PARSONS BRINCKERHOFF

June 2015

PRELIMINARY RISK ASSESSMENT FOR FIVE MILE LANE

Welsh Government

3512646D-HHC

Version 2

Preliminary Risk Assessment for Five Mile Lane

3512646D-HHC

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2	June 2015		Additional land at Sycamore Cross Junction included.

CONTENTS

EXECUTIVE SUMMARY

Introduction	The Welsh Government commissioned Parsons Brinckerhoff Ltd to undertake a Preliminary Risk Assessment as part of a road scheme to improve the A4226 Five Mile Lane, west of Cardiff, between Waycock Cross junction near Barry in the south, with the A48 at Sycamore Cross junction in the north.
Site History	The scheme corridor and surrounding area has remained predominantly grass fields and agricultural land stretching back from the earliest historical data from 1885 to the present day with a road also shown in the current position from the earliest mapping. Quarries were noted around the scheme area providing limestone for the manufacture of lime with limekilns also evident on the historical maps. A landfill was present between 1990 and 1991, licensed to accept inert waste.
Geology	Made Ground is not thought to be present along the scheme corridor, although some may be present associated with the construction of the present road and the potential infilling of surrounding quarries. The British Geological Survey on-line viewer indicates that the area within the scheme corridor is underlain by superficial deposits in the south associated with the alluvial plain of the River Waycock comprising clay sands and gravels, and Glacial Till in the northern area of the scheme around Sycamore Cross junction. According to BGS mapping the superficial deposits are underlain by the Lavernock Shales and the Porthkerry Member of the Blue Lias Formation comprising thinly interbedded limestone and calcareous mudstone or siltstone., with the Gully Oolite Formation in the north underlying the Sycamore Cross junction area.
Hydrogeology & Hydrology	The superficial deposits that cover the scheme corridor are classified as a Secondary B aquifer within the Alluvium, and unproductive strata within the Glacial Till. The bedrock is classified as a Principal aquifer in the north, and Secondary A and Secondary B aquifers along the majority of the scheme footprint. The Environment Agency website indicates that the scheme corridor is not situated within a groundwater Source Protection Zone (SPZ), with no SPZs are located within 1km of the scheme. There are two licensed groundwater abstractions reported within 205m of the scheme.at Sheepcourt, in the Sycamore Cross junction area, used for general farming and domestic purposes. It should be noted that private abstractions (typically <20 m^3/day) could exist within the scheme corridor or in the surrounding area for which records are not held. According to the Envirocheck Report there is one licensed sewage discharge consent to groundwater within 1km of the scheme, at Cottrell Park golfing facility 817m north of Sycamore Cross junction. There are two primary watercourses within the scheme area; the largest is the River Waycock that crosses the existing road east-west towards the south of the scheme. The other is the Ford Brook which crosses the road east-west towards the centre of the scheme. There are numerous secondary and tertiary watercourses along the road alignment and in the surrounding area. According to the Envirocheck Report there are ten licensed discharge consents to surface within 500m of the scheme. The closest is located approximately 4m east of the scheme towards the south end of the road for Dwr Cymru Cyfyngedig, a sewage disposal works discharging final/treated effluent to a freshwater stream/river.

Preliminary Conceptual Site Model	A preliminary conceptual site model was prepared to assess the potential risk to human health and the environment from the operation of the proposed road. The identified on-scheme source is potential fuel spillages. Various off-site sources include the Made Ground associated with the potential infilling of surrounding quarries and the historic landfill. Receptors have been identified as road users, including pedestrians, cyclists and horses. Controlled water receptors have been identified as both the bedrock and superficial deposits that underlie the scheme that been classified as Principal aquifer, Secondary A and B aquifers, and the various surface water bodies across the scheme. Subsurface features such as services have been identified as another receptor. Potential pathways have been identified from these sources to road users, controlled waters and subsurface features. The risks associated with contamination during the operation of the proposed road scheme are generally low/very low with that posed to controlled waters from surface run-off ranked as moderate to low.
Conclusions and Recommendations	In order to provide further information to assess the potential 'pollutant linkages', a ground investigation is recommended to assess soil and groundwater conditions across the scheme corridor. Possible risks at both construction and operational phases should be designed out wherever practicable. Analytical data will then be used to undertake a generic risk assessment to quantitatively assess potential risks to human health and controlled waters.
This sheet is intended as a summary only	

SECTION 1

INTRODUCTION

1 INTRODUCTION

1.1 Context and Objectives

1.1.1 The Welsh Government (the "Client") has commissioned Parsons Brinckerhoff Ltd to undertake a geo-environmental Preliminary Risk Assessment (desk study) for proposed road improvements along the A4226 known as Five Mile Lane. The scheme corridor for the main improvement works is approximately 5km in length, from Blackland Farm in the north through to the roundabout at Weycock Cross junction to the south, north west of Cardiff. The scheme also includes an intersection upgrade at Sycamore Cross junction some 1.5km to the north of Blackland Farm. No improvements are planned between Sycamore Cross Junction and Blackland Farm. The scheme location is shown on Figure 1.1.

1.1.2 The principal objectives of the study were:

- To provide baseline information for the EIA of the proposed improvement scheme;
- To detail the geo-environmental setting of the scheme to include the surrounding land use, historical land use, geology, hydrology and hydrogeology;
- To assess the potential for pollutant linkages based on current and future land uses; and
- To provide recommendations for further investigations or assessments if considered necessary.

1.1.3 The report has been completed to reflect the requirements of Preliminary Risk Assessments as outlined in Environment Agency document CLR11 'Model Procedures for the Management of Land Contamination'; which emphasises the use of conceptual site models and the identification of "source-pathway-receptor" pollutant linkages.

1.1.4 The existing A4226 is a single carriageway road, in a rural location, varying in width between 6.0m and 7.3m. The route is classified and maintained as an 'A' road by the local authority.

1.1.5 The proposals include making use of the existing and already upgraded highway immediately off the A48 at Sycamore Cross. This intersection will have a further upgrade, adding a bus lane to the north side of the A48, and a new slip lane for A48 west bound traffic turning onto the A4226. The proposed alignment will go offline at a point approximately 1.5km from the Sycamore Cross signalised junction and follows a southerly course running parallel with the existing A4226. The proposed alignment re-joins the existing A4226 Five Mile Lane just north of the existing River Weycock bridge.

1.2 Preliminary Risk Assessment

1.2.1 The preliminary risk assessment collates and presents factual information available for the site from the following sources:

- Envirocheck Report, dated 18th December 2013;
- Envirocheck Report for the Sycamore Cross Junction, dated 9th June 2015;
- Data available from the Environment Agency web-site;

- Data available from the British Geological Survey web-site;
- Anecdotal and archive information.

1.2.2 This report includes a review of the site setting and surrounding area, geological, hydrological and hydrogeological information, recorded mining/mineral extraction activities, pollution incidents, landfills, pollution controls, hazardous substance registrations and the historical development of the scheme and surrounding area.

1.2.3 Based on this information, a preliminary conceptual site model has been produced through a tabular description of identified potential sources of contamination, pathways for contaminant migration and potential receptors for current and proposed future end uses.

1.2.4 The conceptual site model identifies complete source - pathway - receptor pollutant linkages that could affect human health and controlled waters, and highlights gaps and uncertainties in the available information.

1.3 Limitations

1.3.1 Parsons Brinckerhoff has prepared this report for the sole use of the Client in accordance with generally accepted consulting practices and for the intended purposes as stated in the agreement under which this work was completed. This report may not be relied upon by any other party without the explicit written agreement of Parsons Brinckerhoff. No other third party warranty, expressed or implied, is made as to the professional advice included in this report. This report must be used in its entirety.

1.3.2 The records search was limited to information available in a confidential manner from the Client, Landmark and public sources including regulatory authorities.

1.3.3 Unless Parsons Brinckerhoff has actual knowledge to the contrary, information obtained from interviews or provided to Parsons Brinckerhoff by site personnel and other information sources has been assumed to be correct. Parsons Brinckerhoff does not assume any liability for misrepresentation of information or for items not visible, accessible, or present on the subject site at the time of the site reconnaissance.

1.4 Business Management System Control

1.4.1 Parsons Brinckerhoff operates under a Business Management System. The Management System comprises the processes necessary for effective operation of the business and is designed to meet the requirements of BS OHSAS 18001:2007, ISO 9001:2008 and ISO 14001:2004.

Safety Management

1.4.2 Site activities, as well as office based work, has been undertaken in accordance with Parsons Brinckerhoff's Integrated Management System – Safety Management Series which operates within the standard outlined in BS OHSAS 18001:2007 (Certificate of Registration: 81259-2010-AHSO-GBR-UKAS).

Quality Control

1.4.3 Work on this project and the preparation of this report has been undertaken in accordance with PB's Integrated Management System – Quality Control Series which operates within the standard outlined in ISO 9001:2008 (Certificate registration No 81255-2010-AQ-GBR-UKAS).

Environmental Management

1.4.4 The design and implementation of this project has been undertaken in accordance with Parsons Brinckerhoff's Integrated Management System - Environmental Management System Series that has been developed in line with ISO 14001:2004 (Certificate registration No. 81257-2010-AE-GBR-UKAS).

SECTION 2

PRELIMINARY RISK ASSESSMENT

2 PRELIMINARY RISK ASSESSMENT

2.1 Site Referencing Information

2.1.1 Scheme referencing information is provided within Table 2.1 and the scheme location is illustrated in Figure 1.

Table 2.1: Scheme Description

Name of Scheme	Five Mile Lane
Address of Scheme	The proposed improvements run from Sycamore Cross junction (NGR 307415, 174162), through to the roundabout at Waycock Cross (NGR 309638, 168582).
Size and Shape of Scheme	The scheme is a linear corridor, approximately 5km.
Current and Proposed Use	The current A4226 fails to meet appropriate highway standards for a 60mph road and therefore a number of improvements are required to upgrade it. The proposed alignment will be constructed on a combination of earthworks and 'in cutting'. It will be single carriageway with 1m hardstrips (making the total carriageway 9.3 metres wide). The improved route will include in part upgrading the existing road as well as construction of new highway on land which is in current agricultural use. It will also include an intersection upgrade at Sycamore Cross junction.

2.1 Scheme Setting and Surrounding Environment

2.1.1 The scheme setting and surrounding environment is described in Table 2.2.

Table 2.2: Scheme Setting and Surrounding Environment

Scheme Access	Five Mile Lane can be accessed via the A4226 Port Road from the south and the A48 from the north. The junction of the A48 and the A4226 is referred to as Sycamore Cross Junction.
Ground Cover	The route runs through agricultural land with isolated houses and woodland adjacent.
Site Topography & Elevation	The topography of the scheme is variable but elevation generally ranges from 80 -90m above Ordnance Datum (AOD) in the north, falling steadily towards Waycock River to an elevation of approximately 22m AOD, climbing again towards in a southerly direction towards Waycock Cross roundabout which is at an elevation of approximately to 60m AOD. The ground elevation around Sycamore Cross Junction is approximately 107mAOD with the ground gently sloping to the south.
Development to the North	A golf park resort is located to the immediate north of the scheme, beyond this is predominantly agricultural land with some residential properties.
Development to the East	To the east of the scheme is predominantly agricultural land with some residential properties, hotels and farm buildings.
Development to the South	The town of Barry is located to the immediate south east of the scheme corridor with residential, commercial and industrial properties. To the south west of the scheme there are country park areas with Cardiff Airport beyond.

Development to the West	To the west of the scheme is predominantly agricultural land with some residential properties, hotels and farm buildings.
Environmentally Sensitive Areas	The Envirocheck report identifies an area of woodland as a Site of Special Scientific Interest (SSSI) between CH3700m and CH5000m (referred to as Barry Woodlands (Coedydd Y Barri)). The woodland extends either side of the proposed new road alignment although in this particular section of the scheme the road alignment is expected to stay on-line with no deviation through the woodland areas themselves.

2.2 Previously Prepared Reports

2.2.1 There are various issued reports that Parsons Brinckerhoff has been made aware of summarised in Table 2.3. The majority of these previous studies considered a much wider scope of work that is currently the case.

Table 2.3: Previous Reports

Date	Report Theme	Lead Author
April 2007	Geotechnical Certification and Statement of Intent.	Ove Arup & Partners
December 2007, updated January 2009.	Review of previous work (Engineering Review: Section 4). • Transportation Feasibility Study (Faber Maunsell, 2002). • Options Study - Five Mile Lane (Cardiff County Council, 2005).	Ove Arup & Partners
September 2008	Structures Assessment - Five Mile Lane	Vale of Glamorgan Highways and Engineering Department
July 2009	Geotechnical Overview.	Ove Arup & Partners
January 2011	Interim Scheme [Environmental Baseline] Assessment Report. A collation of previous environmental studies, including contaminated land, ecology, archaeology, air and surface water quality.	Soltys Brewster
May 2014	Five Mile Lane preliminary sources study report	Parsons Brinckerhoff

2.2.2 The Five Mile Lane preliminary sources study report combines the information of the other reports.

2.3 Geological Information

2.3.1 The geology of the site has been reviewed with reference to the following sources:

- BGS Digital Geological map of Great Britain at 1:50,000 scale www.bgs.ac.uk/geoindex; viewed on 1st July 2014 and 9th July 2015.
- BGS Map No. 263 'Solid and Drift' – Cardiff
- BGS archive borehole and trial pit logs: ST06NE25, ST07SE15, ST06NE19 and ST06NE20 (Appendix B);

- Envirocheck Reports – Landmark – December 2013 and June 2015

2.3.2 The ground conditions beneath the scheme corridor are likely to comprise the following:

Made Ground

2.3.3 Made Ground is not indicated on BGS records but is likely to be present at the scheme along the route of the road.

Superficial Deposits

2.3.4 The BGS mapping data suggests superficial deposits along the length of Five Mile Lane are absent, with the exception of Glacial Till in the northern section of the scheme around Sycamore Cross junction, and a relatively narrow alluvial plain following the River Waycock towards the south of the scheme. The alluvial sequence is expected to comprise clays, sands and gravels.

Bedrock

2.3.5 According to BGS mapping the scheme corridor is underlain primarily by the Porthkerry Member, the St Marys Well Bay Formation and the Lavernock Shales Member of the Blue Lias Formation described as thinly interbedded limestone and calcareous mudstone or siltstone. Individual limestones are typically 0.10-0.30m thick. In some areas there are intervening mudstone units with relatively few limestone beds. The northern section of the scheme around Sycamore Cross junction is underlain by the Gully Oolite Formation, described as medium to thickly bedded oolitic limestone.

Historic Borehole Information

2.3.6 A number of historic borehole logs held by in BGS archives are located within close proximity to the scheme corridor and are presented in Appendix B.

2.3.7 Borehole ST07SE15 located 270m south east of Sycamore Cross junction, describes a reddish brown soil to 2m below ground level (bgl) overlying grey and black limestone to the base of the hole at 80m bgl.

2.3.8 Trial pits ST06NE20 and ST06NE19 are located towards the southern part of the road, approximately140m and 360m west of the road respectively. Both pits show clayey, silty sand and limestone to the base at around 3.4m bgl.

2.3.9 The borehole at the southernmost extent of the road ST06NE25 shows topsoil to 0.2m bgl overlying brown grey silty clay 0.8m bgl, which in turn overlies grey limestone to the base of the hole at 1.5m bgl.

2.3.10 Geological hazards at the site identified in the Envirocheck Report are detailed within Table 2.4.

Table 2.4: Geological Hazards

Stability	**Collapsible ground**	No Hazard - Very Low
	Compressible ground	No Hazard - Moderate

	Ground dissolution	No Hazard - Moderate
	Landslide	Very Low - Low
	Running sand	No Hazard - Low
	Shrinking or swelling clay	No Hazard - Low
Radon hazards		The Envirocheck report indicates that the radon risk to housing along the route corridor is variable; from no radon protection measures required to between 5-10% of houses above action value based on information from the British Geological Survey, National Geoscience Information Service.

2.4 Hydrogeological Information

2.4.1 The hydrogeology of the scheme has been reviewed with reference to the following sources:

- Envirocheck reports – December 2013 and June 2015;
- BGS archive borehole and trial pit logs: ST06NE25, ST07SE15, ST06NE19 and ST06NE20 (Appendix B); and
- Environment Agency Website 'What's in your backyard' www.environment-agency.gov.uk 1st July 2014.

2.4.2 Groundwater was reported as being encountered during drilling in BGS borehole ST07SE15, towards the north of the scheme, at 17.5m bgl. Groundwater was not reported on the other BGS logs.

2.4.3 Numerous springs are identified in the area on historical mapping.

2.4.4 Local discharge to rivers, streams and springs will drain groundwater locally; whereas topographic highs will act to divide groundwater flow paths. Several streams and springs are present within and around the scheme corridor; however the general "regional" groundwater drainage is expected to be to the south towards the coast which is approximately 2km south of the southernmost point of the road.

Groundwater Vulnerability

2.4.5 The Environment Agency website and the Envirocheck Report indicates that the superficial alluvial deposits underlying the scheme corridor around the River Waycock are classified as Secondary A aquifer and the Glacial Till in the north of the scheme is classified as unproductive strata. The Gully Oolite Formation is classified as a Principal aquifer, with the Porthkerry Member classified as a Secondary A aquifer and the Lavernock Shales are classified as a Secondary B aquifer.

2.4.6 Principal aquifers have high intergranular and / or fracture permeability, usually providing a high level of water storage, supplying water and or river base flow on a strategic scale. Secondary A aquifers are permeable layers capable of supporting water supplies at a local rather than strategic scale, and in some cases forming an important source of base flow to rivers. Secondary B aquifers are 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.

2.4.7 Review of the data held on the EA website (www.environment-agency.gov.uk/) and within the Envirocheck Report indicates that the scheme is not situated within a groundwater Source Protection Zone (SPZ), with no SPZs located within 1km of the site.

Licensed Groundwater Abstractions

2.4.8 According to the Envirocheck Report for Sycamore Cross junction (June 2015), there are two licensed groundwater abstractions within 205m of the scheme. These are located at Sheepcourt 134m west, for general farming and domestic purposes, and at Sheepcourt Farm, located 205m north used for agricultural spray irrigation use.

2.4.9 It should be noted that private abstractions (typically <20 m^3/day) could exist within the scheme corridor or in the surrounding area for which records are not held.

Discharge Consents to Groundwater

2.4.10 According to the Envirocheck Report there is one licensed sewage discharge consent to groundwater, located 817m north east of the scheme at Cottrell Park golfing facility.

2.5 Hydrological and Drainage Information

2.5.1 There are two primary watercourses within the scheme area; the largest is the River Waycock that crosses the existing road east-west towards the south of the scheme corridor. The other is the Ford Brook which crosses the road east-west towards the centre of the scheme corridor.

2.5.2 There are numerous secondary and tertiary watercourses along the road alignment and in the surrounding area.

Flood Risk

2.5.3 The Envirocheck Report indicates that towards the south of the scheme, the road is located in an area that suffers from flooding (i.e. extreme flooding from rivers or sea without defences, Zone 2). This is the flooding extent of the River Waycock and extends approximately 60m north and south of the river.

2.5.4 There are two nearby flood risk areas towards the north of the scheme around the Whitton Bush Farm area and the Grovelands Farm area associated with the Ffynnon Whitton-mawr and the Moulton Brook respectively. The flood risk Zone 2 extends up to approximately 50m to the west of the existing road.

Licensed Surface Water Abstractions

2.5.5 According to the Envirocheck Report there are no licensed surface water abstractions within 1km of the site.

Discharge Consents to Surface Water

2.5.6 According to the Envirocheck Report there are ten licensed discharge consents to surface water within 500m of the site. The closest is located approximately 4m east of the scheme towards the south end of the road for Dwr Cymru Cyfyngedig, a sewage disposal works discharging final/treated effluent to a freshwater stream/river.

Recorded Pollution Incidents

2.5.7 According to the Envirocheck Report there have been no pollution incidents recorded within 500m of the site.

2.6 Mining

2.6.1 According to the Envirocheck Report the scheme corridor is not located within an area that might be affected by coal mining.

2.7 Mineral Extraction

2.7.1 The local Gully Oolite Formation and Porthkerry Limestone has been exploited in at least six locations within 1km of the scheme for the manufacture of lime with a series of opencast limestone quarrying operations evident, and lime kilns shown on many of the historical maps.

2.8 Recorded Landfill Sites

2.8.1 Environmental Agency data identifies one historic landfill located within 1km of the scheme corridor. This is located 170m east of the scheme, named Blacklands Farm open between 1990 and 1991 which is recorded to have received inert waste only.

2.9 Pollution Controls

2.9.1 There are no records of pollution controls within 500m of the site in the Envirocheck Report.

2.10 Sensitive Land Uses

2.10.1 The Envirocheck Report identifies an area of woodland as a Site of Special Scientific Interest (SSSI) for biological purposes, referred to as Barry Woodlands (Coedydd Y Barri). The woodland extends either side of the proposed new road alignment although in this particular section of the scheme the road alignment is expected to stay on-line with no deviation through the woodland areas themselves.

2.11 Historical Development & Potentially Contaminative Land Uses

2.11.1 Historical maps are provided in the Envirocheck Report in Appendix A. The historic development of the site is summarised within Table 2.5. Reference is made to various archaeological finds in the area on a number of maps.

Table 2.5: Historical Development

Dates/Sources	Within the Scheme Corridor	Off-Scheme corridor
1885 1:10,560 1878 1:2,500	A road is shown along the current route of the A4226, and A48 (Sycamore Cross junction) in an agricultural setting.	The surrounding area is predominantly forestry and agricultural land with a small number of farms and cottages. There is a small quarry to the immediate west of the scheme around the centre of the scheme in the Whitton-Mawr area and to the northern part of the scheme, west of the Redland area.
1900 - 1901 1:10,560 1900 1:2,500	No significant changes.	Five quarries are now labelled within 500m of the site, two as old and three in use located to the west of the scheme in the Whitton-Mawr area. An old trial shaft is labelled east of the scheme footprint, east of Redland Wood.
1919 1:2,500 1921 1:10,560	No significant changes.	There is a reservoir approximately 1km east of the northern part of the scheme and another limekiln approximately 600m west of the centre of the scheme. All of the quarries within 500m of the scheme are labelled as 'old'.
1964 1:10,000	No significant changes.	No significant changes.
1972 1:2,500 1975 1:10,000	A48 and junction widened at Sycamore Cross.	The old quarry and limekiln located immediately west of the centre of the scheme are no longer identified and assumed infilled/removed.
1989 1:10,000 and 1:2,500	A4226 widened at Sycamore Cross junction.	No significant changes.
1993 1:2,500 1999 1:10,000	No significant changes.	No significant changes.
2006 1:10,000	No significant changes.	No significant changes.
2013 1:10,000	No significant changes.	No significant changes.

2.12 Potentially Contaminative Land Uses

2.12.1 Table 2.6 lists potentially contaminative land uses identified within the scheme corridor and within 500m of the scheme. It also details contaminant groups potentially present as a result of these land uses.

Table 2.6 Potentially Contaminative Land Uses

Process/ Land use	Location	Contaminant Groups Potentially Present on-site
Made Ground associated with the construction of the road	On-scheme	Possible hydrocarbons, asbestos, coal tar asphalt and unknown contaminants. The amount and condition of any Made Ground is unknown.
Made Ground associated with the infilling of surrounding quarries	Associated with at least 6 quarries within 1km of the scheme	Unknown contaminants. The amount and condition of any Made Ground is unknown. Possible hydrocarbons, solvents, asbestos, heavy metals.
Landfilling (inert waste)	Blacklands Farm Landfill 170m east of the site	Unknown. Possible hydrocarbons, solvents, asbestos, heavy metals.
Agricultural land and Plantations	Within and surrounding the scheme	Hydrocarbons and lubricating oils associated with machinery. Potential pesticides and herbicides.
Landfilling (inert waste)	Blacklands Farm Landfill 170m east of the site	Unknown. Possible hydrocarbons, solvents, asbestos, heavy metals.

2.13 Sources of Contamination

2.13.1 The most likely sources of contamination for the scheme are:

- Contamination associated with potential Made Ground and i.e. infilled quarries and road construction;
- Contamination from agricultural land use, most likely spills of fuels associated with machinery and possible pesticides and/or herbicides; and
- Mobile contamination associated with the historic off-site landfill.

2.14 Preliminary Conceptual Site Model

2.14.1 On the basis of the information summarised above, a preliminary conceptual site model (CSM) has been developed for the scheme corridor. The CSM identifies potential contaminants, receptors (both on and off the scheme) and exposure pathways that may be present following construction of the new road. The identification of such potential “pollutant linkages” is a key aspect of the evaluation of potentially contaminated land.

2.14.2 An approach based on CIRIA report C552 has been adopted within this report. For each of the pollutant linkages, an estimate is made of;

- The potential severity of the risk; and

- The likelihood of the risk occurring.

2.14.3 Table 2.7 presents the classification of the severity of the risk.

Table 2.7: Severity of Risk

Severe	Acute risks to human health; Major pollution of controlled waters(watercourses or groundwater)
Medium	Chronic (long-term) risk to human health; Pollution of sensitive controlled waters (surface waters or aquifers)
Mild	Pollution of non-sensitive water resources. Significant damage to crops, buildings, structures and services.
Minor	Requirement for protective equipment during site works to migrate health effects; Damage to non-sensitive ecosystems or species

2.14.4 The probability of the risk occurring is classified according to criteria given in Table 2.8:

Table 2.8: Probability of Risk Occurring

High Likelihood	Pollutant linkage may be present, and risk is almost certain to occur in the long term, or there is evidence of harm to the receptor.
Likely	Pollutant linkage may be present, and it is probable that the risk will occur over the long term.
Low Likelihood	Pollutant linkage may be present and there is a possibility of the risk occurring, although there is no certainty that it will do so.
Unlikely	Pollutant linkage may be present but the circumstances under which harm would occur are improbable

2.14.5 An overall evaluation of the level of risk is gained from a comparison of the severity and probability as presented in Table 2.9.

Table 2.9: Comparison of Severity and Probability

		Severity			
		Severe	**Medium**	**Mild**	**Minor**
Probability	**High Likelihood**	Very high risk	High risk	Moderate risk	Moderate / low risk
	Likely	High risk	Moderate risk	Moderate/ low risk	Low risk
	Low Likelihood	Moderate risk	Moderate/ low risk	Low risk	Very low risk
	Unlikely	Moderate / low risk	Low risk	Very low risk	Very low risk

2.14.6 Potential "pollutant linkages" associated with the proposed road improvements are detailed within Table 2.10.

2.14.7 It should be noted that the identification of potential "pollutant linkages" does not indicate that they are significant in any way or that the scheme is unsuitable for its proposed use. It does however act as a way of focusing future data collection at the site and identifying any key potential risks associated with the scheme improvements.

2.14.8 This risk assessment considers risks following construction of the road. Site workers may be exposed to contaminated materials during construction, although exposure durations are likely to be relatively short-term and therefore not considered chronic. However, adoption of standard best practice including the correct PPE and working procedures will reduce the risk significantly.

2.14.9 A further risk for consideration is the potential for some of the existing surfacing to be coal tar derived which may result in the material being classified as hazardous if disposed of off-site, may potentially rule out its re-use and may necessitate more stringent health & safety precautions.

2.14.10 It should also be noted that potential risks associated with ground instability are not incorporated into the assessment.

Table 2.10 Potential Pollutant Linkages Associated with the Proposed Road Improvements and their Risk Rating

Source	Pathway	Receptor	Risk	Comment
Potential fuel spills: petroleum hydrocarbons	Direct contact, ingestion and inhalation of dust	Human Health: Road users	Very Low	***(Severity: Minor, Probability: Unlikely)*** The potential for fuel spills along the scheme is possible, however the likelihood of a pedestrian coming into direct contact with the associated contaminants is low as they are unlikely to spend a long duration of time in the vicinity of any spills.
	Surface run-off	Controlled waters: Water bodies within the scheme corridor	Moderate / Low	***(Severity: Medium, Probability: Low Likelihood)*** Water bodies run across the scheme generally from east to west and may transport contaminants from fuel spills associated with the road. However road drainage will be designed to minimise impact.
	Leaching of soils and subsequent transport to controlled waters	Controlled Waters: Groundwater (including principal aquifer and abstraction wells) and numerous streams within the site boundary	Moderate / Low	***(Severity: Severe, Probability: Unlikely)*** It is possible that following a spill the underlying soils would be contaminated and slowly release contamination over time. The presence of the road surfacing and appropriate highway drainage would minimise the risk of the soils being contaminated in the first place. The deep groundwater level would also minimise the potential for any leaching. The northern part of the scheme is underlain by a Principal Aquifer (although overlain by Till) together with the presence of abstractions and so the impact of any contamination entering this aquifer is considered to be severe. Away from the Gully Oolite the severity would be considered to be medium
Made Ground from the historic landfill and potentially infilled quarries: unknown non-volatile and volatile contaminants	Migration of ground gas	Subsurface features	Very Low	***(Severity: Minor, Probability: Unlikely)*** There are no proposed above ground structures for ground gas to accumulate within. The receptor associated with this will be services beneath the road however the impact associated with this is minimal.

SECTION 3

CONCLUSIONS AND RECOMMENDATIONS

3 CONCLUSIONS AND RECOMMENDATIONS

3.1 Conclusions

3.1.1 The Welsh Government (the "Client") has commissioned Parsons Brinckerhoff Ltd to undertake a geo-environmental Preliminary Risk Assessment (desk study) for proposed road improvements along the section of the A4226 known as Five Mile Lane. The scheme corridor is approximately 5km in length.

3.1.2 The earliest land use of the site recorded in 1885 was a road positioned in the current position today. The surrounding area is predominantly agricultural and has remained relatively undeveloped over time. The area surrounding the scheme corridor has been the site of a number of quarries (probably limestone), and an historic landfill was active in 1990-1991 licensed to accept inert waste.

3.1.3 A review of information relating to the scheme corridor and surrounding area has identified a limited number of potential 'pollutant linkages'.

3.1.4 Potential sources identified from current and historical use within the scheme corridor and surrounding area are associated with potential Made Ground from the construction of the existing road including potential coal tar based surfacing materials and with the potential infilling of surrounding quarries and an historic landfill. Agricultural use may have also resulted in contamination of the existing soils.

3.1.5 The risk ratings of the linkages (i.e. the potential for the identified contamination to have an impact on identified receptors) are predominantly moderate / low to very low due to the relatively undeveloped nature of the area and the presence of hardstanding once constructed. The main risk to focus on is the creating of direct pathways when excavating to widen or construct new road with construction workers and controlled waters as the sensitive receptors.

3.2 Recommendations

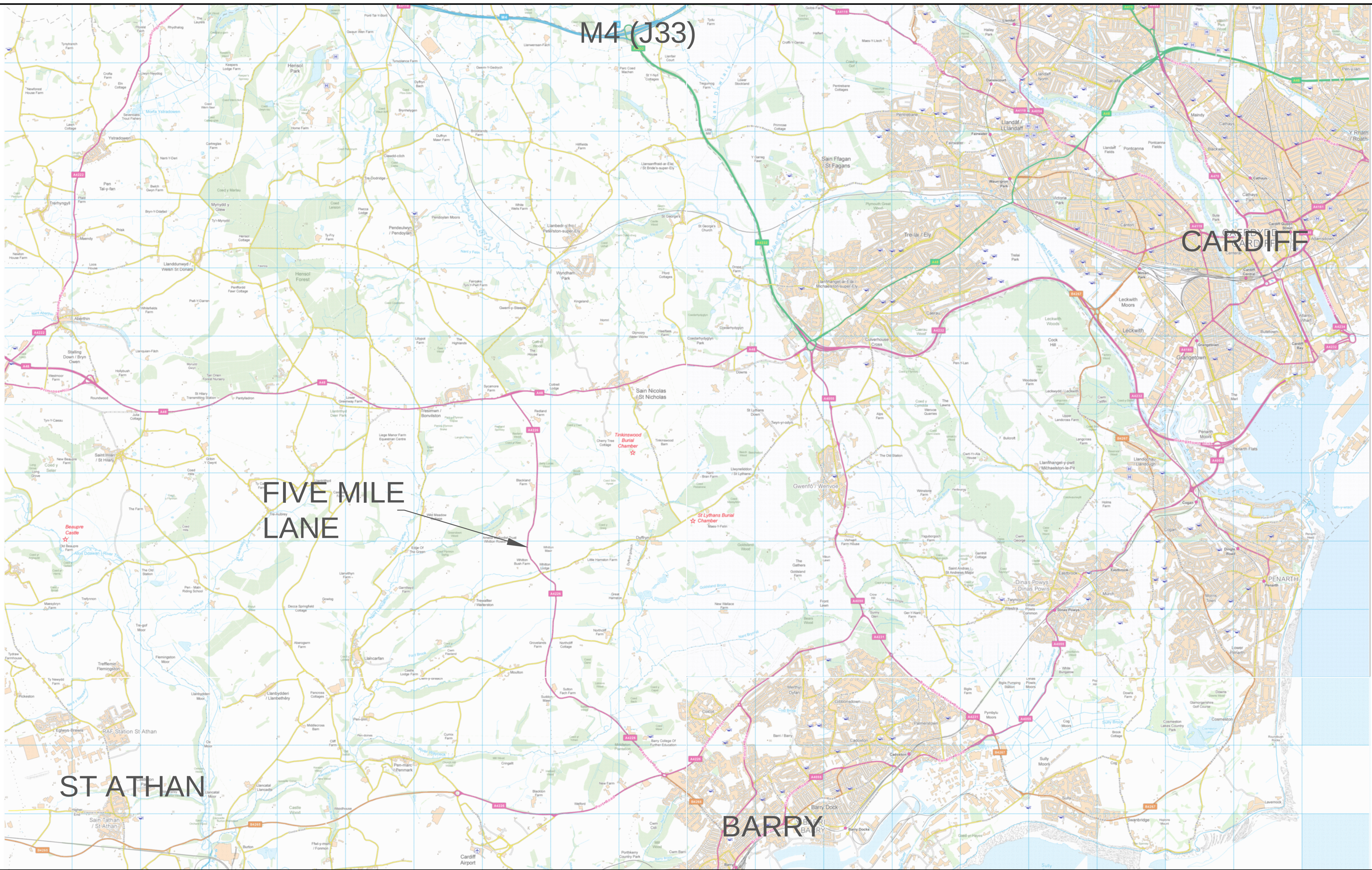
3.2.1 In order to provide further information for this assessment to assess the potential 'pollutant linkages', a focused intrusive ground investigation is recommended.

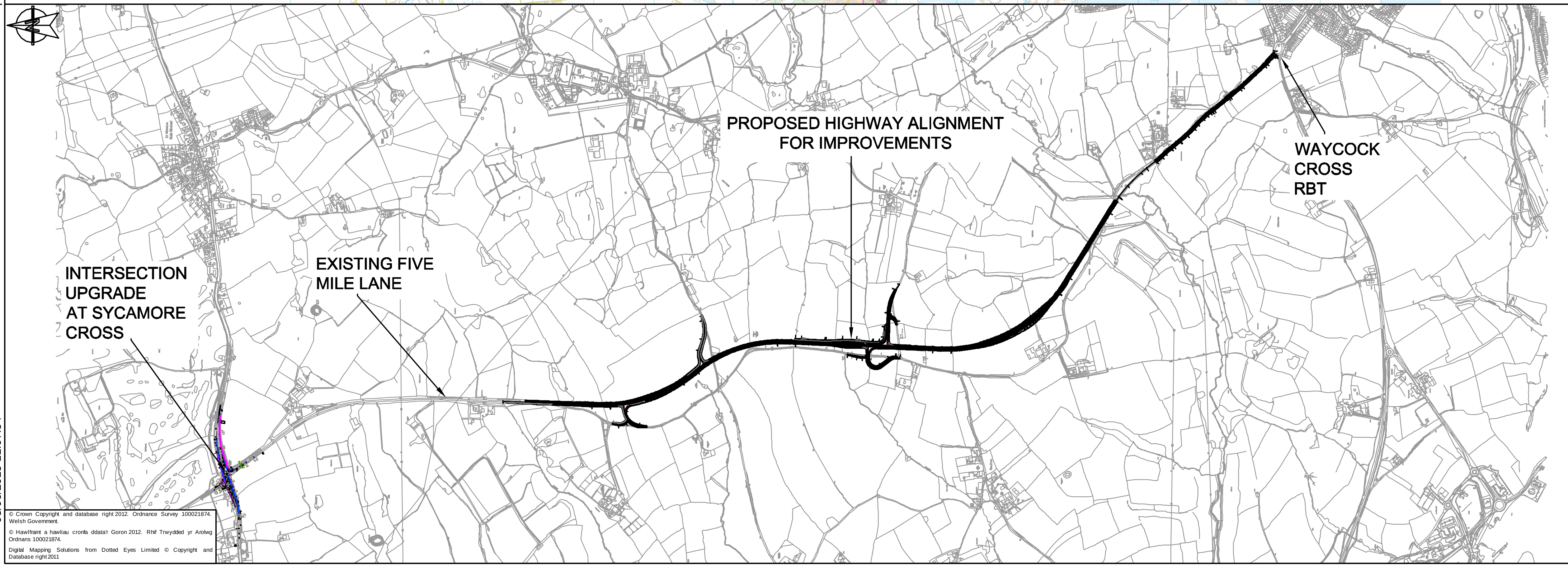
3.2.2 This is to be incorporated into the site-wide geotechnical investigation and include exploratory holes (boreholes and trial pits) to investigate soil and groundwater conditions along the scheme, and to characterise the Made Ground deposits in areas of earthworks.

3.2.3 If possible it is also recommended that samples of the surfacing as screened to assess the potential for coal tar based materials.

3.2.4 Sampling of soils, groundwater and surface water will be required for chemical analysis to establish the presence/absence of any contamination and allow the assessment of the significance through the completion of a risk assessment.

FIGURES





NOTES

1. THIS DRAWING WAS PRODUCED IN AUTOCAD AND SHOULD NOT BE AMENDED BY HAND.
2. DO NOT SCALE FROM THIS DRAWING, USE FIGURED DIMENSIONS ONLY.
3. ALL MEASUREMENTS ARE METRES UNLESS OTHERWISE STATED.

Rev	Date	Description	By	Chk	App

FOR INFORMATION

PARSONS BRINCKERHOFF
29 Cathedral Road
Cardiff
CF11 9HA
Tel: 44-(0)29-2082-7000
Fax: 44-(0)29-2082-7001

Client: VALE of GLAMORGAN BRO MORGANNWG

Site/Project: FIVE MILE LANE IMPROVEMENTS

Title: SCHEME LOCATION

Drawn: GS		Checked:	
Designed: JM		Approved:	
Date: 13/05/2015	Scale: 1:25,000	A3	Sheet: 1 OF 1

Project Number:	Drawing Number:	Revision:
3512646D-HHC	FIGURE 1.1	-

Project Number:	Drawing Number:	Revision:
3512646D-HHC	FIGURE 1.1	-

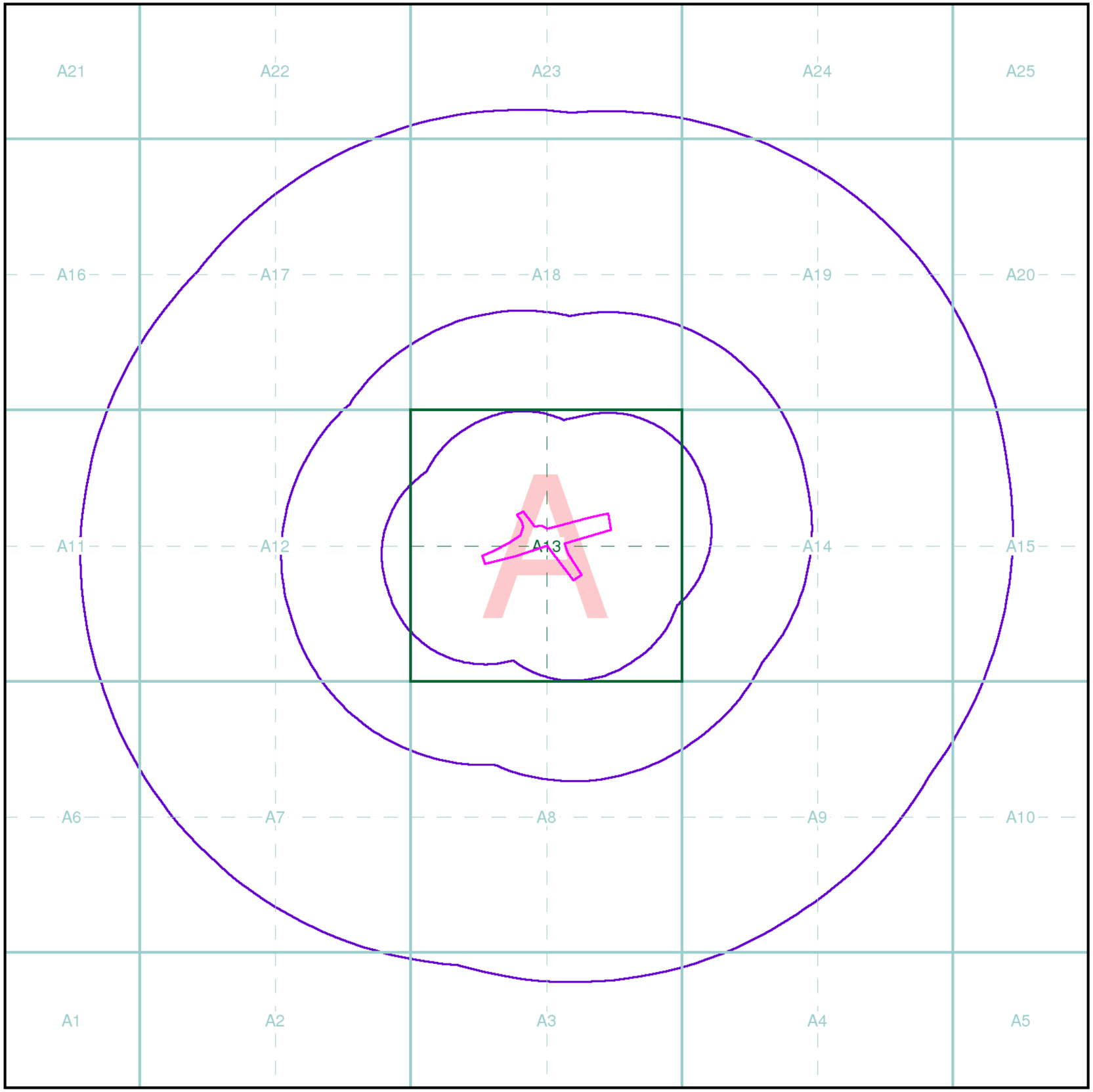
File Name: H:\HHI\JOBS\3512646D-HHC Links to St Athan and Cardiff Airport\Planning\ACAD\EA Figures\Figure 1.1 - Scheme Location.dwg

Plot Date: 05/06/2015 11:07:54

Login: Millward, Ianto

APPENDIX A

ENVIROCHECK REPORT



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Index Map

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

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

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

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

A selection of organisations who provide data within this report:

Ordnance Survey® Licensed Partner

British Geological Survey NATURAL ENVIRONMENT RESEARCH COUNCIL

Cyfoeth Naturiol Cymru Natural Resources Wales

Envirocheck reports are compiled from 136 different sources of data.

Prepared For

Welsh Government
Sycamore Cross Junction
A48 - A4226
Vale of Glamorgan

Client Details

Miss A Macro, Parsons Brinckerhoff Ltd, 29 Cathedral Road, Cardiff, CF11 9HA

Order Details

Order Number:	68427202_1_1
Customer Ref:	3512464D-HHC
National Grid Reference:	307410, 174140
Site Area (Ha):	1.77
Search Buffer (m):	1000

Site Details

Site at 307420, 174160

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

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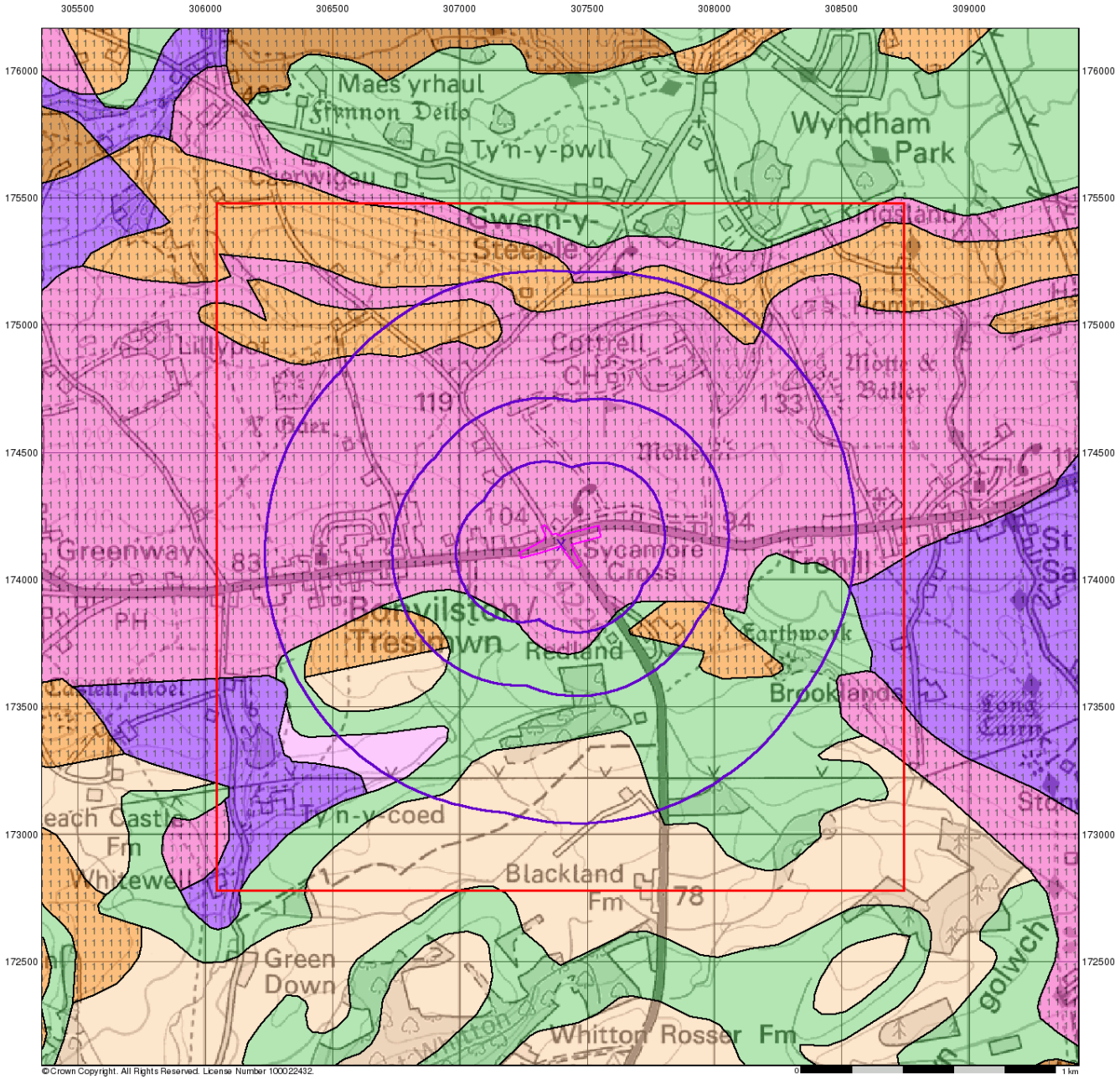

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Groundwater Vulnerability

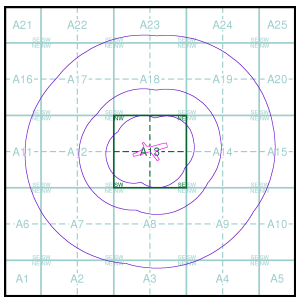
General

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

Agency and Hydrological

Geological Classes	Soil Classes
Major Aquifer (Highly Permeable)	High (H) 1, 2, 3, U
	Intermediate (I) 1, 2
	Low
Minor Aquifer (Variably Permeable)	High (H) 1, 2, 3, U
	Intermediate (I) 1, 2
	Low
Non Aquifer (Negligibly Permeable)	
Water or Sea	
Drift Deposit	

Site Sensitivity Context Map - Slice A



Order Details

Order Number:	68427202_1_1
Customer Ref:	3512464D-HHC
National Grid Reference:	307400, 174140
Slice:	A
Site Area (Ha):	1.77
Search Buffer (m):	1000

Site Details

Site at 307420, 174160

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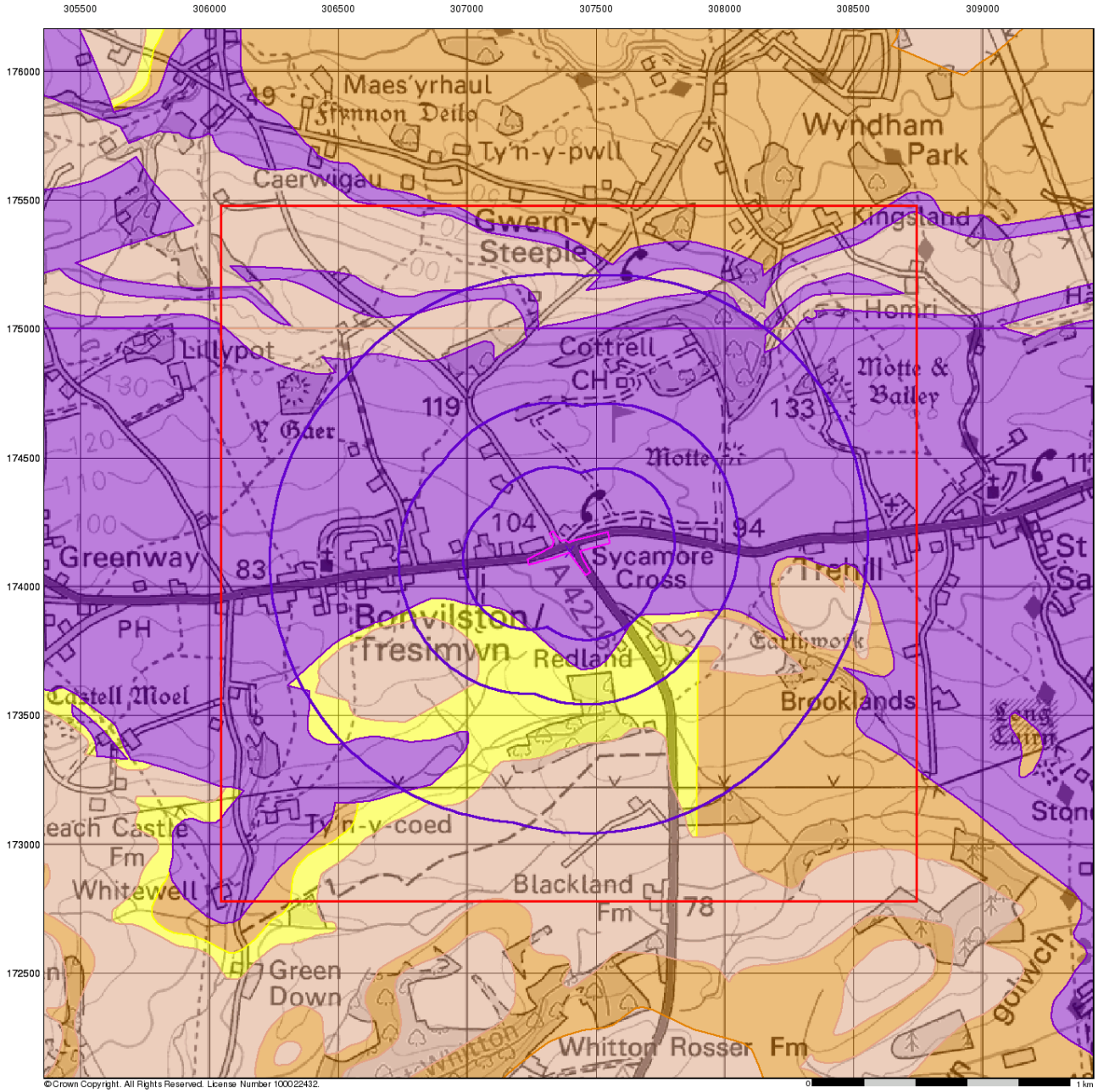

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Bedrock Aquifer Designation

General

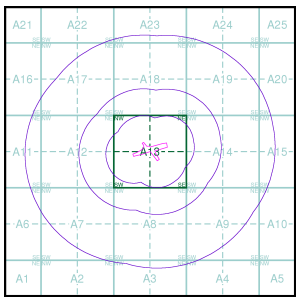
Specified Site | Specified Buffer(s) | Bearing Reference Point | Slice | Map ID

Agency and Hydrological

Geological Classes

- Principal Aquifer
- Secondary A Aquifer
- Secondary B Aquifer
- Secondary Undifferentiated
- Unproductive Strata
- Unknown

Site Sensitivity Context Map - Slice A



Order Details

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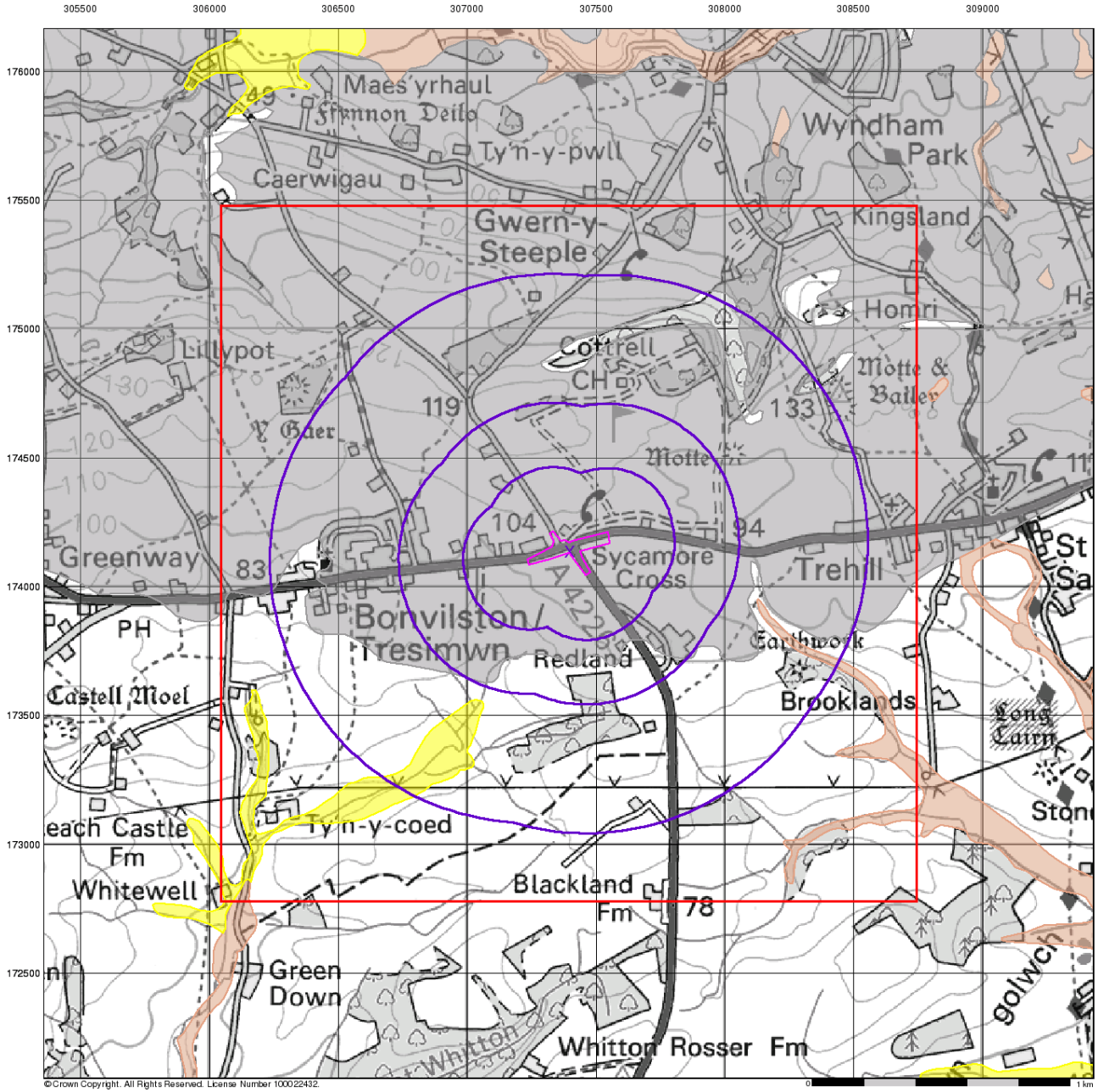
Customer Ref:	3512464D-HHC
National Grid Reference:	307400, 174140
Slice:	A
Site Area (Ha):	1.77
Search Buffer (m):	1000

Site Details

Site at 307420, 174160



PARSONS BRINCKERHOFF

Superficial Aquifer Designation

General

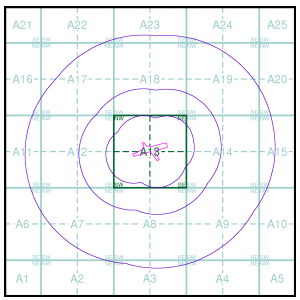
Specified Site | Specified Buffer(s) | Bearing Reference Point
Slice | Map ID

Agency and Hydrological

Geological Classes

- Principal Aquifer
- Secondary A Aquifer
- Secondary B Aquifer
- Secondary Undifferentiated
- Unproductive Strata
- Unknown

Site Sensitivity Context Map - Slice A



Order Details

Order Number:	68427202_1_1
Customer Ref:	3512464D-HHC
National Grid Reference:	307400, 174140
Slice:	A
Site Area (Ha):	1.77
Search Buffer (m):	1000

Site Details

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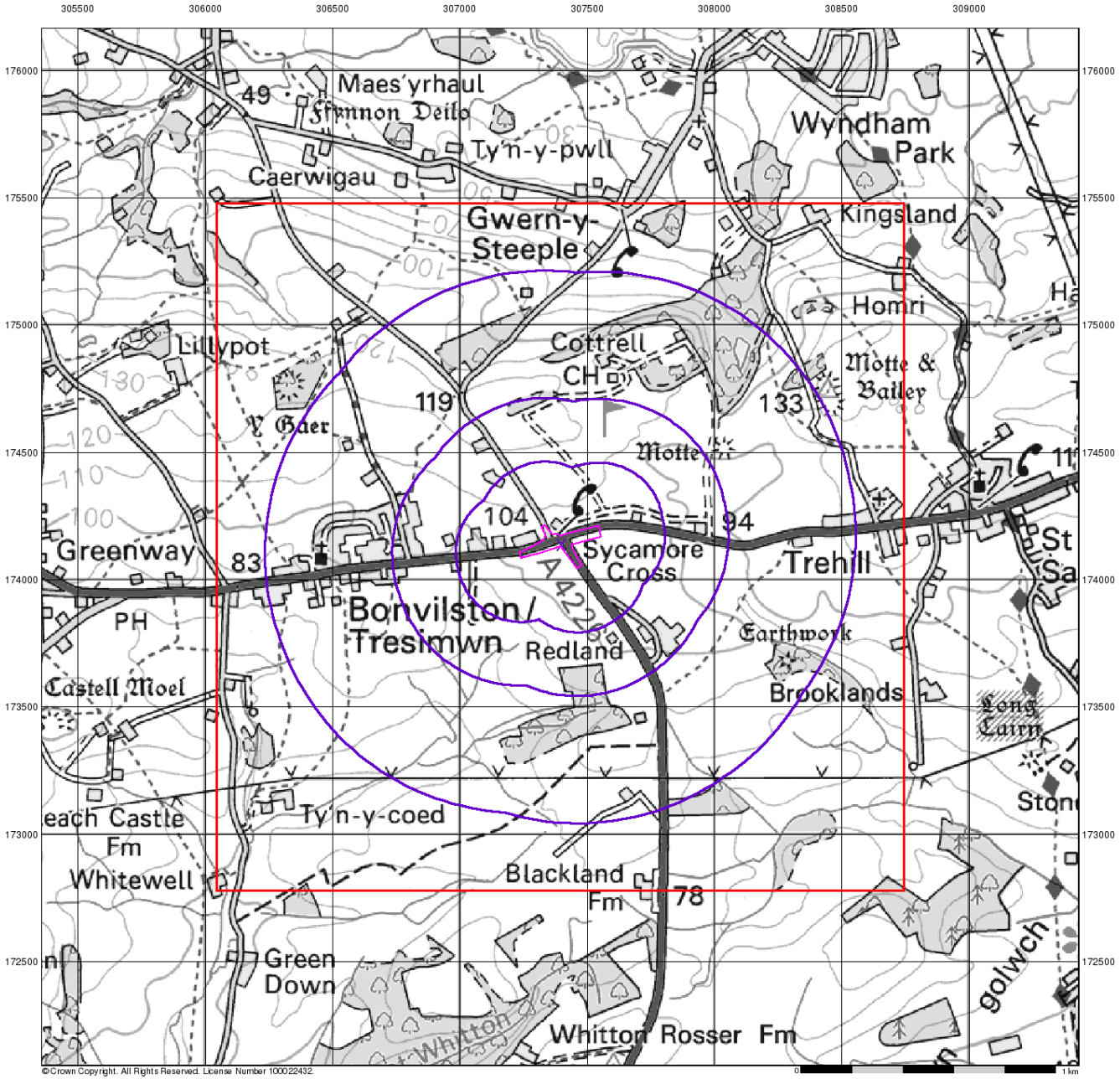

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Source Protection Zones

General

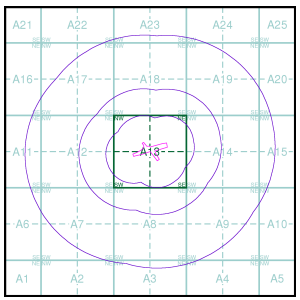
Specified Site | Specified Buffer(s) | Bearing Reference Point

Slice | Map ID

Agency and Hydrological

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

Site Sensitivity Context Map - Slice A



Order Details

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Customer Ref:	3512464D-HHC
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Slice:	A
Site Area (Ha):	1.77
Search Buffer (m):	1000

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Site at 307420, 174160

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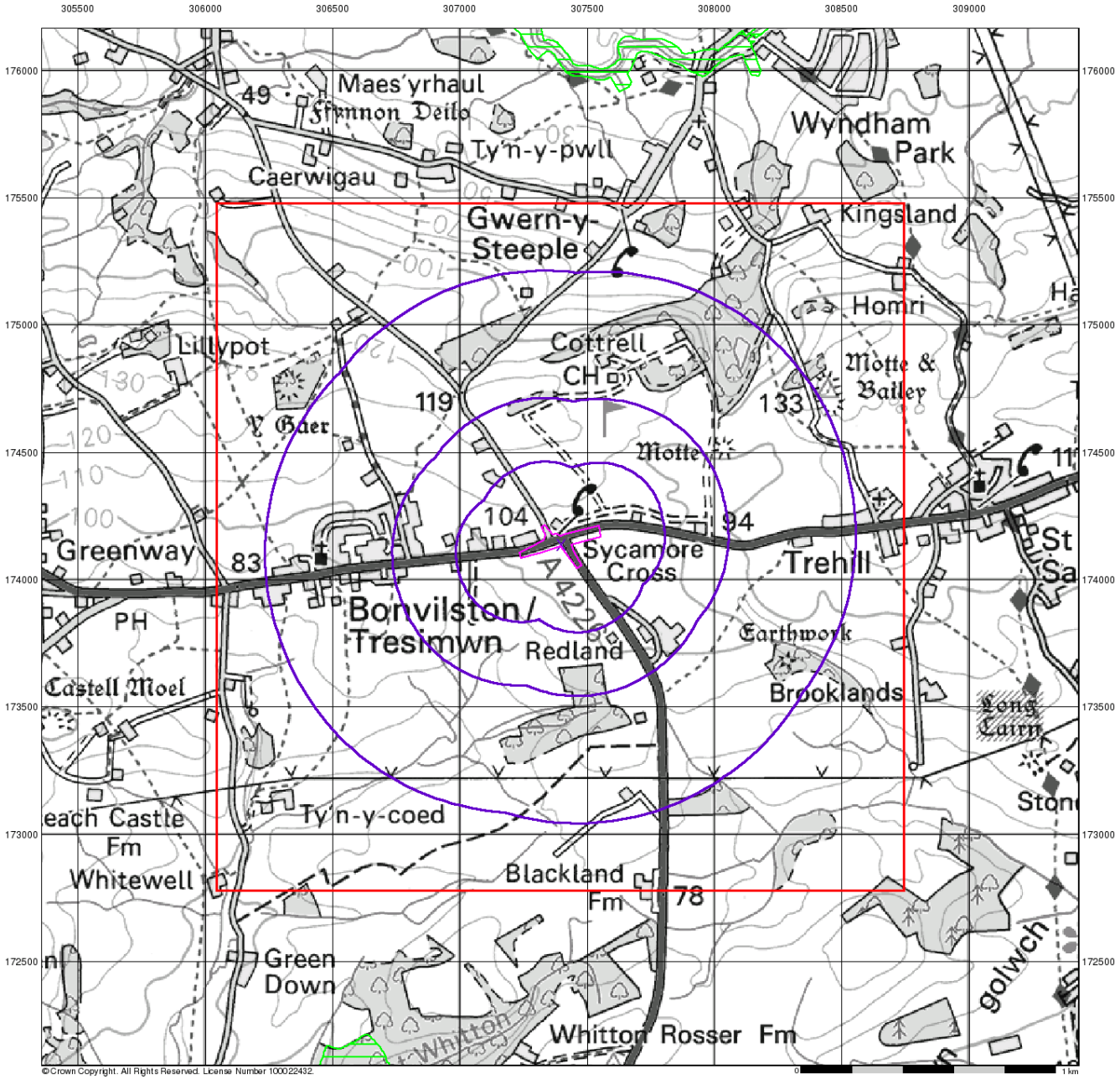

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Sensitive Land Uses

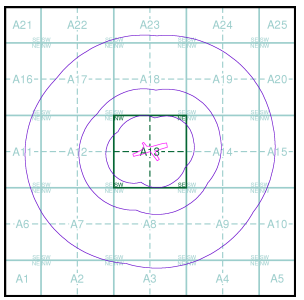
General

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

Sensitive Land Uses

- 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

Site Sensitivity Context Map - Slice A



Order Details

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Customer Ref:	3512464D-HHC
National Grid Reference:	307400, 174140
Slice:	A
Site Area (Ha):	1.77
Search Buffer (m):	1000

Site Details

Site at 307420, 174160

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Fax: 0844 844 9951
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Envirocheck® Report:

Datasheet

Order Details:

Order Number:
68427202_1_1

Customer Reference:
3512464D-HHC

National Grid Reference:
307400, 174140

Slice:
A

Site Area (Ha):
1.77

Search Buffer (m):
1000

Site Details:

Site at 307420, 174160

Client Details:

Miss A Macro
Parsons Brinckerhoff Ltd
29 Cathedral Road
Cardiff
CF11 9HA

Prepared For:

Welsh Government
Sycamore Cross Junction
A48 - A4226
Vale of Glamorgan

PARSONS BRINCKERHOFF

Contents

Introduction

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

In the attached datasheet the National Grid References (NGRs) are rounded to the nearest 10m in accordance with Landmark's agreements with a number of Data Suppliers.

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Ove Arup Copyright Notice

Peter Brett Associates Copyright Notice

Radon Potential dataset Copyright Notice

Report Version v49.0

PARSONS BRINCKERHOFF

Summary

Data Type	Page Number	On Site	0 to 250m	251 to 500m	501 to 1000m (*up to 2000m)
Agency & Hydrological					
Contaminated Land Register Entries and Notices					
Discharge Consents	pg 1			3	2
Enforcement and Prohibition Notices					
Integrated Pollution Controls					
Integrated Pollution Prevention And Control					
Local Authority Integrated Pollution Prevention And Control					
Local Authority Pollution Prevention and Controls	pg 2				1
Local Authority Pollution Prevention and Control Enforcements					
Nearest Surface Water Feature	pg 2		Yes		
Pollution Incidents to Controlled Waters					
Prosecutions Relating to Authorised Processes					
Prosecutions Relating to Controlled Waters					
Registered Radioactive Substances					
River Quality					
River Quality Biology Sampling Points					
River Quality Chemistry Sampling Points					
Substantiated Pollution Incident Register					
Water Abstractions	pg 2		3		
Water Industry Act Referrals					
Groundwater Vulnerability	pg 3	Yes	n/a	n/a	n/a
Bedrock Aquifer Designations	pg 3	Yes	n/a	n/a	n/a
Superficial Aquifer Designations	pg 3	Yes	n/a	n/a	n/a
Source Protection Zones					
Extreme Flooding from Rivers or Sea without Defences				n/a	n/a
Flooding from Rivers or Sea without Defences				n/a	n/a
Areas Benefiting from Flood Defences				n/a	n/a
Flood Water Storage Areas				n/a	n/a
Flood Defences				n/a	n/a
Detailed River Network Lines	pg 3			Yes	n/a
Detailed River Network Offline Drainage	pg 4		Yes	Yes	n/a

PARSONS BRINCKERHOFF

Summary

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 Recorded Landfill Sites					
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					
Planning Hazardous Substance Enforcements					
Geological					
BGS 1:625,000 Solid Geology	pg 6	Yes	n/a	n/a	n/a
BGS Estimated Soil Chemistry	pg 6	Yes	Yes	Yes	Yes
BGS Recorded Mineral Sites	pg 27			1	6
BGS Urban Soil Chemistry					
BGS Urban Soil Chemistry Averages					
Brine Compensation Area			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	pg 28				1
Natural Cavities					
Non Coal Mining Areas of Great Britain	pg 28	Yes		n/a	n/a
Potential for Collapsible Ground Stability Hazards	pg 28	Yes		n/a	n/a
Potential for Compressible Ground Stability Hazards				n/a	n/a
Potential for Ground Dissolution Stability Hazards	pg 28	Yes	Yes	n/a	n/a
Potential for Landslide Ground Stability Hazards	pg 28	Yes		n/a	n/a
Potential for Running Sand Ground Stability Hazards	pg 28	Yes		n/a	n/a
Potential for Shrinking or Swelling Clay Ground Stability Hazards	pg 28	Yes	Yes	n/a	n/a
Radon Potential - Radon Affected Areas	pg 29	Yes	n/a	n/a	n/a
Radon Potential - Radon Protection Measures	pg 29	Yes	n/a	n/a	n/a

Data Type	Page Number	On Site	0 to 250m	251 to 500m	501 to 1000m (*up to 2000m)
Industrial Land Use					
Contemporary Trade Directory Entries					
Fuel Station Entries					
Sensitive Land Use					
Areas of Adopted Green Belt					
Areas of Unadopted Green Belt					
Areas of Outstanding Natural Beauty					
Environmentally Sensitive Areas					
Forest Parks					
Local Nature Reserves					
Marine Nature Reserves					
National Nature Reserves					
National Parks					
Nitrate Sensitive Areas					
Nitrate Vulnerable Zones					
Ramsar Sites					
Sites of Special Scientific Interest					
Special Areas of Conservation					
Special Protection Areas					

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
1	**Discharge Consents** Operator: Mr A J Williams Property Type: Domestic Property (Single) Location: Redlands Court Farm Sycamore Cross, Bonvilston, Vale Of Glamorgan Authority: Natural Resources Wales Catchment Area: Not Supplied Reference: An0372901 Permit Version: 1 Effective Date: 5th August 2004 Issued Date: 5th August 2004 Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Final/Treated Effluent - Not Water Company Discharge Environment: Freshwater Stream/River Receiving Water: To Ground **Status: New Consent (Water Resources Act 1991, Section 88 & Schedule 10 as amended by Environment Act 1995)** Positional Accuracy: Located by supplier to within 100m	A8NE (S)	346	2	307500 173700
2	**Discharge Consents** Operator: Dwr Cymru Cyfyngedig Property Type: Sewage Disposal Works - Water Company Location: Bonvilston East Stw Authority: Natural Resources Wales Catchment Area: River Thaw Reference: Ag0011901 Permit Version: 2 Effective Date: 1st January 2010 Issued Date: 24th September 2009 Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Final/Treated Effluent - Water Company Discharge Environment: Freshwater Stream/River Receiving Water: Trib Of Nant Llancarfan **Status: New Consent, by Application (Water Resources Act 1991, Section 88)** Positional Accuracy: Located by supplier to within 100m	A8NW (SW)	387	2	307200 173700
2	**Discharge Consents** Operator: Dwr Cymru Cyfyngedig Property Type: Sewage Disposal Works - Water Company Location: Bonvilston East Stw Authority: Natural Resources Wales Catchment Area: River Thaw Reference: AG0011901 Permit Version: 1 Effective Date: 26th April 1982 Issued Date: 26th April 1982 Revocation Date: 31st December 2009 Discharge Type: Sewage Discharges - Final/Treated Effluent - Water Company Discharge Environment: Freshwater Stream/River Receiving Water: Trib Of Nant Llancarfan **Status: New Consent, by Application (Water Resources Act 1991, Section 88)** Positional Accuracy: Located by supplier to within 10m	A8NW (SW)	387	2	307200 173700
3	**Discharge Consents** Operator: Cottrell Park Limited Property Type: Recreational & Cultural Location: Golfing Facilities, Cottrell Park, St Nicholas, Cardiff, South Glamorgan, Cf5 6sj Authority: Natural Resources Wales Catchment Area: River Ely Reference: Npswqd006817 Permit Version: 2 Effective Date: 19th December 2012 Issued Date: 19th December 2012 Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Final/Treated Effluent - Not Water Company Discharge Environment: Land/Soakaway Receiving Water: Ground Waters **Status: Varied under EPR 2010** Positional Accuracy: Located by supplier to within 10m	A19NW (NE)	817	2	307846 174970

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
3	**Discharge Consents** Operator: Cottrell Park Limited Property Type: Recreational & Cultural Location: Golfing Facilities, Cottrell Park, St Nicholas, Cardiff, South Glamorgan, Cf5 6sj Authority: Natural Resources Wales Catchment Area: River Ely Reference: Npswqd006817 Permit Version: 1 Effective Date: 22nd January 2010 Issued Date: 22nd January 2010 Revocation Date: 18th December 2012 Discharge Type: Sewage Discharges - Final/Treated Effluent - Not Water Company Discharge Environment: Land/Soakaway Receiving Water: Ground Waters **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	A19NW (NE)	817	2	307846 174970
4	**Local Authority Pollution Prevention and Controls** Name: Bonvilston Garage Location: Bonvilston, CARDIFF, South Glamorgan, CF5 6TQ Authority: Vale Of Glamorgan County Borough Council, Environmental Health Department Permit Reference: Vog/34 Dated: 20th May 1999 Process Type: Local Authority Air Pollution Control Description: PG1/14 Petrol filling station **Status: Authorisation revokedRevoked** Positional Accuracy: Automatically positioned to the address	A11SE (W)	989	3	306256 173961
	Nearest Surface Water Feature	A13NE (N)	26	-	307414 174203
5	**Water Abstractions** Operator: Messrs W Powell & Sons Ltd Licence Number: 21/58/21/0014 Permit Version: 101 Location: Well At Sheepcourt Authority: Environment Agency, Welsh 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: Not Supplied Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 7th January 1993 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m	A13SW (W)	134	4	307100 174100
5	**Water Abstractions** Operator: Messrs W Powell & Sons Ltd Licence Number: 21/58/21/0014 Permit Version: 100 Location: Well At Sheepcourt Authority: Environment Agency, Welsh 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: Well At Sheepcourt Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 7th September 1992 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m	A13SW (W)	134	4	307100 174100

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
6	**Water Abstractions** Operator: Messrs William Powell & Sons Ltd Licence Number: 21/58/21/0024 Permit Version: 100 Location: Borehole Near Sheepcourt Farm Authority: Natural Resources Wales Abstraction: General Agriculture: Spray Irrigation - Direct Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Borehole - 140 M Depth / 150Mm Diameter Authorised Start: 01 April Authorised End: 30 September Permit Start Date: 25th February 1997 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m	A13NE (N)	205	2	307420 174400
	Groundwater Vulnerability Soil Classification: Soils of Intermediate Leaching Potential (I1) - Soils which can possibly transmit a wide range of pollutants Map Sheet: Sheet 36 Mid Glamorgan Scale: 1:100,000	A13NE (S)	0	4	307400 174136
	Drift Deposits Drift Deposit: Low permeability drift deposits occuring at the surface and overlying Major and Minor Aquifers are head, clay-with-flints, brickearth, peat, river terrace deposits and marine and estuarine alluvium Map Sheet: Sheet 36 Mid Glamorgan Scale: 1:100,000	A13NE (S)	0	4	307400 174136
	Bedrock Aquifer Designations Aquifer Designation: Principal Aquifer	A13NE (S)	0	5	307400 174136
	Superficial Aquifer Designations Aquifer Designation: Unproductive Strata	A13NE (S)	0	5	307400 174136
	Extreme Flooding from Rivers or Sea without Defences None				
	Flooding from Rivers or Sea without Defences None				
	Areas Benefiting from Flood Defences None				
	Flood Water Storage Areas None				
	Flood Defences None				
7	**Detailed River Network Lines** River Type: Tertiary River River Name: Not Supplied Hydrographic Area: D008 River Flow Type: Primary Flow Path River Surface Level: Surface Drain Feature: Not a Drain Flood Risk Management Status: Other Rivers Water Course Name: Not Supplied Water Course Reference: Not Supplied	A8NW (S)	341	4	307287 173747
8	**Detailed River Network Lines** River Type: Tertiary River River Name: Not Supplied Hydrographic Area: D008 River Flow Type: Primary Flow Path River Surface Level: Surface Drain Feature: Not a Drain Flood Risk Management Status: Other Rivers Water Course Name: Not Supplied Water Course Reference: Not Supplied	A8NW (SW)	376	4	307200 173709

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
9	**Detailed River Network Lines** River Type: Tertiary River River Name: Not Supplied Hydrographic Area: D008 River Flow Type: Primary Flow Path River Surface Level: Surface Drain Feature: Not a Drain Flood Risk Management Status: Other Rivers Water Course Name: Not Supplied Water Course Reference: Not Supplied	A8NW (SW)	381	4	307204 173705
10	**Detailed River Network Lines** River Type: Tertiary River River Name: Not Supplied Hydrographic Area: D008 River Flow Type: Primary Flow Path River Surface Level: Surface Drain Feature: Not a Drain Flood Risk Management Status: Other Rivers Water Course Name: Not Supplied Water Course Reference: Not Supplied	A7NE (SW)	457	4	306896 173785
11	**Detailed River Network Lines** River Type: Tertiary River River Name: Not Supplied Hydrographic Area: D008 River Flow Type: Primary Flow Path River Surface Level: Surface Drain Feature: Not a Drain Flood Risk Management Status: Other Rivers Water Course Name: Not Supplied Water Course Reference: Not Supplied	A7NE (SW)	460	4	306899 173777
12	**Detailed River Network Lines** River Type: Tertiary River River Name: Not Supplied Hydrographic Area: D008 River Flow Type: Primary Flow Path River Surface Level: Surface Drain Feature: Not a Drain Flood Risk Management Status: Other Rivers Water Course Name: Not Supplied Water Course Reference: Not Supplied	A7NE (SW)	460	4	306899 173777
13	**Detailed River Network Offline Drainage** River Type: Tertiary River Hydrographic Area: D008	A13NE (N)	26	4	307414 174203
14	**Detailed River Network Offline Drainage** River Type: Tertiary River Hydrographic Area: D008	A13NE (N)	26	4	307414 174203
15	**Detailed River Network Offline Drainage** River Type: Tertiary River Hydrographic Area: D008	A13NE (N)	26	4	307404 174199
16	**Detailed River Network Offline Drainage** River Type: Tertiary River Hydrographic Area: D008	A13NE (NE)	37	4	307563 174242
17	**Detailed River Network Offline Drainage** River Type: Tertiary River Hydrographic Area: D008	A14NW (E)	303	4	307856 174194

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Local Authority Landfill Coverage Name: Vale Of Glamorgan County Borough Council - Has supplied landfill data		0	7	307400 174136

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS 1:625,000 Solid Geology Description: Dinantian Rocks (Undifferentiated)	A13NE (S)	0	5	307400 174136
	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: <150 mg/kg Nickel Concentration: 15 - 30 mg/kg	A13NE (S)	0	5	307400 174136
	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: <150 mg/kg Nickel Concentration: 15 - 30 mg/kg	A13NW (N)	0	5	307394 174176
	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: <150 mg/kg Nickel Concentration: 15 - 30 mg/kg	A13SE (S)	44	5	307400 174000
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic Concentration: 15 - 25 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <150 mg/kg Nickel Concentration: 30 - 45 mg/kg	A13SW (SW)	199	5	307203 173869
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic Concentration: 15 - 25 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <150 mg/kg Nickel Concentration: 15 - 30 mg/kg	A14NW (E)	210	5	307763 174147
	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: <150 mg/kg Nickel Concentration: 15 - 30 mg/kg	A13NW (N)	230	5	307353 174448

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic Concentration: <15 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <150 mg/kg Nickel Concentration: 15 - 30 mg/kg	A12NE (W)	234	5	307000 174136
	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: <150 mg/kg Nickel Concentration: 15 - 30 mg/kg	A12NE (W)	237	5	307000 174141
	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: <150 mg/kg Nickel Concentration: 15 - 30 mg/kg	A12SE (W)	255	5	307000 174000
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic Concentration: 15 - 25 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <150 mg/kg Nickel Concentration: 30 - 45 mg/kg	A13SE (SE)	255	5	307663 173879
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic Concentration: 15 - 25 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <150 mg/kg Nickel Concentration: 30 - 45 mg/kg	A12SE (SW)	285	5	307000 173932
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic Concentration: 15 - 25 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <150 mg/kg Nickel Concentration: 15 - 30 mg/kg	A14SW (SE)	299	5	307744 173892

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic Concentration: <15 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <150 mg/kg Nickel Concentration: 30 - 45 mg/kg	A8NW (S)	308	5	307310 173733
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic Concentration: 15 - 25 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: 150 - 300 mg/kg Nickel Concentration: 15 - 30 mg/kg	A8NE (S)	312	5	307481 173733
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic Concentration: 15 - 25 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <150 mg/kg Nickel Concentration: 30 - 45 mg/kg	A13SE (SE)	321	5	307728 173853
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic Concentration: 15 - 25 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <150 mg/kg Nickel Concentration: 15 - 30 mg/kg	A14NW (E)	348	5	307902 174136
	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: <150 mg/kg Nickel Concentration: 15 - 30 mg/kg	A14NW (E)	370	5	307904 174308
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic Concentration: 15 - 25 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <150 mg/kg Nickel Concentration: 30 - 45 mg/kg	A7NE (SW)	372	5	307018 173786

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic Concentration: 15 - 25 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <150 mg/kg Nickel Concentration: 30 - 45 mg/kg	A12SE (SW)	372	5	307000 173801
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic Concentration: 15 - 25 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <150 mg/kg Nickel Concentration: 15 - 30 mg/kg	A14SW (E)	386	5	307901 174000
	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: <150 mg/kg Nickel Concentration: 15 - 30 mg/kg	A12NE (NW)	395	5	307000 174434
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic Concentration: 15 - 25 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <150 mg/kg Nickel Concentration: 30 - 45 mg/kg	A14SW (SE)	436	5	307900 173903
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic Concentration: 15 - 25 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <150 mg/kg Nickel Concentration: 15 - 30 mg/kg	A14NW (E)	446	5	308000 174136
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic Concentration: 15 - 25 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <150 mg/kg Nickel Concentration: 30 - 45 mg/kg	A14SW (SE)	452	5	307900 173878

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic Concentration: <15 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <150 mg/kg Nickel Concentration: 15 - 30 mg/kg	A12SE (W)	456	5	306791 174000
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic Concentration: 15 - 25 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <150 mg/kg Nickel Concentration: 15 - 30 mg/kg	A12SE (W)	463	5	306806 173927
	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: <150 mg/kg Nickel Concentration: 15 - 30 mg/kg	A14SW (E)	477	5	308000 174000
	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: <150 mg/kg Nickel Concentration: 15 - 30 mg/kg	A14NW (E)	483	5	308000 174377
	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: <150 mg/kg Nickel Concentration: 15 - 30 mg/kg	A19SW (NE)	492	5	307906 174546
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic Concentration: 15 - 25 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <150 mg/kg Nickel Concentration: 30 - 45 mg/kg	A7NE (SW)	493	5	307039 173635

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic Concentration: 15 - 25 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 40 - 60 mg/kg Lead Concentration: <150 mg/kg Nickel Concentration: 30 - 45 mg/kg	A7NE (SW)	501	5	307000 173645
	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: <150 mg/kg Nickel Concentration: 30 - 45 mg/kg	A9NW (SE)	511	5	307899 173763
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic Concentration: 15 - 25 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <150 mg/kg Nickel Concentration: 30 - 45 mg/kg	A14SW (E)	515	5	308000 173911
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic Concentration: 15 - 25 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <150 mg/kg Nickel Concentration: 30 - 45 mg/kg	A14SW (SE)	533	5	308000 173876
	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: <150 mg/kg Nickel Concentration: 30 - 45 mg/kg	A7NE (SW)	536	5	307000 173605
	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: <150 mg/kg Nickel Concentration: 15 - 30 mg/kg	A19SW (NE)	549	5	308000 174519

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic Concentration: <15 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <150 mg/kg Nickel Concentration: 15 - 30 mg/kg	A18SW (N)	552	5	307261 174762
	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: <150 mg/kg Nickel Concentration: 15 - 30 mg/kg	A14SE (E)	555	5	308103 174088
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic Concentration: 15 - 25 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <150 mg/kg Nickel Concentration: 30 - 45 mg/kg	A8NW (SW)	561	5	307059 173553
	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: <150 mg/kg Nickel Concentration: 15 - 30 mg/kg	A18SW (N)	576	5	307221 174778
	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: <150 mg/kg Nickel Concentration: 15 - 30 mg/kg	A14SE (E)	580	5	308090 173948
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic Concentration: 15 - 25 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <150 mg/kg Nickel Concentration: 30 - 45 mg/kg	A9NW (SE)	591	5	307957 173708

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic Concentration: 15 - 25 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <150 mg/kg Nickel Concentration: 30 - 45 mg/kg	A7NE (SW)	594	5	307000 173542
	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: <150 mg/kg Nickel Concentration: 15 - 30 mg/kg	A14SE (E)	614	5	308127 173948
	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: <150 mg/kg Nickel Concentration: 15 - 30 mg/kg	A14SE (E)	618	5	308149 174000
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic Concentration: 15 - 25 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: 150 - 300 mg/kg Nickel Concentration: 15 - 30 mg/kg	A18NW (N)	619	5	307394 174831
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic Concentration: 15 - 25 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <150 mg/kg Nickel Concentration: 30 - 45 mg/kg	A9NW (SE)	620	5	308000 173719
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic Concentration: 15 - 25 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: 150 - 300 mg/kg Nickel Concentration: 15 - 30 mg/kg	A18NW (N)	620	5	307394 174831

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic Concentration: 15 - 25 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <150 mg/kg Nickel Concentration: 30 - 45 mg/kg	A8SE (S)	626	5	307649 173447
	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: <150 mg/kg Nickel Concentration: 15 - 30 mg/kg	A17SE (NW)	630	5	307000 174747
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic Concentration: 15 - 25 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <150 mg/kg Nickel Concentration: 30 - 45 mg/kg	A14SE (E)	639	5	308178 174031
	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: <150 mg/kg Nickel Concentration: 30 - 45 mg/kg	A9NW (SE)	646	5	308000 173669
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic Concentration: 15 - 25 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <150 mg/kg Nickel Concentration: 30 - 45 mg/kg	A14SE (E)	648	5	308180 174000
	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: <150 mg/kg Nickel Concentration: 15 - 30 mg/kg	A18NE (N)	651	5	307456 174854

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic Concentration: <15 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <150 mg/kg Nickel Concentration: 15 - 30 mg/kg	A17SE (NW)	655	5	307000 174776
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic Concentration: 15 - 25 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <150 mg/kg Nickel Concentration: 30 - 45 mg/kg	A14SE (E)	674	5	308216 174040
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic Concentration: 15 - 25 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <150 mg/kg Nickel Concentration: 30 - 45 mg/kg	A14SE (E)	679	5	308211 174000
	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: <150 mg/kg Nickel Concentration: 15 - 30 mg/kg	A12SW (W)	680	5	306562 174000
	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: <150 mg/kg Nickel Concentration: 15 - 30 mg/kg	A17SE (NW)	681	5	306966 174786
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic Concentration: 15 - 25 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: 150 - 300 mg/kg Nickel Concentration: 15 - 30 mg/kg	A19SE (NE)	683	5	308084 174632

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic Concentration: <15 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <150 mg/kg Nickel Concentration: 15 - 30 mg/kg	A17NE (NW)	683	5	307000 174809
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic Concentration: 15 - 25 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <150 mg/kg Nickel Concentration: 15 - 30 mg/kg	A7SE (SW)	690	5	307002 173437
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic Concentration: 15 - 25 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <150 mg/kg Nickel Concentration: 15 - 30 mg/kg	A7SE (SW)	691	5	307000 173437
	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: <150 mg/kg Nickel Concentration: 30 - 45 mg/kg	A14SE (E)	695	5	308196 173903
	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: <150 mg/kg Nickel Concentration: 15 - 30 mg/kg	A18NW (N)	705	5	307107 174880
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic Concentration: 15 - 25 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <150 mg/kg Nickel Concentration: 15 - 30 mg/kg	A9NW (SE)	724	5	307962 173516

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic Concentration: <15 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <150 mg/kg Nickel Concentration: 15 - 30 mg/kg	A14SE (E)	738	5	308218 173845
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic Concentration: 15 - 25 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <150 mg/kg Nickel Concentration: 15 - 30 mg/kg	A9NW (SE)	741	5	308000 173528
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic Concentration: 15 - 25 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <150 mg/kg Nickel Concentration: 30 - 45 mg/kg	A7SE (SW)	744	5	307000 173380
	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: <150 mg/kg Nickel Concentration: 15 - 30 mg/kg	A17SE (NW)	745	5	306760 174694
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic Concentration: 15 - 25 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <150 mg/kg Nickel Concentration: 30 - 45 mg/kg	A14SE (E)	750	5	308242 173869
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic Concentration: 15 - 25 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <150 mg/kg Nickel Concentration: 15 - 30 mg/kg	A12SW (W)	753	5	306540 173809

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic Concentration: <15 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <150 mg/kg Nickel Concentration: 15 - 30 mg/kg	A18NW (N)	758	5	307232 174964
	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: <150 mg/kg Nickel Concentration: 15 - 30 mg/kg	A12SW (W)	761	5	306473 174104
	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: <150 mg/kg Nickel Concentration: 15 - 30 mg/kg	A17SE (NW)	767	5	306722 174684
	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: <150 mg/kg Nickel Concentration: 15 - 30 mg/kg	A12SW (W)	778	5	306457 174069
	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: <150 mg/kg Nickel Concentration: 15 - 30 mg/kg	A18NW (N)	785	5	307280 174996
	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: <150 mg/kg Nickel Concentration: 15 - 30 mg/kg	A17NE (NW)	787	5	307000 174925

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic Concentration: <15 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <150 mg/kg Nickel Concentration: 15 - 30 mg/kg	A18NE (N)	787	5	307400 175000
	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: <150 mg/kg Nickel Concentration: 15 - 30 mg/kg	A18NW (N)	788	5	307286 175000
	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: <150 mg/kg Nickel Concentration: 15 - 30 mg/kg	A18NW (N)	789	5	307280 175000
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic Concentration: 15 - 25 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: 150 - 300 mg/kg Nickel Concentration: 15 - 30 mg/kg	A18NE (N)	791	5	307568 175000
	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: <150 mg/kg Nickel Concentration: 15 - 30 mg/kg	A18NW (N)	794	5	307228 175000
	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: <150 mg/kg Nickel Concentration: 15 - 30 mg/kg	A18NW (N)	796	5	307300 175009

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic Concentration: <15 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <150 mg/kg Nickel Concentration: 15 - 30 mg/kg	A14NE (E)	799	5	308339 174319
	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: <150 mg/kg Nickel Concentration: 15 - 30 mg/kg	A19NW (NE)	813	5	307962 174908
	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: <150 mg/kg Nickel Concentration: 15 - 30 mg/kg	A19NW (N)	814	5	307742 175000
	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: <150 mg/kg Nickel Concentration: 15 - 30 mg/kg	A19SE (NE)	815	5	308155 174752
	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: <150 mg/kg Nickel Concentration: 15 - 30 mg/kg	A19NW (NE)	816	5	308000 174889
	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: <150 mg/kg Nickel Concentration: 15 - 30 mg/kg	A12NW (W)	816	5	306422 174188

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic Concentration: 15 - 25 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: 150 - 300 mg/kg Nickel Concentration: 15 - 30 mg/kg	A19NW (NE)	817	5	308006 174885
	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: <150 mg/kg Nickel Concentration: 30 - 45 mg/kg	A7SE (SW)	830	5	307000 173290
	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: <150 mg/kg Nickel Concentration: 15 - 30 mg/kg	A19SE (NE)	834	5	308153 174782
	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: <150 mg/kg Nickel Concentration: 15 - 30 mg/kg	A19NE (NE)	836	5	308089 174846
	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: <150 mg/kg Nickel Concentration: 15 - 30 mg/kg	A19NW (NE)	840	5	307982 174928
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic Concentration: 15 - 25 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: 150 - 300 mg/kg Nickel Concentration: 15 - 30 mg/kg	A19NW (NE)	840	5	307998 174918

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic Concentration: 15 - 25 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: 150 - 300 mg/kg Nickel Concentration: 15 - 30 mg/kg	A19NW (NE)	840	5	308000 174917
	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: <150 mg/kg Nickel Concentration: 15 - 30 mg/kg	A17SW (NW)	851	5	306606 174679
	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: <150 mg/kg Nickel Concentration: 15 - 30 mg/kg	A17NE (NW)	855	5	307000 175000
	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: <150 mg/kg Nickel Concentration: 15 - 30 mg/kg	A19NE (NE)	859	5	308090 174875
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic Concentration: 35 - 45 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 40 - 60 mg/kg Lead Concentration: <150 mg/kg Nickel Concentration: 15 - 30 mg/kg	A18NW (N)	866	5	307387 175078
	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: <150 mg/kg Nickel Concentration: 15 - 30 mg/kg	A19NW (NE)	870	5	307910 175000

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic Concentration: 15 - 25 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: 150 - 300 mg/kg Nickel Concentration: 15 - 30 mg/kg	A19NW (NE)	888	5	307910 175020
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic Concentration: 15 - 25 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <150 mg/kg Nickel Concentration: 30 - 45 mg/kg	A15SW (E)	905	5	308443 174000
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic Concentration: 15 - 25 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: 150 - 300 mg/kg Nickel Concentration: 15 - 30 mg/kg	A19NW (NE)	911	5	308000 175000
	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: <150 mg/kg Nickel Concentration: 15 - 30 mg/kg	A9NE (SE)	912	5	308349 173721
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic Concentration: 15 - 25 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <150 mg/kg Nickel Concentration: 30 - 45 mg/kg	A15SW (E)	917	5	308463 174045
	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: <150 mg/kg Nickel Concentration: 15 - 30 mg/kg	A17SW (NW)	917	5	306565 174732

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic Concentration: 15 - 25 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: 150 - 300 mg/kg Nickel Concentration: 15 - 30 mg/kg	A19SE (NE)	920	5	308290 174752
	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: <150 mg/kg Nickel Concentration: 15 - 30 mg/kg	A19NE (NE)	926	5	308156 174907
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic Concentration: 15 - 25 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <150 mg/kg Nickel Concentration: 30 - 45 mg/kg	A7SE (SW)	933	5	306865 173230
	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: <150 mg/kg Nickel Concentration: 15 - 30 mg/kg	A19NW (NE)	941	5	308057 175000
	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: <150 mg/kg Nickel Concentration: 15 - 30 mg/kg	A23SE (N)	944	5	307464 175150
	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: <150 mg/kg Nickel Concentration: 15 - 30 mg/kg	A23SE (N)	944	5	307464 175150

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic Concentration: 15 - 25 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 40 - 60 mg/kg Lead Concentration: <150 mg/kg Nickel Concentration: 30 - 45 mg/kg	A7SE (S)	944	5	307000 173171
	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: <150 mg/kg Nickel Concentration: 15 - 30 mg/kg	A11SE (W)	945	5	306291 174061
	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: <150 mg/kg Nickel Concentration: 15 - 30 mg/kg	A17NE (N)	953	5	307000 175105
	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: <150 mg/kg Nickel Concentration: 15 - 30 mg/kg	A19NE (NE)	978	5	308158 174973
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic Concentration: 15 - 25 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <150 mg/kg Nickel Concentration: 30 - 45 mg/kg	A15SW (E)	979	5	308518 174000
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic Concentration: 15 - 25 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <150 mg/kg Nickel Concentration: 15 - 30 mg/kg	A11SE (W)	981	5	306259 174000

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic Concentration: 15 - 25 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <150 mg/kg Nickel Concentration: 30 - 45 mg/kg	A15SW (E)	993	5	308490 173836
	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: <150 mg/kg Nickel Concentration: 15 - 30 mg/kg	A22SE (N)	994	5	307000 175149
	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: <150 mg/kg Nickel Concentration: 15 - 30 mg/kg	A19NE (NE)	994	5	308070 175056
	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: <150 mg/kg Nickel Concentration: 15 - 30 mg/kg	A23SE (N)	995	5	307520 175204
	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: <150 mg/kg Nickel Concentration: 15 - 30 mg/kg	A19NE (NE)	999	5	308157 175000
	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: <150 mg/kg Nickel Concentration: 15 - 30 mg/kg	A19NW (NE)	1000	5	307912 175140

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
18	**BGS Recorded Mineral Sites** Site Name: Redland Wood Location: , Bonvilston, Cowbridge, South Glamorgan Source: British Geological Survey, National Geoscience Information Service Reference: 161154 Type: Opencast **Status: Ceased** Operator: Unknown Operator Operator Location: Unknown Operator Periodic Type: Carboniferous Geology: Gully Oolite Formation Commodity: Limestone Positional Accuracy: Located by supplier to within 10m	A8NE (S)	317	5	307459 173727
19	**BGS Recorded Mineral Sites** Site Name: Langdon Wood Location: , Bonvilston, Cowbridge, South Glamorgan Source: British Geological Survey, National Geoscience Information Service Reference: 161164 Type: Opencast **Status: Ceased** Operator: Unknown Operator Operator Location: Unknown Operator Periodic Type: Triassic Geology: St Mary'S Well Bay Member Commodity: Limestone Positional Accuracy: Located by supplier to within 10m	A7NE (SW)	540	5	306820 173746
20	**BGS Recorded Mineral Sites** Site Name: Langdon Wood Location: , Bonvilston, Cowbridge, South Glamorgan Source: British Geological Survey, National Geoscience Information Service Reference: 161153 Type: Opencast **Status: Ceased** Operator: Unknown Operator Operator Location: Unknown Operator Periodic Type: Triassic Geology: St Mary'S Well Bay Member Commodity: Limestone Positional Accuracy: Located by supplier to within 10m	A7NE (SW)	628	5	306800 173637
21	**BGS Recorded Mineral Sites** Site Name: Redland Location: , St.Nicholas, Cardiff, Glamorgan Source: British Geological Survey, National Geoscience Information Service Reference: 127933 Type: Underground **Status: Ceased** Operator: Unknown Operator Operator Location: Unknown Operator Periodic Type: Not Available Geology: ! Commodity: Vein Minerals Positional Accuracy: Located by supplier to within 10m	A9NW (SE)	723	5	307976 173530
22	**BGS Recorded Mineral Sites** Site Name: Coed Yr Aber Location: , Bonvilston, Cowbridge, South Glamorgan Source: British Geological Survey, National Geoscience Information Service Reference: 161155 Type: Opencast **Status: Ceased** Operator: Unknown Operator Operator Location: Unknown Operator Periodic Type: Triassic Geology: St Mary'S Well Bay Member Commodity: Limestone Positional Accuracy: Located by supplier to within 10m	A8SW (S)	767	5	307265 173302
23	**BGS Recorded Mineral Sites** Site Name: Log Wood Location: , St Nicholas, Cardiff, South Glamorgan Source: British Geological Survey, National Geoscience Information Service Reference: 161142 Type: Opencast **Status: Ceased** Operator: Unknown Operator Operator Location: Unknown Operator Periodic Type: Carboniferous Geology: Barry Harbour Limestone Formation Commodity: Limestone Positional Accuracy: Located by supplier to within 10m	A18NE (N)	816	5	307692 175012

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
24	**BGS Recorded Mineral Sites** Site Name: Log Wood Location: , St Nicholas, Cardiff, South Glamorgan Source: British Geological Survey, National Geoscience Information Service Reference: 161141 Type: Opencast **Status: Ceased** Operator: Unknown Operator Operator Location: Unknown Operator Periodic Type: Carboniferous Geology: Castell Coch Limestone Formation Commodity: Limestone Positional Accuracy: Located by supplier to within 10m	A18NW (N)	912	5	307231 175119
	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				
	Man-Made Mining Cavities Easting: 308000 Northing: 173600 Distance: 692 Quadrant Reference: A9 Quadrant Reference: NW Bearing Ref: SE Cavity Type: Not supplied Commodity: Lead Solid Geology Detail: No Details Superficial Geology Detail: No Details	A9NW (SE)	692	6	308000 173600
	Non Coal Mining Areas of Great Britain Risk: Highly Unlikely Source: British Geological Survey, National Geoscience Information Service	A13NE (S)	0	5	307400 174136
	Potential for Collapsible Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13NE (S)	0	5	307400 174136
	Potential for Compressible Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13NE (S)	0	5	307400 174136
	Potential for Ground Dissolution Stability Hazards Hazard Potential: Moderate Source: British Geological Survey, National Geoscience Information Service	A13NE (S)	0	5	307400 174136
	Potential for Ground Dissolution Stability Hazards Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service	A13NW (N)	0	5	307394 174176
	Potential for Ground Dissolution Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13NW (N)	158	5	307353 174377
	Potential for Ground Dissolution Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13SW (SW)	199	5	307203 173869
	Potential for Landslide Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13NE (S)	0	5	307400 174136
	Potential for Running Sand Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13NE (S)	0	5	307400 174136
	Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13NE (S)	0	5	307400 174136
	Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service	A13SW (SW)	199	5	307203 173869

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	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	A13SE (S)	0	5	307400 174075
	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	A13NE (S)	0	5	307400 174136
	Radon Potential - Radon Affected Areas Affected Area: The property is in an intermediate probability radon area, as between 5 and 10% of homes are above the action level Source: British Geological Survey, National Geoscience Information Service	A13SE (S)	0	5	307400 174075
	Radon Potential - Radon Affected Areas Affected Area: The property is in an intermediate probability radon area, as between 3 and 5% of homes are above the action level Source: British Geological Survey, National Geoscience Information Service	A13NE (S)	0	5	307400 174136

Agency & Hydrological	Version	Update Cycle
Contaminated Land Register Entries and Notices		
Rhondda Cynon Taff County Borough Council - Environmental Services	April 2014	Annual Rolling Update
Vale Of Glamorgan County Borough Council - Environmental Health Department	April 2014	Annual Rolling Update
Cardiff Council - Pollution Control Division	September 2014	Annual Rolling Update
Discharge Consents		
Environment Agency - Welsh Region	August 2014	Quarterly
Natural Resources Wales	January 2015	Quarterly
Enforcement and Prohibition Notices		
Environment Agency - Welsh Region	March 2013	As notified
Integrated Pollution Controls		
Environment Agency - Welsh Region	October 2008	Not Applicable
Integrated Pollution Prevention And Control		
Environment Agency - Welsh Region	January 2015	Quarterly
Natural Resources Wales	May 2015	Quarterly
Local Authority Integrated Pollution Prevention And Control		
Cardiff Council - Pollution Control Division	January 2013	Annual Rolling Update
Vale Of Glamorgan County Borough Council - Environmental Health Department	June 2014	Annual Rolling Update
Rhondda Cynon Taff County Borough Council - Public Health and Protection Division	September 2014	Annual Rolling Update
Local Authority Pollution Prevention and Controls		
Cardiff Council - Pollution Control Division	January 2013	Annual Rolling Update
Vale Of Glamorgan County Borough Council - Environmental Health Department	June 2014	Annual Rolling Update
Rhondda Cynon Taff County Borough Council - Public Health and Protection Division	September 2014	Annual Rolling Update
Local Authority Pollution Prevention and Control Enforcements		
Cardiff Council - Pollution Control Division	January 2013	Annual Rolling Update
Vale Of Glamorgan County Borough Council - Environmental Health Department	June 2014	Annual Rolling Update
Rhondda Cynon Taff County Borough Council - Public Health and Protection Division	September 2014	Annual Rolling Update
Nearest Surface Water Feature		
Ordnance Survey	July 2012	Quarterly
Pollution Incidents to Controlled Waters		
Environment Agency - Welsh Region	December 1998	Not Applicable
Prosecutions Relating to Authorised Processes		
Environment Agency - Welsh Region	March 2013	As notified
Natural Resources Wales	March 2013	As notified
Prosecutions Relating to Controlled Waters		
Environment Agency - Welsh Region	March 2013	As notified
Natural Resources Wales	March 2013	As notified
River Quality		
Environment Agency - Head Office	November 2001	Not Applicable
River Quality Biology Sampling Points		
Environment Agency - Head Office	July 2012	Annually
River Quality Chemistry Sampling Points		
Environment Agency - Head Office	July 2012	Annually
Substantiated Pollution Incident Register		
Environment Agency Wales - South East Area	January 2015	Quarterly
Natural Resources Wales	March 2015	Quarterly
Water Abstractions		
Environment Agency - Welsh Region	April 2015	Quarterly
Natural Resources Wales	January 2015	Quarterly
Natural Resources Wales	May 2015	Quarterly
Water Industry Act Referrals		
Environment Agency - Welsh Region	January 2015	Quarterly
Natural Resources Wales	January 2015	Quarterly

Agency & Hydrological	Version	Update Cycle
Groundwater Vulnerability		
Environment Agency - Head Office	April 2015	Not Applicable
Drift Deposits		
Environment Agency - Head Office	January 1999	Not Applicable
Bedrock Aquifer Designations		
British Geological Survey - National Geoscience Information Service	October 2012	As notified
Superficial Aquifer Designations		
British Geological Survey - National Geoscience Information Service	January 2015	As notified
Source Protection Zones		
Environment Agency - Head Office	April 2015	Quarterly
Natural Resources Wales	May 2015	Quarterly
Extreme Flooding from Rivers or Sea without Defences		
Environment Agency - Head Office	May 2015	Quarterly
Flooding from Rivers or Sea without Defences		
Environment Agency - Head Office	May 2015	Quarterly
Areas Benefiting from Flood Defences		
Environment Agency - Head Office	May 2015	Quarterly
Flood Water Storage Areas		
Environment Agency - Head Office	May 2015	Quarterly
Flood Defences		
Environment Agency - Head Office	May 2015	Quarterly
Detailed River Network Lines		
Environment Agency - Head Office	March 2012	Annually
Detailed River Network Offline Drainage		
Environment Agency - Head Office	March 2012	Annually

Waste	Version	Update Cycle
BGS Recorded Landfill Sites		
British Geological Survey - National Geoscience Information Service	June 1996	Not Applicable
Historical Landfill Sites		
Environment Agency Wales - South East Area	February 2015	Quarterly
Integrated Pollution Control Registered Waste Sites		
Environment Agency - Welsh Region	October 2008	Not Applicable
Licensed Waste Management Facilities (Landfill Boundaries)		
Environment Agency Wales - South East Area	August 2014	Quarterly
Licensed Waste Management Facilities (Locations)		
Natural Resources Wales	April 2015	Quarterly
Environment Agency Wales - South East Area	August 2014	Quarterly
Local Authority Landfill Coverage		
Cardiff Council	May 2000	Not Applicable
Rhondda Cynon Taff County Borough Council	May 2000	Not Applicable
Vale Of Glamorgan County Borough Council	May 2000	Not Applicable
Local Authority Recorded Landfill Sites		
Cardiff Council	May 2000	Not Applicable
Rhondda Cynon Taff County Borough Council	May 2000	Not Applicable
Vale Of Glamorgan County Borough Council	May 2000	Not Applicable
Registered Landfill Sites		
Environment Agency Wales - South East Area	March 2003	Not Applicable
Registered Waste Transfer Sites		
Environment Agency Wales - South East Area	March 2003	Not Applicable
Registered Waste Treatment or Disposal Sites		
Environment Agency Wales - South East Area	March 2003	Not Applicable

Hazardous Substances	Version	Update Cycle
Control of Major Accident Hazards Sites (COMAH)		
Health and Safety Executive	January 2015	Bi-Annually
Explosive Sites		
Health and Safety Executive	October 2014	Bi-Annually
Notification of Installations Handling Hazardous Substances (NIHHS)		
Health and Safety Executive	November 2000	Not Applicable
Planning Hazardous Substance Enforcements		
Vale Of Glamorgan County Borough Council - Planning Department	October 2014	Annual Rolling Update
Cardiff Council - Regulatory Services	September 2014	Annual Rolling Update
Rhondda Cynon Taff County Borough Council - Planning Department	September 2014	Annual Rolling Update
Planning Hazardous Substance Consents		
Vale Of Glamorgan County Borough Council - Planning Department	October 2014	Annual Rolling Update
Cardiff Council - Regulatory Services	September 2014	Annual Rolling Update
Rhondda Cynon Taff County Borough Council - Planning Department	September 2014	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	January 2010	Annually
BGS Recorded Mineral Sites British Geological Survey - National Geoscience Information Service	May 2015	Bi-Annually
Coal Mining Affected Areas The Coal Authority - Mining Report Service	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	July 2014	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	May 2015	Quarterly
Fuel Station Entries Catalist Ltd - Experian	May 2015	Quarterly

Sensitive Land Use	Version	Update Cycle
Areas of Adopted Green Belt		
Cardiff Council	May 2015	As notified
Areas of Unadopted Green Belt		
Cardiff Council	May 2015	As notified
Areas of Outstanding Natural Beauty		
Natural Resources Wales	February 2015	Bi-Annually
Environmentally Sensitive Areas		
The National Assembly for Wales - GI Services (Department of Planning & Countryside)	August 2008	Annually
Forest Parks		
Forestry Commission	April 1997	Not Applicable
Local Nature Reserves		
Cardiff Council	April 2015	Bi-Annually
Rhondda Cynon Taff County Borough Council	April 2015	Bi-Annually
Vale Of Glamorgan County Borough Council	April 2015	Bi-Annually
Marine Nature Reserves		
Natural Resources Wales	September 2014	Bi-Annually
National Nature Reserves		
Natural Resources Wales	October 2014	Bi-Annually
Nitrate Sensitive Areas		
Department for Environment, Food and Rural Affairs (DEFRA - formerly FRCA)	February 2012	Not Applicable
Nitrate Vulnerable Zones		
The National Assembly for Wales - GI Services (Department of Planning & Countryside)	October 2005	Annually
Ramsar Sites		
Natural Resources Wales	October 2014	Bi-Annually
Sites of Special Scientific Interest		
Natural Resources Wales	April 2015	Bi-Annually
Special Areas of Conservation		
Natural Resources Wales	March 2014	Bi-Annually
Special Protection Areas		
Natural Resources Wales	April 2015	Bi-Annually

Data Suppliers

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	
Centre for Ecology and Hydrology	
Natural Resources Wales	
Scottish Natural Heritage	
Natural England	
Public Health England	
Ove Arup	
Peter Brett Associates	

Useful Contacts

Contact	Name and Address	Contact Details
2	**Natural Resources Wales** Ty Cambria, 29 Newport Road, Cardiff, CF24 0TP	Telephone: 0300 065 3000 Email: enquiries@naturalresourceswales.gov.uk
3	**Vale Of Glamorgan County Borough Council - Environmental Health Department** Civic Offices, Holton Road, Barry, CF63 4RU	Telephone: 01446 700111 Fax: 01446 745566 Website: www.valeofglamorgan.gov.uk
4	**Environment Agency - National Customer Contact Centre (NCCC)** PO Box 544, Templeborough, Rotherham, S60 1BY	Telephone: 08708 506 506 Email: enquiries@environment-agency.gov.uk
5	**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
6	**Peter Brett Associates** Caversham Bridge House, Waterman Place, Reading, Berkshire, RG1 8DN	Telephone: 0118 950 0761 Fax: 0118 959 7498 Email: reading@pba.co.uk Website: www.pba.co.uk
7	**Vale Of Glamorgan County Borough Council** Civic Offices, Holton Road, Barry, South Glamorgan, CF63 4RU	Telephone: 01446 700111 Fax: 01446 745566 Website: www.valeofglamorgan.gov.uk
-	**Public Health England - Radon Survey, Centre for Radiation, Chemical and Environmental Hazards** Chilton, Didcot, Oxfordshire, OX11 0RQ	Telephone: 01235 822622 Fax: 01235 833891 Email: radon@phe.gov.uk Website: www.ukradon.org
-	**Landmark Information Group Limited** Imperium, Imperial Way, Reading, Berkshire, RG2 0TD	Telephone: 0844 844 9952 Fax: 0844 844 9951 Email: customerservices@landmarkinfo.co.uk Website: www.landmarkinfo.co.uk

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

PARSONS BRINCKERHOFF

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

Geological

- BGS Recorded Mineral Site

Industrial Land Use

- Contemporary Trade Directory Entry
- Fuel Station Entry

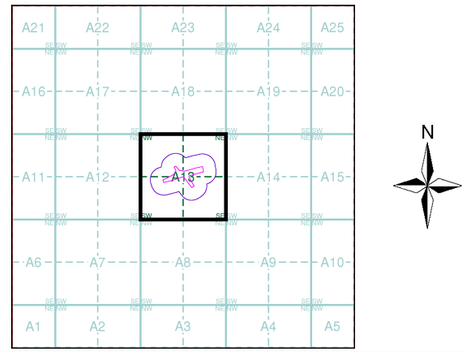
Waste

- BGS Recorded Landfill Site (Location)
- BGS Recorded Landfill Site
- EA Historic Landfill (Buffered Point)
- EA Historic Landfill (Polygon)
- Integrated Pollution Control Registered Waste Site
- Licensed Waste Management Facility (Landfill Boundary)
- Licensed Waste Management Facility (Location)
- Local Authority Recorded Landfill Site (Location)
- Local Authority Recorded Landfill Site
- Registered Landfill Site
- Registered Landfill Site (Location)
- Registered Landfill Site (Point Buffered to 100m)
- Registered Landfill Site (Point Buffered to 250m)
- Registered Waste Transfer Site (Location)
- Registered Waste Transfer Site
- Registered Waste Treatment or Disposal Site (Location)
- Registered Waste Treatment or Disposal Site

Hazardous Substances

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

Site Sensitivity Map - Segment A13



Order Details

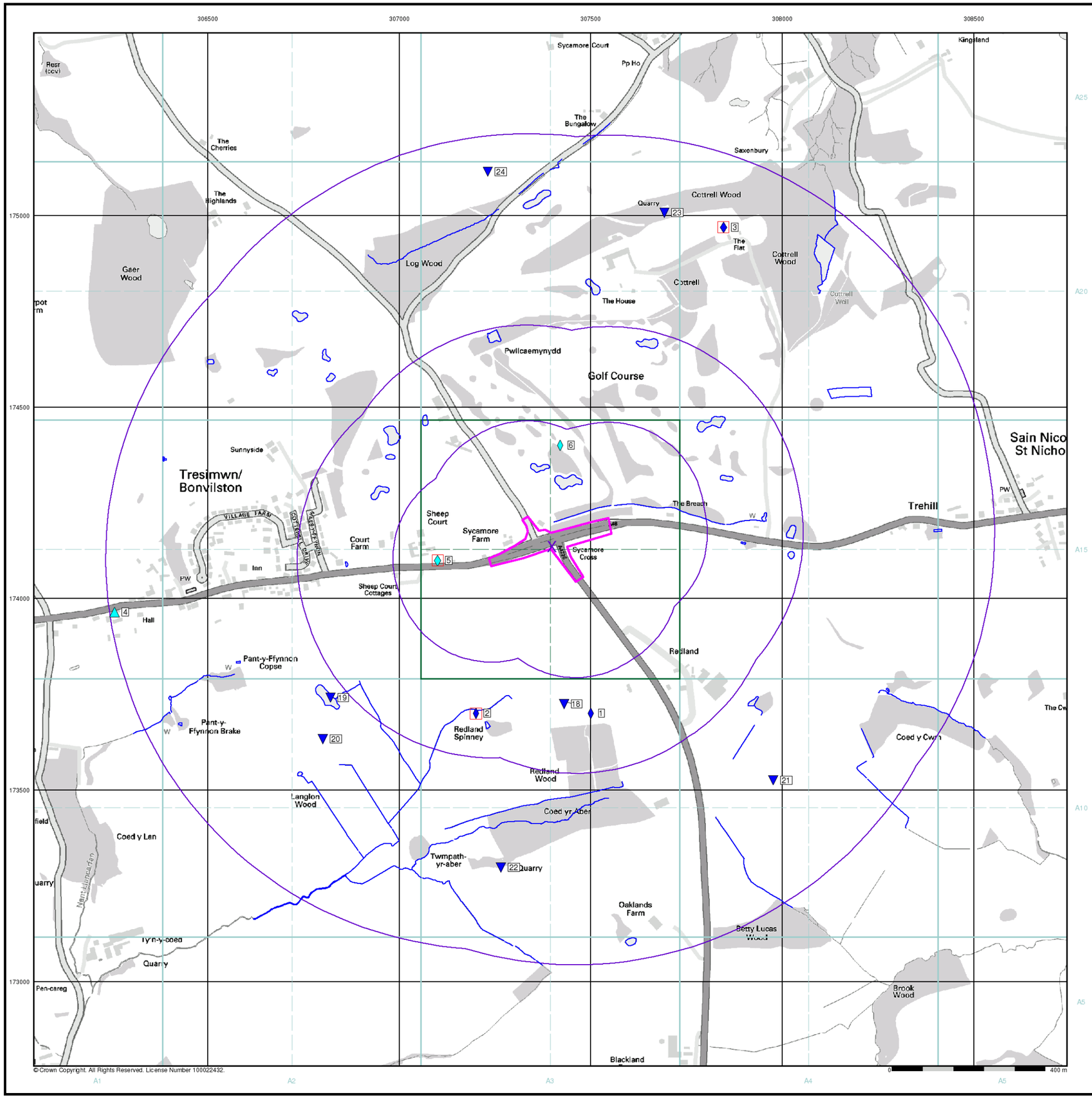
Order Number:	68427202_1_1
Customer Ref:	3512464D-HHC
National Grid Reference:	307400, 174140
Slice:	A
Site Area (Ha):	1.77

Site Details

Site at 307420, 174160

Landmark Information Group

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



PARSONS BRINCKERHOFF

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
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Geological

- BGS Recorded Mineral Site

Industrial Land Use

- Contemporary Trade Directory Entry
- Fuel Station Entry

Waste

- BGS Recorded Landfill Site (Location)
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- EA Historic Landfill (Buffered Point)
- EA Historic Landfill (Polygon)
- Integrated Pollution Control Registered Waste Site
- Licensed Waste Management Facility (Landfill Boundary)
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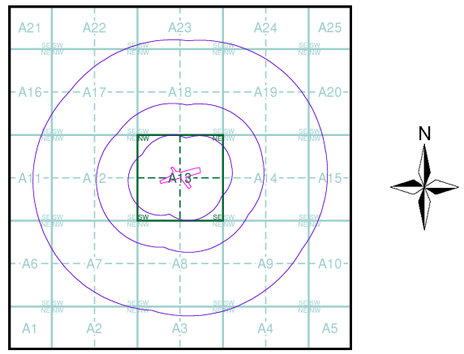
- Registered Landfill Site (Location)
- Registered Landfill Site (Point Buffered to 100m)
- Registered Landfill Site (Point Buffered to 250m)
- Registered Waste Transfer Site (Location)
- Registered Waste Transfer Site
- Registered Waste Treatment or Disposal Site (Location)
- Registered Waste Treatment or Disposal Site

Hazardous Substances

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

Site Sensitivity Map - Slice A



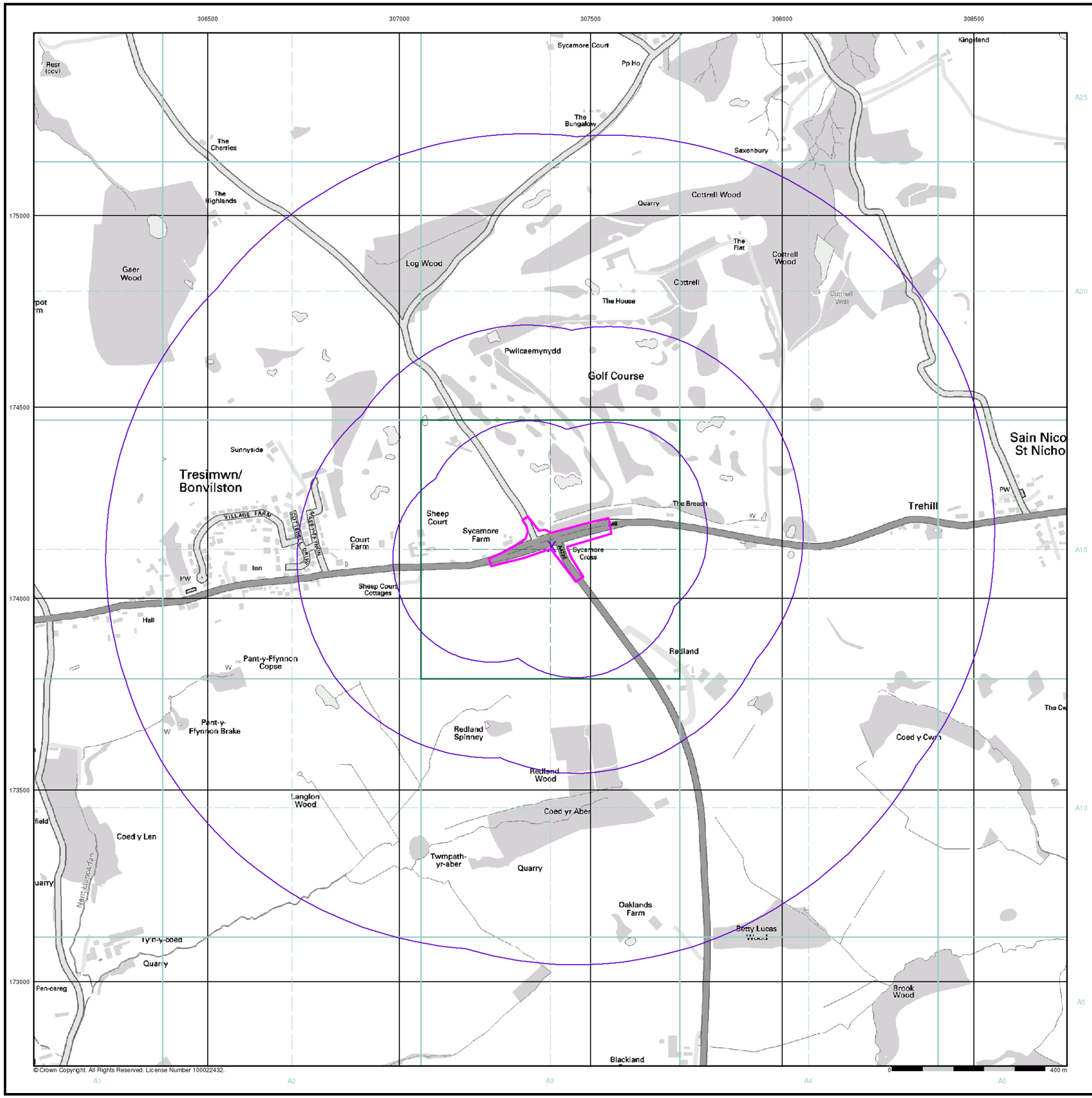
Order Details

Order Number:	68427202_1_1
Customer Ref:	3512464D-HHC
National Grid Reference:	307400, 174140
Slice:	A
Site Area (Ha):	1.77
Search Buffer (m):	1000

Site Details

Site at 307420, 174160

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



PARSONS BRINCKERHOFF

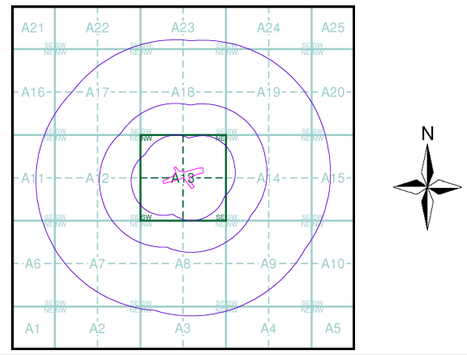
General

- 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:	68427202_1_1
Customer Ref:	3512464D-HHC
National Grid Reference:	307400, 174140
Slice:	A
Site Area (Ha):	1.77
Search Buffer (m):	1000

Site Details

Site at 307420, 174160

Landmark Information Group
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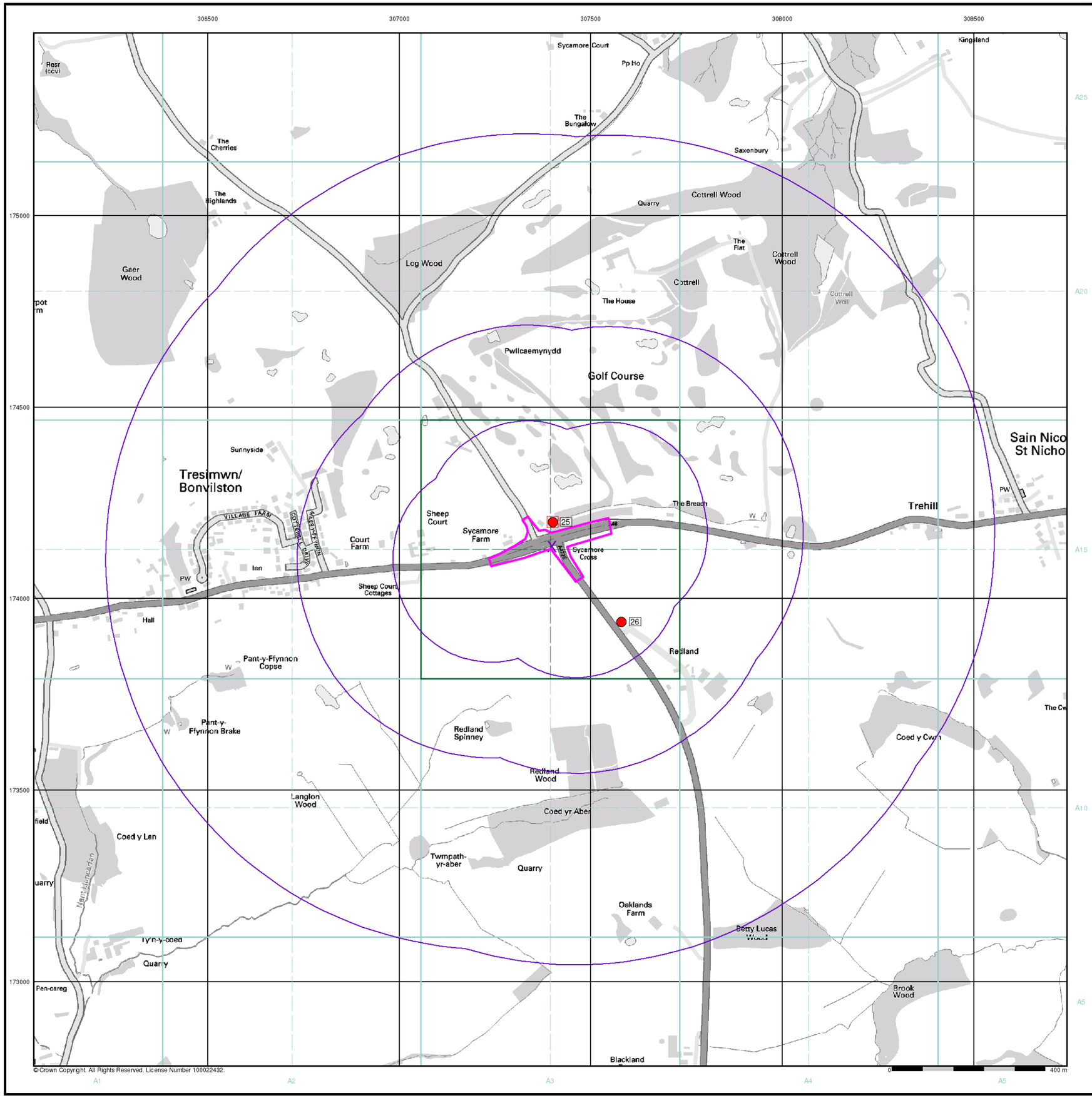


PARSONS BRINCKERHOFF

General

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

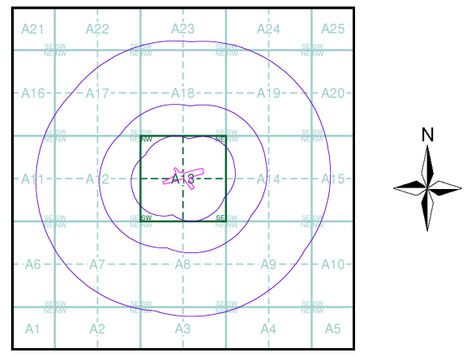
Agency and Hydrological (Boreholes)

- 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:	68427202_1_1
Customer Ref:	3512464D-HHC
National Grid Reference:	307400, 174140
Slice:	A
Site Area (Ha):	1.77
Search Buffer (m):	1000

Site Details

Site at 307420, 174160

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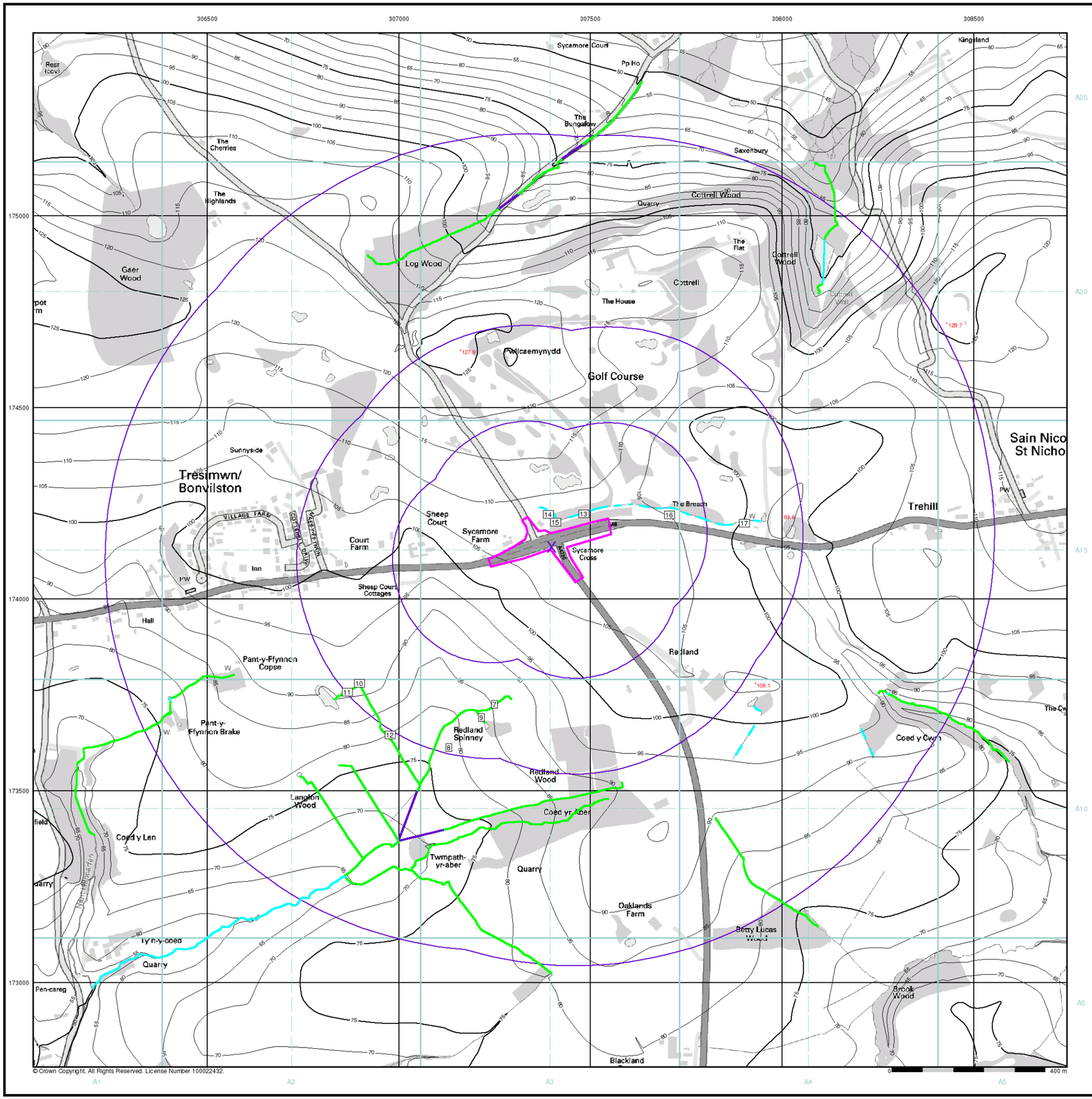


PARSONS BRINCKERHOFF

General

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

Detailed River Network Data

- Primary River
- Secondary River
- Tertiary River
- Canal
- Canal Tunnel
- Undefined River
- Lake/Reservoir
- Offline Drainage Feature
- Extended Culvert (greater than 50m)
- Underground River (inferred)
- Underground River (local knowledge)
- Downstream of High Water Mark
- Downstream of Seaward Extension
- Not assigned River feature

Contours (height in metres)

Standard Contour 105 100 95

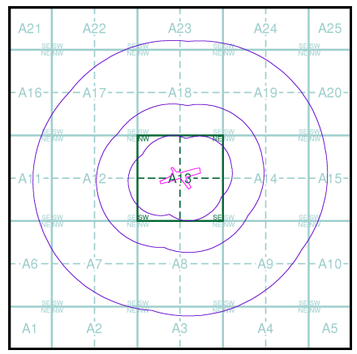
Master Contour

Spot Height *167.3

MLW Mean Low Water

MHW Mean High Water

EA/NRW Detailed River Network Map - Slice A



Order Details

Order Number:	68427202_1_1
Customer Ref:	3512464D-HHC
National Grid Reference:	307400, 174140
Slice:	A
Site Area (Ha):	1.77
Search Buffer (m):	1000

Site Details

Site at 307420, 174160

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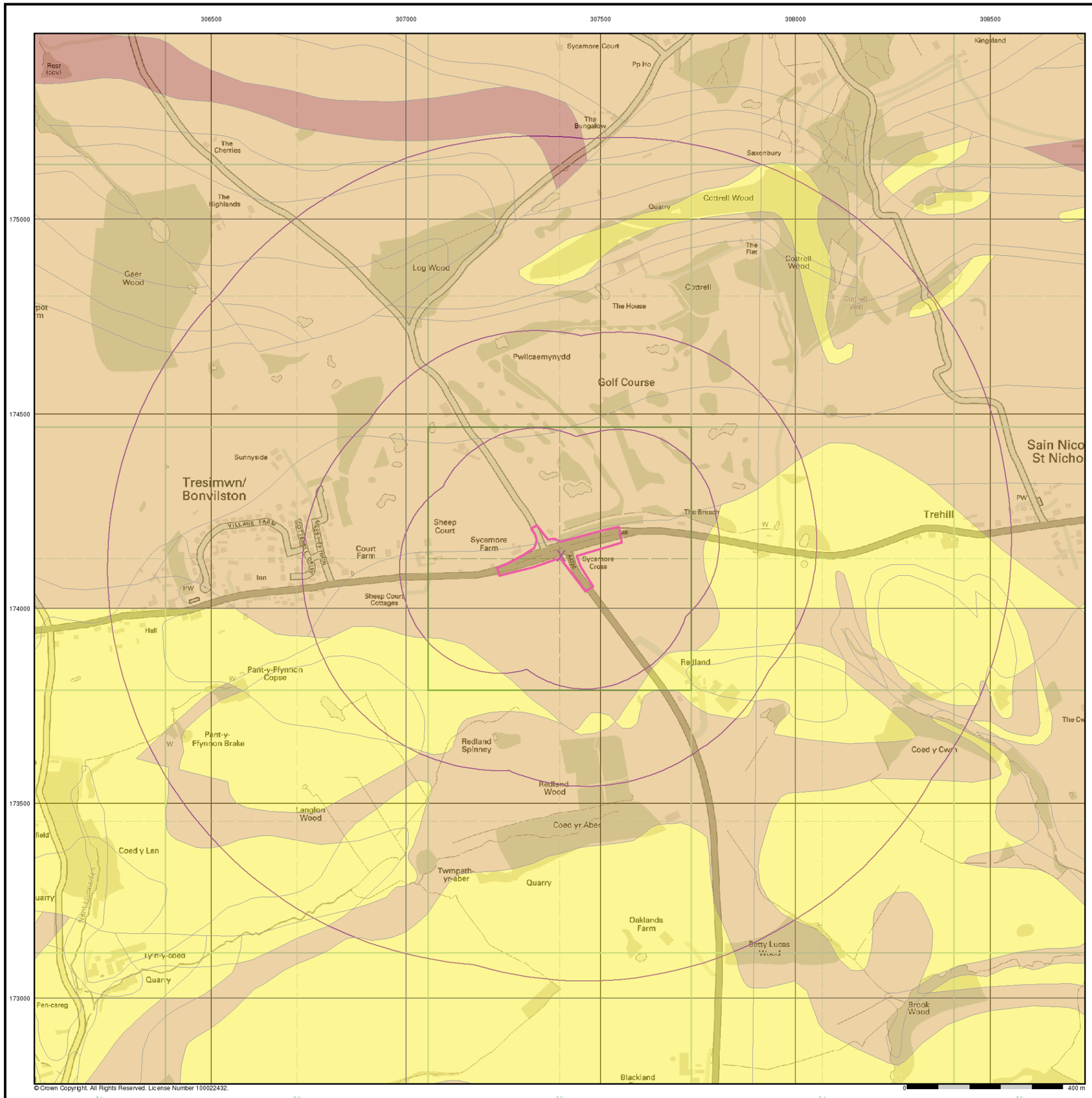


PARSONS BRINCKERHOFF

General

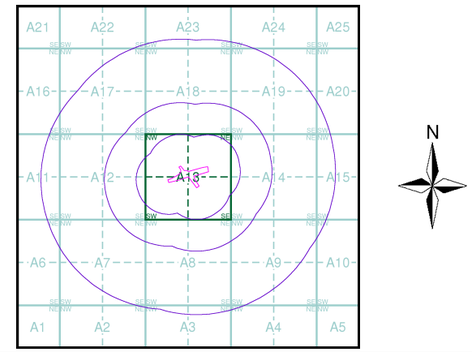
Specified Site | Specified Buffer(s) | X Bearing Reference Point

Estimated Soil Chemistry Arsenic

Arsenic Concentrations mg/kg

- < 15
- 15 - 25
- 25 - 35
- 35 - 45
- 45 - 60
- 60 - 120
- > 120

Estimated Soil Chemistry Arsenic - Slice A



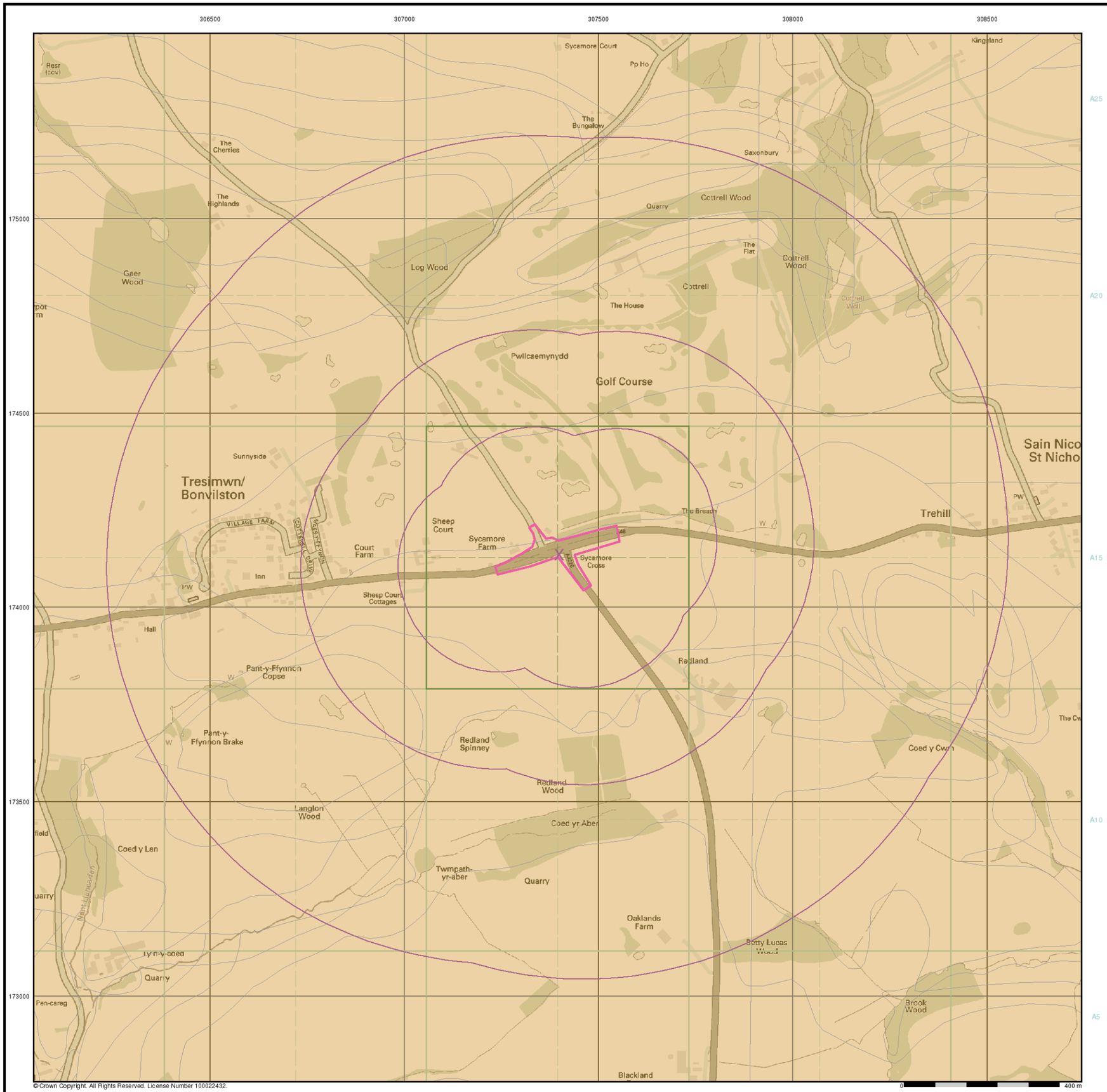
Order Details

Order Details:	68427202_1_1
Customer Ref:	3512464D-HHC
National Grid Reference:	307400, 174140
Slice:	A
Site Area (Ha):	1.77
Search Buffer (m):	1000

Site Details

Site at 307420, 174160

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



PARSONS BRINCKERHOFF

General

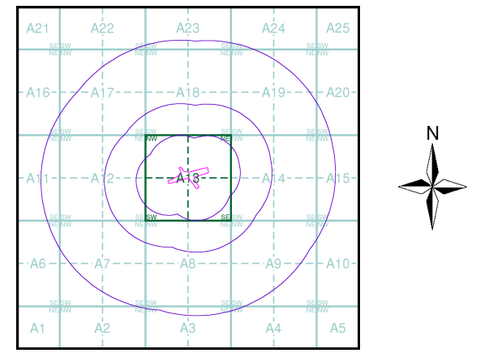
Specified Site | Specified Buffer(s) | X Bearing Reference Point

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

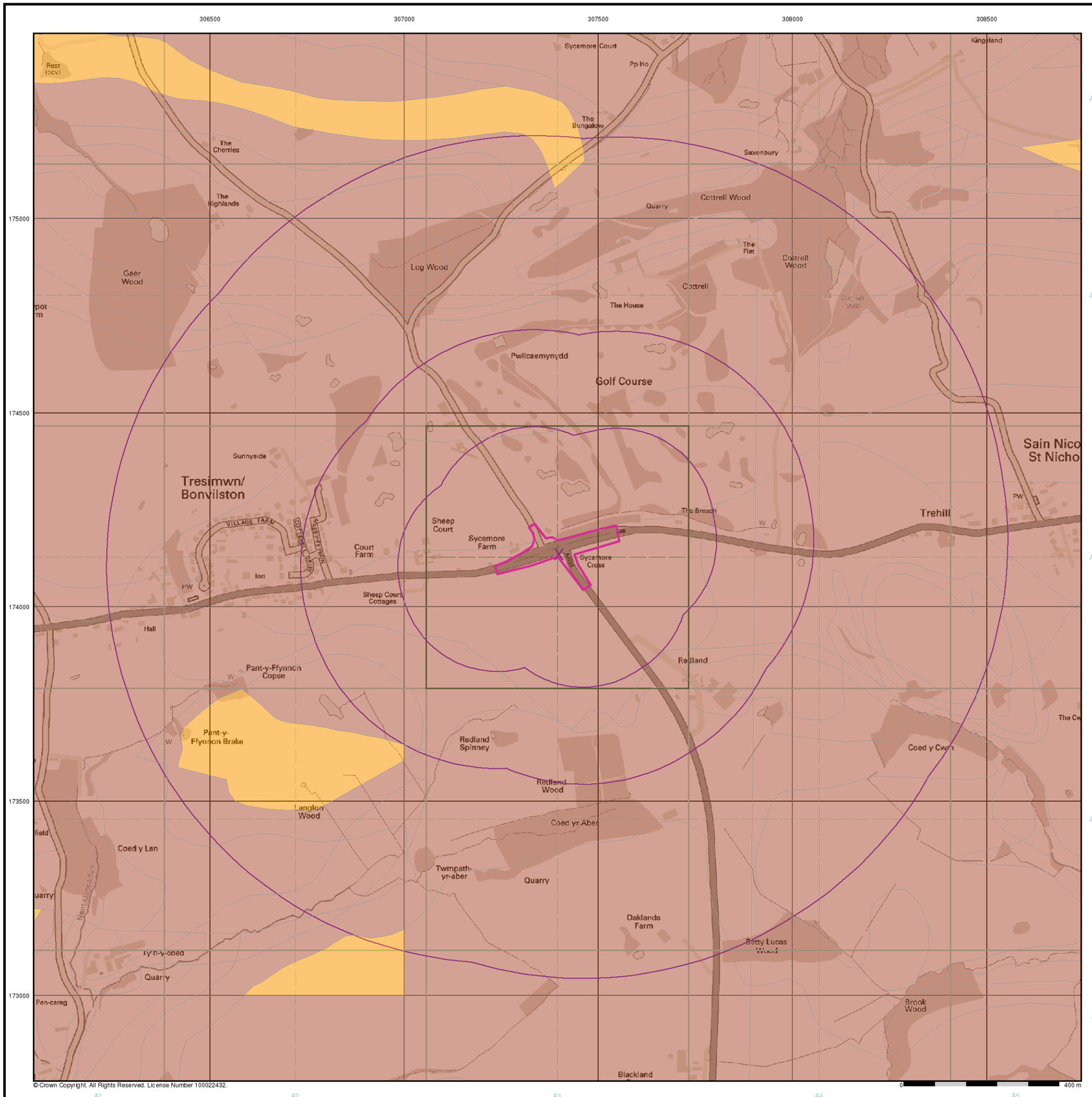
Order Details:	68427202_1_1
Customer Ref:	3512464D-HHC
National Grid Reference:	307400, 174140
Slice:	A
Site Area (Ha):	1.77
Search Buffer (m):	1000

Site Details

Site at 307420, 174160

Landmark Information Group

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



PARSONS BRINCKERHOFF

General

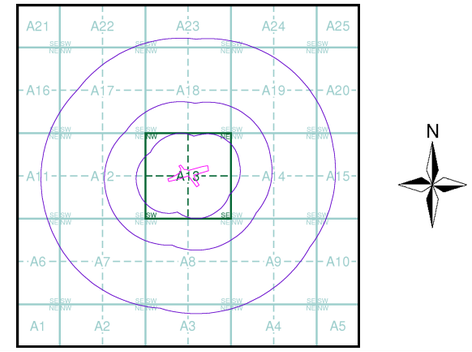
Specified Site | Specified Buffer(s) | X Bearing Reference Point

Estimated Soil Chemistry Chromium

Chromium Concentrations mg/kg

- < 20
- 20 - 40
- 40 - 60
- 60 - 90
- 90 - 120
- 120 - 180
- > 180

Estimated Soil Chemistry Chromium - Slice A



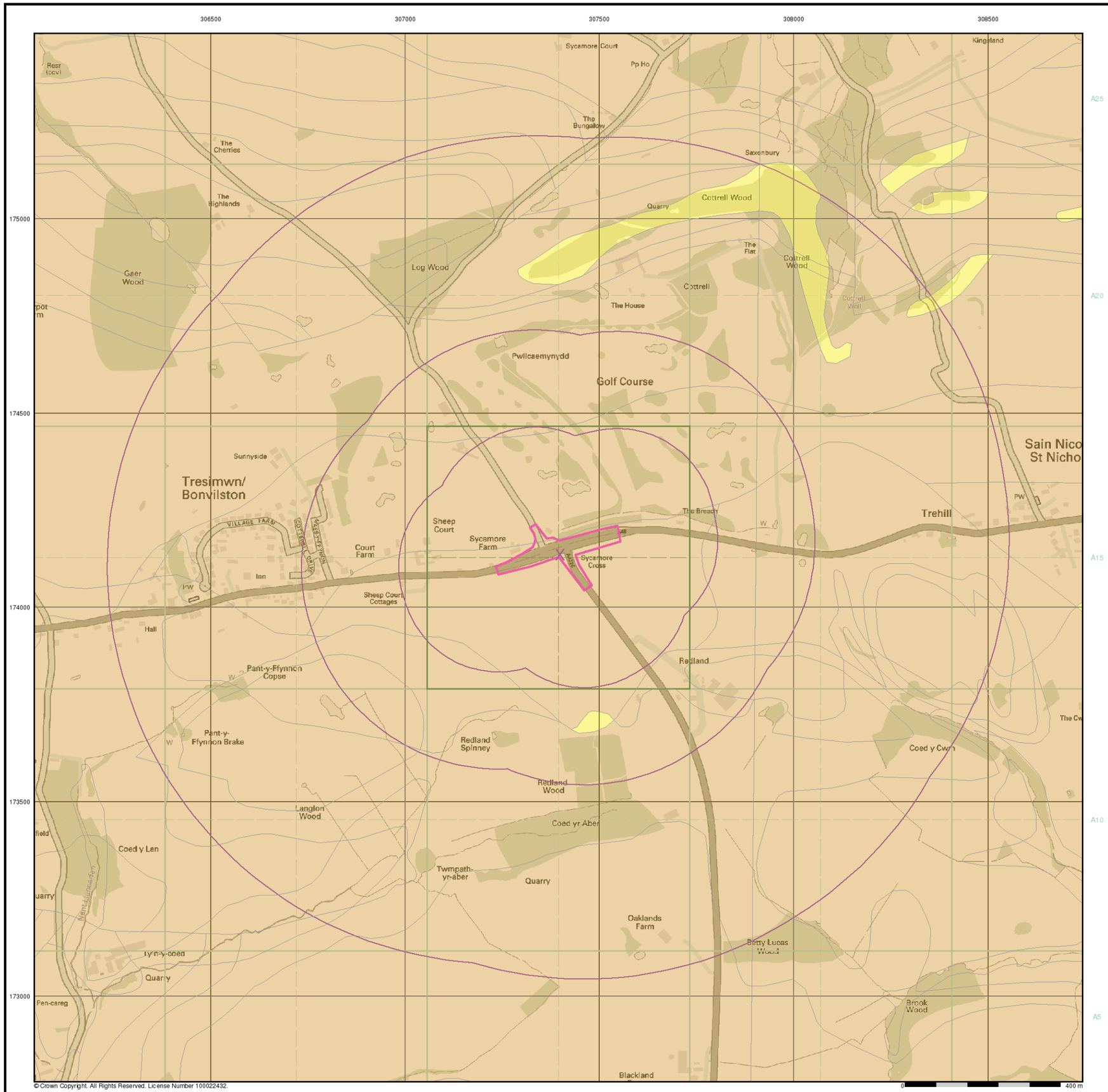
Order Details

Order Details:	68427202_1_1
Customer Ref:	3512464D-HHC
National Grid Reference:	307400, 174140
Slice:	A
Site Area (Ha):	1.77
Search Buffer (m):	1000

Site Details

Site at 307420, 174160

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



PARSONS BRINCKERHOFF

General

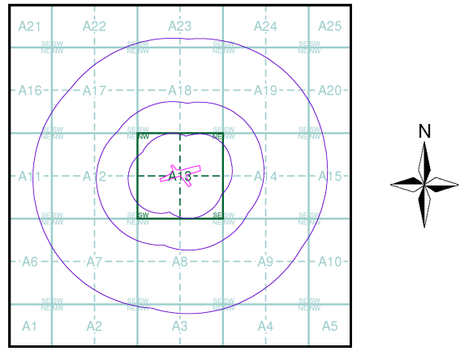
Specified Site | Specified Buffer(s) | X Bearing Reference Point

Estimated Soil Chemistry Lead

Lead Concentrations mg/kg

- < 150
- 150 - 300
- 300 - 600
- 600 - 900
- > 900

Estimated Soil Chemistry Lead - Slice A



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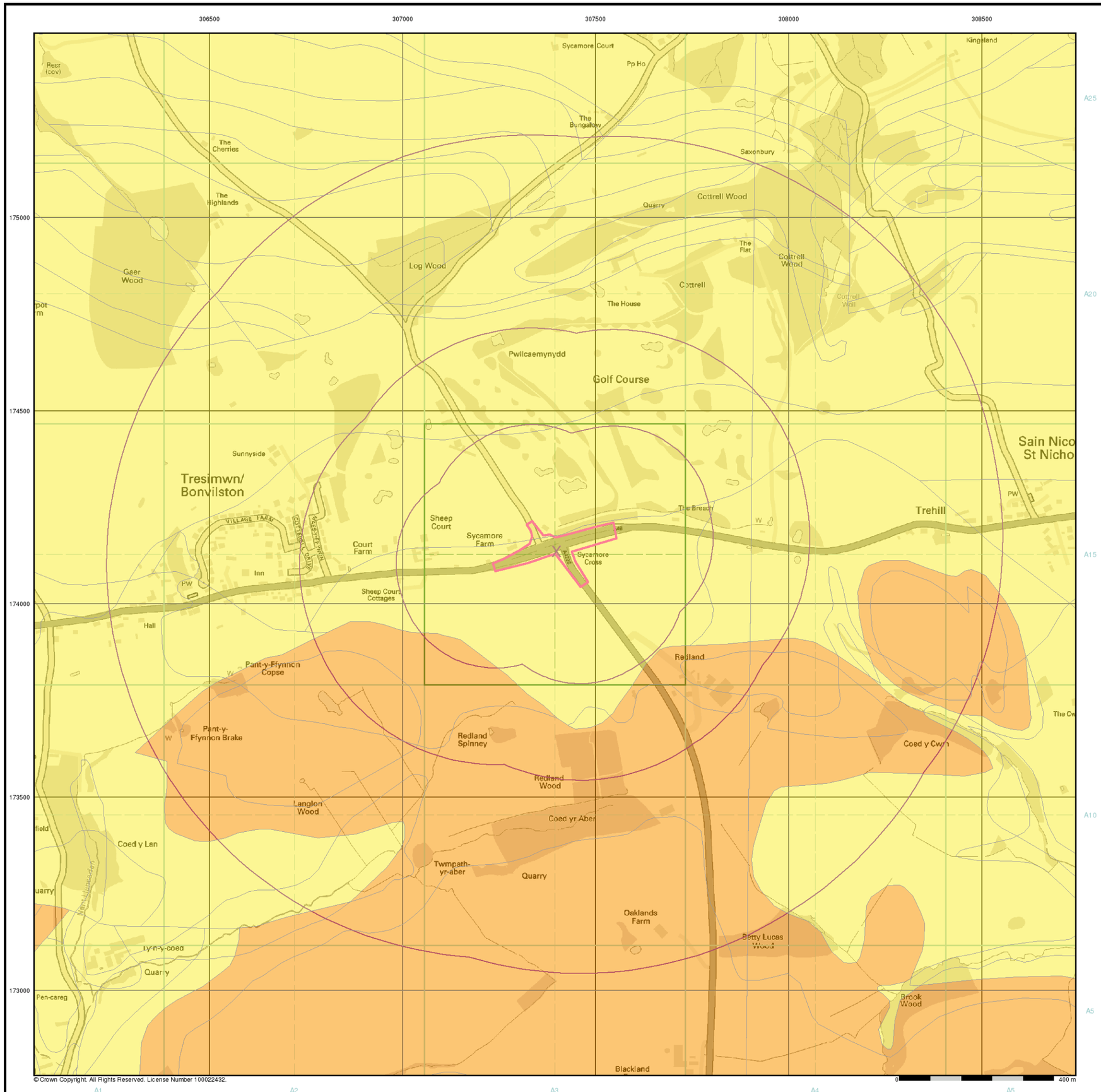


PARSONS BRINCKERHOFF

General

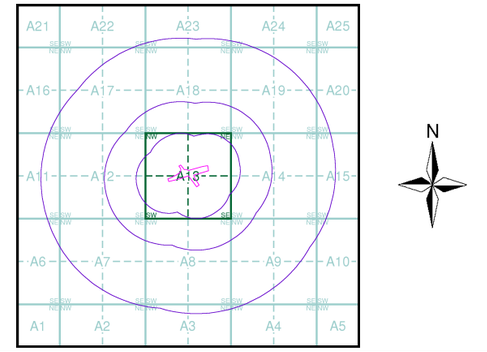
Specified Site | Specified Buffer(s) | X Bearing Reference Point

Estimated Soil Chemistry Nickel

Nickel Concentrations mg/kg

- < 15
- 15 - 30
- 30 - 45
- 45 - 60
- 60 - 80
- 80 - 100
- > 100

Estimated Soil Chemistry Nickel - Slice A



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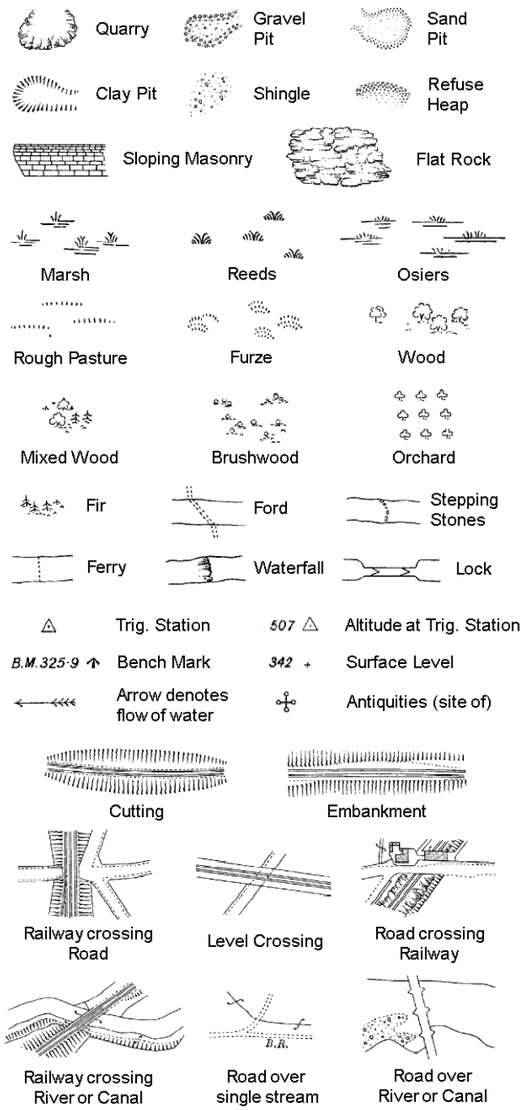
Historical Mapping Legends

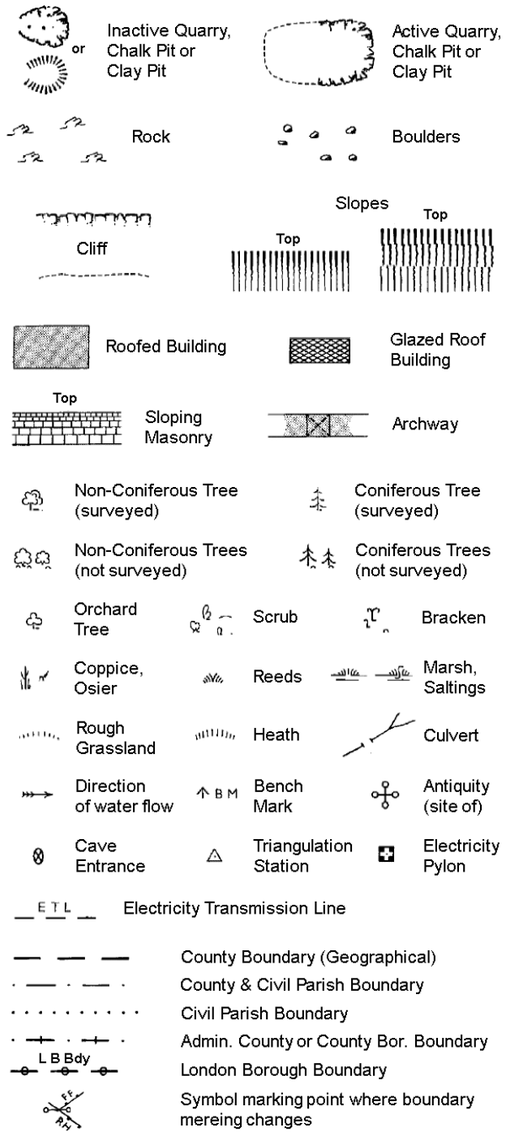
Ordnance Survey County Series and Ordnance Survey Plan 1:2,500



County Boundary (Geographical)
County & Civil Parish Boundary
Administrative County & Civil Parish Boundary
Co. Boro. Bdy.
County Borough Boundary (England)
Co. Burgh Bdy.
County Burgh Boundary (Scotland)

B P B S	Boundary Post or Stone	P.C.B	Police Call Box
B.R.	Bridle Road	P	Pump
E.P	Electricity Pylon	S.P	Signal Post
F.B.	Foot Bridge	St.	Sluice
F.P.	Foot Path	Sp.	Spring
G.P	Guide Post or Board	T.C.B	Telephone Call Box
M.S	Mile Stone	Tr.	Trough
M.P M.R	Mooring Post or Ring	W	Well

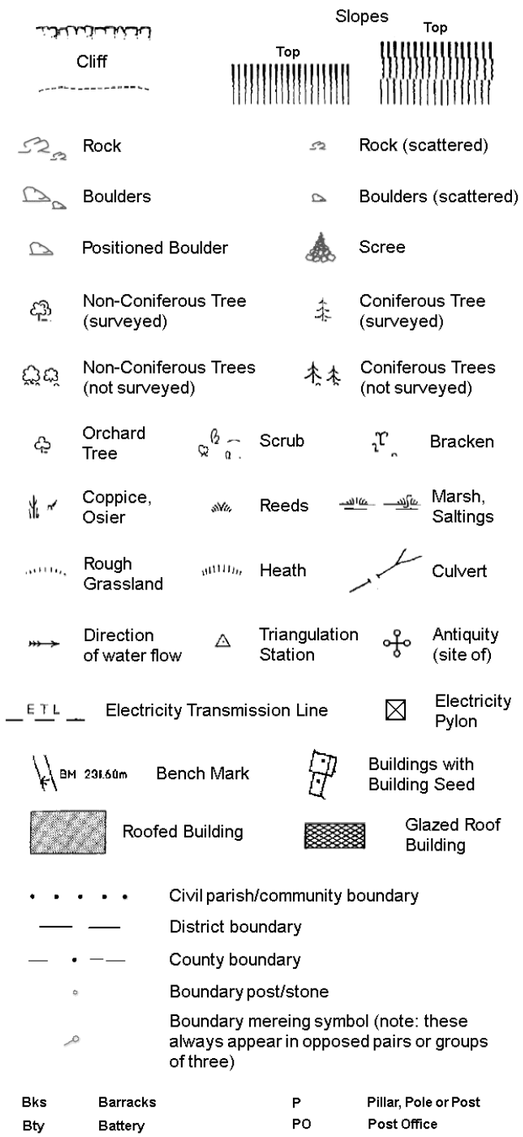
Ordnance Survey Plan, Additional SIMs and Supply of Unpublished Survey Information 1:2,500 and 1:1,250



County Boundary (Geographical)
County & Civil Parish Boundary
Civil Parish Boundary
Admin. County or County Bor. Boundary
L B Bdy
London Borough Boundary
Symbol marking point where boundary mereing changes

BH	Beer House	P	Pillar, Pole or Post
BP, BS	Boundary Post or Stone	PO	Post Office
Cn, C	Capstan, Crane	PC	Public Convenience
Chy	Chimney	PH	Public House
D Fn	Drinking Fountain	Pp	Pump
El P	Electricity Pillar or Post	SB, S Br	Signal Box or Bridge
FAP	Fire Alarm Pillar	SP, SL	Signal Post or Light
FB	Foot Bridge	Spr	Spring
GP	Guide Post	Tk	Tank or Track
H	Hydrant or Hydraulic	TCB	Telephone Call Box
LC	Level Crossing	TCP	Telephone Call Post
MH	Manhole	Tr	Trough
MP	Mile Post or Mooring Post	Wr Pt, Wr T	Water Point, Water Tap
MS	Mile Stone	W	Well
NTL	Normal Tidal Limit	Wd Pp	Wind Pump

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



Civil parish/community boundary
District boundary
County boundary
Boundary post/stone
Boundary mereing symbol (note: these always appear in opposed pairs or groups of three)

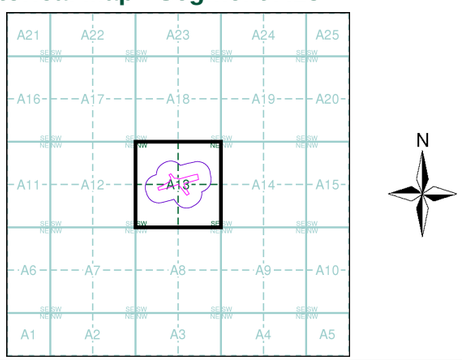
Bks	Barracks	P	Pillar, Pole or Post
Bty	Battery	PO	Post Office
Cemy	Cemetery	PC	Public Convenience
Chy	Chimney	Pp	Pump
Cis	Cistern	Ppg Sta	Pumping Station
Dismtd Rly	Dismantled Railway	PW	Place of Worship
El Gen Sta	Electricity Generating Station	Sewage Ppg Sta	Sewage Pumping Station
El P	Electricity Pole, Pillar	SB, S Br	Signal Box or Bridge
El Sub Sta	Electricity Sub Station	SP, SL	Signal Post or Light
FB	Filter Bed	Spr	Spring
Fn / D Fn	Fountain / Drinking Ftn.	Tk	Tank or Track
Gas Gov	Gas Valve Compound	Tr	Trough
GVC	Gas Governer	Wd Pp	Wind Pump
GP	Guide Post	Wr Pt, Wr T	Water Point, Water Tap
MH	Manhole	Wks	Works (building or area)
MP, MS	Mile Post or Mile Stone	W	Well

PARSONS BRINCKERHOFF

Historical Mapping & Photography included:

Mapping Type	Scale	Date	Pg
Glamorganshire	1:2,500	1878	2
Glamorganshire	1:2,500	1900	3
Glamorganshire	1:2,500	1919	4
Glamorganshire	1:2,500	1940	5
Ordnance Survey Plan	1:2,500	1972	6
Additional SIMs	1:2,500	1977 - 1989	7
Additional SIMs	1:2,500	1986	8
Additional SIMs	1:2,500	1992	9
Large-Scale National Grid Data	1:2,500	1993	10

Historical Map - Segment A13



Order Details

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National Grid Reference:	307400, 174140
Slice:	A
Site Area (Ha):	1.77
Search Buffer (m):	100

Site Details

Site at 307420, 174160

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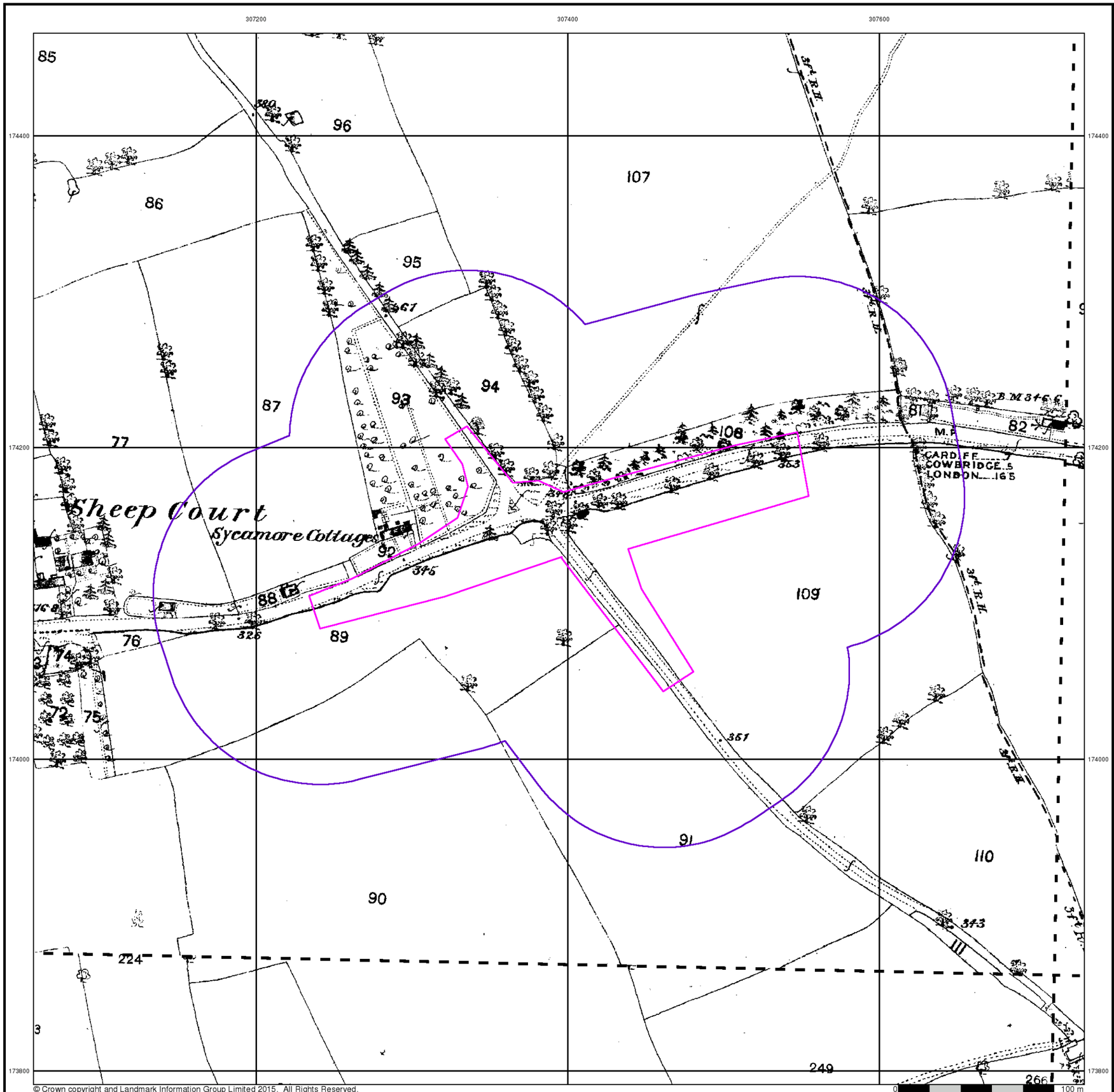


PARSONS BRINCKERHOFF

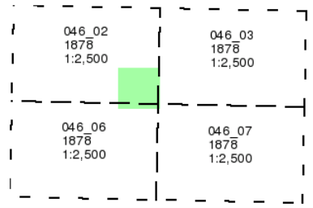
Glamorganshire

Published 1878

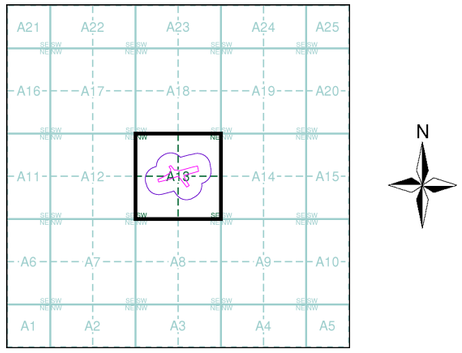
Source map scale - 1:2,500

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

Map Name(s) and Date(s)



Historical Map - Segment A13



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Site Details

Site at 307420, 174160

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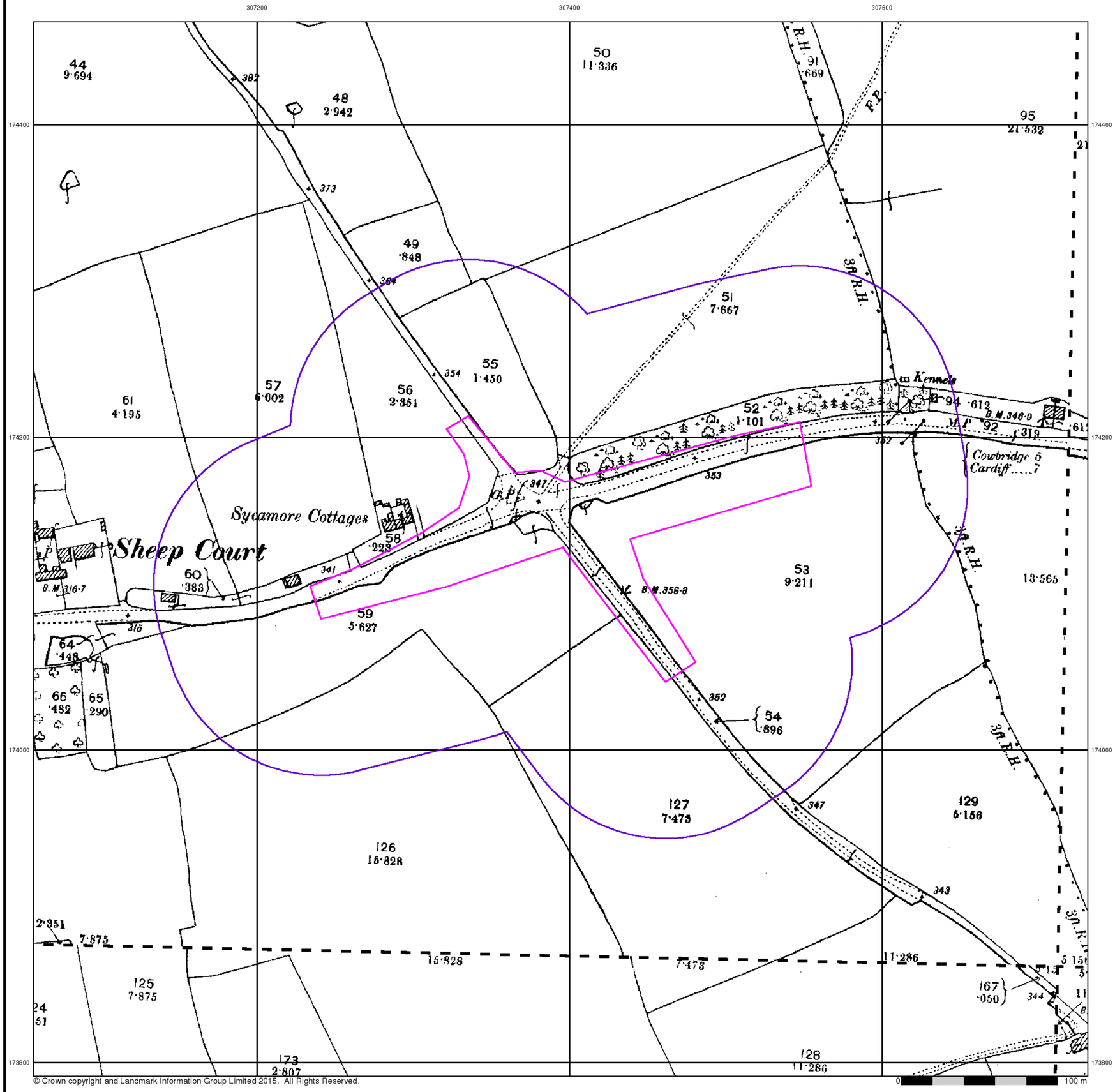

PARSONS BRINCKERHOFF

Glamorganshire

Published 1900

Source map scale - 1:2,500

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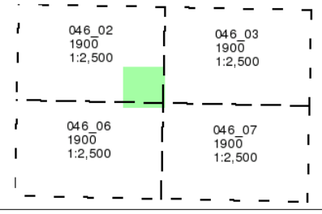
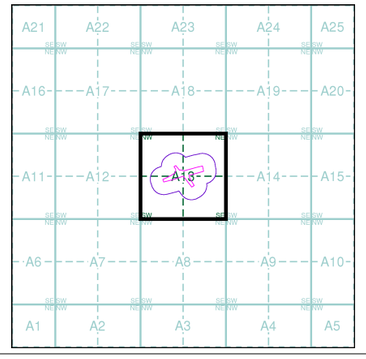
Map Name(s) and Date(s)



Historical Map - Segment A13



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Slice:	A
Site Area (Ha):	1.77
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Site Details

Site at 307420, 174160

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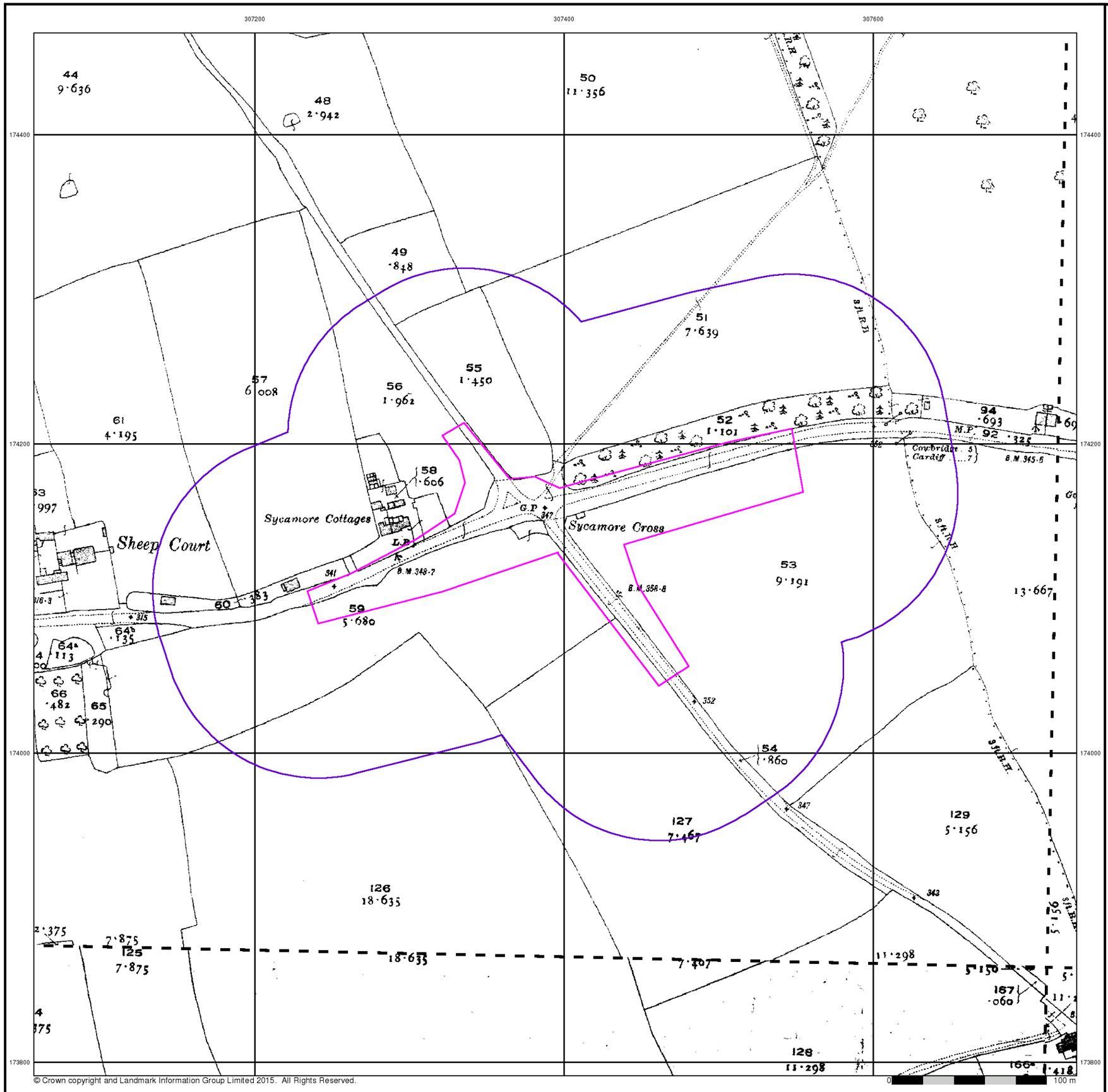


PARSONS BRINCKERHOFF

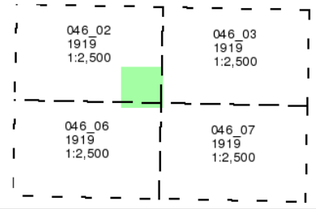
Glamorganshire

Published 1919

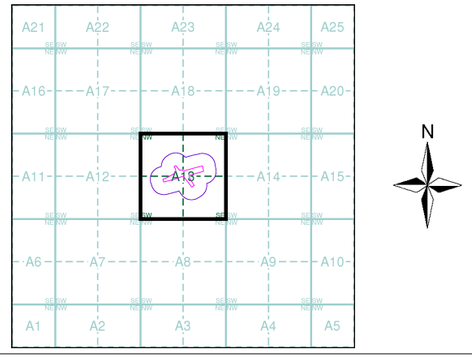
Source map scale - 1:2,500

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

Map Name(s) and Date(s)



Historical Map - Segment A13



Order Details

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Slice:	A
Site Area (Ha):	1.77
Search Buffer (m):	100

Site Details

Site at 307420, 174160

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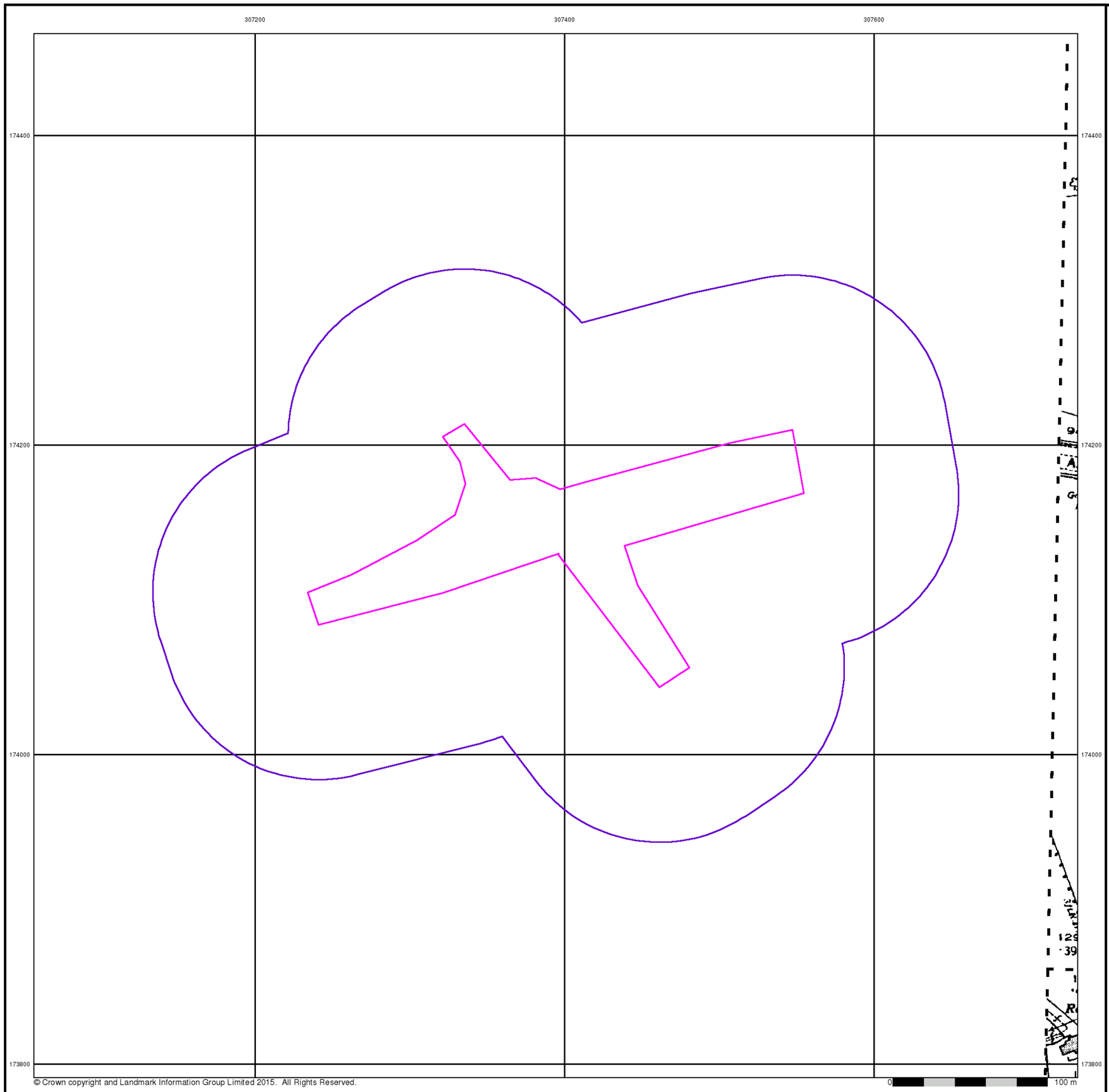


PARSONS BRINCKERHOFF

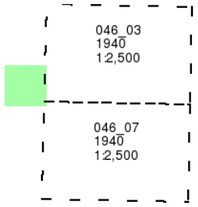
Glamorganshire

Published 1940

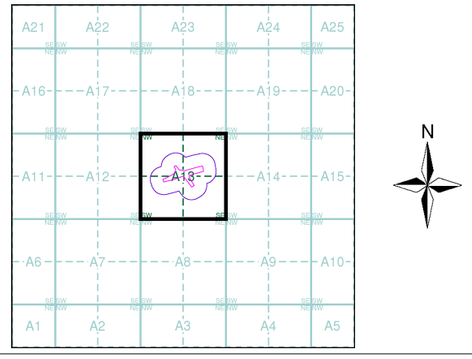
Source map scale - 1:2,500

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

Map Name(s) and Date(s)



Historical Map - Segment A13



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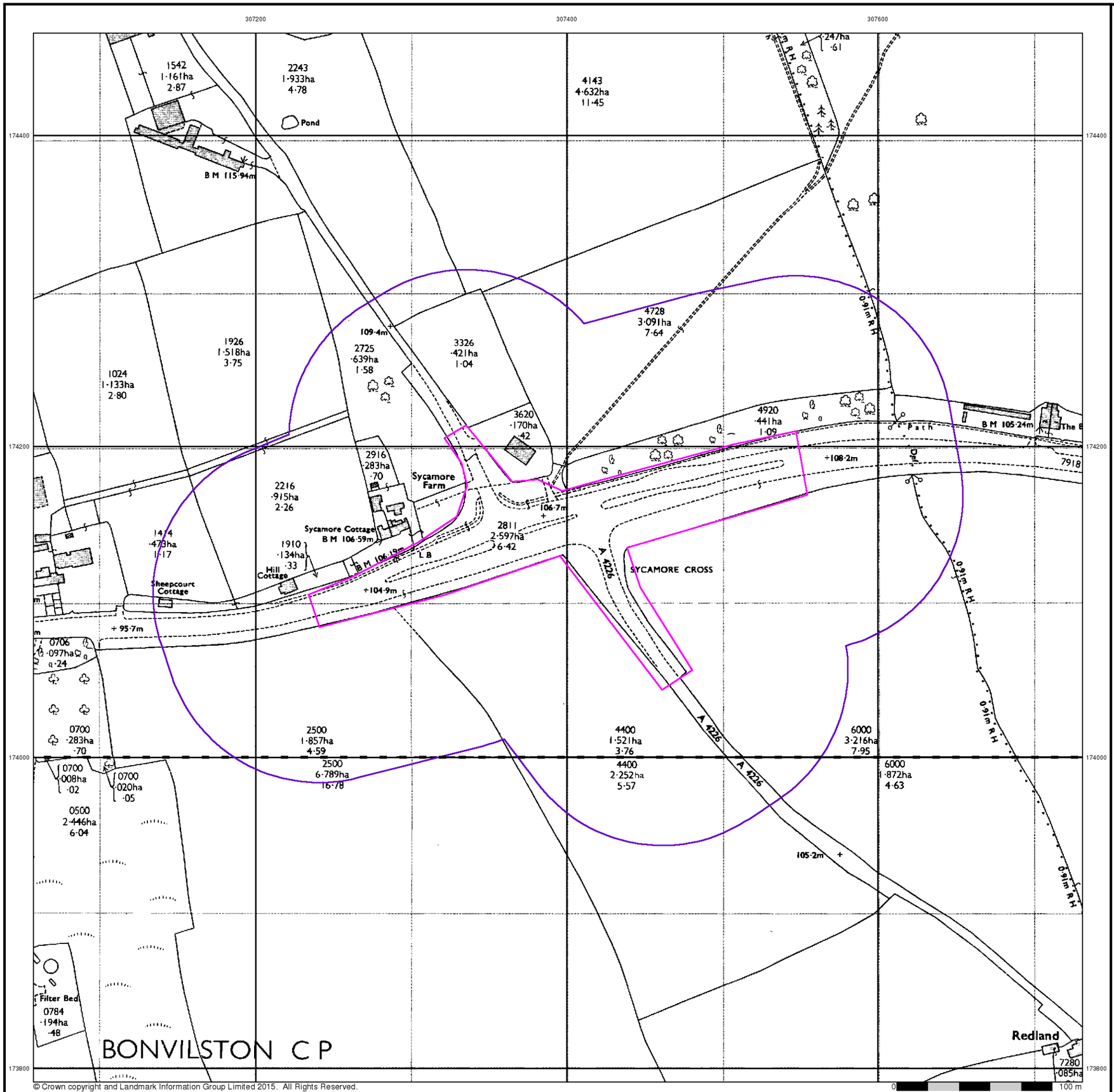

PARSONS BRINCKERHOFF

Ordnance Survey Plan

Published 1972

Source map scale - 1:2,500

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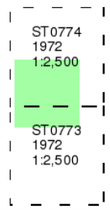
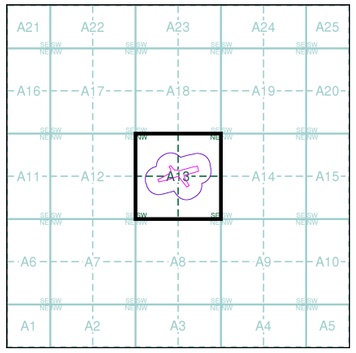


Historical Map - Segment A13



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Site Details

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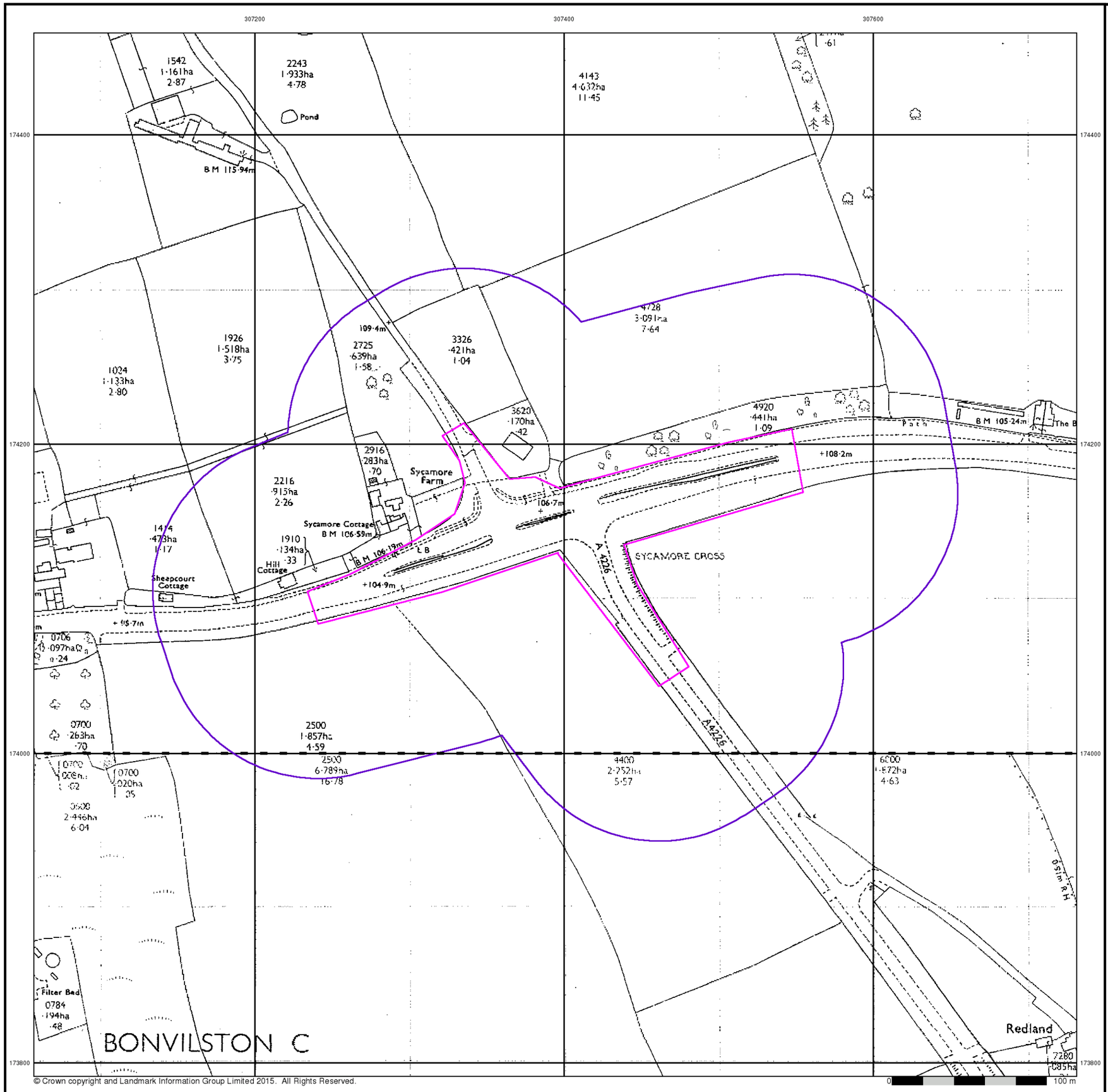


PARSONS BRINCKERHOFF

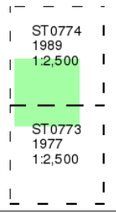
Additional SIMs

Published 1977 - 1989

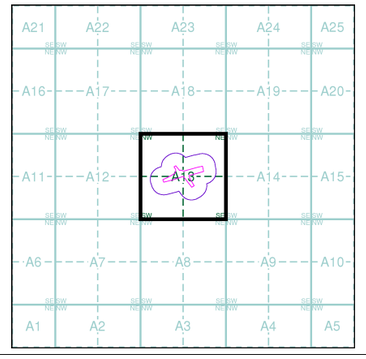
Source map scale - 1:2,500

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



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PARSONS BRINCKERHOFF

Additional SIMs

Published 1986

Source map scale - 1:2,500

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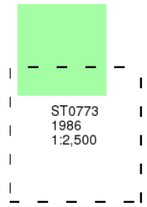
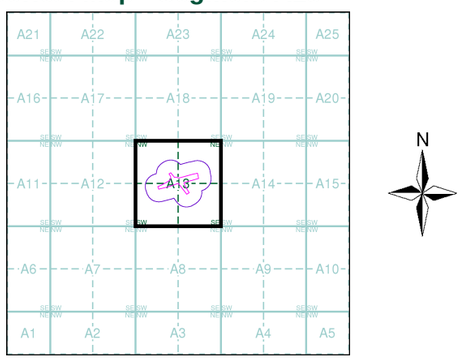
Map Name(s) and Date(s)



Historical Map - Segment A13



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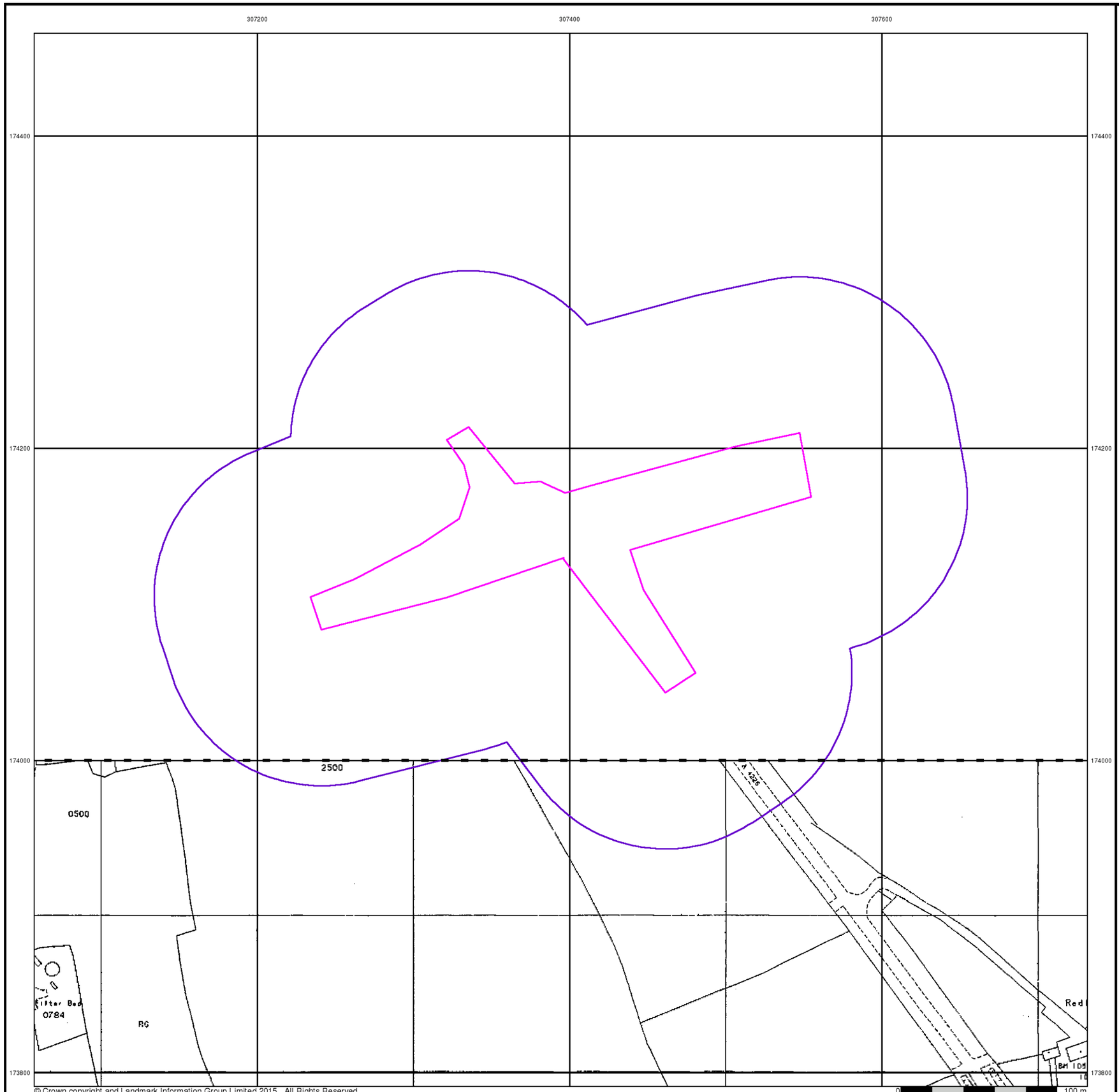


PARSONS BRINCKERHOFF

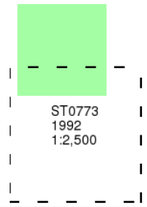
Additional SIMs

Published 1992

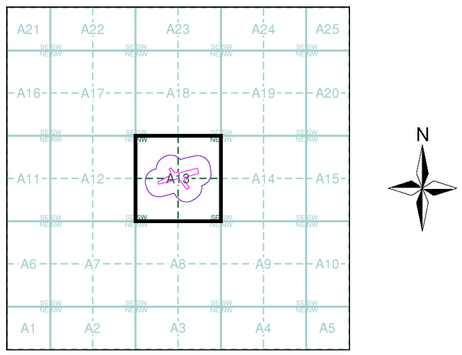
Source map scale - 1:2,500

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



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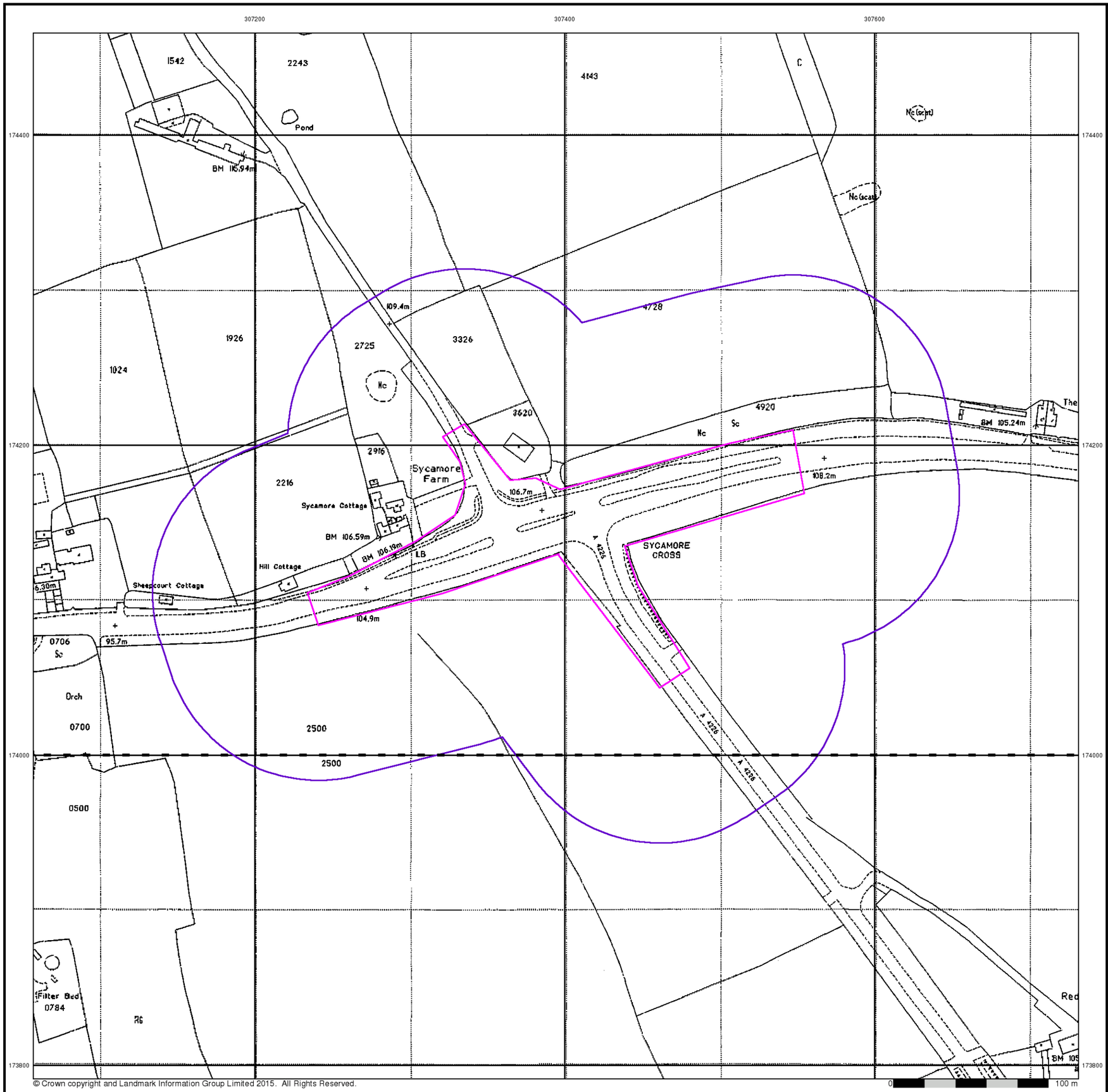


PARSONS BRINCKERHOFF

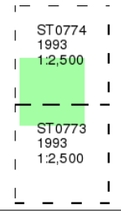
Large-Scale National Grid Data

Published 1993

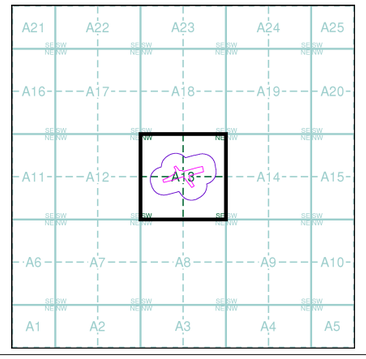
Source map scale - 1:2,500

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

Map Name(s) and Date(s)



Historical Map - Segment A13



Order Details

Order Number:	68427202_1_1
Customer Ref:	3512464D-HHC
National Grid Reference:	307400, 174140
Slice:	A
Site Area (Ha):	1.77
Search Buffer (m):	100

Site Details

Site at 307420, 174160

Landmark Information Group
Tel: 0844 844 9952
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Historical Mapping Legends

Ordnance Survey County Series 1:10,560

Gravel Pit
Sand Pit
Other Pits
Quarry
Shingle
Orchard
Osiers
Reeds
Marsh
Mixed Wood
Deciduous
Brushwood
Fir
Furze
Rough Pasture
Arrow denotes flow of water
Trigonometrical Station
Site of Antiquities
Bench Mark
Pump, Guide Post, Signal Post
Well, Spring, Boundary Post
285 Surface Level
Sketched Contour
Instrumental Contour
Main Roads
Fenced
Un-Fenced
Minor Roads
Fenced
Un-Fenced
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
Co. Boro. Bdy. County Borough Boundary (England)
Co. Burgh Bdy. County Burgh Boundary (Scotland)
R.D. Bdy. 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
Coppice
Bracken
Heath
Rough Grassland
Marsh
Reeds
Saltings
Building
Direction of Flow of Water
Shingle
Sand
Glasshouse
Pylon
Pylon
Electricity Transmission Line
Sloping Masonry
Cutting
Embankment
Standard Gauge Multiple Track
Road Under
Road Over
Level Crossing
Foot Bridge
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
Shown only when not coincident with other boundaries
Civil Parish
Shown alternately when coincidence of boundaries occurs

BP, BS	Boundary Post or Stone	Pol Sta	Police Station
Ch	Church	PO	Post Office
CH	Club House	PC	Public Convenience
F E Sta	Fire Engine Station	PH	Public House
FB	Foot Bridge	SB	Signal Box
Fn	Fountain	Spr	Spring
GP	Guide Post	TCB	Telephone Call Box
MP	Mile Post	TCP	Telephone Call Post
MS	Mile Stone	W	Well

1:10,000 Raster Mapping

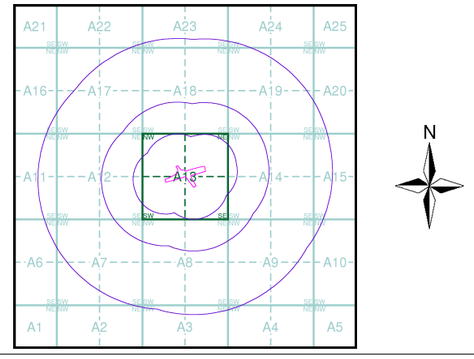
Gravel Pit
Refuse tip or slag heap
Rock
Rock (scattered)
Boulders
Boulders (scattered)
Shingle
Mud
Mud
Sand
Sand
Sand Pit
Slopes
Top of cliff
General detail
Underground detail
Overhead detail
Narrow gauge railway
Multi-track railway
Single track railway
County boundary (England only)
Civil, parish or 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
MHW(S) Mean high water (springs)
MLW(S) Mean low water (springs)
Telephone line (where shown)
Electricity transmission line (with poles)
BM 123.45 m 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

PARSONS BRINCKERHOFF

Historical Mapping & Photography included:

Mapping Type	Scale	Date	Pg
Glamorganshire	1:10,560	1885	2
Glamorganshire	1:10,560	1900 - 1901	3
Glamorganshire	1:10,560	1921	4
Glamorganshire	1:10,560	1921	5
Glamorganshire	1:10,560	1921	6
Glamorganshire	1:10,560	1936	7
Glamorganshire	1:10,560	1938 - 1947	8
Glamorganshire	1:10,560	1947	9
Historical Aerial Photography	1:10,560	1947	10
Ordnance Survey Plan	1:10,000	1964	11
Ordnance Survey Plan	1:10,000	1975	12
Ordnance Survey Plan	1:10,000	1984 - 1989	13
Ordnance Survey Plan	1:10,000	1990	14
10K Raster Mapping	1:10,000	2006	15
VectorMap Local	1:10,000	2015	16

Historical Map - Slice A



Order Details

Order Number: 68427202_1_1
Customer Ref: 3512464D-HHC
National Grid Reference: 307400, 174140
Slice: A
Site Area (Ha): 1.77
Search Buffer (m): 1000

Site Details

Site at 307420, 174160

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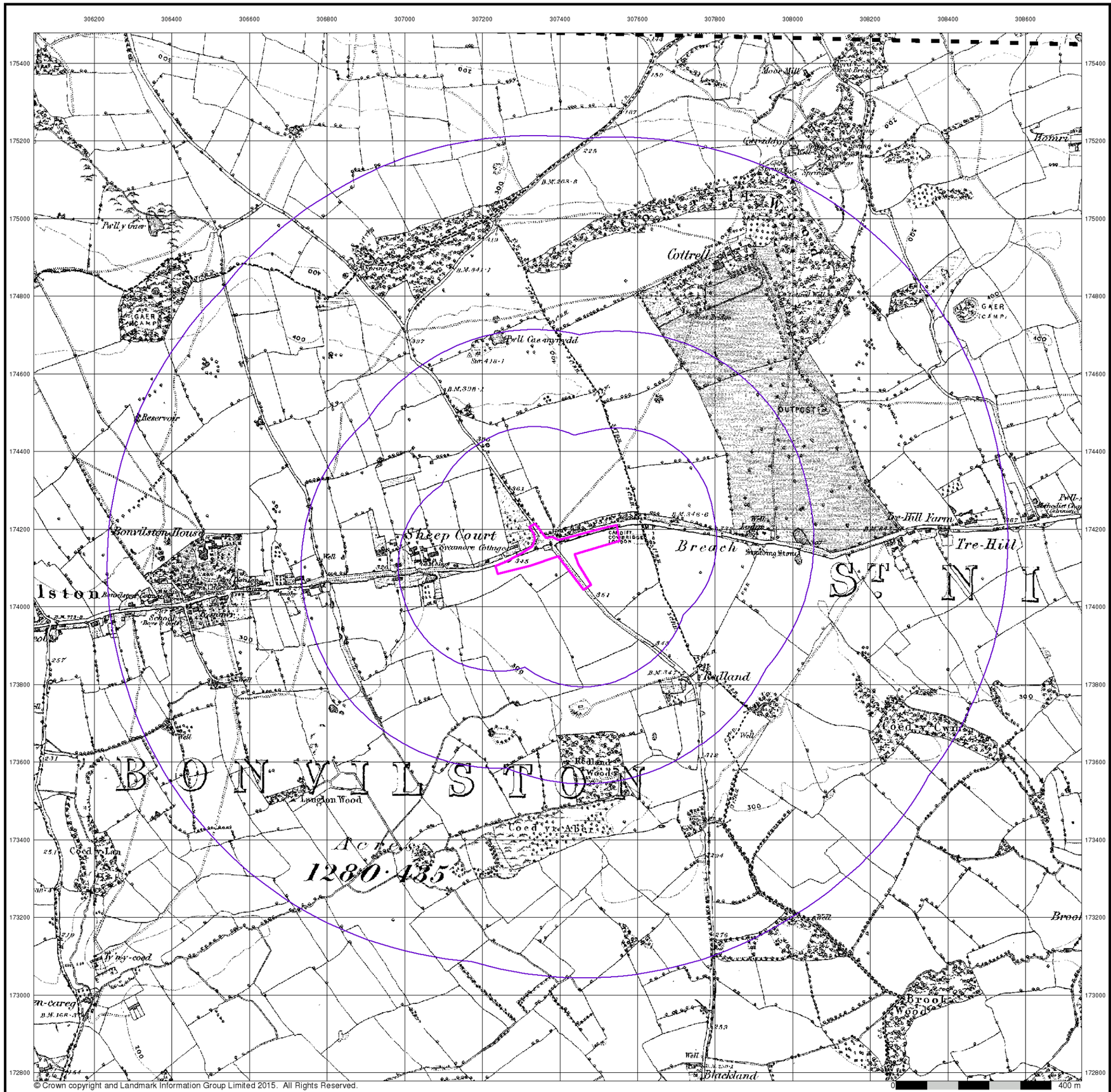

PARSONS BRINCKERHOFF

Glamorganshire

Published 1885

Source map scale - 1:10,560

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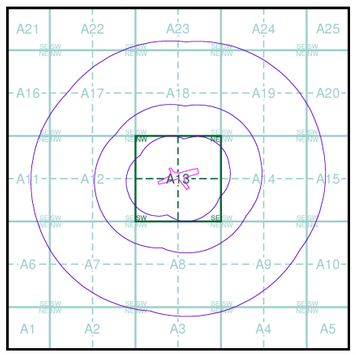
Map Name(s) and Date(s)

04200
1885
1:10,560

04600
1885
1:10,560

Historical Map - Slice A



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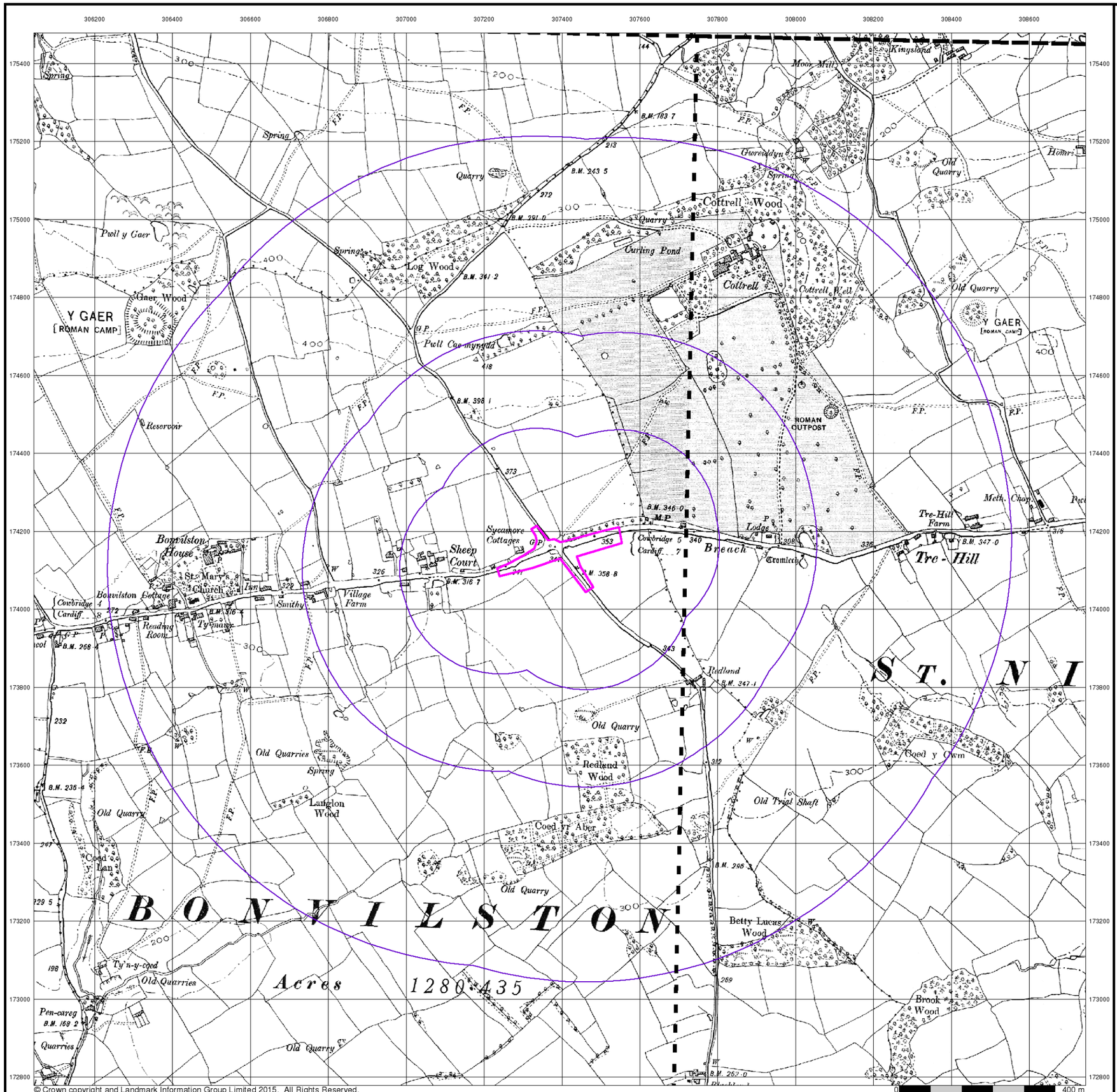

PARSONS BRINCKERHOFF

Glamorganshire

Published 1900 - 1901

Source map scale - 1:10,560

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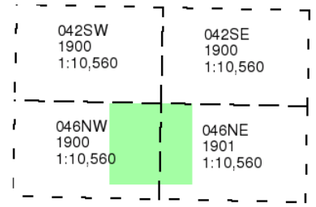
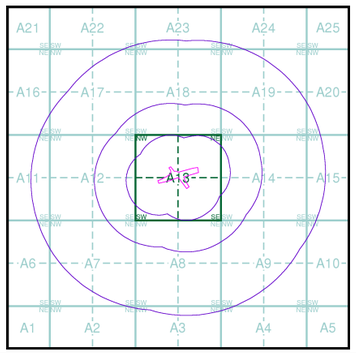
Map Name(s) and Date(s)



Historical Map - Slice A



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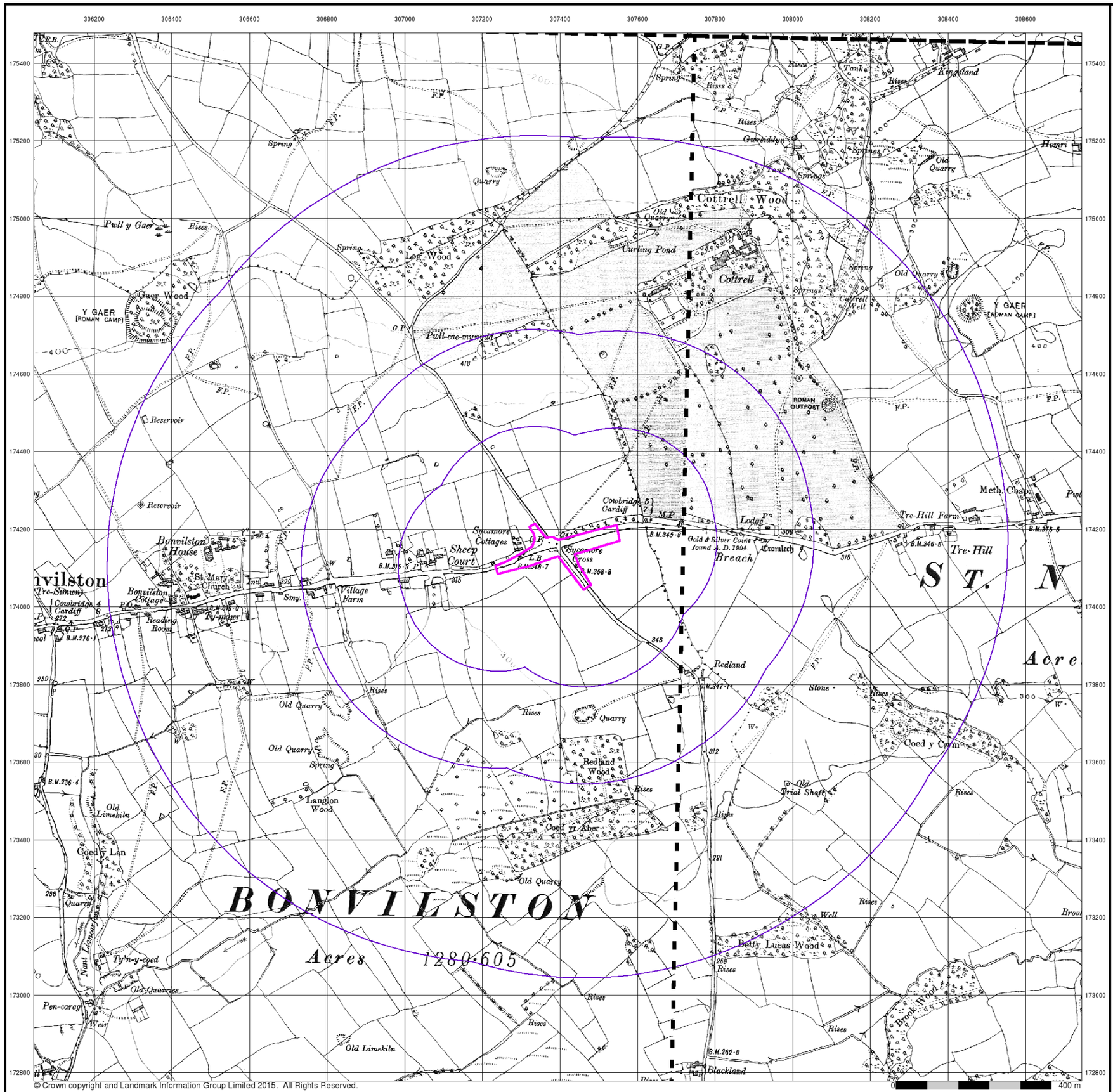

PARSONS BRINCKERHOFF

Glamorganshire

Published 1921

Source map scale - 1:10,560

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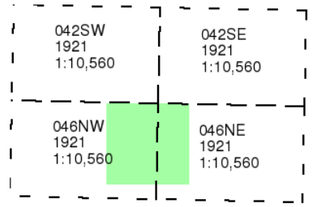
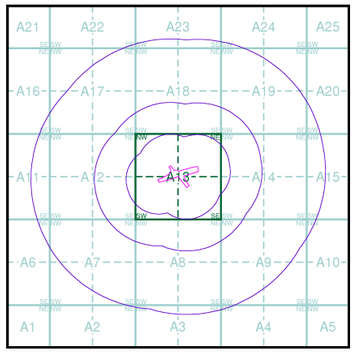


Historical Map - Slice A



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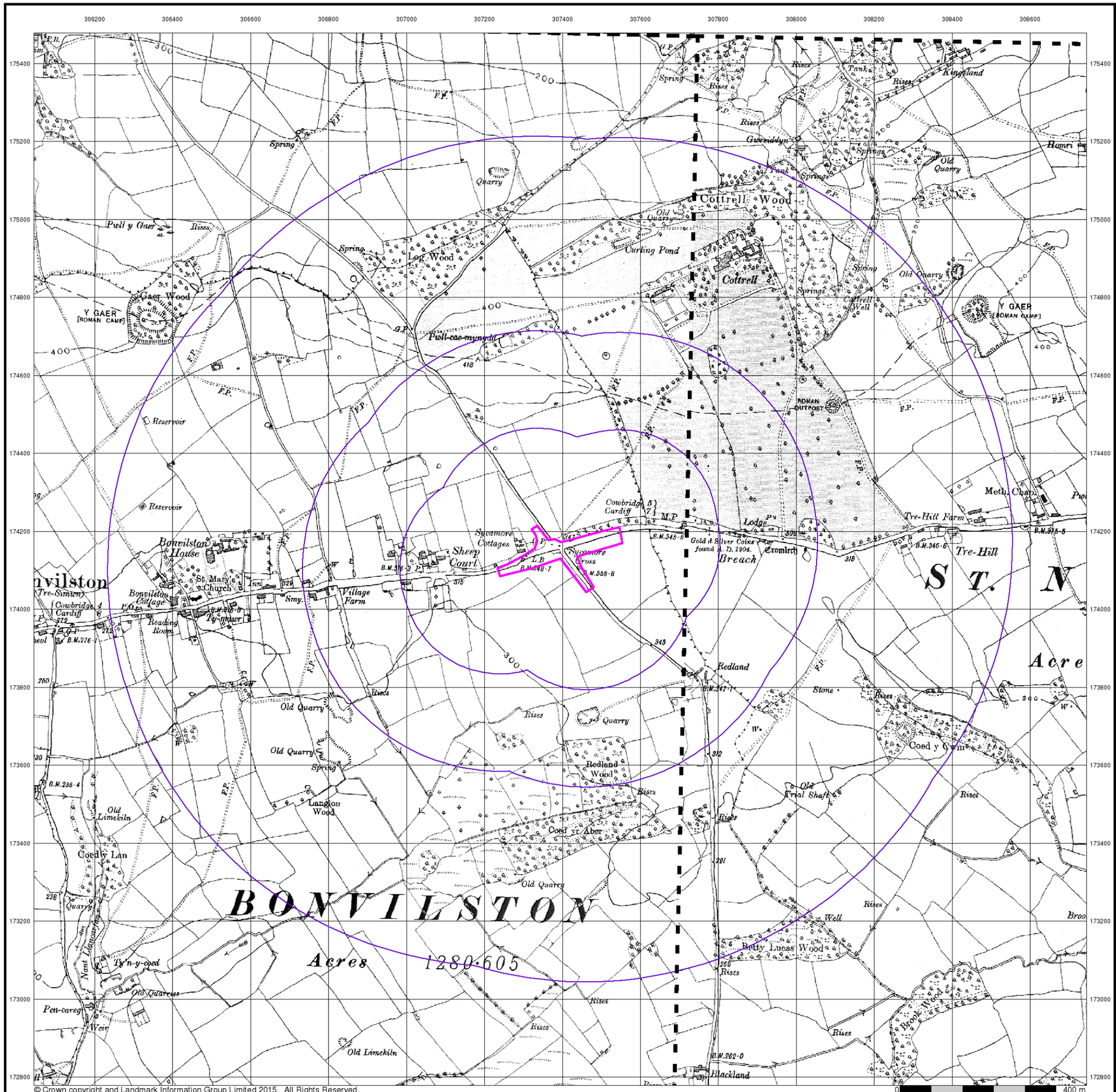

PARSONS BRINCKERHOFF

Glamorganshire

Published 1921

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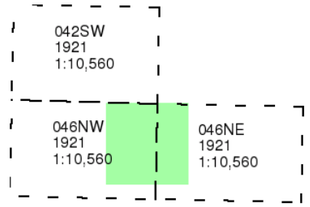
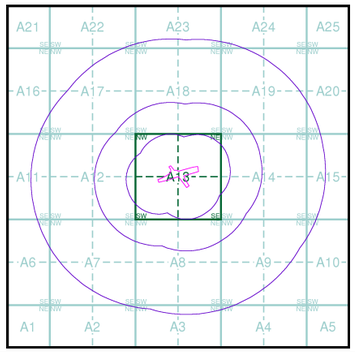


Historical Map - Slice A



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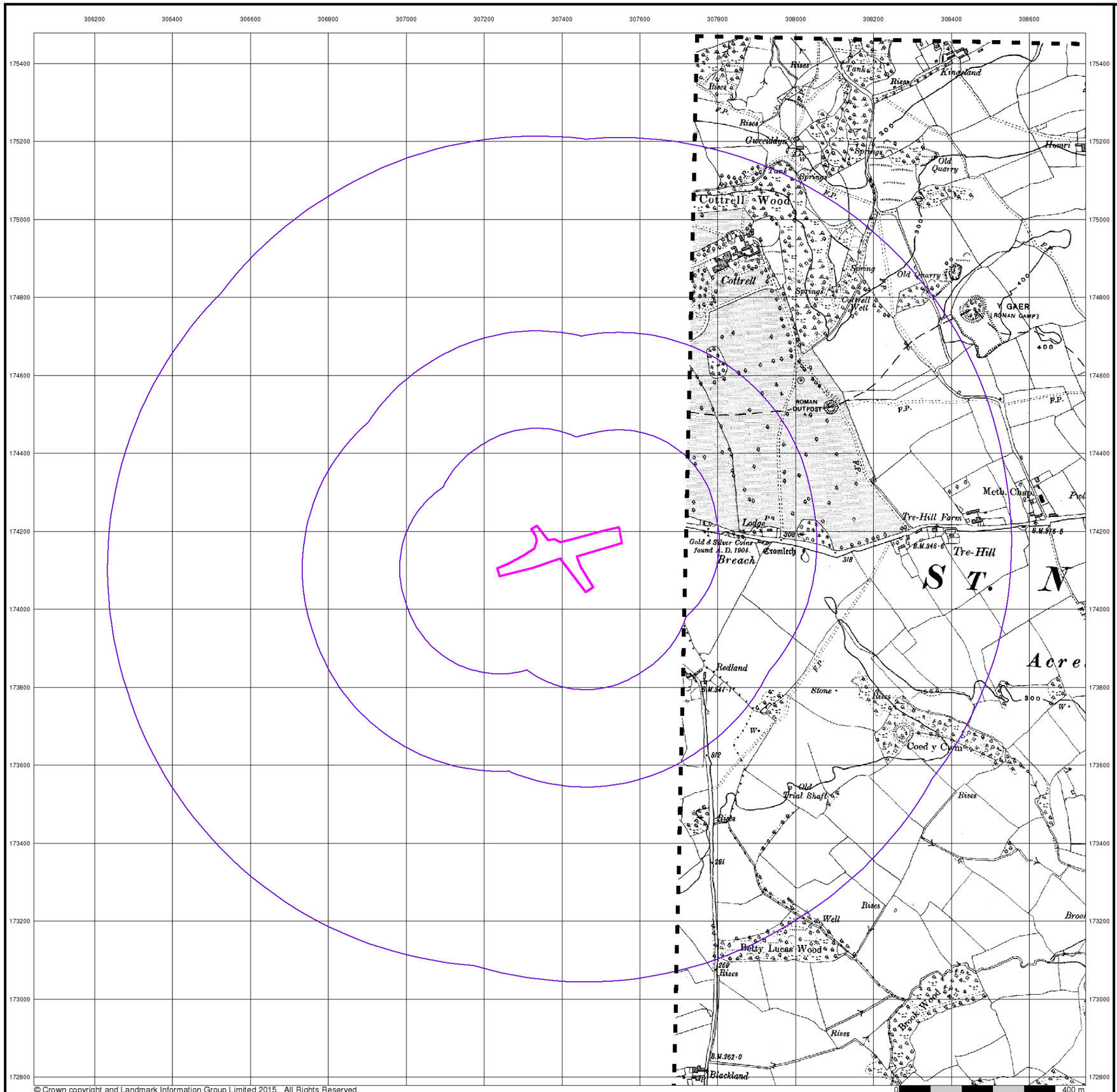

PARSONS BRINCKERHOFF

Glamorganshire

Published 1921

Source map scale - 1:10,560

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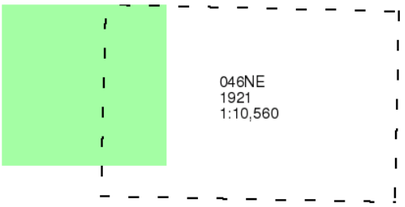
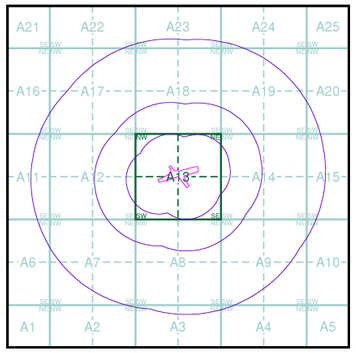


Historical Map - Slice A



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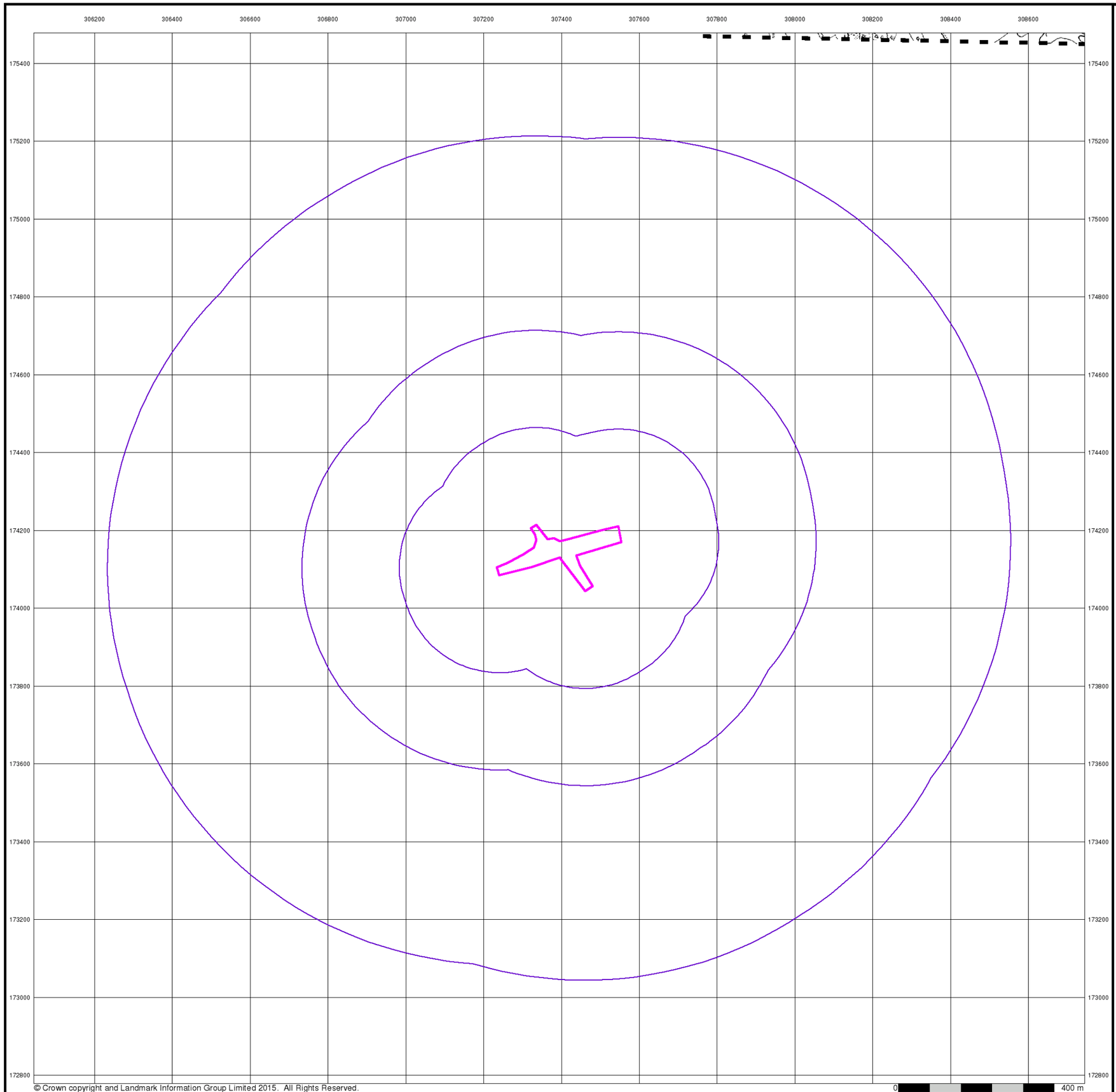

PARSONS BRINCKERHOFF

Glamorganshire

Published 1936

Source map scale - 1:10,560

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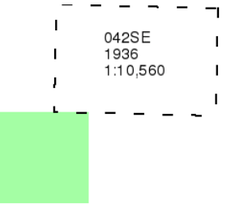
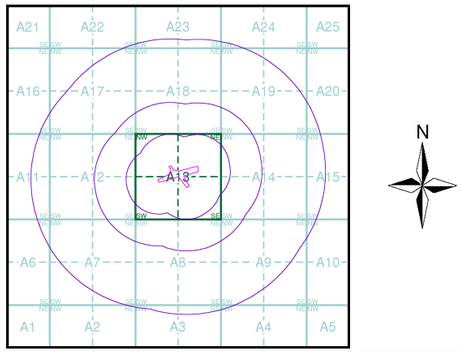
Map Name(s) and Date(s)



Historical Map - Slice A



Order Details

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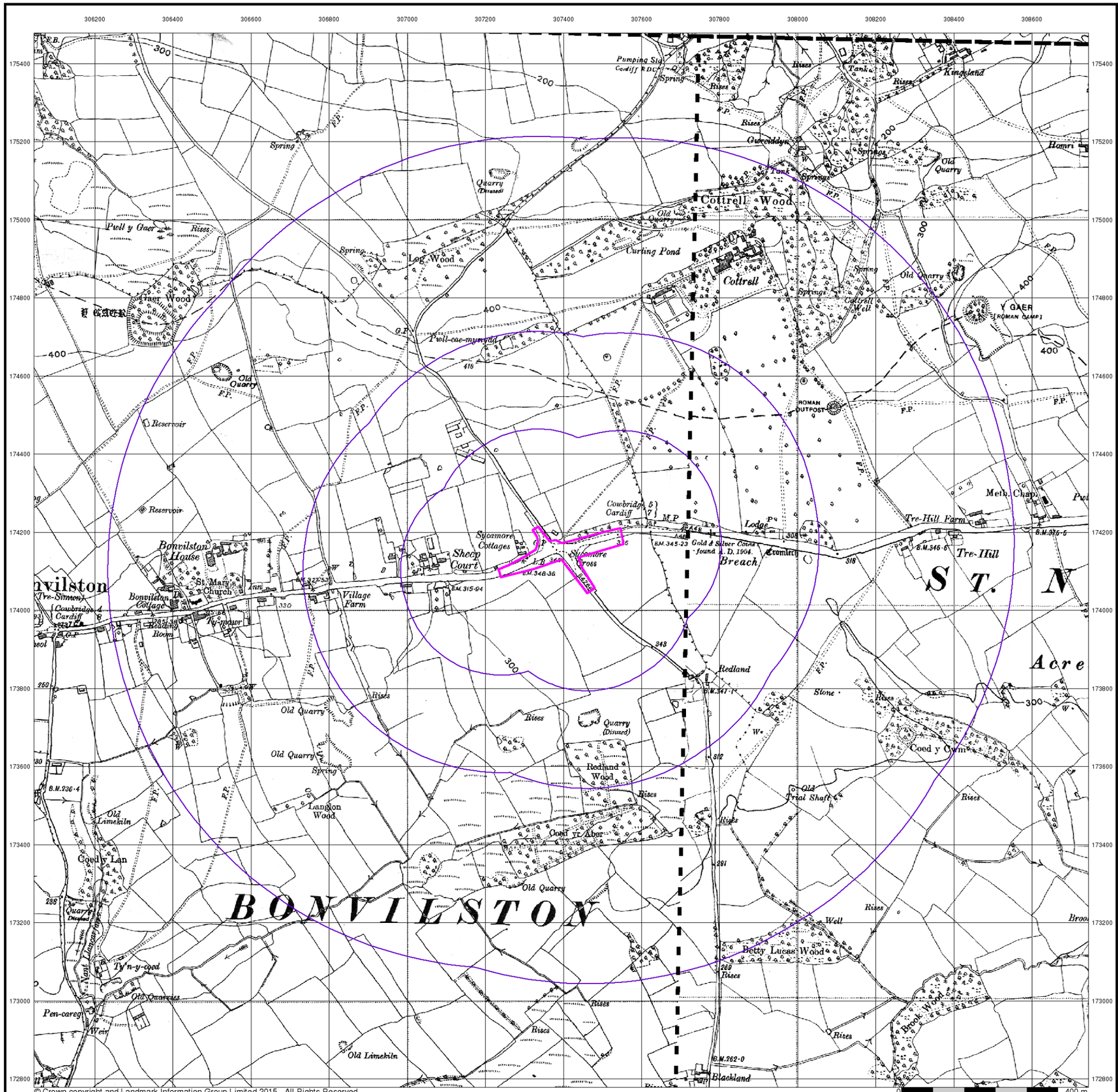

PARSONS BRINCKERHOFF

Glamorganshire

Published 1938 - 1947

Source map scale - 1:10,560

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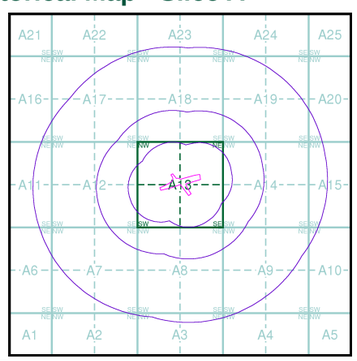
Map Name(s) and Date(s)

042SW 1947 1:10,560	042SE 1938 1:10,560
046NW 1947 1:10,560	046NE 1938 1:10,560

Historical Map - Slice A



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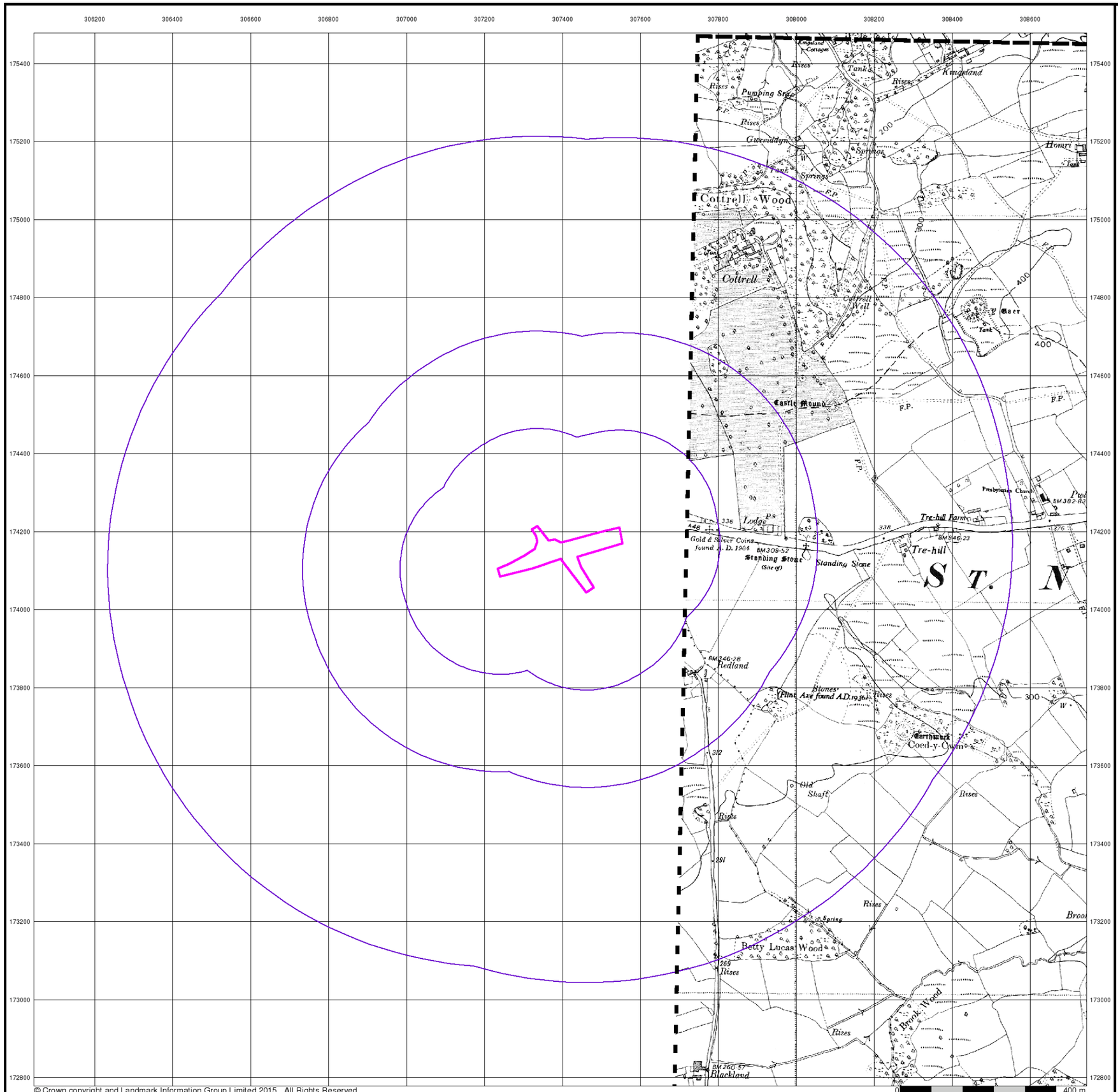

PARSONS BRINCKERHOFF

Glamorganshire

Published 1947

Source map scale - 1:10,560

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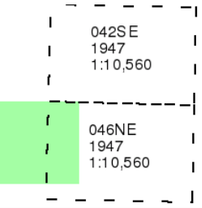
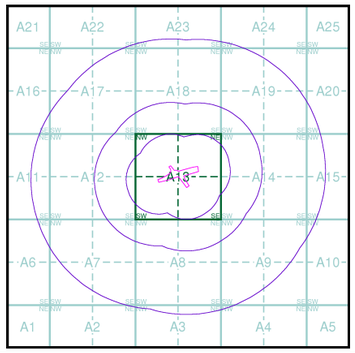


Historical Map - Slice A



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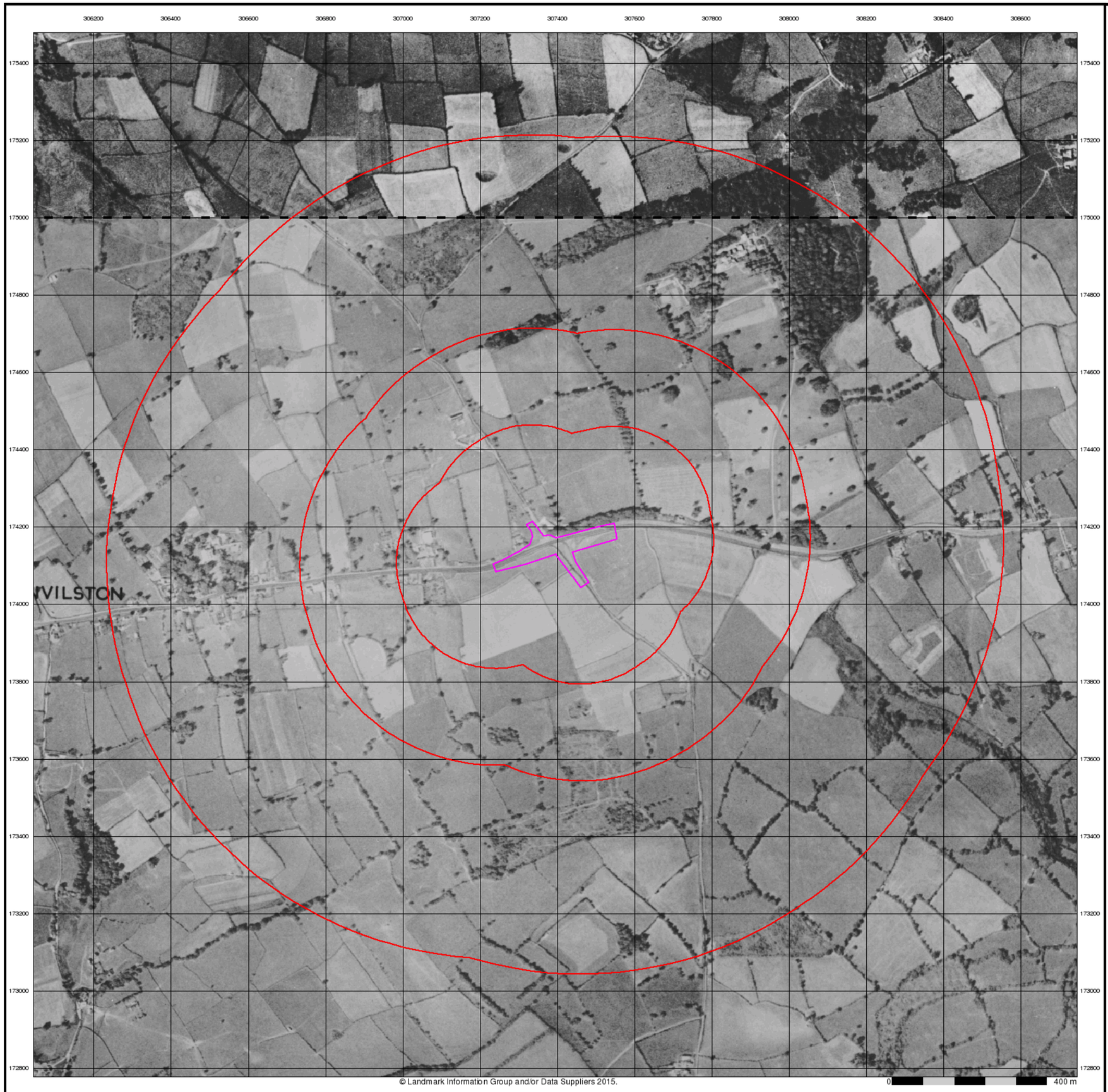
Search Buffer (m):	1000

Site Details

Site at 307420, 174160

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



PARSONS BRINCKERHOFF

Historical Aerial Photography

Published 1947

Source map scale - 1:10,560

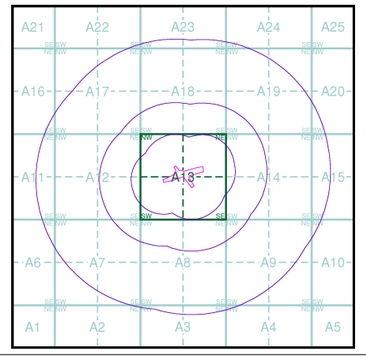
The Historical Aerial Photos were produced by the Ordnance Survey at a scale of 1:1,250 and 1:10,560 from Air Force photography. They were produced between 1944 and 1951 as an interim measure, pending preparation of conventional mapping, due to post war resource shortages. New security measures in the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

Map Name(s) and Date(s)

ST07NE
1947
1:10,560

ST07SE
1947
1:10,560

Historical Aerial Photography - Slice A



BRITISH LIBRARY

Order Details

Order Number:	68427202_1_1
Customer Ref:	3512464D-HHC
National Grid Reference:	307400, 174140
Slice:	A
Site Area (Ha):	1.77
Search Buffer (m):	1000

Site Details

Site at 307420, 174160

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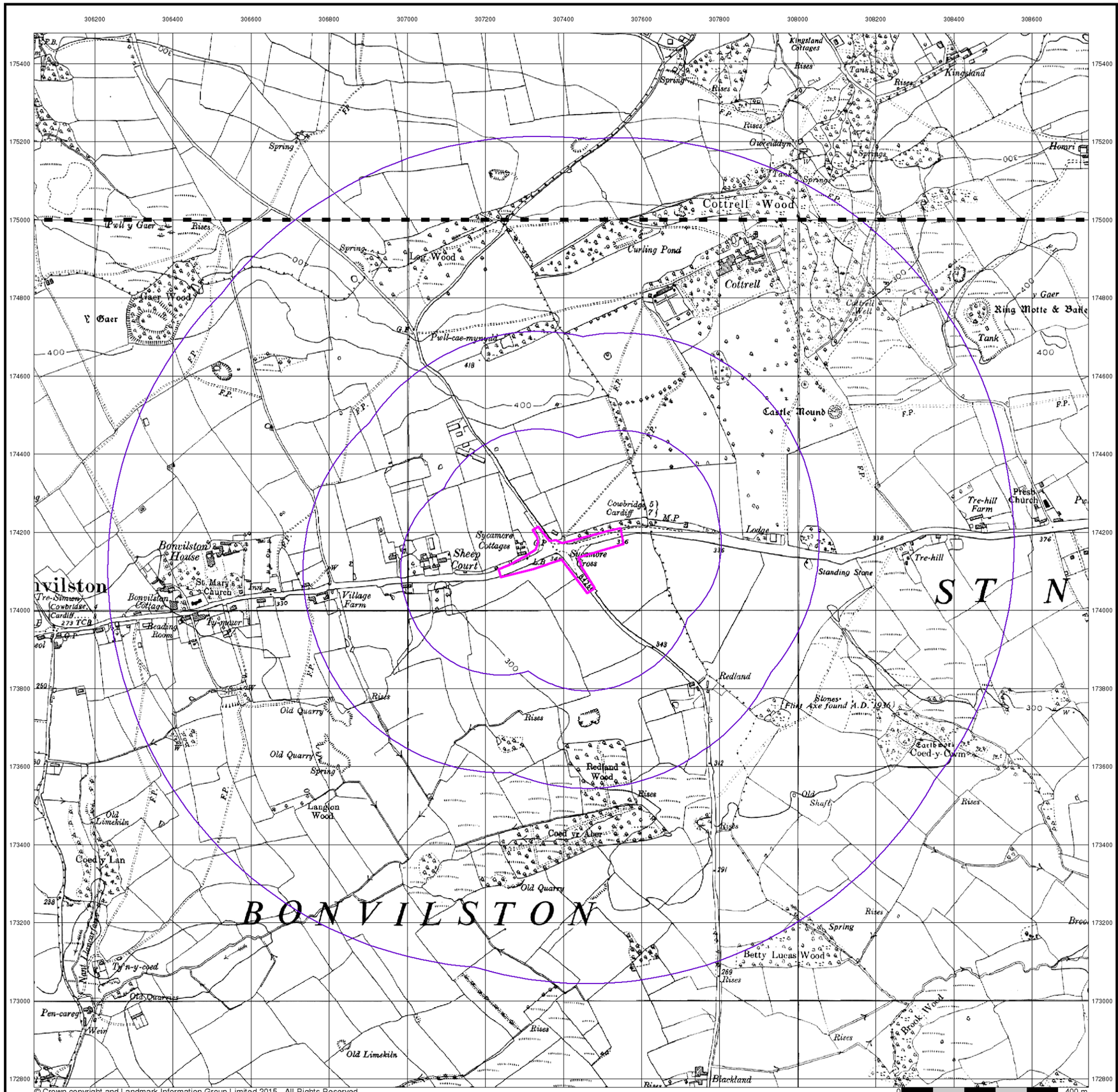
Tel: 0844 844 9952
Fax: 0844 844 9951
Web: www.envirocheck.co.uk



PARSONS BRINCKERHOFF

Ordnance Survey Plan

Published 1964

Source map scale - 1:10,000

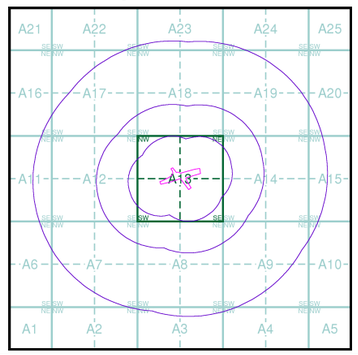
The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840`s. In 1854 the 1:2,500 scale was adopted for mapping urban areas; these maps were used to update the 1:10,560 maps. The published date given therefore is often some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

Map Name(s) and Date(s)

ST07NE
1964
1:10,560

ST07SE
1964
1:10,560

Historical Map - Slice A



Order Details

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Customer Ref:	3512464D-HHC
National Grid Reference:	307400, 174140
Slice:	A
Site Area (Ha):	1.77
Search Buffer (m):	1000

Site Details

Site at 307420, 174160

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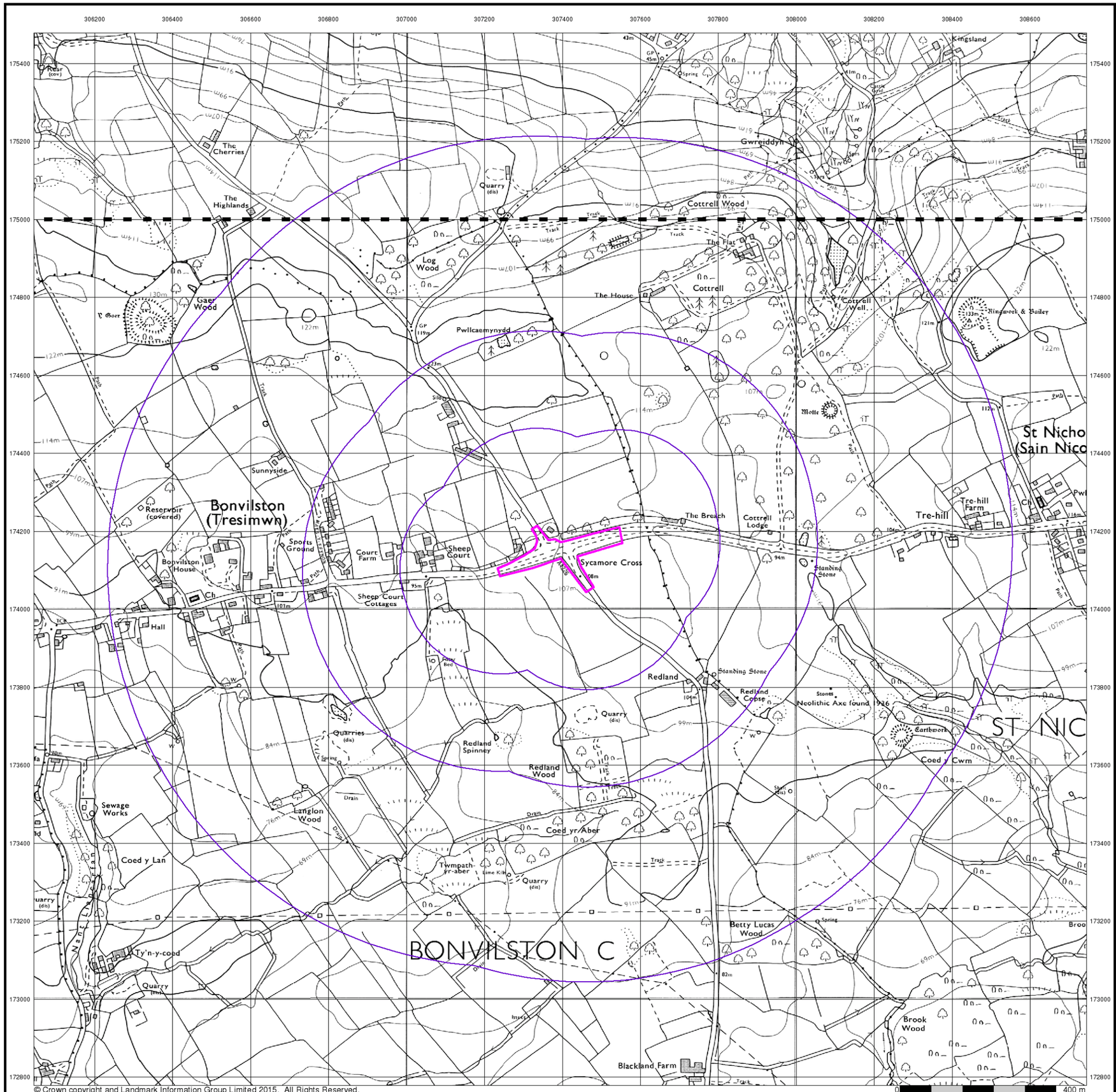


PARSONS BRINCKERHOFF

Ordnance Survey Plan

Published 1975

Source map scale - 1:10,000

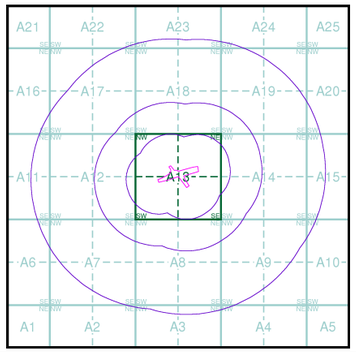
The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840`s. In 1854 the 1:2,500 scale was adopted for mapping urban areas; these maps were used to update the 1:10,560 maps. The published date given therefore is often some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

ST07NE 1975 1:10,000

ST07SE 1975 1:10,000

Historical Map - Slice A



Order Details

Order Number:	68427202_1_1
Customer Ref:	3512464D-HHC
National Grid Reference:	307400, 174140
Slice:	A
Site Area (Ha):	1.77
Search Buffer (m):	1000

Site Details

Site at 307420, 174160

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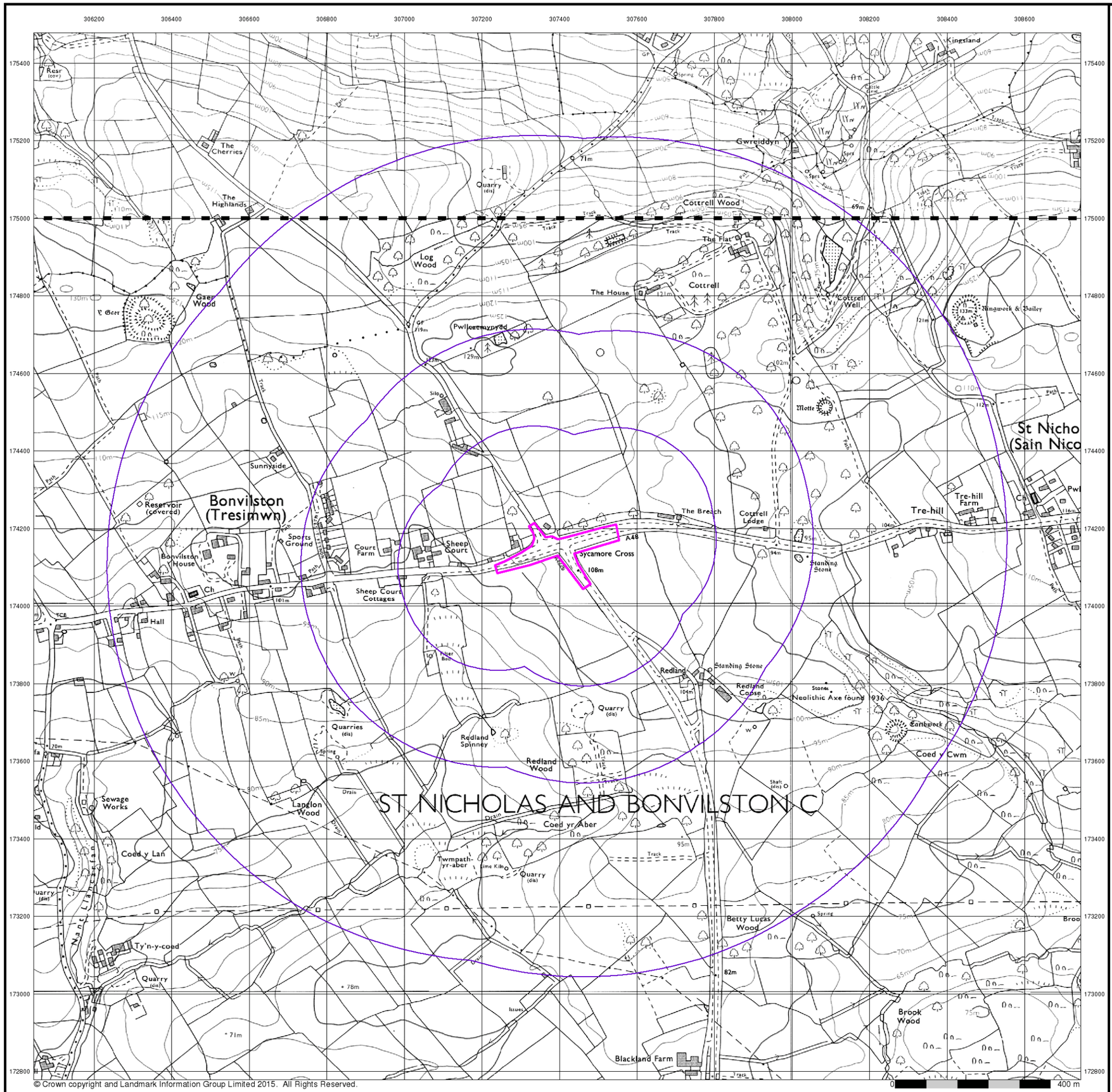


PARSONS BRINCKERHOFF

Ordnance Survey Plan

Published 1984 - 1989

Source map scale - 1:10,000

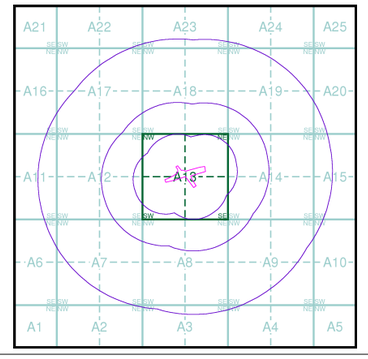
The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840`s. In 1854 the 1:2,500 scale was adopted for mapping urban areas; these maps were used to update the 1:10,560 maps. The published date given therefore is often some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

Map Name(s) and Date(s)

ST07NE
1984
1:10,000

ST07SE
1989
1:10,000

Historical Map - Slice A



Order Details

Order Number:	68427202_1_1
Customer Ref:	3512464D-HHC
National Grid Reference:	307400, 174140
Slice:	A
Site Area (Ha):	1.77
Search Buffer (m):	1000

Site Details

Site at 307420, 174160

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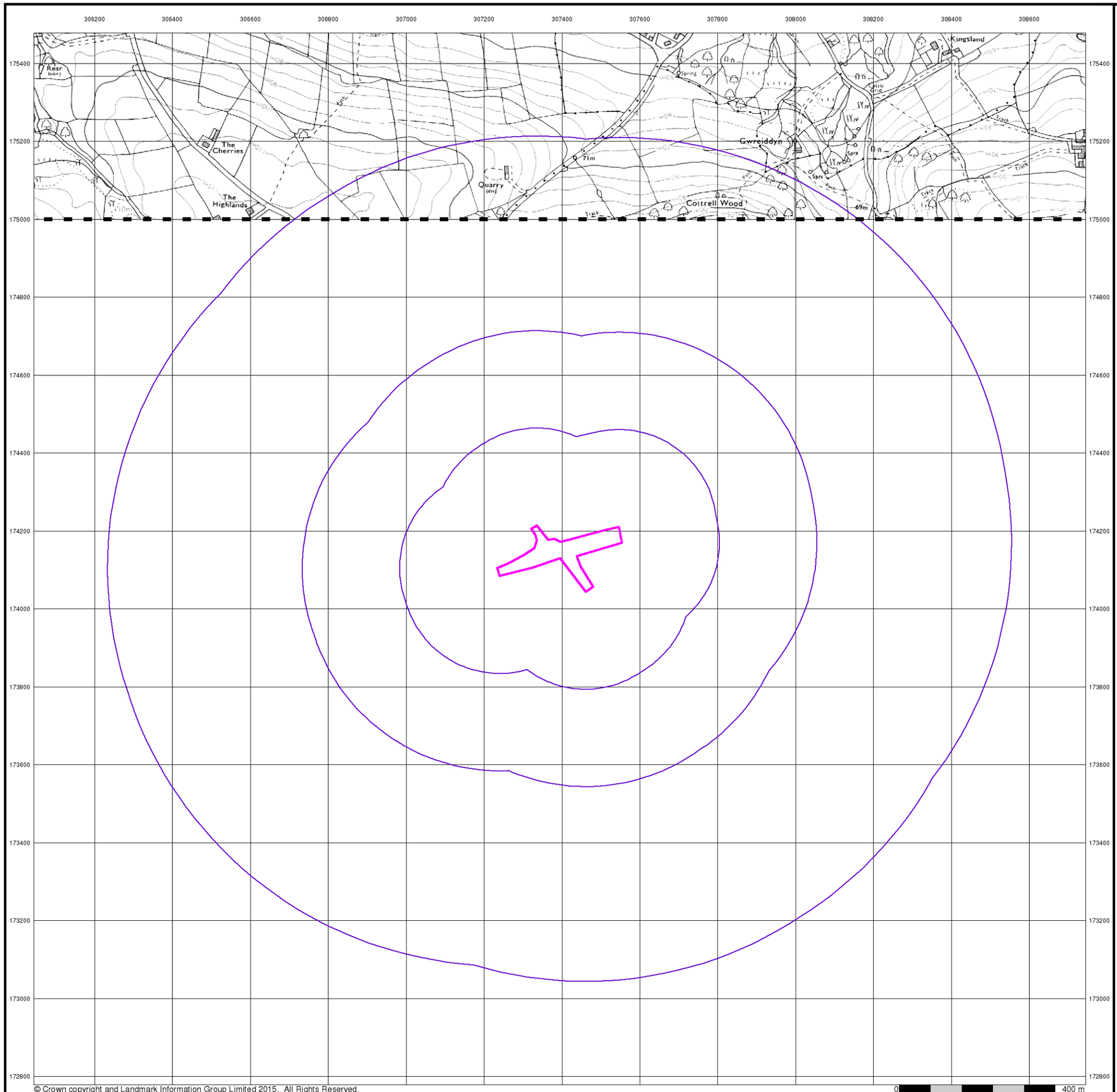


PARSONS BRINCKERHOFF

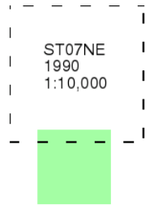
Ordnance Survey Plan

Published 1990

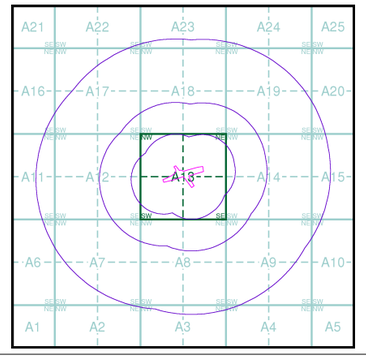
Source map scale - 1:10,000

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

Map Name(s) and Date(s)



Historical Map - Slice A



Order Details

Order Number:	68427202_1_1
Customer Ref:	3512464D-HHC
National Grid Reference:	307400, 174140
Slice:	A
Site Area (Ha):	1.77
Search Buffer (m):	1000

Site Details

Site at 307420, 174160

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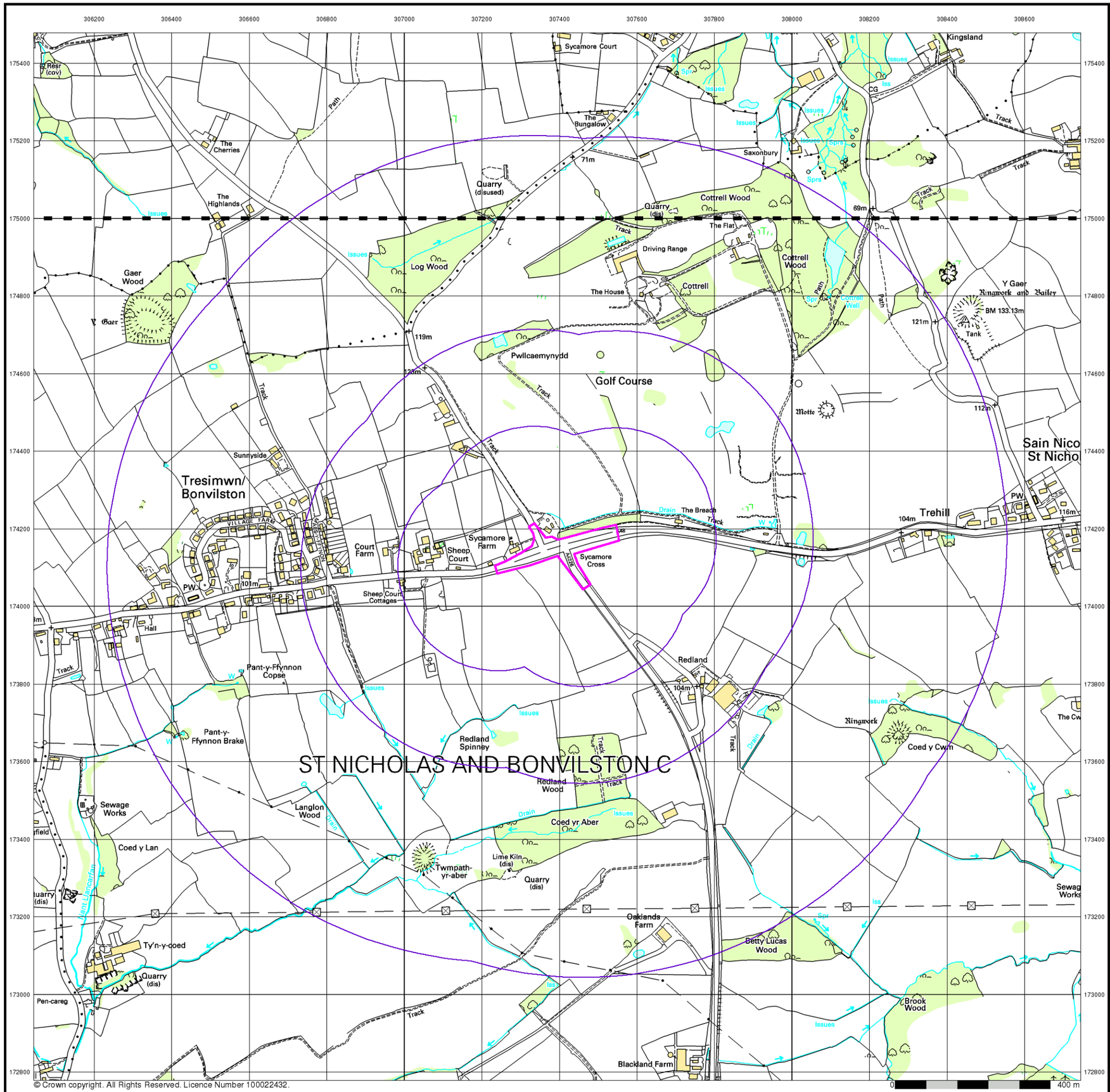


PARSONS BRINCKERHOFF

10k Raster Mapping

Published 2006

Source map scale - 1:10,000

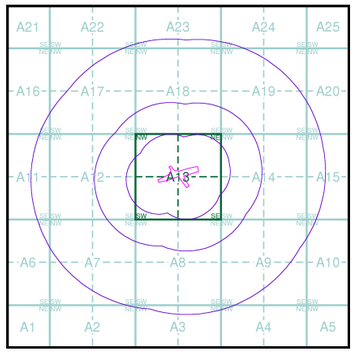
The historical maps shown were produced from the Ordnance Survey`s 1:10,000 colour raster mapping. These maps are derived from Landplan which replaced the old 1:10,000 maps originally published in 1970. The data is highly detailed showing buildings, fences and field boundaries as well as all roads, tracks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

Map Name(s) and Date(s)

ST07NE 2006 1:10,000

ST07SE 2006 1:10,000

Historical Map - Slice A



Order Details

Order Number:	68427202_1_1
Customer Ref:	3512464D-HHC
National Grid Reference:	307400, 174140
Slice:	A
Site Area (Ha):	1.77
Search Buffer (m):	1000

Site Details

Site at 307420, 174160

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Web: www.envirocheck.co.uk

PARSONS BRINCKERHOFF

VectorMap Local

Published 2015

Source map scale - 1:10,000

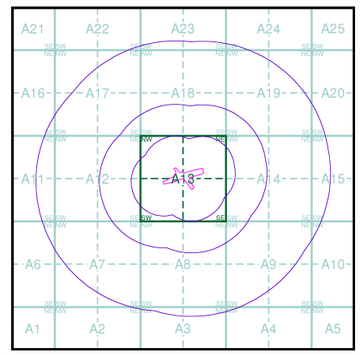
VectorMap Local (Raster) is Ordnance Survey's highest detailed 'backdrop' mapping product. These maps are produced from OS's VectorMap Local, a simple vector dataset at a nominal scale of 1:10,000, covering the whole of Great Britain, that has been designed for creating graphical mapping. OS VectorMap 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)

ST07NE 2015 Variable

ST07SE 2015 Variable

Historical Map - Slice A

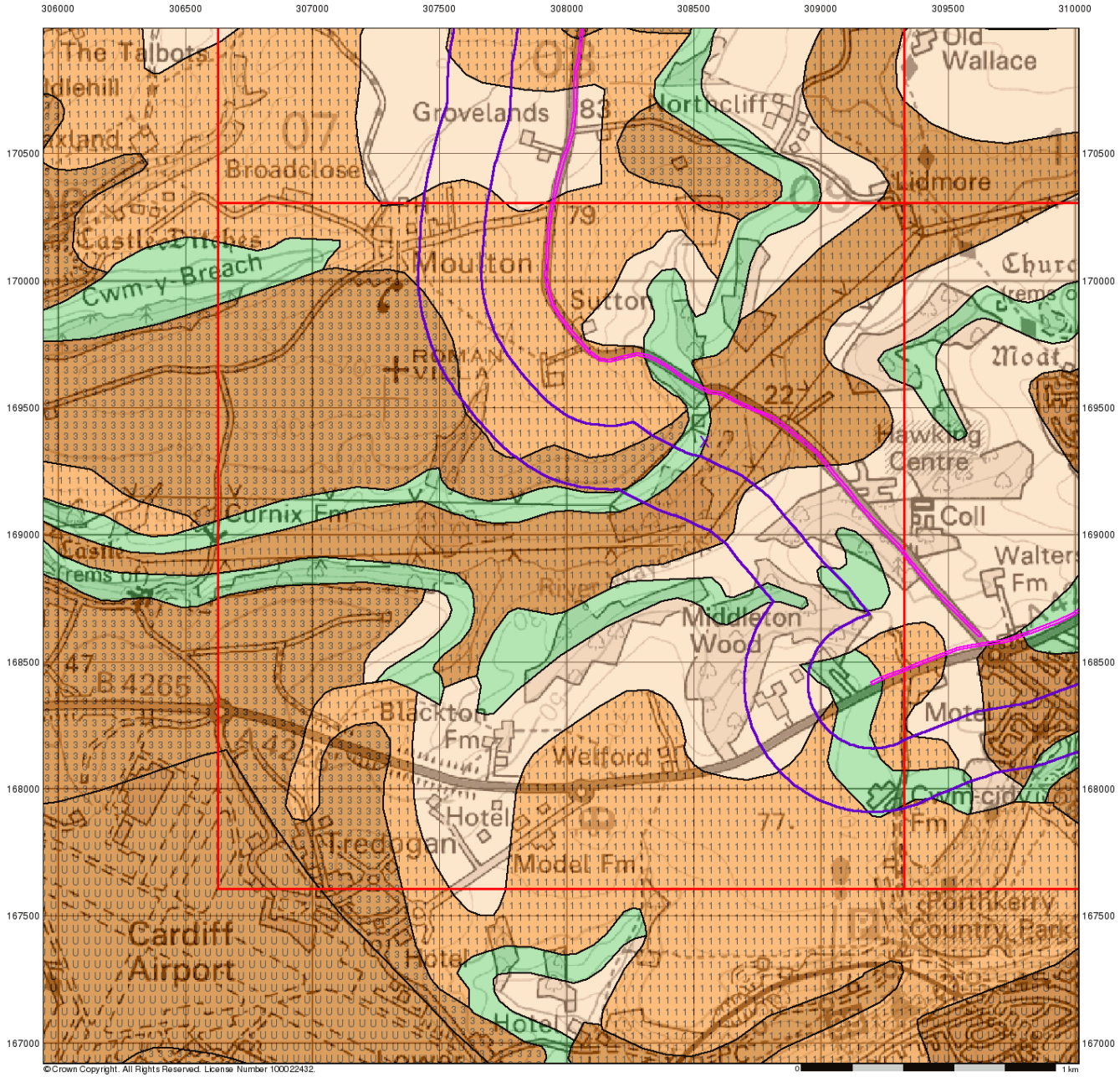


Order Details

Order Number:	68427202_1_1
Customer Ref:	3512464D-HHC
National Grid Reference:	307400, 174140
Slice:	A
Site Area (Ha):	1.77
Search Buffer (m):	1000

Site Details

Site at 307420, 174160



Envirocheck®

Groundwater Vulnerability

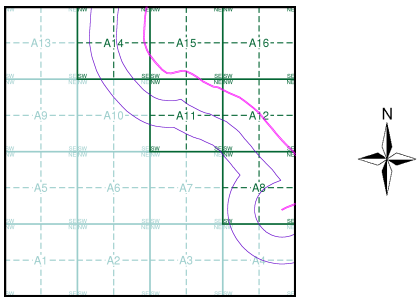
General

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

Agency and Hydrological

Geological Classes	Soil Classes
Major Aquifer (Highly Permeable)	High (H) 1, 2, 3, U
	Intermediate (I) 1, 2
	Low
Minor Aquifer (Variably Permeable)	High (H) 1, 2, 3, U
	Intermediate (I) 1, 2
	Low
Non Aquifer (Negligibly Permeable)	
Water or Sea	
Drift Deposit	

Site Sensitivity Context Map - Slice A



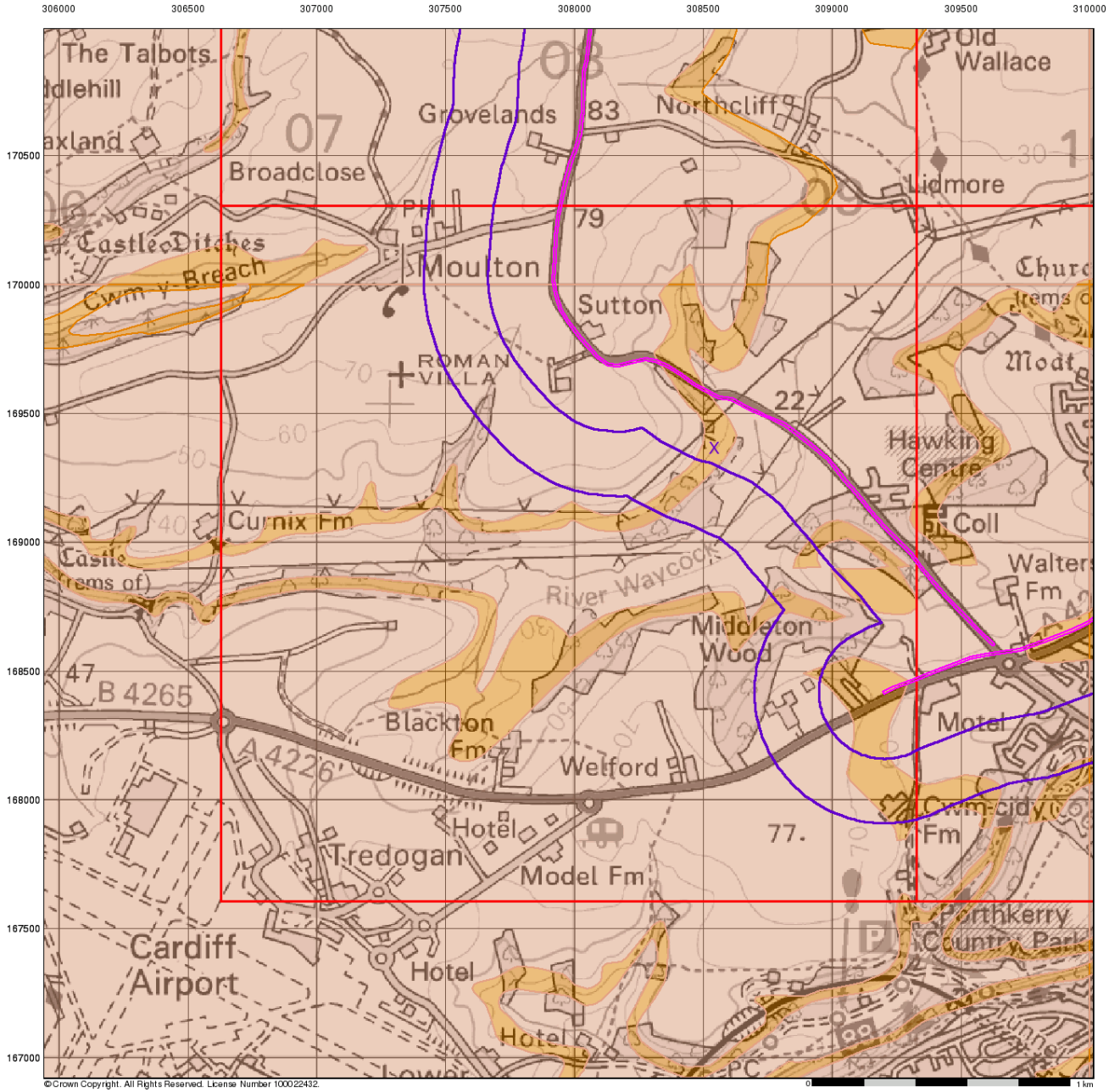
Order Details

Order Number:	51886031_1_1
Customer Ref:	3512646D-HHC
National Grid Reference:	308540, 169370
Slice:	A
Site Area (Ha):	20.09
Search Buffer (m):	500

Site Details

Cardiff International Airport, And Culverhouse Cross, Cardiff, CF5 6XW

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



Envirocheck®

Bedrock Aquifer Designation

General

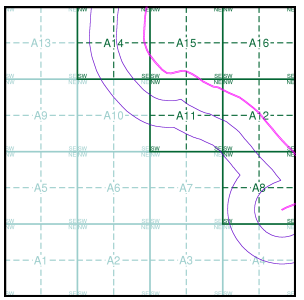
Specified Site | Specified Buffer(s) | Bearing Reference Point | Slice | Map ID

Agency and Hydrological

Geological Classes

- Principal Aquifer
- Secondary A Aquifer
- Secondary B Aquifer
- Secondary Undifferentiated
- Unproductive Strata
- Unknown

Site Sensitivity Context Map - Slice A

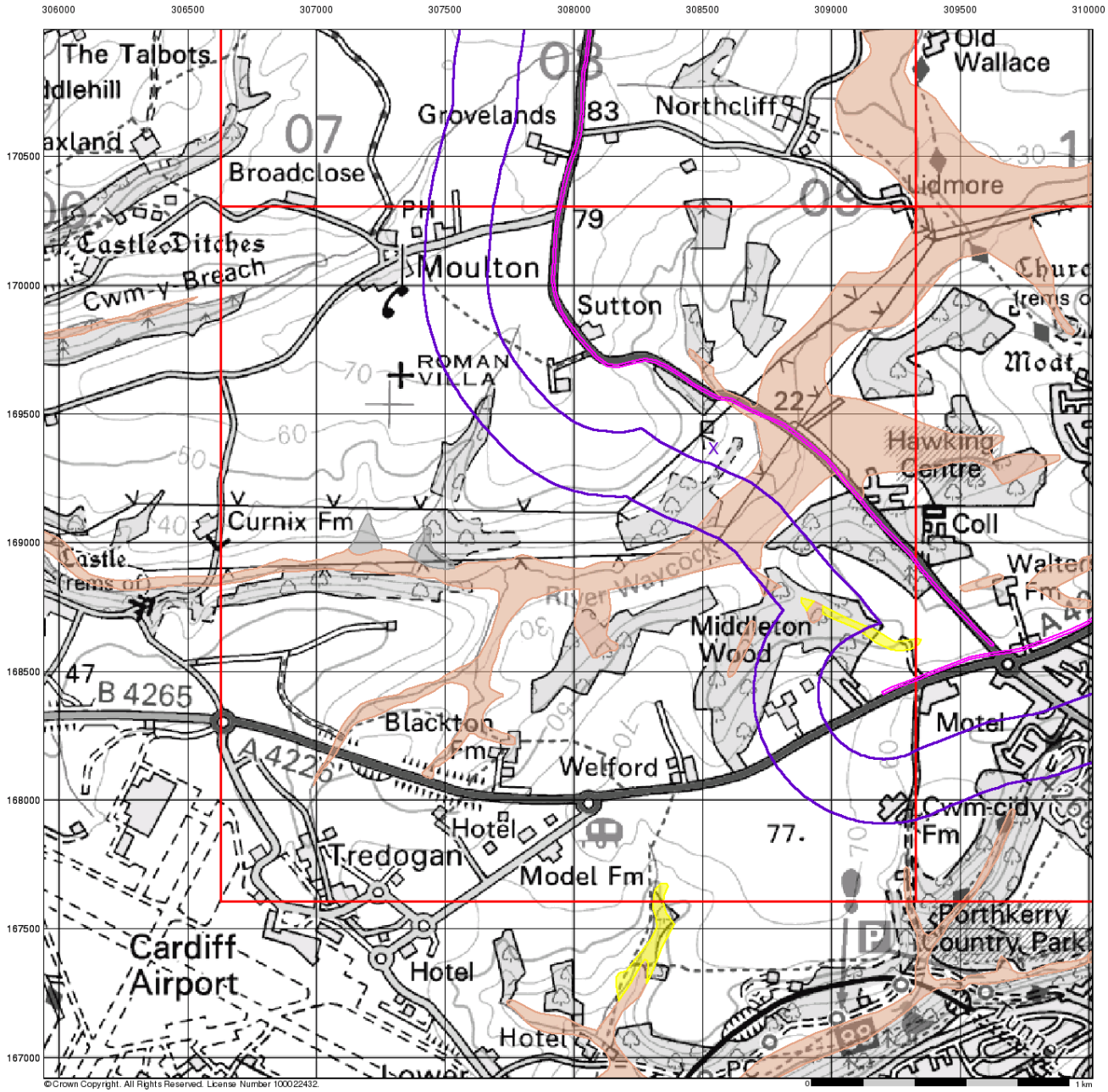


Order Details

Order Number:	51886031_1_1
Customer Ref:	3512646D-HHC
National Grid Reference:	308540, 169370
Slice:	A
Site Area (Ha):	20.09
Search Buffer (m):	500

Site Details

Cardiff International Airport, And Culverhouse Cross, Cardiff, CF5 6XW



Envirocheck®

Superficial Aquifer Designation

General

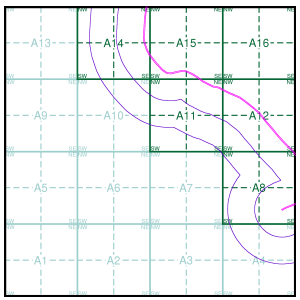
Specified Site | Specified Buffer(s) | Bearing Reference Point | Slice | Map ID

Agency and Hydrological

Geological Classes

- Principal Aquifer
- Secondary A Aquifer
- Secondary B Aquifer
- Secondary Undifferentiated
- Unproductive Strata
- Unknown

Site Sensitivity Context Map - Slice A



Order Details

Order Number:	51886031_1_1
Customer Ref:	3512646D-HHC
National Grid Reference:	308540, 169370
Slice:	A
Site Area (Ha):	20.09
Search Buffer (m):	500

Site Details

Cardiff International Airport, And Culverhouse Cross, Cardiff, CF5 6XW

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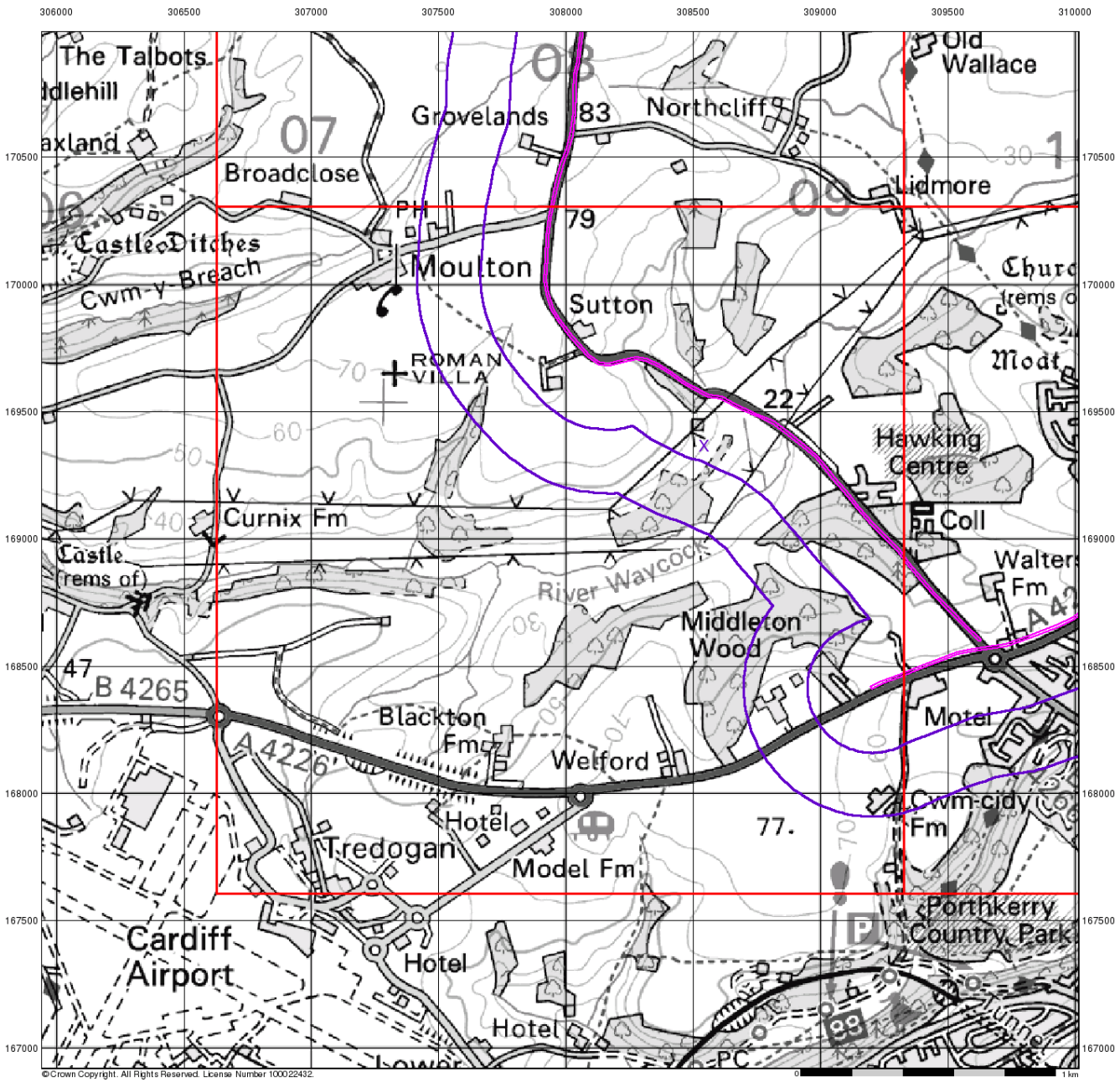


Envirocheck®

Source Protection Zones

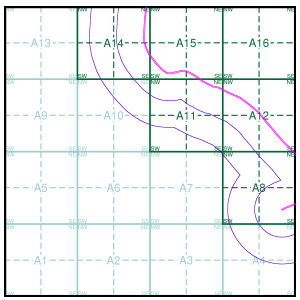
General

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

Agency and Hydrological

Source Protection Zone I
Source Protection Zone II
Source Protection Zone III
Zone of Special Interest
Source Protection Zone Borehole

Site Sensitivity Context Map - Slice A



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Search Buffer (m):	500

Site Details

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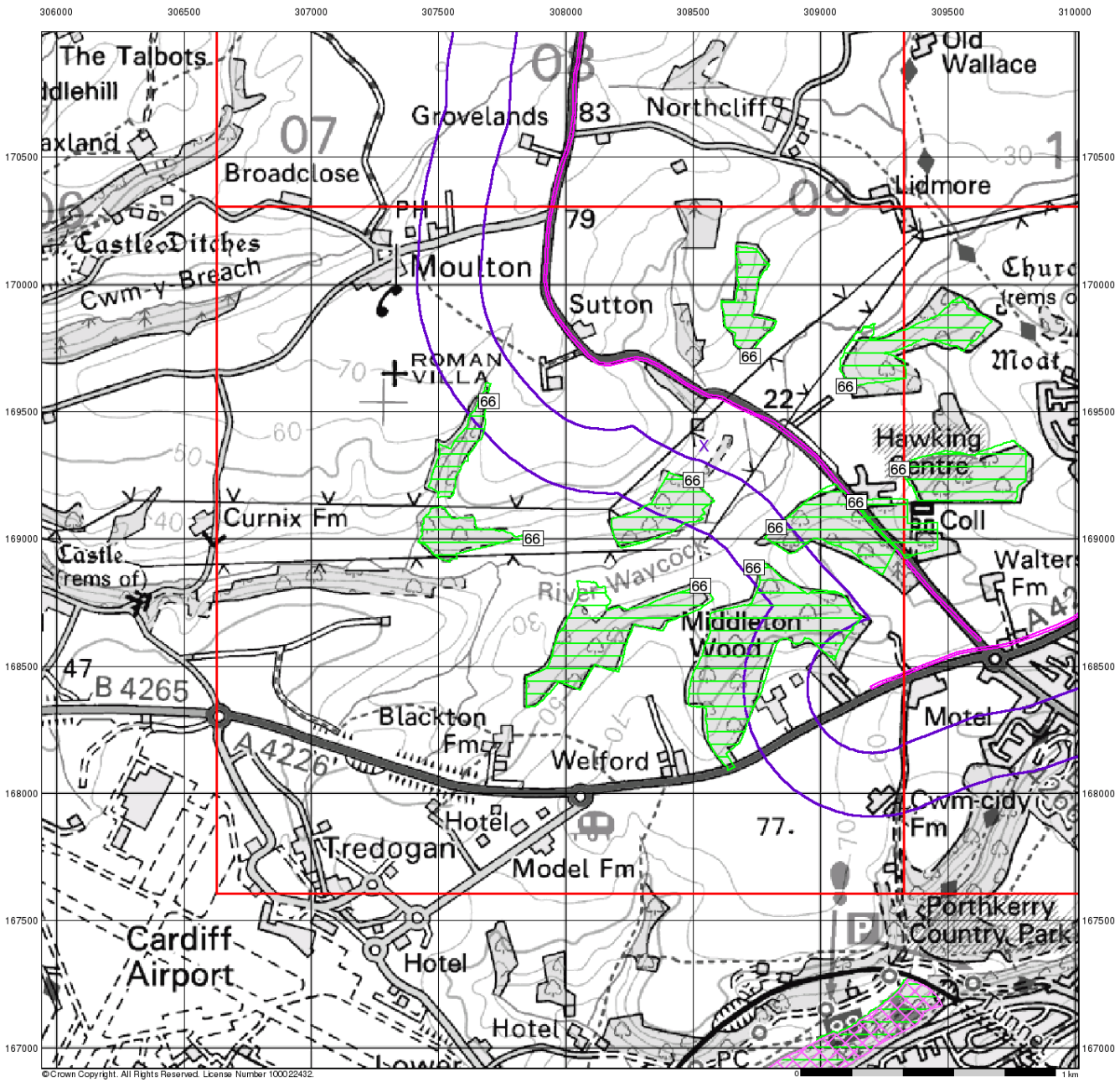


Envirocheck®

Sensitive Land Uses

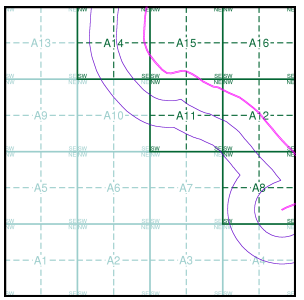
General

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

Sensitive Land Uses

- 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

Site Sensitivity Context Map - Slice A



Order Details

Order Number:	51886031_1_1
Customer Ref:	3512646D-HHC
National Grid Reference:	308540, 169370
Slice:	A
Site Area (Ha):	20.09
Search Buffer (m):	500

Site Details

Cardiff International Airport, And Culverhouse Cross, Cardiff, CF5 6XW

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

Envirocheck® Report:

Datasheet

Order Details:

Order Number:
51886031_1_1

Customer Reference:
3512646D-HHC

National Grid Reference:
308540, 169370

Slice:
A

Site Area (Ha):
20.09

Search Buffer (m):
500

Site Details:

Cardiff International Airport
And Culverhouse Cross
Cardiff
CF5 6XW

Client Details:

Mr G Jones
Parsons Brinckerhoff Ltd
29 Cathedral Road
Cardiff
CF11 9HA

Contents

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 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

Natural England Copyright Notice

Ove Arup Copyright Notice

Peter Brett Associates Copyright Notice

Radon Potential dataset Copyright Notice

Report Version v47.0

Envirocheck®

Summary

Data Type	Page Number	On Site	0 to 250m	251 to 500m (*up to 1000m)
Agency & Hydrological				
Contaminated Land Register Entries and Notices				
Discharge Consents	pg 1		9	5
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 4	Yes		
Pollution Incidents to Controlled Waters				
Prosecutions Relating to Authorised Processes				
Prosecutions Relating to Controlled Waters				
Registered Radioactive Substances				
River Quality	pg 4	1		
River Quality Biology Sampling Points				
River Quality Chemistry Sampling Points				
Substantiated Pollution Incident Register				
Water Abstractions				
Water Industry Act Referrals				
Groundwater Vulnerability	pg 4	Yes	n/a	n/a
Bedrock Aquifer Designations	pg 5	Yes	n/a	n/a
Superficial Aquifer Designations	pg 6	Yes	n/a	n/a
Source Protection Zones				
Extreme Flooding from Rivers or Sea without Defences	pg 6	Yes		n/a
Flooding from Rivers or Sea without Defences	pg 6	Yes		n/a
Areas Benefiting from Flood Defences				n/a
Flood Water Storage Areas				n/a
Flood Defences				n/a
Detailed River Network Lines	pg 6	Yes	Yes	Yes
Detailed River Network Offline Drainage	pg 16			Yes

Envirocheck®

Summary

Data Type	Page Number	On Site	0 to 250m	251 to 500m (*up to 1000m)
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 Recorded Landfill Sites				
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				
Planning Hazardous Substance Enforcements				
Geological				
BGS 1:625,000 Solid Geology	pg 18	Yes	n/a	n/a
BGS Estimated Soil Chemistry	pg 18	Yes	Yes	Yes
BGS Recorded Mineral Sites	pg 27		1	
BGS Urban Soil Chemistry				
BGS Urban Soil Chemistry Averages				
Brine Compensation Area			n/a	n/a
Coal Mining Affected Areas			n/a	n/a
Mining Instability			n/a	n/a
Man-Made Mining Cavities				
Natural Cavities				
Non Coal Mining Areas of Great Britain				n/a
Potential for Collapsible Ground Stability Hazards	pg 28	Yes		n/a
Potential for Compressible Ground Stability Hazards	pg 28	Yes		n/a
Potential for Ground Dissolution Stability Hazards	pg 28	Yes	Yes	n/a
Potential for Landslide Ground Stability Hazards	pg 29	Yes	Yes	n/a
Potential for Running Sand Ground Stability Hazards	pg 29	Yes	Yes	n/a
Potential for Shrinking or Swelling Clay Ground Stability Hazards	pg 30	Yes	Yes	n/a
Radon Potential - Radon Affected Areas	pg 31	Yes	n/a	n/a
Radon Potential - Radon Protection Measures	pg 31	Yes	n/a	n/a

Envirocheck®

Summary

Data Type	Page Number	On Site	0 to 250m	251 to 500m (*up to 1000m)
Industrial Land Use				
Contemporary Trade Directory Entries (50m)				n/a
Fuel Station Entries				
Sensitive Land Use				
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 32	1		
Special Areas of Conservation				
Special Protection Areas				

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
1	**Discharge Consents** Operator: Dwr Cymru Cyfyngedig Property Type: Sewage Disposal Works - Water Company Location: Weycock Cross Stw Five Mile Lane B, Five Mile Lane Barry Authority: Environment Agency, Welsh Region Catchment Area: River Thaw Reference: AF4021601 Permit Version: 1 Effective Date: 10th November 1989 Issued Date: 10th November 1989 Revocation Date: 13th November 1997 Discharge Type: Sewage Discharges - Final/Treated Effluent - Water Company Discharge Environment: Freshwater Stream/River Receiving Water: River Weycock **Status: Authorisation revokedRevoked** Positional Accuracy: Located by supplier to within 100m	A12NW (E)	4	1	308850 169420
1	**Discharge Consents** Operator: Dwr Cymru Cyfyngedig Property Type: Sewage Disposal Works - Water Company Location: Weycock Cross Stw Barry Authority: Environment Agency, Welsh Region Catchment Area: River Thaw Reference: AN0266101 Permit Version: 1 Effective Date: 21st April 1997 Issued Date: 21st April 1997 Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Stw Storm Overflow/Storm Tank - Water Company Discharge Environment: Freshwater Stream/River Receiving Water: River Weycock **Status: New Consent (Water Resources Act 1991, Section 88 & Schedule 10 as amended by Environment Act 1995)** Positional Accuracy: Located by supplier to within 100m	A12NW (E)	7	1	308870 169430
2	**Discharge Consents** Operator: Ms Norma Griffiths Property Type: Recreational & Cultural Location: Welsh Hawking Centre Five Mile Lane, Five Mile Lane Barry Authority: Environment Agency, Welsh Region Catchment Area: River Thaw Reference: AE1017901 Permit Version: 2 Effective Date: 30th September 1993 Issued Date: 30th September 1993 Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Final/Treated Effluent - Not Water Company Discharge Environment: Freshwater Stream/River Receiving Water: Tributary Of The River Weycock **Status: New Consent, by Application (Water Resources Act 1991, Section 88)** Positional Accuracy: Located by supplier to within 100m	A12SE (E)	7	1	309100 169200
3	**Discharge Consents** Operator: Barry College Property Type: Education Location: Weycock Cross Annex Weycock Road B, Weycock Road Barry Authority: Environment Agency, Welsh Region Catchment Area: River Thaw Reference: AE2032801 Permit Version: 2 Effective Date: 3rd February 1994 Issued Date: 3rd February 1994 Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Final/Treated Effluent - Not Water Company Discharge Environment: Freshwater Stream/River Receiving Water: Trib Of The River Weycock **Status: New Consent, by Application (Water Resources Act 1991, Section 88)** Positional Accuracy: Manually positioned within the geographical locality	A12SE (E)	93	1	309300 169100

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
3	**Discharge Consents** Operator: Barry College Property Type: Education Location: Weycock Cross Annex Weycock Road B, Weycock Road Barry Authority: Environment Agency, Welsh Region Catchment Area: River Thaw Reference: Ae2032801 Permit Version: 1 Effective Date: 29th July 1965 Issued Date: 29th July 1965 Revocation Date: 2nd February 1994 Discharge Type: Sewage Discharges - Final/Treated Effluent - Not Water Company Discharge Environment: Freshwater Stream/River Receiving Water: Unnamed Tributary Of The River **Status: Authorisation revokedRevoked** Positional Accuracy: Located by supplier to within 100m	A12SE (E)	93	1	309300 169100
4	**Discharge Consents** Operator: M A Hardy Ltd Property Type: Livestock Production, Food Production Location: New Farm (Septic Tank), Port Road, Rhoose, Barry, South Glamorgan, Cf62 3bt Authority: Environment Agency, Welsh Region Catchment Area: Not Supplied Reference: Ag0003801 Permit Version: 2 Effective Date: 26th November 2012 Issued Date: 26th November 2012 Revocation Date: Not Supplied Discharge Type: Unspecified Discharge Environment: Land/Soakaway Receiving Water: Soakaway Via Septic Tank **Status: Varied under EPR 2010** Positional Accuracy: Located by supplier to within 10m	A8SE (SE)	157	1	309042 168420
4	**Discharge Consents** Operator: M A Hardy Ltd Property Type: Livestock Production, Food Production Location: New Farm (Septic Tank), Port Road, Rhoose, Barry, South Glamorgan, Cf62 3bt Authority: Environment Agency, Welsh Region Catchment Area: Not Supplied Reference: Ag0003801 Permit Version: 1 Effective Date: 14th October 1980 Issued Date: 14th October 1980 Revocation Date: 25th November 2012 Discharge Type: Unspecified Discharge Environment: Land/Soakaway Receiving Water: Soakaway Via Septic Tank **Status: New Consent, by Application (Water Resources Act 1991, Section 88)** Positional Accuracy: Located by supplier to within 10m	A8SE (SE)	157	1	309042 168420
5	**Discharge Consents** Operator: Dwr Cymru Cyfyngedig Property Type: Sewage Disposal Works - Water Company Location: Weycock Cross Stw Five Mile Lane B, Five Mile Lane Barry Authority: Environment Agency, Welsh Region Catchment Area: River Thaw Reference: Af4021601 Permit Version: 3 Effective Date: 1st January 2010 Issued Date: 26th June 2009 Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Final/Treated Effluent - Water Company Discharge Environment: Freshwater Stream/River Receiving Water: River Weycock **Status: Varied by Application - (Water Resources Act 1991, Schedule 10 as amended by Environment Act 1995)** Positional Accuracy: Located by supplier to within 10m	A12NE (E)	193	1	309080 169500

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
5	**Discharge Consents** Operator: Dwr Cymru Cyfyngedig Property Type: Sewage Disposal Works - Water Company Location: Weycock Cross Stw Five Mile Lane B, Five Mile Lane Barry Authority: Environment Agency, Welsh Region Catchment Area: River Thaw Reference: Af4021601 Permit Version: 2 Effective Date: 14th November 1997 Issued Date: 13th November 1997 Revocation Date: 31st December 2009 Discharge Type: Sewage Discharges - Final/Treated Effluent - Water Company Discharge Environment: Freshwater Stream/River Receiving Water: River Weycock **Status: Varied by Application - (Water Resources Act 1991, Schedule 10 as amended by Environment Act 1995)** Positional Accuracy: Located by supplier to within 10m	A12NE (E)	193	1	309080 169500
6	**Discharge Consents** Operator: Dwr Cymru Cyfyngedig Property Type: Sewerage Network - Pumping Station - Water Company Location: Nant Talwg Ps Barry Authority: Environment Agency, Welsh Region Catchment Area: Nant Talwg Reference: Ae1010701 Permit Version: 5 Effective Date: 31st March 2009 Issued Date: 28th January 2009 Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Pumping Station - Water Company Discharge Environment: Freshwater Stream/River Receiving Water: Nant Talwg **Status: Modified (Water Resources Act 1991, Schedule 10 as amended by Environment Act 1995)** Positional Accuracy: Located by supplier to within 10m	A4NE (SE)	270	1	309080 168170
6	**Discharge Consents** Operator: Dwr Cymru Cyfyngedig Property Type: Sewerage Network - Pumping Station - Water Company Location: Nant Talwg Ps Barry Authority: Environment Agency, Welsh Region Catchment Area: Nant Talwg Reference: Ae1010701 Permit Version: 5 Effective Date: 31st March 2009 Issued Date: 28th January 2009 Revocation Date: Not Supplied Discharge Type: Public Sewage: Storm Sewage Overflow Discharge Environment: Freshwater Stream/River Receiving Water: Nant Talwg **Status: Modified (Water Resources Act 1991, Schedule 10 as amended by Environment Act 1995)** Positional Accuracy: Located by supplier to within 10m	A4NE (SE)	270	1	309080 168170
6	**Discharge Consents** Operator: Dwr Cymru Cyfyngedig Property Type: Sewerage Network - Pumping Station - Water Company Location: Nant Talwg Ps Barry Authority: Environment Agency, Welsh Region Catchment Area: Nant Talwg Reference: Ae1010701 Permit Version: 4 Effective Date: 31st March 2008 Issued Date: 31st March 2005 Revocation Date: 30th March 2009 Discharge Type: Sewage Discharges - Pumping Station - Water Company Discharge Environment: Freshwater Stream/River Receiving Water: Nant Talwg **Status: Modified (Water Resources Act 1991, Schedule 10 as amended by Environment Act 1995)** Positional Accuracy: Located by supplier to within 10m	A4NE (SE)	270	1	309080 168170

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
6	**Discharge Consents** Operator: Dwr Cymru Cyfyngedig Property Type: Sewerage Network - Pumping Station - Water Company Location: Nant Talwg Ps Barry Authority: Environment Agency, Welsh Region Catchment Area: Nant Talwg Reference: Ae1010701 Permit Version: 4 Effective Date: 31st March 2008 Issued Date: 31st March 2005 Revocation Date: 30th March 2009 Discharge Type: Public Sewage: Storm Sewage Overflow Discharge Environment: Freshwater Stream/River Receiving Water: Nant Talwg **Status: Modified (Water Resources Act 1991, Schedule 10 as amended by Environment Act 1995)** Positional Accuracy: Located by supplier to within 10m	A4NE (SE)	270	1	309080 168170
6	**Discharge Consents** Operator: Dwr Cymru Cyfyngedig Property Type: Sewerage Network - Pumping Station - Water Company Location: Nant Talwg Ps Barry Authority: Environment Agency, Welsh Region Catchment Area: Nant Talwg Reference: AE1010701 Permit Version: 1 Effective Date: 5th January 1959 Issued Date: 5th January 1959 Revocation Date: 30th July 2004 Discharge Type: Unspecified Discharge Environment: Freshwater Stream/River Receiving Water: Nant Talwg **Status: New Consent, by Application (Water Resources Act 1991, Section 88)** Positional Accuracy: Located by supplier to within 100m	A4NE (SE)	270	1	309080 168170
	Nearest Surface Water Feature	A12NW (E)	0	-	308888 169399
	River Quality Name: Weycock GQA Grade: River Quality B Reach: Conf.Llancarfan - Conf.At Lidmore Estimated Distance (km): 5.6 Flow Rate: Flow less than 0.62 cumecs Flow Type: River Year: 2000	A12NW (E)	0	1	308750 169426
	Groundwater Vulnerability Soil Classification: Soils of High Leaching Potential (U) - Soil information for restored mineral workings and urban areas is based on fewer observations than elsewhere. A worst case vulnerability classification (H) assumed, until proved otherwise Map Sheet: Sheet 36 Mid Glamorgan Scale: 1:100,000	(E)	0	1	309820 169566
	Groundwater Vulnerability Soil Classification: Soils of Low Leaching Potential - Soils in which pollutants are unlikely to penetrate the soil layer because water movement is largely horizontal or they have large ability to attenuate diffuse pollutants. Lateral flow from these soils contribute to groundwater recharge elsewhere in the catchment Map Sheet: Sheet 36 Mid Glamorgan Scale: 1:100,000	A12SW (SE)	0	1	308721 169185
	Groundwater Vulnerability Soil Classification: Not classified Map Sheet: Sheet 36 Mid Glamorgan Scale: 1:100,000	A8SW (SE)	0	1	308920 168487
	Groundwater Vulnerability Soil Classification: Not classified Map Sheet: Sheet 36 Mid Glamorgan Scale: 1:100,000	(SE)	0	1	309786 168623
	Groundwater Vulnerability Soil Classification: Soils of High Leaching Potential (U) - Soil information for restored mineral workings and urban areas is based on fewer observations than elsewhere. A worst case vulnerability classification (H) assumed, until proved otherwise Map Sheet: Sheet 36 Mid Glamorgan Scale: 1:100,000	(SE)	0	1	309615 168515

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Groundwater Vulnerability Soil Classification: Soils of Intermediate Leaching Potential (I1) - Soils which can possibly transmit a wide range of pollutants Map Sheet: Sheet 36 Mid Glamorgan Scale: 1:100,000	A8SE (SE)	0	1	309135 168549
	Groundwater Vulnerability Soil Classification: Not classified Map Sheet: Sheet 36 Mid Glamorgan Scale: 1:100,000	A11NE (E)	0	1	308544 169367
	Groundwater Vulnerability Soil Classification: Soils of High Leaching Potential (H1) - Soils which readily transmit liquid discharges because they are either shallow, or susceptible to rapid by-pass flow directly to rock, gravel or groundwater Map Sheet: Sheet 36 Mid Glamorgan Scale: 1:100,000	A11NE (E)	0	1	308548 169365
	Groundwater Vulnerability Soil Classification: Not classified Map Sheet: Sheet 36 Mid Glamorgan Scale: 1:100,000	(NE)	0	1	309570 171010
	Groundwater Vulnerability Soil Classification: Soils of Intermediate Leaching Potential (I1) - Soils which can possibly transmit a wide range of pollutants Map Sheet: Sheet 36 Mid Glamorgan Scale: 1:100,000	A11NE (NW)	0	1	308451 169468
	Groundwater Vulnerability Soil Classification: Not classified Map Sheet: Sheet 36 Mid Glamorgan Scale: 1:100,000	A16SE (NE)	0	1	309226 169686
	Groundwater Vulnerability Soil Classification: Soils of Low Leaching Potential - Soils in which pollutants are unlikely to penetrate the soil layer because water movement is largely horizontal or they have large ability to attenuate diffuse pollutants. Lateral flow from these soils contribute to groundwater recharge elsewhere in the catchment Map Sheet: Sheet 36 Mid Glamorgan Scale: 1:100,000	A16SW (N)	0	1	308673 169817
	Groundwater Vulnerability Soil Classification: Soils of Low Leaching Potential - Soils in which pollutants are unlikely to penetrate the soil layer because water movement is largely horizontal or they have large ability to attenuate diffuse pollutants. Lateral flow from these soils contribute to groundwater recharge elsewhere in the catchment Map Sheet: Sheet 36 Mid Glamorgan Scale: 1:100,000	(N)	0	1	308138 170379
	Groundwater Vulnerability Soil Classification: Soils of Low Leaching Potential - Soils in which pollutants are unlikely to penetrate the soil layer because water movement is largely horizontal or they have large ability to attenuate diffuse pollutants. Lateral flow from these soils contribute to groundwater recharge elsewhere in the catchment Map Sheet: Sheet 36 Mid Glamorgan Scale: 1:100,000	(N)	0	1	307887 171424
	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 36 Mid Glamorgan Scale: 1:100,000	(N)	0	1	308489 170973
	Drift Deposits None				
	Bedrock Aquifer Designations Aquifer Desination: Secondary Aquifer - A	A15NE (N)	0	2	308544 170000
	Bedrock Aquifer Designations Aquifer Desination: Secondary Aquifer - A	(E)	0	2	309999 169367
	Bedrock Aquifer Designations Aquifer Desination: Secondary Aquifer - A	(NE)	0	2	309999 170019
	Bedrock Aquifer Designations Aquifer Desination: Secondary Aquifer - B	A16NW (N)	0	2	308664 170000

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Bedrock Aquifer Designations Aquifer Desination: Secondary Aquifer - B	A11NE (E)	0	2	308544 169367
	Bedrock Aquifer Designations Aquifer Desination: Secondary Aquifer - B	(SE)	0	2	309774 168630
	Bedrock Aquifer Designations Aquifer Desination: Secondary Aquifer - B	(E)	0	2	310063 168928
	Bedrock Aquifer Designations Aquifer Desination: Secondary Aquifer - B	A8SW (S)	0	2	308891 168490
	Bedrock Aquifer Designations Aquifer Desination: Secondary Aquifer - A	A16NW (N)	0	2	308744 170000
	Bedrock Aquifer Designations Aquifer Desination: Secondary Aquifer - A	A11NE (W)	0	2	308502 169381
	Superficial Aquifer Designations Aquifer Designation: Secondary Aquifer - A	A11SE (SE)	0	2	308649 169233
	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	A12SW (SE)	0	1	308690 169265
	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	A12SW (SE)	0	1	308670 169235
	Areas Benefiting from Flood Defences None				
	Flood Water Storage Areas None				
	Flood Defences None				
7	**Detailed River Network Lines** River Type: Primary River River Name: River Waycock Hydrographic Area: D008 River Flow Type: Primary Flow Path River Surface Level: Surface Drain Feature: Not a Drain Flood Risk Management Status: Flood Risk Management Indicative/Statutory Main River Water Course Name: WAYCOCK Water Course Reference: 870	A12SW (SE)	0	1	308821 169200
8	**Detailed River Network Lines** River Type: Tertiary River River Name: Not Supplied Hydrographic Area: D008 River Flow Type: Primary Flow Path River Surface Level: Surface Drain Feature: Not a Drain Flood Risk Management Status: Other Rivers Water Course Name: Not Supplied Water Course Reference: Not Supplied	A12NW (E)	0	1	308729 169400

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
9	**Detailed River Network Lines** River Type: Tertiary River River Name: Not Supplied Hydrographic Area: D008 River Flow Type: Primary Flow Path River Surface Level: Surface Drain Feature: Not a Drain Flood Risk Other Rivers Management Status: Water Course Name: Not Supplied Water Course Reference: Not Supplied	A12SE (E)	2	1	309122 169174
10	**Detailed River Network Lines** River Type: Tertiary River River Name: Not Supplied Hydrographic Area: D008 River Flow Type: Primary Flow Path River Surface Level: Surface Drain Feature: Not a Drain Flood Risk Other Rivers Management Status: Water Course Name: Not Supplied Water Course Reference: Not Supplied	A12SE (E)	3	1	309076 169222
11	**Detailed River Network Lines** River Type: Tertiary River River Name: Not Supplied Hydrographic Area: D008 River Flow Type: Primary Flow Path River Surface Level: Surface Drain Feature: Not a Drain Flood Risk Other Rivers Management Status: Water Course Name: Not Supplied Water Course Reference: Not Supplied	A12SE (E)	3	1	309076 169222
12	**Detailed River Network Lines** River Type: Tertiary River River Name: Not Supplied Hydrographic Area: D008 River Flow Type: Primary Flow Path River Surface Level: Surface Drain Feature: Not a Drain Flood Risk Other Rivers Management Status: Water Course Name: Not Supplied Water Course Reference: Not Supplied	A12NW (E)	3	1	308963 169390
13	**Detailed River Network Lines** River Type: Extended Culvert (greater than 50m) River Name: Not Supplied Hydrographic Area: D008 River Flow Type: Primary Flow Path River Surface Level: Below Surface Drain Feature: Not a Drain Flood Risk Other Rivers Management Status: Water Course Name: Not Supplied Water Course Reference: Not Supplied	A12SE (E)	3	1	309077 169221
14	**Detailed River Network Lines** River Type: Secondary River River Name: Not Supplied Hydrographic Area: D008 River Flow Type: Primary Flow Path River Surface Level: Surface Drain Feature: Not a Drain Flood Risk Other Rivers Management Status: Water Course Name: Not Supplied Water Course Reference: Not Supplied	A12SE (SE)	6	1	309282 169005

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
15	**Detailed River Network Lines** River Type: Tertiary River River Name: Not Supplied Hydrographic Area: D008 River Flow Type: Primary Flow Path River Surface Level: Surface Drain Feature: Not a Drain Flood Risk Management Status: Other Rivers Water Course Name: Not Supplied Water Course Reference:	A12NW (E)	20	1	308881 169438
16	**Detailed River Network Lines** River Type: Primary River River Name: Not Supplied Hydrographic Area: D008 River Flow Type: Primary Flow Path River Surface Level: Surface Drain Feature: Not a Drain Flood Risk Management Status: Flood Risk Management Indicative/Statutory Main River Water Course Name: WAYCOCK Water Course Reference: 870	A12NW (E)	20	1	308881 169438
17	**Detailed River Network Lines** River Type: Tertiary River River Name: Not Supplied Hydrographic Area: D008 River Flow Type: Primary Flow Path River Surface Level: Surface Drain Feature: Not a Drain Flood Risk Management Status: Other Rivers Water Course Name: Not Supplied Water Course Reference:	A12NW (E)	27	1	308881 169447
18	**Detailed River Network Lines** River Type: Primary River River Name: Not Supplied Hydrographic Area: D008 River Flow Type: Primary Flow Path River Surface Level: Surface Drain Feature: Not a Drain Flood Risk Management Status: Flood Risk Management Indicative/Statutory Main River Water Course Name: WAYCOCK Water Course Reference: 870	A12NW (E)	27	1	308881 169447
19	**Detailed River Network Lines** River Type: Tertiary River River Name: Not Supplied Hydrographic Area: D008 River Flow Type: Primary Flow Path River Surface Level: Surface Drain Feature: Not a Drain Flood Risk Management Status: Other Rivers Water Course Name: Not Supplied Water Course Reference:	A12NW (E)	34	1	308963 169390
20	**Detailed River Network Lines** River Type: Tertiary River River Name: Not Supplied Hydrographic Area: D008 River Flow Type: Primary Flow Path River Surface Level: Surface Drain Feature: Not a Drain Flood Risk Management Status: Other Rivers Water Course Name: Not Supplied Water Course Reference:	A15SE (N)	80	1	308523 169677

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
21	**Detailed River Network Lines** River Type: Tertiary River River Name: Drain Hydrographic Area: D008 River Flow Type: Primary Flow Path River Surface Level: Surface Drain Feature: Drain (ditch, Reen, Rhyne, Drain) Flood Risk Other Rivers Management Status: Water Course Name: Not Supplied Water Course Reference: Not Supplied	A15SE (N)	80	1	308523 169677
22	**Detailed River Network Lines** River Type: Secondary River River Name: Not Supplied Hydrographic Area: D008 River Flow Type: Primary Flow Path River Surface Level: Surface Drain Feature: Not a Drain Flood Risk Other Rivers Management Status: Water Course Name: Not Supplied Water Course Reference: Not Supplied	A12SE (E)	81	1	309170 169233
23	**Detailed River Network Lines** River Type: Tertiary River River Name: Not Supplied Hydrographic Area: D008 River Flow Type: Primary Flow Path River Surface Level: Surface Drain Feature: Not a Drain Flood Risk Other Rivers Management Status: Water Course Name: Not Supplied Water Course Reference: Not Supplied	A12NW (E)	85	1	308956 169462
24	**Detailed River Network Lines** River Type: Tertiary River River Name: Not Supplied Hydrographic Area: D008 River Flow Type: Primary Flow Path River Surface Level: Surface Drain Feature: Not a Drain Flood Risk Other Rivers Management Status: Water Course Name: Not Supplied Water Course Reference: Not Supplied	A12NW (E)	85	1	308956 169462
25	**Detailed River Network Lines** River Type: Tertiary River River Name: Drain Hydrographic Area: D008 River Flow Type: Primary Flow Path River Surface Level: Surface Drain Feature: Drain (ditch, Reen, Rhyne, Drain) Flood Risk Other Rivers Management Status: Water Course Name: Not Supplied Water Course Reference: Not Supplied	A11NE (N)	114	1	308559 169426
26	**Detailed River Network Lines** River Type: Secondary River River Name: Drain Hydrographic Area: D008 River Flow Type: Primary Flow Path River Surface Level: Surface Drain Feature: Drain (ditch, Reen, Rhyne, Drain) Flood Risk Other Rivers Management Status: Water Course Name: Not Supplied Water Course Reference: Not Supplied	A12SW (SE)	119	1	308784 169264

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
27	**Detailed River Network Lines** River Type: Tertiary River River Name: Not Supplied Hydrographic Area: D008 River Flow Type: Primary Flow Path River Surface Level: Surface Drain Feature: Not a Drain Flood Risk Management Status: Other Rivers Water Course Name: Not Supplied Water Course Reference: Not Supplied	A12SE (E)	148	1	309253 169236
28	**Detailed River Network Lines** River Type: Secondary River River Name: Not Supplied Hydrographic Area: D008 River Flow Type: Primary Flow Path River Surface Level: Surface Drain Feature: Not a Drain Flood Risk Management Status: Other Rivers Water Course Name: Not Supplied Water Course Reference: Not Supplied	A12SW (SE)	168	1	308784 169263
29	**Detailed River Network Lines** River Type: Primary River River Name: Not Supplied Hydrographic Area: D008 River Flow Type: Primary Flow Path River Surface Level: Surface Drain Feature: Not a Drain Flood Risk Management Status: Flood Risk Management Indicative/Statutory Main River Water Course Name: WAYCOCK Water Course Reference: 870	A12SW (SE)	195	1	308689 169151
30	**Detailed River Network Lines** River Type: Tertiary River River Name: Not Supplied Hydrographic Area: D008 River Flow Type: Primary Flow Path River Surface Level: Surface Drain Feature: Not a Drain Flood Risk Management Status: Other Rivers Water Course Name: Not Supplied Water Course Reference: Not Supplied	A12NE (E)	202	1	309071 169521
31	**Detailed River Network Lines** River Type: Tertiary River River Name: Not Supplied Hydrographic Area: D008 River Flow Type: Secondary Flow Path River Surface Level: Surface Drain Feature: Not a Drain Flood Risk Management Status: Other Rivers Water Course Name: Not Supplied Water Course Reference: Not Supplied	A12NE (E)	202	1	309072 169519
32	**Detailed River Network Lines** River Type: Tertiary River River Name: Not Supplied Hydrographic Area: D008 River Flow Type: Primary Flow Path River Surface Level: Surface Drain Feature: Not a Drain Flood Risk Management Status: Other Rivers Water Course Name: Not Supplied Water Course Reference: Not Supplied	A8NE (SE)	203	1	309126 168674

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
33	**Detailed River Network Lines** River Type: Tertiary River River Name: Not Supplied Hydrographic Area: D008 River Flow Type: Secondary Flow Path River Surface Level: Surface Drain Feature: Not a Drain Flood Risk Other Rivers Management Status: Water Course Name: Not Supplied Water Course Reference: Not Supplied	A12NE (E)	211	1	309183 169433
34	**Detailed River Network Lines** River Type: Tertiary River River Name: Not Supplied Hydrographic Area: D008 River Flow Type: Primary Flow Path River Surface Level: Surface Drain Feature: Not a Drain Flood Risk Other Rivers Management Status: Water Course Name: Not Supplied Water Course Reference: Not Supplied	A12SE (E)	216	1	309311 169271
35	**Detailed River Network Lines** River Type: Tertiary River River Name: Not Supplied Hydrographic Area: D008 River Flow Type: Primary Flow Path River Surface Level: Surface Drain Feature: Not a Drain Flood Risk Other Rivers Management Status: Water Course Name: Not Supplied Water Course Reference: Not Supplied	A12NE (E)	219	1	309183 169433
36	**Detailed River Network Lines** River Type: Tertiary River River Name: Not Supplied Hydrographic Area: D008 River Flow Type: Primary Flow Path River Surface Level: Surface Drain Feature: Not a Drain Flood Risk Other Rivers Management Status: Water Course Name: Not Supplied Water Course Reference: Not Supplied	A15SE (N)	239	1	308431 169923
37	**Detailed River Network Lines** River Type: Tertiary River River Name: Not Supplied Hydrographic Area: D008 River Flow Type: Primary Flow Path River Surface Level: Surface Drain Feature: Not a Drain Flood Risk Other Rivers Management Status: Water Course Name: Not Supplied Water Course Reference: Not Supplied	A4NE (SE)	240	1	309308 168194
38	**Detailed River Network Lines** River Type: Tertiary River River Name: Not Supplied Hydrographic Area: D008 River Flow Type: Primary Flow Path River Surface Level: Surface Drain Feature: Not a Drain Flood Risk Other Rivers Management Status: Water Course Name: Not Supplied Water Course Reference: Not Supplied	A15SE (N)	243	1	308431 169923

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
39	**Detailed River Network Lines** River Type: Tertiary River River Name: Not Supplied Hydrographic Area: D008 River Flow Type: Secondary Flow Path River Surface Level: Surface Drain Feature: Not a Drain Flood Risk Other Rivers Management Status: Water Course Name: Not Supplied Water Course Reference: Not Supplied	A8NE (SE)	261	1	309121 168679
40	**Detailed River Network Lines** River Type: Tertiary River River Name: Not Supplied Hydrographic Area: D008 River Flow Type: Primary Flow Path River Surface Level: Surface Drain Feature: Not a Drain Flood Risk Other Rivers Management Status: Water Course Name: Not Supplied Water Course Reference: Not Supplied	A8NE (SE)	261	1	309119 168678
41	**Detailed River Network Lines** River Type: Tertiary River River Name: Not Supplied Hydrographic Area: D008 River Flow Type: Primary Flow Path River Surface Level: Surface Drain Feature: Not a Drain Flood Risk Other Rivers Management Status: Water Course Name: Not Supplied Water Course Reference: Not Supplied	A8NE (SE)	268	1	309115 168681
42	**Detailed River Network Lines** River Type: Tertiary River River Name: Not Supplied Hydrographic Area: D008 River Flow Type: Primary Flow Path River Surface Level: Surface Drain Feature: Not a Drain Flood Risk Other Rivers Management Status: Water Course Name: Not Supplied Water Course Reference: Not Supplied	A8NE (SE)	272	1	309116 168682
43	**Detailed River Network Lines** River Type: Tertiary River River Name: Not Supplied Hydrographic Area: D008 River Flow Type: Primary Flow Path River Surface Level: Surface Drain Feature: Not a Drain Flood Risk Other Rivers Management Status: Water Course Name: Not Supplied Water Course Reference: Not Supplied	A8NW (SE)	272	1	308919 168769
44	**Detailed River Network Lines** River Type: Tertiary River River Name: Not Supplied Hydrographic Area: D008 River Flow Type: Primary Flow Path River Surface Level: Surface Drain Feature: Not a Drain Flood Risk Other Rivers Management Status: Water Course Name: Not Supplied Water Course Reference: Not Supplied	A8NW (SE)	306	1	308919 168769

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
45	**Detailed River Network Lines** River Type: Tertiary River River Name: Not Supplied Hydrographic Area: D008 River Flow Type: Primary Flow Path River Surface Level: Surface Drain Feature: Not a Drain Flood Risk Management Status: Other Rivers Water Course Name: Not Supplied Water Course Reference: Not Supplied	A11SE (S)	331	1	308504 169231
46	**Detailed River Network Lines** River Type: Tertiary River River Name: Drain Hydrographic Area: D008 River Flow Type: Primary Flow Path River Surface Level: Surface Drain Feature: Drain (ditch, Reen, Rhyne, Drain) Flood Risk Management Status: Other Rivers Water Course Name: Not Supplied Water Course Reference: Not Supplied	A11SE (S)	340	1	308524 169210
47	**Detailed River Network Lines** River Type: Tertiary River River Name: Not Supplied Hydrographic Area: D008 River Flow Type: Primary Flow Path River Surface Level: Surface Drain Feature: Not a Drain Flood Risk Management Status: Other Rivers Water Course Name: Not Supplied Water Course Reference: Not Supplied	A10NE (W)	368	1	307693 169584
48	**Detailed River Network Lines** River Type: Tertiary River River Name: Not Supplied Hydrographic Area: D008 River Flow Type: Primary Flow Path River Surface Level: Surface Drain Feature: Not a Drain Flood Risk Management Status: Other Rivers Water Course Name: Not Supplied Water Course Reference: Not Supplied	A11SE (S)	371	1	308585 169148
49	**Detailed River Network Lines** River Type: Secondary River River Name: Drain Hydrographic Area: D008 River Flow Type: Primary Flow Path River Surface Level: Surface Drain Feature: Drain (ditch, Reen, Rhyne, Drain) Flood Risk Management Status: Other Rivers Water Course Name: Not Supplied Water Course Reference: Not Supplied	A11SE (S)	371	1	308585 169148
50	**Detailed River Network Lines** River Type: Tertiary River River Name: Not Supplied Hydrographic Area: D008 River Flow Type: Primary Flow Path River Surface Level: Surface Drain Feature: Not a Drain Flood Risk Management Status: Other Rivers Water Course Name: Not Supplied Water Course Reference: Not Supplied	A14NW (NW)	377	1	307546 170159

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
51	**Detailed River Network Lines** River Type: Tertiary River River Name: Not Supplied Hydrographic Area: D008 River Flow Type: Primary Flow Path River Surface Level: Surface Drain Feature: Not a Drain Flood Risk Management Status: Other Rivers Water Course Name: Not Supplied Water Course Reference: Not Supplied	A8NW (SE)	401	1	308763 168844
52	**Detailed River Network Lines** River Type: Secondary River River Name: Not Supplied Hydrographic Area: D008 River Flow Type: Primary Flow Path River Surface Level: Surface Drain Feature: Not a Drain Flood Risk Management Status: Other Rivers Water Course Name: Not Supplied Water Course Reference: Not Supplied	A11SE (S)	412	1	308616 169075
53	**Detailed River Network Lines** River Type: Primary River River Name: Not Supplied Hydrographic Area: D008 River Flow Type: Primary Flow Path River Surface Level: Surface Drain Feature: Not a Drain Flood Risk Management Status: Flood Risk Management Indicative/Statutory Main River Water Course Name: WAYCOCK Water Course Reference: 870	A11SE (S)	420	1	308562 169077
54	**Detailed River Network Lines** River Type: Tertiary River River Name: Not Supplied Hydrographic Area: D008 River Flow Type: Primary Flow Path River Surface Level: Surface Drain Feature: Not a Drain Flood Risk Management Status: Other Rivers Water Course Name: Not Supplied Water Course Reference: Not Supplied	A11SE (S)	426	1	308635 169053
55	**Detailed River Network Lines** River Type: Tertiary River River Name: Not Supplied Hydrographic Area: D008 River Flow Type: Primary Flow Path River Surface Level: Surface Drain Feature: Not a Drain Flood Risk Management Status: Other Rivers Water Course Name: Not Supplied Water Course Reference: Not Supplied	A16SE (NE)	435	1	308994 169858
56	**Detailed River Network Lines** River Type: Primary River River Name: Not Supplied Hydrographic Area: D008 River Flow Type: Primary Flow Path River Surface Level: Surface Drain Feature: Not a Drain Flood Risk Management Status: Flood Risk Management Indicative/Statutory Main River Water Course Name: WAYCOCK Water Course Reference: 870	A16SE (NE)	438	1	309001 169858

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
57	**Detailed River Network Lines** River Type: Tertiary River River Name: Not Supplied Hydrographic Area: D008 River Flow Type: Primary Flow Path River Surface Level: Surface Drain Feature: Not a Drain Flood Risk Management Status: Other Rivers Water Course Name: Not Supplied Water Course Reference:	A8NW (S)	450	1	308694 168939
58	**Detailed River Network Lines** River Type: Primary River River Name: Waycock Hydrographic Area: D008 River Flow Type: Primary Flow Path River Surface Level: Surface Drain Feature: Not a Drain Flood Risk Management Status: Flood Risk Management Indicative/Statutory Main River Water Course Name: WAYCOCK Water Course Reference: 870	A11SE (S)	455	1	308552 169071
59	**Detailed River Network Lines** River Type: Tertiary River River Name: Drain Hydrographic Area: D008 River Flow Type: Secondary Flow Path River Surface Level: Surface Drain Feature: Drain (ditch, Reen, Rhyne, Drain) Flood Risk Management Status: Other Rivers Water Course Name: Not Supplied Water Course Reference: Not Supplied	A7NE (S)	462	1	308626 168928
60	**Detailed River Network Lines** River Type: Tertiary River River Name: Not Supplied Hydrographic Area: D008 River Flow Type: Primary Flow Path River Surface Level: Surface Drain Feature: Not a Drain Flood Risk Management Status: Other Rivers Water Course Name: Not Supplied Water Course Reference: Not Supplied	A8NW (SE)	471	1	308763 168844
61	**Detailed River Network Lines** River Type: Tertiary River River Name: Not Supplied Hydrographic Area: D008 River Flow Type: Primary Flow Path River Surface Level: Surface Drain Feature: Not a Drain Flood Risk Management Status: Other Rivers Water Course Name: Not Supplied Water Course Reference: Not Supplied	A8NW (S)	477	1	308692 168646
62	**Detailed River Network Lines** River Type: Primary River River Name: River Waycock Hydrographic Area: D008 River Flow Type: Primary Flow Path River Surface Level: Surface Drain Feature: Not a Drain Flood Risk Management Status: Flood Risk Management Indicative/Statutory Main River Water Course Name: WAYCOCK Water Course Reference: 870	A16SE (NE)	494	1	309162 169820

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
63	**Detailed River Network Lines** River Type: Tertiary River River Name: Drain Hydrographic Area: D008 River Flow Type: Primary Flow Path River Surface Level: Surface Drain Feature: Drain (ditch, Reen, Rhyne, Drain) Flood Risk Management Status: Other Rivers Water Course Name: Not Supplied Water Course Reference: Not Supplied	A16SE (NE)	494	1	309162 169820
64	**Detailed River Network Offline Drainage** River Type: Tertiary River Hydrographic Area: D008	A12SW (SE)	319	1	308783 169004

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Local Authority Landfill Coverage Name: Vale Of Glamorgan County Borough Council - Has supplied landfill data		0	4	308544 169367

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS 1:625,000 Solid Geology Description: Lower Lias	A11NE (E)	0	2	308544 169367
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic Concentration: 15 - 25 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 40 - 60 mg/kg Lead Concentration: <150 mg/kg Nickel Concentration: 30 - 45 mg/kg	A12SE (SE)	0	3	309181 169000
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic Concentration: 15 - 25 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 40 - 60 mg/kg Lead Concentration: <150 mg/kg Nickel Concentration: 30 - 45 mg/kg	A12SE (E)	0	3	309000 169258
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic Concentration: 15 - 25 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <150 mg/kg Nickel Concentration: 30 - 45 mg/kg	A15NW (NW)	0	3	308000 170000
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic Concentration: 15 - 25 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <150 mg/kg Nickel Concentration: 30 - 45 mg/kg	A15NE (N)	0	3	308544 170000
	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: <150 mg/kg Nickel Concentration: 30 - 45 mg/kg	A8SE (SE)	0	3	309000 168526
	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: <150 mg/kg Nickel Concentration: 30 - 45 mg/kg	A12NE (E)	0	3	309000 169367

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic Concentration: 15 - 25 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <150 mg/kg Nickel Concentration: 30 - 45 mg/kg	A12SE (E)	0	3	309024 169277
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic Concentration: 15 - 25 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 40 - 60 mg/kg Lead Concentration: <150 mg/kg Nickel Concentration: 30 - 45 mg/kg	A11NE (SE)	0	3	308592 169336
	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: <150 mg/kg Nickel Concentration: 30 - 45 mg/kg	A11SE (SE)	0	3	308650 169232
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic Concentration: 15 - 25 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 40 - 60 mg/kg Lead Concentration: <150 mg/kg Nickel Concentration: 30 - 45 mg/kg	A11NW (W)	0	3	308000 169367
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic Concentration: 15 - 25 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 40 - 60 mg/kg Lead Concentration: <150 mg/kg Nickel Concentration: 30 - 45 mg/kg	A11NE (W)	0	3	308503 169381
	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: <150 mg/kg Nickel Concentration: 30 - 45 mg/kg	A11NE (E)	0	3	308544 169367

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic Concentration: 15 - 25 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 40 - 60 mg/kg Lead Concentration: <150 mg/kg Nickel Concentration: 30 - 45 mg/kg	A8NE (SE)	0	3	309000 168889
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic Concentration: 15 - 25 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 40 - 60 mg/kg Lead Concentration: <150 mg/kg Nickel Concentration: 30 - 45 mg/kg	A11NE (NE)	12	3	308631 169571
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic Concentration: 15 - 25 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 40 - 60 mg/kg Lead Concentration: <150 mg/kg Nickel Concentration: 30 - 45 mg/kg	A12SW (SE)	24	3	308834 169107
	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: <150 mg/kg Nickel Concentration: 30 - 45 mg/kg	A12SE (SE)	29	3	309103 169000
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic Concentration: 15 - 25 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <150 mg/kg Nickel Concentration: 30 - 45 mg/kg	A14NE (NW)	51	3	307864 170000
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic Concentration: 15 - 25 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 40 - 60 mg/kg Lead Concentration: <150 mg/kg Nickel Concentration: 30 - 45 mg/kg	A10NE (W)	52	3	307858 169367

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic Concentration: <15 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <150 mg/kg Nickel Concentration: 30 - 45 mg/kg	A12SE (SE)	53	3	309000 169078
	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: <150 mg/kg Nickel Concentration: 30 - 45 mg/kg	A8NE (SE)	67	3	309000 168894
	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: <150 mg/kg Nickel Concentration: 30 - 45 mg/kg	A12SE (E)	77	3	309312 169141
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic Concentration: 15 - 25 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 40 - 60 mg/kg Lead Concentration: <150 mg/kg Nickel Concentration: 30 - 45 mg/kg	A12SE (SE)	93	3	309000 168999
	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: 40 - 60 mg/kg Lead Concentration: <150 mg/kg Nickel Concentration: 15 - 30 mg/kg	A8SE (SE)	109	3	309216 168591
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic Concentration: 15 - 25 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 40 - 60 mg/kg Lead Concentration: <150 mg/kg Nickel Concentration: 30 - 45 mg/kg	A12SE (SE)	110	3	309004 169000

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic Concentration: <15 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <150 mg/kg Nickel Concentration: 30 - 45 mg/kg	A12SW (SE)	140	3	308946 169049
	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: 40 - 60 mg/kg Lead Concentration: <150 mg/kg Nickel Concentration: 15 - 30 mg/kg	A8NE (SE)	148	3	309019 168698
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic Concentration: 15 - 25 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 40 - 60 mg/kg Lead Concentration: <150 mg/kg Nickel Concentration: 30 - 45 mg/kg	A8NE (SE)	150	3	309000 168691
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic Concentration: 15 - 25 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 40 - 60 mg/kg Lead Concentration: <150 mg/kg Nickel Concentration: 30 - 45 mg/kg	A8SE (SE)	151	3	309000 168428
	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: <150 mg/kg Nickel Concentration: 30 - 45 mg/kg	A12SE (SE)	185	3	309000 169000
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic Concentration: 15 - 25 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 40 - 60 mg/kg Lead Concentration: <150 mg/kg Nickel Concentration: 30 - 45 mg/kg	A12SW (SE)	188	3	308949 168963

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic Concentration: <15 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <150 mg/kg Nickel Concentration: 30 - 45 mg/kg	A12SW (SE)	188	3	308909 169000
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic Concentration: 15 - 25 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <150 mg/kg Nickel Concentration: 30 - 45 mg/kg	A12NE (NE)	193	3	308996 169570
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic Concentration: 15 - 25 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 40 - 60 mg/kg Lead Concentration: <150 mg/kg Nickel Concentration: 30 - 45 mg/kg	A12NE (NE)	195	3	308996 169570
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic Concentration: 15 - 25 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 40 - 60 mg/kg Lead Concentration: <150 mg/kg Nickel Concentration: 30 - 45 mg/kg	A12NE (NE)	197	3	309000 169569
	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: <150 mg/kg Nickel Concentration: 30 - 45 mg/kg	A8SW (S)	199	3	308892 168490
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic Concentration: 15 - 25 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 40 - 60 mg/kg Lead Concentration: <150 mg/kg Nickel Concentration: 30 - 45 mg/kg	A7NE (S)	199	3	308539 168731

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic Concentration: 15 - 25 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 40 - 60 mg/kg Lead Concentration: <150 mg/kg Nickel Concentration: 30 - 45 mg/kg	A15SE (N)	223	3	308570 169819
	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: <150 mg/kg Nickel Concentration: 30 - 45 mg/kg	A8NE (SE)	257	3	308997 168894
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic Concentration: 15 - 25 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 40 - 60 mg/kg Lead Concentration: <150 mg/kg Nickel Concentration: 30 - 45 mg/kg	A12SW (SE)	259	3	308746 169000
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic Concentration: 15 - 25 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 40 - 60 mg/kg Lead Concentration: <150 mg/kg Nickel Concentration: 30 - 45 mg/kg	A8NW (S)	259	3	308696 168896
	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: <150 mg/kg Nickel Concentration: 30 - 45 mg/kg	A15NE (N)	296	3	308473 170000
	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: <150 mg/kg Nickel Concentration: 30 - 45 mg/kg	A16NW (N)	312	3	308665 170000

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic Concentration: <15 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <150 mg/kg Nickel Concentration: 30 - 45 mg/kg	A16SE (NE)	319	3	309000 169721
	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: <150 mg/kg Nickel Concentration: 30 - 45 mg/kg	A8NE (SE)	326	3	309000 168737
	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: <150 mg/kg Nickel Concentration: 30 - 45 mg/kg	A8NE (SE)	333	3	309000 168706
	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: <150 mg/kg Nickel Concentration: 30 - 45 mg/kg	A8NW (SE)	338	3	308968 168721
	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: <150 mg/kg Nickel Concentration: 30 - 45 mg/kg	A8NW (SE)	351	3	308970 168753
	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: <150 mg/kg Nickel Concentration: 15 - 30 mg/kg	A8NW (SE)	372	3	308934 168771

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic Concentration: <15 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <150 mg/kg Nickel Concentration: 30 - 45 mg/kg	A8NW (SE)	373	3	308915 168703
	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: <150 mg/kg Nickel Concentration: 30 - 45 mg/kg	A11SE (S)	383	3	308544 169000
	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: <150 mg/kg Nickel Concentration: 30 - 45 mg/kg	A8NW (SE)	389	3	308886 168785
	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: <150 mg/kg Nickel Concentration: 30 - 45 mg/kg	A7NE (S)	402	3	308558 168806
	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: <150 mg/kg Nickel Concentration: 30 - 45 mg/kg	A4NE (SE)	410	3	309143 168000
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic Concentration: 15 - 25 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 40 - 60 mg/kg Lead Concentration: <150 mg/kg Nickel Concentration: 30 - 45 mg/kg	A4NE (S)	415	3	309000 168000

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic Concentration: <15 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <150 mg/kg Nickel Concentration: 30 - 45 mg/kg	A16SE (NE)	441	3	309238 169693
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic Concentration: 15 - 25 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 40 - 60 mg/kg Lead Concentration: <150 mg/kg Nickel Concentration: 30 - 45 mg/kg	A7NE (S)	445	3	308603 168913
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic Concentration: 15 - 25 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <150 mg/kg Nickel Concentration: 30 - 45 mg/kg	A3NE (S)	458	3	308544 168000
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic Concentration: 15 - 25 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <150 mg/kg Nickel Concentration: 30 - 45 mg/kg	A16NW (N)	462	3	308746 170000
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic Concentration: 15 - 25 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 40 - 60 mg/kg Lead Concentration: <150 mg/kg Nickel Concentration: 30 - 45 mg/kg	(SE)	496	3	309331 167920
65	**BGS Recorded Mineral Sites** Site Name: Sutton Location: , Barry, South Glamorgan Source: British Geological Survey, National Geoscience Information Service Reference: 161183 Type: Opencast **Status: Ceased** Operator: Unknown Operator Operator Location: Unknown Operator Periodic Type: Jurassic Geology: Porthkerry Member Commodity: Limestone Positional Accuracy: Located by supplier to within 10m	A15SW (NW)	18	2	307992 169797
	BGS Measured Urban Soil Chemistry No data available				

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	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 No Hazard				
	Potential for Collapsible Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A11SE (SE)	0	2	308649 169233
	Potential for Collapsible Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A15NE (N)	0	2	308544 170000
	Potential for Collapsible Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A12SW (SE)	0	2	308833 169108
	Potential for Collapsible Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A11NE (E)	0	2	308544 169367
	Potential for Compressible Ground Stability Hazards Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service	A12SE (E)	0	2	309023 169277
	Potential for Compressible Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A12SW (SE)	0	2	308833 169108
	Potential for Compressible Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A11NE (E)	0	2	308544 169367
	Potential for Compressible Ground Stability Hazards Hazard Potential: Moderate Source: British Geological Survey, National Geoscience Information Service	A11SE (SE)	0	2	308649 169233
	Potential for Compressible Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A15NE (N)	0	2	308544 170000
	Potential for Ground Dissolution Stability Hazards Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service	A12SE (E)	0	2	309023 169277
	Potential for Ground Dissolution Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A11NE (SE)	0	2	308591 169337
	Potential for Ground Dissolution Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A12SW (SE)	0	2	308833 169108
	Potential for Ground Dissolution Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A15NE (N)	0	2	308544 170000
	Potential for Ground Dissolution Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A11SE (SE)	0	2	308649 169233
	Potential for Ground Dissolution Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A16NW (N)	0	2	308744 170000
	Potential for Ground Dissolution Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A11NE (W)	0	2	308502 169381
	Potential for Ground Dissolution Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A11NE (NE)	12	2	308631 169570
	Potential for Ground Dissolution Stability Hazards Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service	A8NE (SE)	109	2	309102 168671

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Potential for Ground Dissolution Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A8NE (SE)	149	2	309159 168622
	Potential for Ground Dissolution Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A12NE (NE)	194	2	308995 169570
	Potential for Ground Dissolution Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A15SE (N)	223	2	308569 169819
	Potential for Landslide Ground Stability Hazards Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service	A11NE (E)	0	2	308544 169367
	Potential for Landslide Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A11NE (W)	0	2	308502 169381
	Potential for Landslide Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A11NE (SE)	0	2	308591 169337
	Potential for Landslide Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A15NE (N)	0	2	308544 170000
	Potential for Landslide Ground Stability Hazards Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service	A12SW (SE)	35	2	308945 169049
	Potential for Landslide Ground Stability Hazards Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service	A8SW (SE)	43	2	308921 168500
	Potential for Landslide Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A15SE (N)	68	2	308519 169672
	Potential for Landslide Ground Stability Hazards Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service	A12SE (E)	76	2	309311 169141
	Potential for Landslide Ground Stability Hazards Hazard Potential: Moderate Source: British Geological Survey, National Geoscience Information Service	A15SE (N)	99	2	308549 169690
	Potential for Landslide Ground Stability Hazards Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service	A8NE (SE)	149	2	309159 168622
	Potential for Landslide Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A15SE (N)	176	2	308566 169763
	Potential for Landslide Ground Stability Hazards Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service	A8NE (SE)	249	2	308999 168888
	Potential for Running Sand Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A15NE (N)	0	2	308544 170000
	Potential for Running Sand Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A11NE (E)	0	2	308544 169367
	Potential for Running Sand Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A12SW (SE)	0	2	308833 169108
	Potential for Running Sand Ground Stability Hazards Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service	A11SE (SE)	0	2	308649 169233
	Potential for Running Sand Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A12SE (E)	0	2	309023 169277
	Potential for Running Sand Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A8NW (SE)	109	2	308969 168753

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A11NE (SE)	0	2	308591 169337
	Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A15NE (N)	0	2	308544 170000
	Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A11NE (W)	0	2	308502 169381
	Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service	A16NW (N)	0	2	308664 170000
	Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service	A11NE (E)	0	2	308544 169367
	Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A16NW (N)	0	2	308744 170000
	Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A11SE (SE)	0	2	308649 169233
	Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service	A8SW (S)	0	2	308891 168490
	Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A12SW (SE)	0	2	308833 169108
	Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A11NE (NE)	12	2	308631 169570
	Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service	A12SW (SE)	30	2	308945 169049
	Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service	A16SE (NE)	76	2	309237 169693
	Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A8NE (SE)	109	2	309018 168698
	Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A15SE (N)	223	2	308569 169819
	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	(SE)	0	2	309374 168875
	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	A12SE (SE)	0	2	308999 169175
	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	A15NE (N)	0	2	308549 170000
	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	A11NE (E)	0	2	308544 169367
	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	A11NE (W)	0	2	308424 169375

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	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	A15NE (N)	0	2	308599 170000
	Radon Potential - Radon Affected Areas Affected Area: The property is in a lower probability radon area, as less than 1% of homes are above the action level Source: British Geological Survey, National Geoscience Information Service	(SE)	0	2	309374 168875
	Radon Potential - Radon Affected Areas Affected Area: The property is in a lower probability radon area, as less than 1% of homes are above the action level Source: British Geological Survey, National Geoscience Information Service	A12SE (SE)	0	2	308999 169175
	Radon Potential - Radon Affected Areas Affected Area: The property is in a lower probability radon area, as less than 1% of homes are above the action level Source: British Geological Survey, National Geoscience Information Service	A15NE (N)	0	2	308549 170000
	Radon Potential - Radon Affected Areas Affected Area: The property is in an intermediate probability radon area, as between 5 and 10% of homes are above the action level Source: British Geological Survey, National Geoscience Information Service	A11NE (E)	0	2	308544 169367
	Radon Potential - Radon Affected Areas Affected Area: The property is in a lower probability radon area, as less than 1% of homes are above the action level Source: British Geological Survey, National Geoscience Information Service	A11NE (W)	0	2	308424 169375
	Radon Potential - Radon Affected Areas Affected Area: The property is in an intermediate probability radon area, as between 5 and 10% of homes are above the action level Source: British Geological Survey, National Geoscience Information Service	A15NE (N)	0	2	308599 170000

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
66	**Sites of Special Scientific Interest** Name: Coedydd Y Barri / Barry Woodlands Multiple Areas: Y Total Area (m2): 1199578.66 Source: Natural Resources Wales (NRW) - formerly CCW Reference: 293633wpg Designation Details: Biological Designation Date: 4th April 2007 Date Type: Notified	A12SE (E)	0	5	309141 169142

Agency & Hydrological	Version	Update Cycle
Contaminated Land Register Entries and Notices Vale Of Glamorgan County Borough Council - Environmental Health Department	October 2012	Annual Rolling Update
Discharge Consents Environment Agency - Welsh Region	October 2013	Quarterly
Enforcement and Prohibition Notices Environment Agency - Welsh Region	March 2013	As notified
Integrated Pollution Controls Environment Agency - Welsh Region	October 2008	Not Applicable
Integrated Pollution Prevention And Control Environment Agency - Welsh Region	October 2013	Quarterly
Local Authority Integrated Pollution Prevention And Control Vale Of Glamorgan County Borough Council - Environmental Health Department	November 2012	Annual Rolling Update
Local Authority Pollution Prevention and Controls Vale Of Glamorgan County Borough Council - Environmental Health Department	November 2012	Annual Rolling Update
Local Authority Pollution Prevention and Control Enforcements Vale Of Glamorgan County Borough Council - Environmental Health Department	November 2012	Annual Rolling Update
Nearest Surface Water Feature Ordnance Survey	July 2012	Quarterly
Pollution Incidents to Controlled Waters Environment Agency - Welsh Region	December 1998	Not Applicable
Prosecutions Relating to Authorised Processes Environment Agency - Welsh Region	March 2013	As notified
Prosecutions Relating to Controlled Waters Environment Agency - Welsh Region	March 2013	As notified
Registered Radioactive Substances Environment Agency - Welsh Region	October 2013	Quarterly
River Quality Environment Agency - Head Office	November 2001	Not Applicable
River Quality Biology Sampling Points Environment Agency - Head Office	July 2012	Annually
River Quality Chemistry Sampling Points Environment Agency - Head Office	July 2012	Annually
Substantiated Pollution Incident Register Environment Agency Wales - South East Area	October 2013	Quarterly
Water Abstractions Environment Agency - Welsh Region	October 2013	Quarterly
Water Industry Act Referrals Environment Agency - Welsh Region	October 2013	Quarterly
Groundwater Vulnerability Environment Agency - Head Office	January 2011	Not Applicable
Drift Deposits Environment Agency - Head Office	January 1999	Not Applicable
Bedrock Aquifer Designations British Geological Survey - National Geoscience Information Service	October 2012	Annually
Superficial Aquifer Designations British Geological Survey - National Geoscience Information Service	October 2012	Annually
Source Protection Zones Environment Agency - Head Office	October 2013	Quarterly
Extreme Flooding from Rivers or Sea without Defences Environment Agency - Head Office	August 2013	Quarterly

Agency & Hydrological	Version	Update Cycle
Flooding from Rivers or Sea without Defences		
Environment Agency - Head Office	August 2013	Quarterly
Areas Benefiting from Flood Defences		
Environment Agency - Head Office	August 2013	Quarterly
Flood Water Storage Areas		
Environment Agency - Head Office	August 2013	Quarterly
Flood Defences		
Environment Agency - Head Office	August 2013	Quarterly
Detailed River Network Lines		
Environment Agency - Head Office	March 2012	Annually
Detailed River Network Offline Drainage		
Environment Agency - Head Office	March 2012	Annually
Waste	**Version**	**Update Cycle**
BGS Recorded Landfill Sites		
British Geological Survey - National Geoscience Information Service	June 1996	Not Applicable
Historical Landfill Sites		
Environment Agency - South East Region - Kent & South London Area	October 2013	Quarterly
Environment Agency - South East Region - North East Thames Area	October 2013	Quarterly
Environment Agency - South East Region - Solent & South Downs Area	October 2013	Quarterly
Environment Agency - South East Region - West Thames Area	October 2013	Quarterly
Environment Agency Wales - South East Area	October 2013	Quarterly
Integrated Pollution Control Registered Waste Sites		
Environment Agency - Welsh Region	October 2008	Not Applicable
Licensed Waste Management Facilities (Landfill Boundaries)		
Environment Agency - South East Region - Kent & South London Area	October 2013	Quarterly
Environment Agency - South East Region - North East Thames Area	October 2013	Quarterly
Environment Agency - South East Region - Solent & South Downs Area	October 2013	Quarterly
Environment Agency - South East Region - West Thames Area	October 2013	Quarterly
Environment Agency Wales - South East Area	October 2013	Quarterly
Licensed Waste Management Facilities (Locations)		
Environment Agency Wales - South East Area	October 2013	Quarterly
Local Authority Landfill Coverage		
Vale Of Glamorgan County Borough Council	May 2000	Not Applicable
Local Authority Recorded Landfill Sites		
Vale Of Glamorgan County Borough Council	May 2000	Not Applicable
Registered Landfill Sites		
Environment Agency Wales - South East Area	March 2003	Not Applicable
Registered Waste Transfer Sites		
Environment Agency Wales - South East Area	March 2003	Not Applicable
Registered Waste Treatment or Disposal Sites		
Environment Agency Wales - South East Area	March 2003	Not Applicable

Hazardous Substances	Version	Update Cycle
Control of Major Accident Hazards Sites (COMAH) Health and Safety Executive	August 2013	Bi-Annually
Explosive Sites Health and Safety Executive	November 2013	Bi-Annually
Notification of Installations Handling Hazardous Substances (NIHHS) Health and Safety Executive	November 2000	Not Applicable
Planning Hazardous Substance Enforcements Vale Of Glamorgan County Borough Council - Planning Department	January 2013	Annual Rolling Update
Planning Hazardous Substance Consents Vale Of Glamorgan County Borough Council - Planning Department	January 2013	Annual Rolling Update
Geological	**Version**	**Update Cycle**
BGS 1:625,000 Solid Geology British Geological Survey - National Geoscience Information Service	August 1996	Not Applicable
BGS Estimated Soil Chemistry British Geological Survey - National Geoscience Information Service	January 2010	Variable
BGS Recorded Mineral Sites British Geological Survey - National Geoscience Information Service	October 2013	Bi-Annually
Coal Mining Affected Areas The Coal Authority - Mining Report Service	January 2012	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	February 2011	Not Applicable
Potential for Collapsible Ground Stability Hazards British Geological Survey - National Geoscience Information Service	October 2013	As notified
Potential for Compressible Ground Stability Hazards British Geological Survey - National Geoscience Information Service	October 2013	As notified
Potential for Ground Dissolution Stability Hazards British Geological Survey - National Geoscience Information Service	October 2013	As notified
Potential for Landslide Ground Stability Hazards British Geological Survey - National Geoscience Information Service	October 2013	As notified
Potential for Running Sand Ground Stability Hazards British Geological Survey - National Geoscience Information Service	October 2013	As notified
Potential for Shrinking or Swelling Clay Ground Stability Hazards British Geological Survey - National Geoscience Information Service	October 2013	As notified
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	November 2013	Quarterly
Fuel Station Entries Catalist Ltd - Experian	August 2013	Quarterly

Sensitive Land Use	Version	Update Cycle
Areas of Outstanding Natural Beauty Natural Resources Wales (NRW) - formerly CCW	May 2013	Bi-Annually
Environmentally Sensitive Areas The National Assembly for Wales - GI Services (Department of Planning & Countryside)	August 2008	Annually
Forest Parks Forestry Commission	April 1997	Not Applicable
Local Nature Reserves Vale Of Glamorgan County Borough Council	May 2013	Bi-Annually
Marine Nature Reserves Natural Resources Wales (NRW) - formerly CCW	May 2013	Bi-Annually
National Nature Reserves Natural Resources Wales (NRW) - formerly CCW	May 2013	Bi-Annually
Nitrate Sensitive Areas Department for Environment, Food and Rural Affairs (DEFRA - formerly FRCA)	February 2012	Not Applicable
Nitrate Vulnerable Zones The National Assembly for Wales - GI Services (Department of Planning & Countryside)	October 2005	Annually
Ramsar Sites Natural Resources Wales (NRW) - formerly CCW	May 2013	Bi-Annually
Sites of Special Scientific Interest Natural Resources Wales (NRW) - formerly CCW	May 2013	Bi-Annually
Special Areas of Conservation Natural Resources Wales (NRW) - formerly CCW	May 2013	Bi-Annually
Special Protection Areas Natural Resources Wales (NRW) - formerly CCW	May 2013	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	
Centre for Ecology and Hydrology	
Countryside Council for Wales	
Scottish Natural Heritage	
Natural England	
Public Health England	
Ove Arup	
Peter Brett Associates	

Useful Contacts

Contact	Name and Address	Contact Details
1	**Environment Agency - National Customer Contact Centre (NCCC)** PO Box 544, Templeborough, Rotherham, S60 1BY	Telephone: 08708 506 506 Email: enquiries@environment-agency.gov.uk
2	**British Geological Survey - Enquiry Service** British Geological Survey, Kingsley Dunham Centre, Keyworth, Nottingham, Nottinghamshire, NG12 5GG	Telephone: 0115 936 3143 Fax: 0115 936 3276 Email: enquiries@bgs.ac.uk Website: www.bgs.ac.uk
3	**Landmark Information Group Limited** Imperium, Imperial Way, Reading, Berkshire, RG2 0TD	Telephone: 0844 844 9952 Fax: 0844 844 9951 Email: customerservices@landmark.co.uk Website: www.landmarkinfo.co.uk
4	**Vale Of Glamorgan County Borough Council** Civic Offices, Holton Road, Barry, South Glamorgan, CF63 4RU	Telephone: 01446 700111 Fax: 01446 745566 Website: www.valeofglamorgan.gov.uk
5	**Natural Resources Wales (NRW) - formerly CCW** Plas Penrhose, Fford Penrhos, Bangor, Gwynedd, LL57 2LQ	Telephone: 01248 385500 Fax: 01248 355782
-	**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 / SEPA have a charging policy in place for enquiries.

Geology 1:50,000 Maps Legends

Artificial Ground and Landslip

Map Colour	Lex Code	Rock Name	Rock Type	Min and Max Age
	MGR	Made Ground (Undivided)	Artificial Deposit	Holocene - Holocene
	SLIP	Landslide Deposit	Unknown/Unclassified Entry	Quaternary - Quaternary

Superficial Geology

Map Colour	Lex Code	Rock Name	Rock Type	Min and Max Age
	ALV	Alluvium	Clay, Silt, Sand and Gravel	Flandrian - Flandrian
	ALF	Alluvial Fan Deposits	Gravel, Sand, Silt and Clay	Quaternary - Quaternary
	ALF	Alluvial Fan Deposits	Gravel, Sand, Silt and Clay	Quaternary - Quaternary
	HEAD	Head	Clay, Silt, Sand and Gravel	Quaternary - Quaternary
	TUFA	Tufa	Calcareous Tufa	Quaternary - Quaternary
	ALF	Alluvial Fan Deposits	Clay and Silt	Quaternary - Quaternary
	ALF	Alluvial Fan Deposits	Clay and Silt	Quaternary - Quaternary

Bedrock and Faults

Map Colour	Lex Code	Rock Name	Rock Type	Min and Max Age
	PO	Porthkerry Member	INTERBEDDED LIMESTONE AND MUDSTONE	Sinemurian - Hettangian
	LVN	Lavernock Shales Member	Mudstone	Hettangian - Hettangian
	LVN	Lavernock Shales Member	Mudstone	Hettangian - Hettangian
	PNG	Penarth Group	Mudstone and Limestone, Interbedded	Rhaetian - Rhaetian
	STM	St Mary's Well Bay Member	INTERBEDDED LIMESTONE AND MUDSTONE	Hettangian - Rhaetian
		Faults		

Envirocheck® Geology

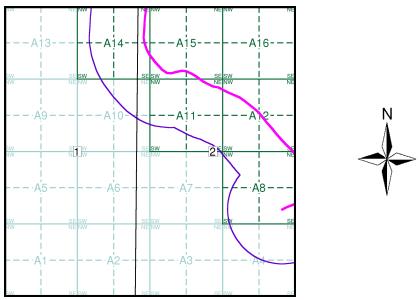
Geology 1:50,000 Maps

This report contains geological map extracts taken from the BGS Digital Geological map of Great Britain at 1:50,000 scale and is designed for users carrying out preliminary site assessments who require geological maps for the area around the site. This mapping may be more up to date than previously published paper maps.
The various geological layers - artificial and landslip deposits, superficial geology and solid (bedrock) geology are displayed in separate maps, but superimposed on the final 'Combined Surface Geology' map. All map legends feature on this page. Not all layers have complete nationwide coverage, so availability of data for relevant map sheets is indicated below.

Geology 1:50,000 Maps Coverage

Map ID:	**1**	**Map ID:**	**2**
Map Sheet No:	**262**	**Map Sheet No:**	**263**
Map Name:	**Bridgend**	**Map Name:**	**Cardiff**
Map Date:	**1990**	**Map Date:**	**1988**
Bedrock Geology:	**Available**	**Bedrock Geology:**	**Available**
Superficial Geology:	**Available**	**Superficial Geology:**	**Available**
Artificial Geology:	**Available**	**Artificial Geology:**	**Available**
Faults:	**Available**	**Faults:**	**Available**
Landslip:	**Available**	**Landslip:**	**Available**
Rock Segments:	**Available**	**Rock Segments:**	**Not Available**

Geology 1:50,000 Maps - Slice A



Order Details:

Order Number:	51886031_1_1
Customer Reference:	3512646D-HHC
National Grid Reference:	308540, 169370
Slice:	A
Site Area (Ha):	20.09
Search Buffer (m):	500

Site Details:

Cardiff International Airport, And Culverhouse Cross, Cardiff, CF5 6XW

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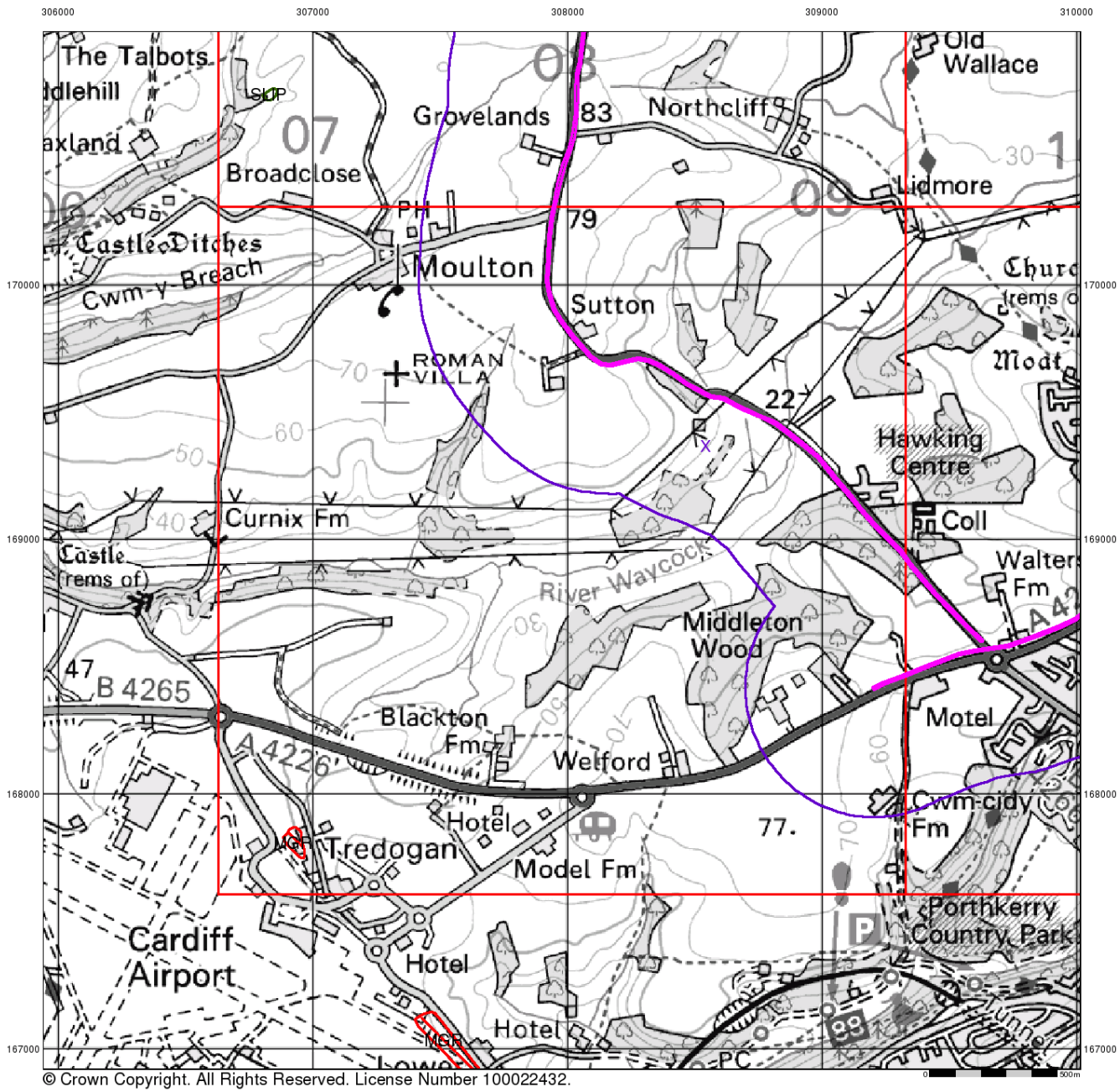
Web: www.envirocheck.co.uk



Envirocheck® Geology

Artificial Ground and Landslip

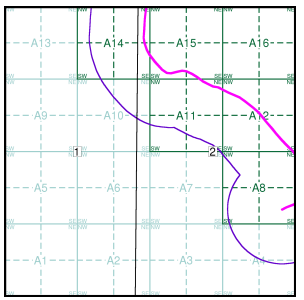
Artificial ground is a term used by BGS for those areas where the ground surface has been significantly modified by human activity. Information about previously developed ground is especially important, as it is often associated with potentially contaminated material, unpredictable engineering conditions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

Artificial ground includes:

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

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

Artificial Ground and Landslip Map - Slice A



Order Details:

Order Number:	51886031_1_1
Customer Reference:	3512646D-HHC
National Grid Reference:	308540, 169370
Slice:	A
Site Area (Ha):	20.09
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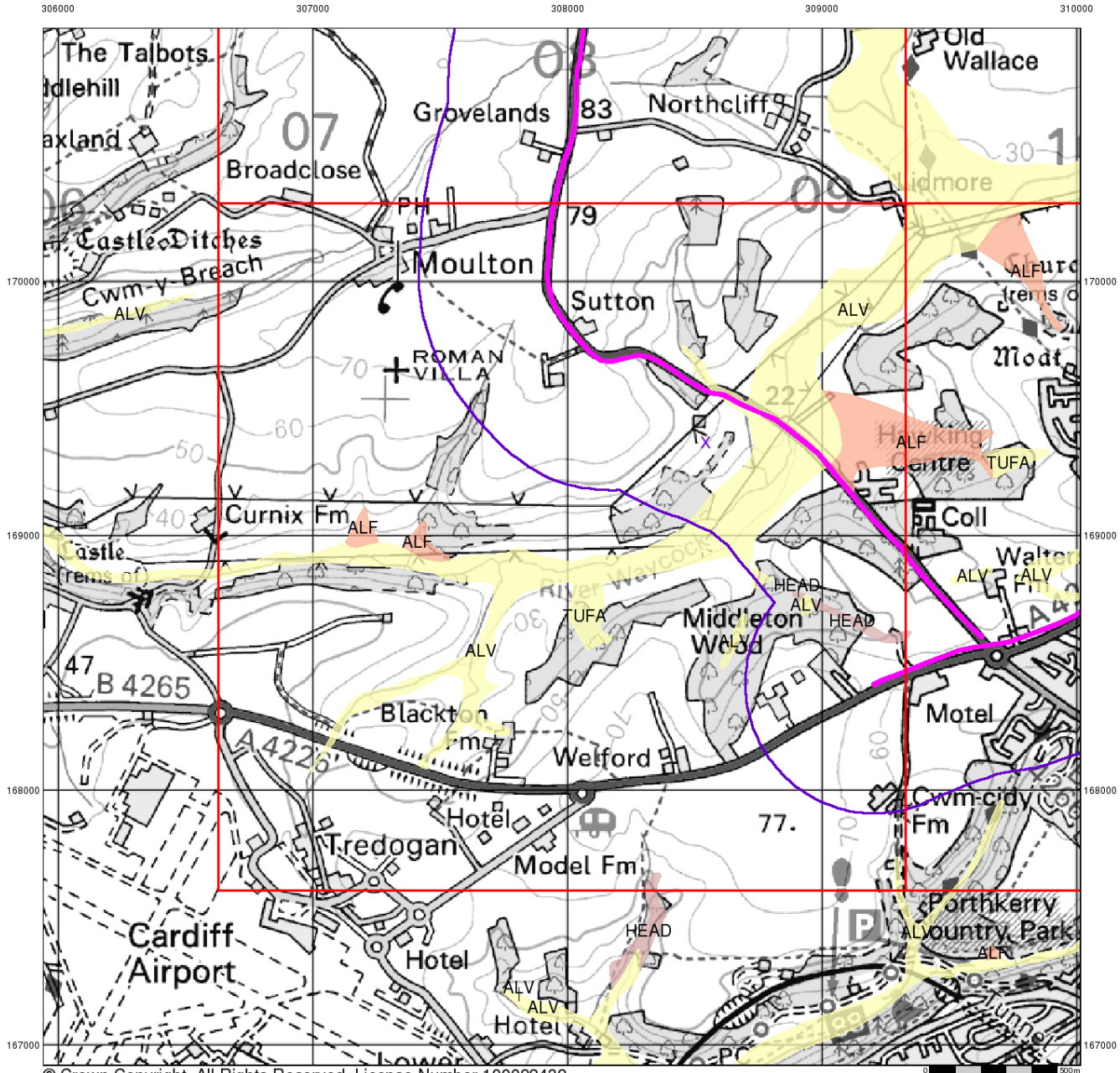


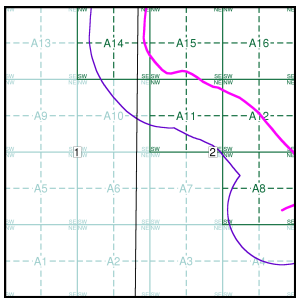
Superficial Geology

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

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

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

Superficial Geology Map - Slice A



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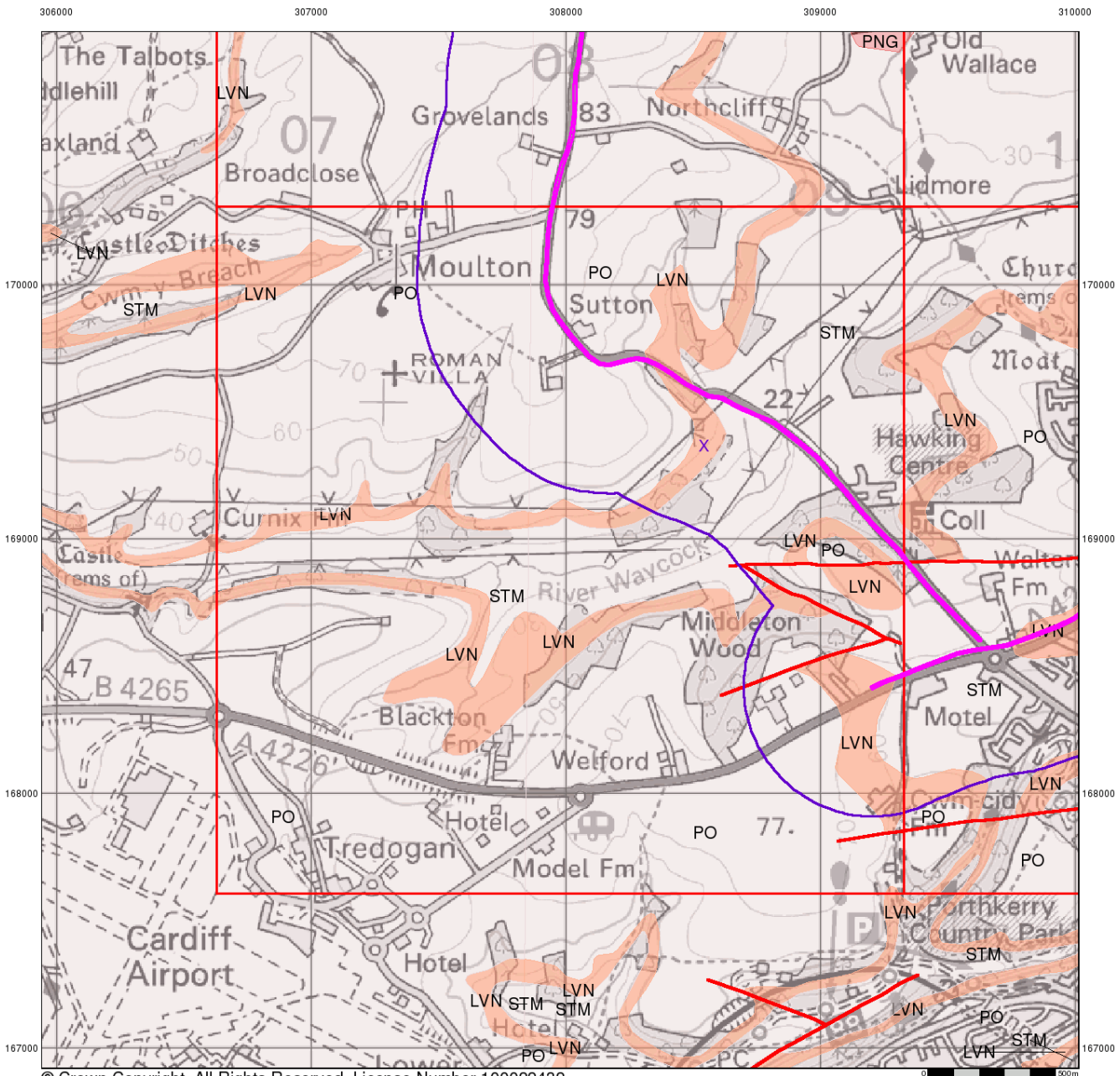


Envirocheck® Geology

Bedrock and Faults

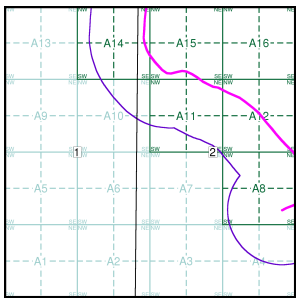
Bedrock geology is a term used for the main mass of rocks forming the Earth and are present everywhere, whether exposed at the surface in outcrops or concealed beneath superficial deposits or water.

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

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

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

Bedrock and Faults Map - Slice A



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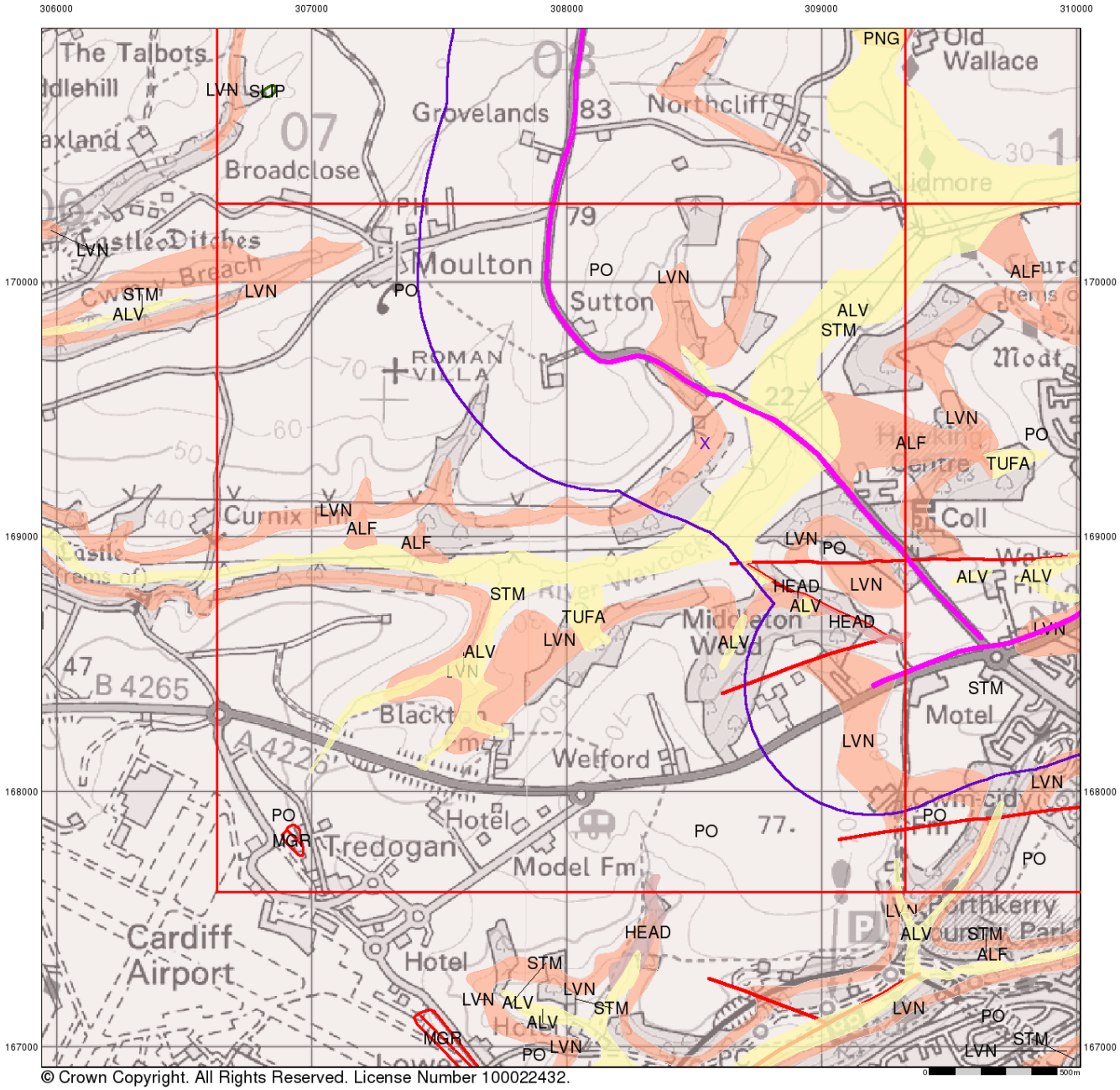


Envirocheck® Geology

Combined Surface Geology

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

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

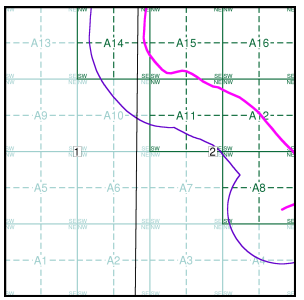
Additional Information

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

Contact

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

Combined Geology Map - Slice A



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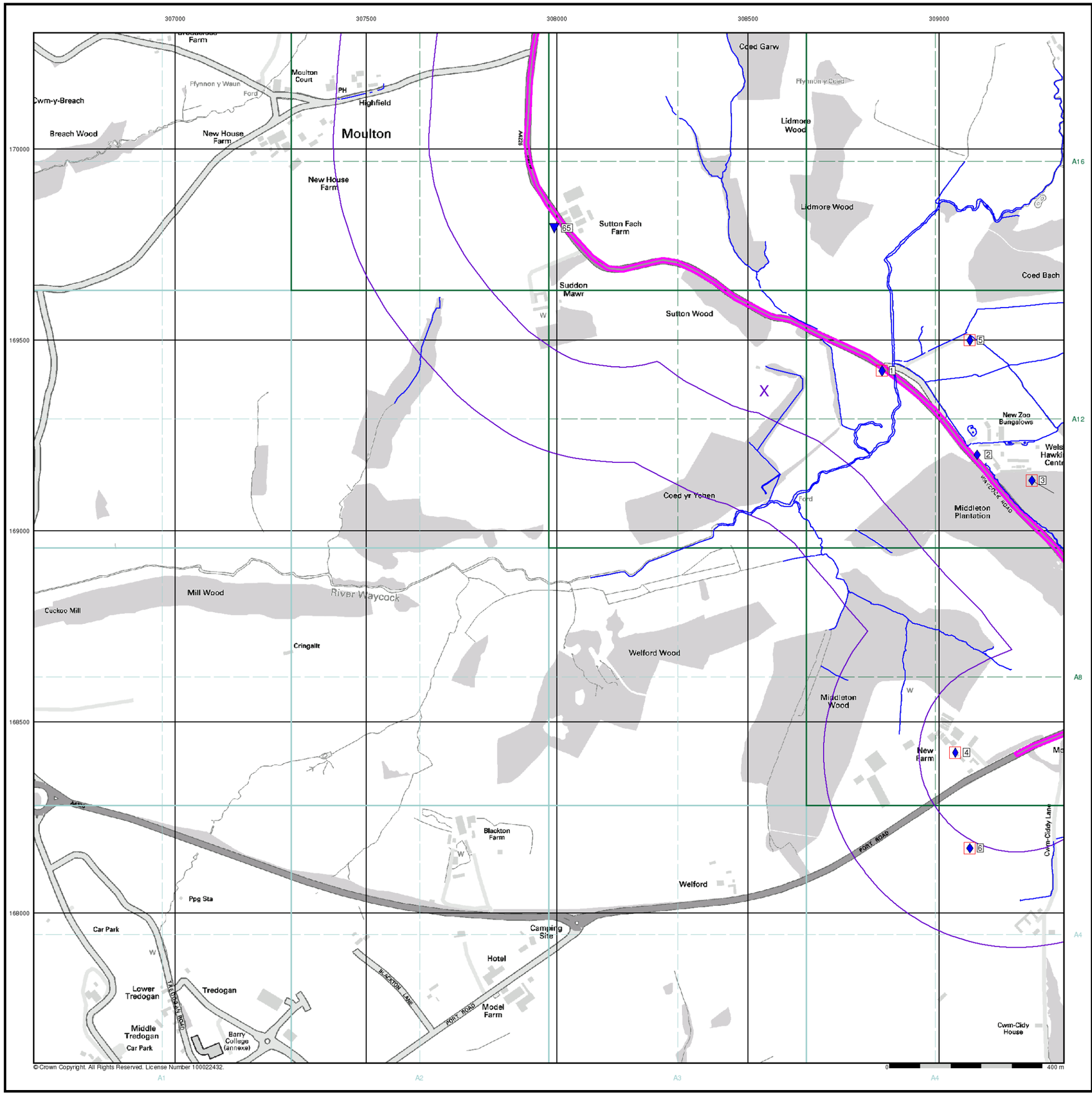


Envirocheck®

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

Geological

- BGS Recorded Mineral Site

Industrial Land Use

- Contemporary Trade Directory Entry
- Fuel Station Entry

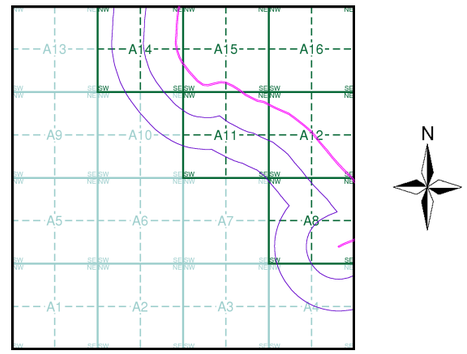
Waste

- BGS Recorded Landfill Site (Location)
- BGS Recorded Landfill Site
- EA Historic Landfill (Buffered Point)
- EA Historic Landfill (Polygon)
- Integrated Pollution Control Registered Waste Site
- Licensed Waste Management Facility (Landfill Boundary)
- Licensed Waste Management Facility (Location)
- Local Authority Recorded Landfill Site (Location)
- Local Authority Recorded Landfill Site
- Registered Landfill Site
- Registered Landfill Site (Location)
- Registered Landfill Site (Point Buffered to 100m)
- Registered Landfill Site (Point Buffered to 250m)
- Registered Waste Transfer Site (Location)
- Registered Waste Transfer Site
- Registered Waste Treatment or Disposal Site (Location)
- Registered Waste Treatment or Disposal Site

Hazardous Substances

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

Site Sensitivity Map - Slice A



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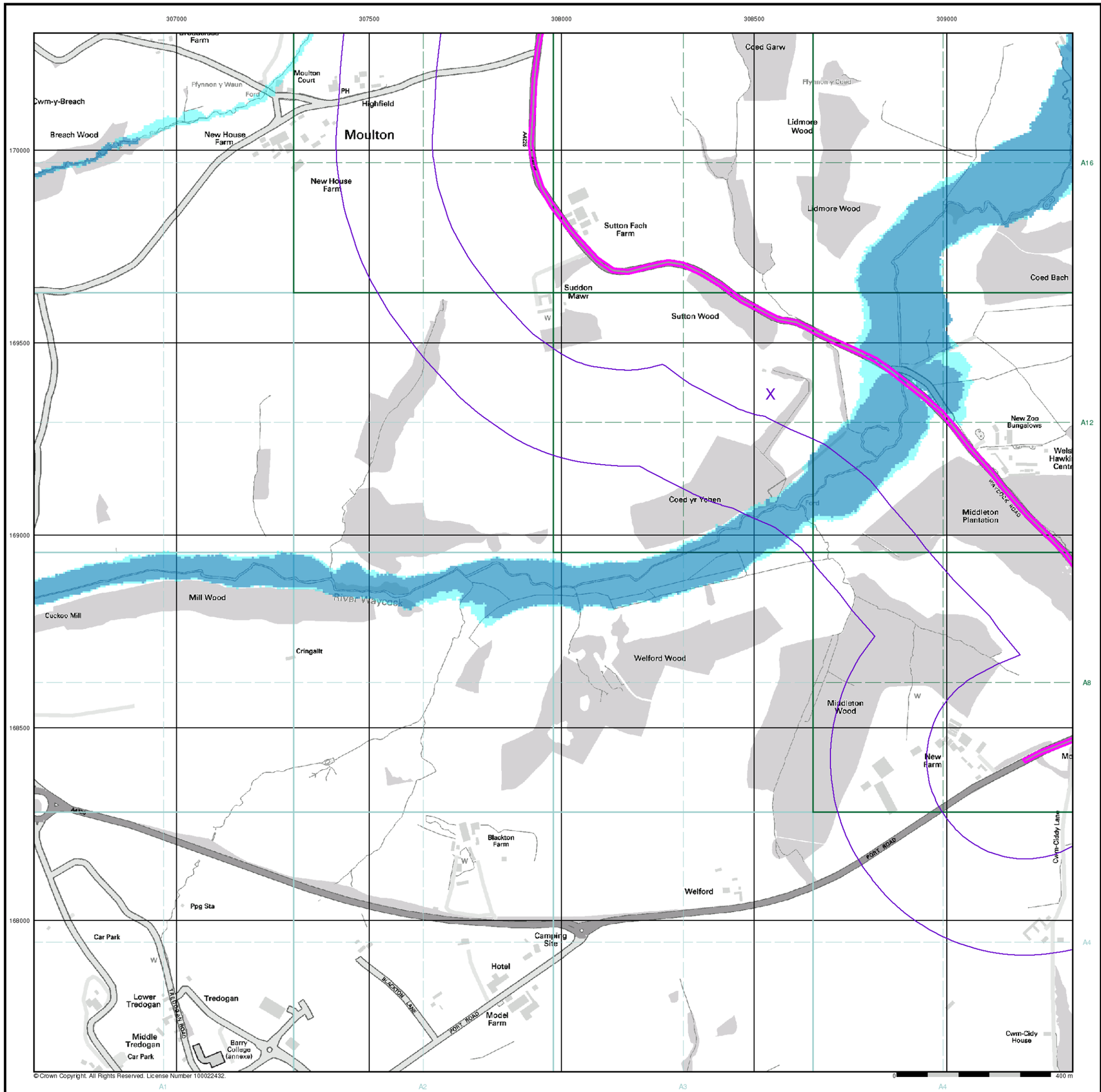


Envirocheck®

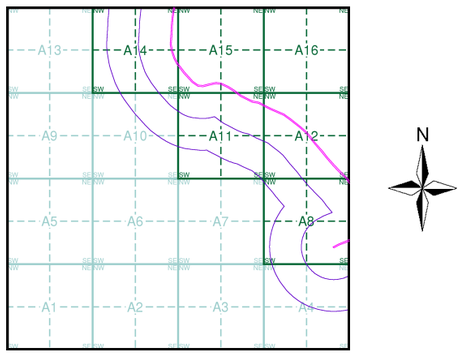
General

- Specified Site
- Specified Buffer(s)
- X 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



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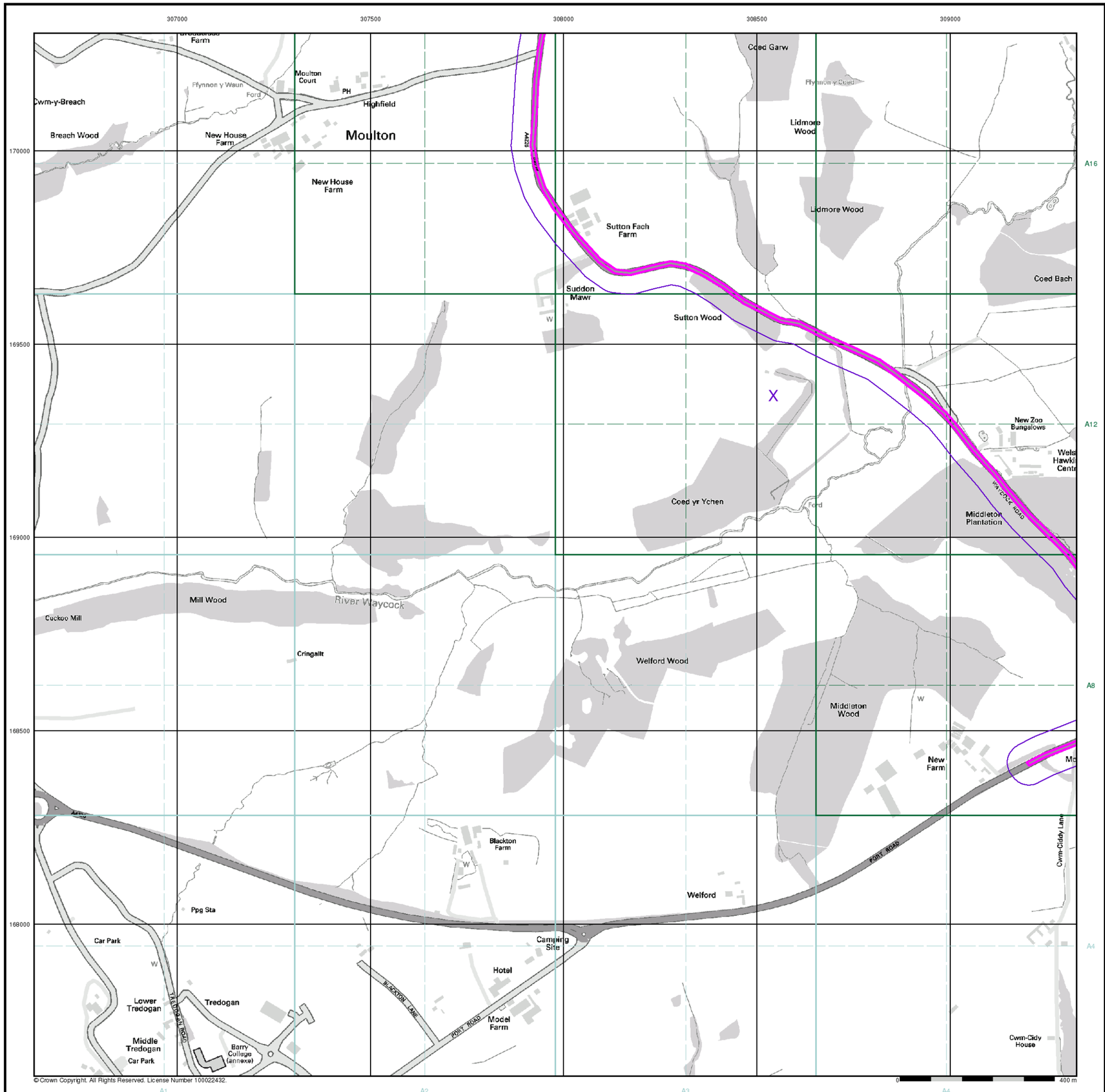


Envirocheck®

General

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

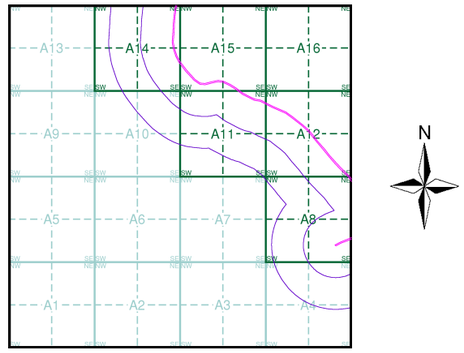
Agency and Hydrological (Boreholes)

- 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

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Site Details

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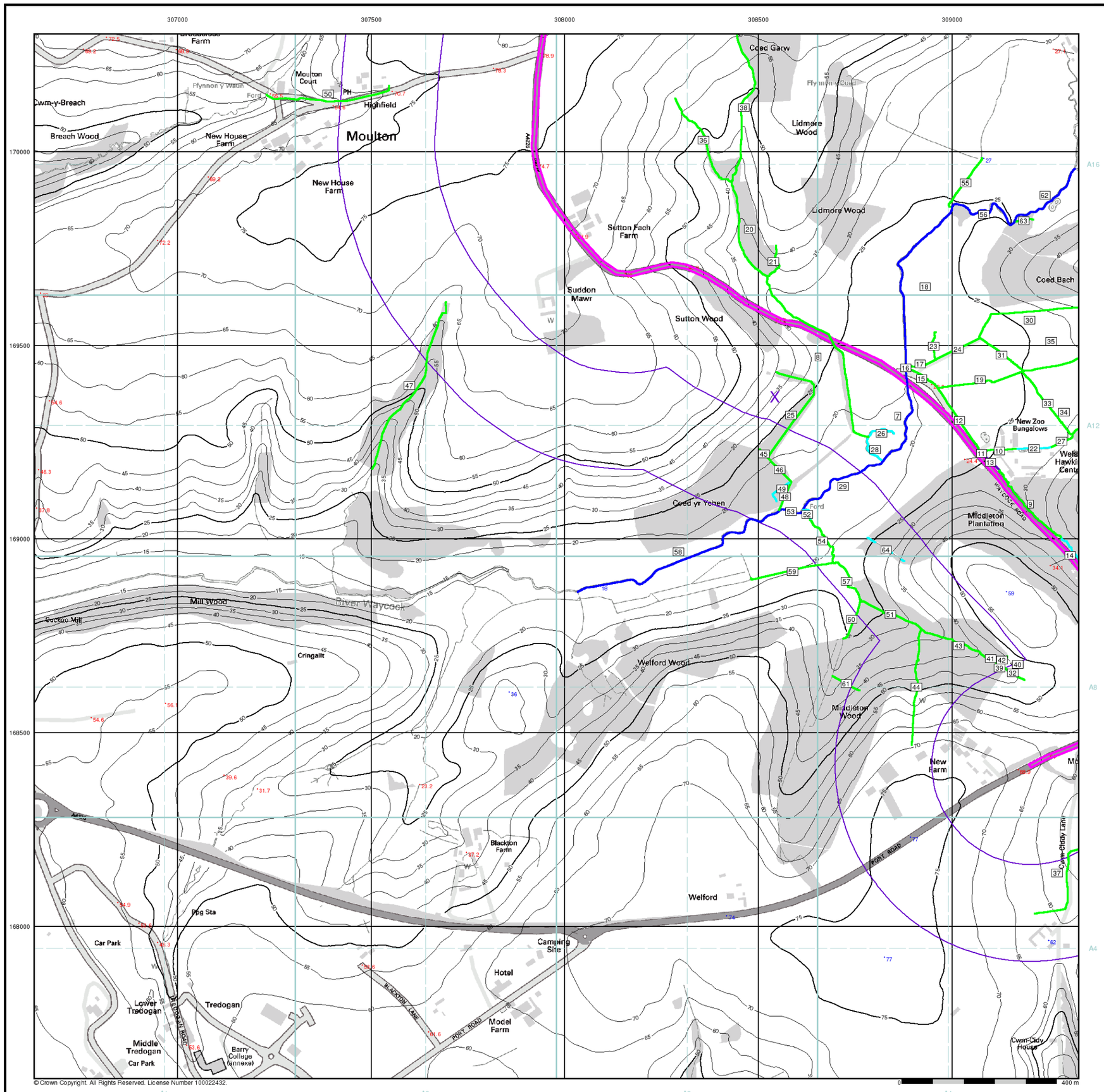


Envirocheck®

General

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

EA Detailed River Network Data

- Primary River
- Secondary River
- Tertiary River
- Canal
- Canal Tunnel
- Undefined River
- Lake/Reservoir
- Offline Drainage Feature
- Extended Culvert (greater than 50m)
- Underground River (inferred)
- Underground River (local knowledge)
- Downstream of High Water Mark
- Downstream of Seaward Extension
- Not assigned River feature

Contours (height in metres)

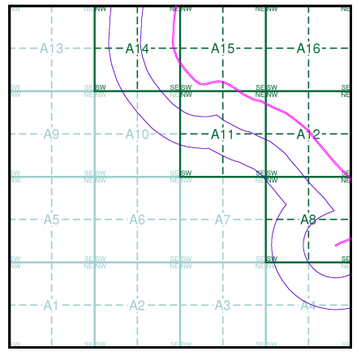
Standard Contour 105 100 95

Index Contour

*167.3 Spot Height

*45.8 Air Height

EA Detailed River Network Map - Slice A



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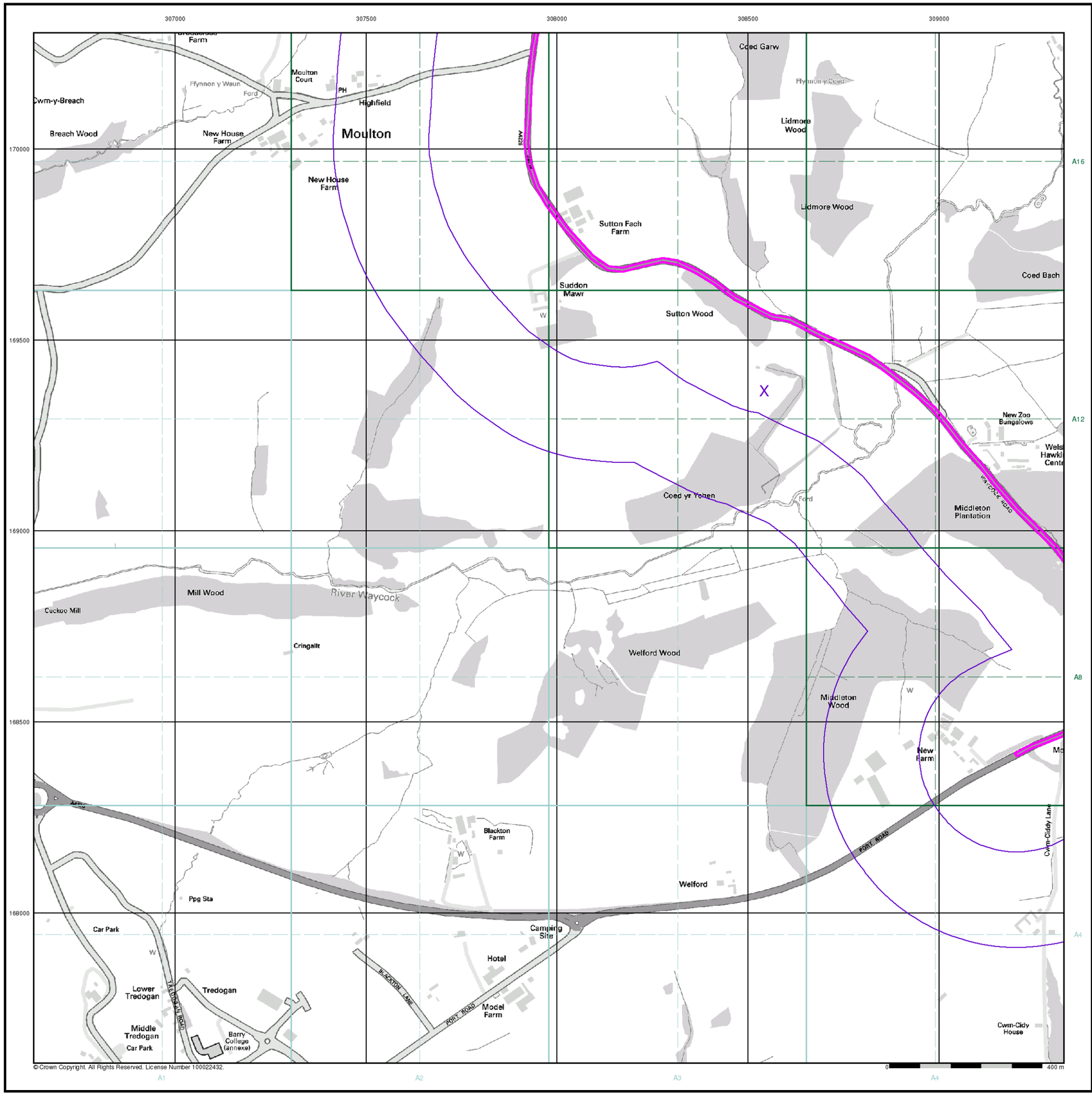


Envirocheck®

General

Specified Site | Specified Buffer(s) | X Bearing Reference Point

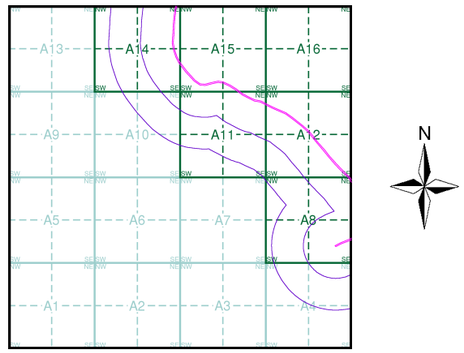
Urban Soil Chemistry Arsenic

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

Arsenic Concentrations mg/kg

- < 15
- 15 - 25
- 25 - 35
- 35 - 45
- 45 - 60
- 60 - 120
- > 120

Urban Soil Chemistry Arsenic - Slice A



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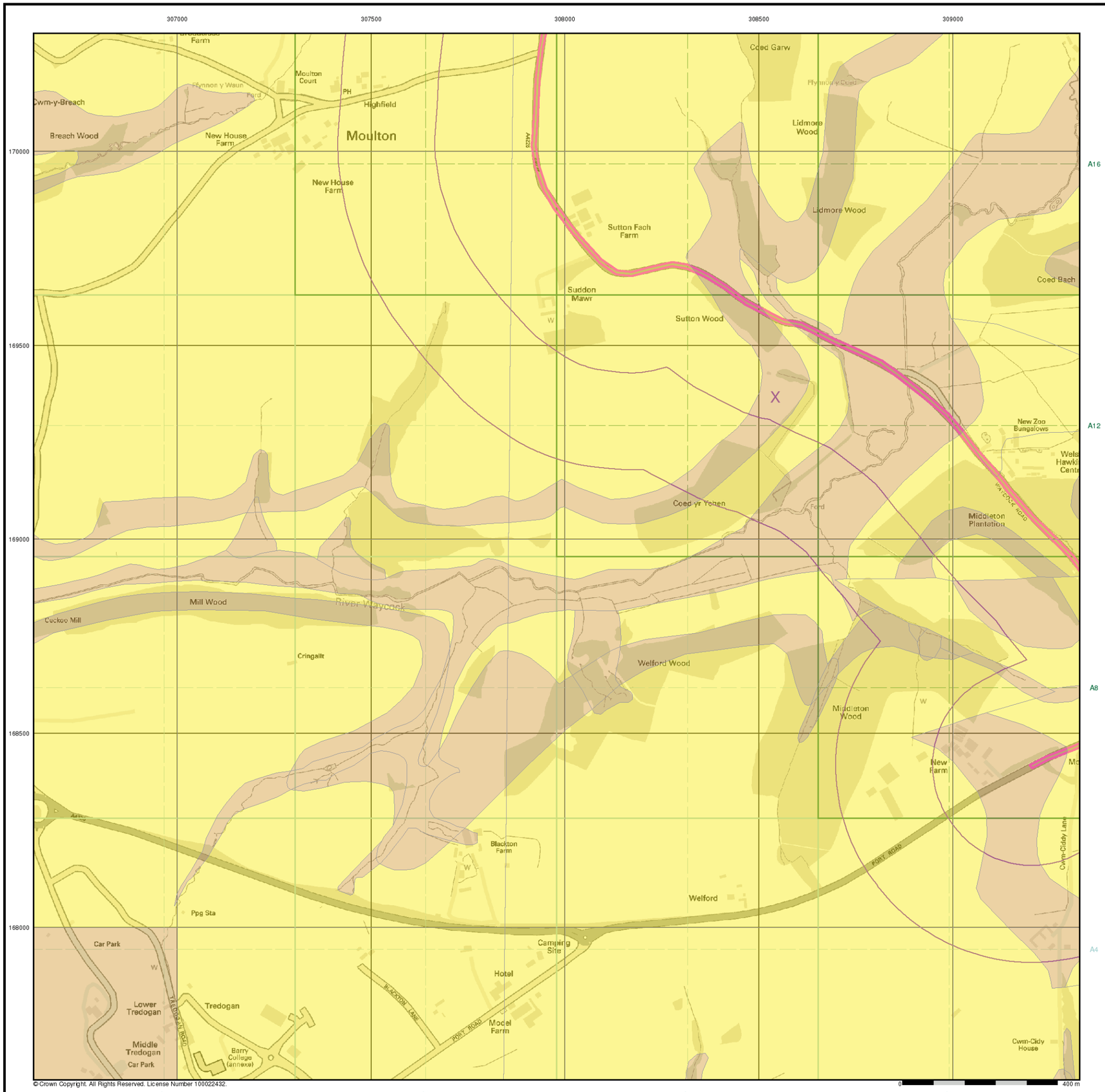


Envirocheck®

General

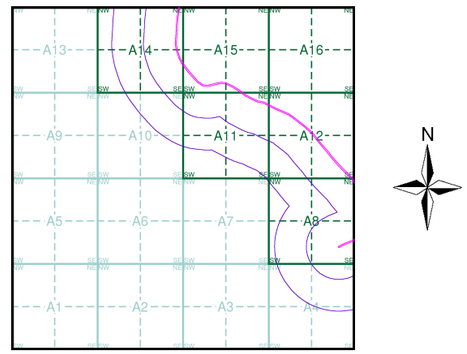
Specified Site | Specified Buffer(s) | X Bearing Reference Point

Estimated Soil Chemistry Arsenic

Arsenic Concentrations mg/kg

- < 15
- 15 - 25
- 25 - 35
- 35 - 45
- 45 - 60
- 60 - 120
- > 120

Estimated Soil Chemistry Arsenic - Slice A



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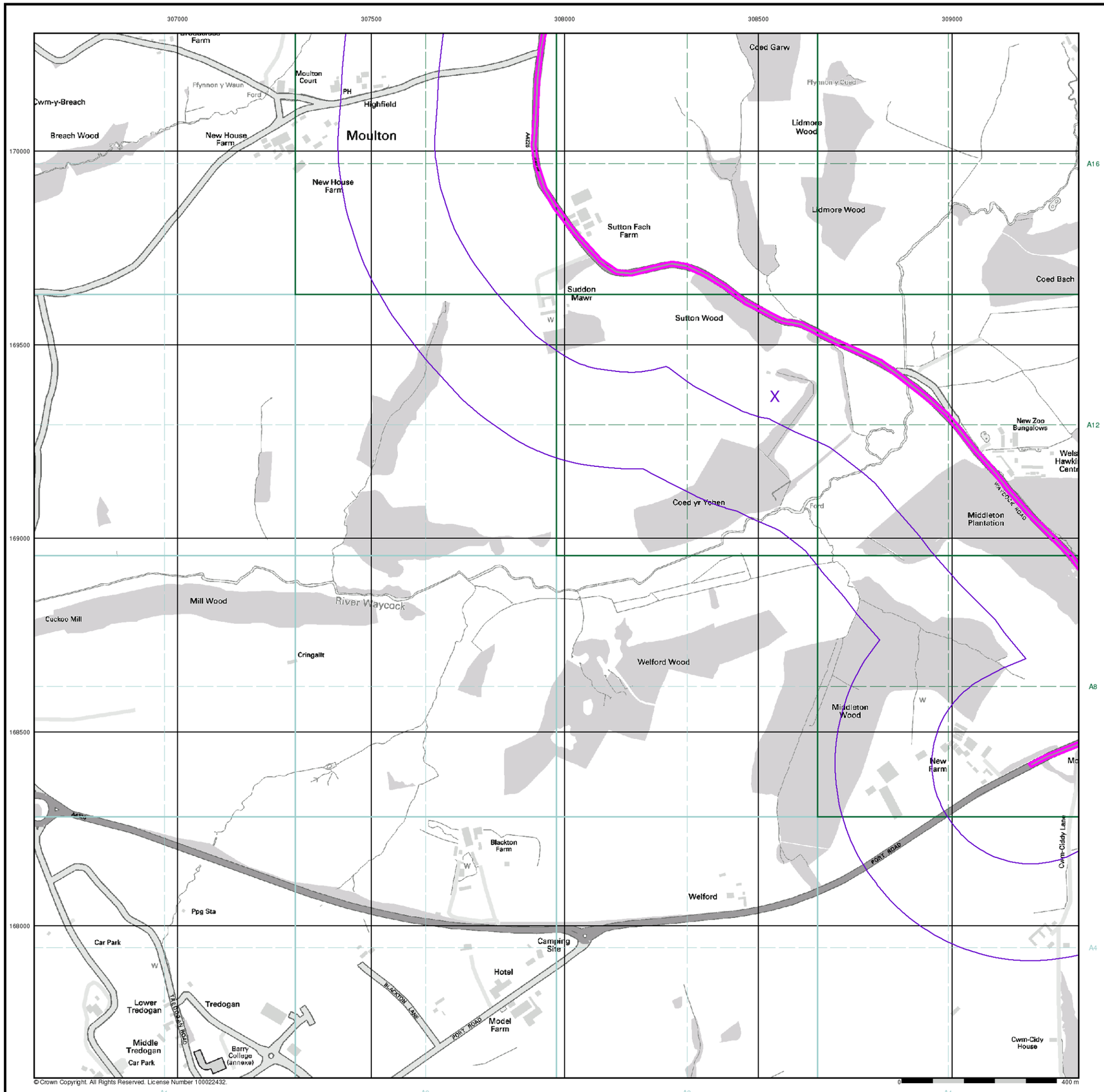


Envirocheck®

General

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

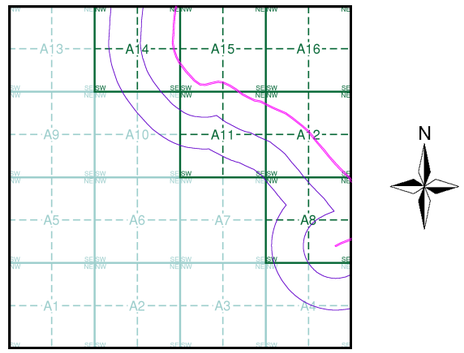
Urban Soil Chemistry Cadmium

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

Cadmium Concentrations mg/kg

- < 1.8
- 1.8 - 2.2
- 2.2 - 3.0
- > 3.0

Urban Soil Chemistry Cadmium - Slice A



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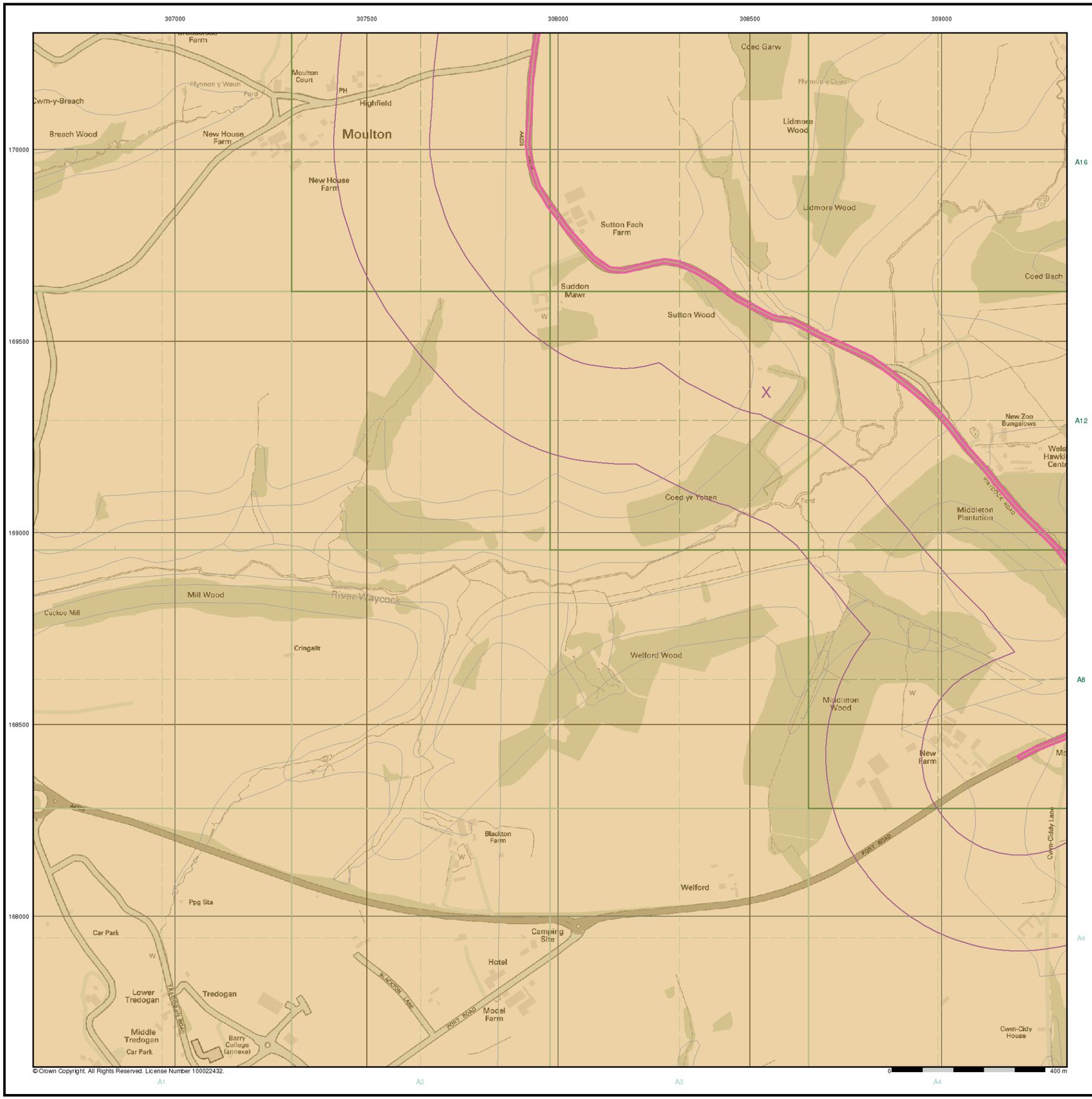


Envirocheck®

General

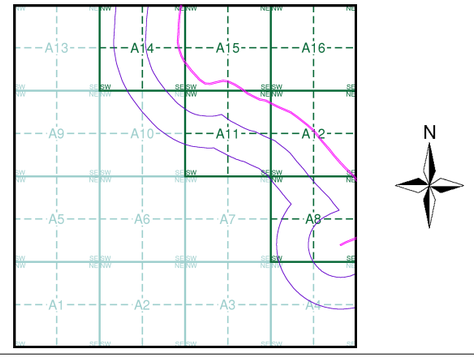
Specified Site | Specified Buffer(s) | X Bearing Reference Point

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



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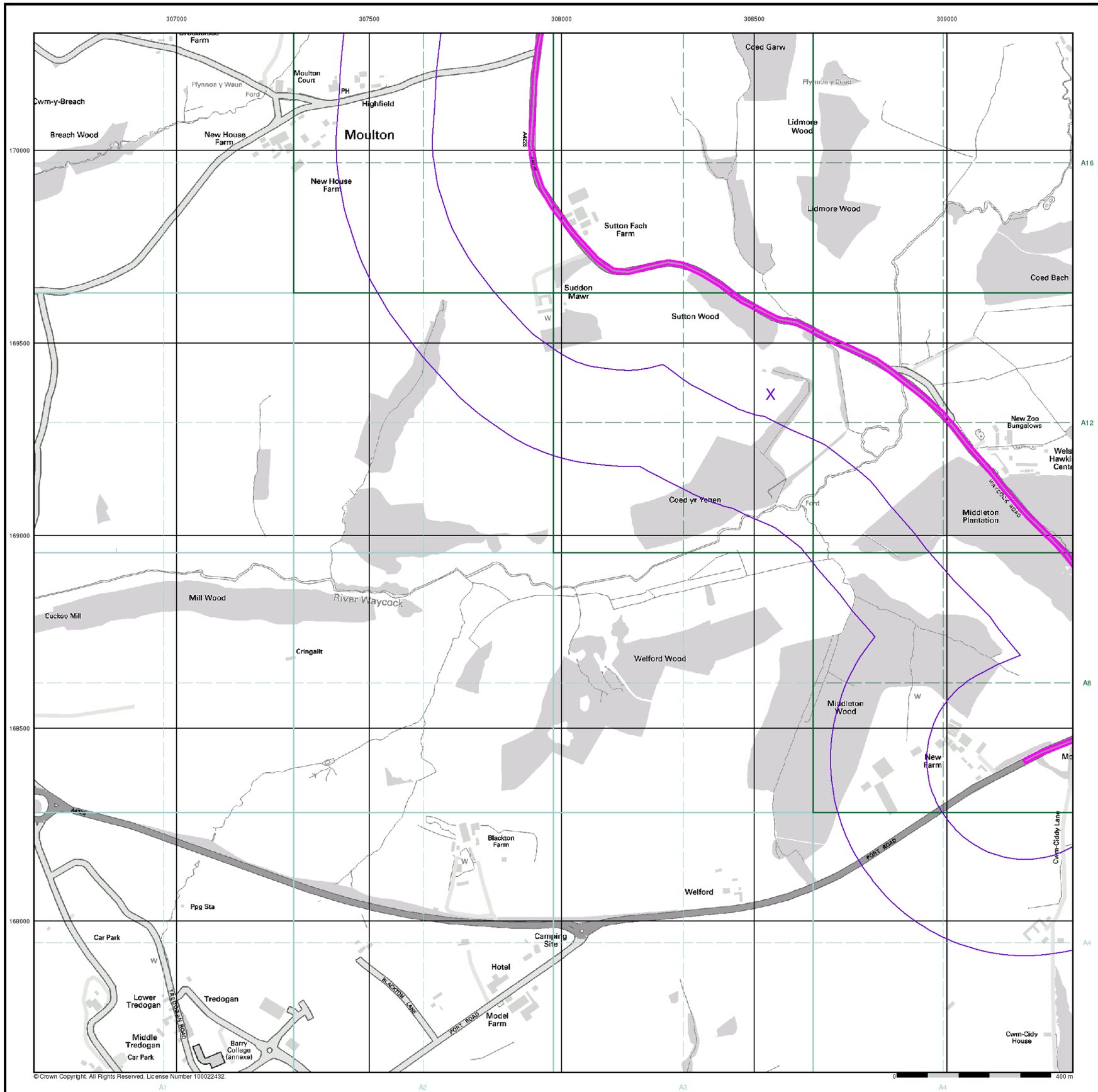


Envirocheck®

General

Specified Site | Specified Buffer(s) | X Bearing Reference Point

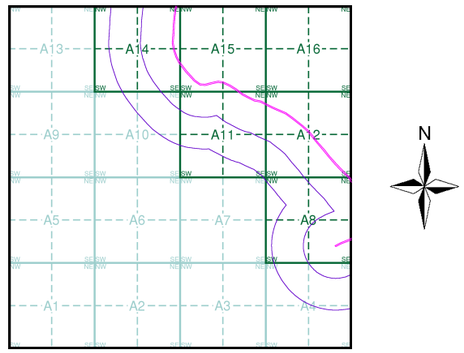
Urban Soil Chemistry Chromium

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

Chromium Concentrations mg/kg

- < 20
- 20 - 40
- 40 - 60
- 60 - 90
- 90 - 120
- 120 - 180
- > 180

Urban Soil Chemistry Chromium - Slice A



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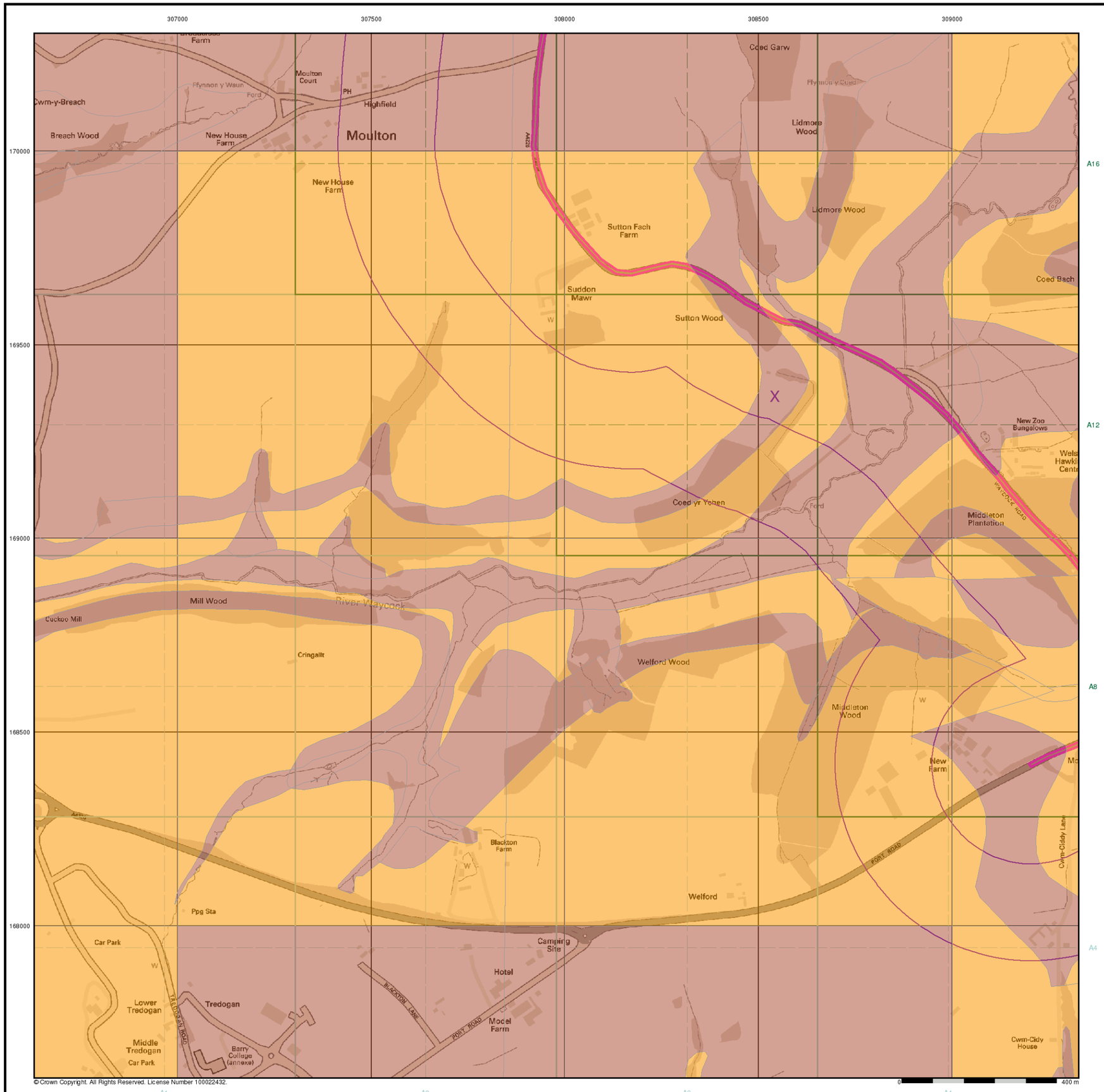


Envirocheck®

General

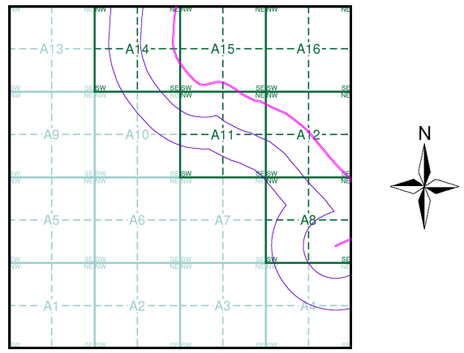
Specified Site | Specified Buffer(s) | X Bearing Reference Point

Estimated Soil Chemistry Chromium

Chromium Concentrations mg/kg

- < 20
- 20 - 40
- 40 - 60
- 60 - 90
- 90 - 120
- 120 - 180
- > 180

Estimated Soil Chemistry Chromium - Slice A



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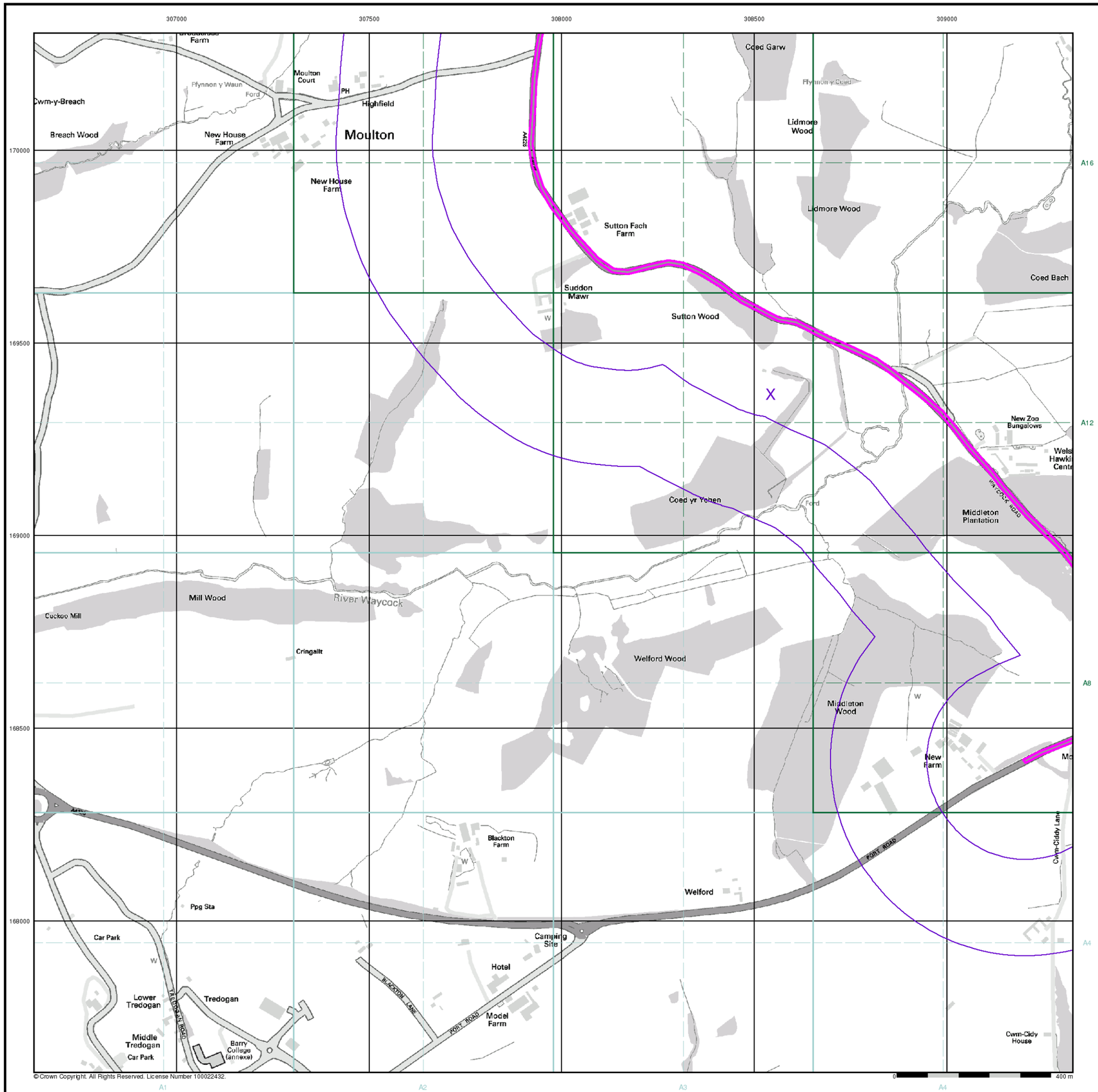

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General

Specified Site | Specified Buffer(s) | X Bearing Reference Point

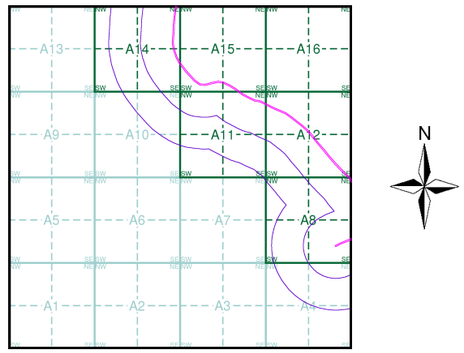
Urban Soil Chemistry Lead

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

Lead Concentrations mg/kg

- < 150
- 150 - 300
- 300 - 600
- 600 - 900
- > 900

Urban Soil Chemistry Lead - Slice A

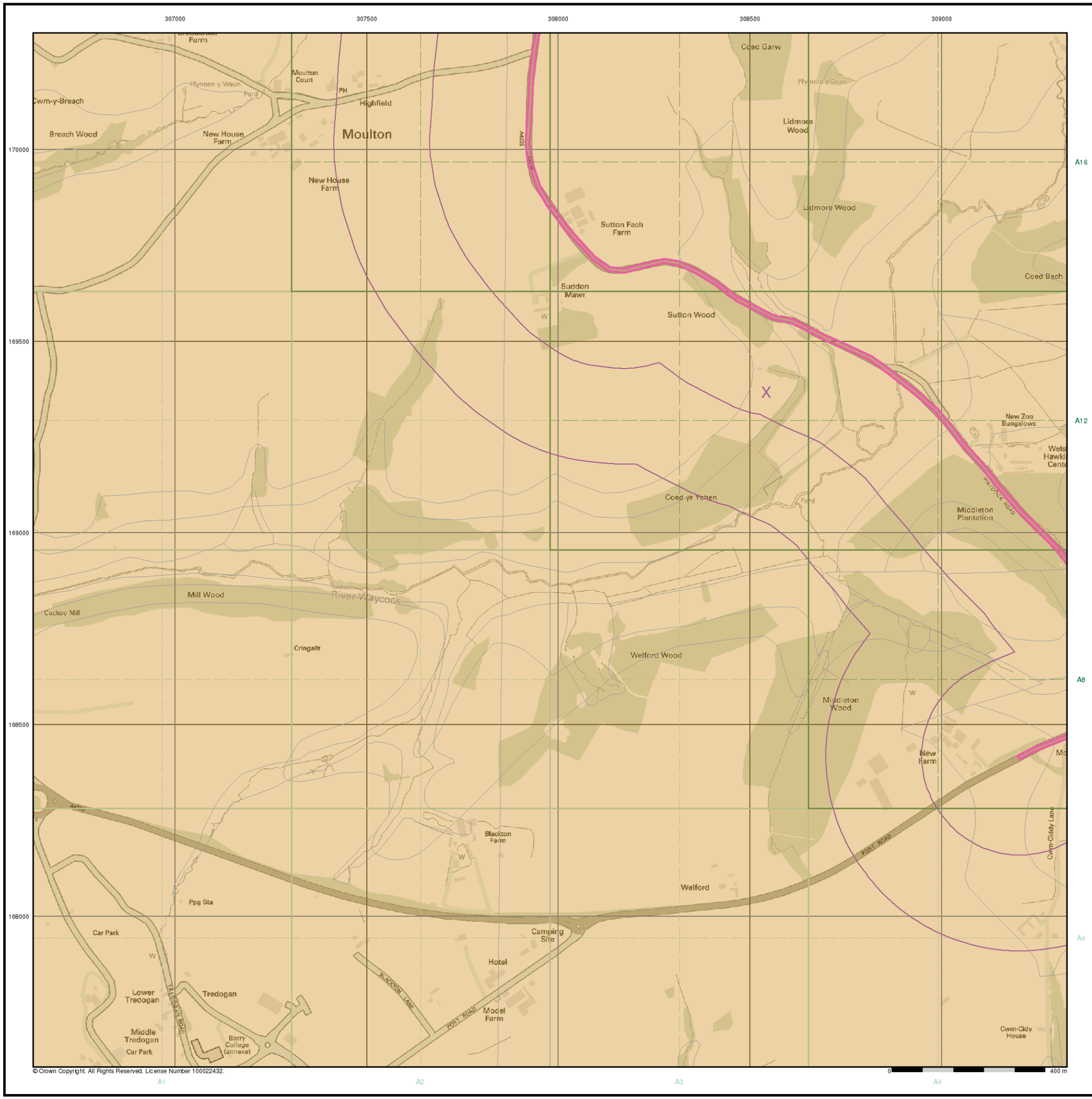


Order Details

Order Details:	51886031_1_1
Customer Ref:	3512646D-HHC
National Grid Reference:	308540, 169370
Slice:	A
Site Area (Ha):	20.09
Search buffer (m):	500

Site Details

Cardiff International Airport, And Culverhouse Cross, Cardiff, CF5 6XW



Envirocheck®

General

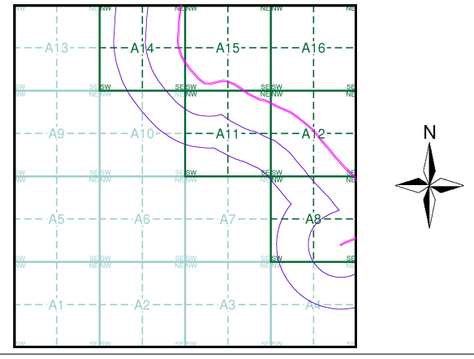
Specified Site | Specified Buffer(s) | X Bearing Reference Point

Estimated Soil Chemistry Lead

Lead Concentrations mg/kg

- < 150
- 150 - 300
- 300 - 600
- 600 - 900
- > 900

Estimated Soil Chemistry Lead - Slice A



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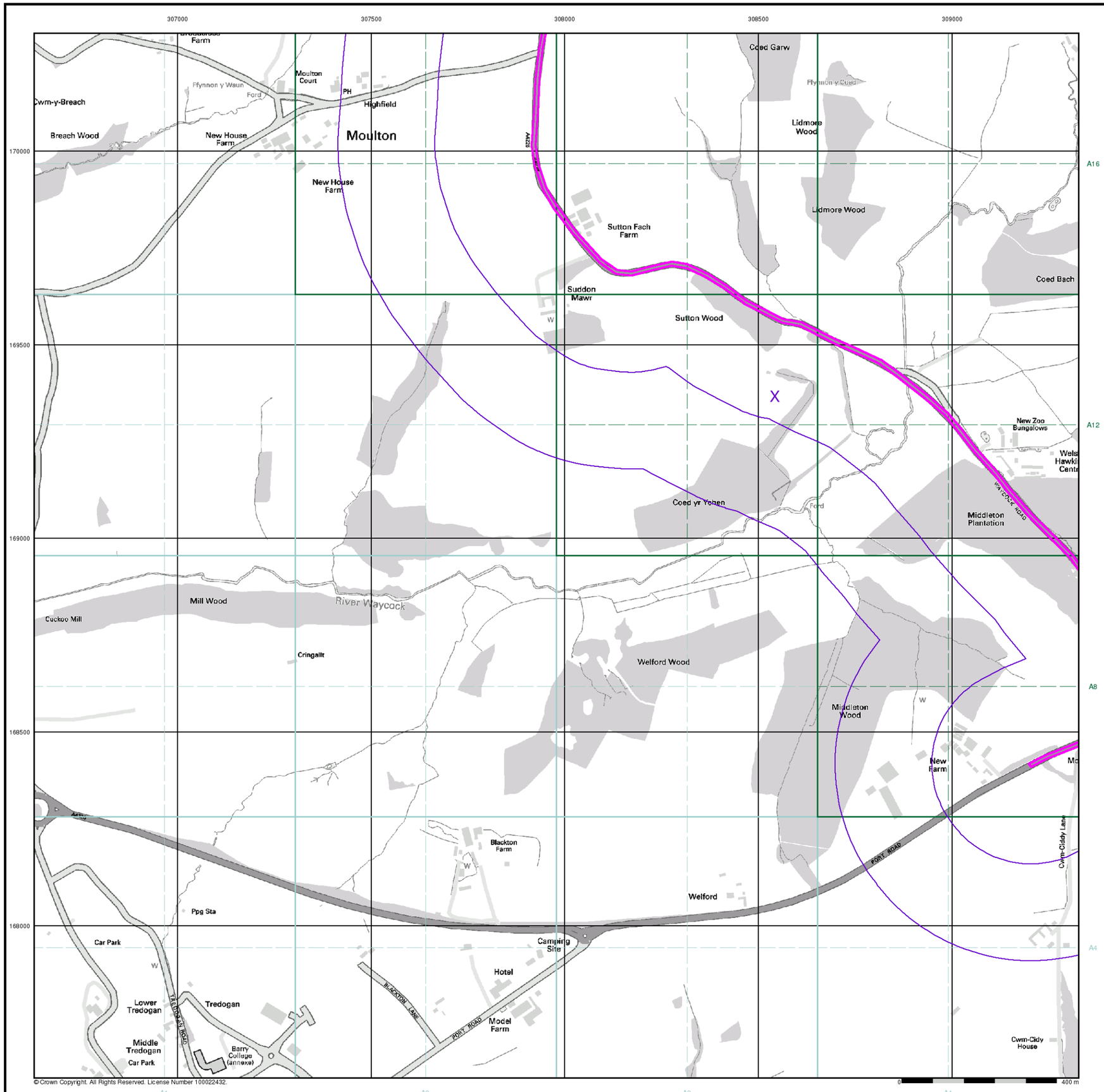


Envirocheck®

General

Specified Site | Specified Buffer(s) | X Bearing Reference Point

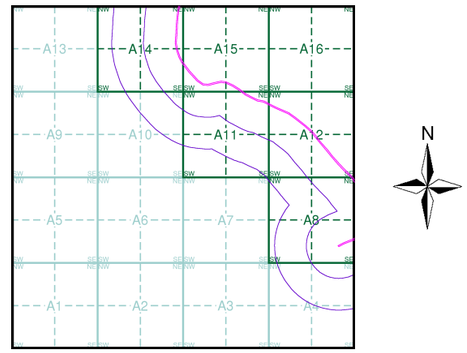
Urban Soil Chemistry Nickel

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

Nickel Concentrations mg/kg

< 15
15 - 30
30 - 45
45 - 60
60 - 80
80 - 100
> 100

Urban Soil Chemistry Nickel - Slice A



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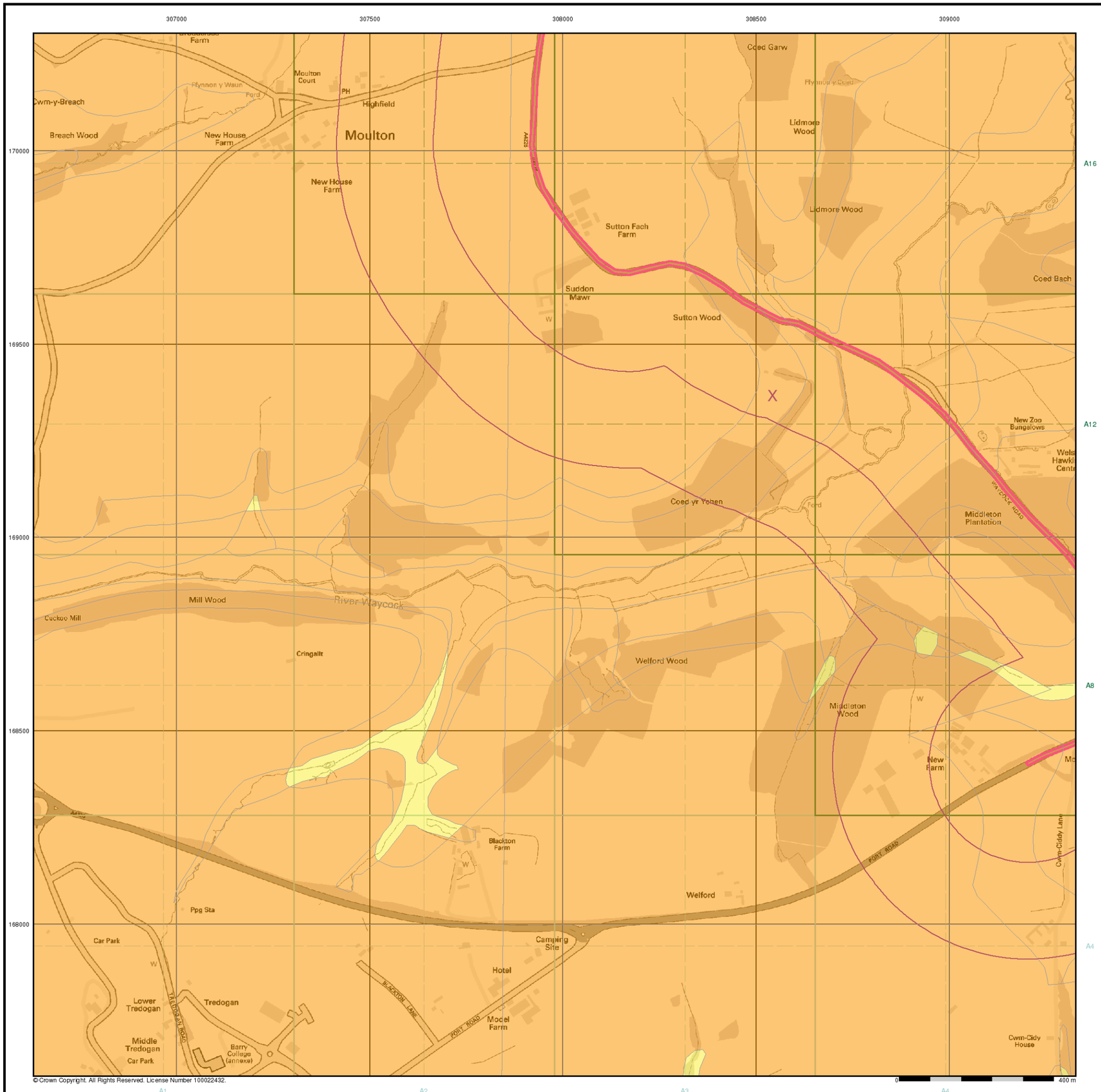


Envirocheck®

General

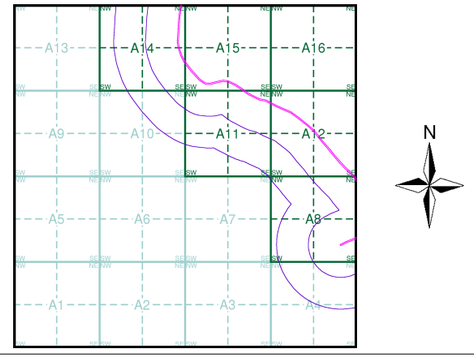
Specified Site | Specified Buffer(s) | X Bearing Reference Point

Estimated Soil Chemistry Nickel

Nickel Concentrations mg/kg

- < 15
- 15 - 30
- 30 - 45
- 45 - 60
- 60 - 80
- 80 - 100
- > 100

Estimated Soil Chemistry Nickel - Slice A



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Historical Mapping Legends

Ordnance Survey County Series 1:10,560

Gravel Pit
Sand Pit
Other Pits
Quarry
Shingle
Orchard
Osiers
Reeds
Marsh
Mixed Wood
Deciduous
Brushwood
Fir
Furze
Rough Pasture
Arrow denotes flow of water
Trigonometrical Station
Site of Antiquities
Bench Mark
Pump, Guide Post, Signal Post
Well, Spring, Boundary Post
·285 Surface Level
Sketched Contour
Instrumental Contour
Main Roads
Fenced
Un-Fenced
Minor Roads
Fenced
Un-Fenced
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
Co. Boro. Bdy. County Borough Boundary (England)
Co. Burgh Bdy. County Burgh Boundary (Scotland)
R.D. Bdy. 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
Coppice
Bracken
Heath
Rough Grassland
Marsh
Reeds
Saltings
Building
Direction of Flow of Water
Shingle
Sand
Glasshouse
Pylon
Pylon
Electricity Transmission Line
Sloping Masonry
Cutting
Embankment
Standard Gauge Multiple Track
Road Under
Road Over
Level Crossing
Foot Bridge
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
Shown only when not coincident with other boundaries
Civil Parish
Shown alternately when coincidence of boundaries occurs

BP, BS	Boundary Post or Stone	Pol Sta	Police Station
Ch	Church	PO	Post Office
CH	Club House	PC	Public Convenience
F E Sta	Fire Engine Station	PH	Public House
FB	Foot Bridge	SB	Signal Box
Fn	Fountain	Spr	Spring
GP	Guide Post	TCB	Telephone Call Box
MP	Mile Post	TCP	Telephone Call Post
MS	Mile Stone	W	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
MHW(S) Mean high water (springs)
MLW(S) Mean low water (springs)
Telephone line (where shown)
Electricity transmission line (with poles)
BM 123.45 m Bench mark (where shown)
Triangulation station
Point feature (e.g. Guide Post or Mile Stone)
Pylon, flare stack or lighting tower
Site of (antiquity)
Glasshouse
General Building
Important Building

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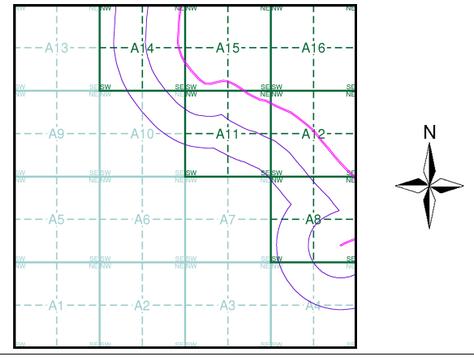
Historical Mapping & Photography included:

Mapping Type	Scale	Date	Pg
Glamorganshire	1:10,560	1885	2
Glamorganshire	1:10,560	1900 - 1901	3
Glamorganshire	1:10,560	1921	4
Glamorganshire	1:10,560	1936	5
Glamorganshire	1:10,560	1938 - 1947	6
Historical Aerial Photography	1:10,560	1947	7
Historical Aerial Photography	1:10,560	1947	8
Ordnance Survey Plan	1:10,000	1964 - 1965	9
Ordnance Survey Plan	1:10,000	1975	10
Ordnance Survey Plan	1:10,000	1982 - 1989	11
Ordnance Survey Plan	1:10,000	1995	12
10K Raster Mapping	1:10,000	1999	13
10K Raster Mapping	1:10,000	2006	14
10K Raster Mapping	1:10,000	2013	15

Historical Map - Slice A



Order Details

Order Number: 51886031_1_1
Customer Ref: 3512646D-HHC
National Grid Reference: 308540, 169370
Slice: A
Site Area (Ha): 20.09
Search Buffer (m): 500

Site Details

Cardiff International Airport, And Culverhouse Cross, Cardiff, CF5 6XW

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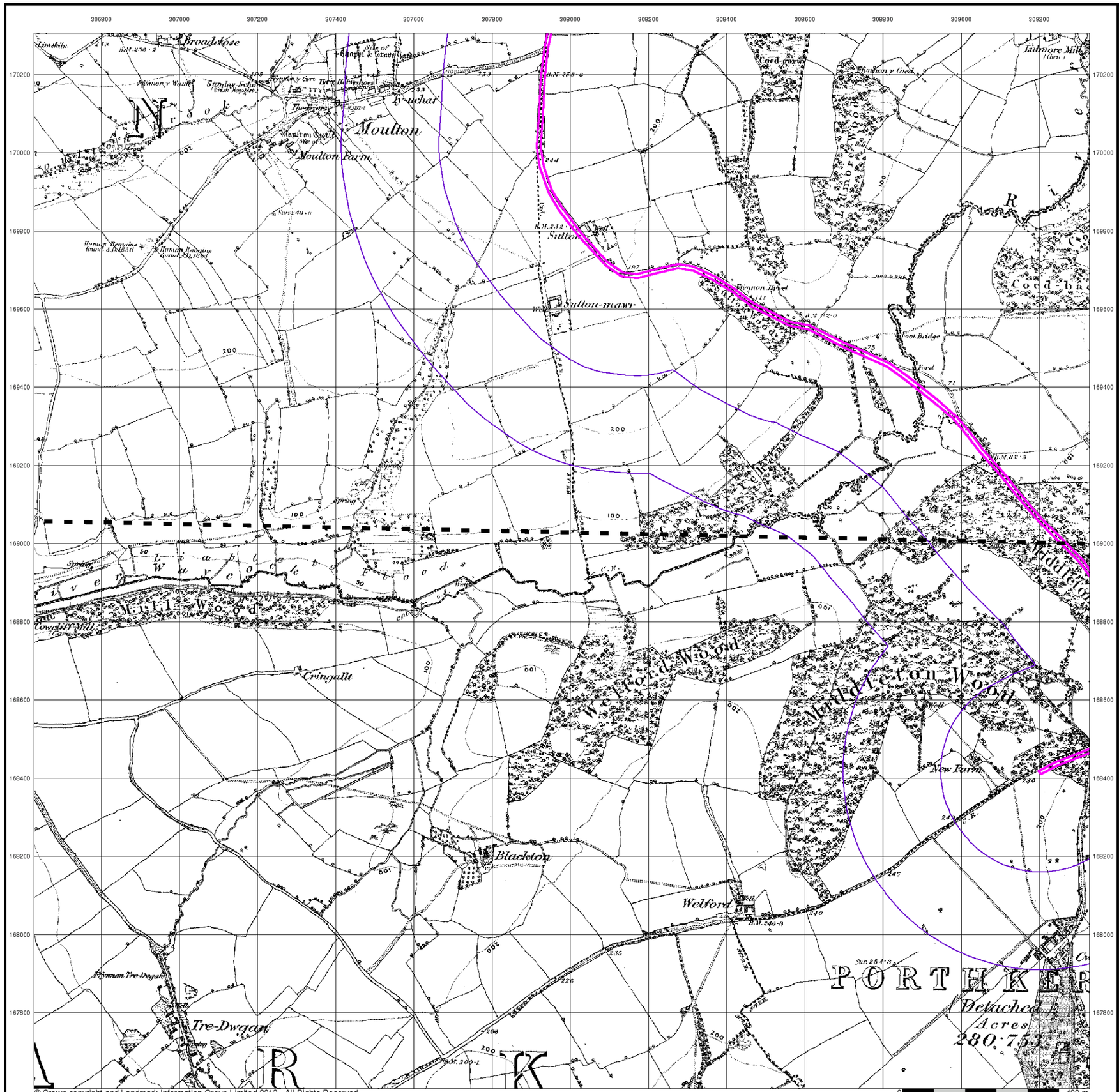

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Glamorganshire

Published 1885

Source map scale - 1:10,560

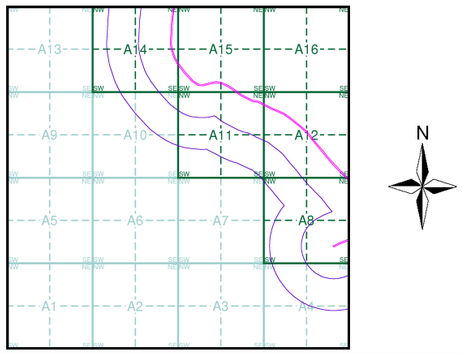
The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840`s. In 1854 the 1:2,500 scale was adopted for mapping urban areas; these maps were used to update the 1:10,560 maps. The published date given therefore is often some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

04600
1885
1:10,560

05000
1885
1:10,560

Historical Map - Slice A



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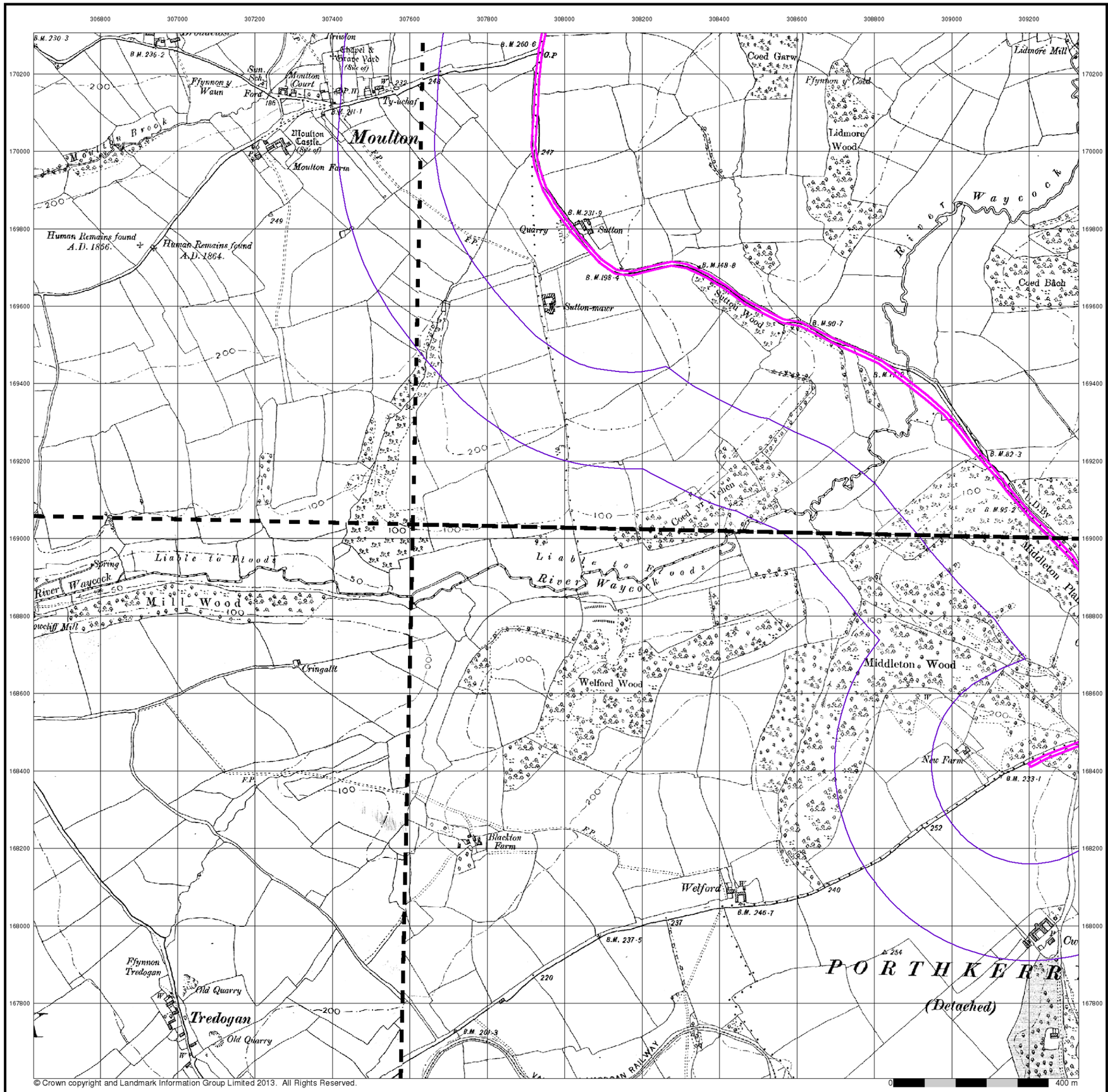

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Glamorganshire

Published 1900 - 1901

Source map scale - 1:10,560

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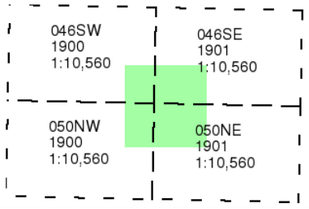
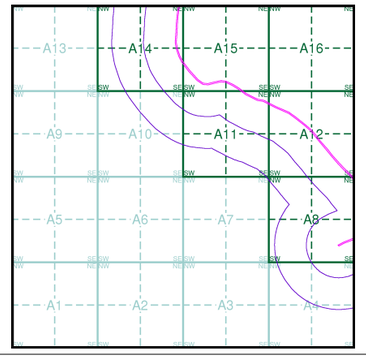
Map Name(s) and Date(s)



Historical Map - Slice A



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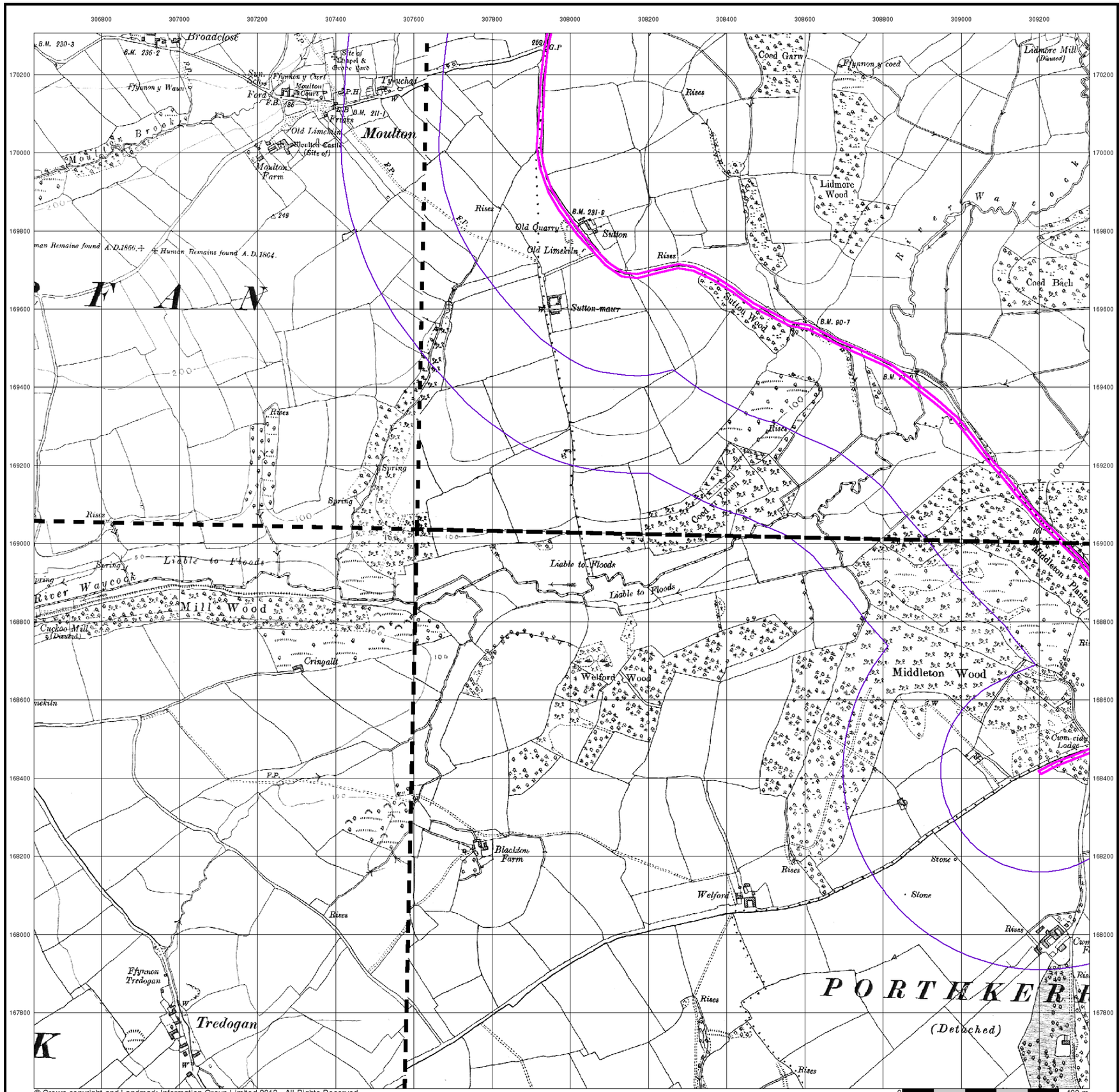

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Glamorganshire

Published 1921

Source map scale - 1:10,560

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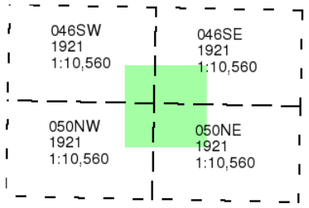
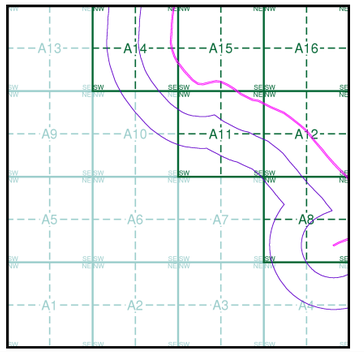
Map Name(s) and Date(s)



Historical Map - Slice A



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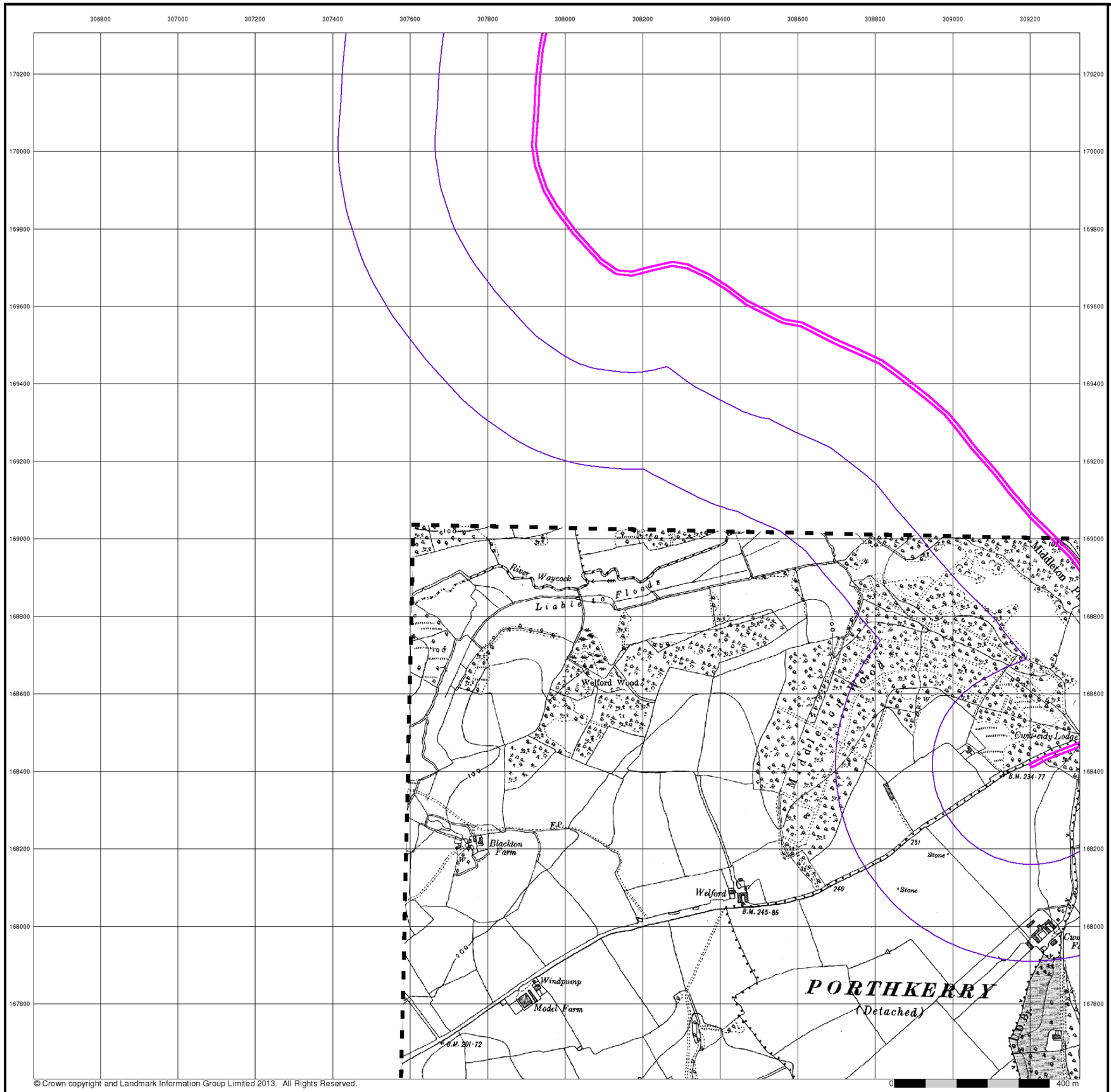

0 400 m

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Glamorganshire

Published 1936

Source map scale - 1:10,560

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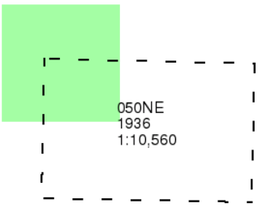
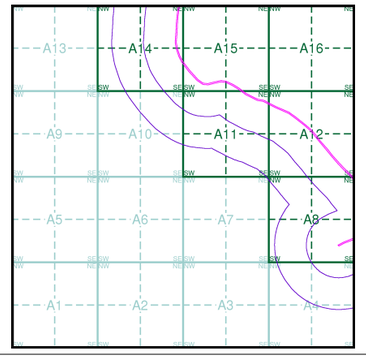


Historical Map - Slice A



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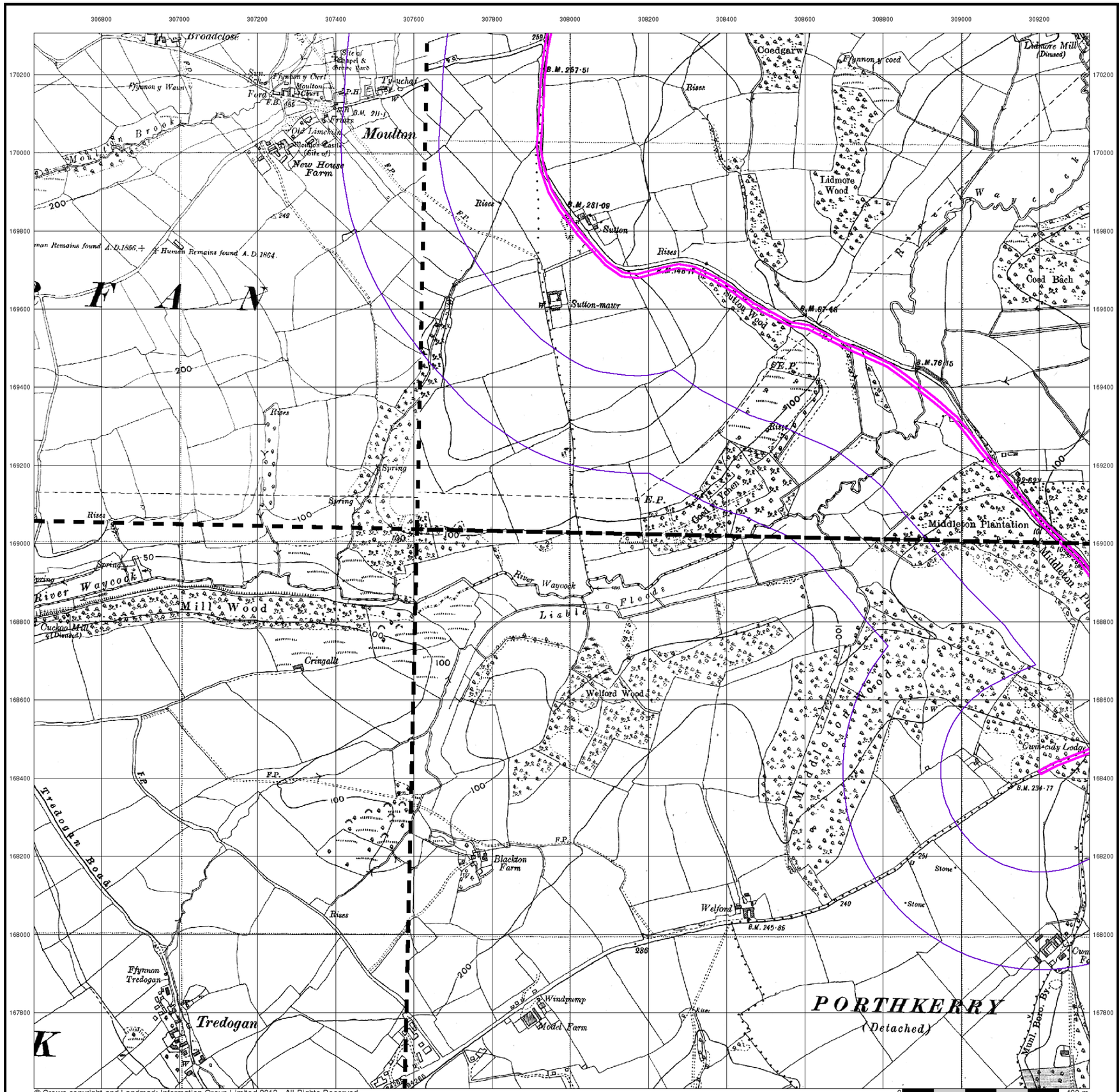

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Glamorganshire

Published 1938 - 1947

Source map scale - 1:10,560

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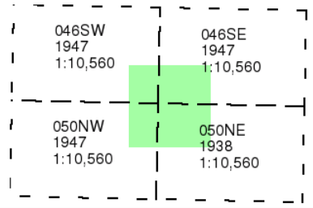
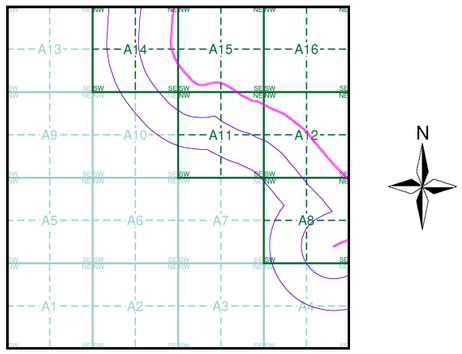
Map Name(s) and Date(s)



Historical Map - Slice A



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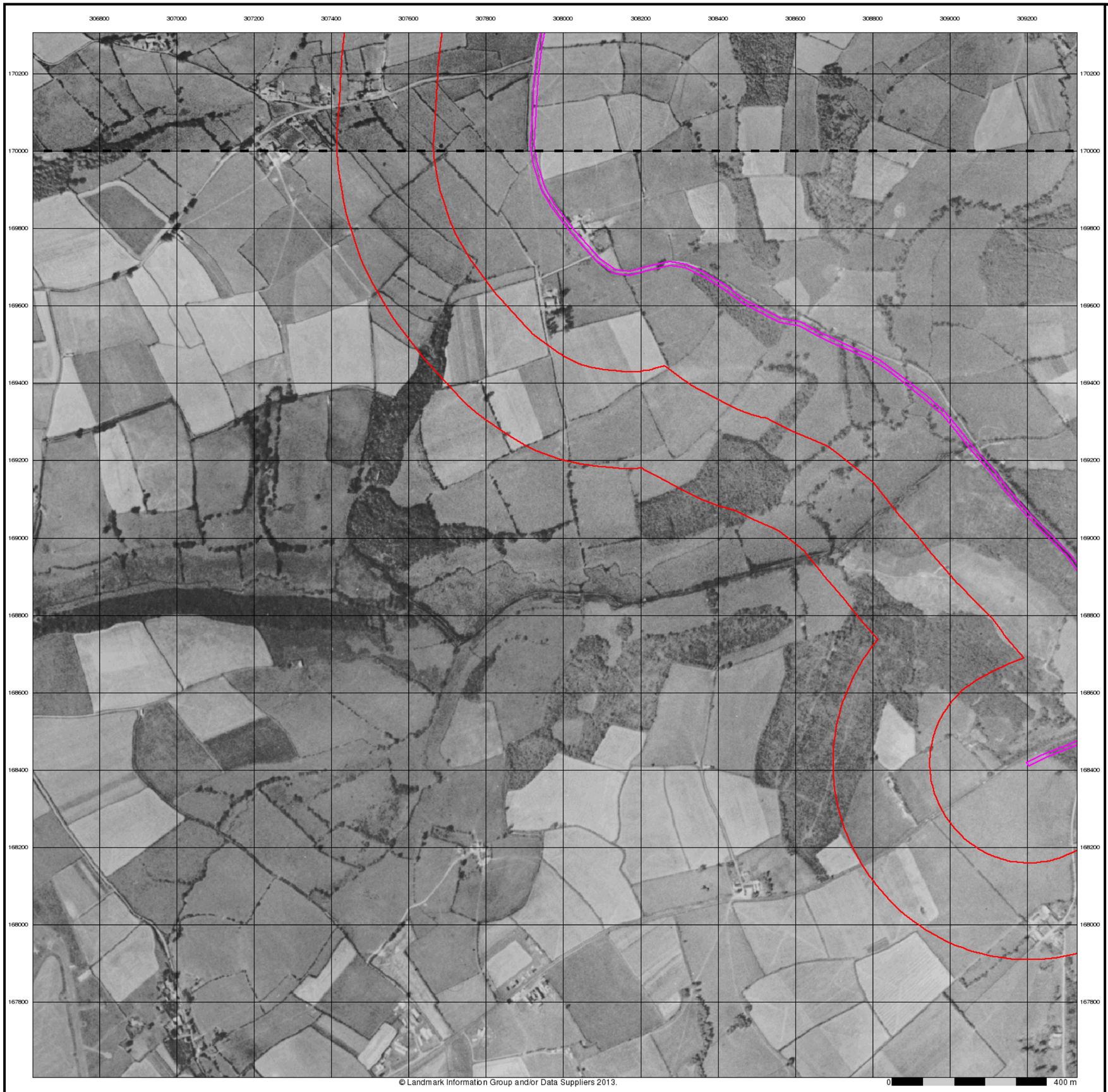

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Historical Aerial Photography

Published 1947

Source map scale - 1:10,560

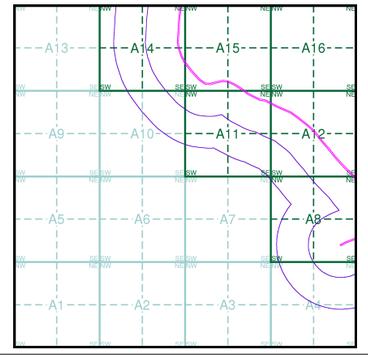
The Historical Aerial Photos were produced by the Ordnance Survey at a scale of 1:1,250 and 1:10,560 from Air Force photography. They were produced between 1944 and 1951 as an interim measure, pending preparation of conventional mapping, due to post war resource shortages. New security measures in the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

Map Name(s) and Date(s)

ST07SE
1947
1:10,560

ST06NE
1947
1:10,560

Historical Aerial Photography - Slice A



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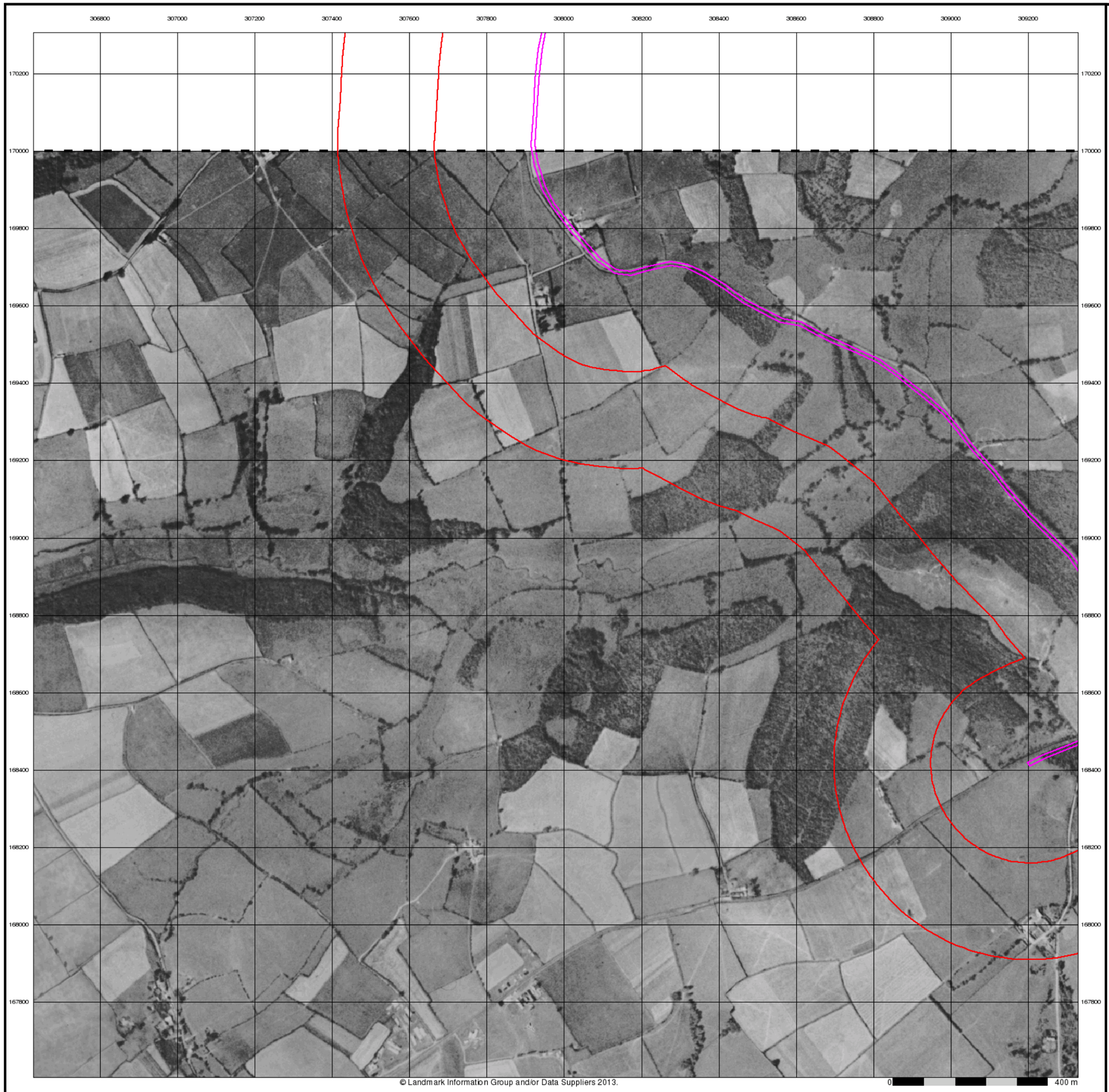

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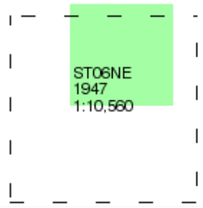
Published 1947

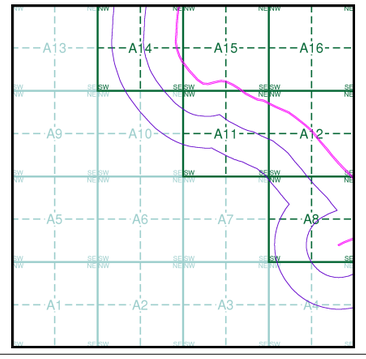
Source map scale - 1:10,560

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

Map Name(s) and Date(s)



Historical Aerial Photography - Slice A



Order Details

Order Number:	51886031_1_1
Customer Ref:	3512646D-HHC
National Grid Reference:	308540, 169370
Slice:	A
Site Area (Ha):	20.09
Search Buffer (m):	500

Site Details

Cardiff International Airport, And Culverhouse Cross, Cardiff, CF5 6XW

Landmark® Information Group

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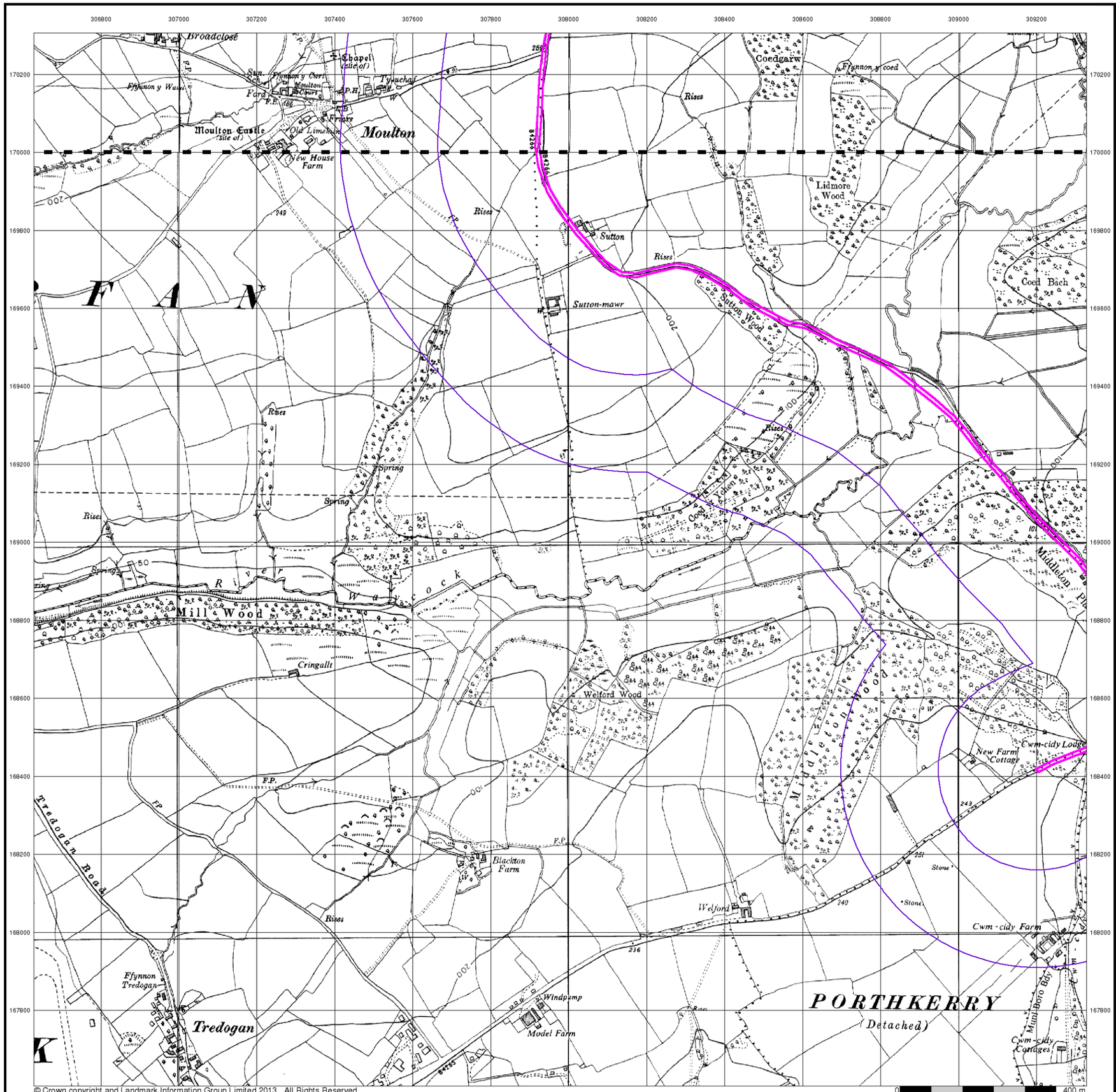
Fax: 0844 844 9951
Web: www.envirocheck.co.uk



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Ordnance Survey Plan

Published 1964 - 1965

Source map scale - 1:10,000

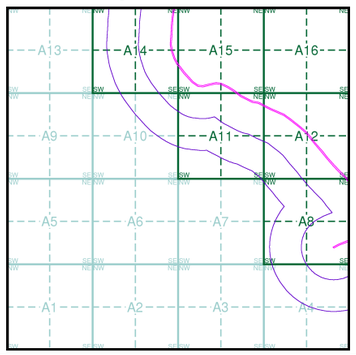
The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840`s. In 1854 the 1:2,500 scale was adopted for mapping urban areas; these maps were used to update the 1:10,560 maps. The published date given therefore is often some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

Map Name(s) and Date(s)

ST07SE
1964
1:10,560

ST06NE
1965
1:10,560

Historical Map - Slice A



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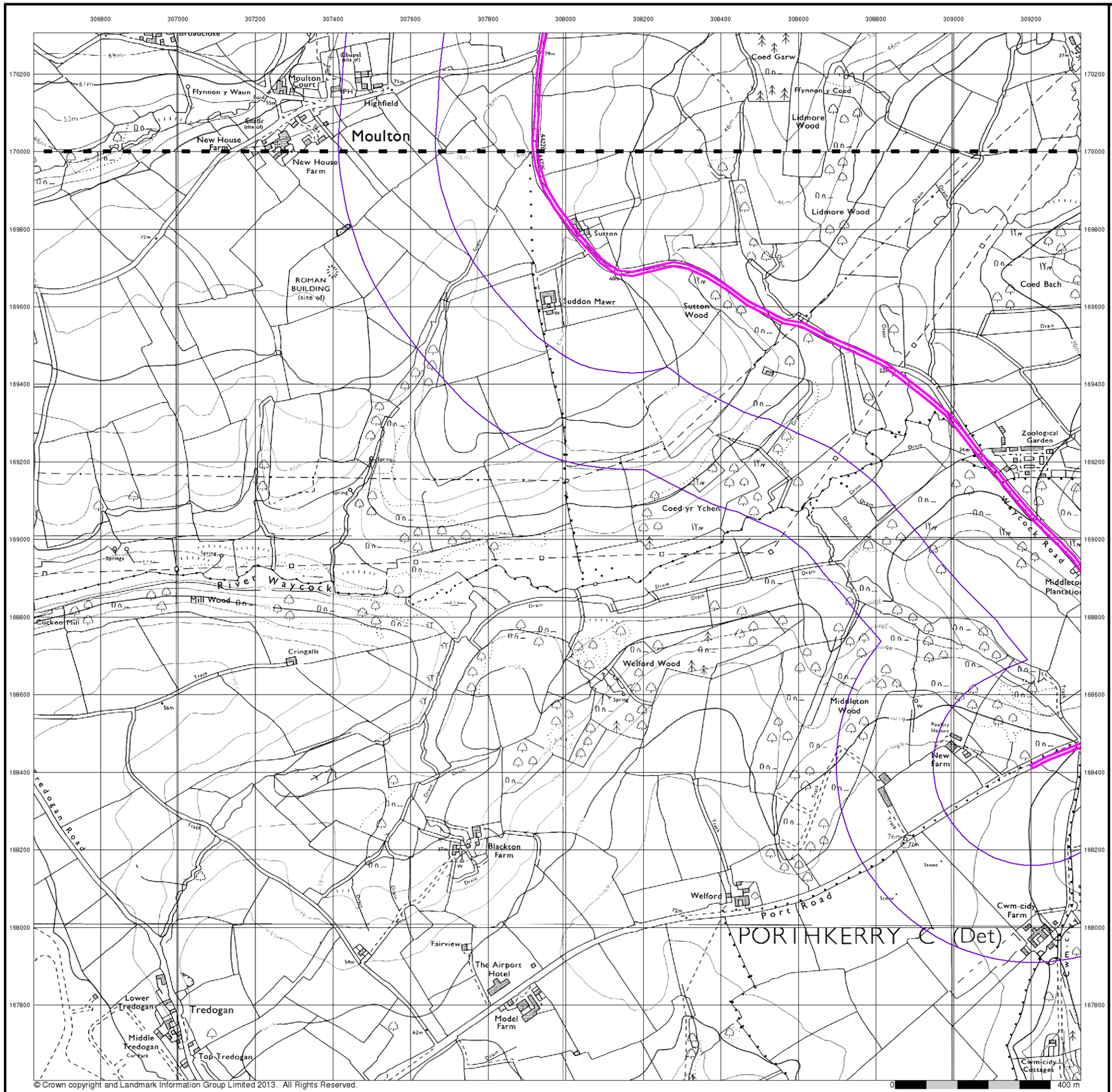

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Ordnance Survey Plan

Published 1975

Source map scale - 1:10,000

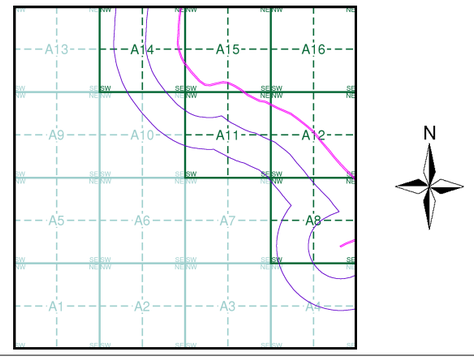
The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840`s. In 1854 the 1:2,500 scale was adopted for mapping urban areas; these maps were used to update the 1:10,560 maps. The published date given therefore is often some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

ST07SE
1975
1:10,000

ST06NE
1975
1:10,000

Historical Map - Slice A



Order Details

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Customer Ref:	3512646D-HHC
National Grid Reference:	308540, 169370
Slice:	A
Site Area (Ha):	20.09
Search Buffer (m):	500

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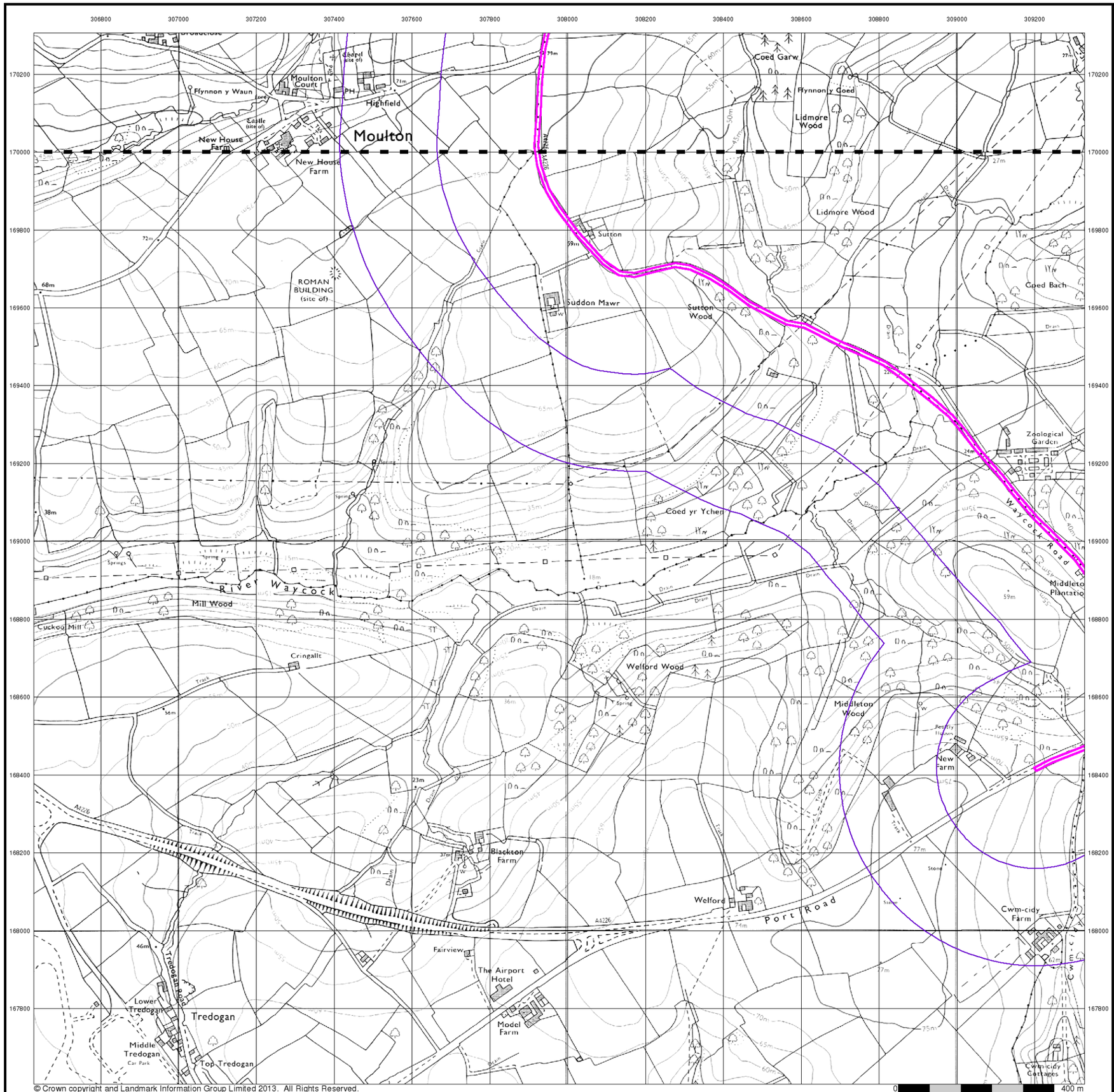

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Ordnance Survey Plan

Published 1982 - 1989

Source map scale - 1:10,000

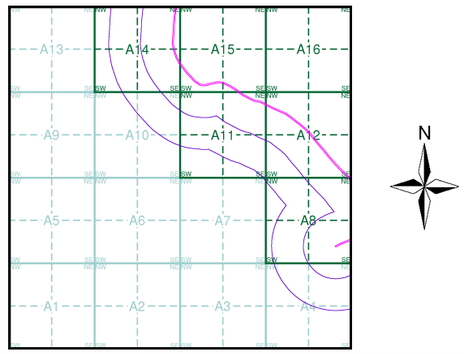
The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840`s. In 1854 the 1:2,500 scale was adopted for mapping urban areas; these maps were used to update the 1:10,560 maps. The published date given therefore is often some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

Map Name(s) and Date(s)

ST07SE
1989
1:10,000

ST06NE
1982
1:10,000

Historical Map - Slice A



Order Details

Order Number:	51886031_1_1
Customer Ref:	3512646D-HHC
National Grid Reference:	308540, 169370
Slice:	A
Site Area (Ha):	20.09
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Site Details

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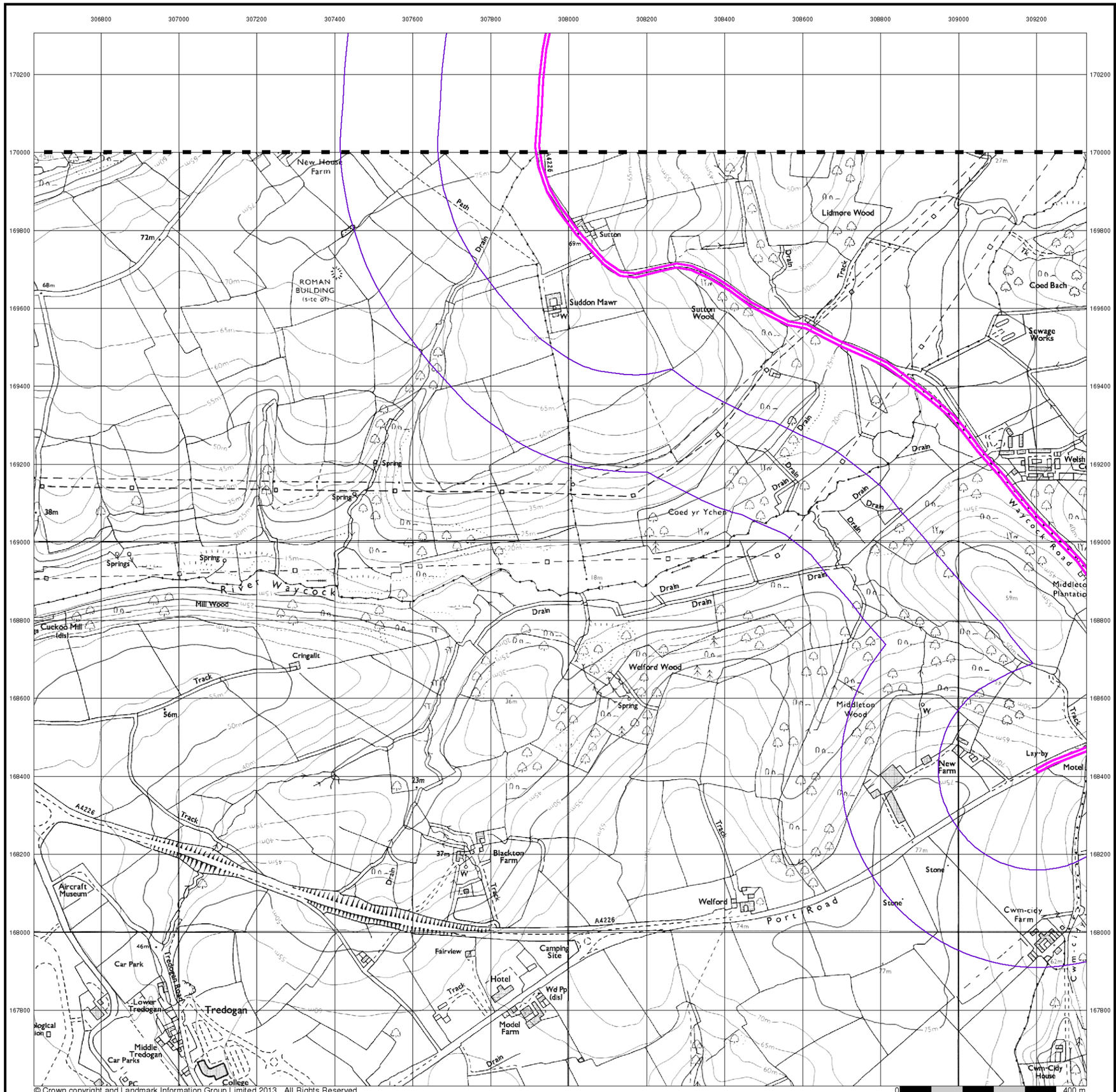

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Ordnance Survey Plan

Published 1995

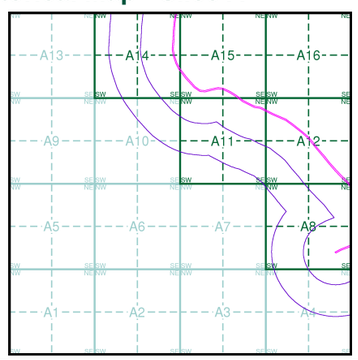
Source map scale - 1:10,000

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)

ST06NE
1995
1:10,000

Historical Map - Slice A



N

Order Details

Order Number:	51886031_1_1
Customer Ref:	3512646D-HHC
National Grid Reference:	308540, 169370
Slice:	A
Site Area (Ha):	20.09
Search Buffer (m):	500

Site Details

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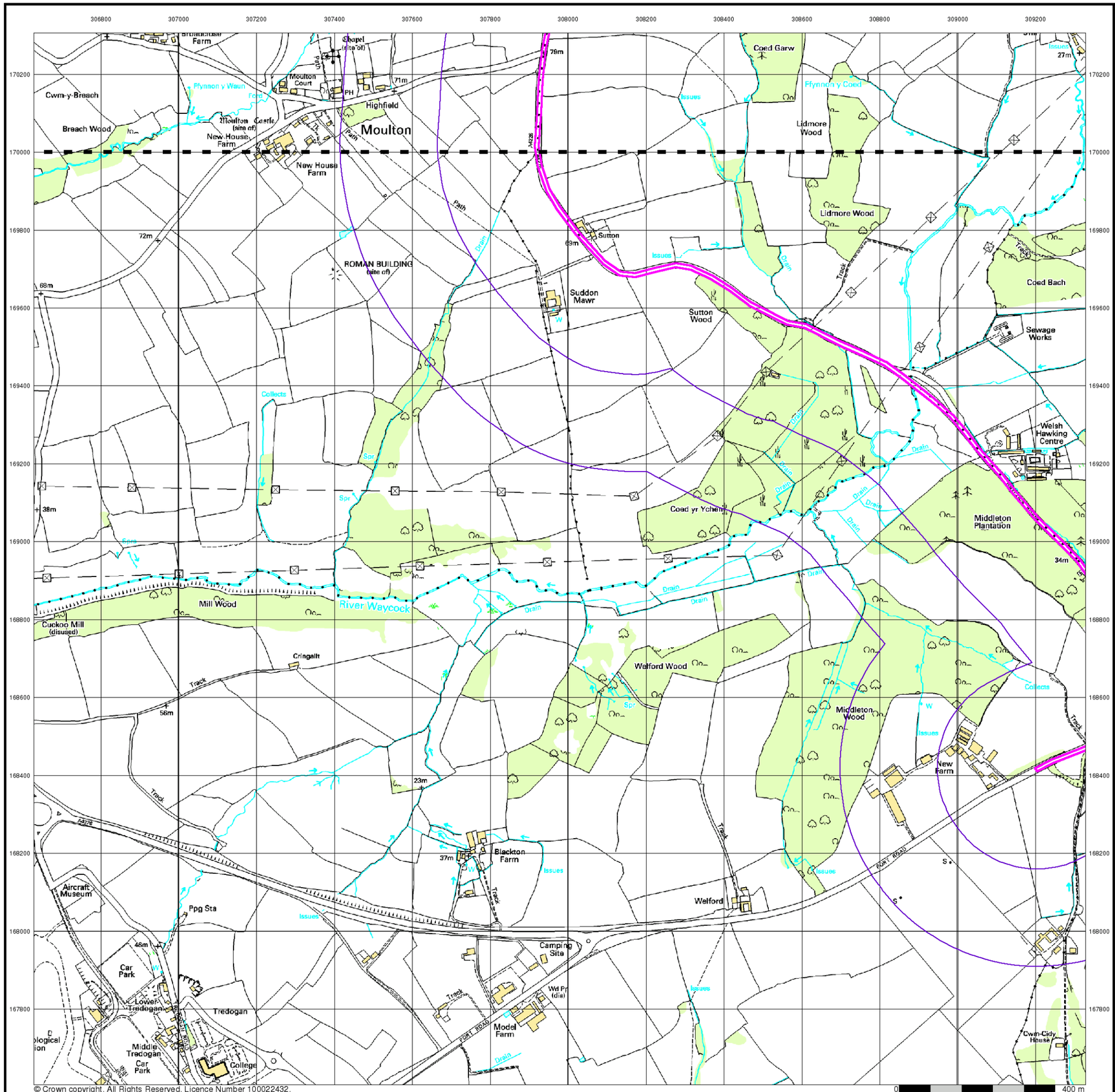

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10k Raster Mapping

Published 1999

Source map scale - 1:10,000

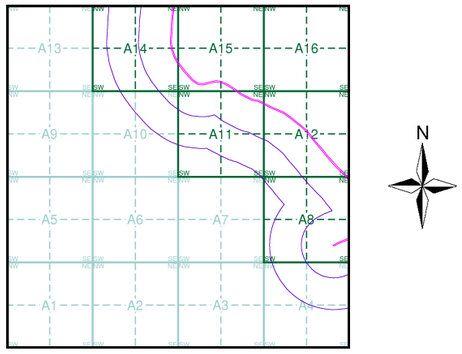
The historical maps shown were produced from the Ordnance Survey`s 1:10,000 colour raster mapping. These maps are derived from Landplan which replaced the old 1:10,000 maps originally published in 1970. The data is highly detailed showing buildings, fences and field boundaries as well as all roads, tracks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

Map Name(s) and Date(s)

ST07SE
1999
1:10,000

ST06NE
1999
1:10,000

Historical Map - Slice A



Order Details

Order Number:	51886031_1_1
Customer Ref:	3512646D-HHC
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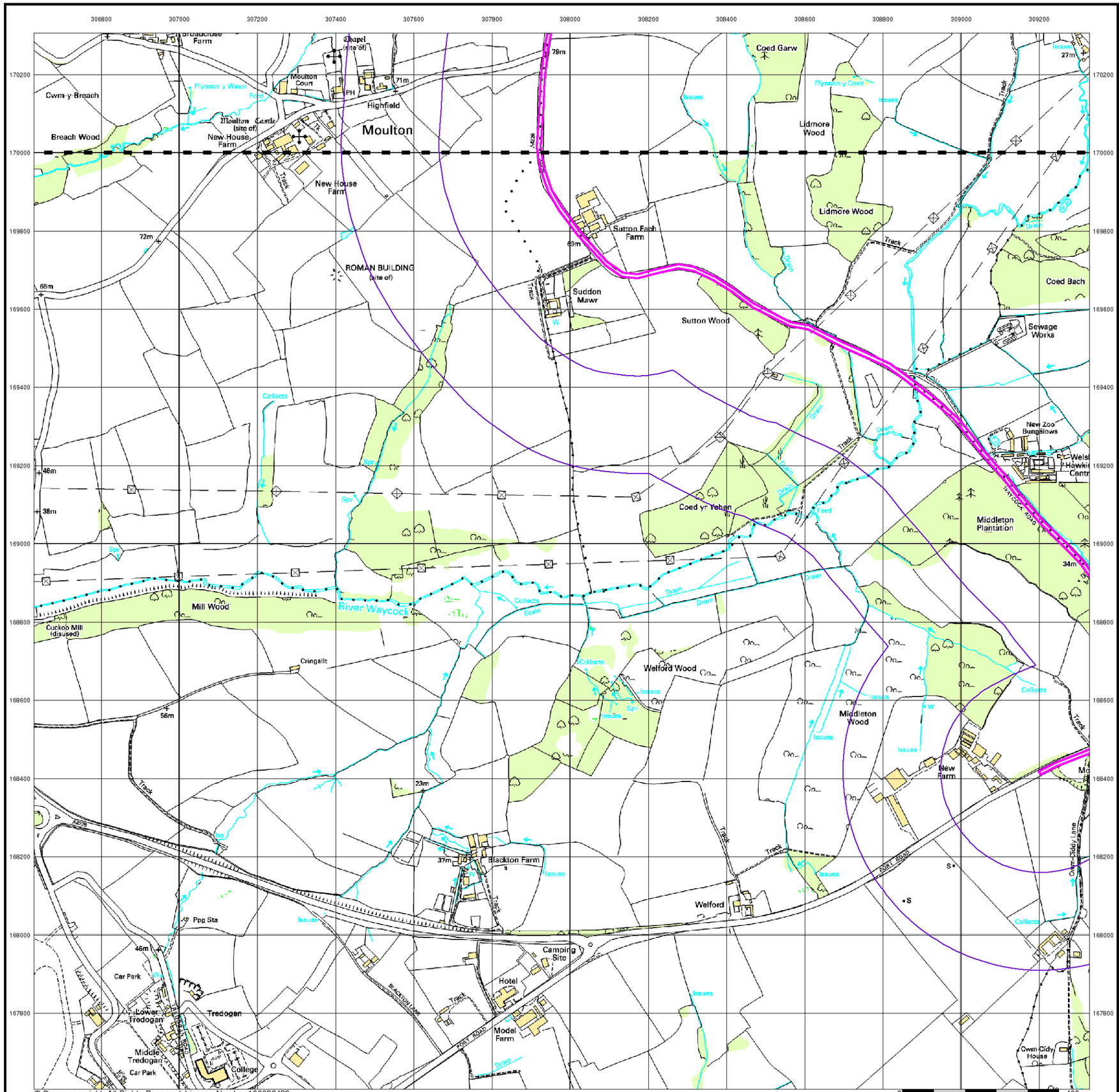


0 400 m

Envirocheck®

10k Raster Mapping

Published 2006

Source map scale - 1:10,000

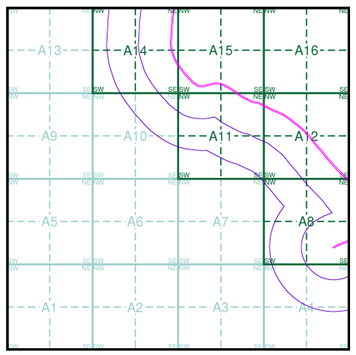
The historical maps shown were produced from the Ordnance Survey`s 1:10,000 colour raster mapping. These maps are derived from Landplan which replaced the old 1:10,000 maps originally published in 1970. The data is highly detailed showing buildings, fences and field boundaries as well as all roads, tracks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

Map Name(s) and Date(s)

ST07SE
2006
1:10,000

ST06NE
2006
1:10,000

Historical Map - Slice A



Order Details

Order Number:	51886031_1_1
Customer Ref:	3512646D-HHC
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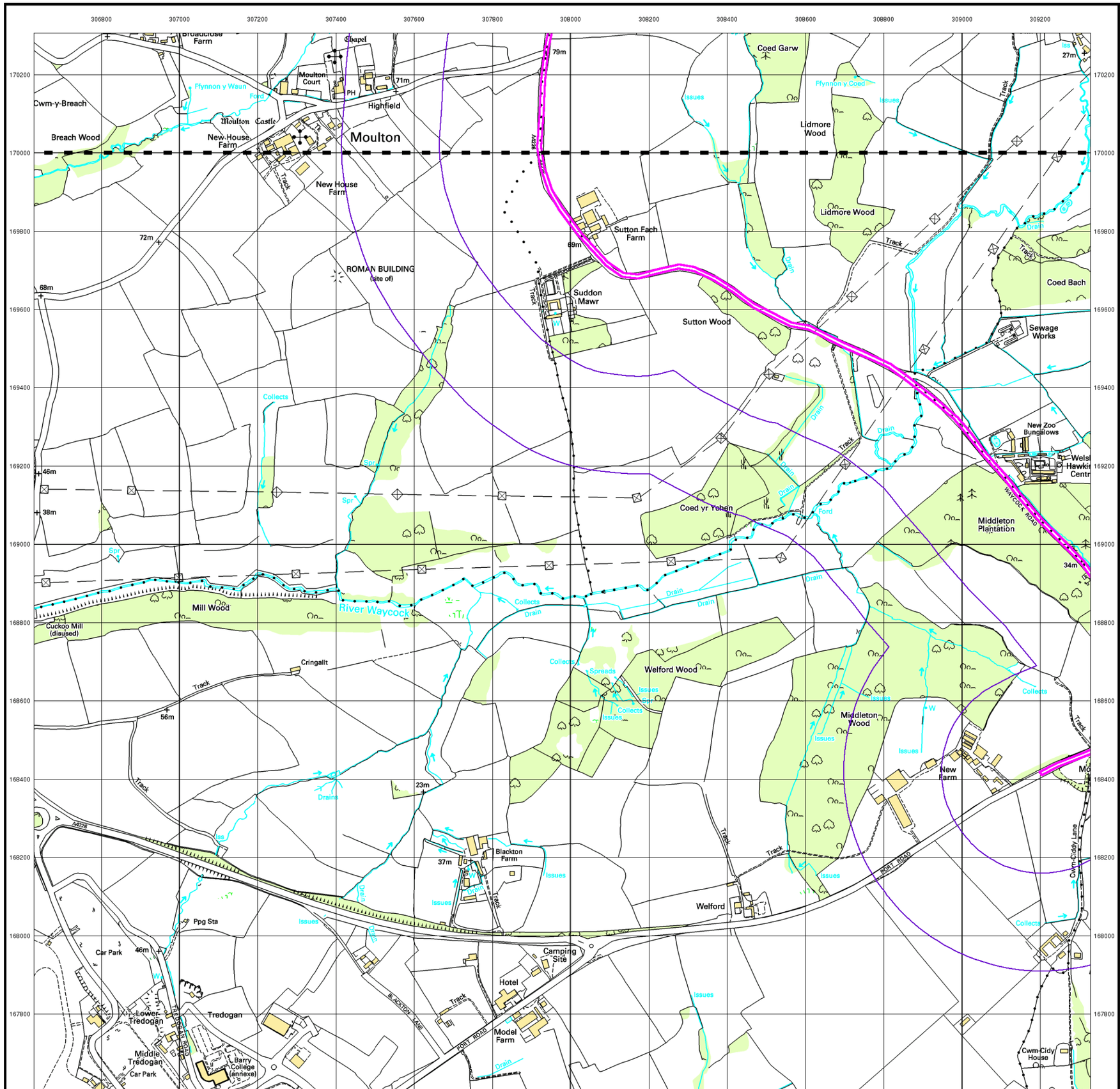


Envirocheck®

10k Raster Mapping

Published 2013

Source map scale - 1:10,000

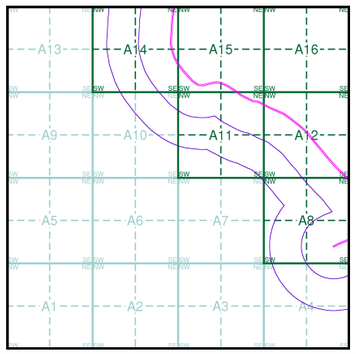
The historical maps shown were produced from the Ordnance Survey`s 1:10,000 colour raster mapping. These maps are derived from Landplan which replaced the old 1:10,000 maps originally published in 1970. The data is highly detailed showing buildings, fences and field boundaries as well as all roads, tracks 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)

ST07SE
2013
1:10,000

ST06NE
2013
1:10,000

Historical Map - Slice A



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Customer Ref:	3512646D-HHC
National Grid Reference:	308540, 169370
Slice:	A
Site Area (Ha):	20.09
Search Buffer (m):	500

Site Details

Cardiff International Airport, And Culverhouse Cross, Cardiff, CF5 6XW

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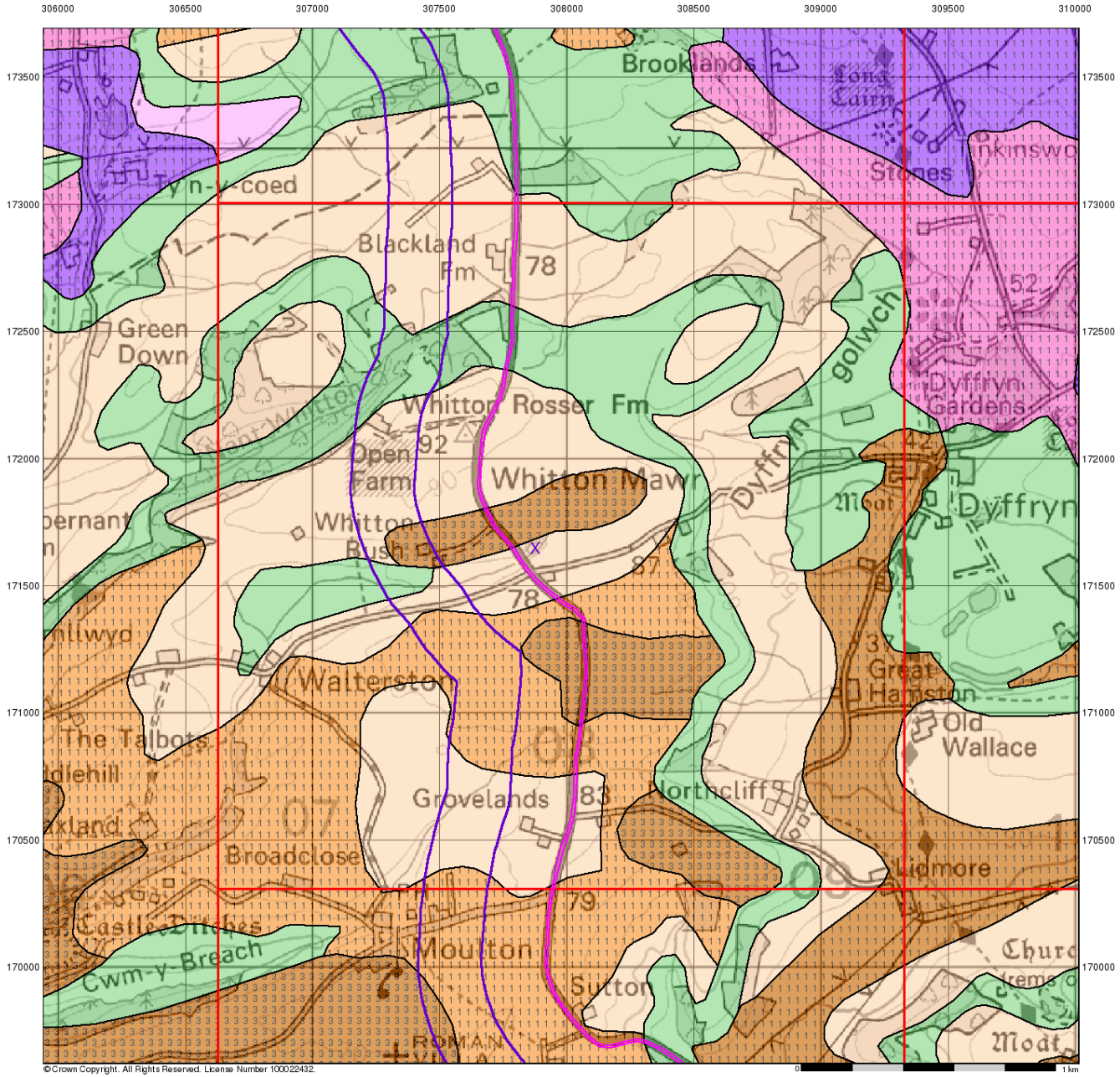


Envirocheck®

Groundwater Vulnerability

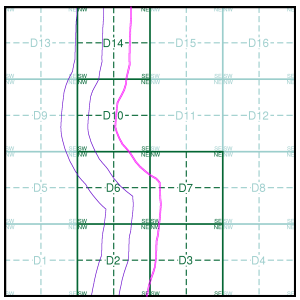
General

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

Agency and Hydrological

Geological Classes	Soil Classes
Major Aquifer (Highly Permeable)	High (H) 1, 2, 3, U
	Intermediate (I) 1, 2
	Low
Minor Aquifer (Variably Permeable)	High (H) 1, 2, 3, U
	Intermediate (I) 1, 2
	Low
Non Aquifer (Negligibly Permeable)	
Water or Sea	
Drift Deposit	

Site Sensitivity Context Map - Slice D



Order Details

Order Number:	51886031_1_1
Customer Ref:	3512646D-HHC
National Grid Reference:	307880, 171650
Slice:	D
Site Area (Ha):	20.09
Search Buffer (m):	500

Site Details

Cardiff International Airport, And Culverhouse Cross, Cardiff, CF5 6XW

Landmark® Information Group
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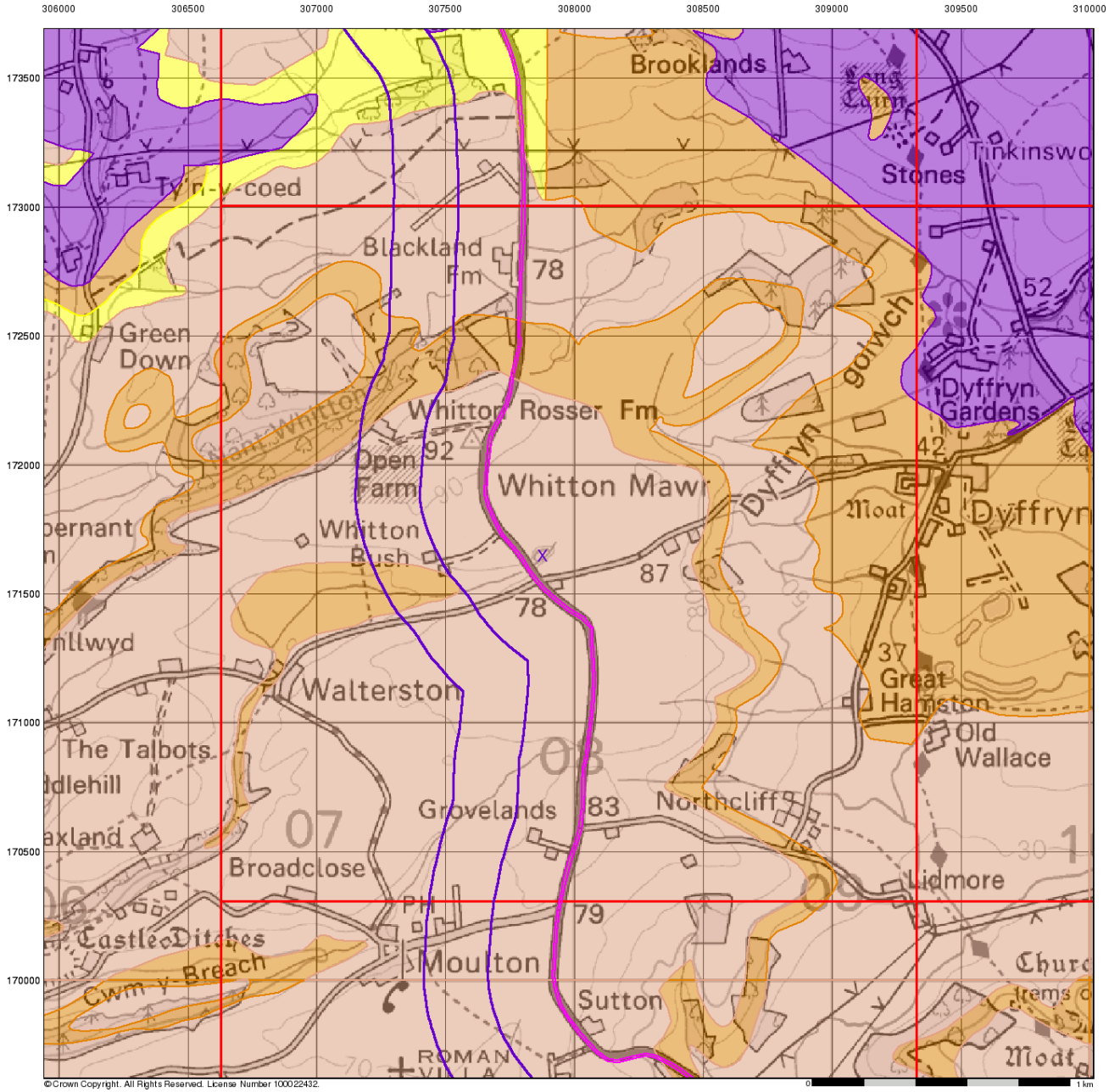


Envirocheck®

Bedrock Aquifer Designation

General

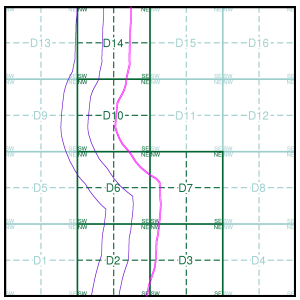
Specified Site | Specified Buffer(s) | Bearing Reference Point | Slice | Map ID

Agency and Hydrological

Geological Classes

- Principal Aquifer
- Secondary A Aquifer
- Secondary B Aquifer
- Secondary Undifferentiated
- Unproductive Strata
- Unknown

Site Sensitivity Context Map - Slice D



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Slice:	D
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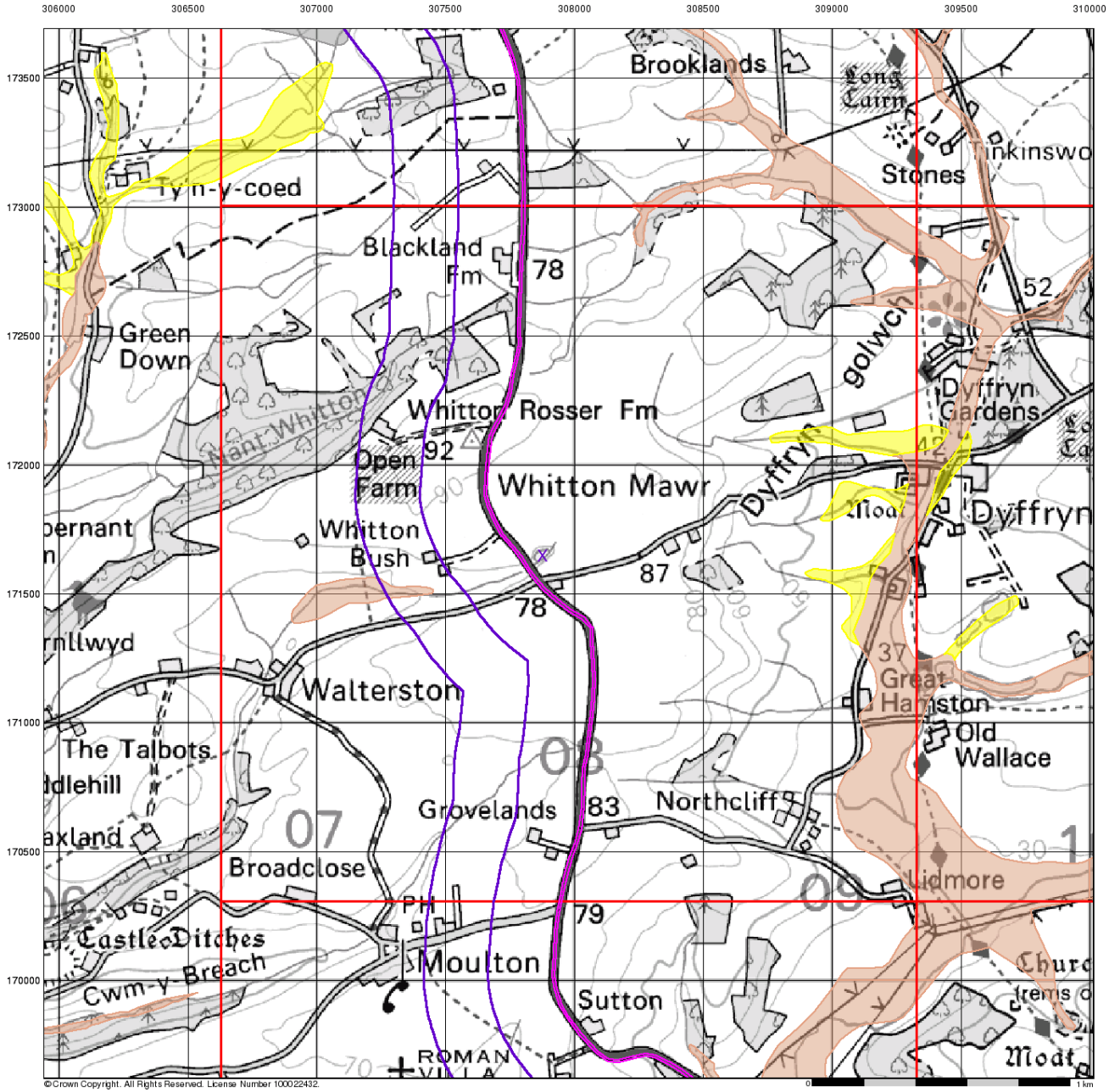

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Superficial Aquifer Designation

General

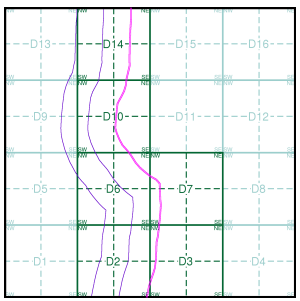
Specified Site | Specified Buffer(s) | Bearing Reference Point | Slice | Map ID

Agency and Hydrological

Geological Classes

- Principal Aquifer
- Secondary A Aquifer
- Secondary B Aquifer
- Secondary Undifferentiated
- Unproductive Strata
- Unknown

Site Sensitivity Context Map - Slice D



Order Details

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Customer Ref:	3512646D-HHC
National Grid Reference:	307880, 171650
Slice:	D
Site Area (Ha):	20.09
Search Buffer (m):	500

Site Details

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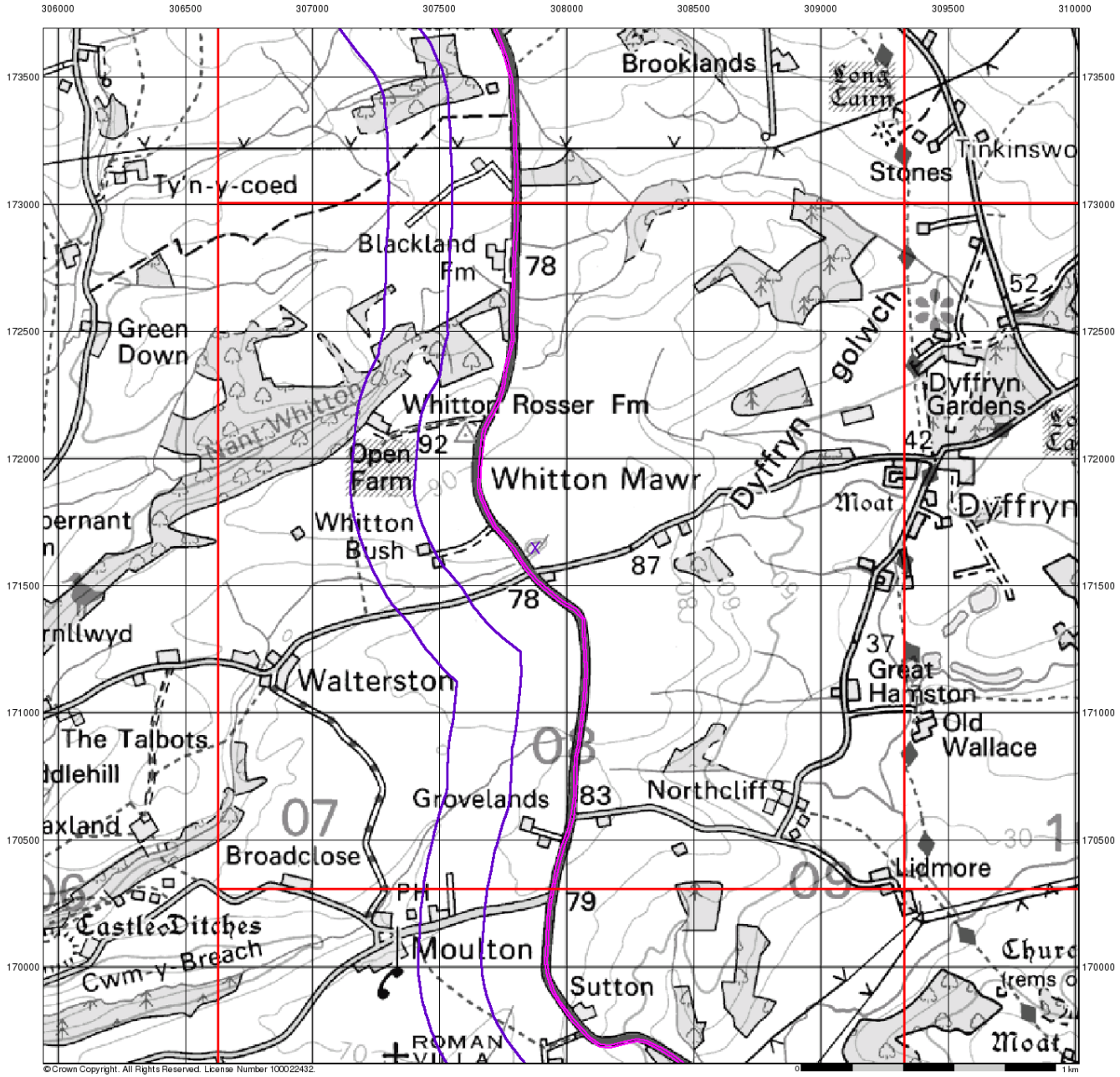


Envirocheck®

Source Protection Zones

General

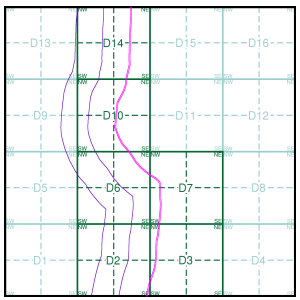
Specified Site | Specified Buffer(s) | Bearing Reference Point

Slice | Map ID

Agency and Hydrological

- Source Protection Zone I
- Source Protection Zone II
- Source Protection Zone III
- Zone of Special Interest
- Source Protection Zone Borehole

Site Sensitivity Context Map - Slice D



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Site Area (Ha):	20.09
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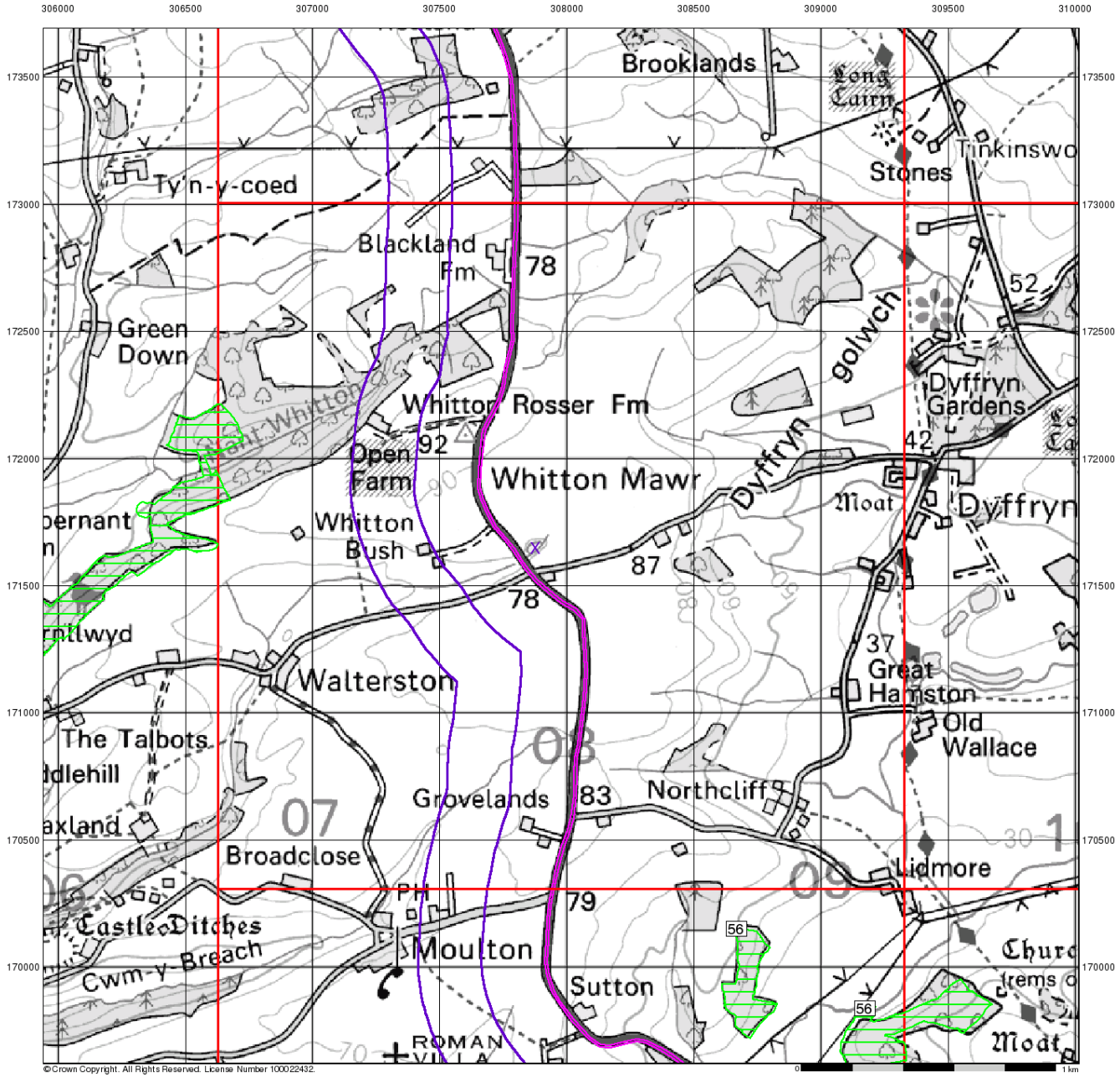
Site Details

Cardiff International Airport, And Culverhouse Cross, Cardiff, CF5 6XW



Envirocheck®

Sensitive Land Uses

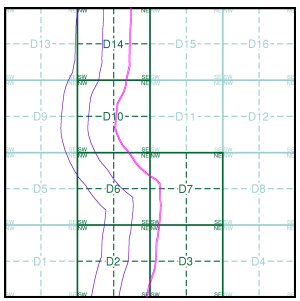
General

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

Sensitive Land Uses

- 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

Site Sensitivity Context Map - Slice D



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Landmark® Information Group
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Fax: 0844 844 9951
Web: www.envirocheck.co.uk

Envirocheck® Report:

Datasheet

Order Details:

Order Number:
51886031_1_1

Customer Reference:
3512646D-HHC

National Grid Reference:
307880, 171650

Slice:
D

Site Area (Ha):
20.09

Search Buffer (m):
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Site Details:

Cardiff International Airport
And Culverhouse Cross
Cardiff
CF5 6XW

Client Details:

Mr G Jones
Parsons Brinckerhoff Ltd
29 Cathedral Road
Cardiff
CF11 9HA

Contents

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 and the Scottish Environment Protection Agency; it also incorporates data from Natural England (and the Scottish and Welsh equivalents) and Local Authorities; and highlights hydrogeological features required by environmental and geotechnical consultants. It does not include any information concerning past uses of land. The datasheet is produced by querying the Landmark database to a distance defined by the client from a site boundary provided by the client.

In the attached datasheet the National Grid References (NGRs) are rounded to the nearest 10m in accordance with Landmark's agreements with a number of Data Suppliers.

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Ove Arup Copyright Notice

Peter Brett Associates Copyright Notice

Radon Potential dataset Copyright Notice

Report Version v47.0

Envirocheck®

Summary

Data Type	Page Number	On Site	0 to 250m	251 to 500m (*up to 1000m)
Agency & Hydrological				
Contaminated Land Register Entries and Notices				
Discharge Consents	pg 1		3	1
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 1	Yes		
Pollution Incidents to Controlled Waters				
Prosecutions Relating to Authorised Processes				
Prosecutions Relating to Controlled Waters				
Registered Radioactive Substances				
River Quality				
River Quality Biology Sampling Points				
River Quality Chemistry Sampling Points				
Substantiated Pollution Incident Register				
Water Abstractions				
Water Industry Act Referrals				
Groundwater Vulnerability	pg 2	Yes	n/a	n/a
Bedrock Aquifer Designations	pg 3	Yes	n/a	n/a
Superficial Aquifer Designations	pg 3	Yes	n/a	n/a
Source Protection Zones				
Extreme Flooding from Rivers or Sea without Defences	pg 4	Yes		n/a
Flooding from Rivers or Sea without Defences	pg 4	Yes	Yes	n/a
Areas Benefiting from Flood Defences				n/a
Flood Water Storage Areas				n/a
Flood Defences				n/a
Detailed River Network Lines	pg 4	Yes	Yes	Yes
Detailed River Network Offline Drainage				

Data Type	Page Number	On Site	0 to 250m	251 to 500m (*up to 1000m)
Waste				
BGS Recorded Landfill Sites				
Historical Landfill Sites	pg 12		1	
Integrated Pollution Control Registered Waste Sites				
Licensed Waste Management Facilities (Landfill Boundaries)				
Licensed Waste Management Facilities (Locations)				
Local Authority Recorded Landfill Sites	pg 12		1	
Registered Landfill Sites	pg 12		1	
Registered Waste Transfer Sites				
Registered Waste Treatment or Disposal Sites				
Hazardous Substances				
Control of Major Accident Hazards Sites (COMAH)				
Explosive Sites				
Notification of Installations Handling Hazardous Substances (NIHHS)				
Planning Hazardous Substance Consents				
Planning Hazardous Substance Enforcements				
Geological				
BGS 1:625,000 Solid Geology	pg 13	Yes	n/a	n/a
BGS Estimated Soil Chemistry	pg 13	Yes	Yes	Yes
BGS Recorded Mineral Sites	pg 18		3	1
BGS Urban Soil Chemistry				
BGS Urban Soil Chemistry Averages				
Brine Compensation Area			n/a	n/a
Coal Mining Affected Areas			n/a	n/a
Mining Instability	pg 18	Yes	n/a	n/a
Man-Made Mining Cavities				
Natural Cavities				
Non Coal Mining Areas of Great Britain				n/a
Potential for Collapsible Ground Stability Hazards	pg 18	Yes		n/a
Potential for Compressible Ground Stability Hazards	pg 18		Yes	n/a
Potential for Ground Dissolution Stability Hazards				n/a
Potential for Landslide Ground Stability Hazards	pg 19	Yes		n/a
Potential for Running Sand Ground Stability Hazards	pg 19		Yes	n/a
Potential for Shrinking or Swelling Clay Ground Stability Hazards	pg 19	Yes	Yes	n/a
Radon Potential - Radon Affected Areas	pg 19	Yes	n/a	n/a
Radon Potential - Radon Protection Measures	pg 19	Yes	n/a	n/a

Summary

Data Type	Page Number	On Site	0 to 250m	251 to 500m (*up to 1000m)
Industrial Land Use				
Contemporary Trade Directory Entries (50m)				n/a
Fuel Station Entries				
Sensitive Land Use				
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 20		1	
Special Areas of Conservation				
Special Protection Areas				

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
1	**Discharge Consents** Operator: Mrs Ethel Huggard Property Type: Domestic Property (Single) Location: Blackland Farm Five Mile Lane, Bonvilston, Cardiff, Cf5 6tq Authority: Environment Agency, Welsh Region Catchment Area: River Thaw Reference: An0022801 Permit Version: 3 Effective Date: 29th March 2006 Issued Date: 29th March 2006 Revocation Date: 29th March 2018 Discharge Type: Sewage Discharges - Final/Treated Effluent - Not Water Company Discharge Environment: Into Land Receiving Water: To Land **Status: Modified (Water Resources Act 1991, Schedule 10 as amended by Environment Act 1995)** Positional Accuracy: Located by supplier to within 10m	D14NE (N)	74	1	307714 172720
2	**Discharge Consents** Operator: Mrs Ethel Maud Huggard Property Type: Domestic Property (Single) Location: Blackland Farm Five Mile Lane Bonvi, Five Mile Lane Bonvilston Cardif, Bonvilston Cardiff Authority: Environment Agency, Welsh Region Catchment Area: River Thaw Reference: AN0022801 Permit Version: 2 Effective Date: 4th March 1994 Issued Date: 4th March 1994 Revocation Date: 28th March 2006 Discharge Type: Unspecified Discharge Environment: Onto Land Receiving Water: To Land **Status: New Consent, by Application (Water Resources Act 1991, Section 88)** Positional Accuracy: Located by supplier to within 10m	D14NE (N)	90	1	307700 172800
2	**Discharge Consents** Operator: Mrs Ethel Maud Huggard Property Type: Domestic Property (Single) Location: Blackland Farm Five Mile Lane Bonvi, Five Mile Lane Bonvilston Cardif, Bonvilston Cardiff Authority: Environment Agency, Welsh Region Catchment Area: River Thaw Reference: An0022801 Permit Version: 1 Effective Date: 3rd March 1987 Issued Date: 3rd March 1987 Revocation Date: 3rd March 1994 Discharge Type: Unspecified Discharge Environment: Onto Land Receiving Water: To Land **Status: Authorisation revokedRevoked** Positional Accuracy: Located by supplier to within 100m	D14NE (N)	90	1	307700 172800
3	**Discharge Consents** Operator: The Amelia Methodist Trust Company Limited Property Type: Mixed Farming Location: Stp@The Amelia Trust Farm, Five Mile Lane, Barry, Vale Of Glamorgan, Cf62 3as Authority: Environment Agency, Welsh Region Catchment Area: Not Supplied Reference: Eprzp3222gj Permit Version: 1 Effective Date: 14th January 2013 Issued Date: 14th January 2013 Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Final/Treated Effluent - Not Water Company Discharge Environment: Into Land Receiving Water: Groundwater **Status: New issued under EPR 2010** Positional Accuracy: Located by supplier to within 10m	D9NE (NW)	499	1	307166 172083
	Nearest Surface Water Feature	D6NE (S)	0	-	307872 171595

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Groundwater Vulnerability Soil Classification: Soils of High Leaching Potential (U) - Soil information for restored mineral workings and urban areas is based on fewer observations than elsewhere. A worst case vulnerability classification (H) assumed, until proved otherwise Map Sheet: Sheet 36 Mid Glamorgan Scale: 1:100,000	(SE)	0	1	309828 169600
	Groundwater Vulnerability Soil Classification: Soils of Low Leaching Potential - Soils in which pollutants are unlikely to penetrate the soil layer because water movement is largely horizontal or they have large ability to attenuate diffuse pollutants. Lateral flow from these soils contribute to groundwater recharge elsewhere in the catchment Map Sheet: Sheet 36 Mid Glamorgan Scale: 1:100,000	D4NE (SE)	0	1	309320 170971
	Groundwater Vulnerability Soil Classification: Not classified Map Sheet: Sheet 36 Mid Glamorgan Scale: 1:100,000	D11NW (NE)	0	1	308136 172077
	Groundwater Vulnerability Soil Classification: Soils of High Leaching Potential (H1) - Soils which readily transmit liquid discharges because they are either shallow, or susceptible to rapid by-pass flow directly to rock, gravel or groundwater Map Sheet: Sheet 36 Mid Glamorgan Scale: 1:100,000	D8NW (E)	0	1	308938 171559
	Groundwater Vulnerability Soil Classification: Not classified Map Sheet: Sheet 36 Mid Glamorgan Scale: 1:100,000	D8NE (E)	0	1	309267 171571
	Groundwater Vulnerability Soil Classification: Soils of Intermediate Leaching Potential (I1) - Soils which can possibly transmit a wide range of pollutants Map Sheet: Sheet 36 Mid Glamorgan Scale: 1:100,000	D6NE (S)	0	1	307943 171442
	Groundwater Vulnerability Soil Classification: Not classified Map Sheet: Sheet 36 Mid Glamorgan Scale: 1:100,000	(SE)	0	1	309249 169719
	Groundwater Vulnerability Soil Classification: Soils of Low Leaching Potential - Soils in which pollutants are unlikely to penetrate the soil layer because water movement is largely horizontal or they have large ability to attenuate diffuse pollutants. Lateral flow from these soils contribute to groundwater recharge elsewhere in the catchment Map Sheet: Sheet 36 Mid Glamorgan Scale: 1:100,000	D11NE (NE)	0	1	308357 172122
	Groundwater Vulnerability Soil Classification: Soils of Low Leaching Potential - Soils in which pollutants are unlikely to penetrate the soil layer because water movement is largely horizontal or they have large ability to attenuate diffuse pollutants. Lateral flow from these soils contribute to groundwater recharge elsewhere in the catchment Map Sheet: Sheet 36 Mid Glamorgan Scale: 1:100,000	D6SW (SW)	0	1	307490 171120
	Groundwater Vulnerability Soil Classification: Soils of Low Leaching Potential - Soils in which pollutants are unlikely to penetrate the soil layer because water movement is largely horizontal or they have large ability to attenuate diffuse pollutants. Lateral flow from these soils contribute to groundwater recharge elsewhere in the catchment Map Sheet: Sheet 36 Mid Glamorgan Scale: 1:100,000	D6NE (NE)	0	1	307877 171650
	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 36 Mid Glamorgan Scale: 1:100,000	D6NE (S)	0	1	307921 171361
	Groundwater Vulnerability Soil Classification: Soils of High Leaching Potential (H1) - Soils which readily transmit liquid discharges because they are either shallow, or susceptible to rapid by-pass flow directly to rock, gravel or groundwater Map Sheet: Sheet 36 Mid Glamorgan Scale: 1:100,000	(NE)	0	1	308982 173304

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	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 36 Mid Glamorgan Scale: 1:100,000	D10SE (N)	0	1	307866 171677
	Groundwater Vulnerability Soil Classification: Not classified Map Sheet: Sheet 36 Mid Glamorgan Scale: 1:100,000	D15NW (N)	0	1	308151 172867
	Groundwater Vulnerability Soil Classification: Soils of Intermediate Leaching Potential (I1) - Soils which can possibly transmit a wide range of pollutants Map Sheet: Sheet 36 Mid Glamorgan Scale: 1:100,000	(N)	0	1	307430 173706
	Groundwater Vulnerability Soil Classification: Soils of Intermediate Leaching Potential (I1) - Soils which can possibly transmit a wide range of pollutants Map Sheet: Sheet 36 Mid Glamorgan Scale: 1:100,000	(N)	0	1	308034 173608
	Drift Deposits Drift Deposit: Low permeability drift deposits occuring at the surface and overlying Major and Minor Aquifers are head, clay-with-flints, brickearth, peat, river terrace deposits and marine and estuarine alluvium Map Sheet: Sheet 36 Mid Glamorgan Scale: 1:100,000	(N)	0	1	307970 173703
	Bedrock Aquifer Designations Aquifer Desination: Principal Aquifer	D12NE (NE)	0	2	309276 172295
	Bedrock Aquifer Designations Aquifer Desination: Principal Aquifer	(E)	0	2	309999 172072
	Bedrock Aquifer Designations Aquifer Desination: Secondary Aquifer - A	D6NE (NE)	0	2	307877 171650
	Bedrock Aquifer Designations Aquifer Desination: Secondary Aquifer - A	(SE)	0	2	310072 169875
	Bedrock Aquifer Designations Aquifer Desination: Secondary Aquifer - A	(E)	0	2	309999 171045
	Bedrock Aquifer Designations Aquifer Desination: Secondary Aquifer - B	D11NW (NE)	0	2	308174 172056
	Bedrock Aquifer Designations Aquifer Desination: Secondary Aquifer - B	(E)	0	2	309999 171650
	Bedrock Aquifer Designations Aquifer Desination: Secondary Aquifer - B	(S)	0	2	308361 170000
	Bedrock Aquifer Designations Aquifer Desination: Secondary Aquifer - Undifferentiated	(N)	0	2	307891 173026
	Bedrock Aquifer Designations Aquifer Desination: Secondary Aquifer - A	D11NW (NE)	0	2	308292 172134
	Bedrock Aquifer Designations Aquifer Desination: Secondary Aquifer - A	(S)	0	2	307877 170000
	Superficial Aquifer Designations Aquifer Designation: Unproductive Strata	(N)	0	2	307575 173693
	Superficial Aquifer Designations Aquifer Designation: Secondary Aquifer - A	(S)	0	2	308451 169750

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Extreme Flooding from Rivers or Sea without Defences Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial Models Boundary Accuracy: As Supplied	D6NE (SW)	0	1	307740 171540
	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	D6NE (SW)	0	1	307740 171540
	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	D2NE (S)	31	1	307920 170870
	Areas Benefiting from Flood Defences None				
	Flood Water Storage Areas None				
	Flood Defences None				
4	**Detailed River Network Lines** River Type: Tertiary River River Name: Not Supplied Hydrographic Area: D008 River Flow Type: Primary Flow Path River Surface Level: Surface Drain Feature: Not a Drain Flood Risk Management Status: Other Rivers Water Course Name: Not Supplied Water Course Reference: Not Supplied	D14NE (N)	0	1	307928 172816
5	**Detailed River Network Lines** River Type: Primary River River Name: Not Supplied Hydrographic Area: D008 River Flow Type: Primary Flow Path River Surface Level: Surface Drain Feature: Not a Drain Flood Risk Management Status: Flood Risk Management Indicative/Statutory Main River Water Course Name: FORD BROOK Water Course Reference: 899	D6NE (SW)	0	1	307843 171578
6	**Detailed River Network Lines** River Type: Tertiary River River Name: Not Supplied Hydrographic Area: D008 River Flow Type: Primary Flow Path River Surface Level: Surface Drain Feature: Not a Drain Flood Risk Management Status: Other Rivers Water Course Name: Not Supplied Water Course Reference: Not Supplied	D3NW (S)	1	1	308040 170868
7	**Detailed River Network Lines** River Type: Primary River River Name: Not Supplied Hydrographic Area: D008 River Flow Type: Primary Flow Path River Surface Level: Surface Drain Feature: Not a Drain Flood Risk Management Status: Other Rivers Water Course Name: Not Supplied Water Course Reference: Not Supplied	D6NE (S)	4	1	307873 171596

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
8	**Detailed River Network Lines** River Type: Tertiary River River Name: Moulton Hydrographic Area: D008 River Flow Type: Primary Flow Path River Surface Level: Surface Drain Feature: Not a Drain Flood Risk Management Status: Flood Risk Management Indicative/Statutory Main River Water Course Name: MOULTON BROOK Water Course Reference: 900	D2NE (S)	4	1	307937 170866
9	**Detailed River Network Lines** River Type: Tertiary River River Name: Drain Hydrographic Area: D008 River Flow Type: Primary Flow Path River Surface Level: Surface Drain Feature: Drain (ditch, Reen, Rhyne, Drain) Flood Risk Management Status: Other Rivers Water Course Name: Not Supplied Water Course Reference: Not Supplied	D15SW (N)	11	1	308000 172633
10	**Detailed River Network Lines** River Type: Tertiary River River Name: Not Supplied Hydrographic Area: D008 River Flow Type: Primary Flow Path River Surface Level: Surface Drain Feature: Not a Drain Flood Risk Management Status: Other Rivers Water Course Name: Not Supplied Water Course Reference: Not Supplied	D14SE (N)	11	1	307856 172618
11	**Detailed River Network Lines** River Type: Tertiary River River Name: Not Supplied Hydrographic Area: D008 River Flow Type: Primary Flow Path River Surface Level: Surface Drain Feature: Not a Drain Flood Risk Management Status: Other Rivers Water Course Name: Not Supplied Water Course Reference: Not Supplied	D14SE (N)	89	1	307856 172346
12	**Detailed River Network Lines** River Type: Tertiary River River Name: Not Supplied Hydrographic Area: D008 River Flow Type: Primary Flow Path River Surface Level: Surface Drain Feature: Not a Drain Flood Risk Management Status: Other Rivers Water Course Name: Not Supplied Water Course Reference: Not Supplied	D6NE (SW)	112	1	307717 171545
13	**Detailed River Network Lines** River Type: Tertiary River River Name: Not Supplied Hydrographic Area: D008 River Flow Type: Primary Flow Path River Surface Level: Surface Drain Feature: Not a Drain Flood Risk Management Status: Other Rivers Water Course Name: Not Supplied Water Course Reference: Not Supplied	D6NE (SW)	125	1	307713 171525

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
14	**Detailed River Network Lines** River Type: Primary River River Name: Not Supplied Hydrographic Area: D008 River Flow Type: Primary Flow Path River Surface Level: Surface Drain Feature: Not a Drain Flood Risk Management Status: Flood Risk Management Indicative/Statutory Main River Water Course Name: FORD BROOK Water Course Reference: 899	D6NE (SW)	126	1	307713 171525
15	**Detailed River Network Lines** River Type: Tertiary River River Name: Not Supplied Hydrographic Area: D008 River Flow Type: Primary Flow Path River Surface Level: Surface Drain Feature: Not a Drain Flood Risk Management Status: Other Rivers Water Course Name: Not Supplied Water Course Reference: Not Supplied	D14SW (N)	141	1	307623 172399
16	**Detailed River Network Lines** River Type: Primary River River Name: Ford Brook Hydrographic Area: D008 River Flow Type: Primary Flow Path River Surface Level: Surface Drain Feature: Not a Drain Flood Risk Management Status: Flood Risk Management Indicative/Statutory Main River Water Course Name: FORD BROOK Water Course Reference: 899	D6NE (SW)	146	1	307687 171526
17	**Detailed River Network Lines** River Type: Tertiary River River Name: Not Supplied Hydrographic Area: D008 River Flow Type: Primary Flow Path River Surface Level: Surface Drain Feature: Not a Drain Flood Risk Management Status: Other Rivers Water Course Name: Not Supplied Water Course Reference: Not Supplied	D14SW (NW)	165	1	307588 172335
18	**Detailed River Network Lines** River Type: Tertiary River River Name: Not Supplied Hydrographic Area: D008 River Flow Type: Primary Flow Path River Surface Level: Surface Drain Feature: Not a Drain Flood Risk Management Status: Other Rivers Water Course Name: Not Supplied Water Course Reference: Not Supplied	D14SW (N)	199	1	307566 172411
19	**Detailed River Network Lines** River Type: Tertiary River River Name: Not Supplied Hydrographic Area: D008 River Flow Type: Primary Flow Path River Surface Level: Surface Drain Feature: Not a Drain Flood Risk Management Status: Other Rivers Water Course Name: Not Supplied Water Course Reference: Not Supplied	D15SW (N)	205	1	307994 172426

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
20	**Detailed River Network Lines** River Type: Tertiary River River Name: Not Supplied Hydrographic Area: D008 River Flow Type: Primary Flow Path River Surface Level: Surface Drain Feature: Not a Drain Flood Risk Management Status: Other Rivers Water Course Name: Not Supplied Water Course Reference: Not Supplied	D15SW (N)	206	1	308000 172633
21	**Detailed River Network Lines** River Type: Tertiary River River Name: Not Supplied Hydrographic Area: D008 River Flow Type: Primary Flow Path River Surface Level: Surface Drain Feature: Not a Drain Flood Risk Management Status: Other Rivers Water Course Name: Not Supplied Water Course Reference: Not Supplied	D11NW (N)	206	1	308095 172307
22	**Detailed River Network Lines** River Type: Tertiary River River Name: Not Supplied Hydrographic Area: D008 River Flow Type: Primary Flow Path River Surface Level: Surface Drain Feature: Not a Drain Flood Risk Management Status: Other Rivers Water Course Name: Not Supplied Water Course Reference: Not Supplied	D3NW (SE)	211	1	308251 170764
23	**Detailed River Network Lines** River Type: Tertiary River River Name: Not Supplied Hydrographic Area: D008 River Flow Type: Primary Flow Path River Surface Level: Surface Drain Feature: Not a Drain Flood Risk Management Status: Other Rivers Water Course Name: Not Supplied Water Course Reference: Not Supplied	D14SW (NW)	228	1	307437 172483
24	**Detailed River Network Lines** River Type: Tertiary River River Name: Not Supplied Hydrographic Area: D008 River Flow Type: Primary Flow Path River Surface Level: Surface Drain Feature: Not a Drain Flood Risk Management Status: Other Rivers Water Course Name: Not Supplied Water Course Reference: Not Supplied	D3SE (SE)	243	1	308449 170316
25	**Detailed River Network Lines** River Type: Tertiary River River Name: River Waycock Hydrographic Area: D008 River Flow Type: Primary Flow Path River Surface Level: Surface Drain Feature: Not a Drain Flood Risk Management Status: Other Rivers Water Course Name: Not Supplied Water Course Reference: Not Supplied	D15SW (N)	267	1	308061 172633

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
26	**Detailed River Network Lines** River Type: Tertiary River River Name: Not Supplied Hydrographic Area: D008 River Flow Type: Primary Flow Path River Surface Level: Surface Drain Feature: Not a Drain Flood Risk Management Status: Other Rivers Water Course Name: Not Supplied Water Course Reference: Not Supplied	D7SE (SE)	280	1	308357 171077
27	**Detailed River Network Lines** River Type: Tertiary River River Name: Not Supplied Hydrographic Area: D008 River Flow Type: Primary Flow Path River Surface Level: Surface Drain Feature: Not a Drain Flood Risk Management Status: Other Rivers Water Course Name: Not Supplied Water Course Reference: Not Supplied	D15NW (N)	302	1	308109 172932
28	**Detailed River Network Lines** River Type: Tertiary River River Name: Not Supplied Hydrographic Area: D008 River Flow Type: Primary Flow Path River Surface Level: Surface Drain Feature: Not a Drain Flood Risk Management Status: Other Rivers Water Course Name: Not Supplied Water Course Reference: Not Supplied	D10NW (NW)	331	1	307404 172315
29	**Detailed River Network Lines** River Type: Tertiary River River Name: Not Supplied Hydrographic Area: D008 River Flow Type: Primary Flow Path River Surface Level: Surface Drain Feature: Not a Drain Flood Risk Management Status: Other Rivers Water Course Name: Not Supplied Water Course Reference: Not Supplied	D7NE (SE)	339	1	308411 171380
30	**Detailed River Network Lines** River Type: Tertiary River River Name: Not Supplied Hydrographic Area: D008 River Flow Type: Primary Flow Path River Surface Level: Surface Drain Feature: Not a Drain Flood Risk Management Status: Other Rivers Water Course Name: Not Supplied Water Course Reference: Not Supplied	D14SW (NW)	341	1	307427 172475
31	**Detailed River Network Lines** River Type: Tertiary River River Name: Not Supplied Hydrographic Area: D008 River Flow Type: Primary Flow Path River Surface Level: Surface Drain Feature: Not a Drain Flood Risk Management Status: Other Rivers Water Course Name: Not Supplied Water Course Reference: Not Supplied	D15NW (N)	344	1	308248 173004

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
32	**Detailed River Network Lines** River Type: Secondary River River Name: Nant Whitton Hydrographic Area: D008 River Flow Type: Primary Flow Path River Surface Level: Surface Drain Feature: Not a Drain Flood Risk Other Rivers Management Status: Water Course Name: Not Supplied Water Course Reference: Not Supplied	D14SW (NW)	349	1	307313 172385
33	**Detailed River Network Lines** River Type: Tertiary River River Name: Not Supplied Hydrographic Area: D008 River Flow Type: Primary Flow Path River Surface Level: Surface Drain Feature: Not a Drain Flood Risk Other Rivers Management Status: Water Course Name: Not Supplied Water Course Reference: Not Supplied	D6SE (S)	398	1	307667 171082
34	**Detailed River Network Lines** River Type: Tertiary River River Name: Not Supplied Hydrographic Area: D008 River Flow Type: Primary Flow Path River Surface Level: Surface Drain Feature: Not a Drain Flood Risk Other Rivers Management Status: Water Course Name: Not Supplied Water Course Reference: Not Supplied	D13NE (NW)	401	1	307152 172812
35	**Detailed River Network Lines** River Type: Secondary River River Name: Not Supplied Hydrographic Area: D008 River Flow Type: Primary Flow Path River Surface Level: Surface Drain Feature: Not a Drain Flood Risk Other Rivers Management Status: Water Course Name: Not Supplied Water Course Reference: Not Supplied	D9NE (NW)	424	1	307258 172255
36	**Detailed River Network Lines** River Type: Tertiary River River Name: Not Supplied Hydrographic Area: D008 River Flow Type: Primary Flow Path River Surface Level: Surface Drain Feature: Not a Drain Flood Risk Other Rivers Management Status: Water Course Name: Not Supplied Water Course Reference: Not Supplied	D15NW (N)	429	1	308237 172939
37	**Detailed River Network Lines** River Type: Tertiary River River Name: Not Supplied Hydrographic Area: D008 River Flow Type: Primary Flow Path River Surface Level: Surface Drain Feature: Not a Drain Flood Risk Other Rivers Management Status: Water Course Name: Not Supplied Water Course Reference: Not Supplied	D15NW (N)	429	1	308250 172783

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
38	**Detailed River Network Lines** River Type: Tertiary River River Name: Not Supplied Hydrographic Area: D008 River Flow Type: Primary Flow Path River Surface Level: Surface Drain Feature: Not a Drain Flood Risk Other Rivers Management Status: Water Course Name: Not Supplied Water Course Reference: Not Supplied	D15NW (N)	429	1	308237 172939
39	**Detailed River Network Lines** River Type: Secondary River River Name: Not Supplied Hydrographic Area: D008 River Flow Type: Primary Flow Path River Surface Level: Surface Drain Feature: Not a Drain Flood Risk Other Rivers Management Status: Water Course Name: Not Supplied Water Course Reference: Not Supplied	D14SW (NW)	436	1	307310 172362
40	**Detailed River Network Lines** River Type: Tertiary River River Name: Not Supplied Hydrographic Area: D008 River Flow Type: Primary Flow Path River Surface Level: Surface Drain Feature: Not a Drain Flood Risk Other Rivers Management Status: Water Course Name: Not Supplied Water Course Reference: Not Supplied	D15NW (N)	440	1	308275 172992
41	**Detailed River Network Lines** River Type: Tertiary River River Name: Not Supplied Hydrographic Area: D008 River Flow Type: Primary Flow Path River Surface Level: Surface Drain Feature: Not a Drain Flood Risk Other Rivers Management Status: Water Course Name: Not Supplied Water Course Reference: Not Supplied	D14SW (NW)	444	1	307313 172385
42	**Detailed River Network Lines** River Type: Tertiary River River Name: Not Supplied Hydrographic Area: D008 River Flow Type: Primary Flow Path River Surface Level: Surface Drain Feature: Not a Drain Flood Risk Other Rivers Management Status: Water Course Name: Not Supplied Water Course Reference: Not Supplied	D15SE (NE)	451	1	308370 172541
43	**Detailed River Network Lines** River Type: Tertiary River River Name: Not Supplied Hydrographic Area: D008 River Flow Type: Primary Flow Path River Surface Level: Surface Drain Feature: Not a Drain Flood Risk Other Rivers Management Status: Water Course Name: Not Supplied Water Course Reference: Not Supplied	D11NW (NE)	465	1	308208 172156

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
44	**Detailed River Network Lines** River Type: Tertiary River River Name: River Waycock Hydrographic Area: D008 River Flow Type: Primary Flow Path River Surface Level: Surface Drain Feature: Not a Drain Flood Risk Management Status: Other Rivers Water Course Name: Not Supplied Water Course Reference: Not Supplied	D15NW (N)	474	1	308282 172990
45	**Detailed River Network Lines** River Type: Tertiary River River Name: Not Supplied Hydrographic Area: D008 River Flow Type: Primary Flow Path River Surface Level: Surface Drain Feature: Not a Drain Flood Risk Management Status: Other Rivers Water Course Name: Not Supplied Water Course Reference: Not Supplied	D3NE (SE)	479	1	308534 170812
46	**Detailed River Network Lines** River Type: Tertiary River River Name: Moulton Brook Hydrographic Area: D008 River Flow Type: Primary Flow Path River Surface Level: Surface Drain Feature: Not a Drain Flood Risk Management Status: Flood Risk Management Indicative/Statutory Main River Water Course Name: MOULTON BROOK Water Course Reference: 900	D2SW (S)	483	1	307493 170518
47	**Detailed River Network Lines** River Type: Tertiary River River Name: Not Supplied Hydrographic Area: D008 River Flow Type: Primary Flow Path River Surface Level: Surface Drain Feature: Not a Drain Flood Risk Management Status: Other Rivers Water Course Name: Not Supplied Water Course Reference: Not Supplied	D2SW (S)	483	1	307491 170532
48	**Detailed River Network Lines** River Type: Tertiary River River Name: Not Supplied Hydrographic Area: D008 River Flow Type: Primary Flow Path River Surface Level: Surface Drain Feature: Not a Drain Flood Risk Management Status: Other Rivers Water Course Name: Not Supplied Water Course Reference: Not Supplied	D9NE (NW)	500	1	307163 172058
	Detailed River Network Offline Drainage None				

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
49	**Historical Landfill Sites** Licence Holder: Alun Arthurs Location: Bonvilston Name: Blacklands Farm Operator Location: Not Supplied Boundary Accuracy: As Supplied Provider Reference: EAHLD14915 First Input Date: 31st December 1990 Last Input Date: 31st December 1991 Specified Waste Type: Deposited Waste included Inert Waste EA Waste Ref: 0 Regis Ref: Not Supplied WRC Ref: 6950/0015 BGS Ref: Not Supplied Other Ref: 40	D14SE (N)	156	1	307940 172379
	Local Authority Landfill Coverage Name: Vale Of Glamorgan County Borough Council - Has supplied landfill data		0	3	307877 171650
50	**Local Authority Recorded Landfill Sites** Location: Not Supplied Reference: 40 Authority: Vale Of Glamorgan County Borough Council **Last Reported Status:** **Unknown** Types of Waste: Not Supplied Date of Closure: Not Supplied Positional Accuracy: Positioned by the supplier Boundary Quality: Moderate	D15SW (N)	184	3	307998 172425
51	**Registered Landfill Sites** Licence Holder: Allen Arthurs Licence Reference: 40 Site Location: Blacklands Farm, Bonvilston, Cardiff, South Glamorgan Licence Easting: 308000 Licence Northing: 172500 Operator Location: As Site Address Authority: Environment Agency Wales, South East Area Site Category: Landfill Max Input Rate: Undefined Waste Source Restrictions: No known restriction on source of waste Status: Licence lapsed/cancelled/defunct/not applicable/surrenderedCancelled Dated: 1st June 1991 Preceded By Licence: Not Given Superseded By Licence: Not Given Positional Accuracy: Manually positioned to the address or location Boundary Accuracy: Not Applicable Authorised Waste: Natural Stone & Slate, Brick Soil, Subsoil, Excav'N Waste	D15SW (N)	208	1	308000 172500

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS 1:625,000 Solid Geology Description: Lower Lias	D6NE (NE)	0	2	307877 171650
	BGS 1:625,000 Solid Geology Description: Triassic mudstones (including Keuper Marl, Dolomitic Conglomerate and Rhaetic)	D14SE (N)	0	2	307896 172508
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic Concentration: 15 - 25 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <150 mg/kg Nickel Concentration: 30 - 45 mg/kg	D14SE (N)	0	4	307887 172546
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic Concentration: 15 - 25 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <150 mg/kg Nickel Concentration: 30 - 45 mg/kg	D6NE (NE)	0	4	307877 171650
	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: <150 mg/kg Nickel Concentration: 30 - 45 mg/kg	D10NE (N)	0	4	307885 172281
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic Concentration: 15 - 25 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <150 mg/kg Nickel Concentration: 30 - 45 mg/kg	D10NE (N)	0	4	307877 172000
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic Concentration: 15 - 25 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <150 mg/kg Nickel Concentration: 30 - 45 mg/kg	D14NE (N)	0	4	307877 173000

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic Concentration: 15 - 25 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <150 mg/kg Nickel Concentration: 30 - 45 mg/kg	D6NE (E)	0	4	307879 171650
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic Concentration: 15 - 25 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <150 mg/kg Nickel Concentration: 30 - 45 mg/kg	D7NW (E)	0	4	308000 171650
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic Concentration: 15 - 25 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <150 mg/kg Nickel Concentration: 30 - 45 mg/kg	D6SE (S)	0	4	307877 171000
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic Concentration: 15 - 25 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <150 mg/kg Nickel Concentration: 30 - 45 mg/kg	D7SW (S)	0	4	308000 171000
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic Concentration: 15 - 25 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <150 mg/kg Nickel Concentration: 30 - 45 mg/kg	D6SE (S)	51	4	307873 171000
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic Concentration: 15 - 25 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <150 mg/kg Nickel Concentration: 30 - 45 mg/kg	D14NE (N)	84	4	307892 173000

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic Concentration: 15 - 25 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <150 mg/kg Nickel Concentration: 30 - 45 mg/kg	D15SW (N)	84	4	308000 172488
	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: <150 mg/kg Nickel Concentration: 30 - 45 mg/kg	D11NW (N)	94	4	308000 172249
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic Concentration: 15 - 25 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <150 mg/kg Nickel Concentration: 30 - 45 mg/kg	D10NE (N)	127	4	307882 172000
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic Concentration: 15 - 25 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <150 mg/kg Nickel Concentration: 30 - 45 mg/kg	D15NW (N)	191	4	308000 173000
	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: <150 mg/kg Nickel Concentration: 30 - 45 mg/kg	D15NW (N)	191	4	308036 173000
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic Concentration: 15 - 25 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <150 mg/kg Nickel Concentration: 30 - 45 mg/kg	D11NW (NE)	192	4	308293 172134

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic Concentration: <15 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <150 mg/kg Nickel Concentration: 30 - 45 mg/kg	D11NW (NE)	207	4	308175 172056
	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: <150 mg/kg Nickel Concentration: 30 - 45 mg/kg	D15NW (N)	228	4	308236 172835
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic Concentration: 15 - 25 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <150 mg/kg Nickel Concentration: 30 - 45 mg/kg	D11NW (N)	245	4	308000 172000
	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: <150 mg/kg Nickel Concentration: 30 - 45 mg/kg	D6NW (W)	247	4	307557 171518
	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: <150 mg/kg Nickel Concentration: 30 - 45 mg/kg	D7SE (SE)	312	4	308550 171000
	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: <150 mg/kg Nickel Concentration: 15 - 30 mg/kg	D6NW (W)	335	4	307454 171516

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic Concentration: <15 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <150 mg/kg Nickel Concentration: 15 - 30 mg/kg	(NE)	364	4	309013 173153
	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: <150 mg/kg Nickel Concentration: 15 - 30 mg/kg	D15NW (N)	422	4	308231 173000
	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: <150 mg/kg Nickel Concentration: 15 - 30 mg/kg	D15NW (N)	423	4	308256 172848
	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: <150 mg/kg Nickel Concentration: 30 - 45 mg/kg	D7NE (E)	450	4	308457 171618
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic Concentration: 15 - 25 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <150 mg/kg Nickel Concentration: 30 - 45 mg/kg	D7SE (SE)	459	4	308633 171000
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic Concentration: 15 - 25 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <150 mg/kg Nickel Concentration: 30 - 45 mg/kg	(SE)	462	4	308791 170189

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
52	**BGS Recorded Mineral Sites** Site Name: Whitton Lodge Location: , Barry, South Glamorgan Source: British Geological Survey, National Geoscience Information Service Reference: 161174 Type: Opencast **Status: Ceased** Operator: Unknown Operator Operator Location: Unknown Operator Periodic Type: Jurassic Geology: Porthkerry Member Commodity: Limestone Positional Accuracy: Located by supplier to within 10m	D7NW (SE)	30	2	308034 171330
53	**BGS Recorded Mineral Sites** Site Name: Whitton Bush Location: , Llantrithyd, Cowbridge, South Glamorgan Source: British Geological Survey, National Geoscience Information Service Reference: 161186 Type: Opencast **Status: Ceased** Operator: Unknown Operator Operator Location: Unknown Operator Periodic Type: Jurassic Geology: Porthkerry Member Commodity: Limestone Positional Accuracy: Located by supplier to within 10m	D10SW (NW)	58	2	307602 171841
54	**BGS Recorded Mineral Sites** Site Name: Whitton Bush Location: , Llantrithyd, Cowbridge, South Glamorgan Source: British Geological Survey, National Geoscience Information Service Reference: 161187 Type: Opencast **Status: Ceased** Operator: Unknown Operator Operator Location: Unknown Operator Periodic Type: Jurassic Geology: Porthkerry Member Commodity: Limestone Positional Accuracy: Located by supplier to within 10m	D10SW (W)	127	2	307606 171664
55	**BGS Recorded Mineral Sites** Site Name: Whitton Lodge Location: , Barry, South Glamorgan Source: British Geological Survey, National Geoscience Information Service Reference: 161175 Type: Opencast **Status: Ceased** Operator: Unknown Operator Operator Location: Unknown Operator Periodic Type: Jurassic Geology: Porthkerry Member Commodity: Limestone Positional Accuracy: Located by supplier to within 10m	D7SE (SE)	348	2	308422 171311
	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				
	Mining Instability Mining Evidence: Conclusive Metaliferous Mining Source: Ove Arup & Partners Boundary Quality: As Supplied	D14NE (N)	0	-	307877 173000
	Non Coal Mining Areas of Great Britain No Hazard				
	Potential for Collapsible Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	D6NE (NE)	0	2	307877 171650
	Potential for Collapsible Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	D8NE (E)	187	2	309083 171350
	Potential for Compressible Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	D6NE (NE)	0	2	307877 171650

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Potential for Compressible Ground Stability Hazards Hazard Potential: Moderate Source: British Geological Survey, National Geoscience Information Service	D8NE (E)	187	2	309083 171350
	Potential for Ground Dissolution Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	D6NE (NE)	0	2	307877 171650
	Potential for Ground Dissolution Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	D11NW (NE)	0	2	308292 172134
	Potential for Landslide Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	D6NE (NE)	0	2	307877 171650
	Potential for Running Sand Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	D6NE (NE)	0	2	307877 171650
	Potential for Running Sand Ground Stability Hazards Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service	D8NE (E)	187	2	309083 171350
	Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	D6NE (NE)	0	2	307877 171650
	Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service	D12NW (NE)	0	2	308693 172077
	Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service	D11NW (NE)	0	2	308174 172056
	Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	D11NW (NE)	0	2	308292 172134
	Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service	D6NW (W)	248	2	307556 171518
	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	D6NE (NE)	0	2	307877 171650
	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	D11NW (NE)	0	2	308099 172000
	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	D15SW (N)	0	2	307999 172575
	Radon Potential - Radon Affected Areas Affected Area: The property is in a lower probability radon area, as less than 1% of homes are above the action level Source: British Geological Survey, National Geoscience Information Service	D6NE (NE)	0	2	307877 171650
	Radon Potential - Radon Affected Areas Affected Area: The property is in an intermediate probability radon area, as between 5 and 10% of homes are above the action level Source: British Geological Survey, National Geoscience Information Service	D11NW (NE)	0	2	308099 172000
	Radon Potential - Radon Affected Areas Affected Area: The property is in a lower probability radon area, as less than 1% of homes are above the action level Source: British Geological Survey, National Geoscience Information Service	D15SW (N)	0	2	307999 172575

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
56	**Sites of Special Scientific Interest** Name: Coedydd Y Barri / Barry Woodlands Multiple Areas: Y Total Area (m2): 1199578.66 Source: Natural Resources Wales (NRW) - formerly CCW Reference: 293633wpg Designation Details: Biological Designation Date: 4th April 2007 Date Type: Notified	(SE)	194	5	308668 170149

Agency & Hydrological	Version	Update Cycle
Contaminated Land Register Entries and Notices Vale Of Glamorgan County Borough Council - Environmental Health Department	October 2012	Annual Rolling Update
Discharge Consents Environment Agency - Welsh Region	October 2013	Quarterly
Enforcement and Prohibition Notices Environment Agency - Welsh Region	March 2013	As notified
Integrated Pollution Controls Environment Agency - Welsh Region	October 2008	Not Applicable
Integrated Pollution Prevention And Control Environment Agency - Welsh Region	October 2013	Quarterly
Local Authority Integrated Pollution Prevention And Control Vale Of Glamorgan County Borough Council - Environmental Health Department	November 2012	Annual Rolling Update
Local Authority Pollution Prevention and Controls Vale Of Glamorgan County Borough Council - Environmental Health Department	November 2012	Annual Rolling Update
Local Authority Pollution Prevention and Control Enforcements Vale Of Glamorgan County Borough Council - Environmental Health Department	November 2012	Annual Rolling Update
Nearest Surface Water Feature Ordnance Survey	July 2012	Quarterly
Pollution Incidents to Controlled Waters Environment Agency - Welsh Region	December 1998	Not Applicable
Prosecutions Relating to Authorised Processes Environment Agency - Welsh Region	March 2013	As notified
Prosecutions Relating to Controlled Waters Environment Agency - Welsh Region	March 2013	As notified
Registered Radioactive Substances Environment Agency - Welsh Region	October 2013	Quarterly
River Quality Environment Agency - Head Office	November 2001	Not Applicable
River Quality Biology Sampling Points Environment Agency - Head Office	July 2012	Annually
River Quality Chemistry Sampling Points Environment Agency - Head Office	July 2012	Annually
Substantiated Pollution Incident Register Environment Agency Wales - South East Area	October 2013	Quarterly
Water Abstractions Environment Agency - Welsh Region	October 2013	Quarterly
Water Industry Act Referrals Environment Agency - Welsh Region	October 2013	Quarterly
Groundwater Vulnerability Environment Agency - Head Office	January 2011	Not Applicable
Drift Deposits Environment Agency - Head Office	January 1999	Not Applicable
Bedrock Aquifer Designations British Geological Survey - National Geoscience Information Service	October 2012	Annually
Superficial Aquifer Designations British Geological Survey - National Geoscience Information Service	October 2012	Annually
Source Protection Zones Environment Agency - Head Office	October 2013	Quarterly
Extreme Flooding from Rivers or Sea without Defences Environment Agency - Head Office	August 2013	Quarterly

Agency & Hydrological	Version	Update Cycle
Flooding from Rivers or Sea without Defences		
Environment Agency - Head Office	August 2013	Quarterly
Areas Benefiting from Flood Defences		
Environment Agency - Head Office	August 2013	Quarterly
Flood Water Storage Areas		
Environment Agency - Head Office	August 2013	Quarterly
Flood Defences		
Environment Agency - Head Office	August 2013	Quarterly
Detailed River Network Lines		
Environment Agency - Head Office	March 2012	Annually
Detailed River Network Offline Drainage		
Environment Agency - Head Office	March 2012	Annually
Waste	**Version**	**Update Cycle**
BGS Recorded Landfill Sites		
British Geological Survey - National Geoscience Information Service	June 1996	Not Applicable
Historical Landfill Sites		
Environment Agency - South East Region - Kent & South London Area	October 2013	Quarterly
Environment Agency - South East Region - North East Thames Area	October 2013	Quarterly
Environment Agency - South East Region - Solent & South Downs Area	October 2013	Quarterly
Environment Agency - South East Region - West Thames Area	October 2013	Quarterly
Environment Agency Wales - South East Area	October 2013	Quarterly
Integrated Pollution Control Registered Waste Sites		
Environment Agency - Welsh Region	October 2008	Not Applicable
Licensed Waste Management Facilities (Landfill Boundaries)		
Environment Agency - South East Region - Kent & South London Area	October 2013	Quarterly
Environment Agency - South East Region - North East Thames Area	October 2013	Quarterly
Environment Agency - South East Region - Solent & South Downs Area	October 2013	Quarterly
Environment Agency - South East Region - West Thames Area	October 2013	Quarterly
Environment Agency Wales - South East Area	October 2013	Quarterly
Licensed Waste Management Facilities (Locations)		
Environment Agency Wales - South East Area	October 2013	Quarterly
Local Authority Landfill Coverage		
Vale Of Glamorgan County Borough Council	May 2000	Not Applicable
Local Authority Recorded Landfill Sites		
Vale Of Glamorgan County Borough Council	May 2000	Not Applicable
Registered Landfill Sites		
Environment Agency Wales - South East Area	March 2003	Not Applicable
Registered Waste Transfer Sites		
Environment Agency Wales - South East Area	March 2003	Not Applicable
Registered Waste Treatment or Disposal Sites		
Environment Agency Wales - South East Area	March 2003	Not Applicable

Hazardous Substances	Version	Update Cycle
Control of Major Accident Hazards Sites (COMAH) Health and Safety Executive	August 2013	Bi-Annually
Explosive Sites Health and Safety Executive	November 2013	Bi-Annually
Notification of Installations Handling Hazardous Substances (NIHHS) Health and Safety Executive	November 2000	Not Applicable
Planning Hazardous Substance Enforcements Vale Of Glamorgan County Borough Council - Planning Department	January 2013	Annual Rolling Update
Planning Hazardous Substance Consents Vale Of Glamorgan County Borough Council - Planning Department	January 2013	Annual Rolling Update
Geological	**Version**	**Update Cycle**
BGS 1:625,000 Solid Geology British Geological Survey - National Geoscience Information Service	August 1996	Not Applicable
BGS Estimated Soil Chemistry British Geological Survey - National Geoscience Information Service	January 2010	Variable
BGS Recorded Mineral Sites British Geological Survey - National Geoscience Information Service	October 2013	Bi-Annually
Coal Mining Affected Areas The Coal Authority - Mining Report Service	January 2012	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	February 2011	Not Applicable
Potential for Collapsible Ground Stability Hazards British Geological Survey - National Geoscience Information Service	October 2013	As notified
Potential for Compressible Ground Stability Hazards British Geological Survey - National Geoscience Information Service	October 2013	As notified
Potential for Ground Dissolution Stability Hazards British Geological Survey - National Geoscience Information Service	October 2013	As notified
Potential for Landslide Ground Stability Hazards British Geological Survey - National Geoscience Information Service	October 2013	As notified
Potential for Running Sand Ground Stability Hazards British Geological Survey - National Geoscience Information Service	October 2013	As notified
Potential for Shrinking or Swelling Clay Ground Stability Hazards British Geological Survey - National Geoscience Information Service	October 2013	As notified
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	November 2013	Quarterly
Fuel Station Entries Catalist Ltd - Experian	August 2013	Quarterly

Sensitive Land Use	Version	Update Cycle
Areas of Outstanding Natural Beauty Natural Resources Wales (NRW) - formerly CCW	May 2013	Bi-Annually
Environmentally Sensitive Areas The National Assembly for Wales - GI Services (Department of Planning & Countryside)	August 2008	Annually
Forest Parks Forestry Commission	April 1997	Not Applicable
Local Nature Reserves Vale Of Glamorgan County Borough Council	May 2013	Bi-Annually
Marine Nature Reserves Natural Resources Wales (NRW) - formerly CCW	May 2013	Bi-Annually
National Nature Reserves Natural Resources Wales (NRW) - formerly CCW	May 2013	Bi-Annually
Nitrate Sensitive Areas Department for Environment, Food and Rural Affairs (DEFRA - formerly FRCA)	February 2012	Not Applicable
Nitrate Vulnerable Zones The National Assembly for Wales - GI Services (Department of Planning & Countryside)	October 2005	Annually
Ramsar Sites Natural Resources Wales (NRW) - formerly CCW	May 2013	Bi-Annually
Sites of Special Scientific Interest Natural Resources Wales (NRW) - formerly CCW	May 2013	Bi-Annually
Special Areas of Conservation Natural Resources Wales (NRW) - formerly CCW	May 2013	Bi-Annually
Special Protection Areas Natural Resources Wales (NRW) - formerly CCW	May 2013	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	
Centre for Ecology and Hydrology	
Countryside Council for Wales	
Scottish Natural Heritage	
Natural England	
Public Health England	
Ove Arup	
Peter Brett Associates	

Useful Contacts

Contact	Name and Address	Contact Details
1	**Environment Agency - National Customer Contact Centre (NCCC)** PO Box 544, Templeborough, Rotherham, S60 1BY	Telephone: 08708 506 506 Email: enquiries@environment-agency.gov.uk
2	**British Geological Survey - Enquiry Service** British Geological Survey, Kingsley Dunham Centre, Keyworth, Nottingham, Nottinghamshire, NG12 5GG	Telephone: 0115 936 3143 Fax: 0115 936 3276 Email: enquiries@bgs.ac.uk Website: www.bgs.ac.uk
3	**Vale Of Glamorgan County Borough Council** Civic Offices, Holton Road, Barry, South Glamorgan, CF63 4RU	Telephone: 01446 700111 Fax: 01446 745566 Website: www.valeofglamorgan.gov.uk
4	**Landmark Information Group Limited** Imperium, Imperial Way, Reading, Berkshire, RG2 0TD	Telephone: 0844 844 9952 Fax: 0844 844 9951 Email: customerservices@landmark.co.uk Website: www.landmarkinfo.co.uk
5	**Natural Resources Wales (NRW) - formerly CCW** Plas Penrhose, Fford Penrhos, Bangor, Gwynedd, LL57 2LQ	Telephone: 01248 385500 Fax: 01248 355782
-	**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 / SEPA have a charging policy in place for enquiries.

Geology 1:50,000 Maps Legends

Artificial Ground and Landslip

Map Colour	Lex Code	Rock Name	Rock Type	Min and Max Age
	SLIP	Landslide Deposit	Unknown/Unclassified Entry	Quaternary - Quaternary

Superficial Geology

Map Colour	Lex Code	Rock Name	Rock Type	Min and Max Age
	ALV	Alluvium	Clay, Silt, Sand and Gravel	Flandrian - Flandrian
	TILLD	Till, Devensian	Diamicton	Devensian - Devensian
	GFSDD	Glaciofluvial Sheet Deposits, Devensian	Sand and Gravel	Devensian - Devensian
	GFDUD	Glaciofluvial Deposits, Devensian	Sand and Gravel	Devensian - Devensian
	HEAD	Head	Clay, Silt, Sand and Gravel	Quaternary - Quaternary
	ALF	Alluvial Fan Deposits	Gravel, Sand, Silt and Clay	Quaternary - Quaternary
	ALF	Alluvial Fan Deposits	Gravel, Sand, Silt and Clay	Quaternary - Quaternary

Bedrock and Faults

Map Colour	Lex Code	Rock Name	Rock Type	Min and Max Age
	PO	Porthkerry Member	INTERBEDDED LIMESTONE AND MUDSTONE	Sinemurian - Hettangian
	LVN	Lavernock Shales Member	Mudstone	Hettangian - Hettangian
	LVN	Lavernock Shales Member	Mudstone	Hettangian - Hettangian
	STM	St Mary's Well Bay Member	INTERBEDDED LIMESTONE AND MUDSTONE	Hettangian - Rhaetian
	PNG	Penarth Group	Mudstone	Rhaetian - Rhaetian
	PNG	Penarth Group	Mudstone and Limestone, Interbedded	Rhaetian - Rhaetian
	BAN	Blue Anchor Formation	Mudstone	Rhaetian - Norian
	MMG	Mercia Mudstone Group	Mudstone	Rhaetian - Scythian
	MMMF	Mercia Mudstone Group (Marginal Facies)	Conglomerate	Triassic - Triassic
	HBO	Hunts Bay Oolite Subgroup	Ooidal Limestone	Holkerian - Arundian
	CEO	Cefnyrhendy Oolite Member	Ooidal Limestone	Arundian - Arundian
	GUO	Gully Oolite Formation	Ooidal Limestone	Chadian - Chadian
		Faults		

Envirocheck® Geology

Geology 1:50,000 Maps

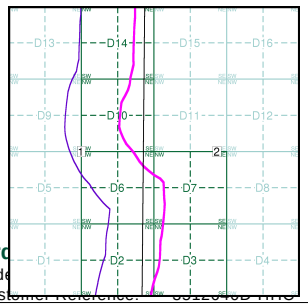
This report contains geological map extracts taken from the BGS Digital Geological map of Great Britain at 1:50,000 scale and is designed for users carrying out preliminary site assessments who require geological maps for the area around the site. This mapping may be more up to date than previously published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

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

Geology 1:50,000 Maps Coverage

Map ID:	**1**	**Map ID:**	**2**
Map Sheet No:	**262**	**Map Sheet No:**	**263**
Map Name:	**Bridgend**	**Map Name:**	**Cardiff**
Map Date:	**1990**	**Map Date:**	**1988**
Bedrock Geology:	**Available**	**Bedrock Geology:**	**Available**
Superficial Geology:	**Available**	**Superficial Geology:**	**Available**
Artificial Geology:	**Available**	**Artificial Geology:**	**Available**
Faults:	**Available**	**Faults:**	**Available**
Landslip:	**Available**	**Landslip:**	**Available**
Rock Segments:	**Available**	**Rock Segments:**	**Not Available**

Geology 1:50,000 Maps - Slice D



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National Grid Reference: 307880, 171650
Slice: D
Site Area (Ha): 20.09
Search Buffer (m): 500

Site Details:

Cardiff International Airport, And Culverhouse Cross, Cardiff, CF5 6XW

Landmark® Information Group
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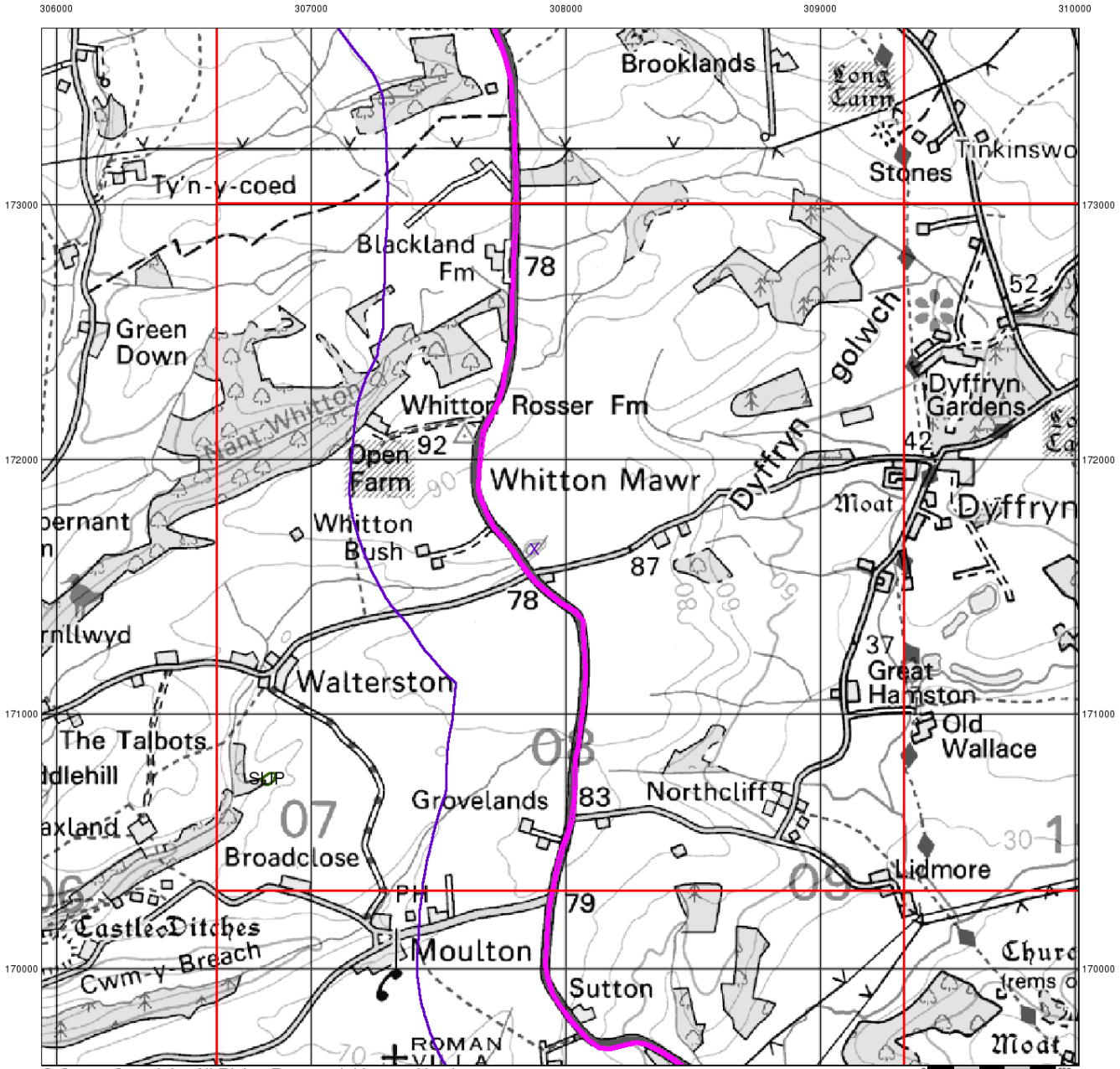
Fax: 0844 844 9951
Web: www.envirocheck.co.uk



Envirocheck® Geology

Artificial Ground and Landslip

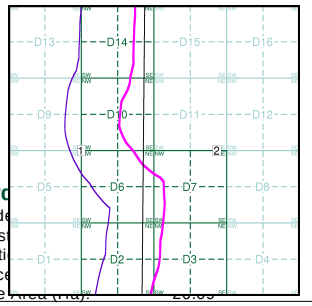
Artificial ground is a term used by BGS for those areas where the ground surface has been significantly modified by human activity. Information about previously developed ground is especially important, as it is often associated with potentially contaminated material, unpredictable engineering conditions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

Artificial ground includes:

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

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

Artificial Ground and Landslip Map - Slice D



Search Buffer (m): 500

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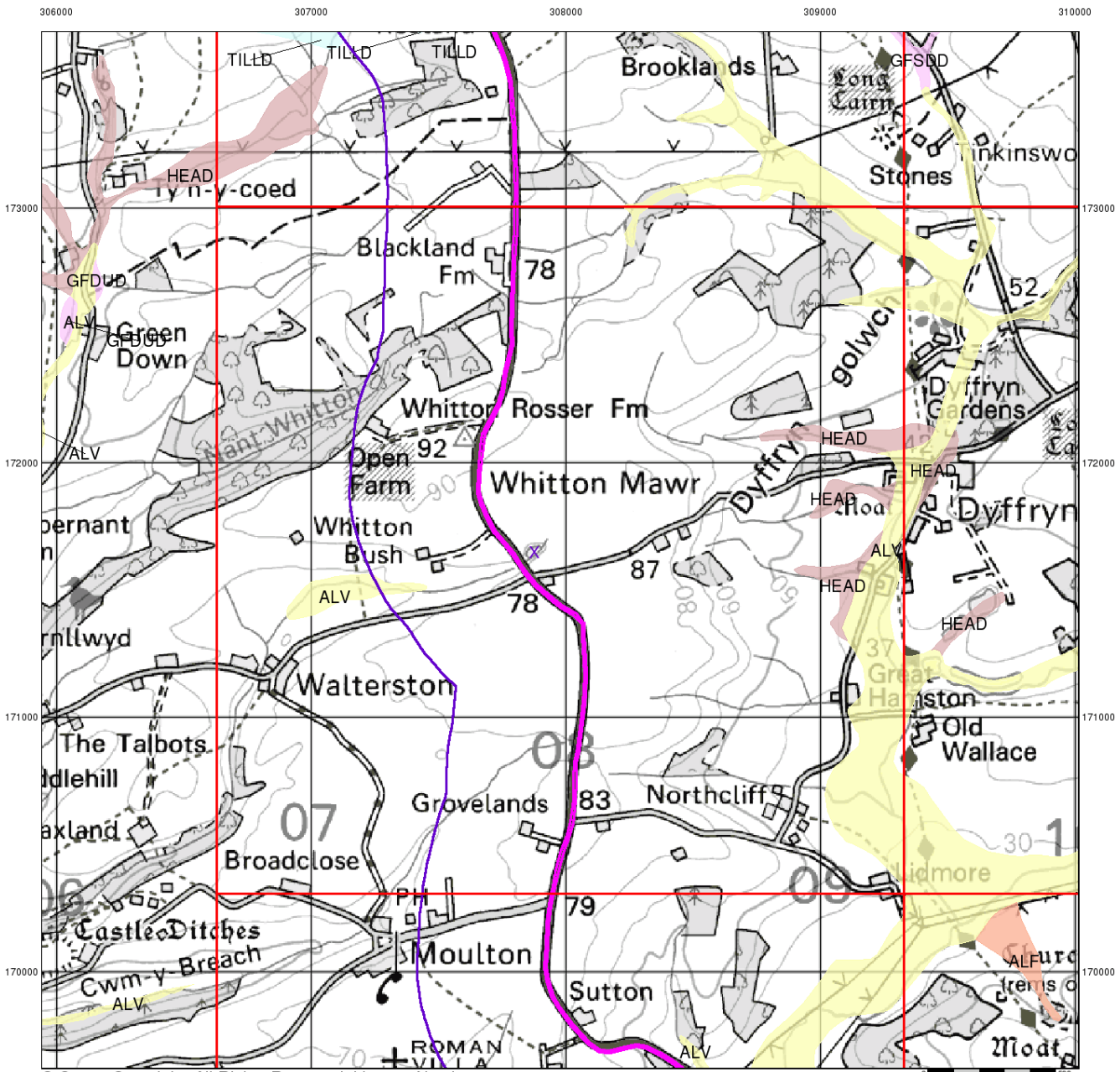


Envirocheck® Geology

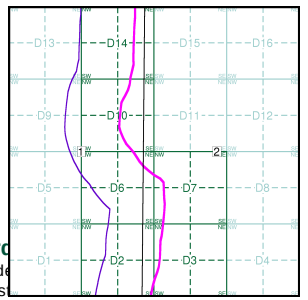
Superficial Geology

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

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

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

Superficial Geology Map - Slice D



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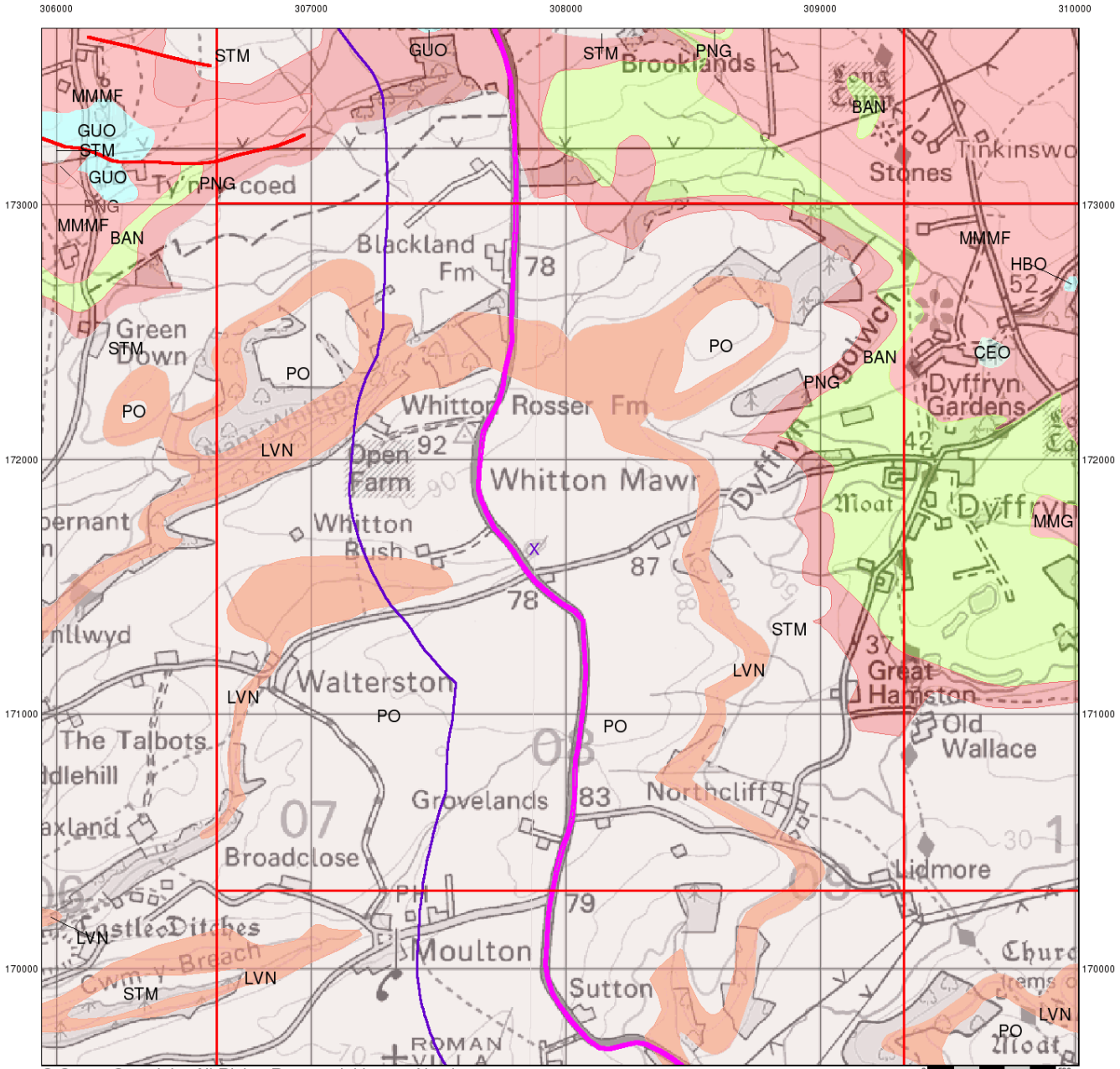


Envirocheck® Geology

Bedrock and Faults

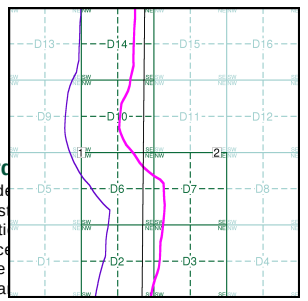
Bedrock geology is a term used for the main mass of rocks forming the Earth and are present everywhere, whether exposed at the surface in outcrops or concealed beneath superficial deposits or water.

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

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

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

Bedrock and Faults Map - Slice D



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Site Details:

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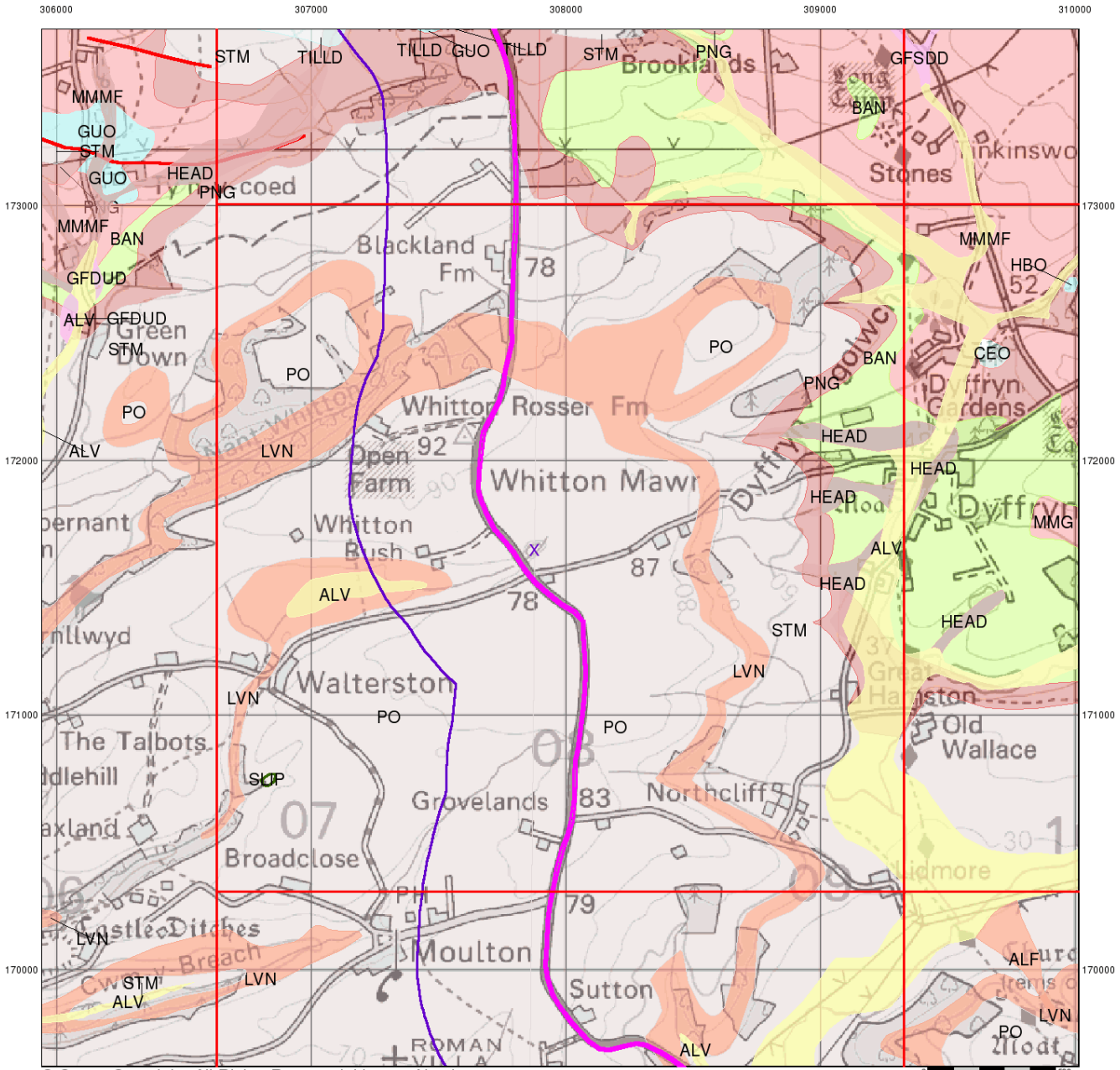


Envirocheck® Geology

Combined Surface Geology

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

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

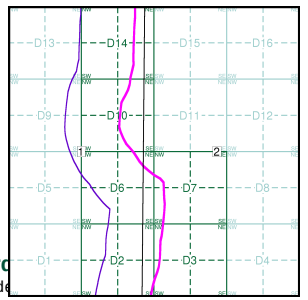
Additional Information

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

Contact

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

Combined Geology Map - Slice D



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Customer Reference:	3512646D-HHC
National Grid Reference:	307880, 171650
Slice:	D
Site Area (Ha):	20.09
Search Buffer (m):	500

Site Details:

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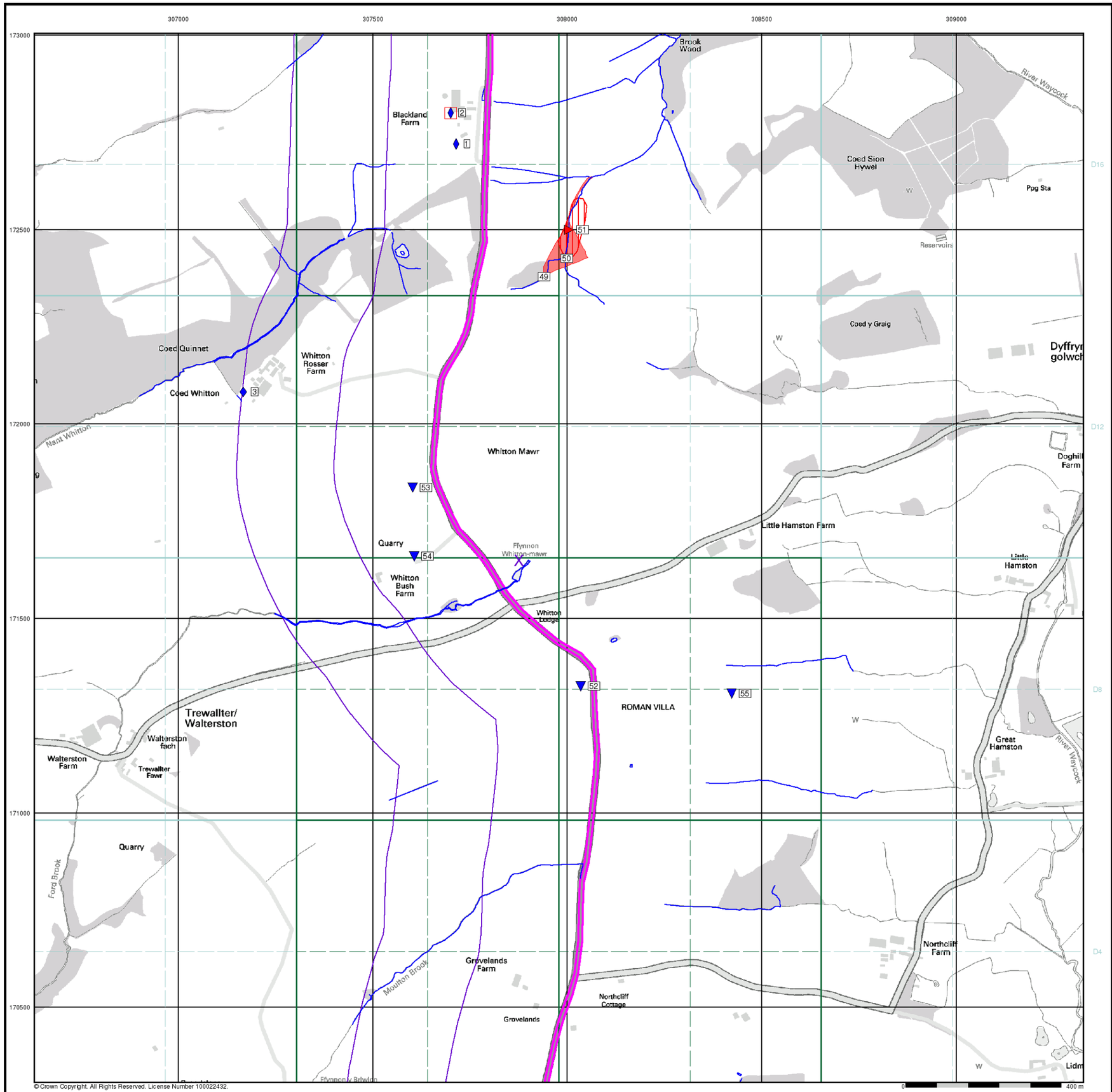


Envirocheck®

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

Geological

- BGS Recorded Mineral Site

Industrial Land Use

- Contemporary Trade Directory Entry
- Fuel Station Entry

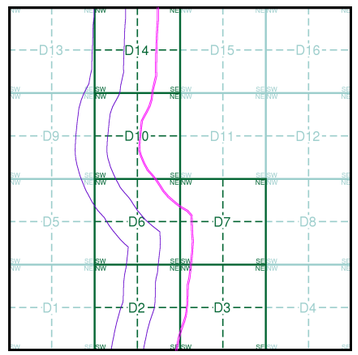
Waste

- BGS Recorded Landfill Site (Location)
- BGS Recorded Landfill Site
- EA Historic Landfill (Buffered Point)
- EA Historic Landfill (Polygon)
- Integrated Pollution Control Registered Waste Site
- Licensed Waste Management Facility (Landfill Boundary)
- Licensed Waste Management Facility (Location)
- Local Authority Recorded Landfill Site (Location)
- Local Authority Recorded Landfill Site
- Registered Landfill Site
- Registered Landfill Site (Location)
- Registered Landfill Site (Point Buffered to 100m)
- Registered Landfill Site (Point Buffered to 250m)
- Registered Waste Transfer Site (Location)
- Registered Waste Transfer Site
- Registered Waste Treatment or Disposal Site (Location)
- Registered Waste Treatment or Disposal Site

Hazardous Substances

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

Site Sensitivity Map - Slice D



Order Details

Order Number:	51886031_1_1
Customer Ref:	3512646D-HHC
National Grid Reference:	307880, 171650
Slice:	D
Site Area (Ha):	20.09
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Site Details

Cardiff International Airport, And Culverhouse Cross, Cardiff, CF5 6XW

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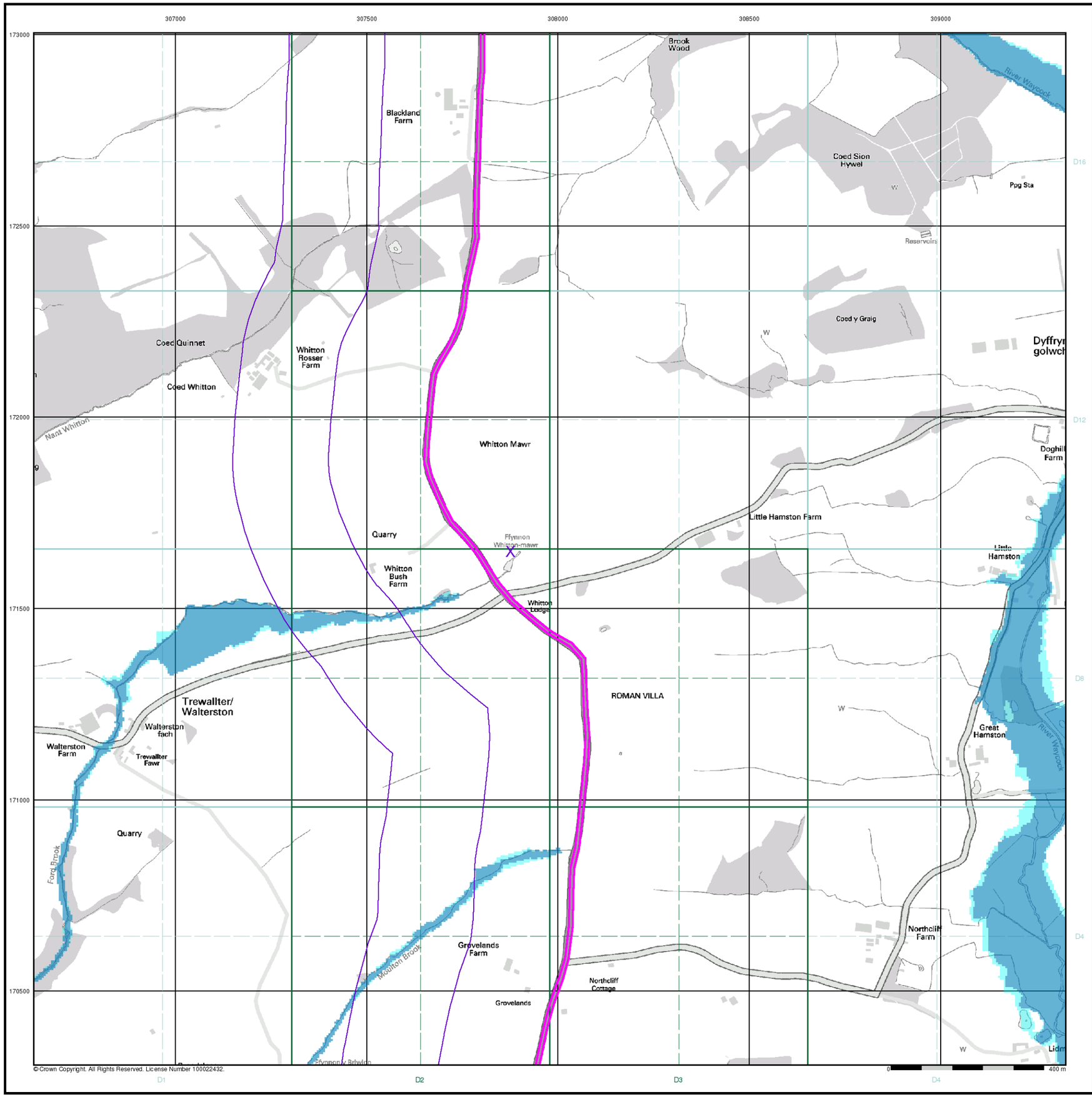


Envirocheck®

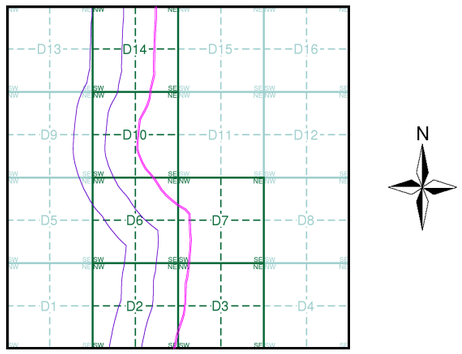
General

- 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 D



Order Details

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National Grid Reference:	307880, 171650
Slice:	D
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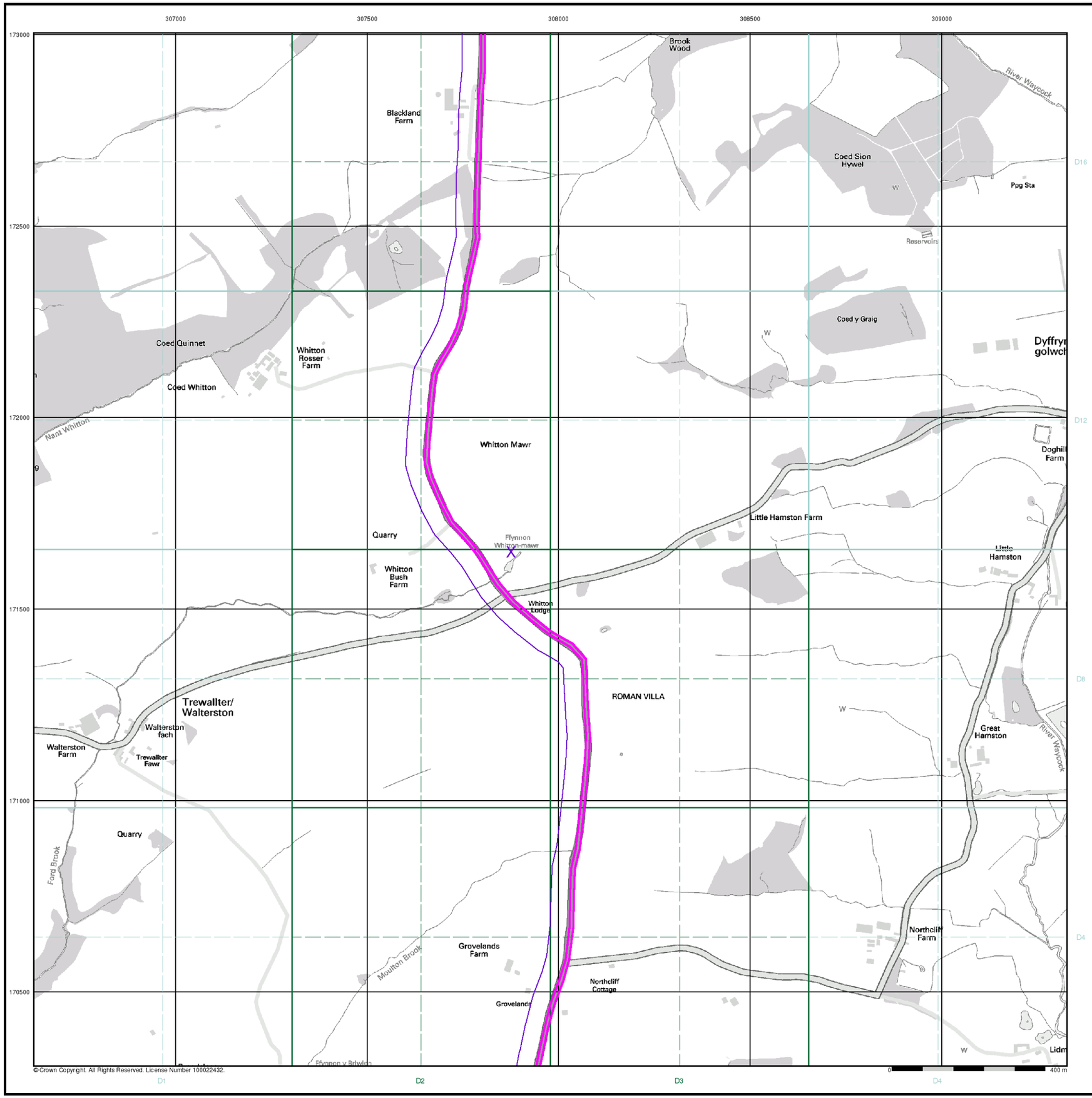


Envirocheck®

General

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

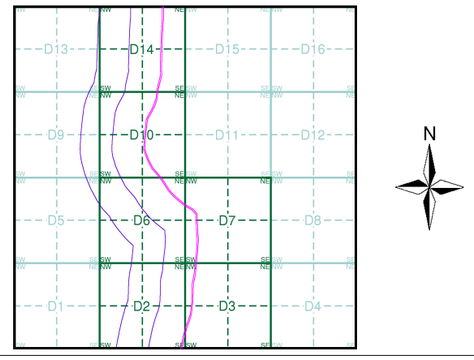
Agency and Hydrological (Boreholes)

- 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 D



Order Details

Order Number:	51886031_1_1
Customer Ref:	3512646D-HHC
National Grid Reference:	307880, 171650
Slice:	D
Site Area (Ha):	20.09
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Site Details

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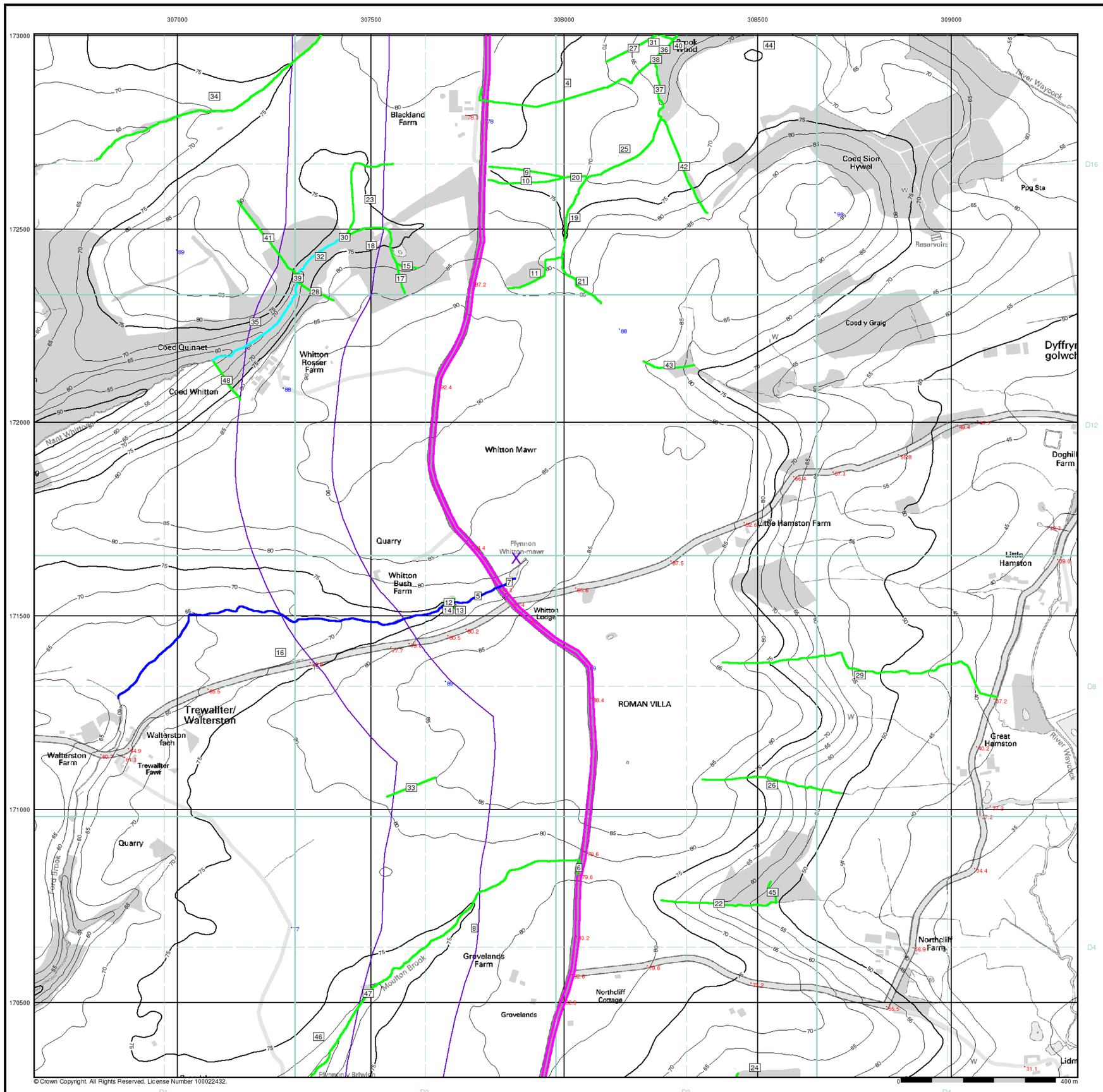


Envirocheck®

General

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

EA Detailed River Network Data

- Primary River
- Secondary River
- Tertiary River
- Canal
- Canal Tunnel
- Undefined River
- Lake/Reservoir
- Offline Drainage Feature
- Extended Culvert (greater than 50m)
- Underground River (inferred)
- Underground River (local knowledge)
- Downstream of High Water Mark
- Downstream of Seaward Extension
- Not assigned River feature

Contours (height in metres)

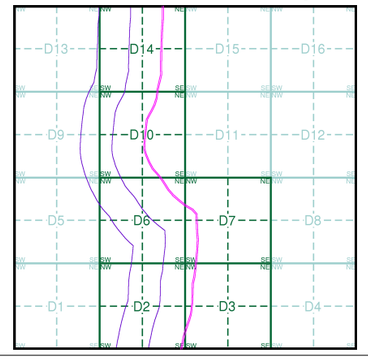
Standard Contour 105 100 95

Index Contour

167.3 Spot Height

45.8 Air Height

EA Detailed River Network Map - Slice D



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Historical Mapping Legends

Ordnance Survey County Series 1:10,560

Gravel Pit
Sand Pit
Other Pits
Quarry
Shingle
Orchard
Osiers
Reeds
Marsh
Mixed Wood
Deciduous
Brushwood
Fir
Furze
Rough Pasture
Arrow denotes flow of water
Trigonometrical Station
Site of Antiquities
Bench Mark
Pump, Guide Post, Signal Post
Well, Spring, Boundary Post
·285 Surface Level
Sketched Contour
Instrumental Contour
Main Roads
Fenced
Un-Fenced
Minor Roads
Fenced
Un-Fenced
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
Co. Boro. Bdy. County Borough Boundary (England)
Co. Burgh Bdy. County Burgh Boundary (Scotland)
R.D. Bdy. 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
Coppice
Bracken
Heath
Rough Grassland
Marsh
Reeds
Saltings
Building
Direction of Flow of Water
Shingle
Sand
Glasshouse
Pylon
Electricity Transmission Line
Pole
Sloping Masonry
Cutting
Embankment
Standard Gauge Multiple Track
Road Under
Road Over
Level Crossing
Foot Bridge
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
Shown only when not coincident with other boundaries
Civil Parish
Shown alternately when coincidence of boundaries occurs

BP, BS	Boundary Post or Stone	Pol Sta	Police Station
Ch	Church	PO	Post Office
CH	Club House	PC	Public Convenience
F E Sta	Fire Engine Station	PH	Public House
FB	Foot Bridge	SB	Signal Box
Fn	Fountain	Spr	Spring
GP	Guide Post	TCB	Telephone Call Box
MP	Mile Post	TCP	Telephone Call Post
MS	Mile Stone	W	Well

1:10,000 Raster Mapping

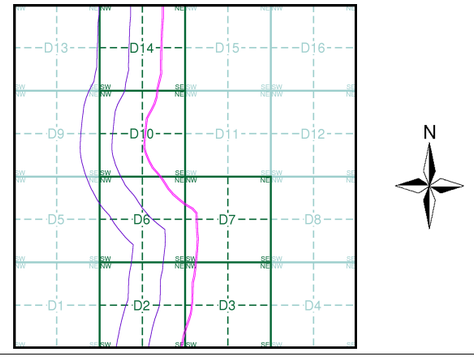
Gravel Pit
Refuse tip or slag heap
Rock
Rock (scattered)
Boulders
Boulders (scattered)
Shingle
Mud
Sand
Sand Pit
Slopes
Top of cliff
General detail
Underground detail
Overhead detail
Narrow gauge railway
Multi-track railway
Single track railway
County boundary (England only)
Civil, parish or community 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
MHW(S) Mean high water (springs)
MLW(S) Mean low water (springs)
Telephone line (where shown)
Electricity transmission line (with poles)
BM 123.45 m 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®

Historical Mapping & Photography included:

Mapping Type	Scale	Date	Pg
Glamorganshire	1:10,560	1885	2
Glamorganshire	1:10,560	1900 - 1901	3
Glamorganshire	1:10,560	1921	4
Glamorganshire	1:10,560	1921	5
Glamorganshire	1:10,560	1921	6
Glamorganshire	1:10,560	1938 - 1947	7
Glamorganshire	1:10,560	1947	8
Historical Aerial Photography	1:10,560	1947	9
Ordnance Survey Plan	1:10,000	1964	10
Ordnance Survey Plan	1:10,000	1975	11
Ordnance Survey Plan	1:10,000	1989	12
10K Raster Mapping	1:10,000	1999	13
10K Raster Mapping	1:10,000	2006	14
10K Raster Mapping	1:10,000	2013	15

Historical Map - Slice D



Order Details

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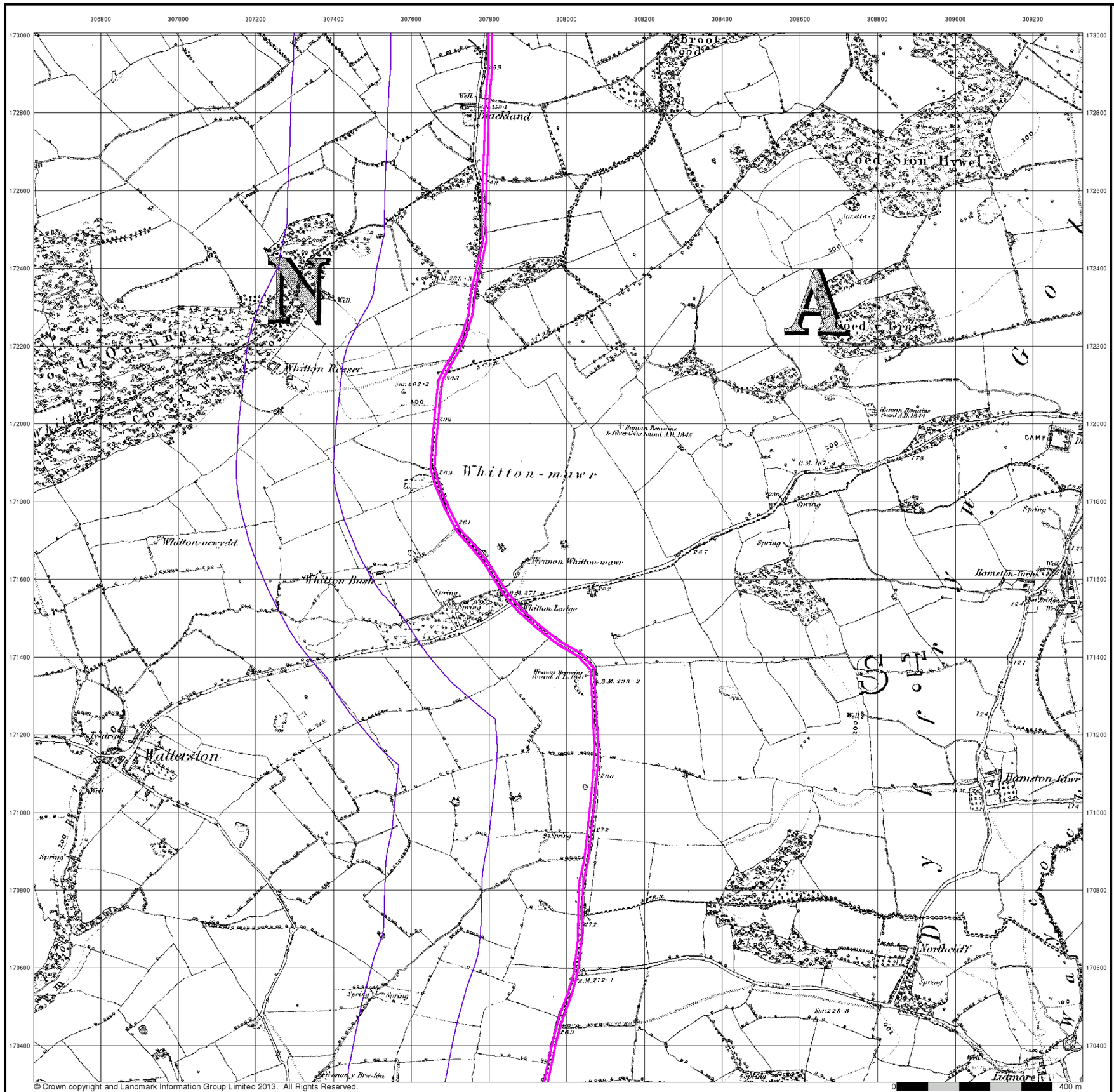

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Glamorganshire

Published 1885

Source map scale - 1:10,560

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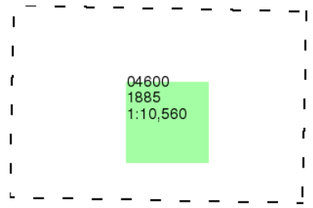
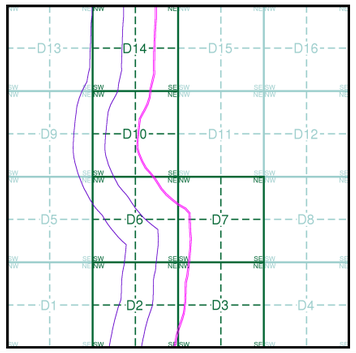
Map Name(s) and Date(s)



Historical Map - Slice D



Order Details

Order Number:	51886031_1_1
Customer Ref:	3512646D-HHC
National Grid Reference:	307880, 171650
Slice:	D
Site Area (Ha):	20.09
Search Buffer (m):	500

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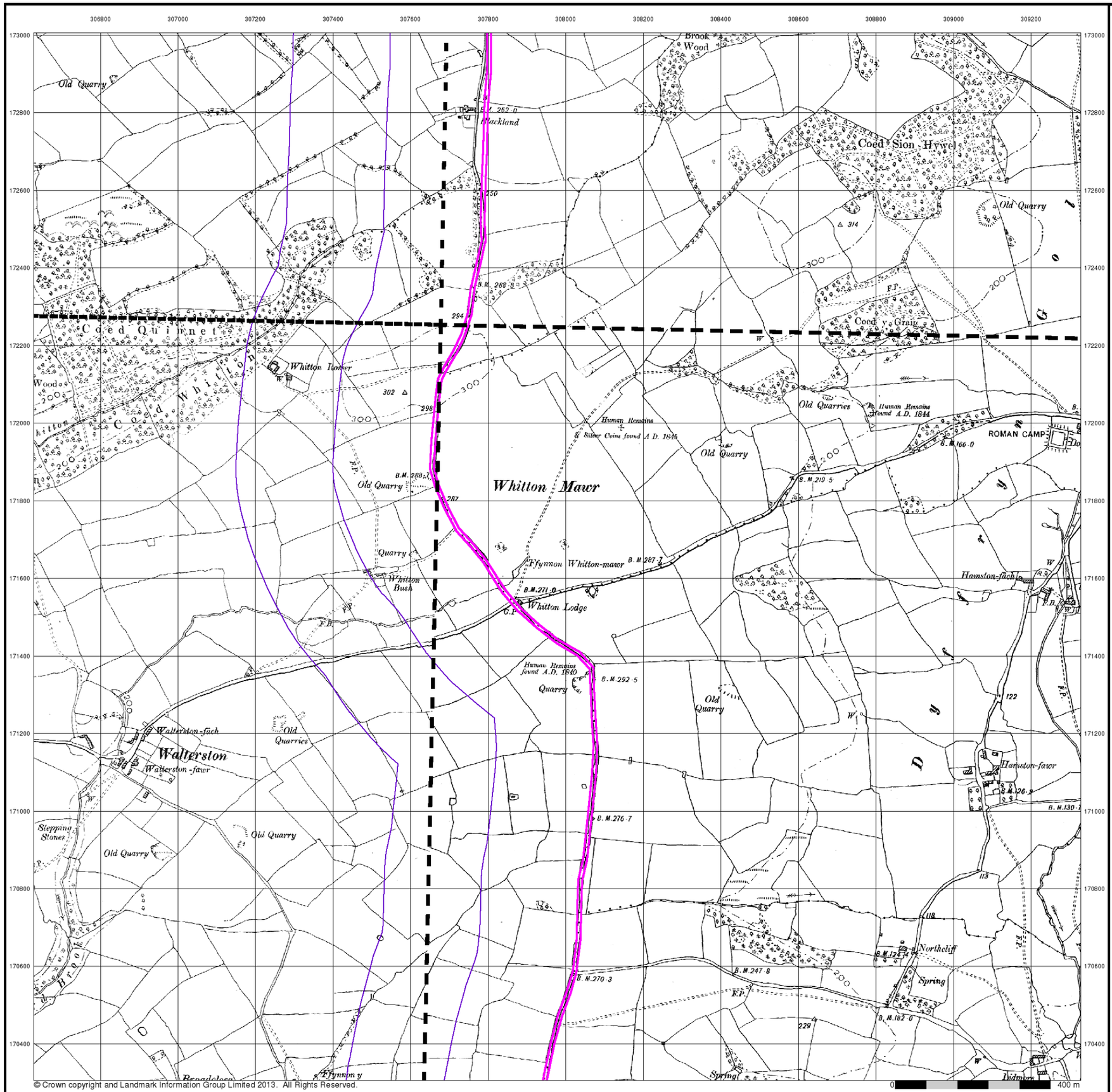

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Glamorganshire

Published 1900 - 1901

Source map scale - 1:10,560

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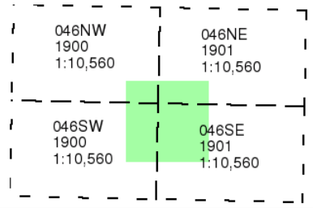

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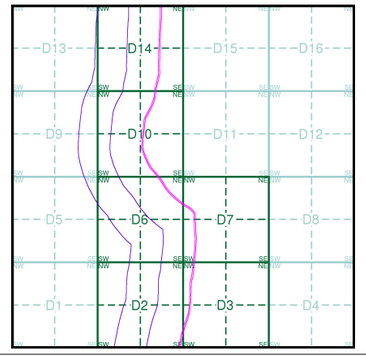

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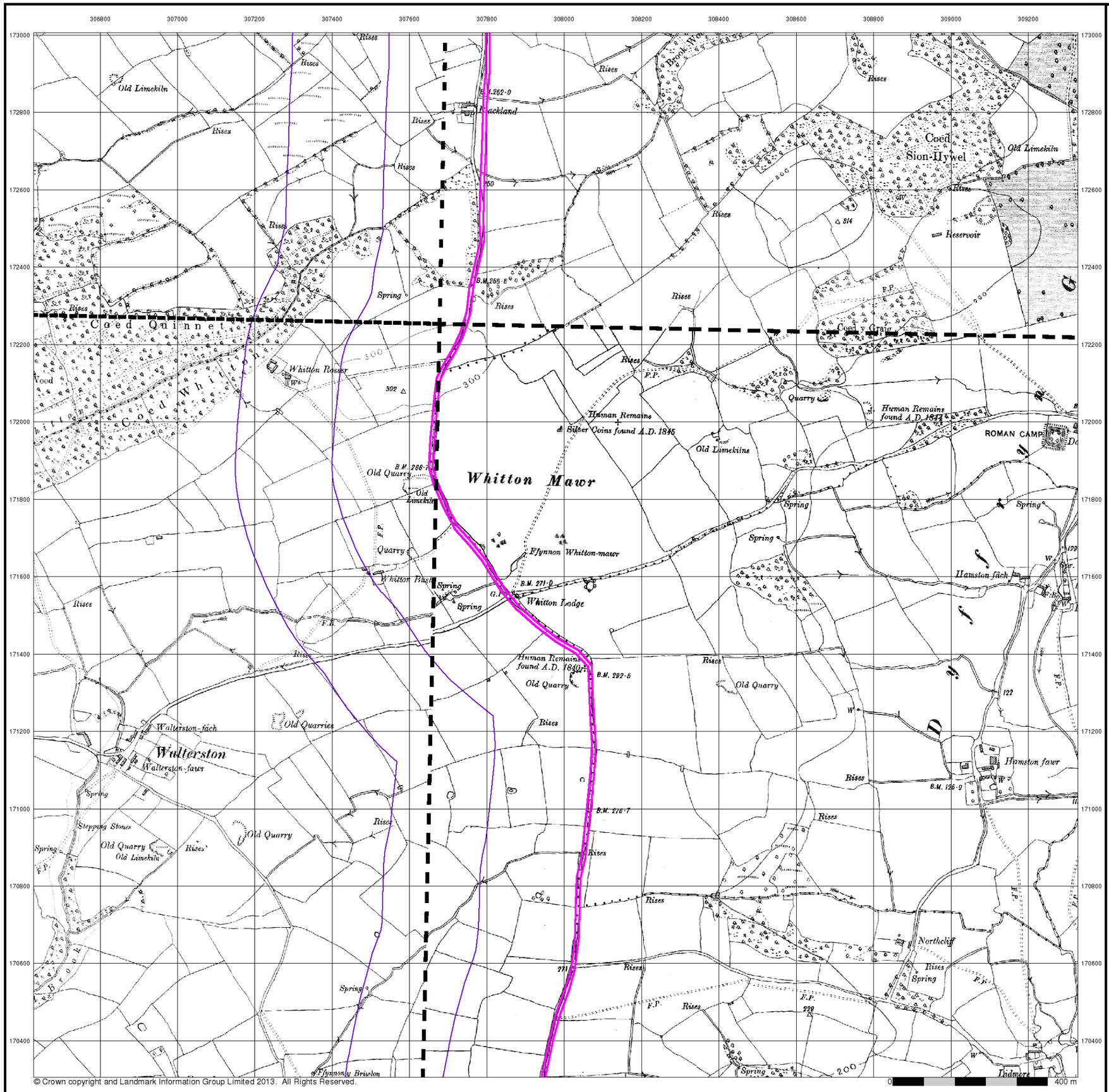

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Glamorganshire

Published 1921

Source map scale - 1:10,560

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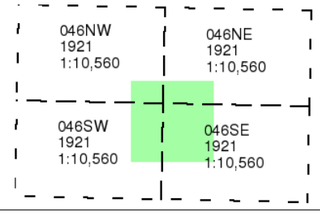
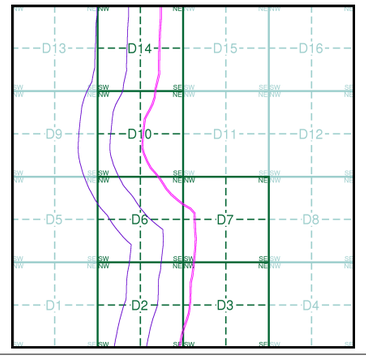


Historical Map - Slice D



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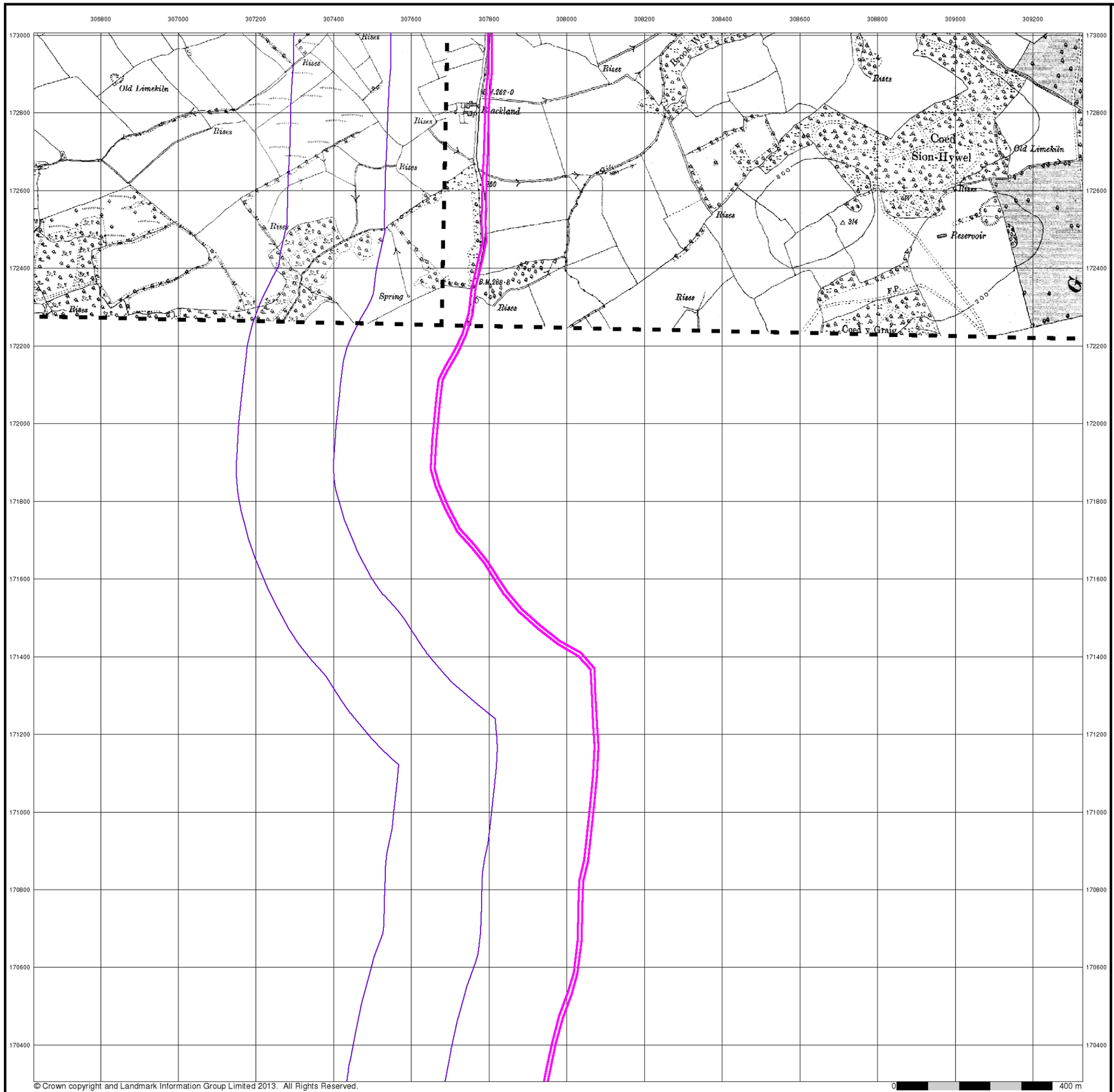

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Glamorganshire

Published 1921

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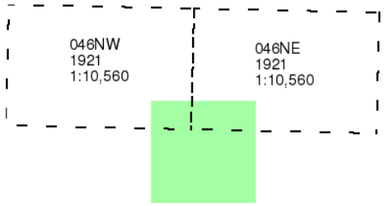

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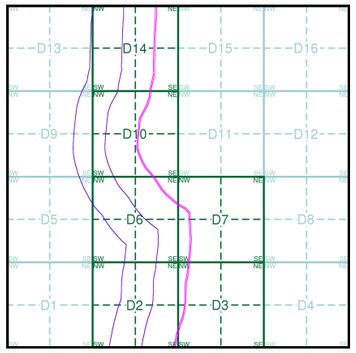

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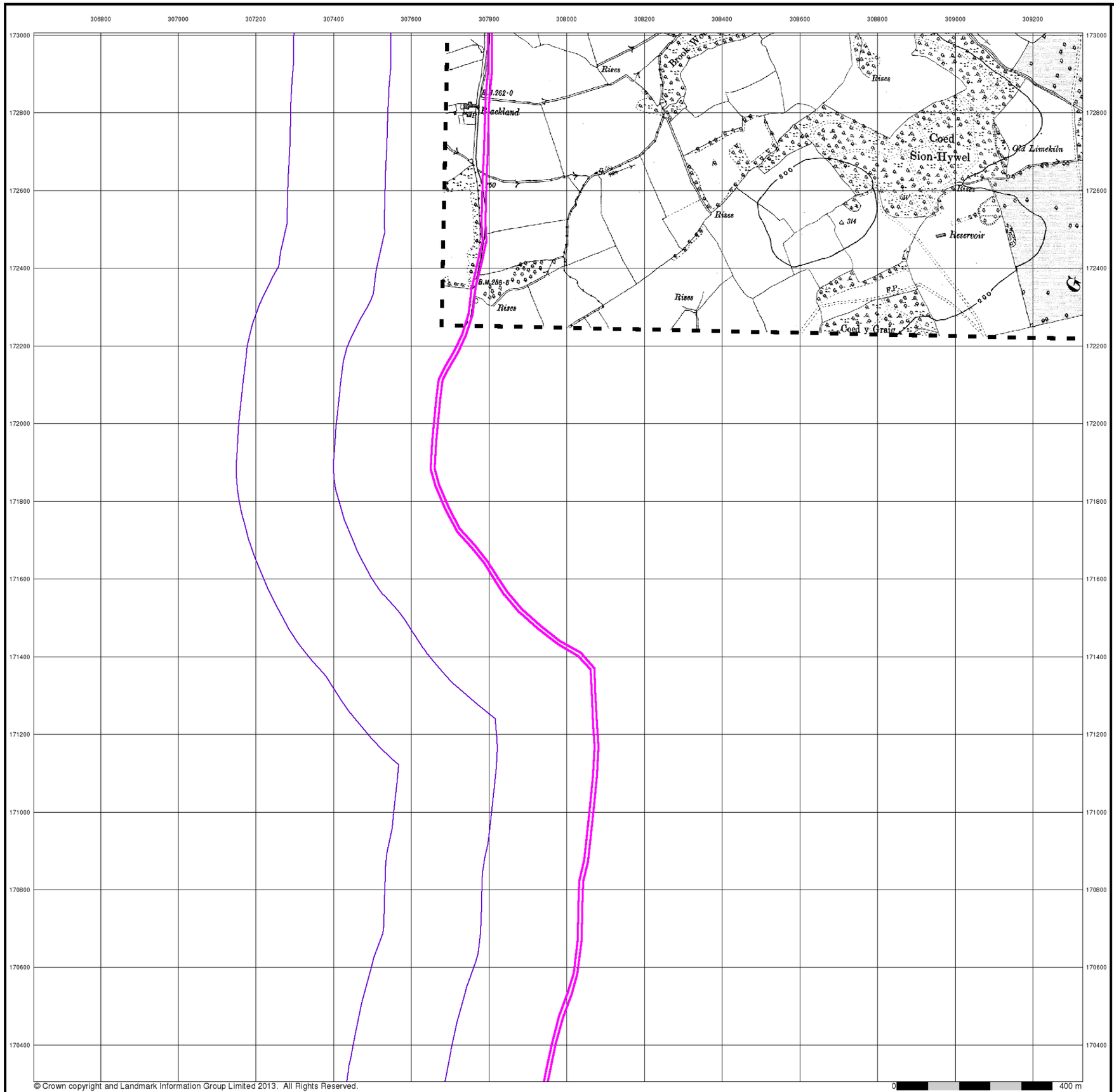

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Glamorganshire

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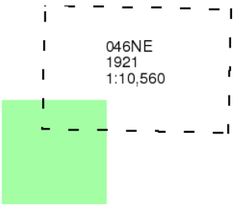
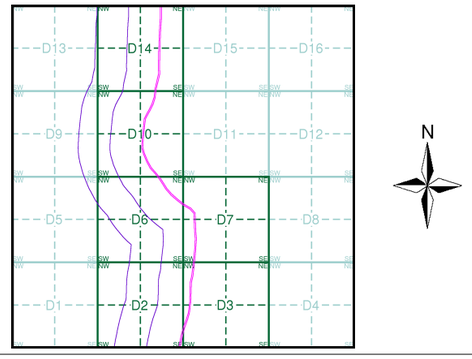


Historical Map - Slice D



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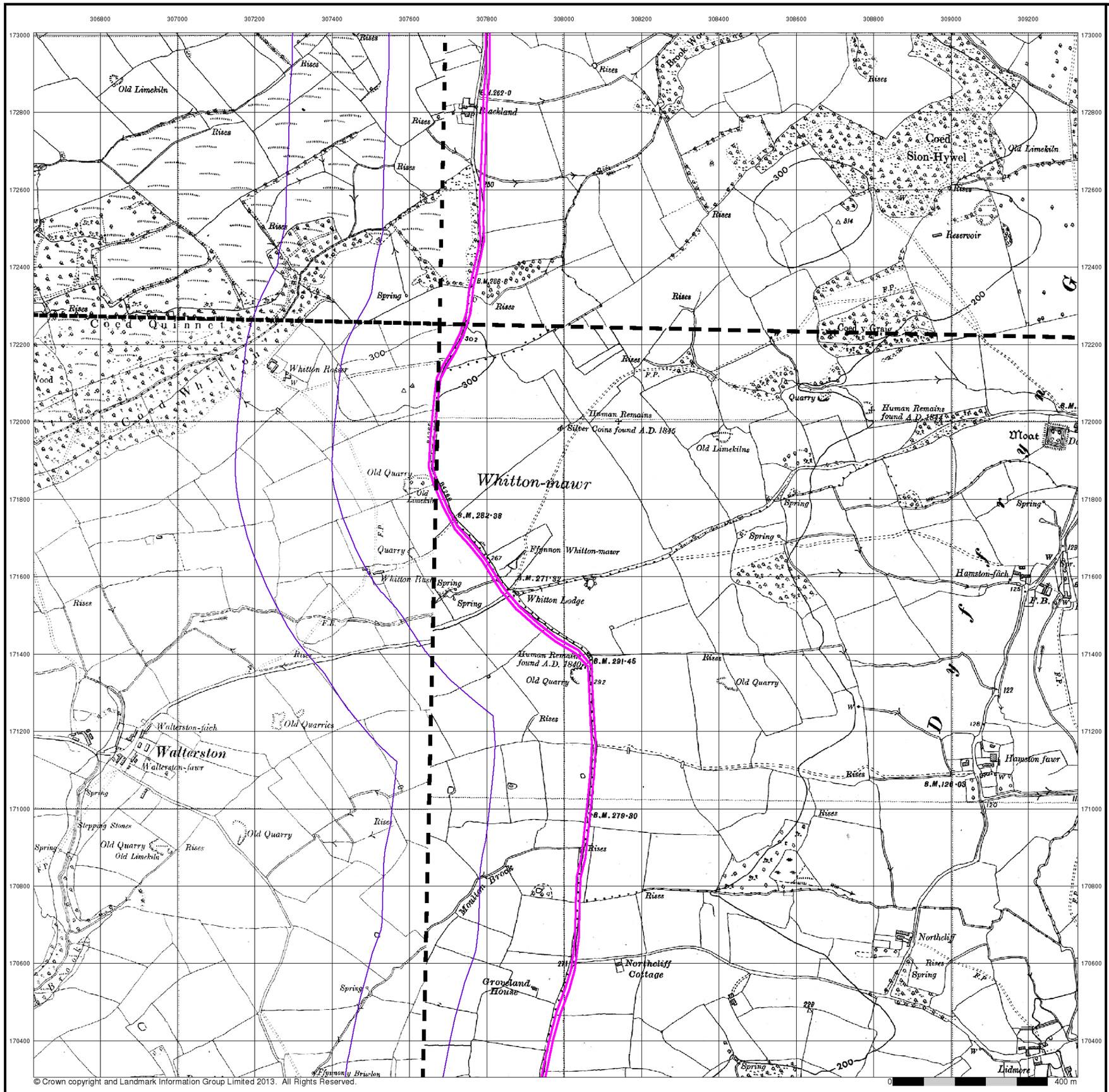

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Glamorganshire

Published 1938 - 1947

Source map scale - 1:10,560

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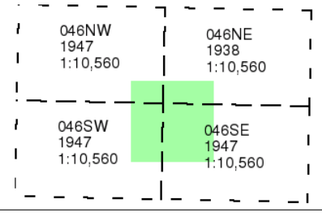
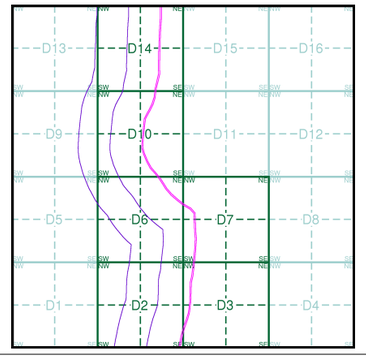


Historical Map - Slice D



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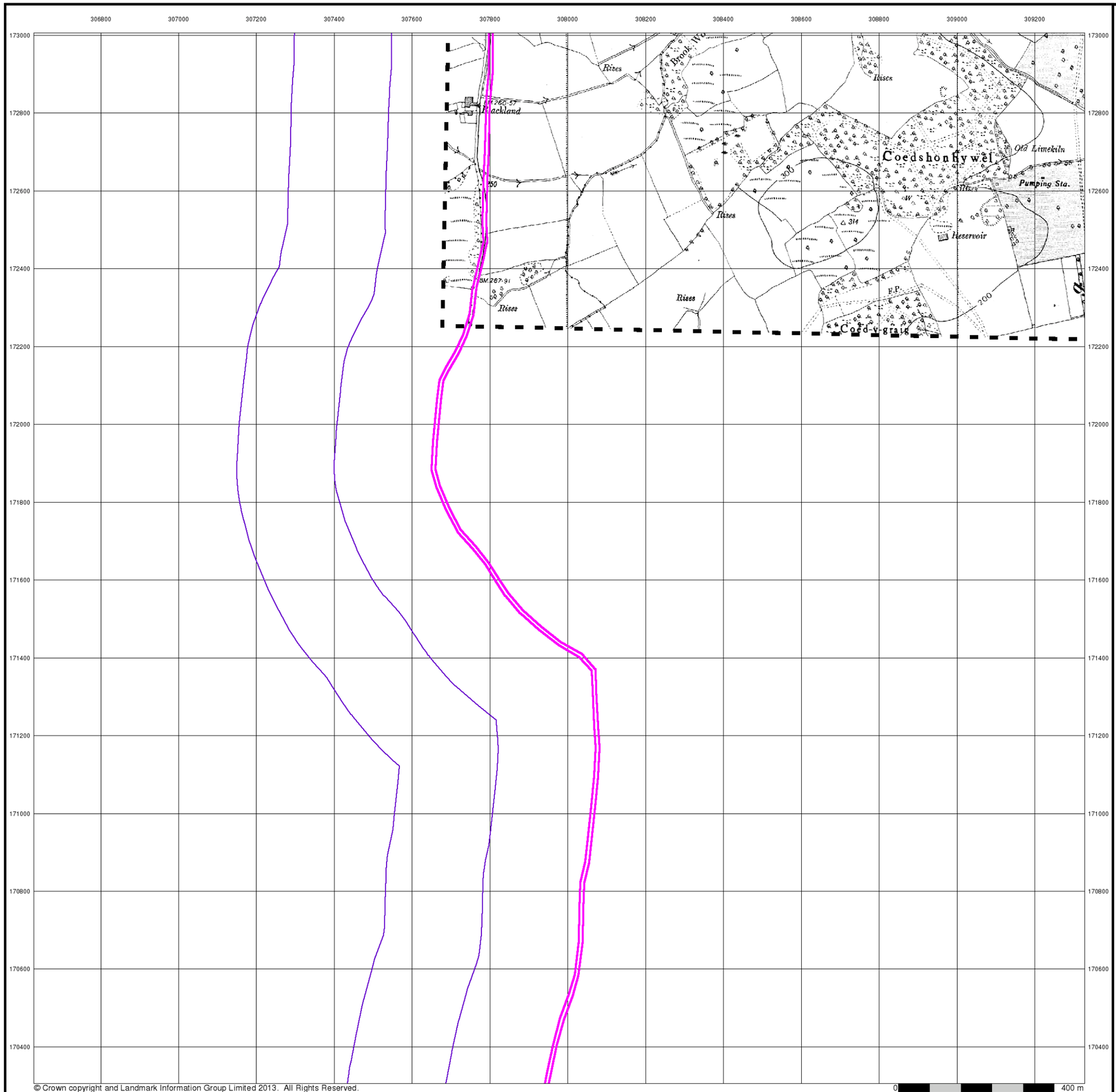

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Glamorganshire

Published 1947

Source map scale - 1:10,560

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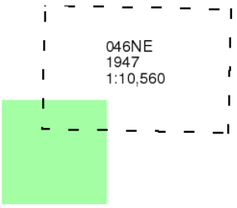
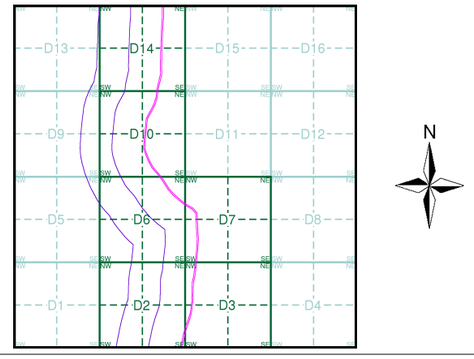


Historical Map - Slice D



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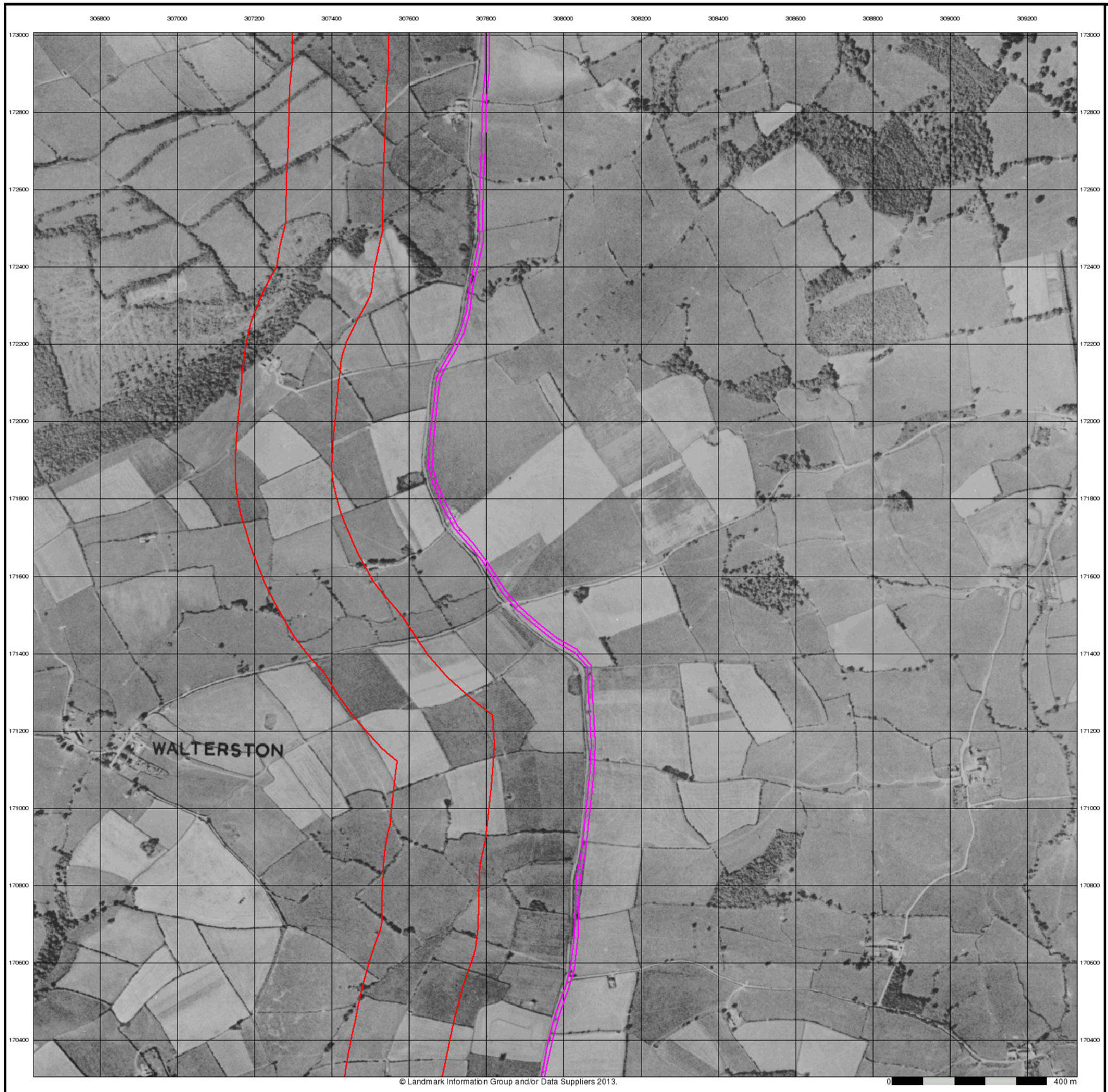

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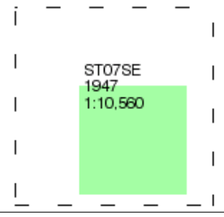
Historical Aerial Photography

Published 1947

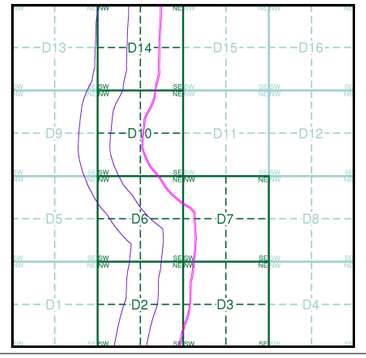
Source map scale - 1:10,560

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

Map Name(s) and Date(s)



Historical Aerial Photography - Slice D



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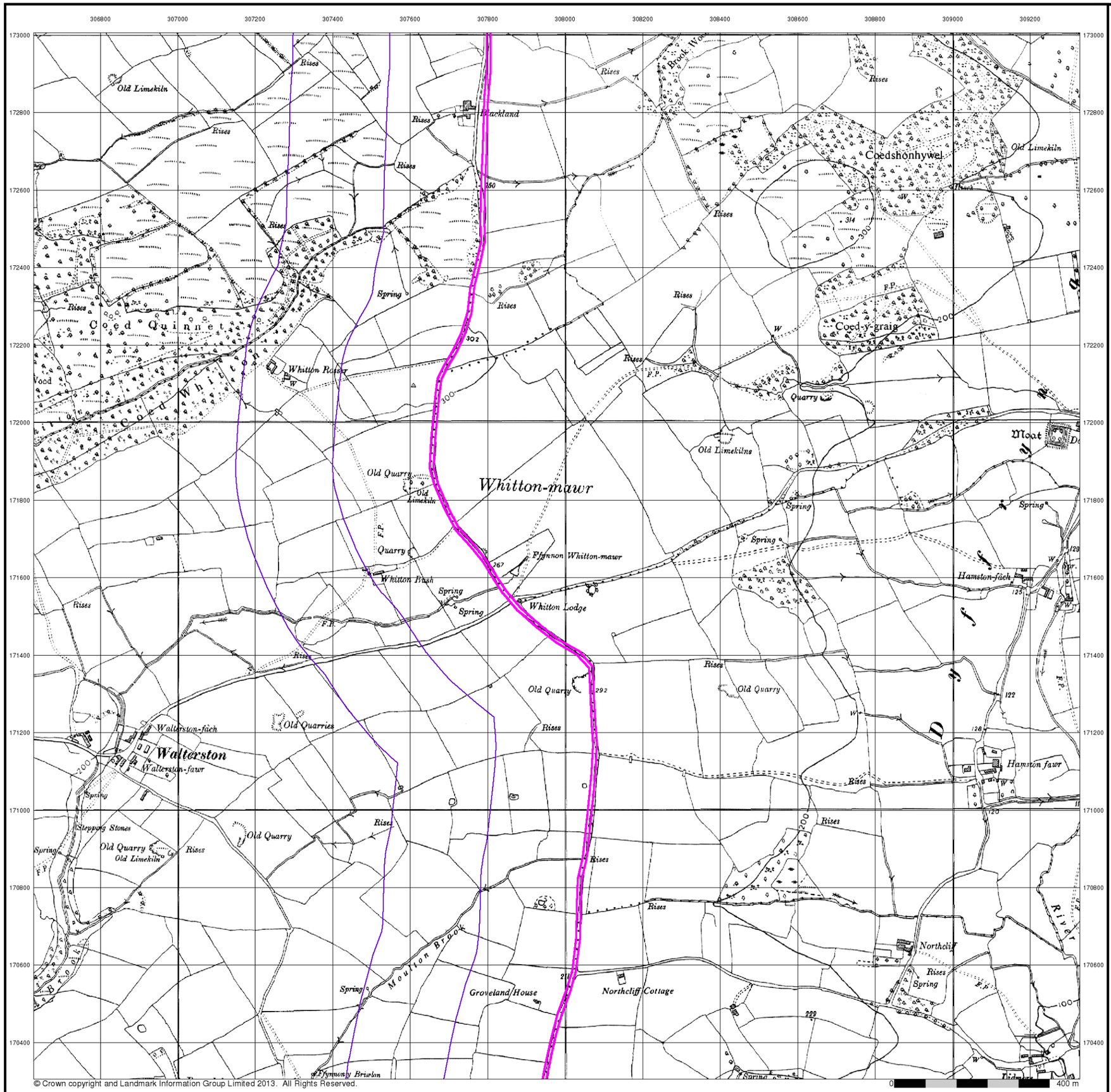

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Ordnance Survey Plan

Published 1964

Source map scale - 1:10,000

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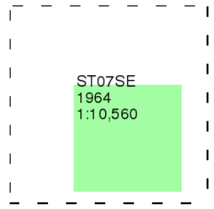
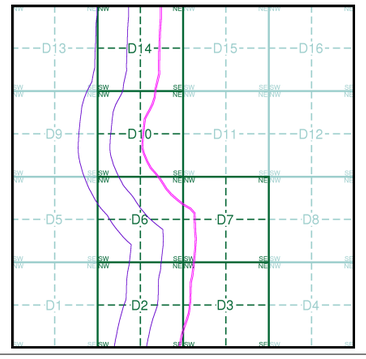


Historical Map - Slice D



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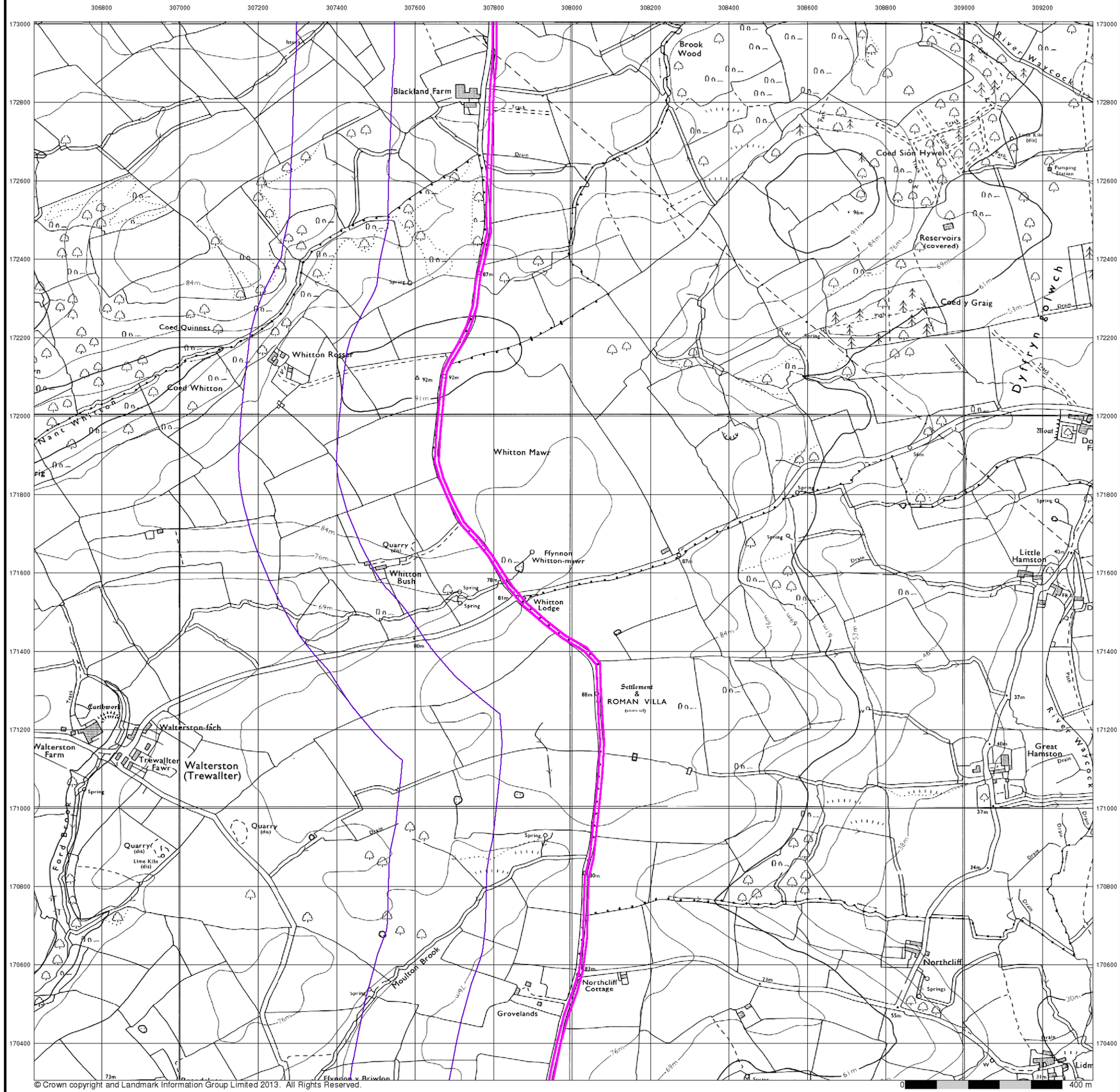

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Ordnance Survey Plan

Published 1975

Source map scale - 1:10,000

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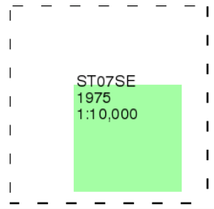
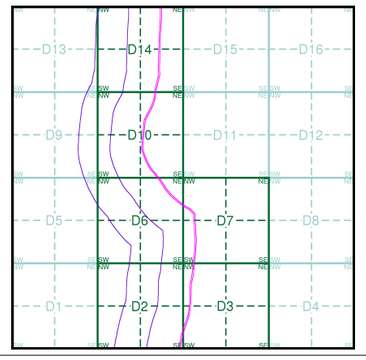


Historical Map - Slice D



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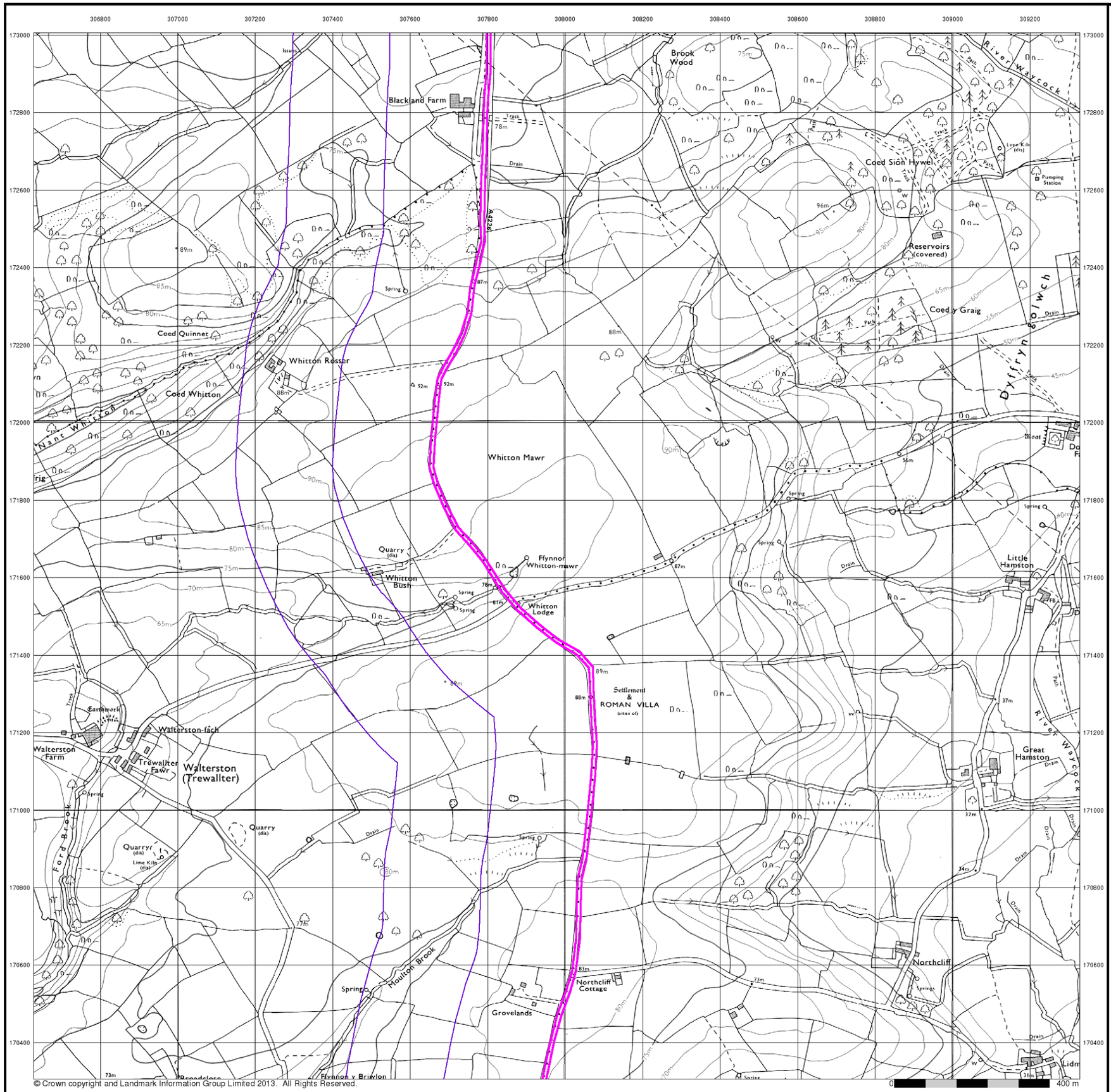

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Ordnance Survey Plan

Published 1989

Source map scale - 1:10,000

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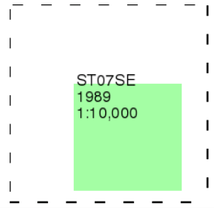

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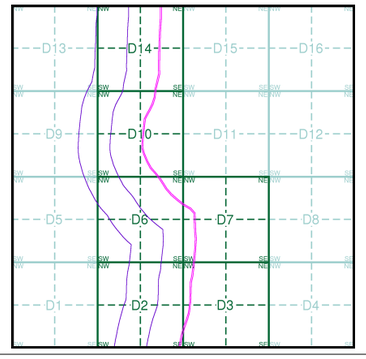

Order Details

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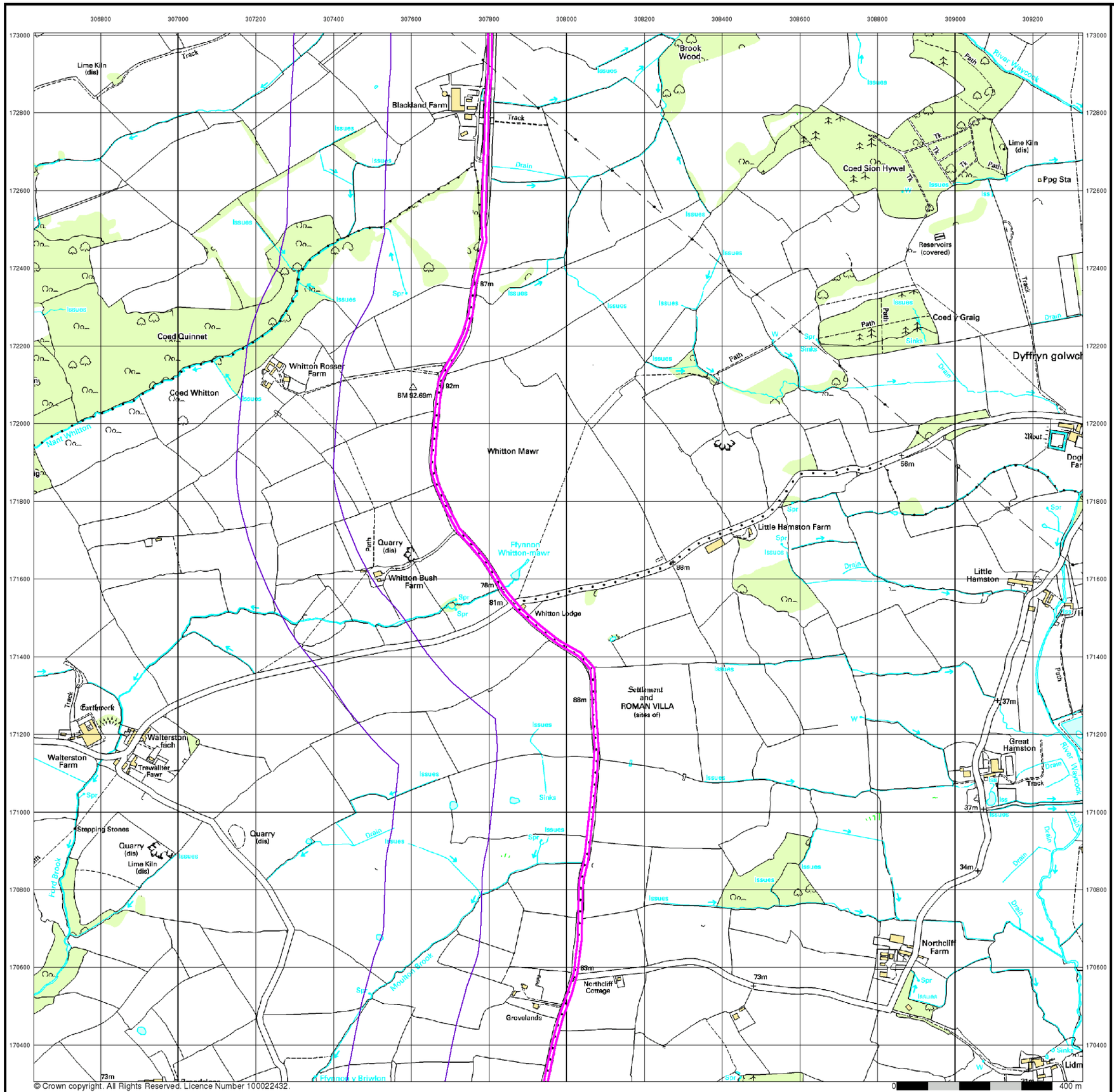
Customer Ref:	3512646D-HHC
National Grid Reference:	307880, 171650
Slice:	D
Site Area (Ha):	20.09
Search Buffer (m):	500

Site Details

Cardiff International Airport, And Culverhouse Cross, Cardiff, CF5 6XW

Landmark® Information Group

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



Envirocheck®

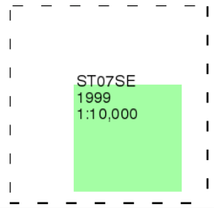
10k Raster Mapping

Published 1999

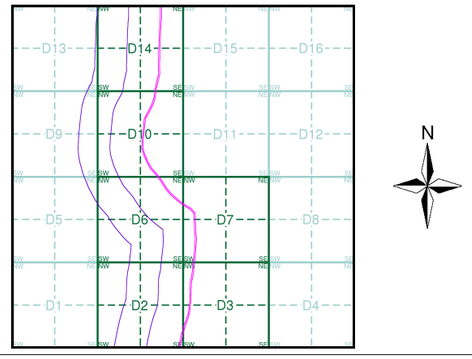
Source map scale - 1:10,000

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

Map Name(s) and Date(s)



Historical Map - Slice D



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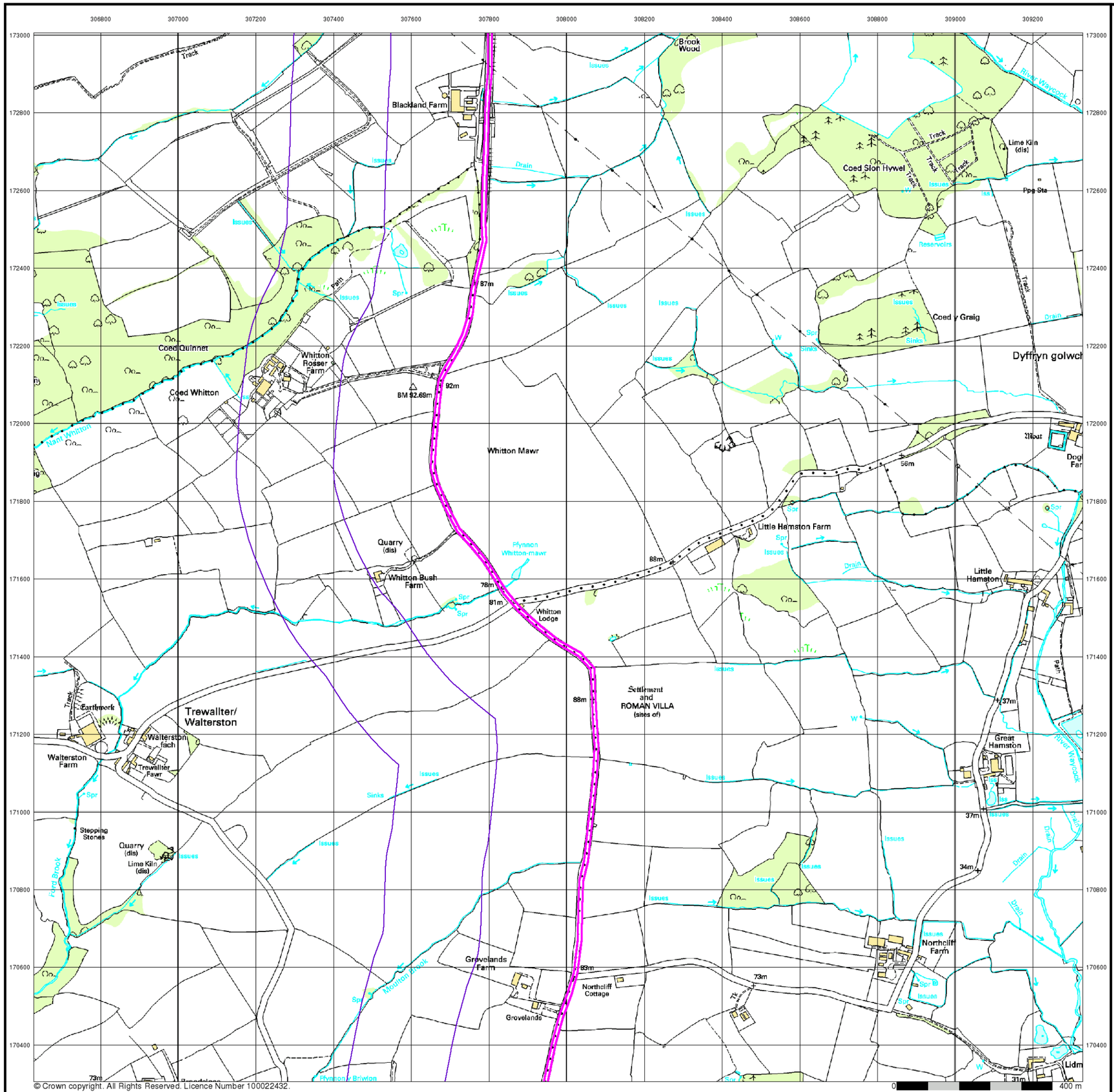
Site Details

Cardiff International Airport, And Culverhouse Cross, Cardiff, CF5 6XW



Envirocheck®

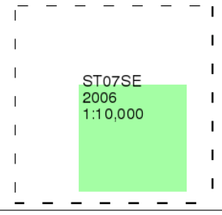
10k Raster Mapping

Published 2006

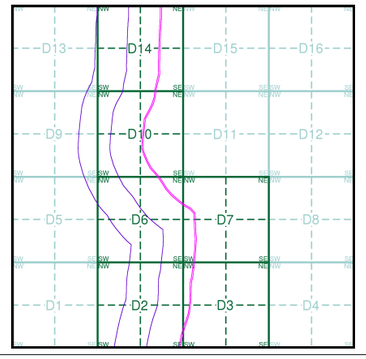
Source map scale - 1:10,000

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

Map Name(s) and Date(s)



Historical Map - Slice D



Order Details

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Customer Ref:	3512646D-HHC
National Grid Reference:	307880, 171650
Slice:	D
Site Area (Ha):	20.09
Search Buffer (m):	500

Site Details

Cardiff International Airport, And Culverhouse Cross, Cardiff, CF5 6XW

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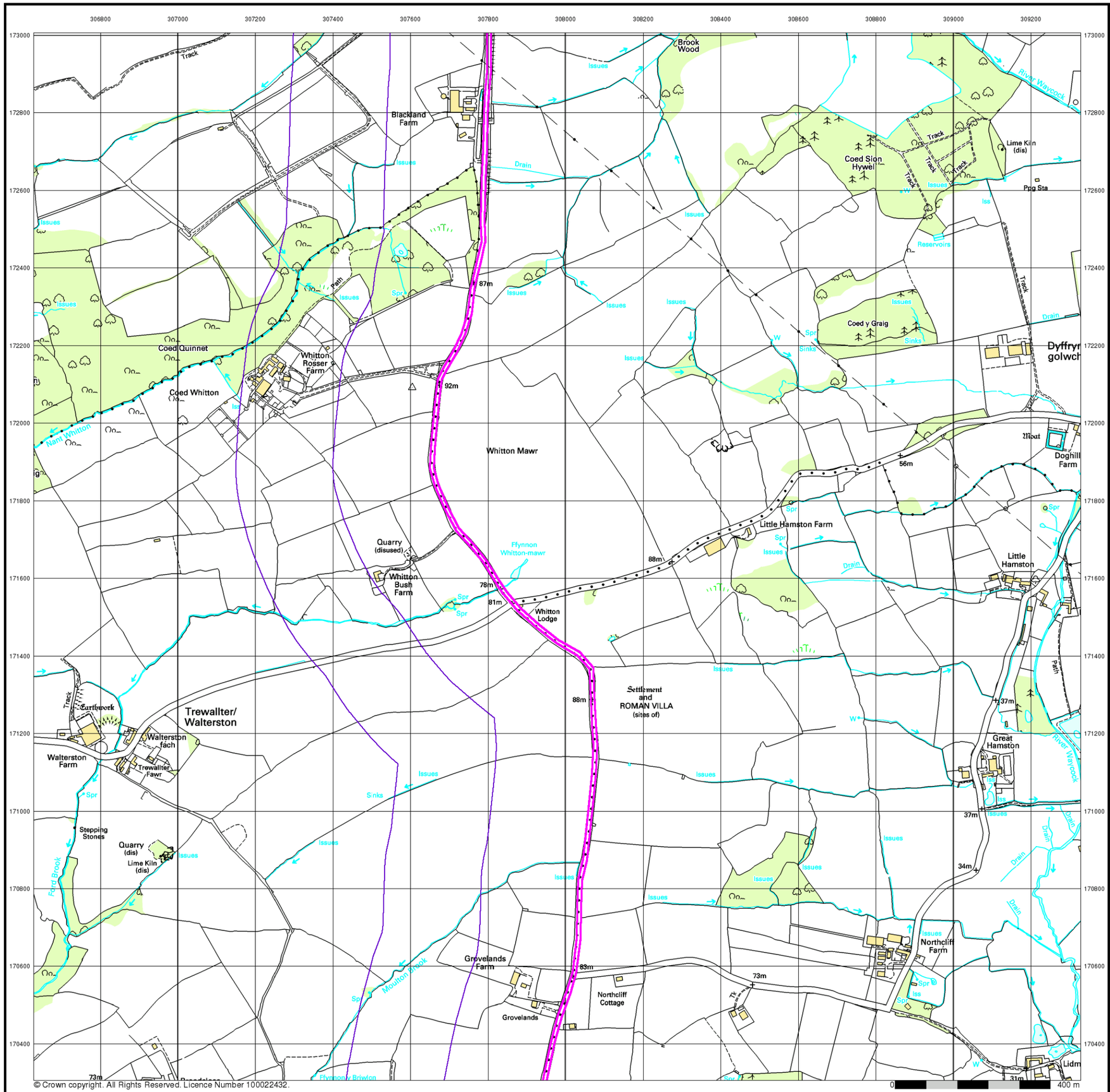


Envirocheck®

10k Raster Mapping

Published 2013

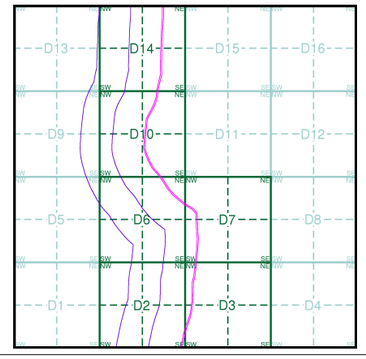
Source map scale - 1:10,000

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)

ST07SE
2013
1:10,000

Historical Map - Slice D



Order Details

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Site Details

Cardiff International Airport, And Culverhouse Cross, Cardiff, CF5 6XW

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APPENDIX B

BGS BOREHOLE LOGS

National Grid

TRIAL PIT LOG 68

ST 06 NE/19

C

IN CONFIDENCE

EXCAVATED BY CAT 428

WATER STRUCK AT: -- Dry

TRIAL PIT NO BB30

DATE 21.1.1992

0838 6927

DEPTH TO WATER m.	STRATA DESCRIPTION	STRATA CHANGE [m] DEPTH m.	STRATA CHANGE [m] O.D. LEVEL m.	SAMPLE DETAILS DEPTH m.	SAMPLE DETAILS TYPE	
	TOPSOIL	0.00 0.15	42.70 [approx]			0
	SILTY CLAY, SANDY SILTY CLAY and LIMESTONE. Stiff. Light brown, some grey with orange brown. Generally friable. Limestone of gravel and cobble size, angular to subround. Roots in top 400mm.					1 2 3
		3.40	39.30			
	END OF PIT					4 5 6 7

COMMENTS

KEY

U100 SAMPLE	[]
U100 NO RECOVERY	[]NR
BULK SAMPLE	B
BAG SAMPLE	d
WATER SAMPLE	W

70

ST 06 NE/20

C

IN CONFIDENCE

TRIAL PIT LOG

EXCAVATED BY CAT 428

WATER STRUCK AT – Dry

DATE 21.1.1992

TRIAL PIT NO BB31

0851 6943

DEPTH TO WATER m.	STRATA DESCRIPTION	STRATA CHANGE [m] DEPTH m.	STRATA CHANGE [m] O.D. LEVEL m.	SAMPLE DETAILS DEPTH m.	SAMPLE DETAILS TYPE	
		0.00	44.20			0
	TOPSOIL	0.25	(approx)			
	SILTY CLAY, SANDY SILTY CLAY and LIMESTONE Stiff. Light brown, some grey with orange brown. Generally friable. Limestone of gravel and cobble size, angular to subround. Roots in top 600mm.					1
						2
						3
		3.30	40.90			
	END OF PIT					4
						5
						6
						7

COMMENTS

KEY

U100 SAMPLE	[]
U100 NO RECOVERY	[]NR
BULK SAMPLE	B
BAG SAMPLE	d
WATER SAMPLE	W

STONE 25
0997 6849

HOLST & CO. LTD.

SITE INVESTIGATION DEPT.

PARKSIDE LANE

LEEDS LS11 5SX.

Contract No. S00054/F2051 **Borehole No.** 24

Location Barry Western Drainage **Ground Level** 58.05

Client Ward Ashcroft and Parkman **Date** 28.1.72

BOREHOLE LOG

STRATA	Legend	Depth below Ground Level	Thickness of Strata	Type of Sample	c kN/sq.m	ø deg.	m.c %	γ kg/cu.m.	N
Topsoil		0.20	0.20	0.50					
Brown grey silty stony clay		1.00	0.80		No Recovery				
Grey limestone		1.50	0.50	1.50					75 for 0.04

Water Struck at None Encountered **Maximum Observed Water Level**

Undisturbed Sample []
Disturbed Sample o
Water Sample ▲
Penetration Test I

c = Cohesion
ø = Angle of Internal Friction
m.c = Moisture Content
γ = Bulk Density
N = Standard Penetration Value

Water levels are subject to seasonal or tidal variation and should not be taken as constant

ST07/9

FORM WR-38 (cont.)

NRA No.	

(Please type)

D. STRATA LOG

Geological Classification (BGS only)	Description of strata	Thickness m	Depth m
	RED/BROWN CLAYEY SOIL	2	
	MODERATELY WEATHERED LIGHT GREY LIMESTONE	11	5 10
	SLIGHTLY WEATHERED → FRESH LIGHT GREY LIMESTONE	13	15
	FRESH LIGHT GREY LIMESTONE	25	20 25 30 35 40 45
	GREY LIMESTONE WITH FREE CALCITE, BECOMING DARKER WITH DEPTH	47	
	BLACK LIMESTONE, SOME FREE CALCITE PINK/RED STAINING →	53	50 55 60
	WEATHERED, BUFF LIMESTONE + AMORPHUS CALCITE INFILL	61	
	BLACK LIMESTONE RED STAINING → MINOR FREE CALCITE	63 66	65 70
	BLACK/RED LIMESTONE, INCREASING RED + CLAY INFILL WITH DEPTH	73	
	LIGHT GREY LIMESTONE WITH MUCH FREE CALCITE BELOW 78 m	78	75
	WEATHERED LIMESTONE WITH BUFF/RED/ ORANGE CLAY INFILL	79 81	80
	[continue on separate page if necessary]		

Other Comments (eg gas encountered, saline water intercepted, etc)

FOR OFFICIAL USE ONLY

FILE ..... CONSENT NO ..... BGS REF NO .....

LICENCE NO ..... USE OF BH ..... NGR .....

DRILLING LOG

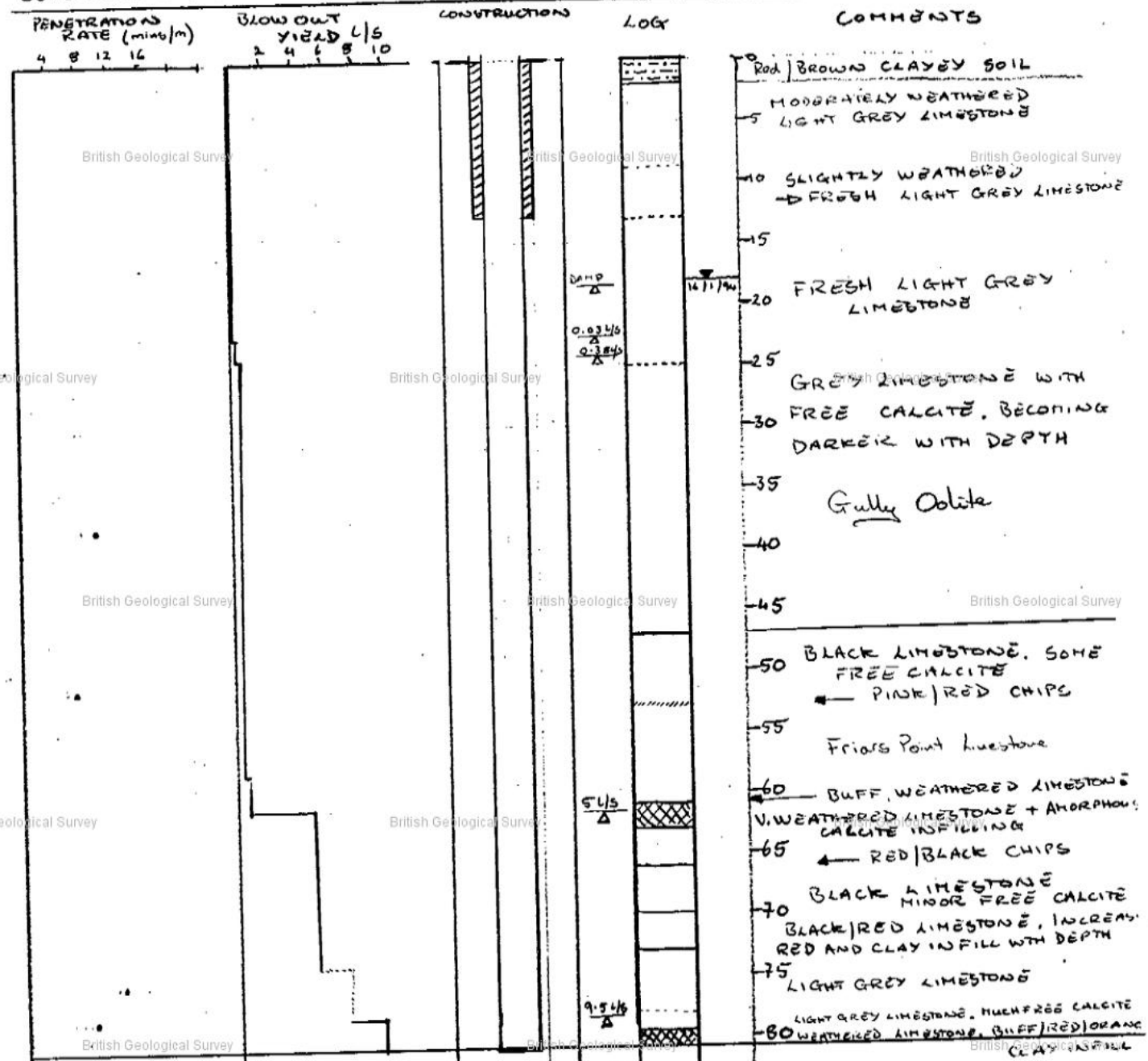
ST 07 NW/9

SITE: SYCAMORE CROSS NRA No:

DATE: JANUARY 1994

CONTRACTOR: WB + AD MORGAN TECHNIQUE: DTH HAMMER (AIR FLUSH)

SUPERVISED BY: J E DODDS (GRK [UK] Ltd) LOG PREPARED: 19/1/94



FILE: CT/6/066046/57

NGR: ST 0767 39

CONSENT: SEE FILE

ELEVATION (GL): 105.77 mAOD

ELEVATION (TOC): mAOD