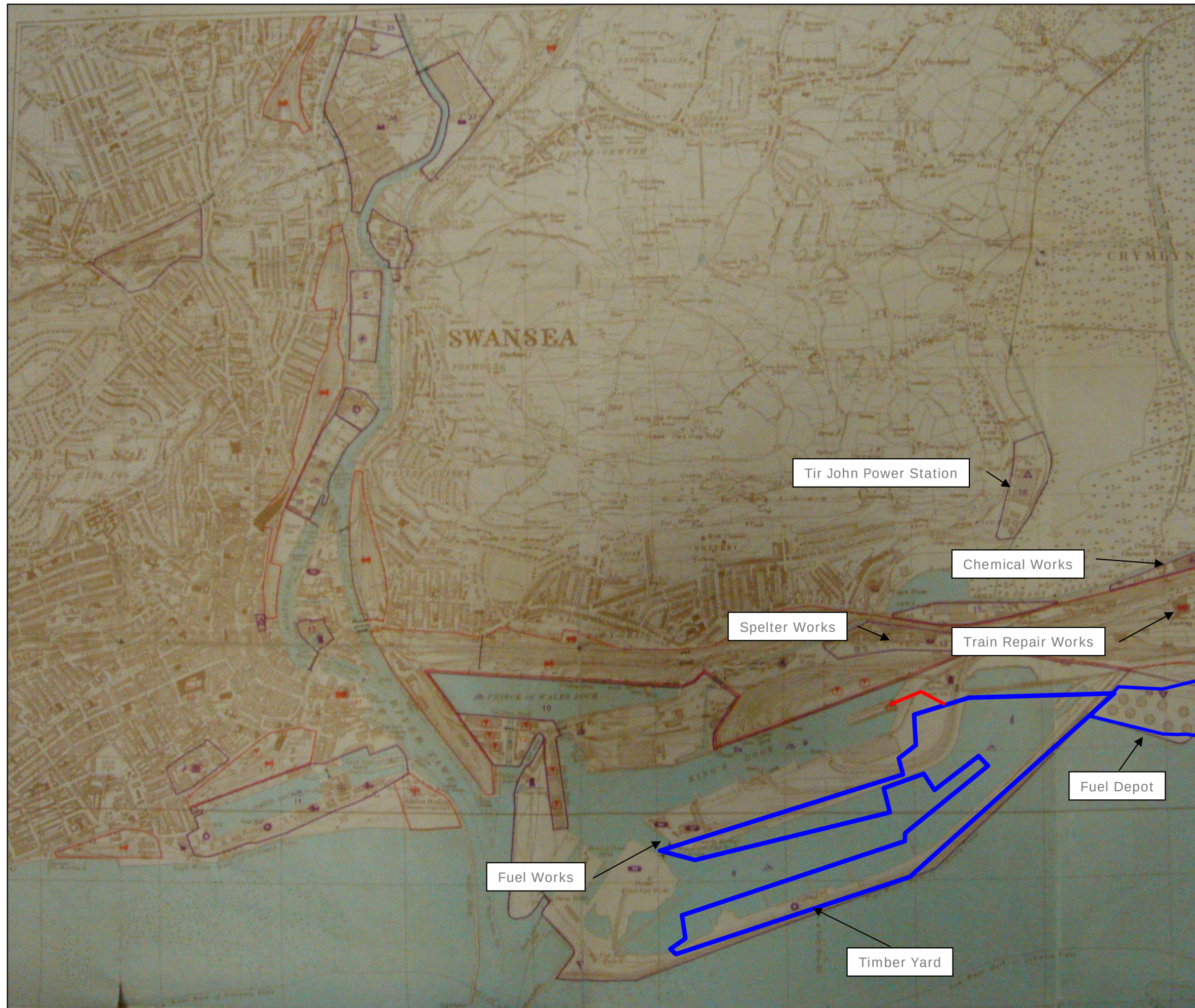






— Development Area — Pipeline Route

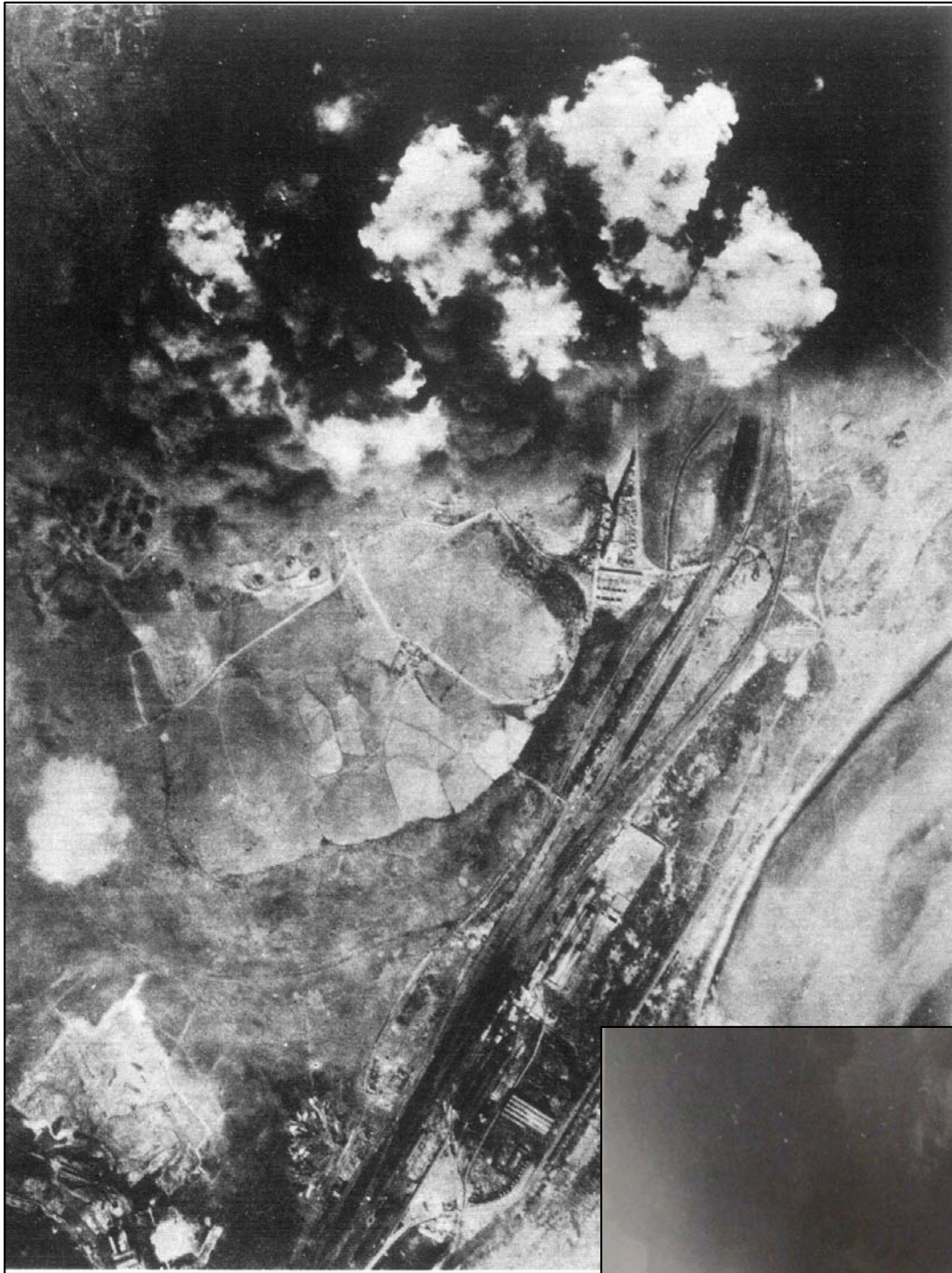


Ref: 9741 TA
Source: West Glamorgan Archive Service

Client: Atkins Limited
Project: Coed Darcy Urban Village, Swansea

Coed Darcy Urban Village, Swansea
Explosive Ordnance Threat Assessment Report

Annex I: Photographs of Llandarcy Oil Refinery Following
Heavy Air-Raid



Photographs of aftermath of daylight raid on
Llandarcy Oil Refinery, Summer 1940



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Rochester, Kent, ME2 4DP
Tel. +44 (0) 1634 296757
www.bacter.com

Report No:

9741 TA

Client:

Atkins Limited

Project:

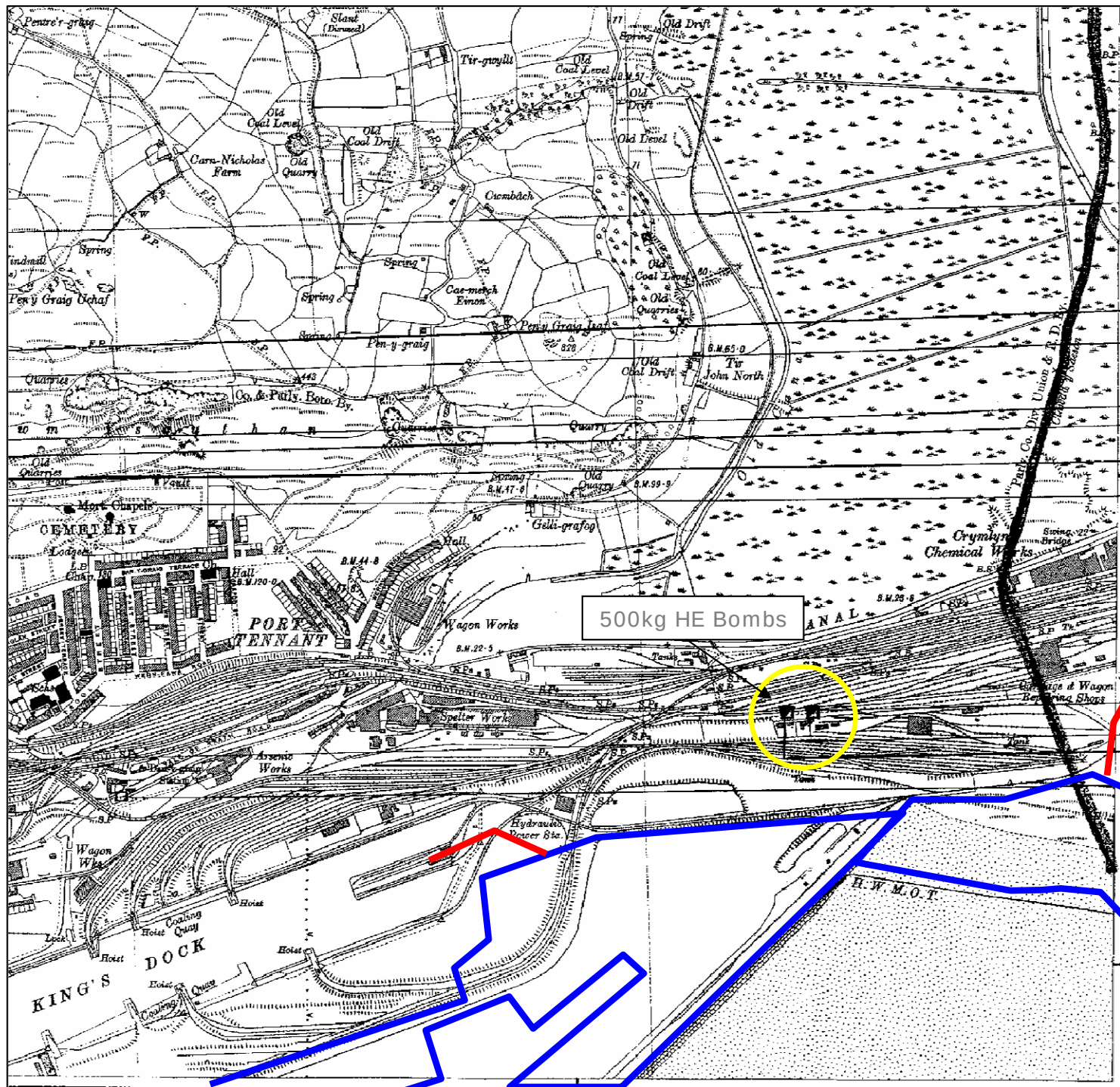
Coed Darcy Urban Village, Swansea

Source:

Ramsey, W., The Blitz Then and Now, Volume 2, Battle of Britain Prints International Limited. 1988

Coed Darcy Urban Village, Swansea
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Annex J: Swansea Bomb Census Map



— Development Area

— Pipeline Route



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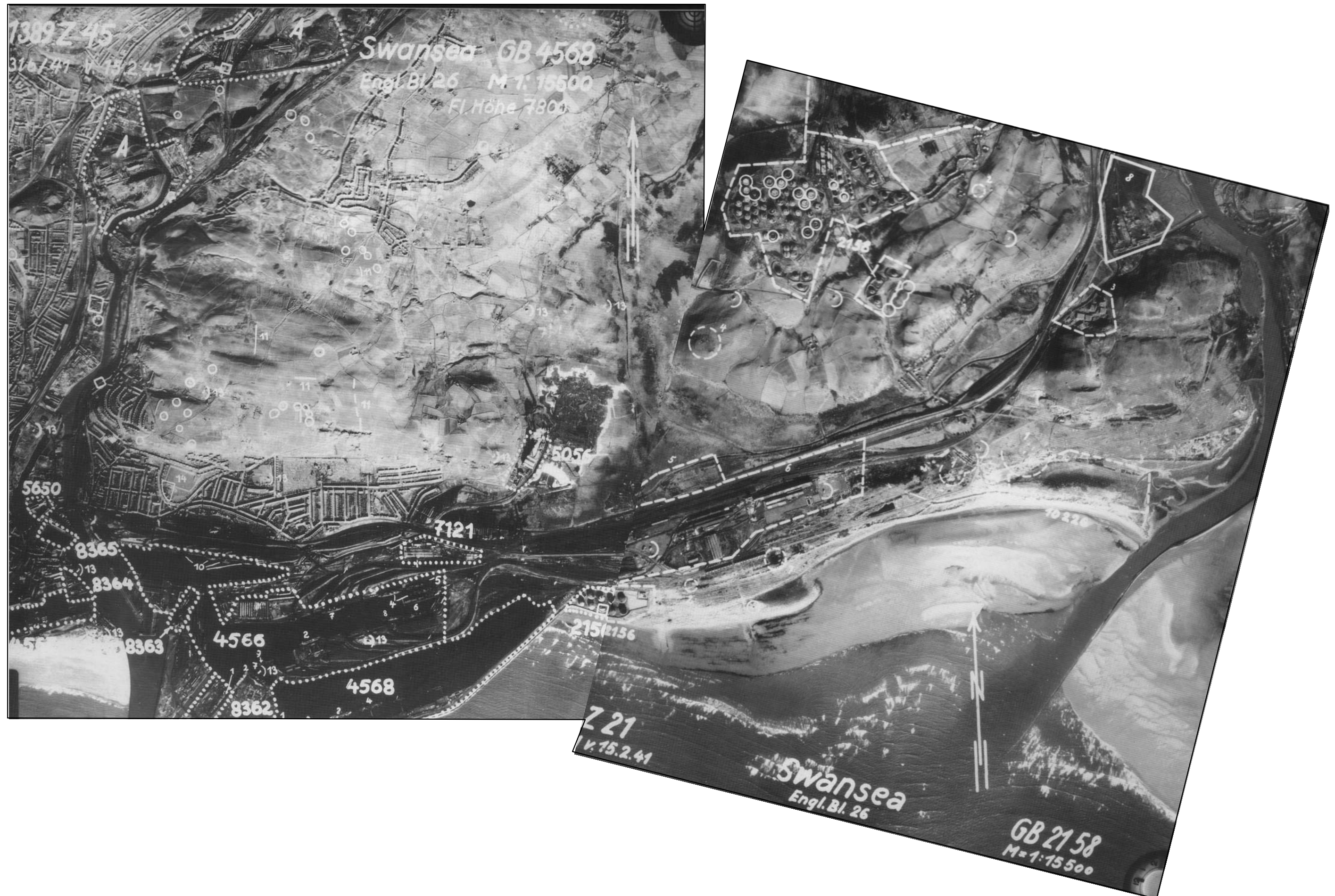
Coed Darcy Urban Village, Swansea

Source:

National Archives

Coed Darcy Urban Village, Swansea
Explosive Ordnance Threat Assessment Report

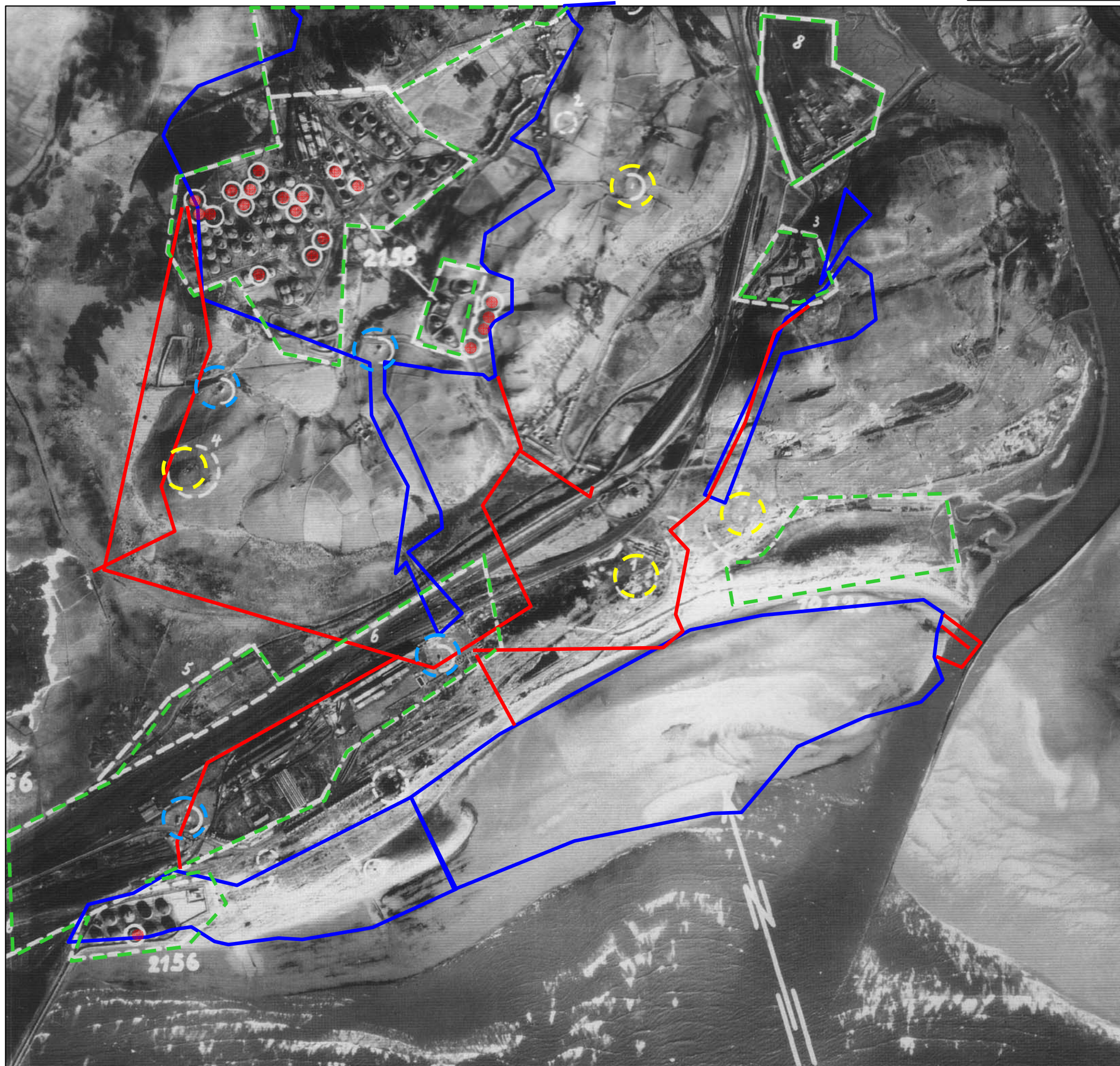
Annex K: WWII-Era Aerial Photographs

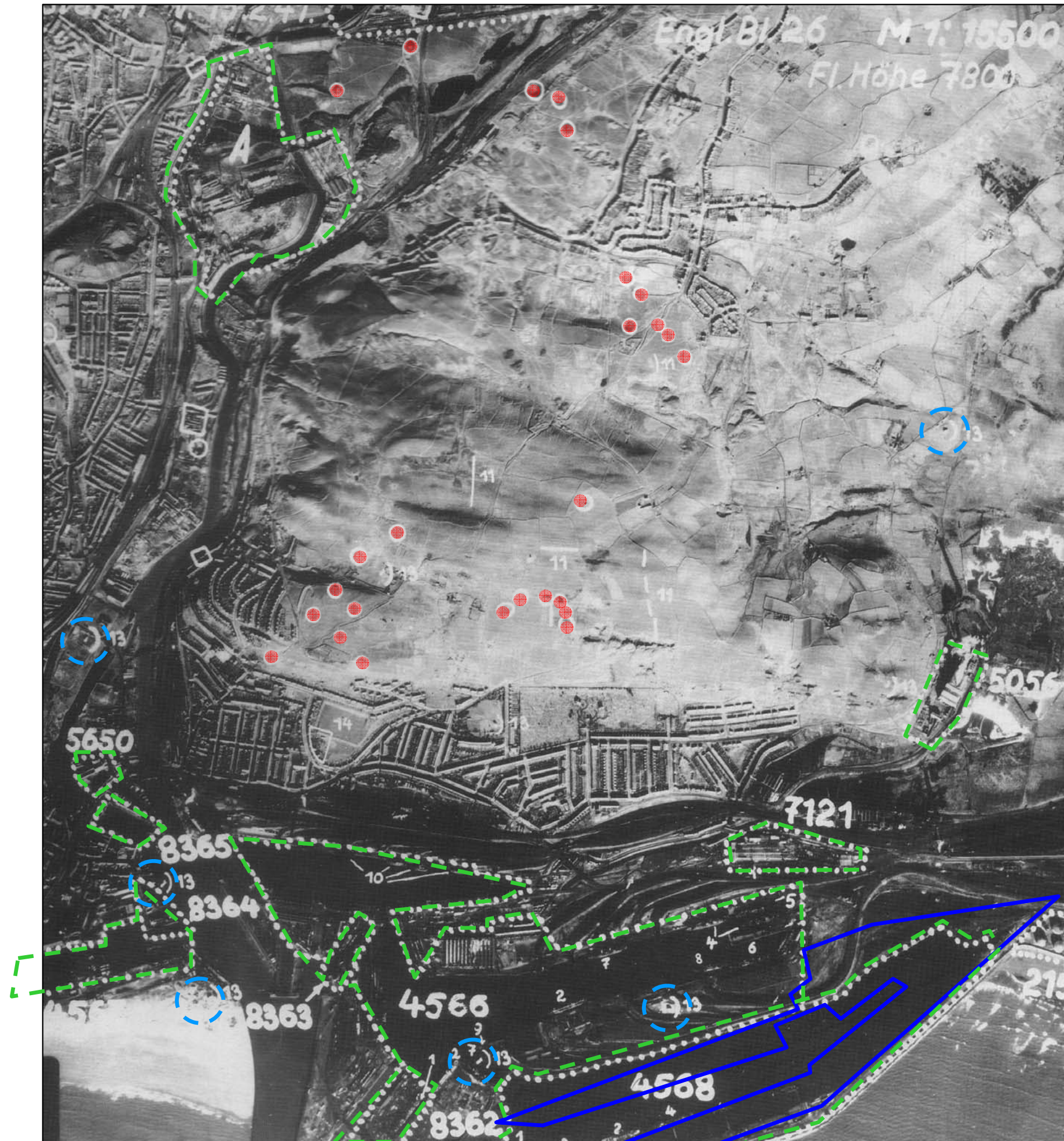




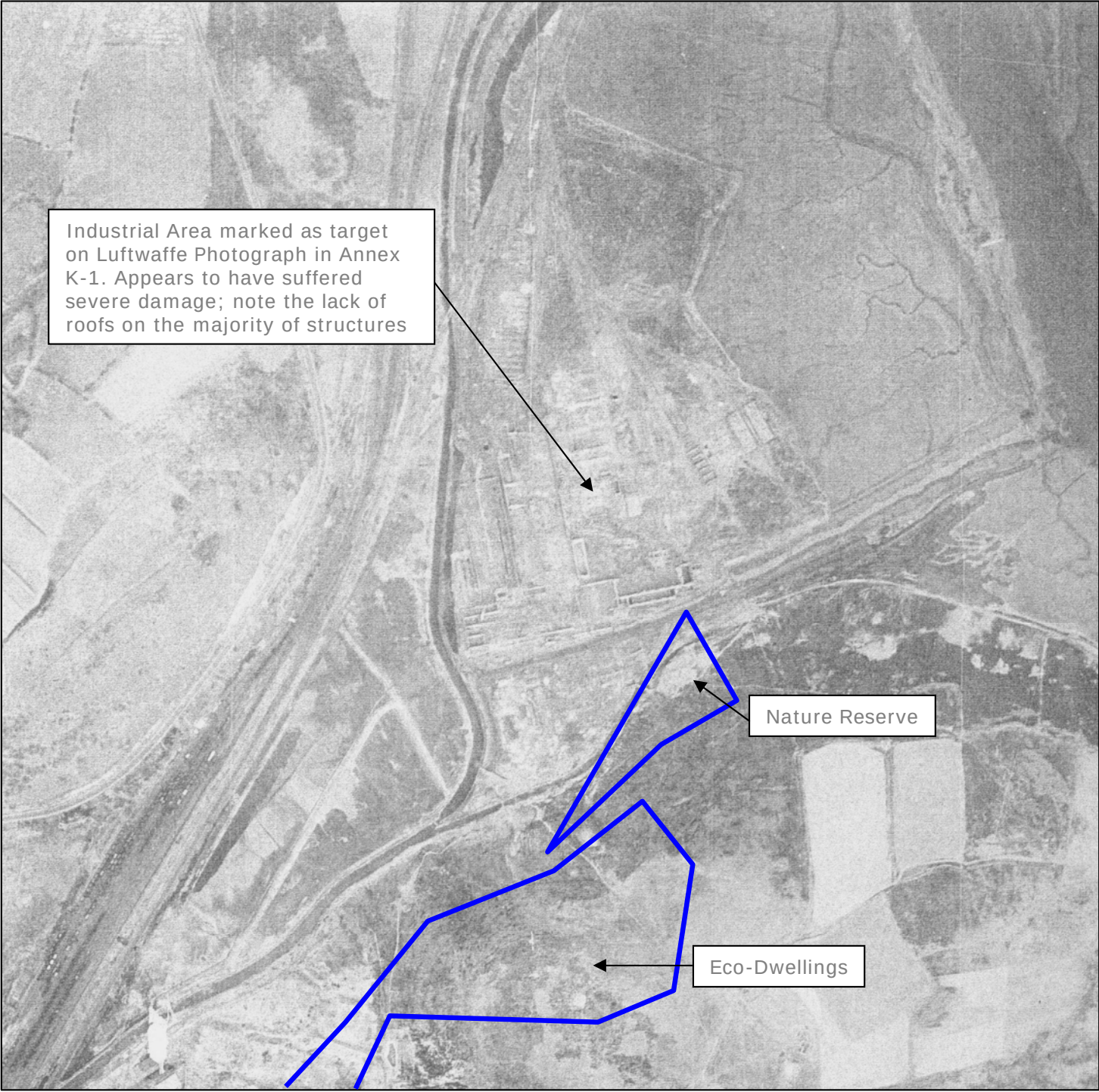
- Luftwaffe Bombing Target
- Anti-Aircraft Battery
- Barrage Balloon
- Bomb Craters/ Damage

Development Area Pipeline Route





- Development Area — Pipeline Route



Industrial Area marked as target on Luftwaffe Photograph in Annex K-1. Appears to have suffered severe damage; note the lack of roofs on the majority of structures

Nature Reserve

Eco-Dwellings

Development Area Pipeline Route



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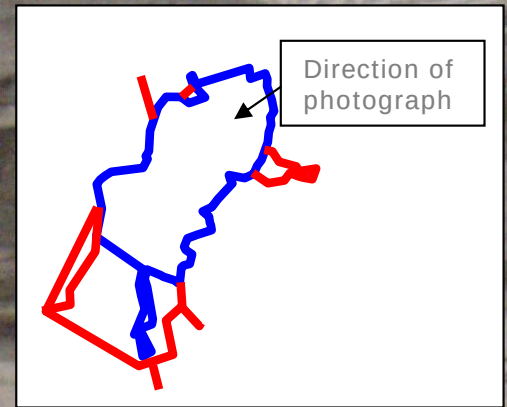
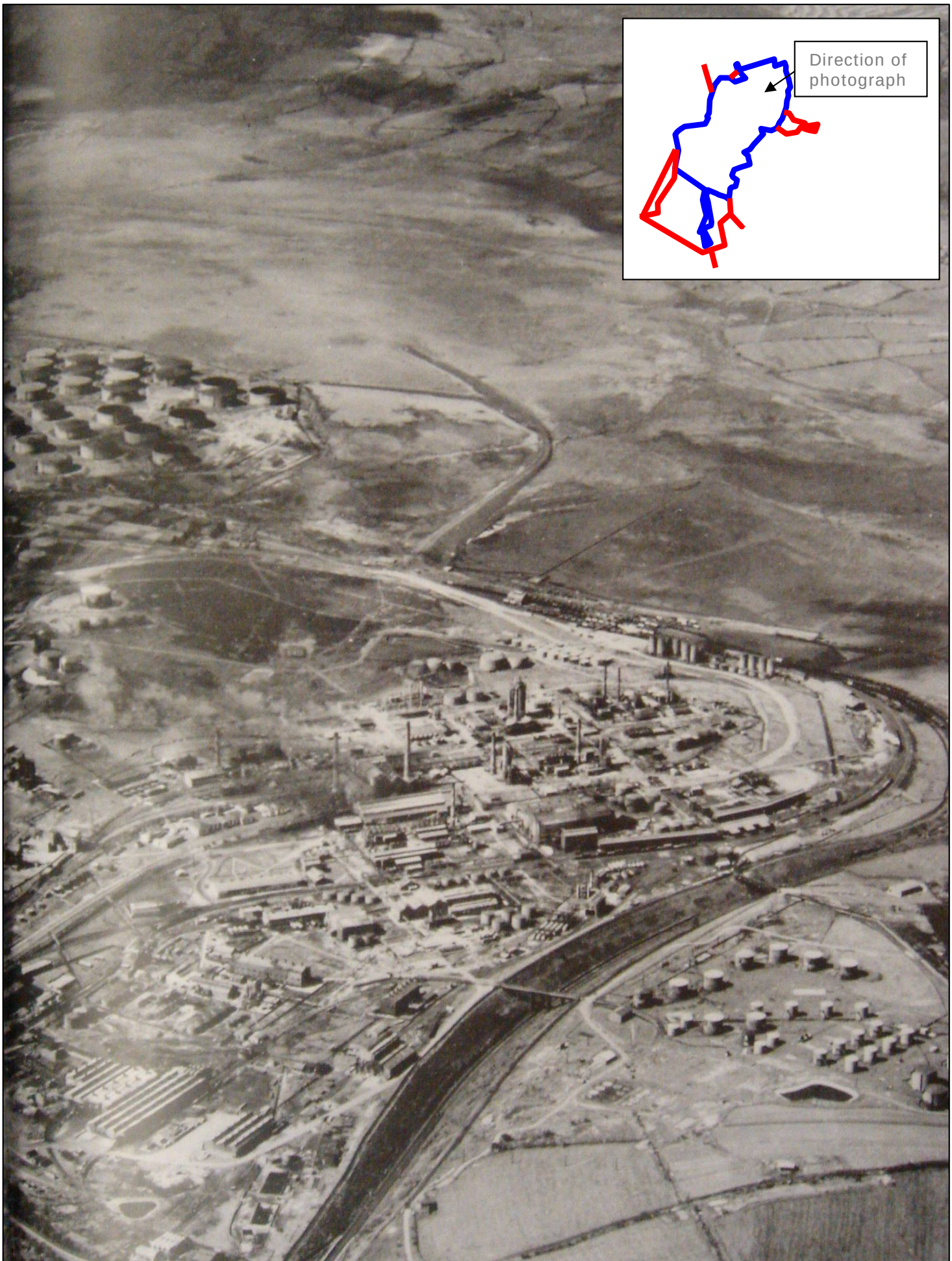
Report No:

9741 TA

Client:
Atkins Limited

Project:
Coed Darcy Urban Village, Swansea

Source: Royal Commission on the Ancient and Historical Monuments of Wales



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Report No:

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Client:

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Project:

Coed Darcy Urban Village, Swansea

Source:

Griffiths, V, J., Llandarcy Remembered

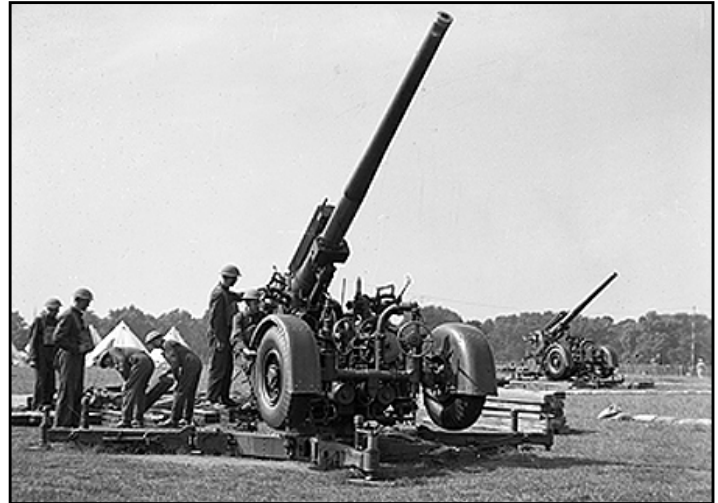
Coed Darcy Urban Village, Swansea
Explosive Ordnance Threat Assessment Report

Annex L: Anti-Aircraft Artillery and Projectiles



Above: 3 inch gun, 303rd battery, 99th AA Regt. RA Hayes Common in Kent May 1940

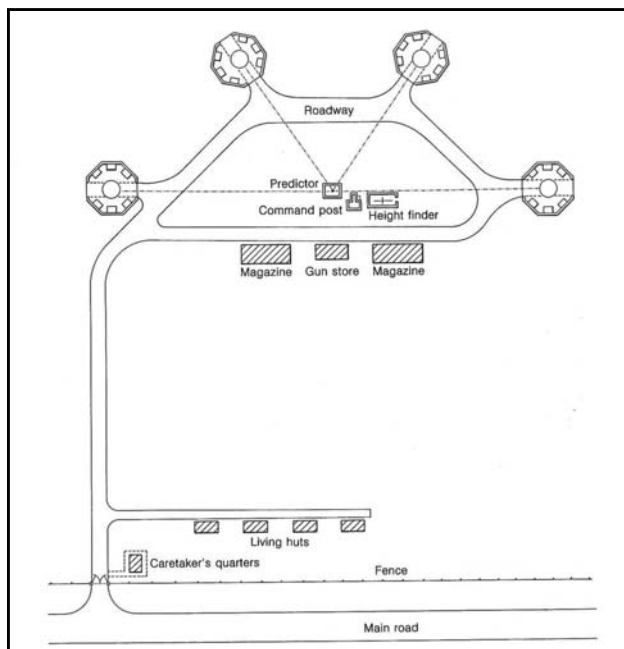
Below: Hyde Park 1939 3.7 Inch QF gun on mobile mounting



Below: Anti-aircraft rocket or 'Z' Battery manned by the Home Guard on Merseyside, 6 July 1942.



Above: 40mm Bofors gun and crew at Stanmore in Middlesex, 28 June 1940.



Above : Layout plan for a typical HAA battery site.



Above: Slade Green's HAA battery, Dartford showing typical size and layout of the installation.



37 Riverside, Sir Thomas
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www.bactec.com

Report No:

9741 TA

Source:

Bactec International Limited

Client:

Atkins Limited

Project:

Coed Darcy Urban Village, Swansea

Examples of Recovered AA Shells

4.5 Inch Shell
(Missing fuze)3.7 Inch Shell
(Missing Fuze)

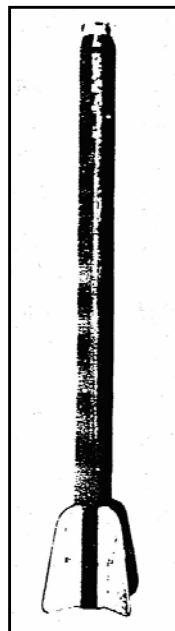
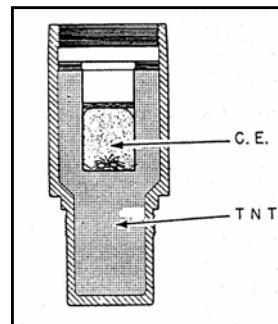
3 Inch Shell

40mm Bofors
Ammunition

Unrotated Projectiles



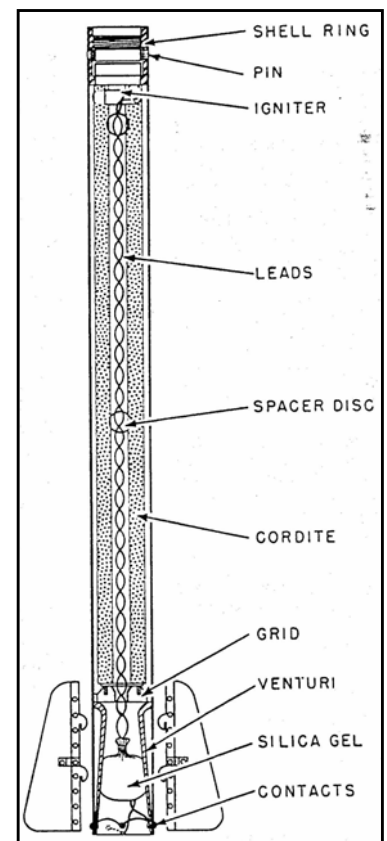
3 Inch U.P. Rocket

2 Inch U.P.
Rocket

MK II HE Shell (3.5kg)



Home Guard soldiers load an anti-aircraft rocket at a 'Z' Battery

Cross sectional Drawing of
2 Inch U.P. AA Rocket

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Longley Rd,
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Tel. +44 (0) 1634 296757
www.bactec.com

Report No:

9741 TA

Client:

Atkins Limited

Project:

Coed Darcy Urban Village, Swansea

Source:

Bactec International Limited

Coed Darcy Urban Village, Swansea
Explosive Ordnance Threat Assessment Report

Annex M: Defensive Positions overlaid onto Recent
Aerial Photograph



— Development Area — Pipeline Route



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Report No:

9741 TA

Client:

Atkins Limited

Project:

Coed Darcy Urban Village, Swansea

Source:

Google Earth™ Mapping Services

Appendix D Coal Mining Report and Coal Mining Risk Assessment



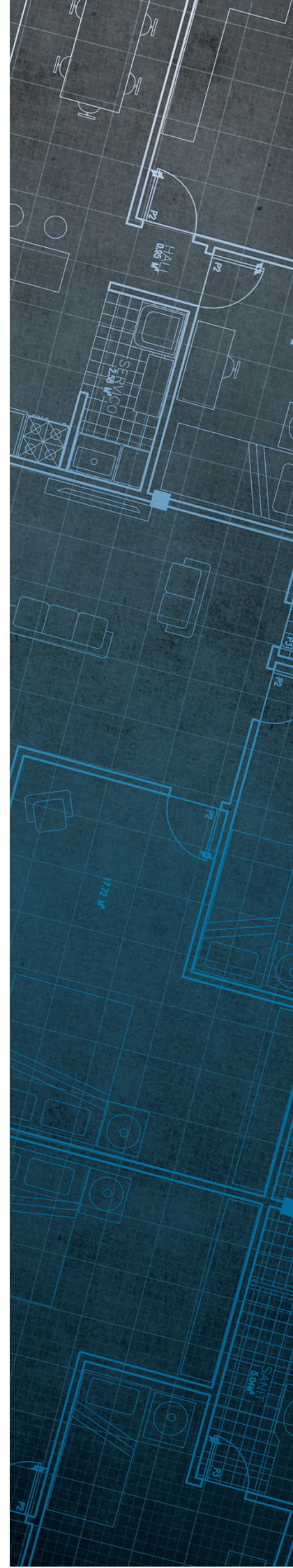
The Coal
Authority

Consultants Coal Mining Report

Site At 271220, 195880
Carmarthenshire

Date of enquiry:	29 September 2021
Date enquiry received:	29 September 2021
Issue date:	29 September 2021

Our reference:	51002684979001
Your reference:	285559471_1



Consultants

Coal Mining Report

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

Client name

NLIS Hub

Enquiry address

Site At 271220, 195880
Carmarthenshire

How to contact us

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

200 Lichfield Lane
Mansfield
Nottinghamshire
NG18 4RG

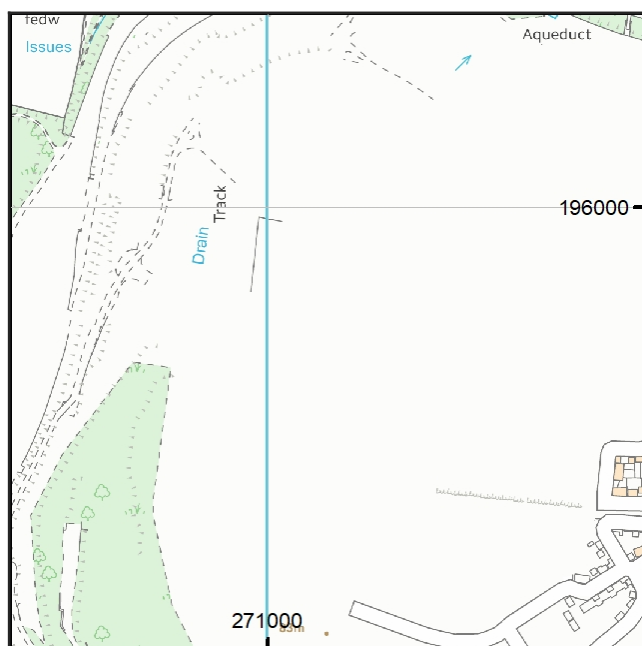
www.groundstability.com

 @coalauthority

 /company/the-coal-authority

 /thecoalauthority

 /thecoalauthority



Approximate position of property



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Section 1 – Mining activity and geology

Past underground mining

Colliery	Seam	Mineral	Coal Authority reference	Depth (m)	Direction to working	Dipping rate of seam worked (degrees)	Dipped direction of seam worked	Extraction thickness (cm)	Year last mined
unnamed	SWANSEA NO.3	Coal	4DHW	5	Beneath Property	7.8	North	94	1900
unnamed	HUGHES	Coal	4DHX	10	Beneath Property	9.2	North	110	1904
unnamed	HUGHES	Coal	4ECJ	37	Beneath Property	0.0	East	110	1900
unnamed	HUGHES	Coal	4DHZ	48	Beneath Property	9.4	North	110	1900
CWRT- Y-BETWS	UNNAMED	Coal	4DI0	54	Beneath Property	11.7	North-West	100	1900
unnamed	HUGHES	Coal	4DHY	66	Beneath Property	8.7	North	110	1900
CWRT- Y-BETWS	HUGHES	Coal	4JDJ	87	Beneath Property	4.0	North	110	1900
unnamed	HUGHES	Coal	4DI6	101	Beneath Property	5.5	North	110	1913
CRWT-Y-BETWS	HUGHES	Coal	4JDE	117	North-East	3.7	North	110	1905
CRWT-Y-BETWS	HUGHES	Coal	4JDG	118	North-East	3.8	North	110	1905
unnamed	HUGHES	Coal	4DI7	121	Beneath Property	5.2	North	110	1900
CWRT- Y-BETWS	HUGHES	Coal	4JDI	129	Beneath Property	4.0	North	110	1914
CWRT- Y-BETWS	HUGHES	Coal	4JDH	131	Beneath Property	3.9	North	110	1914

Probable unrecorded shallow workings

None.

Spine roadways at shallow depth

No spine roadway recorded at shallow depth.

Mine entries

Entry type	Reference	Grid reference	Treatment description	Mineral	Conveyancing details
Shaft	270195-001	270700 195542		Coal	
Shaft	270195-002	270775 195481		Coal	
Shaft	270195-003	270795 195497		Coal	
Adit	271195-004	271061 195434		Coal	
Shaft	271195-009	271045 195526		Coal	
Shaft	272196-001	272028 196012	This shaft was filled to an unknown specification in June 1972.	Coal	
Shaft	272196-006	272001 196150	This shaft was plugged and capped in May/June 1995. The dimensions of cap 6.2m x 4.2m x 0.5m	Coal	
Shaft	272196-007	272049 196099	Shaft plugged with 3m deep concrete mass and capped with reinforced concrete cap 6.2m x 4.2m x 0.5m deep. Underside of plug 3.75m below ground level and foundation depth of cap is 0.75m .Work carried out in 1995 by IMCL for the Coal Authority.	Coal	

Abandoned mine plan catalogue numbers

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

SWR1671	SW1986	SWR2221
10495	R12044	R12048
PO0	6634	SWR2654

Our records show we have more plans than those shown above which could affect the enquiry boundary.

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

Outcrops

Seam name	Mineral	Seam workable	Distance to outcrop (m)	Direction to outcrop	Bearing of outcrop
HUGHES	Coal	Yes	Within	N/A	91
HUGHES	Coal	Yes	Within	N/A	125
SWANSEA NO.3	Coal	Yes	Within	N/A	82
UNNAMED	Coal	Yes	Within	N/A	79
UNNAMED	Coal	Yes	Within	N/A	98

Geological faults, fissures and breaklines

Please refer to the 'Summary of findings' map (on separate sheet) for details of any geological faults, fissures or breaklines either within or intersecting the enquiry boundary.

Fault under or close to the property recorded.

Opencast mines

None recorded within 500 metres of the enquiry boundary.

Coal Authority managed tips

None recorded within 500 metres of the enquiry boundary.

Section 2 – Investigative or remedial activity

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

Site investigations

Distance to site investigation (m)	Direction
Within	N/A
4.0	South-West
Within	N/A

See Section 4 for further information.

Remediated sites

Distance to site remediation (m)	Direction
11.6	North-West

See Section 4 for further information.

Coal mining subsidence

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

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

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

Mine gas

None recorded within 500 metres of the enquiry boundary.

Mine water treatment schemes

None recorded within 500 metres of the enquiry boundary.

Section 3 – Licensing and future mining activity

Future underground mining

None recorded.

Coal mining licensing

None recorded within 200 metres of the enquiry boundary.

Court orders

None recorded.

Section 46 notices

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

Withdrawal of support notices

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

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

Payments to owners of former copyhold land

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

Section 4 – Further information

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

Development advice

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

Site investigations

The site is within an area of previous interest. It is close to where the Coal Authority has received information relating to past site investigations.

The site requires further investigation and may influence how you approach your risk assessment.

Remediated sites

The site is within an area of previous interest. It is close to where the Coal Authority has investigated and where necessary remediated mine entries and/or shallow coal mine workings following specific reported hazards.

The site requires further investigation and may influence your risk assessment. We recommend that you order the Coal Authority **Surface Hazards Incident Report**, which will include more information about the hazard.

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

Section 5 – Data definitions

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

Past underground coal mining

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

Probable unrecorded shallow workings

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

Spine roadways at shallow depth

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

Mine entries

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

Abandoned mine plan catalogue numbers

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

Outcrops

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

Geological faults, fissures and breaklines

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

Opencast mines

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

Coal Authority managed tips

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

Site investigations

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

Remediated sites

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

Coal mining subsidence

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

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

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

Mine gas

Reports of alleged mine gas emissions received by the Coal Authority, either within or within 500 metres of the enquiry boundary that subsequently required investigation and action by the Coal Authority to mitigate the effects of the mine gas emission.

Mine water treatment schemes

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

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

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

Future underground mining

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

Coal mining licensing

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

Court orders

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

Section 46 notices

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

Withdrawal of support notices

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

Payment to owners of former copyhold land

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