

Coal Mining Risk Assessment Report

Site: Land Adjacent to Lle Hyfryd,
Heolgerrig

Prepared For: Judith Budding

Issue Date: March 2025

Job No: 13741

REPORT TITLE : Coal Mining Risk Assessment Report: Proposed Residential Development, Land Adjacent to Lle Hyfryd, Mount Pleasant Heolgerrig, Merthyr Tydfil

JOB NUMBER : 13741

ISSUE DATE : March 2025

REPORT REFERENCE : 13741/V2

Document Revision Record

| Issue No. | Date | Revision Details | Initials |
|-----------|------------|------------------|----------|
| 1 | 12/03/2025 | Draft | ML |
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| Executive Summary | |
|-----------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Site Location and Proposed Development | <i>Judith Budding is proposing the residential development of a site on Mount Pleasant, Heolgerrig, adjacent to Lle Hyfryd.</i> |
| Site History | <i>The site has remained undeveloped throughout recorded history, although it has situated in an area of previous mining activity.</i> |
| Geology | <i>Geologically, the site is underlain by rocks of the Lower Coal Measures, which are Carboniferous in age.</i> |
| Coal Mining Risk Assessment | <p><i>The Coal Authority record that the Lower-Seven-Feet (Lower Leaf) coal seam has been worked at 13m depth beneath the site.</i></p> <p><i>When assessing the risks from shallow mine workings, as a rule of thumb to prevent the future collapse of mine workings migrating to the surface and forming crown holes there should be a 10:1 rock head to void ratio.</i></p> <p><i>The seam is reported to be 1.6m thick. This would require 16m of rockhead cover. As workings are recorded to be at 13m depth this criteria is not satisfied. It is therefore recommended that a physical site investigation be performed to establish the geological conditions and presence of workings beneath the site.</i></p> |
| Preliminary Mine Gas Assessment | <i>It is determined the site is in a high risk zone from mine gas. A detailed mine gas risk assessment is required to establish whether suitable mitigation measures can be incorporated into the development.</i> |
| Recommended Further Works | <p><i>A ground investigation is required to investigate known workings beneath the site and top confirm depth to rockhead beneath the site to quantify the potential risk posed by shallow mining and mine entry 303206-040.</i></p> <p><i>A detailed mine gas assessment is also required to further assess the risk posed by mine gas.</i></p> |

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SECTION 1 Introduction & Proposed Development

1.1 Background

Judith Budding (the Client) is proposing the construction of a new residential dwelling at a site on Mount Pleasant, Heolgerrig, adjacent to Lle Hyfryd. The proposed layout can be seen in **Figure 1.1**.

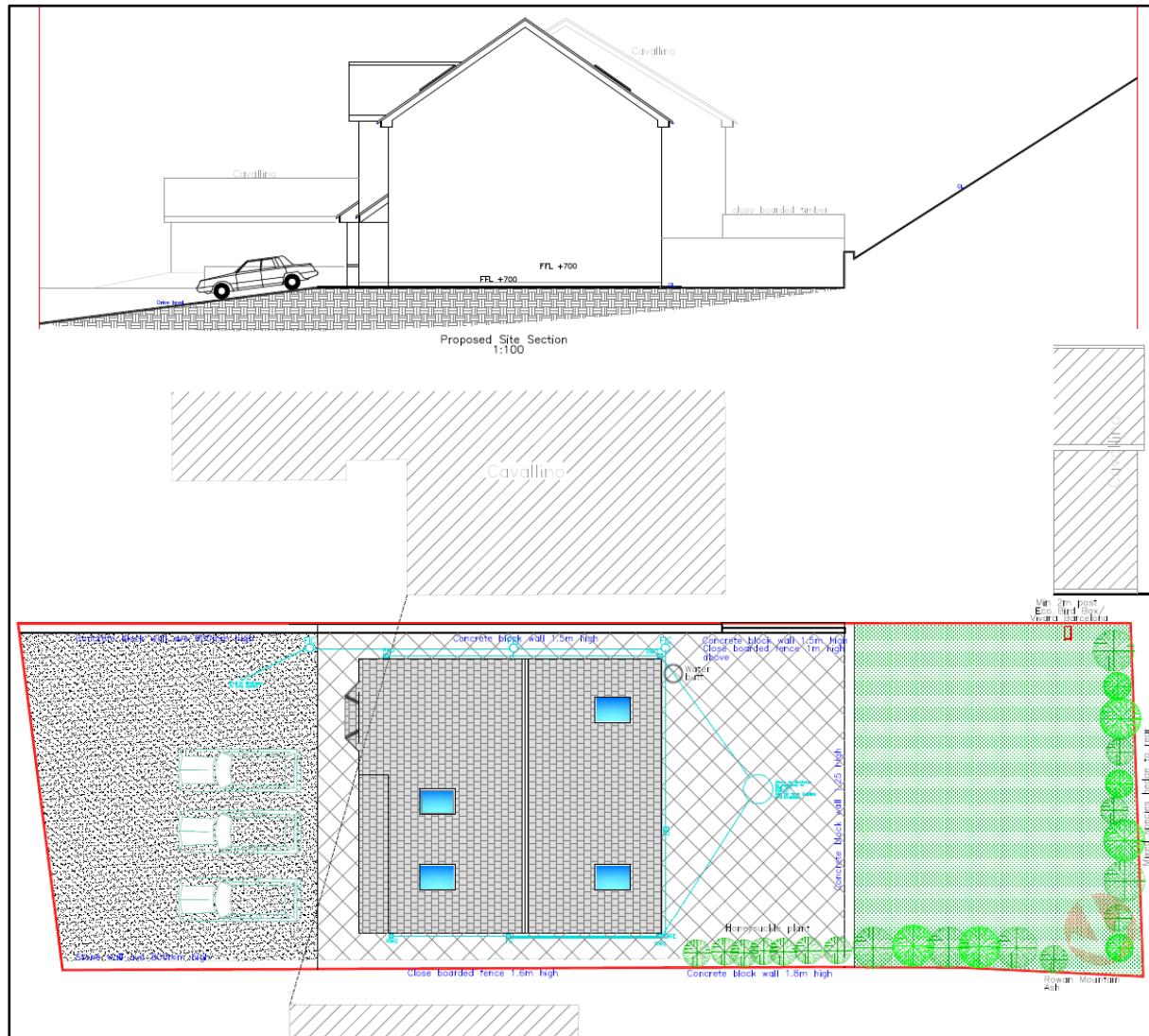


Figure 1.1 Proposed Site Layout

TFW Group Ltd (Terra Firma) have been commissioned by the Client to undertake a phase 1 coal mining risk assessment (CMRA) for the site.

1.2 Objectives

The main objectives of the assessment program are to:

- Provide information on past and current uses of the site and surrounding area.
- Provide information on the likely ground conditions beneath the site, including soil types, groundwater and if made ground is likely to be present.
- Prepare a preliminary coal mining risk assessment for the site.
- Provide data to assist in the design of an intrusive site investigation.

In order to achieve the above objectives, TFW Group Limited conducted an assessment program including a site walkover and a review of existing data.

1.3 Geotechnical Category

In accordance with BS EN 1997-1:2004+A1:2013, the proposed development comprises the following geotechnical category:

Geotechnical Category 2: conventional types of structures and foundation with no exceptional risk of difficult soil or loading conditions (e.g., spread, raft & pile foundations; retaining structures; excavations; earthworks and ground anchors).

1.4 Information Sources

The following sources of information have been referenced in support of this assessment:

- Landmark Historical Map Report (**Annex A**)
- Coal Mining Report (**Annex B**)
- British Geological Map Sheet SO 00 NW
- Coal Authority Website
-

1.5 Limitations & Exceptions of Investigation

The Client has requested that a Phase 1 CMRA be undertaken to enable the outlined main objectives.

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

1.6 Quality Assurance

The quality, health, safety and environmental aspects of the assessment comply with Terra Firma business management system which is UKAS accredited and complies with the requirements of BS EN ISO 9001:2015, BS EN ISO 14001:2015 and BS EN ISO 45001:2018 standards.

SECTION 2 Review of Existing Data

2.1 Physical Setting & Current Site Use

The development site is rectangular in shape and locates between the dwellings of Lle Hyfryd and Gelli Du, located in Heolgerrig, centred on a National Grid Reference of 303320 206350. It occupies an approximate plan area of 0.04 hectares.

The site location can be seen on **Figure 2.1**.

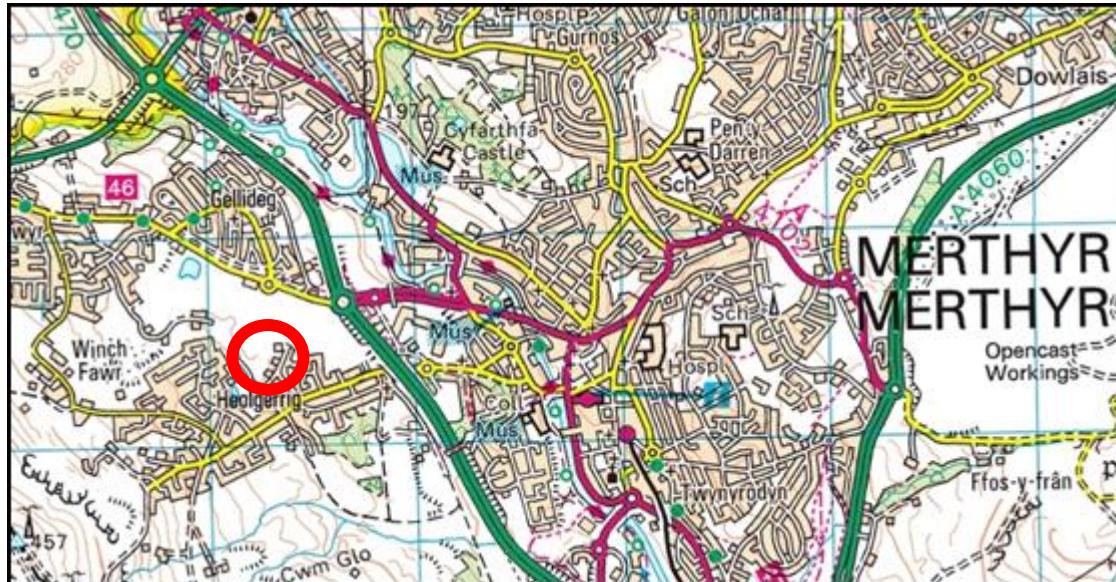


Figure 2.1: Site Location - OS Map 166 Rhondda & Merthyr Tydfil (Not to Scale)

Figure 2.1 Site Location

2.2 Historical Setting

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

Table 2.1 Historical Development from Map Information

| Map Edition & Scale | Key Features On Site | Key Features Off Site |
|---------------------|----------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1875 1:2,500 | The site is located in an area heavily effected by mining. A tramline serving a level to the west passes through the site. | A level is shown 60m south west of the site. A shaft is also shown 180m west of the site. |
| 1900 1:2,500 | The tramline is no longer shown. | The level and shafts are no labelled as old. An air shaft and new level are shown 80m and 150m north east of the site. A circular feature is shown 20m north of the site. |

| | | |
|------------------|-------------------------|------------------------------------------------------------------------------------------------------------------------------------------------|
| 1919 1:2500 | No significant changes. | No significant changes. |
| 1964 1:2,500 | No significant changes. | Mining has stopped in the local area and residential development has taken place in its place. A refuse tip is now shown 50m west of the site. |
| 1993 1:2,500 | No significant changes. | No significant changes. |
| 2016 1:10,000 | No significant changes. | No significant changes. |

2.3 Geological Setting

2.3.1 Geological Mapping

The 1:50,000 and 1:10,560 scale British Geological Survey maps of the area, Sheet SO 00 NW, and the online BGS GeoIndex map viewer were consulted for geology underlying the site.

Detailed stratigraphical information beneath the site is provided in **Table 2.2**.

Table 2.2 Detailed Stratigraphical Information

| Age | Formation | Description |
|---------------|-------------------------------------------|--------------------------------------------------------------------------------------------|
| Carboniferous | South Wales Lower Coal Measures Formation | Grey, (productive) coal-bearing mudstones/siltstones, with seatearths and minor sandstones |

Till deposits are shown to overlie the solid geology.

The conjectural outcrop of the Seven-Feet coal seam, which aligns south-southwest to east-southeast, lies beneath or just outside the sites southern corner. This seam dips towards the south and may underlie a part of the site at shallow depth. The generalised geological section records the Five-Feet coal seam underlies the Seven-Feet seam by 4.7m. This can be expected to underlie the site at shallow depth.

Lower in the geological sequence, at a depth of 34.5 m below the Five-Feet seam the Garw coal seam is present.

Although not conjectured on the geological map, stratigraphically the Gellideg coal seam may be present approximately 4m below the Five-Feet seam.

Made ground in the form of colliery spoil is anticipated across the site.

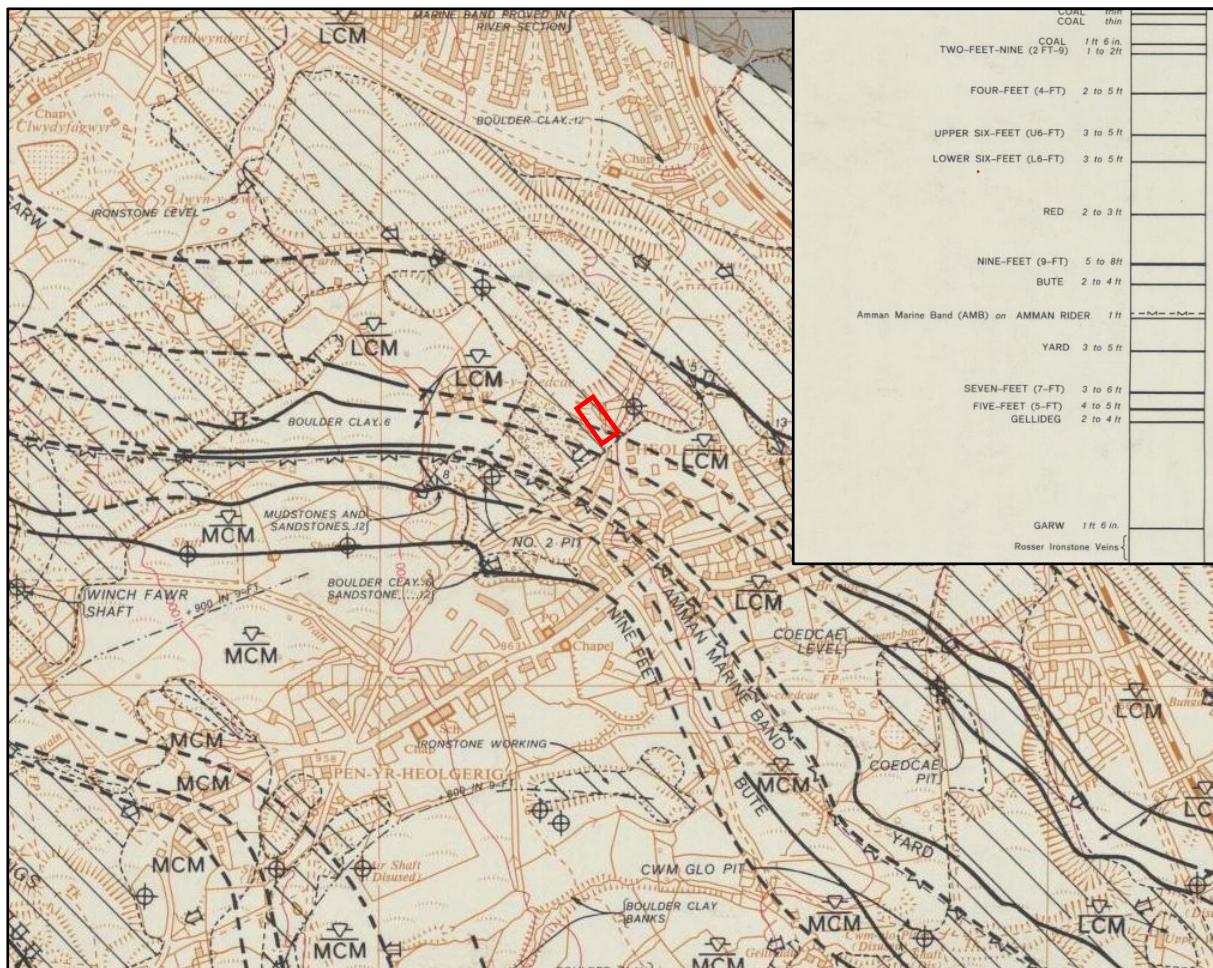


Figure 2.2 Geological Map Extract

2.3.2 BGS Borehole Information

No relevant British Geological Survey (BGS) borehole records are available for the site or surrounding area.

2.3.3 Coal Authority Coal Mining Data

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

A Mining Remediation Authority consultants coal mining report (**Annex B**) was acquired for the site as part of this Tier 1 Assessment. Pertinent information is summarised below.

Underground Mining

Past underground mining in proximity to the site, as recorded by the Mining Remediation Authority, is summarised in **Table 2.3**.

Table 2.3 Underground Mining

| Seam | Mineral | Depth (m) | Dip of Worked Seam (degrees) | Extraction Thickness (m) | Year last Mined |
|-----------------------|---------|-----------|------------------------------|--------------------------|-----------------|
| LOWER 7FT BOTTOM LEAF | Coal | 6m | 3.8 | 1.6 | 1896 |

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

Mine Entries

The Mining Remediation Authority identify 4 mine entries within 100m of the site. These have been summarised in **Table 2.4**.

Table 2.4 Mine Entries

| Entry Type | Reference Number & Name | Grid Reference | Treatment Description | Coal Authority Departure | Orientation / Assumed Diameter |
|------------|-------------------------|------------------|---------------------------|--------------------------|--------------------------------|
| Adit | 303206-023 | 303295 206332 | Treatment details unknown | 5m | 3m |
| Shaft | 303206-040 | 303312 206367 | Treatment details unknown | 10m | 2.5m |
| Adit | 303206-047 | 303282 206330 | Treatment details unknown | 8m | 3m |
| Shaft | 303206-066 | 303375 206415 | Treatment details unknown | 5m | 2.5m |

Outcrops

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

Table 2.5 Outcrops

| Seam Name | Mineral | Workable? | Distance to Outcrop (m) | Direction to Outcrop (m) | Bearing of Outcrop (degrees) |
|-----------------------|---------|-----------|-------------------------|--------------------------|------------------------------|
| LOWER 7FT BOTTOM LEAF | Coal | Yes | 30.6 | North east | 122 |
| SEVEN FOOT | Coal | Yes | 4.7 | North | 103 |

SECTION 3 Preliminary Coal Mining Risk Assessment

3.1 Introduction

The following sections provide a qualitative assessment of the mining legacy beneath the site and is based on the available information detailed in preceding sections of this Tier 1 assessment.

Risks associated with mining legacy are broad and often complex, however, they can largely be summarised into the following categories;

- ground instability & subsidence (geotechnical) – in relation to collapse of recorded and unrecorded shallow mine working, roadways and mine entries; and;
- contamination (geoenvironmental) – mine gas, mine water emissions, and soil contamination associated with mining legacy sites or tips.

3.2 Geotechnical Risk

Recorded Underground Mining

The Mining Remediation Authority record workings in the lower Severn feet bottom leaf seam at 6m below the site

Potential Unrecorded Shallow Workings

The mining remediation Authority state that the probability of unrecorded workings beneath the site is none.

Shafts & Adits

There are 4 mine entries within 100m of the site. Shaft 303206-040 is shown on the site boundary with an assumed diameter of 2.5m and a departure distance of 10m. The shaft may therefore be located within the site boundary. The shaft location is plotted and shown in Figure 3.1. The departure distance and exclusion zone is also shown for reference.



Figure 3.1: Shaft location, departure zone and exclusion zone

Geological Faults, Fissures and Breaklines

No geological faults, fissures or breaklines are present beneath the site.

3.2.1 Preliminary Ground Model

Based on available data, a preliminary ground model, comprising a stratigraphical sequence within 150m of the ground surface is illustrated in **Figure 3.1**.

| | | | |
|---------------------------------|------------|--------------------------------------------------------------------|---------|
| | Holocene | MADE GROUND | 3.00m |
| | Quaternary | Superficial Deposits | 4.00m |
| South Wales Lower Coal Measures | | Coal Bearing Mudstone/Siltstone with Seatearth and minor Sandstone | |
| | | COAL Lower Severn Feet | 7.60m |
| | | Coal Bearing Mudstone/Siltstone with Seatearth and minor Sandstone | |
| | | COAL Five Feet Gellideg | 12m |
| | | Coal Bearing Mudstone/Siltstone with Seatearth and minor Sandstone | |
| | | Coal Garw | 47m |
| | | Coal Bearing Mudstone/Siltstone with Seatearth and minor Sandstone | |
| | | | 150.00m |

Figure 3.1 Preliminary Ground Model

3.2.2 Conclusion

The Mining Remediation Authority records workings in the Lower-Seven-Feet (Lower Leaf) coal seam beneath the site at 6m depth.

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

The seam is reported to be 1.6m thick. This would require 16m of rockhead cover. As workings are recorded to be at 13m depth this criteria is not satisfied. It is therefore recommended that an intrusive site investigation be performed to establish the geological conditions and presence of workings beneath the site.

This should entail the sinking of a number of rotary probe holes beneath the footprint of the proposed new house. The probe holes should be taken to a depth of 30m into bedrock.

Shaft 303206-040 is shown to locates just outside of the sites north eastern boundary. The shaft diameter is assumed to be 2.5m with a departure distance of 10m. At present no ground investigation has been carried out and the depth to bedrock is unknown. Given that the depth to workings beneath the site is recorded at being 6m, a conservative depth to rockhead of 6m has been applied to the preliminary assessment. With a departure distance of 10m and a diameter of 2.5m, an exclusion zone of 17.25m has been applied to the provided coordinate of the shaft.

In order to further assess this exclusion zone, it is recommended that a ground investigation is undertaken to confirm rock head depth. This should be used to determine the correct exclusion

zone of the shaft. The new dwelling should not be constructed within this exclusion zone to prevent future ground instability should movement or collapse happen within the shaft.

3.3 Geoenvironmental Risk

3.3.1 Preliminary Mine Gas Risk Assessment

Sources

Mine gas forms and collects in unflooded workings and presence of these features beneath the site needs to be considered. The Coal Authority report indicates that the shallowest workings beneath the site are at a depth of 6m which is a source of mine gas.

The Coal Authority has no record of mine gas within 500m of the boundary.

Pathways

Several mine entries are seen to be present within 100m of the site's boundary. Which act as a pathway for mine gas.

Receptors

The identified receptors are site end users.

This mine gas assessment has been completed in accordance with guidance published in CL:AIRE:2021, Good practice for risk assessment for coal mine gas emissions. In the first instance, the risk assessment process requires the screening out of 'potentially at risk sites' utilising the decision support tool for mine gas risk assessment, provided in Figure 13.1 of the aforementioned publication. A summary of the decision tool and site outcome is presented in **Table 3.1**.

Table 3.1 Decision Support Tool Summary – Site Specific

| Step | Qualifier Question | Outcome | Comment |
|------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|------------------------|
| 1 | Is the site within a Coal Authority defined coal mining reporting area? | Yes | If Yes Go to step 2 |
| 2 | Are all these statements true? <ul style="list-style-type: none"> • Mine entries >50m from site boundary. • Workings >150m depth. • No faults or other potential pathways connecting surface to deeper unflooded workings. • Outside area of past or probable shallow workings on Coal Authority viewer. | No | If No Got to step 3 |
| 3 | Are all these statements true? <ul style="list-style-type: none"> • Workings between 30m and 150m but permanently flooded or covered by 10m+ of low permeable superficial deposits. • Mine entries > 50m from site boundary. • Low permeability superficial deposits of sufficient thickness - $<1 \times 10^{-6}$ m/s hydraulic conductivity. | No | If No Go to step 4 |
| 4 | Are any of these statements true? <ul style="list-style-type: none"> • Mine entries on site or <20m from site boundary • Workings below site <30m depth and unflooded or variable water level | Yes | If Yes High Risk Zone |

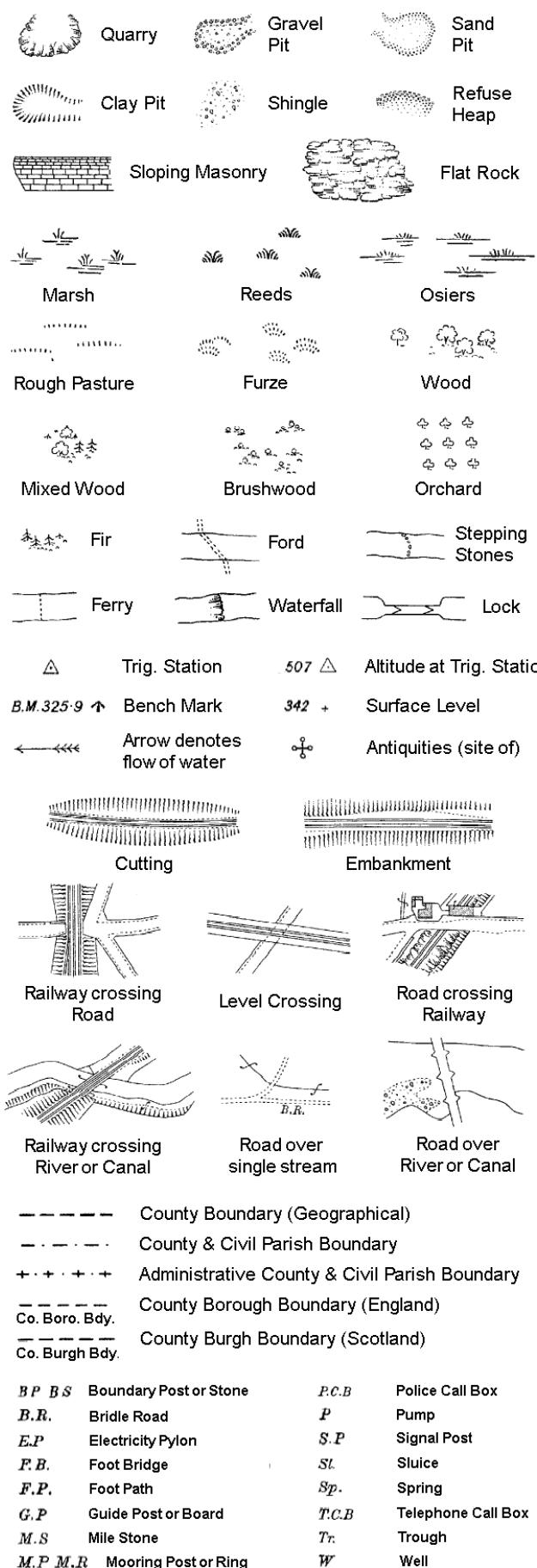
| | | | |
|--|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|
| | <ul style="list-style-type: none">• Faults or other pathways connecting surface to deeper unflooded workings• Within area of past or probable shallow workings on Coal Authority viewer | | |
|--|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|

It is determined the site is in a high risk zone from mine gas. A detailed mine gas risk assessment is required to establish whether suitable mitigation measures can be incorporated into the development.

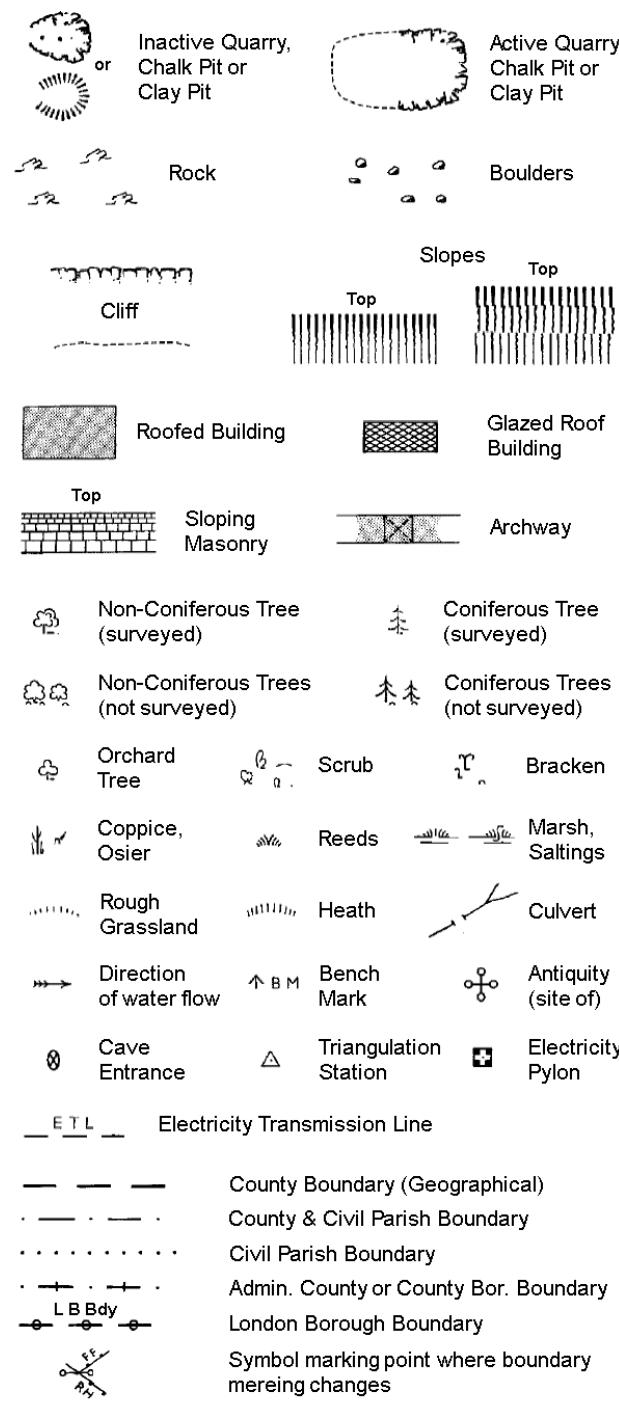
ANNEX A
Envirocheck Historical Map Report

Historical Mapping Legends

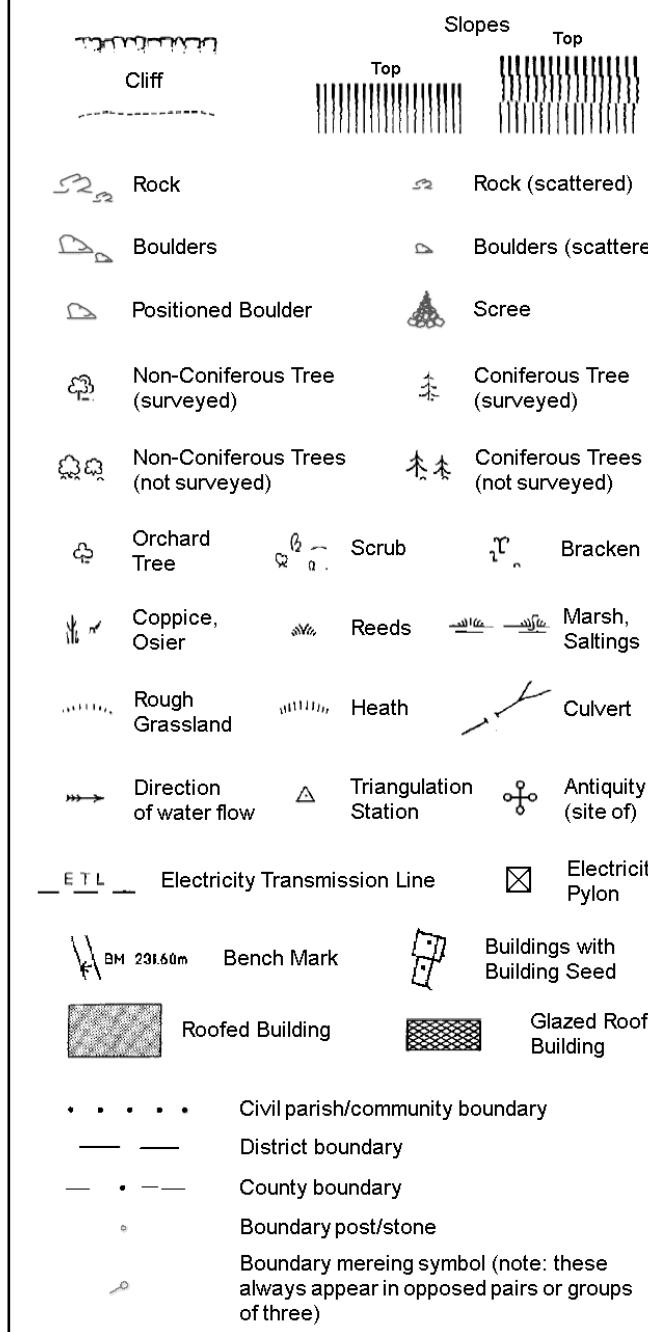
Ordnance Survey County Series and Ordnance Survey Plan 1:2,500



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



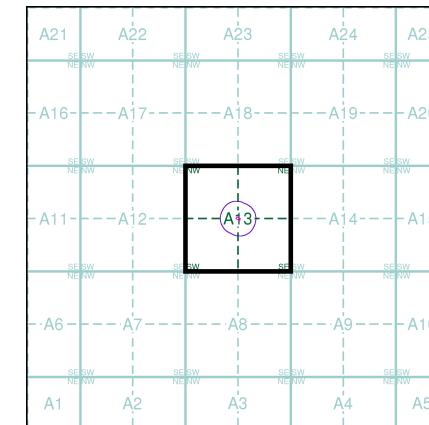
Large-Scale National Grid Data 1:2,500 and 1:1,250



Historical Mapping & Photography included:

| Mapping Type | Scale | Date | Pg |
|--------------------------------|---------|-------------|----|
| Glamorganshire | 1:2,500 | 1875 - 1881 | 2 |
| Glamorganshire | 1:2,500 | 1900 - 1904 | 3 |
| Brecknockshire | 1:2,500 | 1904 | 4 |
| Brecknockshire | 1:2,500 | 1919 | 5 |
| Glamorganshire | 1:2,500 | 1919 | 6 |
| Ordnance Survey Plan | 1:1,250 | 1956 - 1982 | 7 |
| Ordnance Survey Plan | 1:2,500 | 1964 | 8 |
| Ordnance Survey Plan | 1:1,250 | 1975 | 9 |
| Additional SIMs | 1:1,250 | 1984 - 1990 | 10 |
| Additional SIMs | 1:2,500 | 1988 | 11 |
| Large-Scale National Grid Data | 1:1,250 | 1993 | 12 |
| Large-Scale National Grid Data | 1:1,250 | 1994 - 1995 | 13 |

Historical Map - Segment A13



Order Details

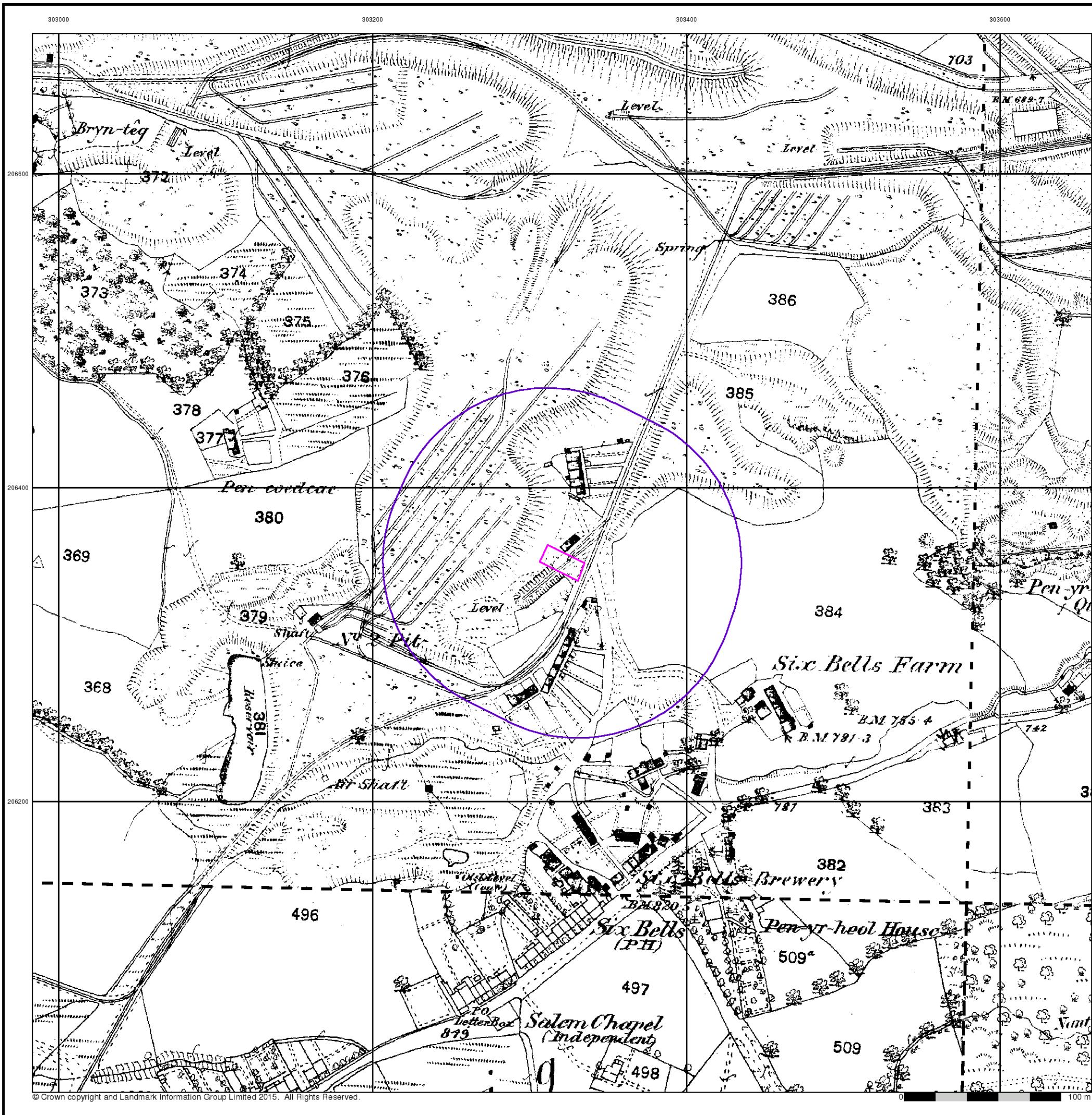
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 Customer Ref: 13741
 National Grid Reference: 303320, 206350
 Slice: A
 Site Area (Ha): 0.04
 Search Buffer (m): 100

Site Details

Site at 303250, 206350



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



Glamorganshire

Published 1875 - 1881

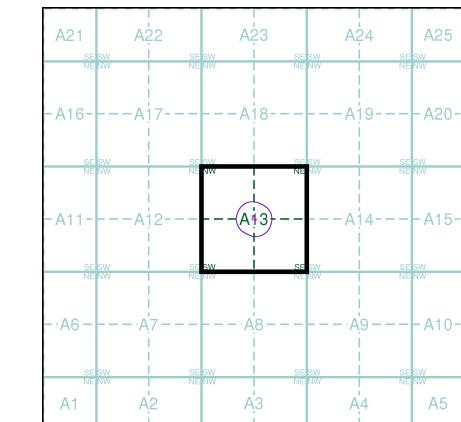
Source map scale - 1:2,500

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

Map Name(s) and Date(s)

| | |
|---------------------------|---------------------------|
| 011_04 1875 1:2,500 | 012_01 1875 1:2,500 |
| 011_08 1881 1:2,500 | 012_05 1876 1:2,500 |

Historical Map - Segment A13

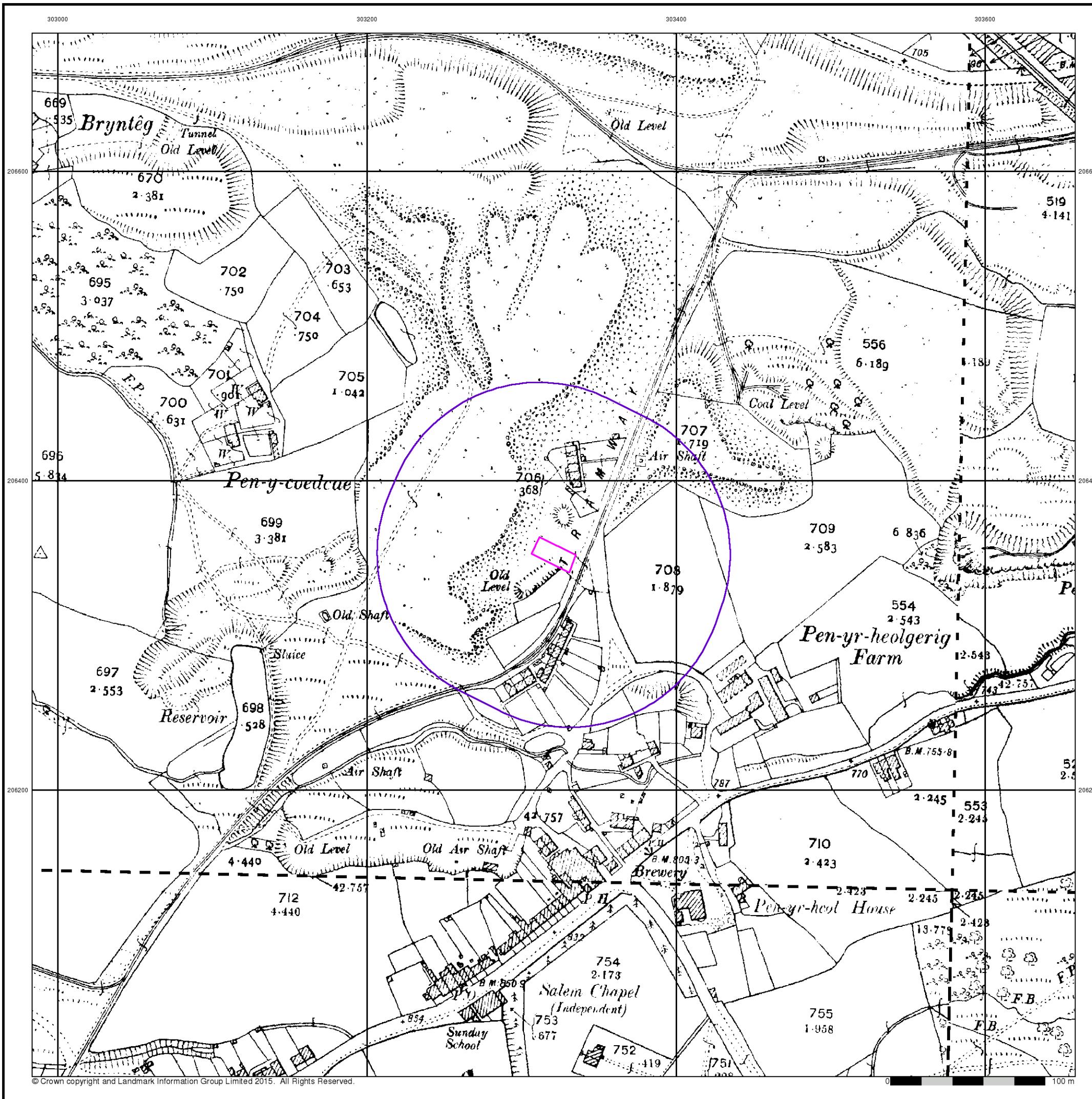


Order Details

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 Customer Ref: 13741
 National Grid Reference: 303320, 206350
 Slice: A
 Site Area (Ha): 0.04
 Search Buffer (m): 100

Site Details

Site at 303250, 206350



terra firma

Glamorganshire

Published 1900 - 1904

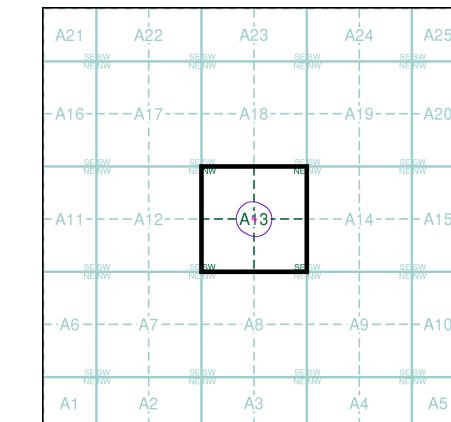
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Map Name(s) and Date(s)

| | | |
|---------------------------|-------------------------------------------------------------------------------------|---------------------------|
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| 011_08 1900 1:2,500 | | 012_05 1900 1:2,500 |

Historical Map - Segment A13



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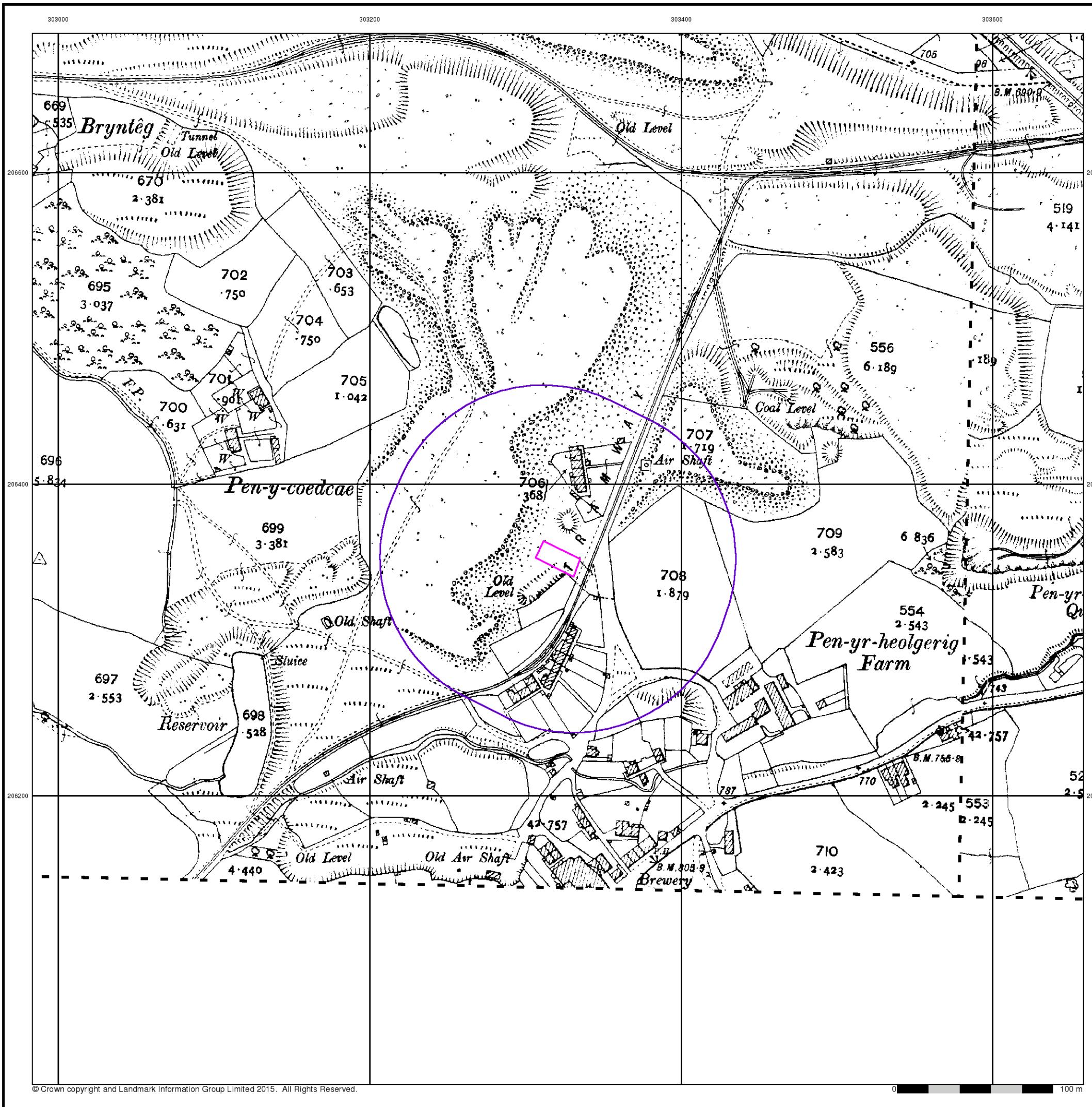
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Customer Ref: 13741
National Grid Reference: 303320, 206350
Slice: A
Site Area (Ha): 0.04
Search Buffer (m): 100

Site Details

Site at 303250, 206350



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



Brecknockshire

Published 1904

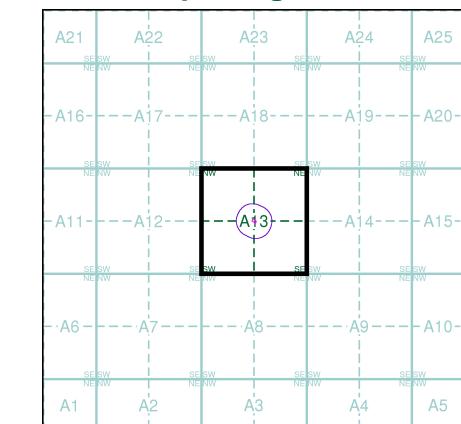
Source map scale - 1:2,500

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)

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|---------------------------|---------------------------|

Historical Map - Segment A13



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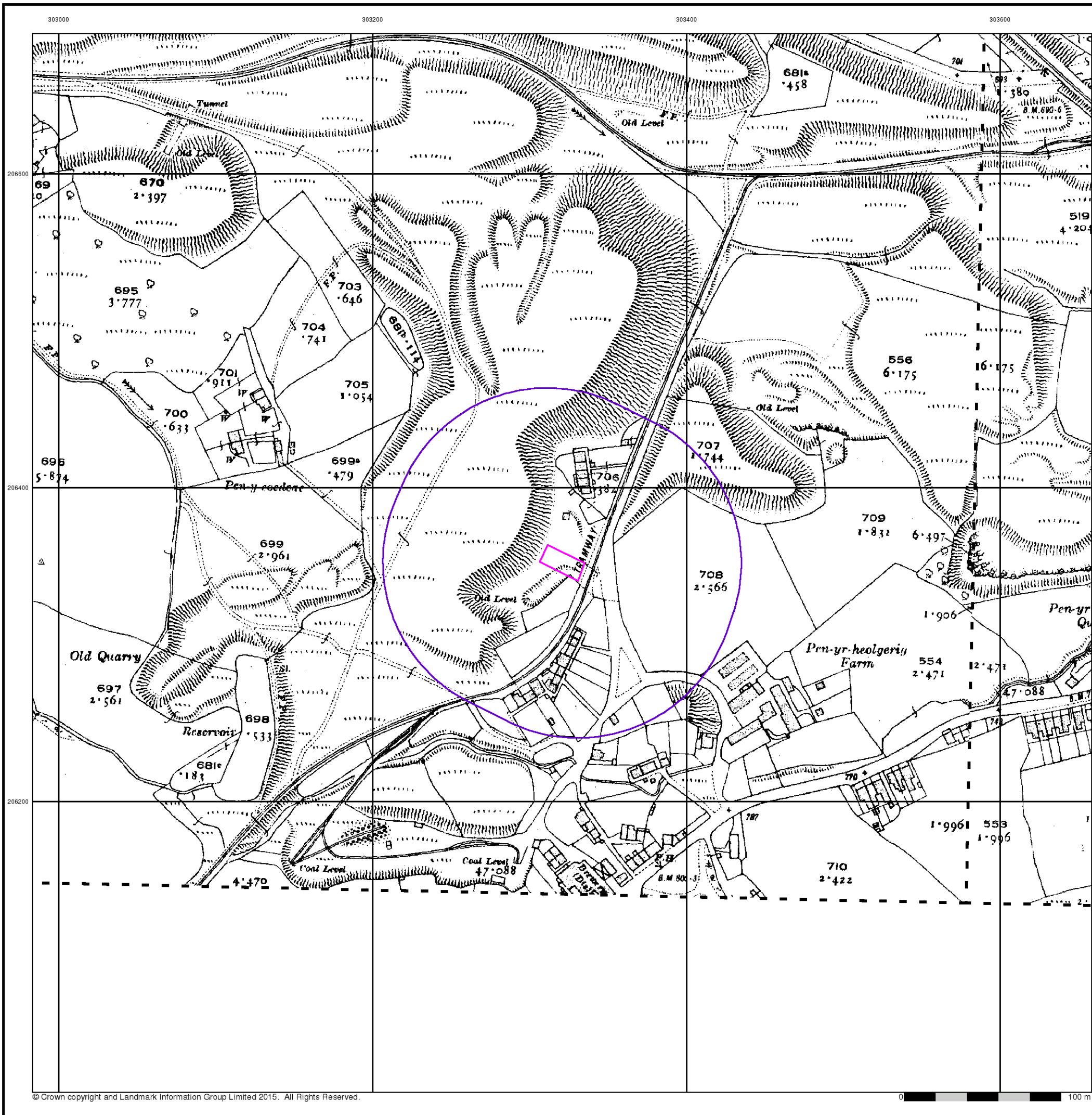
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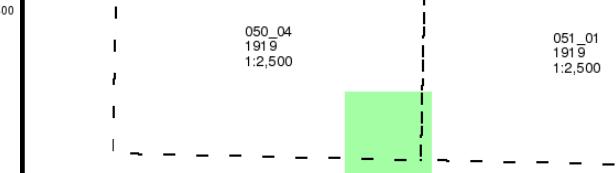
Brecknockshire

Published 1919

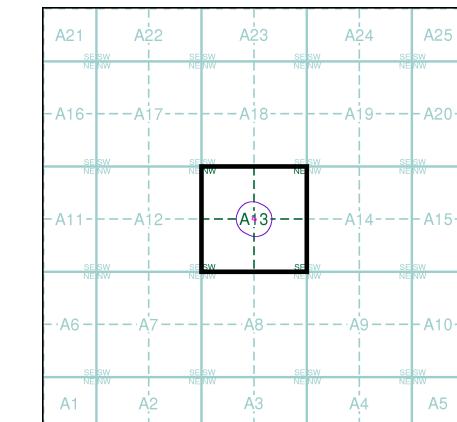
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Map Name(s) and Date(s)



Historical Map - Segment A13



Order Details

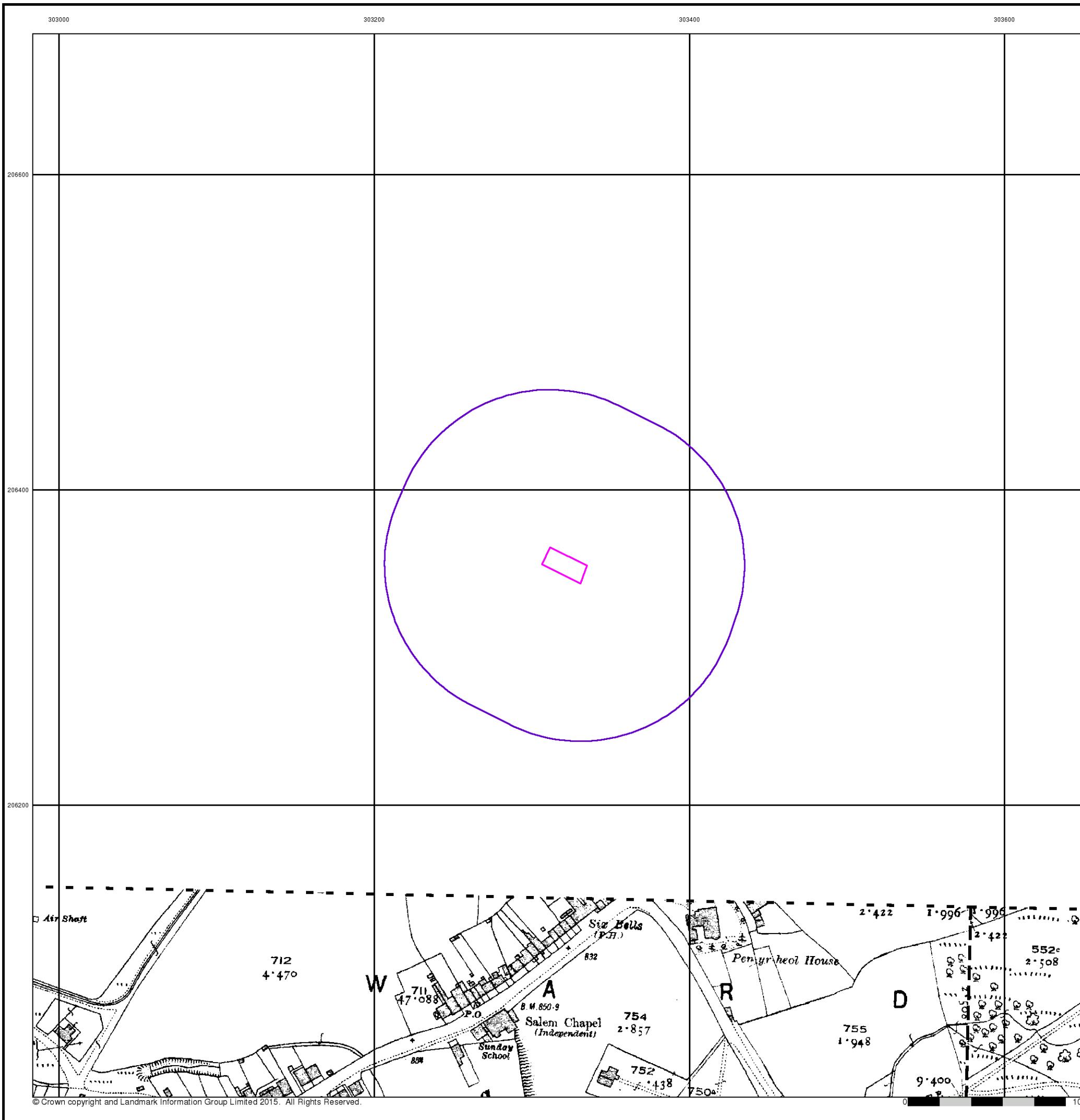
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 National Grid Reference: 303320, 206350
 Slice: A
 Site Area (Ha): 0.04
 Search Buffer (m): 100

Site Details

Site at 303250, 206350



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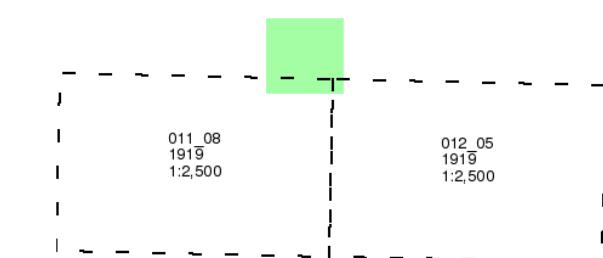
Glamorganshire

Published 1919

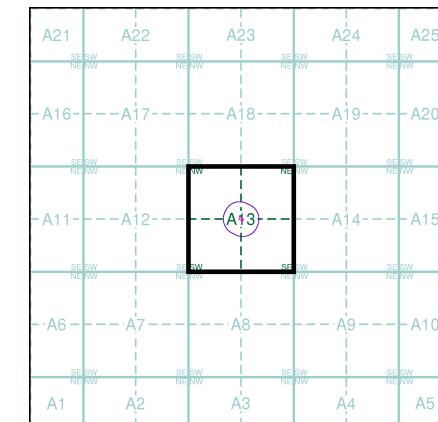
Source map scale - 1:2,500

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

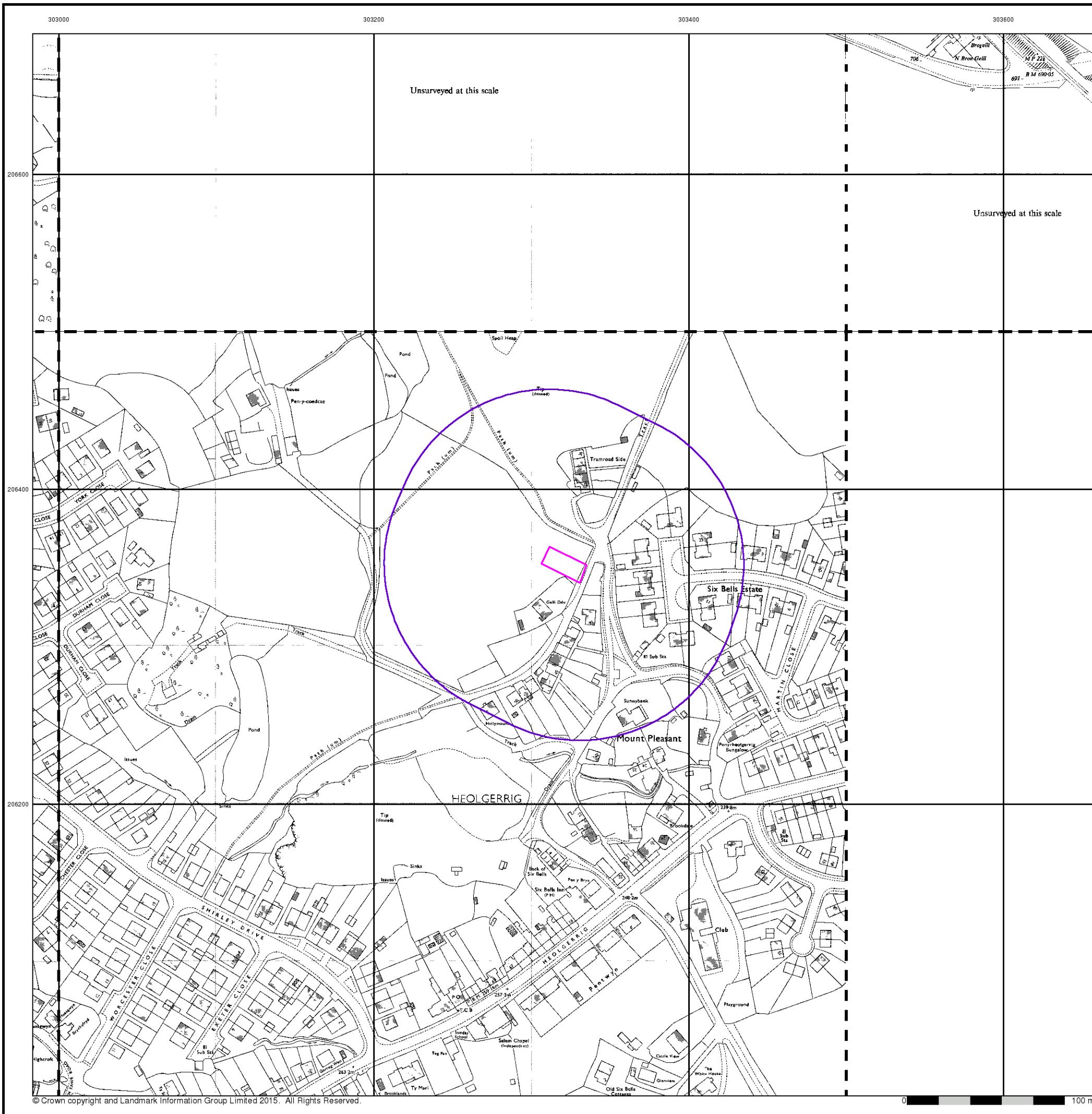
Order Number: 88619056_1_1
 Customer Ref: 13741
 National Grid Reference: 303320, 206350
 Slice: A
 Site Area (Ha): 0.04
 Search Buffer (m): 100

Site Details

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terrafirma

Ordnance Survey Plan

Published 1956 - 1982

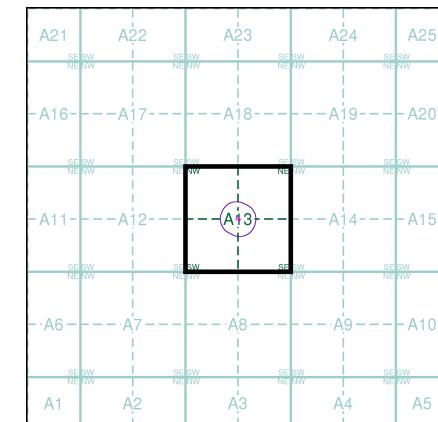
Source map scale - 1:1,250

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

Map Name(s) and Date(s)

| | | |
|-----------------------------|-----------------------------|-----------------------------|
| SO0206NE 1982 1:1,250 | SO0306NW 1956 1:1,250 | SO0306NE 1956 1:1,250 |
| SO0206SE 1974 1:1,250 | SO0306SW 1975 1:1,250 | SO0306SE 1958 1:1,250 |

Historical Map - Segment A13



Order Details

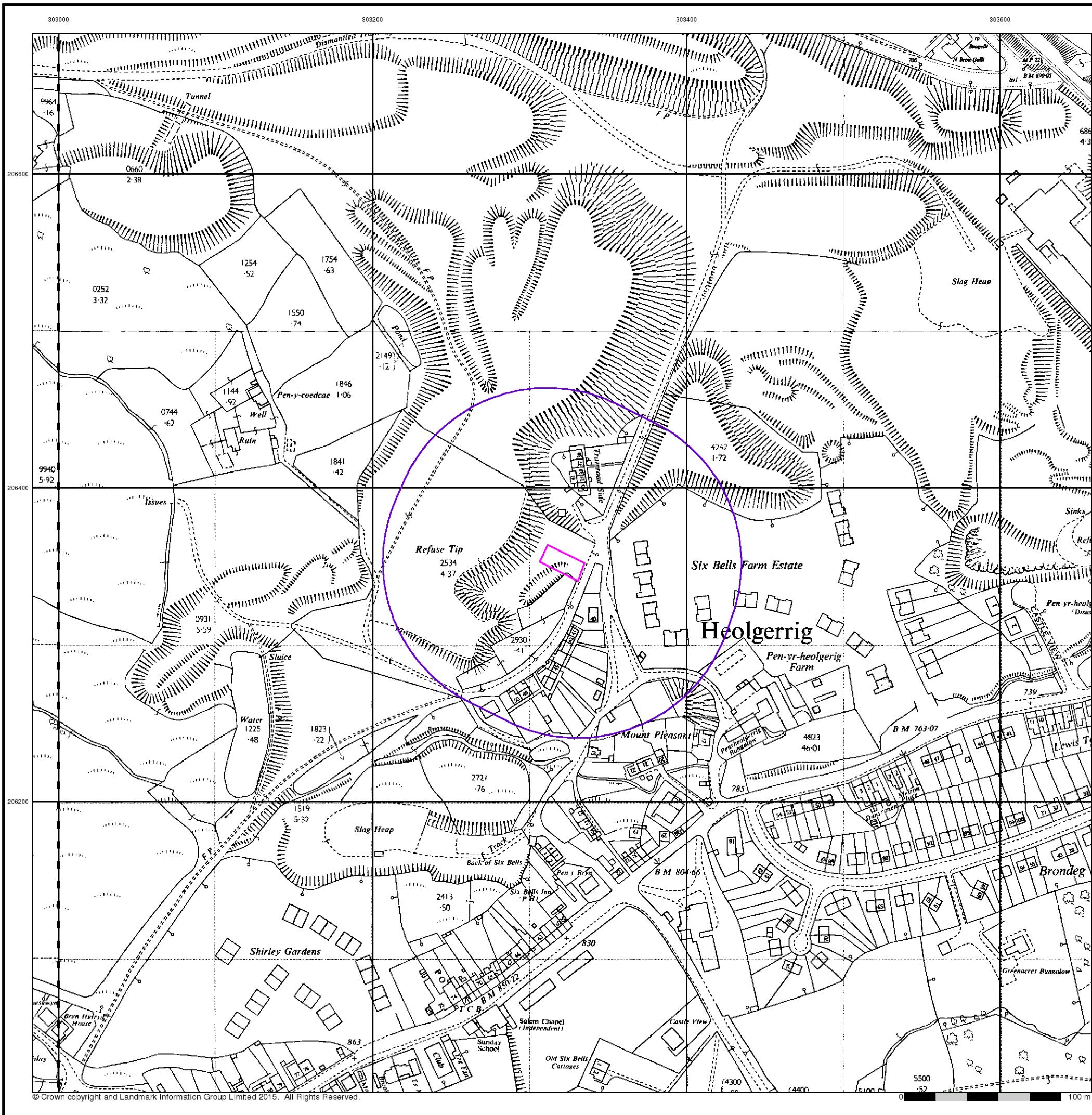
Order Number: 88619056_1_1
Customer Ref: 13741
National Grid Reference: 303320, 206350
Slice: A
Site Area (Ha): 0.04
Search Buffer (m): 100

Site Details

Site Details



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Ordnance Survey Plan

Published 1964

Source map scale - 1:2,500

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

Map Name(s) and Date(s)

| | |
|---------------------------|---------------------------|
| SO0206 1964 1:2,500 | SO0306 1964 1:2,500 |
|---------------------------|---------------------------|

Historical Map - Segment A13

| | | | | |
|------|------|------|------|------|
| A21 | A22 | A23 | A24 | A25 |
| -A16 | -A17 | -A18 | -A19 | -A20 |
| -A11 | -A12 | -A13 | -A14 | -A15 |
| -A6 | -A7 | -A8 | -A9 | -A10 |
| A1 | A2 | A3 | A4 | A5 |



Order Details

Order Number: 88619056_1_1
 Customer Ref: 13741
 National Grid Reference: 303320, 206350
 Slice: A
 Site Area (Ha): 0.04
 Search Buffer (m): 100

Site Details

Site at 303250, 206350



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Ordnance Survey Plan

Published 1975

Source map scale - 1:1,250

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

Map Name(s) and Date(s)

| | |
|----------|----------|
| SO0306NW | SO0306NE |
| 1975 | 1975 |
| 1:1,250 | 1:1,250 |
| | |
| SO0306SE | |
| 1975 | |
| 1:1,250 | |
| | |

Historical Map - Segment A13

| A21 | A22 | A23 | A24 | A25 |
|------------|------------|------------|------------|------------|
| SESW NW | SESW NW | SESW NW | SESW NW | SESW NW |
| - A16 - | - A17 - | - A18 - | - A19 - | - A20 - |
| SESW NW | SESW NW | SESW NW | SESW NW | SESW NW |
| - A11 - | - A12 - | - A13 - | - A14 - | - A15 - |
| SESW NW | SESW NW | SESW NW | SESW NW | SESW NW |
| - A6 - | - A7 - | - A8 - | - A9 - | - A10 - |
| SESW NW | SESW NW | SESW NW | SESW NW | SESW NW |
| A1 | A2 | A3 | A4 | A5 |

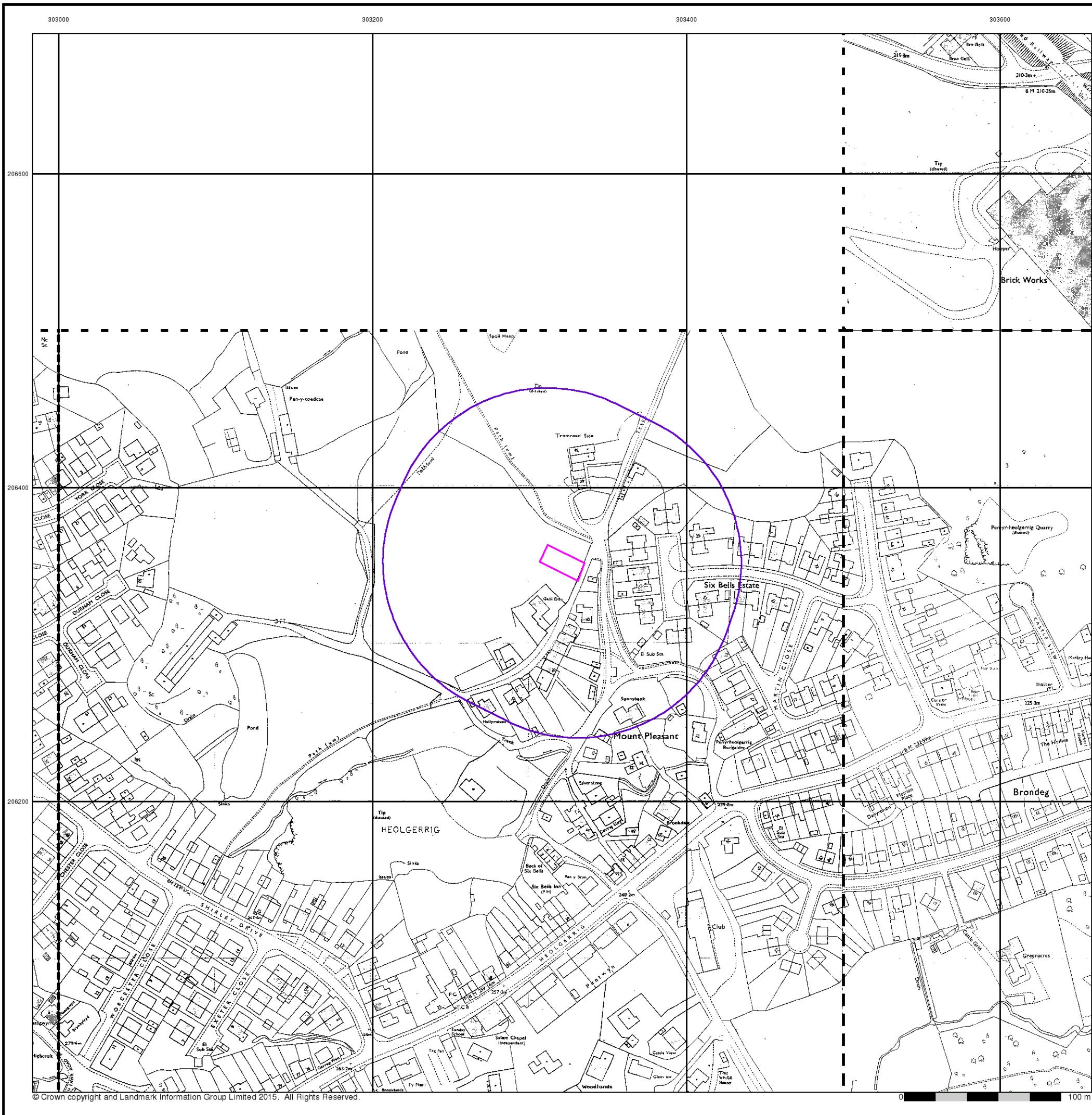


Order Details

Order Number: 88619056_1_1
 Customer Ref: 13741
 National Grid Reference: 303320, 206350
 Slice: A
 Site Area (Ha): 0.04
 Search Buffer (m): 100

Site Details

Site at 303250, 206350



Additional SIMs

Published 1984 - 1990

Source map scale - 1:1,250

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

Map Name(s) and Date(s)

| | | |
|----------|------|---------|
| SO0306NE | 1984 | 1:1,250 |
| SO0206SE | 1990 | 1:1,250 |
| SO0306SW | 1990 | 1:1,250 |
| SO0306SE | 1990 | 1:1,250 |

Historical Map - Segment A13

| A21 | A22 | A23 | A24 | A25 |
|-------------|-------------|-------------|-------------|-------------|
| SESW NEW | SESW NEW | SESW NEW | SESW NEW | SESW NEW |
| - A16 - | - A17 - | - A18 - | - A19 - | - A20 - |
| SESW NEW | SESW NEW | SESW NEW | SESW NEW | SESW NEW |
| - A11 - | - A12 - | - A13 - | - A14 - | - A15 - |
| SESW NEW | SESW NEW | SESW NEW | SESW NEW | SESW NEW |
| - A6 - | - A7 - | - A8 - | - A9 - | - A10 - |
| SESW NEW | SESW NEW | SESW NEW | SESW NEW | SESW NEW |
| A1 | A2 | A3 | A4 | A5 |



Order Details

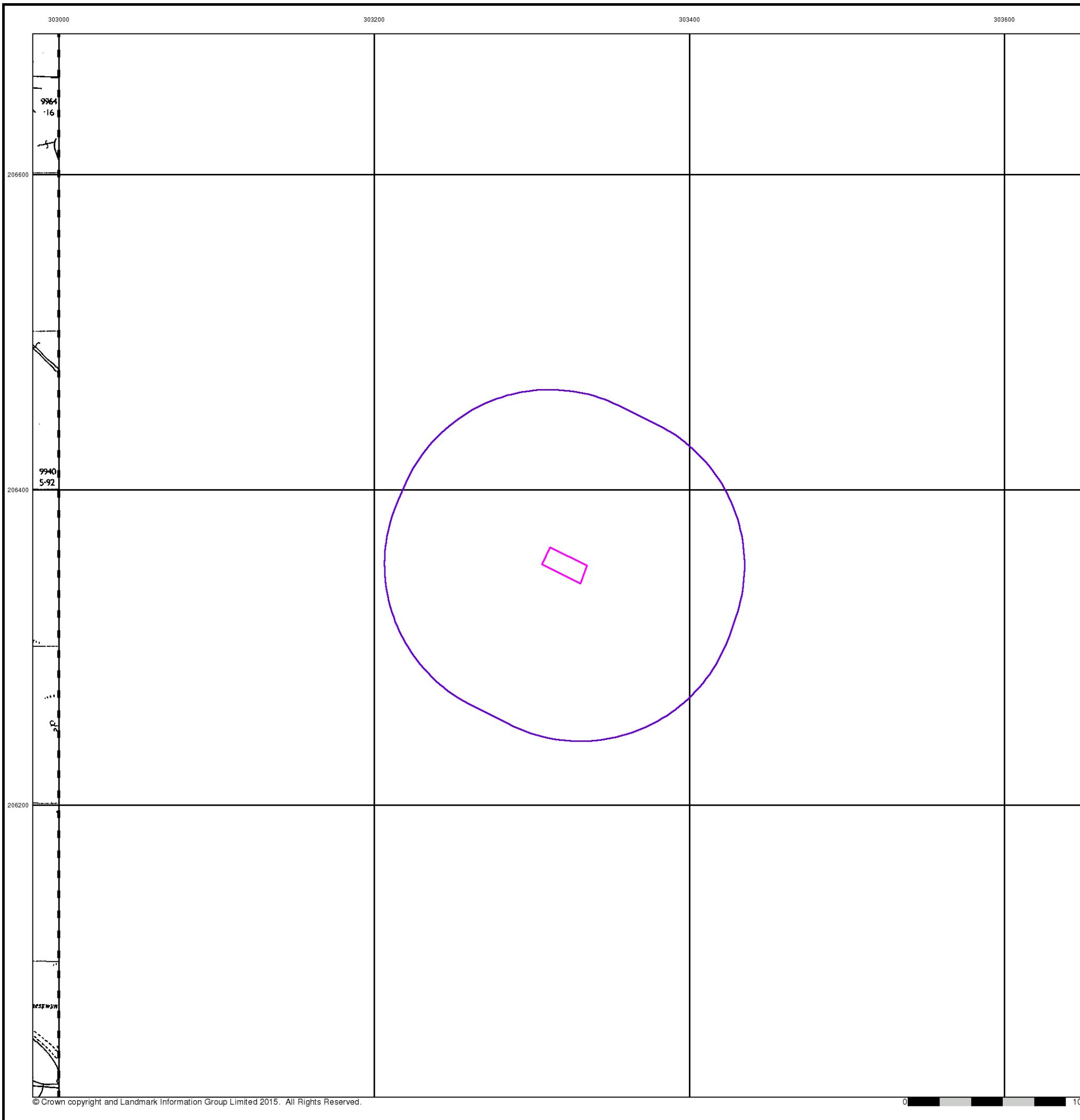
Order Number: 88619056_1_1
 Customer Ref: 13741
 National Grid Reference: 303320, 206350
 Slice: A
 Site Area (Ha): 0.04
 Search Buffer (m): 100

Site Details

Site at 303250, 206350



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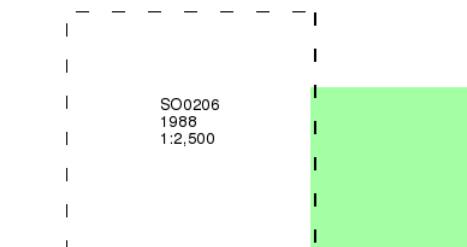
Additional SIMs

Published 1988

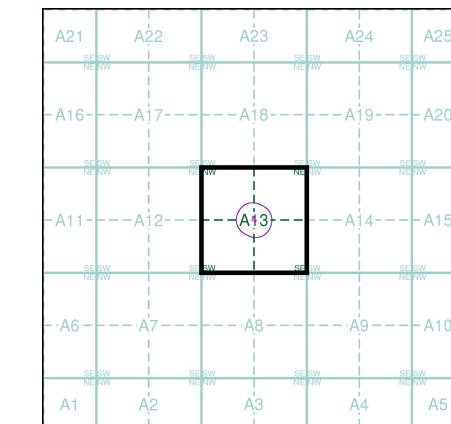
Source map scale - 1:2,500

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

Map Name(s) and Date(s)



Historical Map - Segment A13



Order Details

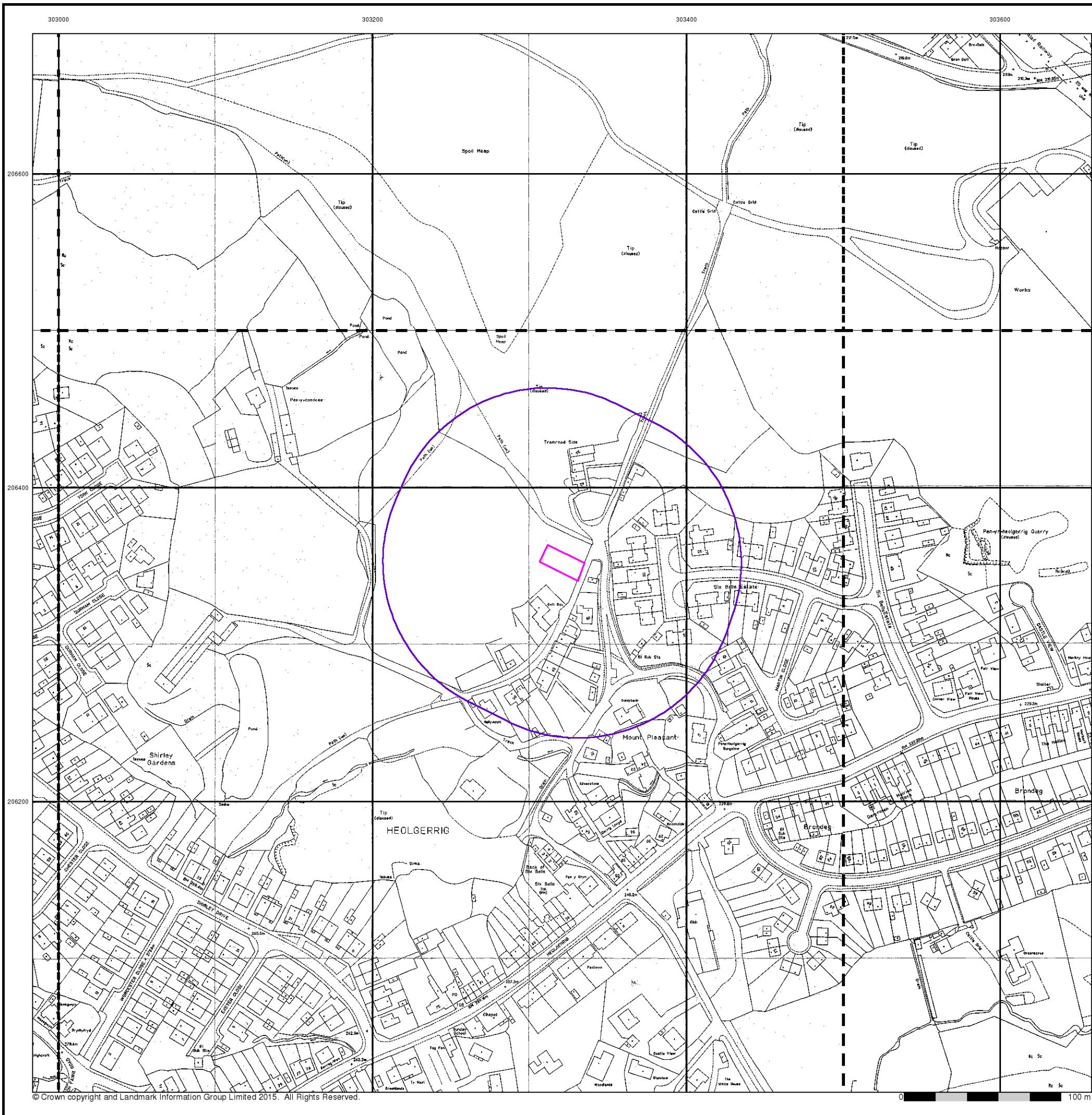
Order Number: 88619056_1_1
Customer Ref: 13741
National Grid Reference: 303320, 206350
Slice: A
Site Area (Ha): 0.04
Search Buffer (m): 100

Site Details

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Large-Scale National Grid Data

Published 1993

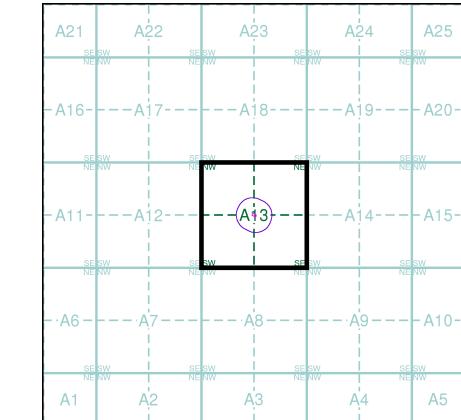
Source map scale - 1:1,250

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

Map Name(s) and Date(s)

| | | |
|-----------------------------|-----------------------------|-----------------------------|
| SO0206NE 1993 1:1,250 | SO0306NW 1993 1:1,250 | SO0306NE 1993 1:1,250 |
| SO0206SE 1993 1:1,250 | SO0306SW 1993 1:1,250 | SO0306SE 1993 1:1,250 |

Historical Map - Segment A13



Order Details

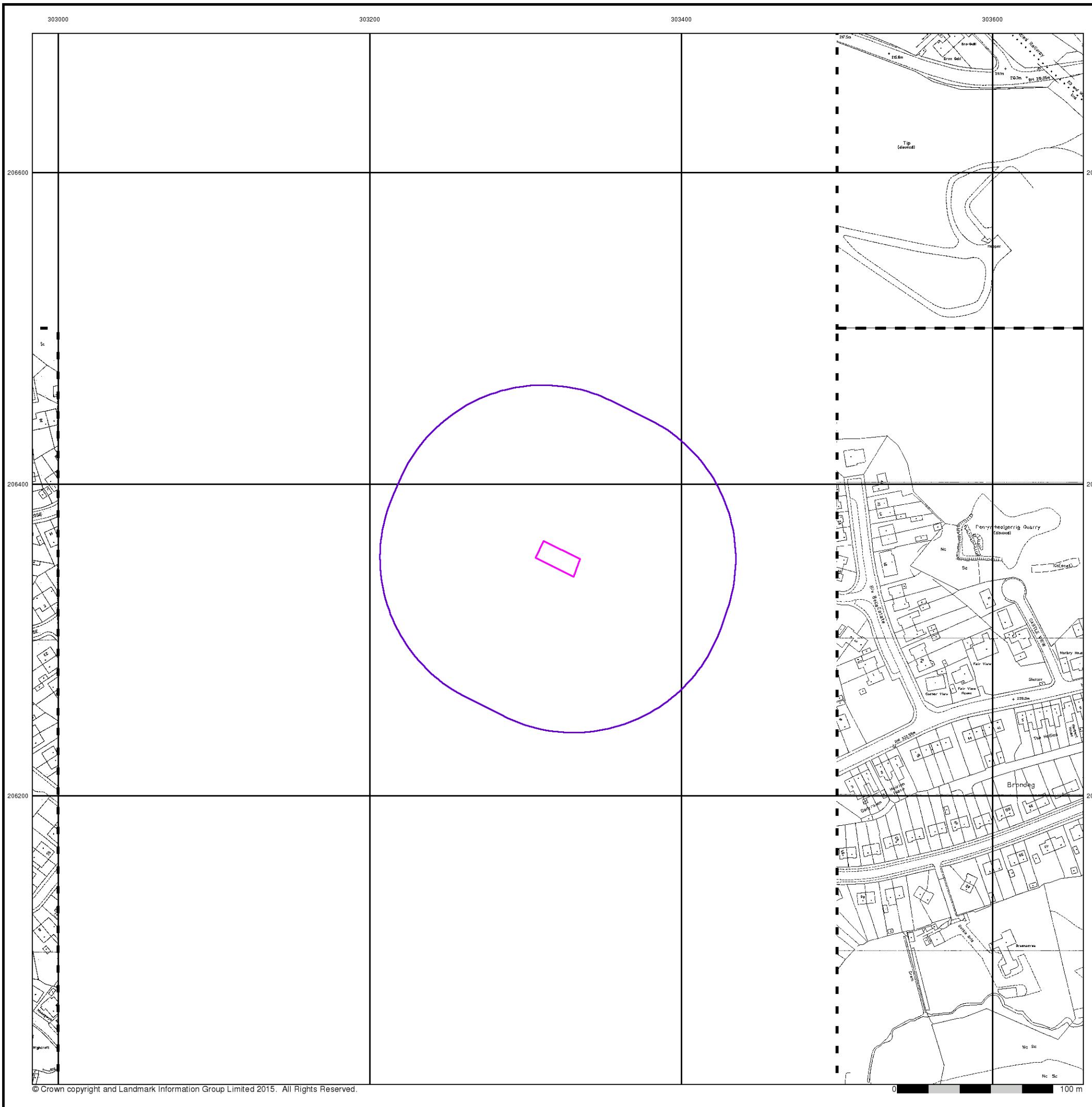
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 Customer Ref: 13741
 National Grid Reference: 303320, 206350
 Slice: A
 Site Area (Ha): 0.04
 Search Buffer (m): 100

Site Details

Site at 303250, 206350



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Large-Scale National Grid Data

Published 1994 - 1995

Source map scale - 1:1,250

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

Map Name(s) and Date(s)

| | | |
|----------|------|---------|
| SO0306NE | 1995 | 1:1,250 |
| SO0206SE | 1994 | 1:1,250 |
| SO0306SE | 1995 | 1:1,250 |

Historical Map - Segment A13

| A21 | A22 | A23 | A24 | A25 |
|-----|-----|-----|-----|-----|
| A16 | A17 | A18 | A19 | A20 |
| A11 | A12 | A13 | A14 | A15 |
| A6 | A7 | A8 | A9 | A10 |
| A1 | A2 | A3 | A4 | A5 |



Order Details

Order Number: 88619056_1_1
 Customer Ref: 13741
 National Grid Reference: 303320, 206350
 Slice: A
 Site Area (Ha): 0.04
 Search Buffer (m): 100

Site Details

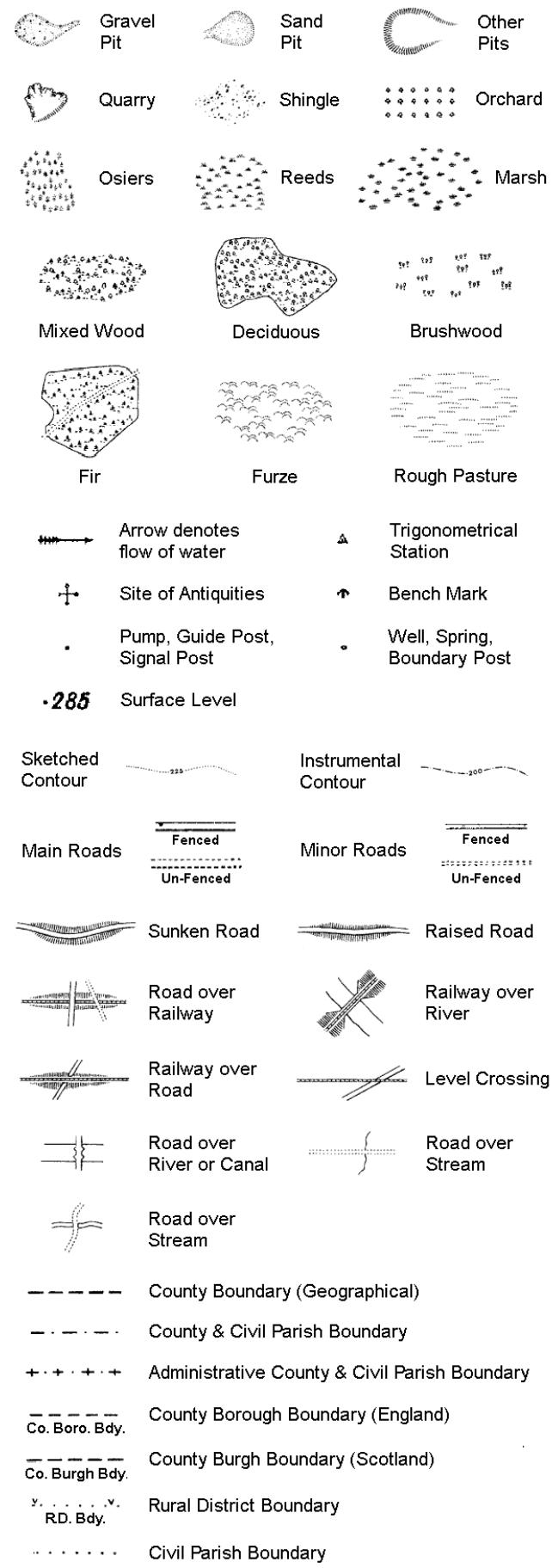
Site at 303250, 206350



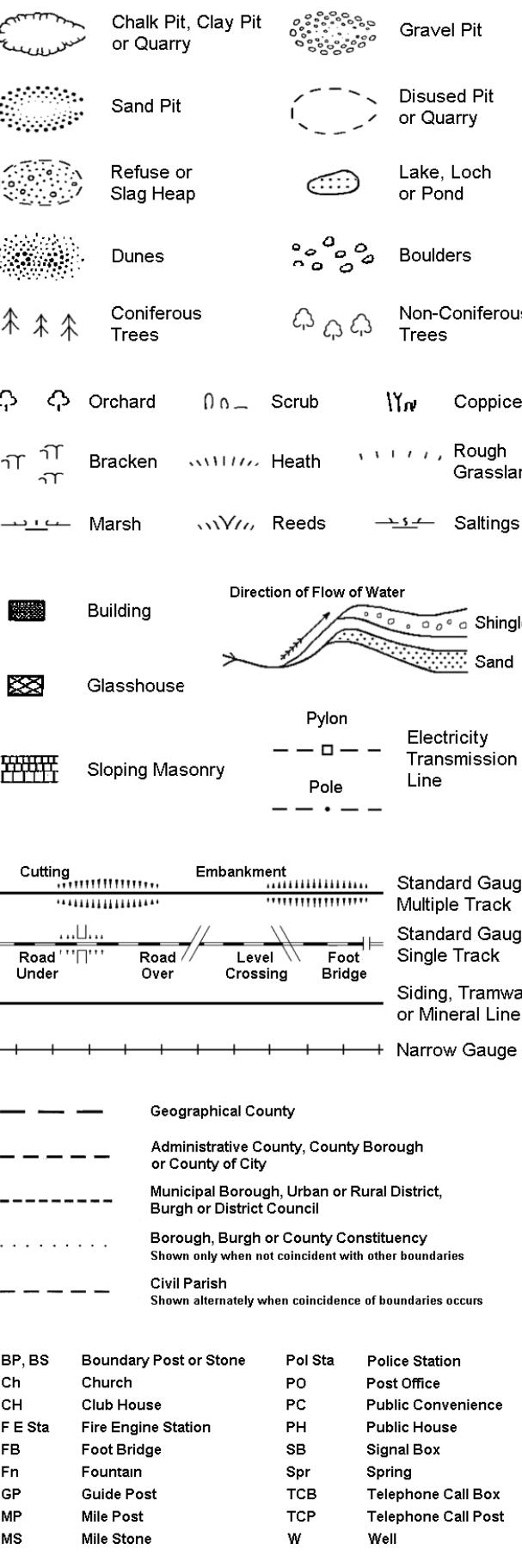
Tel: 0844 844 9952
 Fax: 0844 844 9951
 Web: www.envirocheck.co.uk

Historical Mapping Legends

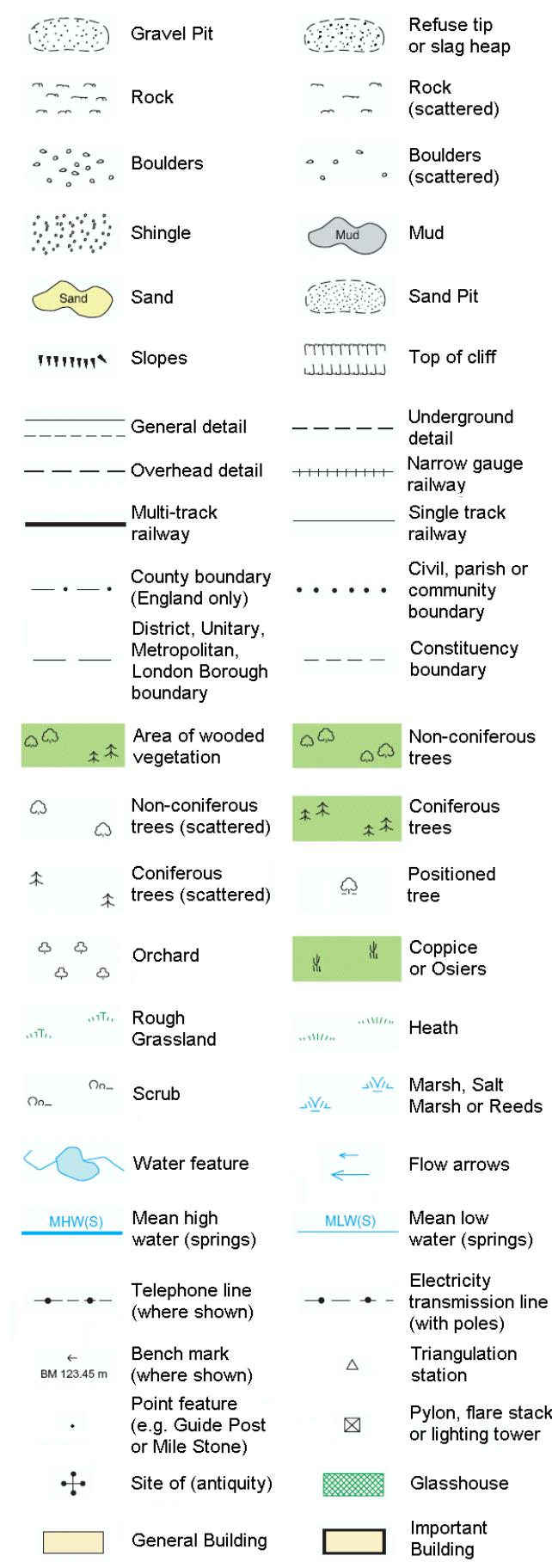
Ordnance Survey County Series 1:10,560



Ordnance Survey Plan 1:10,000



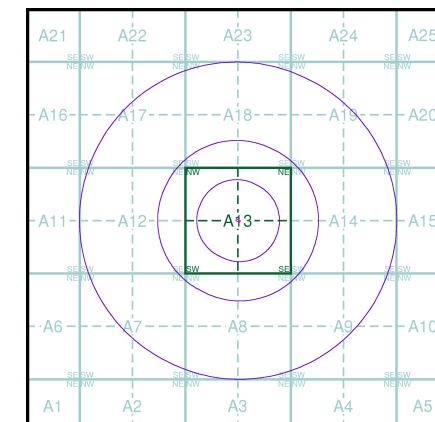
1:10,000 Raster Mapping



Historical Mapping & Photography included:

| Mapping Type | Scale | Date | Pg |
|-------------------------------|----------|-------------|----|
| Brecknockshire | 1:10,560 | 1884 | 2 |
| Glamorganshire | 1:10,560 | 1885 | 3 |
| Glamorganshire | 1:10,560 | 1901 | 4 |
| Brecknockshire | 1:10,560 | 1905 | 5 |
| Brecknockshire | 1:10,560 | 1921 - 1922 | 6 |
| Brecknockshire | 1:10,560 | 1938 - 1951 | 7 |
| Historical Aerial Photography | 1:10,560 | 1945 | 8 |
| Brecknockshire | 1:10,560 | 1951 | 9 |
| Ordnance Survey Plan | 1:10,000 | 1965 | 10 |
| Ordnance Survey Plan | 1:10,000 | 1979 | 11 |
| Ordnance Survey Plan | 1:10,000 | 1992 | 12 |
| 10K Raster Mapping | 1:10,000 | 1999 | 13 |
| Historical Aerial Photography | 1:10,000 | 2000 | 14 |
| 10K Raster Mapping | 1:10,000 | 2006 | 15 |
| VectorMap Local | 1:10,000 | 2016 | 16 |

Historical Map - Slice A



Order Details

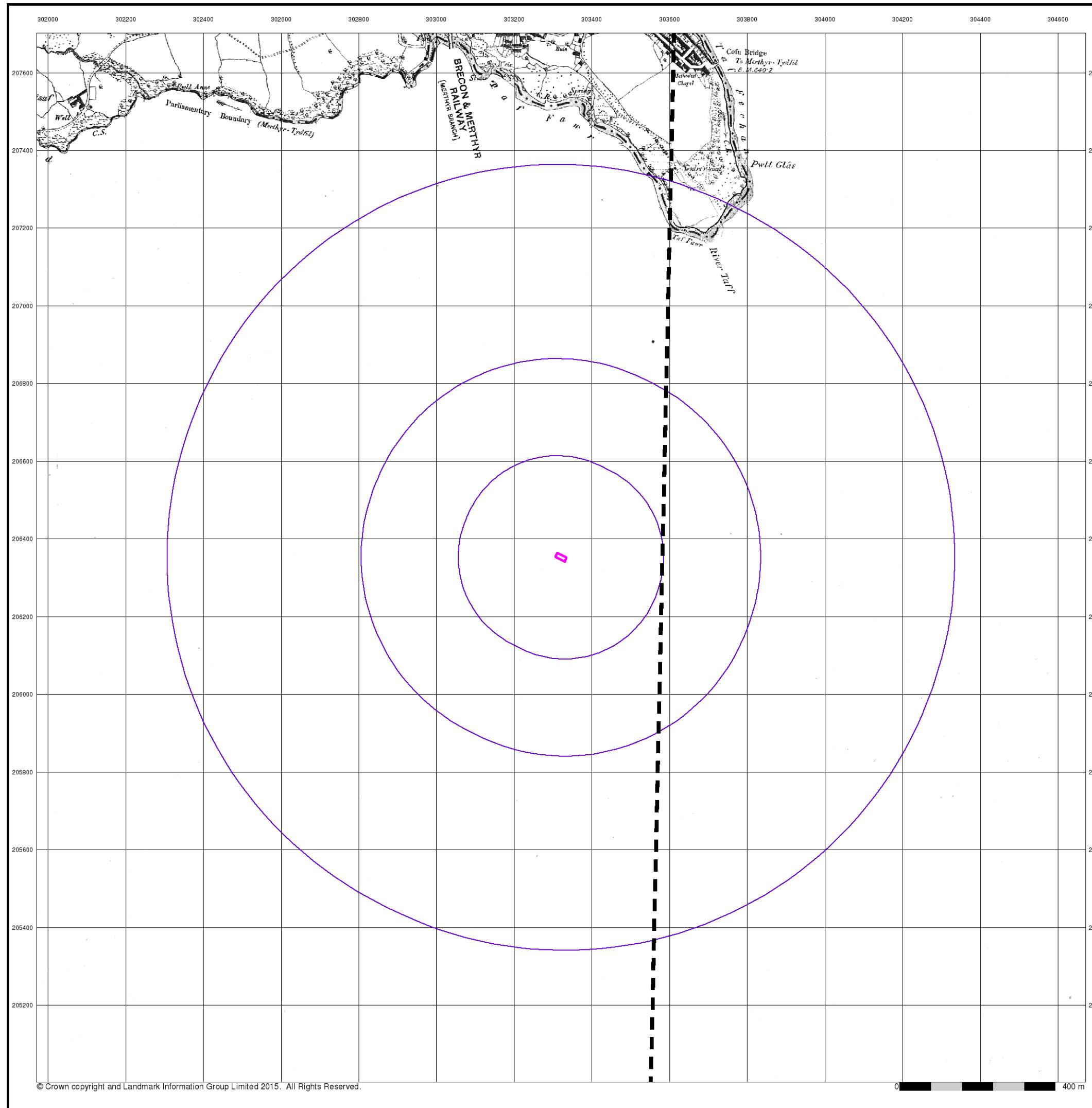
Order Number: 88619056_1_1
 Customer Ref: 13741
 National Grid Reference: 303320, 206350
 Slice: A
 Site Area (Ha): 0.04
 Search Buffer (m): 1000

Site Details

Site at 303250, 206350



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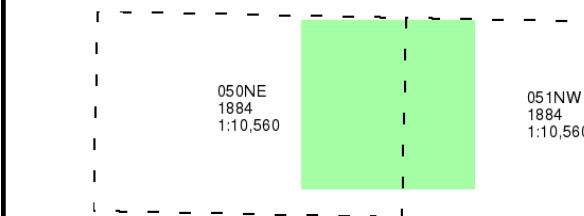
Brecknockshire

Published 1884

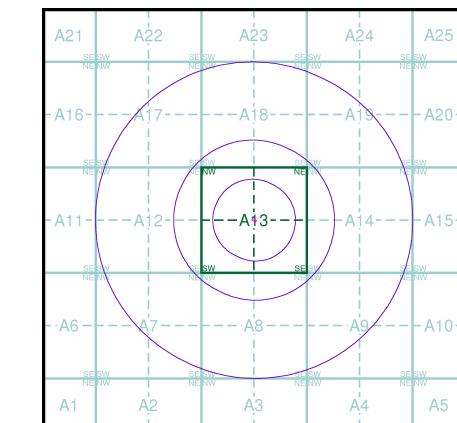
Source map scale - 1:10,560

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

Map Name(s) and Date(s)



Historical Map - Slice A



Order Details

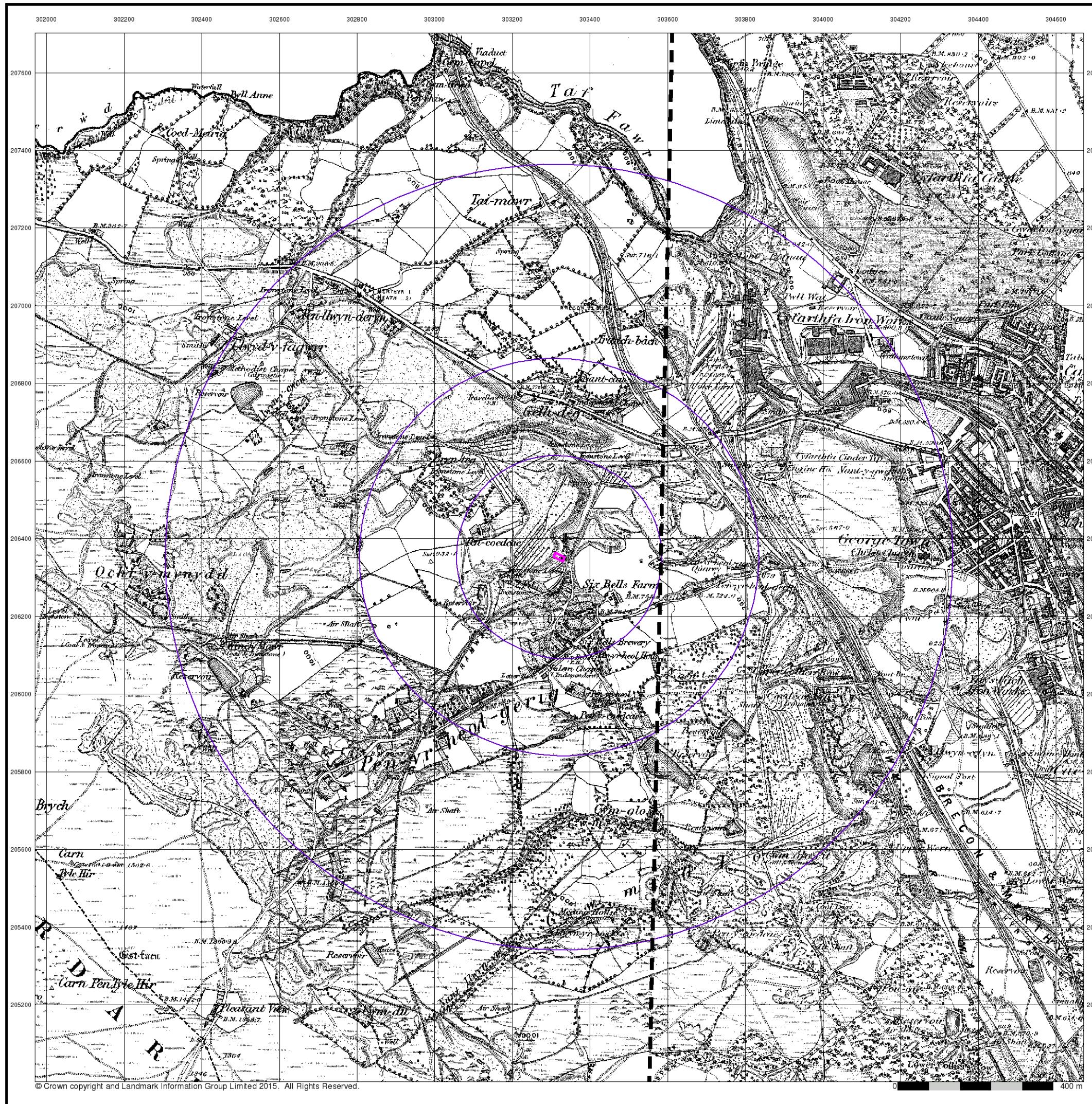
Order Number: 88619056_1_1
 Customer Ref: 13741
 National Grid Reference: 303320, 206350
 Slice: A
 Site Area (Ha): 0.04
 Search Buffer (m): 1000

Site Details

Site at 303250, 206350



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Glamorganshire

Published 1885

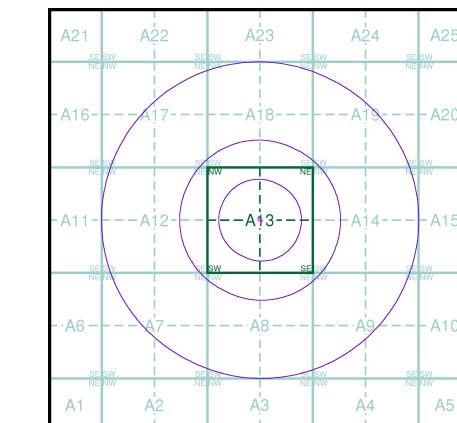
Source map scale - 1:10,560

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)

| | | |
|-------|------|----------|
| 01100 | 1885 | 01200 |
| | | 1885 |
| | | 1:10,560 |
| | | |
| | | |

Historical Map - Slice A

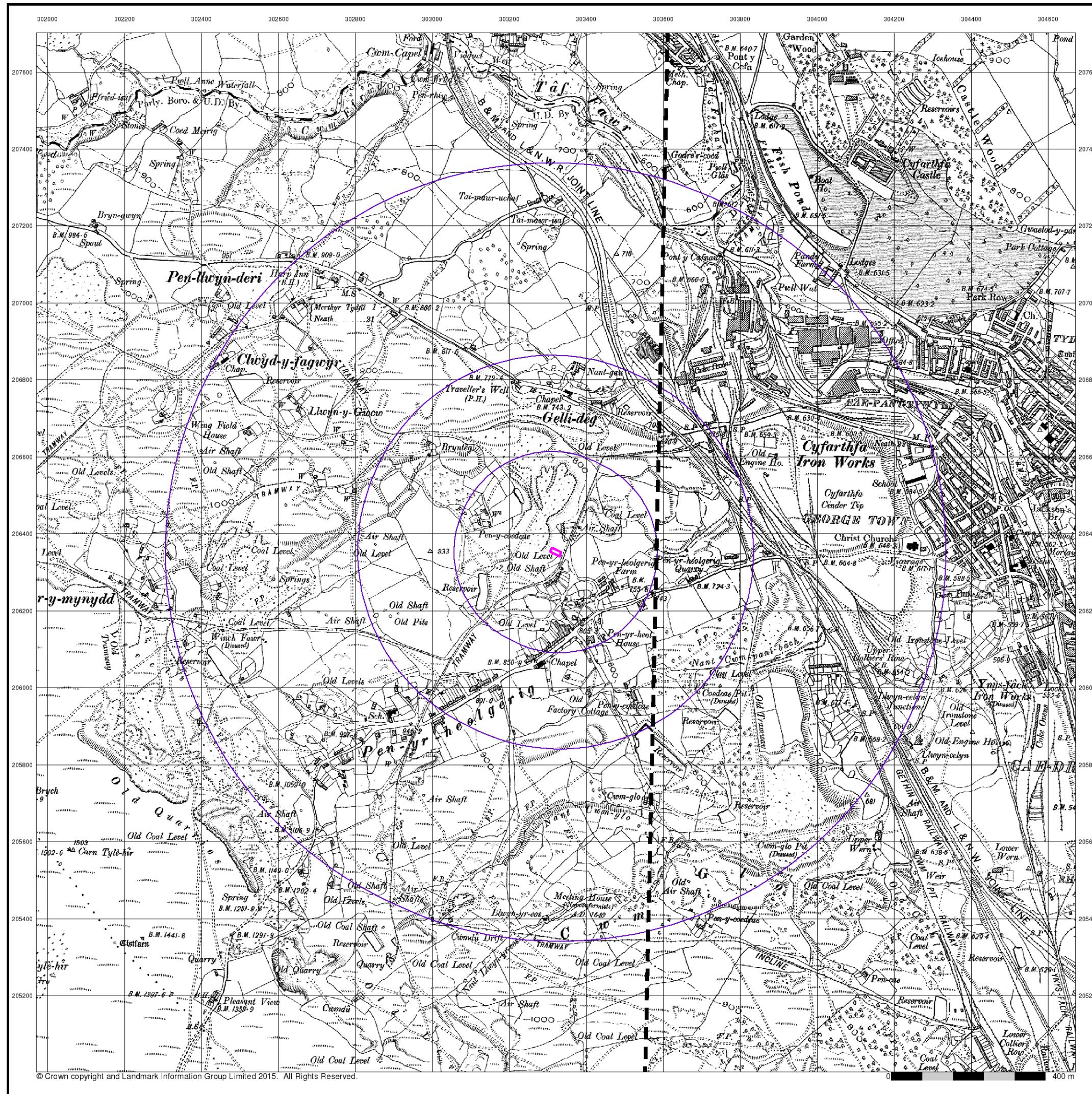


Order Details

Order Number: 88619056_1_1
 Customer Ref: 13741
 National Grid Reference: 303320, 206350
 Slice: A
 Site Area (Ha): 0.04
 Search Buffer (m): 1000

Site Details

Site at 303250, 206350



Glamorganshire

Published 1901

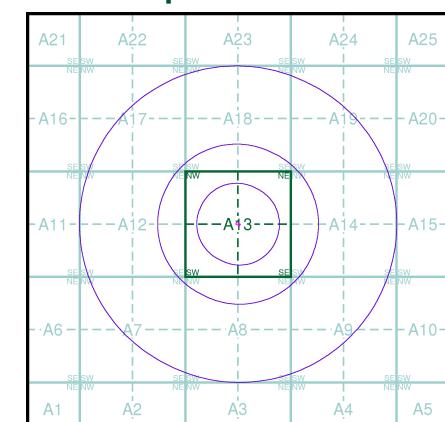
Source map scale - 1:10,560

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)

| | |
|---------------------------|---------------------------|
| 011NE 1901 1:10,560 | 012NW 1901 1:10,560 |
|---------------------------|---------------------------|

Historical Map - Slice A

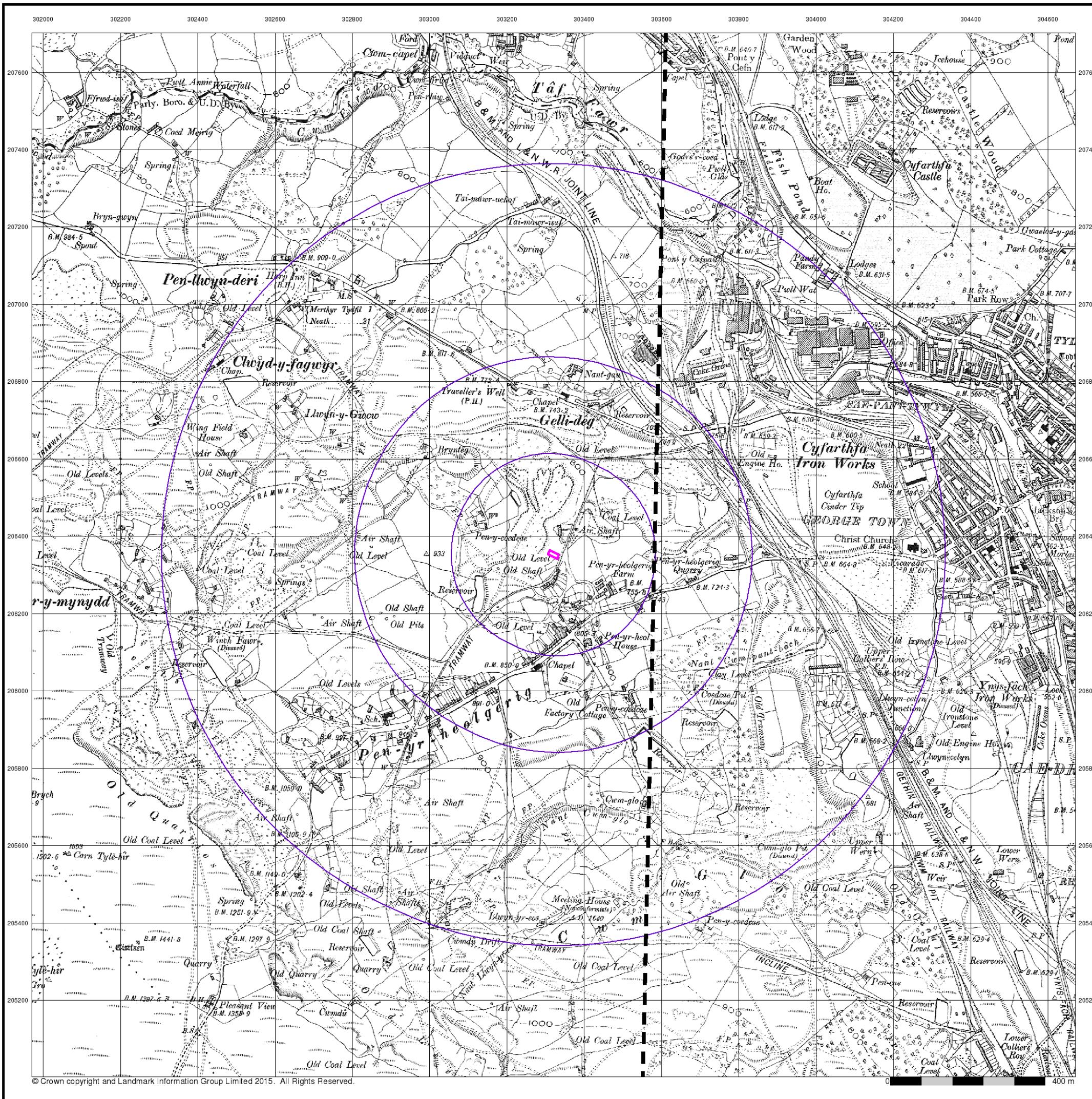


Order Details

Order Number: 88619056_1_1
 Customer Ref: 13741
 National Grid Reference: 303320, 206350
 Slice: A
 Site Area (Ha): 0.04
 Search Buffer (m): 1000

Site Details

Site at 303250, 206350



Brecknockshire

Published 1905

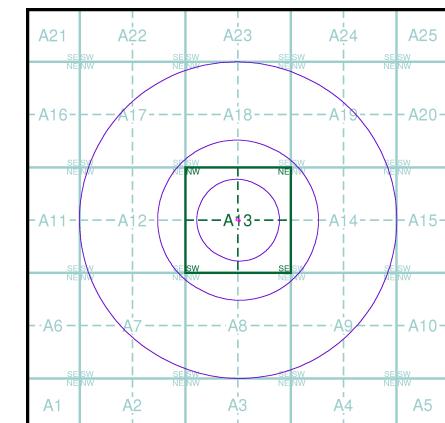
Source map scale - 1:10,560

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)

| | |
|---------------------------|---------------------------|
| 051NW 1905 1:10,560 | 051NW 1905 1:10,560 |
|---------------------------|---------------------------|

Historical Map - Slice A



Order Details

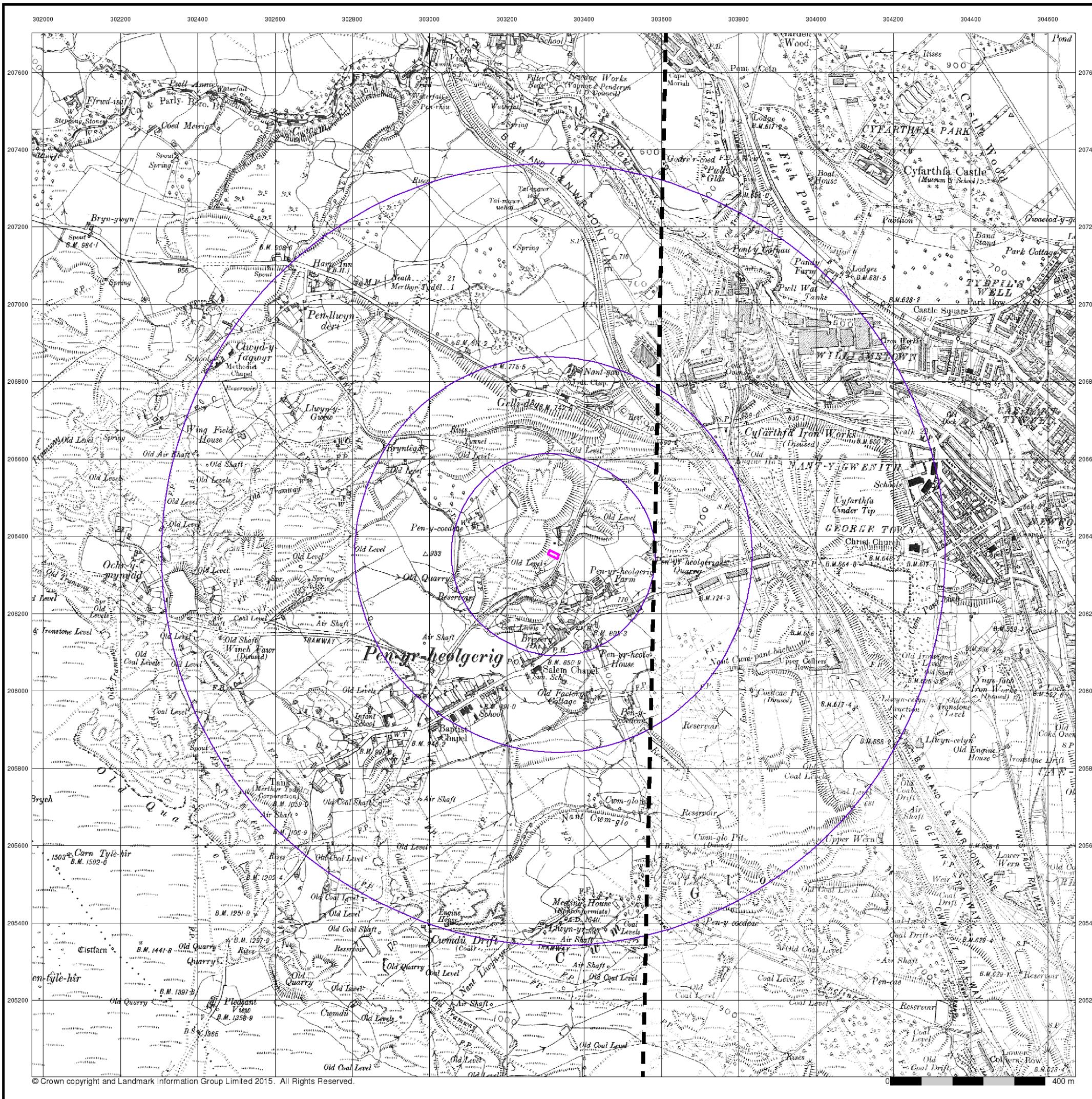
Order Number: 88619056_1_1
 Customer Ref: 13741
 National Grid Reference: 303320, 206350
 Slice: A
 Site Area (Ha): 0.04
 Search Buffer (m): 1000

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Brecknockshire

Published 1921 - 1922

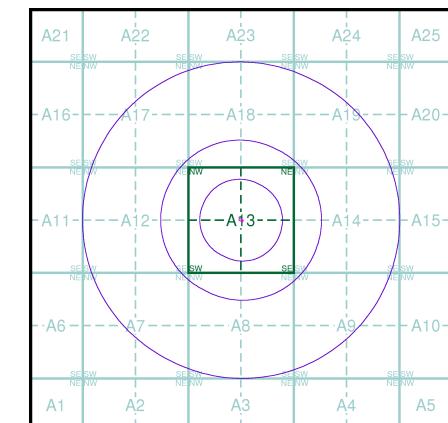
Source map scale - 1:10,560

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)

| | |
|---------------------------|---------------------------|
| 050NE 1921 1:10,560 | 051NW 1922 1:10,560 |
|---------------------------|---------------------------|

Historical Map - Slice A



Order Details

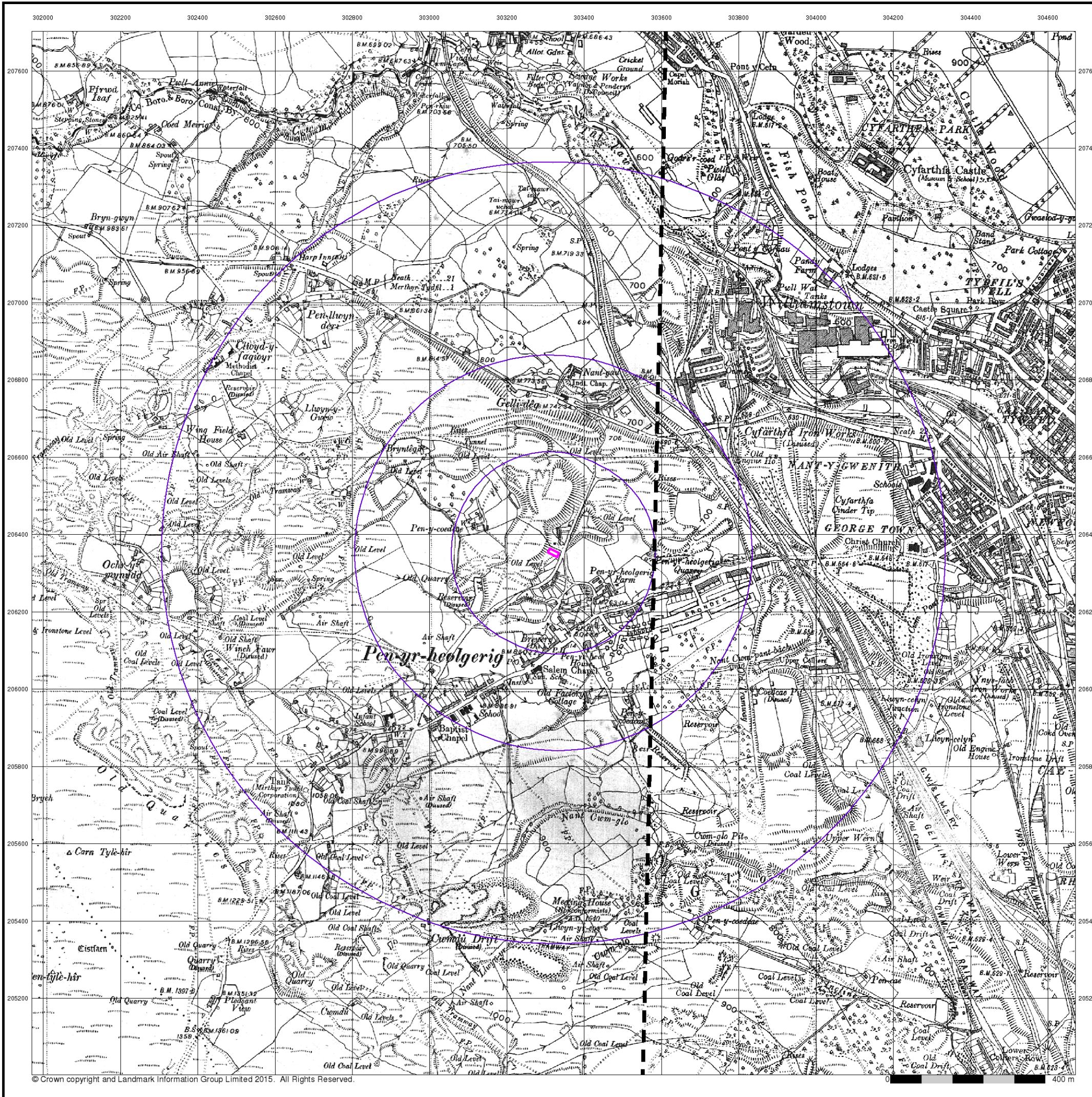
Order Number: 88619056_1_1
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 Slice: A
 Site Area (Ha): 0.04
 Search Buffer (m): 1000

Site Details

Site at 303250, 206350



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Brecknockshire

Published 1938 - 1951

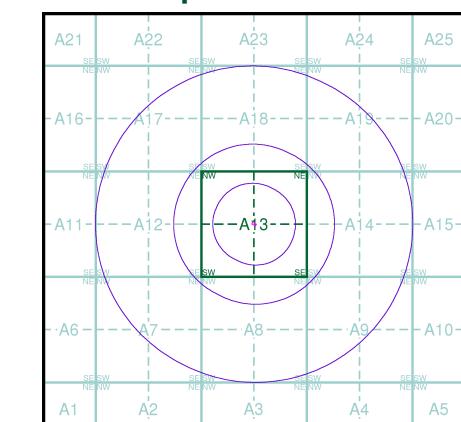
Source map scale - 1:10,560

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

Map Name(s) and Date(s)

| | | |
|-------|------|---------------------------|
| 050NE | 1951 | 1:10,560 |
| | | 051NW 1938 1:10,560 |

Historical Map - Slice A



Order Details

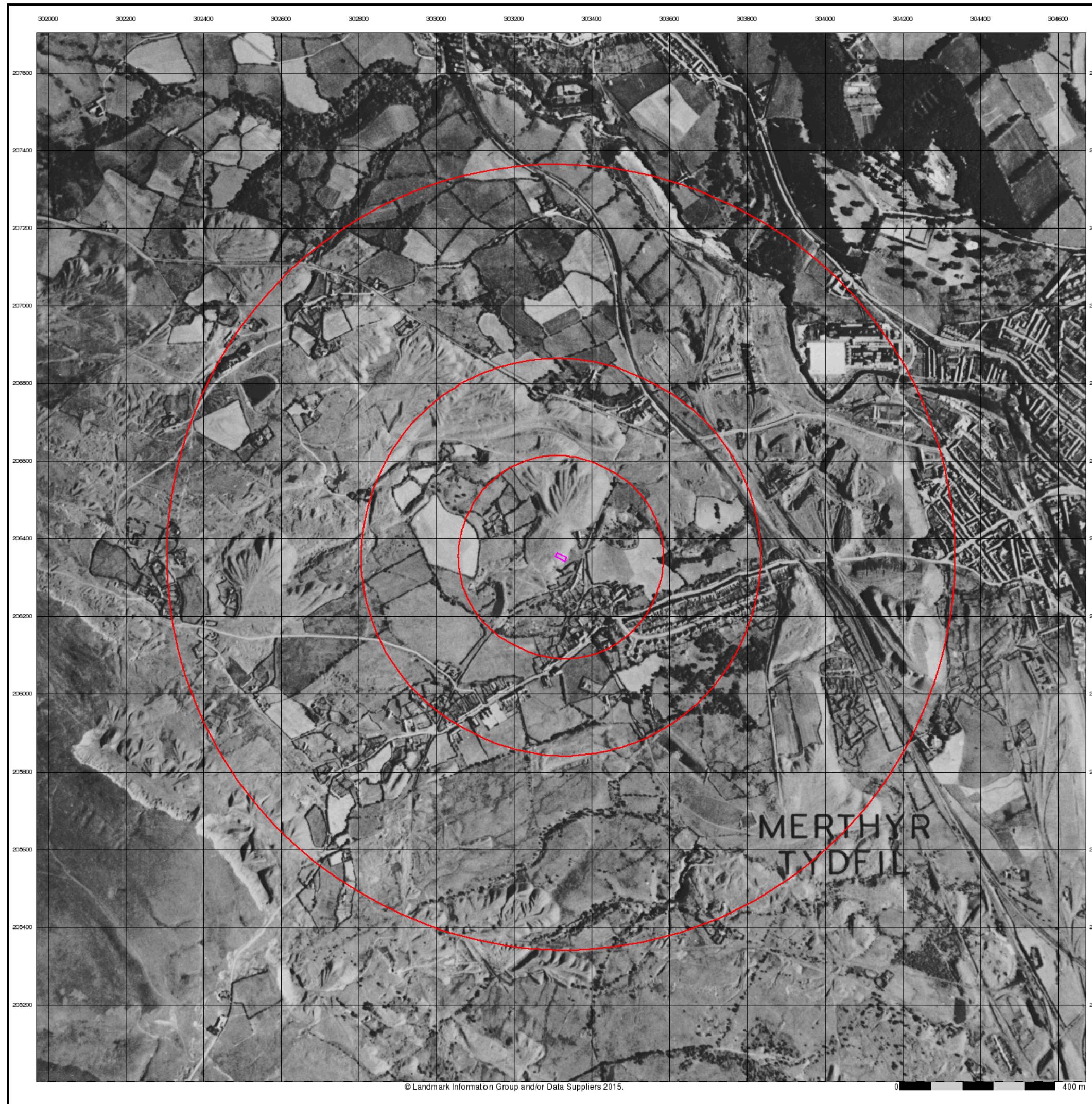
Order Number: 88619056_1_1
 Customer Ref: 13741
 National Grid Reference: 303320, 206350
 Slice: A
 Site Area (Ha): 0.04
 Search Buffer (m): 1000

Site Details

Site at 303250, 206350



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



Historical Aerial Photography

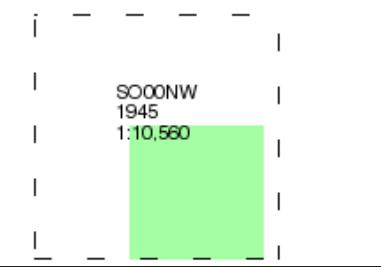
Published 1945

Source map scale - 1:10,560

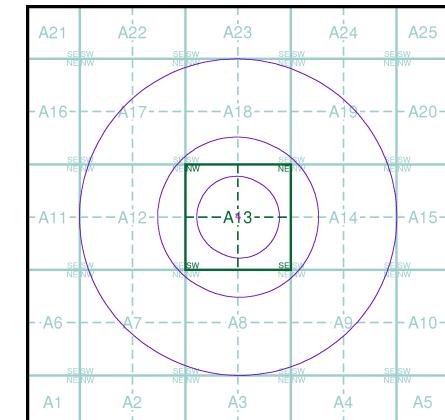
The Historical Aerial Photos were produced by the Ordnance Survey at a scale of 1:1,250 and 1:10,560 from Air Force photography. They were produced between 1944 and 1951 as an interim measure, pending preparation of conventional mapping, due to post war resource shortages. New security measures in the 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.

© Landmark Information Group and/or Data Suppliers 2010.

Map Name(s) and Date(s)



Historical Aerial Photography - Slice A



BRITISH
LIBRARY

Order Details

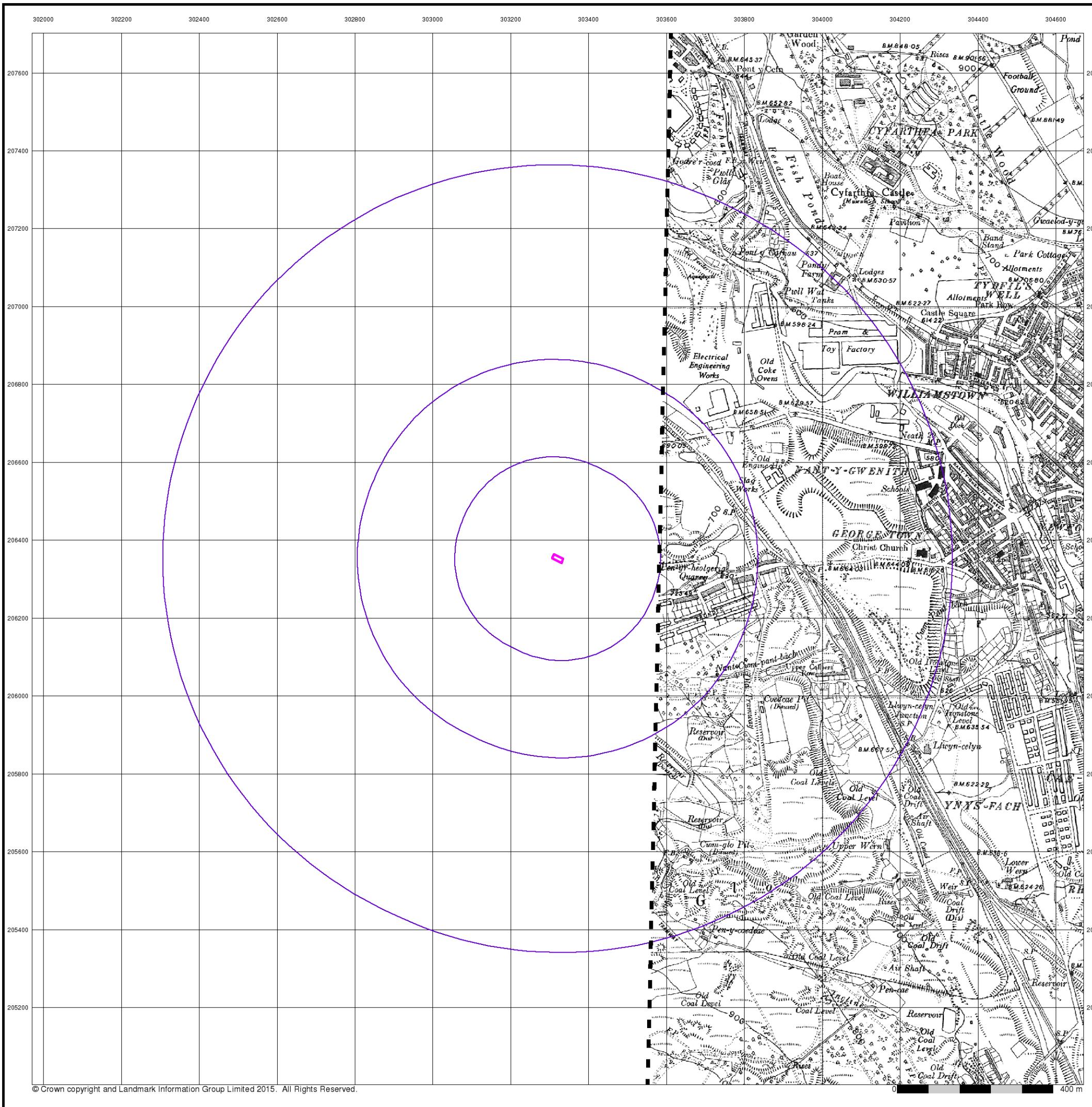
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Customer Ref: 13741
National Grid Reference: 303320, 206350
Slice: A
Site Area (Ha): 0.04
Search Buffer (m): 1000

Site Details

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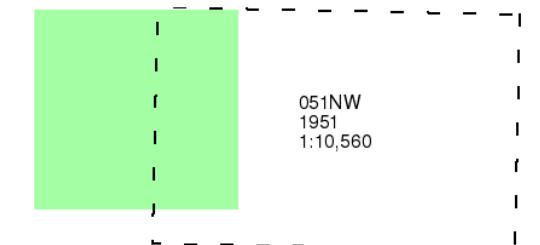
Brecknockshire

Published 1951

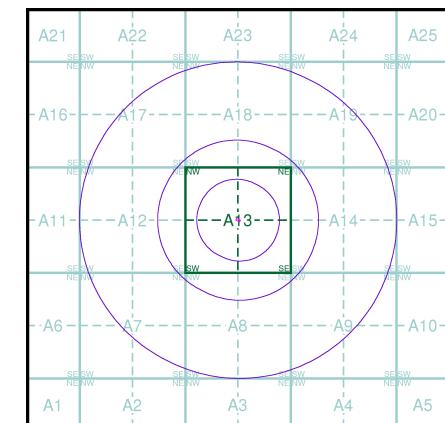
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The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas; these maps were used to update the 1:10,560 maps.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

Map Name(s) and Date(s)



Historical Map - Slice A



Order Details

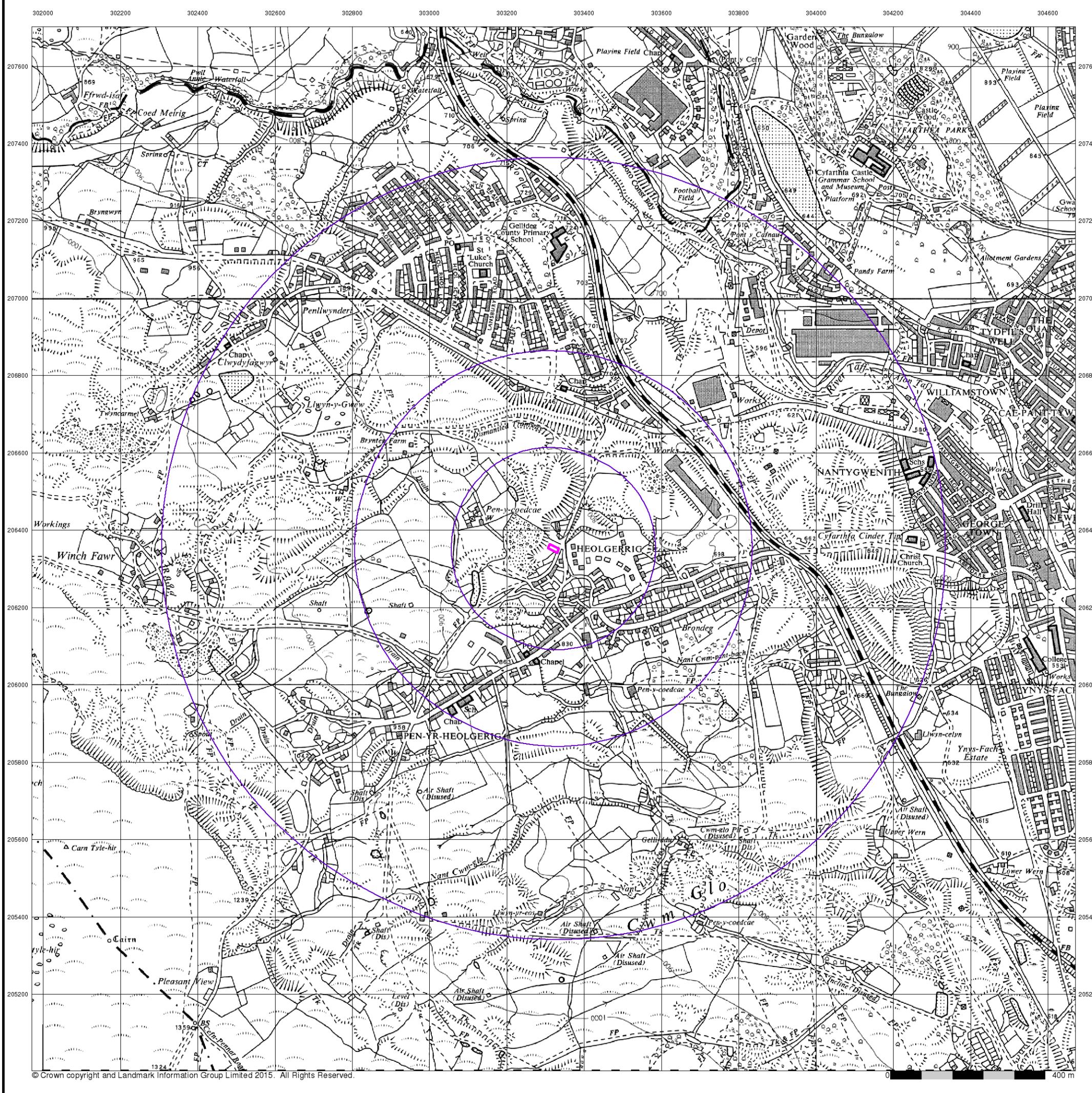
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 Site Area (Ha): 0.04
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Site Details

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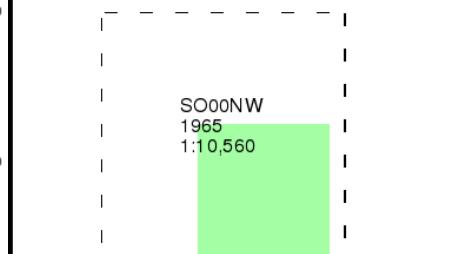
Ordnance Survey Plan

Published 1965

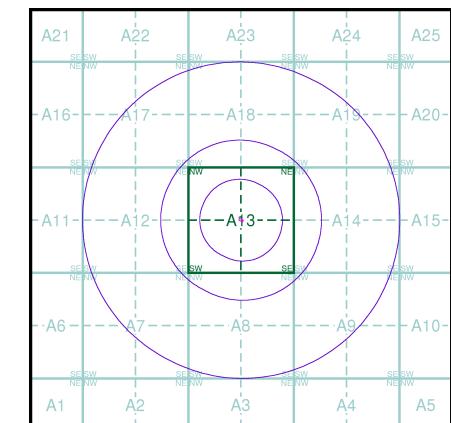
Source map scale - 1:10,000

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Map Name(s) and Date(s)



Historical Map - Slice A



Order Details

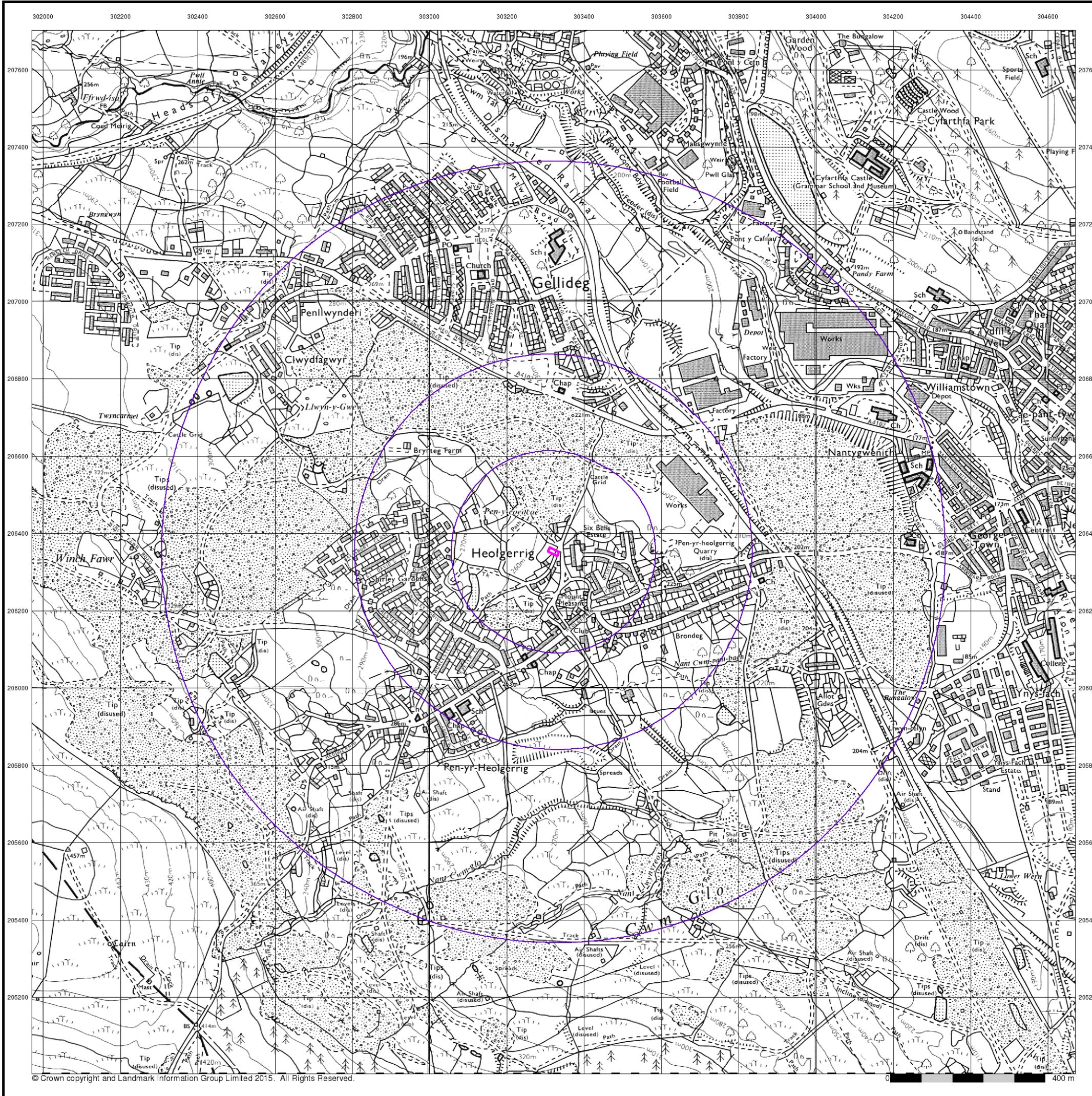
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Search Buffer (m): 1000

Site Details

Site at 303250, 206350



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Ordnance Survey Plan

Published 1979

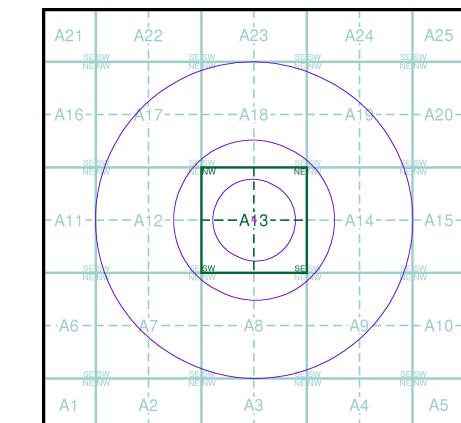
Source map scale - 1:10,000

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)

SO00NW
1979
1:10,000

Historical Map - Slice A



Order Details

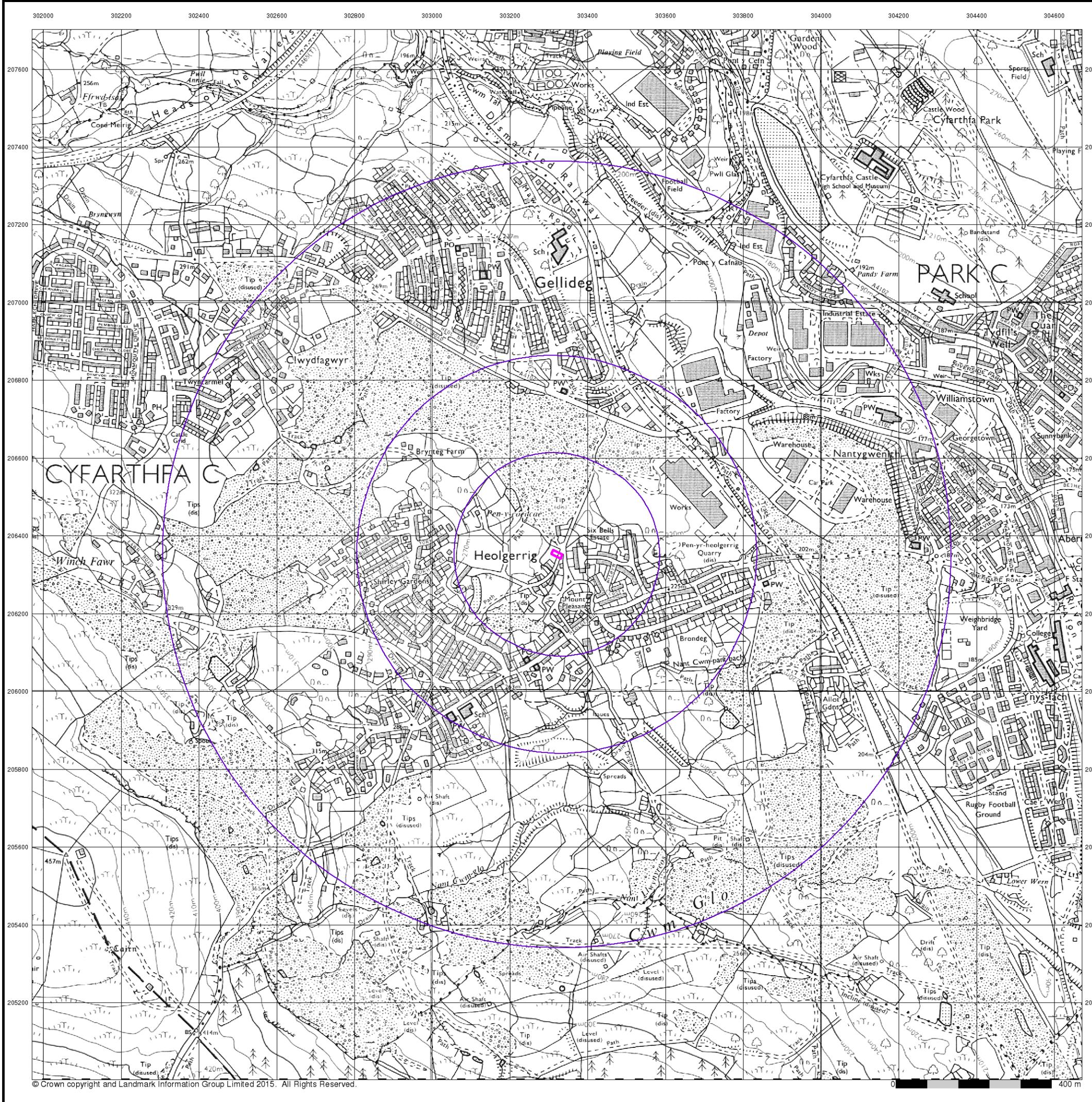
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Customer Ref: 13741
National Grid Reference: 303320, 206350
Slice: A
Site Area (Ha): 0.04
Search Buffer (m): 1000

Site Details

Site at 303250, 206350



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Ordnance Survey Plan

Published 1992

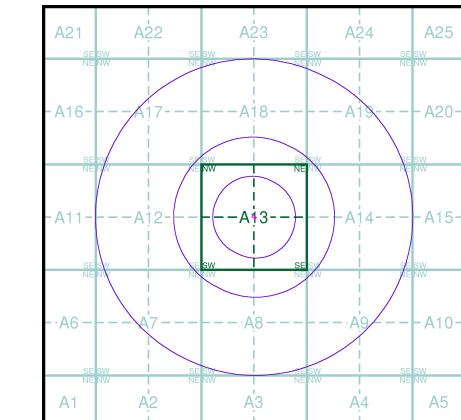
Source map scale - 1:10,000

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

Map Name(s) and Date(s)

SO00NW
1992
1:10,000

Historical Map - Slice A



Order Details

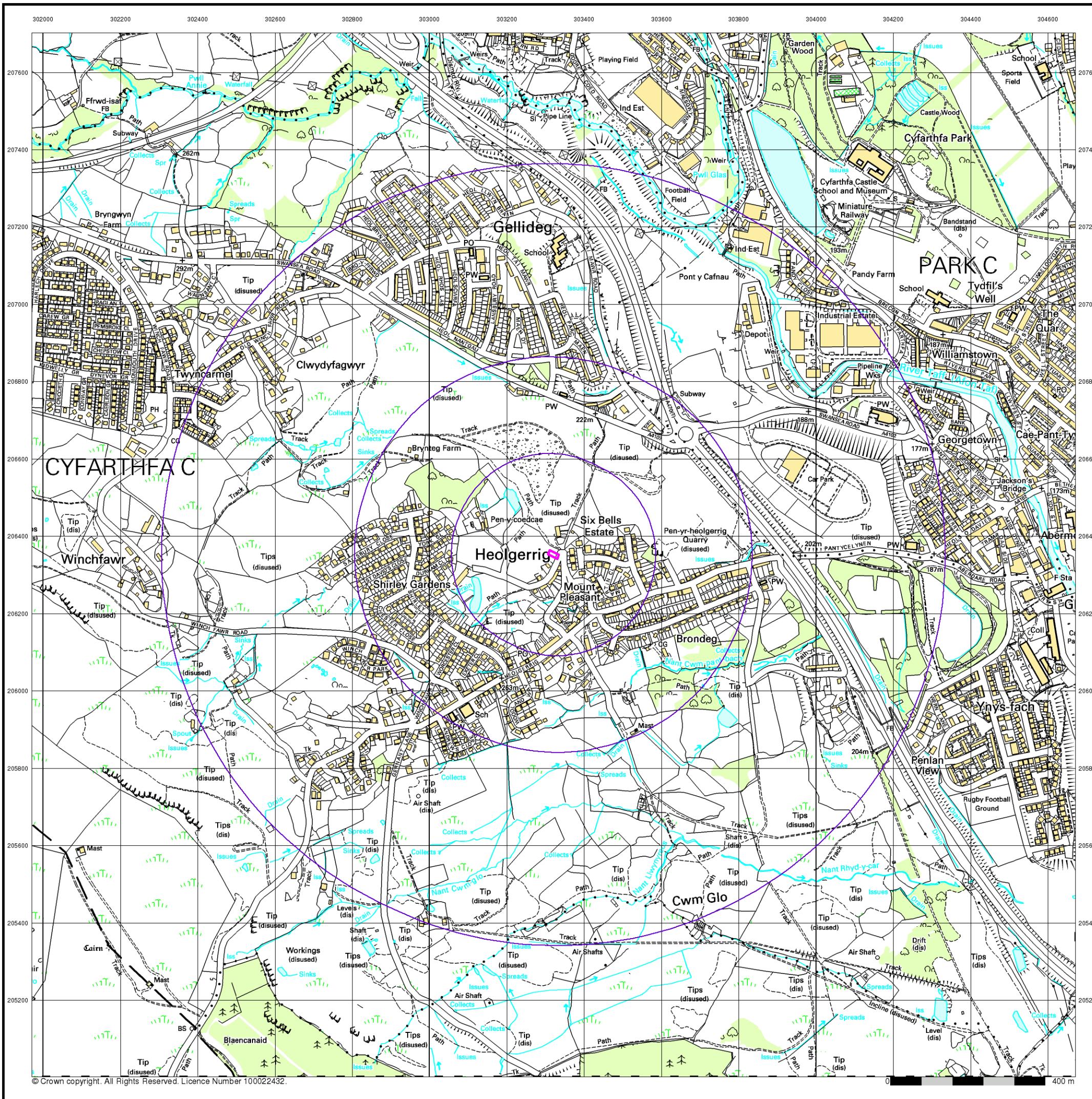
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Slice: A
Site Area (Ha): 0.04
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Site Details

Site at 303250, 206350



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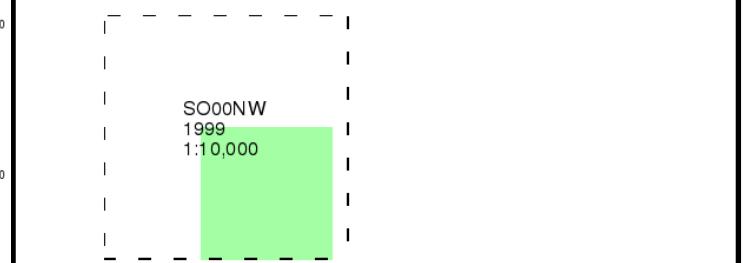
10k Raster Mapping

Published 1999

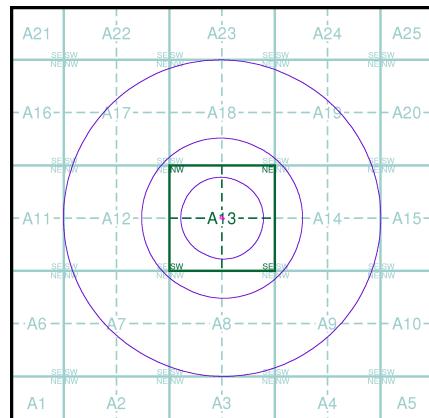
Source map scale - 1:10,000

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

Map Name(s) and Date(s)



Historical Map - Slice A



Order Details

Order Number: 88619056_1_1
Customer Ref: 13741
National Grid Reference: 303320, 206350
Slice: A
Site Area (Ha): 0.04
Search Buffer (m): 1000

Site Details

Site at 303250, 206350



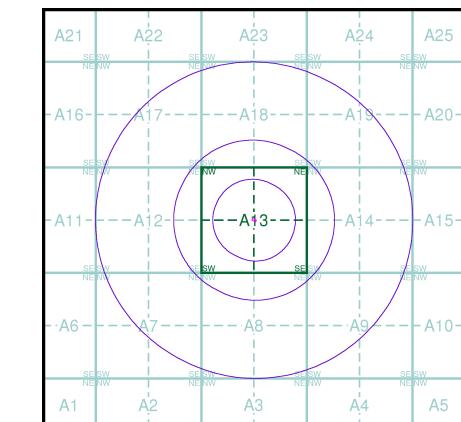
Tel: 0844 844 9952
Fax: 0844 844 9951
Web: www.envirocheck.co.uk



Historical Aerial Photography Published 2000

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

Historical Aerial Photography - Slice A



Order Details

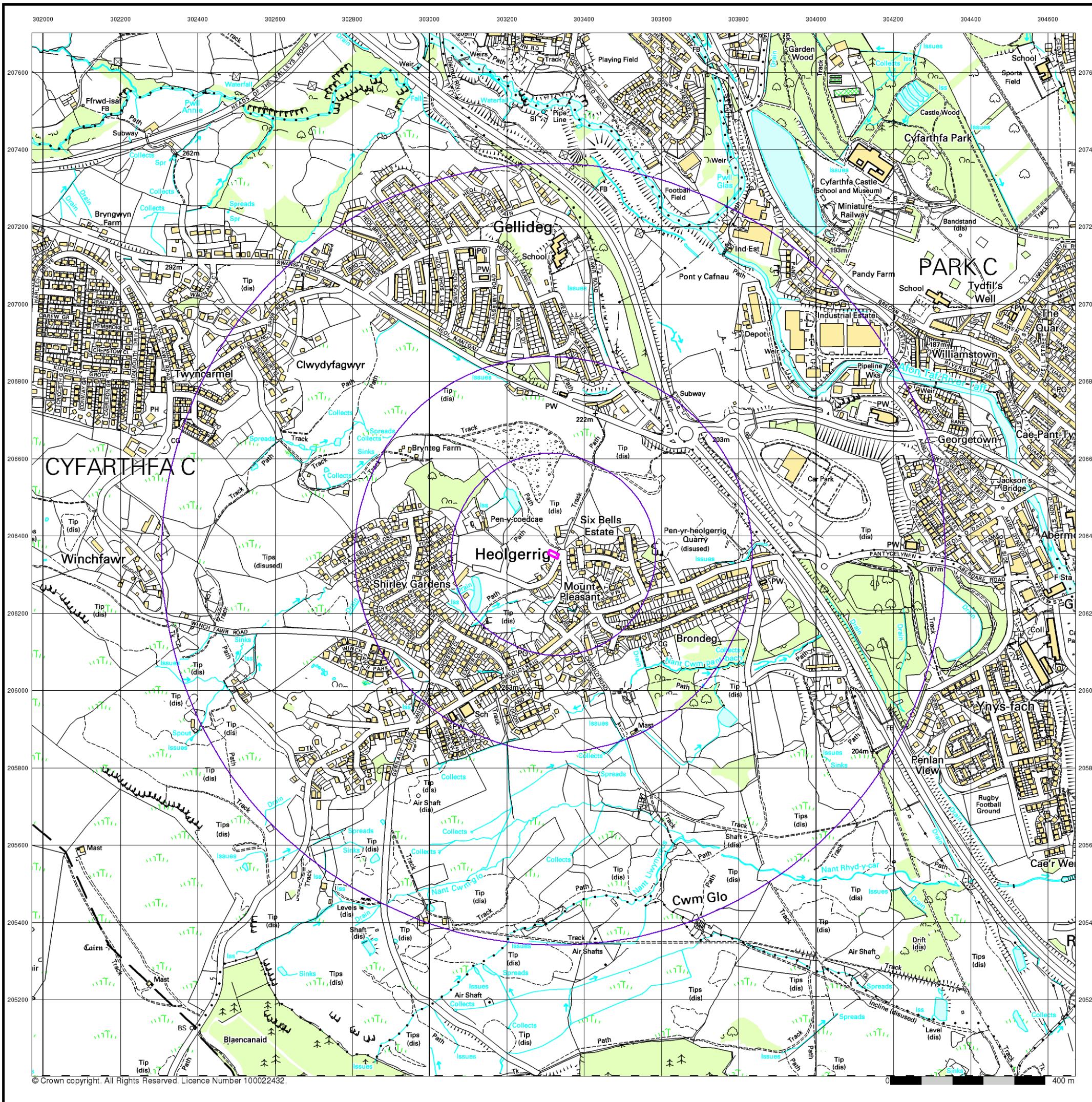
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Site Details

Site at 303250, 206350



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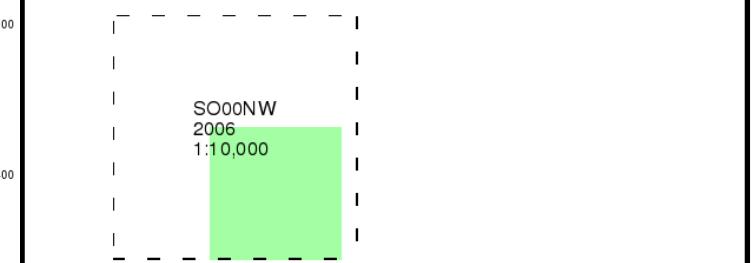
10k Raster Mapping

Published 2006

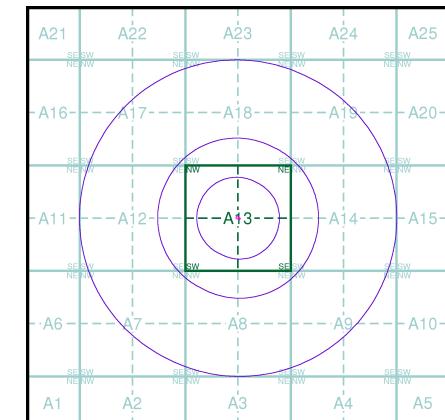
Source map scale - 1:10,000

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

Map Name(s) and Date(s)



Historical Map - Slice A



Order Details

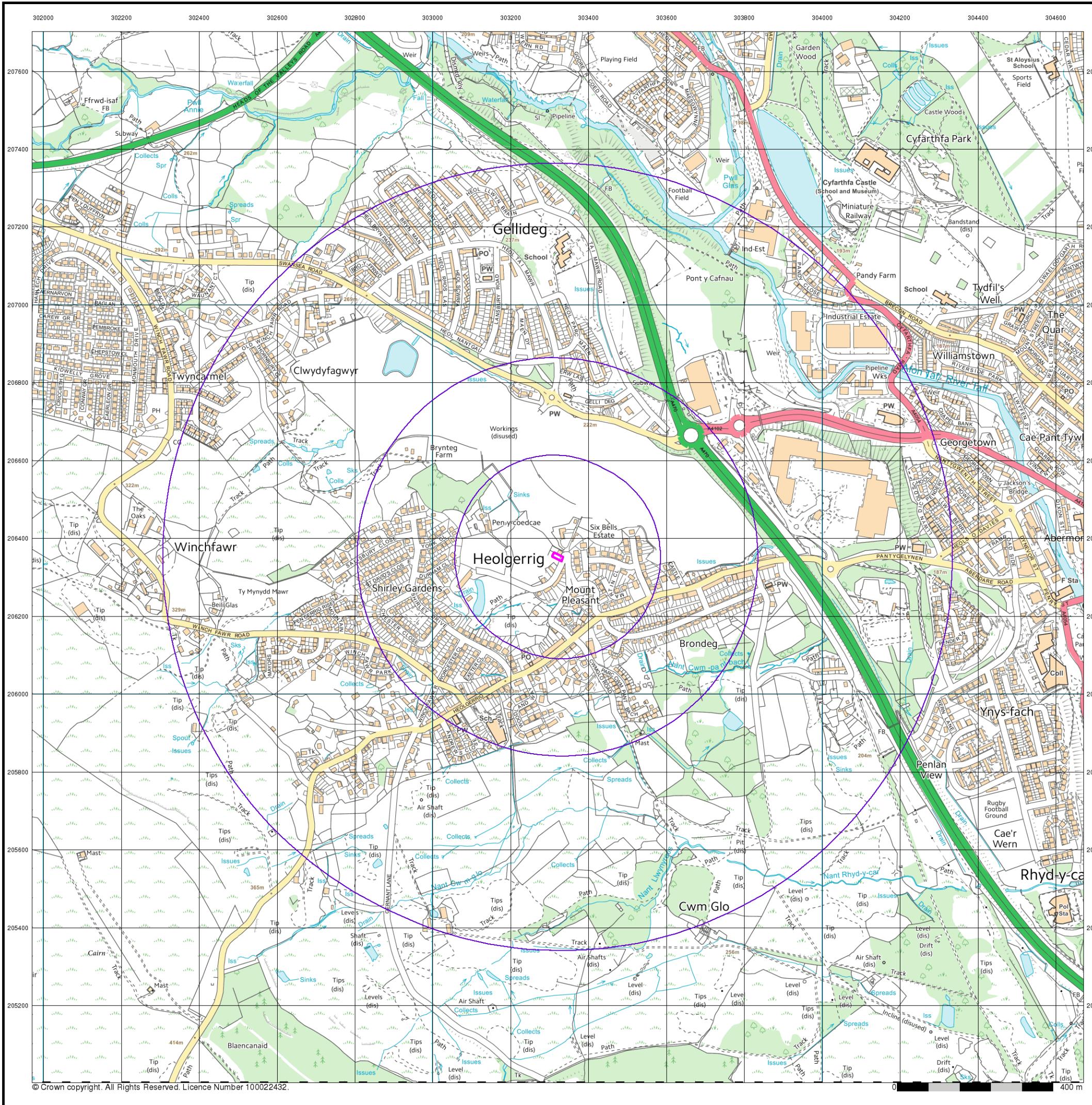
Order Number: 88619056_1_1
 Customer Ref: 13741
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 Slice: A
 Site Area (Ha): 0.04
 Search Buffer (m): 1000

Site Details

Site at 303250, 206350



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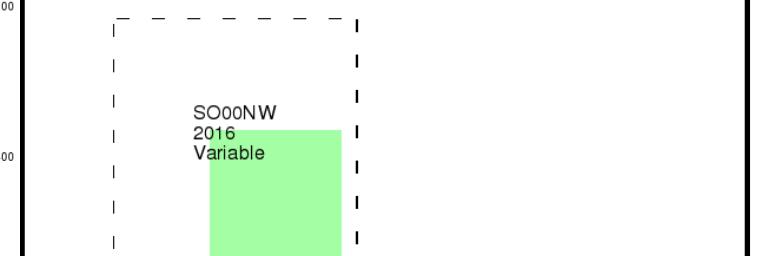
VectorMap Local

Published 2016

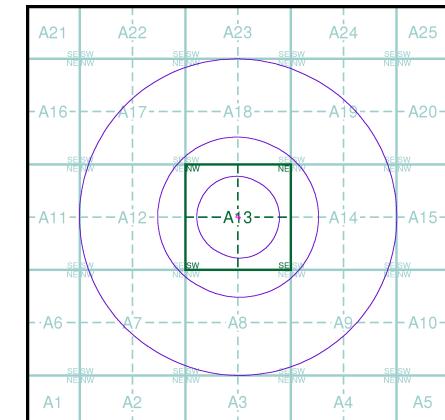
Source map scale - 1:10,000

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

Map Name(s) and Date(s)



Historical Map - Slice A



Order Details

Order Number: 88619056_1_1
 Customer Ref: 13741
 National Grid Reference: 303320, 206350
 Slice: A
 Site Area (Ha): 0.04
 Search Buffer (m): 1000

Site Details

Site at 303250, 206350



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ANNEX B
Coal Authority Data



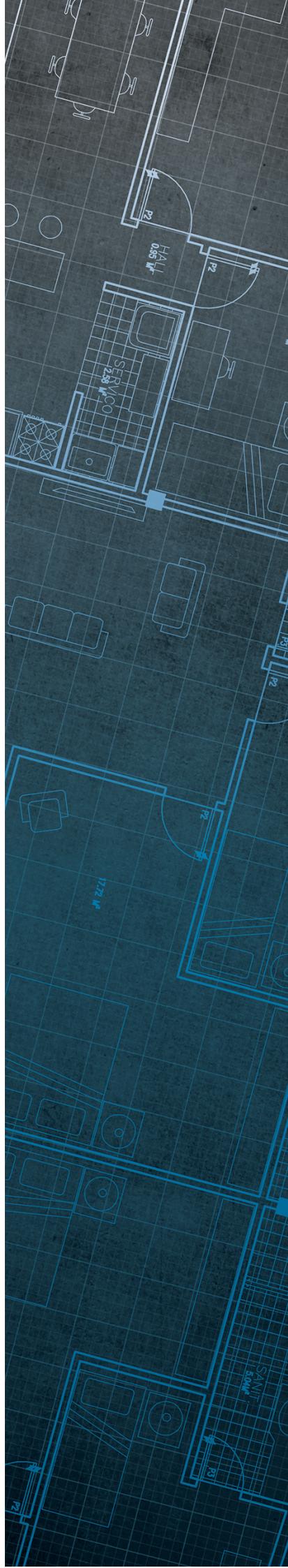
The Coal
Authority

Consultants Coal Mining Report

Site At 303320, 206360
Merthyr Tydfil

Date of enquiry: 21 February 2025
Date enquiry received: 21 February 2025
Issue date: 21 February 2025

Our reference: 51003481204001
Your reference: 370415687_1



Consultants Coal Mining Report

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

Client name

NLIS Hub

Enquiry address

Site At 303320, 206360
Merthyr Tydfil

How to contact us

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

200 Lichfield Lane
Mansfield
Nottinghamshire
NG18 4RG

www.groundstability.com



Approximate position of property



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 @coalauthority

 /company/the-coal-authority

 /thecoalauthority

 /thecoalauthority

Section 1 – Mining activity and geology

Past underground mining

| Colliery | Seam | Mineral | Coal Authority reference | Depth (m) | Direction to working | Dipping rate of seam worked (degrees) | Dipped direction of seam worked | Extraction thickness (cm) | Year last mined |
|----------|-----------------------|---------|--------------------------|-----------|----------------------|---------------------------------------|---------------------------------|---------------------------|-----------------|
| unnamed | LOWER 7FT BOTTOM LEAF | Coal | 4BXC | 6 | Beneath Property | 3.8 | South | 160 | 1896 |

Probable unrecorded shallow workings

None.

Spine roadways at shallow depth

No spine roadway recorded at shallow depth.

Mine entries

| Entry type | Reference | Grid reference | Treatment description | Mineral | Conveyancing details |
|------------|------------|----------------|-----------------------------|---------|----------------------|
| Adit | 303206-023 | 303295 206332 | Treatment details unknown.* | Coal | |
| Shaft | 303206-040 | 303312 206367 | Treatment details unknown.* | Coal | |
| Adit | 303206-047 | 303282 206330 | Treatment details unknown.* | Coal | |
| Shaft | 303206-066 | 303375 206415 | Treatment details unknown.* | Coal | |

*For your information, before the coal industry was nationalised in 1947, there was no requirement for a mine operator to record mine entry treatment details when a mine was abandoned. Therefore, it is not unusual for us to have no treatment details for many of the 176,000 recorded mine entries on our database. Despite this lack of information, please be assured that the fact we have no treatment recorded does not necessarily mean that the mine entries were left untreated when abandoned.

Abandoned mine plan catalogue numbers

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

| | | |
|---------|---------|---------|
| SWR3140 | 8695 | SWR3141 |
| SWR3138 | OM15055 | SWR1978 |
| SWR3139 | SWR3137 | |

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

Outcrops

| Seam name | Mineral | Seam workable | Distance to outcrop (m) | Direction to outcrop | Bearing of outcrop |
|-----------------------|---------|---------------|-------------------------|----------------------|--------------------|
| LOWER 7FT BOTTOM LEAF | Coal | Yes | 30.6 | North-East | 122 |
| SEVEN FOOT | Coal | Yes | 4.7 | North | 103 |

Geological faults, fissures and breaklines

No faults, fissures or breaklines recorded.

Opencast mines

None recorded within 500 metres of the enquiry boundary.

Coal Authority managed tips

None recorded within 500 metres of the enquiry boundary.

Section 2 – Investigative or remedial activity

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

Site investigations

None recorded within 50 metres of the enquiry boundary.

Remediated sites

None recorded within 50 metres of the enquiry boundary.

Coal mining subsidence

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

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

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

Mine gas

None recorded within 500 metres of the enquiry boundary.

Mine water treatment schemes

None recorded within 500 metres of the enquiry boundary.

Section 3 – Licensing and future mining activity

Future underground mining

None recorded.

Coal mining licensing

None recorded within 200 metres of the enquiry boundary.

Court orders

None recorded.

Section 46 notices

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

Withdrawal of support notices

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

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

Payments to owners of former copyhold land

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

Section 4 – Further information

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

Future development

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

MINE GAS: Please note, if there are no recorded instances of mine gas within 500m of the enquiry boundary, this does not mean that mine gas is not present within the vicinity. The Coal Authority Mine Gas data is limited to only those sites where a Mine Gas incident has been recorded.

Developers should be aware that the investigation of coal seams, mine workings or mine entries may have the potential to generate and/or displace underground gases. Associated risks both to the development site and any neighbouring land or properties should be fully considered when undertaking any ground works. The need for effective measures to prevent gases migrating onto any land or into any properties, either during investigation or remediation work, or after development must also be assessed and properly addressed. In these instances, the Coal Authority recommends that a more detailed Gas Risk Assessment is undertaken by a competent assessor.

Development advice

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

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

Section 5 – Data definitions

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

Past underground coal mining

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

Probable unrecorded shallow workings

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

Spine roadways at shallow depth

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

Mine entries

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

Abandoned mine plan catalogue numbers

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

Outcrops

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

Geological faults, fissures and breaklines

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

Opencast mines

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

Coal Authority managed tips

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

Site investigations

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

Remediated sites

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

Coal mining subsidence

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

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

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

Mine gas

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

Mine water treatment schemes

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

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

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

Future underground mining

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

Coal mining licensing

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

Court orders

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

Section 46 notices

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

Withdrawal of support notices

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

Payment to owners of former copyhold land

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



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