

COAL MINING RISK ASSESSMENT

Holcombe Moor Training Centre

Spenleach Lane

Hawkshaw

Bury

BL8 4JJ

Author: Daniel Slattery
Client: NWRFCA
Reference: rep-tjba-NWRFCA-holcombe moor training camp-CMRA-221021

Revision	Date	Reason
0	October 2021	Original for planning

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1. INTRODUCTION.

T. J. Booth Associates have been appointed by the North West Reserve Forces & Cadets Association (NWRFCA) to undertake a Coal Mining Risk Assessment (CMRA) to a parcel of land within the Holcombe Moor Training Camp.

The Holcombe Moor Training Camp is a training centre for British military groups, and comprises a central curtilage housing main building facilities including: sleeping quarters/barracks, lecture hall, dining & bar areas, medical & IT suites, indoor ranges, welfare centre & parking areas; and a wider training area comprising rifle ranges, clay pigeon ranges, troop shelters, and obstacle courses etc.

The Application Site is nominally a 315sqm area within the main central curtilage housing the building facilities. It is proposed to construct a new storage building.

A planning application, ref No. 67569; for the "Construction of standalone storage building", was recently submitted.

A letter from Bury Metropolitan Borough Council (BMBC) Development Management Team responded requiring a "coal mining report", refer to letter excerpt below:

Our Ref: 67569
 Your Ref:
 Date: 07 October 2021
 Please ask for: Chris Gale
 Direct Line: 0161 253 5324
 Fax: 0161 253 7373
 E-Mail: c.gale@bury.gov.uk
Electronic service of legal documents accepted only at :
 legalservices@bury.gov.uk (e-mail) or 0161 253 5119 (fax)

Mr Shuttleworth
 Equilibrium Architects Ltd
 435-437 Walmersley Road
 Bury
 BL9 5EU

Dear Mr Shuttleworth

Proposal: Construction of standalone storage building
 Location: Holcombe Moor Training Centre, Spen Leach Lane,
 Hawkshaw, Bury, BL8 4JJ

I refer to your recent application concerning the above development.

I am afraid that the details you have sent are inadequate and your application cannot be dealt with until the following extra information is received:

- 1 Please submit the South facing side elevation.
- 2 Please submit a desktop study for contaminated land.
- 3 Please submit a coal mining report.
- 4 Please expand upon the planning statement to include volume calculations for development on greenbelt land.
- 5 Please provide photographs of the proposed site and surrounding area.

The purpose of the report is to assess for the potential coal mining legacy local to a proposed residential development and put forward recommendations based on current best practice for approval by the Coal Authority.

2. PROPOSED DEVELOPMENT

The proposal is to erect a new storage building within the training camp, and the building footprint and immediate surrounding area comprises the "Application Site" for the purposes of this assessment.

The proposed storage building will comprise a steel frame superstructure with dado walls and cladded by insulated wall panels.

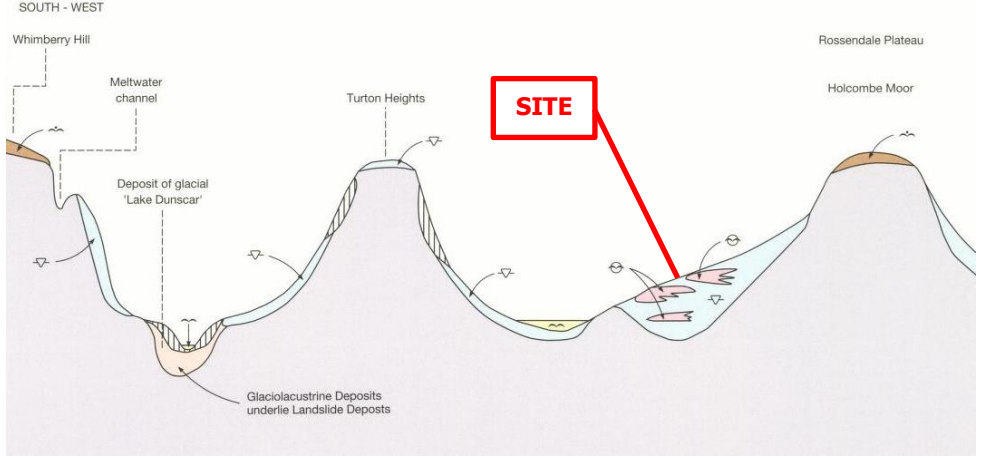
The external areas leading to the proposed building will remain as permanent hardstanding finishes.

3. HISTORIC MAPS.

DATE	ON-SITE	OFF-SITE/SURROUNDING AREA
c1850	The Site is part of agricultural land in the open moor.	The area within 250m of the Site comprises agricultural land. There are no coal mining features such as shafts, adits, or collieries noted within 750m of the Site boundaries. Those noted are to the west within a different geological region comprising Lower Coal Measures.
c1893	No change.	There are no coal mining features such as shafts, adits, or collieries noted within at least 1500m of the Site boundaries.
c1910	No change.	No change, no further coal mining features noted.
c1929	Building within the Application Site footprint, attached to another offsite building adjacent to the south side – together both noted as a Rifle House. Ancillary buildings/sheds to the west side boundary.	No change, no further coal mining features noted.
c1938	No change.	No change, no further coal mining features noted.
c1964	No change.	No change, no further coal mining features noted.
c1976	No change.	No change, no further coal mining features noted.
c1982	No change.	No change, no further coal mining features noted.
c1992	No change.	No change, no further coal mining features noted.
c1993	No change.	No change, no further coal mining features noted.
c1999	No change.	No change, no further coal mining features noted.
c2005	Building on Site demolished leaving hardstandings only.	No change, no further coal mining features noted.
c2013	No change.	No change, no further coal mining features noted.

4. BGS GEOLOGY.

Superficial Geology:	The geological maps indicate the Site is within an area of Divensian Till, generally diamictic clay with lenses of sand/silt. There are small areas of glaciofluvial sand & gravel deposits in the wider area. The regional cross sections on the BGS map indicates significant glacial deposits in the local area, refer to generalised section below & map in Appendix:
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Bedrock Geology:	BGS maps indicate the Application Site is underlain by the undifferentiated sandstones/mudstones/siltstones of the Marsden Formation, part of the Millstone Grit Group. The Map also indicates the Brook Bottoms Sandstone to subcrop nominally 80m west of the Application Site. The dip is suggested to be approximately 2deg northeast. Refer to Map in Appendix.
Coal Seams/Faults.	The only coal seam to be shown to subcrop within the local geological fault block is the Holcombe Brook Coal Seam which is higher up in the geological sequence to that of the Site, and is laterally discontinuous. Although not shown to subcrop on the geological map, there is an unnamed coal seam within the Brook Bottoms Sandstone at depth, although this is noted as thin according to current BGS stratigraphic records.

5. BGS BOREHOLE RECORDS.

The closest borehole to the Application Site was "SD71NE15", approximately 500m east and higher up in the stratigraphy, but nominally at the same topographic level. Ground level at the borehole was recorded at 213.37m aOD.

The borehole recorded the following (original log in Appendix):

0-0.30m	Soil
0.30-2.13m	Clay & stones
2.13-18.28m	Brown clay
18.28-29.26m	Blue clay
29.26-30.17m	White clay
20.17-43.28m	Shale

No coal seams were identified in the borehole.

Another borehole, named as "SD71NE219" was noted approximately 800m north. It was in a similar position in the stratigraphic succession to the SD71NE16 borehole above but recorded less glacial deposits owing to the locale higher up the valley. The borehole recorded up to 50m of bedrock without recording of coal seams (original log in Appendix):

0-1.00m	Clay
1.00-4.50m	Boulder clay
4.50-9.00m	Sand & gravel
9.00-39.00m	Mudstone

39.00-52.00m	Sandstone
52.00-54.75m	Mudstone
54.75-60.00m	Yellow sandstone

6. COAL AUTHORITY

Mine Shafts, Pits, Adits/Entries:	The Coal Authority Report indicated there were no entries noted within 100m of the enquiry boundary. The Coal Authority Interactive Map indicated no coal entries within 750m radius of the Site. All entries in the wider area were to the west.
Past Recorded Underground Mining.	There was no past recorded underground mining beneath the Site noted within the Coal Authority Consultants Report or within the Coal Authority Interactive Map.
Unrecorded Probable/Potential Shallow Underground Workings:	There was no potential or probable shallow underground workings noted beneath the Site within the Coal Authority Consultants Report or Coal Authority Interactive Map.
Present/Future Underground Mining.	Not known to be a risk.
Past/Present/Future Surface Mining/Opencast:	None noted locally.
Mining Geology and Subsidence:	No issues noted locally.
Hazards and Mine Gas:	No issues noted locally.
Development High Risk Area:	The Site is within a Development High Risk Area due to the position of subcropping coal positions on historical and now outdated geological maps.
Abandonment Plan Data:	Abandonment data not required.

7. SITE STRATIGRAPHY.

Given the geological maps and datasets noted for the local area, the stratigraphy for the Site is estimated to be as follows:

0-30.00m	Sand & gravel generally over boulder clay (Drift)
30.00-33.00m	Interbedded mudstone/siltstone with finer sandstone beds (Marsden Formation)
33.00-43.00m	Brooks Bottoms Sandstone (Marsden Formation)

8. IDENTIFICATION OF SITE SPECIFIC RISKS.

Recorded Workings:	There are no recorded workings noted beneath the Site, and therefore the risk from recorded workings is low.
Probable/Potential Shallow Workings:	The Coal Authority Coal Mining Consultants Report suggests the risk from probable or potential shallow seams is low. However, the Site was deemed to require a Coal Mining Risk Assessment due to the fact that historic BGS maps (from which the Coal Authority seam positions are drawn) showed a seam subcropping beneath the Site. The BGS maps have been significantly updated for the local area, and the latest 1:10000 scale BGS maps do not show seams local to the Site. Borehole data for the local area corroborates the significant glacial cover and bedrock data noted on the BGS maps, as well as positioning the shallowest seam at a minimum depth of approximately (not less than) 43m which also corroborates the risk from shallow seams in the Coal Authority Consultants Report.

Opencast Workings:	No opencast workings locally, and therefore the risk is low.
Coal Pits/Shfts/Adits:	The closest pits/shfts/adits noted within the Coal Authority data was noted over 750m west of the Site, in a different geological fault block (Pennine Lower Coal Measures). The lack of entrances local to the Site and wider area is further evidence of the low risk of mining locally. Considering the depth of glacial cover in the local area, historic bell pits are not considered a risk due to depth to potential seams.
Mine Gas or subsidence:	No evidence of local events, and therefore the risk is low.

9. MITIGATION STRATEGY

Given all risks to the Site are considered to be low, no mitigation is required.

10. CONCLUSIONS & RECOMMENDATIONS.

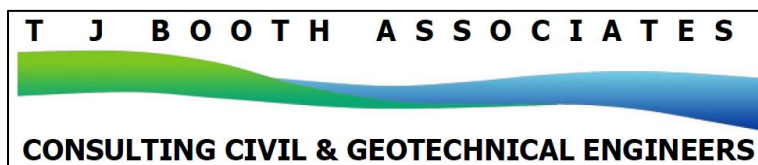
Records suggest that the coal seams are laterally discontinuous in the local area, generally thin, and there are no records of coal mining or shallow seams locally.

This risk assessment estimates that the seam may lie at depth but is approximated to be >43m depth going on local stratigraphic records.

No residual risks remain, and coal mining legacy is not considered a risk to the development proposals.

No further investigation work is recommended.

This report should be submitted to the Coal Authority as part of planning application, ref No. 67569 for approval.



Signed.....

D.S. Slattery BSc (Hons).

T J Booth Associates.

Authorised.....

T J Booth BSc (Hons), C. Eng. C. Env. MICE.

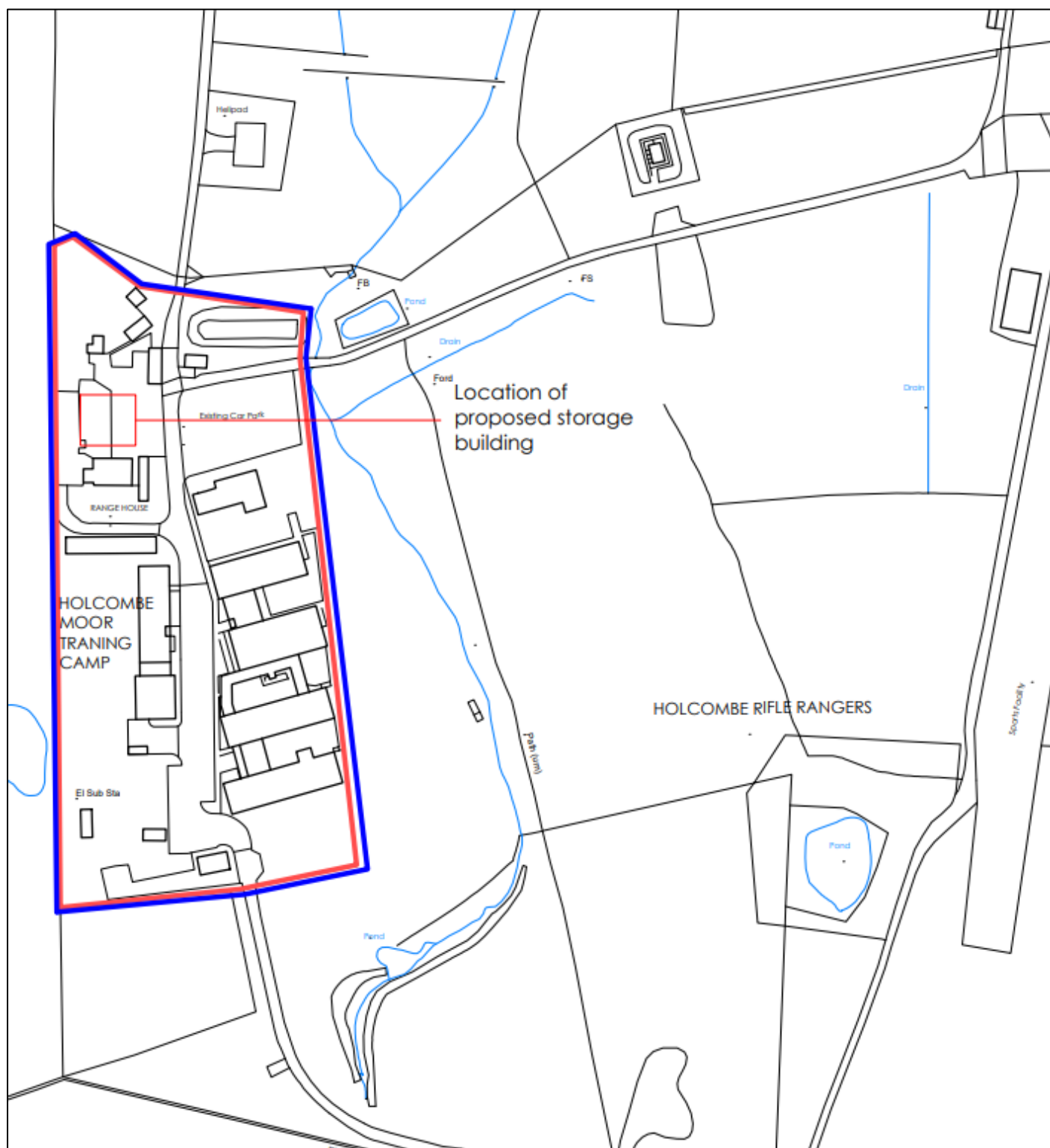
T J Booth Associates.

11. REFERENCES.

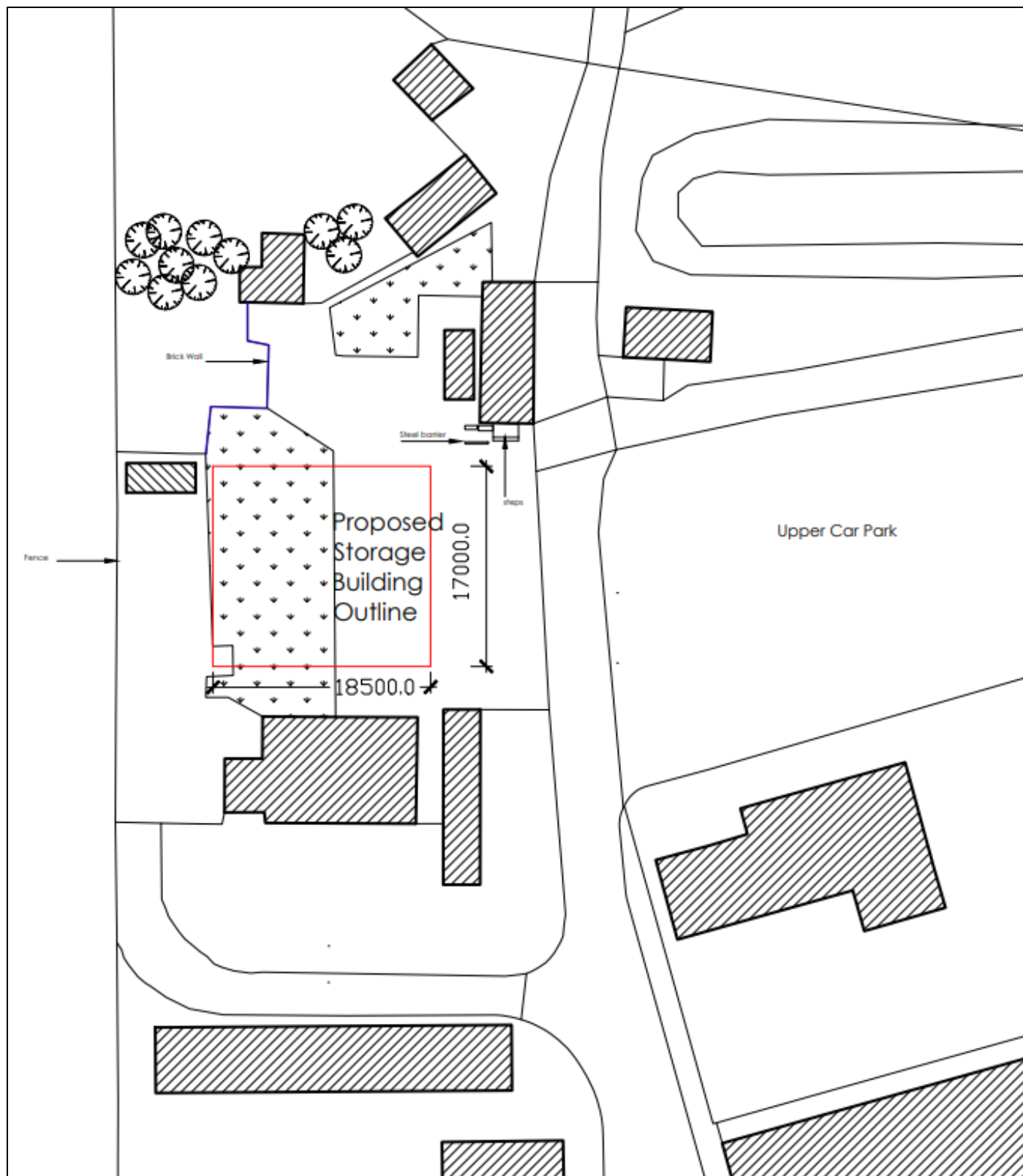
- CIRIA. Report C758.
- CIRIA. Report SP32.

12. APPENDIX.

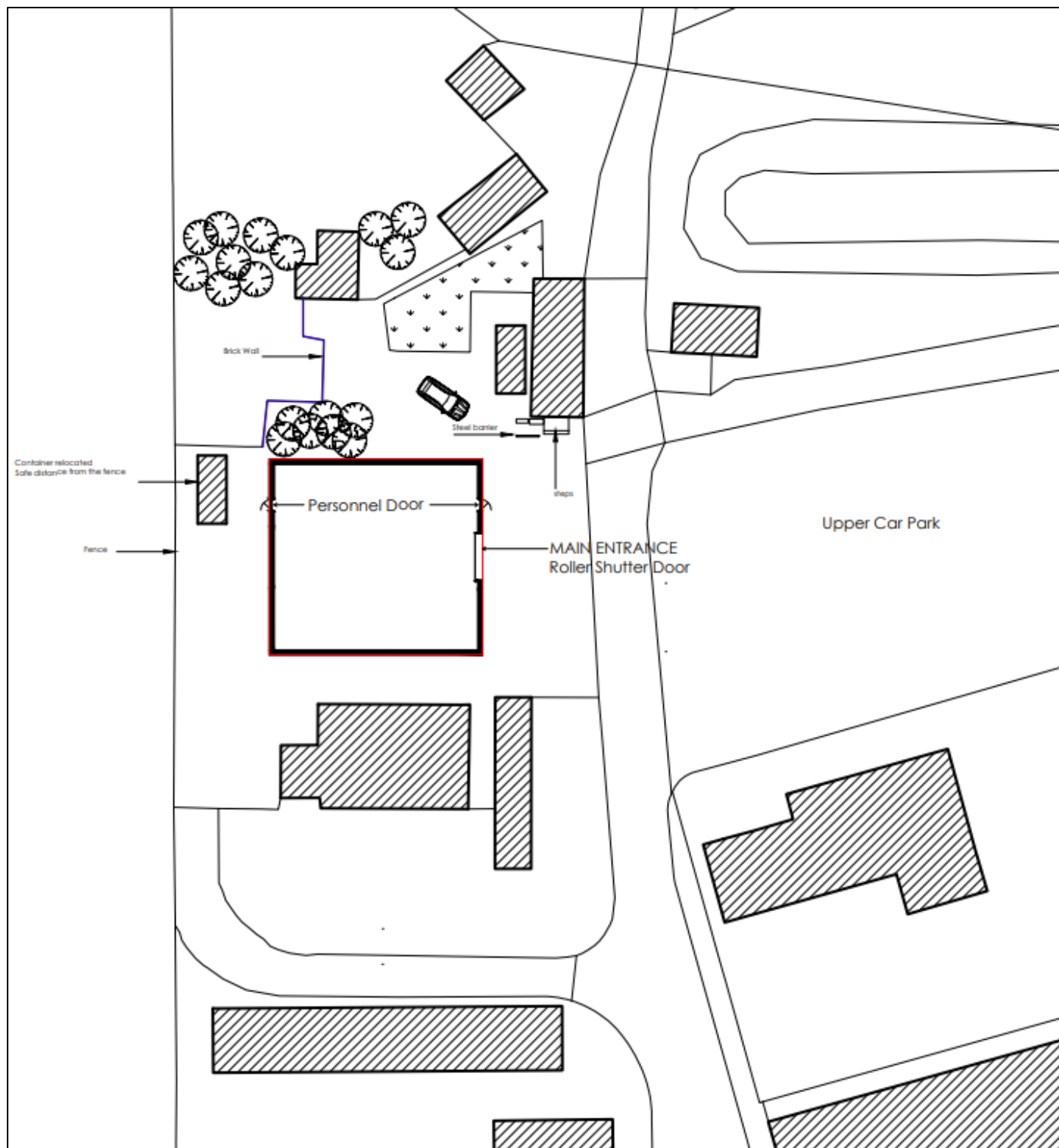
12.1. Location Plan

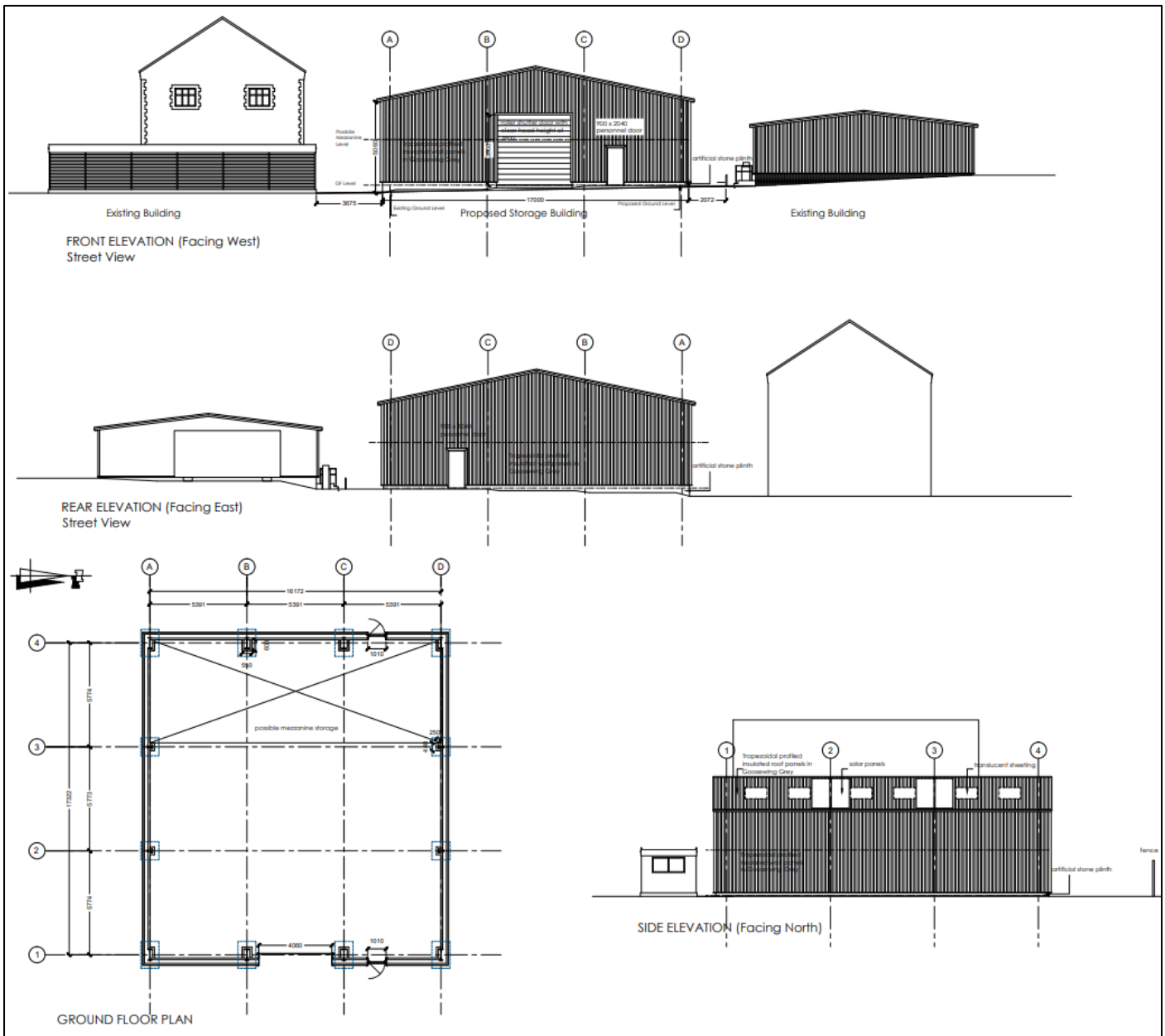


12.2. Ex Site Plan

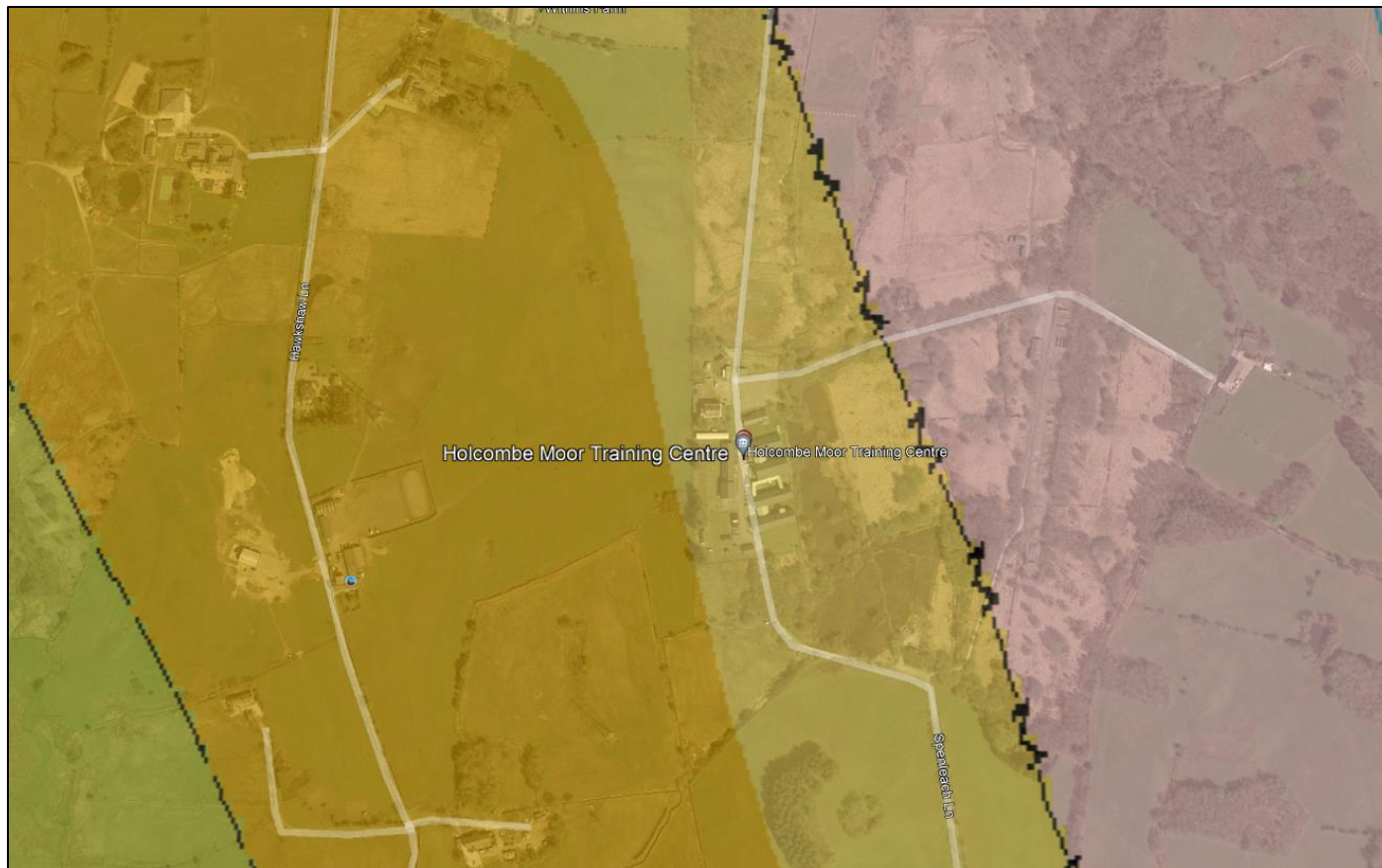


12.3. Proposed Development





12.4. Solid & Drift Geology.



12.5. Coal Authority Consultants Report.



The Coal
Authority

Consultants Coal Mining Report

Ministry Of Defence
Holcombe Moor Training Centre
Spen Leach Lane
Ramsbottom
Bury
BL8 4JJ

Date of enquiry: 26 October 2021
Date enquiry received: 26 October 2021
Issue date: 26 October 2021

Our reference: 51002680427001
Your reference: nwrfa-holcombe moor-
261021



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

T J Booth Associates

Enquiry address

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Holcombe Moor Training Centre
Spenn Leach Lane
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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

None available.

Outcrops

Seam name	Mineral	Seam workable	Distance to outcrop (m)	Direction to outcrop	Bearing of outcrop
LOWER HOLCOMBE BROOK	Coal	Yes	Within	N/A	324

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

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.

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12.7. BGS Borehole Log "SD71NE219".

SD71/168

D STRATA LOG			
Geological Classification (BGS only)	Description of strata	Thickness	Depth
		m	m
	CLAY	1 - 00	1 - 00
	BOULDER CLAY	3 - 50	4 - 50
	SAND AND GRAVEL	4 - 50	9 - 00
	MUDSTONE	30 - 00	39 - 00
	SANDSTONE	13 - 00	52 - 00
	MUDSTONE	2 - 75	54 - 75
	YELLOW SANDSTONE	5 - 25	60 - 00
(continue on separate page if necessary)			
Other comments (e.g. gas encountered, saline water intercepted, etc.)			

FOR OFFICIAL USE ONLY

FILE	CONSENT NO.	NGS REF NO.
LIC NO.	PURPOSE	NRA REF NO.
DATE REC:	COPY TO:	ENTERED BY: