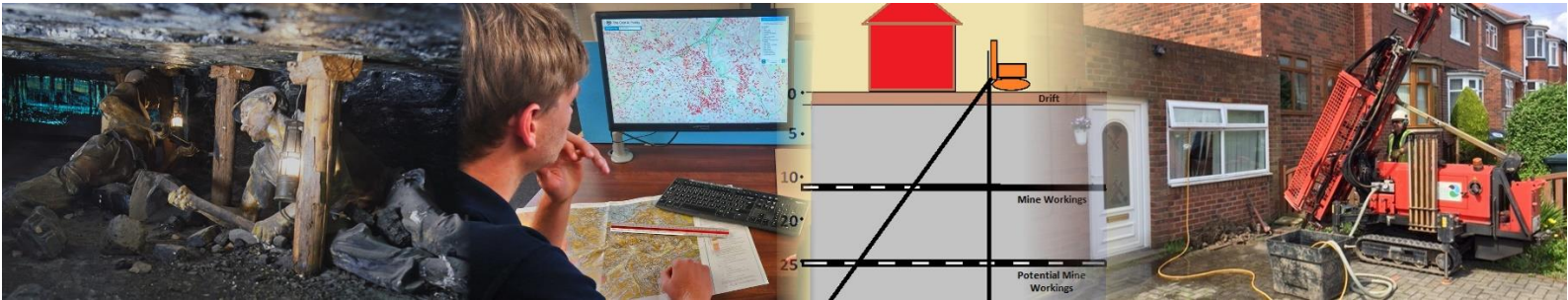




GEOLOGICAL
 GEOTECHNICAL
 GEOENVIRONMENTAL
 CONSULTANCY
 DRILLING & DATA ACQUISITION



GEOINVESTIGATE LIMITED

Coal Mining Risk Assessment (CMRA)

LOCATION	Nifty Lifts, Platts Common Industrial Estate, Mason Way, Hoyland, Barnsley S74 9TF
ISSUE DATE	8 November 2023
FOR	JHA Ltd
CLIENT REF.	
OUR REF.	G23385

Prepared by

Holly Lewis MEarthSci (Hons) FGS
 Graduate Geoenvironmental Engineer

Checked by

Ross Nicolson BSc (Hons) MSc (Eng) CEng MIMMM
 Principal Geotechnical Engineer

1. CMRA INTRODUCTION & COAL MINING HAZARDS

1.1 Site Location and Description

The approximate centre of the site is at National Grid Reference E 436813 N 401478 with surface ground height about 150m aOD. The site is located in Platts Common Industrial Estate.

The boundary shown in RED on the Coal Authority (CA) report provided in Appendix A corresponds with the planning application area. The site is located on hillside underlain by a mine spoil heap. Site images are provided in Appendix B.

The site is currently occupied by large industrial units - Bays 1 to 5 with concrete apron on its north side used for outside rack storage. It is proposed to add two new Bays 6 & 7 on the north side of the property currently occupied by concrete hardstanding and racking as per the development plan provided in Appendix C.

1.2 Historical Maps

A desk study of limited available historical OS maps shows in 1890 the site comprised a large mine spoil heap associated with Hoyland Silkstone Collieries. A mine shaft is shown to the southeast of the development area. A railway cutting, presumably in sandstone bedrock and a quarry, are present to the south of the property. It is speculated the railway cutting was subsequently infilled.

Save for the presence of mine spoil no other surface mining activity is shown within the site.

1.3 Anticipated Geology

The location of the site is shown on the extract of British Geological Survey (BGS) 1:50,000 solid/drift geology map (Sheet 87, Barnsley) presented in Appendix E. This map shows the site to be underlain by Pennine Middle Coal measures comprising sandstone, siltstone, and mudstone interbedded with several named coal seams coal.

The tentative elevation of the site relative to the vertical geology column is shown below the map. Extracts of the older one-inch geology map and the 1:10000 geology map Sheet SE30SE are also included in Appendix E.

According to the mapping the site is expected to be covered by an appreciable thickness of mine spoil/infilled ground. The depth and condition of this infilled ground is unknown.

The coal mining geology below the proposed building area is complicated by the presence of geological faulting. The Abdy Coal (A) outcrop is present to the south of the property and may be truncated by the Hoyland Fault so that it does not extend north into the site. This however is speculation. According to the one inch map the Kent's Thin (KN) Coal outcrops to the north of the site and may underlie the new building.

BGS borehole log SE30SE/169, presented in Appendix F and located some 160m to the south of the development area, records a coal horizon between 4m to 5m depth, which may potentially be the Abdy Coal seam. In Geoinvestigate's opinion because this coal is poor it is unlikely to have been mined, though this is speculation.

The section of Holand & Silkstone Colliery shaft log SE30SE/10 also presented in Appendix F and located some 180m to the southeast of the site records only one coal seam (the Barnsley Seam) between surface and a depth of 120m at this locality with workings (recorded in the CA report in the Barnsley Coal) at this depth. While log SE30SE/10 might suggest that no other coal horizons and workings are present between surface and 120m below the proposed new extensions, comparison of log 5 of Lund Colliery Shaft 1 and Log 7 Hoyland and Silkstone Shaft (both provided in Appendix F) indicates that several coal horizons may occur above the Barnsley Coal and therefore between surface and 120m below the new buildings. These include the Low Beamshaw Coal lying at 20m depth and the Kents Thin Coal at 34m. However, the Abdy Coal which lies 127m above the Barnsley Coal is likely to be absent. This however is speculation.

In Geoinvestigate's opinion, owing to the complexity of the coal mining geology at this locality further limited drilling investigation is required to confirm that unrecorded mine workings are absent within shallow depth beneath the new building extension.

1.4 Mine Workings & Mine Shafts

The CA report in Appendix A identifies 6 levels of past recorded mine working between depths of 119 and 448m depth. In Geoinvestigate's opinion ALL these workings lie too deep to impact surface ground stability.

The CA place the site in area of NO probable shallow coal mine workings. The CA define Probable Unrecorded Shallow Workings as "*Areas where the Coal Authority believes there to be unrecorded coal workings that exist at or close to the surface*" (i.e., less than 30m).

As discussed in section 1.3 of this CMRA owing to the complexity of the coal mining geology at his locality it is Geoinvestigate's opinion that further limited drilling investigation is required to confirm that unrecorded shallow mine working is absent below the new buildings.

The CA report identifies no mine shafts within 100m of the site.

1.5 Geological Faults Fissures & Breaklines

The CA report record no faults, fissures or breaklines, however the geological map shows faults in the vicinity of the site.

1.6 Mine Gas

According to the CA report no mine gas incident or remediation has been recorded within 500m of the enquiry boundary and typically on the UK coalfields mine gas risk to surface development is low. Circumstances where gas risk is increased include: proximity (typically < 50m) to mine entries (adits and shafts), proximity to recorded mine gas incidents, where development is located above or adjacent to very shallow and shallow (< 30m) unflooded mine workings or roadway tunnels, coal seams with a history of spontaneous combustion. Other factors which would increase mine gas risk are: natural or artificial pathways providing routes for gas migration e.g. permeable soil cover, pathways created by geological faults, mining induced breaklines/fractures, collapsed mine roof strata, mining subsidence, mining sinkholes/crown holes and unsealed boreholes.

This CMRA has indicated that conditions may exist at this site increasing mine gas risk, such as the presence of shallow mine working, gas permeable made ground/mine spoil and geological faulting however the risk may be less as there has been no reported mine gas incident at this locality.

2. RISK ASSESSMENT OF SITE-SPECIFIC COAL MINING ISSUES

The risk assessment methodology adopted in this section is based on CA publication RISK BASED APPROACH TO DEVELOPMENT MANAGEMENT - GUIDANCE FOR DEVELOPERS Version 3, 2014 and Version 4 - 2017. The template contained therein is broadly adopted in the table below with amendments made by Geoinvestigate Limited. The factual information it is based on, is derived mostly from the CA Consultants Coal Mining Report and additional desk study information including available historical maps, geological maps & memoirs, BGS boreholes, online articles etc. It is not an exhaustive desk study review. Therefore, if new information is released or found in the future, this CMRA may require updating.

The table on the following page also provides advice on next step mitigation and the likely planning decision.

RISK ASSESSMENT & MITIGATION		
Coal Mining Issues/Hazards	Risk	Next Step Mitigation
Past underground coal mining	L	
Probable unrecorded shallow workings	L M	Drilling to enable further assessment
Outcrop	NONE	
Spine roadways at shallow depth	NONE	
Mine entries	NONE	
Geological faults, fissures and breaklines	NONE	
Mine/hazardous ground gas	M	Drilling to enable further assessment
Opencast mines within 500m	YES	O/C 420m to the NE & too distant to impact site
Coal mining subsidence claims within 50m	NONE	
Site investigations within 50m	NONE	
Likely Planning Decision	Yes/No	Reason
Is planning permission likely to be given with respect to coal mining legacy issues CONDITIONAL upon carrying out further intrusive investigation leading to possible building design mitigation at a future date but before construction begins?	Yes	Yes. Because the site is NOT impacted by known mine entry proximity hazard and the possible ground stability and hazardous gas risks to the proposed development identified in this CMRA requires further assessment but can be mitigated by routine engineering solutions.

Assessed risk level – High, Medium Low, NONE

3. CMRA OUTCOME & RECOMMENDATIONS

This CMRA has identified increased risk to the proposed development from possible shallow mine workings as well as perhaps mine gas. Drilling investigation is required to further assess both risks. However as both risks can be mitigated by routine engineering solutions **planning permission should not in our opinion be withheld with respect to coal mining legacy issues** providing further intrusive investigation is carried out at a future date and the permission is **CONDITIONED** accordingly.

In Geoinvestigate’s opinion 3 rotary open boreholes without core sample recovery should be sunk at the site to depths up to 30m (but not necessarily reaching 30m) to establish bedrock depth and mine workings depth (if any) beneath the site.

A Coal Authority Permit needs to be obtained (ahead of) further intrusive exploratory drilling. As per the table below Water Drill Flush to be used when drilling. The permit application must state **WATER ONLY DRILL FLUSH** for the safety of the public and drill crew. **Failure to do so may result in prosecution by the HSE and a hefty fine.**

Risks for Different Drilling Scenarios					
Air flush	Mist flush	Foam flush	Water flush	Mud flush	Additional controls
HIGH	HIGH / MED'M	HIGH / MED'M	LOW	LOW	<ul style="list-style-type: none"> Monitoring at rig and other open holes. Seal boreholes

Boreholes must be sealed on completion.

Gas monitoring **MUST** be carried out during drilling and may provide further indication of mine gas risk.

However, if the drilling investigation encounters shallow mine working longer term gas monitoring in specially installed gas wells may be required to further assess the ground gas risk.

In addition to further limited coal legacy drilling investigation shallower geotechnical and geo-environmental site investigation is likely to be needed to establish the depth and condition of the appreciable thickness of mine spoil which is expected to underlie the new buildings to enable foundation design and to check this horizon for the presence of contamination. Owing to the presence of infilled ground longer term gas monitoring in specially installed gas wells may also be required.

Alternatively, longer term gas monitoring may be avoidable if the installation of precautionary gas protection measures is included in the design of the new buildings in line with “Characteristic Situation 2” (CS2) based upon the CIRIA 665 (revised) report – “Assessing the risks posed by hazardous ground gases to buildings”. However, agreement will be required from the Local Planning Authority for this alternative proposal.

WHAT TO DO NEXT? Obtain quotes for the intrusive site investigation works. The cost of the SI works should be a **“lump sum” fixed price**. Geoinvestigate can provide advice and assistance with helping you find suitable site investigation & drilling contractors. Call us on 01642 713779 or email enquiries@geoinvestigate.co.uk.

Appendices:

- A. CA Consultants Coal Mining Report issued 11 October 2023 ref. 51003382918001
- B. Site Images
- C. Proposed Development
- D. Historic OS Maps
- E. Geology Map Extracts
- F. BGS Borehole Records

APPENDIX A
COAL MINING REPORT



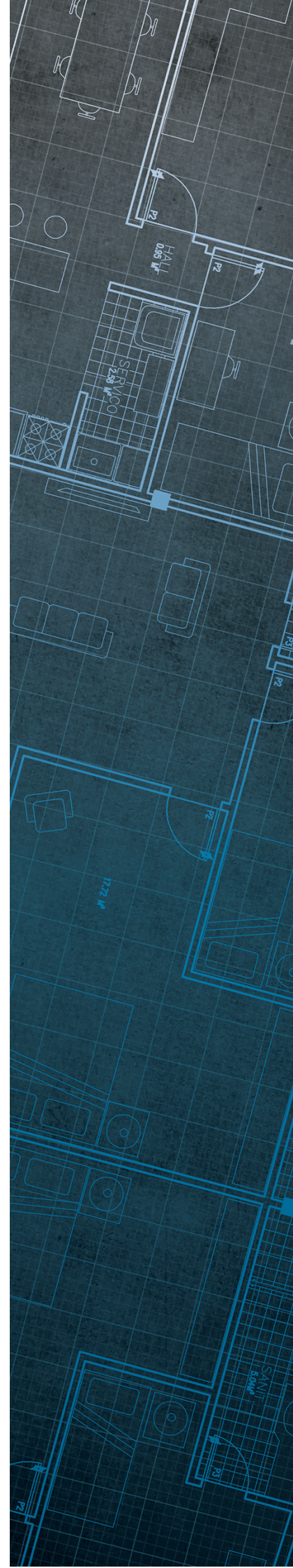
The Coal
Authority

Consultants Coal Mining Report

Nifty Lifts
Mason Way
Platts Common Industrial Estate
Barnsley
South Yorkshire
S74 9TF

Date of enquiry: 11 October 2023
Date enquiry received: 11 October 2023
Issue date: 11 October 2023

Our reference: 51003382918001
Your reference: G23385



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

GEOINVESTIGATE

Enquiry address

Nifty Lifts
Mason Way
Platts Common Industrial Estate
Barnsley
South Yorkshire
S74 9TF

How to contact us

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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

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
unnamed	TOP HARD BARNSELEY	Coal	5QMB	119	Beneath Property	4.1	North-East	250	1807
unnamed	TOP HARD BARNSELEY	Coal	5QNB	135	South-West	2.8	North-East	239	1826
HOYLAND SILKSTONE	SWALLOW WOOD	Coal	4TJS	165	Beneath Property	6.2	North-East	90	1926
HOYLAND SILKSTONE	LIDGETT	Coal	5NMG	224	Beneath Property	3.7	North-East	103	1892
WOMBWELL MAIN	LIDGETT	Coal	5NMF	241	South-West	3.2	North	103	1892
ROCKINGHAM	LOW FENTON	Coal	5OY9	347	South-West	4.5	North-East	107	1967
HOYLAND SILKSTONE	TOP FENTON	Coal	5NMJ	347	North-West	4.3	North-East	104	1908
ROCKINGHAM	TOP FENTON	Coal	5NMI	350	South-West	2.9	North-East	104	1901
ROCKINGHAM	LOW FENTON	Coal	5OYA	358	South-West	2.6	North-East	119	1950
HOYLAND SILKSTONE	PARKGATE	Coal	5QFC	368	South-West	3.4	North-East	142	1904
unnamed	PARKGATE	Coal	5QEC	369	Beneath Property	4.3	North-East	145	1895
HOYLAND SILKSTONE	THORNCLIFFE	Coal	5OYD	387	Beneath Property	5.4	North-East	140	1883
unnamed	THORNCLIFFE	Coal	5OYE	395	South-West	3.3	North	140	1925
HOYLAND	SILKSTONE	Coal	5OYJ	448	Beneath Property	5.9	North-East	161	1894
BARROW	SILKSTONE	Coal	5OYK	455	South-West	2.6	North-East	161	1890

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:

14371	NE855	9039
9339	NE853	SY164
SY163	SY165	NE820

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

No outcrops recorded.

Geological faults, fissures and breaklines

No faults, fissures or breaklines 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

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

Future development

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 specialist engineering practice required for former mining areas. No development should be undertaken that intersects, disturbs or interferes with any coal or coal mines without first obtaining the permission of the Coal Authority.

MINE GAS: Please note, if there are no recorded instances of mine gas within 500m of the enquiry boundary, this does not mean that mine gas is not present within the vicinity. The Coal Authority Mine Gas data is limited to only those sites where a Mine Gas incident has been recorded. Developers should be aware that the investigation of coal seams, mine workings or mine entries may have the potential to generate and/or displace underground gases. Associated risks both to the development site and any neighbouring land or properties should be fully considered when undertaking any ground works. The need for effective measures to prevent gases migrating onto any land or into any properties, either during investigation or remediation work, or after development must also be assessed and properly addressed. In these instances, the Coal Authority recommends that a more detailed Gas Risk Assessment is undertaken by a competent assessor.

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.

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. Please note, if there are no recorded instances of mine gas reported, this does not mean that mine gas is not present within the vicinity. The Coal Authority Mine Gas data is limited to only those sites where a Mine Gas incident has been recorded.

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

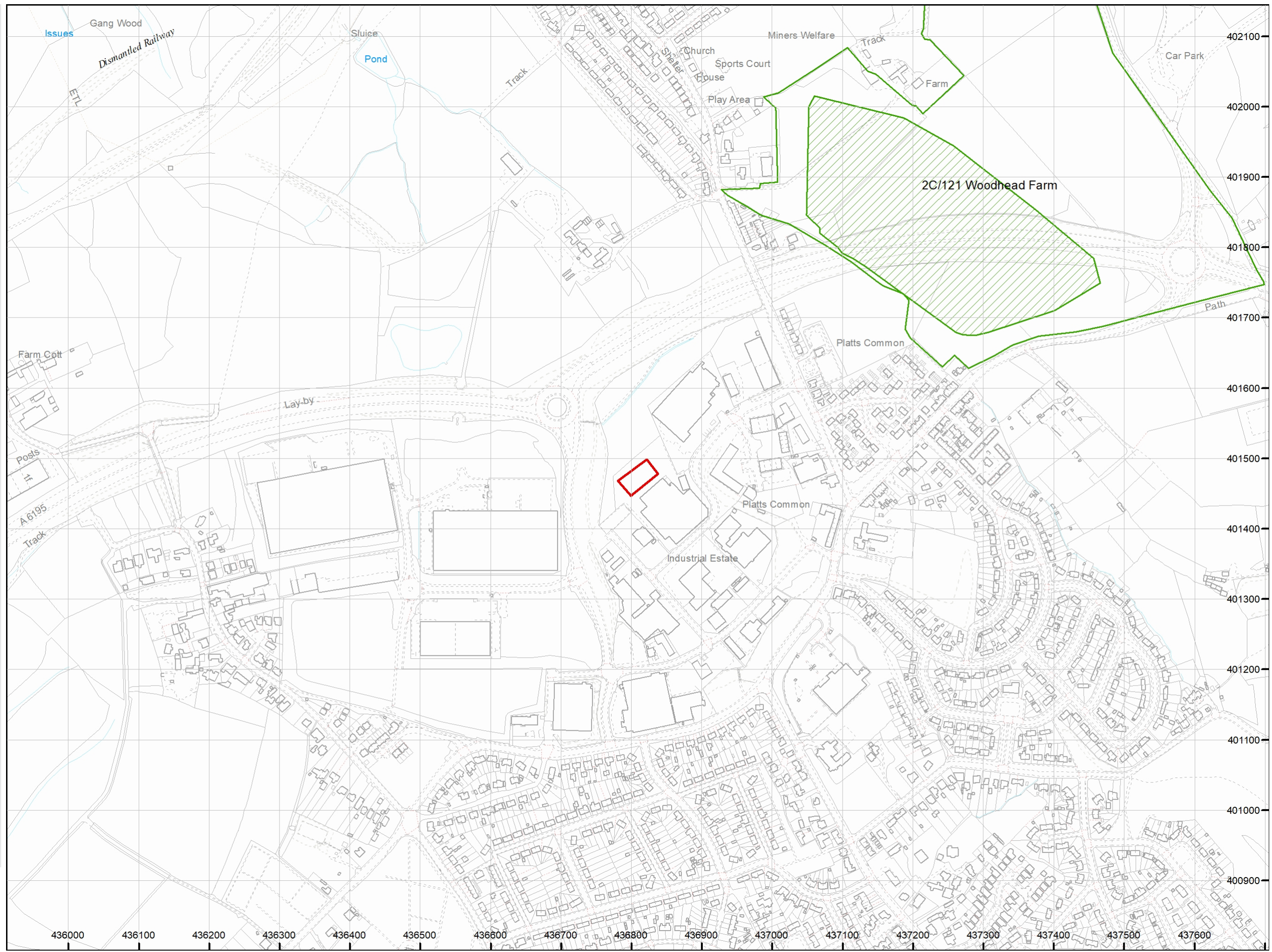
Relevant notices which may affect the property and any subsequent notice of retained interests in coal and coal mines, acceptance or rejection notices and whether any compensation has been paid to a claimant.

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

Key

- Approximate position of the enquiry boundary shown 
- Opencast mine licence area 
- Unlicensed opencast site 

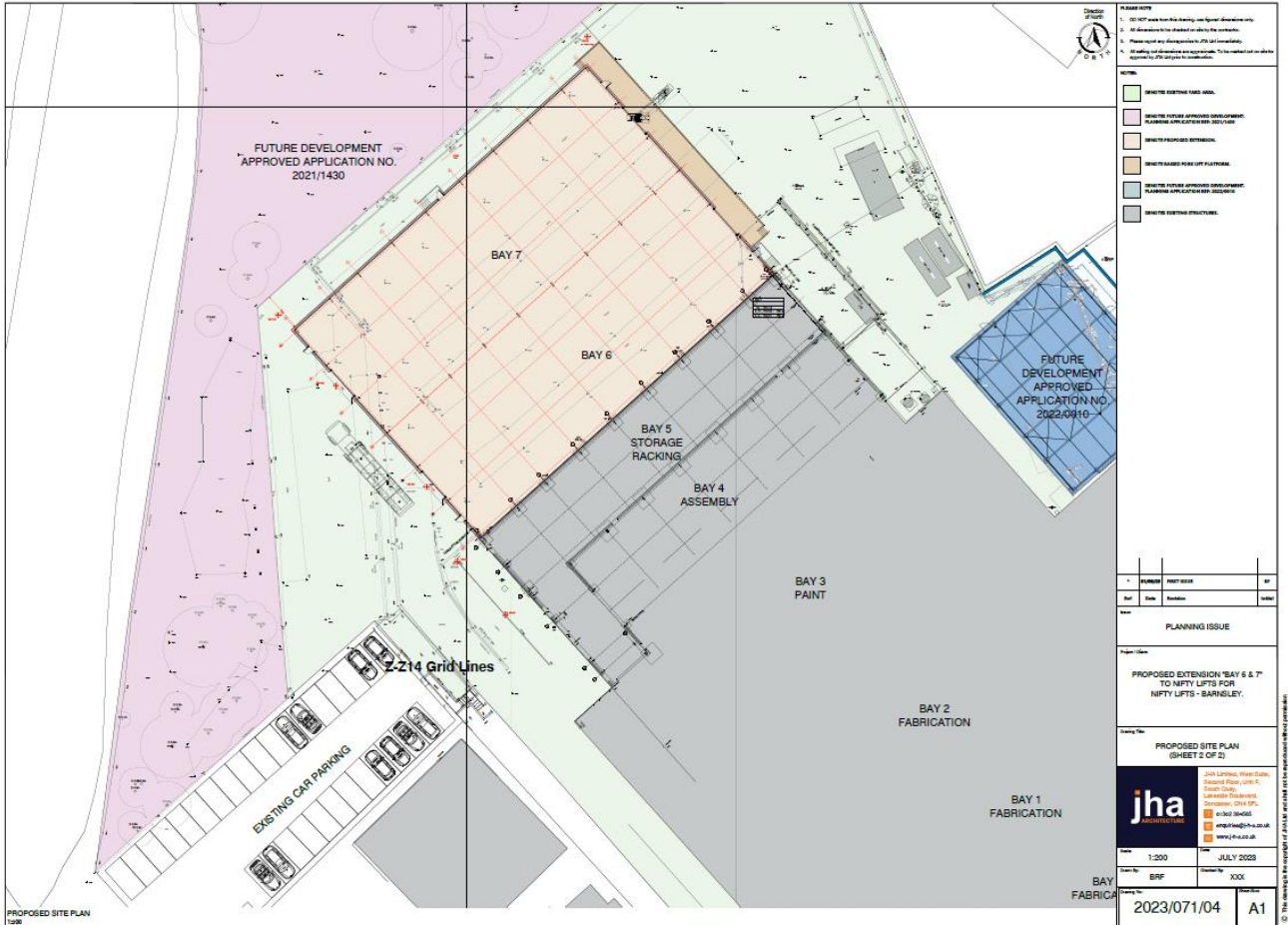
How to contact us
0345 762 6848 (UK)
+44 (0)1623 637 000 (International)
www.groundstability.com



APPENDIX B
SITE IMAGES



APPENDIX C PROPOSED DEVELOPMENT



- LEGEND**
- 1. DO NOT SCALE FROM THIS DRAWING, USE DIMENSIONS ONLY.
 - 2. ALL DIMENSIONS TO THE CENTRE UNLESS OTHERWISE SPECIFIED.
 - 3. DIMENSIONS TO THE CENTRE UNLESS OTHERWISE SPECIFIED.
 - 4. DIMENSIONS TO THE CENTRE UNLESS OTHERWISE SPECIFIED.
 - 5. DIMENSIONS TO THE CENTRE UNLESS OTHERWISE SPECIFIED.
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 - 8. DIMENSIONS TO THE CENTRE UNLESS OTHERWISE SPECIFIED.
 - 9. DIMENSIONS TO THE CENTRE UNLESS OTHERWISE SPECIFIED.
 - 10. DIMENSIONS TO THE CENTRE UNLESS OTHERWISE SPECIFIED.

- LEGEND**
- EXISTING BUILDING FOOTPRINT
 - EXISTING BUILDING STRUCTURE
 - EXISTING BUILDING STRUCTURE
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 - EXISTING BUILDING STRUCTURE
 - EXISTING BUILDING STRUCTURE

NO.	REVISION	DATE	BY

PLANNING ISSUE

PROPOSED EXTENSION 'BAY 6 & 7' TO NIFTY LIFTS FOR NIFTY LIFTS - BARNLEY.

PROPOSED SITE PLAN (SHEET 2 OF 2)

jha ARCHITECTS

Jack Lupton, Director
 James Lupton, Director
 Sarah Lupton, Director
 Charlotte Lupton, Director
 01430 840000
 info@jha.co.uk
 www.jha.co.uk

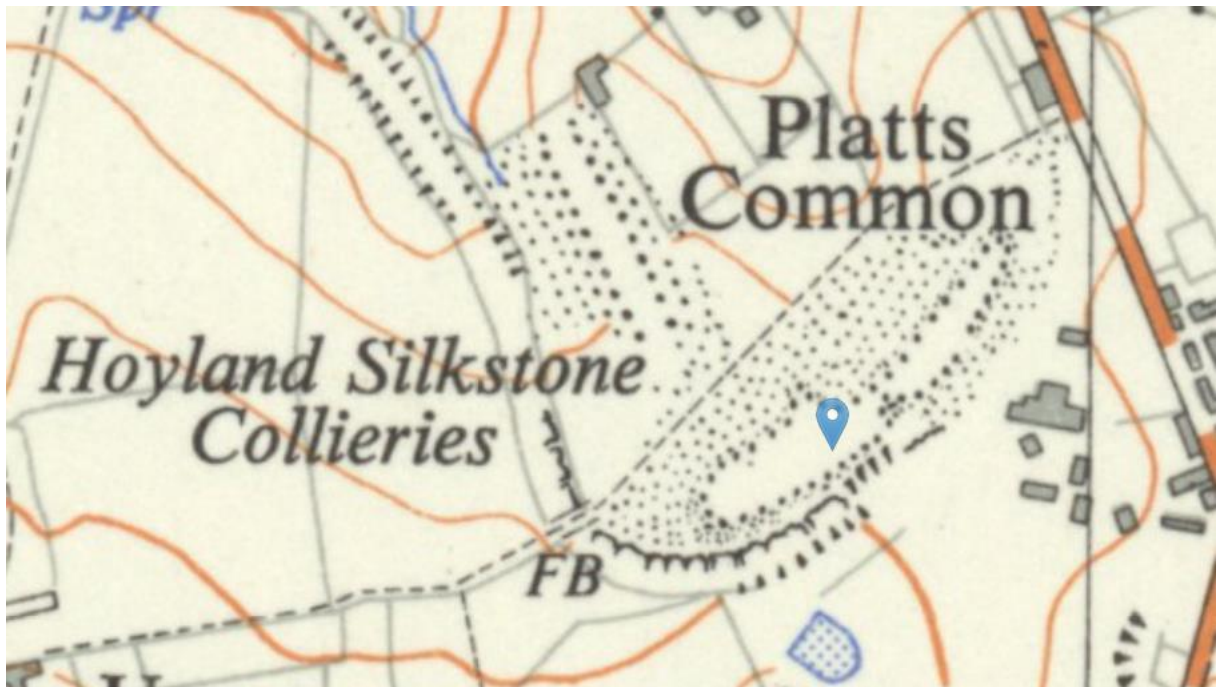
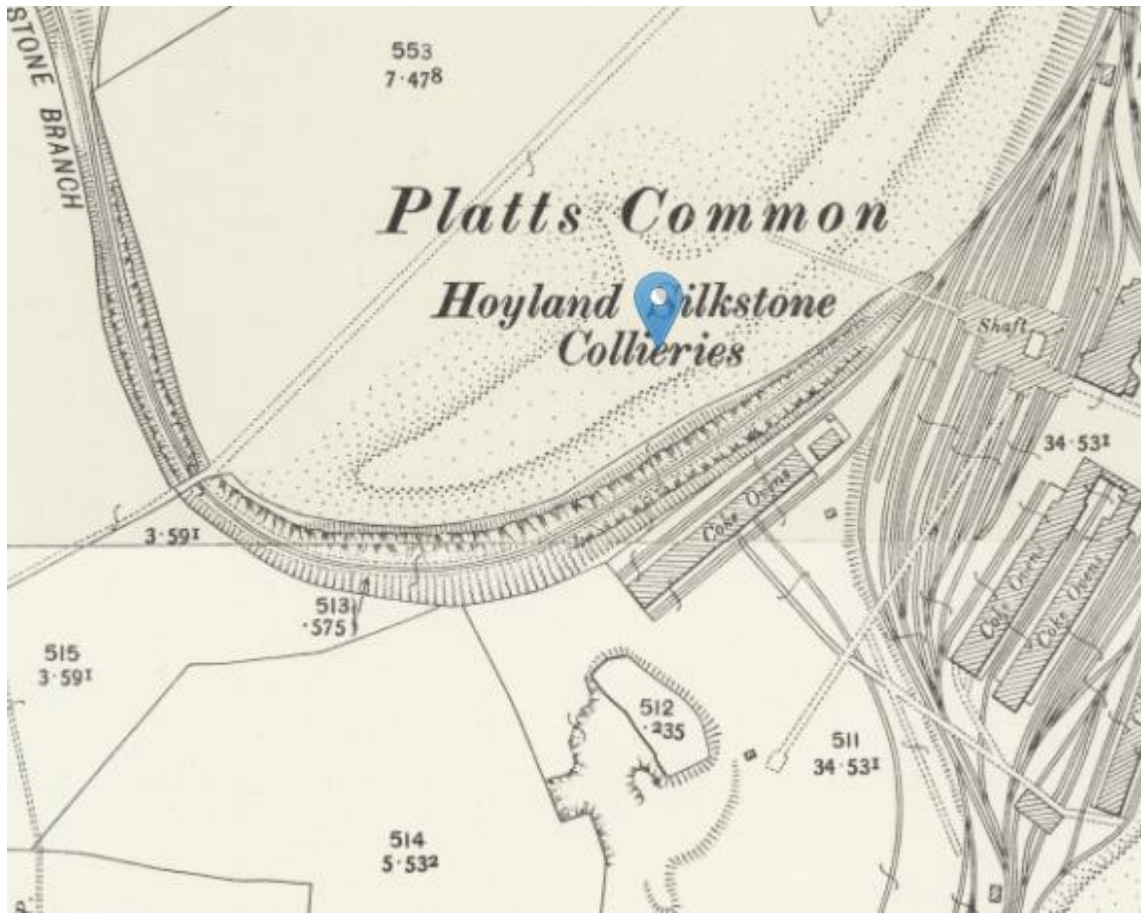
Scale: 1:200 Date: JULY 2023
 Sheet No: 007 Drawing No: 000

2023/07/04 A1

PROPOSED SITE PLAN
1:200

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APPENDIX D
HISTORIC OS MAPS

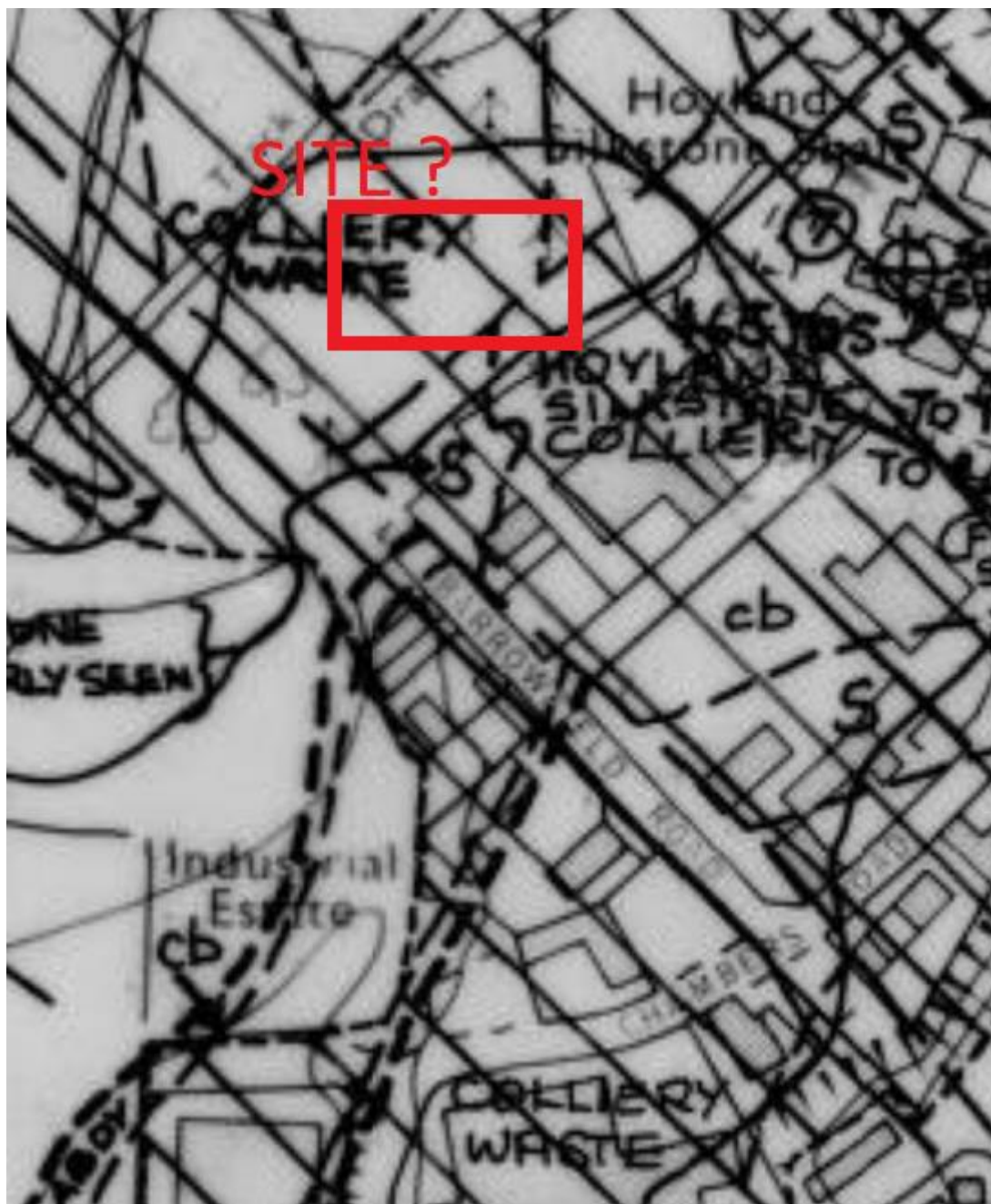


APPENDIX E
GEOLOGY MAP EXTRACTS



SITE?





⑤ LUNDHILL COLLIERY [3990 0198]

No 1 SHAFT
c + 46

SURFACE LEVEL	1.17	AT	42.62
MELTONFIELD	1.45	AT	55.85
TWO-FOOT	0.86	AT	69.27
ABDY	0.30	AT	78.89
TOP BEAMSHAW	0.51	AT	95.81
LOW BEAMSHAW	0.66	AT	109.25
KENT'S THIN	1.02	AT	131.37
KENT'S THICK	0.43	AT	171.53
BARNSELY RIDER	2.49	AT	195.71
BARNSELY			

⑦

HOYLAND SILKSTONE COLLIERY [3695 0148]

SILKSTONE SHAFT			C + 142
SURFACE LEVEL	2.44	AT	120.78
BARNSELEY	2.67	AT	178.89
SWALLOW WOOD	1.03	AT	233.68
LIDGET	0.43	AT	275.13
JOAN	5.00	AT	301.22
FLOCKTON THICK (TWO LEAVES)	0.81	AT	326.26
FLOCKTON THIN	4.06	AT	351.87
FENTON	2.69	AT	369.11
PARKGATE	1.40	AT	395.33
THORNCLIFFE	1.61	AT	464.90
SILKSTONE			

APPENDIX F BGS LOGS



British
Geological
Survey

BGS ID: 13208078 : BGS Reference: SE30SE169
British National Grid (27700) : 436840,401450

STRATA SURVEYS LTD., Telephone: 0606 834637 Fax: 0606 836657		<i>SE 30 SE</i> <i>3684 0145</i>		Borehole Number : 1 Sheet 1 of 1.								
Job Number : 7630 Client : Stocks		Location : Platts Common I.E. Barnsley.		Dia. & Drilling Methods 150mm Diameter light cable percussion								
Description of Strata	Red. Level	Legend	Thick-ness	Depth	Sample Depths	Sample Types	N Value	Cu	#	Water Level	Piezo-meter	Daily Prog.
MADE GROUND (concrete)		[Cross-hatch pattern]	(0.20)	0.00 0.20								
MADE GROUND (quarry waste, waterlogged)		[Cross-hatch pattern]	(0.70)	0.20 0.90								
Firm to stiff black dark grey sandy CLAY, with much fine to coarse carboniferous mudstone and coal, with the occasional brown oxidised fragments.		[Horizontal dashes pattern]	(3.10)	1.00 1.60 2.00 2.60 3.00 3.60 4.00	1.40 1.60 2.40 2.60 3.45 3.60 4.45	U 1 I 1 U 2 O 2 S 1 O 3 S 2	8 9	20 34	23 13			
Loose black dark grey clayey sandy fragmented completely highly weathered MUDSTONE (shale), with fragments of coal.		[Horizontal dashes pattern]	(1.00)	4.00 4.60	4.45 5.00	S 3 O 4	59 7375					
Light brown completely to highly weathered fine grained SANDSTONE, weak, with pockets of darker brown siltstone.		[Dotted pattern]	(2.00)	5.00 6.00 6.50 7.00	5.37 6.00 6.65	S 4 O 5 S 4	70 7150					3-5
Borehole Completed												
General Remarks : No water encountered during drilling. Chiselling sandstone (1 hour)						Dates : 3 May 1994 Driller : CMB Engineer: GH Coordinates :						

SE 30 SE/10

294 87/69

(B11857) Wk. 17852-8154-5.000 12/28 Op. 180. O.A.

SECTION OF Hoyland Silkestone Colliery at 1000 yds NE of Hoyland Nether Church St. Peter?

Maps: One-inch 87 Six-inch 282NG County Yorkshire

Height above O.D. 465ft Latitude 52° 23' 52" N Longitude 1° 26' 35" W

Communicated by "Sec. Strata Yks. Cfld." 1927 p. 185 Date of Sinking 1873

Made by _____ Dip of Strata 1 in 17 N 46° E

Summary of Published Records

Intervening
beds are
shales, limestones etc.
with thin
coal seams.

	Thickness.			Depth from Surface.		
	ft.	in.	ft.	ft.	in.	ft.
Clay & sand	8.23	27	-	8.23	27	-
Stone	4.27	14	-	35.36	116	-
<u>Barnsley Seam</u>	2.44	8	-	120.78	396	3
Rock	2.74	9	-	132.82	435	9
Swallow Wood Seam (with sft. dirt)	2.67	8	9	178.89	586	11
Lidgett Seam (with thin dirt)	1.03	3	4 1/2	233.68	766	8 1/2
Rock	16.46	54	-	249.82	885	3
* Joan Coal	0.43	1	5	275.13	902	8
Flockton Thick Seam ^{c. 10"} _{grey sand 16"} _{c. 17"}	5.00	16	5	301.22	988	3
Rock	5.64	18	6	309.30	1014	9

YORKSHIRE 222 NE
MOTLAND SILKSTONE COLLIERY
SHAFT SECTION (F. 222)

SE 30 SE 10
C 1872 TO SILKSTONE
1887 A.D.

