



Coal Mining Risk Assessment (CMRA)

Land Off Graig Y Pal, Glais, Swansea

June 2025

CYP Solar LTD

Reference: 250303 PC.03

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Land Off Graig Y Pal, Glais,
Swansea

Client: CYP Solar LTD

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EXECUTIVE SUMMARY

Purpose of the Report	This report has been prepared to assist in evaluating the potential risk associated with the historic coal mining legacy at and below the site, which has the potential to adversely affect the proposed development of the site.
Future Site End-use	It is REL's understanding that the development plans involve the construction of a ground mounted photo voltaic solar farm with associated equipment, ancillary structures and grid connection infrastructure.
SITE INFORMATION	
Grid Reference	271700, 201400
Current Site Status	The site is currently undeveloped agricultural and grazing land with no areas of hardstanding. Its northern boundary runs parallel to a tree line, and it contains a series of drainage channels and surface water features.
Geology	The site is not located within an area overlain by Made Ground, according to published BGS data. Superficial deposits of Glacial Till (boulder clay) are present across a section of the southern portion of the site, while the northern half remains free from drift. Bedrock geology consists predominantly of the Swansea Member (Carboniferous, Westphalian D), with sandstone in the west and undifferentiated mudstone, siltstone, and sandstone in the east and south. A BGS borehole log within the site records a sequence of mudstone with sandstone, siltstone beds, and ironstone nodules, with coal seams identified at significant depths. The presumed outcrop of the Swansea Five-Foot coal seam may be present in the site's western portion, though it is recorded on geological plans as being thin. The coal crop of this seam is shown to form an elongated oval through the site, indicating it is within geological syncline. Additional coal seams, including the Swansea Two-Foot and Graigola Seams, outcrop to the north and dip southward beneath the site.
Coal Mining Risk Assessment	According to the Coal Authority's web mapping data, a small linear section of the site is shown to be in a Development High Risk Area (DHRA), associated with location of the crop of a coal seam. The web mapping data does not indicate the presence of any areas of recorded or unrecorded (probable) shallow coal mine workings below the site. The Coal Authority Coal Mining Consultants' Report confirms that any recorded coal mine workings are at a depth that will not represent a risk to surface ground stability. The site is not recorded to be present within an area known to have been affected by probable (unrecorded) shallow coal mine workings. No mine entries have been recorded on or within 100m of the site. One coal seam has been identified to subcrop on the site; named as the Swansea Five-Foot Seam, the seam is recorded as thin and is not considered to have been viable for extraction. The proposed development is not considered to be at risk from mine gas emissions. A potential risk has been identified with respect to the potential for coal to be close to the surface and where foundations or service runs are based in these materials there could be the potential for spontaneous combustion.
Conclusions and Recommendations	The assessment has determined that the Swansea Five-Foot coal seam might be present at a shallow depth below the site; however, the BGS has recorded it as 'thin' in this area and given that this coal potentially lies within a syncline, the overall extent of coal in this section of the seam is relatively small. As such, it is not considered to have been economically viable for extraction. No shallow coal mine workings or mine entries have been documented at the site, nor is there any evidence suggesting the presence of unrecorded shallow workings. Additionally, only two locations designated for sensitive structures are situated near or within the potential outcrop of the Swansea Five-Foot Seam, placing them close to or within the Coal Authority's Development High Risk Area. Recommendations Where coals seams subcrop at the site there is the potential for coal to be at or close to the surface. A watching brief should be maintained during construction for coal within foundation runs or excavations. Where coal is encountered appropriate precautions should be adopted to prevent combustion or compression of the coal deposits.

1. Instructions

Roberts Environmental Limited ("**REL**") received Instruction on 03 March from CYP Solar LTD ("**the Client**") to undertake a Coal Mining Risk Assessment (CMRA) ("**the Services**") For a proposed solar farm at Land Off Graig Y Pal, Glais, Swansea. ("**the Property**").

The site has planning consent for the construction and operation of a solar farm. Whilst the site measures approximately 68.7ha, the deployment area covers approximately 26ha of grazing land. Vehicular access will be provided from the southwest via an existing track leading to Craig-y-Perchyll. Several transformer substations are planned across the site, along with a substation compound located in the north-central area. This compound will include a spares cabin, a customer cabin, a distribution network operator (DNO) substation, and a communications mast. Additionally, an underground cable route will extend approximately 1.6 km to the west. A small remote set-down area is also proposed to the north of the site, accessible from Ynys y Mond Road/Glais Road at Llwyn-du Farm.

This report has been prepared in accordance with the REL Proposal of works dated 5th February 2025 and is subject to the terms of that appointment. It is addressed to and for the sole use and reliance by the Client only. We accept no liability for any use of this report other than by the recipient. No persons other than the Client may copy, use, or rely on the contents of this report.

Data Sources

The findings of this report are based upon information provided by the Client and database information obtained from regulatory agencies and research bodies. The following data sources, documents and reports have been reviewed as part of this report;

- British Geological Survey (BGS) Printed Maps;
- British Geological Survey (BGS) 1:50,000 scale geological map Sheet 247, Swansea (bedrock & bedrock and superficial deposits editions);
- Geological Survey of Great Britain 1:10,560 scale geological map Sheet SN70SW;
- BGS Geoindex web mapping (<https://mapapps2.bgs.ac.uk/geoindex/home.html>);
- BGS Memoirs, The geology of the South Wales Coalfield Special memoir The Upper Carboniferous and later formations of the Gwendraeth Valley and adjoining areas in parts of the Carmarthen (229) Ammanford (230) and Worms Head (246) sheets. 1968
- Coal Authority Consultants Coal Mining Report (reference: 23156/C9707/AL;)(Provided by the client);
- BGS Geoindex Historical Borehole Records;

- Coal Authority Web Mapping Service (gov.uk/using-coal-mining-information);
- Cyngor Abertawe Swansea Council Planning Portal:
(<https://property.swansea.gov.uk/online-applications/simpleSearchResults.do?action=firstPage>)

This Coal Mining Risk Assessment has been prepared in general accordance with the Planning Policy Wales (PPW).

2. Location

The site is located 0.5 km east of Glais, approximately 9 km northeast of Swansea.



Figure 1: Site Location Plan (The red circle highlights the site)

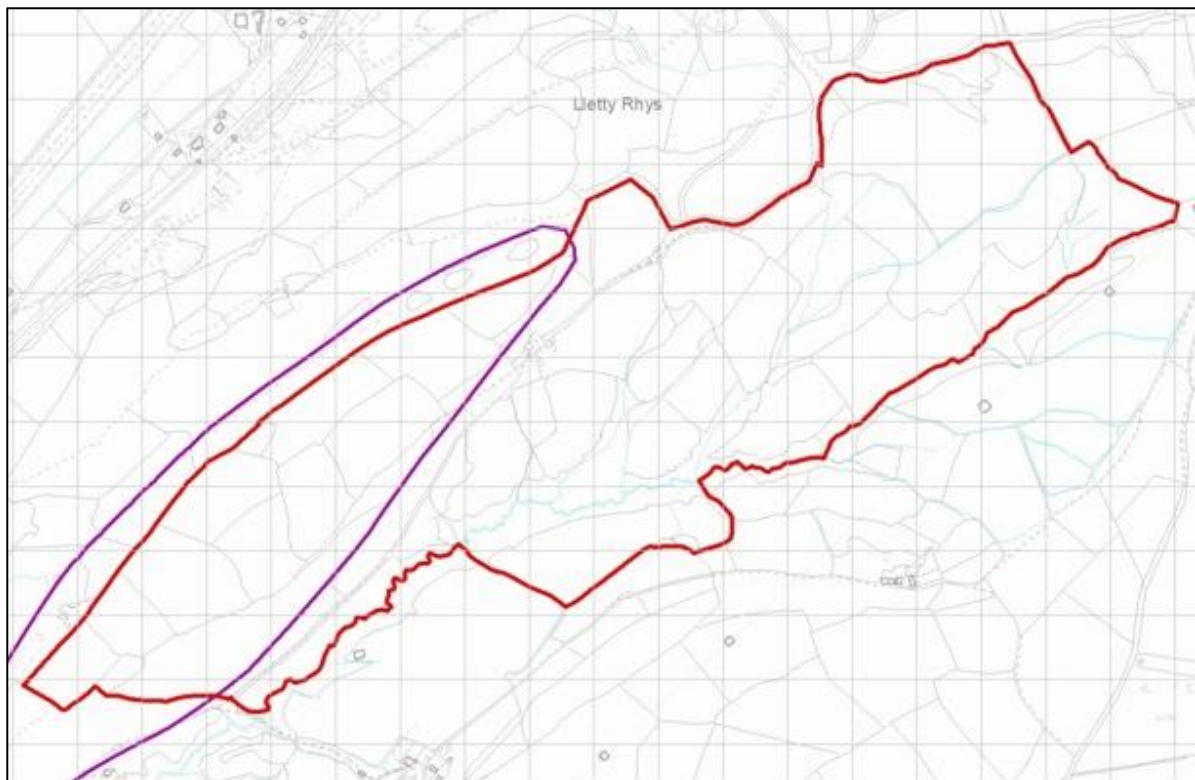


Figure 2: The site location plan indicates the site boundary in red and the outcrop of the Swansea 5 Feet coal seam in purple.

3. Description

The following table provides a summary of site conditions.

Site Name	Land Off Graig Y Pal, Glais, Swansea
Address	Land Off Graig Y Pal, Glais, Swansea
National Grid Reference	271700, 201400
Occupancy	Vacant
Site Description and Activities	The site is currently undeveloped agricultural grazing / moor land with no areas of man-made hardstanding. Its northern boundary runs parallel to a tree line, and it contains a series of drainage channels and surface water features.
Proposed Development	The site has planning consent for a solar farm, covering approximately 26 hectares of solar arrays. Vehicular access will be provided from the southwest via an existing track leading to Craig-y-Perchyll. Several electrical transformers are planned across the site, along with a site compound located in the north-central area. This compound will include a spares cabin, a customer cabin, a distribution network operator (DNO) substation, and a communications mast. Additionally, an underground cable route will extend approximately 1.6 km to the west. A small remote set-down area is also proposed to the north of the site, accessible from Ynys y Mond Road/Glais Road at Llwyn-du Farm
Planning Application Details	Planning consent was granted 6 December 2024
Site Levels	The site features varied topography, with a sloping gradient from its lowest point in the southwest at 150m AOD to its highest point in the northeast at 218m AOD.
Surrounding land uses	The site is situated in a predominantly undeveloped area primarily associated with agriculture. Residential developments are present to the west, linked to the village of Glais.

4. Geological Setting

The geology beneath the site, summarised below, has been established from the following sources:

- British Geological Survey (BGS) 1:50,000 scale geological map Sheet 247, Swansea (bedrock & bedrock and superficial deposits editions),
- Geological Survey of Great Britain 1:10,560 scale geological map Sheet SN70SW,
- BGS Geoindex web mapping (<https://mapapps2.bgs.ac.uk/geoindex/home.html>);
- Coal Authority Consultants Coal Mining Report (reference: 23156/C9707/AL;)

Made Ground / Artificial Ground

Published BGS data records that the site is not situated within an area overlain by Made Ground.

Superficial Geology

Superficial deposits comprising Glacial Till (boulder clay) are shown to overlie solid strata in the southern half of the site; the remainder of the site is shown to be unaffected by superficial deposits.

Bedrock Geology

BGS maps record the solid strata underlying the large majority of the site to comprise the Swansea Member of Carboniferous (Westphalian D) age, of the Pennine Upper Coal Measures group. The western end of the site is shown to comprise sandstone, with the east and south shown as undifferentiated mudstone, siltstone and sandstone.

Borehole log Review

There is one BGS borehole record within the site. The borehole log shows a sequence of predominantly mudstone with some sandstone and siltstone beds and with ironstone nodules. At c. 120m below ground level (bgl) a note indicates the depth at which the Graigola Horizon (coal) would be expected, with a note Page 4 of 8 stating 'Coal washed or worked out'. The Swansea 2-Foot Vein (40cm thick) is indicated at c. 140m bgl, the Maesmelyn at 186m bgl, and the Hughes Vein at c. 345m bgl (30cm thick).

Coal Seams

The 1:10,560-scale geological map indicates that the inferred location of the outcrop of the Swansea Five-Feet coal seam is positioned on the western portion of the site, stratigraphically situated at the base of the Swansea Sandstone unit. The crop of this seam is shown to form an elongated oval through the site, indicating it is within geological syncline and the dip of the seam will form a shallow bowl of coal. However, the BGS vertical section describes this seam as 'thin' and discontinuous within the mapped area, and it is not depicted on the more recent 1:50,000-scale BGS map. The outcrop is also shown on the plan accompanying the CA Consultants Coal Mining Report, though the seam is not specifically named on that plan.

Additionally, geological maps show two coal seams outcropping to the north of the site, running parallel to the escarpment. These are identified as the Swansea Two-Feet Seam (referred to as the Upper Maesmelyn on the 1:10,560 map) and the Graigola Seam, which are recorded as being 0.55m and 1.4–1.8m thick, respectively. The BGS vertical section also associates the Graigola Seam with the Swansea Six-Feet Seam and/or Swansea Three-Feet Seam. These seams are shown to be gently inclined, dipping southward in the vicinity of the site, and are therefore expected to be present beneath the site at depths of greater than below 50m below ground levels.

5. Coal Authority and BGS Data

Coal Authority Interactive Mapping Service

According to the Mining Remediation Authority (Coal Authority) Interactive mapping tool, the site is located in a Development High-Risk Area (DHRA), shown as linear area of land associated with location of the crop of a coal seam.

The following are not indicated on or directly adjacent to the development area:

- Mine Entries (the nearest mine entry is located 250m to the west; it is not considered to influence development.
- Past Shallow Coal Mine Workings.
- Probable (Unrecorded) Shallow Coal Mine Workings

Coal Authority and BGS Mapping Data

To provide context regarding the site's position relative to local geological features, we have extracted a section from the BGS 1:10,560 scale geological map sheet, reference SN70SW, shown below.

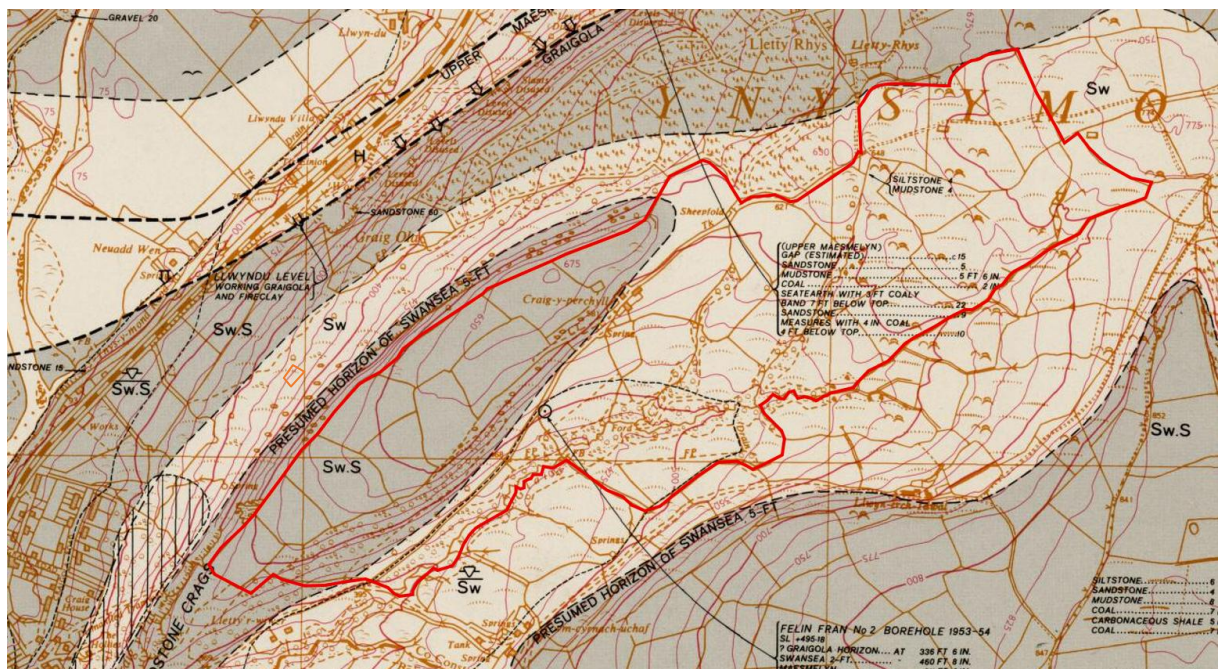


Figure 3: Inferred site boundary shown in red, coal seams shown black

The inferred position of the site boundary has been highlighted in red, relative to local coal seam crops. The dashed black lines represent the location of coal seam crops, and the direction of dip can be determined from the geological sequencing of coal seams in relation to the generalised vertical section, with older seams dipping below younger ones.

Coal Authority Consultants Report

To support this CMRA a Coal Authority Consultants Coal Mining Report has been reviewed, with a copy included in **Appendix I**. The information summarised in the tables below has been provided within the Coal Authority report.

Mining Activity & Geology	Report findings in relation to subject site
Past underground mining	Four records of historical underground mining activity, with depths ranging from 66m to 95m, have been documented. These accounts date back to the period between 1868 and 1923. The mining involved extracting coal from a single named seam; Swansea No.3 (also known as Graigola seam)
Probable underground mining	None
Spine roadways at shallow depth	No spine roadways were recorded at shallow depth.
Mine entries	None recorded within 100m of the enquiry boundary
Outcrops	A single outcrop is recorded within the boundary of the site.
Geological faults, fissures & break lines	No faults, fissures or break lines recorded
Opencast mines	Non recorded within 500 meters of the enquiry boundary
Coal Authority managed tips.	None recorded within 500 meters
Investigative or remedial activity	Report findings in relation to subject site
Site investigations	None were recorded within 50m of the site.
Remediated site	None within 50m.
Coal mining subsidence	Since 31 October 1994, the Coal Authority has not received a damage notice or claim for the subject property or any property within 50 meters of the enquiry boundary. No current Stop Notice is delaying the start of remedial works or repairs to the property. The Coal Authority is not aware of any request to carry out preventive works before coal is worked under section 33 of the Coal Mining Subsidence Act 1991.
Mine gas	None within 500m.
Mine water treatment	None within 500m.
Licensing and future mining activity or remedial activity	Report findings in relation to subject site
Future underground mining	None recorded.
Coal mining licensing	None within 200m.
Court orders	None recorded.
Section 46 notices	None given stating land is at risk from subsidence.
Withdrawal of support	The property is in an area where a notice to withdraw support was given in 1949. The property is not in an area where a notice has been given under section 41 of the Coal Industry Act 1994, cancelling the entitlement to withdraw support.
Other	None listed.

REL Comment

Past Underground Mining

The Coal Authority Consultants' Report states that there are recorded workings beneath the site, within the Swansea No. 3 seam, at depths of between 66m and 95m bgl, with the thickness of extraction being between 1.09m and 1.78m. Anecdotal information indicates that Swansea No. 3 seam is also known as the Graigola Seam, in the area where the site is situated.

Probable Underground Mining

According to the consultants' coal mining report, the site is not at risk of probable unrecorded shallow workings. One outcrop of coal is recorded on-site, named as the Swansea Five Feet seam, recorded locally as thin, it is unlikely to have been viable for extraction, supporting the premiss that there are no shallow probable coal workings on site.

Mine (Stythe) Gas

Whilst the CA has no record of mine gas emissions affecting the subject property, the risk of Stythe gas propagating from mine workings and migrating into structures / confined spaces at the surface cannot be fully discounted by desk study alone.

Mine Entry

No records exist within 100m of the enquiry boundary, with the nearest recorded feature located approximately 250m to the west. Therefore, the site is not within a risk area, even when considering a potential departure zone from this marked location.

6. Regulatory Enquiries

Planning

A review of the Cyngor Abertawe Swansea Council planning portal has identified no planning applications in relation to the subject site.

7. Previous Reports

The client has provided REL with a previous coal mining risk assessment completed by Sirius Geotechnical Ref: C9707 summary of parament information is found below.

Historical coal mining activities had been identified in the surrounding area, including deep coal mining beneath the site and a conjectured outcrop of the Swansea Five-Foot coal seam within the boundary. While no recorded shallow mine workings or mine entries had existed, the possibility of unrecorded features could not be entirely dismissed. Geological records suggested that the Swansea Five-Foot Seam was "thin" in this area and might not have been extensively worked. Additionally, no significant faults, fissures, or mining-related surface hazards had been recorded within or near the site.

The report concluded that the overall risk from unrecorded mine workings is currently considered as low.

8. Coal Mining Risk Assessment (CMRA)

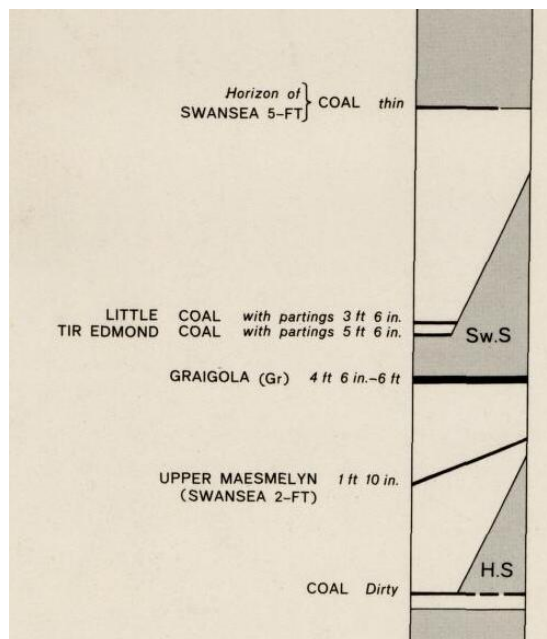
The site is situated within a Coal Mining Reporting Area, and a small linear section of the site is shown to be in a Development High Risk Area (DHRA), associated with location of the crop of a coal seam. The data reviewed does not indicate the presence of any areas of recorded or unrecorded (probable) shallow coal mine workings below the site and the site is not in an area affected by surface mining. The table below summarises the risks identified by this desk study:

Coal Mining Issue	Plausible Risk?		Risk Assessment / Comment
	Yes	No	
Recorded shallow coal mining		X	No shallow coal mine workings are recorded by the CA below the site.
Probable (unrecorded) shallow coal mining		X	The area in which the site is situated is not shown to be affected by probable unrecorded shallow workings. One coal seam is conjectured to subcrop at the site, Swansea Five Foot seam, locally recorded to be 'thin' across the region. No historical coal mining features / infrastructure has been identified on or within close proximity to the site (e.g., railways, mine shafts, etc.) which may indicate historic coal mining has occurred.
Combustible material and underground fires.		X	No historical evidence of underground fires has been identified beneath the property.
Fault Reactivation.		X	There are no geological faults present in the vicinity of the site.
Surface mining (opencast workings)		X	There are no Instances of Surface mining present in the vicinity of the site.
Mine entries (shafts / adits)		X	There are no recorded mine entries in, or within 100m of, the site. Records are available for deeper coal mine workings below the site and as such the location of any mine entries is anticipated to be documented and any associated risk is considered to be very low.
Coal mining geology (fissures)		X	No geological faults are recorded within the site.
Record of past mine gas emissions		X	No record of mine gas emissions impacting the property has been noted by the CA.
Potential for mine gas emissions.	X		No data has been available for review; however, workings at depths could represent a potential source of mine gas, although the risk is considered to be very low.
Contact between compressible/flam mable coal, structures (foundations), and service runs.	X		Coal is shown to subcrop across the western portion of the site and components of the proposed development may be situated on the coal crop. This coal seam may be close to the surface. Therefore, there is the possibility that future foundations or service/cable runs could come into contact with coal. (see Appendix II for proposed layout plan in relation to coal crops.

Further assessment and discussion are provided on the following page with respect to unrecorded (probable) and recorded coal mine workings, mine gas and the proximity of coal to future foundations and buried services.

The Coal Authority Consultants' Coal Mining Report confirms that the development site is located in an area with recorded coal mine workings. These are recorded within the Swansea No. 3 (Graigola) seam, with the shallowest depth of workings at 66m below ground level (Bcgl). This seam is the only recorded worked seam beneath the site, with extraction occurring at varying depths between 66m and 95m Bcgl from 1868 to 1923.

The site is positioned at a point where the Swansea 5-Ft seam is recorded at the surface, the extract of the generalised vertical section below, illustrates that there is a significant rock interval between the Swansea 5-ft and Swansea No.3 (Graigola) seams.



Extract of the Generalised Vertical Section from map sheet SN70SW 10,560 scale

Where coal mine workings are present within the Swansea No.3 (Graigola) seam there will be sufficient rock cover present to prevent voids from migrating to the surface and affecting surface ground stability.

With respect to unrecorded (probable) shallow coal mine workings, these could only plausibly be present within the Swansea Five Foot coal seam. However, this seam is documented as thin across the region and as such it is inferred that it would not have been commercially viable for extraction. Furthermore, where this seam is present below the site, it is shown to form a geological syncline, in essence a 'basin' of coal, and as such the overall volume of coal available within the syncline would have been too small for the seam to have been viable for extraction.

Therefore, the risk to ground stability from shallow unrecorded (probable) or recorded coal mine workings is considered to be low for the proposed development and no further intrusive works are deemed necessary to assess potential ground stability issues from mine workings.

However, a number of components of the proposed development are noted to be positioned on or in close proximity to a section of the sub-crop of the Swansea Five Foot coal seam, the proposed development has been overlain on a plan showing the location of the coal seam and the plan is presented in Appendix II. Based upon the current layout, the components of the proposed development that have the potential to be in close proximity to the coal crop are as follows;

- Two transformers,
- Customer cabin,
- DNO cabin,
- DNO mast.

Given that there is the potential for a lack of drift deposits below some portions of the site, there is the possibility that coal could be at or very close to the surface. Therefore, there is the potential for future foundations and services associated with the abovementioned components of the development to be in contact with or be in close proximity to the coal.

Where coal is present at or close to founding depth or buried services there is a potential risk due to the potential for combustion within the seam creating sufficient volume change to affect settlement of foundations.

A watching brief should be maintained during future ground works and if coal is encountered within the foundation excavations appropriate mitigation measures will need to be incorporated to protect foundations and buried services.

9. Conclusions and Recommendations

The assessment has identified that a coal seam named as the Swansea Five Foot seam may be present at shallow depth beneath the western portion of the site. British Geological Survey (BGS) records indicate that this seam is 'thin' across the region and the crop of the seam forms an elongated oval through the site, indicating it is within geological syncline.

There are no documented shallow coal mine workings or mine entries on-site or surrounding the site, furthermore, the site is not shown to be in an area that may be affected unrecorded shallow workings.

When considering that the Swansea Five Foot coal seam is documented as thin across the region it is inferred that it would not have been commercially viable for extraction. Furthermore, the seam is shown to form a geological syncline, in essence a 'basin' of coal, on the area of the site, and as such, not only would the thickness of the coal seam have meant it was not commercially viable for extraction, but the overall limited volume of coal available within the syncline would have further rendered this coal seam to be unviable for extraction.

When considering recorded coal mine workings; the shallowest extraction of coal was from depths of 66 metres or deeper. Workings at this depth will not represent a risk to ground stability at the surface of the site.

There is not considered to be significant risk from ground gas with respect to the proposed development of a solar farm.

The proposed end use of a solar farm is deemed to be of an overall low sensitivity, albeit some aspects of the development may be considered to have a very low sensitivity i.e. the solar panels, whilst other aspects of the development including transformers, customer cabin, Distribution Network Operator (DNO) cabin and DNO mast may be considered to have a slightly increased level of sensitivity.

Nevertheless, and based on the assessment undertaken, none of the individual components of the proposed development are considered to be at risk from ground stability associated with historic coal mining activity.

Recommendations

Based upon the information reviewed, the site and proposed development are not considered to be at risk from ground instability related to historic shallow coal mine workings. Therefore, no further intrusive works are considered to be required with respect to shallow coal mine workings.

However, where the Swansea Five Foot seam is shown to subcrop at the site and where these locations coincide with further development, there is the potential for future foundations or buried services to come into contact with coal. Therefore, a watching brief should be maintained during ground works and if coal is encountered within the foundation excavations or service runs the following advice should be considered.

- A cover of 0.5m of non-combustible natural deposits should be maintained between the shallow coals and base/sides of the foundations.
- Poor quality of thin coals <0.5m in thickness are not considered to represent a significant risk.
- Foundations that are likely to have less than 0.5m cover will have to be deepened through the coal and based within the non-combustible deposits below.
- Likewise, where service runs pass through or close (within 0.5m) of coal seams, measures will need to be taken to ensure there is no future risk of combustion.

In addition to the recommendations provided above, further mitigation measures may also need to be considered, and it is recommended a design engineer is consulted to ensure all necessary precautions are adopted.

APPENDIX I COAL AUTHORITY CONSULTANTS COAL MINING REPORT



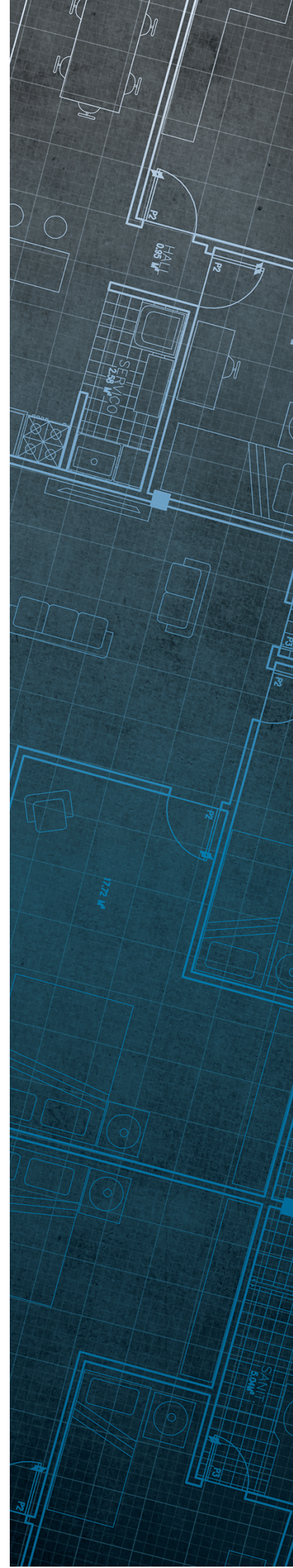
The Coal
Authority

Consultants Coal Mining Report

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SA7 9HP

Date of enquiry:	6 February 2023
Date enquiry received:	6 February 2023
Issue date:	6 February 2023

Our reference:	51003337190001
Your reference:	23156/C9707/AL



Consultants

Coal Mining Report

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

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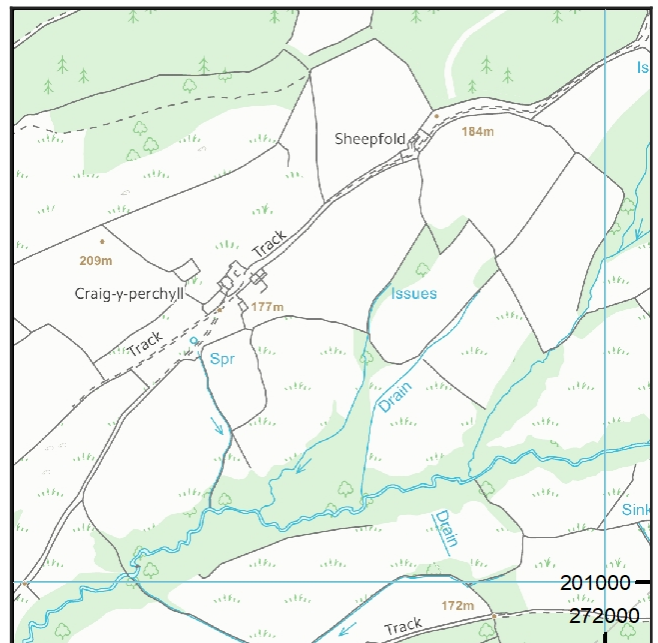
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Approximate position of property



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Section 1 – Mining activity and geology

Past underground mining

Colliery	Seam	Mineral	Coal Authority reference	Depth (m)	Direction to working	Dipping rate of seam worked (degrees)	Dipped direction of seam worked	Extraction thickness (cm)	Year last mined
unnamed	SWANSEA NO.3	Coal	4FFN	66	Beneath Property	4.5	South-West	178	1869
unnamed	SWANSEA NO.3	Coal	4G06	69	Beneath Property	4.3	South-West	167	1915
unnamed	SWANSEA NO.3	Coal	4FFZ	87	Beneath Property	4.9	South-West	109	1923
unnamed	SWANSEA NO.3	Coal	4FFM	95	Beneath Property	0.6	South	178	1868

Probable unrecorded shallow workings

None.

Spine roadways at shallow depth

No spine roadway recorded at shallow depth.

Mine entries

None recorded within 100 metres of the enquiry boundary.

Abandoned mine plan catalogue numbers

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

SW1941	R10961	SWR1936
R12055	SW1987	SWR1672
SWR3156	SWR1671	SWR2710

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

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

Outcrops

Seam name	Mineral	Seam workable	Distance to outcrop (m)	Direction to outcrop	Bearing of outcrop
UNNAMED	Coal	Yes	47.4	North-West	43
UNNAMED	Coal	Yes	Within	N/A	234

Geological faults, fissures and breaklines

No faults, fissures or breaklines recorded.

Opencast mines

None recorded within 500 metres of the enquiry boundary.

Coal Authority managed tips

None recorded within 500 metres of the enquiry boundary.

Section 2 – Investigative or remedial activity

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

Site investigations

None recorded within 50 metres of the enquiry boundary.

Remediated sites

None recorded within 50 metres of the enquiry boundary.

Coal mining subsidence

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

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

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

Mine gas

None recorded within 500 metres of the enquiry boundary.

Mine water treatment schemes

None recorded within 500 metres of the enquiry boundary.

Section 3 – Licensing and future mining activity

Future underground mining

None recorded.

Coal mining licensing

None recorded within 200 metres of the enquiry boundary.

Court orders

None recorded.

Section 46 notices

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

Withdrawal of support notices

The property is in an area where a notice to withdraw support was given in 1949.

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

Payments to owners of former copyhold land

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

Section 4 – Further information

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

Future development

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

MINE GAS: Please note, if there are no recorded instances of mine gas within 500m of the enquiry boundary, this does not mean that mine gas is not present within the vicinity. The Coal Authority Mine Gas data is limited to only those sites where a Mine Gas incident has been recorded. Developers should be aware that the investigation of coal seams, mine workings or mine entries may have the potential to generate and/or displace underground gases. Associated risks both to the development site and any neighbouring land or properties should be fully considered when undertaking any ground works. The need for effective measures to prevent gases migrating onto any land or into any properties, either during investigation or remediation work, or after development must also be assessed and properly addressed. In these instances, the Coal Authority recommends that a more detailed Gas Risk Assessment is undertaken by a competent assessor.

Development advice

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

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

Section 5 – Data definitions

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

Past underground coal mining

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

Probable unrecorded shallow workings

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

Spine roadways at shallow depth

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

Mine entries

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

Abandoned mine plan catalogue numbers

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

Outcrops

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

Geological faults, fissures and breaklines

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

Opencast mines

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

Coal Authority managed tips

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

Site investigations

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

Remediated sites

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

Coal mining subsidence

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

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

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

Mine gas

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

Mine water treatment schemes

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

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

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

Future underground mining

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

Coal mining licensing

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

Court orders

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

Section 46 notices

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

Withdrawal of support notices

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

Payment to owners of former copyhold land

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

The map highlights any specific surface or subsurface features within or near to the boundary of the site.

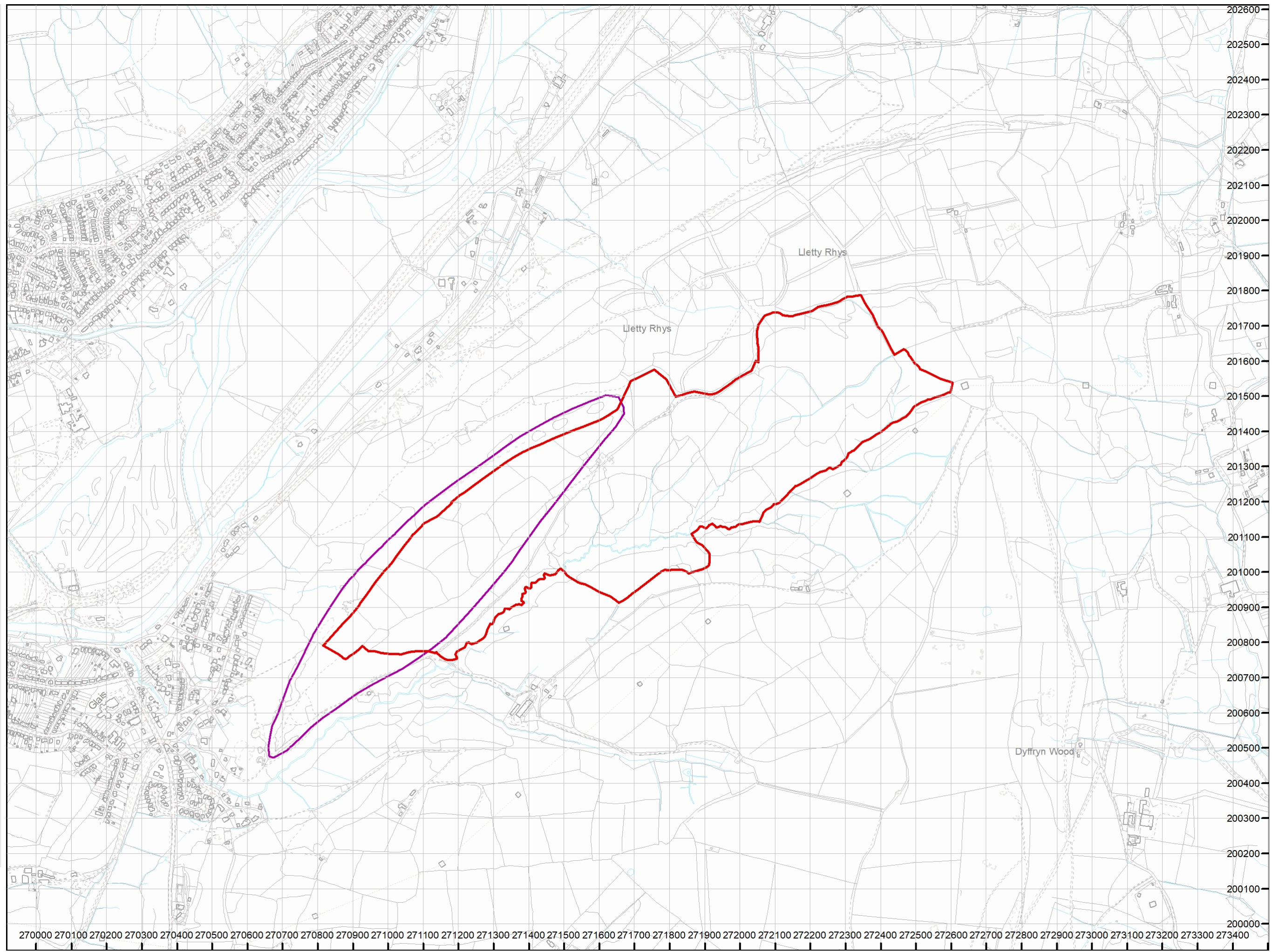
Key

Approximate position of the enquiry boundary shown 

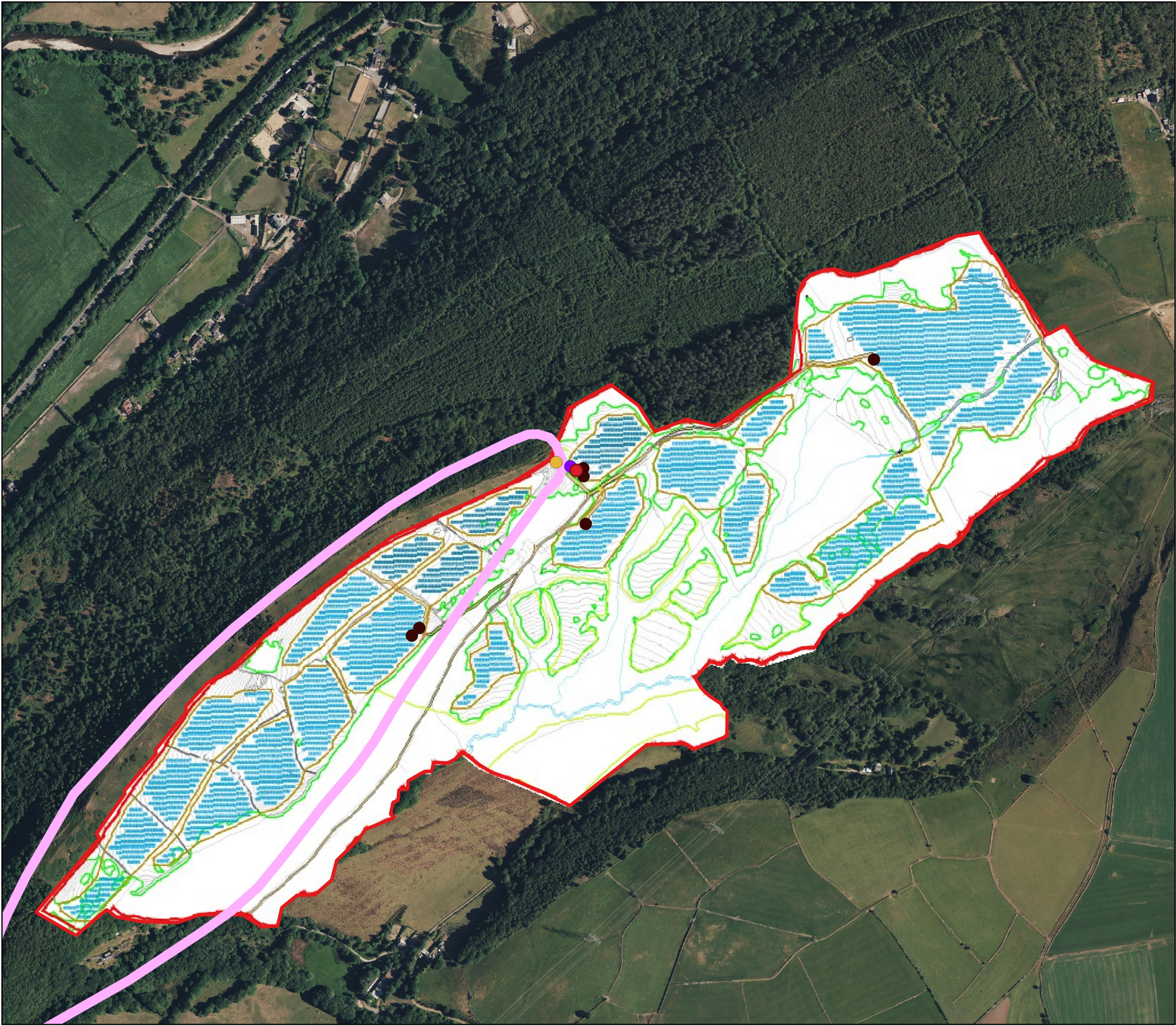
Outcrop (Proven) 

How to contact us

0345 762 6848 (UK)
+44 (0)1623 637 000 (International)
www.groundstability.com



APPENDIX II SUPPORTING INFORMATION



Legend

Site Setup

- Proposed Customer Cabin
- Proposed DNO Comms Mast
- Proposed Transformer
- Proposed DNO Cabin
- Coal Outcrop
- Site Boundary

0 50 100 150 200 250 m

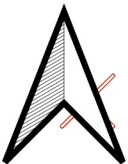


Figure Proposed Sensitive Structure Location in Relation to Recorded Coal Outcrop

Job Land Off Graig Y Pal, Glais, Swansea

Client CYP Solar LTD

Figure No.	Revision	Date
1	1	04 June 2025

Drawn by	Checked by	Scale
CD	MH	1:5,697.20627

Job No. 250303

