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Mr P Butler
PB Planning
24 Fountayne Street
York
YO31 8HL

BY E-MAIL

Our Ref: PBP/01/HMMJR

21st December 2016

-- Dear Paul

Coal Mining Stability Risk Assessment
Hollinberry Lane, Howbrook

In accordance with our commission, we are pleased to provide an assessment of the stability of the site with regard to coal mining. The site is located to the north of Hollinberry Lane, Howbrook. The approximate site boundary is shown on the plan attached. It is proposed to build residential dwellings on the site.

Geology

The 1:10,000 scale Geological map (Sheet SK39NW), and the latest British Geological Survey (BGS) electronic data at 1:50,000 scale, which is public sector information licensed under the Open Government Licence v2.0, have been used to assess the geology of the local area. An extract is attached. The maps show alluvium to cover the southeastern corner of the site. Pennine Lower Coal Measures strata are shown to underlie the site, comprising, on the majority of the site, undifferentiated strata (usually mudstone, siltstone and minor sandstone) and Penistone Flags (sandstone) on the southern half of the site. A strata dip of 9 degrees to the northeast is indicated nearby.

A coal seam outcrop (Whinmoor Coal) runs almost east to west through the middle of the site. The seam is indicated to be between 0.7m and 1.8m thick (including some rock partings). There are no other significant seams within 25m below the Whinmoor Coal. Three areas of infilled ground from restored opencast workings, are indicated approximately 300m to the west, 350m to the south and 400m to the northeast of the site. No faults are shown to be within influencing distance of the site. The site slopes down to the southeast. Therefore, the seam underlies the northern third of the site, north of the outcrop, and is absent on the remainder of the site.



Coal Mining Stability Assessment

A Coal Mining Report was obtained from The Coal Authority. The Report is attached, and states that the site is within the zone of influence of known underground coal workings in one seam of coal, at shallow depth, last worked in 1868. This comment is concluded to refer to the Whinmoor Coal seam identified earlier, which underlies the northern third of the site.

The site is unaffected by any present or future proposed underground coal workings. The report refers to reserves which could be worked at some time in the future, but this is considered highly unlikely, given the abandonment of the coalfields in this region.

There are seven coal mine entries on or within 20m of the site. There is no record of what steps, if any, have been taken to treat the mine entries. There is a risk of additional unrecorded mine entries in the general area. The mine entries are highlighted on the attached map. Four are on the site itself, comprising three adits heading north and one shaft in the eastern corner. Only one entry (an adit) has the potential to affect the stability of one of the three proposed houses, based on its indicated location.

The site is not affected by any past, present, or future proposed, opencast coal mining. There are no known subsidence claims on or near the site.

The Coal Authority Comments section of the Coal Mining Report states that “if development proposals are being considered, technical advice relating to both the investigation of former coal mine sites and their treatment should be obtained before beginning work on site”. This indicates that the Coal Authority views the risk of unrecorded mine workings beneath the site to be significant, and ARP agrees with this assessment.

Assessment of Coal Mining Instability - Conclusions

Given the presence of adits on the site, the Whinmoor Coal has probably been worked by pillar and stall methods beneath the site, north of its outcrop. The indicated outcrop position would result in the rear elevations of all three proposed properties being affected. However, the outcrop position (and mine entry positions) may not be accurate, and more or less of the site may be affected in reality.

In the light of the above, it is recommended that an intrusive investigation is carried out to check for the presence and depth of workings. As they are likely to be very shallow, it will probably be more cost effective in the first instance to use an excavator rather than a rotary drilling rig. However, depending on the findings, the possibility that a rotary borehole investigation will be required cannot be discounted. Such investigations are usually carried out following the grant of planning permission, but before commencement of development. The planning permission will usually include a condition relating to the investigation and possible future treatment of mine workings.



The presence of underground workings is not a significant obstacle to development, and there are economical engineering solutions available. ARP provides advice on and designs such treatment solutions on a regular basis. If the positions of the outcrops and adits are as indicated on the maps, then remedial measures could comprise excavation and removal of the adit and surrounding workings northwards towards the boundary, and backfilling afterwards, to allow either trench fill or piled foundations to be used. However, this can only be confirmed following intrusive investigation.

A stopping of concrete or brickwork should be constructed at the mine end of any adits, sufficient to withstand the pressure of the compacted backfilling. Adits with water egress (possibly the case here – they may have drained south to the adjacent stream) should have a drain installed in the mine stopping. Any such water emerging will also need to be drained rather than left to soak away.

Gas protection is also likely to be required for the proposed properties.

The Coal Authority must be consulted for any proposed investigation or remediation to the workings/mine entries on the site, along with any other interested parties, such as the warranty provider.

We trust the above information is sufficient for your purposes, but if you have any queries, please do not hesitate to contact us, at your convenience.

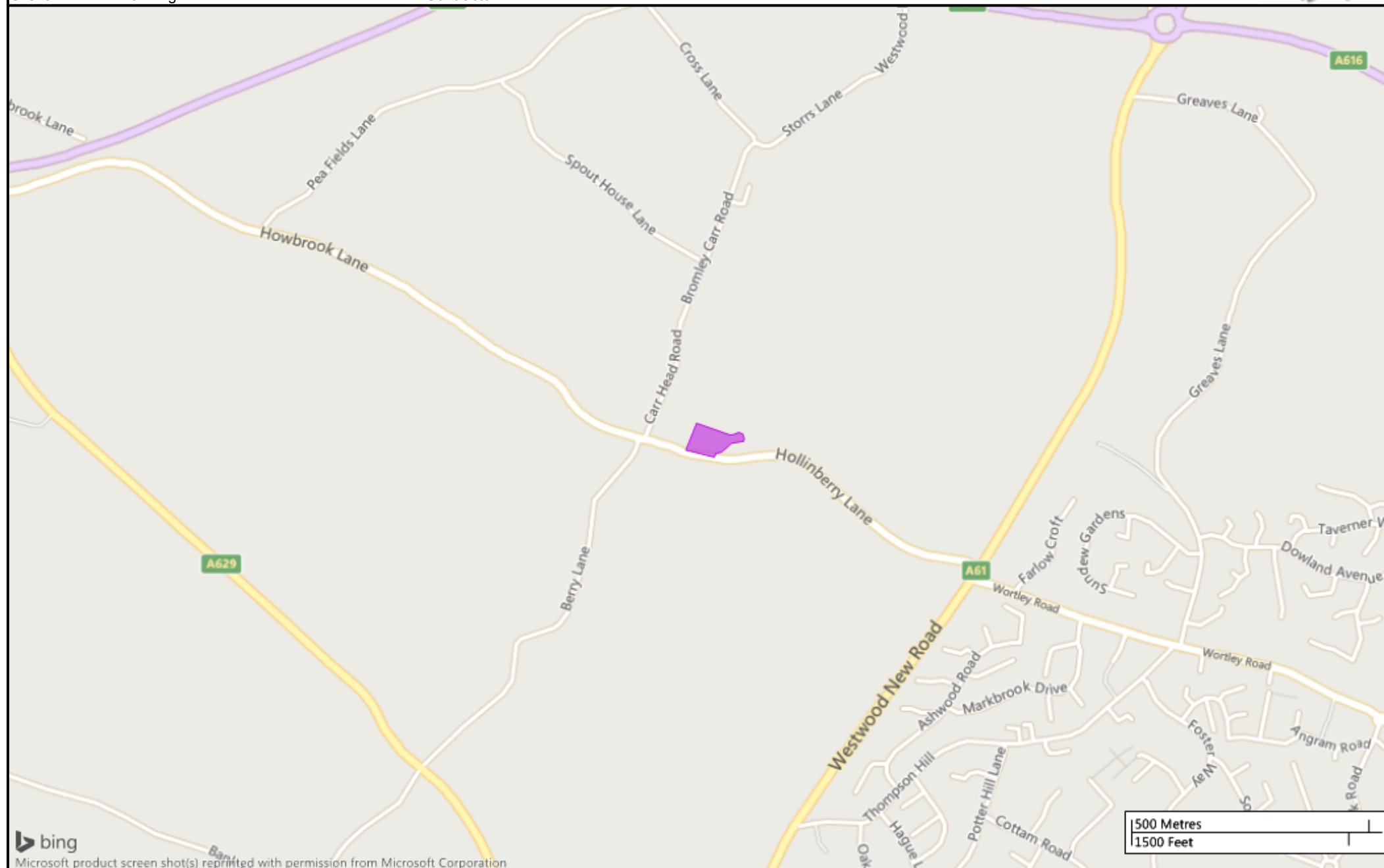
Yours sincerely
for ARP GEOTECHNICAL LTD

J Race

Enc

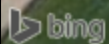
Project Id: PBP/01
Project Title: Hollinberry Lane
Location: Howbrook
Client: PB Planning

Title: Site Location Plan
Scale: 1:10500
Engineer:
Contractor:



Project Id: PBP/01
Project Title: Hollinberry Lane
Location: Howbrook
Client: PB Planning

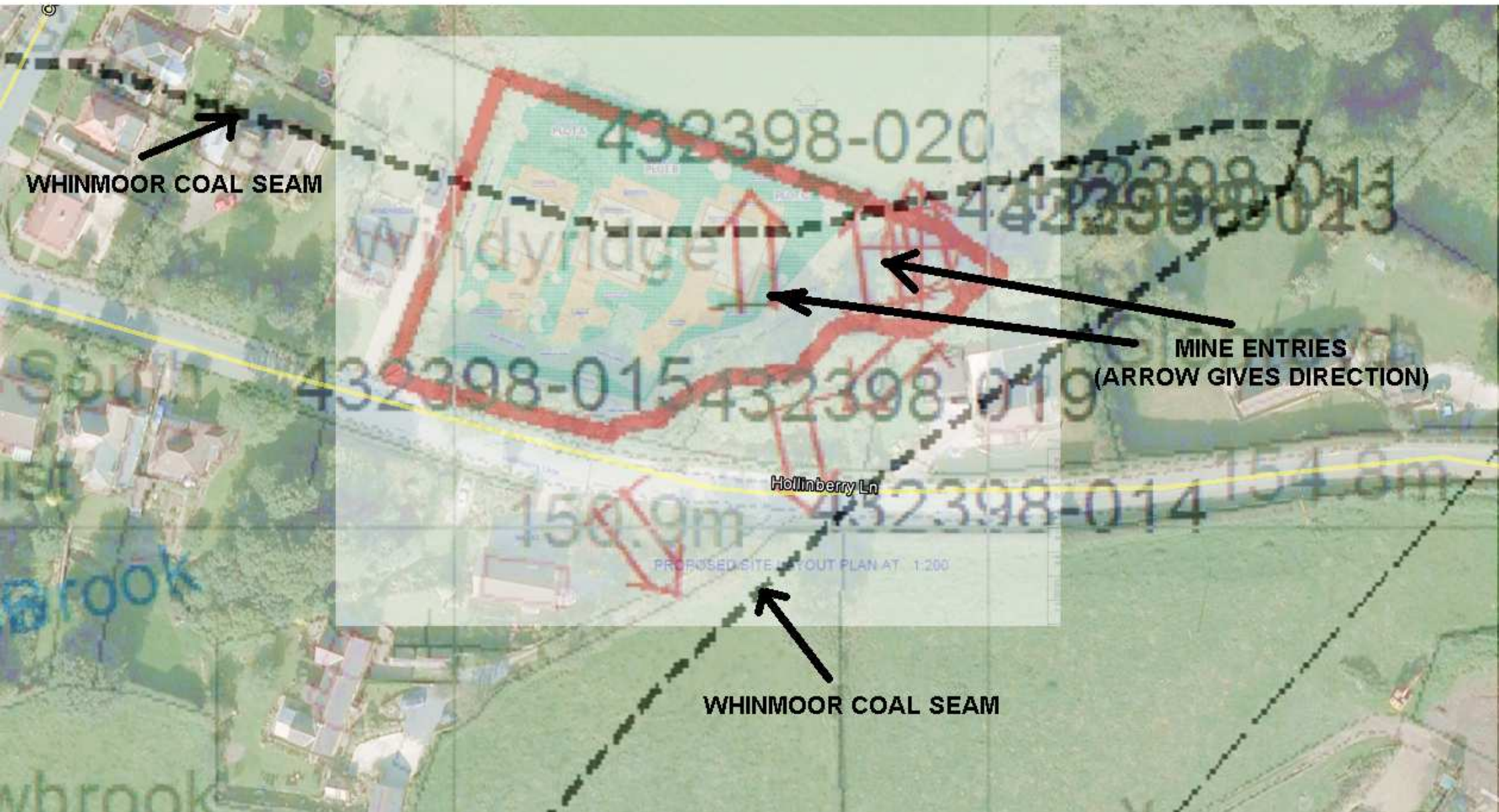
Title: Aerial Photograph
Scale: 1:1500
Engineer:
Contractor:



Microsoft product screen shot(s) reprinted with permission from Microsoft Corporation

PB PLANNING HOLLINBERRY LANE, HOWBROOK
COAL SEAM, MINE ENTRIES AND PROPOSED LAYOUT

ARP GEOTECHNICAL LTD PBP/01 DEC 2016





The Coal
Authority

Resolving the **impacts** of mining

CON29M Non-Residential Mining Report

21 HOLLINBERRY LANE
HOWBROOK
WORTLEY
SHEFFIELD
SOUTH YORKSHIRE

Date of enquiry: 14 December 2016
Date enquiry received: 14 December 2016
Issue date: 14 December 2016

Our reference: 51001308598001
Your reference: 108120052_1 |



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

LANDMARK INFORMATION GROUP LIMITED

Enquiry address

21 HOLLINBERRY LANE, HOWBROOK, WORTLEY,
SHEFFIELD, SOUTH YORKSHIRE

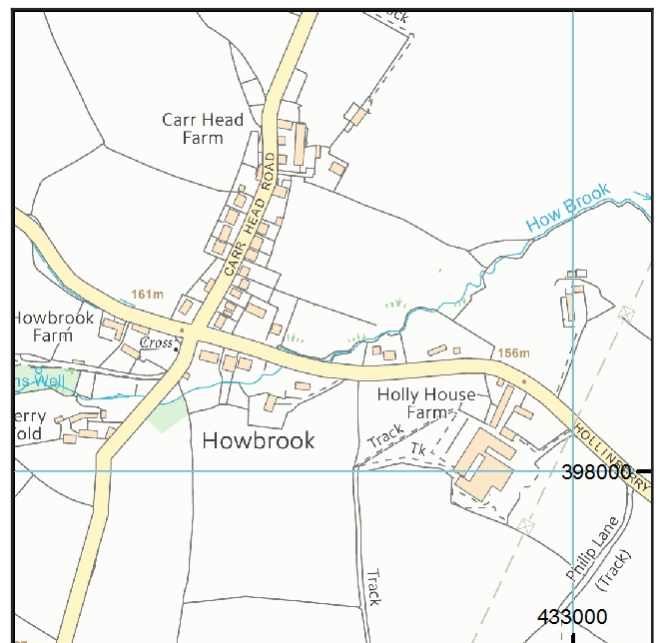
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Approximate position of property



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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	No
10	Mine gas	No
11	Hazards related to coal mining	No
12	Withdrawal of support	No
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

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 1 seam of coal at shallow depth, and last worked in 1868.

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 7 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

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

10. 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 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.

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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Alternative formats

If you would like this report in an alternative format, please contact our communications team.

Enquiry boundary

Key

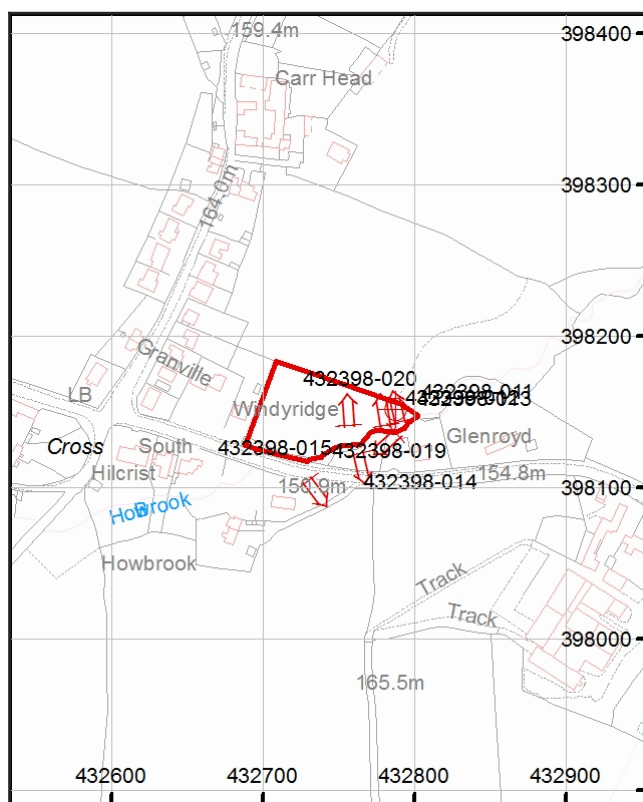
Approximate position of enquiry boundary shown



Disused adit



Disused mineshaft



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