LYONS CMC
COAL MINING & GEOTECHNICAL CONSULTANCY
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Ian Goulding
4 Chilcombe Place
Birdwell
Barnsley
S70 5SX

Date: 14th January 2026
Your ref: (S70 5RL)
My Ref: SI 00385

FOR THE ATTENTION OF IAN GOULDING

Dear Ian,

COAL MINING RISK INTERPRETATION REPORT – FOLLOWING THE SITE INVESTIGATION FOR PROPOSED RESIDENTIAL DEVELOPMENT AT LAND ADJACENT 60 CORONATION DRIVE, BIRDWELL, BARNSLEY S70 5RL

I am pleased to supply the following report for the above named project and trust that this satisfies your requirements. Please do not hesitate to contact myself at any time for further clarification or advice.

Yours Sincerely,

M Lyons

M. Lyons
Consultant Mining Engineer
BSci CSci MIMMM

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Contents

1. Introduction

Planning permission has been granted for a new residential dwelling at the above location, subject to the mining legacy risks been fully realised and mitigated from on site, if necessary. Cape Site Services has now undertaken this work via an intrusive site investigation of 2 boreholes, the location of which is outlined on plan no. 00385/B – as attached and illustrated in appendix 5.2. The site is centred at OS NGR: 434795E / 402229N.

2. Scope of the Report

The mining legacy risks to the development are as follows:

- Instability from shallow underground coal workings
- Uncharted Mine Entries

As such, these risks need to be properly determined to ensure sound stability for the development. A borehole investigation consisting of 2 to 3 boreholes was deemed a reasonable level of investigation in the outset regarding potential void migration given the scale and nature of development combined with the available geological and mining information. A watching brief would also be implemented for any signs of mine entries.

It should be noted that this investigation is focused mainly on determining stability from potential shallow historic coal workings and will only provide limited information regarding the risks of uncharted mine entries.

3. Site Investigation

3.1 Methodology

Prior to the intrusive site investigation, a search for utilities was undertaken both via online data providers and physically on site using a Cable Avoidance Tool (CAT). Boreholes were marked out with tape measure from boundary lines as illustrated on plan no. 00385/B outlined in appendix 5.2.

An investigation utilising a tracked Beretta Rotary Drill Rig equipped with 2m long 75mm diameter drill rods was deemed appropriate in this instance along with water flush techniques to analyse returns and minimise any risks associated with mine gas emissions and spontaneous combustion. Gas monitoring equipment would be employed during works for risks associated with Methane, Carbon Monoxide, Oxygen, Carbon Dioxide and Hydrogen Sulphide. The works are to be undertaken under Mining Remediation Authority permit ref: 30755 – as illustrated in appendix 5.4.

Considering the available detail boreholes were decided to be taken to the base of the Kents Thick coal seam or to 15m if no coal is encountered. No workable seams are anticipated below the Kents Thick coal seam to be of affect from a shallow unrecorded mining aspect.

The works were to be supervised by the Drilling Engineers Mr. S. Fish and Mr I. Wiles, and overseen by the Consultant Mining Engineer Mr. M. Lyons.

3.2 Interpretation of Findings

Drilling log sheets for all boreholes are outlined in appendix 5.3.

Both boreholes proved good natural sandstone bedrock beneath 0.5m of soil/made ground, with no coal seams encountered to maximum depth of 15m. Given these findings, on each side of the proposed building plot, it was not deemed necessary to undertake the 3rd borehole.

No signs of underground shallow workings or unstable ground were encountered and no fugitive gases were detected at any point during the drilling operations. There were no signs of colliery spoil material within the made ground at the surface to indicated past coal mining activity.

The logs appear to match well given anticipated strata dip rates/directions, which would infer no signs of any geological faulting between the borehole locations.

4. CONCLUSIONS AND RECOMMENDATIONS

1) The investigation has determined no workable coal seam with an influencing depth of the proposed development. As such, no further considerations from the shallow coal mining instability aspect will be required and usual foundation designs can be considered in line with the advice of the appointed Building Control department/officer at the time of construction.

2) No signs of any mine entries were observed during the investigation; however slight risks are always present within the exposed coalfield for discovering such features. Watching briefs would be prudent during future ground works for any associated signs - grey circular areas of fill material within natural bedrock would be an indication of an old mine shaft for example. The Mining Remediation Authority should be notified where any such feature is encountered or suspected.

3) No fugitive gases were encountered during this investigation; given the findings the associated risks of such would be considered low.

Note: should there be any uncertainty of actual conditions during future ground works Lyons CMC or indeed the Coal Authority themselves can be further consulted for on site assessment if necessary.

This report and future development proposals should be submitted to the regulators for their approval prior to any works taking place.

I trust that this satisfies your requirements, however please do not hesitate to contact myself at any time for further clarification or advice.

Yours Sincerely,

M Lyons

M. Lyons
Consultant Mining Engineer
BSc CSci MIMMM

Enc.

THIS SITE INVESTIGATION INTERPRETATIVE REPORT IS BASED ON AND LIMITED TO THE INFORMATION IN MY RECORD AT THE TIME THE ENQUIRY IS ANSWERED. It is based on my professional opinion in line with the guidelines set out in CIRIA C758D - "Abandoned Mine Working Manual." The opinion may be overruled by Government Authorities based on other information not in my record. Further site investigations may be undertaken which would supersede the factual findings of this investigation. Copyright in this report belongs to M.A.Lyons. All rights are reserved and unauthorised use is prohibited. Copyright is not transferred to external parties by possession of this report, however, those for whom the report is compiled have the right to use it. If any unauthorised third party comes into possession of this report, they rely upon it entirely at their own risk and the author does not owe them any Duty of Care or Skill.

5 Appendix

5.1 References

5.1.1 CIRIA C758D ‘Abandoned mine workings manual’.

5.1.2 British Standards Institution: BS 5930:2015 ‘Code of practice for ground investigations’ BSI 2015.

5.1.3 British Standards Institution: BS EN ISO 14688-1: 2002 + A1 2013 ‘Geotechnical Investigation and Testing - Identification and Classification of Soil - Part 1 - Identification and Description. BSI 2013.

5.1.4 British Standards Institution: BS EN ISO 14689-1: 2003 ‘Geotechnical Investigation and Testing – Identification and Classification of Rock – Part 1 – Identification and Description. BSI 2003. Incorporating Corrigendum No. 1 February 2007.

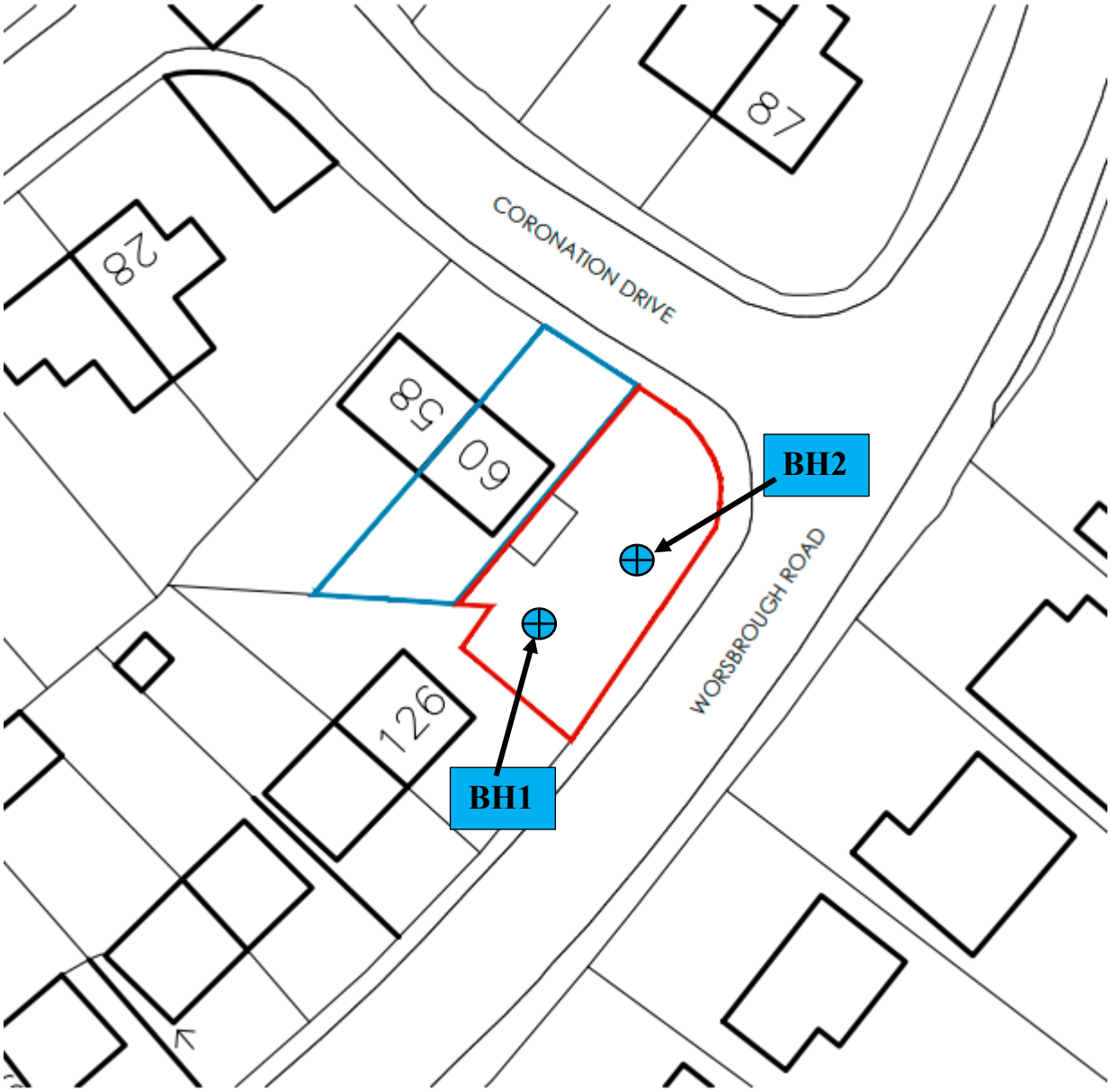
5.1.5 British Standards Institution: BS 10175 ‘The Investigation of Potentially Contaminated Sites. Codes of Practice’. BSI 2011+A1 2013.

5.1.6 British Standards Institution: BS EN ISO 22476-3: 2005 + A1 2011 ‘Geological Investigating and Testing. Field Testing. Standard Penetration Test’.

5.1.7 British Standard 1377:1990 Parts 1-9 ‘Methods of Test for Soils for Civil Engineering Purposes’.

5.2 Borehole Location Plan No. 00385/B

Borehole Site Investigation Plan 00385/B
Development at: 60 CORONATION DRIVE, BIRDWELL, BARNSLEY S70 5RL
NGR: 434795E / 402229N (NTS)



5.3 Drilling log sheets

Client: Ian Goulding	**Site: Land adjacent, 60 coronation Drive, Birdwell, Barnsley, S70 5RL**		**Cape Site Services unit 2, rear of Castle Buildings Carlton Road, Barnsley, S71 3HX**
Date: 08/01/2026	**Method:** water flush	**Permit No:** 30755	
Driller: Simon Fish		**Driller Assistant: Richard Hawkins**	
		Page No: 1	

Measurements In Meters

BH No:	FROM	TO	THICKNESS	DESCRIPTION
1				
	0	0.5	0.5	soil / made ground
	0.5	3.5	3	sandstone light brown
	3.5	5	1.5	Sandstone broken bands slight water loss
	5	8	3	Mudstone grey
	8	9	1	sandstone grey
	9	15	6	mudstone grey with sandstone bands
2				
	0	0.5	0.5	soil / made ground
	0.5	3.4	2.9	sandstone light brown
	3.4	5	1.6	sandstone broken bands slight water loss
	5	7.8	2.8	mudstone grey
	7.8	8.9	1.1	sandstone grey
	8.9	15	6.1	mudstone grey with sandstone bands

Appendix 5.4 Mining Remediation Authority Permit:

Mining Remediation Authority

Permit to Enter or Disturb Mining Remediation Authority Interests

Permit 30755

Name and Address of Permit Holder:

Ian Goulding
4 Chilcombe Place
Birdwell
Barnsley
S70 5SX

Site Location:

Land Adjacent
60 Coronation Drive
Birdwell
Barnsley
S70 5RL

This certificate hereby grants the above named Permit Holder a Permit to carry out:-

Ground investigation by three boreholes to 15m to determine presence of shallow mine workings

within the Authority's interests at the identified site location above as shown on the Grant Permit Boundary (overleaf) for the period of **12 months** from the granted date shown below. *The granting of this Permit does not constitute advice given by the Authority in relation to the proposed operations. It is the Permit Holder's responsibility to obtain appropriate health, safety, environmental, technical and legal advice.*

Conditions:

- *Manned entry (i.e.) into mine entries/workings) is strictly prohibited.*
- *Water flush*
- *Gas Monitoring CO, CH_4, CO_2, O_2, H_2S at borehole and rig*
- *Operators undertaking the work must be in possession of this certificate and the Permit boundary plan at the time of works*
- *Appropriate borehole sealing without delay and to withstand site level changes*

Signed: Helen Day Granted Date: ***15 December 2025***

For and on behalf of the Mining Remediation Authority

Nominated Representative: Helen Day, Permitting Manager;
Mining Remediation Authority, Permitting Office, 200 Lichfield Lane, Mansfield, Notts, NG18 4RG
Tel: 01623 637450; E-Mail: licensingandpermissions@miningremediation.gov.uk