

**Proposed Extension to the
South Wales Wood Recycling Plant,
Heol Llan
Coity,
Bridgend
Mid Glamorgan**



**Addendum Coal Mining Risk Assessment
Report**

Client

**SOUTH WALES WOOD
RECYCLING LTD**

Report No. :
LAM060/BRY071/CS/001

Revision :
2

Date : 14th May 2020

Proposed Extension to South Wales Wood Recycling Facility at Heol Llan, Coity, Bridgend

Addendum Coal Mining Risk Assessment Report


REPORT LAM060/BRY071/CS/001 CONTROL SHEET


Revision 1 – first issue for comment

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Signature				

Proposed Extension to South Wales Wood Recycling Facility at Heol Llan, Coity, Bridgend

Addendum Coal Mining Risk Assessment Report

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Proposed Extension to South Wales Wood Recycling Facility at Heol Llan, Coity, Bridgend

Addendum Coal Mining Risk Assessment Report

EXECUTIVE SUMMARY

Area of interest	Summary of main text
Introduction	This Addendum Mining Risk Assessment report has been produced to support the planning application to extend the existing South Wales Wood Recycling Limited facility at Heol Llan. It should be read in conjunction with the James Associated 2018 risk assessment report produced as part of the previous planning application (P16/659).
Site Location & Description	<p>The area of the proposed extension to the recycling facility abuts the current site, which is located at Lock House, Heol Llan, Coity, Brymcethin, Bridgend, CF35 6BU. The extension, which is centred around National Grid Reference 263608 183520 is roughly rectangular in shape covering an area of c.0.5ha with approximate dimensions of 45m east/west and 105m north/south.</p> <p>The site is generally level at approximately 95m AOD and is currently used for the storage of the unprocessed wood although previously it was a nurseery with buildings and a yard. Although historically the area is known to have been mined for coal mining using both by opencast and underground methods.</p>
Geology	The published BGS maps indicate that the site is not underlain by superficial deposits. The site is within an area opencast mined and then backfilled and as such is likely to be covered with a layer made ground placed in 1958. Although the boreholes sunk across the current recycling facility yard revealed only limited thicknesses of made ground. The underlying shallow bedrock is the South Wales Lower Coal Measures.
Coal Mining Search	The site is within an area that was used for opencast coal mining, which has been backfilled. Although there are no records of mine shafts, audits or underground working in the area it is likely there will have been historic workings but due to their age (>60 years) any significant movements due to collapse will have ceased.
Conclusion	<p>Although the site is within an area considered to be at a Medium Risk from historic coal workings any future developments would not be precluded due to this although appropriate foundations solutions would be required.</p> <p>With regard to the current proposal, which is a change of use without the construction of buildings or any infrastructure it is considered no investigation works are required.</p>

Proposed Extension to South Wales Wood Recycling Facility at Heol Llan, Coity, Bridgend

Addendum Coal Mining Risk Assessment Report

1.0 INTRODUCTION

1.1 Contract Details

As part of the original planning application submission for the South Wales Wood Recycling Limited facility at Heol Llan (Permission P16/659), the area shown in blue on the historic aerial photographs in Appendix A, a coal mining risk assessment report was produced by James Associates ref JA.SW.BCN.01.18 dated April 2018 (copy in Appendix B) This report has been produced as an addendum to the James report to support a planning application to extend the recycling facility to include the area shown in red on the aerial photographs.

This report should be read in conjunction with the 2018 James Associates report (ref JA.SW.BCN.01.18), which concluded the risk of coal mining workings would not stop the original development of the recycling facility.

1.2 Scope of Works

The scope of works undertaken by Forge Environmental Management Limited were:

- Review the James Associates report;
- Obtain a Coal Mining Report for the proposed area of the extension;
- Preparation of a Risk Assessment report presenting the findings of the review of the available data and assess the likely risk due to mining workings under the site.

1.3 Report Limitations

The recommendations, interpretations and conclusions of this report are based on the information contained in the James Associates Coal Mining Risk Assessment (ref JA.SW.BCN.01.18) and The Coal Authority Coal Mining Report (ref 51002276034001) for the proposed extension area. However, no responsibility can be accepted for the accuracy of any third-party information or reference data used.

2.0 CURRENT SITE DESCRIPTION AND LOCATION

2.1 Site Location

The current South Wales Wood Recycling facility is located at Lock House, Heol Llan, Coity, Brymceithin, Bridgend, CF35 6BU and the proposed extension site, which occupies an area of approximately 0.5ha, abuts the south-western section of the facility, as shown on the drawing in appendix A. The site is located on Hirwaun Common to the south-west of Hoel-y-Cyw at National Grid Reference 263608 183520.

2.2 Site Description

The site, which roughly rectangular in shape with approximate maximum dimensions 105m north/south and 45m east/west, is generally level at approximately 95m AOD currently and is used for the storage of unprocessed timber. Apart from the recycling facility to the north/east the surrounding area is predominantly undeveloped agricultural land.

The site and surrounding area are known to be underlain by shallow coal seams that have historically been worked using both underground and opencast techniques.

2.3 Published Geology

The 1:50,000 BGS scale on-line Geological Maps (www.bgs.ac.uk) indicate that the site is not underlain by any superficial drift deposits with the shallow bedrock being the South Wales Coal Measures.

An extract from the BGS bedrock map is contained in Appendix B but a summary is detailed in Table 2.3.1 with further information provided in the following sub-sections.

Table 2.3.1: Summary Geology

Artificial and made ground	<i>Anticipated</i>
Superficial deposits	<i>None present</i>
Solid Geology within 50m	<i>South Wales Coal Measures</i>

2.3.1 Artificial and Made Ground

As can be seen from The Coal Authority's summary of findings drawing in Appendix A the site is located within an area that was excavated as part of the Hirwaun West Opencast Coal Site. This operation based upon information contained in the James Associates report involved the extraction of the Five Feet and Gellideg Coal Seams which was completed and restored by 1958. However, from the Terraforma boreholes logs sunk across the current recycling facility site area included in the report appendices only limited made ground was revealed ranging from 0.5m to 1.8m thick although there is no description of its composition.

2.3.2 Superficial and Drift Ground

The BGS online map have not identified any superficial drift deposits will be present below the site.

2.3.3 Bedrock and Solid Geology

The bedrock beneath the site comprises the South Wales Coal Measures for which the BGS Lexicon lithological description is:

“Grey, (productive) coal-bearing mudstones/siltstones, with seatearths and minor sandstones.”

2.4 Site History

From a review of the available on-line historic maps (www.old-maps.co.uk) it would appear that the area of the site was within an agricultural field in 1877 with the building for “Heol-y-llan” 150m to the south-east fronting the road. Although there was a small “Quarry” c300m to the south and an “Old Shaft (Coal)” c.300m to the north-east although this was not shown on the 1884 map.

No changes were noted on the preceding maps until 1919 when an additional small “Quarry” was present to the south just east of the “Old Quarry” with more small quarries to the south-east and south-west.

The 1921 edition identified an “Old Coal Shaft” c.600m to the north-west. No significant developments or change in land usages were noted in the vicinity of the site until 1986 when a “Depot” was shown the north-east adjacent to the road.

Anecdotal information from the site owners and as referenced in James Associates 2018 report prior to the use of the area for the storage of unprocessed timber it was part of the former Bryncethin Nursery and contained a number of sheds and greenhouses with an access road running the full length north/south and yard area

Although the historic maps do not indicate any workings on the site it is possible that that there were unrecorded coal abstraction or underground chambers associated with the historic shafts.

3.0 COAL AUTHORITY MINING REPORT

A coal mining report was obtained from the Coal Authority, which provides details of their records of underground mineworks in the vicinity of the site. The salient points from which are listed below but a full copy of the report is contained in Appendix C and a summary drawing in Appendix A.

- **Past underground mining** - No past mining recorded.
- **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** – SER2811, which from the James Associates report is indicated as relating to the Drefach opencast working of the seams that were abandoned in 1965.
- **Outcrops** – appendix A contains a schematic cross section through the site showing the geological seams as detailed in Table 3.0.1 below

Table 3.0.1 Coal Outcrops

Seam Name	Mineral	Seam workable	Distance (m)	Direction	Bearing of outcrop
Five Foot Gellideg	Coal	Yes	c.30 within current facility	North	96
Garw Vein	Coal	No	c.20 within current facility	North	102
Spotted Vein Ironstone	Ironstone	No	On site	N/A	105
Unnamed	Coal	No	On site	N/a	103
Upper Gellideg	Coal	Yes	On site	N/A	96
Yard	Coal	Yes	On site	N/A	274
Yard Meadow	Coal	Yes	On site	N/A	93

- **Opencast mines** – as can be seen from the summary features plan in Appendix A the site is within an area of unlicensed opencast mining
- **Coal Authority managed tips** – none recorded within 500m of the site boundary

4.0 DISCUSSION AND CONCLUSION

The site is within an area where the Coal Authority records indicate as containing shallow coal seams that have been worked using opencast mining methods and backfilled to reinstate ground levels. Although the investigations undertaken by Terraforma within the existing facility to the north and north-east in 2015 only revealed limited made ground to a maximum depth of 1.8m, which would indicate limited excavation and backfilling had taken place in the area.

It is also possible that the deeper seams may have been worked using underground shafts and tunnels, as the James report refers to “...*un-recorded workings having been identified in opencast coal sites located on either side of the site area...*”.

However, there are no records available to confirm this, which would indicate any workings would be of a significant age and as such would have been abandoned a long time ago. Therefore, as the mining method would have been the pillar and stalls system it is usual for the tunnels to collapse soon after they are abandoned as the timber supports are removed. Based upon this as any working will have been at least 60 years ago it is considered likely that any significant movements associated with the collapse of the mineshafts will have ceased.

In conclusion whilst the proposed extension to the wood recycling facility is within an area that is considered to be at a Medium Risk due to the potential presence of historic mine and opencast workings it is considered that this will not prevent any future development, provided appropriate ground improvement and foundation measure are incorporated within any building designs, which may require intrusive investigations.

However, for the current planning application the proposal is for a change of use, which will not include the construction of any buildings or infrastructure. Therefore, this will not change the general loadings across the site and any movements would not have a significant impact. As such it is considered a watch brief during any excavation works, if required, would be sufficient. Should any mine workings be identified then work should cease and further geotechnical advice would need to be sought.

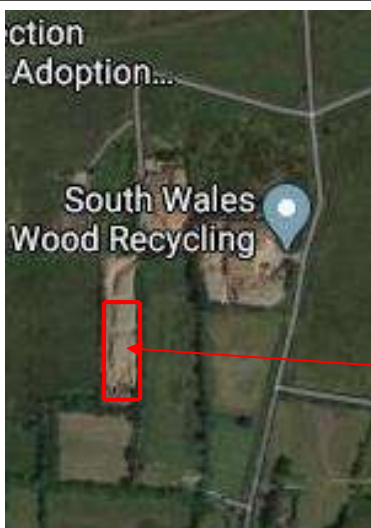
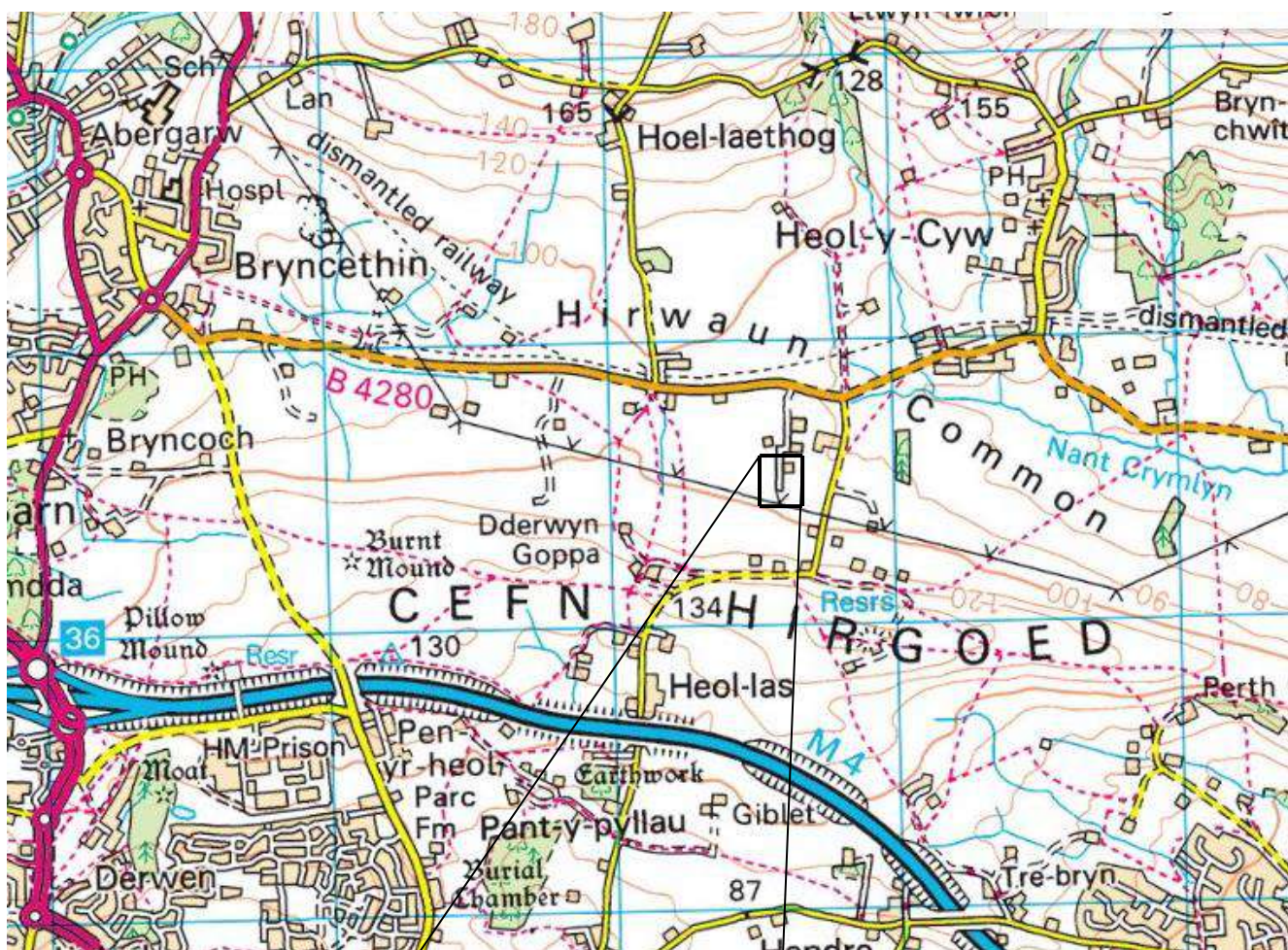


APPENDICES


- A DRAWINGS & AERIAL PHOTOGRAPHS**
- B JAMES CONSULTING 2018 MINING RISK ASSESSMENT REPOT**
- C COAL MINING REPORT for PROPOSED EXTENSION AREA**



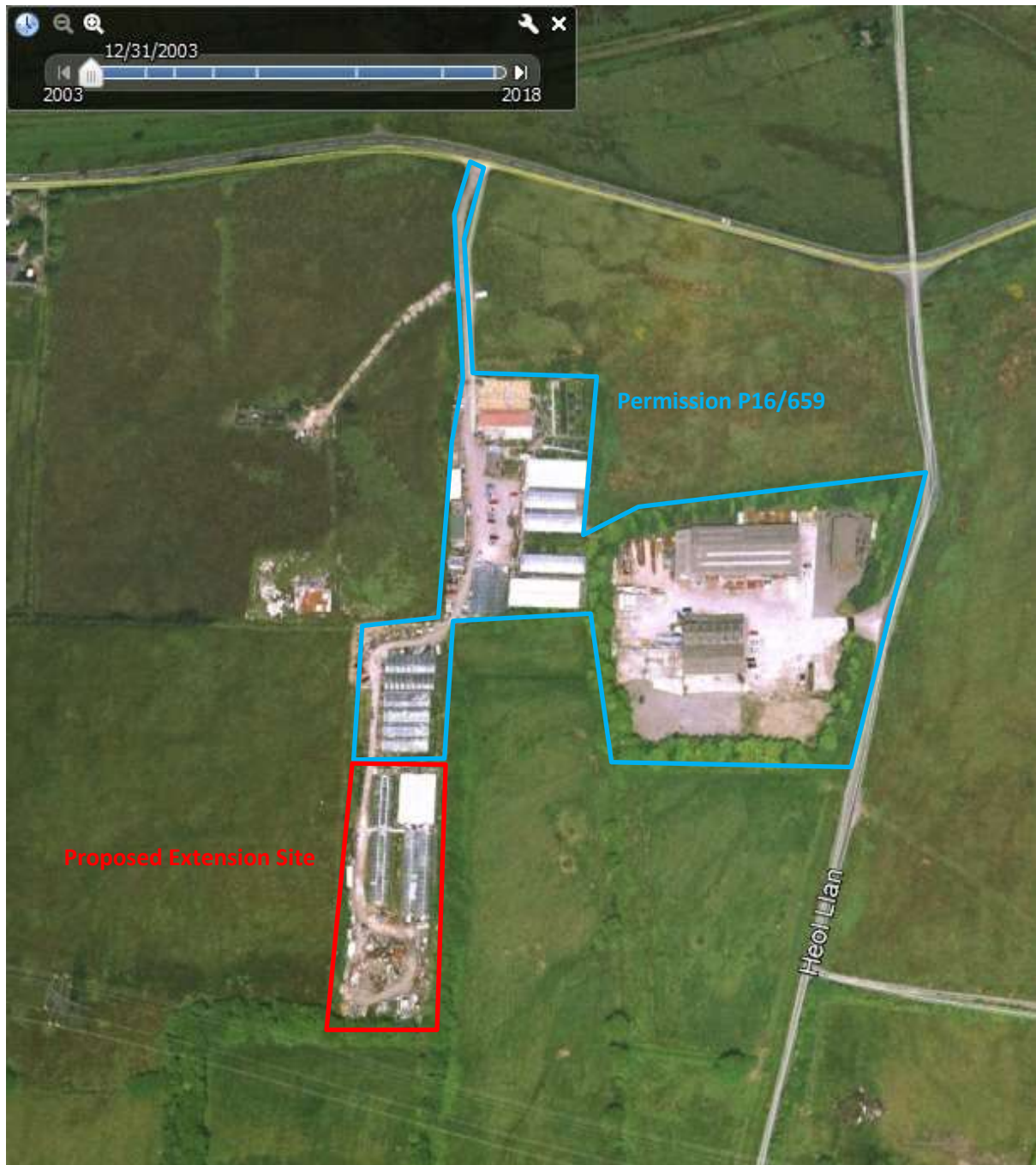
APPENDIX A – Drawings & aerial photographs



Proposed area of the extension to the wood recycling facility

PROJECT	CLIENT	Date : 12 th May 2002	 FORGE <small>Commercial Management Ltd</small> The Forge Lower Vagg Chilthorne Domer Yeovil Somerset BA21 3PY Tel : 01935 840 346
Extension to South Wales Wood Recycling Facility	South Wales Wood Recycling Ltd	Scale : Not To Scale	
DRAWING TITLE		DRAWING No.	
Site Location Plan		BRY071/sk01	

Historic Aerial Photographic Images (source Google Earth)
Locks Yard Complex





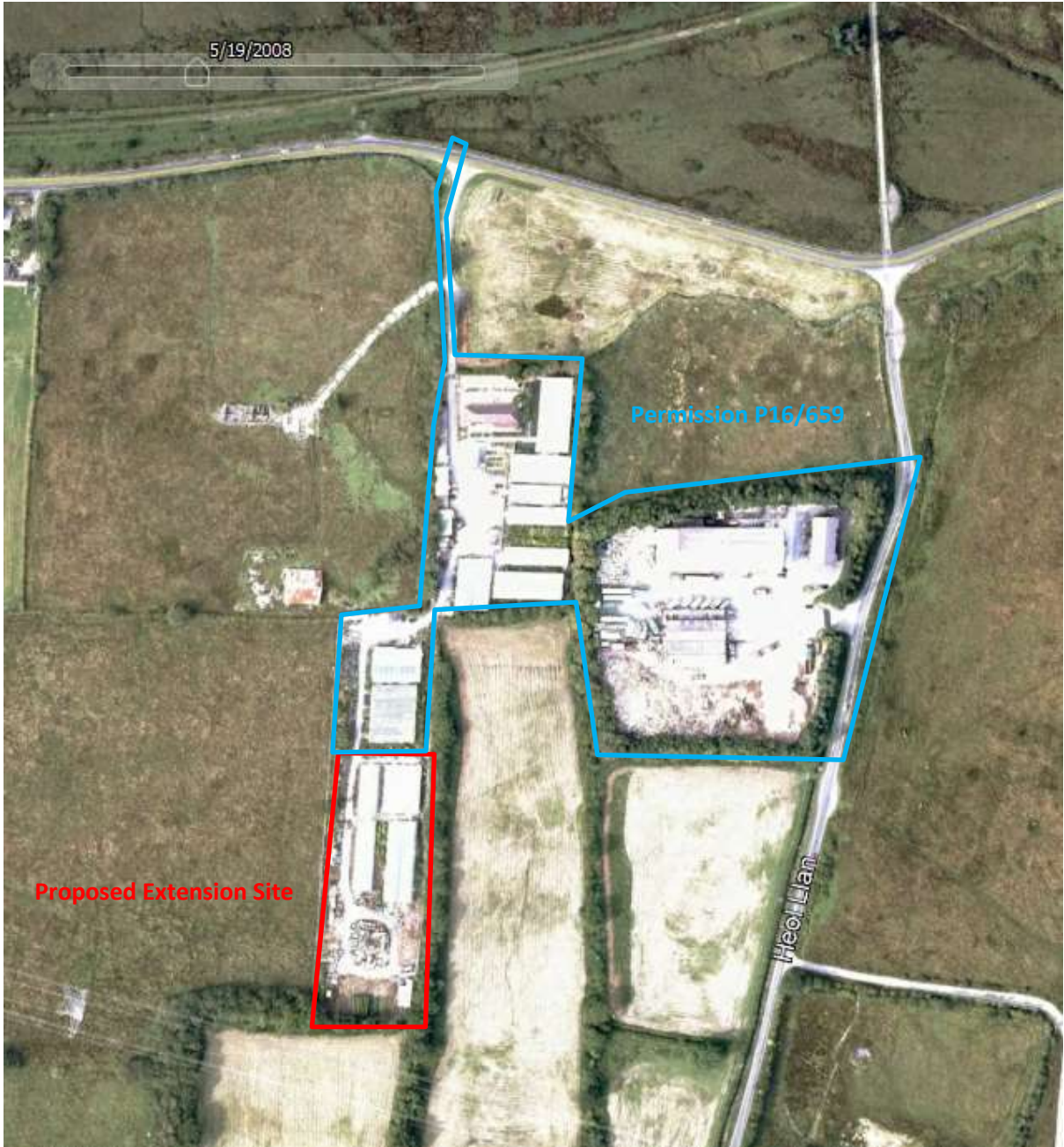


5/19/2008

Permission P16/659

Proposed Extension Site

Heathlan









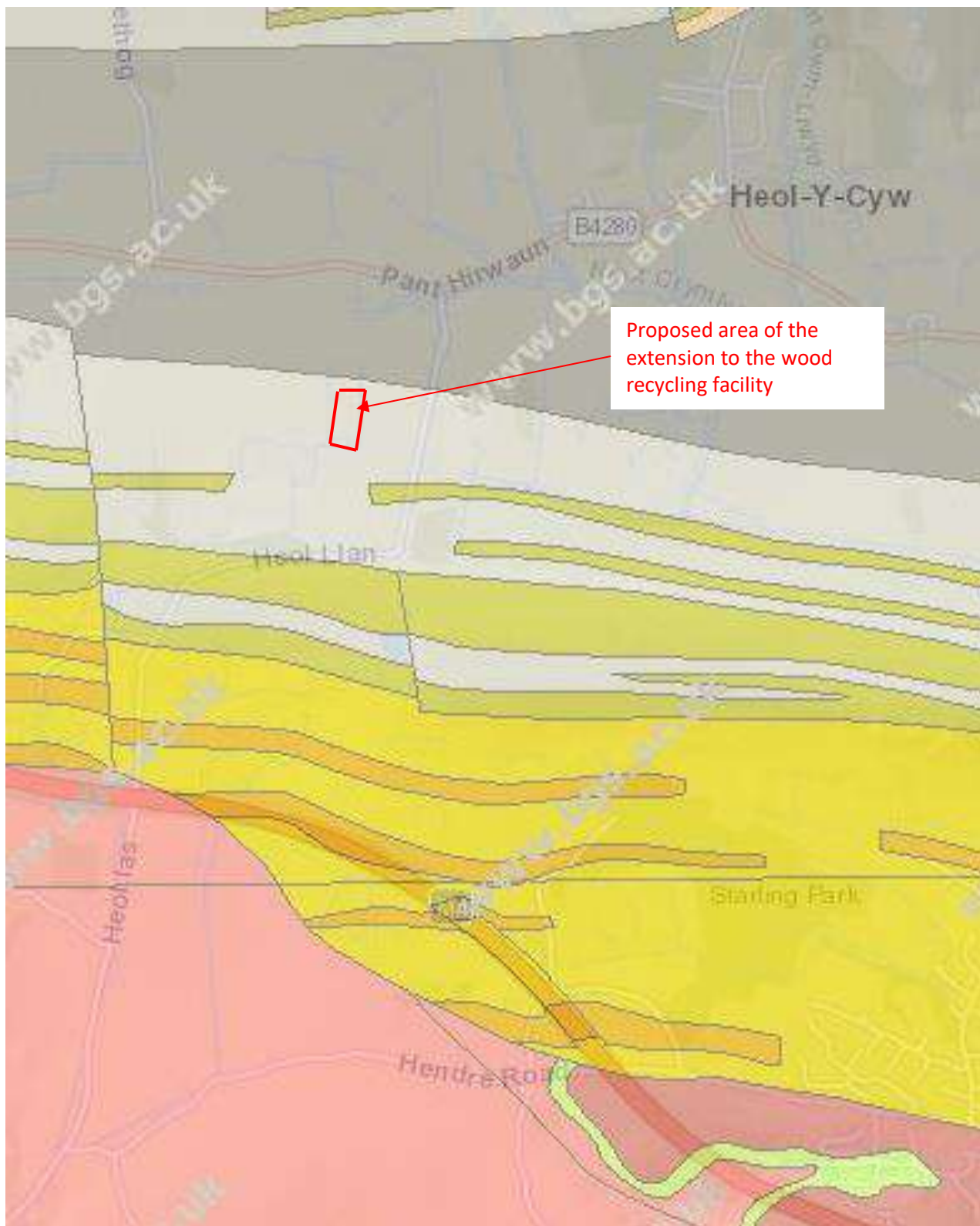


6/25/2018

Permission P16/659

Proposed Extension Site

Heol Llan



PROJECT

Extension to South Wales Wood Recycling Facility

CLIENT

South Wales Wood Recycling Ltd

Date : 12th May 2002

Scale : Not To Scale

DRAWING TITLE

Extract from the BGS Bedrock map 1:50,000

DRAWING No.

BRY071/sk02



The Forge
Lower Vagg
Chilthorne Damer
Yeovil
Somerset
BA21 3PY
Tel : 01935 840 346

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

Key

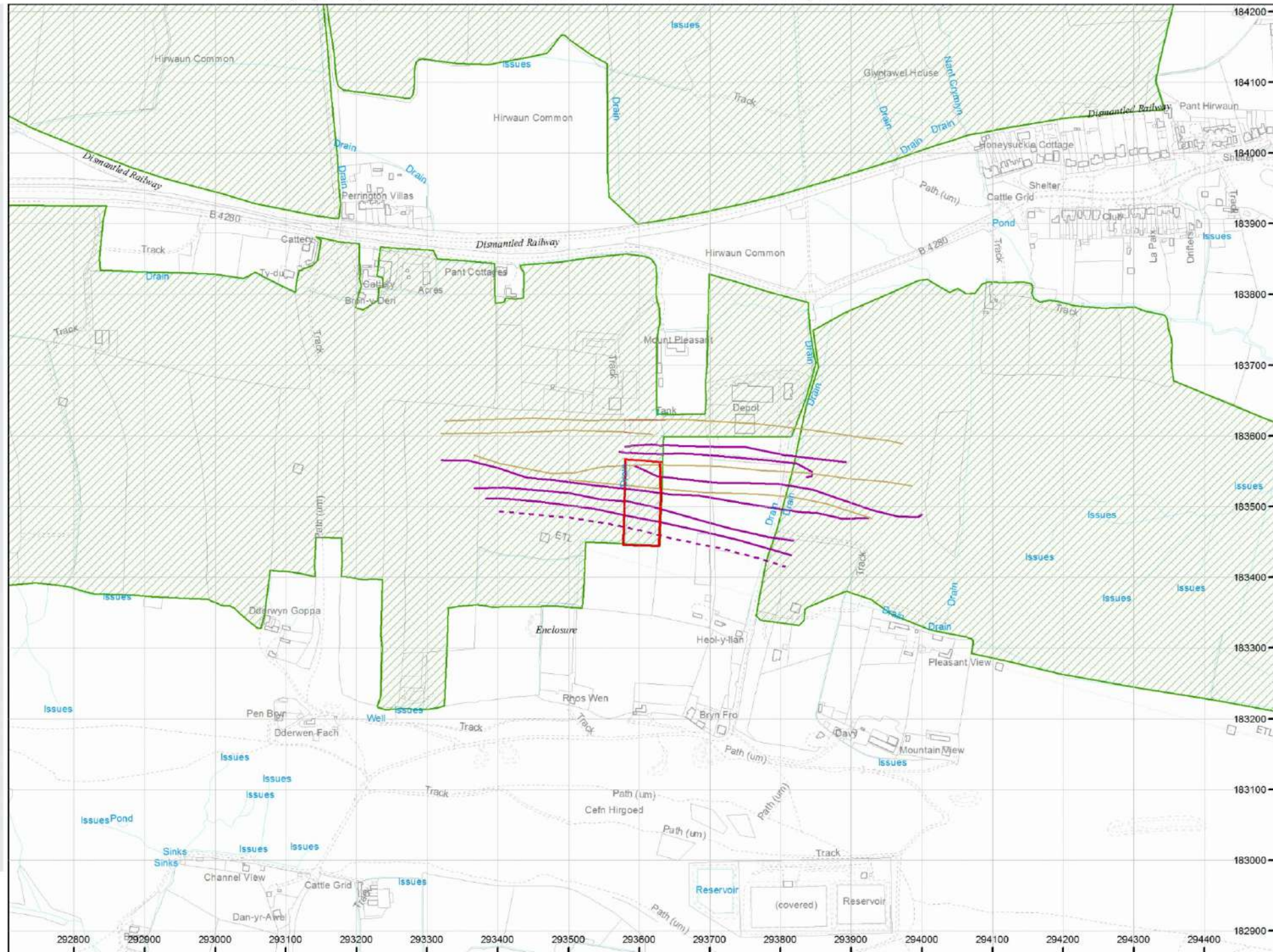
Approximate position of the enquiry boundary shown

Outcrop (Proven)

Outcrop (Conjectured)

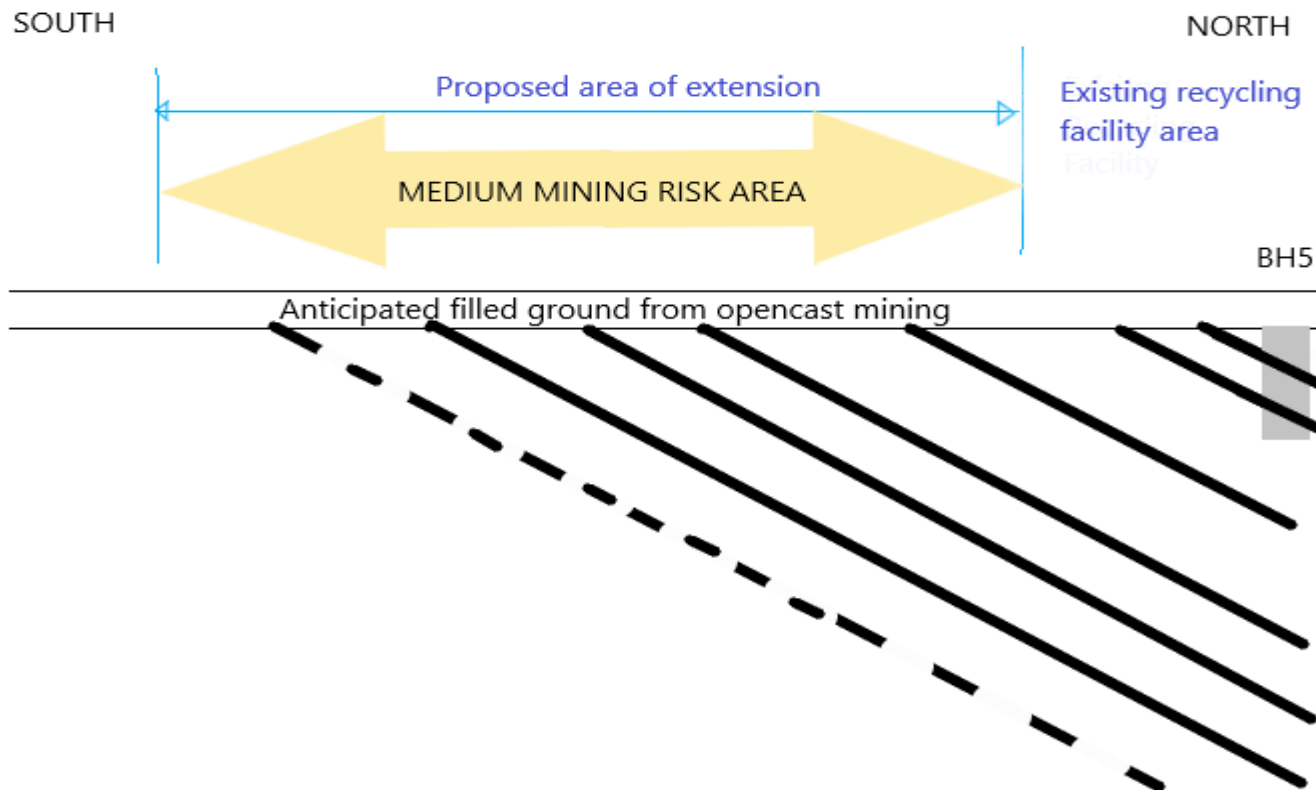
Geological faults

Unlicensed opencast site



How to contact us

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PROJECT Extension to South Wales Wood Recycling Facility	CLIENT South Wales Wood Recycling Ltd	Date : 12 th May 2012	 FORGE <small>Commercial Management Ltd</small> The Forge Lower Vagg Chilthorne Domer Yeovil Somerset BA21 3PY Tel : 01935 840 346
		Scale : Not To Scale	
DRAWING TITLE Schematic Geotechnical Cross Section		DRAWING No. BRY071/sk03	



APPENDIX B – James Consulting 2018 Mining Risk Assessment

COAL MINING RISK ASSESSMENT REPORT

**TEMPORARY RETENTION OF WOOD STORAGE, SHREDDING AND HGV ACCESS
FROM PANT HIRWAUN AND TEMPORARY CHANGE OF USE OF SOUTHERN PART OF THE
FORMER BRYNCETHIN NURSERIES SITE FOR THE STORAGE OF WOOD WASTE, VEHICLES,
PLANT AND SKIPS AND THE CONSTRUCTION OF A WORKSHOP BUILDING.**

April 2018

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DRAWINGS AND ATTACHMENTS

Drawing No. 10914-000-B Site and Surrounding Area

Drawing No. JA-176-001-001 Geological Survey Sheet SS98SW Extract with Generalised Vertical Section

Coal Authority Mining Report No. 51000692539001

Abandoned Mines Mining Records Office Search

Figure 3.1 - Borehole Location on Proposed Layout Plan (after Terrafirma 2015)

Figure 4.1 – Geological Cross Section (after Terrafirma 2015)

Borehole Logs for Boreholes 1-5 inclusive.

1. BACKGROUND.

A previous Mining Hazard Report was undertaken by James Associates in November 2014 to assess the risk associated with historical underground (coal) mineworking activity in the general area.

Following this initial work, a more detailed assessment involving the drilling of x5 No. exploratory (open hole) boreholes was undertaken in 2015 by Terraforma (reference 13000).

This assessment addresses an area which lies adjacent to, and contiguous with, but outside of, the previous planning boundary.

It is proposed to re-develop the site near Heol-y-Cyw from its current use to one for waste wood processing, storage of wood, vehicles and plant, and the construction of a new workshop building.

The site lies in an area underlain by Lower Coal Measures which are coal bearing and have, historically, in the general area been worked by both underground and surface (opencast) mining techniques.

Due to the potential risks to developments from previous shallow and deeper level underground mineworkings and associated structures, i.e. shafts and adits, as a part of the planning process it is necessary to undertake a risk assessment of such features.

This report provides such an assessment.

2. THE SITE.

The site is located on Hirwaun Common approximately 500 metres to the south west of Hoel-y-Cyw as shown in Drawing No. 10914-000-B 'Site and Surrounding Area'.

3. INFORMATION REFERRED TO.

The following information has been consulted

- Geological Survey Sheet SS-98-SW Glamorgan (1:10560 Scale)
- Coal Authority Mining Report
- Coal Authority Abandoned Mines Records
- Mining Risk Assessment: Proposed Remedial Development, Hoel-y-Cyw, Bridgend. Terraforma ref: 13000, March 2015.

4. GEOLOGY.

The site is located on ground immediately beneath which coal bearing strata belonging to the Lower Coal Measures sequence occur - see Drawing No. JA-176-001-001 - Geological Sheet Extract and Generalised Vertical Section.

4.1 Glacial Drift

Published information indicates that there are no Glacial Drift deposits occur in the immediate vicinity or beneath the site area (though it should be noted that the later site investigations did prove there to be such deposits).

4.2 Made-up Ground (Opencast Coal Site Backfill)

A very small section of the site, the south western square shaped section of the application area, is located on an area which has been previously excavated and then infilled as a part of the Hirwaun West Opencast Coal Site. This site involved the extraction of the Five Feet and Gellideg Coal Seams and was completed (i.e. restored) in 1958.

4.3 Solid Measures

The site is underlain by strata of Carboniferous Lower Coal Measures age which crop out at surface / form incrops into the over-lying glacial drift deposits.

Information which is available from the adjacent Hirwaun Common East Opencast Coal Site indicates that the area is likely to be underlain by highly disturbed solid strata, probably containing the Five Feet and possibly Gellideg Coal Seams occurring at shallow level.

The Five Feet is indicated to have a thickness of approximately 0.76 metre and the Gellideg 1.52 metres – see Drawing No. JA-176-001-001 - Geological Extract and Generalised Vertical Section.

4.4 Structure

The geological structure beneath the site is likely to be highly disturbed and comprise a series of multiple anticlines and synclines which have a broadly east / west axial trend (i.e. orientation). Within the site area this will give rise to strata which are potentially steeply inclined to both the north and the south.

5. PREVIOUS MINERALS WORKINGS.

5.1 General

A Coal Authority Mining Report has been commissioned in 2014 (appended) along with a search of the Coal Authority's Abandoned Mines Records. There will have been no mining related changes within the intervening period and therefore the search results can be considered as still being relevant.

5.2 Surface Mineworkings

The only mineral for which there are records of any workings in the vicinity of the site is Coal.

Two sites are recorded, Hirwaun Common East (SWR 2289) and Hirwaun Common West (SWR 2811); the former was completed in 1973 and the latter in 1958.

On both of the sites previous unrecorded underground mineworkings voids were recorded.

In the Hirwaun West Opencast Coal Site a 'blanket' 25% un-recorded underground mining voids was reported whereas on the Hirwaun East site individual seams were assessed and in some cases up to 50% mining voids was recorded.

This indicates that although no records of previous underground mining activity are available, there is a very significant probability that they have occurred in the past.

No individual seams were identified on the West site whereas on the East site, seams extending from the Garw (Cribbwr) up to the Nine Feet were identified. [It should be noted that the Geological sheet does show seam names for workings on the west site].

The locations of the sites are shown in Drawing No. JA-176-001-001 - Geological Sheet Extract and Generalised Vertical Section.

Conclusion / Observations

With respect to details provided in the published geological data, it should be assumed that, because of the strike of strata and geological structures shown, the same seams and structural disturbances will continue westwards from the limit of the Hirwaun Common East Site and run beneath the site area.

The Five Seam is indicated to have occurred beneath the site of the proposed workshops, and was subsequently worked by opencast mineworking. The Gellideg Seam which occurs at a short distance below the Five Feet was worked for a limited depth below ground level by opencast method. The completion plan showed previous underground mineworkings in the Gellideg Seam to have been intersected. The degree of opencast extraction of the Gellideg Seam could either be due to excessive workings being intersected or the seam being affected by significant structural disturbance. Due to a lack of clarity, it should be assumed that there is the potential for shallow level unrecorded underground mineworkings occurring beneath the application area in the Gellideg Seam.

5.3 Underground Mineworkings

The Coal Authority Mining Report provided information on records of previous mineworkings and also made comment, details of which are summarised as follows:

- The property is not within a zone which is likely to be affected by previous (recorded) underground mineworkings.

- The property is within an area where coal lies close to surface, which may have been worked in the past but for which records are not available.
- There are no current workings beneath the site.
- The site is in an area for which a licence to work coal from beneath was granted in October 2011.
- There are no recorded shafts or adits located within 20 metres of the boundary.

A search of the Coal Authority Mining Records only produced details of previous opencast coal working within the general site area.

5.4 Site Investigations (SI)

Site investigation comprising the drilling of five open hole exploratory boreholes, undertaken by Terrafirma in 2015, showed a good correlation with the existing published Geological and Abandoned Mines Records Office information.

The SI showed a number of coal seams to occur within the general site area all of which, other than the Five Feet Seam (is not indicated to occur within the application area) were demonstrated to be un-worked by previous underground mining operations.

Borehole No. 5 was drilled within the area of the proposed workshop (as shown in appended Figure 3.1 – Borehole Location on proposed layout - after Terrafirma. The relevant borehole logs (also appended) show glacial till deposits to a depth of 6.9 metres and then two (solid) coal seams at base depths of 17.20m and 23.60m below ground level, which are interpreted as being the Gellideg and Garw Coal seams respectively.

Cross section Drawing No. 4.1 from the Terrafirma report shows the Gellideg Seam occurring at a shallow level beneath the application area.

Within the area of the proposed drying shed (which lies outside of the proposed site boundary for the current planning application) the relevant boreholes are 2, 3 and 4, which are located in the general area where the Upper and Lower Five Feet Seams are likely to form incrops into the base of glacial till deposits.

Borehole 4 shows mineworkings at between 9.60 and 12.60 metres below ground level and are associated with the lower Five Feet Seam (see Figure 4.1).

6. DISCUSSION.

On the basis of the information which has been reviewed, there are abandoned underground mineworkings beneath the site (Borehole No.4 in the Five Feet Seam) and there is the possibility that further shallow level, abandoned, un-recorded, underground coal mineworkings and associated structures (i.e. shafts and adits) may be present.

The level of detail available in the information is such that it is not possible to be definitive about the precise, location, extent or nature of the workings.

In addition to the potential for the collapse into workings voids of new build structures which generate surface loadings, it must also be assumed that there is an inherent risk (until proven otherwise) from mine gas. The SI (Borehole No. 5.) has indicated that in the area of the proposed workshops there are no abandoned mineworkings. Nevertheless, the potential still exists and therefore suitable foundations to take account of this should be constructed; along with adequate ventilation to mitigate against any potential mine gas.

It is not considered necessary to undertake any further site investigation works.

7. CONCLUSIONS AND RECOMMENDATIONS.

An assessment of Coal Authority, British Geological Survey and Terrafirma information has indicated that there is the possibility that abandoned underground mineworkings are present beneath the site area in the Gellideg Coal Seam. There are no records available for the underground workings which can, therefore, be concluded to be of significant age and will have been undertaken by the pillar and stall method of working. Their possible presence has been assumed on the basis of un-recorded workings having been identified in opencast coal sites located on either side of the site area, and an understanding of the geological structure which is indicated to be continuous between the two opencast sites.

The pillar and stall method involves the extraction of 'stalls' of coal between which 'pillars' of solid coal are left in place. The extent of coal extraction would have been dependent upon a number of factors, namely the nature of the roof and floor strata which surround the seam in addition to seam thickness, section, and quality considerations plus the depth of workings: the greater the depth, the larger the support pillars required. Records of 'actual' extraction percentages and extraction geometry are not necessarily accurate. Because of the payment of royalties for coal extracted being due to the mineral owner there has always been the temptation to conceal accurate information with respect to areas worked / tonnes extracted.

Whilst most collapse occurs soon after the removal of any timber support which may have been used, residual movements can occur for some time afterwards being associated with the degradation of pillars, a rise in groundwater level, and secondary disruption due to the effects of workings at lower levels or new surface loadings, i.e. buildings etc.

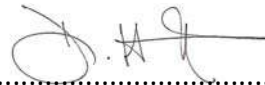
Given the age of the underground workings recorded on the opencast sites (which is un-known but certainly in excess of 60 years) it is likely that any significant movements will have long since ceased; generally occurring immediately after extraction with residual movements usually being completed within a year or so.

It should be noted that where abandoned workings are present at shallow levels, surface loading and vibratory movements associated with structures could reactivate collapse. This potential problem can be removed by undertaking appropriate ground stabilisation works / foundation design.

Whilst there is the potential for the presence of workings and possibly shafts and adits within the site area, this does not preclude the development of the site provided that appropriate measures are undertaken to identify the location of such features, i.e. a watching brief when stripping off soils / surface deposits whilst developing formation levels.

In addition, a clear understanding of the potential level of risk (or not) associated with the presence of mine gas within the workings should be identified.

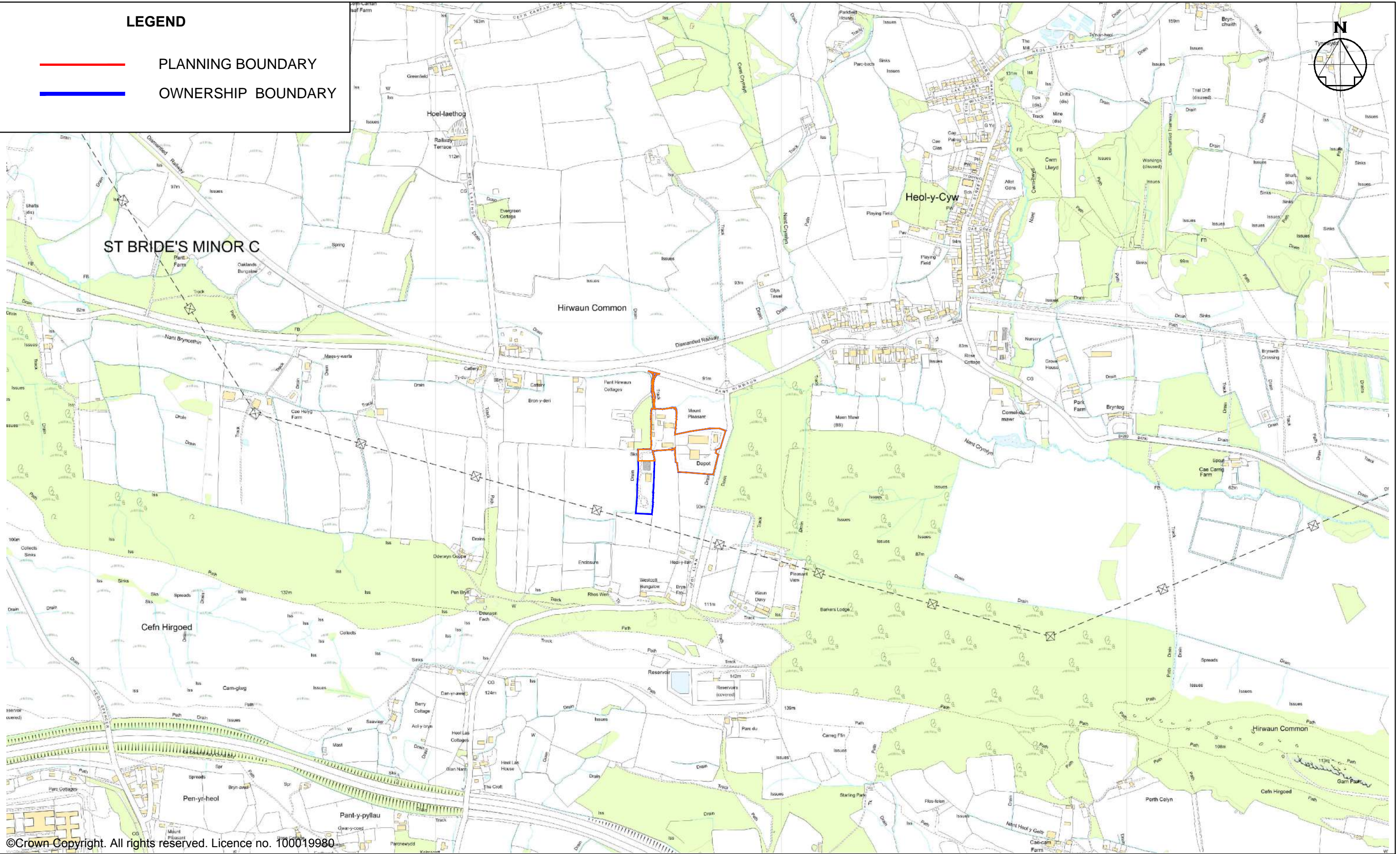
Engineering works such as grouting and rafting can, along with under-floor gas venting, provide a solution to such potential problems.



D A B HIGGINS
MSc, BSc, FGS, DIC, CGeol, MIMMM, C.Eng
24 April 2018

LEGEND

- PLANNING BOUNDARY
- OWNERSHIP BOUNDARY



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AMENDMENTS	REV	DETAILS	DATE	MADE BY	CHKD BY
	REF				



TECHNIA ENVIRONMENT AND PLANNING
SUITE 4, ST. MARGARET'S PARK
PENGAM ROAD, ABERBARGOED, CF81 9FW
TEL: 01443 821619
EMAIL: PLANNING@TEPL.EU

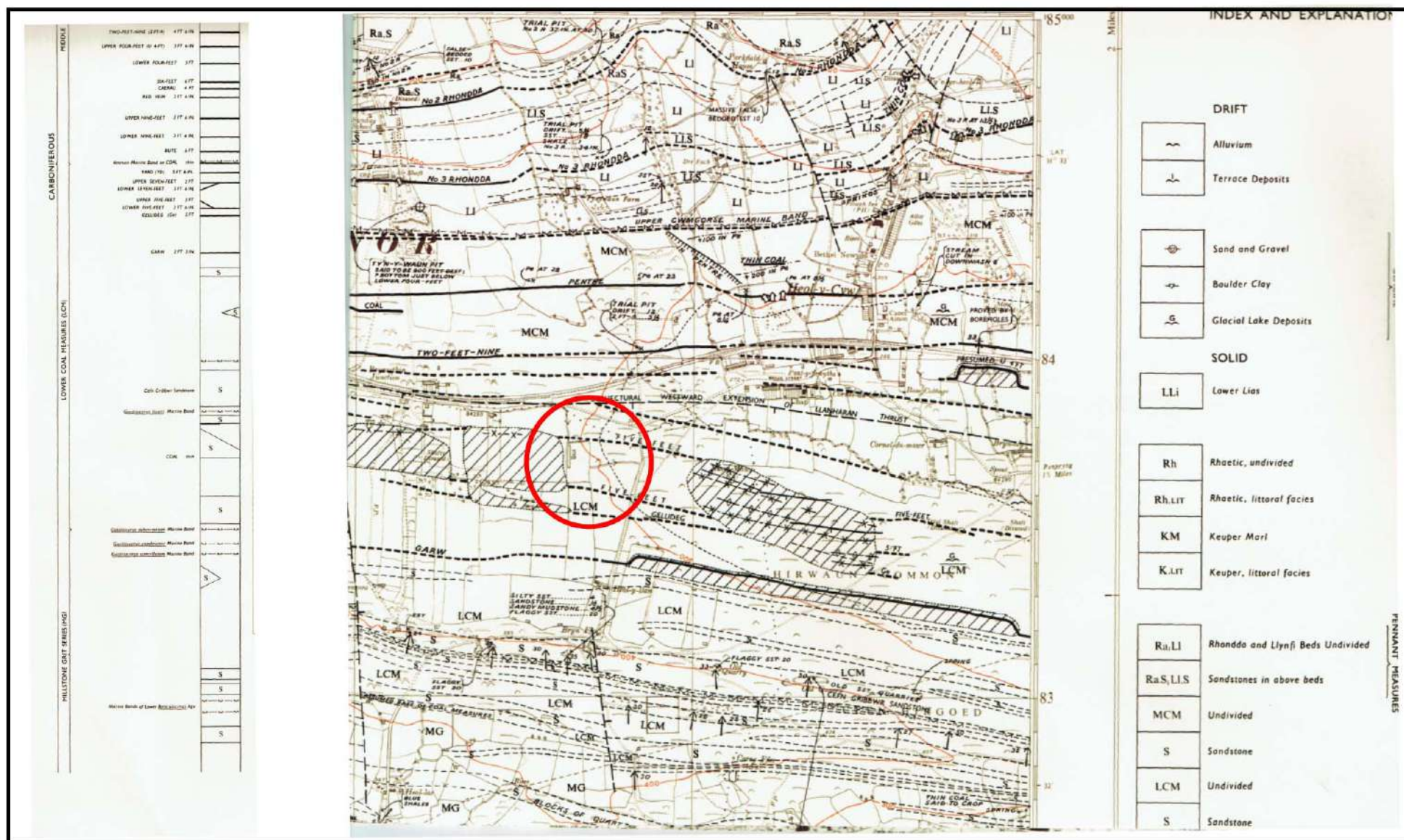
PROPOSED CHANGE OF USE OF FORMER NURSERY
AND CONSOLIDATION OF RECYCLING USE

SITE AND SURROUNDING AREA

Job No. SWWR Drg No. 10914 - 000 - B

Drawn	SW	Scale 1:10,000 @A3
Ch'kd	GH	
Appr'd	KB	
Date	04/10/14	

GEOLOGICAL EXTRACT FROM SHEET SS98SW AND GENERALISED VERTICAL SECTION
DRAWING NO. JA-176-001-001





Issued by:

The Coal Authority, Property Search Services, 200 Lichfield Lane, Berry Hill, Mansfield, Nottinghamshire, NG18 4RG
Website: www.groundstability.com Phone: 0845 762 6848 DX 716176 MANSFIELD 5

JAMES ASSOCIATES
3 SNITTERTON ROAD
MATLOCK
DERBYSHIRE
DE4 3LZ

Our reference: **51000692539001**
Your reference: **DABH**
Date of your enquiry: **12 November 2014**
Date we received your enquiry: **12 November 2014**
Date of issue: **13 November 2014**

This report is for the property described in the address below and the attached plan.

Non-Residential Coal Authority Mining Report

LOCK HOUSE, HEOL LLAN, COITY, BRIDGEND, MID GLAMORGAN, CF35 6BU

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.

Coal mining	See comments below
Brine Compensation District	No

Information from the Coal Authority

Underground coal mining

Past

According to the records in our possession, the property is not within the zone of likely physical influence on the surface from past underground workings.

However the property is in an area where the Coal Authority believe there is coal at or close to the surface. This coal may have been worked at some time in the past. The potential presence of coal workings at or close to the surface should be considered prior to any site works or future development activity. Your attention is drawn to the Comments on Coal Authority Information section of the report.

Present

The property is not in the likely zone of influence of any present underground coal workings.

Future

The property is not in an area for which the Coal Authority is determining whether to grant a licence to remove coal using underground methods.

The property is in an area for which a licence to remove or otherwise work coal using underground methods was granted in October 2011. The grant of this licence is conditional on the applicant securing any other rights, permissions (including planning permission) and consents to enable operations to be carried out.

The property is not in an area that is likely to be affected at the surface from any planned future workings.

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

No notice of the risk of the land being affected by subsidence has been given under section 46 of the Coal Mining Subsidence Act 1991.

Mine entries

There are no known coal mine entries within, or within 20 metres of, the boundary of the property.

Coal mining geology

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

Opencast coal mining

Past

The property is within the boundary of an opencast site from which coal has been removed by opencast methods.

Present

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

Future

The property is not within 800 metres of the boundary of an opencast site for which the Coal Authority is determining whether to grant a licence to remove coal by opencast methods.

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.

Coal mining subsidence

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

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

The 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

There is no record of a mine gas emission requiring action by the Coal Authority within the boundary of the property.

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.

Withdrawal of support

The property is not in an area for which a notice of entitlement to withdraw support has been published.

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

Working facilities orders

The property is not in an area for which 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.

Payments to owners of former copyhold land

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

Comments on Coal Authority information

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.

Information from the Cheshire Brine Subsidence Compensation Board

The property lies outside the Cheshire Brine Compensation District.

Additional Remarks

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 2006. The Coal Authority owns the copyright in this report. The information we have used to write this report is protected by our database right. All rights are reserved and unauthorised use is prohibited. If we provide a report for you, this does not mean that copyright and any other rights will pass to you. However, you can use the report for your own purposes.

Issued by:	The Coal Authority, 200 Lichfield Lane, Mansfield, Nottinghamshire, NG18 4RG
Tax Point Date:	12 November 2014
Issued to:	JAMES ASSOCIATES 3 SNITTERTON ROAD MATLOCK DERBYSHIRE DE4 3LZ
Property Search for:	LOCK HOUSE, HEOL LLAN, COITY, BRIDGEND, MID GLAMORGAN, CF35 6BU
Reference Number:	51000692539001
Date of Issue:	13 November 2014
Cost:	£69.00
VAT @ 20%:	£13.80
Total Received:	£82.80
VAT Registration	598 5850 68

Location map



Approximate position of property

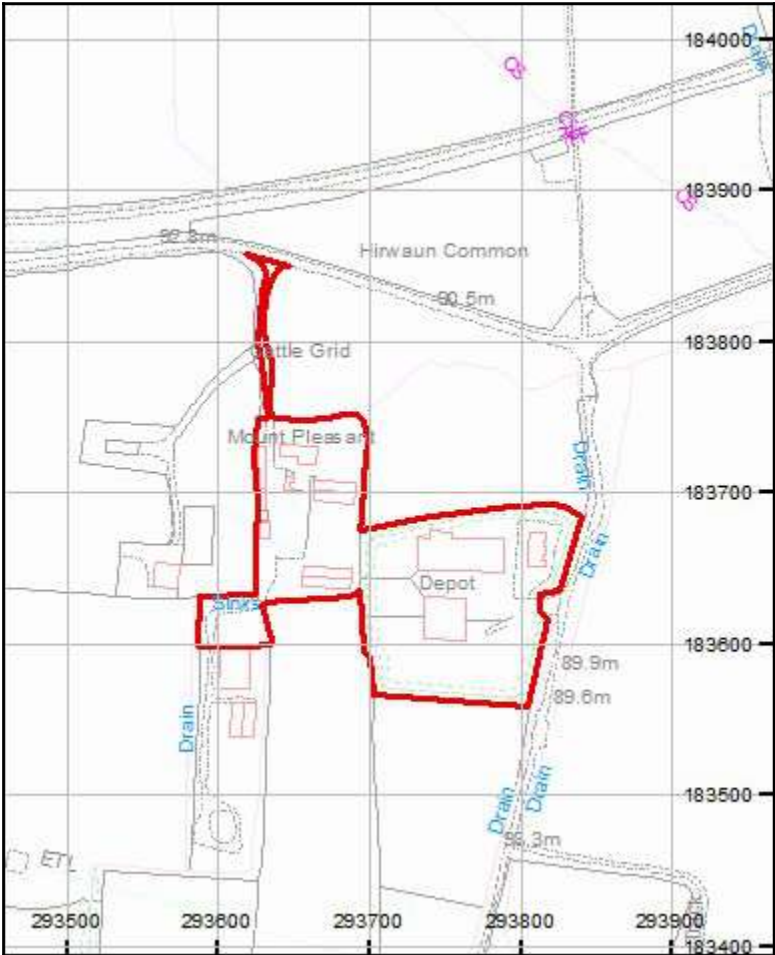


Enquiry boundary

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Key

Approximate position of enquiry boundary shown



The Coal Authority
Mining Records Office
Search Results

Search Criteria:

OS Easting: 293696 **OS Northing:** 183659

Radius: 200 metres

Colliery Selection:

All collieries were selected

Seam Selection:

All seams were selected

Working Types Selection:

Underground

Opencast

Dirt Tip

Other Minerals

Total number of entries found: 5

Search Results:

Cat_No	Colliery	Seam	Date Abandoned
SWR2119	DREFACH ,OPENCAST	LANTERN OR PENTRE	1965
SWR2119	DREFACH, OPENCAST	TWO FEET NINE (BODWR)	1965

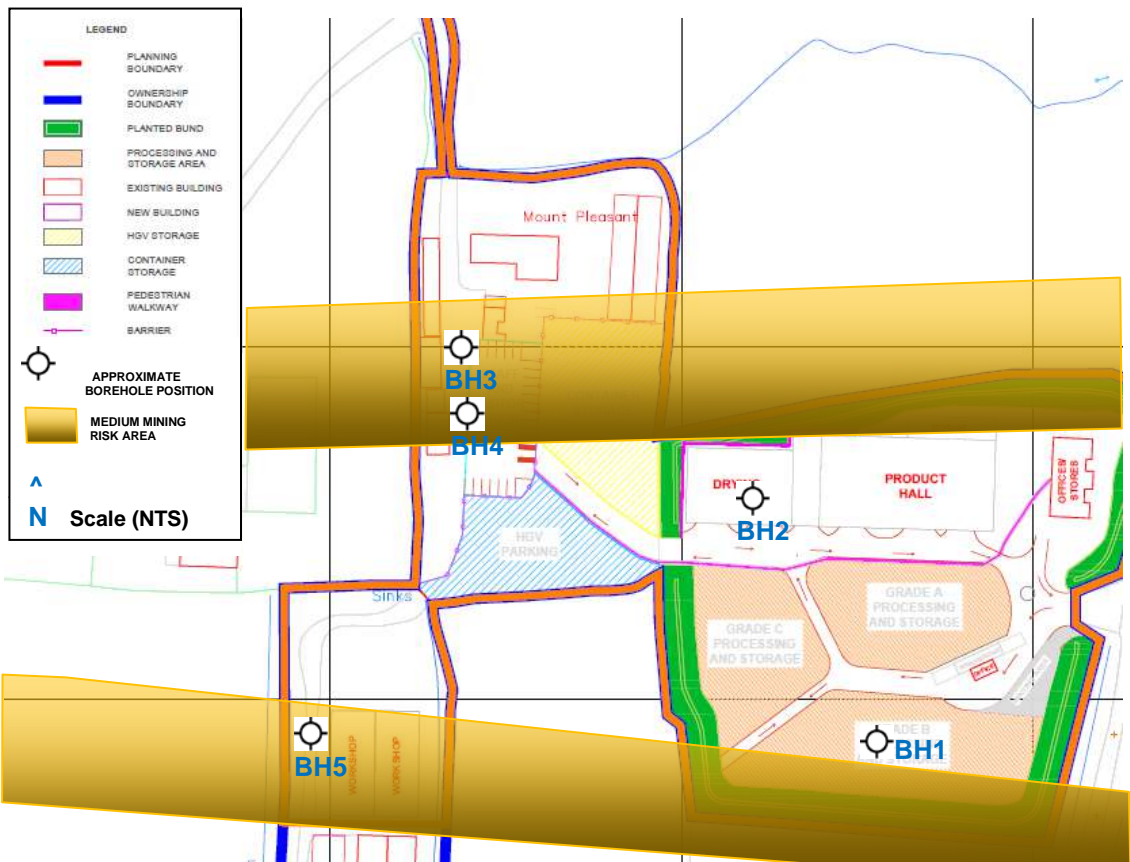


Figure 3.1. Borehole Location on Proposed Layout Plan (Not to Scale)

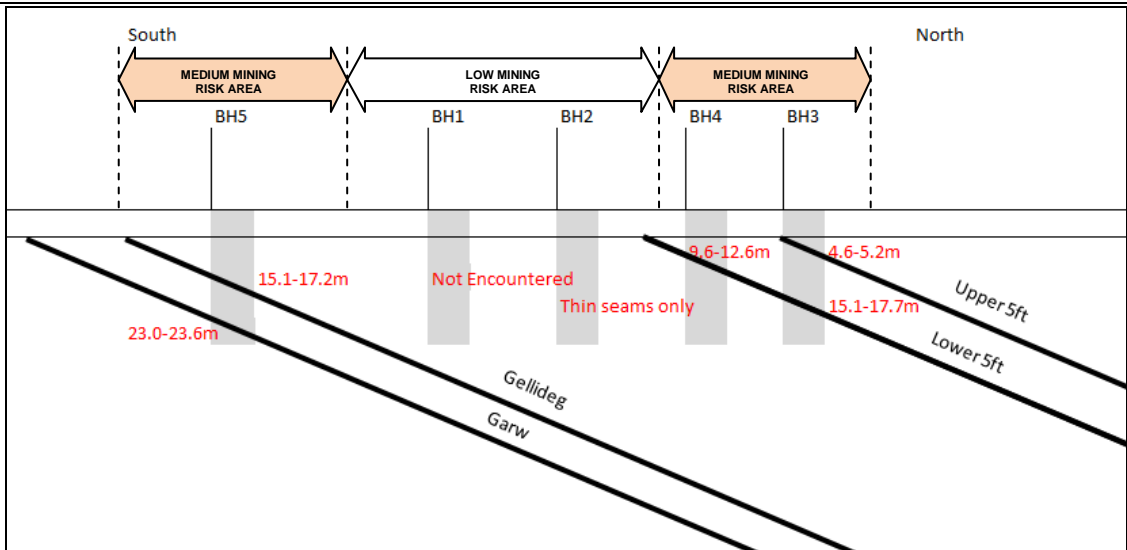

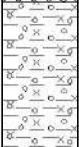



Figure 4.1 Geological Cross Section NTS

Project Name SWWR	Project No. 13000	Co-ords: -	Hole Type RO
Location: Heol Y Cyw		Level: -	Scale 1:150
Client: SWWR		Dates: 21/01/2015	Logged By

Well	Water Strikes	Samples & In Situ Testing			Depth (m)	Level (m AOD)	Legend	Stratum Description	
		Depth (m)	Type	Results					
					1.80			MADE GROUND	1
								Glacial Till	2
					4.80			MUDSTONE	3
									4
									5
									6
									7
									8
									9
									10
									11
									12
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									14
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									23
									24
									25
									26
									27
									28
									29
End of Borehole at 30.00 m									

Remarks:

Project Name

SWWR

Project No.

13000

Co-ords: -

Hole Type

RO

Location: Heol Y Cyw

Level: -

Scale

1:150

Client: SWWR

Dates: 21/01/2015

Logged By

Well	Water Strikes	Samples & In Situ Testing			Depth (m)	Level (m AOD)	Legend	Stratum Description	
		Depth (m)	Type	Results					
					30.00			29.10m - 29.40m : COAL	31
								29.40m - 30.00m : MUDSTONE	32
								End of Borehole at 30.00 m	33
									34
									35
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									57
									58
									59

Remarks:

Project Name

SWWR

Project No.

13000

Co-ords: -

Hole Type

RO

Location: Heol Y Cyw

Level: -




















































Scale

1:150

Client: SWWR

Dates: 22/01/2015






Logged By

Well	Water Strikes	Samples & In Situ Testing			Depth (m)	Level (m AOD)	Legend	Stratum Description	
		Depth (m)	Type	Results					
					0.70			MADE GROUND	
								GLACIAL TILL	1
									2
									3
									4
					4.50			MUDSTONE	5
					4.60				6
					5.20			COAL	7
								MUDSTONE	8
									9
									10
									11
									12
									13
									14
					15.10			COAL	15
					15.70			MUDSTONE	16
					16.10			COAL	17
								MUDSTONE	18
					17.70				19
									20
									21
									22
									23
									24
									25
									26
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									46
									47
									48
									49
									50

Remarks:

End of Borehole at 30.00 m









Project Name SWWR	Project No. 13000	Co-ords: -	Hole Type RO
Location: Heol Y Cyw		Level: -	Scale 1:150
Client: SWWR		Dates: 22/01/2015	Logged By

Well	Water Strikes	Samples & In Situ Testing			Depth (m)	Level (m AOD)	Legend	Stratum Description		
		Depth (m)	Type	Results						
								MADE GROUND	1	
								Very soft CLAY	2	
								3		
								4		
								5		
								6		
								7		
								8		
								8.40		BROKEN MUDSTONE
							9.60		BACKFILLED WORKINGS (loss of flush)	10
							11			
							12			
							12.60		MUDSTONE (Lost Returns)	13
							15.10		Normal Drilling (with soft bands)	14
									15	
									16	
									17	
									18	
									19	
									20	
									21	
									22	
									23	
									24	
									25	
									26	
									27	
									28	
									29	
									End of Borehole at 30.00 m	

Remarks:



Project Name SWWR	Project No. 13000	Co-ords: -	Hole Type RO
Location: Heol Y Cyw		Level: -	Scale 1:150
Client: SWWR		Dates: 22/01/2015	Logged By

Well	Water Strikes	Samples & In Situ Testing			Depth (m)	Level (m AOD)	Legend	Stratum Description	
		Depth (m)	Type	Results					
					0.50			MADE GROUND Glacial Till	1
									2
									3
									4
									5
									6
					6.90			MUDSTONE	7
									8
									9
									10
									11
									12
									13
									14
					15.10			COAL	15
					15.70				
					16.20			MUDSTONE	16
					17.20			COAL	17
								MUDSTONE	18
									19
									20
									21
									22
					23.00			COAL	23
					23.60				
								MUDSTONE	24
									25
									26
									27
									28
									29
								End of Borehole at 30.00 m	

Remarks:



APPENDIX C – Coal Mining Report for Proposed Extension Area



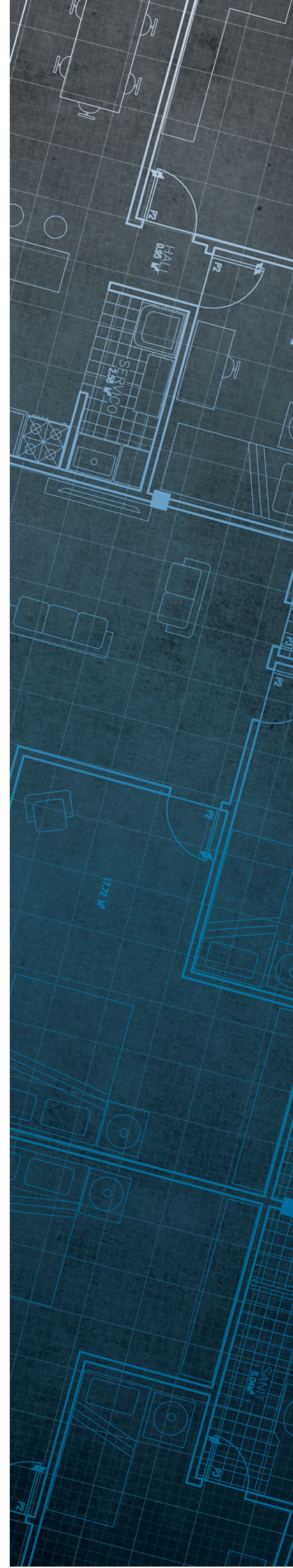
The Coal
Authority

Consultants Coal Mining Report

Bryncethin Nurseries, Heol Llan,
Coity, Bridgend, Cf35 6bu
Bridgend

Date of enquiry:	11 May 2020
Date enquiry received:	11 May 2020
Issue date:	11 May 2020

Our reference:	51002276034001
Your reference:	GS-6759227



Consultants

Coal Mining Report

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

Client name

GROUNDSURE LIMITED

Enquiry address

Bryncethin Nurseries, Heol Llan, Coity, Bridgend,
Cf35 6bu
Bridgend


How to contact us

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

200 Lichfield Lane
Mansfield
Nottinghamshire
NG18 4RG

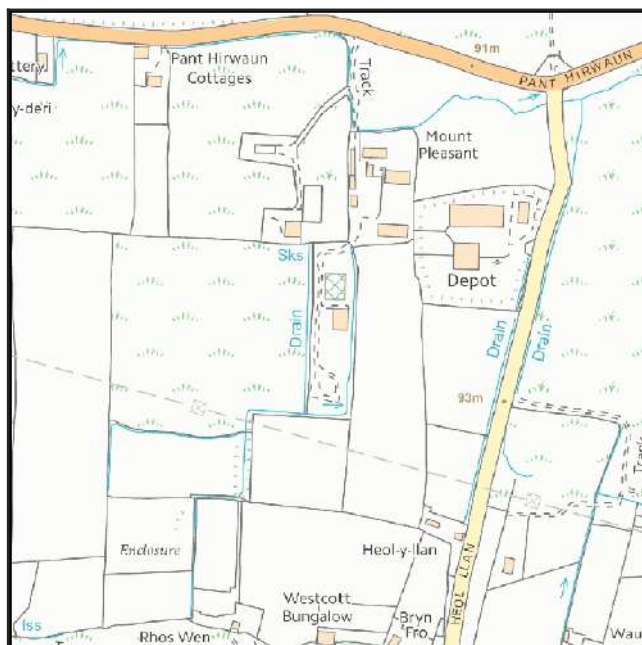
www.groundstability.com

 @coalauthority

 /company/the-coal-authority

 /thecoalauthority

 /thecoalauthority



Approximate position of property



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Section 1 – Mining activity and geology

Past underground mining

No past mining recorded.

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:

SWR2811		
---------	--	--

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
FIVE FOOT GELLIDEG	Coal	Yes	Within	N/A	96
GARW VEIN	Coal	No	Within	N/A	102
SPOTTED VEIN IRONSTONE	Ironstone	No	Within	N/A	105
UNNAMED	Ironstone	No	Within	N/A	103
UPPER GELLIDEG	Coal	Yes	Within	N/A	96
YARD	Coal	Yes	Within	N/A	274
YARD (MEADOW)	Coal	Yes	Within	N/A	93

Geological faults, fissures and breaklines

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

Faults under or close to the property recorded.

Opencast mines

Please refer to the "Summary of findings" map (on separate sheet) for details of any opencast areas 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 not in an area where a notice to withdraw support has been given.

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

Payments to owners of former copyhold land

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

Section 4 – Further information

Based on the responses in this report, no further information has been highlighted.

Section 5 – Data definitions

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

Past underground coal mining

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

Probable unrecorded shallow workings

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

Spine roadways at shallow depth

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

Mine entries

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

Abandoned mine plan catalogue numbers

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

Outcrops

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

Geological faults, fissures and breaklines

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

Opencast mines

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

Coal Authority managed tips

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

Site investigations

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

Remediated sites

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

Coal mining subsidence

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

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

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

Mine gas

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

Mine water treatment schemes

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

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

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

Future underground mining

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

Coal mining licensing

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

Court orders

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

Section 46 notices

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

Withdrawal of support notices

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

Payment to owners of former copyhold land

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