

Cefn Graianog Quarry – Bespoke Permit Application Site Condition Report

Client: TG Group

Ref No.: K0642-ENV-R001-02

Date: April 2025



Document control

Revision	Revision/ Review Date	Details of Issue	Authorised		
			Prepared By	Checked By	Approved By
00	May 2024	Draft for comment	O Smith	J Ferguson	J Baxter
01	June 2024	For issue to NRW	O Smith	J Ferguson	J Baxter
02	April 2025	Updated for resubmission to NRW	O Smith	C Heward	J Baxter

Disclaimer: Please note that this report is based on specific information, instructions, and information from our Client and should not be relied upon by third parties.



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- K0642-1002 Site Receptor Plan
- K0642-1003 Site Layout and Drainage Plan

Appendices

- Appendix 1. Groundsure Enviro and Geo Insights Report

[1] Introduction

[1.1] Background

This Site Condition Report has been produced by Ayesa on behalf of TG Group (the Operator) in support of a new bespoke permit application for a proposed soil recycling and recovery activity in an area within the active Cefn Graianog Quarry located in Llanllfni, Caernarfon, North Wales, LL54 6SY. A proposed permit boundary plan has been attached to this report as drawing referenced: K0642-1001.

The site is currently an active sand and gravel pit, operated by TG Aggregates.

Inert waste primarily arising from dredging, excavation and demolition activities will be physically treated to produce a non-waste aggregate in accordance with the WRAP Quality Protocol. The dry processing will be limited to screening and the associated handling of material only.

Surface water run-off from the permitted area will be contained and drained into a small lagoon located in the east of the permitted area, which will then be pumped into the larger lagoon to the west of the permit boundary.

This report has been produced in accordance with the Environment Agency H5 Site Condition Report Guidance (LIT 8001 Version 3.0 April 2013) using the H5 template. A Groundsure Enviro and Geo Insights Report was obtained (Report Ref: GS-KVG-RAR-DJN-W1X) to inform the findings of this report and has been attached as Appendix 1.

[2] Application Site Condition Report

[2.1] H5 Section 1.0

1.0 Site Details	
Name of the applicant	TG Group
Activity Address	Cefn Graianog Quarry Llanyllfni Penygroes Gwynedd LL54 6SY North Wales
National Grid Reference	SH459488
Document Reference and dates for Site Condition Report at permit application and surrender	Site Condition Report: K0642--ENV-R001-02 (dated February 2025)
Document references for site plans (including location and boundaries)	K0642-1001 Permit Boundary Plan K0642-1002 Site Receptor Plan K0642-1003 Site Layout and Drainage Plan

[2.2] H5 Section 2.0 Update

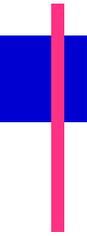
2.0 Condition of the land at permit issue	
<p>Environmental setting including:</p> <ul style="list-style-type: none"> • Geology • Hydrogeology • Surface waters 	<p>The proposed environmental permit boundary is shown on drawing reference K0642-1001.</p> <p>It is proposed that the activity will take place on permeable hardstanding.</p> <p>Geology</p> <p>The site is located on superficial deposits of Devensian glaciofluvial ice contact deposit (sand and gravel). The wider area notes the presence of Devensian glaciofluvial ice contact deposits (sand and gravel) approximately 245m to the east and peat 121m to the east.</p> <p>Bedrock is shown to comprise siltstone of the Nant Ffrancon Subgroup (siltstone).</p> <p>Hydrogeology</p> <p>There are no records of superficial bedrock aquifers below the site.</p> <p>The Groundsure report classifies the siltstone bedrock deposits of the Nant Ffrancon Subgroup as a Secondary (B) aquifer. This contains predominantly lower permeability layers which may store/yield limited amounts of groundwater due to localised features such as fissures, thin permeable horizons and weathering. These are generally the water-bearing parts of the former non-aquifers. The bedrock is classified as low vulnerability with flow through well</p>

	<p>connected fractures. The leaching class is low, infiltration values below 40% and dilution value more than 550 mm/year with a low recharge potential.</p> <p>The site does not lie within a Source Protection Zone (SPZ). There are no active licensed groundwater abstractions for sites extracting more than 20 cubic metres a day within 2 km of the site.</p> <p>There is one record of a Water Framework Directive (WFD) groundwater body on site, named 'Llyn and Eryri' which was classified as overall 'poor' in 2017.</p> <p>Surface Waters</p> <p>There is one historical record of a surface water abstraction, 1.9km east of the site for household use (small garden). This same abstraction is also the only potable abstraction within 2 km of the site.</p> <p>There are 11 records of inland rivers between 119 m – 241 m of the site, in all directions. The site lies within the Dwyfach river catchment, with the closest point of this WFD River Dwyfach water body 858 m south of the site. The water quality of the Dwyfach was rated as overall 'good' in 2016.</p>
<p>Pollution history including:</p> <ul style="list-style-type: none"> • Pollution incidents that may have affected land • Historical land-uses and associated contaminants • Any visual/olfactory evidence of existing contamination • Evidence of damage to pollution prevention measures 	<p>The following has been informed by historical ordnance survey plans provided as part of the Groundsure Insights report.</p> <p>Between 1888 and 1960, the site was open fields, apart from a track running along the northeast boundary of the proposed permit area which runs alongside a public footpath. By 1978, the southwest part of the proposed permit area had been developed into the existing sand and gravel pit (now Cefn Graianog Quarry). The 2003 1:1,250 Landline plan illustrates a conveyor running parallel to the western boundary of the proposed permit boundary, from the quarry workings further south of the site to the workings over 450 m north of the site.</p> <p>The 1960 plans first show a neighbouring sand pit over 750 m west of the site, near Llwyn-gwahaniadle-isaf. This had expanded on the 1978 plan and annotated on the plan as 'llwyngwnadi isaf sand and gravel pit', a significantly larger sand and gravel pit is located, the eastern boundary of which follows the Afon Desach river.</p> <p>The 1888 plans show the L & N W R Carnarvonshire Branch railway line running roughly north/south approximately 150 m east of the site and over 750 m east of the site, a main road runs north/south, along with a few residential houses. The railway is no longer labelled on the 1949 plans and therefore it is assumed this is when the railway was dismantled. Since then, cycle route is illustrated along this feature. Three residential houses are also illustrated on the 1888 plans with farm buildings approximately 205 m east/southeast, 780 m west and 460 m northwest of the site. A spring is shown from the 1914 to 1960 plans, approximately 250 m southeast of the site, near Graianog Crossing.</p> <p>Although not illustrated on the plans, a campground is currently situated approximately 495 m northwest of the site, next to a residential/farming property. Aerial imagery suggests this land began being used as a campground between 2006 and 2009.</p> <p>There are no records of active or recent landfill, historical landfill, historical waste sites or licenced waste sites with 500 m radius of the site. There is one record of a historical industrial land use on site, this is the current sand and gravel pit, present since 1978.</p>

	<p>There are three other records of historical industrial land use within 500 m of the site, these include: railway sidings (148 m east), abattoir (258 m northeast) and Cuttings (260 m northeast).</p> <p>There are three records of waste exemptions within 500 m of the site, one for storing waste in a secure place (104 m south) and two for use of waste in construction (104m and 164 m south of the site). All three of these are associated with Cefn Graianog Quarry. There is one licensed discharge to controlled waters 483 m southeast of the site, which releases mine-water associated with Cefn Graianog Quarry. There is one record of a pollution incident 318 m south of the site of inert materials and wastes, described as sand and gravel, this was classified as a Category 4 (no impact). There are five records of recent industrial land uses 65-195 m west of the site which are all settling ponds (associated with Cefn Graianog Quarry).</p> <p>At some point between 1978 and present day, the public footpath illustrated along the northeastern boundary of the site changed to a public right of way.</p>
<p>Evidence of historic contamination, for example, historical site investigation, assessment, remediation and verification reports (where available)</p>	<p>N/A – no site investigation data available.</p>
<p>Baseline soil and groundwater reference data</p>	<p>N/A – no site investigation data available.</p>
<p>Supporting information</p>	<ul style="list-style-type: none"> • Source information identifying environmental setting and pollution incidents • Historical Ordnance Survey plans • Site reconnaissance

[2.3] H5 Section 3.0

3.0 Permitted activities	
Permitted Activities	<p>A bespoke environmental permit is proposed to facilitate the dry processing limited to screening and associated handling of material, treating up to 50,000 tonnes per year with up to 20,000 tonnes (10,000 m³) stored at any one time within the permit boundary. The accepted waste types are proposed to include:</p> <ul style="list-style-type: none"> • 01 04 08 waste gravel and crushed rocks; • 01 04 09 waste sand and clays; • 17 05 04 soil and stones other than those mentioned in 17 05 03; • 17 01 01, 17 01 02, 17 01 03 concrete, bricks, tiles and ceramics; • 17 01 07 mixtures of concrete, bricks, tiles and ceramics other than those mentioned in 17 01 06; • 17 05 06 dredging spoil other than those mentioned in 17 05 05; and • 20 02 02 (soil and stones). <p>This is proposed to be undertaken on an area of hardstanding with any surface water run-off from the permitted area to be contained and drained into a small lagoon within the east of the permitted area, which will then be pumped into a larger lagoon, west of the permit boundary, as per drawing K0642-1003 (Site Layout and Drainage Plan).</p>
Non-permitted activities undertaken	Mineral extraction and processing as detailed above.
Document references for: <ul style="list-style-type: none"> • Plan showing activity layout; and, • Environmental risk assessment 	K0642-1003 Site Layout and Drainage Plan K0642-ENV-R002-03 Environmental Risk Assessment

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[3] Drawings

K0642-1001 Permit Boundary Plan

K0642-1002 Site Receptor Plan

K0642-1003 Site Layout and Drainage Plan



A3



349000mN

348800mN

348600mN



245600mE

245800mE

246000mE

246200mE

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GENERAL NOTES

GENERAL NOTES:

- 1. DO NOT SCALE OFF DRAWING.
- 2. ALL DIMENSIONS IN MILLIMETRES UNLESS OTHERWISE NOTED.
- 3. ALL LEVELS IN METRES (ORDNANCE DATUM) UNLESS OTHERWISE NOTED.

LEGEND

PERMIT BOUNDARY

P01	19/04/24	FOR REVIEW	GH	OS	JB
Rev	Date	Description	By	Chk	App



PROJECT
CEFN GRAIANOG QUARRY
PERMIT APPLICATION

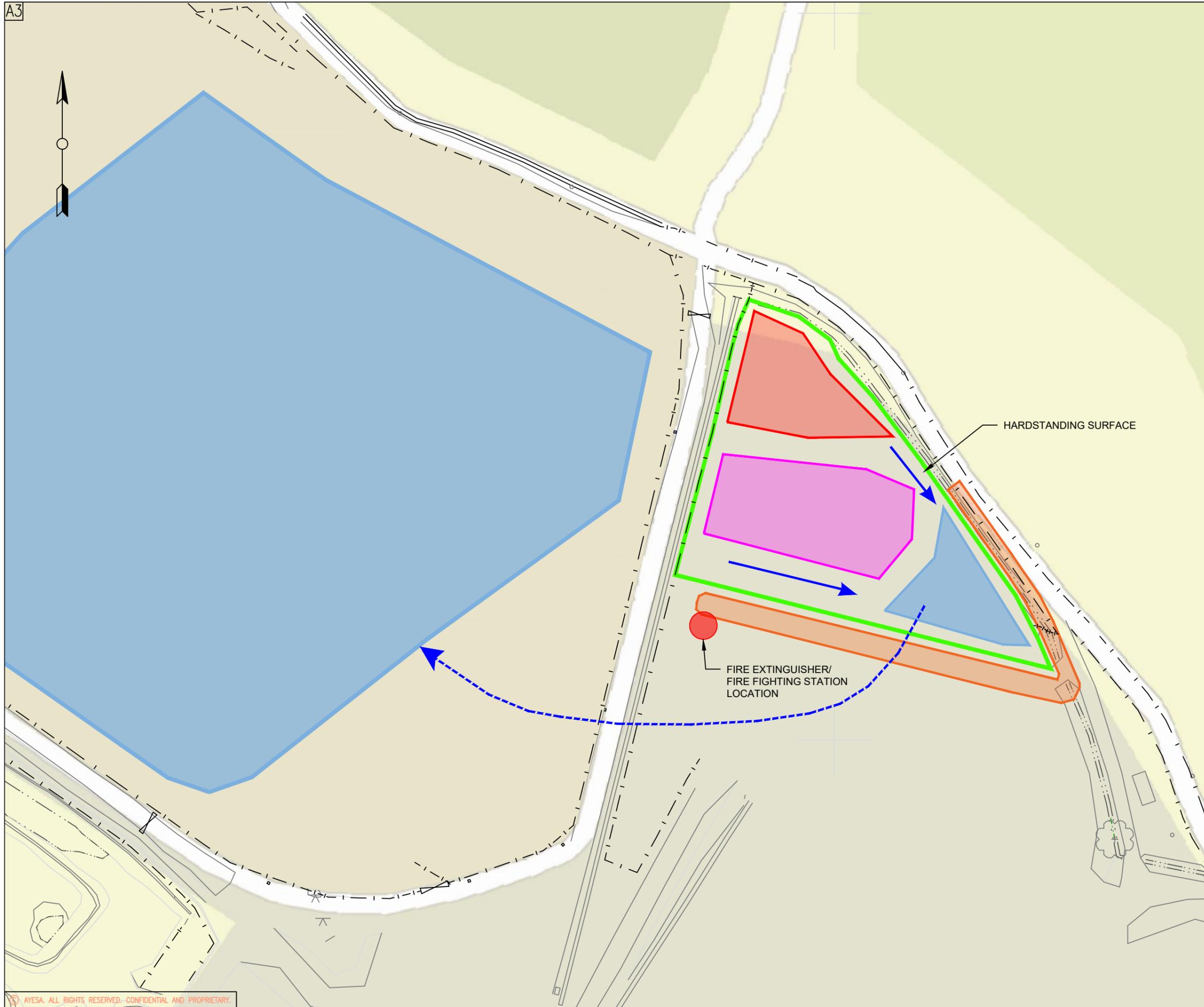
DRAWING TITLE
PERMIT BOUNDARY PLAN

STATUS	FINAL	SUITABILITY	-
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Date: 15/04/25	Scale: 1:2000	Drawn: JM	Chk: GH	App: GH
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Project No: K0642	Drg. No: K0642-1001	Rev: P01
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A3



GENERAL NOTES

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2. ALL DIMENSIONS IN MILLIMETRES UNLESS OTHERWISE NOTED.
3. ALL LEVELS IN METRES (ORDNANCE DATUM) UNLESS OTHERWISE NOTED.

LEGEND

- PERMIT BOUNDARY
- STOCKPILE AREA
- PROCESSING AREA
- SURFACE WATER COLLECTION POINT
- SURFACE WATER CONTAINMENT BUND
- DIRECTION OF SURFACE WATER DRAINAGE
- - - → DIRECTION OF SURFACE WATER PUMPED FROM COLLECTION POINT INTO EXISTING LAGOONS

Rev	Date	Description	By	Chk	App
03	24.02.25	AMENDS	JM	OS	JB
P01	19.04.24	FOR REVIEW	GH	OS	JB



CLIENT



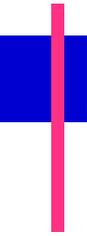
PROJECT
 CEFN GRAIANOG QUARRY
 PERMIT APPLICATION

DRAWING TITLE
 SITE LAYOUT AND DRAINAGE PLAN

STATUS
 FOR REVIEW

SUITABILITY
 -

Date: 17/05/24 Scale: 1:1'000 Drawn: JM Chk: OS App: JB
 Project No: K0642 Drg. No: K0642-1003 Rev: 03

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Appendix 1

Groundsure Enviro and Geo Insights Report

A decorative graphic in the bottom-right corner consisting of a vertical pink line partially overlaid by a vertical blue line.

CEFN GRAIANOG QUARRY, ROAD FROM GRAIANOG NORTHWARD PASSING LLWYN BEDW ISAF AND TYDDYN HEN TO OLD ROUTE OF A487(T) AT BERTH, LLANLLYFNI, LL54 6SY

Order Details

Date: 24/04/2024
Your ref: K0642_-_Cefn_Graianog_Quarry
Our Ref: GS-KVG-RAR-DJN-W1X

Site Details

Location: 246037 348841
Area: 0.54 ha
Authority: [Gwynedd County Council](#) ↗



[Summary of findings](#)

[p. 2 >](#)

[Aerial image](#)

[p. 9 >](#)

[OS MasterMap site plan](#)

[p.14 >](#)

[Insight User Guide](#) ↗

Contact us with any questions at:

info@groundsure.com ↗

01273 257 755

Summary of findings

Page	Section	Past land use >	On site	0-50m	50-250m	250-500m	500-2000m
15 >	1.1 >	Historical industrial land uses >	1	0	1	2	-
16	1.2	Historical tanks	0	0	0	0	-
16	1.3	Historical energy features	0	0	0	0	-
16	1.4	Historical petrol stations	0	0	0	0	-
17	1.5	Historical garages	0	0	0	0	-
17	1.6	Historical military land	0	0	0	0	-
Page	Section	Past land use - un-grouped >	On site	0-50m	50-250m	250-500m	500-2000m
18 >	2.1 >	Historical industrial land uses >	1	0	1	2	-
19	2.2	Historical tanks	0	0	0	0	-
19	2.3	Historical energy features	0	0	0	0	-
19	2.4	Historical petrol stations	0	0	0	0	-
19	2.5	Historical garages	0	0	0	0	-
Page	Section	Waste and landfill >	On site	0-50m	50-250m	250-500m	500-2000m
20	3.1	Active or recent landfill	0	0	0	0	-
20	3.2	Historical landfill (BGS records)	0	0	0	0	-
21	3.3	Historical landfill (LA/mapping records)	0	0	0	0	-
21	3.4	Historical landfill (EA/NRW records)	0	0	0	0	-
21	3.5	Historical waste sites	0	0	0	0	-
21	3.6	Licensed waste sites	0	0	0	0	-
21 >	3.7 >	Waste exemptions >	0	0	3	0	-
Page	Section	Current industrial land use >	On site	0-50m	50-250m	250-500m	500-2000m
23 >	4.1 >	Recent industrial land uses >	0	0	5	-	-
24	4.2	Current or recent petrol stations	0	0	0	0	-
24	4.3	Electricity cables	0	0	0	0	-
24	4.4	Gas pipelines	0	0	0	0	-
24	4.5	Sites determined as Contaminated Land	0	0	0	0	-



25	4.6	Control of Major Accident Hazards (COMAH)	0	0	0	0	-
25	4.7	Regulated explosive sites	0	0	0	0	-
25	4.8	Hazardous substance storage/usage	0	0	0	0	-
25	4.9	Historical licensed industrial activities (IPC)	0	0	0	0	-
25	4.10	Licensed industrial activities (Part A(1))	0	0	0	0	-
26	4.11	Licensed pollutant release (Part A(2)/B)	0	0	0	0	-
26	4.12	Radioactive Substance Authorisations	0	0	0	0	-
26 >	4.13 >	<u>Licensed Discharges to controlled waters ></u>	0	0	0	1	-
26	4.14	Pollutant release to surface waters (Red List)	0	0	0	0	-
27	4.15	Pollutant release to public sewer	0	0	0	0	-
27	4.16	List 1 Dangerous Substances	0	0	0	0	-
27	4.17	List 2 Dangerous Substances	0	0	0	0	-
27 >	4.18 >	<u>Pollution Incidents (EA/NRW) ></u>	0	0	0	1	-
28	4.19	Pollution inventory substances	0	0	0	0	-
28	4.20	Pollution inventory waste transfers	0	0	0	0	-
28	4.21	Pollution inventory radioactive waste	0	0	0	0	-
Page	Section	Hydrogeology	On site	0-50m	50-250m	250-500m	500-2000m
29	5.1	Superficial aquifer	None (within 500m)				
30 >	5.2 >	<u>Bedrock aquifer ></u>	Identified (within 500m)				
31 >	5.3 >	<u>Groundwater vulnerability ></u>	Identified (within 50m)				
32	5.4	Groundwater vulnerability- soluble rock risk	None (within 0m)				
32	5.5	Groundwater vulnerability- local information	None (within 0m)				
33	5.6	Groundwater abstractions	0	0	0	0	0
34 >	5.7 >	<u>Surface water abstractions ></u>	0	0	0	0	1
34 >	5.8 >	<u>Potable abstractions ></u>	0	0	0	0	1
35	5.9	Source Protection Zones	0	0	0	0	-
35	5.10	Source Protection Zones (confined aquifer)	0	0	0	0	-
Page	Section	Hydrology >	On site	0-50m	50-250m	250-500m	500-2000m
36 >	6.1 >	<u>Water Network (OS MasterMap) ></u>	0	0	11	-	-



37 >	6.2 >	Surface water features >	0	1	13	-	-
38 >	6.3 >	WFD Surface water body catchments >	1	-	-	-	-
38 >	6.4 >	WFD Surface water bodies >	0	0	0	-	-
38 >	6.5 >	WFD Groundwater bodies >	1	-	-	-	-
Page	Section	River and coastal flooding	On site	0-50m	50-250m	250-500m	500-2000m
40	7.1	Risk of flooding from rivers and the sea	None (within 50m)				
40	7.2	Historical Flood Events	0	0	0	-	-
40	7.3	Flood Defences	0	0	0	-	-
41	7.4	Areas Benefiting from Flood Defences	0	0	0	-	-
41	7.5	Flood Storage Areas	0	0	0	-	-
42	7.6	Flood Zone 2	None (within 50m)				
42	7.7	Flood Zone 3	None (within 50m)				
Page	Section	Surface water flooding >					
43 >	8.1 >	Surface water flooding >	1 in 30 year, 0.3m - 1.0m (within 50m)				
Page	Section	Groundwater flooding >					
45 >	9.1 >	Groundwater flooding >	Moderate (within 50m)				
Page	Section	Environmental designations >	On site	0-50m	50-250m	250-500m	500-2000m
46 >	10.1 >	Sites of Special Scientific Interest (SSSI) >	0	0	0	1	0
47	10.2	Conserved wetland sites (Ramsar sites)	0	0	0	0	0
47 >	10.3 >	Special Areas of Conservation (SAC) >	0	0	0	1	0
47	10.4	Special Protection Areas (SPA)	0	0	0	0	0
48 >	10.5 >	National Nature Reserves (NNR) >	0	0	0	1	3
48	10.6	Local Nature Reserves (LNR)	0	0	0	0	0
48 >	10.7 >	Designated Ancient Woodland >	0	0	0	0	2
49	10.8	Biosphere Reserves	0	0	0	0	0
49	10.9	Forest Parks	0	0	0	0	0
49	10.10	Marine Conservation Zones	0	0	0	0	0
49	10.11	Green Belt	0	0	0	0	0
49	10.12	Proposed Ramsar sites	0	0	0	0	0



50	10.13	Possible Special Areas of Conservation (pSAC)	0	0	0	0	0
50	10.14	Potential Special Protection Areas (pSPA)	0	0	0	0	0
50	10.15	Nitrate Sensitive Areas	0	0	0	0	0
50	10.16	Nitrate Vulnerable Zones	0	0	0	0	0
51	10.17	SSSI Impact Risk Zones	0	-	-	-	-
51	10.18	SSSI Units	0	0	0	0	0
Page	Section	Visual and cultural designations	On site	0-50m	50-250m	250-500m	500-2000m
52	11.1	World Heritage Sites	0	0	0	-	-
52	11.2	Area of Outstanding Natural Beauty	0	0	0	-	-
52	11.3	National Parks	0	0	0	-	-
52	11.4	Listed Buildings	0	0	0	-	-
53	11.5	Conservation Areas	0	0	0	-	-
53	11.6	Scheduled Ancient Monuments	0	0	0	-	-
53	11.7	Registered Parks and Gardens	0	0	0	-	-
Page	Section	<u>Agricultural designations</u> >	On site	0-50m	50-250m	250-500m	500-2000m
54 >	12.1 >	<u>Agricultural Land Classification</u> >	Grade 5 (within 250m)				
55	12.2	Open Access Land	0	0	0	-	-
55	12.3	Tree Felling Licences	0	0	0	-	-
55	12.4	Environmental Stewardship Schemes	0	0	0	-	-
56	12.5	Countryside Stewardship Schemes	0	0	0	-	-
Page	Section	Habitat designations	On site	0-50m	50-250m	250-500m	500-2000m
57	13.1	Priority Habitat Inventory	0	0	0	-	-
57	13.2	Habitat Networks	0	0	0	-	-
57	13.3	Open Mosaic Habitat	0	0	0	-	-
57	13.4	Limestone Pavement Orders	0	0	0	-	-
Page	Section	<u>Geology 1:10,000 scale</u> >	On site	0-50m	50-250m	250-500m	500-2000m
58 >	14.1 >	<u>10k Availability</u> >	Identified (within 500m)				
59	14.2	Artificial and made ground (10k)	0	0	0	0	-
60	14.3	Superficial geology (10k)	0	0	0	0	-

60	14.4	Landslip (10k)	0	0	0	0	-
61	14.5	Bedrock geology (10k)	0	0	0	0	-
61	14.6	Bedrock faults and other linear features (10k)	0	0	0	0	-
Page	Section	Geology 1:50,000 scale >	On site	0-50m	50-250m	250-500m	500-2000m
62 >	15.1 >	50k Availability >	Identified (within 500m)				
63 >	15.2 >	Artificial and made ground (50k) >	1	0	1	0	-
64 >	15.3 >	Artificial ground permeability (50k) >	1	0	-	-	-
65 >	15.4 >	Superficial geology (50k) >	1	0	2	0	-
66 >	15.5 >	Superficial permeability (50k) >	Identified (within 50m)				
66	15.6	Landslip (50k)	0	0	0	0	-
66	15.7	Landslip permeability (50k)	None (within 50m)				
67 >	15.8 >	Bedrock geology (50k) >	1	0	0	0	-
68 >	15.9 >	Bedrock permeability (50k) >	Identified (within 50m)				
68	15.10	Bedrock faults and other linear features (50k)	0	0	0	0	-
Page	Section	Boreholes	On site	0-50m	50-250m	250-500m	500-2000m
69	16.1	BGS Boreholes	0	0	0	-	-
Page	Section	Natural ground subsidence >					
70 >	17.1 >	Shrink swell clays >	Negligible (within 50m)				
71 >	17.2 >	Running sands >	Very low (within 50m)				
72 >	17.3 >	Compressible deposits >	Moderate (within 50m)				
74 >	17.4 >	Collapsible deposits >	Very low (within 50m)				
75 >	17.5 >	Landslides >	Very low (within 50m)				
76 >	17.6 >	Ground dissolution of soluble rocks >	Negligible (within 50m)				
Page	Section	Mining and ground workings >	On site	0-50m	50-250m	250-500m	500-2000m
78 >	18.1 >	BritPits >	0	0	1	1	-
79 >	18.2 >	Surface ground workings >	1	1	5	-	-
80	18.3	Underground workings	0	0	0	0	0
80	18.4	Underground mining extents	0	0	0	0	-
80	18.5	Historical Mineral Planning Areas	0	0	0	0	-



80 >	18.6 >	Non-coal mining >	1	0	0	0	1
81	18.7	JPB mining areas	None (within 0m)				
81	18.8	The Coal Authority non-coal mining	0	0	0	0	-
81	18.9	Researched mining	0	0	0	0	-
82	18.10	Mining record office plans	0	0	0	0	-
82	18.11	BGS mine plans	0	0	0	0	-
82	18.12	Coal mining	None (within 0m)				
82	18.13	Brine areas	None (within 0m)				
82	18.14	Gypsum areas	None (within 0m)				
83	18.15	Tin mining	None (within 0m)				
83	18.16	Clay mining	None (within 0m)				
Page	Section	Ground cavities and sinkholes	On site	0-50m	50-250m	250-500m	500-2000m
84	19.1	Natural cavities	0	0	0	0	-
84	19.2	Mining cavities	0	0	0	0	0
84	19.3	Reported recent incidents	0	0	0	0	-
84	19.4	Historical incidents	0	0	0	0	-
85	19.5	National karst database	0	0	0	0	-
Page	Section	Radon >					
86 >	20.1 >	Radon >	Between 1% and 3% (within 0m)				
Page	Section	Soil chemistry >	On site	0-50m	50-250m	250-500m	500-2000m
88 >	21.1 >	BGS Estimated Background Soil Chemistry >	2	0	-	-	-
88	21.2	BGS Estimated Urban Soil Chemistry	0	0	-	-	-
88	21.3	BGS Measured Urban Soil Chemistry	0	0	-	-	-
Page	Section	Railway infrastructure and projects >	On site	0-50m	50-250m	250-500m	500-2000m
89	22.1	Underground railways (London)	0	0	0	-	-
89	22.2	Underground railways (Non-London)	0	0	0	-	-
90	22.3	Railway tunnels	0	0	0	-	-
90 >	22.4 >	Historical railway and tunnel features >	0	0	1	-	-
90	22.5	Royal Mail tunnels	0	0	0	-	-

90 >	22.6 >	Historical railways >	0	0	1	-	-
91	22.7	Railways	0	0	0	-	-
91	22.8	Crossrail 1	0	0	0	0	-
91	22.9	Crossrail 2	0	0	0	0	-
91	22.10	HS2	0	0	0	0	-

Recent aerial photograph



Capture Date: 27/05/2021

Site Area: 0.54ha



Recent site history - 2018 aerial photograph



Capture Date: 07/06/2018

Site Area: 0.54ha



Recent site history - 2015 aerial photograph



Capture Date: 15/07/2015

Site Area: 0.54ha



Recent site history - 2009 aerial photograph

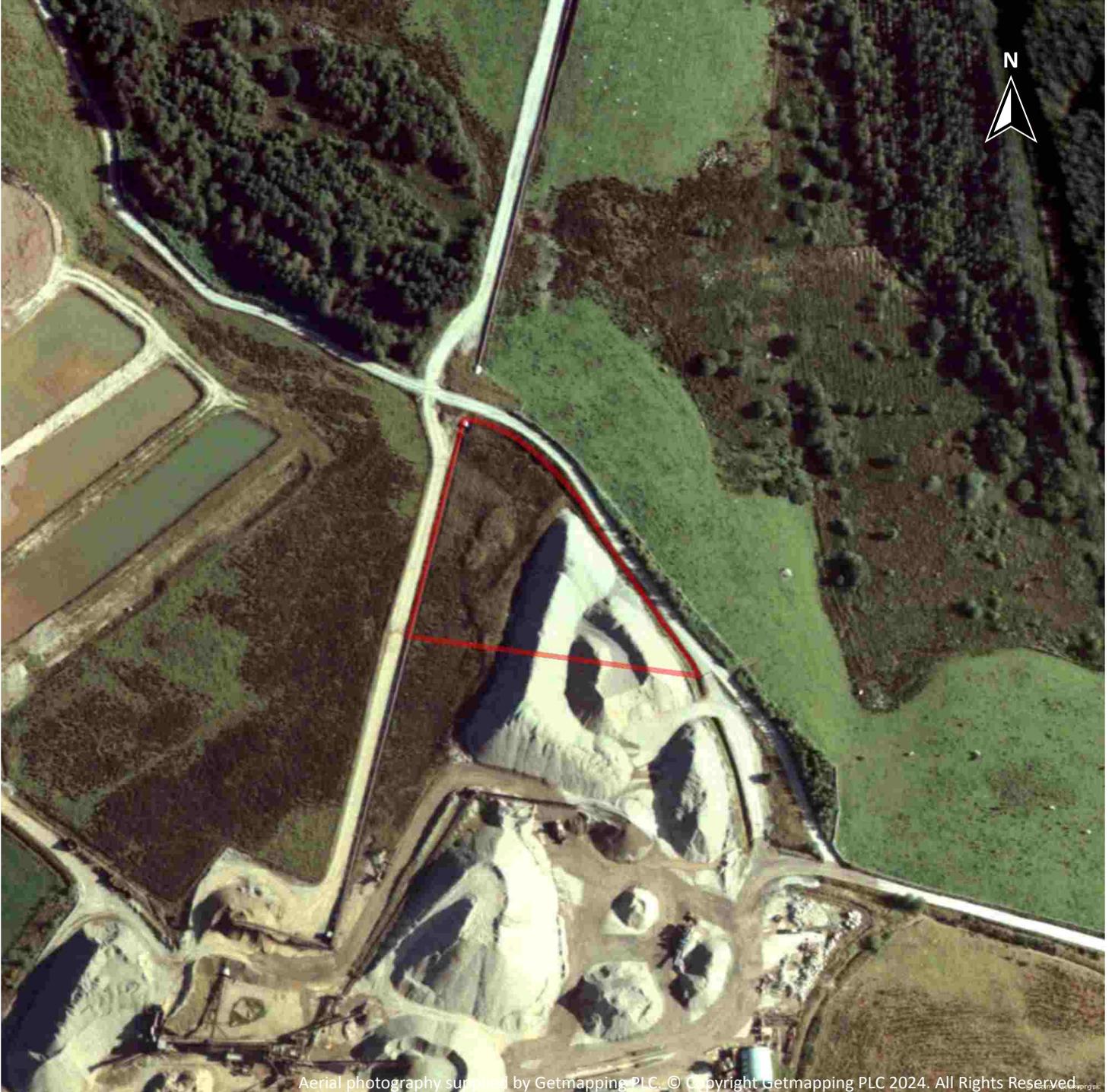


Capture Date: 01/06/2009

Site Area: 0.54ha



Recent site history - 2000 aerial photograph

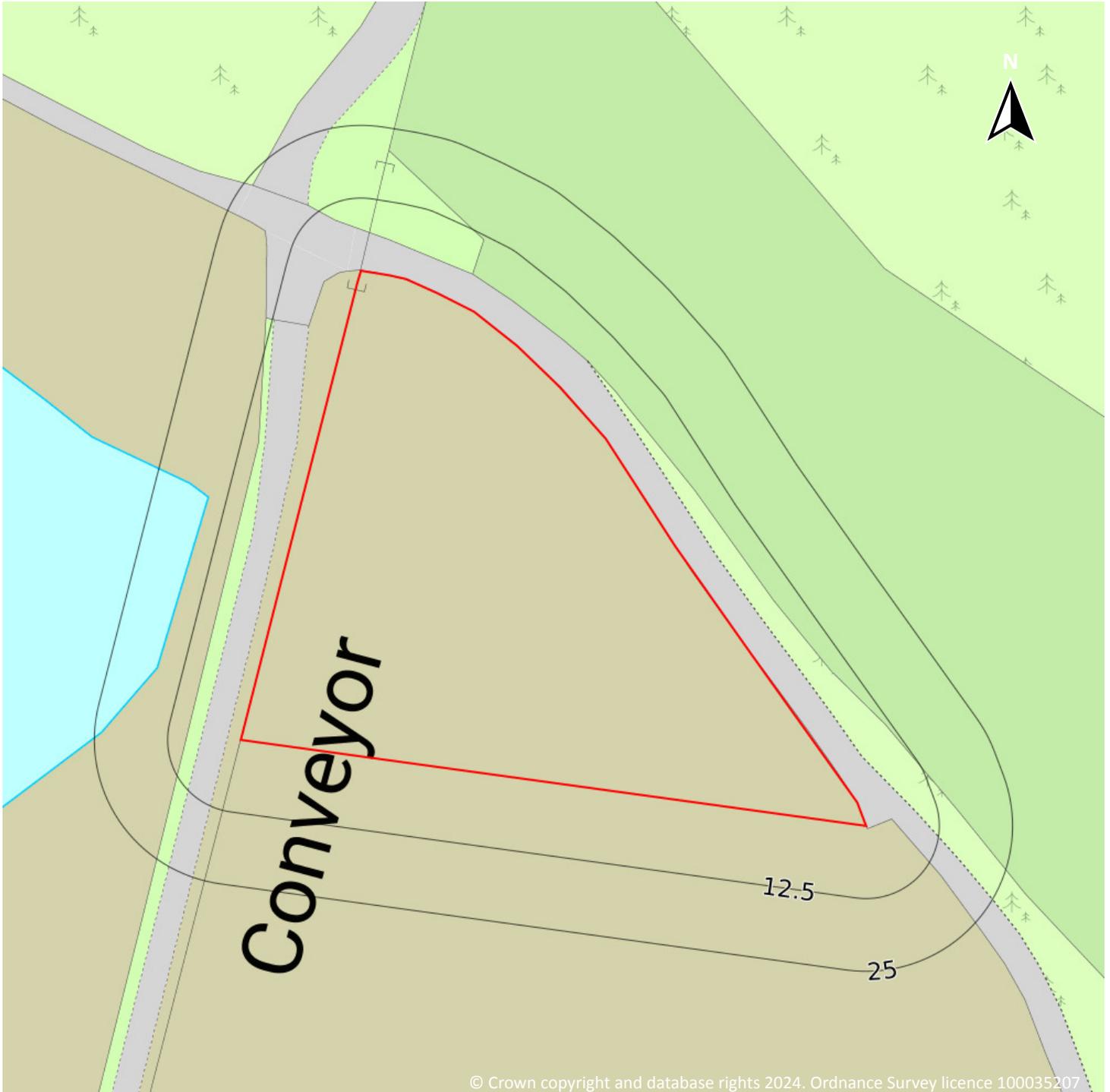


Capture Date: 21/07/2000

Site Area: 0.54ha



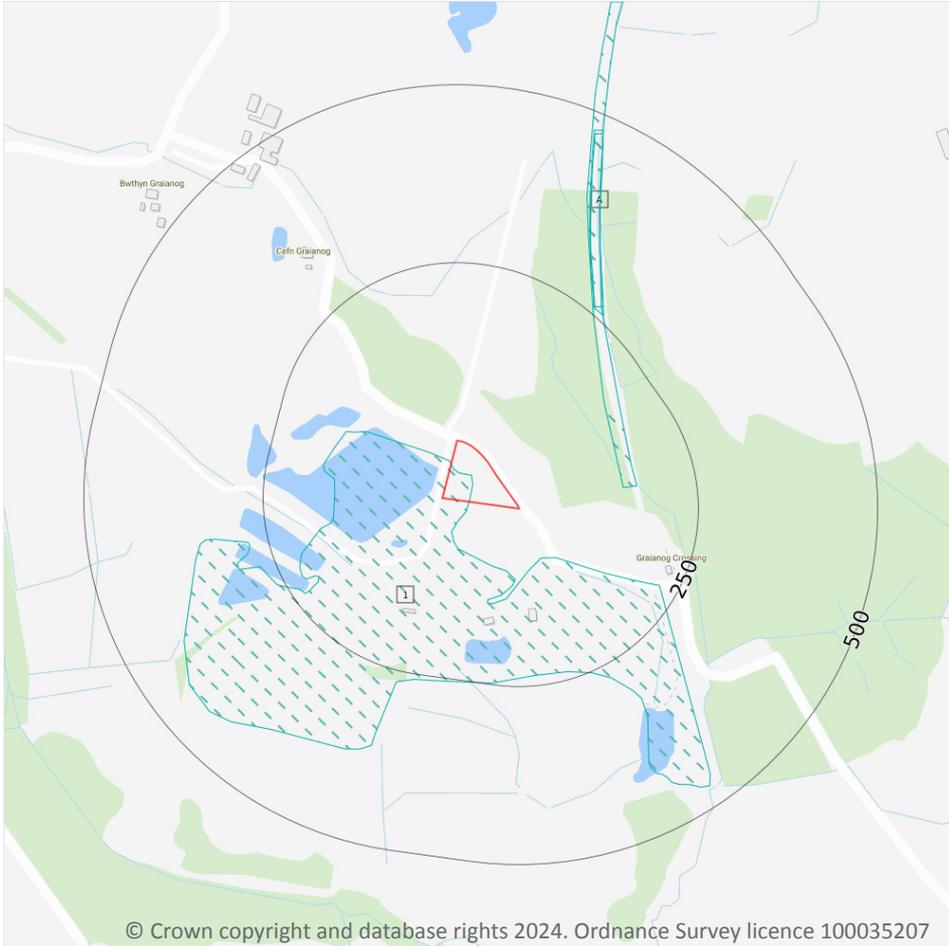
OS MasterMap site plan



Site Area: 0.54ha



1 Past land use



- Site Outline
- Search buffers in metres (m)
- Historical industrial land uses

1.1 Historical industrial land uses

Records within 500m **4**

Potentially contaminative land use features digitised from historical Ordnance Survey mapping at 1:10,000 and 1:10,560 scale, intelligently grouped into contiguous features. To prevent misrepresentation of the size of historical features at any given time, features are only grouped if they have similar geometries within immediately preceding or succeeding map editions. See section 2 for a breakdown of grouping if required. Grouped and the original un-grouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

Features are displayed on the Past land use map on [page 15 >](#)

ID	Location	Land use	Dates present	Group ID
1	On site	Sand and Gravel Pit	1978	217104

ID	Location	Land use	Dates present	Group ID
A	148m E	Railway Sidings	1960	221476
A	258m NE	Abattoir	1888	221846
A	260m NE	Cuttings	1888	220957

This data is sourced from Ordnance Survey / Groundsure.

1.2 Historical tanks

Records within 500m

0

Tank features digitised from historical Ordnance Survey mapping at high-detail 1:1,250 and 1:2,500 scale, intelligently grouped into contiguous features. To prevent misrepresentation of the size of historical features at any given time, features are only grouped if they have similar geometries within immediately preceding or succeeding map editions. See section 2 for a breakdown of grouping if required. Grouped and the original ungrouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

This data is sourced from Ordnance Survey / Groundsure.

1.3 Historical energy features

Records within 500m

0

Energy features digitised from historical Ordnance Survey mapping at high-detail 1:1,250 and 1:2,500 scale, intelligently grouped into contiguous features. To prevent misrepresentation of the size of historical features at any given time, features are only grouped if they have similar geometries within immediately preceding or succeeding map editions. See section 2 for a breakdown of grouping if required. Grouped and the original ungrouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

This data is sourced from Ordnance Survey / Groundsure.

1.4 Historical petrol stations

Records within 500m

0

Petrol stations digitised from historical Ordnance Survey mapping at high-detail 1:1,250 and 1:2,500 scale, intelligently grouped into contiguous features. To prevent misrepresentation of the size of historical features at any given time, features are only grouped if they have similar geometries within immediately preceding or succeeding map editions. See section 2 for a breakdown of grouping if required. Grouped and the original ungrouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

This data is sourced from Ordnance Survey / Groundsure.



1.5 Historical garages

Records within 500m

0

Garages digitised from historical Ordnance Survey mapping at high-detail 1:1,250 and 1:2,500 scale, intelligently grouped into contiguous features. To prevent misrepresentation of the size of historical features at any given time, features are only grouped if they have similar geometries within immediately preceding or succeeding map editions. See section 2 for a breakdown of grouping if required. Grouped and the original ungrouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

This data is sourced from Ordnance Survey / Groundsure.

1.6 Historical military land

Records within 500m

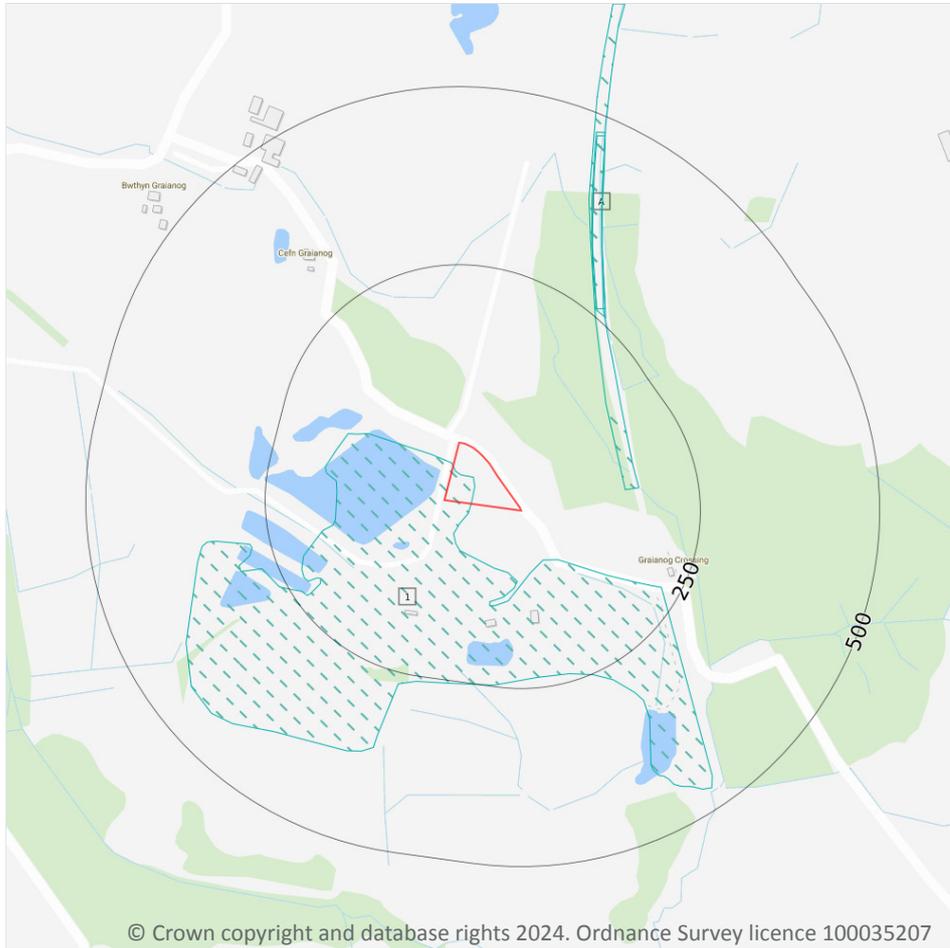
0

Areas of military land digitised from multiple sources including the National Archives, local records, MOD records and verified other sources, intelligently grouped into contiguous features.

This data is sourced from Ordnance Survey / Groundsure / other sources.



2 Past land use - un-grouped



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2.1 Historical industrial land uses

Records within 500m

4

Potentially contaminative land use features digitised from historical Ordnance Survey mapping at 1:10,000 and 10,560 scale. Any records shown are available intelligently grouped in section 1. Grouped and the original un-grouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

Features are displayed on the Past land use - un-grouped map on [page 18](#) >

ID	Location	Land Use	Date	Group ID
1	On site	Sand and Gravel Pit	1978	217104
A	148m E	Railway Sidings	1960	221476
A	258m NE	Abattoir	1888	221846

ID	Location	Land Use	Date	Group ID
A	260m NE	Cuttings	1888	220957

This data is sourced from Ordnance Survey / Groundsure.

2.2 Historical tanks

Records within 500m

0

Tank features digitised from historical Ordnance Survey mapping at high-detail 1:1,250 and 1:2,500 scale. Any records shown are available intelligently grouped in section 1. Grouped and the original un-grouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

This data is sourced from Ordnance Survey / Groundsure.

2.3 Historical energy features

Records within 500m

0

Energy features digitised from historical Ordnance Survey mapping at high-detail 1:1,250 and 1:2,500 scale. Any records shown are available intelligently grouped in section 1. Grouped and the original un-grouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

This data is sourced from Ordnance Survey / Groundsure.

2.4 Historical petrol stations

Records within 500m

0

Petrol stations digitised from historical Ordnance Survey mapping at high-detail 1:1,250 and 1:2,500 scale. Any records shown are available intelligently grouped in section 1. Grouped and the original un-grouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

This data is sourced from Ordnance Survey / Groundsure.

2.5 Historical garages

Records within 500m

0

Garages digitised from historical Ordnance Survey mapping at high-detail 1:1,250 and 1:2,500 scale. Any records shown are available intelligently grouped in section 1. Grouped and the original un-grouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

This data is sourced from Ordnance Survey / Groundsure.



3 Waste and landfill



-  Site Outline
- Search buffers in metres (m)
-  Waste exemptions

3.1 Active or recent landfill

Records within 500m

0

Active or recently closed landfill sites under Environment Agency/Natural Resources Wales regulation.

This data is sourced from the Environment Agency and Natural Resources Wales.

3.2 Historical landfill (BGS records)

Records within 500m

0

Landfill sites identified on a survey carried out on behalf of the DoE in 1973. These sites may have been closed or operational at this time.

This data is sourced from the British Geological Survey.

3.3 Historical landfill (LA/mapping records)

Records within 500m

0

Landfill sites identified from Local Authority records and high detail historical mapping.

This data is sourced from the Ordnance Survey/Groundsure and Local Authority records.

3.4 Historical landfill (EA/NRW records)

Records within 500m

0

Known historical (closed) landfill sites (e.g. sites where there is no PPC permit or waste management licence currently in force). This includes sites that existed before the waste licensing regime and sites that have been licensed in the past but where a licence has been revoked, ceased to exist or surrendered and a certificate of completion has been issued.

This data is sourced from the Environment Agency and Natural Resources Wales.

3.5 Historical waste sites

Records within 500m

0

Waste site records derived from Local Authority planning records and high detail historical mapping.

This data is sourced from Ordnance Survey/Groundsure and Local Authority records.

3.6 Licensed waste sites

Records within 500m

0

Active or recently closed waste sites under Environment Agency/Natural Resources Wales regulation.

This data is sourced from the Environment Agency and Natural Resources Wales.

3.7 Waste exemptions

Records within 500m

3

Activities involving the storage, treatment, use or disposal of waste that are exempt from needing a permit. Exemptions have specific limits and conditions that must be adhered to.

Features are displayed on the Waste and landfill map on [page 20](#) >

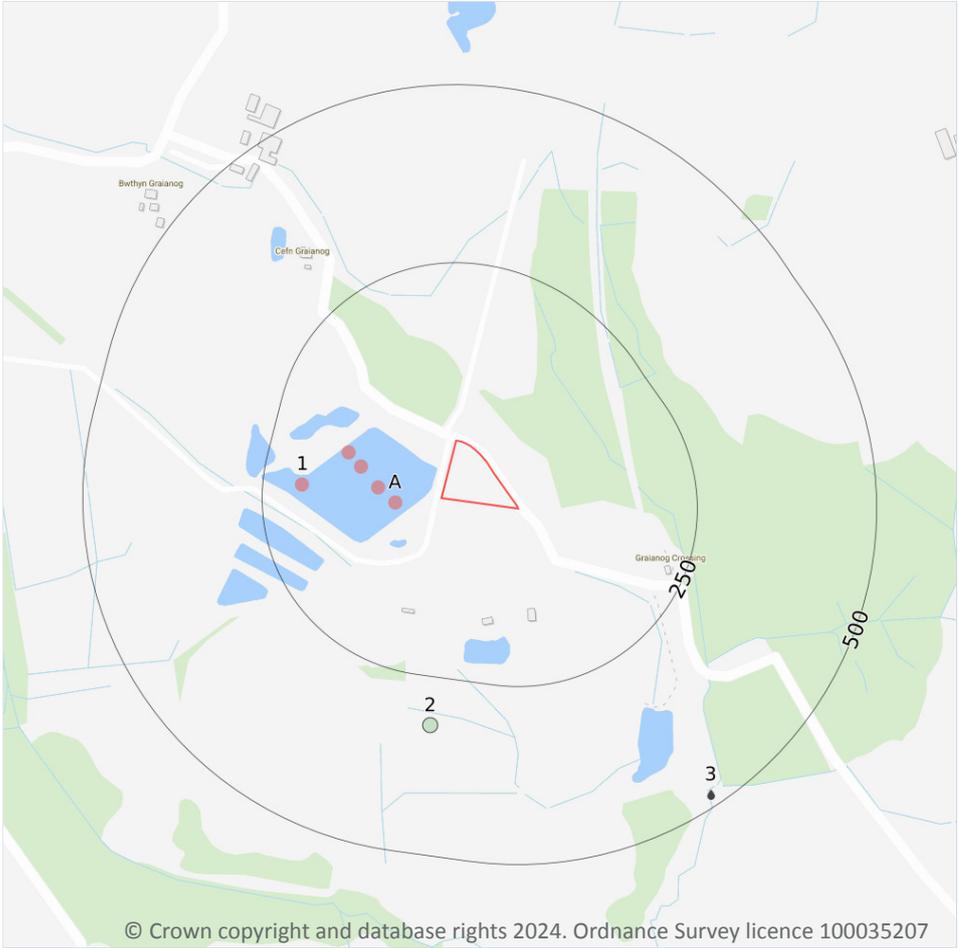


ID	Location	Site	Reference	Category	Sub-Category	Description
A	104m S	Road Maintenance Services Limited, TG Aggregates depot, LL54 6TA	NRW-WME075084	Storing waste exemption	Not on a farm	Storage of waste in a secure place
A	104m S	Road Maintenance Services Limited, TG Aggregates depot, LL54 6TA	NRW-WME075084	Using waste exemption	Not on a farm	Use of waste in construction
1	164m S	Ellesmere Sand & Gravel Co. Ltd, Cefn Graianog, Llanllyfni, Caernarfon, Gwynedd, LL54 6SY	NRW-WME048524	Using waste exemption	Not on a farm	Use of waste in construction

This data is sourced from the Environment Agency and Natural Resources Wales.



4 Current industrial land use



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4.1 Recent industrial land uses

Records within 250m 5

Current potentially contaminative industrial sites.

Features are displayed on the Current industrial land use map on [page 23](#) >

ID	Location	Company	Address	Activity	Category
A	65m W	Settling Pond	Gwynedd, LL54	Settling, Balancing and Silt Ponds	Bodies of Water
A	89m W	Settling Pond	Gwynedd, LL54	Settling, Balancing and Silt Ponds	Bodies of Water
A	119m W	Settling Pond	Gwynedd, LL54	Settling, Balancing and Silt Ponds	Bodies of Water

ID	Location	Company	Address	Activity	Category
A	142m W	Settling Pond	Gwynedd, LL54	Settling, Balancing and Silt Ponds	Bodies of Water
1	195m W	Settling Pond	Gwynedd, LL54	Settling, Balancing and Silt Ponds	Bodies of Water

This data is sourced from Ordnance Survey.

4.2 Current or recent petrol stations

Records within 500m

0

Open, closed, under development and obsolete petrol stations.

This data is sourced from Experian.

4.3 Electricity cables

Records within 500m

0

High voltage underground electricity transmission cables.

This data is sourced from National Grid.

4.4 Gas pipelines

Records within 500m

0

High pressure underground gas transmission pipelines.

This data is sourced from National Grid.

4.5 Sites determined as Contaminated Land

Records within 500m

0

Contaminated Land Register of sites designated under Part 2a of the Environmental Protection Act 1990.

This data is sourced from Local Authority records.



4.6 Control of Major Accident Hazards (COMAH)

Records within 500m

0

Control of Major Accident Hazards (COMAH) sites. This data includes upper and lower tier sites, and includes a historical archive of COMAH sites and Notification of Installations Handling Hazardous Substances (NIHHS) records.

This data is sourced from the Health and Safety Executive.

4.7 Regulated explosive sites

Records within 500m

0

Sites registered and licensed by the Health and Safety Executive under the Manufacture and Storage of Explosives Regulations 2005 (MSER). The last update to this data was in April 2011.

This data is sourced from the Health and Safety Executive.

4.8 Hazardous substance storage/usage

Records within 500m

0

Consents granted for a site to hold certain quantities of hazardous substances at or above defined limits in accordance with the Planning (Hazardous Substances) Regulations 2015.

This data is sourced from Local Authority records.

4.9 Historical licensed industrial activities (IPC)

Records within 500m

0

Integrated Pollution Control (IPC) records of substance releases to air, land and water. This data represents a historical archive as the IPC regime has been superseded.

This data is sourced from the Environment Agency and Natural Resources Wales.

4.10 Licensed industrial activities (Part A(1))

Records within 500m

0

Records of Part A(1) installations regulated under the Environmental Permitting (England and Wales) Regulations 2016 for the release of substances to the environment.

This data is sourced from the Environment Agency and Natural Resources Wales.



4.11 Licensed pollutant release (Part A(2)/B)

Records within 500m

0

Records of Part A(2) and Part B installations regulated under the Environmental Permitting (England and Wales) Regulations 2016 for the release of substances to the environment.

This data is sourced from Local Authority records.

4.12 Radioactive Substance Authorisations

Records within 500m

0

Records of the storage, use, accumulation and disposal of radioactive substances regulated under the Radioactive Substances Act 1993.

This data is sourced from the Environment Agency and Natural Resources Wales.

4.13 Licensed Discharges to controlled waters

Records within 500m

1

Discharges of treated or untreated effluent to controlled waters under the Water Resources Act 1991.

Features are displayed on the Current industrial land use map on [page 23 >](#)

ID	Location	Address	Details	
3	483m SE	CEFN GRAIANOG QUARRY LLANLLYFINI P, CEFN GRAIANOG QUARRY LLANLLYFIN, LLANLLYFINI PEN-Y-GROES, LLANLLYFINI PEN-Y-GROES, PEN-Y-GROES	Effluent Type: MINEWATER Permit Number: CG0112701 Permit Version: 0 Receiving Water: AFON DWYFACH	Status: Effective Issue date: 16/05/1994 Effective Date: 16/05/1994 Revocation Date: -

This data is sourced from the Environment Agency and Natural Resources Wales.

4.14 Pollutant release to surface waters (Red List)

Records within 500m

0

Discharges of specified substances under the Environmental Protection (Prescribed Processes and Substances) Regulations 1991.

This data is sourced from the Environment Agency and Natural Resources Wales.



4.15 Pollutant release to public sewer

Records within 500m

0

Discharges of Special Category Effluents to the public sewer.

This data is sourced from the Environment Agency and Natural Resources Wales.

4.16 List 1 Dangerous Substances

Records within 500m

0

Discharges of substances identified on List I of European Directive E 2006/11/EC, and regulated under the Environmental Damage (Prevention and Remediation) Regulations 2015.

This data is sourced from the Environment Agency and Natural Resources Wales.

4.17 List 2 Dangerous Substances

Records within 500m

0

Discharges of substances identified on List II of European Directive E 2006/11/EC, and regulated under the Environmental Damage (Prevention and Remediation) Regulations 2015.

This data is sourced from the Environment Agency and Natural Resources Wales.

4.18 Pollution Incidents (EA/NRW)

Records within 500m

1

Records of substantiated pollution incidents. Since 2006 this data has only included category 1 (major) and 2 (significant) pollution incidents.

Features are displayed on the Current industrial land use map on [page 23 >](#)

ID	Location	Details	
2	318m S	Incident Date: 01/10/2003 Incident Identification: 193743 Pollutant: Inert Materials and Wastes Pollutant Description: Rocks and Gravel	Water Impact: Category 4 (No Impact) Land Impact: Category 4 (No Impact) Air Impact: Category 4 (No Impact)

This data is sourced from the Environment Agency and Natural Resources Wales.

4.19 Pollution inventory substances

Records within 500m

0

The pollution inventory (substances) includes reporting on annual emissions of certain regulated substances to air, controlled waters and land. A reporting threshold for each substance is also included. Where emissions fall below the reporting threshold, no value will be given. The data is given for the most recent complete year available.

This data is sourced from the Environment Agency and the Scottish Environment Protection Agency.

4.20 Pollution inventory waste transfers

Records within 500m

0

The pollution inventory (waste transfers) includes reporting on annual transfers and recovery/disposal of controlled wastes from a site. A reporting threshold for each waste type is also included. Where releases fall below the reporting threshold, no value will be given. The data is given for the most recent complete year available.

This data is sourced from the Environment Agency and the Scottish Environment Protection Agency.

4.21 Pollution inventory radioactive waste

Records within 500m

0

The pollution inventory (radioactive wastes) includes reporting on annual releases of radioactive substances from a site, including the means of release. Where releases fall below the reporting threshold, no value will be given. The data is given for the most recent complete year available.

This data is sourced from the Environment Agency and the Scottish Environment Protection Agency.

5 Hydrogeology - Superficial aquifer

5.1 Superficial aquifer

Records within 500m

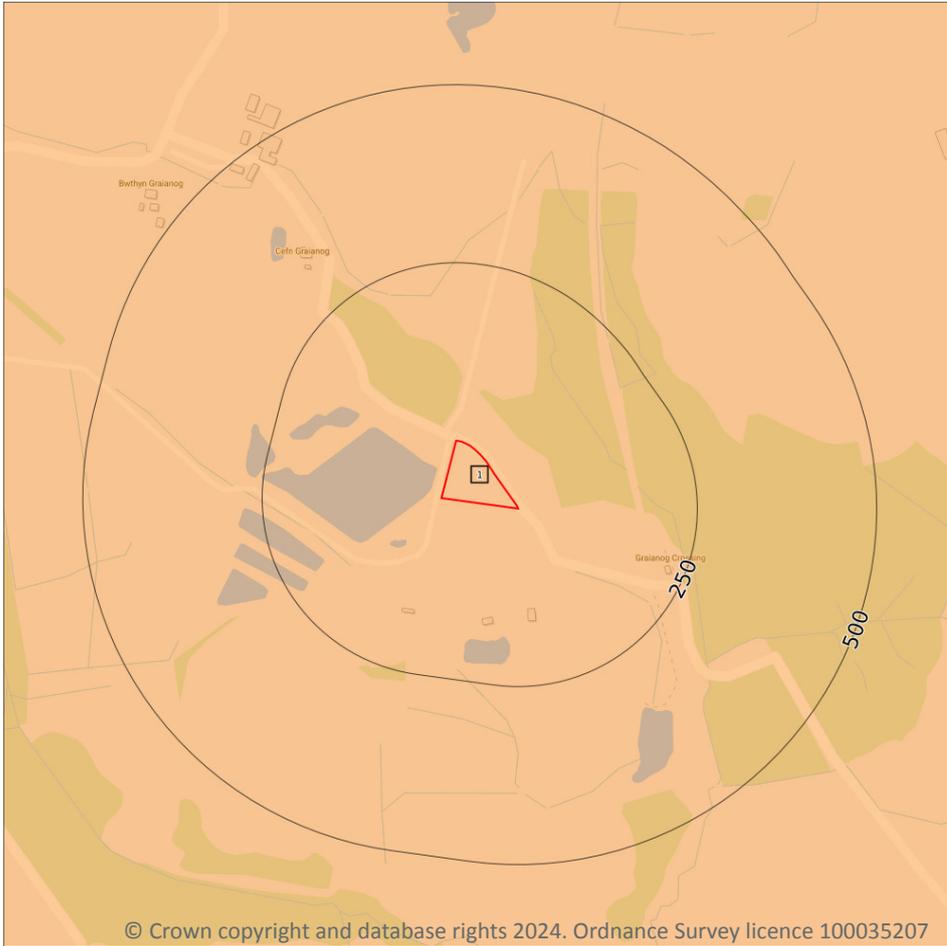
0

Aquifer status of groundwater held within superficial geology.

This data is sourced from the British Geological Survey, the Environment Agency and Natural Resources Wales.



Bedrock aquifer



- Site Outline
- Search buffers in metres (m)
- Principal
- Secondary A
- Secondary B
- Secondary Undifferentiated
- Unproductive

5.2 Bedrock aquifer

Records within 500m

1

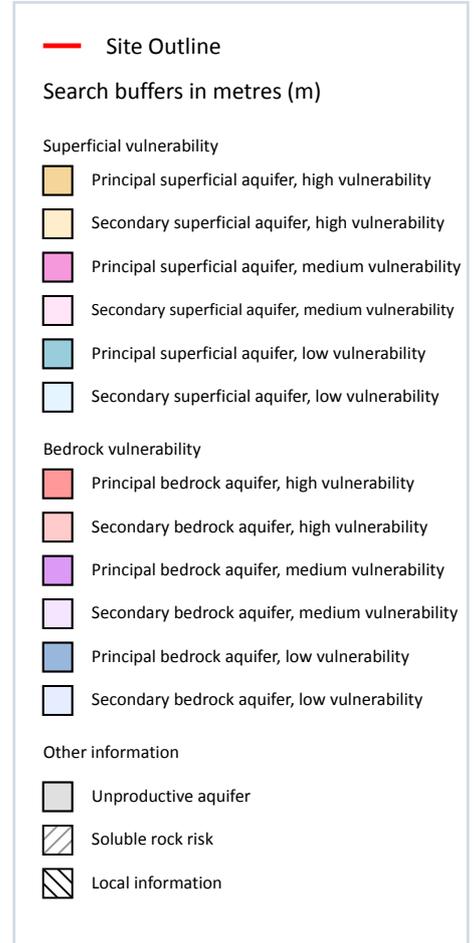
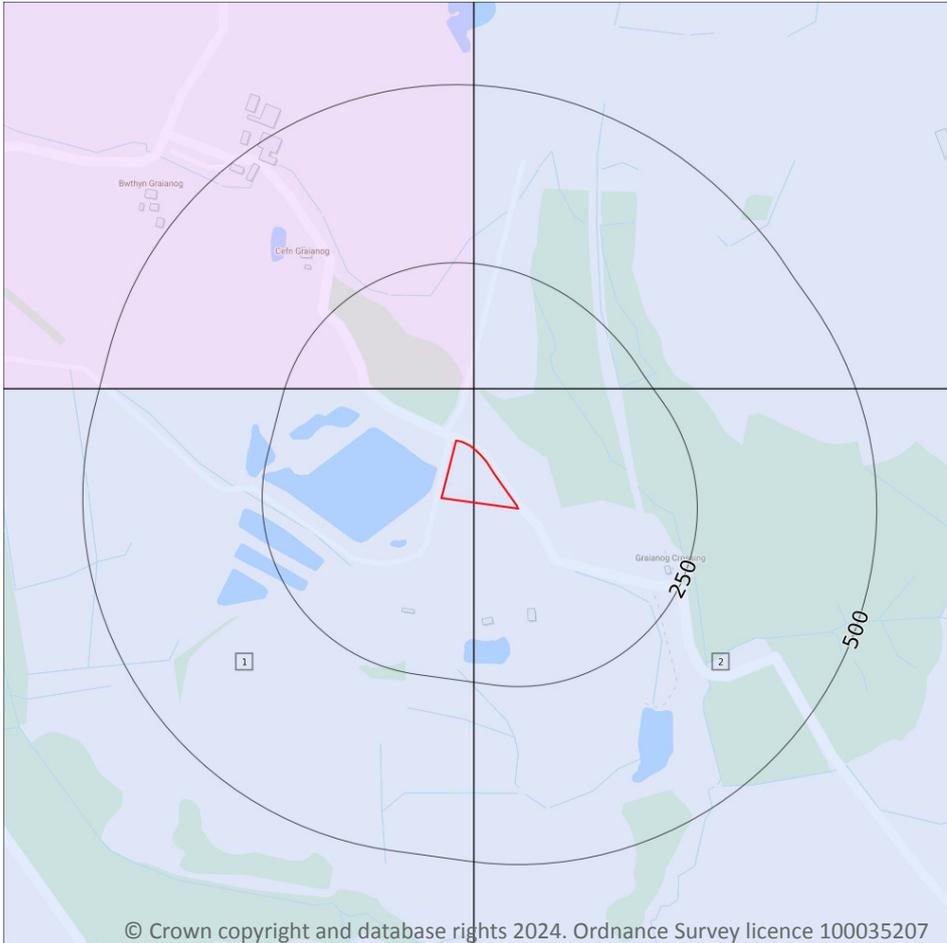
Aquifer status of groundwater held within bedrock geology.

Features are displayed on the Bedrock aquifer map on [page 30](#) >

ID	Location	Designation	Description
1	On site	Secondary B	Predominantly lower permeability layers which may store/yield limited amounts of groundwater due to localised features such as fissures, thin permeable horizons and weathering. These are generally the water-bearing parts of the former non-aquifers

This data is sourced from the British Geological Survey, the Environment Agency and Natural Resources Wales.

Groundwater vulnerability



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5.3 Groundwater vulnerability

Records within 50m

2

An assessment of the vulnerability of groundwater to a pollutant discharged at ground level based on the hydrological, geological, hydrogeological and soil properties within a one kilometre square grid. Groundwater vulnerability is described as High, Medium or Low as follows:

- High - Areas able to easily transmit pollution to groundwater. They are likely to be characterised by high leaching soils and the absence of low permeability superficial deposits.
- Medium - Intermediate between high and low vulnerability.
- Low - Areas that provide the greatest protection from pollution. They are likely to be characterised by low leaching soils and/or the presence of superficial deposits characterised by a low permeability.

Features are displayed on the Groundwater vulnerability map on [page 31](#) >

ID	Location	Summary	Soil / surface	Superficial geology	Bedrock geology
1	On site	Summary Classification: Secondary bedrock aquifer - Low Vulnerability Combined classification: Productive Bedrock Aquifer, No Superficial Aquifer	Leaching class: Low Infiltration value: <40% Dilution value: >550mm/year	Vulnerability: - Aquifer type: - Thickness: >10m Patchiness value: >90% Recharge potential: Low	Vulnerability: Low Aquifer type: Secondary Flow mechanism: Well connected fractures
2	On site	Summary Classification: Secondary bedrock aquifer - Low Vulnerability Combined classification: Productive Bedrock Aquifer, No Superficial Aquifer	Leaching class: Low Infiltration value: <40% Dilution value: >550mm/year	Vulnerability: - Aquifer type: - Thickness: 3-10m Patchiness value: >90% Recharge potential: Low	Vulnerability: Low Aquifer type: Secondary Flow mechanism: Well connected fractures

This data is sourced from the British Geological Survey, the Environment Agency and Natural Resources Wales.

5.4 Groundwater vulnerability- soluble rock risk

Records on site

0

This dataset identifies areas where solution features that enable rapid movement of a pollutant may be present within a 1km grid square.

This data is sourced from the British Geological Survey and the Environment Agency.

5.5 Groundwater vulnerability- local information

Records on site

0

This dataset identifies areas where additional local information affecting vulnerability is held by the Environment Agency. Further information can be obtained by contacting the Environment Agency local Area groundwater team through the Environment Agency National Customer Call Centre on 03798 506 506 or by email on enquiries@environment-agency.gov.uk ↗.

This data is sourced from the British Geological Survey and the Environment Agency.



Abstractions and Source Protection Zones



5.6 Groundwater abstractions

Records within 2000m

0

Licensed groundwater abstractions for sites extracting more than 20 cubic metres of water a day and includes active and historical records. The data may be for a single abstraction point, between two points (line data) or a larger area.

This data is sourced from the Environment Agency and Natural Resources Wales.

5.7 Surface water abstractions

Records within 2000m

1

Licensed surface water abstractions for sites extracting more than 20 cubic metres of water a day and includes active and historical records. The data may be for a single abstraction point, a stretch of watercourse or a larger area.

Features are displayed on the Abstractions and Source Protection Zones map on [page 33 >](#)

ID	Location	Details	
-	1986m E	Status: Historical Licence No: 23/65/14/0001 Details: Drinking, Cooking, Sanitary, Washing, (Small Garden) - Household Direct Source: EAW Surface Water Point: SPRING AT BRYN BUGEILIAU, NEBO Data Type: Point Name: Hughes Easting: 247910 Northing: 349560	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 31/01/1966 Expiry Date: - Issue No: 100 Version Start Date: 01/04/1984 Version End Date: -

This data is sourced from the Environment Agency and Natural Resources Wales.

5.8 Potable abstractions

Records within 2000m

1

Licensed potable water abstractions for sites extracting more than 20 cubic metres of water a day and includes active and historical records. The data may be for a single abstraction point, a stretch of watercourse or a larger area.

Features are displayed on the Abstractions and Source Protection Zones map on [page 33 >](#)

ID	Location	Details	
-	1986m E	Status: Historical Licence No: 23/65/14/0001 Details: Drinking, Cooking, Sanitary, Washing, (Small Garden) - Household Direct Source: EAW Surface Water Point: SPRING AT BRYN BUGEILIAU, NEBO Data Type: Point Name: Hughes Easting: 247910 Northing: 349560	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 31/01/1966 Expiry Date: - Issue No: 100 Version Start Date: 01/04/1984 Version End Date: -

This data is sourced from the Environment Agency and Natural Resources Wales.



5.9 Source Protection Zones

Records within 500m

0

Source Protection Zones define the sensitivity of an area around a potable abstraction site to contamination.

This data is sourced from the Environment Agency and Natural Resources Wales.

5.10 Source Protection Zones (confined aquifer)

Records within 500m

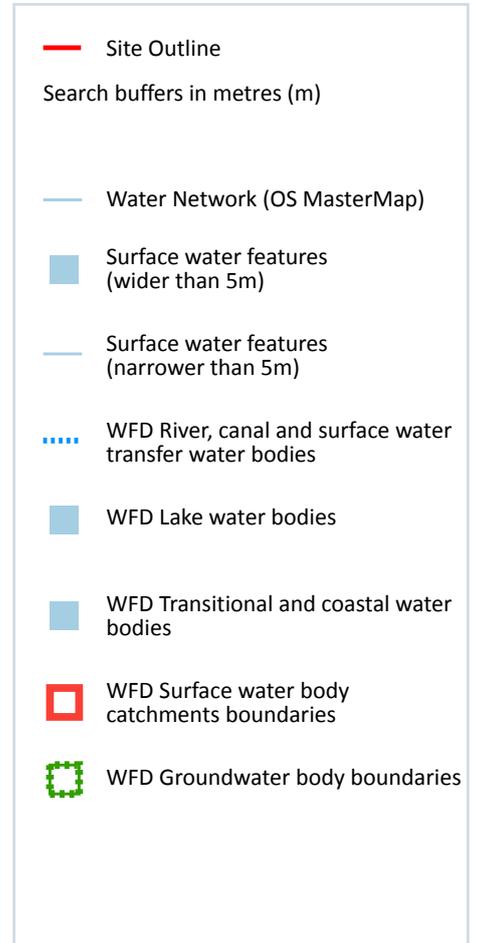
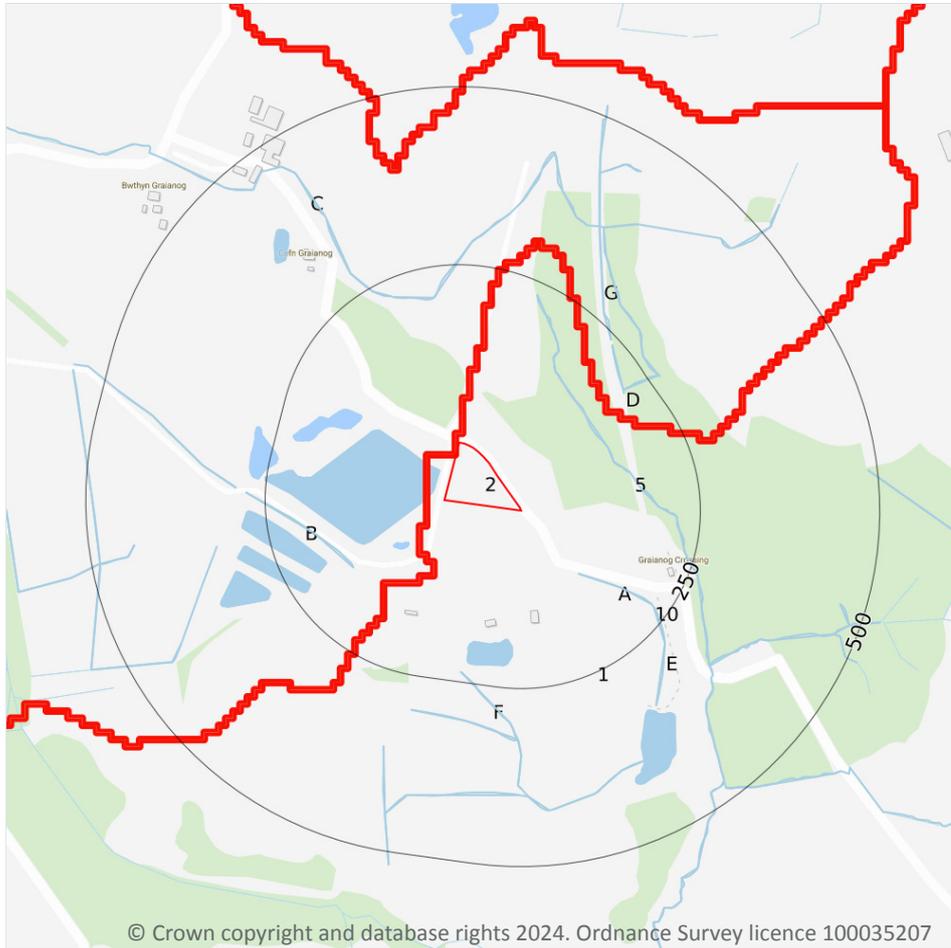
0

Source Protection Zones in the confined aquifer define the sensitivity around a deep groundwater abstraction to contamination. A confined aquifer would normally be protected from contamination by overlying geology and is only considered a sensitive resource if deep excavation/drilling is taking place.

This data is sourced from the Environment Agency and Natural Resources Wales.



6 Hydrology



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6.1 Water Network (OS MasterMap)

Records within 250m

11

Detailed water network of Great Britain showing the flow and precise central course of every river, stream, lake and canal.

Features are displayed on the Hydrology map on [page 36 >](#)

ID	Location	Type of water feature	Ground level	Permanence	Name
A	119m SE	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-

ID	Location	Type of water feature	Ground level	Permanence	Name
5	145m E	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
B	157m SW	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
C	205m N	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
D	210m NE	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
D	213m NE	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
D	213m NE	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
10	224m SE	Inland river not influenced by normal tidal action.	Underground	Watercourse contains water year round (in normal circumstances)	-
E	229m SE	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
F	235m S	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
G	241m NE	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-

This data is sourced from the Ordnance Survey.

6.2 Surface water features

Records within 250m

14

Covering rivers, streams and lakes (some overlap with OS MasterMap Water Network data in previous section) but additionally covers smaller features such as ponds. Rivers and streams narrower than 5m are represented as a single line. Lakes, ponds and rivers or streams wider than 5m are represented as polygons.

Features are displayed on the Hydrology map on [page 36 >](#)



This data is sourced from the Ordnance Survey.

6.3 WFD Surface water body catchments

Records on site

1

The Water Framework Directive is an EU-led framework for the protection of inland surface waters, estuaries, coastal waters and groundwater through river basin-level management planning. In terms of surface water, these basins are broken down into smaller units known as management, operational and water body catchments.

Features are displayed on the Hydrology map on [page 36 >](#)

ID	Location	Type	Water body catchment	Water body ID	Operational catchment	Management catchment
1	On site	River WB catchment	Dwyfach	GB110065053730	Dwyfor	Llyn and Eryri

This data is sourced from the Environment Agency and Natural Resources Wales.

6.4 WFD Surface water bodies

Records identified

1

Surface water bodies under the Directive may be rivers, lakes, estuary or coastal. To achieve the purpose of the Directive, environmental objectives have been set and are reported on for each water body. The progress towards delivery of the objectives is then reported on by the relevant competent authorities at the end of each six-year cycle. The river water body directly associated with the catchment listed in the previous section is detailed below, along with any lake, canal, coastal or artificial water body within 250m of the site.

Features are displayed on the Hydrology map on [page 36 >](#)

ID	Location	Type	Name	Water body ID	Overall rating	Chemical rating	Ecological rating	Year
-	858m S	River	Dwyfach	GB110065053730	Good	Good	Good	2016

This data is sourced from the Environment Agency and Natural Resources Wales.

6.5 WFD Groundwater bodies

Records on site

1

Groundwater bodies are also covered by the Directive and the same regime of objectives and reporting detailed in the previous section is in place.

Features are displayed on the Hydrology map on [page 36 >](#)



ID	Location	Name	Water body ID	Overall rating	Chemical rating	Quantitative	Year
2	On site	Llyn and Eryri	GB41002G204600	Poor	Poor	Good	2017

This data is sourced from the Environment Agency and Natural Resources Wales.



7 River and coastal flooding

7.1 Risk of flooding from rivers and the sea

Records within 50m

0

The chance of flooding from rivers and/or the sea in any given year, based on cells of 50m within the Risk of Flooding from Rivers and Sea (RoFRaS)/Flood Risk Assessment Wales (FRAW) models. Each cell is allocated one of four flood risk categories, taking into account flood defences and their condition. The risk categories for RoFRaS for rivers and the sea and FRAW for rivers are; Very low (less than 1 in 1000 chance in any given year), Low (less than 1 in 100 but greater than or equal to 1 in 1000 chance), Medium (less than 1 in 30 but greater than or equal to 1 in 100 chance) or High (greater than or equal to 1 in 30 chance). The risk categories for FRAW for the sea are; Very low (less than 1 in 1000 chance in any given year), Low (less than 1 in 200 but greater than or equal to 1 in 1000 chance), Medium (less than 1 in 30 but greater than or equal to 1 in 200 chance) or High (greater than or equal to 1 in 30 chance).

This data is sourced from the Environment Agency and Natural Resources Wales.

7.2 Historical Flood Events

Records within 250m

0

Records of historic flooding from rivers, the sea, groundwater and surface water. Records began in 1946 when predecessor bodies started collecting detailed information about flooding incidents, although limited details may be included on flooding incidents prior to this date. Takes into account the presence of defences, structures, and other infrastructure where they existed at the time of flooding, and includes flood extents that may have been affected by overtopping, breaches or blockages.

This data is sourced from the Environment Agency and Natural Resources Wales.

7.3 Flood Defences

Records within 250m

0

Records of flood defences owned, managed or inspected by the Environment Agency and Natural Resources Wales. Flood defences can be structures, buildings or parts of buildings. Typically these are earth banks, stone and concrete walls, or sheet-piling that is used to prevent or control the extent of flooding.

This data is sourced from the Environment Agency and Natural Resources Wales.



7.4 Areas Benefiting from Flood Defences

Records within 250m

0

Areas that would benefit from the presence of flood defences in a 1 in 100 (1%) chance of flooding each year from rivers or 1 in 200 (0.5%) chance of flooding each year from the sea.

This data is sourced from the Environment Agency and Natural Resources Wales.

7.5 Flood Storage Areas

Records within 250m

0

Areas that act as a balancing reservoir, storage basin or balancing pond to attenuate an incoming flood peak to a flow level that can be accepted by the downstream channel or to delay the timing of a flood peak so that its volume is discharged over a longer period.

This data is sourced from the Environment Agency and Natural Resources Wales.



River and coastal flooding - Flood Zones

7.6 Flood Zone 2

Records within 50m

0

Areas of land at risk of flooding, when the presence of flood defences are ignored. Covering land between Flood Zone 3 (see next section) and the extent of the flooding from rivers or the sea with a 1 in 1000 (0.1%) chance of flooding each year.

This data is sourced from the Environment Agency and Natural Resources Wales.

7.7 Flood Zone 3

Records within 50m

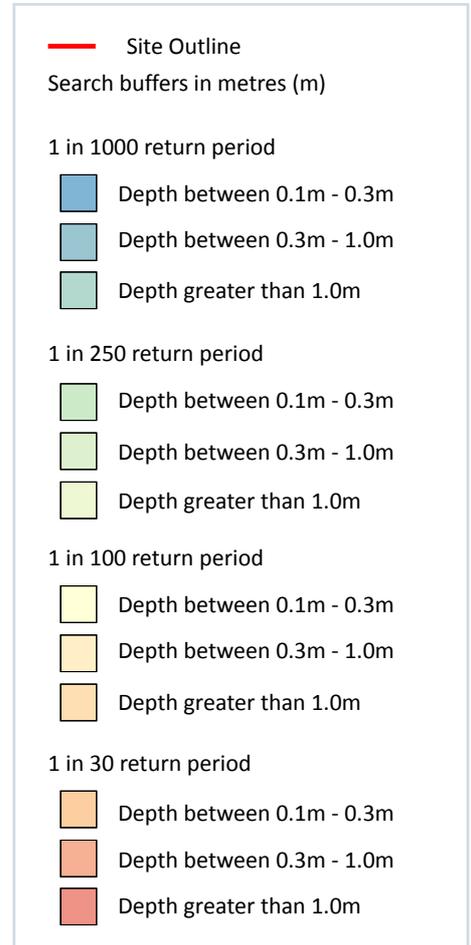
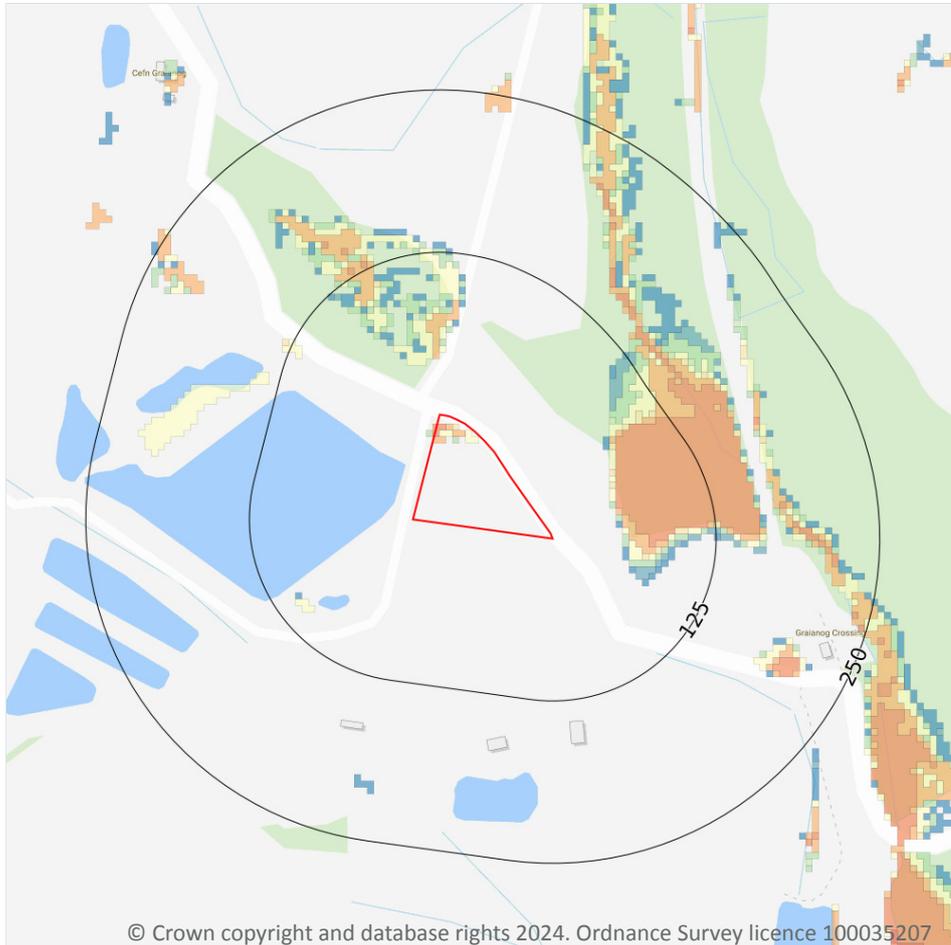
0

Areas of land at risk of flooding, when the presence of flood defences are ignored. Covering land with a 1 in 100 (1%) or greater chance of flooding each year from rivers or a 1 in 200 (0.5%) or greater chance of flooding each year from the sea.

This data is sourced from the Environment Agency and Natural Resources Wales.



8 Surface water flooding



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8.1 Surface water flooding

Highest risk on site

1 in 30 year, 0.3m - 1.0m

Highest risk within 50m

1 in 30 year, 0.3m - 1.0m

Ambiental Risk Analytics surface water (pluvial) FloodMap identifies areas likely to flood as a result of extreme rainfall events, i.e. land naturally vulnerable to surface water ponding or flooding. This data set was produced by simulating 1 in 30 year, 1 in 100 year, 1 in 250 year and 1 in 1,000 year rainfall events. Modern urban drainage systems are typically built to cope with rainfall events between 1 in 20 and 1 in 30 years, though some older ones may flood in a 1 in 5 year rainfall event.

Features are displayed on the Surface water flooding map on [page 43 >](#)

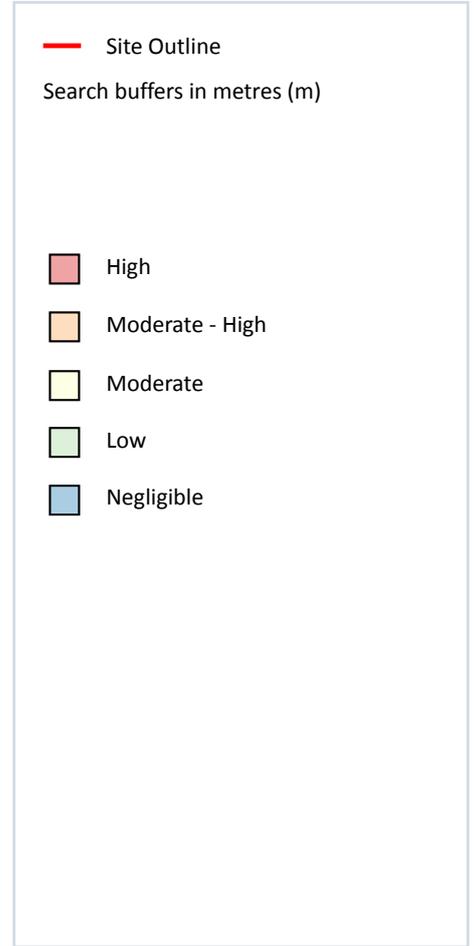
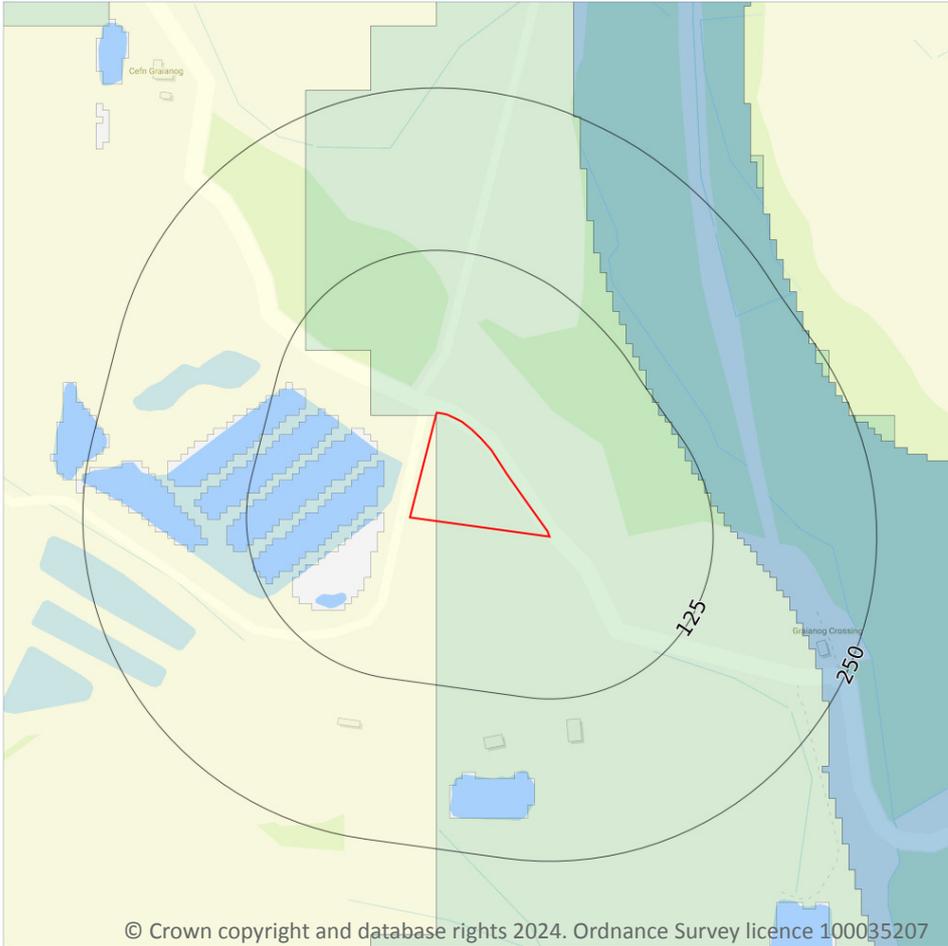
The data shown on the map and in the table above shows the highest likelihood of flood events happening at the site. Lower likelihood events may have greater flood depths and hence a greater potential impact on a site.

The table below shows the maximum flood depths for a range of return periods for the site.

Return period	Maximum modelled depth
1 in 1000 year	Between 0.3m and 1.0m
1 in 250 year	Between 0.3m and 1.0m
1 in 100 year	Between 0.3m and 1.0m
1 in 30 year	Between 0.3m and 1.0m

This data is sourced from Ambiental Risk Analytics.

9 Groundwater flooding



9.1 Groundwater flooding

Highest risk on site

Moderate

Highest risk within 50m

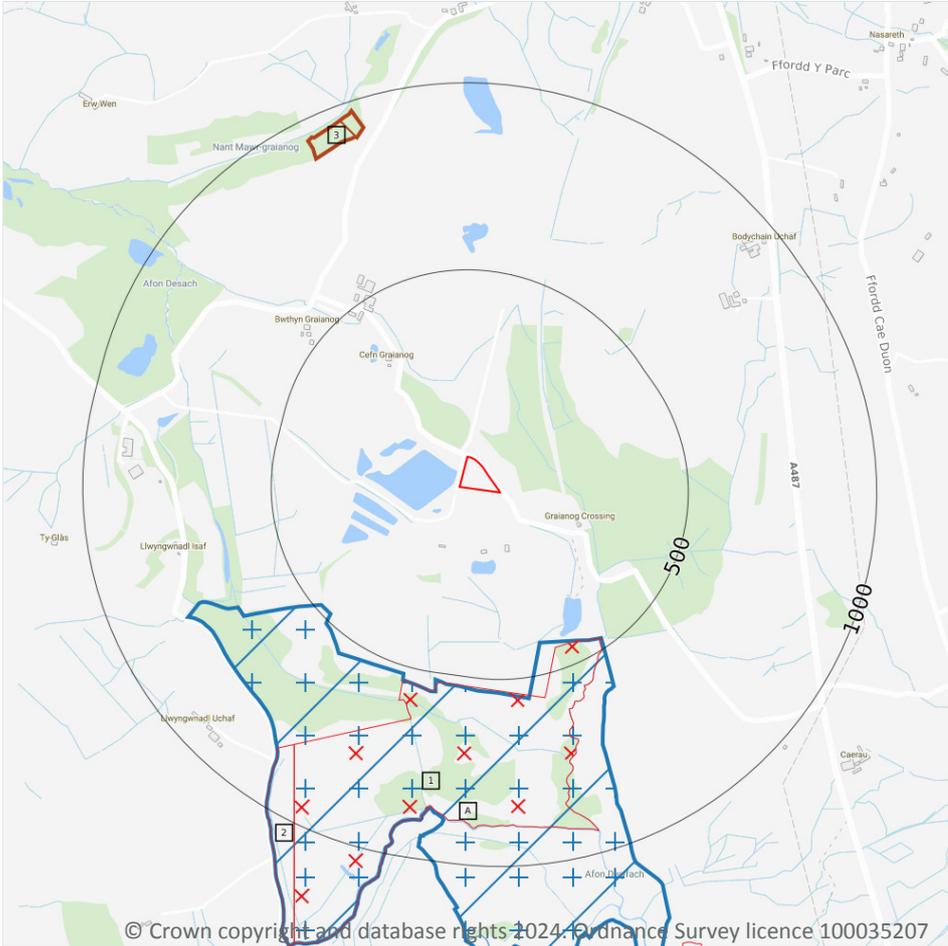
Moderate

Groundwater flooding is caused by unusually high groundwater levels. It occurs when the water table rises above the ground surface or within underground structures such as basements or cellars. Groundwater flooding tends to exhibit a longer duration than surface water flooding, possibly lasting for weeks or months, and as a result it can cause significant damage to property. This risk assessment is based on a 1 in 100 year return period and a 5m Digital Terrain Model (DTM).

Features are displayed on the Groundwater flooding map on [page 45 >](#)

This data is sourced from Ambiantal Risk Analytics.

10 Environmental designations



- Site Outline
- Search buffers in metres (m)
- Sites of Special Scientific Interest (SSSI)
- + Special Areas of Conservation (SAC)
- × National Nature Reserves (NNR)
- Designated Ancient Woodland

10.1 Sites of Special Scientific Interest (SSSI)

Records within 2000m

1

Sites providing statutory protection for the best examples of UK flora, fauna, or geological or physiographical features. Originally notified under the National Parks and Access to the Countryside Act 1949, SSSIs were re-notified under the Wildlife and Countryside Act 1981. Improved provisions for the protection and management of SSSIs were introduced by the Countryside and Rights of Way Act 2000 (in England and Wales) and (in Scotland) by the Nature Conservation (Scotland) Act 2004 and the Wildlife and Natural Environment (Scotland) Act 2010.

Features are displayed on the Environmental designations map on [page 46](#) >

ID	Location	Name	Data source
A	415m S	Cors Gyfelog	Natural Resources Wales



This data is sourced from Natural England, Natural Resources Wales and Scottish Natural Heritage.

10.2 Conserved wetland sites (Ramsar sites)

Records within 2000m

0

Ramsar sites are designated under the Convention on Wetlands of International Importance, agreed in Ramsar, Iran, in 1971. They cover all aspects of wetland conservation and wise use, recognizing wetlands as ecosystems that are extremely important for biodiversity conservation in general and for the well-being of human communities. These sites cover a broad definition of wetland; marsh, fen, peatland or water, whether natural or artificial, permanent or temporary, with water that is static or flowing, fresh, brackish or salt, and even some marine areas.

This data is sourced from Natural England, Natural Resources Wales and Scottish Natural Heritage.

10.3 Special Areas of Conservation (SAC)

Records within 2000m

1

Areas which have been identified as best representing the range and variety within the European Union of habitats and (non-bird) species listed on Annexes I and II to the Directive. SACs are designated under the EC Habitats Directive.

Features are displayed on the Environmental designations map on [page 46 >](#)

ID	Location	Name	Features of interest	Habitat description	Data source
A	415m S	Corsydd Eifionydd / Eifionydd Fens	Rivers with floating vegetation often dominated by water-crowfoot; Wet heathland with cross-leaved heath; Purple moor-grass meadows; Very wet mire often identified by an unstable `quaking` surface; Bog woodland; Atlantic salmon; Marsh fritillary butterfly; Slender green feather-moss.	Inland water bodies (Standing water, Running water); Bogs, Marshes, Water fringed vegetation, Fens; Broad-leaved deciduous woodland; Improved grassland; Heath, Scrub, Maquis and Garrigue, Phygrana	Natural Resources Wales

This data is sourced from Natural England, Natural Resources Wales and Scottish Natural Heritage.

10.4 Special Protection Areas (SPA)

Records within 2000m

0

Sites classified by the UK Government under the EC Birds Directive, SPAs are areas of the most important habitat for rare (listed on Annex I to the Directive) and migratory birds within the European Union.

This data is sourced from Natural England, Natural Resources Wales and Scottish Natural Heritage.



10.5 National Nature Reserves (NNR)

Records within 2000m

4

Sites containing examples of some of the most important natural and semi-natural terrestrial and coastal ecosystems in Great Britain. They are managed to conserve their habitats, provide special opportunities for scientific study or to provide public recreation compatible with natural heritage interests.

Features are displayed on the Environmental designations map on [page 46 >](#)

ID	Location	Name	Data source
1	439m SE	Cors Gyfelog	Natural Resources Wales
2	816m SW	Cors Gyfelog	Natural Resources Wales
4	1300m SE	Cors Gyfelog	Natural Resources Wales
-	1808m SE	Cors Gyfelog	Natural Resources Wales

This data is sourced from Natural England, Natural Resources Wales and Scottish Natural Heritage.

10.6 Local Nature Reserves (LNR)

Records within 2000m

0

Sites managed for nature conservation, and to provide opportunities for research and education, or simply enjoying and having contact with nature. They are declared by local authorities under the National Parks and Access to the Countryside Act 1949 after consultation with the relevant statutory nature conservation agency.

This data is sourced from Natural England, Natural Resources Wales and Scottish Natural Heritage.

10.7 Designated Ancient Woodland

Records within 2000m

2

Ancient woodlands are classified as areas which have been wooded continuously since at least 1600 AD. This includes semi-natural woodland and plantations on ancient woodland sites. 'Wooded continuously' does not mean there is or has previously been continuous tree cover across the whole site, and not all trees within the woodland have to be old.

Features are displayed on the Environmental designations map on [page 46 >](#)

ID	Location	Name	Woodland Type
3	892m NW	Unknown	Ancient Semi Natural Woodland
-	1919m N	Unknown	Ancient Semi Natural Woodland

This data is sourced from Natural England, Natural Resources Wales and Scottish Natural Heritage.



10.8 Biosphere Reserves

Records within 2000m

0

Biosphere Reserves are internationally recognised by UNESCO as sites of excellence to balance conservation and socioeconomic development between nature and people. They are recognised under the Man and the Biosphere (MAB) Programme with the aim of promoting sustainable development founded on the work of the local community.

This data is sourced from Natural England, Natural Resources Wales and Scottish Natural Heritage.

10.9 Forest Parks

Records within 2000m

0

These are areas managed by the Forestry Commission designated on the basis of recreational, conservation or scenic interest.

This data is sourced from the Forestry Commission.

10.10 Marine Conservation Zones

Records within 2000m

0

A type of marine nature reserve in UK waters established under the Marine and Coastal Access Act (2009). They are designated with the aim to protect nationally important, rare or threatened habitats and species.

This data is sourced from Natural England, Natural Resources Wales and Scottish Natural Heritage.

10.11 Green Belt

Records within 2000m

0

Areas designated to prevent urban sprawl by keeping land permanently open.

This data is sourced from the Ministry of Housing, Communities and Local Government.

10.12 Proposed Ramsar sites

Records within 2000m

0

Ramsar sites are areas listed as a Wetland of International Importance under the Convention on Wetlands of International Importance especially as Waterfowl Habitat (the Ramsar Convention) 1971. The sites here supplied have a status of 'Proposed' having been identified for potential adoption under the framework.

This data is sourced from Natural England.



10.13 Possible Special Areas of Conservation (pSAC)

Records within 2000m

0

Special Areas of Conservation are areas which have been identified as best representing the range and variety within the European Union of habitats and (non-bird) species listed on Annexes I and II to the Directive. SACs are designated under the EC Habitats Directive. Those sites supplied here are those with a status of 'Possible' having been identified for potential adoption under the framework.

This data is sourced from Natural England and Natural Resources Wales.

10.14 Potential Special Protection Areas (pSPA)

Records within 2000m

0

Special Protection Areas (SPAs) are areas designated (or 'classified') under the European Union Wild Birds Directive for the protection of nationally and internationally important populations of wild birds. Those sites supplied here are those with a status of 'Potential' having been identified for potential adoption under the framework.

This data is sourced from Natural England.

10.15 Nitrate Sensitive Areas

Records within 2000m

0

Areas where nitrate concentrations in drinking water sources exceeded or was at risk of exceeding the limit of 50 mg/l set by the 1980 EC Drinking Water Directive. Voluntary agricultural measures as a means of reducing the levels of nitrate were introduced by DEFRA as MAFF, with payments being made to farmers who complied. The scheme was started as a pilot in 1990 in ten areas, later implemented within 32 areas. The scheme was closed to further new entrants in 1998, although existing agreements continued for their full term. All Nitrate Sensitive Areas fell within the areas designated as Nitrate Vulnerable Zones (NVZs) in 1996 under the EC Nitrate Directive (91/676/EEC).

This data is sourced from Natural England.

10.16 Nitrate Vulnerable Zones

Records within 2000m

0

Areas at risk from agricultural nitrate pollution designated under the EC Nitrate Directive (91/676/EEC). These are areas of land that drain into waters polluted by nitrates. Farmers operating within these areas have to follow mandatory rules to tackle nitrate loss from agriculture.

This data is sourced from Natural England and Natural Resources Wales.



SSSI Impact Zones and Units

10.17 SSSI Impact Risk Zones

Records on site

0

Developed to allow rapid initial assessment of the potential risks to SSSIs posed by development proposals. They define zones around each SSSI which reflect the particular sensitivities of the features for which it is notified and indicate the types of development proposal which could potentially have adverse impacts.

This data is sourced from Natural England.

10.18 SSSI Units

Records within 2000m

0

Divisions of SSSIs used to record management and condition details. Units are the smallest areas for which Natural England gives a condition assessment, however, the size of units varies greatly depending on the types of management and the conservation interest.

This data is sourced from Natural England and Natural Resources Wales.

11 Visual and cultural designations

11.1 World Heritage Sites

Records within 250m

0

Sites designated for their globally important cultural or natural interest requiring appropriate management and protection measures. World Heritage Sites are designated to meet the UK's commitments under the World Heritage Convention.

This data is sourced from Historic England, Cadw and Historic Environment Scotland.

11.2 Area of Outstanding Natural Beauty

Records within 250m

0

Areas of Outstanding Natural Beauty (AONB) are conservation areas, chosen because they represent 18% of the finest countryside. Each AONB has been designated for special attention because of the quality of their flora, fauna, historical and cultural associations, and/or scenic views. The National Parks and Access to the Countryside Act of 1949 created AONBs and the Countryside and Rights of Way Act, 2000 added further regulation and protection. There are likely to be restrictions to some developments within these areas.

This data is sourced from Natural England, Natural Resources Wales and Scottish Natural Heritage.

11.3 National Parks

Records within 250m

0

In England and Wales, the purpose of National Parks is to conserve and enhance landscapes within the countryside whilst promoting public enjoyment of them and having regard for the social and economic well-being of those living within them. In Scotland National Parks have the additional purpose of promoting the sustainable use of the natural resources of the area and the sustainable social and economic development of its communities. The National Parks and Access to the Countryside Act 1949 established the National Park designation in England and Wales, and The National Parks (Scotland) Act 2000 in Scotland.

This data is sourced from Natural England, Natural Resources Wales and the Scottish Government.

11.4 Listed Buildings

Records within 250m

0

Buildings listed for their special architectural or historical interest. Building control in the form of 'listed building consent' is required in order to make any changes to that building which might affect its special interest. Listed buildings are graded to indicate their relative importance, however building controls apply to all buildings equally, irrespective of their grade, and apply to the interior and exterior of the building in its entirety, together with any curtilage structures.



This data is sourced from Historic England, Cadw and Historic Environment Scotland.

11.5 Conservation Areas

Records within 250m

0

Local planning authorities are obliged to designate as conservation areas any parts of their own area that are of special architectural or historic interest, the character and appearance of which it is desirable to preserve or enhance. Designation of a conservation area gives broader protection than the listing of individual buildings. All the features within the area, listed or otherwise, are recognised as part of its character. Conservation area designation is the means of recognising the importance of all factors and of ensuring that planning decisions address the quality of the landscape in its broadest sense.

This data is sourced from Historic England, Cadw and Historic Environment Scotland.

11.6 Scheduled Ancient Monuments

Records within 250m

0

A scheduled monument is an historic building or site that is included in the Schedule of Monuments kept by the Secretary of State for Digital, Culture, Media and Sport. The regime is set out in the Ancient Monuments and Archaeological Areas Act 1979. The Schedule of Monuments has c.20,000 entries and includes sites such as Roman remains, burial mounds, castles, bridges, earthworks, the remains of deserted villages and industrial sites. Monuments are not graded, but all are, by definition, considered to be of national importance.

This data is sourced from Historic England, Cadw and Historic Environment Scotland.

11.7 Registered Parks and Gardens

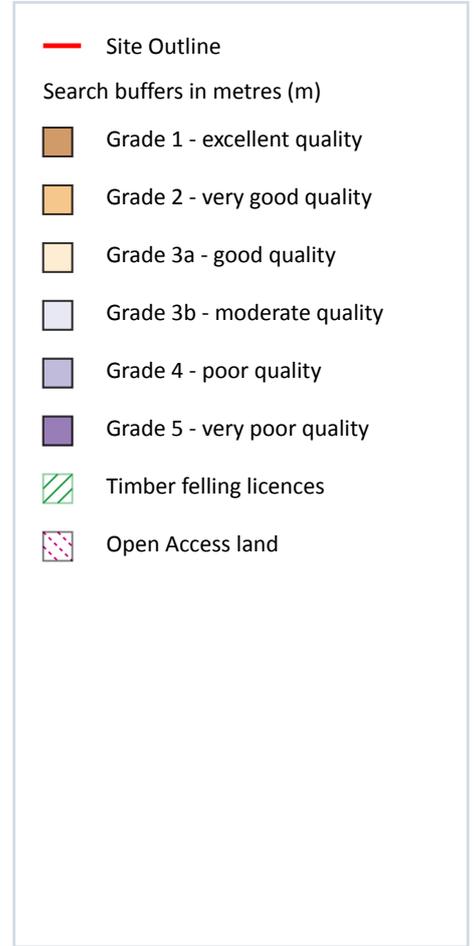
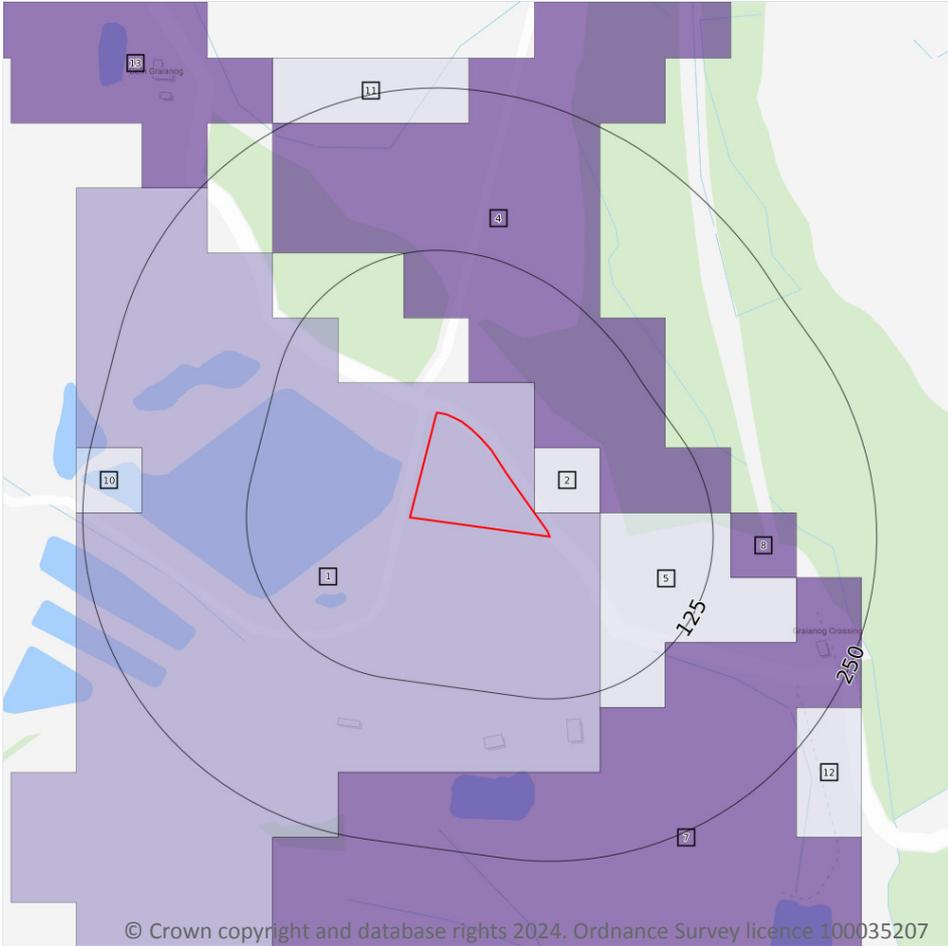
Records within 250m

0

Parks and gardens assessed to be of particular interest and of special historic interest. The emphasis being on 'designed' landscapes, rather than on planting or botanical importance. Registration is a 'material consideration' in the planning process, meaning that planning authorities must consider the impact of any proposed development on the special character of the landscape.

This data is sourced from Historic England, Cadw and Historic Environment Scotland.

12 Agricultural designations



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12.1 Agricultural Land Classification

Records within 250m

10

Classification of the quality of agricultural land taking into consideration multiple factors including climate, physical geography and soil properties. It should be noted that the categories for the grading of agricultural land are not consistent across England, Wales and Scotland.

Features are displayed on the Agricultural designations map on [page 54](#) >

ID	Location	Classification	Description
1	On site	Grade 4	Poor quality agricultural land
2	0m SE	Grade 3b	Moderate quality agricultural land
4	29m NE	Grade 5	Very poor quality agricultural land

ID	Location	Classification	Description
5	39m E	Grade 3b	Moderate quality agricultural land
7	120m SE	Grade 5	Very poor quality agricultural land
8	139m E	Grade 5	Very poor quality agricultural land
10	205m W	Grade 3b	Moderate quality agricultural land
11	223m N	Grade 3b	Moderate quality agricultural land
12	230m SE	Grade 3b	Moderate quality agricultural land
13	246m NW	Grade 5	Very poor quality agricultural land

This data is sourced from Natural Resources Wales.

12.2 Open Access Land

Records within 250m

0

The Countryside and Rights of Way Act 2000 (CROW Act) gives a public right of access to land without having to use paths. Access land includes mountains, moors, heaths and downs that are privately owned. It also includes common land registered with the local council and some land around the England Coast Path. Generally permitted activities on access land are walking, running, watching wildlife and climbing.

This data is sourced from Natural England and Natural Resources Wales.

12.3 Tree Felling Licences

Records within 250m

0

Felling Licence Application (FLA) areas approved by Forestry Commission England. Anyone wishing to fell trees must ensure that a licence or permission under a grant scheme has been issued by the Forestry Commission before any felling is carried out or that one of the exceptions apply.

This data is sourced from the Forestry Commission.

12.4 Environmental Stewardship Schemes

Records within 250m

0

Environmental Stewardship covers a range of schemes that provide financial incentives to farmers, foresters and land managers to look after and improve the environment. The schemes identified may be historical schemes that have now expired, or may still be active.

This data is sourced from Natural England.



12.5 Countryside Stewardship Schemes

Records within 250m

0

Countryside Stewardship covers a range of schemes that provide financial incentives to farmers, foresters and land managers to look after and improve the environment. Main objectives are to improve the farmed environment for wildlife and to reduce diffuse water pollution.

This data is sourced from Natural England.

13 Habitat designations

13.1 Priority Habitat Inventory

Records within 250m	0
---------------------	---

Habitats of principal importance as named under Natural Environment and Rural Communities Act (2006) Section 41.

This data is sourced from Natural England.

13.2 Habitat Networks

Records within 250m	0
---------------------	---

Habitat networks for 18 priority habitat networks (based primarily, but not exclusively, on the priority habitat inventory) and areas suitable for the expansion of networks through restoration and habitat creation.

This data is sourced from Natural England.

13.3 Open Mosaic Habitat

Records within 250m	0
---------------------	---

Sites verified as Open Mosaic Habitat. Mosaic habitats are brownfield sites that are identified under the UK Biodiversity Action Plan as a priority habitat due to the habitat variation within a single site, supporting an array of invertebrates.

This data is sourced from Natural England.

13.4 Limestone Pavement Orders

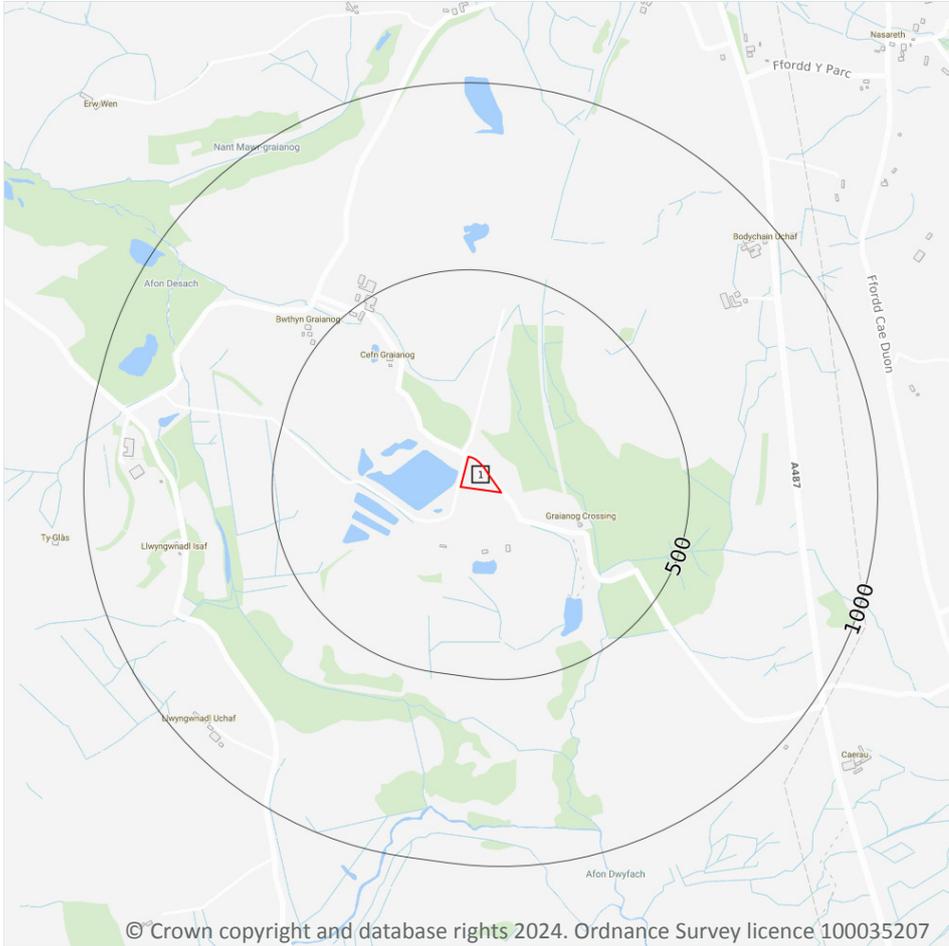
Records within 250m	0
---------------------	---

Limestone pavements are outcrops of limestone where the surface has been worn away by natural means over millennia. These rocks have the appearance of paving blocks, hence their name. Not only do they have geological interest, they also provide valuable habitats for wildlife. These habitats are threatened due to their removal for use in gardens and water features. Many limestone pavements have been designated as SSSIs which affords them some protection. In addition, Section 34 of the Wildlife and Countryside Act 1981 gave them additional protection via the creation of Limestone Pavement Orders, which made it a criminal offence to remove any part of the outcrop. The associated Limestone Pavement Priority Habitat is part of the UK Biodiversity Action Plan priority habitat in England.

This data is sourced from Natural England.



14 Geology 1:10,000 scale - Availability



— Site Outline
 Search buffers in metres (m)

- Full coverage
- Partial coverage
- No coverage

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14.1 10k Availability

Records within 500m

1

An indication on the coverage of 1:10,000 scale geology data for the site, the most detailed dataset provided by the British Geological Survey. Either 'Full', 'Partial' or 'No coverage' for each geological theme.

Features are displayed on the Geology 1:10,000 scale - Availability map on [page 58](#) >

ID	Location	Artificial	Superficial	Bedrock	Mass movement	Sheet No.
1	On site	No coverage	No coverage	No coverage	No coverage	NoCov

This data is sourced from the British Geological Survey.

Geology 1:10,000 scale - Artificial and made ground

14.2 Artificial and made ground (10k)

Records within 500m

0

Details of made, worked, infilled, disturbed and landscaped ground at 1:10,000 scale. Artificial ground can be associated with potentially contaminated material, unpredictable engineering conditions and instability.

This data is sourced from the British Geological Survey.



Geology 1:10,000 scale - Superficial

14.3 Superficial geology (10k)

Records within 500m

0

Superficial geological deposits at 1:10,000 scale. Also known as 'drift', these are the youngest geological deposits, formed during the Quaternary. They rest on older deposits or rocks referred to as bedrock.

This data is sourced from the British Geological Survey.

14.4 Landslip (10k)

Records within 500m

0

Mass movement deposits on BGS geological maps at 1:10,000 scale. Primarily superficial deposits that have moved down slope under gravity to form landslips. These affect bedrock, other superficial deposits and artificial ground.

This data is sourced from the British Geological Survey.



Geology 1:10,000 scale - Bedrock

14.5 Bedrock geology (10k)

Records within 500m

0

Bedrock geology at 1:10,000 scale. The main mass of rocks forming the Earth and present everywhere, whether exposed at the surface in outcrops or concealed beneath superficial deposits or water.

This data is sourced from the British Geological Survey.

14.6 Bedrock faults and other linear features (10k)

Records within 500m

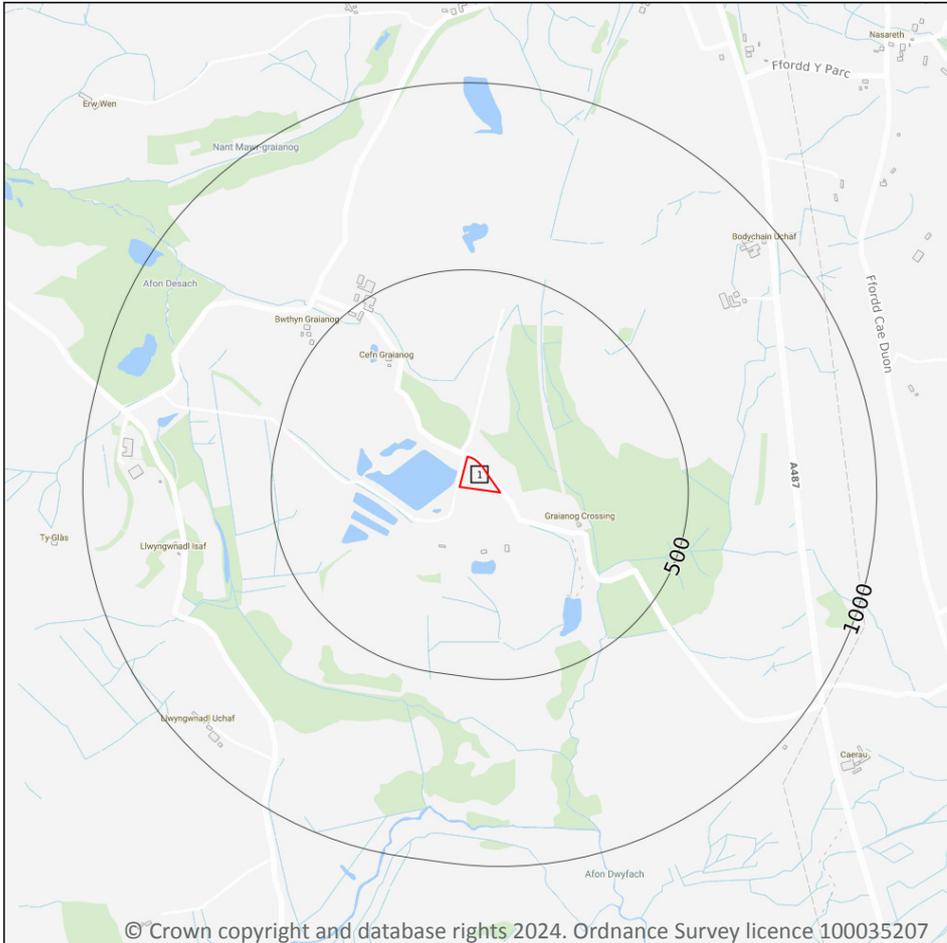
0

Linear features at the ground or bedrock surface at 1:10,000 scale of six main types; rock, fault, fold axis, mineral vein, alteration area or landform. Features are either observed or inferred, and relate primarily to bedrock.

This data is sourced from the British Geological Survey.



15 Geology 1:50,000 scale - Availability



— Site Outline
 Search buffers in metres (m)

□ Geological map tile

15.1 50k Availability

Records within 500m

1

An indication on the coverage of 1:50,000 scale geology data for the site. Either 'Full' or 'No coverage' for each geological theme. Where 50k data is not available, this area has been filled in with 625k scale data.

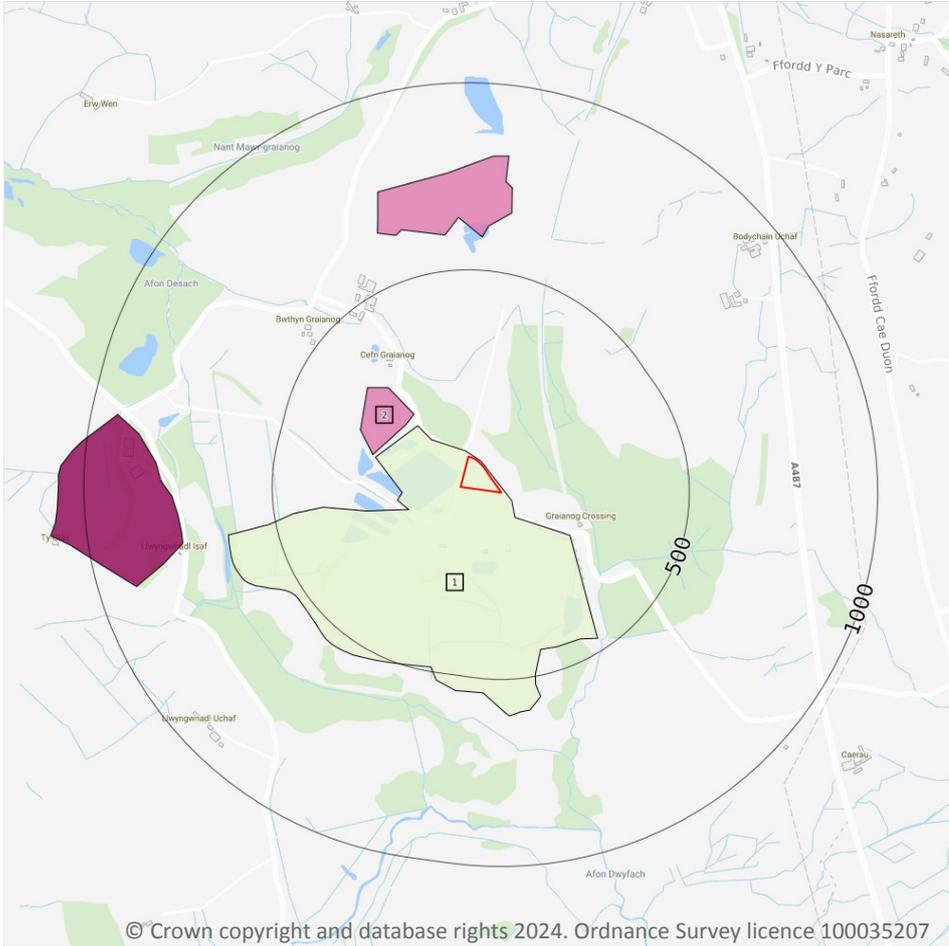
Features are displayed on the Geology 1:50,000 scale - Availability map on [page 62](#) >

ID	Location	Artificial	Superficial	Bedrock	Mass movement	Sheet No.
1	On site	Full	Full	Full	Full	EW118_nevyn

This data is sourced from the British Geological Survey.



Geology 1:50,000 scale - Artificial and made ground



— Site Outline
 Search buffers in metres (m)

- Made ground
- Worked ground
- Infilled ground
- Disturbed ground
- Landscaped ground

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15.2 Artificial and made ground (50k)

Records within 500m

2

Details of made, worked, infilled, disturbed and landscaped ground at 1:50,000 scale. Artificial ground can be associated with potentially contaminated material, unpredictable engineering conditions and instability.

Features are displayed on the Geology 1:50,000 scale - Artificial and made ground map on [page 63](#) >

ID	Location	LEX Code	Description	Rock description
1	On site	WMGR-ARTDP	INFILLED GROUND	ARTIFICIAL DEPOSIT
2	184m NW	WGR-VOID	WORKED GROUND (UNDIVIDED)	VOID

This data is sourced from the British Geological Survey.



15.3 Artificial ground permeability (50k)

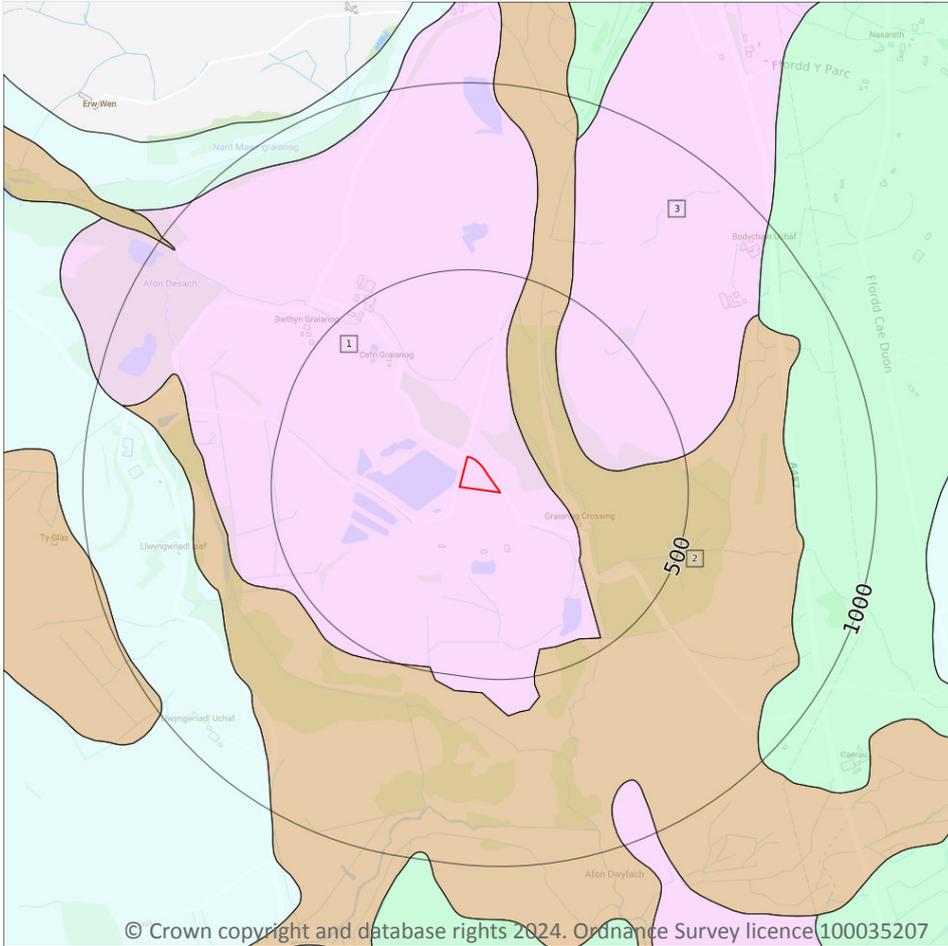
Records within 50m	1
---------------------------	----------

A qualitative classification of estimated rates of vertical movement of water from the ground surface through the unsaturated zone of any artificial deposits (the zone between the land surface and the water table).

Location	Flow type	Maximum permeability	Minimum permeability
On site	Mixed	Very High	Low

This data is sourced from the British Geological Survey.

Geology 1:50,000 scale - Superficial



- Site Outline
- Search buffers in metres (m)
-  Landslip (50k)
- Superficial geology (50k)
Please see table for more details.

15.4 Superficial geology (50k)

Records within 500m

3

Superficial geological deposits at 1:50,000 scale. Also known as 'drift', these are the youngest geological deposits, formed during the Quaternary. They rest on older deposits or rocks referred to as bedrock.

Features are displayed on the Geology 1:50,000 scale - Superficial map on [page 65](#) >

ID	Location	LEX Code	Description	Rock description
1	On site	GFICD-XSV	GLACIOFLUVIAL ICE CONTACT DEPOSITS, DEVENSIAN	SAND AND GRAVEL
2	121m E	PEAT-P	PEAT	PEAT
3	245m E	GFICD-XSV	GLACIOFLUVIAL ICE CONTACT DEPOSITS, DEVENSIAN	SAND AND GRAVEL

This data is sourced from the British Geological Survey.



15.5 Superficial permeability (50k)

Records within 50m **1**

A qualitative classification of estimated rates of vertical movement of water from the ground surface through the unsaturated zone of any superficial deposits (the zone between the land surface and the water table).

Location	Flow type	Maximum permeability	Minimum permeability
On site	Intergranular	Very High	High

This data is sourced from the British Geological Survey.

15.6 Landslip (50k)

Records within 500m **0**

Mass movement deposits on BGS geological maps at 1:50,000 scale. Primarily superficial deposits that have moved down slope under gravity to form landslips. These affect bedrock, other superficial deposits and artificial ground.

This data is sourced from the British Geological Survey.

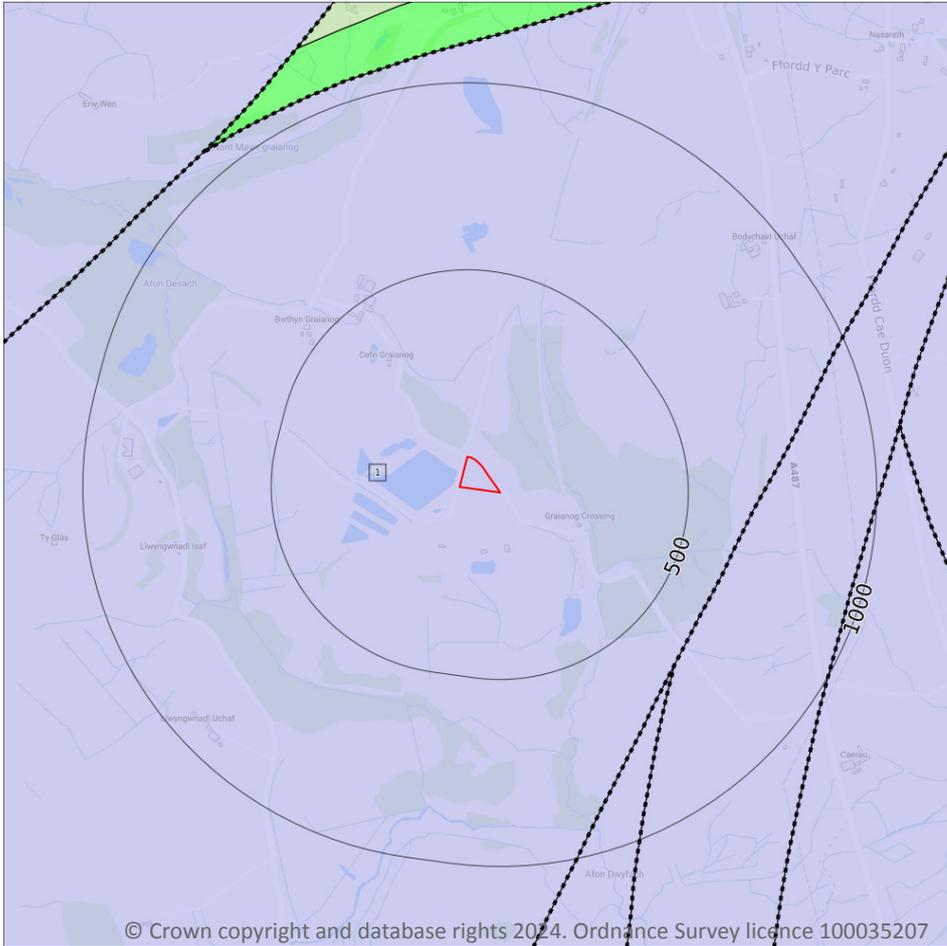
15.7 Landslip permeability (50k)

Records within 50m **0**

A qualitative classification of estimated rates of vertical movement of water from the ground surface through the unsaturated zone of any landslip deposits (the zone between the land surface and the water table).

This data is sourced from the British Geological Survey.

Geology 1:50,000 scale - Bedrock



- Site Outline
- Search buffers in metres (m)
- Bedrock faults and other linear features (50k)
- Bedrock geology (50k)
Please see table for more details.

15.8 Bedrock geology (50k)

Records within 500m

1

Bedrock geology at 1:50,000 scale. The main mass of rocks forming the Earth and present everywhere, whether exposed at the surface in outcrops or concealed beneath superficial deposits or water.

Features are displayed on the Geology 1:50,000 scale - Bedrock map on [page 67](#) >

ID	Location	LEX Code	Description	Rock age
1	On site	NFR-SLST	NANT FFRANCON SUBGROUP - SILTSTONE	-

This data is sourced from the British Geological Survey.

15.9 Bedrock permeability (50k)

Records within 50m

1

A qualitative classification of estimated rates of vertical movement of water from the ground surface through the unsaturated zone of bedrock (the zone between the land surface and the water table).

Location	Flow type	Maximum permeability	Minimum permeability
On site	Fracture	Moderate	Low

This data is sourced from the British Geological Survey.

15.10 Bedrock faults and other linear features (50k)

Records within 500m

0

Linear features at the ground or bedrock surface at 1:50,000 scale of six main types; rock, fault, fold axis, mineral vein, alteration area or landform. Features are either observed or inferred, and relate primarily to bedrock.

This data is sourced from the British Geological Survey.



16 Boreholes

16.1 BGS Boreholes

Records within 250m

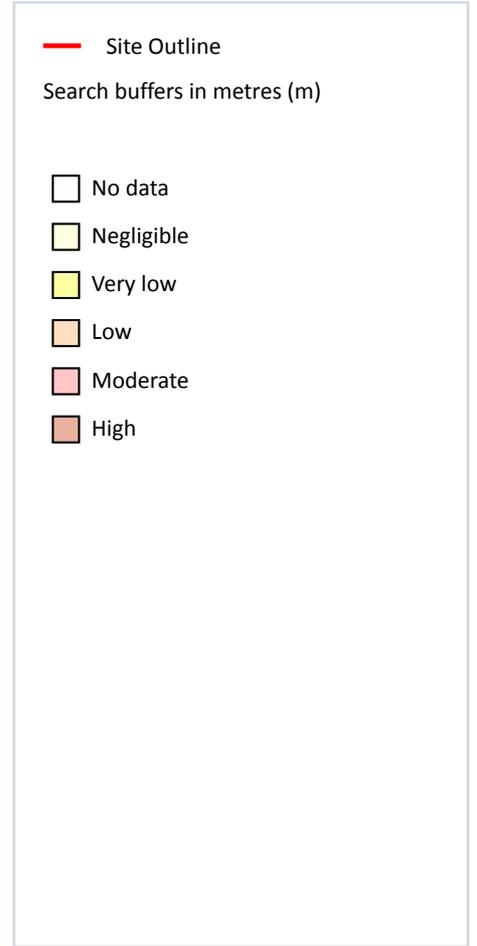
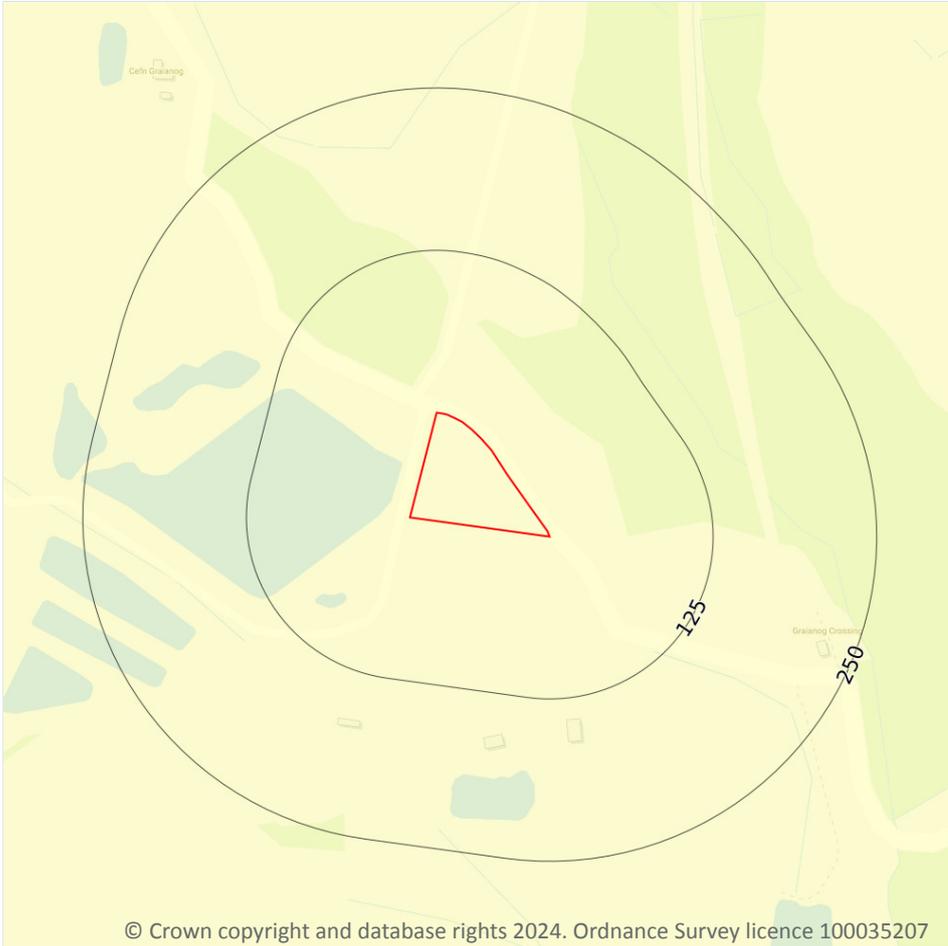
0

The Single Onshore Boreholes Index (SOBI); an index of over one million records of boreholes, shafts and wells from all forms of drilling and site investigation work held by the British Geological Survey. Covering onshore and nearshore boreholes dating back to at least 1790 and ranging from one to several thousand metres deep.

This data is sourced from the British Geological Survey.



17 Natural ground subsidence - Shrink swell clays



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17.1 Shrink swell clays

Records within 50m

1

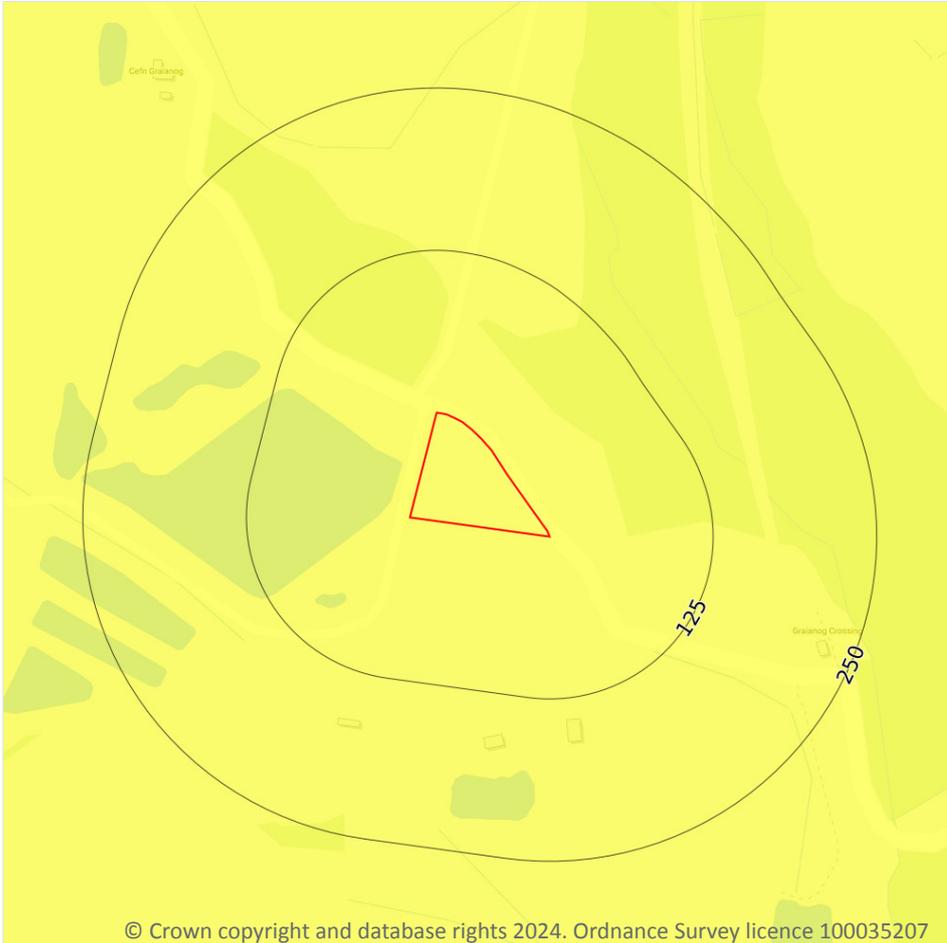
The potential hazard presented by soils that absorb water when wet (making them swell), and lose water as they dry (making them shrink). This shrink-swell behaviour is controlled by the type and amount of clay in the soil, and by seasonal changes in the soil moisture content (related to rainfall and local drainage).

Features are displayed on the Natural ground subsidence - Shrink swell clays map on [page 70 >](#)

Location	Hazard rating	Details
On site	Negligible	Ground conditions predominantly non-plastic.

This data is sourced from the British Geological Survey.

Natural ground subsidence - Running sands



— Site Outline

Search buffers in metres (m)

- No data
- Negligible
- Very low
- Low
- Moderate
- High

17.2 Running sands

Records within 50m

1

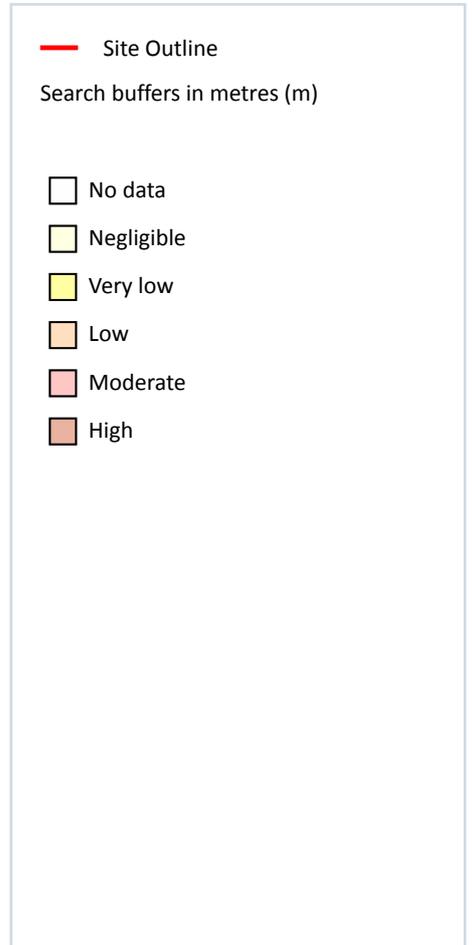
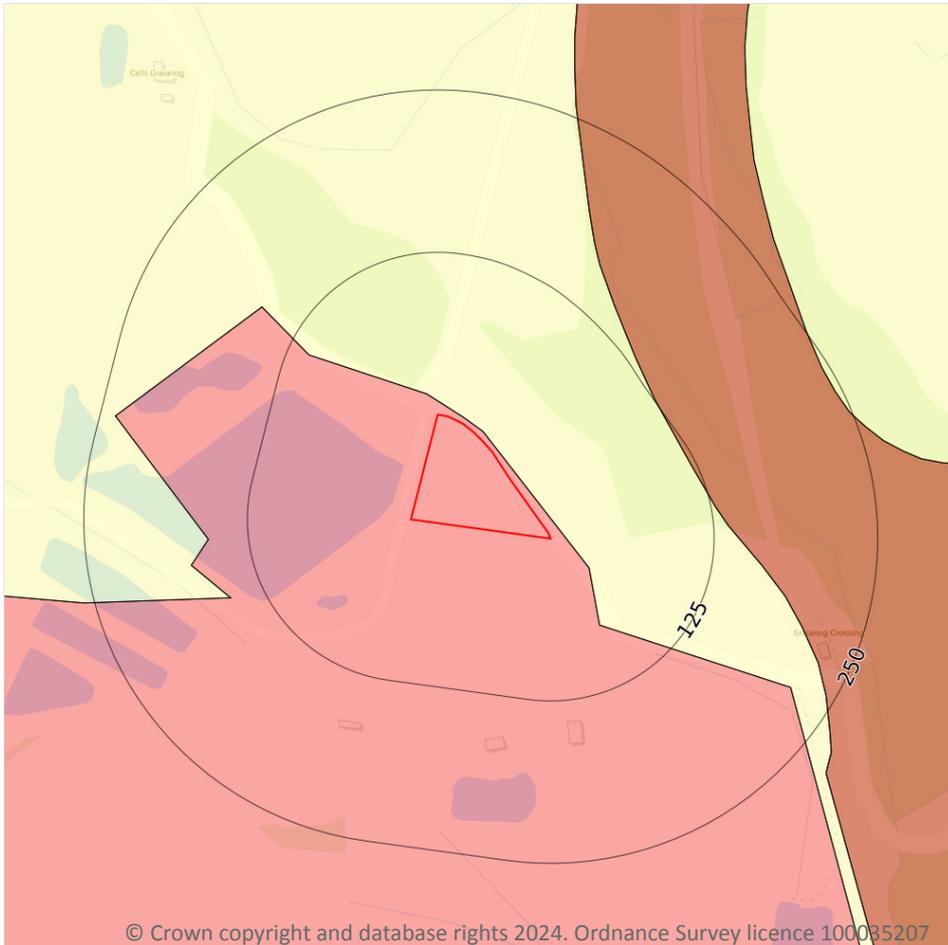
The potential hazard presented by rocks that can contain loosely-packed sandy layers that can become fluidised by water flowing through them. Such sands can 'run', removing support from overlying buildings and causing potential damage.

Features are displayed on the Natural ground subsidence - Running sands map on [page 71 >](#)

Location	Hazard rating	Details
On site	Very low	Running sand conditions are unlikely. No identified constraints on land use due to running conditions unless water table rises rapidly.

This data is sourced from the British Geological Survey.

Natural ground subsidence - Compressible deposits



17.3 Compressible deposits

Records within 50m

2

The potential hazard presented by types of ground that may contain layers of very soft materials like clay or peat and may compress if loaded by overlying structures, or if the groundwater level changes, potentially resulting in depression of the ground and disturbance of foundations.

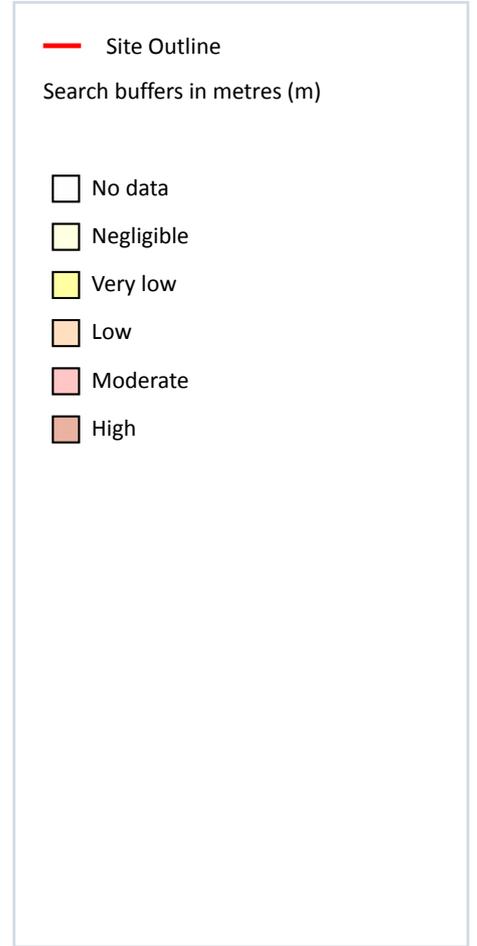
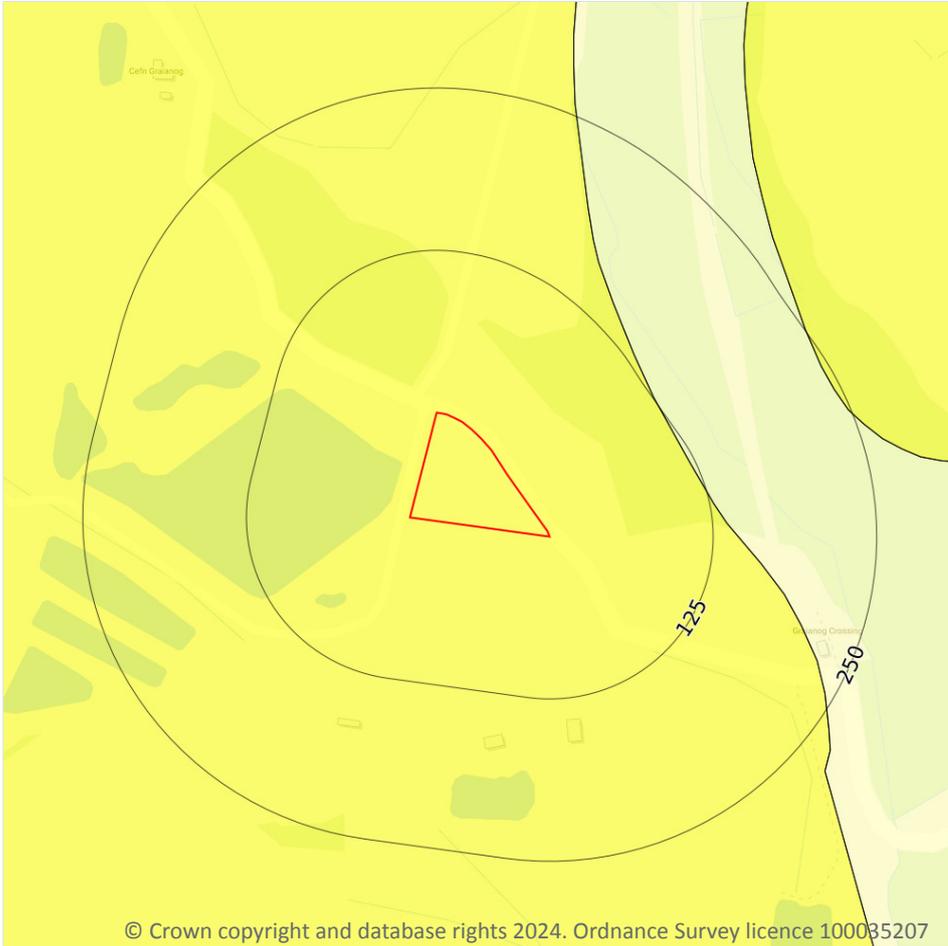
Features are displayed on the Natural ground subsidence - Compressible deposits map on [page 72 >](#)

Location	Hazard rating	Details
On site	Moderate	Compressibility and uneven settlement hazards are probably present. Land use should consider specifically the compressibility and variability of the site.
4m NE	Negligible	Compressible strata are not thought to occur.

This data is sourced from the British Geological Survey.



Natural ground subsidence - Collapsible deposits



17.4 Collapsible deposits

Records within 50m

1

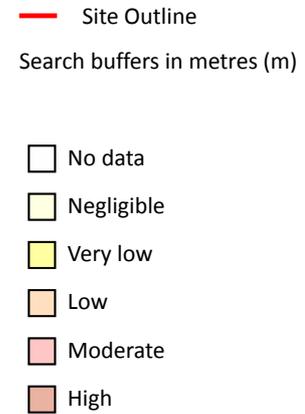
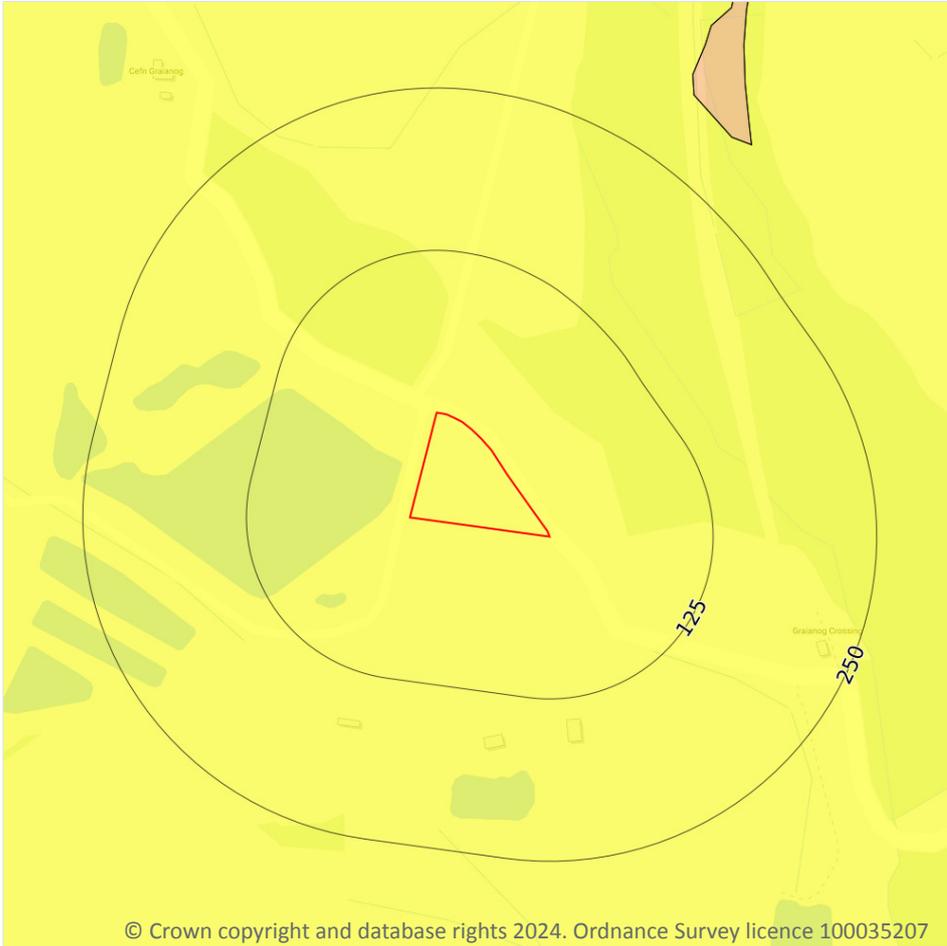
The potential hazard presented by natural deposits that could collapse when a load (such as a building) is placed on them or they become saturated with water.

Features are displayed on the Natural ground subsidence - Collapsible deposits map on [page 74 >](#)

Location	Hazard rating	Details
On site	Very low	Deposits with potential to collapse when loaded and saturated are unlikely to be present.

This data is sourced from the British Geological Survey.

Natural ground subsidence - Landslides



17.5 Landslides

Records within 50m

1

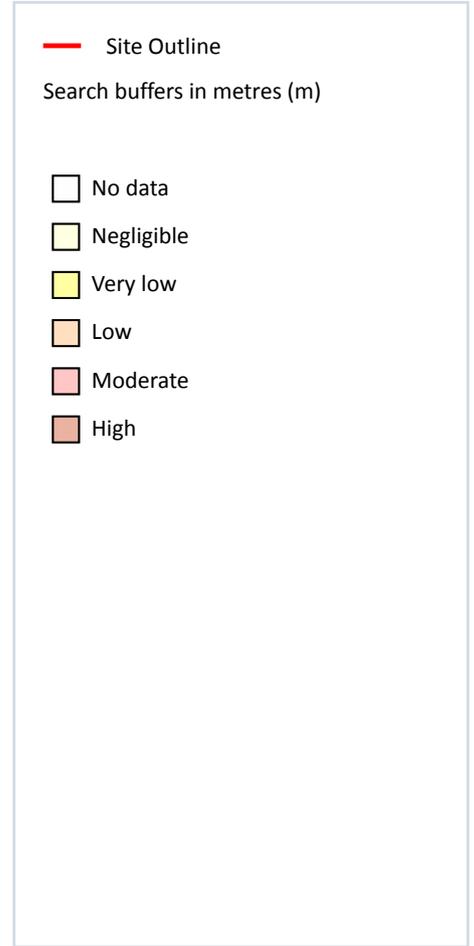
The potential for landsliding (slope instability) to be a hazard assessed using 1:50,000 scale digital maps of superficial and bedrock deposits, combined with information from the BGS National Landslide Database and scientific and engineering reports.

Features are displayed on the Natural ground subsidence - Landslides map on [page 75 >](#)

Location	Hazard rating	Details
On site	Very low	Slope instability problems are not likely to occur but consideration to potential problems of adjacent areas impacting on the site should always be considered.

This data is sourced from the British Geological Survey.

Natural ground subsidence - Ground dissolution of soluble rocks



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17.6 Ground dissolution of soluble rocks

Records within 50m

1

The potential hazard presented by ground dissolution, which occurs when water passing through soluble rocks produces underground cavities and cave systems. These cavities reduce support to the ground above and can cause localised collapse of the overlying rocks and deposits.

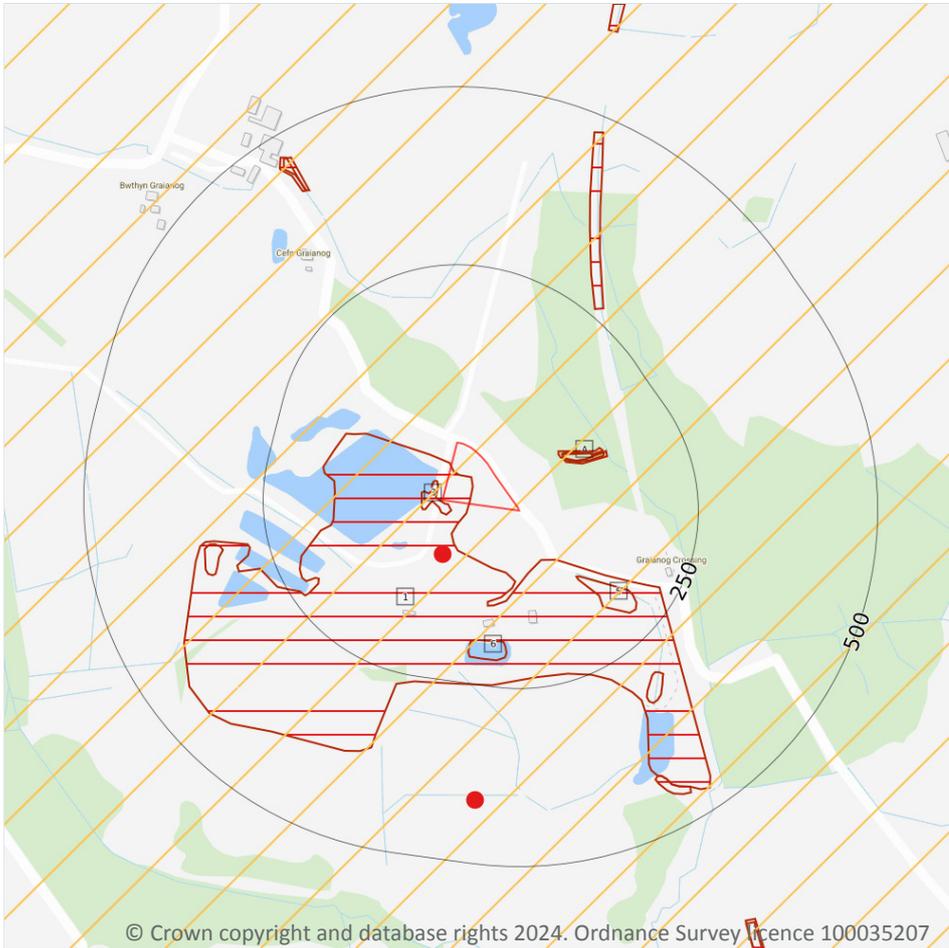
Features are displayed on the Natural ground subsidence - Ground dissolution of soluble rocks map on [page 76](#)

Location	Hazard rating	Details
On site	Negligible	Soluble rocks are either not thought to be present within the ground, or not prone to dissolution. Dissolution features are unlikely to be present.

This data is sourced from the British Geological Survey.



18 Mining and ground workings



18.1 BritPits

Records within 500m

2

BritPits (an abbreviation of British Pits) is a database maintained by the British Geological Survey of currently active and closed surface and underground mineral workings. Details of major mineral handling sites, such as wharfs and rail depots are also held in the database.

Features are displayed on the Mining and ground workings map on [page 78 >](#)

ID	Location	Details	Description
4	75m SW	Name: Cefn Graianog Quarry Address: Llanllyfni, Penygroes, CAERNARFON, Gwynedd Commodity: Sand & Gravel Status: Inactive	Type: A surface mineral working. It may be termed Quarry, Sand Pit, Clay Pit or Opencast Coal Site Status description: Site which, at date of entry, is not extracting minerals, but which still has a valid planning permission to do so, and can restart at any time. May be considered Mothballed by operator. May be considered to have Active or Dormant planning permission
10	411m S	Name: Graianog Gravel Pit Address: Llanllyfni, CAERNARFON, Gwynedd Commodity: Sand & Gravel Status: Ceased	Type: A surface mineral working. It may be termed Quarry, Sand Pit, Clay Pit or Opencast Coal Site Status description: Site which, at date of entry, has ceased to extract minerals. May be considered as Closed by operator. May be considered to have Active, Dormant or Expired planning permissions by Mineral Planning Authority

This data is sourced from the British Geological Survey.

18.2 Surface ground workings

Records within 250m

7

Historical land uses identified from Ordnance Survey mapping that involved ground excavation at the surface. These features may or may not have been subsequently backfilled.

Features are displayed on the Mining and ground workings map on [page 78 >](#)

ID	Location	Land Use	Year of mapping	Mapping scale
1	On site	Sand and Gravel Pit	1978	1:10000
3	2m SW	Ponds	1978	1:10000
A	89m E	Pond	1960	1:10560
A	92m E	Pond	1914	1:10560
A	92m E	Pond	1949	1:10560
5	123m SE	Pond	1960	1:10560
6	185m S	Pond	1978	1:10000

This data is sourced from Ordnance Survey/Groundsure.



18.3 Underground workings

Records within 1000m

0

Historical land uses identified from Ordnance Survey mapping that indicate the presence of underground workings e.g. mine shafts.

This is data is sourced from Ordnance Survey/Groundsure.

18.4 Underground mining extents

Records within 500m

0

This data identifies underground mine workings that could present a potential risk, including adits and seam workings. These features have been identified from BGS Geological mapping and mine plans sourced from the BGS and various collections and sources.

This data is sourced from Groundsure.

18.5 Historical Mineral Planning Areas

Records within 500m

0

Boundaries of mineral planning permissions for England and Wales. This data was collated between the 1940s (and retrospectively to the 1930s) and the mid 1980s. The data includes permitted, withdrawn and refused permissions.

This data is sourced from the British Geological Survey.

18.6 Non-coal mining

Records within 1000m

2

The potential for historical non-coal mining to have affected an area. The assessment is drawn from expert knowledge and literature in addition to the digital geological map of Britain. Mineral commodities may be divided into seven general categories - vein minerals, chalk, oil shale, building stone, bedded ores, evaporites and 'other' commodities (including ball clay, jet, black marble, graphite and chert).

Features are displayed on the Mining and ground workings map on [page 78 >](#)

ID	Location	Name	Commodity	Class	Likelihood
2	On site	Not available	Vein Mineral	B	Underground mine workings may have occurred in the past or current mines may be working at significant depth to modern engineering standards. Potential for difficult ground conditions are unlikely and are at a level where they need not be considered.

ID	Location	Name	Commodity	Class	Likelihood
-	955m W	Not available	Vein Mineral	B	Underground mine workings may have occurred in the past or current mines may be working at significant depth to modern engineering standards. Potential for difficult ground conditions are unlikely and are at a level where they need not be considered.

This data is sourced from the British Geological Survey.

18.7 JPB mining areas

Records on site

0

Areas which could be affected by former coal and other mining. This data includes some mine plans unavailable to the Coal Authority.

This data is sourced from Johnson Poole and Bloomer.

18.8 The Coal Authority non-coal mining

Records within 500m

0

This data provides an indication of the potential zone of influence of recorded underground non-coal mining workings. Any and all analysis and interpretation of Coal Authority Data in this report is made by Groundsure, and is in no way supported, endorsed or authorised by the Coal Authority. The use of the data is restricted to the terms and provisions contained in this report. Data reproduced in this report may be the copyright of the Coal Authority and permission should be sought from Groundsure prior to any re-use.

This data is sourced from The Coal Authority.

18.9 Researched mining

Records within 500m

0

This data indicates areas of potential mining identified from alternative or archival sources, including; BGS Geological paper maps, Lidar data, aerial photographs (from World War II onwards), archaeological data services, websites, Tithe maps, and various text/plans from collected books and reports. Some of this data is approximate and Groundsure have interpreted the resultant risk area and, where possible, specific areas of risk have been captured.

This data is sourced from Groundsure.



18.10 Mining record office plans

Records within 500m

0

This dataset is representative of Mining Record Office and/or plan extents held by Groundsure and should be considered approximate. Where possible, plans have been located and any specific areas of risk they depict have been captured.

This data is sourced from Groundsure.

18.11 BGS mine plans

Records within 500m

0

This dataset is representative of BGS mine plans held by Groundsure and should be considered approximate. Where possible, plans have been located and any specific areas of risk they depict have been captured.

This data is sourced from Groundsure.

18.12 Coal mining

Records on site

0

Areas which could be affected by past, current or future coal mining.

This data is sourced from the Coal Authority.

18.13 Brine areas

Records on site

0

The Cheshire Brine Compensation District indicates areas that may be affected by salt and brine extraction in Cheshire and where compensation would be available where damage from this mining has occurred. Damage from salt and brine mining can still occur outside this district, but no compensation will be available.

This data is sourced from the Cheshire Brine Subsidence Compensation Board.

18.14 Gypsum areas

Records on site

0

Generalised areas that may be affected by gypsum extraction.

This data is sourced from British Gypsum.



18.15 Tin mining

Records on site

0

Generalised areas that may be affected by historical tin mining.

This data is sourced from Groundsure.

18.16 Clay mining

Records on site

0

Generalised areas that may be affected by kaolin and ball clay extraction.

This data is sourced from the Kaolin and Ball Clay Association (UK).

19 Ground cavities and sinkholes

19.1 Natural cavities

Records within 500m

0

Industry recognised national database of natural cavities. Sinkholes and caves are formed by the dissolution of soluble rock, such as chalk and limestone, gulls and fissures by cambering. Ground instability can result from movement of loose material contained within these cavities, often triggered by water.

This data is sourced from Stantec UK Ltd.

19.2 Mining cavities

Records within 1000m

0

Industry recognised national database of mining cavities. Degraded mines may result in hazardous subsidence (crown holes). Climatic conditions and water escape can also trigger subsidence over mine entrances and workings.

This data is sourced from Stantec UK Ltd.

19.3 Reported recent incidents

Records within 500m

0

This data identifies sinkhole information gathered from media reports and Groundsure's own records. This data goes back to 2014 and includes relative accuracy ratings for each event and links to the original data sources. The data is updated on a regular basis and should not be considered a comprehensive catalogue of all sinkhole events. The absence of data in this database does not mean a sinkhole definitely has not occurred during this time.

This data is sourced from Groundsure.

19.4 Historical incidents

Records within 500m

0

This dataset comprises an extract of 1:10,560, 1:10,000, 1:2,500 and 1:1,250 scale historical Ordnance Survey maps held by Groundsure, dating back to the 1840s. It shows shakeholes, deneholes and other 'holes' as noted on these maps. Dene holes are medieval chalk extraction pits, usually comprising a narrow shaft with a number of chambers at the base of the shaft. Shakeholes are an alternative name for suffusion sinkholes, most commonly found in the limestone landscapes of North Yorkshire but also extensively noted around the Brecon Beacons National Park.

Not all 'holes' noted on Ordnance Survey mapping will necessarily be present within this dataset.



This data is sourced from Groundsure.

19.5 National karst database

Records within 500m

0

This is a comprehensive database of national karst information gathered from a wide range of sources. BGS have collected data on five main types of karst feature: Sinkholes, stream links, caves, springs, and incidences of associated damage to buildings, roads, bridges and other engineered works.

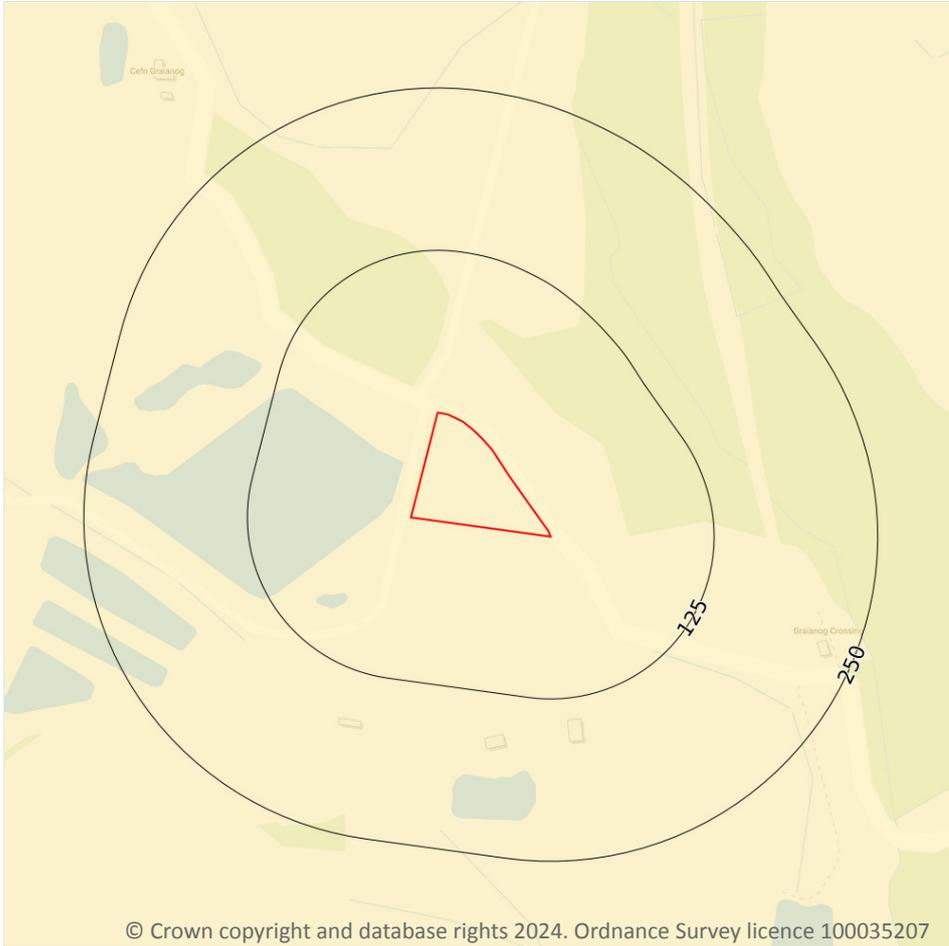
Since the database was set up in 2002 data covering most of the evaporite karst areas of the UK have now been added, along with data covering about 60% of the Chalk, and 35% of the Carboniferous Limestone outcrops. Many of the classic upland karst areas have yet to be included. Recorded so far are: Over 800 caves, 1300 stream sinks, 5600 springs, 10,000 sinkholes.

The database is not yet complete, and not all records have been verified. The absence of data does not mean that karst features are not present at a site. A reliability rating is included with each record.

This data is sourced from the British Geological Survey.



20 Radon



— Site Outline
 Search buffers in metres (m)

- Greater than 30%
- Between 10% and 30%
- Between 5% and 10%
- Between 3% and 5%
- Between 1% and 3%
- Less than 1%

20.1 Radon

Records on site

1

The Radon Potential data classifies areas based on their likelihood of a property having a radon level at or above the Action Level in Great Britain. The dataset is intended for use at 1:50,000 scale and was derived from both geological assessments and indoor radon measurements (more than 560,000 records). A minimum 50m buffer should be considered when searching the maps, as the smallest detectable feature at this scale is 50m. The findings of this section should supersede any estimations derived from the Indicative Atlas of Radon in Great Britain (1:100,000 scale).

Features are displayed on the Radon map on [page 86 >](#)

Location	Estimated properties affected	Radon Protection Measures required
On site	Between 1% and 3%	None

This data is sourced from the British Geological Survey and UK Health Security Agency.



21 Soil chemistry

21.1 BGS Estimated Background Soil Chemistry

Records within 50m

2

The estimated values provide the likely background concentration of the potentially harmful elements Arsenic, Cadmium, Chromium, Lead and Nickel in topsoil. The values are estimated primarily from rural topsoil data collected at a sample density of approximately 1 per 2 km². In areas where rural soil samples are not available, estimation is based on stream sediment data collected from small streams at a sampling density of 1 per 2.5 km²; this is the case for most of Scotland, Wales and southern England. The stream sediment data are converted to soil-equivalent concentrations prior to the estimation.

Location	Arsenic	Bioaccessible Arsenic	Lead	Bioaccessible Lead	Cadmium	Chromium	Nickel
On site	25 - 35 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg
On site	25 - 35 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg

This data is sourced from the British Geological Survey.

21.2 BGS Estimated Urban Soil Chemistry

Records within 50m

0

Estimated topsoil chemistry of Arsenic, Cadmium, Chromium, Copper, Nickel, Lead, Tin and Zinc and bioaccessible Arsenic and Lead in 23 urban centres across Great Britain. These estimates are derived from interpolation of the measured urban topsoil data referred to above and provide information across each city between the measured sample locations (4 per km²).

This data is sourced from the British Geological Survey.

21.3 BGS Measured Urban Soil Chemistry

Records within 50m

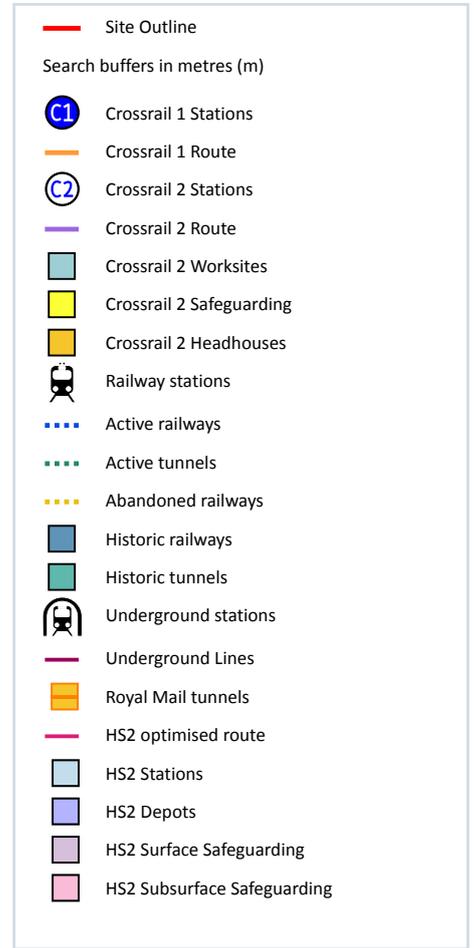
0

The locations and measured total concentrations (mg/kg) of Arsenic, Cadmium, Chromium, Copper, Nickel, Lead, Tin and Zinc in urban topsoil samples from 23 urban centres across Great Britain. These are collected at a sample density of 4 per km².

This data is sourced from the British Geological Survey.



22 Railway infrastructure and projects



22.1 Underground railways (London)

Records within 250m

0

Details of all active London Underground lines, including approximate tunnel roof depth and operational hours.

This data is sourced from publicly available information by Groundsure.

22.2 Underground railways (Non-London)

Records within 250m

0

Details of the Merseyrail system, the Tyne and Wear Metro and the Glasgow Subway. Not all parts of all systems are located underground. The data contains location information only and does not include a depth assessment.

This data is sourced from publicly available information by Groundsure.

22.3 Railway tunnels

Records within 250m

0

Railway tunnels taken from contemporary Ordnance Survey mapping.

This data is sourced from the Ordnance Survey.

22.4 Historical railway and tunnel features

Records within 250m

1

Railways and tunnels digitised from historical Ordnance Survey mapping as scales of 1:1,250, 1:2,500, 1:10,000 and 1:10,560.

Features are displayed on the Railway infrastructure and projects map on [page 89 >](#)

Location	Land Use	Year of mapping	Mapping scale
148m E	Railway Sidings	1960	10560

This data is sourced from Ordnance Survey/Groundsure.

22.5 Royal Mail tunnels

Records within 250m

0

The Post Office Railway, otherwise known as the Mail Rail, is an underground railway running through Central London from Paddington Head District Sorting Office to Whitechapel Eastern Head Sorting Office. The line is 10.5km long. The data includes details of the full extent of the tunnels, the depth of the tunnel, and the depth to track level.

This data is sourced from Groundsure/the Postal Museum.

22.6 Historical railways

Records within 250m

1

Former railway lines, including dismantled lines, abandoned lines, disused lines, historic railways and razed lines.

Features are displayed on the Railway infrastructure and projects map on [page 89 >](#)

Location	Description
160m E	Abandoned



This data is sourced from OpenStreetMap.

22.7 Railways

Records within 250m

0

Currently existing railway lines, including standard railways, narrow gauge, funicular, trams and light railways.

This data is sourced from Ordnance Survey and OpenStreetMap.

22.8 Crossrail 1

Records within 500m

0

The Crossrail railway project links 41 stations over 100 kilometres from Reading and Heathrow in the west, through underground sections in central London, to Shenfield and Abbey Wood in the east.

This data is sourced from publicly available information by Groundsure.

22.9 Crossrail 2

Records within 500m

0

Crossrail 2 is a proposed railway linking the national rail networks in Surrey and Hertfordshire via an underground tunnel through London.

This data is sourced from publicly available information by Groundsure.

22.10 HS2

Records within 500m

0

HS2 is a proposed high speed rail network running from London to Manchester and Leeds via Birmingham. Main civils construction on Phase 1 (London to Birmingham) of the project began in 2019, and it is currently anticipated that this phase will be fully operational by 2026. Construction on Phase 2a (Birmingham to Crewe) is anticipated to commence in 2021, with the service fully operational by 2027. Construction on Phase 2b (Crewe to Manchester and Birmingham to Leeds) is scheduled to begin in 2023 and be operational by 2033.

This data is sourced from HS2 Ltd.



Data providers

Groundsure works with respected data providers to bring you the most relevant and accurate information. To find out who they are and their areas of expertise see <https://www.groundsure.com/sources-reference> ↗.

Terms and conditions

Groundsure's Terms and Conditions can be accessed at this link: www.groundsure.com/terms-and-conditions-april-2023/ ↗.



Site Details:

CEFN GRAIANOG QUARRY,
ROAD FROM GRAIANOG
NORTHWARD PASSING LLWYN
BEDW ISAF AND TYDDYN HEN
TO OLD ROUTE OF A487(T) AT
BERTH, LLANLLYFNI, LL54 6SY

Client Ref: K0642_-_Cefn_Graianog_Quarry
Report Ref: GS-2RB-XDY-Z1I-QZQ
Grid Ref: 246008, 348879

Map Name: County Series

Map date: 1888

Scale: 1:10,560

Printed at: 1:10,560



Surveyed 1888
Revised 1888
Edition N/A
Copyright N/A
Levelled N/A

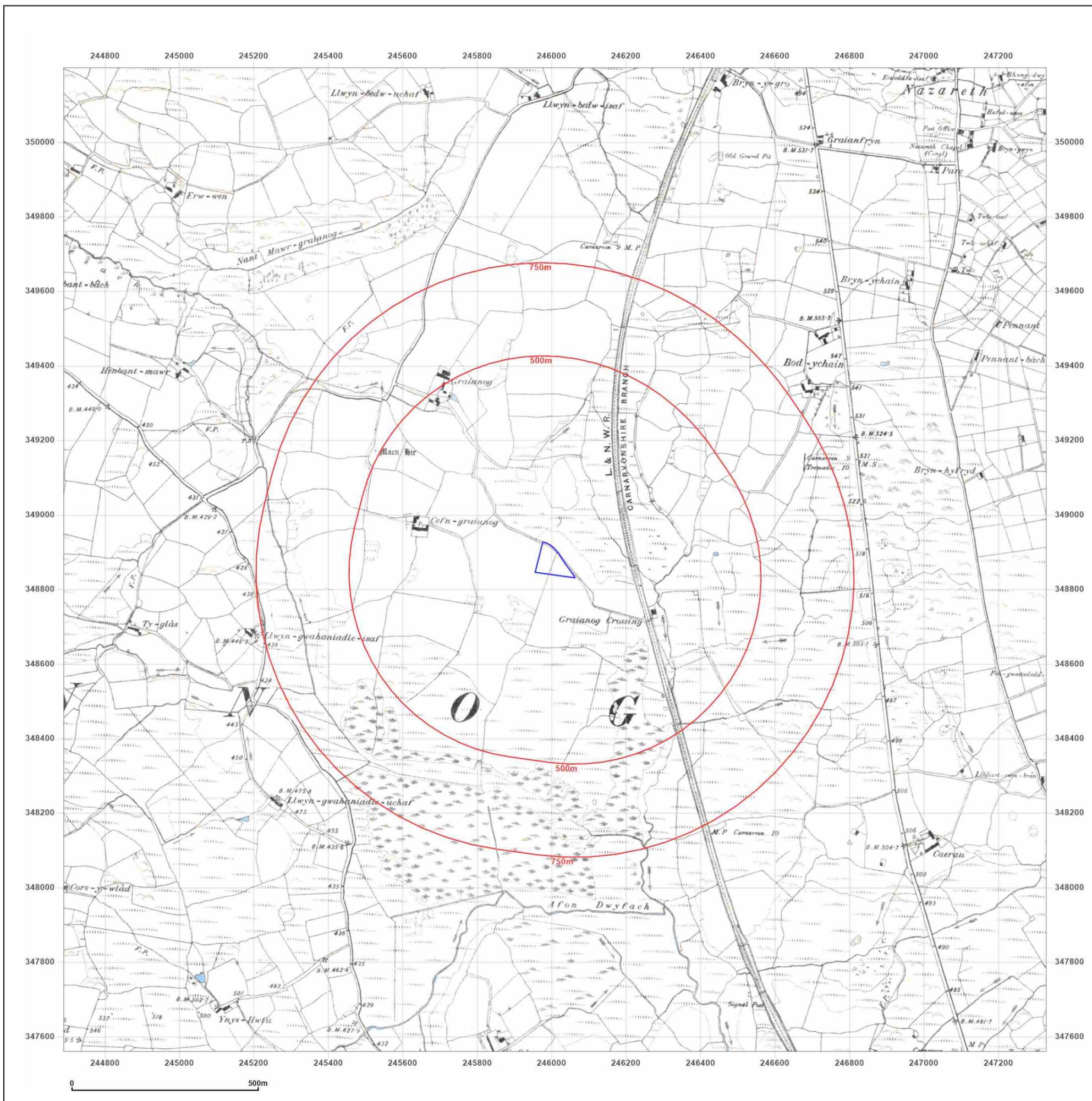


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Production date: 24 April 2024

Map legend available at:
www.groundsure.com/sites/default/files/groundsure_legend.pdf



Site Details:

CEFN GRAIANOG QUARRY,
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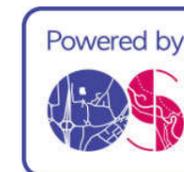
Map date: 1888

Scale: 1:10,560

Printed at: 1:10,560



Surveyed 1888
Revised 1888
Edition N/A
Copyright N/A
Levelled N/A

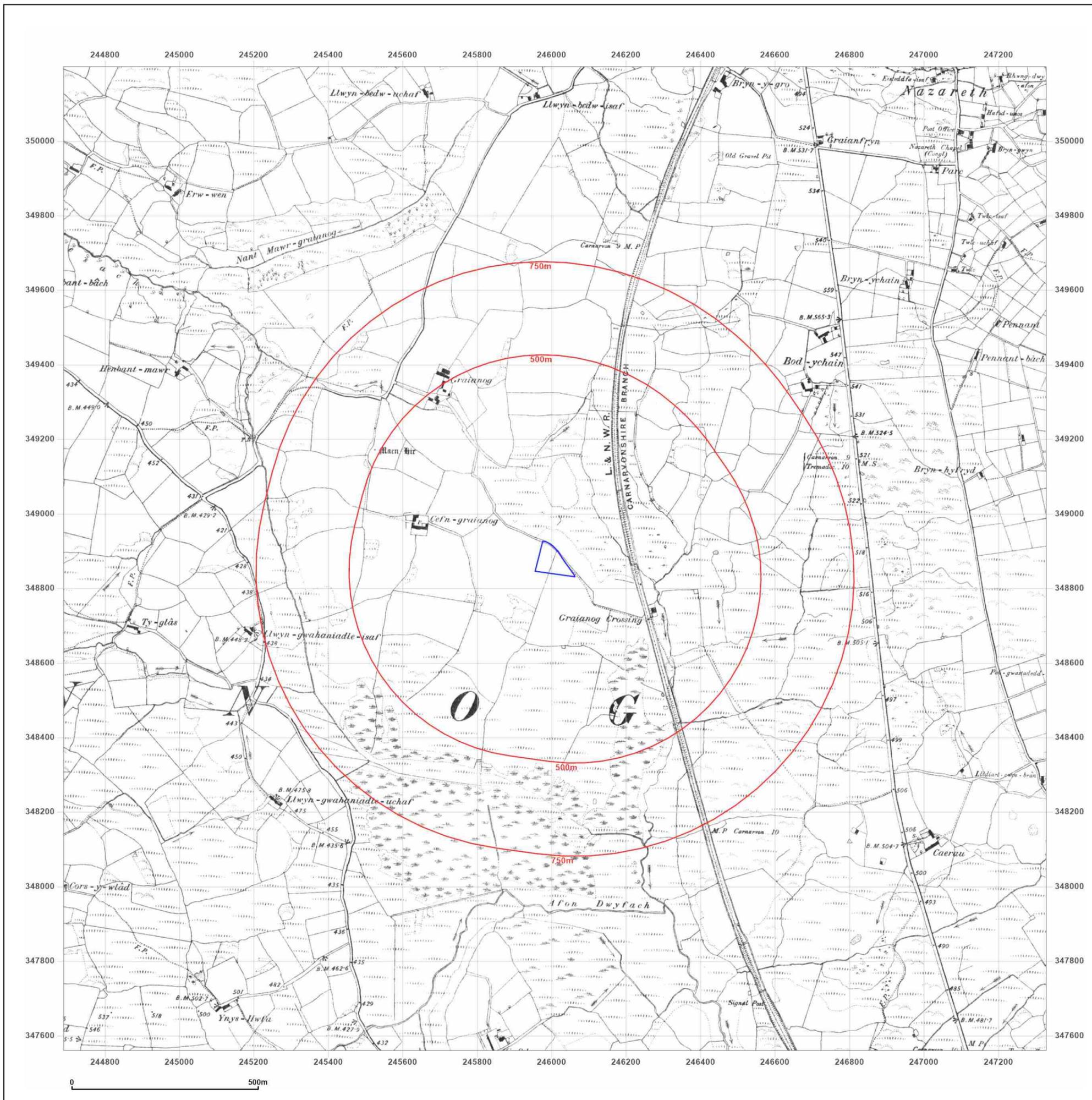


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Site Details:

CEFN GRAIANOG QUARRY,
ROAD FROM GRAIANOG
NORTHWARD PASSING LLWYN
BEDW ISAF AND TYDDYN HEN
TO OLD ROUTE OF A487(T) AT
BERTH, LLANLLYFNI, LL54 6SY

Client Ref: K0642_-_Cefn_Graianog_Quarry
Report Ref: GS-2RB-XDY-Z1I-QZQ
Grid Ref: 246008, 348879

Map Name: County Series
Map date: 1901
Scale: 1:10,560
Printed at: 1:10,560



Surveyed N/A
Revised N/A
Edition N/A
Copyright N/A
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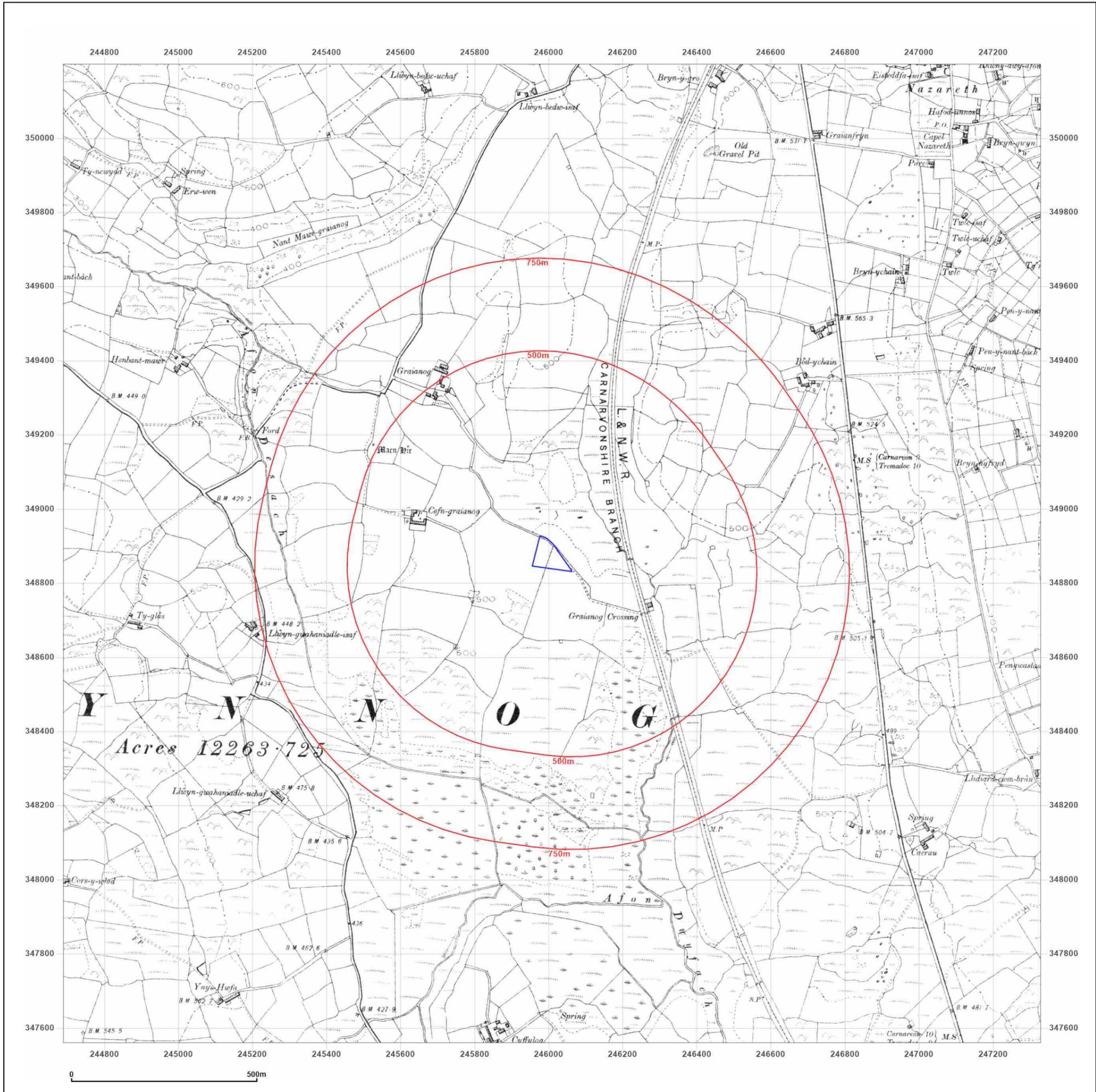


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Client Ref: K0642_-_Cefn_Graianog_Quarry
Report Ref: GS-2RB-XDY-Z11-QZQ
Grid Ref: 246008, 348879

Map Name: County Series

Map date: 1914

Scale: 1:10,560

Printed at: 1:10,560



Surveyed 1887
Revised 1914
Edition N/A
Copyright N/A
Levelled N/A

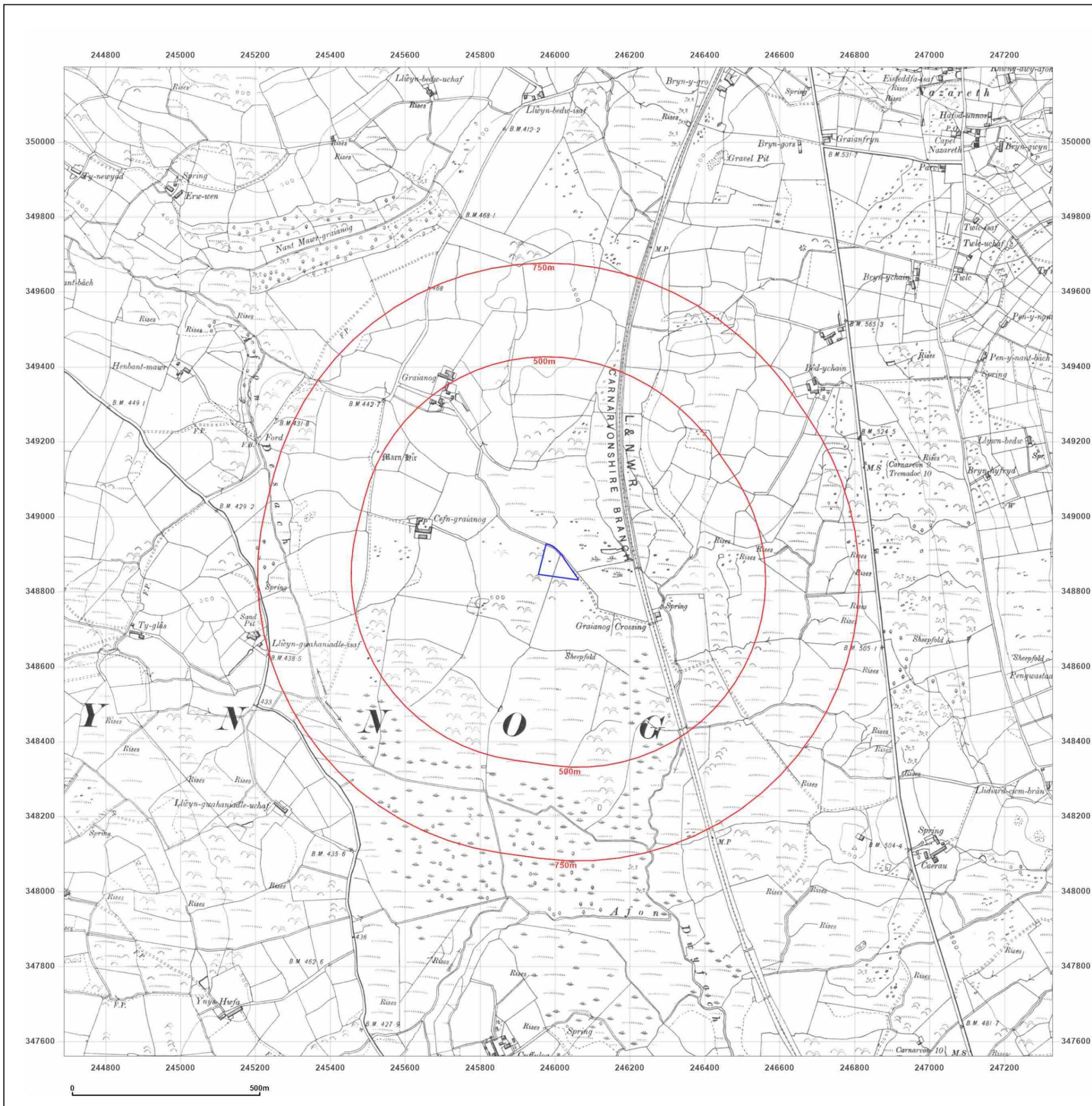


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Client Ref: K0642_-_Cefn_Graianog_Quarry
Report Ref: GS-2RB-XDY-Z11-QZQ
Grid Ref: 246008, 348879

Map Name: County Series

Map date: 1949

Scale: 1:10,560

Printed at: 1:10,560



Surveyed 1887
Revised 1949
Edition 1949
Copyright N/A
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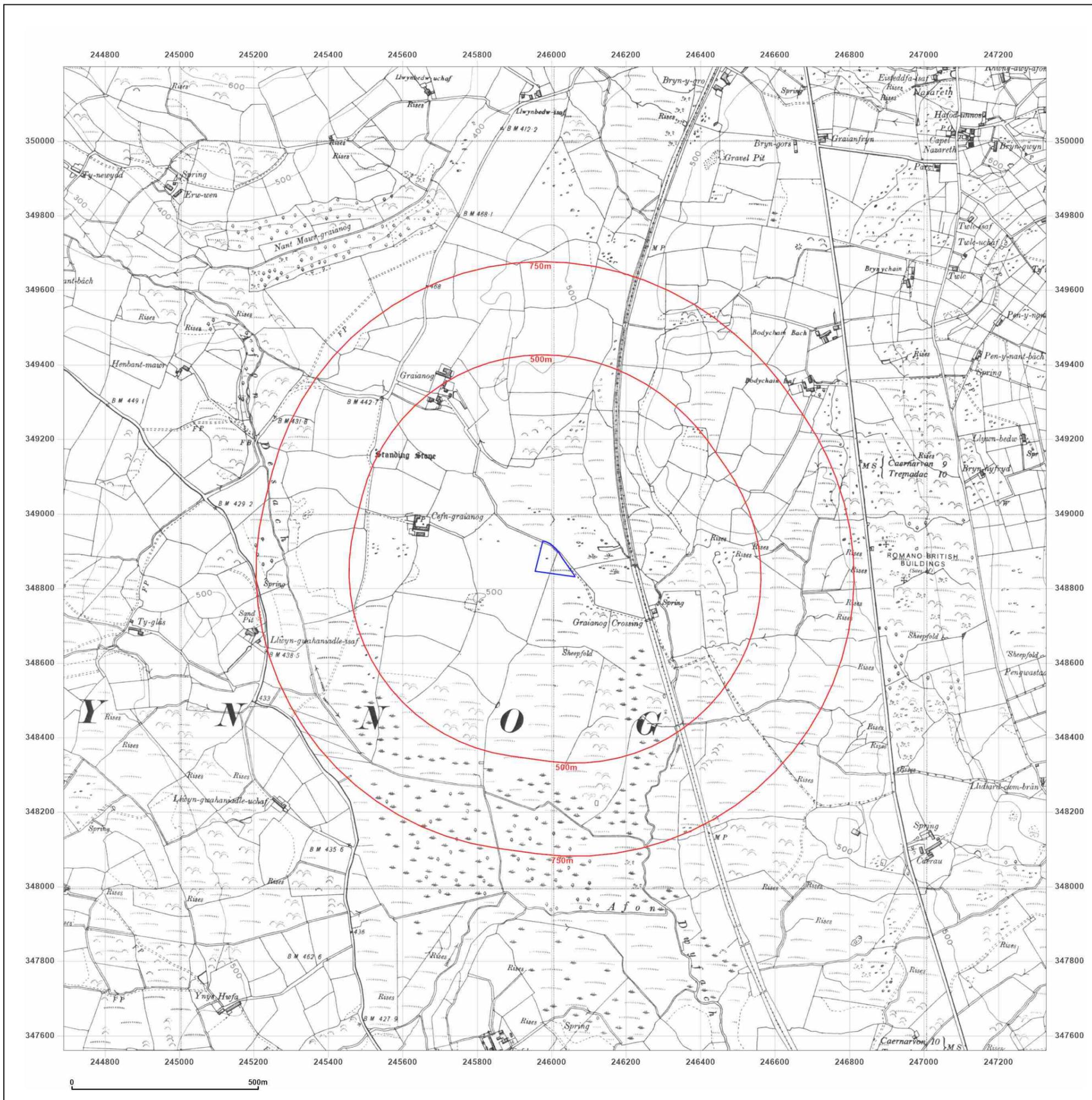


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Client Ref: K0642_-_Cefn_Graianog_Quarry
Report Ref: GS-2RB-XDY-Z11-QZQ
Grid Ref: 246008, 348879

Map Name: Provisional

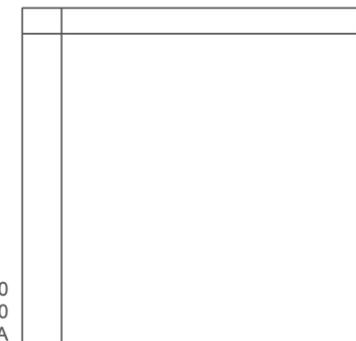
Map date: 1960

Scale: 1:10,560

Printed at: 1:10,560



Surveyed 1960
Revised 1960
Edition N/A
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Levelled N/A



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Revised 1960
Edition N/A
Copyright N/A
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Revised 1960
Edition N/A
Copyright N/A
Levelled N/A

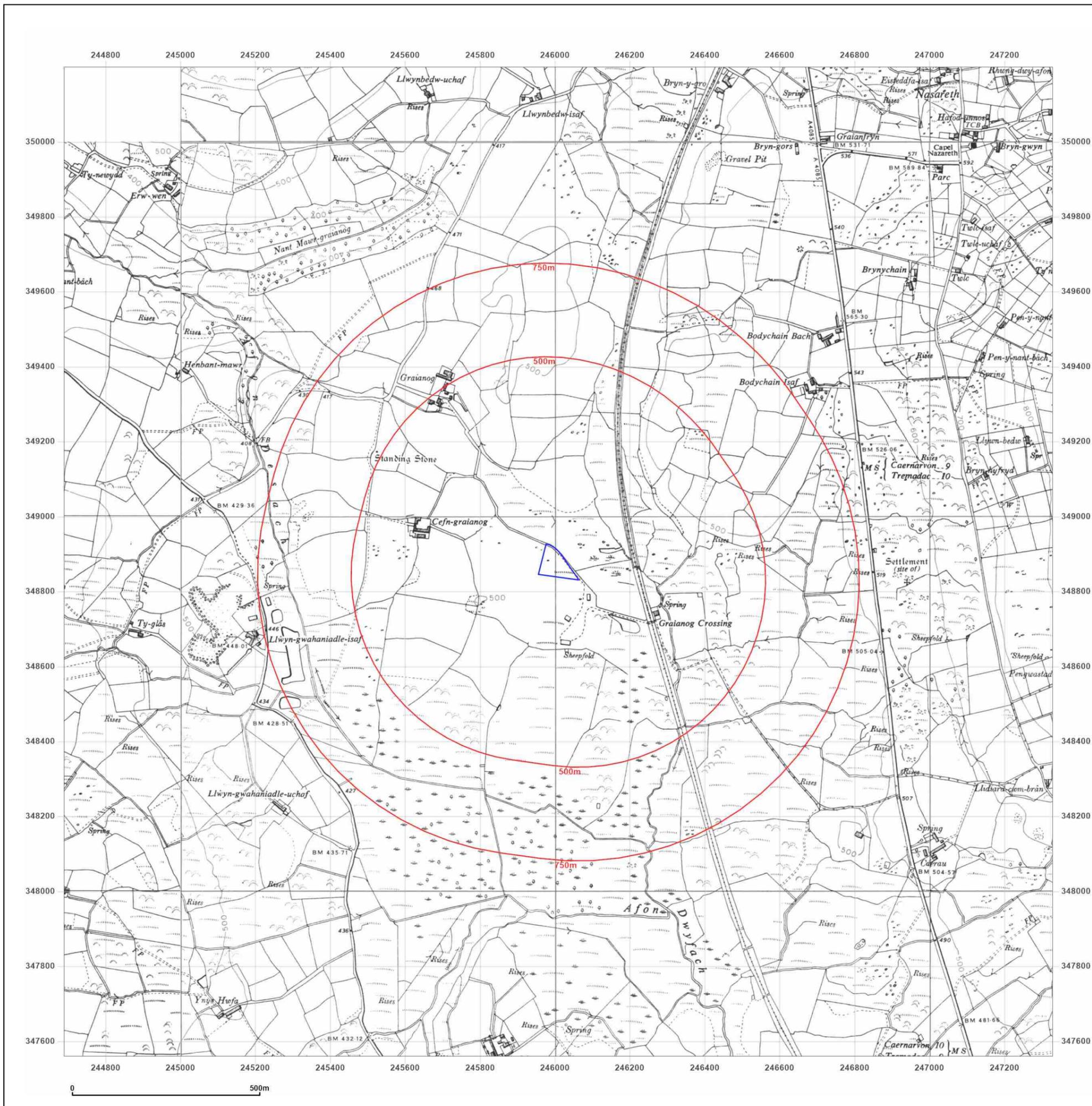


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Client Ref: K0642_-_Cefn_Graianog_Quarry
Report Ref: GS-2RB-XDY-Z1I-QZQ
Grid Ref: 246008, 348879

Map Name: National Grid

Map date: 1978

Scale: 1:10,000

Printed at: 1:10,000



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Edition N/A
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Levelled N/A

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Edition N/A
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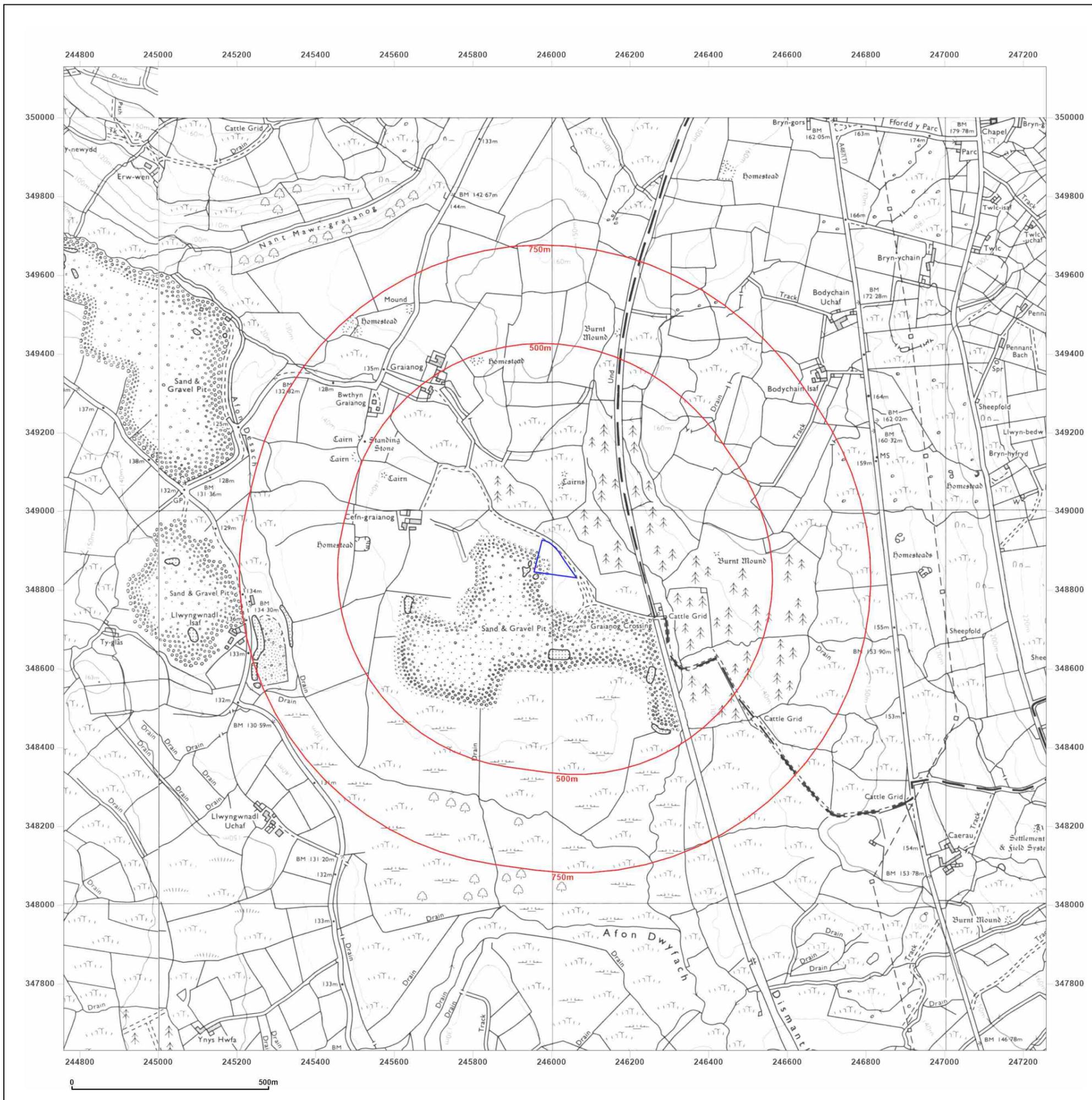


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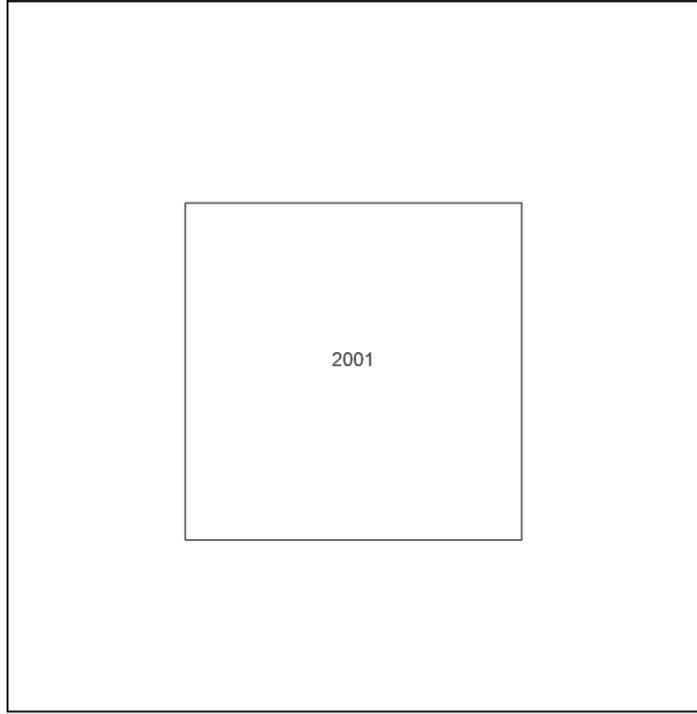


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Client Ref: K0642_-_Cefn_Graianog_Quarry
Report Ref: GS-2RB-XDY-Z1I-QZQ
Grid Ref: 246008, 348879

Map Name: National Grid
Map date: 2001
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Printed at: 1:10,000

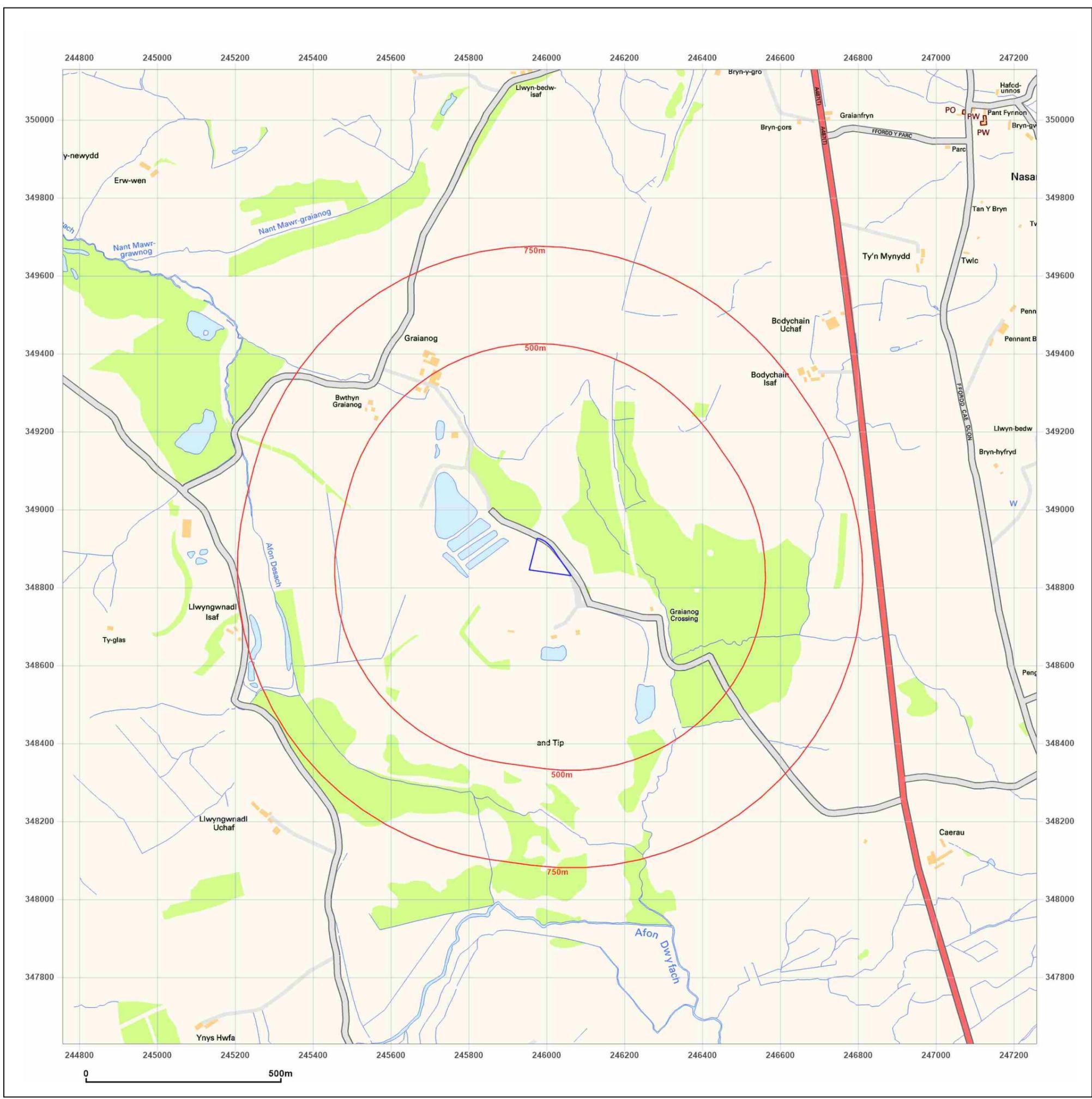


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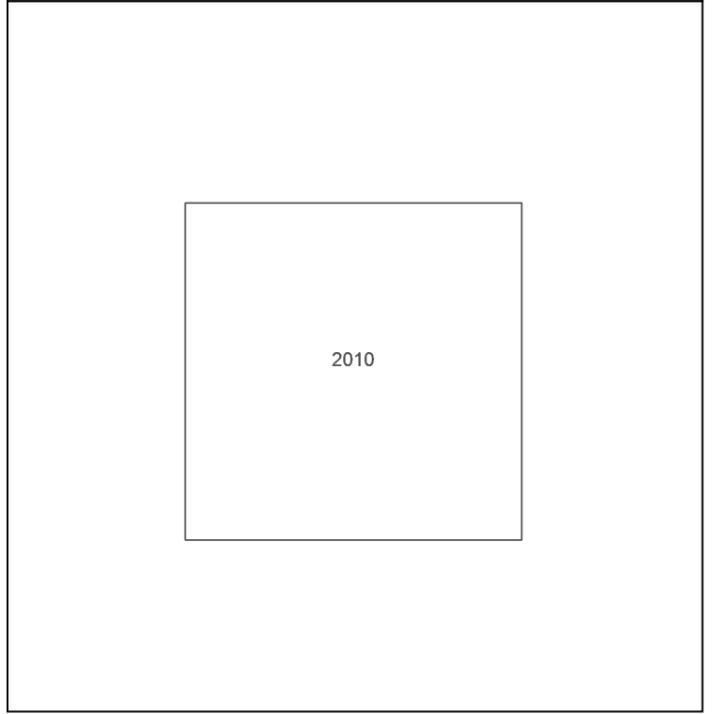
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Client Ref: K0642_-_Cefn_Graianog_Quarry
Report Ref: GS-2RB-XDY-Z1I-QZQ
Grid Ref: 246008, 348879

Map Name: National Grid
Map date: 2010
Scale: 1:10,000
Printed at: 1:10,000



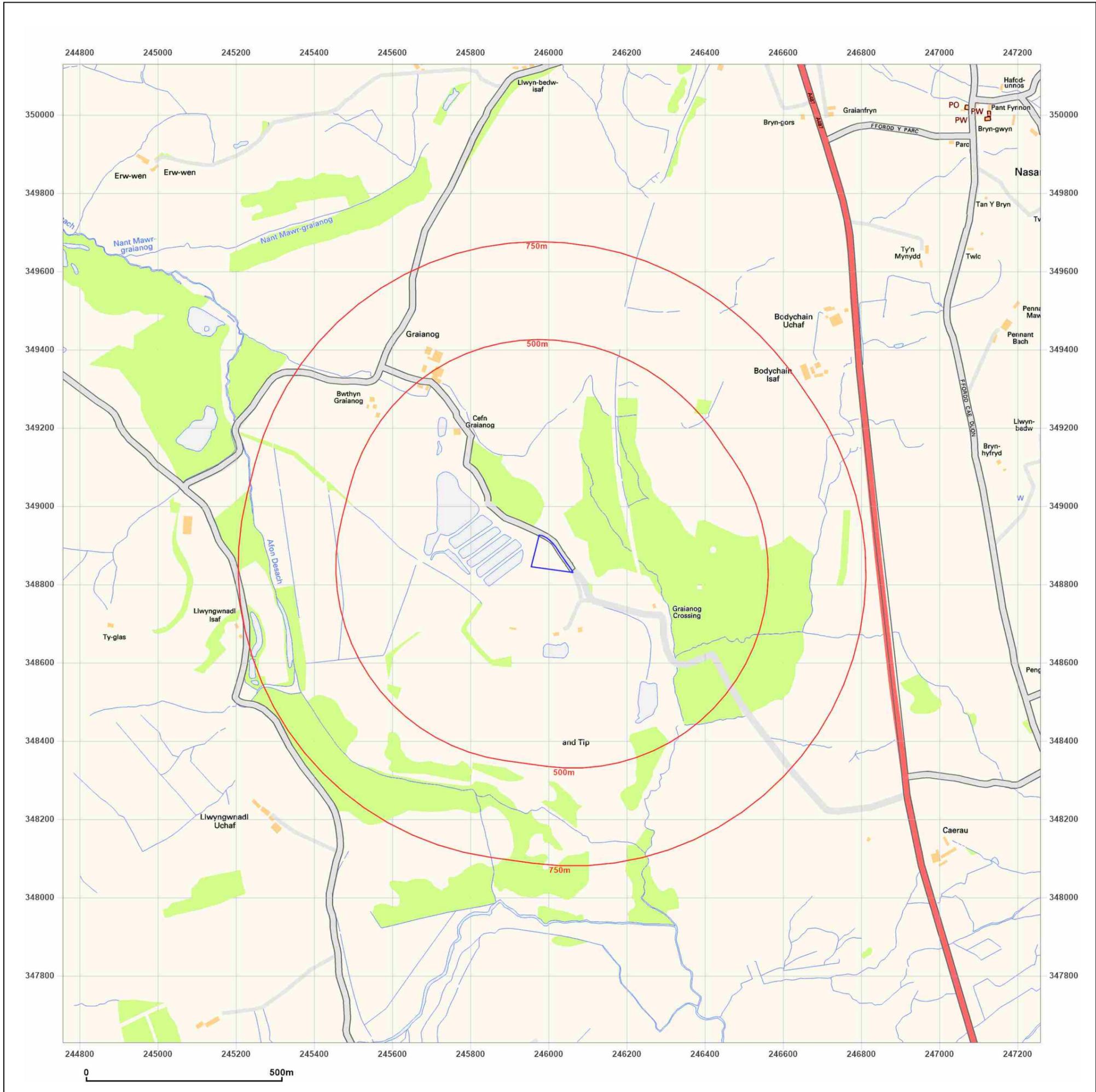
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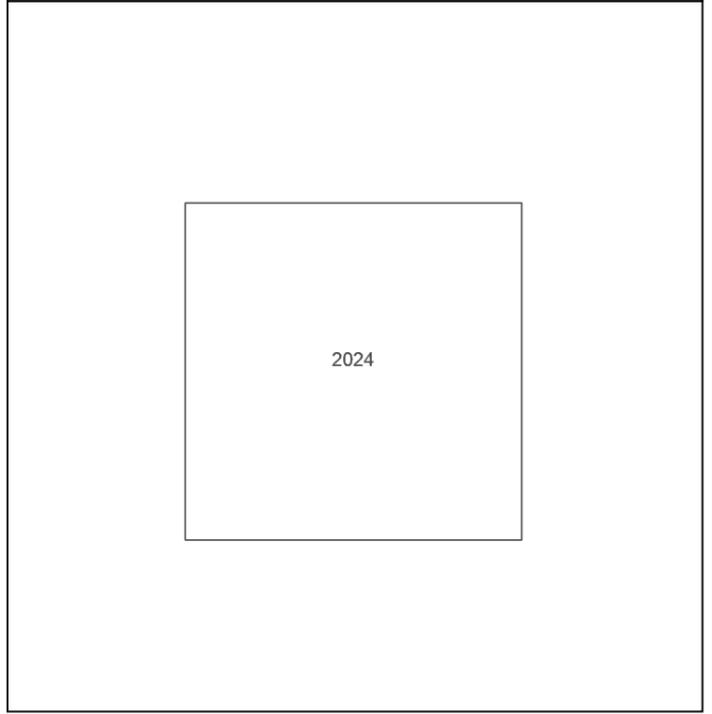
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Client Ref: K0642_-_Cefn_Graianog_Quarry
Report Ref: GS-2RB-XDY-Z1I-QZQ
Grid Ref: 246008, 348879

Map Name: National Grid
Map date: 2024
Scale: 1:10,000
Printed at: 1:10,000



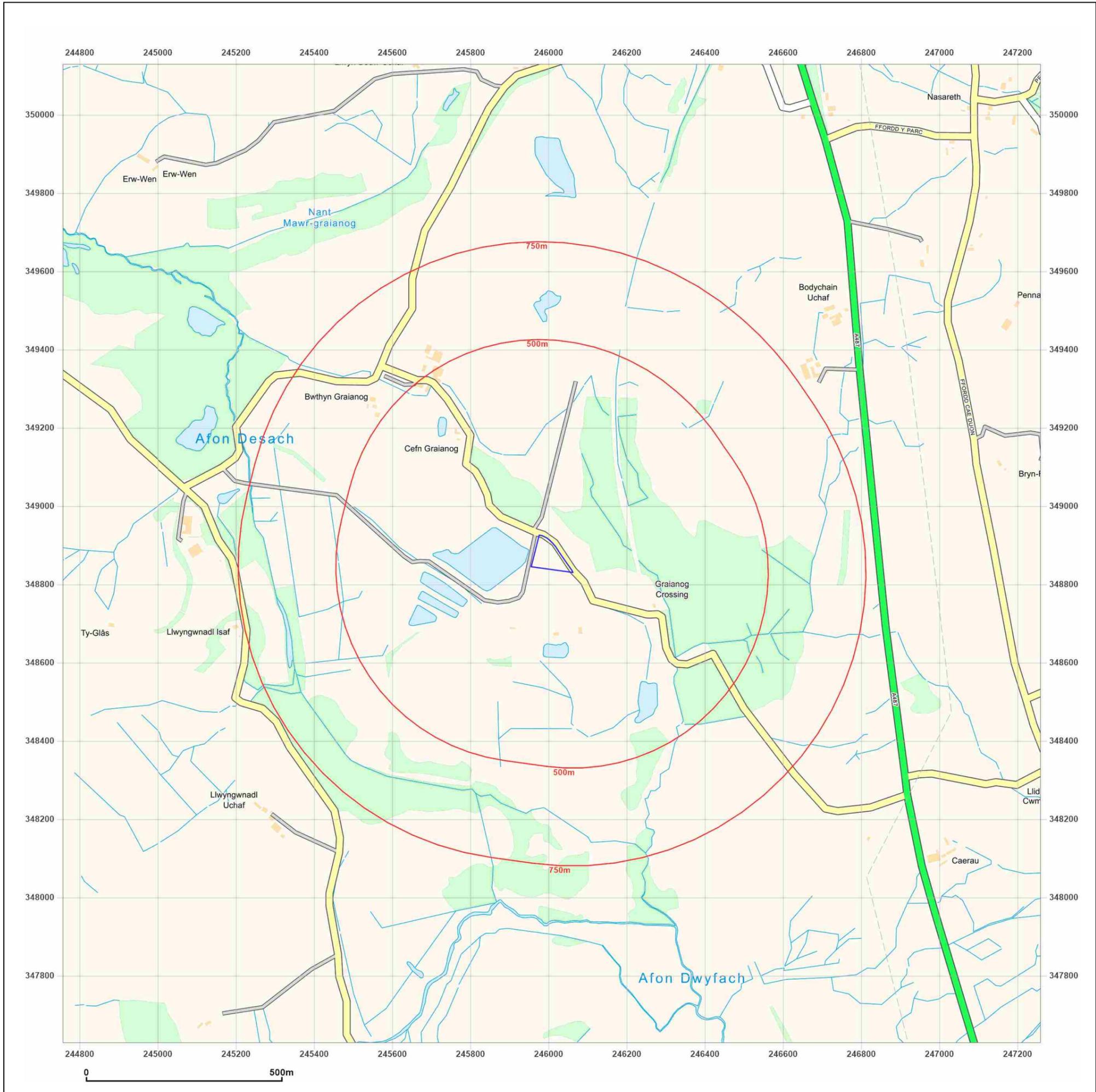
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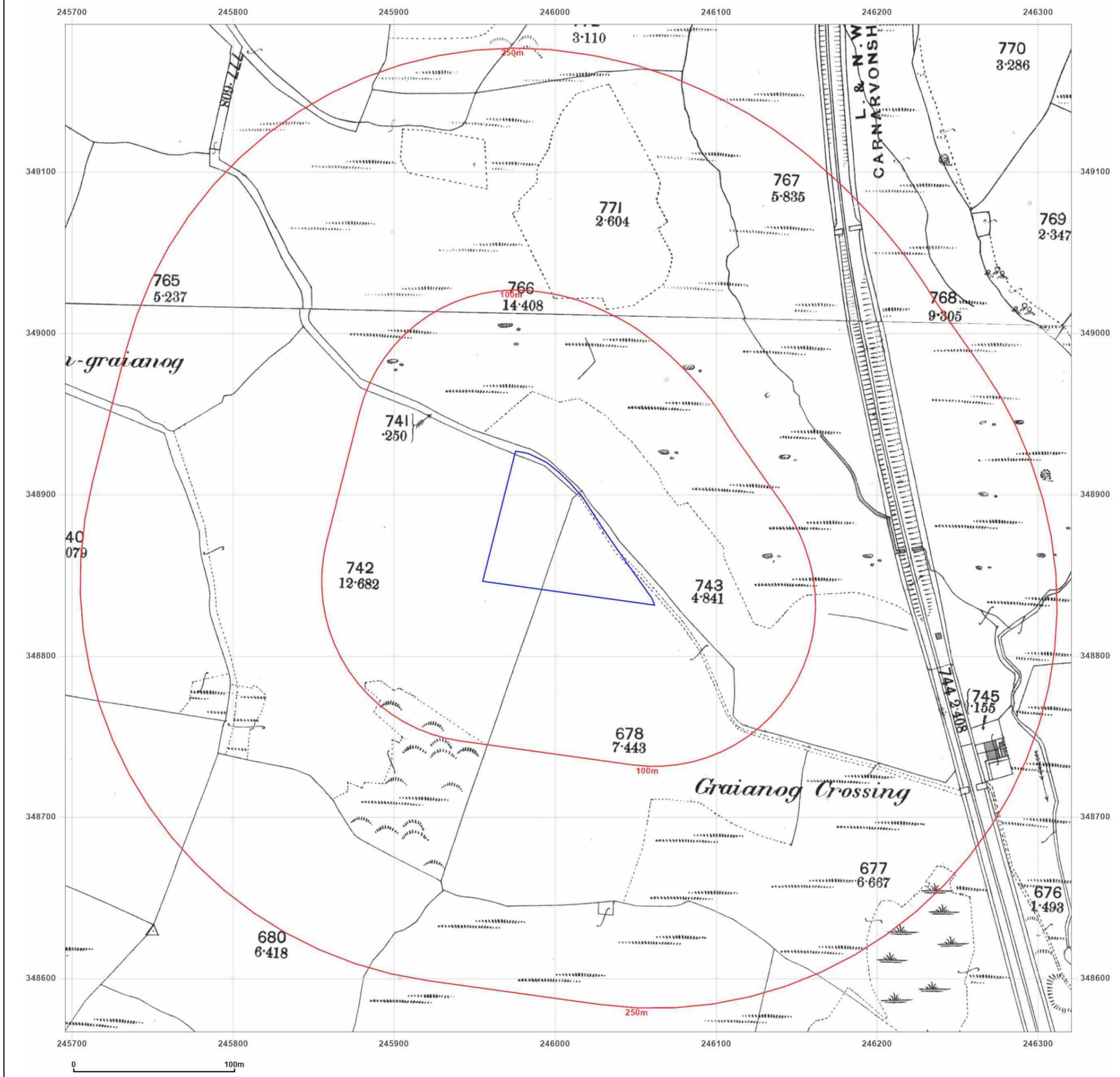
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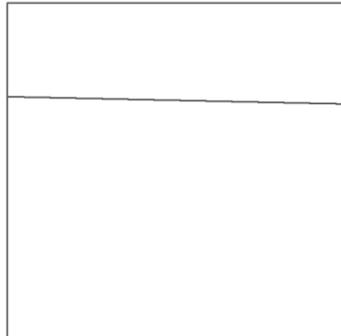
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Client Ref: K0642_-_Cefn_Graianog_Quarry
Report Ref: GS-2RB-XDY-Z1I-QZQ
Grid Ref: 246008, 348879

Map Name: County Series
Map date: 1889
Scale: 1:2,500
Printed at: 1:2,500



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 Edition N/A
 Copyright N/A
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 Revised 1889
 Edition N/A
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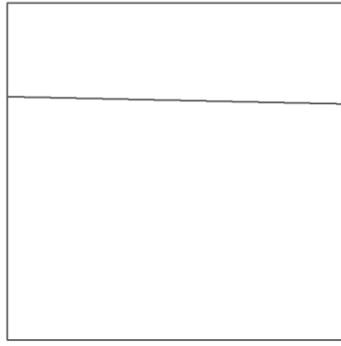
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Client Ref: K0642_-_Cefn_Graianog_Quarry
Report Ref: GS-2RB-XDY-Z1I-QZQ
Grid Ref: 246008, 348879

Map Name: County Series
Map date: 1900
Scale: 1:2,500
Printed at: 1:2,500



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 Edition N/A
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 Revised 1900
 Edition N/A
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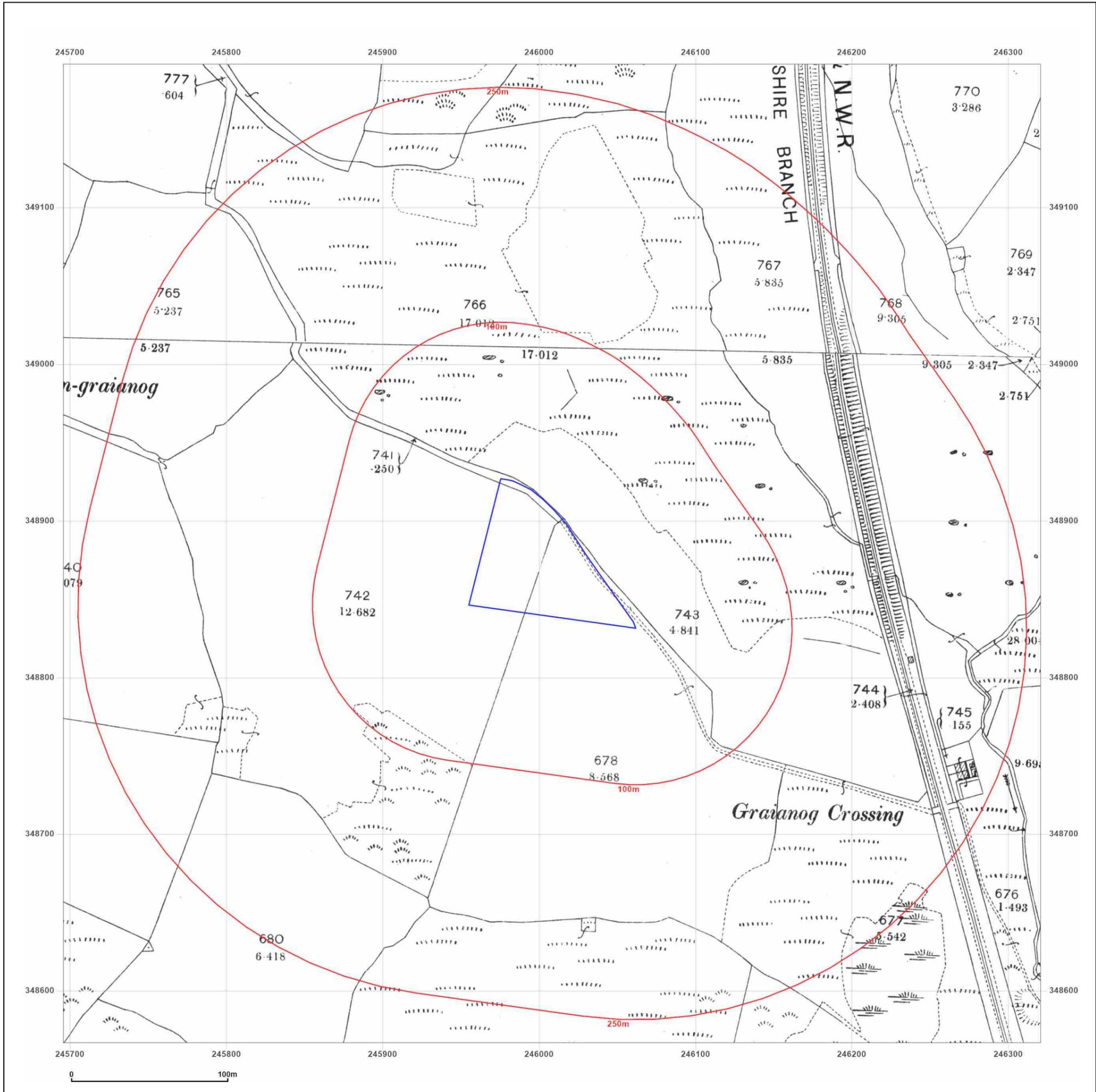


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Client Ref: K0642_-_Cefn_Graianog_Quarry
Report Ref: GS-2RB-XDY-Z1I-QZQ
Grid Ref: 246008, 348879

Map Name: County Series
Map date: 1917-1918
Scale: 1:2,500
Printed at: 1:2,500



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 Revised 1917
 Edition N/A
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Surveyed 1918
 Revised 1918
 Edition N/A
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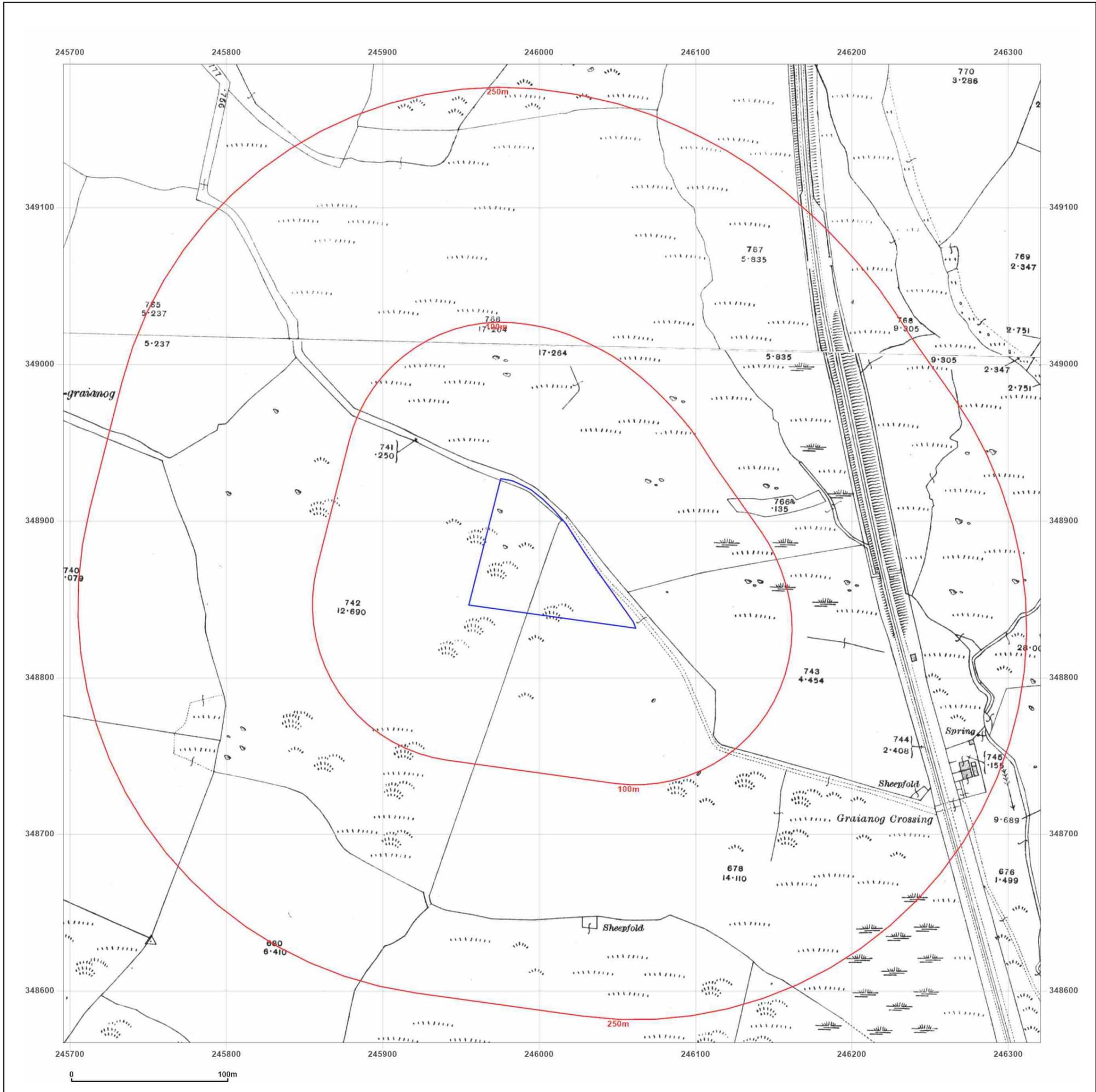


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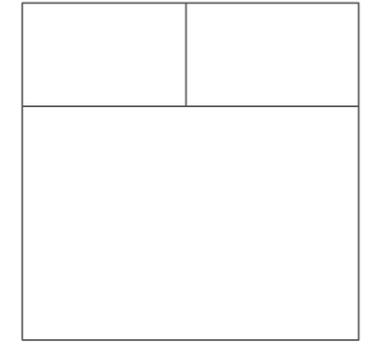
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Report Ref: GS-2RB-XDY-Z1I-QZQ
Grid Ref: 246008, 348879

Map Name: National Grid
Map date: 1976-1977
Scale: 1:2,500
Printed at: 1:2,500



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Revised 1976
Edition N/A
Copyright 1978
Levelled 1974

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Revised N/A
Edition N/A
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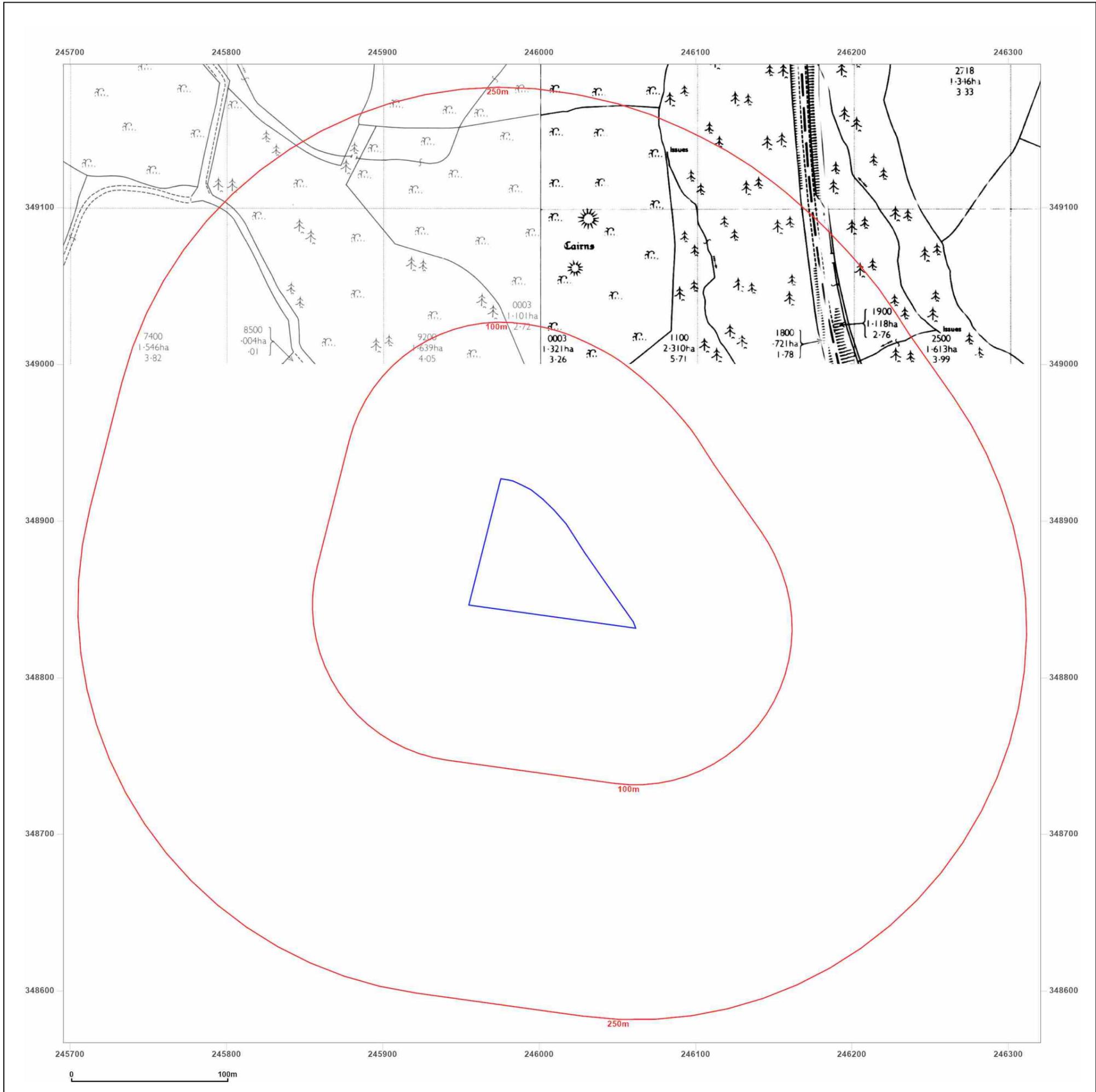


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Client Ref: K0642_-_Cefn_Graianog_Quarry
Report Ref: GS-2RB-XDY-Z1I-QZQ
Grid Ref: 246008, 348879

Map Name: National Grid

Map date: 1976-1978

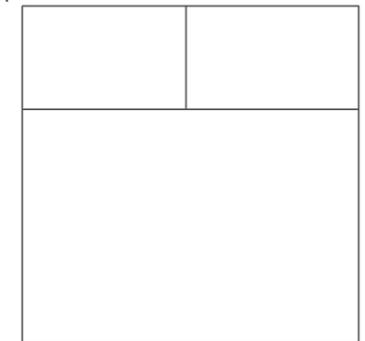
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Revised N/A
Edition N/A
Copyright N/A
Levelled N/A

Surveyed 1976
Revised 1976
Edition N/A
Copyright 1977
Levelled 1973

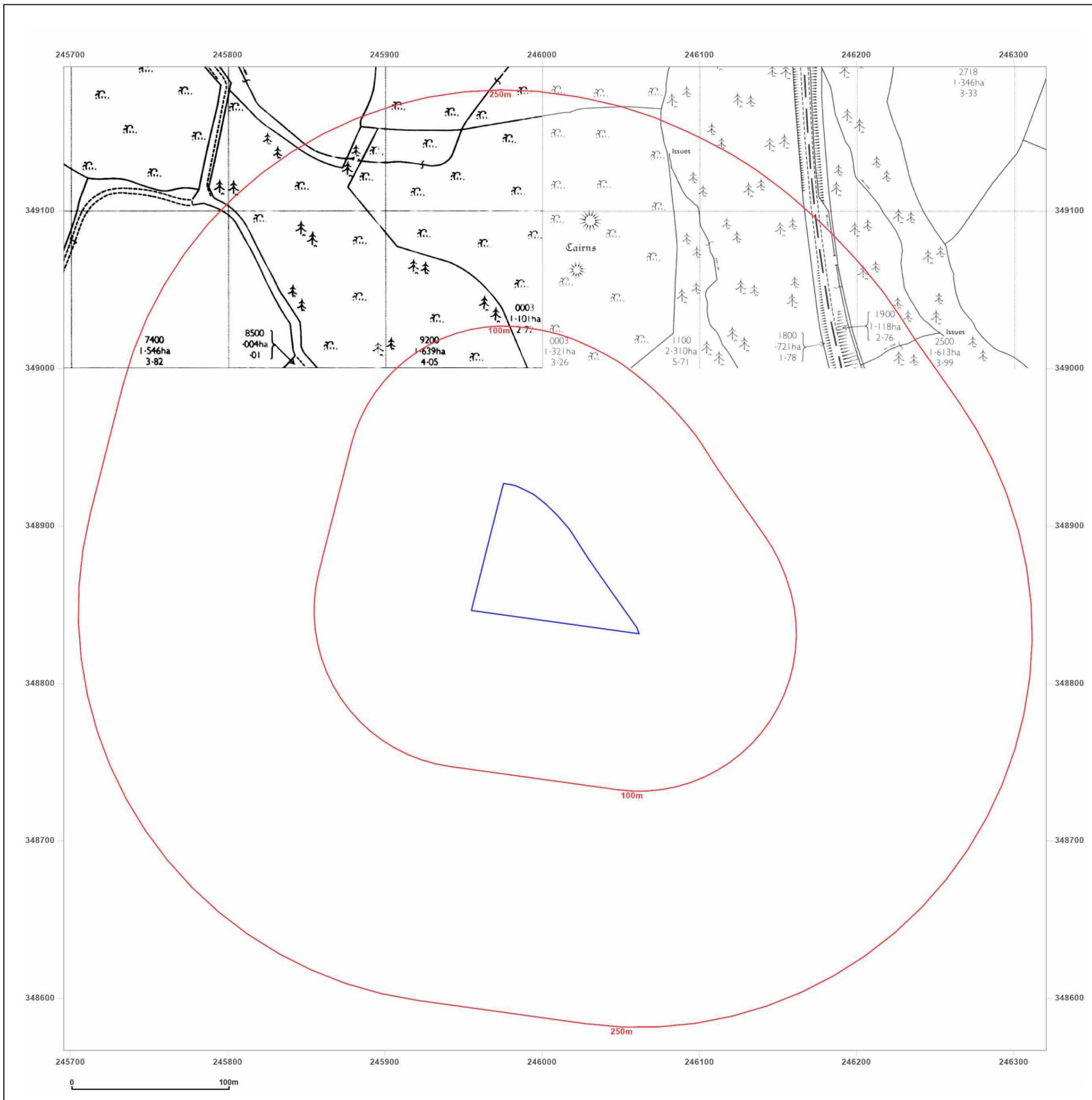


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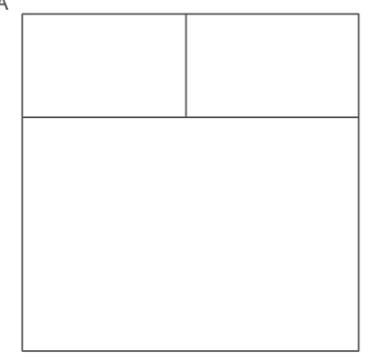
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Client Ref: K0642_-_Cefn_Graianog_Quarry
Report Ref: GS-2RB-XDY-Z1I-QZQ
Grid Ref: 246008, 348879

Map Name: National Grid
Map date: 1995
Scale: 1:2,500
Printed at: 1:2,500



Surveyed N/A
Revised N/A
Edition N/A
Copyright 1995
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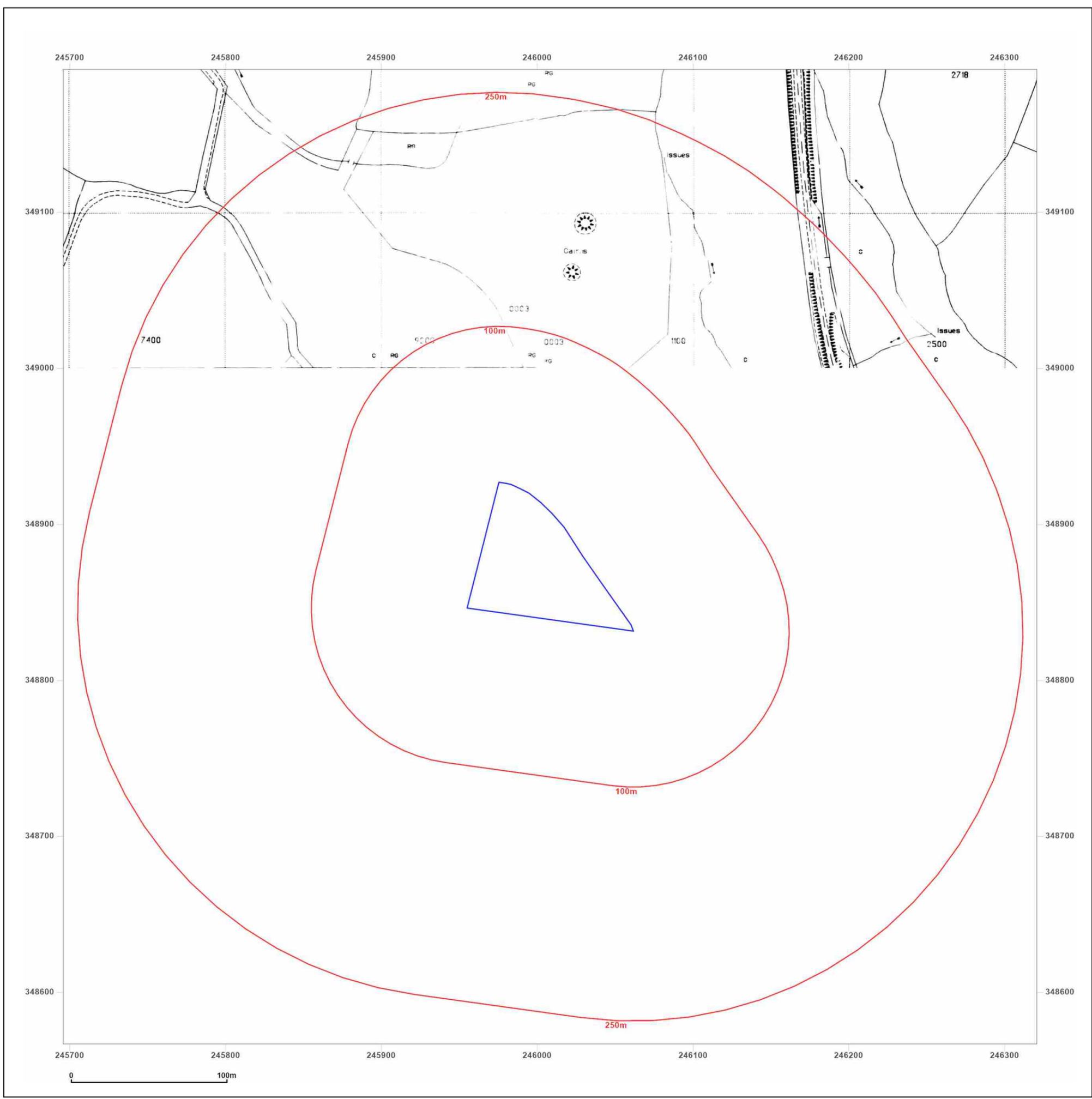


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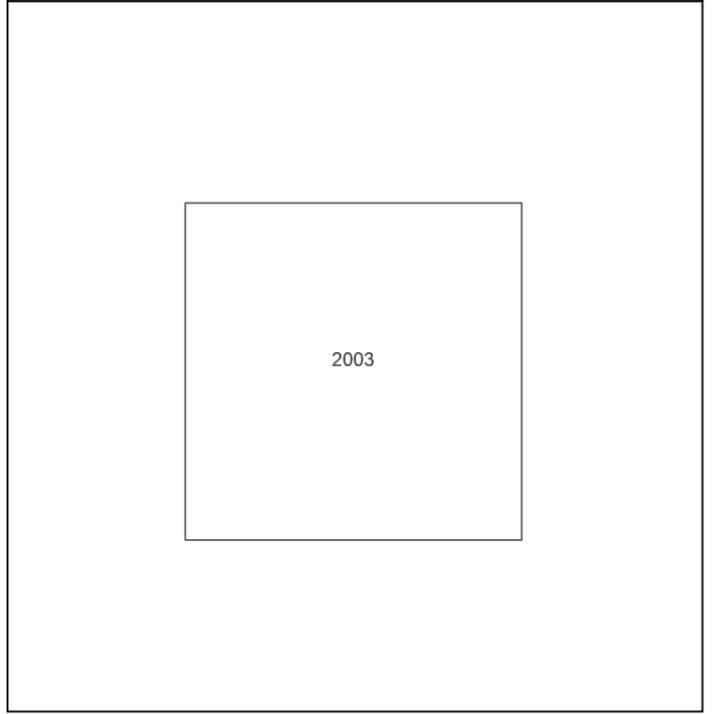
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Client Ref: K0642_-_Cefn_Graianog_Quarry
Report Ref: GS-2RB-XDY-Z1I-QZQ
Grid Ref: 246008, 348879

Map Name: LandLine
Map date: 2003
Scale: 1:1,250
Printed at: 1:1,250



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