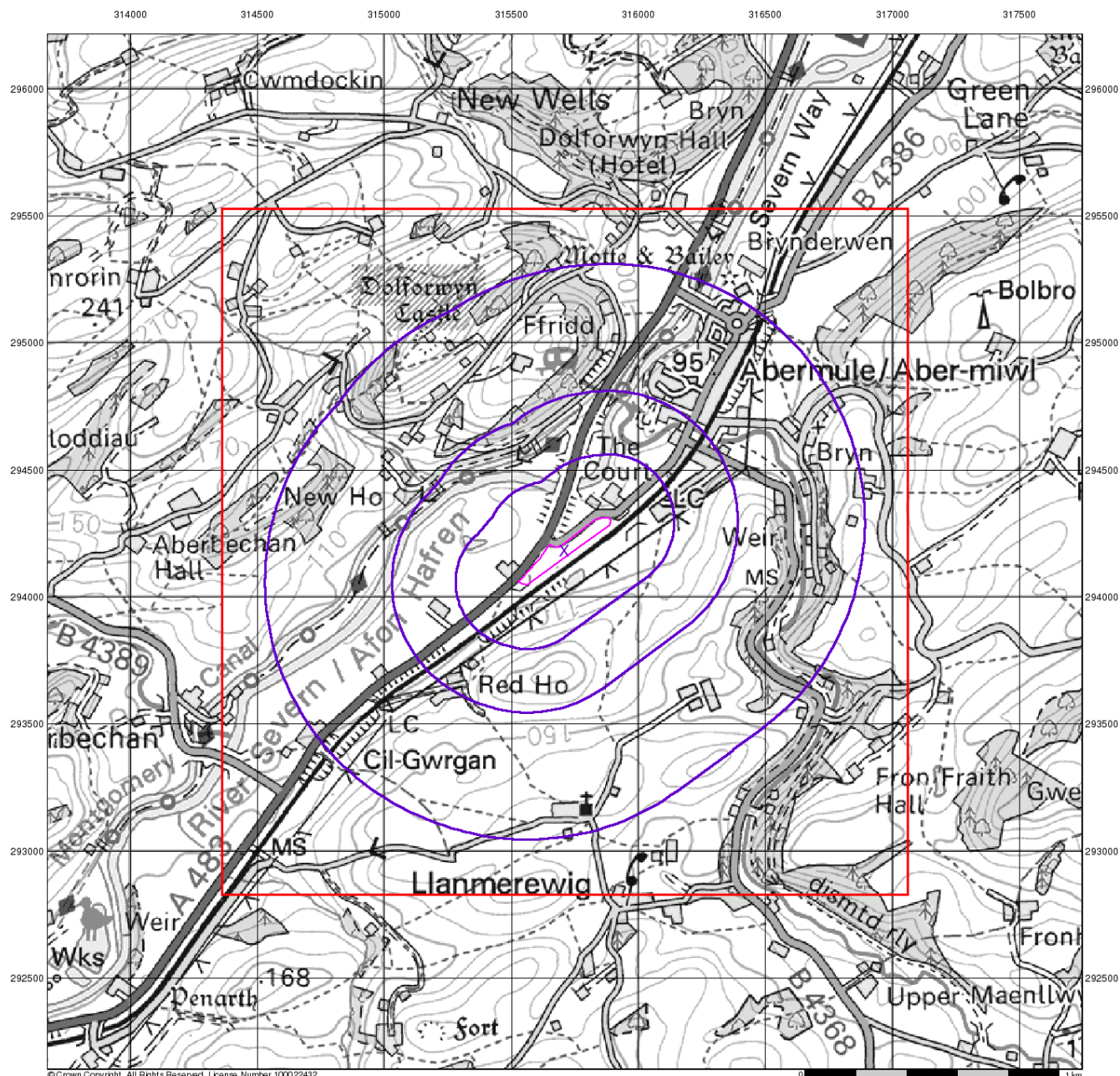
Order Number: 145441795_1_1
 Customer Ref: 10010344
 National Grid Reference: 315710, 294180
 Slice: A
 Site Area (Ha): 2.09
 Search Buffer (m): 1000

Site Details

Maes Derwyn, Abermule, MONTGOMERY, SY15 6NT

Landmark[®]
 LANDMARK INFORMATION GROUP

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



© Crown Copyright. All Rights Reserved. License Number 100022432.

Envirocheck[®]

LANDMARK INFORMATION GROUP[®]

Source Protection Zones

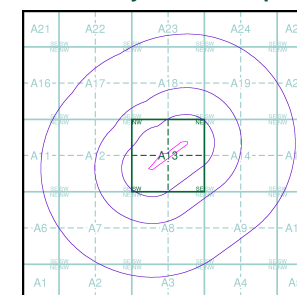
General

- 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

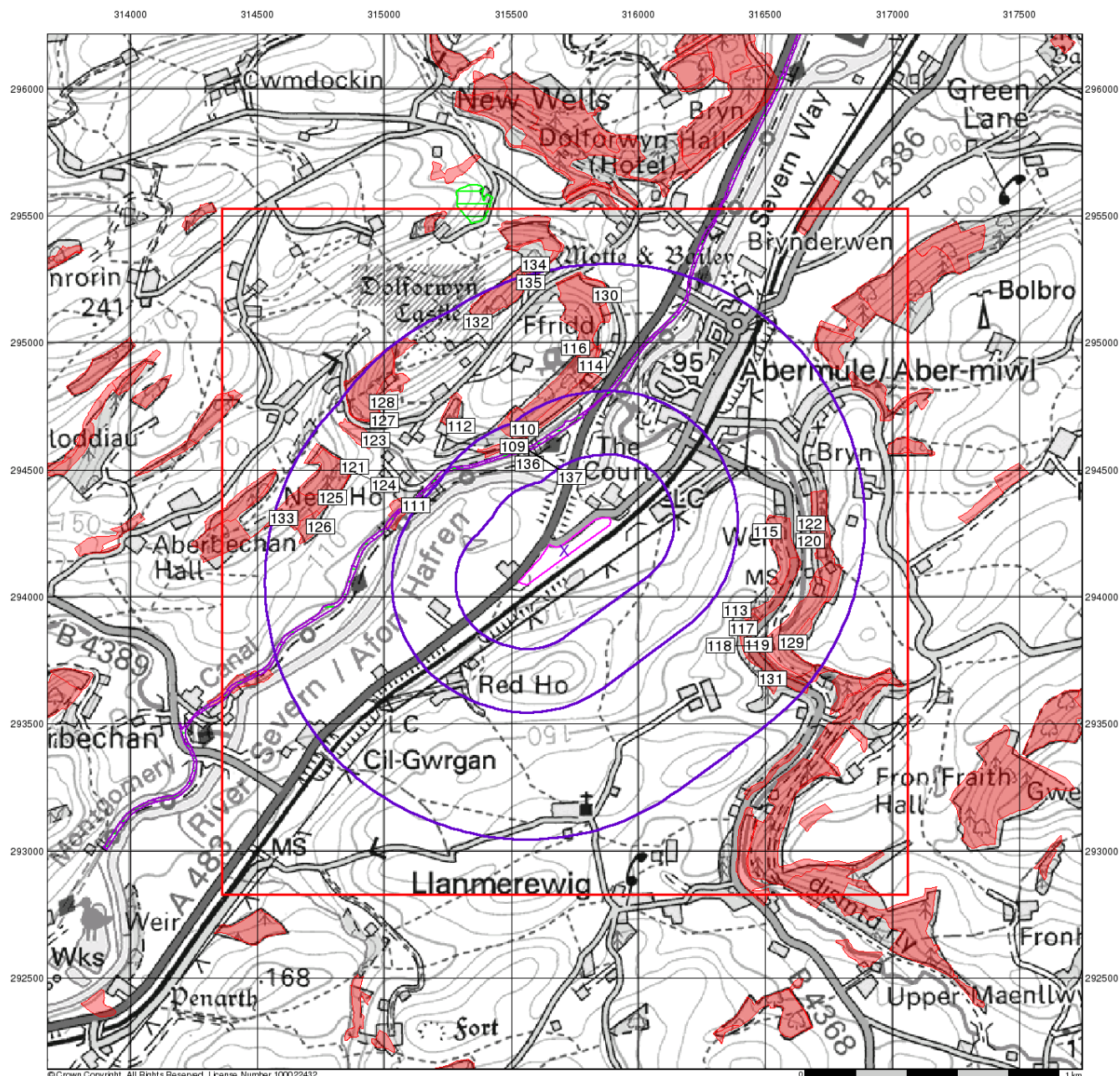
Order Number: 145441795_1_1
 Customer Ref: 10010344
 National Grid Reference: 315710, 294180
 Slice: A
 Site Area (Ha): 2.09
 Search Buffer (m): 1000

Site Details

Maes Derwyn, Abermule, MONTGOMERY, SY15 6NT

Landmark[®]
 LANDMARK INFORMATION GROUP

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



© Crown Copyright. All Rights Reserved. License Number 100022432.

Envirocheck®

LANDMARK INFORMATION GROUP®

Sensitive Land Uses

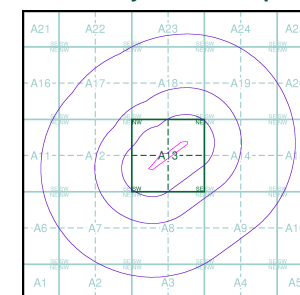
General

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

Sensitive Land Uses

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

Site Sensitivity Context Map - Slice A



Order Details

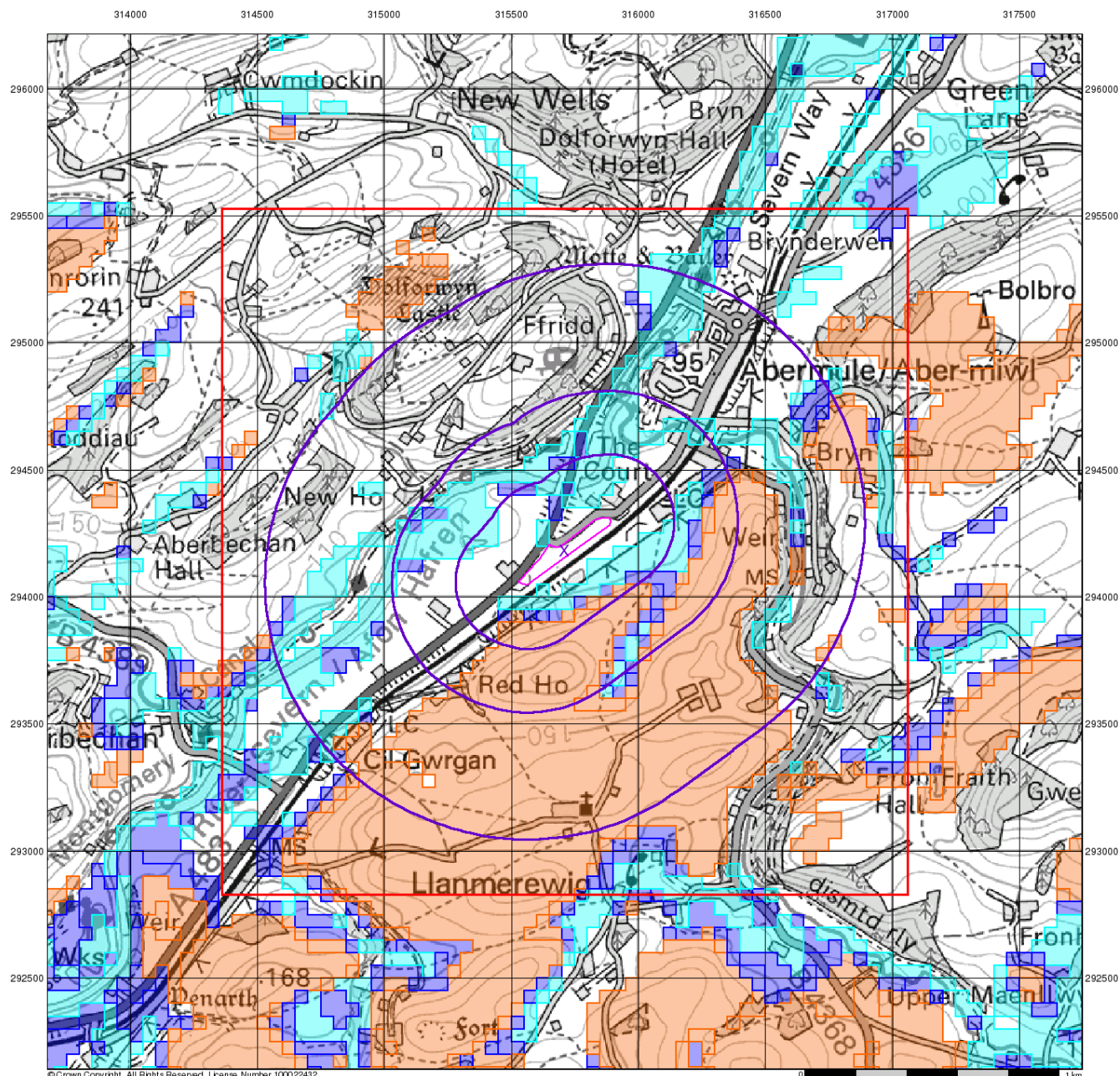
Order Number: 145441795_1_1
 Customer Ref: 10010344
 National Grid Reference: 315710, 294180
 Slice: A
 Site Area (Ha): 2.09
 Search Buffer (m): 1000

Site Details

Maes Derwyn, Abermule, MONTGOMERY, SY15 6NT

Landmark®
 INFORMATION GROUP

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



© Crown Copyright. All Rights Reserved. License Number 100022432.

Envirocheck®

LANDMARK INFORMATION GROUP®

BGS Flood GFS Data

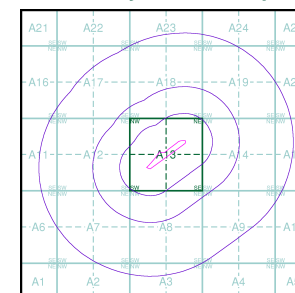
General

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

Agency and Hydrological (Flood)

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

Site Sensitivity Context Map - Slice A



Order Details

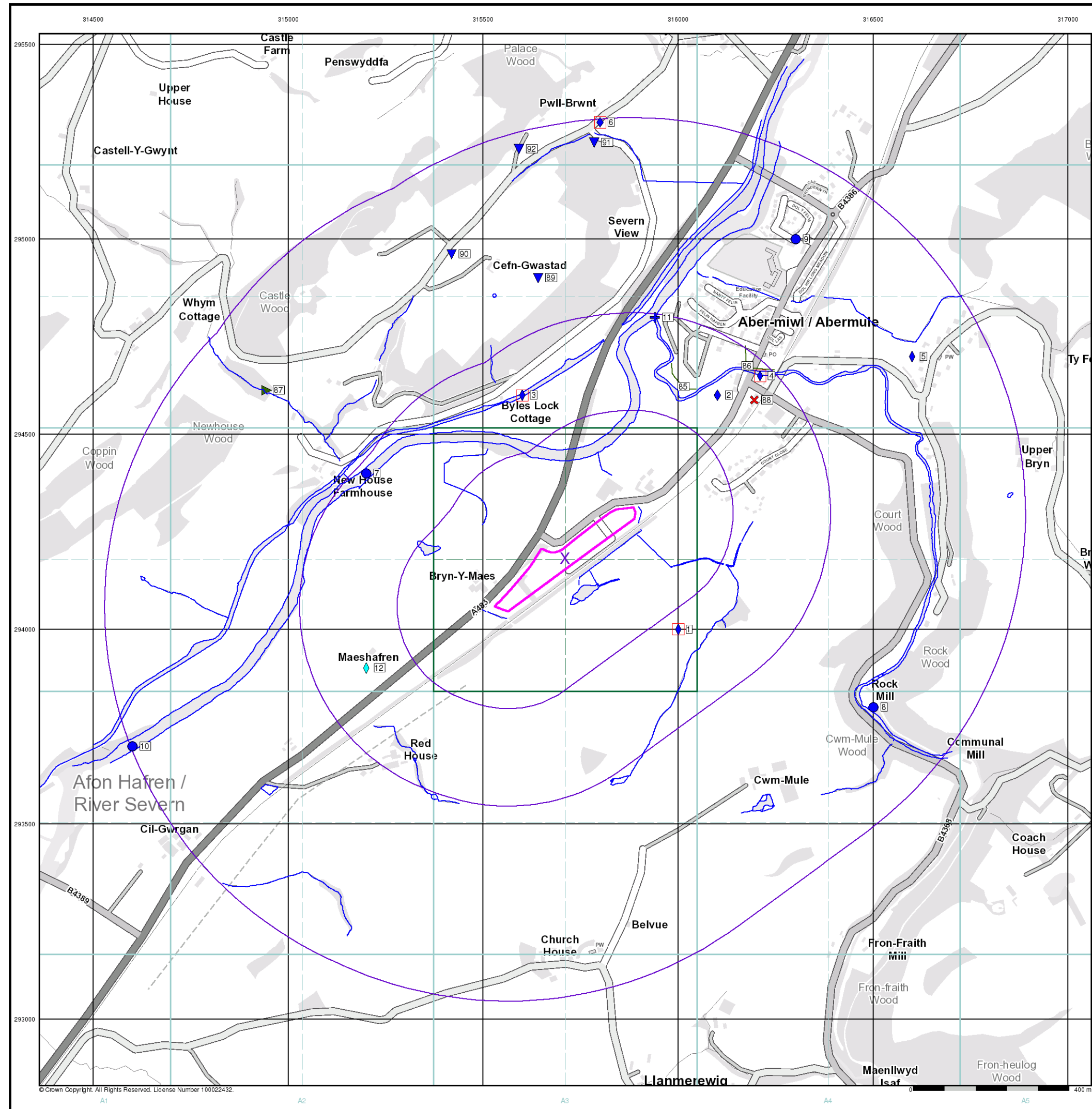
Order Number: 145441795_1_1
 Customer Ref: 10010344
 National Grid Reference: 315710, 294180
 Slice: A
 Site Area (Ha): 2.09
 Search Buffer (m): 1000

Site Details

Maes Derwyn, Abermule, MONTGOMERY, SY15 6NT

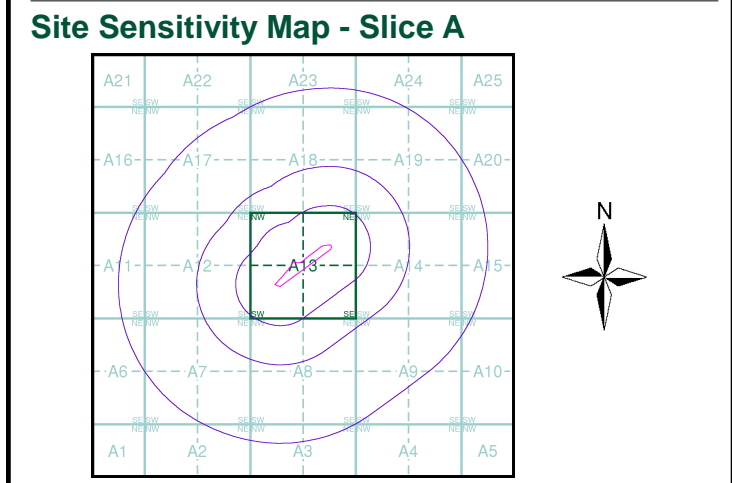
Landmark®
 LANDMARK INFORMATION GROUP

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



© Crown Copyright. All Rights Reserved. License Number 100022432.

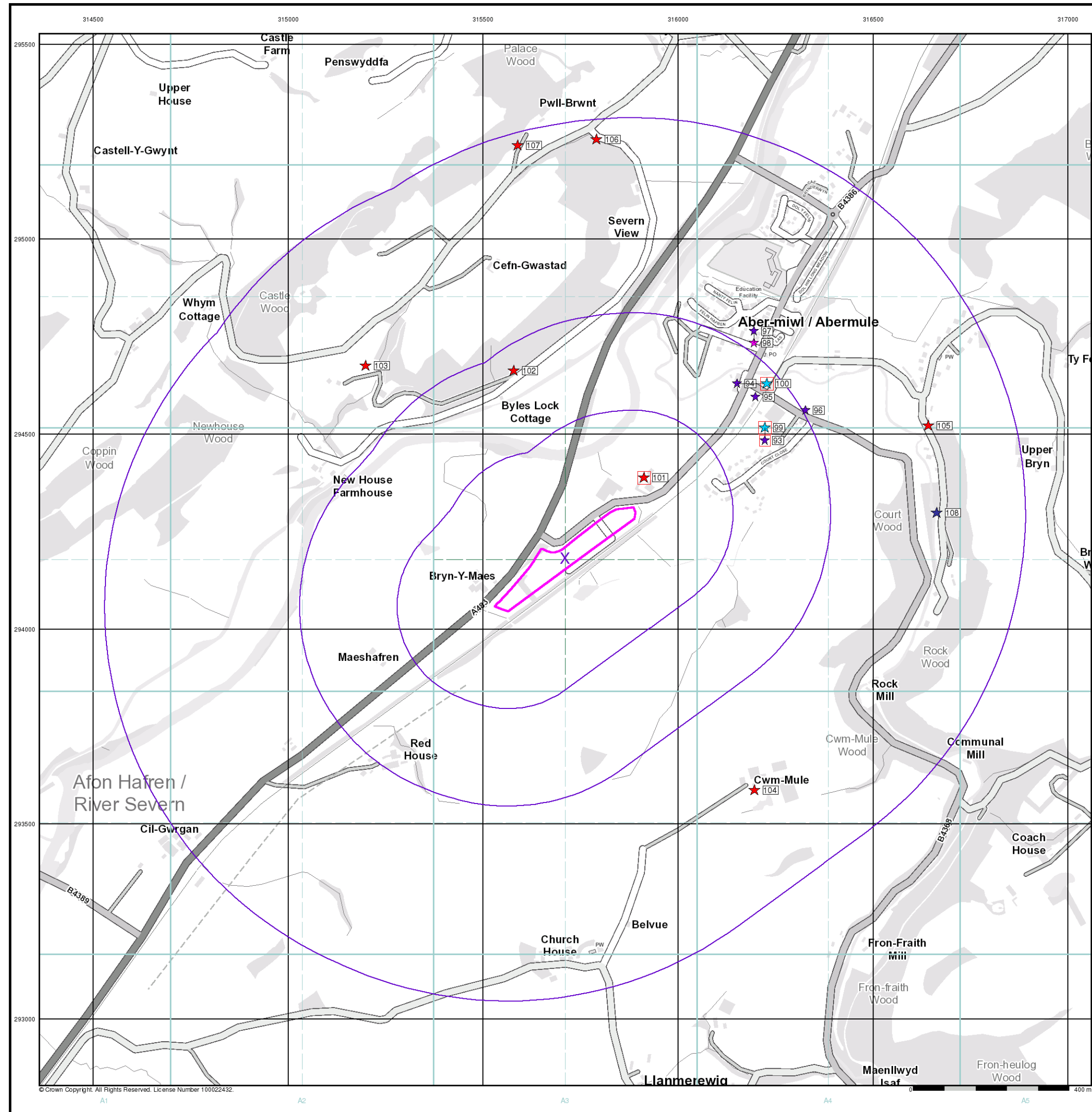
- General**
 - Specified Site
 - Specified Buffer(s)
 - Bearing Reference Point
 - Map ID
 - Several of Type at Location
- Agency and Hydrological**
 - Contaminated Land Register Entry or Notice (Location)
 - Contaminated Land Register Entry or Notice
 - Discharge Consent
 - Enforcement or Prohibition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



Order Details

Order Number:	145441795_1_1
Customer Ref:	10010344
National Grid Reference:	315710, 294180
Slice:	A
Site Area (Ha):	2.09
Search Buffer (m):	1000

Site Details
Maes Derwyn, Abermule, MONTGOMERY, SY15 6NT



© Crown Copyright. All Rights Reserved. License Number 100022432.

Industrial Land Use Map

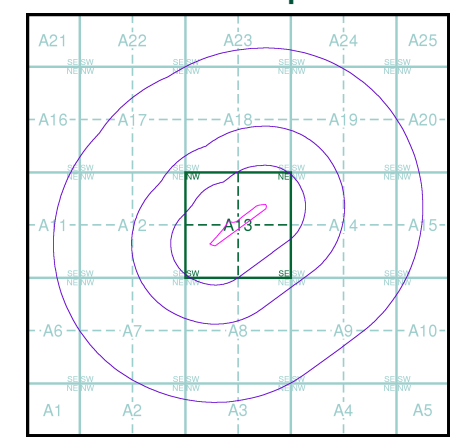
General

- 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

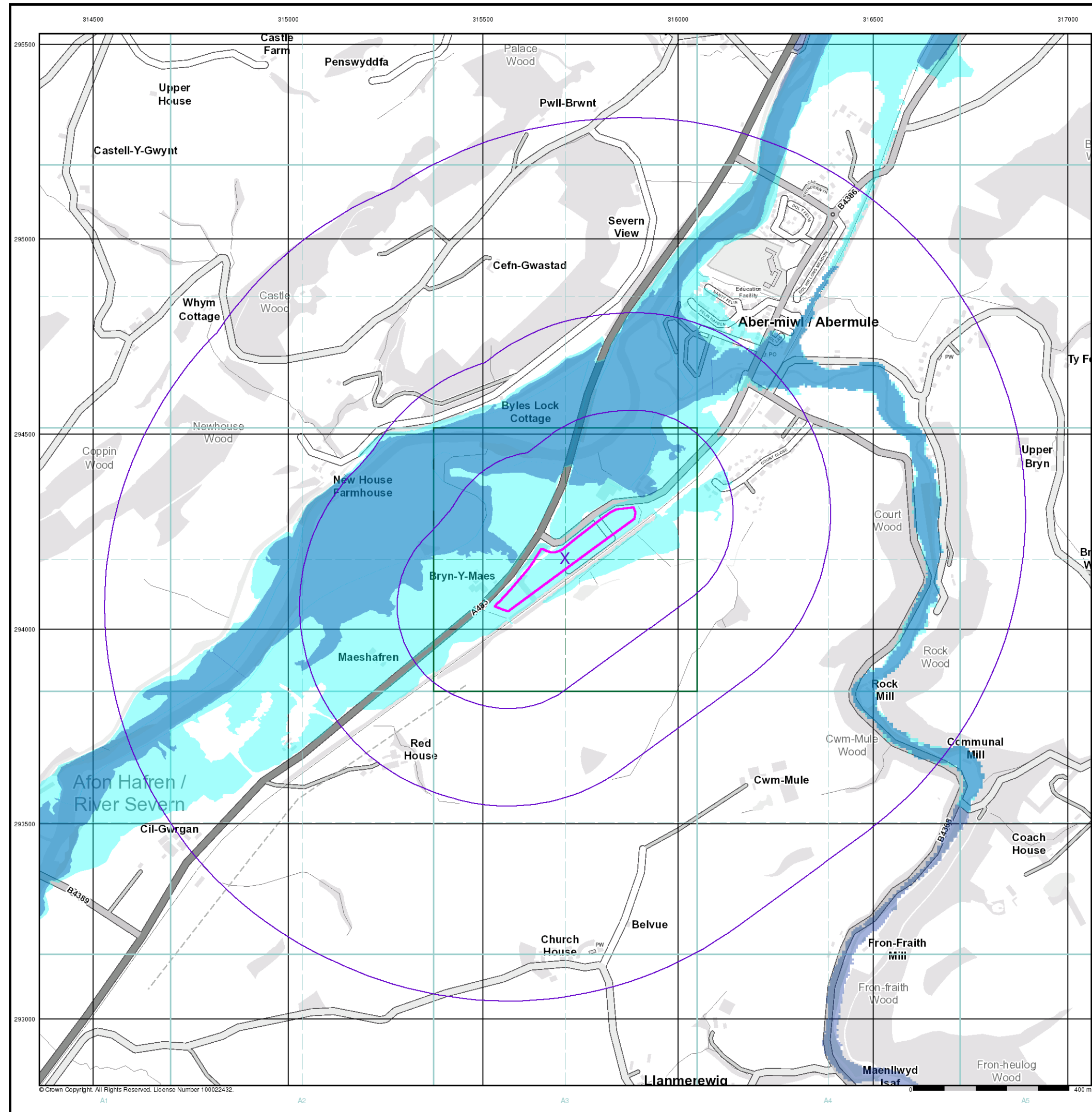


Order Details

Order Number: 145441795_1_1
Customer Ref: 10010344
National Grid Reference: 315710, 294180
Slice: A
Site Area (Ha): 2.09
Search Buffer (m): 1000

Site Details

Maes Derwyn, Abermule, MONTGOMERY, SY15 6NT



© Crown Copyright. All Rights Reserved. License Number 100022432.

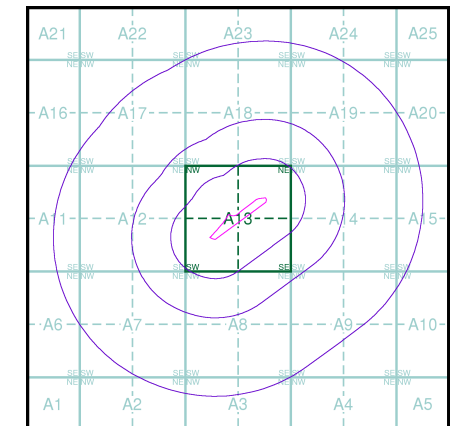
General

- 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

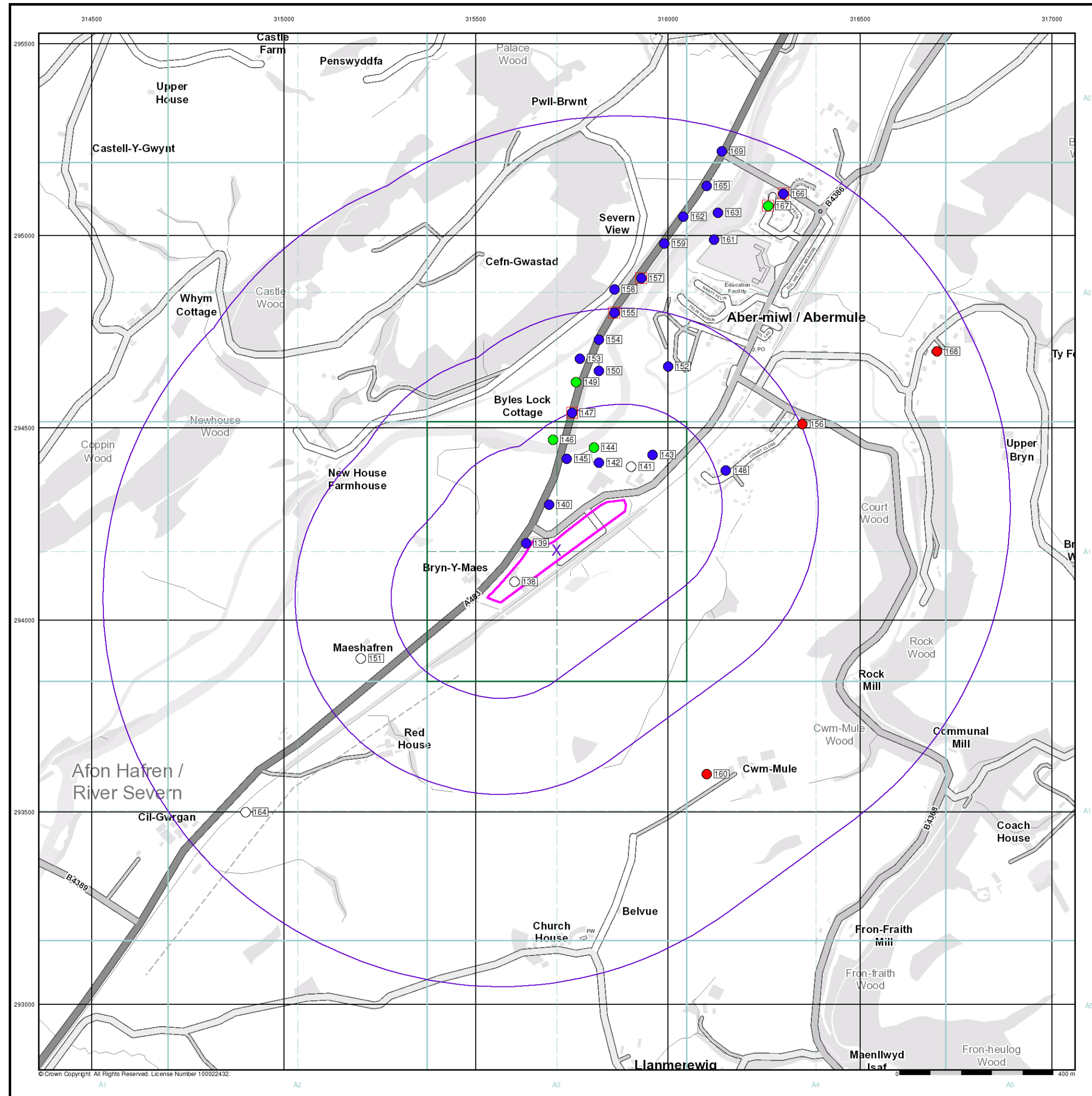


Order Details

Order Number: 145441795_1_1
Customer Ref: 10010344
National Grid Reference: 315710, 294180
Slice: A
Site Area (Ha): 2.09
Search Buffer (m): 1000

Site Details

Maes Derwyn, Abermule, MONTGOMERY, SY15 6NT



General

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

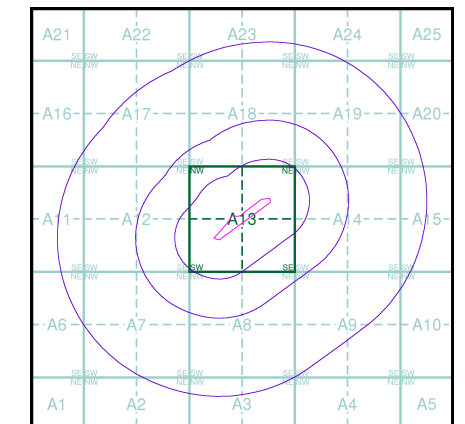
Agency and Hydrological (Boreholes)

- 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

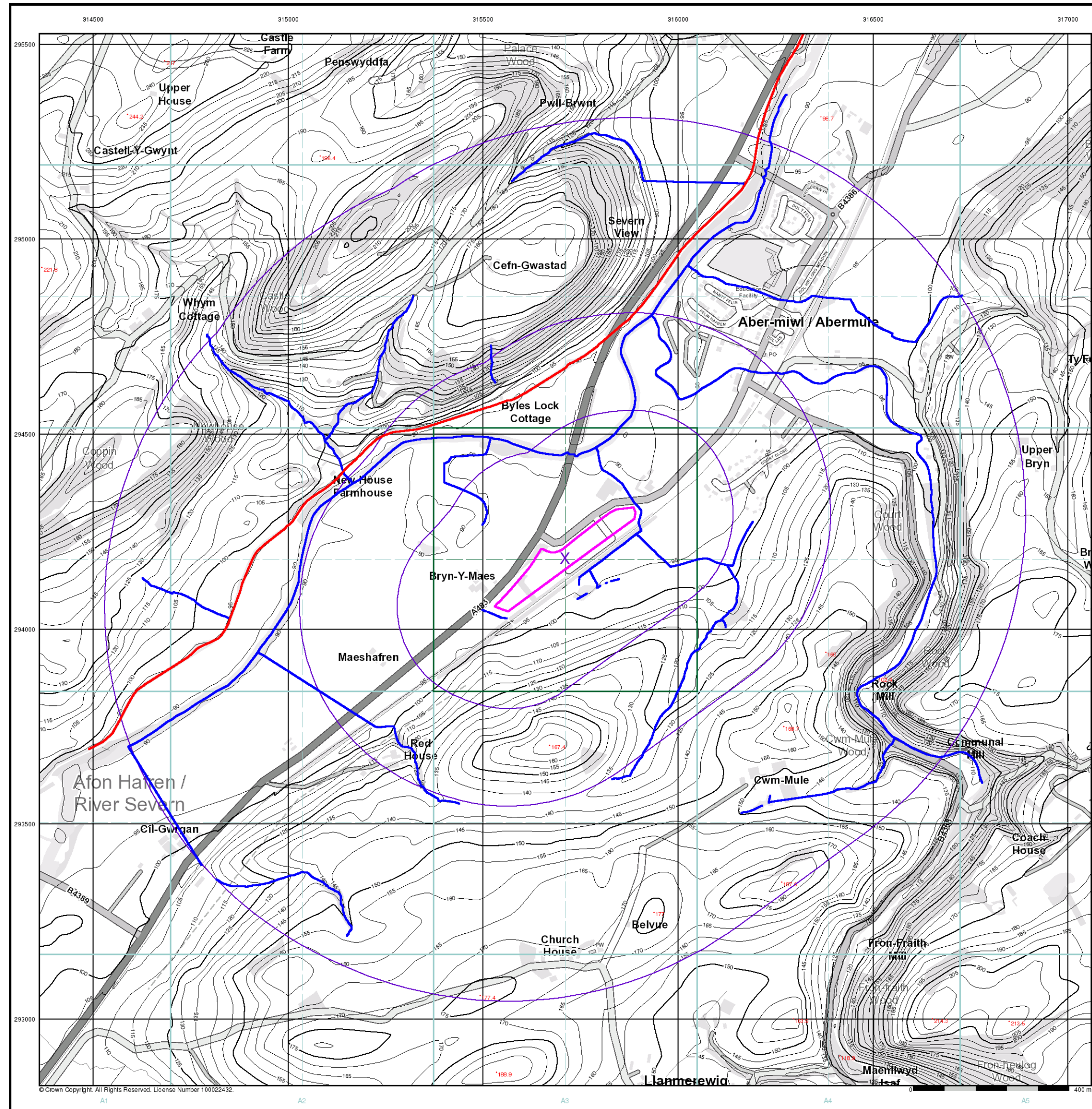


Order Details

Order Number: 145441795_1_1
Customer Ref: 10010344
National Grid Reference: 315710, 294180
Slice: A
Site Area (Ha): 2.09
Search Buffer (m): 1000

Site Details

Maes Derwyn, Abermule, MONTGOMERY, SY15 6NT



© Crown Copyright. All Rights Reserved. License Number 100022432.

Envirocheck[®]

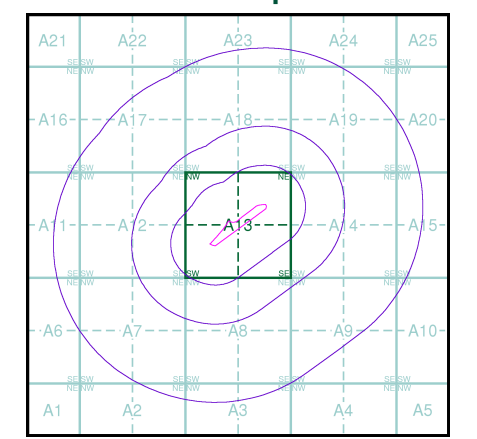
LANDMARK INFORMATION GROUP[®]

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

- OS Water Network Data**
- | | |
|--------------|-------------------------|
| Canal | Drain |
| Reservoir | Other |
| Foreshore | Lake |
| Marsh | Transfer |
| Tidal River | Lock Or Flight Of Locks |
| Inland River | Sea |

- Contours (height in meters)**
- Standard Contour 105 100 95
- Master Contour 105 100 95
- Spot Height 167.3
- MLW Mean Low Water
- MHW Mean High Water

OS Water Network Map - Slice A



Order Details

Order Number: 145441795_1_1

Customer Ref: 10010344

National Grid Reference: 315710, 294180

Slice: A

Site Area (Ha): 2.09

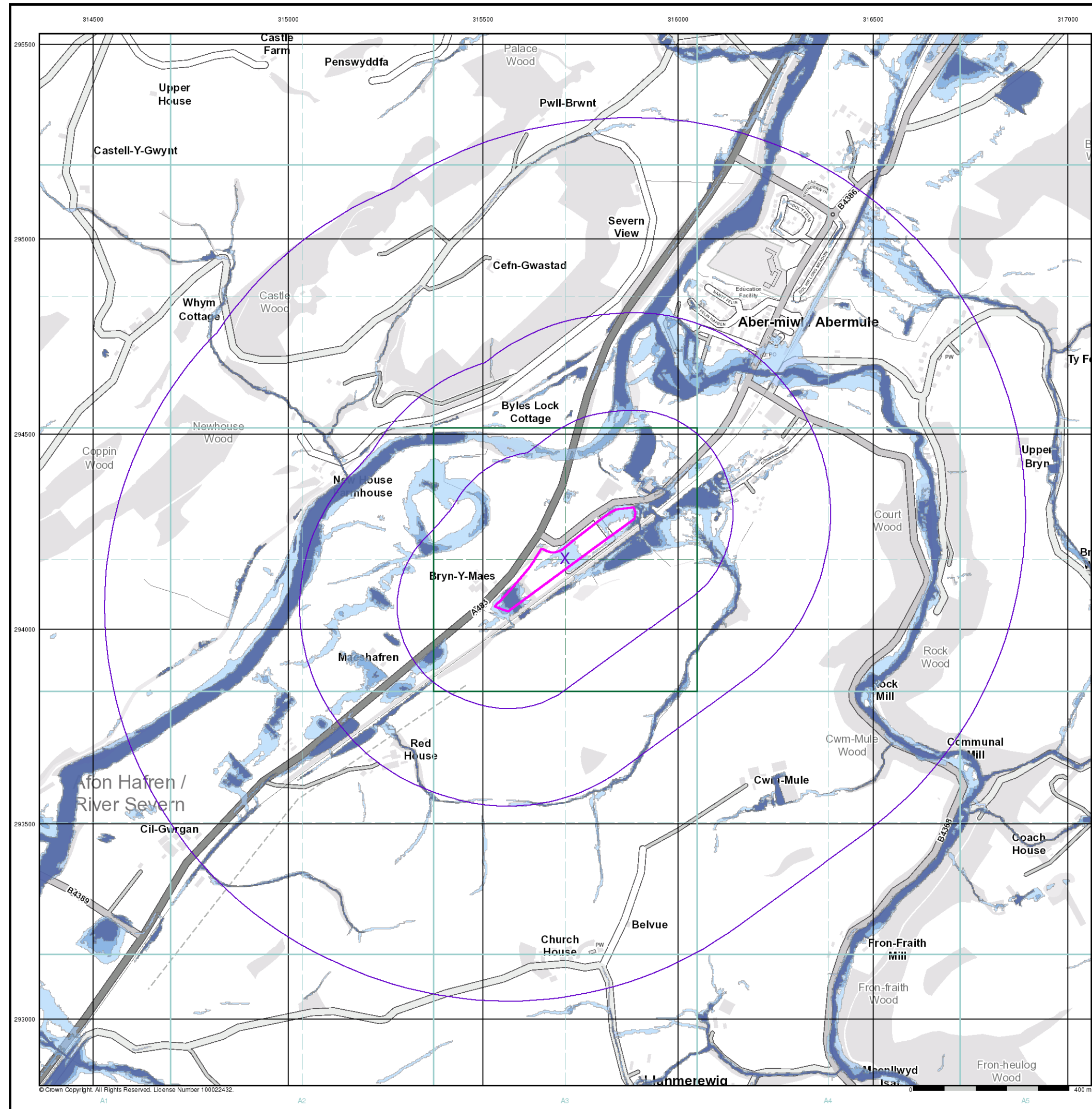
Search Buffer (m): 1000

Site Details

Maes Derwyn, Abermule, MONTGOMERY, SY15 6NT

Landmark[®]
INFORMATION GROUP

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



© Crown Copyright. All Rights Reserved. License Number 100022432.

Envirocheck®

LANDMARK INFORMATION GROUP®

General

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

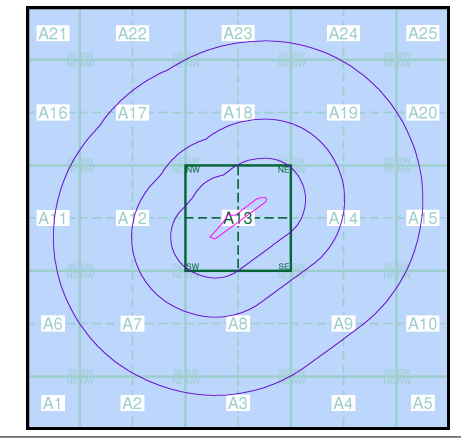
Risk of Flooding from Surface Water

- 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

EANRW Suitability Map - Slice A



Order Details

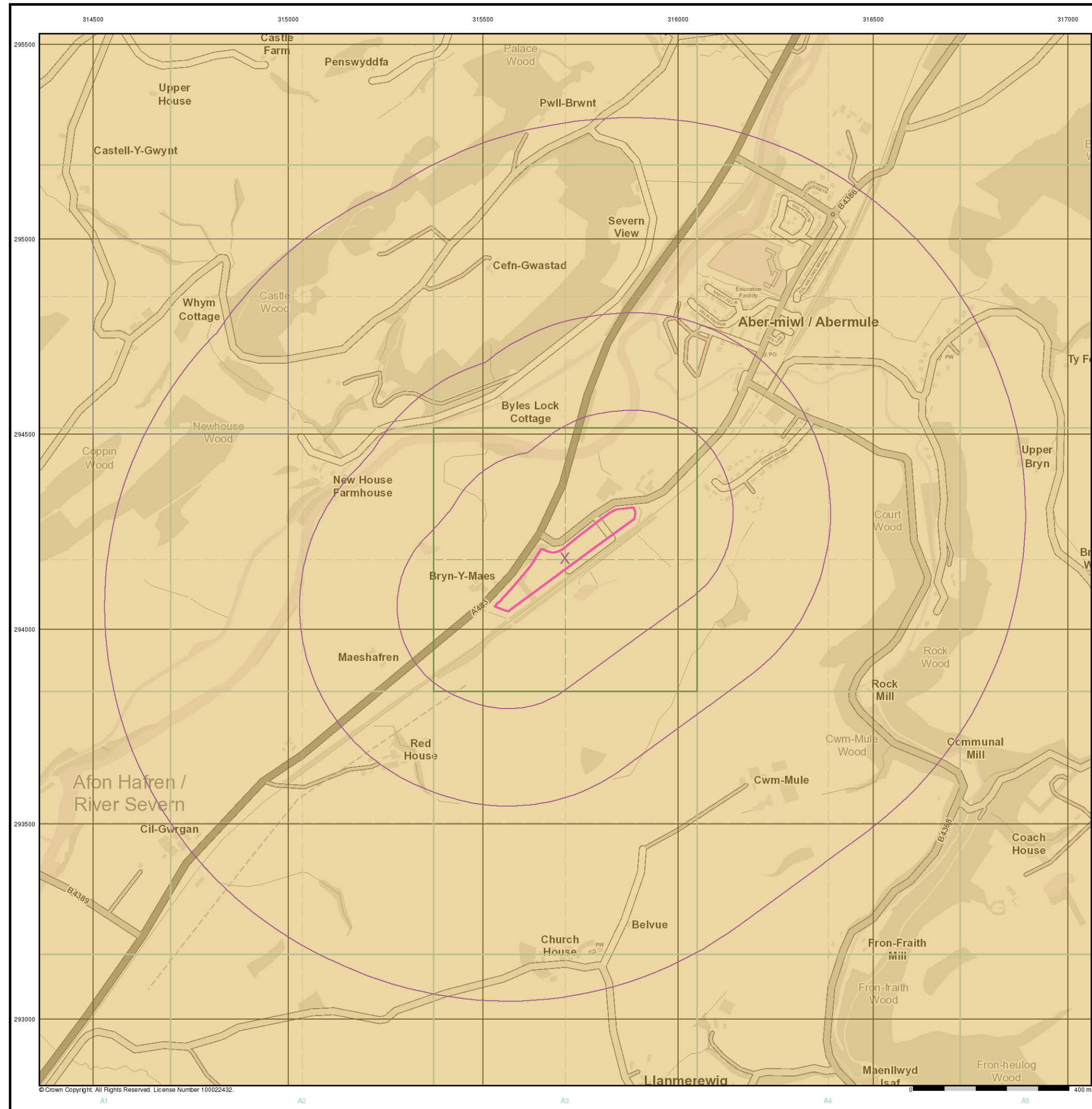
Order Number: 145441795_1_1
Customer Ref: 10010344
National Grid Reference: 315710, 294180
Slice: A
Site Area (Ha): 2.09
Search Buffer (m): 1000

Site Details

Maes Derwyn, Abermule, MONTGOMERY, SY15 6NT

Landmark
INFORMATION GROUP

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



© Crown Copyright. All Rights Reserved. License Number 100022432.

Envirocheck®

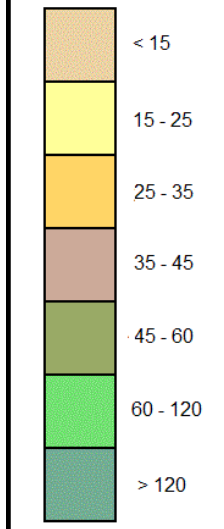
LANDMARK INFORMATION GROUP®

General

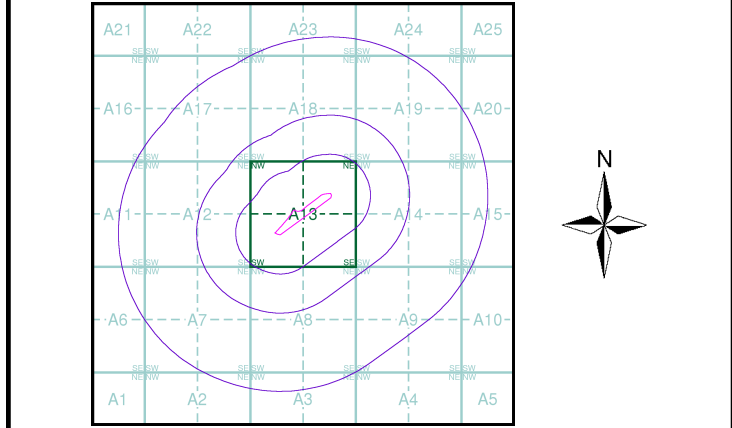
- Specified Site
- Specified Buffer(s)
- Bearing Reference Point

Estimated Soil Chemistry Arsenic

Arsenic Concentrations mg/kg



Estimated Soil Chemistry Arsenic - Slice A



Order Details

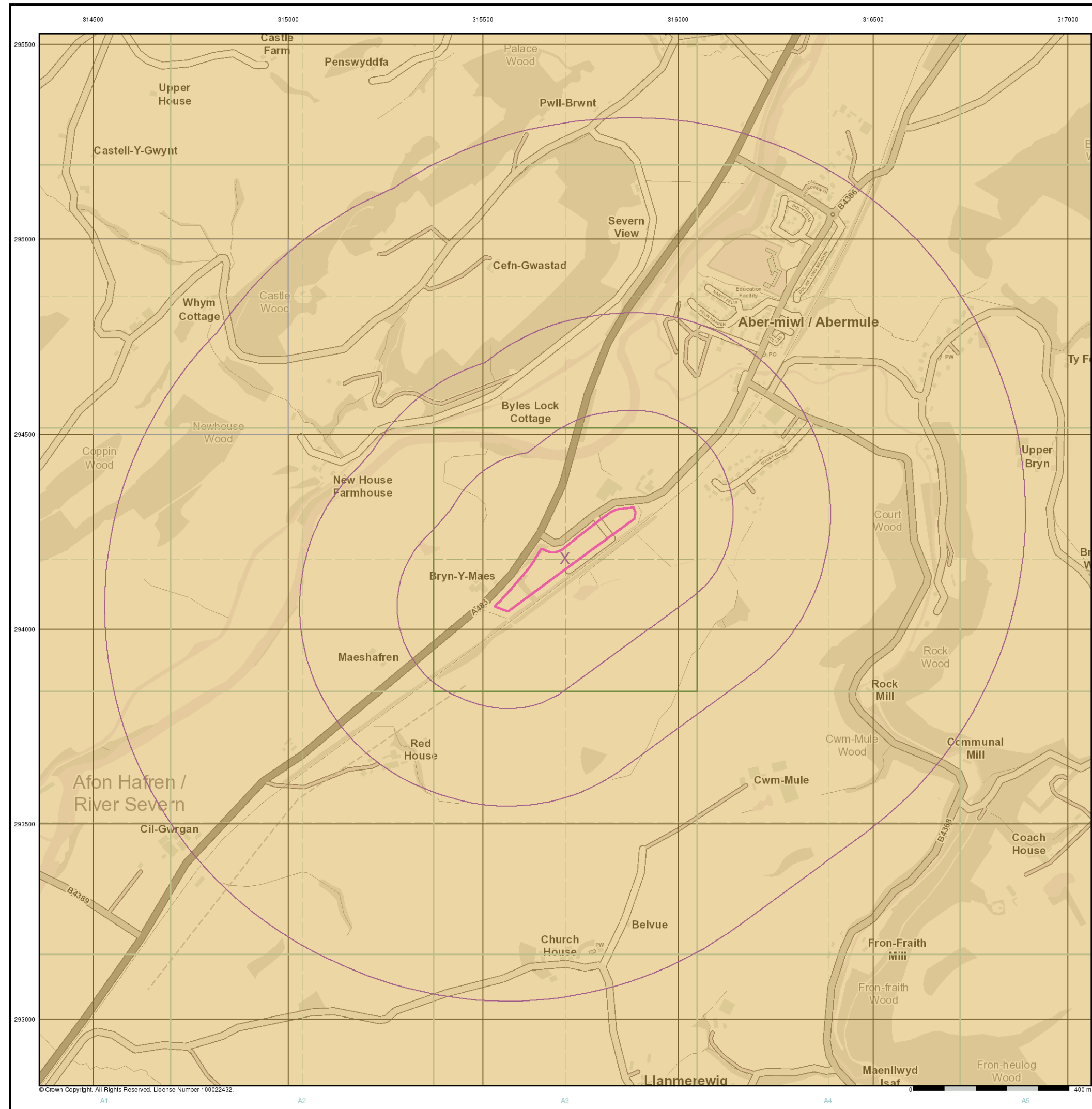
Order Details: 145441795_1_1
Customer Ref: 10010344
National Grid Reference: 315710, 294180
Slice: A
Site Area (Ha): 2.09
Search Buffer (m): 1000

Site Details

Maes Derwyn, Abermule, MONTGOMERY, SY15 6NT

Landmark®
INFORMATION GROUP

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



© Crown Copyright. All Rights Reserved. License Number 100022432.

Envirocheck[®]

LANDMARK INFORMATION GROUP[®]

General

Specified Site Specified Buffer(s) Bearing Reference Point

Estimated Soil Chemistry Cadmium

Cadmium Concentrations mg/kg

< 1.8
1.8 - 2.2
2.2 - 3.0
> 3.0

Estimated Soil Chemistry Cadmium - Slice A

Order Details

Order Details:	145441795_1_1
Customer Ref:	10010344
National Grid Reference:	315710, 294180
Slice:	A
Site Area (Ha):	2.09
Search Buffer (m):	1000

Site Details

Maes Derwyn, Abermule, MONTGOMERY, SY15 6NT

Landmark[®]

INFORMATION GROUP

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

A Landmark Information Group Service v50.0 07-Nov-2017 Page 2 of 5

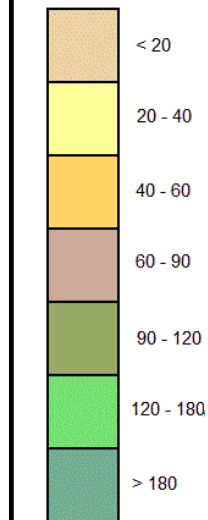


General

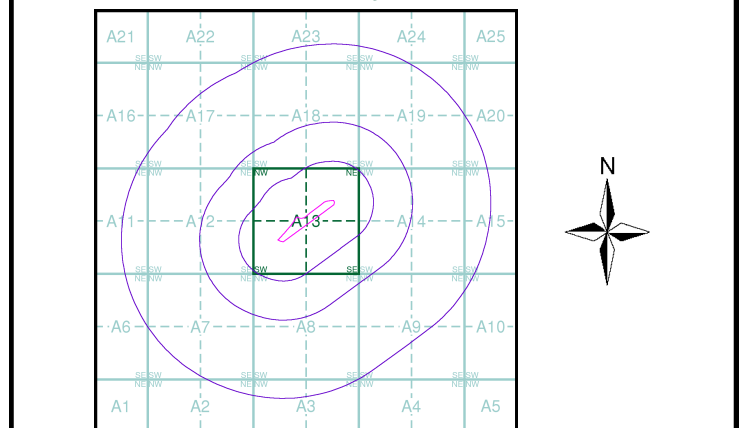
Specified Site Specified Buffer(s) Bearing Reference Point

Estimated Soil Chemistry Chromium

Chromium Concentrations mg/kg



Estimated Soil Chemistry Chromium - Slice A

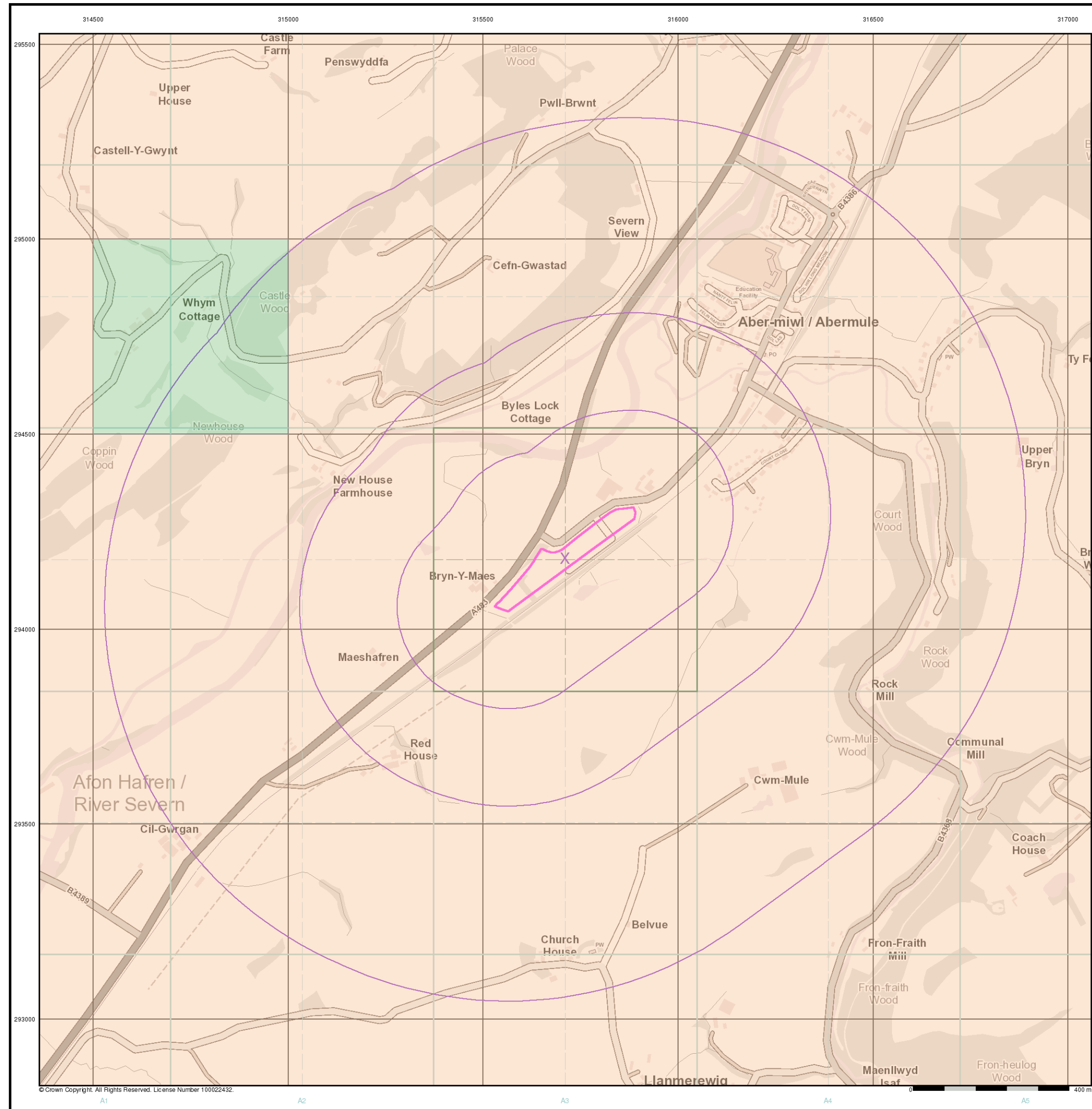


Order Details

Order Details: 145441795_1_1
Customer Ref: 10010344
National Grid Reference: 315710, 294180
Slice: A
Site Area (Ha): 2.09
Search Buffer (m): 1000

Site Details

Maes Derwyn, Abermule, MONTGOMERY, SY15 6NT



© Crown Copyright. All Rights Reserved. License Number 100022432.

Envirocheck®

LANDMARK INFORMATION GROUP®

General

Specified Site Specified Buffer(s) Bearing Reference Point

Estimated Soil Chemistry Lead

Lead Concentrations mg/kg

<100 mg/kg
100 - 200
200 - 300
300 - 600
600 - 1200
>1200

Estimated Soil Chemistry Lead - Slice A

Order Details

Order Details:	145441795_1_1
Customer Ref:	10010344
National Grid Reference:	315710, 294180
Slice:	A
Site Area (Ha):	2.09
Search Buffer (m):	1000

Site Details

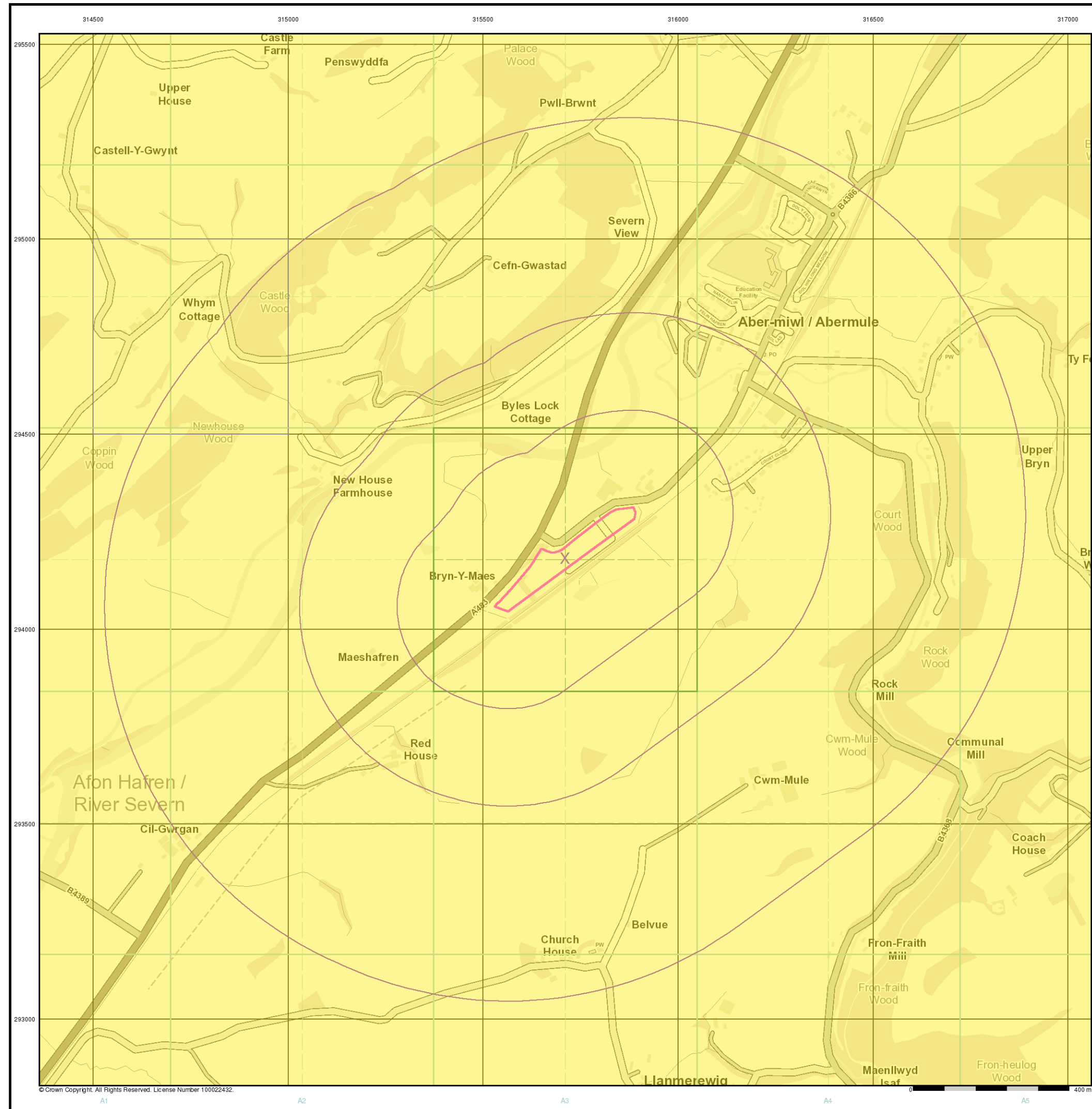
Maes Derwyn, Abermule, MONTGOMERY, SY15 6NT

Landmark®

INFORMATION GROUP

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

A Landmark Information Group Service v50.0 07-Nov-2017 Page 4 of 5



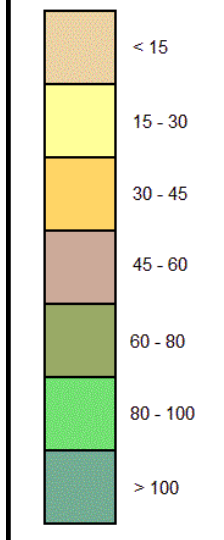
© Crown Copyright. All Rights Reserved. License Number 100022432.

General

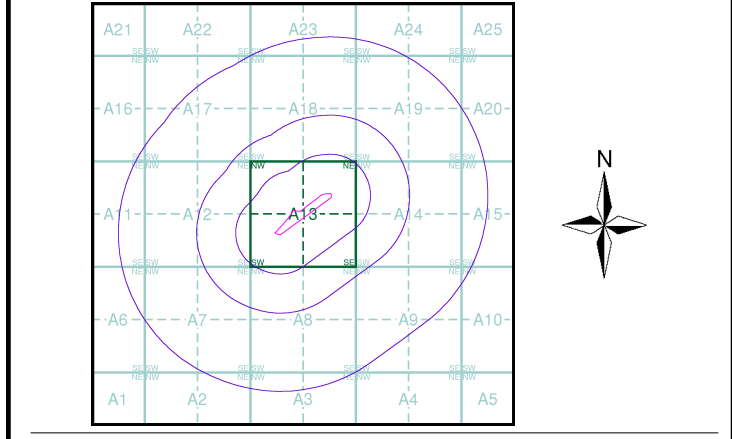
- 📍 Specified Site
- 🌀 Specified Buffer(s)
- ✕ Bearing Reference Point

Estimated Soil Chemistry Nickel

Nickel Concentrations mg/kg



Estimated Soil Chemistry Nickel - Slice A



Order Details

Order Details: 145441795_1_1
Customer Ref: 10010344
National Grid Reference: 315710, 294180
Slice: A
Site Area (Ha): 2.09
Search Buffer (m): 1000

Site Details

Maes Derwyn, Abermule, MONTGOMERY, SY15 6NT

Appendix C

Historical Maps

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

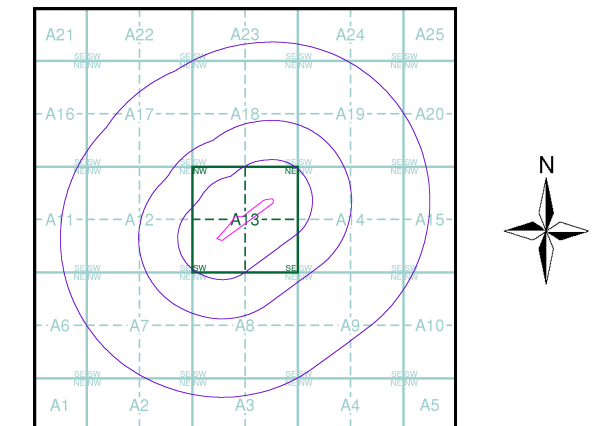
Envirocheck[®]

LANDMARK INFORMATION GROUP[®]

Historical Mapping & Photography included:

Mapping Type	Scale	Date	Pg
Montgomeryshire	1:10,560	1884 - 1885	2
Montgomeryshire	1:10,560	1903	3
Montgomeryshire	1:10,560	1938 - 1953	4
Montgomeryshire	1:10,560	1953	5
Ordnance Survey Plan	1:10,000	1963 - 1964	6
Ordnance Survey Plan	1:10,000	1983 - 1984	7
10K Raster Mapping	1:10,000	2000	8
10K Raster Mapping	1:10,000	2006	9
VectorMap Local	1:10,000	2017	10

Historical Map - Slice A



Order Details

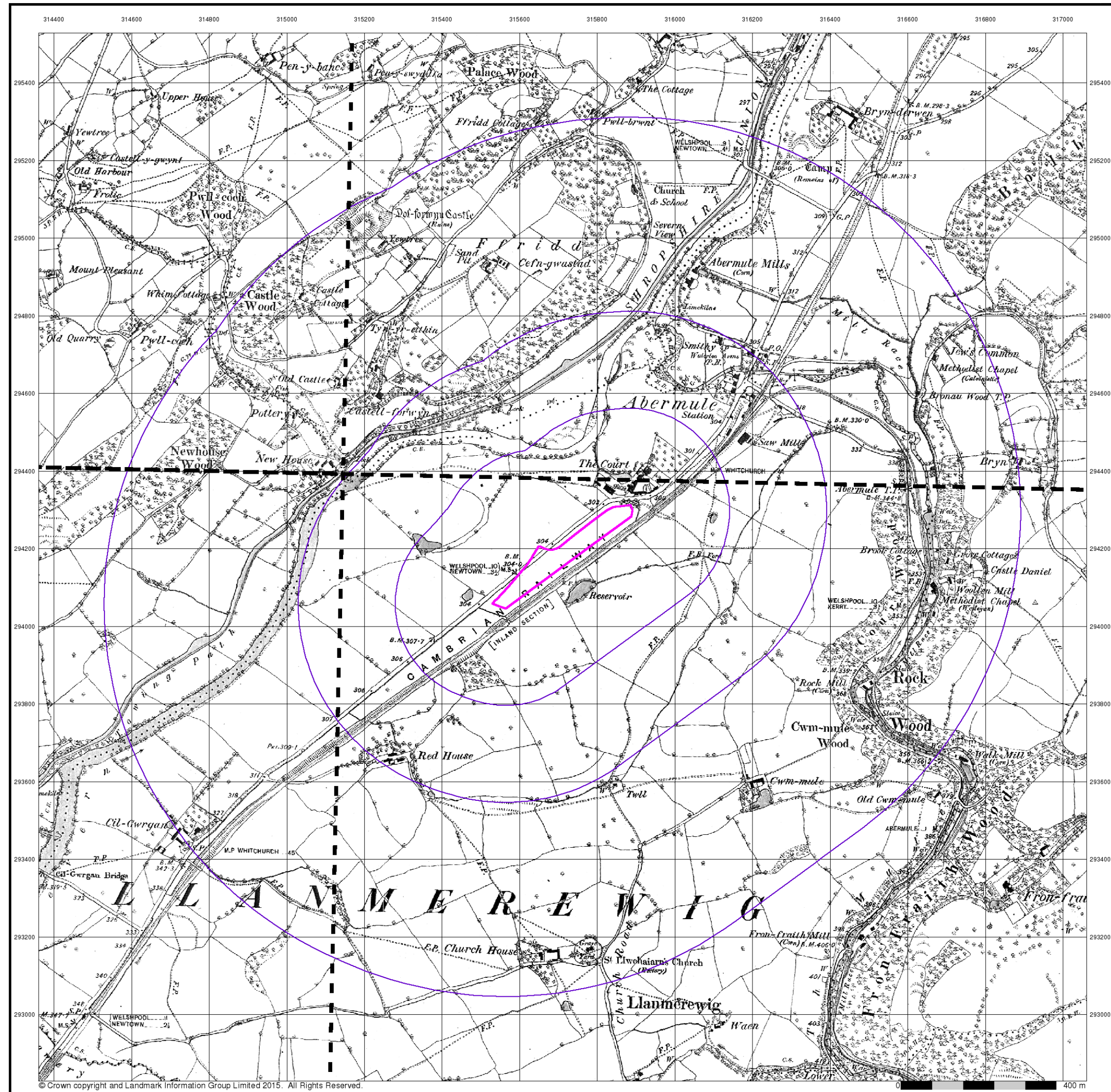
Order Number: 145441795_1_1
Customer Ref: 10010344
National Grid Reference: 315710, 294180
Slice: A
Site Area (Ha): 2.09
Search Buffer (m): 1000

Site Details

Maes Derwyn, Abermule, MONTGOMERY, SY15 6NT

Landmark[®]
INFORMATION GROUP

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



Envirocheck®

LANDMARK INFORMATION GROUP®

Montgomeryshire

Published 1884 - 1885

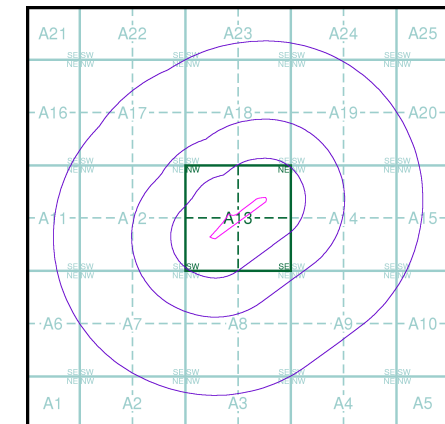
Source map scale - 1:10,560

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

Map Name(s) and Date(s)

036NE 1884 1:10,560	037NW 1885 1:10,560
036SE 1885 1:10,560	037SW 1884 1:10,560

Historical Map - Slice A



Order Details

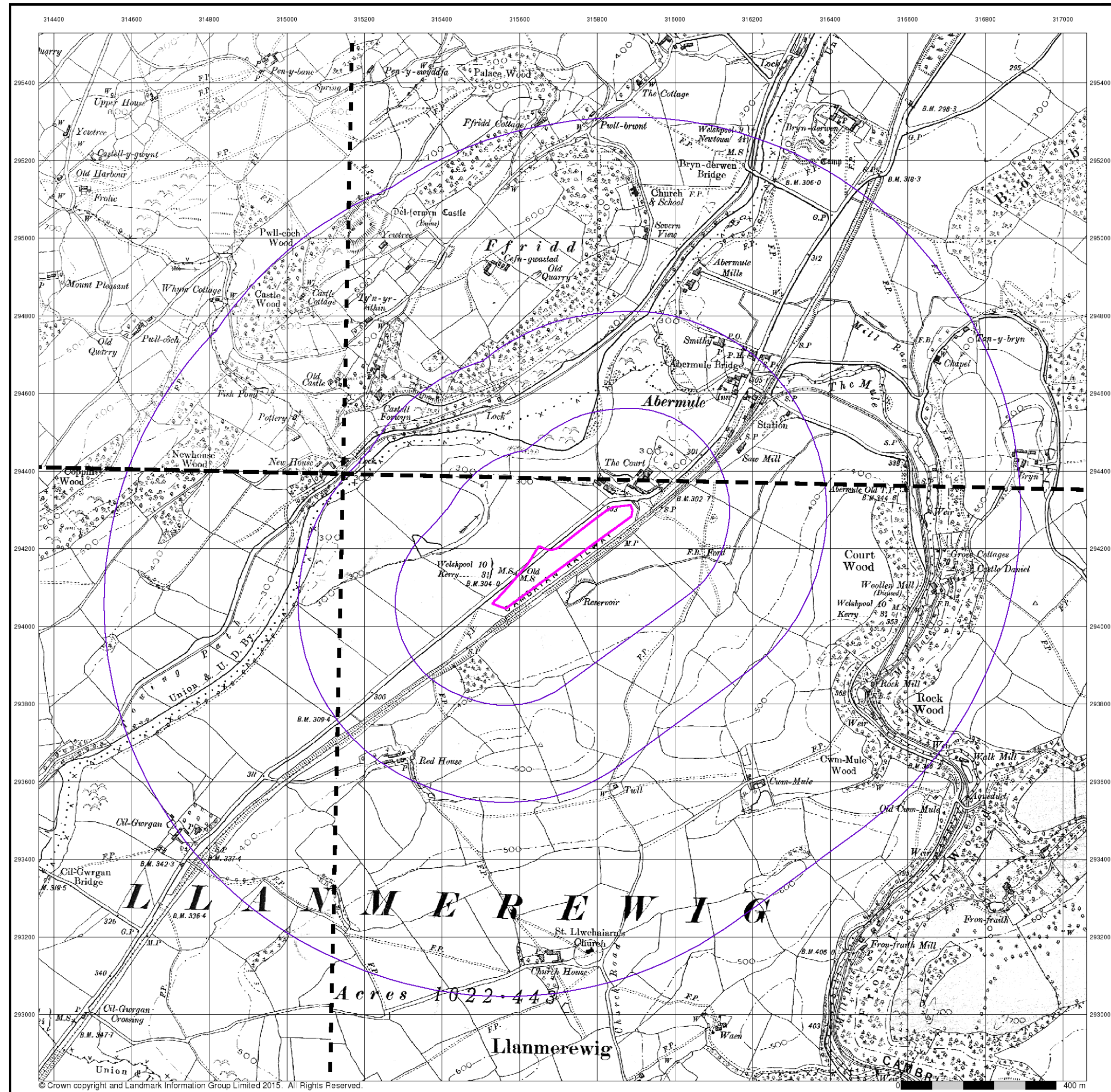
Order Number: 145441795_1_1
Customer Ref: 10010344
National Grid Reference: 315710, 294180
Slice: A
Site Area (Ha): 2.09
Search Buffer (m): 1000

Site Details

Maes Derwyn, Abermule, MONTGOMERY, SY15 6NT

Landmark®
INFORMATION GROUP

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



Envirocheck®

LANDMARK INFORMATION GROUP®

Montgomeryshire

Published 1903

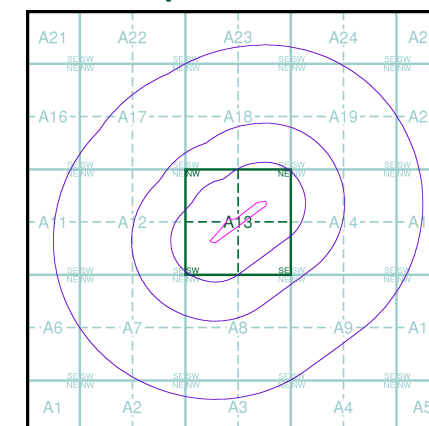
Source map scale - 1:10,560

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)

036NE 1903 1:10,560	037NW 1903 1:10,560
036SE 1903 1:10,560	037SW 1903 1:10,560

Historical Map - Slice A



Order Details

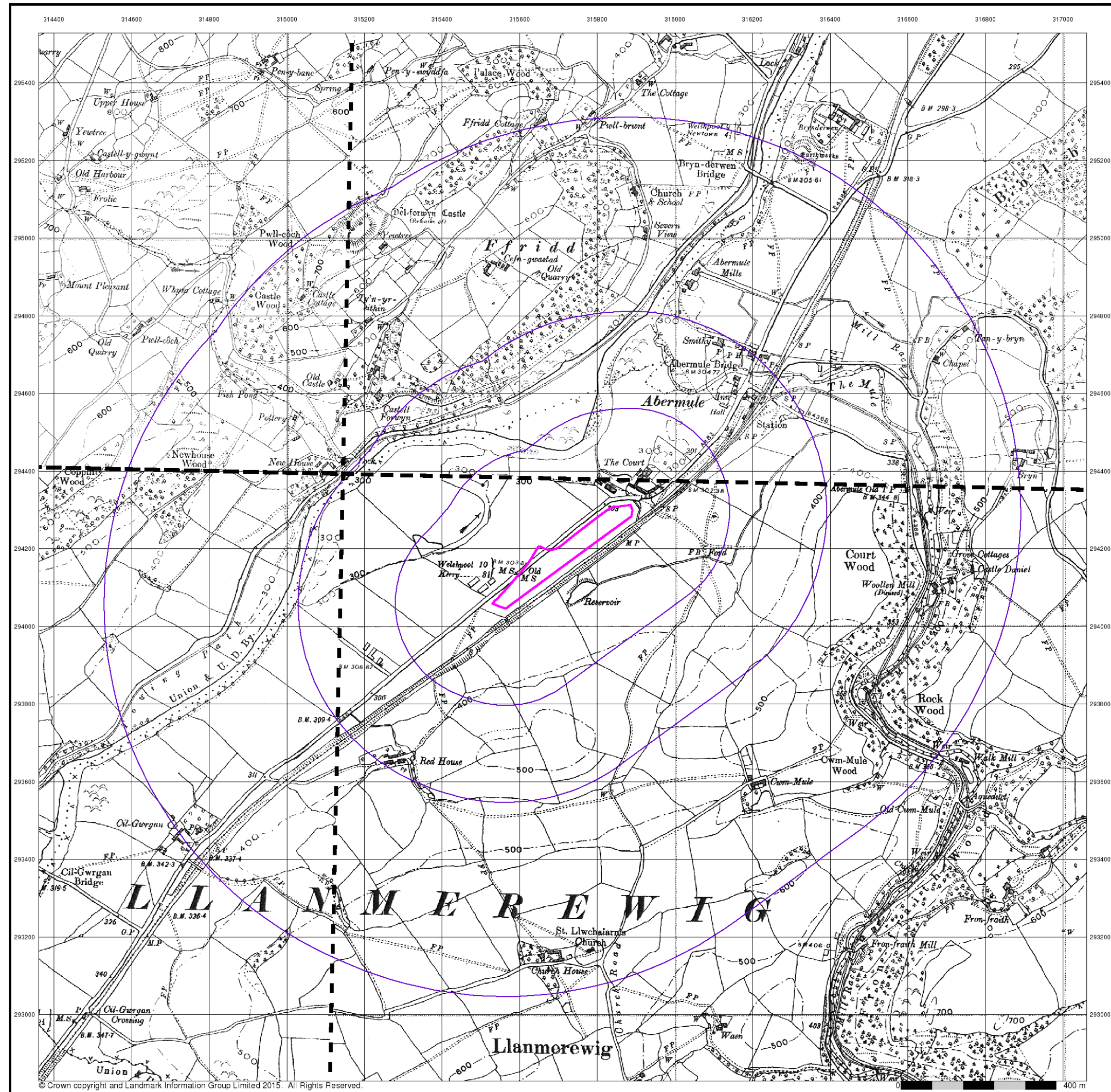
Order Number: 145441795_1_1
Customer Ref: 10010344
National Grid Reference: 315710, 294180
Slice: A
Site Area (Ha): 2.09
Search Buffer (m): 1000

Site Details

Maes Derwyn, Abermule, MONTGOMERY, SY15 6NT

Landmark®
INFORMATION GROUP

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



Envirocheck®

LANDMARK INFORMATION GROUP®

Montgomeryshire

Published 1938 - 1953

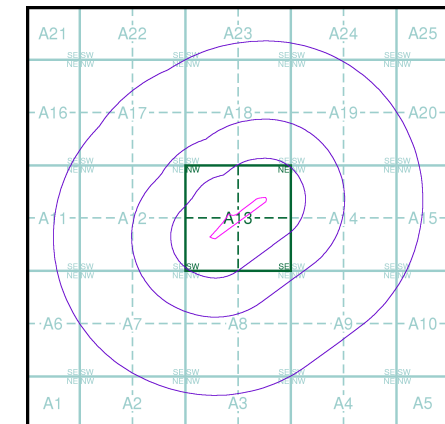
Source map scale - 1:10,560

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)

036NE 1953 1:10,560	037NW 1953 1:10,560
036SE 1938 1:10,560	037SW 1953 1:10,560

Historical Map - Slice A



Order Details

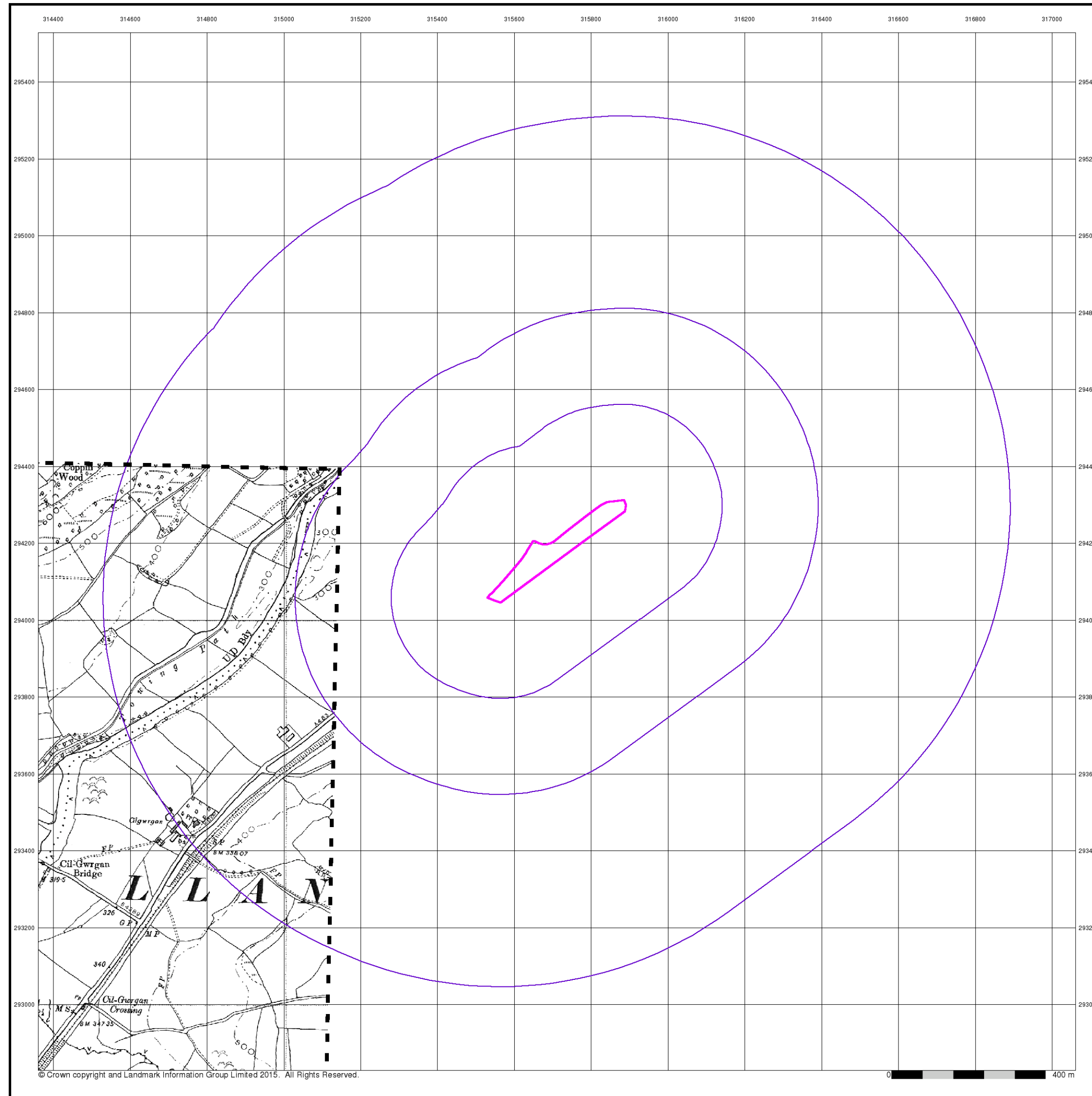
Order Number: 145441795_1_1
Customer Ref: 10010344
National Grid Reference: 315710, 294180
Slice: A
Site Area (Ha): 2.09
Search Buffer (m): 1000

Site Details

Maes Derwyn, Abermule, MONTGOMERY, SY15 6NT

Landmark
INFORMATION GROUP

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



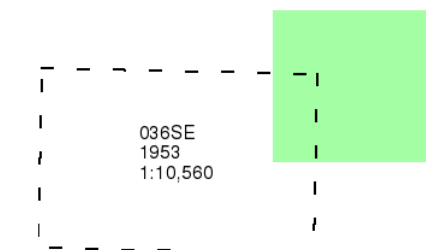
Montgomeryshire

Published 1953

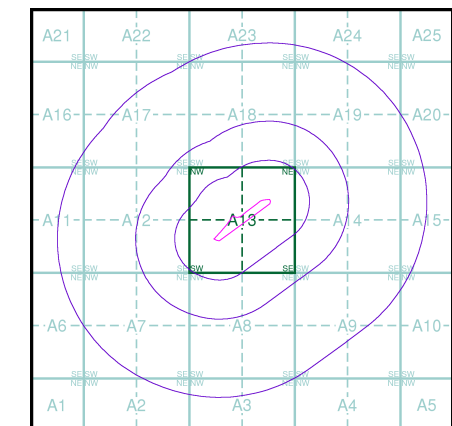
Source map scale - 1:10,560

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

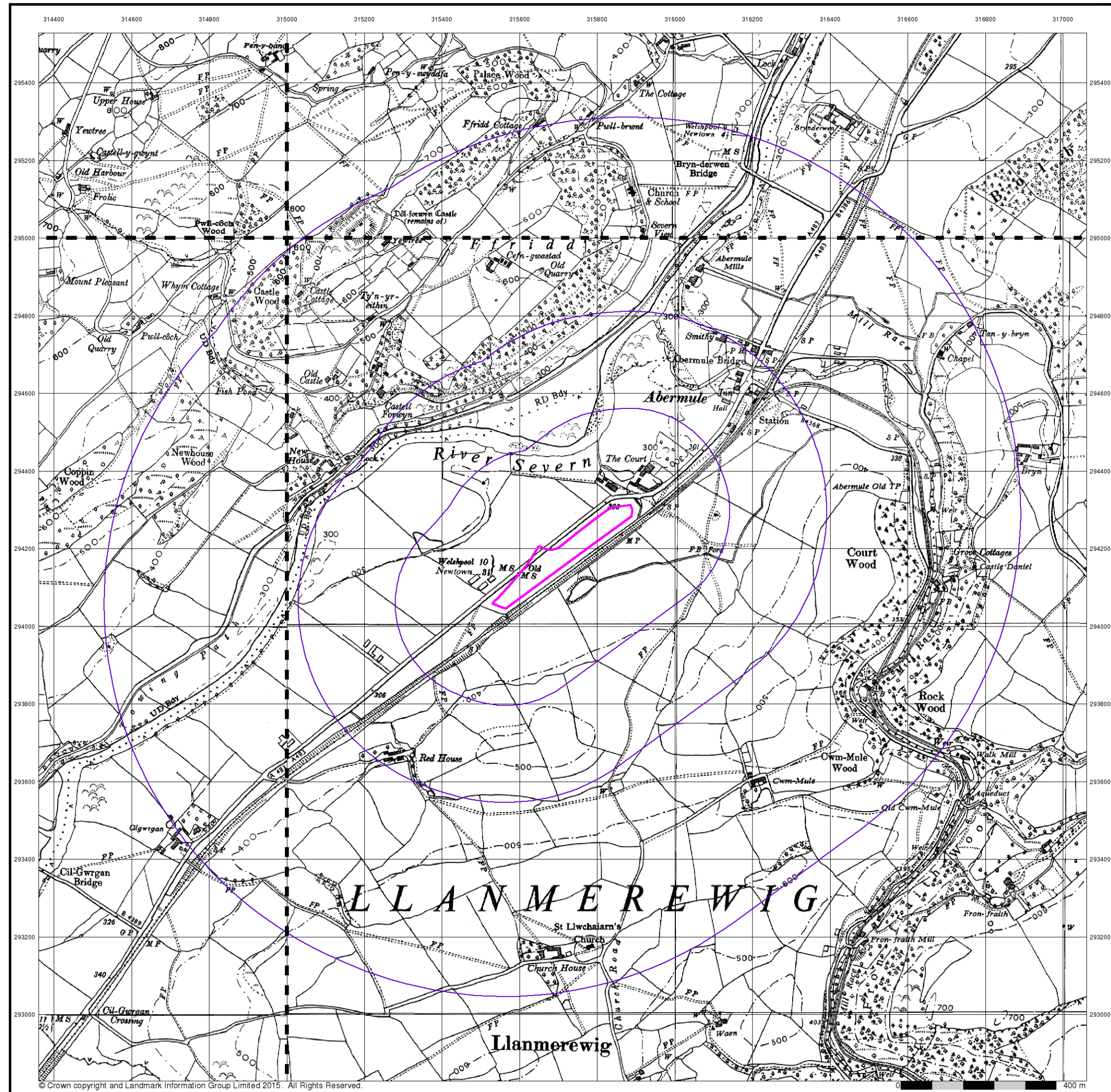


Order Details

Order Number: 145441795_1_1
Customer Ref: 10010344
National Grid Reference: 315710, 294180
Slice: A
Site Area (Ha): 2.09
Search Buffer (m): 1000

Site Details

Maes Derwyn, Abermule, MONTGOMERY, SY15 6NT



Envirocheck®

LANDMARK INFORMATION GROUP®

Ordnance Survey Plan

Published 1963 - 1964

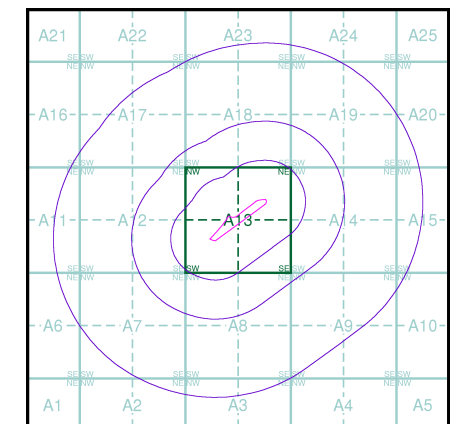
Source map scale - 1:10,000

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

Map Name(s) and Date(s)

SO19NW	SO19NE
1963	1964
1:10,560	1:10,560
SO19SW	SO19SE
1963	1964
1:10,560	1:10,560

Historical Map - Slice A



Order Details

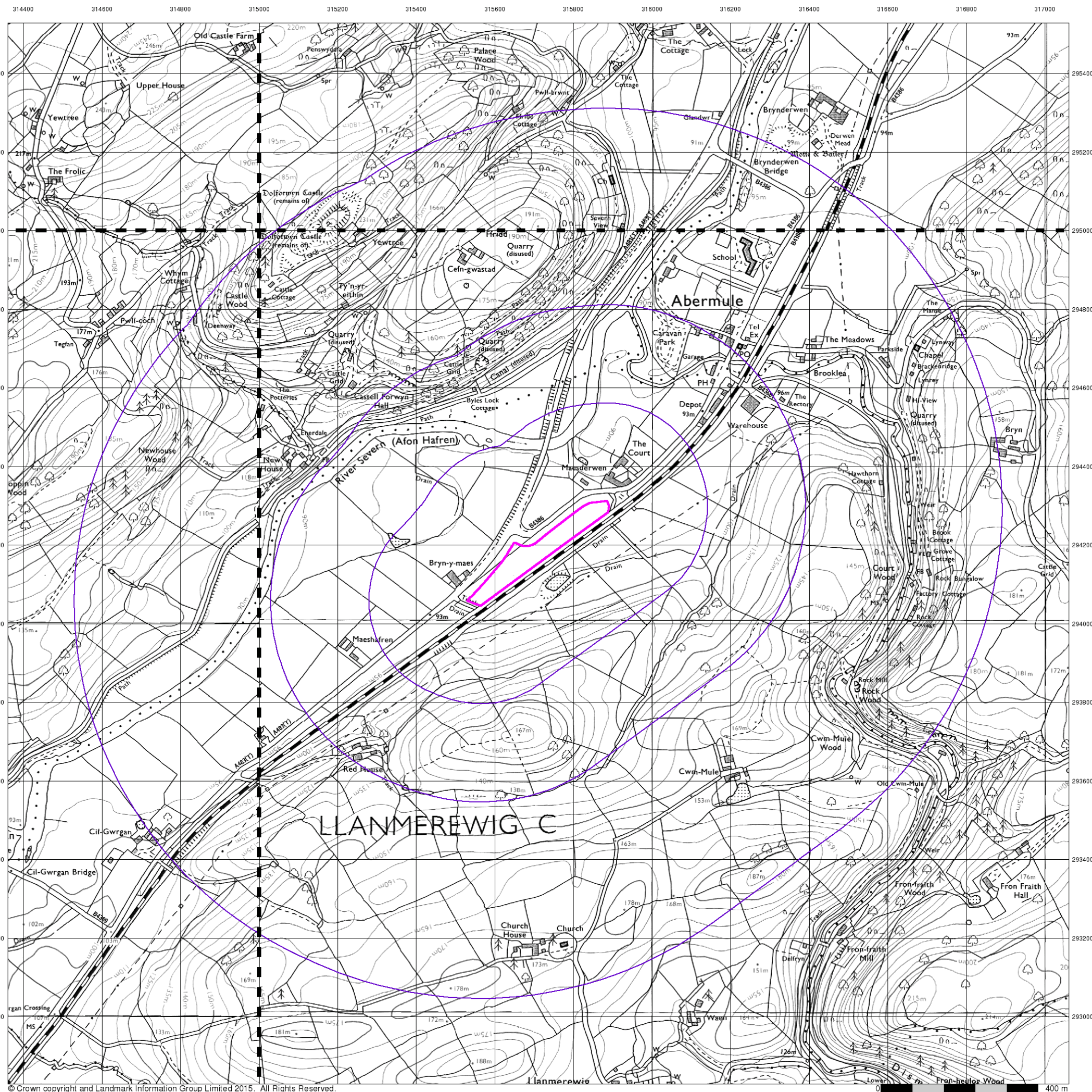
Order Number: 145441795_1_1
Customer Ref: 10010344
National Grid Reference: 315710, 294180
Slice: A
Site Area (Ha): 2.09
Search Buffer (m): 1000

Site Details

Maes Derwyn, Abermule, MONTGOMERY, SY15 6NT

Landmark®
INFORMATION GROUP

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



© Crown copyright and Landmark Information Group Limited 2015. All Rights Reserved.

Envirocheck®

LANDMARK INFORMATION GROUP®

Ordnance Survey Plan

Published 1983 - 1984

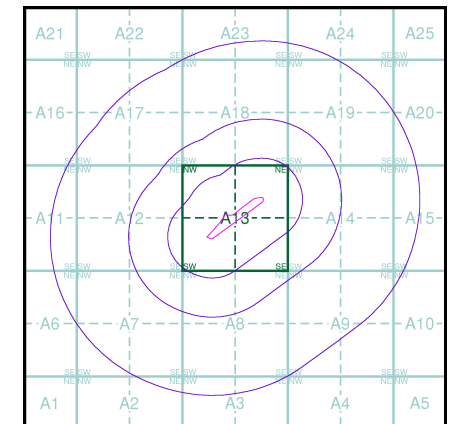
Source map scale - 1:10,000

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)

SO19NW	SO19NE
1983	1983
1:10,000	1:10,000
SO19SW	SO19SE
1984	1983
1:10,000	1:10,000

Historical Map - Slice A



Order Details

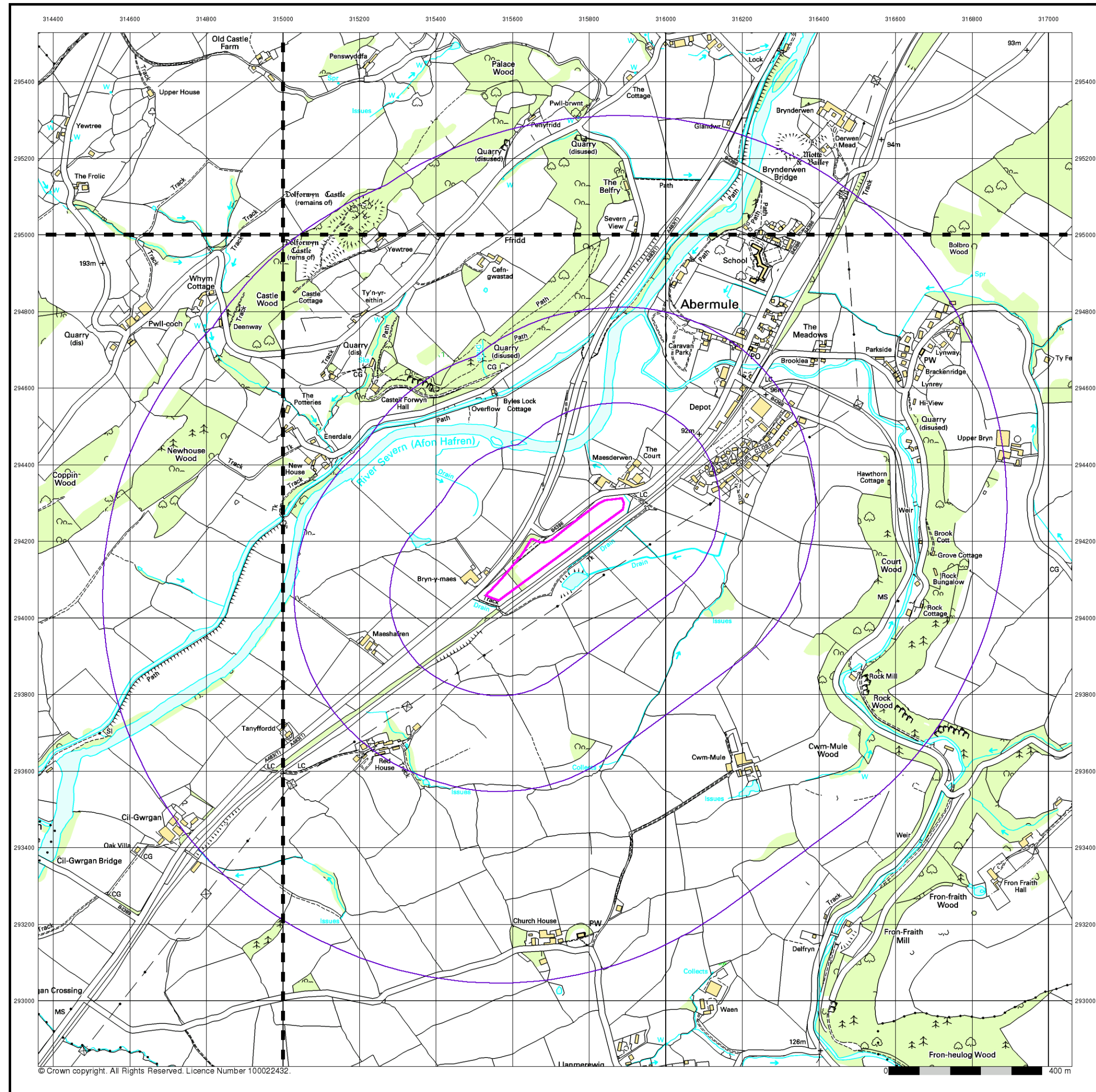
Order Number: 145441795_1_1
Customer Ref: 10010344
National Grid Reference: 315710, 294180
Slice: A
Site Area (Ha): 2.09
Search Buffer (m): 1000

Site Details

Maes Derwyn, Abermule, MONTGOMERY, SY15 6NT

Landmark®
INFORMATION GROUP

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



Envirocheck[®]

LANDMARK INFORMATION GROUP[®]

10k Raster Mapping

Published 2000

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)

SO19NW	SO19NE
2000	2000
1:10,000	1:10,000
SO19SW	SO19SE
2000	2000
1:10,000	1:10,000

Historical Map - Slice A

N

Order Details

Order Number:	145441795_1_1
Customer Ref:	10010344
National Grid Reference:	315710, 294180
Slice:	A
Site Area (Ha):	2.09
Search Buffer (m):	1000

Site Details

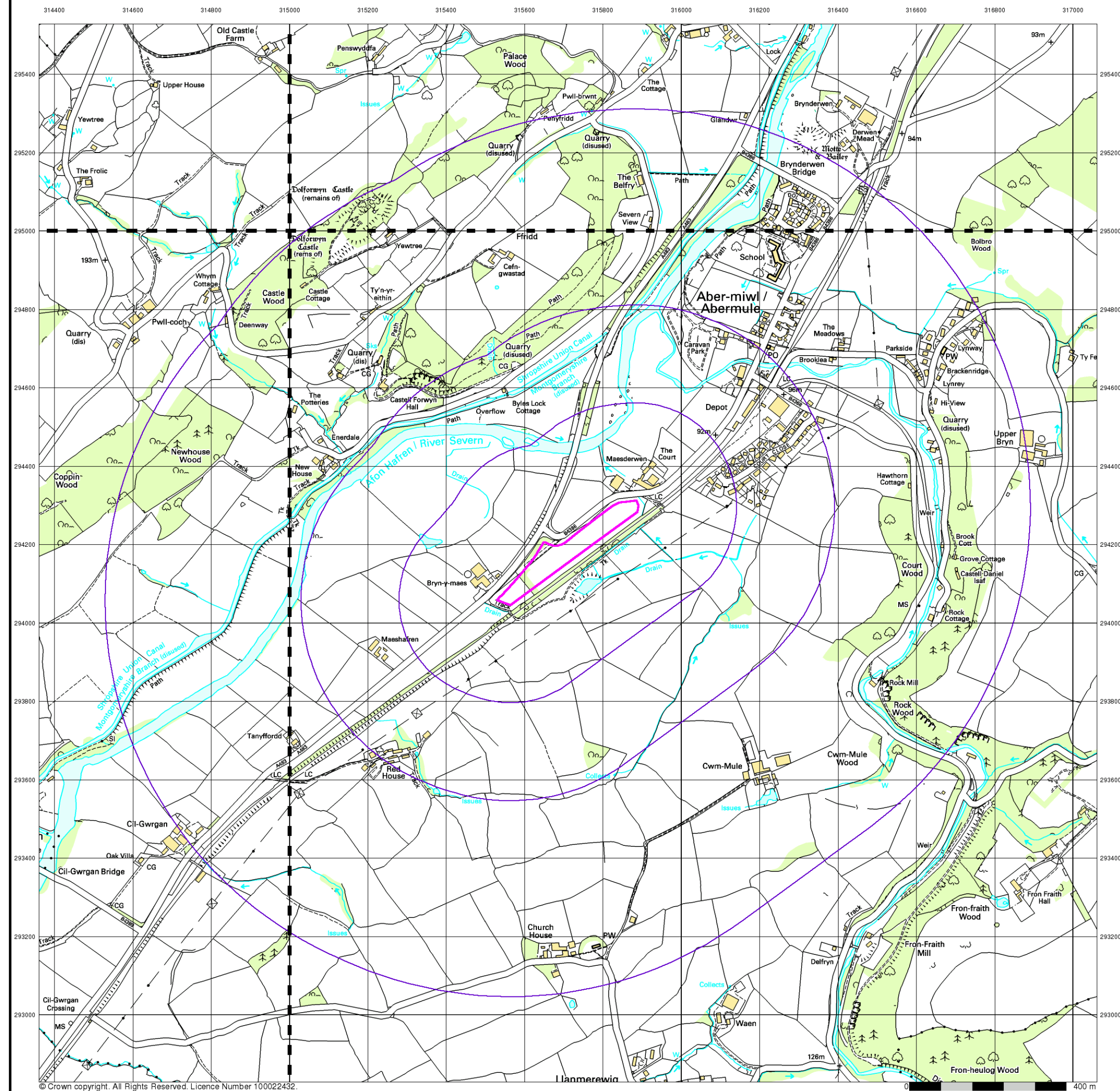
Maes Derwyn, Abermule, MONTGOMERY, SY15 6NT

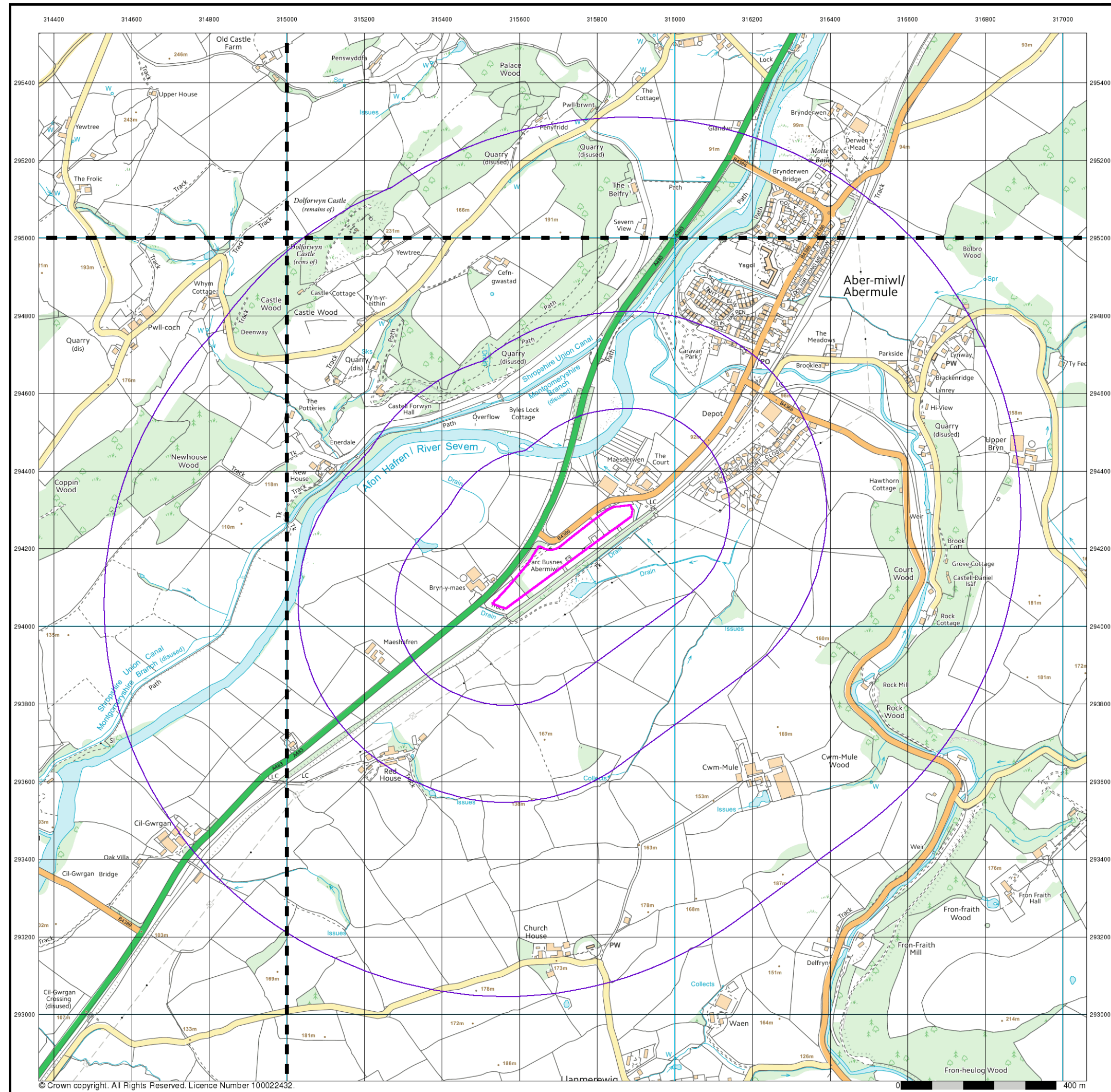
Landmark[®]

INFORMATION GROUP

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

A Landmark Information Group Service v50.0 07-Nov-2017 Page 8 of 10





Envirocheck[®]

● LANDMARK INFORMATION GROUP[®]

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)

SO19NW 2017 Variable	SO19NE 2017 Variable
SO19SW 2017 Variable	SO19SE 2017 Variable

Historical Map - Slice A

Order Details

Order Number:	145441795_1_1
Customer Ref:	10010344
National Grid Reference:	315710, 294180
Slice:	A
Site Area (Ha):	2.09
Search Buffer (m):	1000

Site Details

Maes Derwyn, Abermule, MONTGOMERY, SY15 6NT

Landmark[®]

● INFORMATION GROUP

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

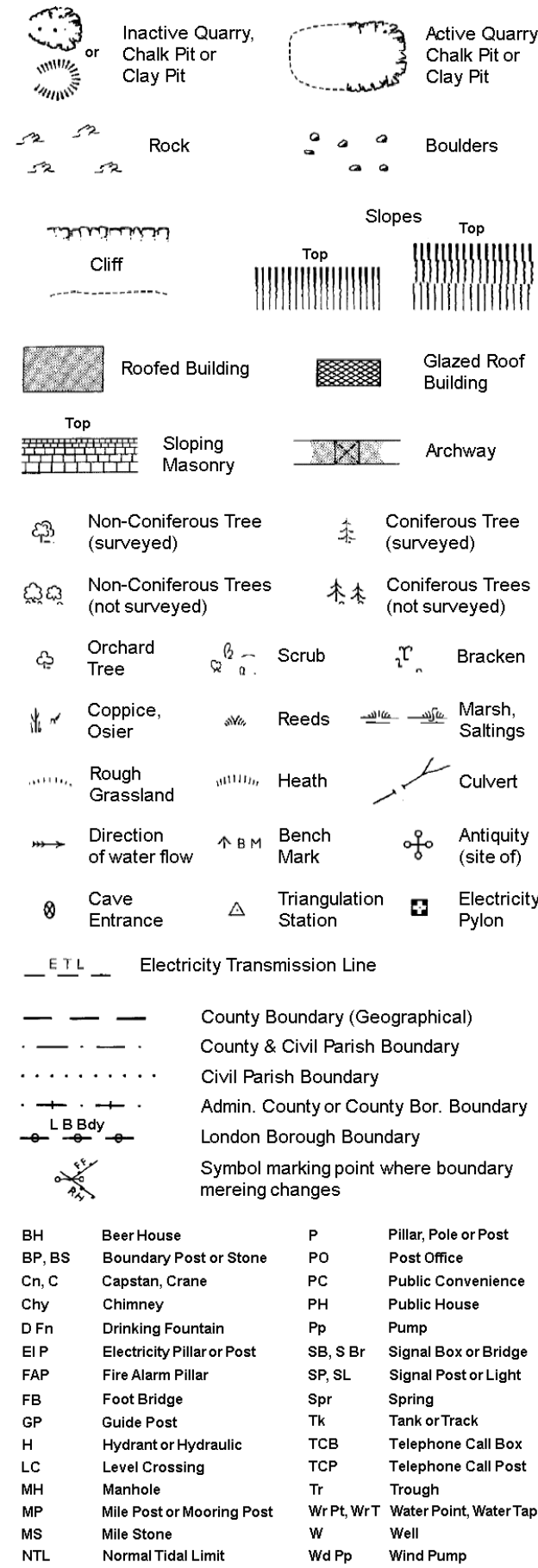
A Landmark Information Group Service v50.0 07-Nov-2017 Page 10 of 10

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



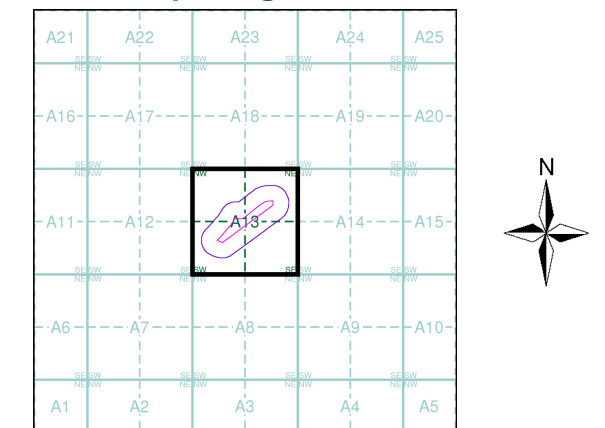
Envirocheck®

LANDMARK INFORMATION GROUP®

Historical Mapping & Photography included:

Mapping Type	Scale	Date	Pg
Montgomeryshire	1:2,500	1886	2
Montgomeryshire	1:2,500	1902	3
Ordnance Survey Plan	1:2,500	1975	4
Additional SIMs	1:2,500	1988	5
Additional SIMs	1:2,500	1990	6
Large-Scale National Grid Data	1:2,500	1994	7
Historical Aerial Photography	1:2,500	2000	8

Historical Map - Segment A13



Order Details

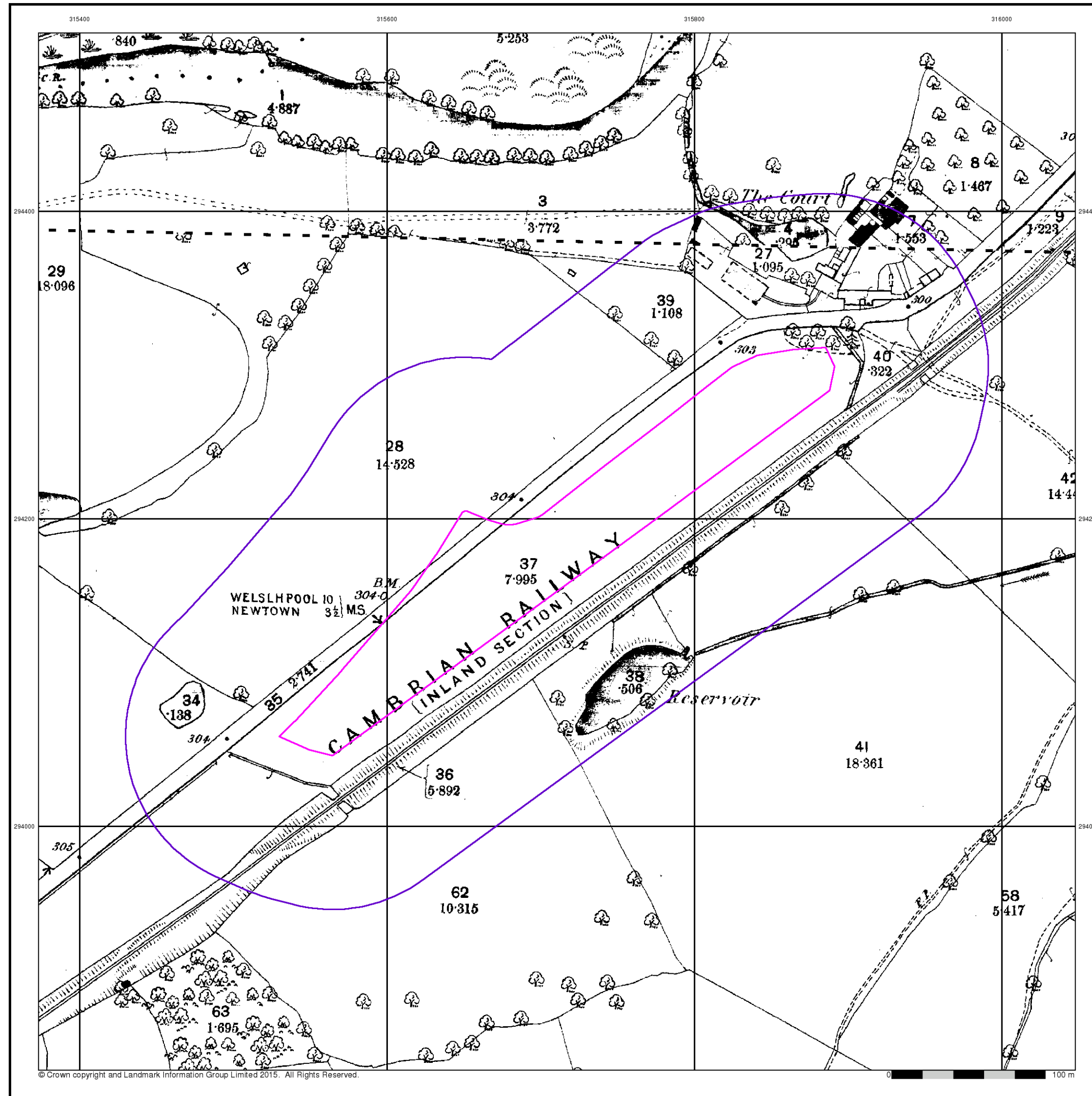
Order Number: 145441795_1_1
Customer Ref: 10010344
National Grid Reference: 315710, 294180
Slice: A
Site Area (Ha): 2.09
Search Buffer (m): 100

Site Details

Maes Derwyn, Abermule, MONTGOMERY, SY15 6NT

Landmark®
INFORMATION GROUP

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



Montgomeryshire

Published 1886

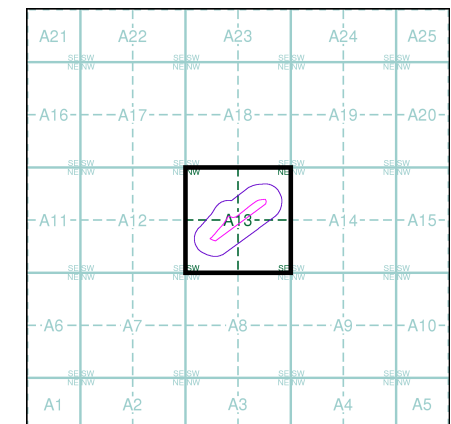
Source map scale - 1:2,500

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)

037_05
1886
1:2,500
037_09
1886
1:2,500

Historical Map - Segment A13

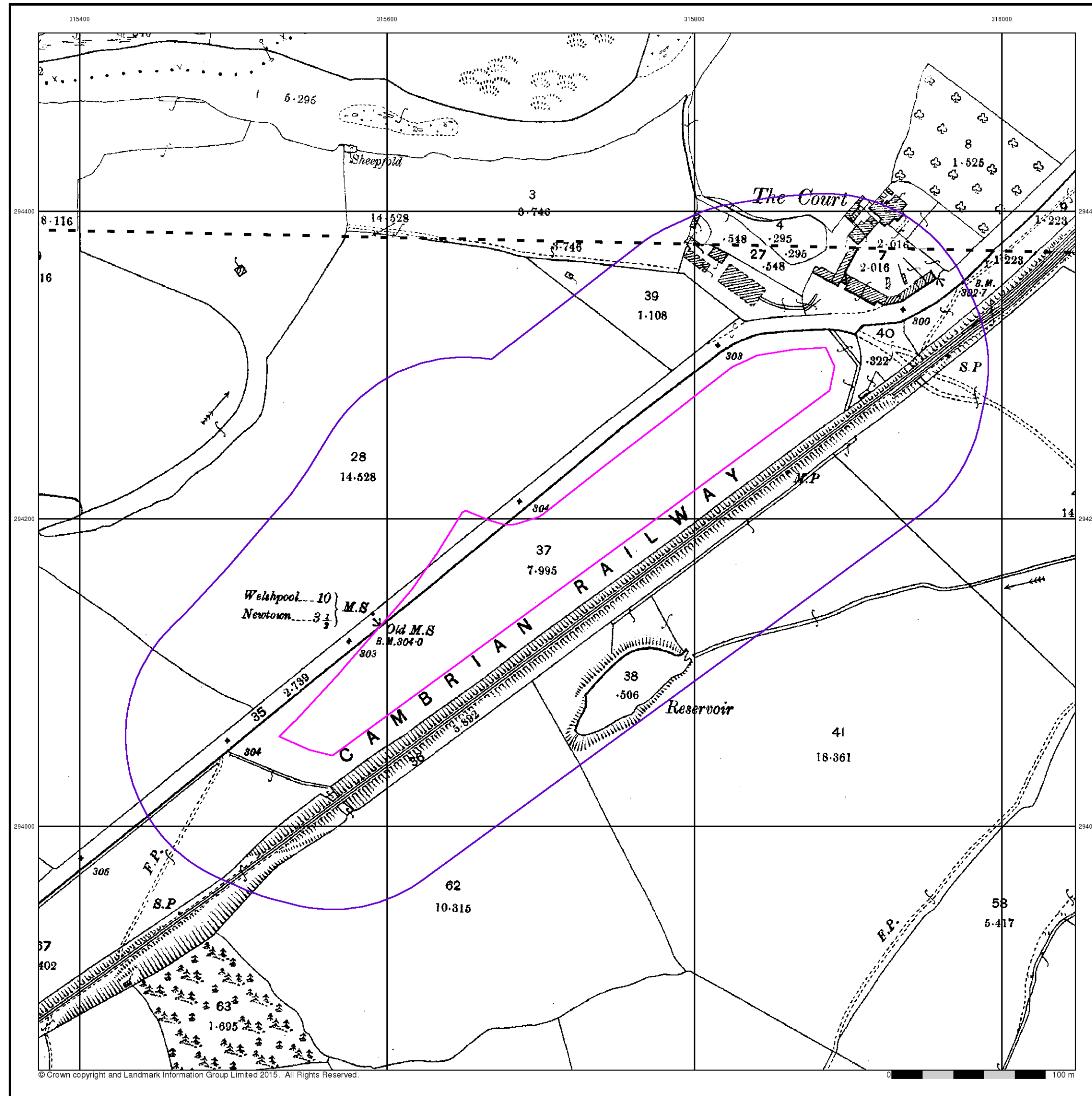


Order Details

Order Number: 145441795_1_1
Customer Ref: 10010344
National Grid Reference: 315710, 294180
Slice: A
Site Area (Ha): 2.09
Search Buffer (m): 100

Site Details

Maes Derwyn, Abermule, MONTGOMERY, SY15 6NT



Montgomeryshire

Published 1902

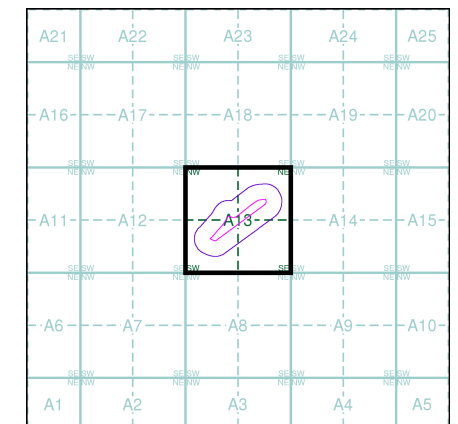
Source map scale - 1:2,500

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)

037_05
1902
1:2,500
037_09
1902
1:2,500

Historical Map - Segment A13

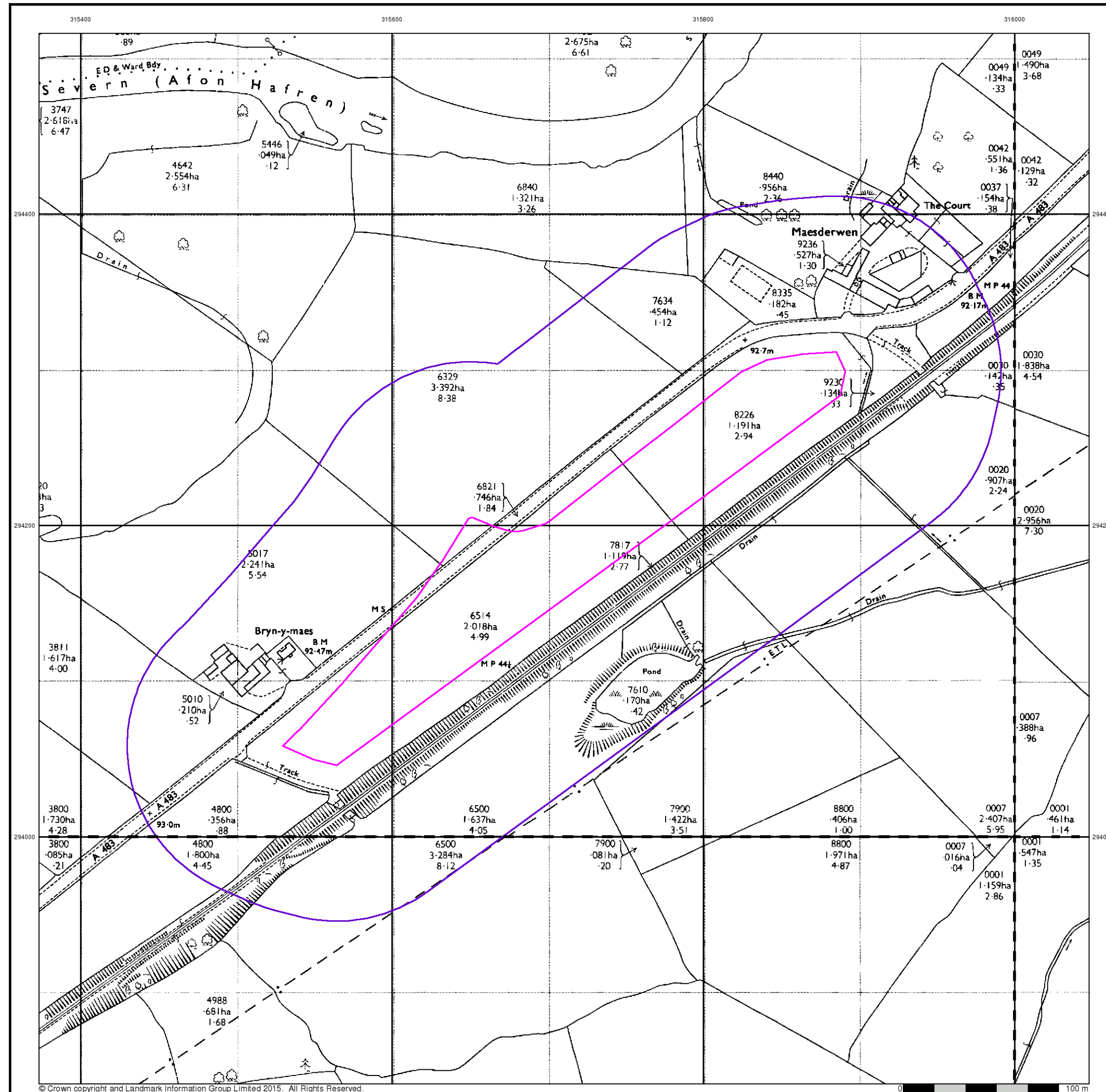


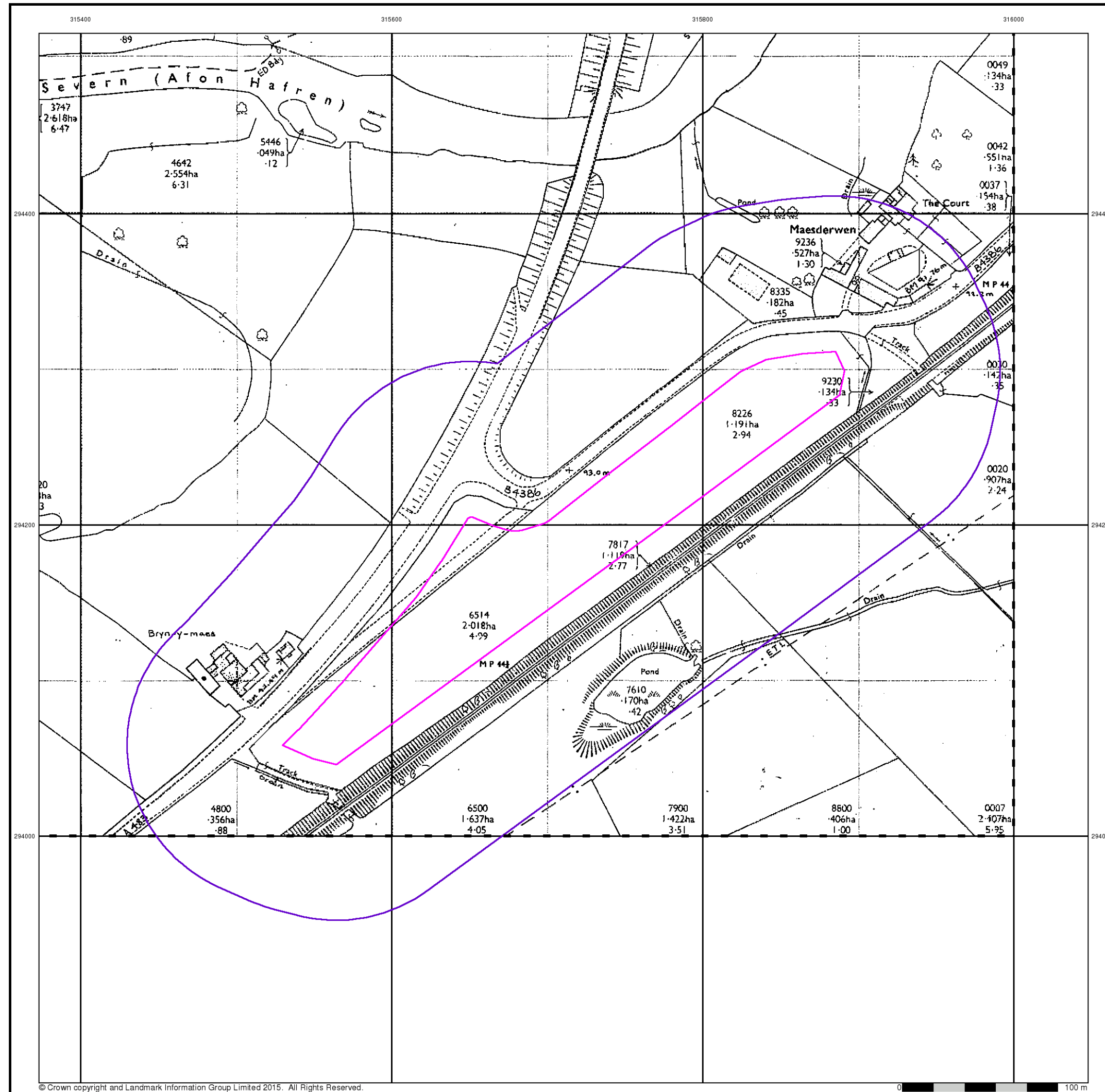
Order Details

Order Number: 145441795_1_1
Customer Ref: 10010344
National Grid Reference: 315710, 294180
Slice: A
Site Area (Ha): 2.09
Search Buffer (m): 100

Site Details

Maes Derwyn, Abermule, MONTGOMERY, SY15 6NT





© Crown copyright and Landmark Information Group Limited 2015. All Rights Reserved.

Envirocheck®

LANDMARK INFORMATION GROUP®

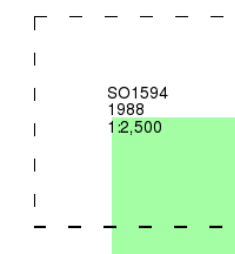
Additional SIMs

Published 1988

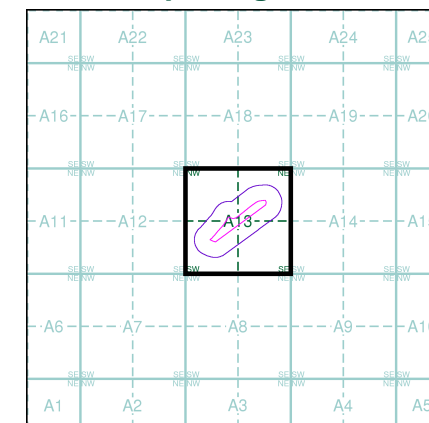
Source map scale - 1:2,500

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 A13



Order Details

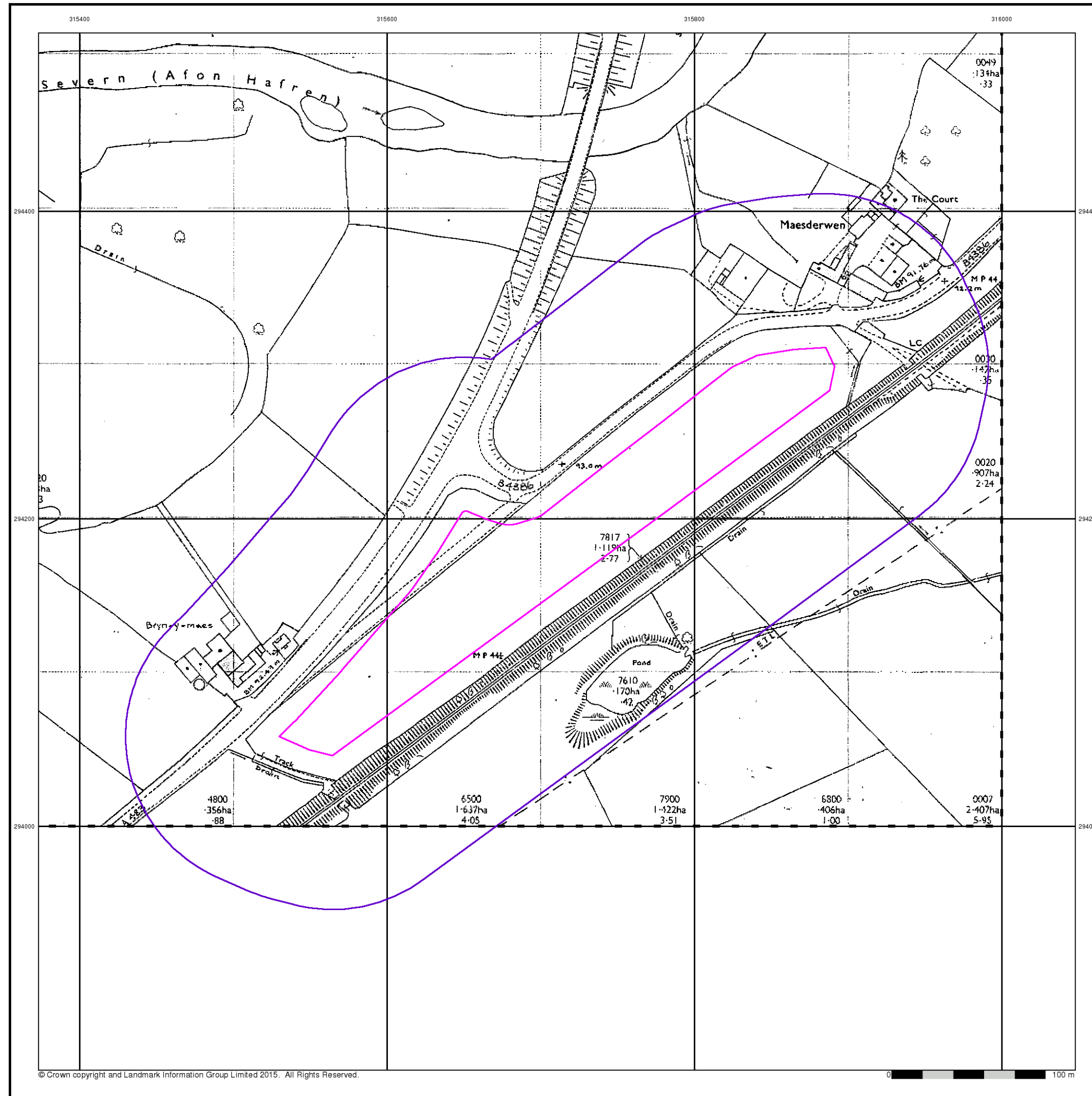
Order Number: 145441795_1_1
Customer Ref: 10010344
National Grid Reference: 315710, 294180
Slice: A
Site Area (Ha): 2.09
Search Buffer (m): 100

Site Details

Maes Derwyn, Abermule, MONTGOMERY, SY15 6NT

Landmark®
INFORMATION GROUP

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



© Crown copyright and Landmark Information Group Limited 2015. All Rights Reserved.

Envirocheck®

LANDMARK INFORMATION GROUP®

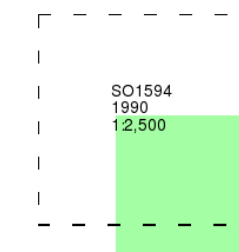
Additional SIMs

Published 1990

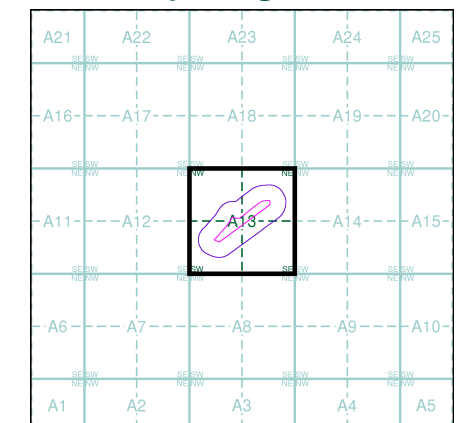
Source map scale - 1:2,500

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 A13



Order Details

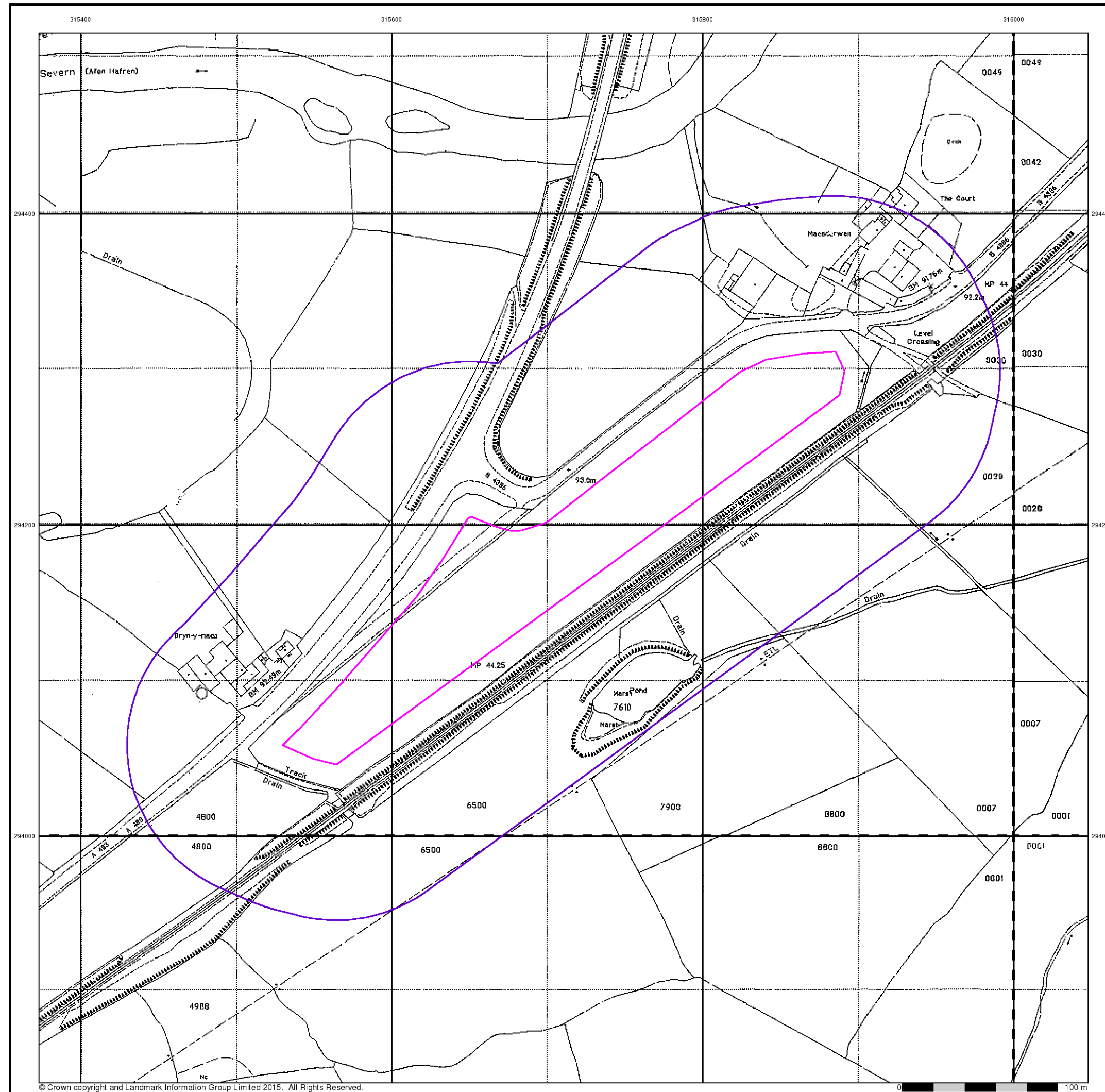
Order Number: 145441795_1_1
Customer Ref: 10010344
National Grid Reference: 315710, 294180
Slice: A
Site Area (Ha): 2.09
Search Buffer (m): 100

Site Details

Maes Derwyn, Abermule, MONTGOMERY, SY15 6NT

Landmark®
INFORMATION GROUP

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



Large-Scale National Grid Data

Published 1994

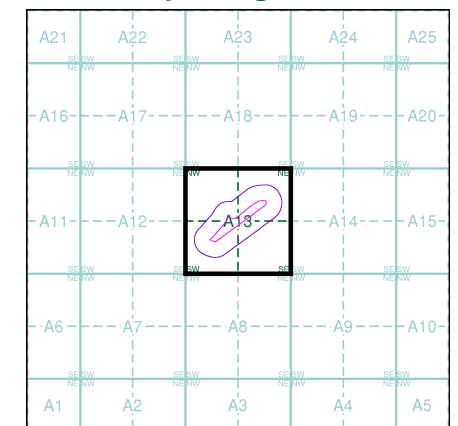
Source map scale - 1:2,500

'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)

SO1594 1994 12,500	SO1694 1994 12,500
SO1593 1994 12,500	SO1693 1994 12,500

Historical Map - Segment A13



Order Details

Order Number: 145441795_1_1
Customer Ref: 10010344
National Grid Reference: 315710, 294180
Slice: A
Site Area (Ha): 2.09
Search Buffer (m): 100

Site Details

Maes Derwyn, Abermule, MONTGOMERY, SY15 6NT

315400

315600

315800

316000

Envirocheck[®]

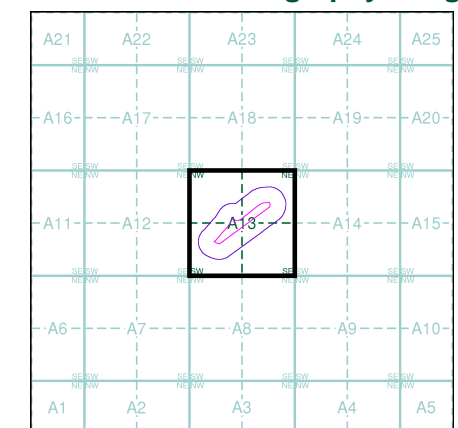
● LANDMARK INFORMATION GROUP[®]

Historical Aerial Photography

Published 2000

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

Historical Aerial Photography - Segment A13



Order Details

Order Number: 145441795_1_1
Customer Ref: 10010344
National Grid Reference: 315710, 294180
Slice: A
Site Area (Ha): 2.09
Search Buffer (m): 100

Site Details

Maes Derwyn, Abermule, MONTGOMERY, SY15 6NT

Landmark[®]
● INFORMATION GROUP

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



Appendix D

UXO Map

REGIONAL UNEXPLODED BOMB RISK

MID WALES

DENSITY OF BOMBS PER BOROUGH			
Borough	High explosive	Anti-personnel	Incendiary
Aberystwyth	29	0	2
Buith Wells	30	0	1
Newton	26	0	0
Aberayraon	0	0	0



- OTHER WWII TARGETS**
- military
 - transport
 - utilities
 - industry
 - docks
 - other

BOMB TONNAGE	
> 1000	
> 500	
> 100	
> 0	
unverified	

BOMB RISK	
high	
moderate	
low	

The information in this regional UXB risk map is derived from a number of sources and should be read in conjunction with the "Users' Guide" (printed overleaf). Zetica cannot guarantee the accuracy or completeness of the information or data.

This map covers regions of coast with beaches, estuaries and alike. Further consideration of the bomb risk is required in these areas. The often inaccessible nature and changing ground conditions (e.g. movement of silt that may contain ordnance) means that historical bombing records for these areas are often poor or inaccurate and further assessment of the bomb risk may be required as part of a site specific study.

A FOUR-STEP PROCESS



Risk assessment and method statement from a qualified explosive ordnance clearance (EOC) operative.



Surface geophysical survey to allow shallow groundwork.



MAGCONE detects UXBs and obstructions on piling layout to the no-risk depth.



Detected UXBs can be dealt with by our EOC engineers and a Clearance Certificate issued for the site.



For more details on this and related services, telephone: +44 (0) 1993 886682 or visit our website: www.zetica.com

BOMB MAP USERS' GUIDE

Sources of information and explanation of bomb risk

Why?

Unexploded bombs (UXB) still present a risk to construction projects long after the end of the Second World War (WWII). UXBs often entered the ground unnoticed at high velocity and penetrated to a depth of several metres. Here they remain – vulnerable to disturbances from construction work. Beyond the depth of shallow excavation work, the greatest risk is to piling, drilling and probing crews. A piling rig could repeatedly hit a UXBs with considerable force before the crew realises an obstruction has been impacted. It could then be up to 72 hours before the detonator activates.

Who?

The responsibility for avoiding UXB risk usually lies with construction companies or house builders particularly those who are redeveloping urban sites. In addition, project engineering or environmental consultants are expected to advise their clients of a site's history. Other interested parties include those organisations whose employees are physically at most risk from intrusive works, normally piling companies, drillers or probing operators.

How?

UXB risk should be assessed for every site, but especially those in known heavily bombed areas or those situated near war-time strategic installations that were priority targets for enemy aircraft, for example, airfields. Zetica's regional bomb risk map is therefore a first point of reference from which the relative, potential abundance of UXBs can be judged. Consultants then advise their clients that an ordnance-risk desk study is required, which they may obtain from external sources. Construction companies or house builders who assess their own risk could choose to come direct to Zetica.

When?

Do not wait for the piling or drilling company to be on site before thinking about UXB risk – it will inevitably cause delays and higher costs. Request the regional bomb risk map from Zetica as soon as a site is being considered, and then use it to help you or your clients to decide if an ordnance-risk desk study is required.

Where?

Maps can be obtained for any county in England, Scotland, Wales or Northern Ireland – or for any London borough. They can help determine the areas that were most heavily bombed – but no part of the country should be considered 100% safe from UXB risk. Even remote rural areas can have a high risk if, for example, they were locations for decoy airfields or beacons that were lit to fool enemy pilots into thinking they had located a burning city that had been successfully hit by others in the raid.

How to use this regional map

This map is designed to give you an indication of the potential risk from UXBs in your area. If you are conducting work that involves excavation, piling or other disturbance of the ground, then you should use the map to identify the category of risk for your site.

The risk boundaries are a guide, compiled from data based on the political areas for which records are held; being just outside a high-risk area does not mean there is no UXB risk. You should use the map to assist in your decision of whether to investigate the UXB risk further.

Information on the regional risk remaining from UXBs in the UK

Zetica has built the largest UXB database of its kind in the UK. It includes a unique digital library of bomb census data, and maps showing key strategic points and bombing densities from the First and Second World Wars. The main sources of information include records from central government (Public Records Office), the Ministry of Defence, and the German Luftwaffe.

Using information from this database, Zetica has published maps of UXB risk on a regional, county and borough scale. The maps indicate relative degrees of UXB risk based on available records for bombing densities and known targeted areas for regions within the UK. The risk is broken down into individual boroughs, towns or cities. The data are based on the historical boroughs and are then overlaid onto the modern map. It is important to note that more-detailed research may be required for individual sites, particularly where proximity to a potential WWII target means the local risk may be higher.

High risk

Areas designated as high risk are those that show a high density of bombing hits (50+ bombs per 1000 acres) and abundant potential WWII targets. In high-risk regions, further action to mitigate UXB risk is considered essential.

Moderate risk

Moderate-risk regions are those that show a bomb density of between 11 and 50 bombs per 1000 acres and that may contain potential WWII targets. Action to mitigate the risk is considered essential, albeit more likely that a reduced scope of work is required compared with that needed for high-risk regions.

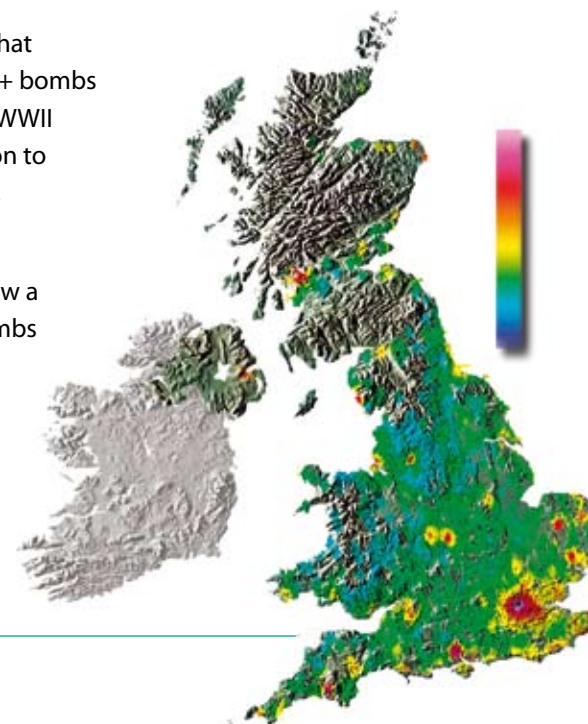
Low risk

Low-risk regions are those with a bombing density of up to 10 bombs per 1000 acres. These areas are considered to have a significant but low UXB risk. In general, further action to mitigate the risk is considered prudent, although not essential. Care is required when assessing the risk for specific sites where the risk may be higher because of local wartime activity.

Other WWII targets

Other regions with the risk of UXBs are key strategic points as defined by the government during WWII as representing potential enemy targets. Where these exist outside areas mapped as high, moderate or low risk, a site-specific assessment of the UXB risk may be required.

Relative UXB risk across UK



What to do if...

...you have a site that has a potential UXB risk

In the absence of current legislation requiring you to address the risk from UXBs, your responsibilities under health and safety legislation and regulations such as construction design and management require that you address all identified risks. The first stage is to request further advice from a professional adviser such as Zetica, or to gain more site-specific information by commissioning an ordnance-risk desk study. Then a strategy to deal with the risk can be established that is tailored to your proposed work.

...you find a suspect item or require advice

If during site works you find a suspect (ordnance-related) item, it is very important that you do not touch or move it (even if it has already been moved by an excavator). If it is clearly ordnance related, then dial 999 and ask for the police. Ensure that the area around the item is kept as clear as possible without placing yourself at risk. If you are unsure and do not wish to cause undue alarm, or you just require some advice, then you can call Zetica. We have experienced qualified UXB specialists on hand who can offer support and advice during any site works.

More-detailed procedures should be established in advance if you are in an area where the risk of finding a UXB is shown to be significant (moderate to high).

Site-specific desktop studies

Zetica is able to provide high-quality, site-specific UXB risk information for any residential, industrial or commercial property in the UK. These desktop studies provide details of the bombing density within an area and for the site itself, in order to indicate the risks of UXBs still being present. A risk assessment is provided to facilitate informed decision making on whether any further risk mitigation measures are required.

Appendix E

Historic Logs

GEO — RESEARCH LTD.

50 19 SE / 18

B/H. No. 3

CONTRACT. ABERMULE BY-PASS 1570. 9447
 LOCATION. ABERMULE 1' 165

SHEET No. 1
 No. of sheets. 2

CLIENT.
 WALLACE EVANS & PARTNERS,
 30, STANWELL ROAD,
 PENARTH NR. CARDIFF. GLAM.

PERCUSSION
 U
 D
 SPT.
 B
 Casing.
 Size to Size to.
 0.15 11.89

Ground level. 89.505 metre

Commenced. 27/6/69

Completed. 1/7/69

Weather.
 DRY

STRATUM (Scale 1 to 50)

SPT.

Scale 1 to 50

Depth

Sample

Blow Count

LL/PL/PI

O/H

LEGEND

M.C.

%

Type

of

Test

Core

Rec.

%

6

7

8

9

10

11

12

13

14

15

16

17

18

19

20

21

22

23

24

25

26

27

28

29

30

31

32

33

34

35

36

37

38

39

40

41

42

43

44

45

46

47

48

49

50

51

52

53

54

55

56

57

58

59

60

61

62

63

64

65

66

67

68

69

70

71

72

73

74

75

76

77

78

79

80

81

82

83

84

85

86

87

88

89

90

91

92

93

94

95

96

97

98

99

100

101

102

103

104

105

106

107

108

109

110

111

112

113

114

115

116

117

118

119

120

121

122

123

124

125

126

127

128

129

130

131

132

133

134

135

136

137

138

139

140

141

142

143

144

145

146

147

148

149

150

151

152

153

154

155

156

157

158

159

160

161

162

163

164

165

166

167

168

169

170

171

172

173

174

175

176

177

178

179

180

181

182

183

184

185

186

187

188

189

190

191

192

193

194

195

196

197

198

199

200

201

202

203

204

205

206

207

208

209

210

211

212

213

214

215

216

217

218

219

220

221

222

223

224

225

226

227

228

229

230

231

232

233

234

235

236

237

238

239

240

241

242

243

244

245

246

247

248

249

250

251

252

253

254

255

256

257

258

259

260

261

262

263

264

265

266

267

268

269

270

271

272

273

274

275

276

277

278

279

280

281

282

283

284

285

286

287

288

289

290

291

292

293

294

295

296

297

298

299

300

301

302

303

304

305

306

307

308

309

310

311

312

313

314

315

316

317

318

319

320

321

322

323

324

325

326

327

328

329

330

331

332

GEO — RESEARCH LTD.

B/H. No. 3

CONTRACT. ABERMULE BY-PASS

SO 19 SE / 18
1570 9447

SHEET No. 2

LOCATION. ABERMULE

No. of sheets. 2

CLIENT.

WALLACE EVANS & PARTNERS,
30, STANWELL ROAD,
PENARTH. NR. CARDIFF. GLAM.

PERCUSSION

SPT

D

B

Casing.

Size to. Size to.

0.15 11.89

Ground level. 89.505 metres

Commenced. 27/6/69

Completed. 2/7/69

Weather.

DRY

ROTARY

Cored runs

O/H

M.C.

%

Type

of Test

Core Rec.

%

GRADING % PASSING SIEVE

3" 1 1/2" 2" 3" 4" 5"

N.7 25 52 100 200

Bulk Density p.c.f.

Shear / 100 p.s.f.

TAQ. or UCT.

Dev. Stress p.s.i.

Lat. UCT Pres. Stren. p.s.i.

Shear / 100 p.s.f.

WATER

REMARK

STRATUM

Scale 1 to 50

Thickness

Depth Metres

Sample No.

SRT.

Blow Count (N)

LL/PL/PI

LEGEND

RESULTS OF ANY OTHER TESTS.

10

Dense to compact
sand and gravel

7.52

7.62

CP6

4.4.6.8.

(22)

8.23

B5

8.53

CP7

3.4.6.8

(21)

1.83

9.14

Compact to dense
dark grey sand
and gravel

9.45

9.76

CP8

2.3.3.2.

(10)

10.37

CP9

3.3.4.5

(15)

11.28

11.43

CP10

5.7.6.5

(23)

12.20

12.66

CP11

8.10.8.9

(35)

BORE HOLE COMPLETED

Depth and thickness columns are in metric units

Wet

28/6/69

BH C 5.1

CAS @ 2.4

SWL 2.4

2/7/69

SWL 2.4

Wet

OCE @ 1.4

CAS @ 1.4

SWL 3.66

OWC. BH

Collap

to 2.13

Water Ni

GEO — RESEARCH LTD.

SO 19 SE/1A

B/H. No.

7

CONTRACT. ABERMULE BY-PASS

1582.9441

SHEET No.

1

LOCATION. ABERMULE

No. of sheets.

1

CLIENT.

WALLACE EVANS & PARTNERS,
30, STANWELL ROAD,
PENARTH, NR. CARDIFF. GLAM.

PERCUSSION

Casing.

Ground level.

88.735 metr

U

Size to.

Size to.

D

SPT.

0.15

6.10

Commenced.

10/7/69

B

Completed.

11/7/69

Weather.

B.M., DRY

ROTARY

M.C.

Type

of

Test

Core

Rec.

%

6

7

8

9

10

11

12

13

14

15

16

17

18

19

20

21

22

23

24

25

26

27

28

29

30

31

32

33

34

35

36

37

38

39

40

41

42

43

44

45

46

47

48

49

50

51

52

53

54

55

Cored

runs

O/H

LEGEND

6

7

8

9

10

11

12

13

14

15

16

17

18

19

20

21

22

23

24

25

26

27

28

29

30

31

32

33

34

35

36

37

38

39

40

41

42

43

44

45

46

47

48

49

50

51

52

53

54

55

56

57

58

59

60

61

62

63

64

65

66

67

68

69

70

71

72

73

74

75

76

77

78

79

80

81

82

83

84

85

86

87

88

89

90

91

92

93

94

95

96

97

98

99

100

101

102

103

104

105

106

107

108

109

110

111

112

113

114

115

116

117

118

119

120

121

122

123

124

125

126

127

128

129

130

131

132

133

134

135

136

137

138

139

140

141

142

143

144

145

146

147

148

149

150

151

152

153

154

155

156

157

158

159

160

161

162

163

164

165

166

167

168

169

170

171

172

173

174

175

176

177

178

179

180

181

182

183

184

185

186

187

188

189

190

191

192

193

194

195

196

197

198

199

200

201

202

203

204

205

206

207

208

209

210

211

212

213

214

215

216

217

218

219

220

221

222

223

224

225

226

227

228

229

230

231

232

233

234

235

236

237

238

239

240

241

242

243

244

245

246

247

248

249

250

251

252

253

254

255

256

257

258

259

260

261

262

263

264

265

266

267

268

269

270

271

272

273

274

275

276

277

278

279

280

281

282

283

284

285

286

287

288

SHEET No. 1
No. of sheets. 1

Casing.		
to.	Size	to.
2.44		

Ground level.	90.06m
Commenced.	7/4/70
Completed.	8/4/70

Weather. DRY.

ROTARY
Cored runs
O/H

M.C. %	Type of Test
Core Rec. %	

GRADING % PASSING SIEVE				
3"	1½"	¾"	¾"	3/8"
N.7	25	52	100	200

TAQ. or UCT.			
Bulk Density p.c.f.	Dev. Stress p.s.i.	Lat. UCT. Pres. Stren. p.s.i. p.s.f.	
Shear /o°		Shear/L°	

WATER REMARKS:

STRATUM (Scale: 1 inch = 100 feet)		SPT. Blow Count (N) LL/PL/PI	
1:50	Depth	Sample No.	
Thickness	2	3	4

Firm fissured light brown/yellow clay with traces of sand and patches of silt.

0.61	D1
1.07	U1

D1
U1

26.0
20.8
20.1

50 19 SE/16
1574. 9442

121.5 7.1 20
122.5 29.5 40
1325/0
• 288/16

Compact well graded
sand and gravel.

2.59	P1
3.05	

4.4.5.4.
(17)

COMPLETE

BOREHOLE

Water table
not
encountered

REMARKS:

* See OED results.

[illegible]

A	Disturbed sample for Client.	C.B.R.	California bearing ratio.
B	Disturbed bulk sample.	GR.	Grading analysis.
D or M	Disturbed jar sample.	M.C.	Moisture Content.
P	Standard penetration test. (spoon)	SO ₃ S.	Sulphate analysis on soil.
C.P.	— (cone)	SO ₃ W.	Sulphate analysis on water.
U	Undisturbed sample. 4"	TAQ.	Triaxial compression test. (undrained)
U _{1 1/2}	Undisturbed sample. 1 1/2"	U.C.T.	Unconfined compression test.
W	Water sample.	OED.	Oedometer.

Copyright Reserved.

For other symbols used see overleaf.

CONTRACT. SWANSEA/MANCHESTER TRUNK ROAD, LOCATION. ABERMULE BY-PASS				SHEET No. 1 No. of sheets. 1																							
CLIENT. WALLACE EVANS & PARTNERS, PENARTH.				PERCUSSION U D SPT. B				Casing. Size to. Size to. 0.15 4.88				Ground level. 91.67m Commenced. 16/5/70 Completed. 16/5/70															
Weather. FINE				ROTARY Cored runs O/H				M.C. % Type of Test Core Rec. %				GRADING % PASSING SIEVE 3" 1 1/2" 3/4" 3/8" 3/16"				TAQ. or UCT. Bulk Density p.c.f. Shear /o° p.s.f.				Dev. Stress p.s.i. Lat. UCT. Pres. Stren. p.s.i. UCT. Shear/L° p.s.f.				WATER REMARKS			
STRATUM (Scale: 1 inch to 1 foot) 1:50 Thickness 1 2 3 4 Depth Sample No. SPT. Blow Count (N) LL/PL/PI				LEGEND				6 7 8 9 10				RESULTS OF ANY OTHER TESTS.															
Top soil.				0.30 0.30 D1				18.2 50.5 27																			
Sandy brown clay with occasional gravel.				1.07 B1 31.19.12 (CL)				9.0				SO 19 SE / 17 1569. 9430															
Compact sand and gravel.				2.13 P1 5.5.6.6. (22)																							
				3.05 P2 4.6.5.6. (21)																							
				4.42 P3 6.6.7.6. (25)				17.7				100 97 81 74 70 68 57 24 8 8				Water added											
				3.05 4.88												Water table not encountered											
				BOREHOLE				COMPLETE																			

REMARKS:

Sample	Depth	M.C. % D.W.	S.G.	C. B. R.						COMPACTION			
				Air Voids	Type	TOP		BOTTOM		Value	B.S. 1377 No	Max. Dry Density	Optm M.C.
						0.1	0.2	0.1	0.2				
B1	1.07	12.2	2.65	3%	Static	8	9	8	9				

A — Disturbed sample for Client.
B — Disturbed bulk sample.
D or M — Disturbed jar sample.
P — Standard penetration test. (spoon)
C.P. — (cone)
U — Undisturbed sample, 4"
U_{1/2} — Undisturbed sample, 1 1/2"
W — Water sample.

C.B.R. — California bearing ratio.
GR. — Grading analysis.
M.C. — Moisture Content.
SO₃S. — Sulphate analysis on soil.
SO₃W. — Sulphate analysis on water.
TAQ. — Triaxial compression test. (undrained)
U.C.T. — Unconfined compression test.
OED. — Oedometer.

Arcadis Consulting (UK) Limited
Aston Cross
Rocky Lane
Aston, Birmingham,
B6 5RQ, United Kingdom