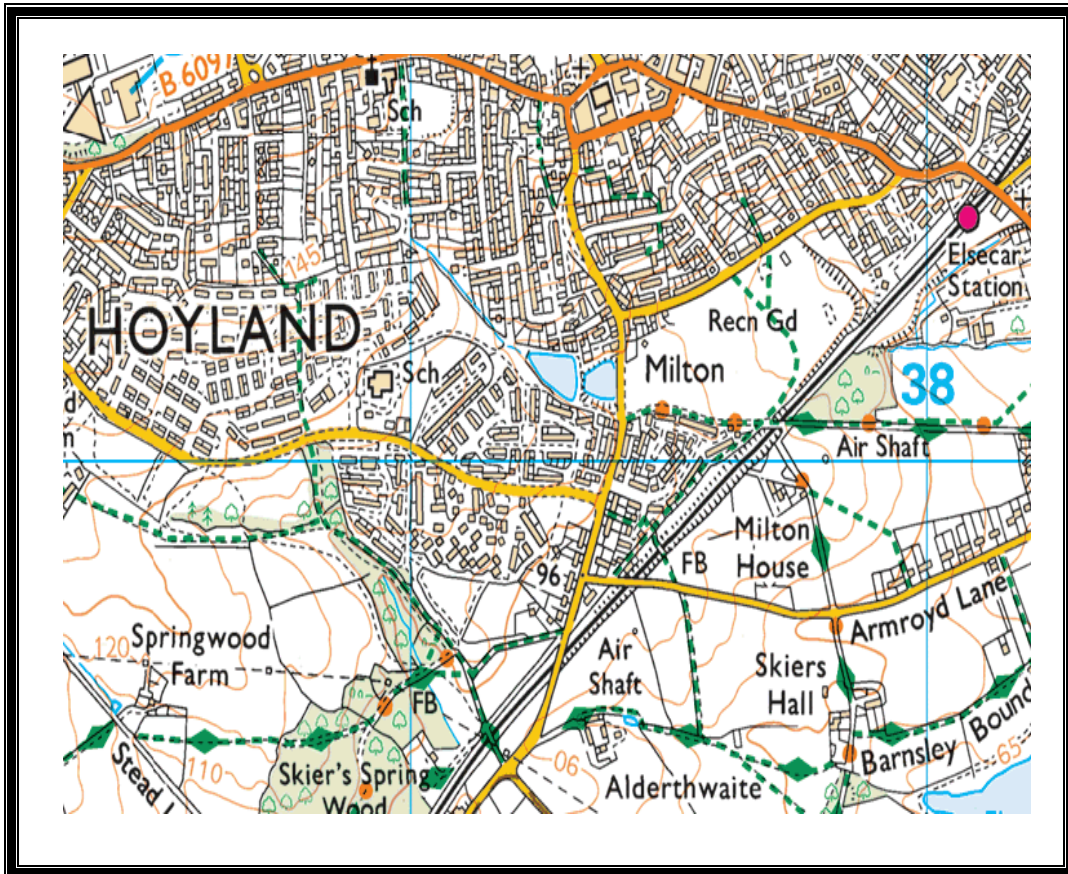


Report No: C514

Date: June 2022

COAL MINING RISK ASSESSMENT
For land at
25-27 MILLHOUSES STREET, HOYLAND,
BARNSELY, S74 9BQ



Prepared for
Mr Sam Shaw

Prepared by
G&M Consulting Ltd, The Chestnuts, Brackenhill Road, East Lound, Haxey,
Doncaster, DN9 2LR





REPORT NUMBER:	C514	REPORT STATUS:	Final
REPORT TYPE:	Coal Mining Risk Assessment		
REPORT DATE:	June 2022		
SITE:	Land at 25-27 Millhouses Street, Hoyland, Barnsley, S74 9BQ		
PREPARED FOR:	Mr Sam Shaw		
PREPARED BY:	G Swinbourne BSc. (Hons) MSc. DIC, FGS		
REVIEWED BY:	A Swinbourne BSc. (Hons) FGS, MiEnvSc ACIEH		

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Introduction

G&M Consulting Ltd (G&M) was instructed by Mr Sam Shaw to carry out a coal mining risk assessment (CMRA) for a site on land currently occupied by a pair of semi detached houses No's 25 and 27 Millhouses Street, Hoyland, Barnsley, S74 9BQ.

It is understood that a planning application is being prepared for the redevelopment of the site for residential purposes. A proposed development layout plan is presented in Appendix A of this assessment, prepared by Andrew Bailey (Chartered Architect).

Site Location and Description

The site is located on the southern side of Millhouses Street, on the eastern side of Hoyland, and approximately 6.5 km south of Barnsley. The approximate grid reference for the site is SE 374 002

The site is currently occupied by a pair of semi detached houses with associated gardens. The site is at a lower elevation than Millhouses Street. Millhouses Street is aligned east west and the site lies to the south of the street.

The site is rectangular, approximately 35 m by 25 m with the long axis aligned east west parallel with Millhouses Street and covers an area of approximately 0.1 hectares. It is an elevation of approximately 95 m AOD.

The site location is shown below.



The Site

Figure 1

Scope of the Coal Mining Risk Assessment

This coal mining risk assessment is compiled in accordance with the guidance given in the Coal Authority publication *Risk Based Approach to Development Management Guidance for Developers Version 4 2017 (updated 2021)*.

This publication sets out the scope for a CMRA as follows:

- Present a desk-based review of all available information on coal mining issues which are relevant to the application site;
- Use that information to identify and assess the risks to the proposed development from coal mining legacy, including cumulative impact of issues;
- Set out appropriate mitigation measures to address coal mining legacy issues affecting the site, including any necessary remedial works and/or demonstrate how coal mining issues have influenced the proposed development; and
- Demonstrate to the Local Planning Authority that the application site is, or can be made safe and stable to meet requirements of national planning policy with regard to development on unstable land.

Sources of Information

In compiling the CMRA information has been obtain from various sources, including the British Geological Survey (BGS):

- Historical Ordnance Survey Maps
- Geological maps
 - 1:50,000 Scale Sheet 87 Barnsley Bedrock & Superficial (2008)
- Geological Memoir: Geology of the Barnsley district : a brief explanation of the geological map sheet 87 Barnsley 2007
- Geological Memoir: Geology of the country around Barnsley : Explanation of sheet 87 1947
- BGS online Geoindex map
- Coal Authority Consultant Coal Mining Report Ref 51003165400001
- Coal Authority interactive Viewer
<http://mapapps2.bgs.ac.uk/coalauthority/home.html>
- General Internet Search

Historical Development

Historical Ordnance Survey plans (1901 to 1929), have been examined for the area. These show the existing properties on site by 1929. Prior to that the area is shown by hatching “indicating earthworks”; structures / buildings are shown to the west, possibly associated with the shaft identified in the Coal Authority records discussed in the next sections. These features are not identified as such on the plans.

The plans also show buildings in the south east of the site which are presumed to be the Hoyland Corn Mill, the outline of which is shown on the plan referenced above, prepared by Andrew Bailey Architect.

Published Geology

The geological records for the area, show the site to be underlain by strata of the Pennine Middle Coal Measures Formation (PMCM), which comprises interbedded mudstones, siltstones and sandstones with subordinate beds of coal, ironstone and seat earth.

No superficial deposits are shown to be present on site.

The outcrop of the Kents Thick coal is shown to pass through the northern edge of the site. The outcrop is shown to trend north-east south-west. The dip of the coal is inferred to the north and as such will dip away from the site. The Kents Thick coal is recorded to be between 0.3 m and 2.6 m thick.

The stratigraphic column on the Sheet 87 map indicates the Kents Thick coal is underlain by the Barnsley Rider coal at a depth of approximately 28 m and the Barnsley coal at 58 m. The depth indicated by the stratigraphic column is a guide only based on the average spacing across the area of the map.

The Barnsley Rider coal is shown to vary in thickness from 0.0 m to 0.7 m and the Barnsley coal 0.0 m to 3.6 m.

The geological memoir for the area states:

“The shales above the Barnsley Rock contain a remarkably persistent coal known as the Barnsley Rider Coal. It occurs 50 to 100 ft above the Barnsley Coal...”

“Above the Barnsley Rider Coal the measures to the Kents Thick Coal are relatively unimportant, consisting one or two thin coal seams and occasional thin beds of raggy sandstone or stone bind.”

Mining

An inspection of the Coal Authority (CA) interactive viewer shows that the site to lie in or close to a *“development high risk area”*, this area is limited to a thin strip which is associated with the coal outcrop.

The site is not shown to be in an area of *“probable shallow coal mine workings”* or in an area of *“past shallow mine workings”*, this last phrase refers to the CA holding records of shallow mining.

A Consultants Coal Mining Report (CCMR) was obtained from the Coal Authority by G&M, a copy of which is included in Appendix B of this assessment.

The report lists seams of coal worked beneath or adjacent to the site. The shallowest beneath the site is the Top Hard Barnsley coal at a depth of 57 m with an extracted thickness of 2.39 m, the dip of the seam is given as 2.6° to the north east. The year last mined is given as 1871. There are four other recorded seams worked deeper beneath the site at depths of between 98 m and 381 m with last worked dates between 1913 and 1967, full details are given in Section 1 of the CCMR.

The report also states

Probable unrecorded shallow workings

None

Spine roadways at shallow depth

No spine roadway recorded at shallow depth.

Mine entries

One recorded (Ref 437400-004422424-011) which is shown approximately 50 m south west of the site.

A plan presented with the CCMR shows the locations of the shaft. The interactive map gives the depth of the shaft as 36.6 m.

Coal mining subsidence

There are 1 claim(s) within within 50 metres of the property boundary that do not match the property address. This is shown 50 m to the south west, close to the shaft. The location is shown on the CCMR plan.

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 m of the enquiry boundary

Risk Assessment

The potential risks associated with coal mining legacy of the site are summarised in the following table.

Table 1 Risk Assessment

Coal Mining Issue	Yes	No	Risk
Underground coal mining (recorded at deep depths >30m)	X		Low
Underground coal mining (recorded at shallow depths <30m)		X	
Underground coal mining (probable at shallow depths <30m)		X	Low
Mine entries (shafts and adits within 20m)		X	
Coal mining geology (fissures)		X	
Record of past mine gas emissions		X	Low
Recorded coal mining surface hazard		X	
Surface mining (opencast workings)		X	

The Kents Thick coal is shown to outcrop on the northern boundary of the site and as such will not underlie the main area of the site. The CCMR indicate there are no unrecorded shallow workings. This assessment is presumably based on the location

of the outcrop of the Kents Thick coal to the site and the depth to the deeper coal seams beneath the site.

However, the accuracy of mapping coal outcrops is subjective and as such it is considered possible that the outcrop of the Kents Thick coal is further south and as such may be at shallow depth beneath the site.

The next coal down in the succession is the Barnsley Rider coal at an estimated depth of 28 m. The maximum recorded thickness of this seam is up to 0.7 m and would therefore lie outside of any likely zone of influence at the surface.

Whilst considered a low risk it is possible that the site is underlain at shallow depth by the Kents Thick coal. If the out crop of the Kents Thick coal does lie further south than indicated then there is a risk from crop workings or bell pits being present.

Proposed Mitigation Strategy

Further work

It is presumed that an intrusive investigation would be carried out for geotechnical and geoenvironmental purposes and this should be extended to confirm the location of the outcrop of the Kents Thick coal through the site. The investigation could be carried out by either trial pitting or window sampling.

The site investigation should be supervised by a competent engineer experienced in the investigation of potential workings. On conclusion of the investigation the engineer should be able to advise the developer as to the requirements for building on the site, in light of any mining legacy.

Implication for Development Works

Irrespective of the findings of the intrusive investigation, it is recommended that a site strip be carried out prior to construction and the sub surface be examined for any evidence of disturbance that may indicate shallow mining. Similarly any foundation excavations should also be examined by a competent person, under a watching brief, for evidence of disturbance. If any evidence is encountered then the CA should be contacted and advice sought on the best method of remediation.

No development works should be undertaken until the findings of the intrusive investigation have been submit to and agreed with the Coal Authority and the relevant planning authority.

Foundation types will be dependant on the findings of the investigation work. Given the historical legacy of deep coal mining in the area, as detailed in the CCMR it is recommended that foundations are reinforced to accommodate any potential variation in the ground beneath the site.

Conclusion of the Risk Assessment

This report has identified that subject site is unlikely to have been affected by shallow coal mining if records are correct, however, as a precaution the recommendations given above should be followed.



APPENDIX A

DEVELOPMENT PLAN

-Demolition of cottages
4no. new dwellings

NOTES

topographical survey
is advised if pre app
is positive and prior to
submission of planning
application

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The Drawing Will Not Be Assigned To Any Third Party.

The Client Is Responsible For Providing the Architect With the Correct
Site Boundary/ownership Definitions And Any Covenants Or Easements
Relating To The Site. AA2L LTD Will Assume Site Boundaries As
Clearly Defined/indicated, Unless Otherwise Informed By The Client.

No Work To Be Carried Out Without Planning Permission,
Until All Pre Start Planning Conditions Have Been Discharged And
Until A Building Regulations Application Has Been Submitted.
Any Work Carried Out Before Building Regulations Approval Has Been
Granted Will Be Strictly At Clients Own Risk.

Any Building Works Within 6m Of A Neighbouring Home's
Foundations May Require You To Notify The Owner Of That Property
Of Your Intentions At Least One Month Before You Start Work.
Work To An Existing Party Wall Requires You To Give At Least Two
Months Notice Of Your Intentions. If Consent To Carry Out Work Cannot
Be Reached Procedures Dealing With A Dispute Should Be Followed
(the Party Wall Act 1996).

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revisions	description	date
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Riba Workstage 2 - Concept Design

Title: Proposed Site Plan

Project: Residential Development

For : S. Shaw

Job No : 2020/66/SS

Dwg No : P/02

Paper Size : A1

Scale 1:200

AA2L LTD
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APPENDIX B

COAL AUTHORITY CCMR



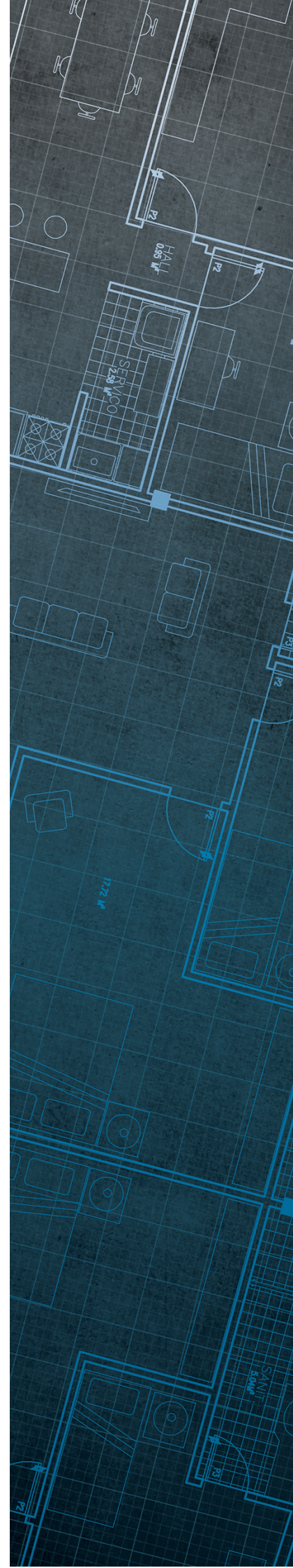
The Coal
Authority

Consultants Coal Mining Report

25 Millhouses Street
Hoyland
Barnsley
S74 9BQ

Date of enquiry: 7 June 2022
Date enquiry received: 7 June 2022
Issue date: 7 June 2022

Our reference: 51003165400001
Your reference: C514



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

Graeme Swinbourne

Enquiry address

25 Millhouses Street
Hoyland
Barnsley
S74 9BQ

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NG18 4RG

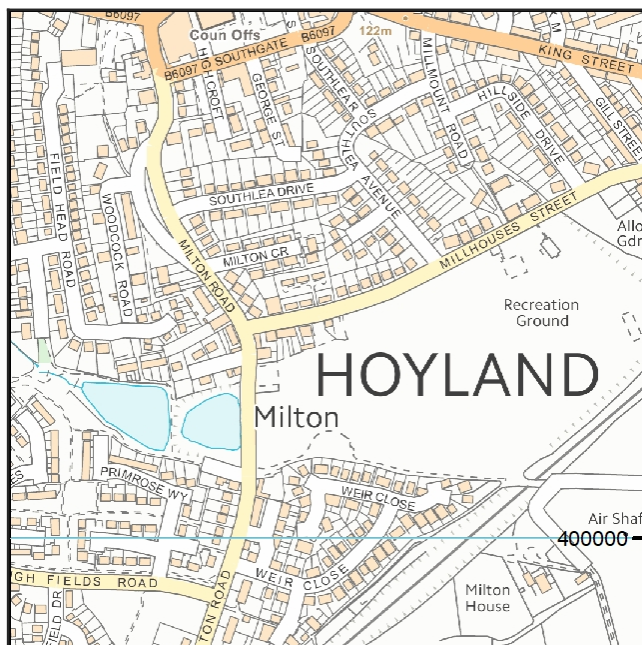
www.groundstability.com

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Approximate position of property



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Section 1 – Mining activity and geology

Past underground mining

Colliery	Seam	Mineral	Coal Authority reference	Depth (m)	Direction to working	Dipping rate of seam worked (degrees)	Dipped direction of seam worked	Extraction thickness (cm)	Year last mined
PARKGATE	TOP HARD BARNSELEY	Coal	5OTZ	57	Beneath Property	2.6	North-East	239	1871
ROCKINGHAM	SWALLOW WOOD	Coal	5OU7	98	Beneath Property	2.9	North-East	122	1967
unnamed	LIDGETT	Coal	5NM9	153	Beneath Property	2.3	North	120	1913
unnamed	TOP FENTON	Coal	5OUF	255	North-East	3.6	North-East	104	1927
unnamed	LOW FENTON	Coal	5NME	262	North-East	4.1	North-East	104	1970
SKIERS SPRING	TOP FENTON	Coal	4IVZ	262	South	3.4	North	102	1916
unnamed	PARKGATE	Coal	4OWJ	268	North-East	4.1	North-East	147	1934
unnamed	TOP FENTON	Coal	5OUE	269	Beneath Property	2.2	North-East	104	1915
SKIERS SPRING	PARKGATE	Coal	4RRQ	273	South	1.4	North	152	1922
HOYLAND SILKSTONE	PARKGATE	Coal	4OWI	283	Beneath Property	3.7	North-East	168	1931
ROCKINGHAM	THORNCLIFFE	Coal	5OUM	296	North-East	4.2	North-East	84	1979
ROCKINGHAM	THORNCLIFFE	Coal	5OUL	298	North-West	4.1	North-East	86	1941
SKIERS SPRING	SILKSTONE	Coal	4RRS	340	South	3.7	East	86	1940
HOYLAND SILKSTONE	SILKSTONE	Coal	4OWB	381	Beneath Property	2.8	North-East	86	1920

Probable unrecorded shallow workings

None.

Spine roadways at shallow depth

No spine roadway recorded at shallow depth.

Mine entries

Entry type	Reference	Grid reference	Treatment description	Mineral	Conveyancing details
Shaft	437400-004	437447 400178		Coal	

Abandoned mine plan catalogue numbers

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

14371	M432	NE855
NE819	9039	9339
M17	2250	NE853

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

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

Outcrops

Seam name	Mineral	Seam workable	Distance to outcrop (m)	Direction to outcrop	Bearing of outcrop
KENTS THICK	Coal	Yes	Within	N/A	236

Geological faults, fissures and breaklines

No faults, fissures or breaklines recorded.

Opencast mines

None recorded within 500 metres of the enquiry boundary.

Coal Authority managed tips

None recorded within 500 metres of the enquiry boundary.

Section 2 – Investigative or remedial activity

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

Site investigations

None recorded within 50 metres of the enquiry boundary.

Remediated sites

None recorded within 50 metres of the enquiry boundary.

Coal mining subsidence

There are 1 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.

See Section 4 for further information.

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

Name	Order date	Amendments
Newton Chambers	1936	None

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

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

Development advice

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

Coal mining subsidence

The site is within an area of previous interest. It is close to where the Coal Authority or licensed mine operator has investigated and where necessary remediated issues relating to coal mining subsidence.

The site requires further investigation and may influence your risk assessment. We recommend that you order the appropriate **Coal Authority Subsidence Claims Report**, which will include more information about the hazard.

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

Section 5 – Data definitions

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

Past underground coal mining

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

Probable unrecorded shallow workings

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

Spine roadways at shallow depth

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

Mine entries

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

Abandoned mine plan catalogue numbers

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

Outcrops

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

Geological faults, fissures and breaklines

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

Opencast mines

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

Coal Authority managed tips

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

Site investigations

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

Remediated sites

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

Coal mining subsidence

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

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

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

Mine gas

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

Mine water treatment schemes

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

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

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

Future underground mining

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

Coal mining licensing

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

Court orders

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

Section 46 notices

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

Withdrawal of support notices

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

Payment to owners of former copyhold land

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

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

