

COAL MINING RISK ASSESSMENT REPORT

Proposed Extension to Trelewis
Infants School, Trelewis

Prepared for:

Blaenau Gwent County Borough Council
& Merthyr Tydfil County Borough Council

March 2019

Job No: 15335



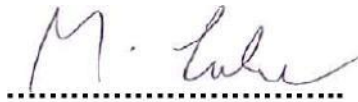

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REPORT TITLE : **Coal Mining Risk Assessment Report:
Trelewis Infants School, Trelewis**

REPORT STATUS : **Final**

JOB NUMBER : **15335**

DATE : **March 2019**

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Executive Summary

Site Location	<i>The site is centred on a National Grid Reference of 310582 197415.</i>
Site History	<i>The site remained field land until circa 1986 when the Primary School was constructed and the site developed as a playground. A number of mining features were identified in the surrounding area.</i>
Geology	<i>The site is shown to be underlain by the mainly sandstones of the Grovesend Beds of the Carboniferous period.</i> <i>The conjectural outcrop of the Mynyddislwyn coal seam is shown to be present 40m to the west of the site. Assuming an easterly dip of 5° the Mynyddislwyn coal seam will underlie the site at between 15 and 25m depth.</i> <i>The geology map shows evidence of workings within the Mynyddislwyn coal seam in the form of the former Pont-newydd Colliery and underground fault lines to the east of the site.</i> <i>The map shows the site bedrock geology to be overlain by Devensian Sands and Gravel superficial deposits.</i>
Coal Mining	<i>The property in the red line boundary shown on the mining report is in an area that could be affected by underground mining in 5 seams of coal at shallow to 700m depth, and last worked in 1969.</i> <i>The Coal Authority has no record of a mine gas emission requiring action.</i> <i>The report also states that within of within 20m of the boundary of the property (red line area) there are 6 mine entries, the approximate positions of which are shown on the enquiry boundary plot.</i>
Assessment of the Risk from Past Shallow Coal Mining	<i>There is a risk to the development from potential shallow mine workings within the Mynyddislwyn Coal Seam.</i> <i>This risk should be quantified by the drilling of a number of rotary probeholes in and around the proposed extension.</i> <i>There are no mine entries impacting the site.</i>

TABLE OF CONTENTS

SECTION 1 Introduction and Proposed Development

- 1.1 Limitations and Exceptions

SECTION 2 Review of Existing Data

- 2.1 Physical Setting and Current Site Use
- 2.2 History
- 2.3 Geology
- 2.4 Coal Mining

SECTION 3 Assessment of the Risk from Past Shallow Coal Mining

- 3.1 Underground Mining
- 3.2 Adits and Shafts
- 3.3 Conclusions

Annexes

- Annex A Coal Authority Report

Figures

- Figure 2.1 Site Location
- Figure 2.2 Extract From OS Map 1875 - 1879
- Figure 2.3 Extract From OS Map 1993
- Figure 2.4 Extract from Geological Map
- Figure 2.5 Showing Site in Relation to Mining Report Red Line Boundary

SECTION 1 Introduction and Proposed Development

Methyr Tydfil County Borough Council (MTCBC) is proposing the construction of a new extension (the site) at Trelewis Primary School, Trelewis.

Blaenau Gwent County Borough Council (BGCBC) are working Collaboratively with MTCBC to satisfy planning requirements such as mining considerations.

Terra Firma (Wales) Limited has been commissioned by BGCBC to undertake a Coal Mining Risk Assessment Report (CMRA) for the site.

The main objectives of the CMRA were to:

- Determine the type of the underlying solid geology and the depth to and amount of sound rock head cover above the shallowest workable coal seam/ironstone vein
- Determine the risk, if any from past shallow underground mining
- Provide recommendations with regard to any other mining aspects pertaining to the development

In order to achieve the above objectives, Terra Firma (Wales) Limited carried out an assessment programme including a review of existing data.

1.1 Limitations and Exceptions

The CMRA has been conducted and this report has been prepared for the sole internal reliance of MTCBC and BGCBC and their design and construction team. This report shall not be relied upon or transferred to any other parties without the express written authorisation of Terra Firma (Wales) Limited. If an unauthorised third party comes into possession of this report they rely on it at their peril and the authors owe them no duty of care and skill.

The report represents the findings and opinions of experienced geo-environmental and geotechnical consultants. Terra Firma (Wales) Limited does not provide legal advice and the advice of lawyers may also be required.

SECTION 2 Review of Existing Data

2.1 Physical Setting and Current Site Use

The site is centred on a National Grid Reference of 310582 197415.

The site's location is illustrated on **Figure 2.1** below.

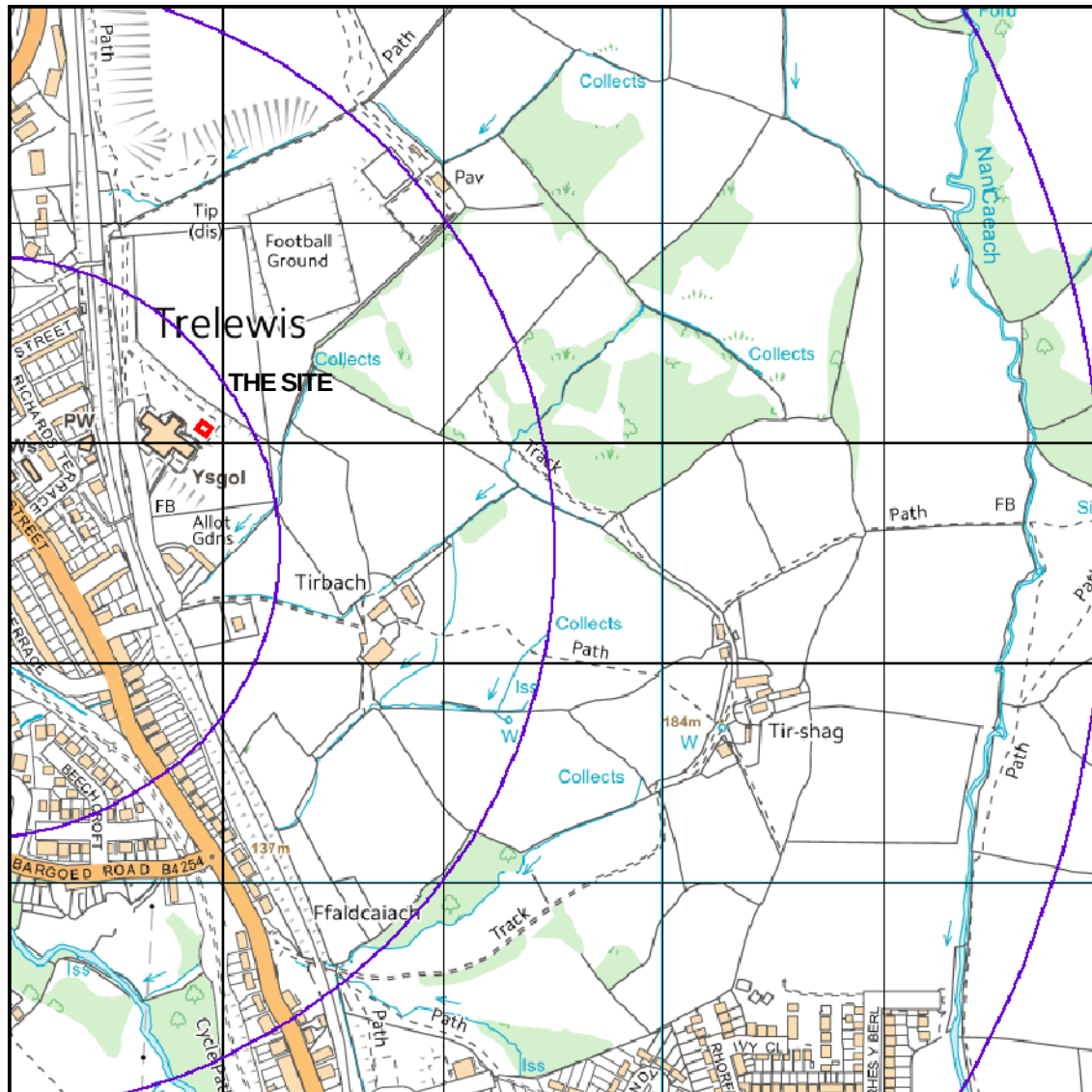


Figure 2.1: Site Location

The site is currently occupied by a school yard.

2.2 History

Historical maps of the site have been obtained from the Landmark Information Group from an adjacent site. Extracts from the most relevant plans have been reproduced in Figures 2.2 and 2.3 on the following pages. It should be noted that distances, where quoted are approximate.

2.2 Site History (Continued)

1875 - 1879

The 1875 - 1879 map shows the site to be located on open farmland. The outlines of a railway under construction is shown to the west of the site. Pont-newydd Colliery is shown 120m to the south of the site while an air shaft is shown 95m to the east of the site. A gravel pit is also located close to the Colliery. An extract from this map is shown in **Figure 2.2** below.

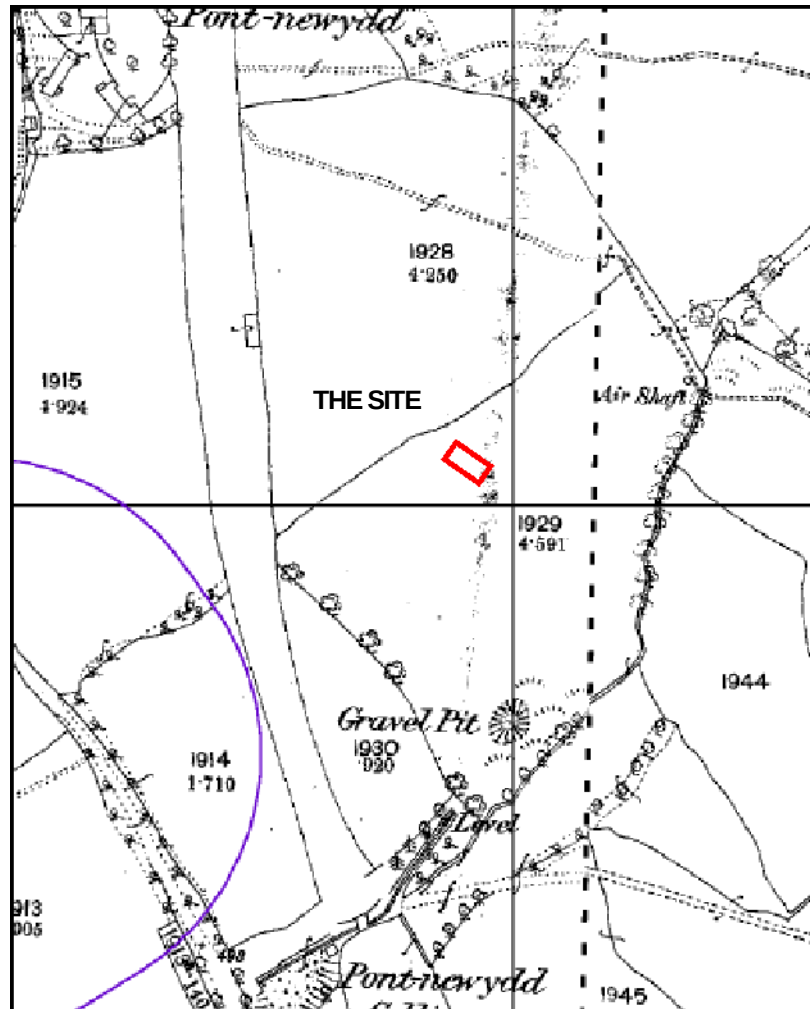


Figure 2.2 - Extract From OS Map 1875-1879

1900

The site is shown to be unchanged as field land. The railway has now been constructed and the town of Trelewis is now in evidence to the east of the railway. Pont-newydd Colliery is now shown to be disused and the Air Shaft shown to the east of the site on the previous edition is no longer in evidence.

1986

The 1986 edition shows Trelewis Primary School to have been constructed with the site located in the school yard.

2.2 Site History (Continued)

1993

The 1993 map shows little change to the site and surrounding area from the 1986 map. An extract from the map is shown below in **Figure 2.3**.

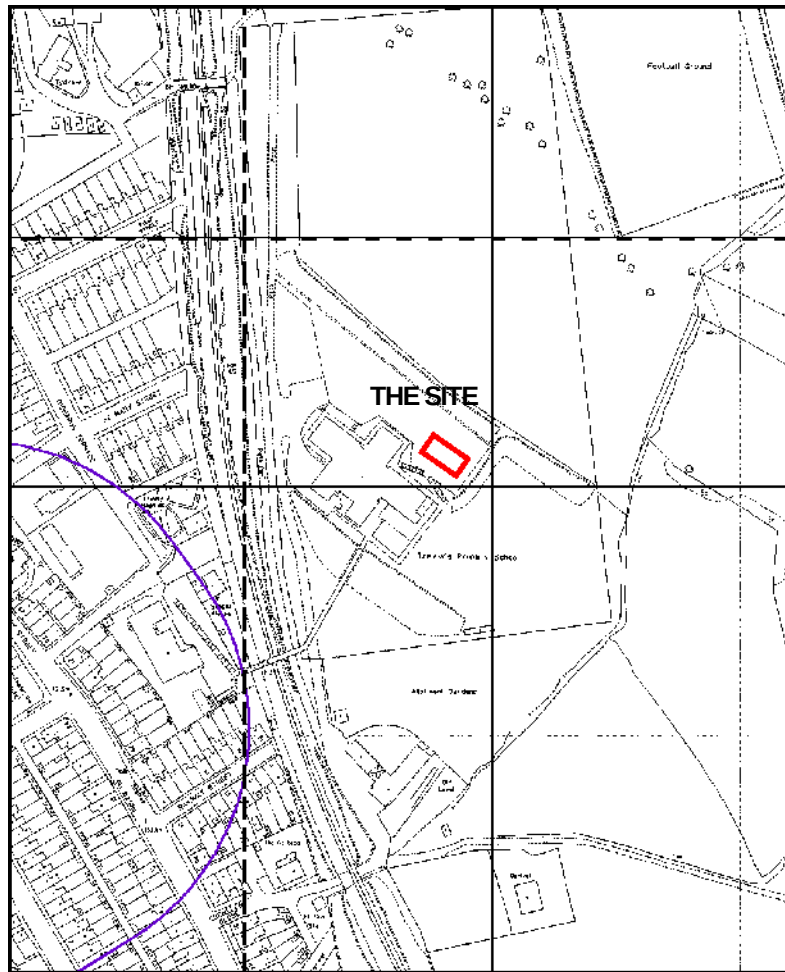


Figure 2.3 - Extract From OS Map 1993

2.3 Geology

The 1:10,560 scale geological map of the area (sheet ST19NW) was consulted for the site. An extract from the map is presented on the following page in **Figure 2.4**.

2.3 Geology (Continued)

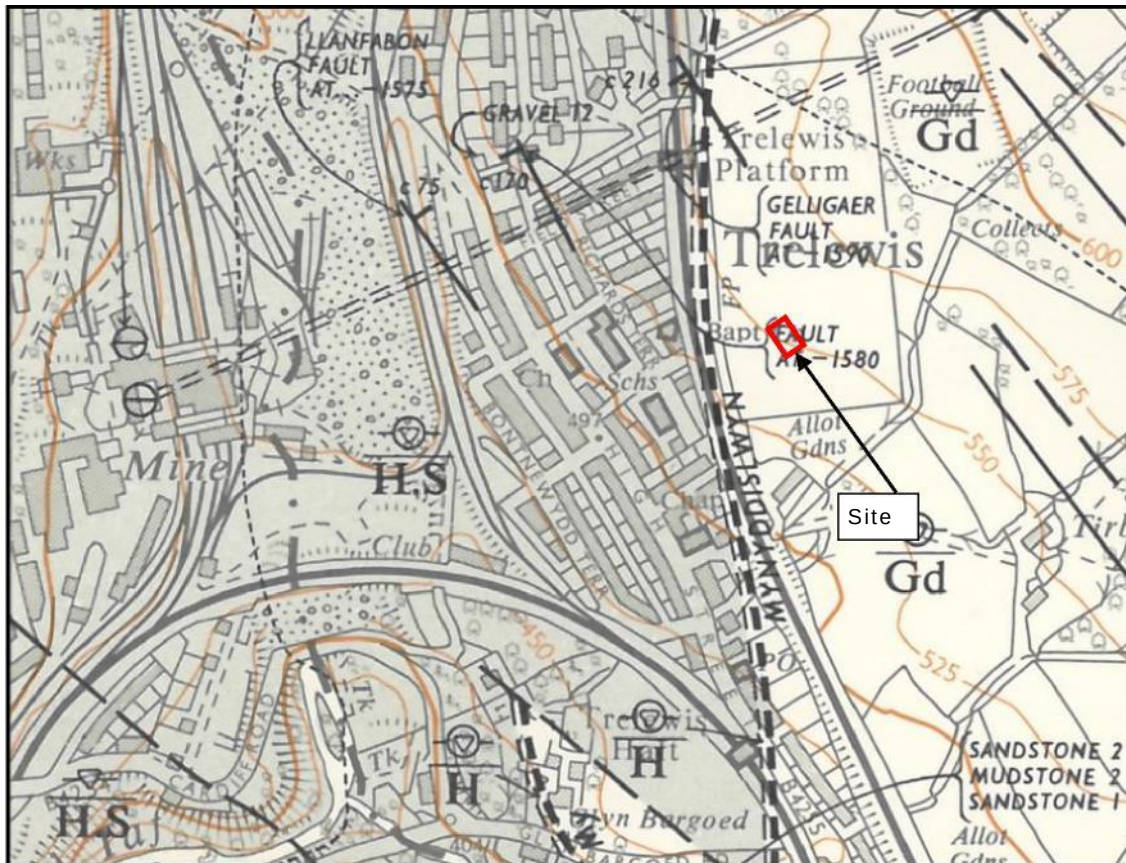


Figure 2.4 - Extract from Geological Map

The site is shown to be underlain by the mainly sandstones of the Grovesend Beds. This sedimentary bedrock was formed approximately 307 to 309 million years ago in the Carboniferous period when local environments were dominated by rivers.

The conjectural outcrop of the Mynyddislwyn coal seam is shown to be present 40m to the west of the site. No dips are shown on the map, however, dips within the Mynyddislwyn coal seam are known to be shallow and due to the topography of the site the seam will underlie the site at shallow depth. Assuming an easterly dip of 5° the Mynyddislwyn coal seam will underlie the site at between 15 and 25m depth.

The geology map shows evidence of workings within the Mynyddislwyn coal seam in the form of the former Pont-newydd Colliery and underground fault lines to the east of the site.

The map shows the site bedrock geology to be overlain by Devensian Sands and Gravel superficial deposits. These - deposits formed up to 2 million years ago in the quaternary period when local conditions were ice age.

2.4 Coal Mining

The CON29M Report was procured from the Coal Authority for the whole red boundary area. The report is presented in **Annex A**. The location of the site within the red line boundary is shown below in **Figure 2.5**.

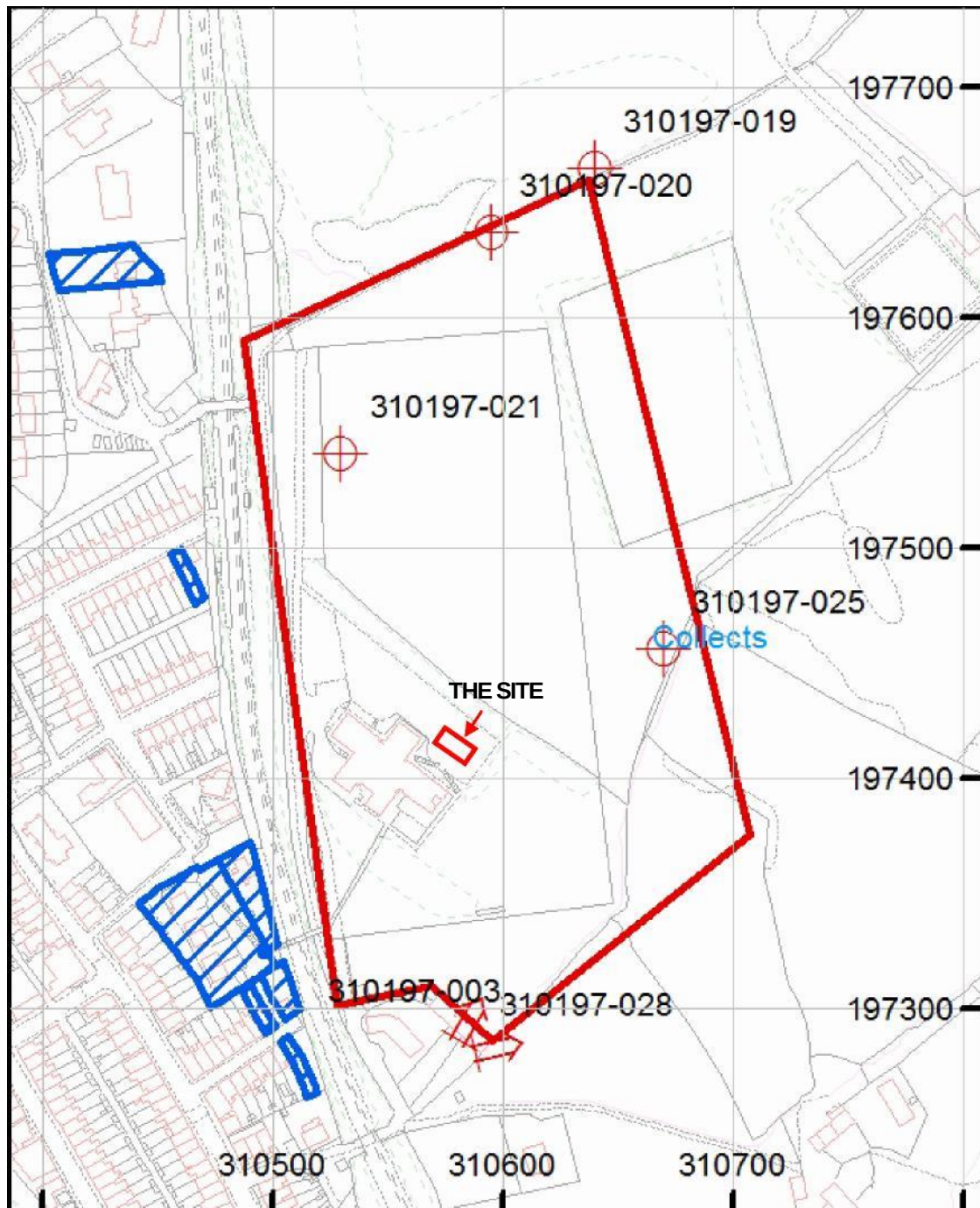


Figure 2.5 - Showing Site in Relation to Mining Report Red Line Boundary

2.4 Coal Mining (Continued)

The report concludes the following:

2.4.1 Coal Mining

The property is in an area that could be affected by underground mining in 5 seams of coal at shallow to 700m depth, and last worked in 1969.

The Coal Authority has no record of a mine gas emission requiring action.

2.4.2 Shafts and Adits

The report also states that within of within 20m of the boundary of the property (red line area) there are 6 mine entries, the approximate positions of which are shown on the enquiry boundary plot.

It can be seen from the **Figure 2.5** that none of the above mine entries are within influencing distance of the site.

2.4.3 Coal Ming Subsidence

The report also states that there are 7 claims within 50m of the property. The claims are located to the east of the outcrop of the Mynyddislwyn coal seam and will therefore be related to subsidence related to deep 'long wall' mining. These settlements occur within a short time following mining. All such settlements will therefore have occurred by now and are no risk to the future development.

SECTION 3 Assessment of the Risk from Past Shallow Coal Mining

3.1 Underground Mining

Based upon the desk study information, the stratigraphical sequence within 30m of the ground surface of the site could be:

- Superficial Fluvio glacial deposits
- Measures
- **Mynyddislwyn Coal Seam**
- Measures

3.2 Adits and Shafts

There are no mine entries within influencing distance of the site.

3.3 Conclusions

The historical and geological information for the site records workings within the Mynyddislwyn coal seam in the general area of the site. The Coal Authority report also confirms workings within the Mynyddislwyn coal seam within influencing distance of the mining report red line boundary.

Given the site proximity to the Mynyddislwyn coal seam out crop and the presence of the railway it is considered unlikely that workings have taken place beneath the actual site.

However, the possibility of unrecorded workings cannot be totally discounted.

It is therefore, concluded that there is a potential risk to the development from old workings within the Mynyddislwyn coal seam. This risk should be investigated by the use of rotary probe holes sunk within and around the proposed building.

Annex A
Coal Authority Report



The Coal
Authority

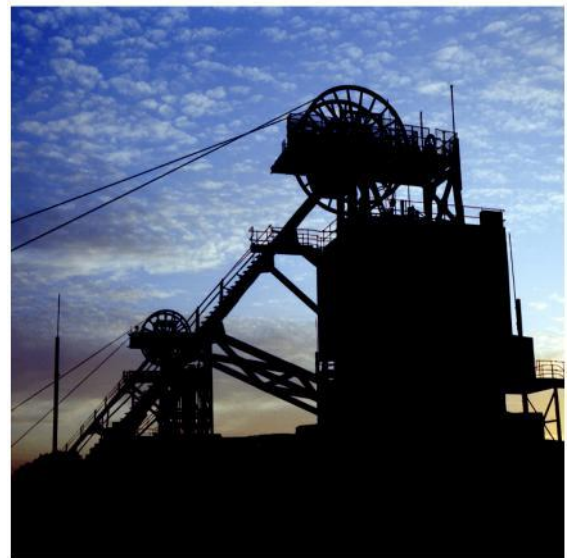
Resolving the **impacts** of mining

CON29M Non-Residential Mining Report

TRELEWIS PRIMARY SCHOOL
HIGH STREET
TRELEWIS
TRESHARRIS
MERTHYR TYDFIL UA
CF46 6AH

Date of enquiry:	19 January 2017
Date enquiry received:	19 January 2017
Issue date:	19 January 2017

Our reference:	51001347402001
Your reference:	BGCBC TS1083



CON29M Non-Residential Mining Report

This report is based on, and limited to, the records held by the Coal Authority and the Cheshire Brine Subsidence Compensation Board's records, at the time we answer the search.

Client name

Blaenau Gwent County Borough Council

Enquiry address

TRELEWIS PRIMARY SCHOOL, HIGH STREET,
TRELEWIS, TREHARRIS, MERTHYR TYDFIL UA,
CF46 6AH

How to contact us

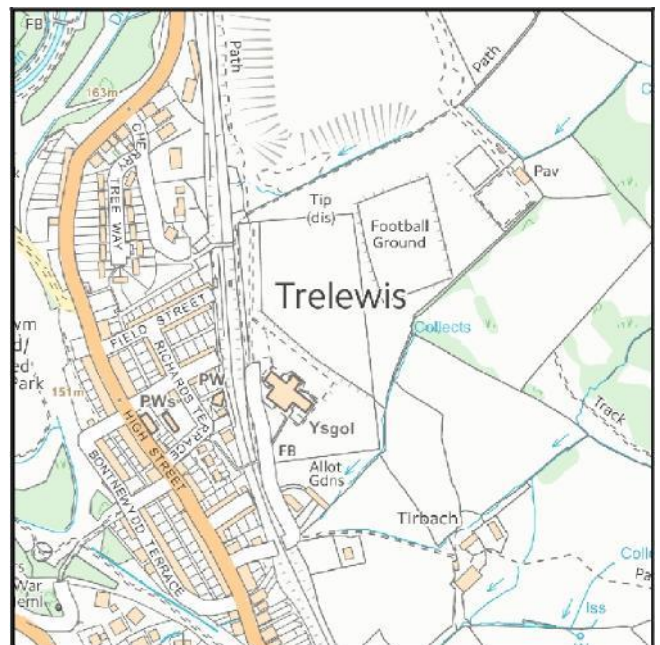
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Approximate position of property



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Summary

Has the search report highlighted evidence or potential of		
1	Past underground coal mining	Yes
2	Present underground coal mining	No
3	Future underground coal mining	Yes
4	Mine entries	Yes
5	Coal mining geology	No
6	Past opencast coal mining	No
7	Present opencast coal mining	No
8	Future opencast coal mining	No
9	Coal mining subsidence	Yes
10	Mine gas	No
11	Hazards related to coal mining	No
12	Withdrawal of support	Yes
13	Working facilities order	No
14	Payments to owners of former copyhold land	No
15	Information from the Cheshire Brine Subsidence Compensation Board	No

Further recommended reports
Mine entry interpretive report Mine entry plan and data sheets
Coal mining subsidence claims 50m buffer report Coal mining subsidence claims history

For detailed findings, please go to page 4.

Detailed findings

1. Past underground coal mining

The property is in a surface area that could be affected by underground mining in 5 seams of coal at shallow to 700m depth, and last worked in 1969.

2. Present underground coal mining

The property is not within a surface area that could be affected by present underground mining.

3. Future underground coal mining

The property is not in an area where the Coal Authority has plans to grant a licence to remove coal using underground methods.

The property is not in an area where a licence has been granted to remove or otherwise work coal using underground methods.

The property is not in an area likely to be affected from any planned future underground coal mining.

However, reserves of coal exist in the local area which could be worked at some time in the future.

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

4. Mine entries

Within, or within 20 metres of, the boundary of the property there are 6 mine entries, the approximate positions of which are shown on the enquiry boundary plot.

There is no record of what steps, if any, have been taken to treat the mine entries.

There may however be mine entries/additional mine entries in the local area which the Coal Authority has no knowledge of.

For an additional fee, the Coal Authority can provide a Mine Entry Interpretive Report. The report will provide a separate assessment for the mine entry/entries referred to in this report. It gives an opinion on the likelihood of mining subsidence damage caused from ground movement as a consequence of the mine entry/entries. It also gives details of the remedies available for subsidence damage where the mine entry was sunk in connection with coal mining.

Please note that it may not be possible to produce a report if the main building to the property cannot be identified from Coal Authority plans (ie for development sites and new build).

For further advice on how to order this additional information please visit www.groundstability.com.

5. Coal mining geology

The Coal Authority is not aware of any damage due to geological faults or other lines of weakness that have been affected by coal mining.

6. Past opencast coal mining

The property is not within the boundary of an opencast site from which coal has been removed by opencast methods.

7. Present opencast coal mining

The property does not lie within 200 metres of the boundary of an opencast site from which coal is being removed by opencast methods.

8. Future opencast coal mining

There are no licence requests outstanding to remove coal by opencast methods within 800 metres of the boundary.

The property is not within 800 metres of the boundary of an opencast site for which a licence to remove coal by opencast methods has been granted.

9. Coal mining subsidence

There are 7 claim(s) within 50 metres of the property boundary that do not match the property address. These are shown on the enquiry boundary plot.

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.

If further subsidence damage claims information is required, please visit www.groundstability.com.

0. Mine gas

The Coal Authority has no record of a mine gas emission requiring action.

11. Hazards related to coal mining

The property has not been subject to remedial works, by or on behalf of the Authority, under its Emergency Surface Hazard Call Out procedures.

12. Withdrawal of support

The property is in an area where a notice to withdraw support was given in 1976.

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.

13. Working facilities order

The property is not in an area where an order has been made, under the provisions of the Mines (Working Facilities and Support) Acts 1923 and 1966 or any statutory modification or amendment thereof.

14. 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.

15. Information from the Cheshire Brine Subsidence Compensation Board

The property lies outside the Cheshire Brine Compensation District.

Comments on the Coal Authority information

The Coal Authority own the copyright in this report and the information used is protected by our database right.

The boundary plot shows the approximate location of the disused mine entry/entries referred to in this report. For reasons of clarity, mine entry symbols may not be drawn to the same scale as the plan.

Property owners have the benefit of statutory protection (under the Coal Mining Subsidence Act 1991*). This contains provision for the making good, to the reasonable satisfaction of the owner, of physical damage from disused coal mine workings including disused coal mine entries. A leaflet setting out the rights and obligations of either the Coal Authority or other responsible persons under the 1991 Act can be obtained by visiting www.groundstability.com.

If you wish to discuss the relevance of any of the information contained in this report, you should seek the advice of a qualified mining engineer or surveyor. If you or your advisor wish to examine the source plans from which the information has been taken, these are available to view, free of charge, at our Head Office in Mansfield. To book an appointment please ring 01623 637225. Should you or your advisor wish to carry out a physical investigation that may enter, disturb or interfere with any disused mine entry, prior permission of the owner must be sought. For coal mine entries, the owner will normally be the Coal Authority.

The Coal Authority, regardless of responsibility and in conjunction with other public bodies, provide an emergency call out facility in coalfield areas to assess the public safety implications of mining features (including disused mine entries). Our emergency telephone number is 01623 646333.

*Note, this Act does not apply where coal was worked or gotten by virtue of the grant of a gale in the Forest of Dean, or any other part of the Hundred of St. Briavels in the county of Gloucester.

In view of the mining circumstances a prudent developer would seek appropriate technical advice before any works are undertaken.

Therefore 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 good engineering practice developed for mining areas. No development should be undertaken that intersects, disturbs or interferes with any coal or mines of coal without the permission of the Coal Authority. Developers should be aware that the investigation of coal seams/former mines of coal may have the potential to generate and/or displace underground gases and these risks both under and adjacent to the development should be fully considered in developing any proposals. The need for effective measures to prevent gases entering into public properties either during investigation or after development also needs to be assessed and properly addressed. This is necessary due to the public safety implications of any development in these circumstances.

Additional remarks

Information provided by the Coal Authority in this report is compiled in response to the Law Society's Con29M Coal Mining and Brine Subsidence Claim enquiries. The said enquiries are protected by copyright owned by the Law Society of 113 Chancery Lane, London WC2A 1PL. Please note that Brine Subsidence Claim enquiries are only relevant for England and Wales. This report is prepared in accordance with the Law Society's Guidance Notes 2006, the User Guide 2006 and the Coal Authority and Cheshire Brine Board's Terms and Conditions applicable at the time the report was produced.

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Enquiry boundary

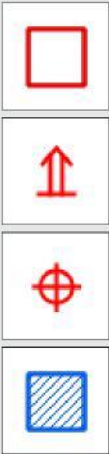
Key

Approximate position of enquiry boundary shown

Disused adit

Disused mineshaft

Coal claims



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Ordnance Survey

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 /thecoalauthority
 /coalauthority

VAT receipt

Issued by	The Coal Authority 200 Lichfield Lane Mansfield Nottinghamshire NG18 4RG
Tax point date	19 January 2017
Issued to	BLAENAU GWENT COUNTY BOROUGH COUNCIL BALDWIN HOUSE VICTORIA BUSINESS PARK EBBW VALE GWENT NP23 8ED
Property search for	TRELEWIS PRIMARY SCHOOL HIGH STREET TRELEWIS Treharris MERTHYR TYDFIL UA CF46 6AH
Reference number	51001347402001
Date of issue	19 January 2017
Cost	£77.00
VAT @ 20%	£15.40
Total received	£92.40
VAT registration	598 5850 68