

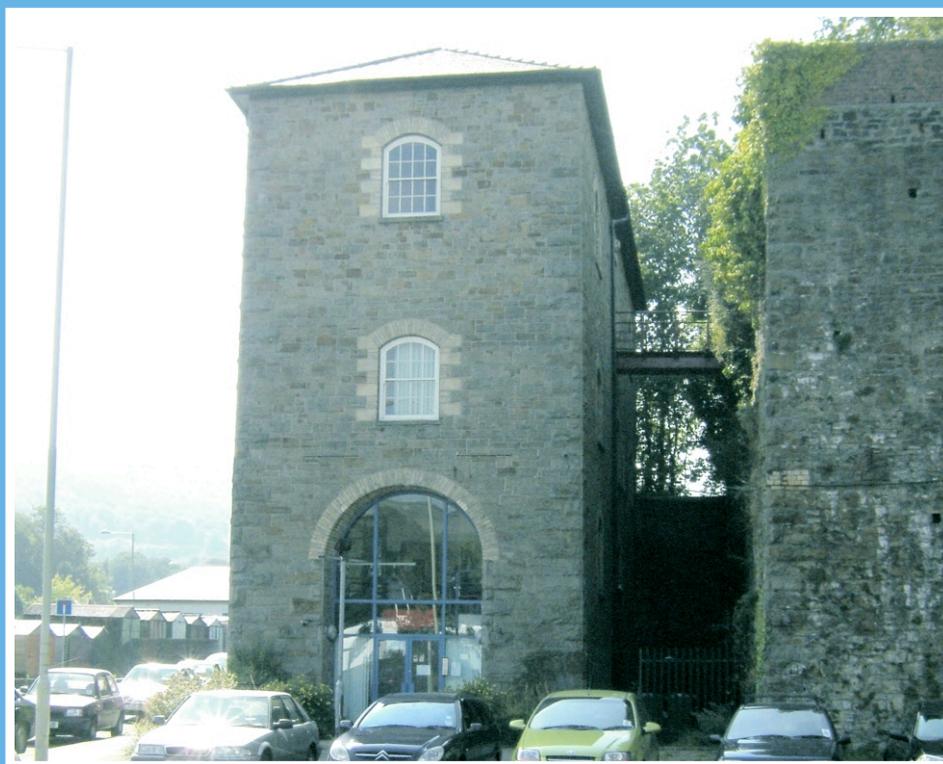
# Southeast Wales Industrial Ironworks Landscapes

Year 1: the core ironworks areas

**July 2005**

A report for Cadw  
by Richard Roberts BA (Hons)

GGAT report no. 2005/056  
Project no. GGAT 80



The Glamorgan-Gwent Archaeological Trust Ltd  
Heathfield House Heathfield Swansea SA1 6EL

## Southeast Wales Industrial Ironworks Landscapes

<b>Contents</b>	<b>Page</b>
1 Introduction and Acknowledgements.....	6
2 The Study Area .....	8
3 Purpose of Report – aims and applications. ....	9
4 Methodology .....	11
5 The Results.....	13
6 Industrial Ironworks Landscapes.....	31
IW Number 001 Pontypool (Upper Race, Blaendare) Ironworks ST 27507 99523 .....	31
IW Number 002 Varteg Ironworks SO 26298 05498 .....	33
IW Number 003 Golynos Ironworks SO 25969 04710 .....	35
IW Number 004 Abersychan (British) Ironworks (04698g; 04699g and 04596g) SO 2575 0365 .....	36
IW Number 005 Pentwyn Ironworks SO 26291 03379 .....	41
IW Number 006 Clydach Ironworks (02476g and 03647g; SAM BR161) SO 2290 1325 .....	43
IW Number 007 Blaina (including Cwmcelyn) Ironworks SO 19862 08334.....	47
IW Number 008 Coalbrookvale Ironworks (including Trostre Ironworks) SO 19384 09449.....	49
IW Number 009 Nant-y-glo Ironworks SO 19060 10737 .....	51
IW Number 010 Ebbw Vale Ironworks SO 17222 09636 .....	55
IW Number 011 Victoria Ironworks SO 17146 07529 .....	60
IW Number 012 Beaufort Ironworks SO 16944 11244 .....	62
IW Number 013 Tredegar Ironworks SO 14316 09255.....	65
IW Number 014 Sirhowy Ironworks (02220g) SO 1430 1010.....	68
IW Number 015 Rhymney Ironworks SO 11264 06985 .....	72
IW Number 016 Dyffryn Ironworks (01137m) SO 0690 0320 .....	76
IW Number 017 Pentrebach Ironworks SO 06100 04100 .....	79
IW Number 018 Plymouth Ironworks SO05530500 .....	81
IW Number 019 Ynys Fach Ironworks (00964m and 01263m) SO04550605 .....	84
IW Number 020 Cyfarthfa Ironworks (01169m) SO 038069.....	86
IW Number 021 Penydarren Ironworks (01170m) SO 0690 0320 .....	92
IW Number 022 Dowlais Ironworks (01666m) SO 06948 07645 .....	96
IW Number 023 Ivor Ironworks SO 06794 08120 .....	102
IW Number 024 Hirwaun Ironworks (01109m) SN 9577 0592 .....	104
IW Number 025 Llwydcoed Ironworks (01393m) SN 9930 0440 .....	108
IW Number 026 Gadlys Ironworks (02162m and 02344m) SO 001 030 .....	112
IW Number 027 Abernant Ironworks (01264m) SO 0090 0340 .....	115
IW Number 028 Aberaman Ironworks SO 01509 00300 .....	119
IW Number 029 Ystalyfera Ironworks (01207w) SN 76450 08300.....	122
IW Number 030 Ynyscedwyn SO 0690 0320 .....	124
IW Number 031 Onllwyn Ironworks SN 84020 10360.....	127
IW Number 032 Banwen Ironworks (01566w; SAM Gm420) SN 8680 1045.....	130
IW Number 033 Melincwrt Ironworks (01086w; SAM Gm416) SN 825 018.....	133
IW Number 034 Venallt Ironworks (01124w; SAM: Gm423) SN 864 050.....	136
IW Number 035 Abernant Ironworks SN 88160 0632 .....	139
Bibliography .....	141

## Southeast Wales Industrial Ironworks Landscapes

### List of Plates

Plate 001: (cover)

Plate 002: the Grade II\* Listed Former British Ironworks office and foundry quadrangle (PRN: 04596g; NPRN: 85,067; Grade II\* Cadw Rec. No: 14870; SO 2572 0362), view to the northeast.

Plate 003: General view of the Clydach Ironworks (PRNs: 02476g and 03647g; NPRNs: 34,030 and 306,268; SAM BR161), view to the southwest

Plate 004: The shop site to the south of the now demolished Office Row (PRN 02938g); the site of the Old Furnaces of the Nant-y-glo Ironworks lie beyond, view to the south-east.

Plate 005: View towards the NE Roundhouse, Nant-y-glo Ironworks (IW009b) view to northwest.

Plate 006: The Grade II\* listed furnace bank site (Cadw ref: 22531) at Ebbw Vale Ironworks (IW010a) view to east.

Plate 007: Area of Furnaces Beaufort Ironworks, view to north (site of Furnaces located on steep slopes above and below footpath).

Plate 008: Site of charging ramp at Tredegar Ironworks, view to north (site of Furnaces indicated by red fence line on right side of picture).

Plate 009: Furnaces Sirhowy Ironworks (SAM MM185), view to north. The fenced area has been the subject of a conservation initiative.

Plate 010: The scheduled Furnace site (SAM Gm403) at Rhymney Old Furnace (IW015a) view to northeast.

Plate 011: View across Rhymney Ironworks (IW015) view to southwest. Furnace bank site of the Rhymney Lower Furnace centre left.

Plate 012: Furnace bank site Hirwaun Ironworks (SAM BR157), view to northeast. The entire area including the scheduled remains is in an increasingly derelict and overgrown state.

Plate 013: Llwydcoed Ironworks site with clearance activity in progress, view to northwest. Furnace site lies within wooded area beyond redbrick structure on right hand side of the picture.

Plate 014: Former stores building or casting shed, Gadlys Ironworks (Listed Grade II), view to northwest.

Plate 015: Calcining Furnaces Gadlys Ironworks (Listed Grade II), view to northeast.

Plate 016: View towards Furnace area at Abernant Ironworks (PRN: 01264m), view to northeast.

Plate 017: View across site of former coke yard, the furnaces would have stood to the right (treed area) view to southwest.

Plate 018: Remains of the mill/engine house (NPRN 34,037) at Ynyscedwyn, view to southeast.

Plate 019: The now opencasted and reclaimed landscape of the Onllwyn Ironworks, looking towards the site of the former furnaces, view to south.

Plate 020: Remains of the Weighbridge House, Banwen Ironworks, view to west.

Plate 021: Standing remains Melincwrt Ironworks (SAM Gm416), illustrating overgrown nature of the site, view to north.

Plate 022: Remains of the Engine House, Venallt Ironworks, view to northeast.

## Southeast Wales Industrial Ironworks Landscapes

<b>List of Figures</b>	<b>Between Pages</b>
Figure 1. Location of Ironworks Areas 001-005	14-15
Figure 2. Location of Ironworks Areas 006-015a	14-15
Figure 3. Location of Ironworks Areas 016-035	14-15
Figure 4a. Pontypool (Upper Race, Blaendare) Ironworks IW001	32-33
Figure 4b. Pontypool (Upper Race, Blaendare) Ironworks IW001 on 1 <sup>st</sup> edition OS map Base	32-33
Figure 5a. Varteg Ironworks IW002	34-35
Figure 5b. Varteg Ironworks Ironworks IW002 on 1 <sup>st</sup> edition OS map Base	34-35
Figure 6a. Golynos Ironworks IW003	35-36
Figure 6b. Golynos Ironworks IW003 on 1 <sup>st</sup> edition OS map Base	35-36
Figure 7a. Abersychan (British) Ironworks IW004	40-41
Figure 7b. Abersychan (British) Ironworks IW004 on 1 <sup>st</sup> edition OS map Base	40-41
Figure 8a. Pentwyn Ironworks IW005	42-43
Figure 8b. Pentwyn Ironworks IW005 on 1 <sup>st</sup> edition OS map Base	42-43
Figure 9a. Clydach Ironworks IW006	46-47
Figure 9b. Clydach Ironworks IW006 on 1 <sup>st</sup> edition OS map Base	46-47
Figure 10a. Blaina (inc. Cwmcelyn) Ironworks IW007	48-49
Figure 10b. Blaina (inc. Cwmcelyn) Ironworks IW007 on 1 <sup>st</sup> edition OS map Base	48-49
Figure 11a. Coalbrookvale (inc. Trostre) Ironworks IW008	50-51
Figure 11b. Coalbrookvale (inc. Trostre) Ironworks IW008 on 1 <sup>st</sup> edition OS map Base	50-51
Figure 12a. Nant-y-glo Ironworks IW009	54-55
Figure 12b. Nant-y-glo Ironworks IW009 on 1 <sup>st</sup> edition OS map Base	54-55
Figure 13a. Ebbw Vale Ironworks IW010 a and b	59-60
Figure 13b. Ebbw Vale Ironworks IW010 a and b on 1 <sup>st</sup> edition OS map Base	59-60
Figure 14a. Ebbw Vale Ironworks IW010c	59-60
Figure 14b. Ebbw Vale Ironworks IW010c on 1 <sup>st</sup> edition OS map Base	59-60
Figure 15a. Victoria Ironworks IW011	61-62
Figure 15b. Victoria Ironworks IW011 on 1 <sup>st</sup> edition OS map Base	61-62
Figure 16a. Beaufort Ironworks IW012	64-65
Figure 16b. Beaufort Ironworks IW012 on 1 <sup>st</sup> edition OS map Base	64-65
Figure 17a. Tredegar Ironworks IW013	67-68
Figure 17b. Tredegar Ironworks IW013 on 1 <sup>st</sup> edition OS map Base	67-68
Figure 18a. Sirhowy Ironworks IW014	71-72

## Southeast Wales Industrial Ironworks Landscapes

Figure 18b. Sirhowy Ironworks IW014 on 1 <sup>st</sup> edition OS map Base	71-72
Figure 19a. Rhymney Ironworks IW015	75-76
Figure 19b. Rhymney Ironworks IW015 on 1 <sup>st</sup> edition OS map Base	75-76
Figure 20a. Rhymney Ironworks IW015a	75-76
Figure 20b. Rhymney Ironworks IW015a on 1 <sup>st</sup> edition OS map Base	75-76
Figure 21a. Dyffryn Ironworks IW016	78-79
Figure 21b. Dyffryn Ironworks IW016 on 1 <sup>st</sup> edition OS map Base	78-79
Figure 22a. Pentrebach Ironworks IW017	80-81
Figure 22b. Pentrebach Ironworks IW017 on 1 <sup>st</sup> edition OS map Base	80-81
Figure 23a. Plymouth Ironworks IW018	83-84
Figure 23b. Plymouth Ironworks IW018 on 1 <sup>st</sup> edition OS map Base	83-84
Figure 24a. Ynys Fach Ironworks IW019	85-86
Figure 24b. Ynys Fach Ironworks IW019 on 1 <sup>st</sup> edition OS map Base	85-86
Figure 25a. Cyfarthfa Ironworks IW020	91-92
Figure 25b. Cyfarthfa Ironworks IW020 on 1 <sup>st</sup> edition OS map Base	91-92
Figure 26a. Penydarren Ironworks IW021	95-96
Figure 26b. Penydarren Ironworks IW021 on 1 <sup>st</sup> edition OS map Base	95-96
Figure 27a. Dowlais Ironworks IW022	101-102
Figure 27b. Dowlais Ironworks IW022 on 1 <sup>st</sup> edition OS map Base	101-102
Figure 28a. Ivor Works Ironworks IW023	103-104
Figure 28b. Ivor Works Ironworks IW023 on 1 <sup>st</sup> edition OS map Base	103-104
Figure 29a. Hirwaun Ironworks IW024	107-108
Figure 29b. Hirwaun Ironworks IW024 on 1 <sup>st</sup> edition OS map Base	107-108
Figure 30a. Llwydcoed Ironworks IW025	111-112
Figure 30b. Llwydcoed Ironworks IW025 on 1 <sup>st</sup> edition OS map Base	111-112
Figure 31a. Gadlys Ironworks IW026	114-115
Figure 31b. Gadlys Ironworks IW026 on 1 <sup>st</sup> edition OS map Base	114-115
Figure 32a. Abernant Ironworks IW027	118-119
Figure 32b. Abernant Ironworks IW027 on 1 <sup>st</sup> edition OS map Base	118-119
Figure 33a. Aberaman Ironworks IW028	121-122
Figure 33b. Aberaman Ironworks IW028 on 1 <sup>st</sup> edition OS map Base	121-122
Figure 34a. Ystalyfera Ironworks IW029	123-124
Figure 34b. Ystalyfera Ironworks IW029 on 1 <sup>st</sup> edition OS map Base	123-124
Figure 35a. Ynyscedwyn Ironworks IW030	126-127

## Southeast Wales Industrial Ironworks Landscapes

Figure 35b. Ynyscedwyn Ironworks IW030 on 1 <sup>st</sup> edition OS map Base	126-127
Figure 36a. Onllwyn Ironworks IW031	129-130
Figure 36b. Onllwyn Ironworks IW031 on 1 <sup>st</sup> edition OS map Base	129-130
Figure 37a. Banwen Ironworks IW032	132-133
Figure 37b. Banwen Ironworks IW032 on 1 <sup>st</sup> edition OS map Base	132-133
Figure 38a. Melincwrt Ironworks IW033	135-136
Figure 38b. Melincwrt Ironworks IW033 on 1 <sup>st</sup> edition OS map Base	135-136
Figure 39a. Venallt Ironworks IW034	138-139
Figure 39b. Venallt Ironworks IW034 on 1 <sup>st</sup> edition OS map Base	138-139
Figure 40a. Abernant Ironworks IW035	140-141
Figure 40b. Abernant Ironworks IW035 on 1 <sup>st</sup> edition OS map Base	140-141

## **1 Introduction and Acknowledgements**

### *1.1 Introduction*

The landscapes of the ironmaking industry of South East Wales represent an increasingly rare and important historic landscape and archaeological resource, which remains under considerable threat from a variety of developments from reclamation and landscape renewal to residential and industrial development. For this reason the current project has been instigated, to assess the current state of survival/preservation of the ironworks landscapes of the northern coalfield rim, and inform conservation, protection and management requirements through providing recommendations for the proactive and long-term management the ironwork areas.

In essence the work will help to ensure that any necessary change to industrial ironworks landscape is accommodated without sacrificing the essential integrity and coherence of the historic environment.

The latter half of the twentieth century saw the wholesale clearance, reclamation and development of many industrial sites in the South East Wales region. Ironworks, in particular have been vulnerable to landscape reclamation and renewal schemes, to such an extent that the vast majority of ironworks have at least in part been affected, and the process is ongoing. Therefore, it is both opportune and welcome that this project has been instigated, commissioned and funded by Cadw as part of an on-going initiative. It is hoped that this report will provide the catalyst for the urgent consideration of the future conservation of ironworks and their associated landscapes.

The current report sets out the results of the project, with a section defining the aims, and methodology. It also summarises the known and potential threats and provides general recommendations and establishes management/conservation priorities.

The main body of the report, Section 6, identifies and describes the 35 identified core ironworks areas. These areas are mapped using a MapInfo Geographical Information System, and figures produced to illustrate the identified areas in the current landscape and against an historic background as depicted by the first edition 1:2500 OS map, Landmark mapping, kindly provided by Cadw under licence agreement.

### *1.2 Acknowledgements*

The project was commissioned by Cadw and undertaken by the Glamorgan-Gwent Archaeological Trust in their remit as the regional archaeological body responsible for the understanding and preservation of much of the archaeological resource in southeast Wales.

The Trust is especially grateful to Richard Turner and Judith Alfrey of Cadw, Stephen Hughes, Royal Commission on Ancient and Historic Monuments in Wales (RCAHMW), and Frank Olding of Blaenau-Gwent CBC. The Trust would like to thank the staff of the Glamorgan Record Offices, Cardiff and Swansea, Gwent Record Office and the National Library of Wales for their assistance and to the staff of the Central Registry of Aerial Photographs, The National Assembly for Wales for their helpful assistance and the staff at the National Monuments Record (NMR), RCAHMW, Aberystwyth.

## Southeast Wales Industrial Ironworks Landscapes

The report has been prepared by Richard Roberts, with the assistance of other staff of the Glamorgan-Gwent Archaeological Trust, notably Charina Jones, Claire Davies and Neil Maylan. The fieldwork was undertaken by Richard Roberts and Charina Jones. The aerial photographic illustrations for the project were supplied by the RCAHMW. Other illustrations and digital mapping prepared by Charina Jones, Richard Roberts, and Paul Jones.

## 2 The Study Area

The project entailed work on the ironworks and related features within the northern coal rim area. These are located within the respective Unitary Authorities: Blaenau-Gwent, Caerphilly, Merthyr Tydfil, Monmouthshire, Neath Port-Talbot, Rhondda Cynon Taff, and Torfaen.

The study was initially limited to the northern coalfield rim, specifically those sites described in L Ince 1993 *The South Wales Iron Industry 1750-1885*, Merton Press. The northern coalfield rim of South East Wales supplied over 30 major blast furnace iron-producing sites.

Whilst Blaenavon and Merthyr Tydfil have undergone intensive study much of the rest of the northern coalfield rim remains are little recorded. The RCAHMW through their upland survey and aerial mapping have studied this area as a priority and a lot of data is and will become available from them. There are many other local historians/archaeologists who have published on different parts of this area and the first edition OS map contains an extraordinary picture of this landscape at the end of its productive life.

### **3 Purpose of Report – aims and applications.**

A number of Industrial Ironworking landscapes are well known and well protected. Notably the World Heritage Designation at Blaenavon, but protection is also afforded through Historic Landscape registration at for example Merthyr Tydfil. In other areas only those elements that are Scheduled or Listed are protected and consequently other elements of the landscape relating to the monument are more exposed to removal or impairment through re-development. Industrial landscape reclamation and opencast is considered to be the main threat to these endangered and rapidly disappearing landscapes and their component elements.

Monuments that are isolated from their context or that are only partially protected (ie where for example the Engine House is Listed, but the coke ovens, casting structure remains are not) are less easily interpreted and understood. More particularly monuments should be understood within their wider context. Ironworks, which have distinctive different monument structures and supply/distribution infrastructure and sourcing points, which often survive in the adjacent landscape, are particularly suitable for such appreciation.

However, whilst additional designation may extend protection this can only be applied where it is merited against defined criteria. Proactive management is needed not only of individual monuments but the surviving elements in the landscape that relate to their use. This can be achieved through local conservation initiatives; the industrial monuments tied in with ecological protection in amenity development.

It was proposed that the study be initially limited to the northern coalfield rim, specifically those sites described in L Ince 1993 *The South Wales Iron Industry 1750-1885*, Merton Press. The northern coalfield rim supplied 30 major blast furnace iron-producing sites. A simple but valuable exercise comprised comparing evidence from depictions of the core ironwork areas on the 1<sup>st</sup> edition OS map with modern maps and aerial photographic material, with the intention of identifying what survives and is visible, what survives and is buried, and what has been destroyed. The boundaries of the initial study were taken as the limits of the core ironworks areas and did not extend to wider transport links, waterworks and associated extraction sites, which it is intended to cover in the future. Validation was through site visits, consultation with local land reclamation departments and talking to local experts. Each ironworks core area was categorised as archaeologically sensitive areas, areas of archaeological potential or sterile areas. As a separate document a review of the scheduling of these sites could then be undertaken.

Whilst there is this wealth of information Cadw are endeavouring to improve the protection and management of what is perhaps the most important aspect of Wales' history. Cadw would like to see this project attempt at building a consensus and partnership over how to tackle the protection and management issues and assimilate the information gathered into these processes. This may in effect act as a scoping for a larger project to be taken forward in future years.

The study should ultimately provide the information necessary to:

- assess the current state of survival/preservation, conservation and the recording requirements (of the ironworks landscapes of the northern coal rim)
- inform future protection and management issues, including future scheduling proposals (regarding the ironworks landscapes of the northern coal rim)

## Southeast Wales Industrial Ironworks Landscapes

- inform the relevant Unitary Authority on industrial ironworks landscape issues in the planning process, including forward planning
- assist in assessing the wider impact of future proposed development on industrial ironworks landscape.
- assist in the evaluation of the aesthetic or amenity value of the industrial ironworks landscape
- assist in measuring the effect of individual development proposals on the overall historic integrity and coherence of industrial ironworks landscapes, with particular reference to the issues of outright removal, severance, fragmentation or dislocation of the historic elements.
- assess the cumulative effects of secondary or piecemeal changes over time.

In essence the work will help to ensure that any necessary change to industrial ironworks landscape is accommodated without sacrificing the essential integrity and coherence of the historic environment.

The report has been presented in such a way that upgrading of information can be considered through the medium of a GIS system, allowing data storage, manipulation, analysis, interrogation, presentation and future update of information. The Information Technology component of this project will therefore be high and will see the creation of a dynamic and multi-layered digital model for the study area.

The project was designed to identify industrial ironworks landscapes, individual monuments within them that would merit further protection, and liaise with conservation and other planning officers in respect of long-term protection and enhancement. In the first year it was intended to identify all potential candidates and examine in detail a representative sample of sites.

## 4 Methodology

The project involved an in-depth interrogation of the computerised Regional Sites and Monuments Record, supplemented by all the other readily available. The SMR has been adopted by the Unitary Authority for the purposes of the GDO95.

With the enhanced information available to this project, the methodology included a detailed desktop element, including map regression and with a largely 'bottom-up' approach. More general works and articles and other readily available sources were also be consulted and expertise drawn from historians and archaeologists working in the area. While it was not intended to carry out any original research, where this would have a relevant and beneficial approach at some future date this has been identified.

The boundaries of the ironworks areas for the purpose of the study were limited to the core activity areas of the ironworks as far as was discernable from the available information and tied into current extant boundaries on a 'best fit' basis.

The related transportation systems and extractive industries will be considered at a later stage of the project.

The area' boundaries, condition of sites and potential threats were validated through site visits, consultation with local land reclamation departments usually through obtaining and consulting local Unitary Development Plans and talking to local experts (where possible). Each site was then divided into the following categories:

- archaeologically sensitive areas
- areas of archaeological potential
- sterile areas

As a separate document a review of the scheduling of these sites could then be undertaken.

Map regression, based chiefly on available cartographic material (early OS, Tithe and Estate maps), was undertaken to understand and determine the development/phasing and integrity of the industrial landscapes. Available aerial photography at the Central Registry for Aerial photography in Wales was reviewed, however given the quantity of material made available during the initial searches and the number and extent of the wider areas to be viewed, aerial photographic material viewed was limited to between four and five sorties per area spread throughout the available periods. In this way a comparison between the historic cartographic evidence and the modern map/aerial photographs was made. This allowed both the later decline of the industrial ironworks landscapes to be charted and provided evidence of the potential extent of current survival of identified landscape areas and key identified elements.

Final task breakdown:

### *1. Review and compile baseline documentation*

- Review and compile documentation for ironworks landscapes
- Ascertain total outputs from historical sources

## Southeast Wales Industrial Ironworks Landscapes

- Obtain copies of 1st edition 1:2500 OS maps for each ironworks
- Review aerial photographic evidence for ironworks landscapes
- Assemble general bibliography for ironworks landscapes of northern coal rim
- Compile source list and bibliography for individual ironworks landscapes
- Collate information on recent and current archaeological survey and investigation
- Compile lists of ironwork landscapes, and key elements within ironworks landscapes
- Revise existing GGAT lists and produce distribution maps

### 2. *Review current state of protection and threats*

- Establish current and proposed extent of scheduling / listing
- Investigate details of current UA plans/WDA programmes

### 3. *Undertake selective field investigation*

- Determine criteria for the selection of sites for visits (including potential surviving historic landscape quality)
- Select sites for visits
- Visit sites
- Ascertain extent of surviving remains
- Ascertain quality of surviving remains
- Undertake rapid mapping (annotated enlarged 1:2500 base), description and photographic recording sufficient to illustrate extent and quality of surviving remains).

### 4. *Review the assembled data*

- Consider and determine the needs and priorities for future recording
- Consider and review methodologies for detailed recording
- Consider development of ranking systems taking into account known historical importance, and relative importance of features
- Discuss conclusions with Cadw

### 5. *Compile report*

#### 5.1 Compile text

5.1.1 Briefly review background history of the industrial ironworks of the northern coal rim, historiography, recent research, and significance and importance of individual sites

5.1.2 Review relative historical significance and importance of individual sites

5.1.3 Provide summary description of surviving remains and review significance in relation to 5.1.2 above

5.1.4 Review threats and current management proposals, and assess likely impact

5.1.5 Review and discuss priorities in terms of detailed field recording

5.1.6 Make any additional recommendations

5.2 Format schedules for individual sites, determine and produce appendices and tables, and produce indexes to documentation and field indexes

5.3 Prepare illustrations for report

5.4 Produce report using DTP facilities

5.5 Submit report to Cadw

5.6 Provide copies to interested parties (local authorities, SMR and NMR)

## 5 The Results

A number of wider ironwork areas, based on the information contained in Ince 1993 and a rapid mapping exercise, including limited map regression, were identified, and defined on modern 1:2500 OS paper map base, and adopted for the initial documentary, cartographic and aerial photographic baselines searches (including SMR, NMR searches).

Thereafter the wider areas were further revised and core ironwork areas defined, primarily using cartographic and aerial photographic information, more detailed map regression, tied into baseline SMR, NMR information. The result was the identification of some 35 core ironworks areas; these are given in table 1, below and are described in detailed in Section 6.

**Table 1. Identified core ironworks areas:**

<b>Ironworks Number<sup>1</sup></b>	<b>Ironworks Name</b>	<b>Grid Reference</b>
001	Pontypool (Upper Race, Blaendare)	ST 272 997
002	Varteg	SO 265 055
003	Golynos	SO 260 047
004	Abersychan (British)	SO 258 035
005	Pentwyn	SO 265 033
006	Clydach	SO 227 128
007	Blaina (inc. Cwmcelyn)	SO 199 081
008	Coalbrookvale (inc. Trostre)	SO 194 095
009	Nant-y-glo	SO 192 105
010	Ebbw Vale	SO 174 097
011	Victoria	SO 172 076
012	Beaufort	SO 170 115
013	Tredegar	SO 144 091
014	Sirhowy	SO 144 102
015	Rhymney	SO 113 069
016	Dyffryn	SO 071 032
017	Pentrebach	SO 065 035
018	Plymouth	SO 057 048
019	Ynys Fach	SO 046 060
020	Cyfarthfa	SO 037 068
021	Penydarren	SO 058 072
022	Dowlais	SO 065 074
023	Ivor Works	SO 068 080
024	Hirwaun	SN 993 045
025	Llwydcoed	SN 993 045
026	Gadlys	SO 001 031
027	Abernant	SO 006 035
028	Aberaman	SO 015 003
029	Ystalyfera	SN 764 084
030	Ynyscedwyn	SN 785 092
031	Onllwyn	SN 839 103
032	Banwen	SN 868 104

<sup>1</sup> Numbers prefixed by IW in main text

## Southeast Wales Industrial Ironworks Landscapes

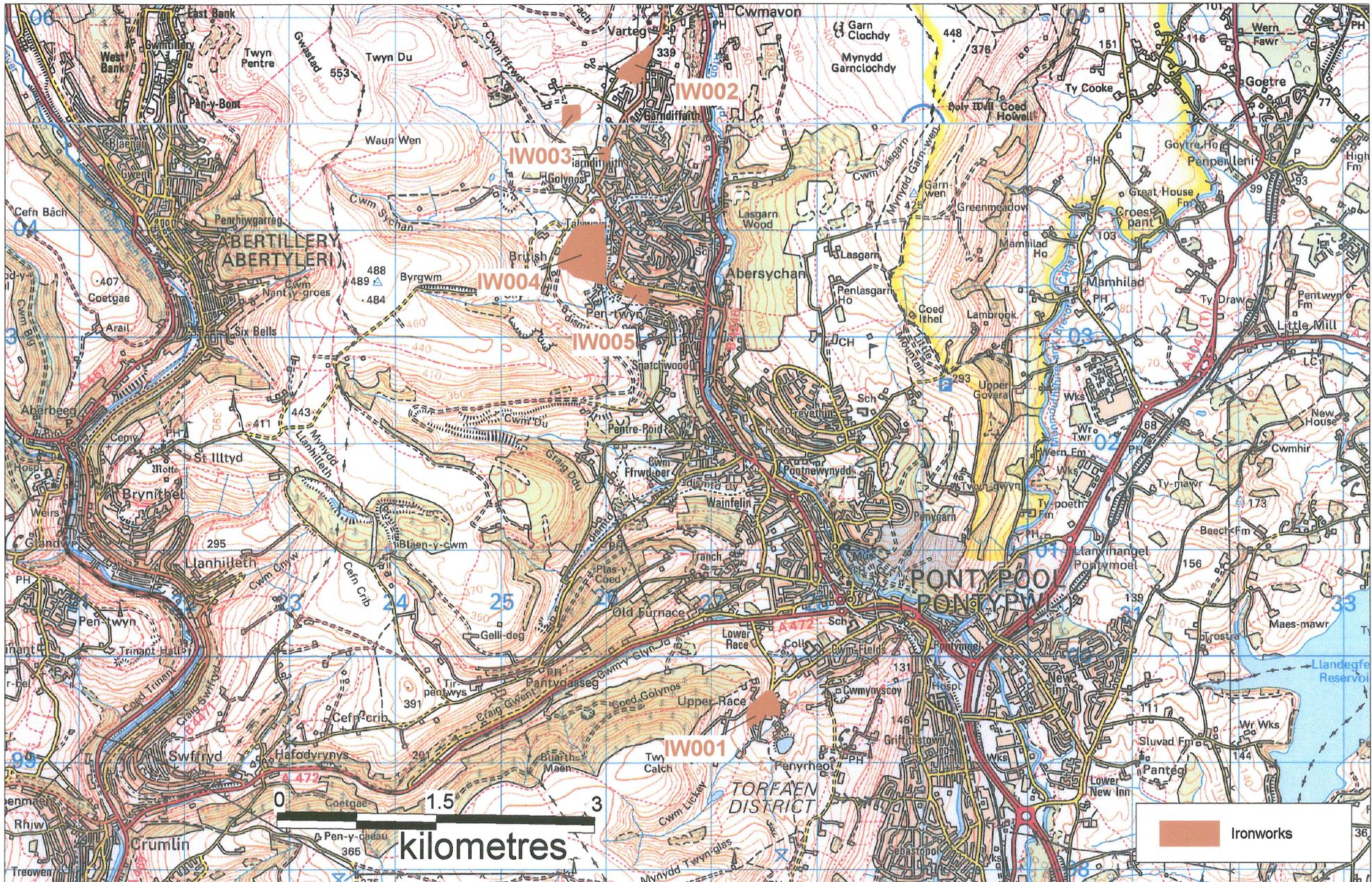
033	Melincwrt	SN 824 019
034	Venallt	SN 863 049
035	Abernant	SN 882 063

It was found that historically, many of the ironworks areas had expanded to take in significant areas of valley landscape; this was particularly the case with the larger ironworks conglomerations within the upper valleys of the Blaenau, such as at Nant-y-glo, Ebbw Vale, Rhymney, Blaina, and Coalbrookvale. Conversely, in the case of some of the less significant ironworks, such as the once jointly operated Varteg and Golynos, in the area north of Pontypool between the British Ironworks and Blaenavon, it was found that the constituent parts of the core area were often spread over some distance, with core activities being shared between different sites.

Whilst 35 Ironworks Areas were identified for the purpose of the present report, the actual number of ironworks is 38, as several ironworks have been combined, because of proximity and development such as IW007 Blaina, which includes the Cwmcelyn Ironworks and IW008 Coalbrookvale, which included Trostre Ironworks.

It should also be noted that several of the more extensive ironwork areas identified, have out of necessity been effectively split up into separate sub-areas. These include Ebbw Vale, which can be sub-divided naturally into three areas, along the lines of the core furnace area, the lower mill site, and the Bessemer Steel works, including, and Rhymney, which comprises the Old Furnace, the main Rhymney Ironworks site itself and the adjacent Bute Works.

**Figure 1 Location of Ironworks Areas 001-005**



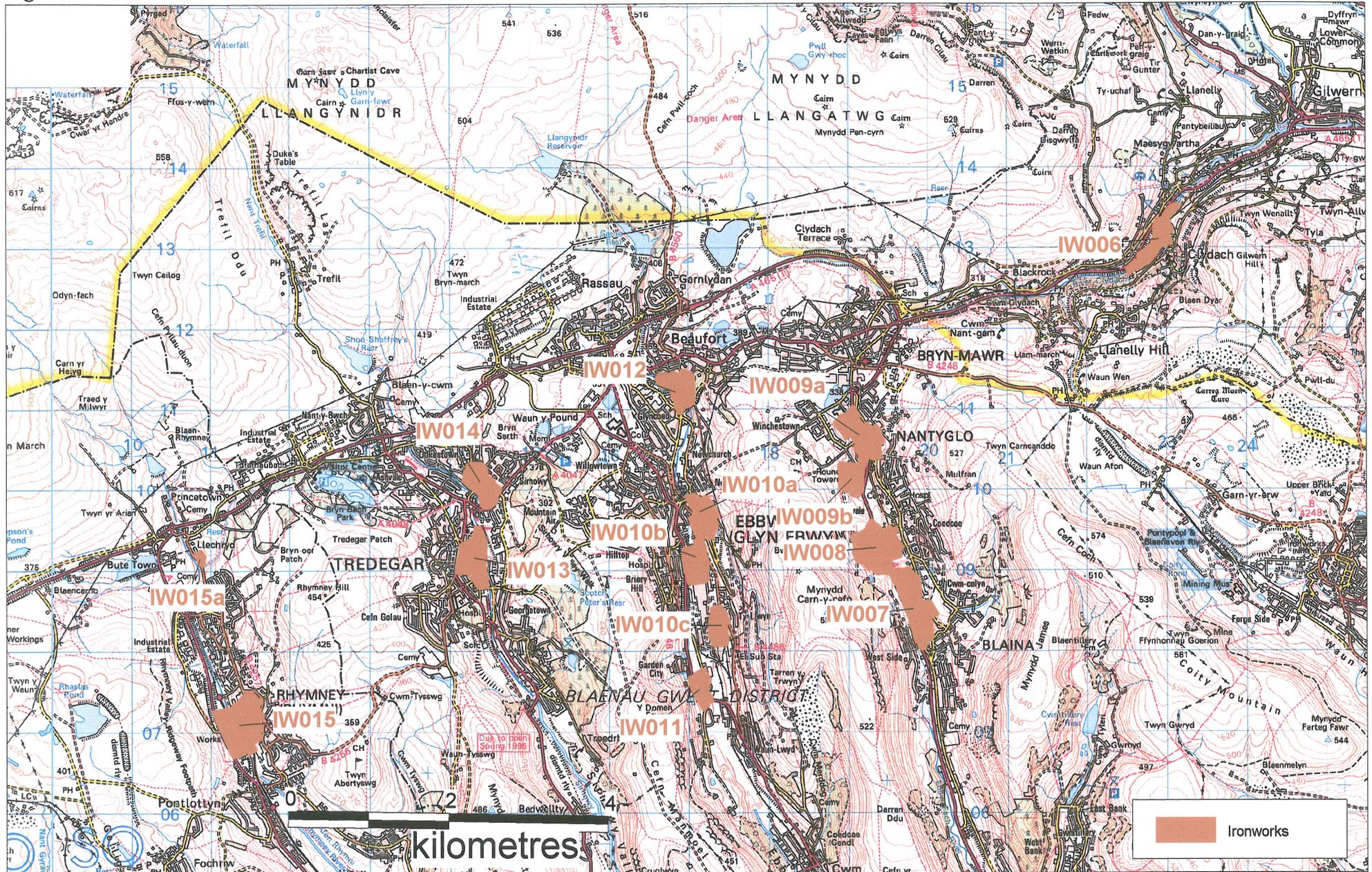
This map is based upon Ordnance Survey material with the permission of Ordnance Survey on behalf of the Controller of Her Majesty's Stationary Office © Crown copyright.

Unauthorised reproduction infringes Crown copyright and may lead to prosecution or civil proceedings. Glamorgan-Gwent Archaeological Trust Ltd 100017916 (2005).

Mae'r map hwn yn seiliedig ar ddeunydd yr Arolwg Ordnans gyda chaniatâd Arolwg Ordnans ar ran Rheolwr Llyfrfa Ei Mawrhydi © Hawlfraint y Goron.

Mae atgynhyrchu heb ganiatâd yn torri hawlfraint y Goron a gall hyn arwain at erlyniad neu achos sifil. Glamorgan-Gwent Archaeological Trust Ltd 100017916 (2005).

Figure 2 Location of Ironworks Areas 006-015a



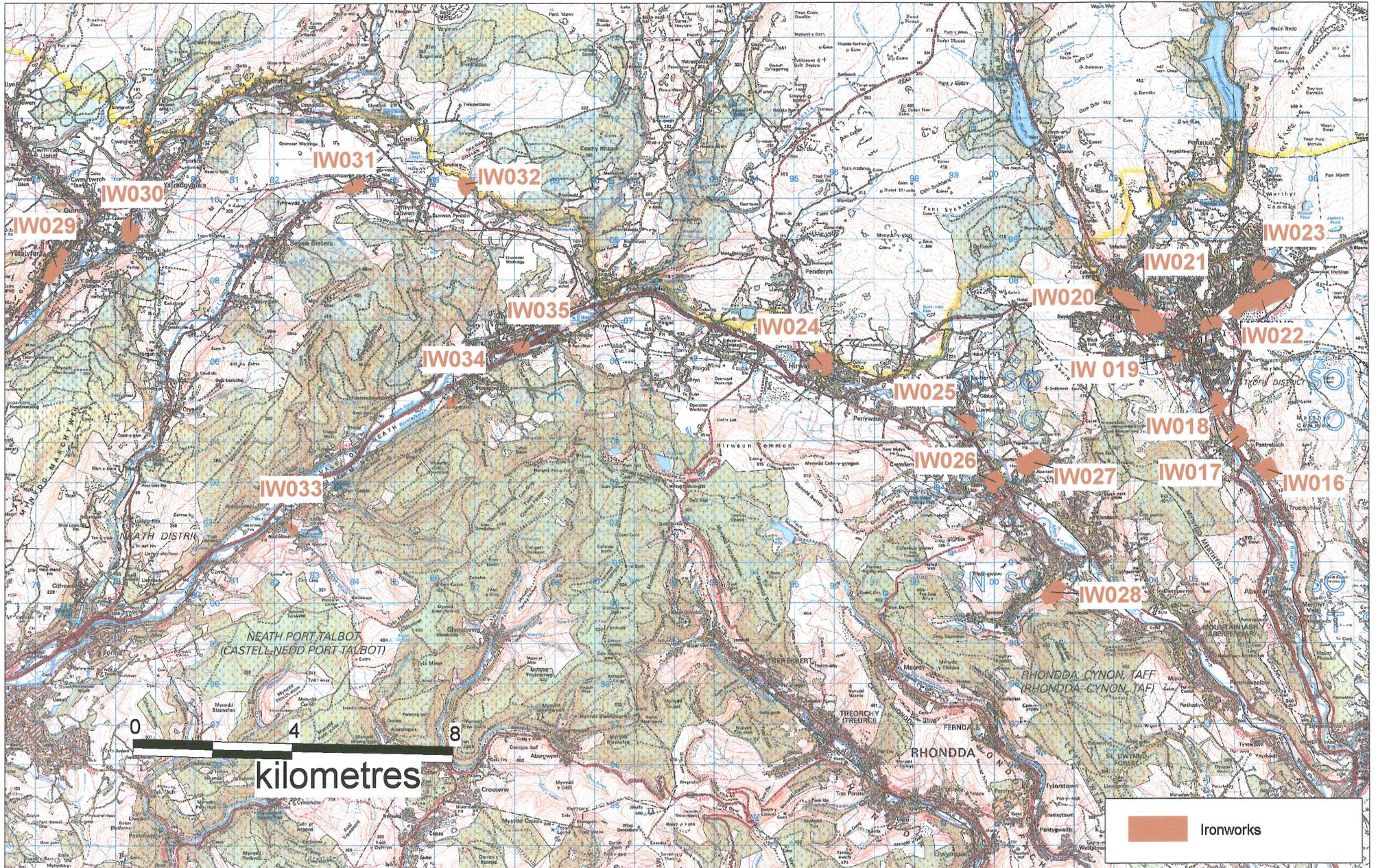
This map is based upon Ordnance Survey material with the permission of Ordnance Survey on behalf of the Controller of Her Majesty's Stationary Office © Crown copyright.

Unauthorised reproduction infringes Crown copyright and may lead to prosecution or civil proceedings. Glamorgan-Gwent Archaeological Trust Ltd 100017916 (2005).

Mae'r map hwn yn seiliedig ar ddeunydd yr Arolwg Ordnans gyda chaniatâd Arolwg Ordnans ar ran Rheolwr Llyfrfa Ei Mawrhydi © Hawlfraint y Goron.

Mae atgynhyrchu heb ganiatâd yn torri hawlfraint y Goron a gall hyn arwain at erlyniad neu achos sifil. Glamorgan-Gwent Archaeological Trust Ltd 100017916 (2005).

**Figure 3 Location of Ironworks Areas 016-035**



This map is based upon Ordnance Survey material with the permission of Ordnance Survey on behalf of the Controller of Her Majesty's Stationary Office © Crown copyright. Unauthorised reproduction infringes Crown copyright and may lead to prosecution or civil proceedings. Glamorgan-Gwent Archaeological Trust Ltd 100017916 (2005). Mae'r map hwn yn seiliedig ar ddeunydd yr Arolwg Ordnans gyda chaniatâd Arolwg Ordnans ar ran Rheolwr Llyfrfa Ei Mawrhydi © Hawlfraint y Goron. Mae atgynhyrchu heb ganiatâd yn torri hawlfraint y Goron a gall hyn arwain at erlyniad neu achos sifil. Glamorgan-Gwent Archaeological Trust Ltd 100017916 (2005).

## Southeast Wales Industrial Ironworks Landscapes

### 5.1 *Fieldwork (Site Visits)*

A cross-section of ironworks within the study area with the exclusion of the Merthry Tydfil area, which had been extensively covered by recent Historic Landscape Characterisation work, were selected for site visits, with the emphasis being put on sites where current condition/survival was considered to high/potentially high or unknown.

The site visits in conjunction with documentary and cartographic sources were undertaken to validate the ironwork boundaries in their current state and to establish the current condition/survival, potential for survival of the archaeological resource within the identified ironwork areas. To this end a rapid site visit was made to nineteen of the thirty-five identified ironworks. The results, together with unvisited sites are presented in Table 3, below and within the individual ironworks area citations given in Section 6. The visited ironworks areas are given in Table 2, below.

**Table 2. Ironworks areas visited during project:**

<b>Ironworks Number<sup>2</sup></b>	<b>Ironworks Name</b>	<b>Grid Reference</b>
004	Abersychan (British)	SO 258 035
006	Clydach	SO 227 128
009	Nant-y-glo	SO 192 105
010	Ebbw Vale	SO 174 097
012	Beaufort	SO 170 115
013	Tredegar	SO 144 091
014	Sirhowy	SO 144 102
015	Rhymney	SO 113 069
024	Hirwaun	SN 993 045
025	Llwydcoed	SN 993 045
026	Gadlys	SO 001 031
027	Abernant	SO 006 035
028	Aberaman	SO 015 003
029	Ystalyfera	SN 764 084
031	Onllwyn	SN 839 103
030	Ynyscedwyn	SN 785 092
032	Banwen	SN 868 104
033	Melincwrt	SN 824 019
034	Venallt	SN 863 049

---

<sup>2</sup> Numbers prefixed by IW in main text

## Southeast Wales Industrial Ironworks Landscapes

### 5.2 Condition and Archaeological Significance

The analysis of cartographic, documentary and aerial photographic material not only allowed the boundaries of the core ironworks areas to be identified, but also enabled a general overview of site condition to be established. In this way the archaeological significance or potential of the resource could be estimated and broken down into the following:

- archaeologically sensitive areas
- areas of archaeological potential (low-high)
- sterile areas

The results of this largely desktop process<sup>3</sup> are presented within Table 3. The value of the remains in the individual ironworks (IW) areas is considered in terms of certain remains or where not visible potential. In some cases value can be considered with both these aspects.

**Table 3. Current condition and archaeological significance:**

<b>Ironworks Number</b>	<b>Ironworks Name</b>	<b>General Condition of Site<sup>4</sup></b>	<b>Archaeological Value</b>	<b>Visited</b>
001	Pontypool (Upper Race, Blaendare)	Reclaimed and landscaped	Low-moderate potential	No
002	Varteg	Cleared and landscaped	Low-moderate potential	No
003	Golynos	Reclaimed and partly redeveloped	Low-moderate potential	No
004	Abersychan (British)	Intact (SAMs/LBs) /partly buried	Archaeologically sensitive area	Yes
005	Pentwyn	Reclaimed and landscaped	Low-moderate potential	No
006	Clydach	Intact (SAM/LBs)/cleared and partly redeveloped	Archaeologically sensitive area	Yes
007	Blaina (inc. Cwmcelyn)	Reclaimed and redeveloped	Low-moderate potential	No
008	Coalbrookvale (inc. Trostre)	Reclaimed and redeveloped	Low-moderate potential	No
009	Nant-y-glo	Intact (009b: LB)/ cleared and redeveloped	Archaeologically sensitive area (009b)/moderate-high potential (009a)	Yes
010	Ebbw Vale	Intact (LB)/ partly cleared and redeveloped	Archaeologically sensitive area (010a)/ low potential (010b & c)	Yes

<sup>3</sup> Eighteen of the thirty-five ironwork areas were subject to a site visit which allowed condition and potential to be further assessed. See section 5.2, below.

<sup>4</sup> Based on cartographic, documentary and aerial photographic evidence alone, where not visited.

## Southeast Wales Industrial Ironworks Landscapes

011	Victoria	Reclaimed and partly redeveloped	Low-moderate potential	No
012	Beaufort	Cleared and redeveloped	Low-moderate potential	Yes
013	Tredegar	Cleared and partly redeveloped	Moderate potential	Yes
014	Sirhowy	Intact (SAM/LB)/partly buried	Archaeologically sensitive area/high potential	Yes
015	Rhymney	Intact (015a: SAM/LBs)/reclaimed and redeveloped	Archaeologically sensitive area (015a)/ Sterile/low potential	Yes
016	Dyffryn	Reclaimed and redeveloped	Low-moderate potential	No
017	Pentrebach	Reclaimed and redeveloped	Sterile/low potential	No
018	Plymouth	Tunnel intact/rest reclaimed and partly redeveloped	Archaeologically sensitive area (NPRN 34,853)/ low-moderate potential?	No
019	Ynys Fach	Intact (SAM)/ partly cleared and redeveloped	Archaeologically sensitive area	No
020	Cyfarthfa	Intact (SAMs/LBs)/ partly cleared	Archaeologically sensitive area	No
021	Penydarren	Cleared and redeveloped	Moderate-high potential	No
022	Dowlais	Intact (LB)/ partly reclaimed and redeveloped	Archaeologically sensitive area/moderate-high potential	No
023	Ivor Works	Intact (LB)/ cleared site redeveloped	Archaeologically sensitive area/moderate potential	No
024	Hirwaun	Intact (SAMs/LBs)/ partly cleared	Archaeologically sensitive area/ high potential	Yes
025	Llwydcoed	Intact? / partly cleared	Archaeologically sensitive area/ high potential	Yes
026	Gadlys	Intact (SAMs/LBs)/ partly cleared and redeveloped	Archaeologically sensitive area/ moderate-high potential	Yes

### Southeast Wales Industrial Ironworks Landscapes

027	Abernant	Cleared and partly reclaimed	Low-moderate potential	Yes
028	Aberaman	Cleared and reclaimed	Sterile/Low potential	Yes
029	Ystalyfera	Partly cleared and redeveloped	Archaeologically sensitive area/ Moderate-high potential	Yes
030	Ynyscedwyn	Partly cleared and redeveloped	Archaeologically sensitive area/ moderate potential	Yes
031	Onllwyn	Opencasted and reclaimed	Sterile	Yes
032	Banwen	Intact (SAM) / derelict state	Archaeologically sensitive area/ high potential	Yes
033	Melincwrt	Intact (SAM) / derelict state	Archaeologically sensitive area/ high potential	Yes
034	Venallt	Intact (SAM) / conserved	Archaeologically sensitive area/ high potential	Yes
035	Abernant	Reclaimed/ partly redeveloped	Sterile/ low potential	No

## Southeast Wales Industrial Ironworks Landscapes

### 5.3 *The Resource and Current Protection*

The archaeological resource (ie condition, archaeological value, presence of visible remains and buried potential) in relation to the level of current statutory protection has been assessed for each ironwork core area (summarised below in table 4). It was found that of the 35 core ironwork areas (ie or a maximum 38 ironworks) 21 retained visible remains, while 30 were considered to have some level of buried potential.

Fifteen of the core ironwork areas examined were found to have some degree of current statutory protection (ie Scheduled Ancient Monuments or Listed buildings); that is between 40% and 43% of the original resource within the study area limits. The analysis indicates that of the core ironworks areas with visible standing remains, 75% are currently protected to some degree through statutory protection, while just 50% of ironwork areas with buried potential are similarly protected.

**Table 4. Summary of archaeological resource in relation to current statutory protection**

Ironworks Number Ironworks Name	General Condition of Site <sup>5</sup>	Archaeological Value	Visible Remains	Buried Potential	Statutory Protection (SAM/LB)
001 Pontypool (Upper Race, Blaendare)	Reclaimed and landscaped	Low-moderate potential	No (worker's housing)	Yes	-
002 Varteg	Cleared and landscaped	Low-moderate potential	No	Yes	-
003 Golynos	Reclaimed and partly redeveloped	Low-moderate potential	No	Yes	-
004 Abersychan (British)	Intact (SAMs/LBs) /partly buried	Archaeologically sensitive area	Yes	Yes	SAM Mm216 and 221; LBs 148770 and 18595
005 Pentwyn	Reclaimed and landscaped	Low-moderate potential	No	Yes	-
006 Clydach	Intact (SAM/LBs)/cleared and partly redeveloped	Archaeologically sensitive area	Yes	Yes	SAM BR161; Bridges: LBs 23,813 and 23,812
007 Blaina (inc. Cwmcelyn)	Reclaimed and redeveloped	Low-moderate potential	No	Yes	-

<sup>5</sup> Based on cartographic, documentary and aerial photographic evidence alone, where not visited.

Southeast Wales Industrial Ironworks Landscapes

008 Coalbrookvale (inc. Trostre)	Reclaimed and redeveloped	Low-moderate potential	No	Yes	-
009 Nant-y-glo	Intact (009b: LB)/ cleared and redeveloped	Archaeologically sensitive area (009b)/moderate- high potential (009a)	Yes (009b)	Yes (009a)	LB II* 17086 (009b)
010 Ebbw Vale	Intact (LB)/ partly cleared and redeveloped	Archaeologically sensitive area (010a)/ low potential (010b & c)	Yes (010a)	Yes (010a)	LB II* 22,531
011 Victoria	Reclaimed and partly redeveloped	Low-moderate potential	No	Yes	-
012 Beaufort	Cleared and redeveloped	Low-moderate potential	No	Yes	-
013 Tredegar	Cleared and partly redeveloped	Moderate potential	Yes	Yes	-
014 Sirhowy	Intact (SAM/LB)/p artly buried	Archaeologically sensitive area/high potential	Yes	Yes	SAM MM185 LB II* 22,496
015 Rhymney	Intact (015a: SAM/LBs)/re claimed and redeveloped	Archaeologically sensitive area (015a)/ Sterile/low potential	Yes (015a)	Yes	SAM Gm403 (015a) LBII 13,549 16,882
016 Dyffryn	Reclaimed and redeveloped	Low-moderate potential	No	Yes	-
017 Pentrebach	Reclaimed and redeveloped	Sterile/low potential	No	No?	-
018 Plymouth	Tunnel intact/rest reclaimed and partly redeveloped	Archaeologically sensitive area (NPRN34,853)/ low-moderate potential?	Yes	Yes	-
019 Ynys Fach	Intact (SAM)/ partly cleared and redeveloped	Archaeologically sensitive area	Yes	Yes	SAM Gm331 LBII* 16,073

Southeast Wales Industrial Ironworks Landscapes

020 Cyfarthfa	Intact (SAMs/LBs)/ partly cleared	Archaeologically sensitive area	Yes	Yes	SAM Gm425 SAM Gm424 SAM Gm479 LBII* 11,408 LBII 11,404 – 11,407
021 Penydarren	Cleared and redeveloped	Moderate-high potential	Yes	Yes	-
022 Dowlais	Intact (LB)/ partly reclaimed and redeveloped	Archaeologically sensitive area/moderate-high potential	Yes	Yes	LBII 11,491
023 Ivor Works	Intact (LB)/ cleared site redeveloped	Archaeologically sensitive area/moderate potential	Yes	Yes	LBII 27,086
024 Hirwaun	Intact (SAMs/LBs)/ partly cleared	Archaeologically sensitive area/ high potential	Yes	Yes	SAM BR157 LB II 26,827
025 Llwydcoed	Intact? / partly cleared	Archaeologically sensitive area/ high potential	Yes?	Yes	-
026 Gadlys	Intact (SAMs/LBs)/ partly cleared and redeveloped	Archaeologically sensitive area/ moderate-high potential	Yes	Yes	SAM Gm438 LBII 10,842 10,843 10,844 10,846
027 Abernant	Cleared and partly reclaimed	Low-moderate potential	Yes	Yes	-
028 Aberaman	Cleared and reclaimed	Sterile/Low potential	No	No?	-
029 Ystalyfera	Partly cleared and redeveloped	Archaeologically sensitive area (PRN 01207w)/ Moderate-high potential	Yes	Yes	-
030 Ynyscedwyn	Partly cleared and redeveloped	Archaeologically sensitive area/ moderate potential	Yes	No?	-
031 Onllwyn	Opencasted and reclaimed	Sterile	No	No	-

## Southeast Wales Industrial Ironworks Landscapes

032 Banwen	Intact (SAM) / derelict state	Archaeologically sensitive area/ high potential	Yes	Yes	SAM Gm420
033 Melincwrt	Intact (SAM) / derelict state	Archaeologically sensitive area/ high potential	Yes	Yes	SAM Gm416
034 Venallt	Intact (SAM) / conserved	Archaeologically sensitive area/ high potential	Yes	Yes	SAM Gm423
035 Abernant	Reclaimed/ partly redeveloped	Sterile/ low potential	No	No?	-

The level of statutory protection was further broken down to allow an analysis of the protected resource against surviving monument class (ie furnaces, charging ramps/platforms, calcining ovens/coking oven, casting houses/foundries, rolling mills, engine houses, waterwheels/pits, offices and other buildings), where surviving as visible standing, or positively identified buried remains. This has been specifically undertaken to identify classes of monument that are underrepresented within the current protection regime, but also identify core ironwork areas, which might benefit from the extension of existing protection.

The main features of the ironworks sites are their furnaces and charging ramps/platforms; sixteen core ironworks areas out of 35 within the study area were found to retain visible standing, or positively identified buried remains of furnaces/furnace banks (including a count of 2 for Abersychan – with the scheduled air furnace). The nationally important furnaces (and engine house) at Banwen (SAM Gm420), despite protection through scheduling are in urgent need of conservation. Twelve of the 17 furnaces/furnace banks identified are currently protected by statutory protection: notably the furnace bank at IW010 Ebbw Vale (Listed Building Grade II\*, Cadw ref: 22,531) is not scheduled. The furnaces at IW004 Abersychan, IW029 Ystalyfera, IW022 Dowlais (buried) and IW018 Plymouth (buried) are also of particular significance and are currently unprotected through legislation. The number of charging ramps/platforms similarly protected mirrors the figures identified for furnaces with 11 protected out of 18 identified, with that at IW010 Ebbw Vale listed (LBII\*, Cadw ref: 22,531) but not scheduled. Significant unprotected charging ramps/platforms survive at IW029 Ystalyfera, IW004 Abersychan, IW021 Penydarren, and possibly also at IW009a Nant-y-glo, Other unprotected remains of charging ramps/platforms might also survive at IW012 Beaufort, IW013 Tredegar and IW025 Llwydcoed.

The survival and protection of ancillary features shows a slightly different pattern to the main ironworks features; in general survival of ancillary features such as calcining ovens/coking ovens, casting houses and foundries, is relatively low within the study area and where these features do survive they are, with a few exceptions, invariably protected. Remains of calcining ovens/coking ovens survive at five ironworks, though in generally in a fragmentary or buried condition. Of the calcining ovens/coking ovens identified four are protected through legislation; that at IW026 Gadlys, which has recently been conserved, is listed (LBII, Cadw ref: 10,846), but not scheduled. The latter in terms of condition is the best surviving example of those within the study area; most remain as ‘sites of’, or buried. Of the five ranks of ovens originally located at

## Southeast Wales Industrial Ironworks Landscapes

IW004 Abersychan, one recorded in 1994 (Ironbridge Institute and RCAHMW 1994) survives apparently in poor condition (Riden 1994); this site is currently unprotected.

Casting houses/foundries were identified within 5 ironwork core areas; all are currently protected through legislation. The only unscheduled example is the foundry at IW004 Abersychan, which is a grade II\* listed building (Cadw ref: 14,870). Mills and forges are similarly well-protected: these include both the forge/workshop (occupied) at IW015 Rhymney a grade II listed building (Cadw ref: 16,882), and the remains of 2 possible mills within the scheduled area (SAM BR157) at IW024 Hirwaun. Unusually the well-conserved brick-built mill/engine house and adjacent chimney (NPRN 34,037) at IW030 Ynyscedwyn is as yet unprotected through statutory legislation.

The level of protection afforded to surviving ironworks related engine houses is generally high with eight of the ten identified examples adequately protected through listing and scheduling. Those Engine houses, which are listed rather than scheduled (eg Grade II\* Listed engine house at IW019 Ynys Fach, and the Grade II Listed examples at IW022 Dowlais and IW026 Gadlys) are occupied and have been found alternative uses. As yet unprotected, in addition to the aforementioned example at Ynyscedwyn, are the buried remains of two identified engine houses at IW010 Ebbw Vale; these located to either end of the grade II\* listed furnace. Only three waterwheels/wheel pits have been identified within the study area; these are all protected through scheduling; one at IW014 Sirhowy also being grade II\* listed (Cadw ref: 22,496). It should be noted that due to the nature of these features a strong likelihood exists that buried remains might survive elsewhere, as yet unknown.

Of the twenty or so miscellaneous features such as offices and other buildings identified five are currently unprotected by legislation. The more significant are the tramroad tunnel beneath the furnace bank at IW018 Plymouth, the weighbridge and weighbridge house, and the smithy and carpenter's shop at IW032 Banwen, the Company shop/office at IW009 Nant-y-glo (within 009a), the office at IW027 Abernant, and the Company shop and offices at IW034 Venallt; the latter three sites are all now occupied domestic properties. The unprotected features at Banwen have considerable group value with the nationally important features within scheduled area to the north (SAM Gm420), and protection should be considered.

The results of the assessment of surviving monument class and statutory protection on a core ironworks area basis are presented within table 5. This information will be used to inform future scheduling proposals.

## Southeast Wales Industrial Ironworks Landscapes

**Table 5. Surviving classes of monument (ie where as visible standing, or positively identified buried remains) in relation to statutory protection**

Ironworks Number Ironworks Name	Furnaces	Statutory protection (SAMs, LBs)	Charging Ramps / platforms	Statutory protection (SAMs, LBs)	Calcining Ovens / Coking Ovens	Statutory protection (SAMs, LBs)	Casting Houses / foundry	Statutory protection (SAMs, LBs)	Mills / forges	Statutory protection (SAMs, LBs)	Engine Houses	Statutory protection (SAMs, LBs)	Waterwheel / wheelpit	Statutory protection (SAMs, LBs)	Offices and other buildings (eg. water balance towers)	Statutory protection (SAMs, LBs)
001 Pontypool (Upper Race, Blaendare)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
002 Varteg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
003 Golynos	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
004 Abersychan (British)	1 (air furnace); 1 (furnace bank – partly buried)	SAM Mm221; -	1 (line of)	-	1 rank out of 5 original (poor condition)	-	1 (foundry)	LB II* Cadw ref: 14870; SAM Mm221	-	-	1	SAM Mm216; LB II Cadw ref: 18595	-	-	1 (offices)	LB II* Cadw ref: 14870; SAM Mm221
005 Pentwyn	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
006 Clydach	1 (furnace bank)	SAM BR161	1 (with charging houses and arch)	SAM BR161	-	-	1 (casting house – excavated footings)	SAM BR161	-	-	-	-	1	SAM BR161	2 (bridges, only one in SAM); incline (30% within SAM)	SAM BR161 LBII* Cadw ref: 23,813; LB II Cadw ref: 23,812
007 Blaina (inc. Cwmcelyn)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
008 Coalbrookvale (inc. Trostre)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
009 Nant-y-glo	-	-	1 (?009a)	-	-	-	-	-	-	-	-	-	-	-	1 (fortified farm yard 009b) 1 company shop / office (009a)	LB II* Cadw ref: 17,086 (009b) -

## Southeast Wales Industrial Ironworks Landscapes

010 Ebbw Vale	1 (furnace bank; 010a)	LB II* Cadw ref: 22,531	1 (010a)	LB II* Cadw ref: 22,531	-	-	-	-	-	-	2 (known buried remains in 010a)	-	-	-	Office (near 010b)	LB II* Cadw ref: 22,530 (near 010b)
011 Victoria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
012 Beaufort	-	-	1 (?line of)	-	-	-	-	-	-	-	-	-	-	-	-	-
013 Tredegar	-	-	1 (?charging ramp)	-	-	-	-	-	-	-	-	-	-	-	-	-
014 Sirhowy	1 (furnace bank)	SAM MM185 LB II* Cadw ref: 22,496	1	SAM MM185 LB II* Cadw ref: 22,496	-	-	1 (footings)	SAM MM185 LB II* Cadw ref: 22,496	-	-	-	-	1	SAM MM185 LB II* Cadw ref: 22,496	-	-
015 Rhymney	1	SAM Gm403 (015a)	1	SAM Gm403 (015a)	-	-	-	-	1 (forge/work shop)	LBII Cadw ref: 16,882	-	-	-	-	Manager's House	LBII Cadw ref: 13,549
016 Dyffryn	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
017 Pentrebach	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
018 Plymouth	1 (furnace bank - reduced and buried)	-	-	-	-	-	-	-	-	-	-	-	-	-	Tramroad tunnel beneath furnace bank	-
019 Ynys Fach	1 (furnace bank)	SAM Gm331	1	SAM Gm331	1 (site of)	SAM Gm331	-	-	-	-	1	LBII* Cadw ref: 16,073	-	-	-	-
020 Cyfarthfa	1 (furnace bank)	SAM Gm425	1	SAM Gm425	1 (site of)	SAM Gm425	-	-	-	-	1 (engine house and remains of melting house and boiler)	SAM Gm425	-	-	Iron tramroad bridge; leat	SAM Gm424  LBII* Cadw ref: 11,408; SAM Gm479
021 Penydarren	-	-	1 (? remnant)	-	-	-	-	-	-	-	-	-	-	-	-	-
022 Dowlais	1 (furnace bank - buried)	-	-	-	-	-	-	-	-	-	1	LBII Cadw ref: 11,491	-	-	-	-
023 Ivor Works	-	-	-	-	-	-	-	-	-	-	1 (?)	LBII Cadw ref: 27,086	-	-	1 (Sulphate of ammonia plant)	LBII Cadw ref: 27,086

## Southeast Wales Industrial Ironworks Landscapes

024 Hirwaun	1 (furnace bank)	SAM BR157	1	SAM BR157	-	-	-	-	2 (remnant of mills ?)	SAM BR157	-	-	-	-	1 (tramroad bridge & causeway)	SAM BR157 LB II Cadw ref: 26,827
025 Llwydcoed	1? (?furnace bank – base of buried)	-	1?	-	-	-	-	-	-	-	-	-	-	-	1 (later works buildings – recently demolished)	-
026 Gadlys	1 (furnace bank)	SAM Gm438	1	SAM Gm438	1 (bank)	LBII Cadw ref: 10,846	1 (intact)	SAM Gm438 LBII Cadw ref: 10,844	-	-	1 (intact - exterior)	LBII Cadw ref: 10,842	-	-	1 (stone revetting)	LBII Cadw ref: 10,843
027 Abernant	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1 (office)	-
028 Aberaman	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
029 Ystalyfera	1 or more (furnace bank(s)?)	-	1?	-	-	-	-	-	-	-	-	-	-	-	-	-
030 Ynyscedwyn	-	-	-	-	-	-	-	-	1 mill / forge?	-	1 engine house?	-	-	-	1 chimney	-
031 Onllwyn	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
032 Banwen	1 (2 furnaces)	SAM Gm420	1	SAM Gm420	-	-	-	-	-	-	1	SAM Gm420	-	-	1 site of chimney; 1 weigh bridge; 1 smithy and carpenter's shop (not protected)	SAM Gm420; - -
033 Melincwrt	1 (plus 1 small air furnace)	SAM Gm416	1	SAM Gm416	Site of rank of 5 kilns	SAM Gm416	1 foundry/finery	SAM Gm416	-	-	-	-	1	SAM Gm416	Store houses	SAM Gm416
034 Venallt	2 (buried remains + hearth and twin tuyeres)	SAM Gm423	1	SAM Gm416	-	-	2 (1 wall remains above ground)	SAM Gm416	-	-	1	SAM Gm416	-	-	1 chimney base; 1 company shop and offices	SAM Gm416; -
035 Abernant	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

## Southeast Wales Industrial Ironworks Landscapes

### 5.4 Threats and Recommendations

A review of the current identified threats was undertaken using Unitary Authority development plans as a basis. Other potential threats, mainly from dereliction were identified in particular from the site visits. These are presented within the body of the report (see Section 6, below) and are summarised in Table 6, along with general recommendations for each area.

**Table 6. Current identified threats and recommendations:**

<b>Ironworks Number</b>	<b>Ironworks Name</b>	<b>Threat identified from UDP</b>	<b>Other Threat</b>	<b>Recommendation</b>
001	Pontypool (Upper Race, Blaendare)	Land improvement /redevelopment	-	Evaluation of potential buried remains
002	Varteg	Land improvement /redevelopment	-	Evaluation of potential buried remains
003	Golynos	Highway improvements	-	Evaluation of potential buried remains
004	Abersychan (British)	Land improvement/ general development	Dereliction	Management – urgent conservation and consolidation of standing remains/ evaluation of potential buried remains
005	Pentwyn	Highway improvements	-	Evaluation of potential buried remains
006	Clydach	None	Dereliction	Management – conservation of standing remains/ visitor interpretation facilities
007	Blaina (inc. Cwmcelyn)	None	-	Evaluation of potential buried remains
008	Coalbrookvale (inc. Trostre)	Industrial development	-	Evaluation of potential buried remains
009	Nant-y-glo	Housing development (minor)	Dereliction	Evaluation of potential buried remains

## Southeast Wales Industrial Ironworks Landscapes

010	Ebbw Vale	Industrial development	-	Management - conservation and consolidation of standing remains/ evaluation of potential buried remains (area 010a)
011	Victoria	Industrial development	-	-
012	Beaufort	None	-	Evaluation of potential buried remains
013	Tredegar	Playing field and housing development	-	Evaluation of potential buried remains
014	Sirhowy	None	-	Extension of excavated, conserved and presented area
015	Rhymney	-	Dereliction (015a) / further light industrial development	Management - conservation and consolidation of standing remains/ evaluation of potential buried remains
016	Dyffryn	Business development/ leisure park	-	Evaluation of potential buried remains
017	Pentrebach	Industrial improvements	-	Evaluation of potential buried remains
018	Plymouth	Business and industrial development	-	Evaluation of potential buried remains
019	Ynys Fach	Adjacent business and leisure development	-	Extension of conserved and presented area – enhanced visitor experience through on site interpretation

## Southeast Wales Industrial Ironworks Landscapes

020	Cyfarthfa	Potential development to enhance built heritage – business development	-	Continuing conservation and enhanced visitor experience through on site interpretation
021	Penydarren	Industrial improvements	-	Conservation and consolidation of any standing remains/ evaluation of potential buried remains
022	Dowlais	Economic and business development	-	Management and conservation strategy with excavation of furnace site
023	Ivor Works	Housing and mixed use development, following landscaping	-	Retention of historic buildings/ evaluation of potential buried remains
024	Hirwaun	Land reclamation and housing development	Dereliction, active erosion and vandalism	Management – conservation and consolidation of standing remains (site survey)
025	Llwydcoed	Housing development	Dereliction/ clearance	Site survey (evaluation of potential buried remains)
026	Gadlys	None	Future retail developments	Monitor future development proposals – enhance visitor experience
027	Abernant	Housing development (committed)	-	Record buried remains prior to development
028	Aberaman	Land reclamation	-	Evaluation of potential buried remains
029	Ystalyfera	None	Housing development	Site survey (evaluation of potential buried remains)

### Southeast Wales Industrial Ironworks Landscapes

030	Ynyscedwyn	None	-	None
031	Onllwyn	None	-	None
032	Banwen	None	Dereliction	Management – urgent conservation and consolidation of standing remains. Protection of outlying features
033	Melincwrt	None	Dereliction	Management – conservation and consolidation of standing remains
034	Venallt	None	Dereliction	Monitor condition – implement management/conservation programme as required
035	Abernant	None	-	Archaeological monitoring of any ground works in area

## **6 Industrial Ironworks Landscapes**

### **IW Number 001 Pontypool (Upper Race, Blaendare) Ironworks ST 27507 99523**

#### **General Description**

The Pontypool Ironworks is an eighteenth century foundation, associated with the Hanbury family of Pontypool, converted to coke fuel during the early nineteenth century. The site is depicted on the 1<sup>st</sup> edition 1:2500 OS map, when during its latter stages under the Ebbw Vale Iron Company. By this date visible features included a bank of four furnaces (ST 27507 99523), adjacent engine houses, calcining kilns and coal level. The site had an extensive coke yard with three ranks of coke ovens (ST 27440 99508), above and to the west of the furnaces and calcining kilns. While these features no longer remain above ground, the possibility of surviving buried remains, particularly relating to the furnace bases, should not be discounted. The only standing remains thought possible to date from the period of the iron works are a row of workers cottages known as five houses (ST 27560 99487), which still stand in the area east of the former furnace site.

#### **Historical Background**

An ironworks is known to have been in operation at Pontypool during the eighteenth century. In 1794 this works consisted of an old charcoal furnace, three fineries, two chaferies, a rolling mill, a slitting mill and a tin mill.

At the start of the nineteenth century the Pontypool Ironworks was being operated by Capel Hanbury Leigh who altered the furnace to be coke fired. Hanbury Leigh took Watkin George as a partner in the works in around 1807. George Watkin, previously a partner in the Cyfarthfa Ironworks brought practical knowledge and skill and was instrumental in the remodelling the Pontypool Ironworks (also known as the Race works). Though the works continued to specialise in the production of tinsplate and wire, George introduced new machinery including a giant waterwheel which was probably used to blow the furnaces like his great wheel at Cyfarthfa. By 1823 there were three furnaces at the Pontypool Ironworks, which produced 3,173 tons of iron, output had increased to 2,421 tons by 1830. The waterwheel method of blowing the furnace was superseded in 1828 when a 52½in. beam blowing engine was purchased from the Neath Abbey Iron Company.

The Pontypool Ironworks continued to successfully produce iron for manufacturing wire, tinsplate and sheet iron with a fourth furnace being constructed during 1839. The works was sold in 1851 to Dimmach and Thompson of South Staffordshire who operated as The Pontypool Iron Company. The company kept four furnaces in blast until the works was later sold to the Ebbw Vale Iron Company in 1864. The Pontypool Ironworks with its own mills and forges were able to process most of the iron produced at their furnaces into wire, sheet and tinsplate. The guaranteed market for Pontypool cold blast iron explains the longevity of the works whose furnaces continued to operate after the closure of the Sirhowy, Pentwyn and Abersychan Ironworks (Ince 1993, pp 112-113).

## Southeast Wales Industrial Ironworks Landscapes

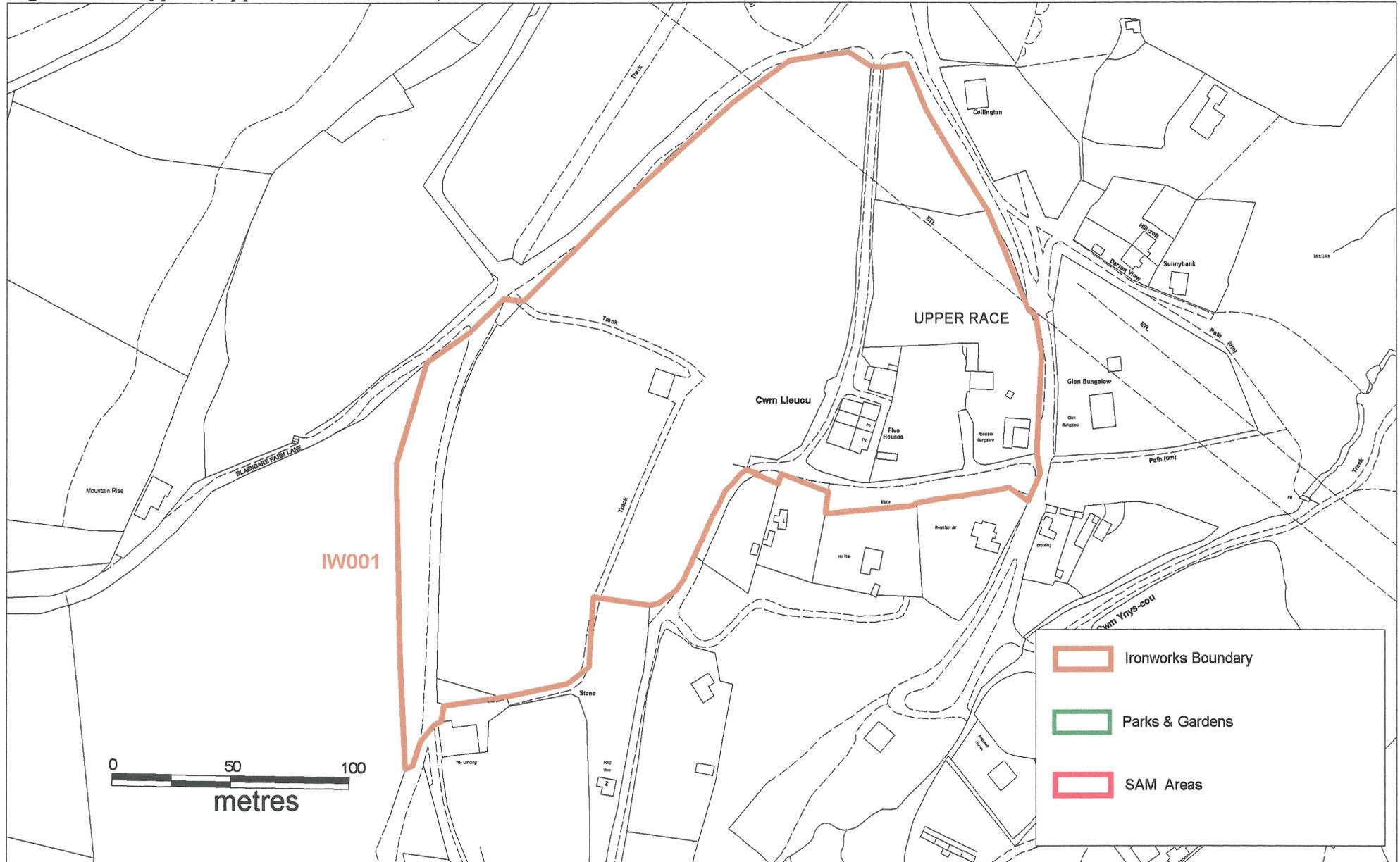
### **Ironworks Boundary**

The ironworks boundary, as defined for the purpose of this report, is essentially based on the core area of activity shown on plans held at the Gwent Record Office, including a plan of ironworks at Blaendare of 1810 (DGP B JCH.1633) and the 1<sup>st</sup> edition 1:2500 OS map, though tied into current boundaries as depicted on landline mapping data.

### **Identified Threats**

Threats to the area as identified from the UDP are in the form of Land improvement and redevelopment: E4/1 removal of dereliction, land reclamation to improve and enhance the quality, character and visual and ecological amenities of the area. S2/1 the British comprises large area of derelict land, major land reclamation needed for mixed use including housing.

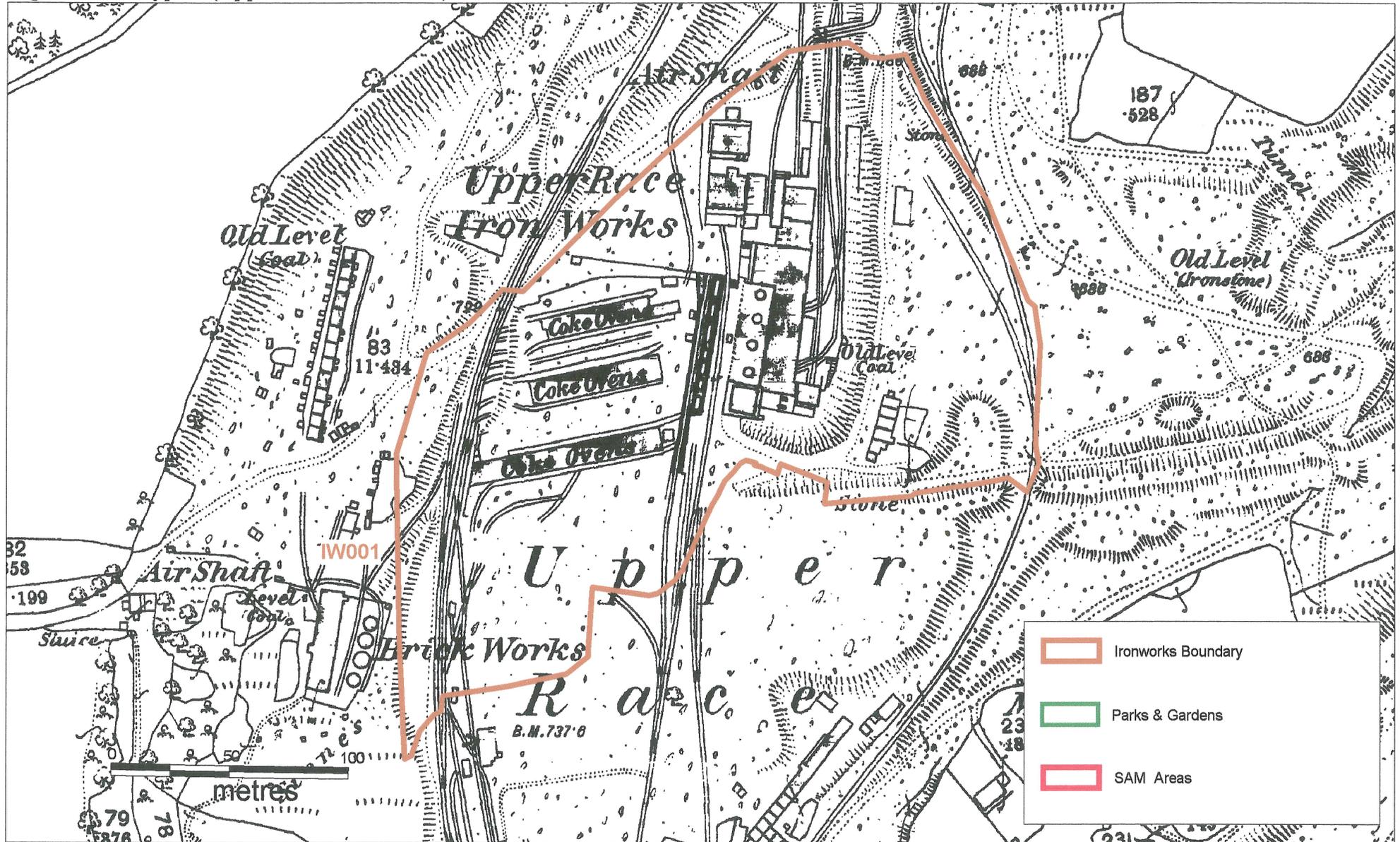
**Figure 4a Pontypool (Upper Race, Blaendare) Ironworks IW001**



This map is based upon Ordnance Survey material with the permission of Ordnance Survey on behalf of the Controller of Her Majesty's Stationary Office © Crown copyright. Unauthorised reproduction infringes Crown copyright and may lead to prosecution or civil proceedings. Glamorgan-Gwent Archaeological Trust Ltd 100017916 (2005).

Mae'r map hwn yn seiliedig ar ddeunydd yr Arolwg Ordnans gyda chaniatâd Arolwg Ordnans ar ran Rheolwr Llyfrfa Ei Mawrhydi © Hawlfraint y Goron. Mae atgynhyrchu heb ganiatâd yn torri hawlfraint y Goron a gall hyn arwain at erlyniad neu achos sifil. Glamorgan-Gwent Archaeological Trust Ltd 100017916 (2005).

Figure 4b Pontypool (Upper Race, Blaendare) Ironworks IW001 on 1st edition OS map base



This map is based upon Landmark material © Crown copyright and Landmark Information Group. All rights reserved. Glamorgan-Gwent Archaeological Trust Ltd. On behalf of the Welsh Assembly Government (2005).

Mae'r map hwn yn seiliedig ar ddeunydd Landmark © Hawlfraint y Goron a Landmark Information Group. Cedwir pob hawl. Glamorgan-Gwent Archaeological Trust Ltd. Ar ran Llywodraeth Cynulliad Cymru (2005).

## **IW Number 002 Varteg Ironworks SO 26298 05498**

### **General Description**

The Varteg Ironworks is an early 19<sup>th</sup> century works, which was generally unsuccessful commercially. Little detailed documentary evidence relating to this ironworks was easily available, though the site, with its two furnaces is depicted on the early 19<sup>th</sup> century survey undertaken on behalf of the Earl of Abergavenny. The first edition 1:2500 OS plan indicates the 'Old Furnaces' at (SO 26298 05498), adjacent cinder tips (SO 26253 05417) and a reservoir (SO 26405 05675). These features appeared to have survived until the 1960s, with the remains of the furnaces, though partly dismantled, visible as an enclosed area with rectangular structures. However, the area appears to have been subsequently reclaimed and landscaped. Whilst it is considered unlikely that features survive, further fieldwork is advised to check for buried remains. The ironworks at Varteg, however, should be considered in conjunction with that at Golynos (see IW 003), with which it later became inextricably linked. The combined Varteg and Golynos site forms a considerable area (see figures 6c and 6d), the majority of which has been subsequently lost during the 20<sup>th</sup> century to opencast and reclamation works.

### **Historical Background**

The Varteg Ironworks, which commenced production with a single furnace in 1803, was a generally unsuccessful concern. The works was owned by Knight & Co, the main partner of which was John Knight, a member of an important ironmaster family from the Stour Valley in the Midlands. In 1805 the works was producing 900 tons of iron and by 1823 the works possessed two furnaces and produced 6,513 tons of iron. A third furnace was built in 1824 and a fourth furnace added in 1826. During that year the furnaces were under the control of Kenricks & Co. who produced 7,800 tons of iron at Varteg. A fifth furnace was added in 1830 and during that year 13,536 tons of iron were produced. The furnaces remained under the ownership of Kenricks and Co. until 1837 when the Varteg Iron Company took over the site. By about 1843 the works were disused and in the following year advertised for sale.

In 1854 Williams & Co occupied the Varteg Ironworks; this company also held the Golynos Ironworks giving it a total of seven furnaces of which four were in blast. In 1855 Varteg was reported as being unoccupied and was being plundered for stone. However, Golynos and Varteg were leased to Crawshay Bailey and William Morgan in 1858 when four of the six furnaces were returned to blast. This state of activity did not last for long with both ironworks described as being in a bad state in 1860 although a furnace briefly operated at Varteg in 1861. In the following year the Varteg Ironworks was taken over by Partridge & Jones who put a single furnace into blast in 1863. The works was relinquished by Partridge & Jones in 1864 when G.E Bevan & Co. of Golynos took over and put one furnace into blast until the end of the year when iron making operations at the site were abandoned (Barber 1999; Ince 1993, pp 124-125).

### **Ironworks Boundary**

The ironworks boundary, as defined for the purpose of this report, is essentially based on the core area of activity shown on plans held at the Gwent Record Office and the 1<sup>st</sup> edition 1:2500 OS map, though tied into current boundaries as depicted on landline mapping data.

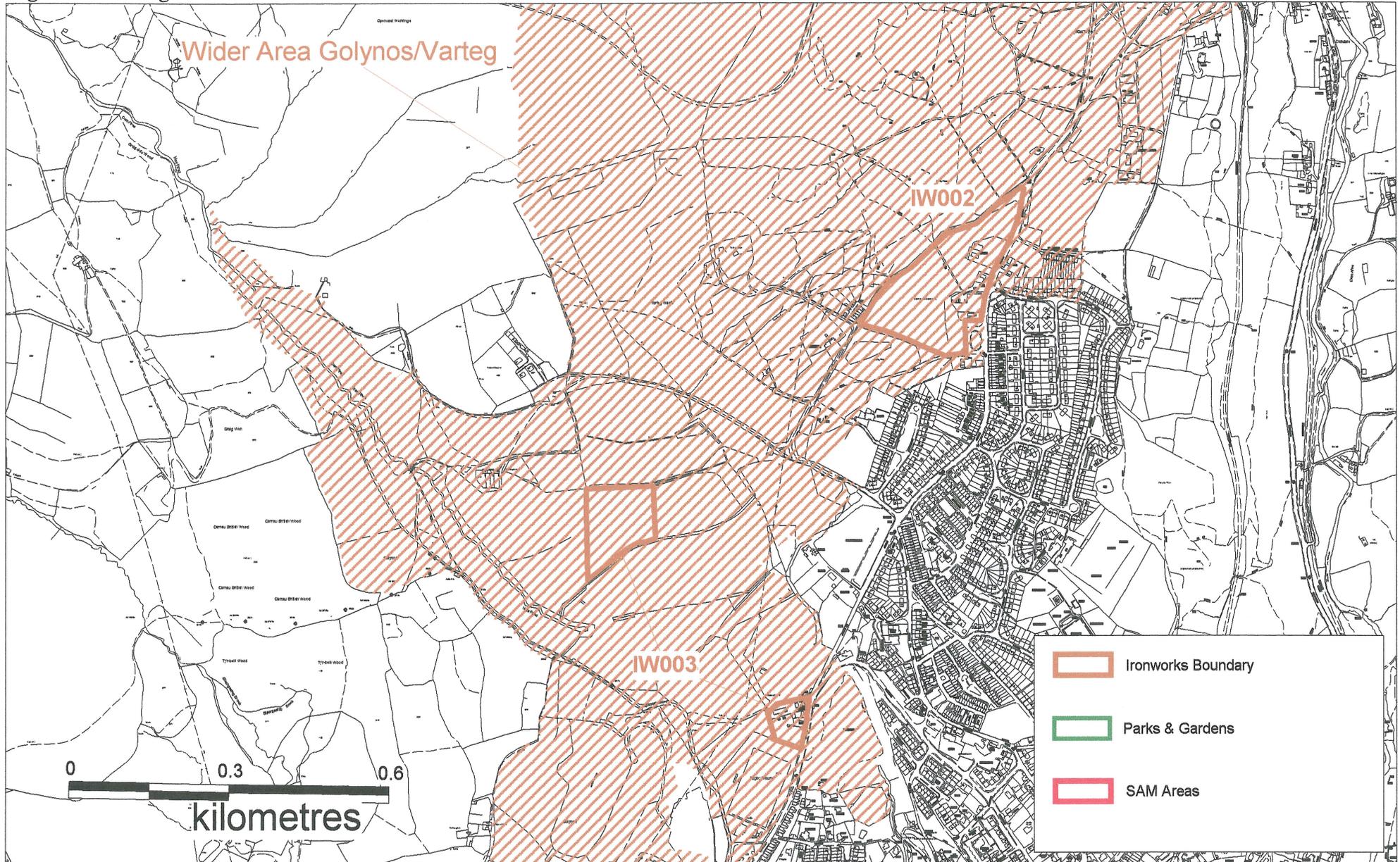
## Southeast Wales Industrial Ironworks Landscapes

### **Identified Threats**

Threats to the area as identified from the UDP are in the form of land reclamation and economic development under the following: E4/3 Land reclamation and environmental enhancement schemes within landscape improvement areas will be permitted where the proposal improves and enhances the quality and character of the area; ED4 Varteg Rd identified for neighbourhood industrial development.

It is recommended that any further reclamation in the core area should be preceded by evaluation to check for any surviving buried remains.

**Figure 5a Varteg Ironworks IW002**



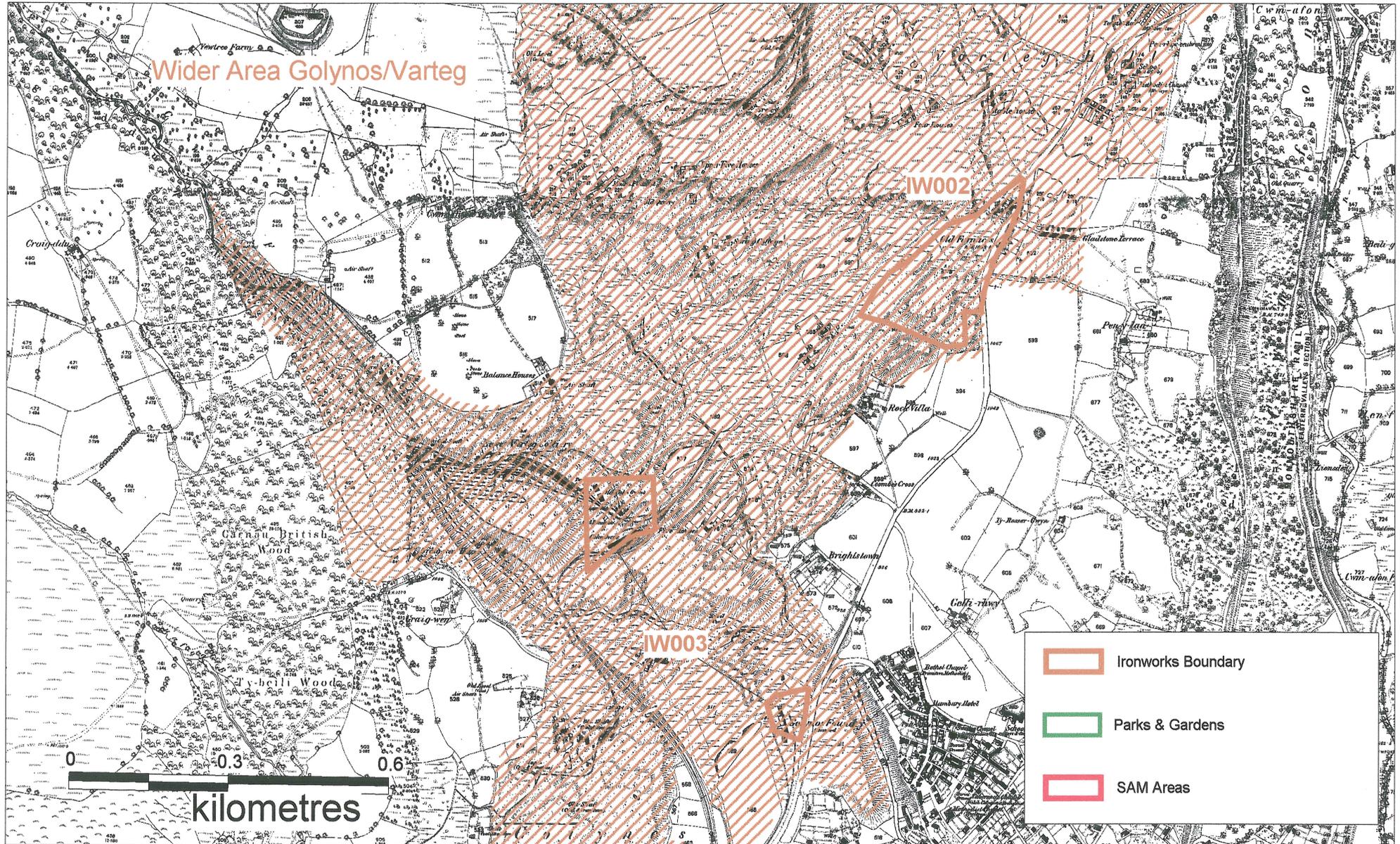
This map is based upon Ordnance Survey material with the permission of Ordnance Survey on behalf of the Controller of Her Majesty's Stationary Office © Crown copyright.

Unauthorised reproduction infringes Crown copyright and may lead to prosecution or civil proceedings. Glamorgan-Gwent Archaeological Trust Ltd 100017916 (2005).

Mae'r map hwn yn seiliedig ar ddeunydd yr Arolwg Ordnans gyda chaniatâd Arolwg Ordnans ar ran Rheolwr Llyfrfa Ei Mawrhydi © Hawlfraint y Goron.

Mae atgynhyrchu heb ganiatâd yn torri hawlfraint y Goron a gall hyn arwain at erlyniad neu achos sifil. Glamorgan-Gwent Archaeological Trust Ltd 100017916 (2005).

Figure 5b Varteg Ironworks IW002 on 1st edition OS map base



This map is based upon Landmark material © Crown copyright and Landmark Information Group. All rights reserved. Glamorgan-Gwent Archaeological Trust Ltd. On behalf of the Welsh Assembly Government (2005).

Mae'r map hwn yn seiliedig ar ddeunydd Landmark © Hawlfraint y Goron a Landmark Information Group. Cedwir pob hawl. Glamorgan-Gwent Archaeological Trust Ltd. Ar ran Llywodraeth Cynulliad Cymru (2005).

## **IW Number 003 Golynos Ironworks SO 25969 04710**

### **General Description**

The Golynos Ironworks appears to be poorly represented in the documentary record. The site was linked to both Pentwyn and Varteg Ironworks during its relatively short period of production and appears to have been small scale, though widely spread out as a result. It is considered that the ironworks area was centred on the Golynos Foundry (SO 25969 04710), and probably an area of coke ovens and limekilns at SO 25655 05087, located just south west of the Lower Varteg Colliery as shown on the 1<sup>st</sup> edition 1:25,000 OS map. The ironworks at Golynos, however, should be considered in conjunction with the Varteg Ironworks (see IW 002), with which it became inextricably linked. The combined Golynos and Varteg site forms a considerable area (see figures 6c and 6d). Unfortunately most of the area has been subject to opencast and land reclamation activities and the area north of Cwm Ffrwd around the Lower Varteg Colliery has been severely altered with the result that any remains associated with ironworks will have been destroyed. The reclamation works appear to have extended into the area of the Golynos Foundry; which has been partly redeveloped for housing; it is unknown whether any buried remains associated with the works survive.

### **Historical Background**

The Golynos Ironworks started production in 1837 with two furnaces blown by a 52½in. x 8ft. Neath Abbey beam blowing engine. The Golynos Iron Company merged the Golynos and Pentwyn Ironworks after one year of operation. By 1854 the Golynos Ironworks had become linked with the Varteg Ironworks under Williams & Co and in 1858 the two works were under the ownership of Crawshay Bailey and William Morgan. During this period four of the six furnaces at Golynos and Varteg were returned to blast. This state of activity did not last for long with both ironworks described as being in a bad state in 1860, when certain machinery was removed from Golynos and taken to Varteg after an attempt to sell Golynos failed. The Golynos Ironworks with three furnaces, a blowing engine, nine kilns and thirty-two coking ovens had been offered for sale in conjunction with forges and mills at Pontnewynydd.

In 1863 G.E. Bevan & Co. took over the lease of the Golynos Ironworks at a rental of £650 per year. One furnace was put into blast with a second commissioned in 1864. G.E. Bevan & Co. had taken Golynos and later Varteg to prove the worth of their Northampton iron ores; with this achieved they ceased their iron making operations at Golynos in January 1866. An attempt was made to sell the Golynos property in 1867 but no interest was forthcoming (Ince 1993, pp 124-125).

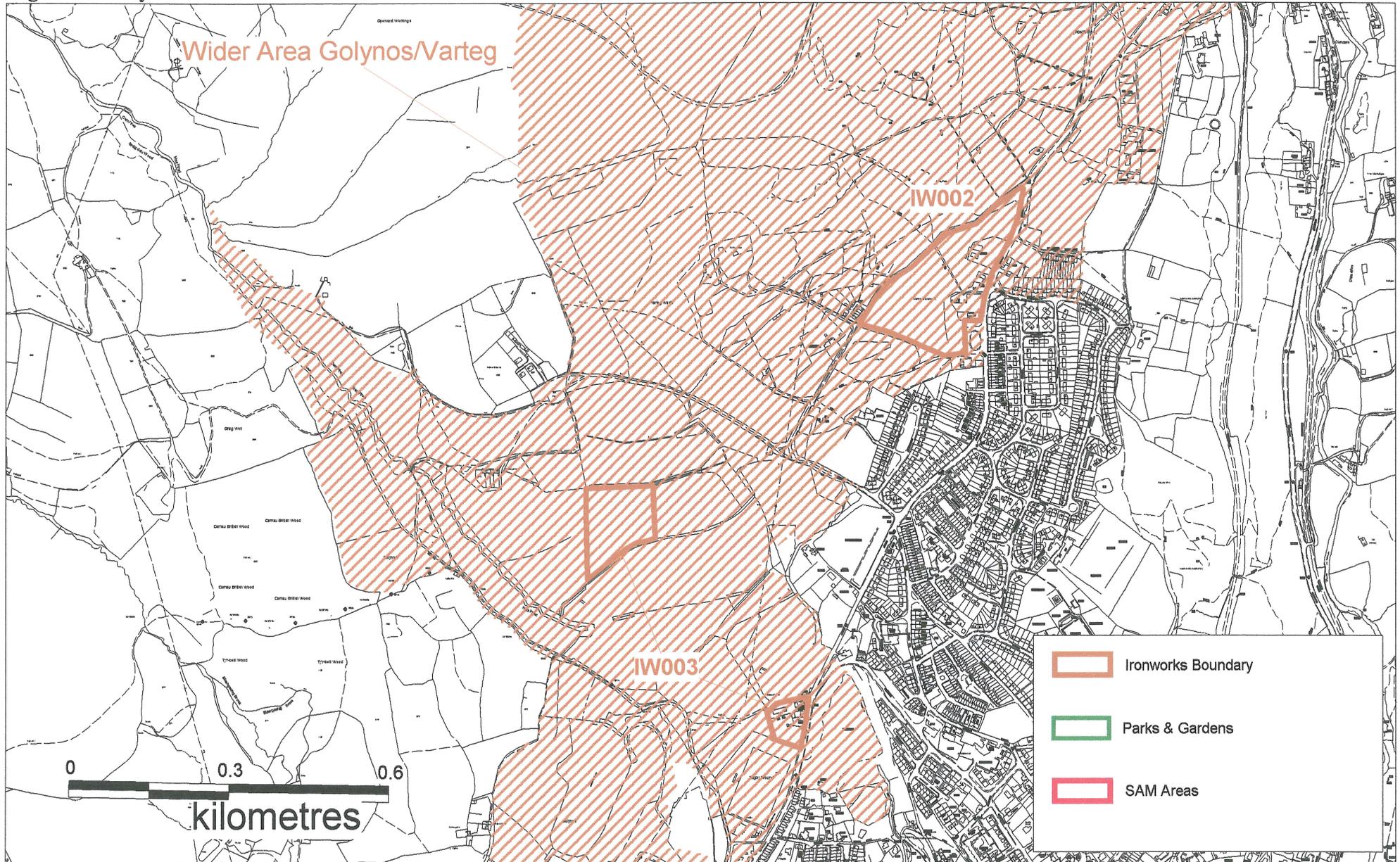
### **Ironworks Boundary**

The ironworks boundary, as defined for the purpose of this report, is essentially based on the core area of activity shown on the 1<sup>st</sup> edition 1:2500 OS map, though tied into current boundaries as depicted on landline mapping data.

### **Identified Threats**

Threats to the area as identified from the UDP are in the form of Highway improvements. No other threats have been identified. The area appears to have been comprehensively opencasted and reclaimed, little if anything is considered to survive, apart from possible buried features in the area of the later foundry.

**Figure 6a Golynos Ironworks IW003**



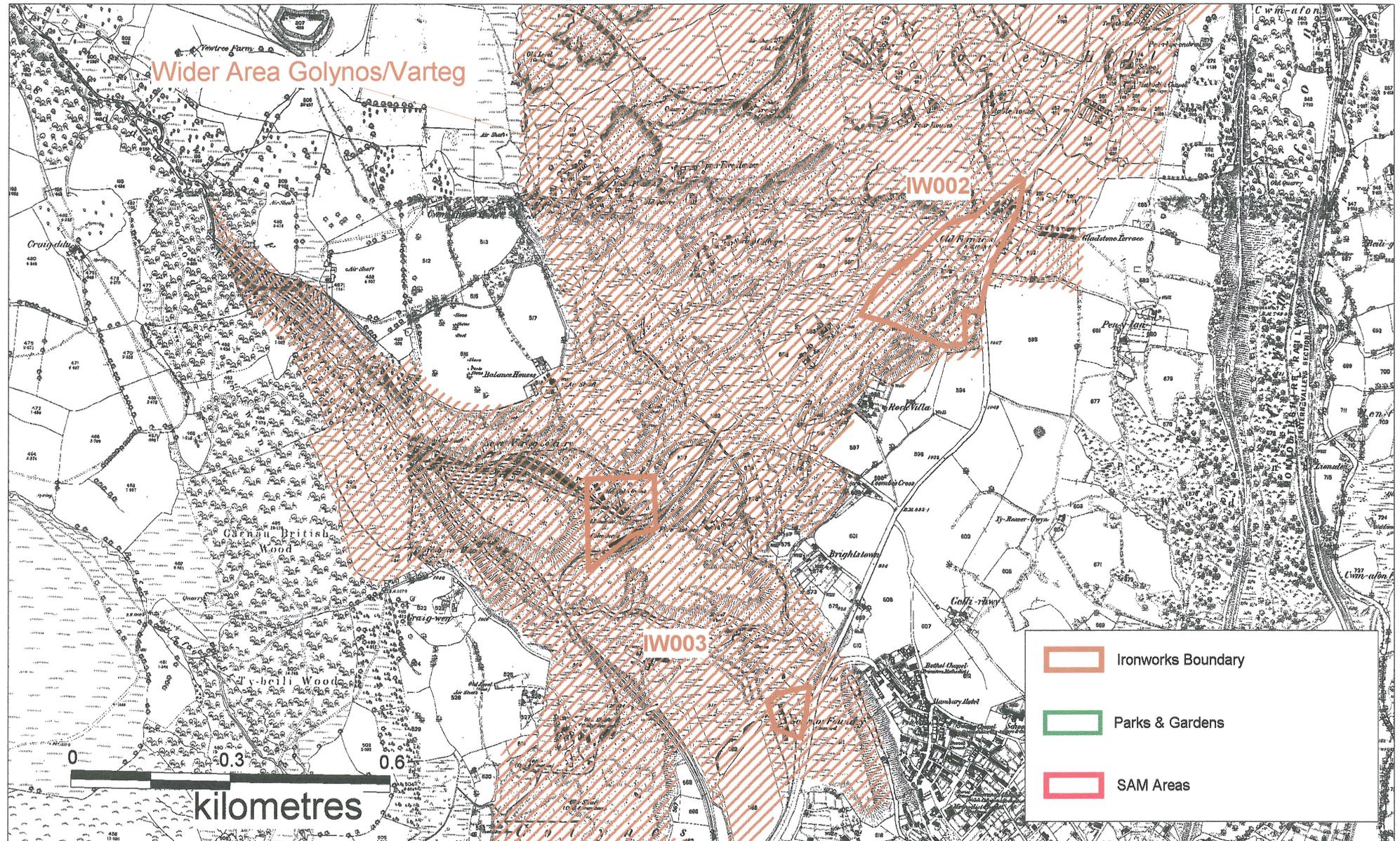
This map is based upon Ordnance Survey material with the permission of Ordnance Survey on behalf of the Controller of Her Majesty's Stationary Office © Crown copyright.

Unauthorised reproduction infringes Crown copyright and may lead to prosecution or civil proceedings. Glamorgan-Gwent Archaeological Trust Ltd 100017916 (2005).

Mae'r map hwn yn seiliedig ar ddeunydd yr Arolwg Ordnans gyda chaniatâd Arolwg Ordnans ar ran Rheolwr Llyfrfa Ei Mawrhydi © Hawlfraint y Goron.

Mae atgynhyrchu heb ganiatâd yn torri hawlfraint y Goron a gall hyn arwain at erlyniad neu achos sifil. Glamorgan-Gwent Archaeological Trust Ltd 100017916 (2005).

Figure 6b Golynos Ironworks IW003 on 1st edition OS map base



This map is based upon Landmark material © Crown copyright and Landmark Information Group. All rights reserved. Glamorgan-Gwent Archaeological Trust Ltd. On behalf of the Welsh Assembly Government (2005).

Mae'r map hwn yn seiliedig ar ddeunydd Landmark © Hawlfraint y Goron a Landmark Information Group. Cedwir pob hawl. Glamorgan-Gwent Archaeological Trust Ltd. Ar ran Llywodraeth Cynulliad Cymru (2005).

**IW Number 004 Abersychan (British) Ironworks (04698g; 04699g and 04596g) SO 2575 0365**

**General Description**

The Abersychan or British Ironworks (NPRNs 85,082; PRNs: 04698g; 04699g and 04596g) operated from 1827 to 1883 and was constructed during the period in which South Wales was the leading iron-producing region in the world. After initial difficulties of investment and construction, the ironworks became one of the larger ironworks in South Wales, with six blast furnaces. However, the works continued to have a troubled financial history until its closure in 1883 and the demolition of most of its buildings shortly afterwards.

The site retains impressive and nationally important remains including the Grade II\* Listed Former British Ironworks office and foundry quadrangle (PRN: 04596g; NPRN: 85,067; Grade II\* Cadw Rec. No: 14870; SO 2572 0362), the scheduled Air Furnace (PRN: 04698g; NPRN: 85,068; SAM No: Mm221, and the listed and scheduled British Colliery pumping engine house (PRN: 04699g; NPRN: 85,065; Listed Grade II: Cadw Rec. No. 18595; SAM No: Mm216; SO 2584 0364).

The Former British Ironworks office and foundry quadrangle is the most prominent building in the area of the former British Ironworks. The buildings form a closed quadrangle and are constructed of coursed sandstone with a slate roof (now largely removed). The whole quadrangle is single-storey apart from the northeast pavilion, which has two storeys and is rendered. The front range of the quadrangle, facing northwest, formerly consisted of two square pavilions with pyramidal roofs and a lower connecting range. The right hand pavilion appears to be unaltered and is consistent with a design of the 1820s or 1830s.

Surviving workshop and foundry complexes at ironworks, such as this, are now extremely rare, and this is believed to be the most complete example in Wales. Listed Grade II\* due to rarity, the possible involvement of Decimus Burton in designing the front pavilions, and group value with the nearby Cornish engine house and the air furnace within the quadrangle, both of which are scheduled ancient monuments.

According to the listing description ‘the main ironworks buildings were designed with high architectural pretensions and on a monumental scale. The architect was Decimus Burton (1800-81), near the beginning of his career, who went on to become one of the leading architects of his generation. Construction began in 1826. A map of the ironworks site surveyed in 1826 (i.e. at the time of construction) does not show any of the surviving quadrangle, but the front (north-west) range appears to be shown on the tithe map, surveyed before 1841, and an early engraving of the main facade of the works shows a small building of similar shape, detail and proportions. Given the style of the building, it is probable its front range was built at around the time that the works opened, possibly to Burton’s designs, and was used as offices. The rest of the quadrangle was constructed as a foundry and workshops between c1841 and 1879 and is most likely to date from major new investments in the works by the Ebbw Vale Company in the 1850s. The north east corner pavilion was reconstructed with a first floor on the existing single-storey structure around the turn of the century and was used as a colliery office.’

The air furnace at the British, a type of reverberatory furnace for re-melting cast iron, is extremely rare and the only surviving examples in Wales, while two examples currently known

## Southeast Wales Industrial Ironworks Landscapes

in England are fragmentary. Commonly used during the industrial revolution, these were gradually superceded by cupola furnaces. The furnace which comprises a long fire brick hearth held together with iron ties is nearly intact, and retains its elements including cast iron door and chimney at the west end which drew the fire over the hearth.

The British Colliery pumping engine house comprises a Cornish beam pumping engine house built by the British Iron Company in 1845 to drain its mines. Constructed of sandstone with round-arched openings and a slate roof (now stripped), the structure is of considerable architectural quality. The engine house is unusually complete for one of its period, and is of particular importance in retaining several fixtures; including interior timber beams and stairs, and cast iron brackets and plates. The bob wall is to the south end and has a large archway for the beam, typical of engine houses before the mid nineteenth century. No surface remains of the shaft are visible.

An extensive survey of the site was undertaken in the 1990s by the Ironbridge Institute and The Royal Commission on the Ancient and Historical Monuments of Wales (The Ironbridge Institute and RCAHMW 1994). Features recorded within the area include the site of the blast furnaces (NPRN: 85,063) at SO 2571 0372, the Cwmbyrgwm Chimney (PRN: 04017g; NPRN: 85,066) Ventilation Shaft at SO 2585 0367, a Wagon Repair Shed (NPRN: 85,070) at SO 2583 0364, an Electrical House (NPRN: 85,069) at SO 2575 0358, Coke Ovens (NPRN: 85064) at SO 2571 0372.

The first edition 1:2500 OS map also indicated the following: a reservoir at SO 25899 03975, near the northern edge of the core area and a brickworks SO 25899 03764, a limekiln at SO 25885 03789 and an airshaft at SO 25742 03907. Aerial photographs indicate that much of the northern half of the area, including the area of the furnaces and the extensive coke yard was buried by industrial waste; the potential for good survival of buried remains is therefore considered to be high. This was confirmed by the site visit; substantial remains of massively constructed masonry walling were noted projecting from the break of slope at the location of the furnace bank/charging ramp as identified on the 1<sup>st</sup> edition OS map.

### **Historical Background**

The Abersychan Ironworks was built by the British Iron Company, which had been formed in 1824, with John Taylor, Robert Small and James Henry Shears as managing directors. Construction started in 1826 but the construction problems relating to the furnaces delayed production until 1827; there were six 48ft. high furnaces with a 6,000 cu.ft. capacity, blown by a pair of coupled Neath Abbey beam blowing engines. The ironworks also comprised two refineries, a smiths' shop, a brick yard, a fitting shop, a forge and mills, thirty-six puddling furnaces, twenty three heating furnaces, a rolling train for 18in. merchant bars and a rolling train for 12in. merchant bars.

The British Ironworks, Abersychan produced 10,644 tons of iron in 1830. Production consisted initially of merchant bar iron later converting to the production of rails. In 1839 the six furnaces were in blast being blown by the blowing engines, which also provided the blast for five refineries. After some financial difficulties in the 1840s the company was reorganized under the title of the New British Iron Company. The reorganisation led to some development of the works with hot blast being applied to the furnaces for the first time in 1848. However, the new company fared little better than the old with only two furnaces in blast during 1850 and the

## Southeast Wales Industrial Ironworks Landscapes

company became bankrupt in 1851. In the following year the Ebbw Vale Iron Company purchased the Abersychan Ironworks and by 1856 all six furnaces were in blast. This state of employment continued until 1860 when two of the furnaces were put out of blast. The drop in demand for iron during the early 1860s resulted in the Ebbw Vale Company putting the Abersychan furnaces out of blast during 1862-63. In 1864 four furnaces were in blast and in the following year the Neath Abbey Iron Company repaired a 40in. engine at the works. Production of rails at Abersychan continued during the remaining years of the decade. In 1869 the works had five of their six furnaces in blast, these furnaces were 48ft. high with 17 to 18ft. across the boshes and were each capable of producing 200 tons of hot blast iron per week. Waste gases from the furnaces were used for heating the blast and firing the boilers. There were fifty-two puddling furnaces serving three forges and twenty-four balling furnaces supplying five mills. A large beam engine powered two forge trains, a rail mill and two other mills for producing iron for rails. Another beam engine powered a forge train and a mill for roughing down iron for the top and bottom of rail piles. A mill for blooming the rail piles was driven by a horizontal engine. These forges and mills were able to produce between 800 and 1,100 tons of rails each week. Also installed at the works was a small inverted engine used for driving two double presses and another of the same type powered two punches for punching and notching rails. Steam for the engines was generated in eighteen boilers.

The Abersychan Ironworks continued to produce rails during the early 1870s. It appears that the Ebbw Vale Iron Company was willing to continue to invest money at Abersychan for one of the beam blowing engines was rebuilt in 1870 and the second blowing engine received similar treatment in 1875. Despite this the drop in demand for wrought iron rails forced the closure of the Abersychan Ironworks in September 1876. However, the works was reopened in April 1877 and two furnaces were put in blast. The works was now producing spiegeleisen for the Ebbw Vale Ironworks. In 1880 there were four furnaces in blast at Abersychan, however the works finally ceased operating the following year (Ince 1993, pp 11-112).

### **Ironworks Boundary**

The ironworks boundary, as defined for the purpose of this report, is essentially based on the core area of activity shown on various plans of the period 1825 – 1884 held at the Gwent Record Office and the 1<sup>st</sup>, 2<sup>nd</sup> and 3<sup>rd</sup> edition 1:2500 OS map, though tied into current boundaries as depicted on landline mapping data.

### **Identified Threats**

Threats to the area as identified from the UDP are in the form of land improvement E4/3, and general development S2/1: E4/3 refers to the removal of dereliction, land reclamation to improve and enhance the quality, character and visual and ecological amenities of the area; while S2/1 states that the British comprises a ‘large area of derelict land’, and that a ‘major land reclamation (is) needed for mixed use including housing’.

The long-term future conservation and management of the industrial heritage aspects of the site will require urgent consideration, given plans for development and reclamation. Any development/land reclamation schemes should seek to minimize impact on the nationally important archaeological resource of the area, which is unique in terms of Wales, if not the United Kingdom as a whole. The preservation of the cultural heritage resource of this area should be paramount and take precedence in any proposed landscape ‘improvements’, and any alternative use/development should be sympathetic to the historic industrial character of the area.

## Southeast Wales Industrial Ironworks Landscapes

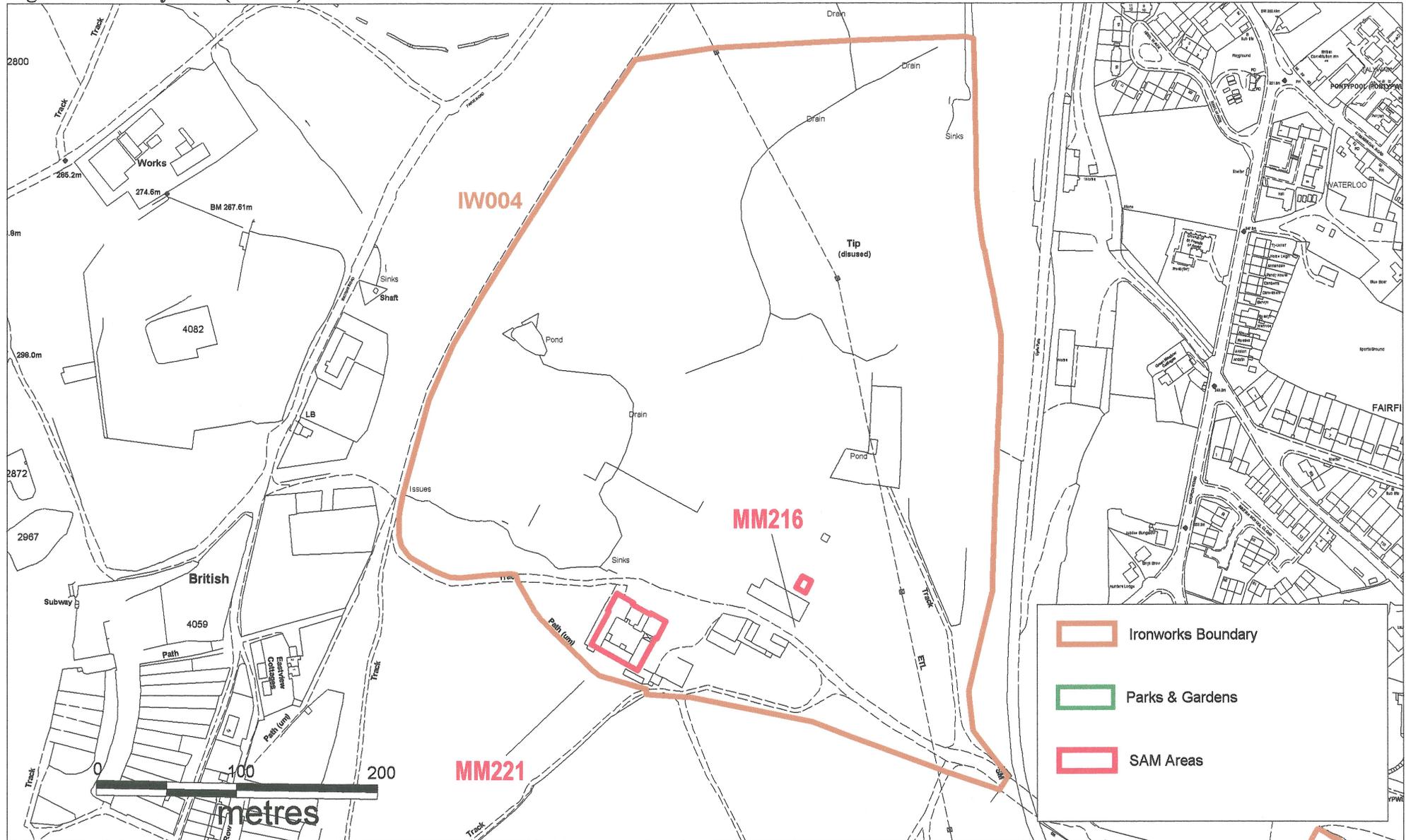
The ironworks area is currently at risk from dereliction, in particular the listed office/foundry complex, which has suffered extensive damage since 1994 and has become very unstable since 1997; the complex is now roofless, and stripped of much of its internal features. The northern wing appears to have been partially quarried for building material. The area of the scheduled air furnace was also found to be in an overgrown state, while the Cornish Beam Engine is also roofless; the entire site is in serious danger from dereliction and vandalism, if unchecked. A programme of emergency consolidation and conservation should be devised and implemented to arrest further damage. Targeted evaluation of buried features should be undertaken as part of this process.

**Plate 002 Abersychan (British) IW004**



Plate 002: the Grade II\* Listed Former British Ironworks office and foundry quadrangle (PRN: 04596g; NPRN: 85,067; Grade II\* Cadw Rec. No: 14870; SO 2572 0362), view to the northeast.

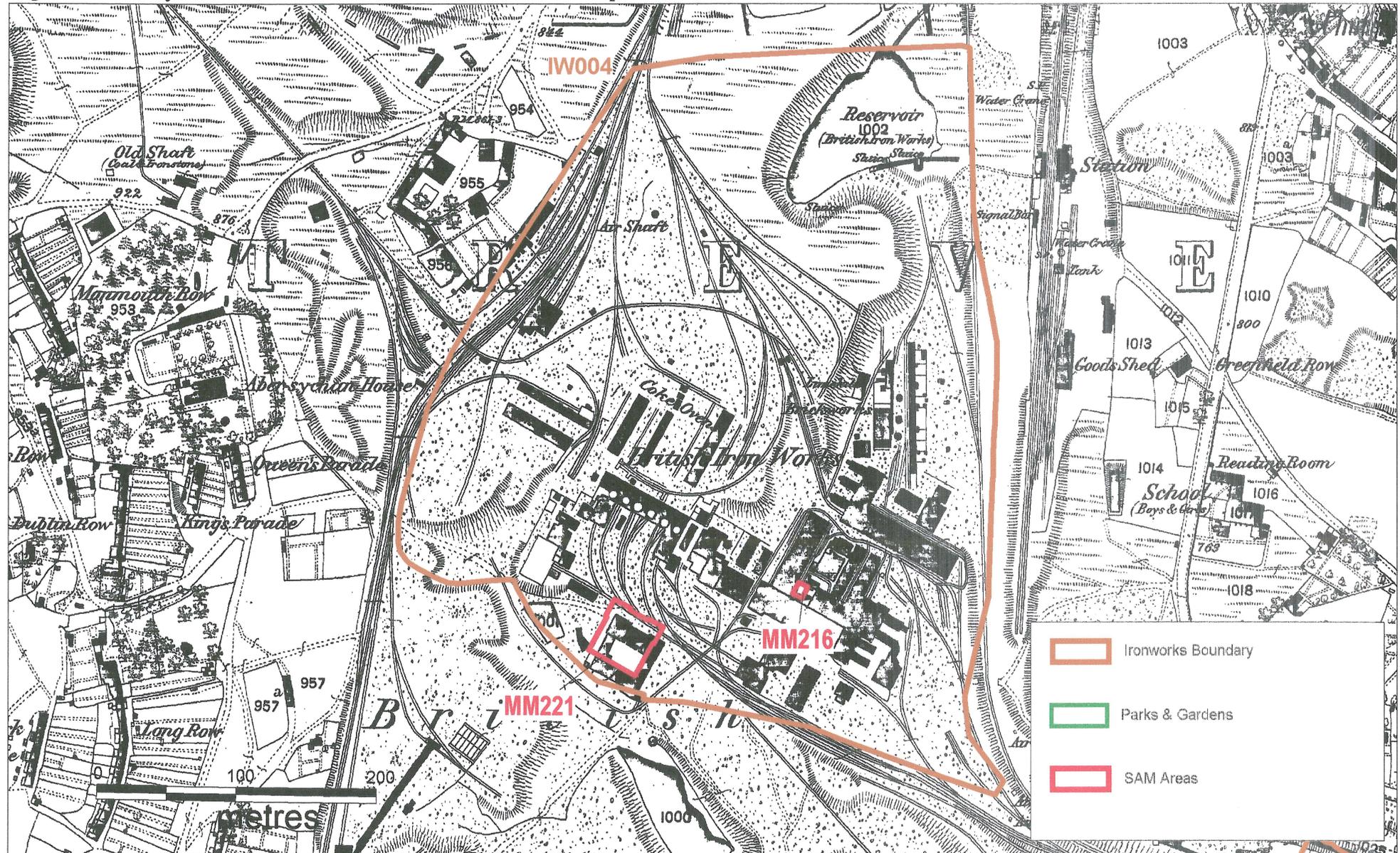
**Figure 7a Abersychan (British) Ironworks IW004**



This map is based upon Ordnance Survey material with the permission of Ordnance Survey on behalf of the Controller of Her Majesty's Stationary Office © Crown copyright. Unauthorised reproduction infringes Crown copyright and may lead to prosecution or civil proceedings. Glamorgan-Gwent Archaeological Trust Ltd 100017916 (2005).

Mae'r map hwn yn seiliedig ar ddeunydd yr Arolwg Ordnans gyda chaniatâd Arolwg Ordnans ar ran Rheolwr Llyfrfa Ei Mawrhydi © Hawlfraint y Goron. Mae atgynhyrchu heb ganiatâd yn torri hawlfraint y Goron a gall hyn arwain at erlyniad neu achos sifil. Glamorgan-Gwent Archaeological Trust Ltd 100017916 (2005).

Figure 7b Abersychan Ironworks IW004 on 1st edition OS map base



This map is based upon Landmark material © Crown copyright and Landmark Information Group. All rights reserved. Glamorgan-Gwent Archaeological Trust Ltd. On behalf of the Welsh Assembly Government (2005).

Mae'r map hwn yn seiliedig ar ddeunydd Landmark © Hawlfraint y Goron a Landmark Information Group. Cedwir pob hawl. Glamorgan-Gwent Archaeological Trust Ltd. Ar ran Llywodraeth Cynulliad Cymru (2005).

## **IW Number 005 Pentwyn Ironworks SO 26291 03379**

### **General Description**

The Pentwyn Ironworks was a short-lived venture operating during the period 1825-1868, operating in conjunction with Golynos, and later part of the large Ebbw Vale holdings. Little documentary information is available on the site, but it appears to have remained small-scale, and generally lacks great historic interest.

The area, a north facing slope south of Cwm-sychan Brook to the south of Abersychan now bounded by Foundry Road and the Promenade; appears to have been 'reclaimed' or at least landscaped. The site is depicted on the Earl of Abergavenny's survey of 1825-6, and also on the first edition 1:2500 OS map after the ironworks had been re-established as a Foundry. The bank of three furnaces (SO 26291 03388) still survived at this date, with the main Foundry structure, possibly re-using earlier casting houses, was located adjacent to the north at SO 26311 03401. Two other linear structures, possibly rail mills lay to the west at SO 26222 03436. By the survey of the 2<sup>nd</sup> edition the site was in use as a mineral water factory, which appears to have occupied the two western buildings; the furnace bank and adjacent structures had been largely demolished by this date. By the 3<sup>rd</sup> edition the current layout of Foundry Road is in place and the area of the furnaces appears to have been completely landscaped.

A further site was located along the southern edge of the area at SO26200340; this was a 1.25 mile tramroad (05290g) of 1826, which linked the British Ironworks to the Monmouthshire Railway (1854) and facilitated the carriage of iron from the neighbouring British Ironworks to the main Pontypool-Blaenavon railway near Abersychan Farm. The route is now taken by the present tarmac road known as 'the promenade'

The buildings and structures associated with the ironworks have all been demolished, and the site reclaimed and landscaped. However the possibility of buried remains should not be discounted, in particular the massively constructed bases of the furnaces may survive in a buried state.

### **Historical Background**

The Pentwyn Ironworks was constructed by the Hunt brothers in 1825 and initially had three furnaces. The cost of building the works, offices, roads and forty houses had amounted to £35,000. During 1830 the Pentwyn Ironworks produced 5,391 tons of iron but the organisation of this works changed in 1838 when it merged to be jointly run with the Golynos Ironworks. This joint stock company was based at Bath and drew the main funding from investors in Somerset and Devon. However, by 1850 this joint working had been abandoned with the three furnaces at Pentwyn lying idle.

The works was acquired by the Ebbw Vale Iron Company in 1857 but the furnace remained out of blast until 1865. During that year there were four furnaces capable of operation with two being put into blast. The two furnaces remained in blast until 1868 and in the following year the dismantling of the Pentwyn Ironworks commenced (Ince 1993, p 112).

### **Ironworks Boundary**

The ironworks boundary, as defined for the purpose of this report, is essentially based on the core area of activity shown on plans held at the Gwent Record Office dating from 1825 and the

## Southeast Wales Industrial Ironworks Landscapes

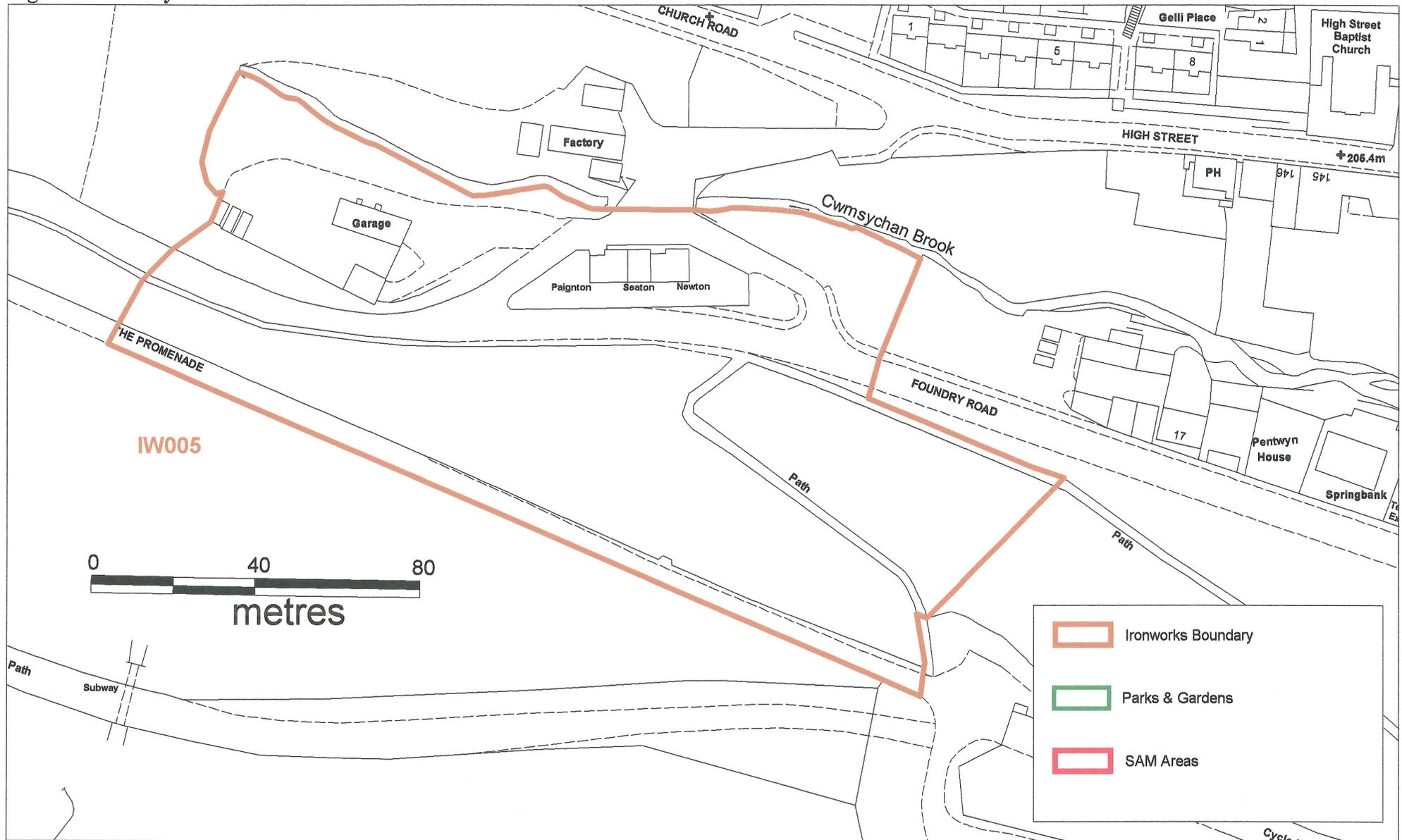
1<sup>st</sup> edition 1:2500 OS map, though tied into current boundaries as depicted on landline mapping data.

### **Identified Threats**

Threats to the area as identified from the UDP are in the form of highway improvements.

The current extent and condition of buried remains associated with the ironworks is currently unknown. Any proposed development in the area should take this into account, and it is recommended that targeted evaluation of the area is carried out.

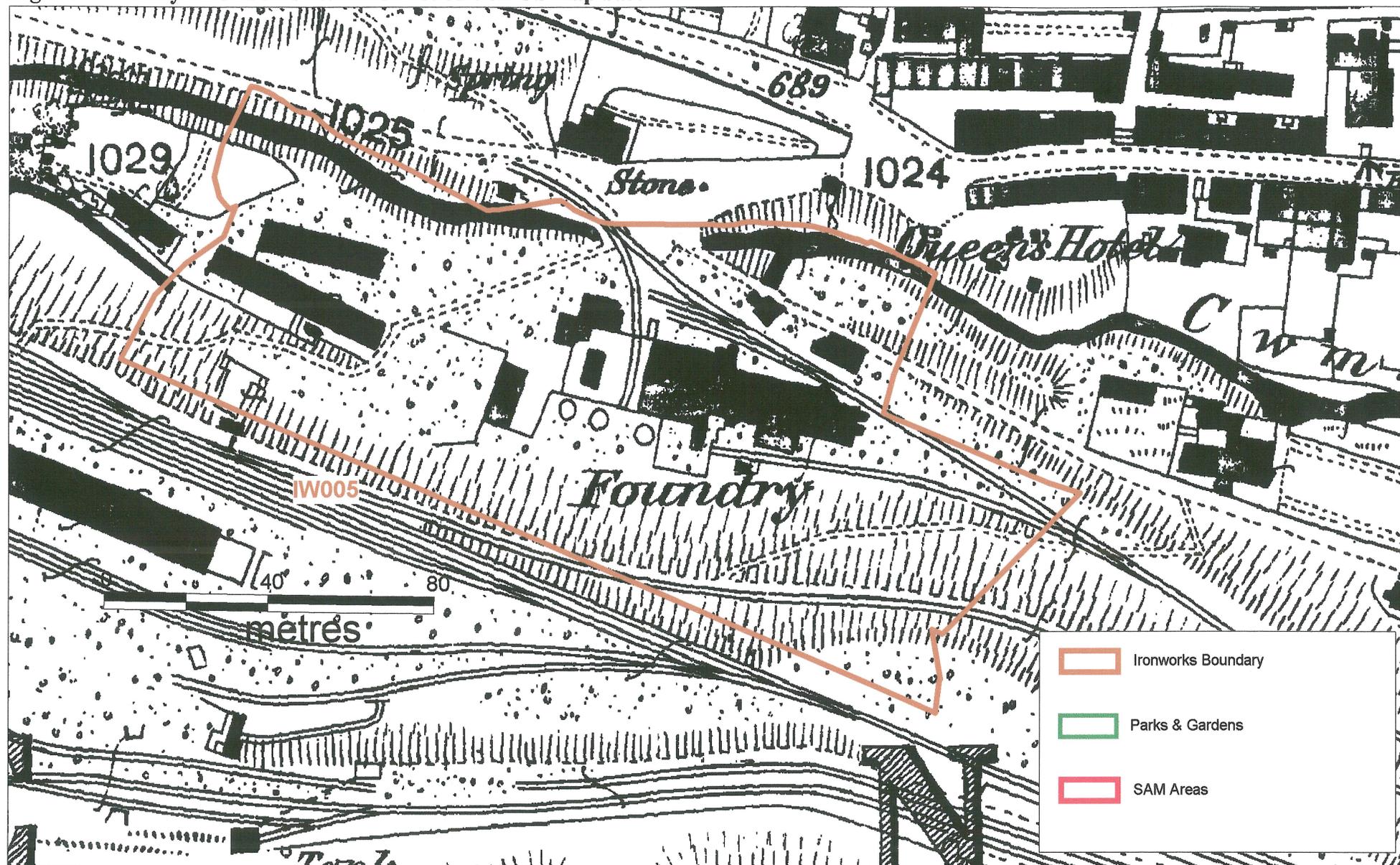
Figure 8a Pentwyn Ironworks IW005



This map is based upon Ordnance Survey material with the permission of Ordnance Survey on behalf of the Controller of Her Majesty's Stationary Office © Crown copyright. Unauthorised reproduction infringes Crown copyright and may lead to prosecution or civil proceedings. Glamorgan-Gwent Archaeological Trust Ltd 100017916 (2005).

Mae'r map hwn yn seiliedig ar ddeunydd yr Arolwg Ordnans gyda chaniatâd Arolwg Ordnans ar ran Rheolwr Llyfrfa Ei Mawrhydi © Hawlfraint y Goron. Mae atgynhyrchu heb ganiatâd yn torri hawlfraint y Goron a gall hyn arwain at erlyniad neu achos sifil. Glamorgan-Gwent Archaeological Trust Ltd 100017916 (2005).

Figure 8b Pentwyn Ironworks IW005 on 1st edition OS map base



This map is based upon Landmark material © Crown copyright and Landmark Information Group. All rights reserved. Glamorgan-Gwent Archaeological Trust Ltd. On behalf of the Welsh Assembly Government (2005).

Mae'r map hwn yn seiliedig ar ddeunydd Landmark © Hawlfraint y Goron a Landmark Information Group. Cedwir pob hawl. Glamorgan-Gwent Archaeological Trust Ltd. Ar ran Llywodraeth Cynulliad Cymru (2005).