



Client:

J Walker Homes Limited
Joshua House
35 Joshua Lane
Middleton
Manchester
M24 2AY

Consultant:

Coal Mining Risk Assessment Report - Intrusive

Baytree Lane Middleton

Feb 2024

Site Ref: 6143/ VBL CMRA-
Intrusive V1.0

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Coal Mining Risk Assessment Report - Intrusive

1. Introduction

This report is an account of a Coal Mining Risk Assessment intrusive investigation carried out by GeoAssist Limited at the request of the Client J Walker Homes Limited for the development at Baytree Lane, Middleton. The intrusive work was undertaken following a request from the LPA based on the findings of an earlier Coal Mining Risk Assessment & Consultants coal mining Report produced by the coal Authority and referenced 71009792531001 18th Dec 2023 where the risks to the proposed development was determined to be medium and an intrusive ground investigation was recommended.

The work was commissioned following the receipt of instruction to proceed issued by the Client on 15th January 2024.

The purpose of this Intrusive Coal Mining Risk Assessment Report is to provide information in order to ensure that the site is assessed in accordance with the guidance outlined in The Coal Authorities General Guidance Notes for Coal Mining Risk Assessment Reports, and is suitable for the intended proposed development. The guidance previously offered by PPG 14 has now been formally withdrawn and replaced by the Updated National Planning Policy Framework December 2023. The Framework document offers no particular guidance regarding potential hazards from coal workings. But does state in paragraph 183 that: Planning policies and decisions should ensure that a site is suitable for its proposed use taking account of ground conditions and any risks arising from land instability and contamination. This includes risks arising from natural hazards or former activities such as mining, and any proposals for mitigation including land remediation (as well as potential impacts on the natural environment arising from that remediation)

The approximate grid reference for the centre of the site is 388560, 406020 and the total area of the site is approximately 1100 m² and is shown with a red outline in appendix A1

2. Description of the Site

2.1 Present

The site is located on intersection of Baytree Lane and Damson Green in Middleton to the rear of The Old Cock Inn on Oldham Road. The site forms a regular square shape and the topography of the site is relatively level with the surrounding ground and streets. There are no permanent structures on site and the ground cover is made up of a

metalled/tarmacadam surface with no significant soft landscaping other than a thin strip of grass along the edges. The site boundary is formed by; The Old Cock Inn to the north, Baytree Lane to the east over which a commercial steel stockist and fabrication is located. Damson Green and residential apartments to the south and Residential property to the west. No obvious signs of ground movement was noted on site nor structural distress noted in immediately adjacent properties during the site visit.

2.2 Proposed

It is understood that the proposed development incorporates:

- The development of 5 number 3 bedroom residential dwelling houses with associated off road car parking to the front and private gardens to the rear. There are no basements associated with this development. The proposed development plan for the Site forms appendix A2 to this report.

3. Information Sources

Research Type	Sources	Completed
Site History	Ordnance Survey	☒
	Planning Records (back to 2007 only)	☒
	Aerial Photos	☒
	DoE Industry Profiles	☐
	Local Residents	☐
Environmental Setting	Geological Maps	☒
	Hydrogeology Maps	☒
	Environment Agency Records	☐
	BGS Records	☒
	English Nature	☐
Current Land Use	Walkover Survey	☒
	Site Personnel Interviews	☐
	Site Records	☐
	DoE Industry Profiles	☐
Pollution Incidents	Local Authority	☐
	Environment Agency	☐
Waste Disposal/Waste Permits	Local Authority	☐
	Environment Agency	☐
	Site Records	☐
Mining Records	The Coal Authority	☒
Regulator Consultation	Local Authority	☐
	Environment Agency	☐
	Natural England (formerly English Nature)	☐
Underground Services	Utility Companies	☐
	Site Records	☒
Public Rights of Way	Ordnance Survey	☒
	Local Authority	☒
Previous Investigations / Monitoring	Site Records	☐
	Local Authority	☐
	Environment Agency	☐
	BGS	☒
Redevelopment Plans	Developer	☐
	Owner	☐
	Local Authority	☐

4. Historical Researches

4.1 Historical Mapping

See GeoAssist Report 6143/VBL-PCLRA v1.0 Jan 2024

4.2 Anecdotal Historical Information

Anecdotal historical information has not been provided as part of this investigation.

4.3 Previous Intrusive Investigation

No record of previous site investigation on the site has been uncovered as part of this investigation. Records held by the BGS do not indicate that coal is potentially present at shallow depth in the area.

5. Mineworkings & Mineral Sites

Information provided by the Coal Authority as part of the Environmental data search report referenced 332371303_1_1 indicates that the property is in an area that may be affected by coal mining.

The Coal Authority Coal Mining Risk Assessment & Consultants Report referenced 71009792531001 concludes that: Due to the potential for unrecorded workings in the Black Mine (Cannel) seam, an intrusive site investigation will be required.

The Coal Authority Coal Mining Risk Assessment & Consultants Report referenced 71009792531001 forms appendix C2 to this report.

6. Geology and Hydrogeology

6.1 Site Geology

Both the BGS 1:10,560 geological plan sheet number 96NE Lancashire revised 1932 and the 1:10,000 digital plan 2008 SD80SE geological plans of the area have been examined as part of this intrusive investigation. The information on these editions show some differences. Principally relating to the position of the coal outcrops in the solid geology.

6.1.1 Sheet Number 96NE Lancashire 1932 revision

The 1 in 10,000 scale geological map of the area 96 NE Lancashire published in 1929 shows the site to be located on drift deposits of Glacial Sand and Gravel. Nearby boreholes indicate the depth of drift deposits to be greater than 20m depth. The underlying solid geology is shown as being Sandstone of the Middle Coal Measures of the Carboniferous period. The Black Mine Coal is shown as cropping beneath the site. The dip of the solid geology in the area is shown at 1 in 3.5 to the south west. No faults are shown as passing directly beneath the site.

6.1.2 Sheet Number BGS Digital SD80SE 2008 revision

The 2008 digital 1 in 10,000 scale geological map extract of the area shows that the site is underlain by drift deposits of Devensian Till. The thickness of the drift deposits is not indicated. The Underlying solid geology is shown as being mudstone siltstone and sandstone of the Pennine Lower Coal Measures Formation. A coal crop is shown approximately 40m to the north east of the site. There are no coal crops shown beneath the site.

There are no adits, mine shafts entries, dips or coal seam names given on this plan.

6.1.3 Mine Abandonment Plans

Mine Abandonment plans have not been checked as the Coal Authority records indicate that the risk is from unrecorded potential mine workings and not from known worked seams for which abandonment plans are available.

7. Intrusive Investigation

7.1 Intrusive Investigation Strategy

The ground investigation was carried out in accordance with British Standard 5930: 2015 Code of Practice for Site Investigations. All exploratory holes were drilled with Coal Authority permission under permit certificate number 25368. The permit certificate forms appendix C to this report.

All fieldwork was supervised by suitably qualified GeoAssist Limited Engineers.

7.2 Exploratory Hole Programme

In total two exploratory holes referenced R1 and R2 were undertaken by GeoAssist using open hole techniques with casing advancement. The location of the exploratory holes is shown on the site plan which forms Appendix A1.

The details of the strata in the exploratory holes were recorded by a suitably qualified Professional Engineer. Upon completion the exploratory holes grouted in accordance with the specification in order to prevent the establishment of any potential pollutant migration pathways and the surface reinstated.

All intrusive work was carried out in accordance with:

§ British standard 5930: 2015 Code of Practice for Site Investigations

The fieldwork was completed over between the 15th and 22nd of February in mixed weather conditions.

8. Subsurface Stratigraphy

The subsoil profile obtained from the exploratory holes consists of a surfacing course overlying between 0.30m of made ground over natural mainly granular interbedded fluvial sand/ sand and gravel deposits with occasional sandy clay bands. Both of the holes R1 and R2 were terminated within the superficial Fluvial and Glacial Till deposits at 30.80m and 30.00m depth.

The presence of voided, broken or otherwise disturbed ground was not noted during the investigation.

Bedrock was not encountered, and no coal seams were encountered during the investigation.

Further details of the subsurface stratigraphy can be found in the exploratory hole log sheets which form Appendix B1 to this report.

9. Risk Assessment

Based on the available information from both this and previous reports the risk classification to the proposed development on the site is deemed to be low.

The information indicates that:

- The Coal crops and faults are conjectured and not proven.
- >30.80m depth of granular with some interbedded clay drift materials exist at the site.
- There are no coal workings voids or broken ground within 30.00m of the surface
- There is no intact coal seam within 30.00m of the surface.
- Proposed development changes are unlikely to impart any significant overburden stress increases at 30m depth
- There are no recorded subsidence claims in the area.

Consequently, the situation is favourable and associated ground movement risks are low.

10. Conclusions and Recommendations

The information obtained from the intrusive investigation demonstrates that intact or worked coal is not present within 30.00m of the ground surface. Consequently, the risks to the proposed development from unrecorded coal mining legacy is deemed to be low in all reasonably foreseeable circumstances.

10.1 Supplementary Recommendations

None



Matthew Benson MSc GMICE
Geotechnical/Environmental Engineer

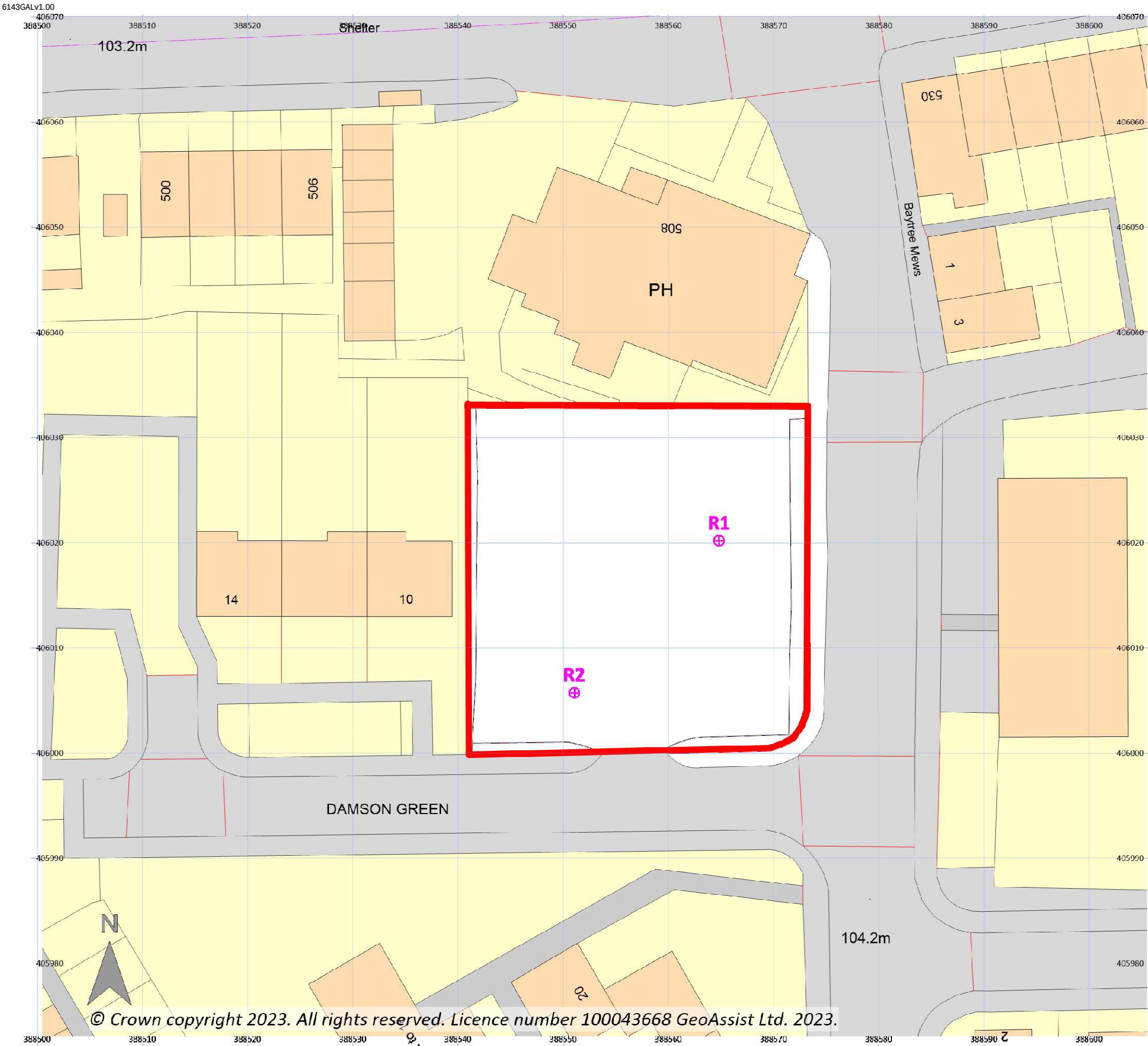


Mark Richardson MSc CEng MICE
Technical Director

This report has been prepared by GeoAssist Limited with all reasonable professional skill, care and diligence within the terms of the contract with J Walker Homes Limited. The report is confidential to J Walker Homes Limited, their/the named persons advisors and bankers, and GeoAssist Limited accepts no responsibility of whatever nature to third parties to whom this report may be divulged. GeoAssist Limited owns the copyright in this report. All rights are reserved and unauthorised use is prohibited. J Walker Homes Limited may use the report for their/her/his own purposes.

Appendix A

A1 Site Plan & Exploratory Hole Locations



A1 Site Plan

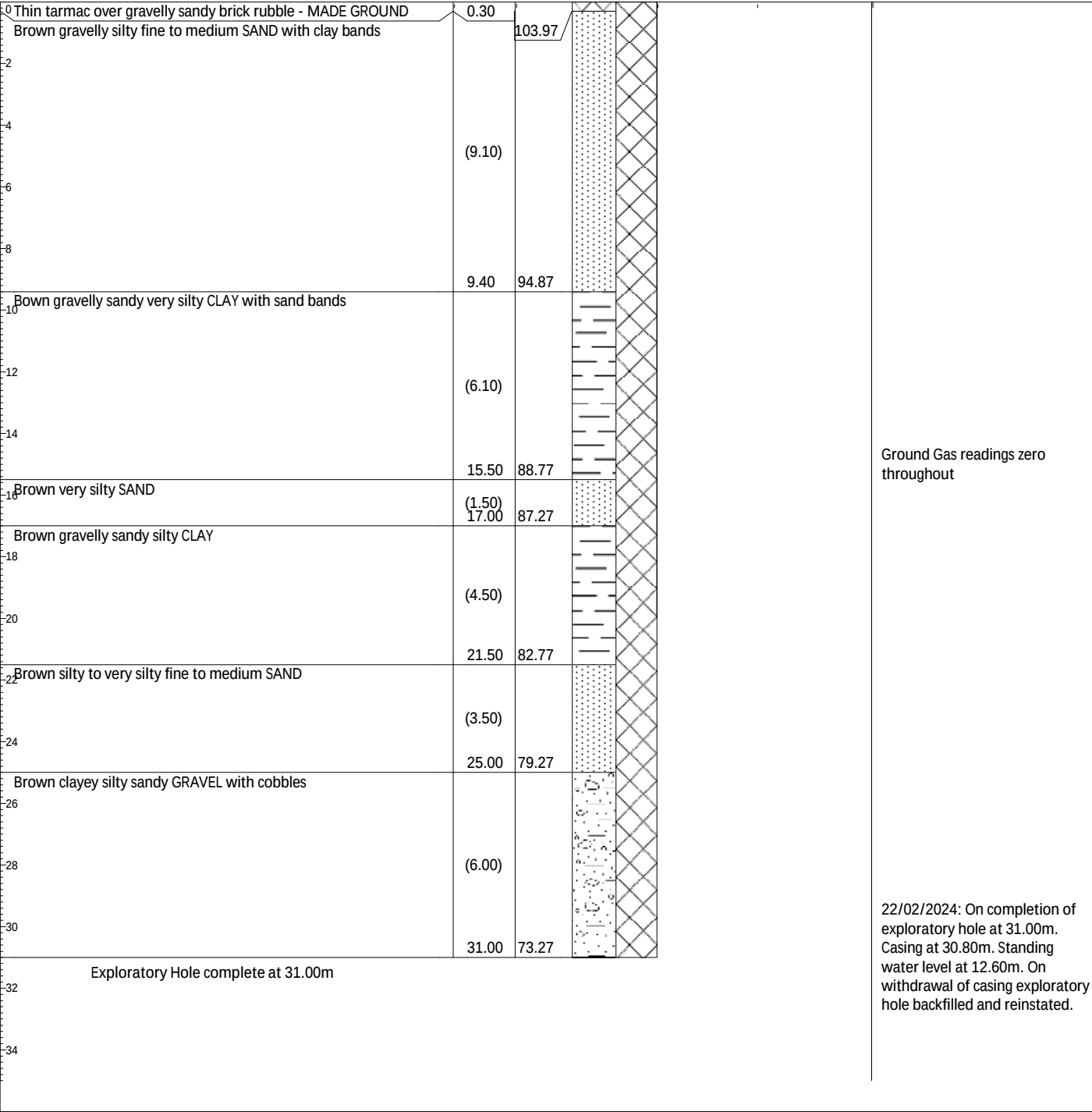
Site Name	Baytree Lane
Location	Middleton
GeoAssist Ref	6143VBL
Client	J Walker Homes Limited
	Joshua House 35 Joshua Lane Middleton Manchester M24 2AY
Planning Consultant	
NGR (centre of site)	388560,406020
Production Date	Feb 2024
Survey Method	
Surveyor	Others
Status	Final v1.00
Base Survey	OSGB36

Do Not Scale

Appendix B

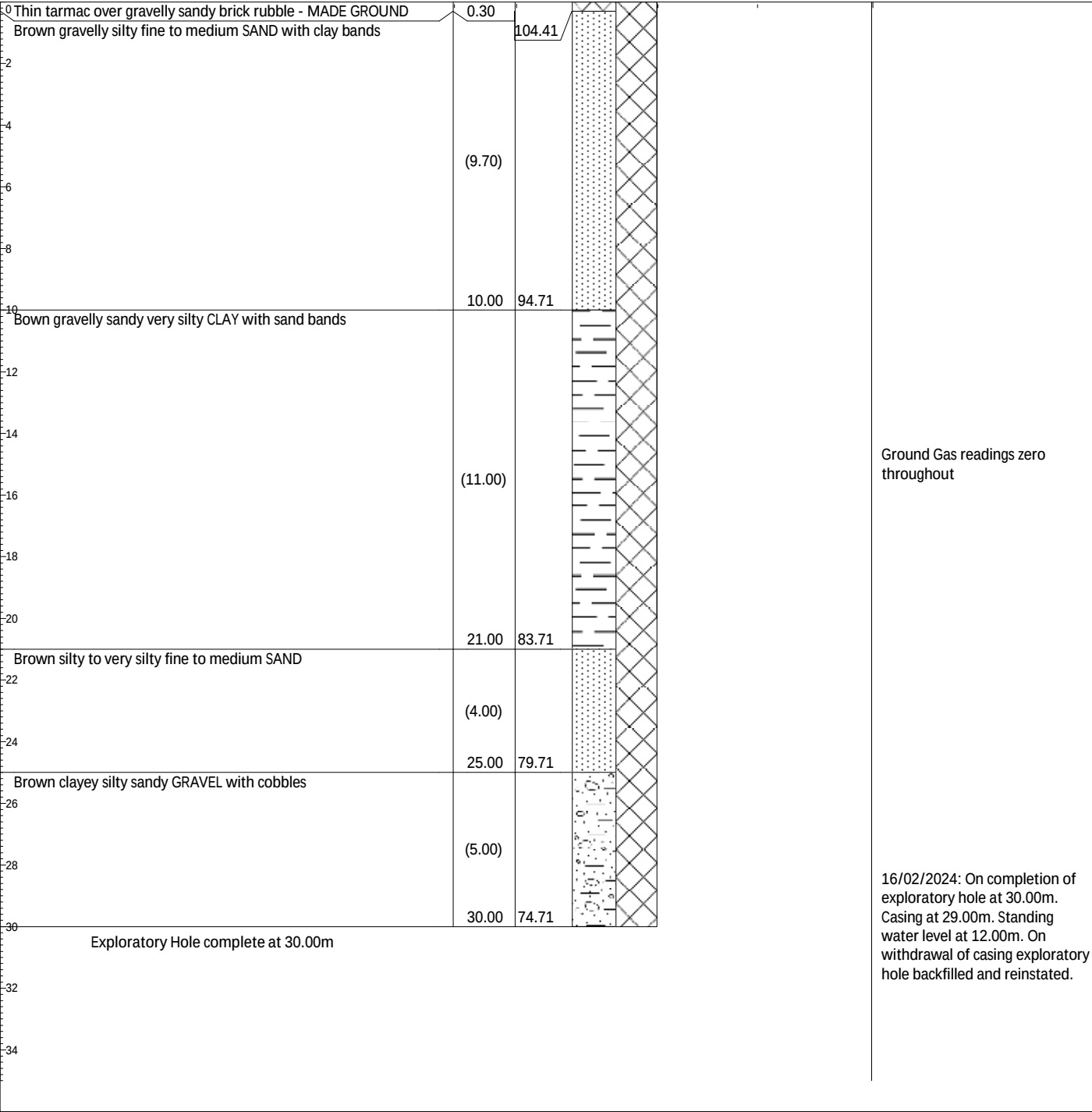
B1 Exploratory Hole Logs

GeoAssist Limited	Exploratory Hole Record Sheet				Ref: R1			
Consultant: 0	Project: Baytree Lane				Sheet: 1			
	Location: Middleton							
Client: J Walker Homes Limited	Equipment: Light Cable Percussive Rig Open Hole			Casing Dia. Depth (mm) (m)	Ground Level: 104.27 m.AOD			
					Co-ordinates: Easting: 388564.8(m) Northing: 406020.2(m)			
						Dates: 19/02/2024 to 22/02/2024		
Drilling Foreman: M Walton STRATUM DESCRIPTION Engineer/Geologist: M Benson			Depth (Thick) (m)	Reduced Level (mAOD)	Strata Legend/ Standpipe Backfill	Samples/Tests Depth (m) from to	Blow Count N/(U)	Field Records
						Sample Type/No		



Remarks: 19/02/2024: Inspection pit excavated to 1.00m to avoid services.		Logged: M Benson
		Date: 19/02/2024
The groundwater conditions entered on the exploratory hole logs are those observed at the time of the drilling operations and the water level may not have reached equilibrium with the surrounding water level prior to the record being taken. Standing groundwater levels will be subject to seasonal variation or changes in local drainage conditions and could be higher at certain times of the year particularly after periods of heavy rainfall.		Checked: M Richardson
		Date: 26/02/2024
		Site Ref: 6143/VBL
		Scale 1:50

GeoAssist Limited	Exploratory Hole Record Sheet				Ref: R2		
Consultant: 0	Project: Baytree Lane				Sheet: 1		
	Location: Middleton						
Client: J Walker Homes Limited	Equipment: Light Cable Percussive Rig Open Hole			Casing Dia. Depth (mm) (m)	Ground Level: 104.71 m.AOD		
					Co-ordinates: Easting: 388551.1(m) Northing: 406005.7(m)		
						Dates: 15/02/2024 to 16/02/2024	
Drilling Foreman: M Walton STRATUM DESCRIPTION Engineer/Geologist: M Benson			Depth (Thick) (m)	Reduced Level (mAOD)	Strata Legend/ Standpipe Backfill	Samples/Tests Depth (m) from to Sample Type/No Blow Count N/(U)	Field Records



Remarks: 15/02/2024: Inspection pit excavated to 1.00m to avoid services.	Logged: M Benson
	Date: 15/02/2024
	Checked: M Richardson
	Date: 26/02/2024
	Site Ref: 6143/VBL
	Scale 1:50

The groundwater conditions entered on the exploratory hole logs are those observed at the time of the drilling operations and the water level may not have reached equilibrium with the surrounding water level prior to the record being taken.

Standing groundwater levels will be subject to seasonal variation or changes in local drainage conditions and could be higher at certain times of the year particularly after periods of heavy rainfall.

Appendix C

- C1 Coal Authority Permit Certificate
- C2 Coal Authority Mining Risk Assessment & Consultants Report

Coal Mining Risk Assessment

For development at: Land to the rear of The Old Cock Inn, 528 Oldham Road, Middleton, Rochdale, Manchester, M24 2EB

For proposal: Construction of 5No. residential dwellings

Assessment Summary

Assessment Result	MEDIUM RISK
Recommended Further Work	INTRUSIVE GROUND INVESTIGATION

The Coal Authority works to resolve the impacts of mining by growing its expertise, innovation, organisational capability and efficiency.

It manages the effects of past coal mining, including subsidence damage claims which are not the responsibility of licensed coal mine operators and is an executive non-departmental public body, sponsored by the Department for Energy Security and Net Zero. This report is valid for 90 days.

Limit of liability

This report is provided for the applicant and is in respect of the property identified on its face. Any conclusions or recommendations made are those based on information obtained for the report and our current knowledge and practices. The information and data set out in this report is based on information provided by or obtained from third parties which is held by the Coal Authority. Any limitations of the data are identified within the report. The Coal Authority does not accept liability for the accuracy of third party data. Should new data or information become available these results, conclusions and recommendations may require amending. The Authority is not and cannot be liable for any harm, loss or damage of whatever nature, including consequential loss, occasioned to any third party by the inaccuracy of the information set out in this report and any person seeking to rely upon it should if necessary undertake their own investigations and professional advice. The report should only be used in the stated context.

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Any advice provided in this report does not prejudice our position as a statutory consultee.

Version	Compiled	Checked	Date
1.1	PB	HB	18 th December 2023

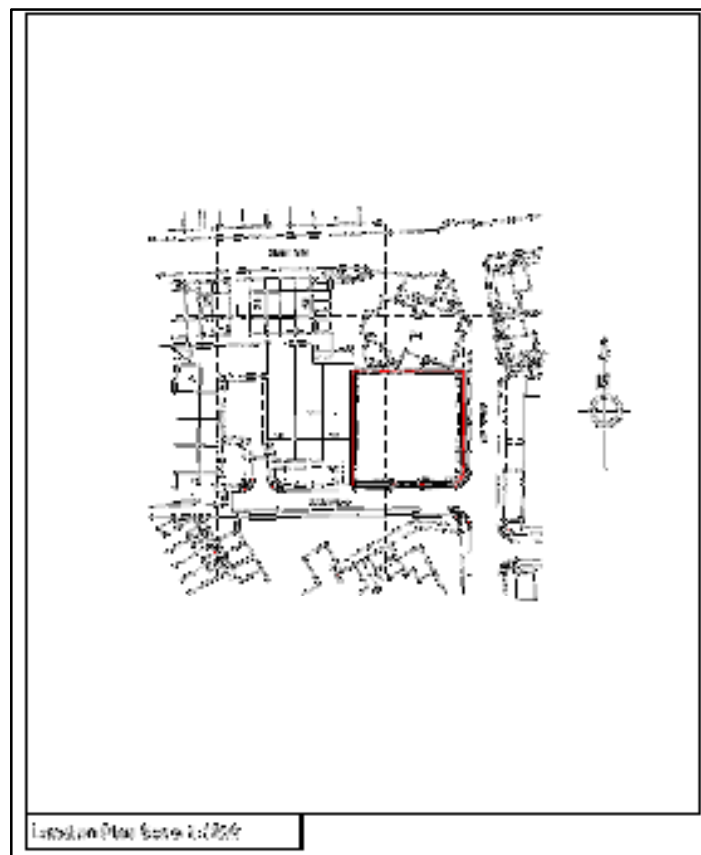
Section 1 – Description of site and proposed development

a) Site location and Description

The Coal Authority has been commissioned to prepare a Coal Mining Risk Assessment Report for a proposed development at Land to the rear of The Old Cock Inn, Oldham Road, Middleton, Rochdale, Manchester, M24 2EB (see Figure 1), in order to provide the Local Planning Authority with information on coal mining and an assessment of its impact on land stability.

The approximate site centre co-ordinates are E388558, N406017. The proposed development area requires access via Baytree Lane/Damson Green. The site has an approximate elevation 105m AOD.

Figure 1: Site location plan



b) Description and layout of proposed development

The Coal Authority understands that the developer plans to construct 5No. residential dwellings (see Appendix A).

c) Scope of coal mining risk assessment

The purpose of this Coal Mining Risk Assessment Report is to:

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

Any works that intersect coal mine workings, mine entries or coal seams may have implications for mine gas, spontaneous combustion and surface collapse. Coal Authority permission is required prior to any such works taking place. Further detailed advice can be provided upon request.

The Coal Authority's adopted policies regarding building over or close to mine entries and managing gas risks can be viewed at:

www.gov.uk/government/publications/building-on-or-within-the-influencing-distance-of-mine-entries

www.gov.uk/government/publications/guidance-on-managing-the-risk-of-hazardous-gases

Section 2 – Sources of information used to inform this report

Source reviewed	Yes	No	Remarks
Coal mining report	X		Consultants Coal Mining Report (Appendix B)
Other mining records	X		Abandonment plans – NW263, NW1174, NW173
Geological plans	X		Lancashire 96NE (1932), SD80SE (1966)
BGS Boreholes	X		SD80NE18, SD80NE8
Other	X		BGS GeoIndex

The above information sources have been used to provide an assessment of the potential mining risk within the remainder of the report.

Section 3 – Identification and assessment of site specific coal mining related risks

The Coal Authority's search of its detailed coal mining information identifies the following site specific coal mining legacy risks to the site.

Coal mining issue	Reported		Risk assessment	
	Yes	No	Rating	Comment
a) Underground coal mining (recorded at shallow depths)		X	Low risk	None recorded at shallow depths
b) Underground coal mining (probable at shallow depths)	X		Medium risk	Possible unrecorded workings in the Black Mine (Cannel) seam
c) Mine entries (shafts and adits)		X	Low risk	None recorded
d) Coal mining geology (faults and fissures)		X	Low risk	Faults are recorded to be present approximately 280m northeast and 400m southwest of the site, locally displacing coals
e) Record of past mine gas emissions or potential		X	Medium risk	Roof coal where left in Lancashire known to be liable to spontaneous combustion. All mine workings pose a potential gas risk which should be considered in any future investigations and development
f) Recorded coal mining surface hazard	X		Low risk	Rejected claim recorded 23m northwest of the site
g) Surface mining (opencast workings)		X	Low risk	None recorded

A desk based study of the coal mining information has been used to risk assess the coal mining features above. A summary of the risk posed by these features is summarised after thorough analysis of the information sources. Comment on each specific coal mining issue follows below:

a) Underground Coal Mining (recorded at shallow depths)

Coal mining at depths shallower than 30m beneath ground level can typically pose challenges to ground stability at the surface. The magnitude of this effect depends upon the exact depth of any workings, the thickness of competent rock cover and the extraction thickness of any coal mine workings.

The Coal Authority Coal Mining Consultant's report in Appendix B shows that the development site is not in an area of recorded shallow coal mine workings. The Consultants Report indicates that two seams of coal have been worked locally; the Lower Bent coal at 74m bgl beneath the site and the Half Yard seam at 136m to the northwest of the site. Both seams are recorded to have been last worked in 1857 with extraction thicknesses of 0.8m and 1.0m respectively.

The county geological sheet Lancashire 96NE (1932) records the Lower Bent outcrop approximately 230m north of the site boundary. The workings within the seam appear to have been recorded on abandonment plans NW263 (thought to be annotated as 'Neddy Mine') and NW173 sheets 3, 4, 5, 6 and 8 (annotated on some sheets as 'Bent Seam' or 'Bent Mine'). Based on the distance of outcrop from site and the rate of dip of 16° indicated for the workings within the Consultants Coal Mining Report, this seam can be estimated to be present at 66m below rockhead at the proposed development site. Due to the recorded depth of workings beneath the site it is considered that the seam will not be of influence to this development and consequently the risk to this development from underground coal mining (recorded at shallow depths) is low.

b) Underground coal mining (probable at shallow depths)

Areas of probable shallow coal mine workings are identified as part of the Development High Risk Area for which no recorded plan exists, but where it is likely that workable coal at shallow depths has been mined before records were kept. The data has been estimated from available mining records by qualified mining surveyors. Since 1872 there has been a law that requires all coal mine operators to deposit working plans of the mine with the government following the cessation of operations. Prior to this date the plans were often destroyed or kept in private ownership.

Where the extraction of coal has occurred there is the potential for voids to remain long after mining has ceased. The depth of workings generally dictates the length of time that significant voids may remain, but other factors including the size of mine roof supports and the competency of overlying strata can influence the time for natural consolidation to occur. Waste material produced during mining was sometimes used to backfill abandoned sections of mine workings, therefore reducing the volume of open cavities or voids that remain. The method of backfilling workings is typically not recorded and cannot be relied upon as a satisfactory form of remediation.

The Coal Authority Consultants Coal Mining Report in Appendix B states that the development site is in an area of probable shallow coal mine workings, with the report recording the Cannel seam to outcrop within the development site boundary, orientated approximately NW-SE and with the seam regarded as being of a workable thickness in the locality.

The stratigraphy of seams beneath the site is considered to be as follows:

Seam	Distance to seam outcrop	Thickness	Estimated depth at site (below rockhead)*
Black Mine (Cannel)	Within	1.0m (Consultants Report)	Close to rockhead
Stone Mine	108m NE	1.2m (SD80NE8)	31m
Upper Bent Coal	160m NE	0.65m (BGS SD80NE18)	46m
Lower Bent Coal	230m NE	0.8m (Consultants Report)	66m

*Estimates based on Coal Authority Consultants Report, Lancashire 96NE Geological Sheet, SD80NE8 and SD80NE18

The Stone mine is recorded to be present at 96ft (29.26m) depth within borehole SD80NE8 300m northwest of the site, approximately along strike from the site. It is therefore considered that this depth is likely to also be representative of the Stone seam depth beneath the site with the seam therefore considered to have sufficient overlying cover. No further seams are considered likely to influence the proposed development.

Consequently the risk to this development from underground coal mining (probable at shallow depths) within the Black Mine (Cannel) seam is medium.

c) Mine entries (shafts and adits)

The Coal Authority Consultants Coal Mining Report in Appendix B shows no mine entries are recorded within 100m of the development site.

The development site sits within a historical mining area and therefore there is a residual risk of unrecorded mine entries to be present on site. All site operatives should be made aware of this potential risk and a watching brief should be maintained during site works.

Consequently the risk to this development from mine entries (shafts and adits) is low.

d) Coal mining geology (Faults and fissures)

The development site sits upon the Pennine Lower coal measures, consisting of coal, sandstones, siltstones and mudstones. The closest BGS borehole to the site, SD80NE47 located 192m west of the site records surficial deposits to consist of made ground, sand and clay with a rockhead not being encountered to the base of borehole at 7m depth. BGS borehole record SD80NE8, located approximately 300m northwest of the site, records grey sandstone rockhead at 29.26m bgl, with superficial deposits consisting of sand, gravel and clay, however actual ground conditions beneath the site may vary. The OS county sheet records an old clay pit to the northeast of the site with it being considered possible that some local clay extraction may be present in the vicinity of the site.

No faults, fissures or break lines are known to affect the development site, however faults are recorded to be present approximately 280m northeast and 400m southwest of the site, orientated approximately NW-SE and downthrown to xxx, locally displacing coal seams.

Faults can act as pathways for gas and water, cause surface instability and result in dissimilar coal conditions/hazards due to their relative displacement of strata.

e) Record of past mine gas emissions or potential

There are no recorded past gas emissions recorded in the surrounding area, however, coal seams and coal mine workings pose a potential gas risk which should be considered in any future investigations and development. At development sites with shallow coal workings, probable shallow coal mine workings, or pathway features such as mine entries and geological disturbances on or nearby the site, the Coal Authority recommends that a

Roof coal where left in Lancashire known to be liable to spontaneous combustion. All mine workings pose a potential gas risk which should be considered in any future investigations and development precautions should be taken in case of such an incident during all ground works at the site.

f) Recorded coal mining surface hazard

A rejected Coal Authority claim is recorded to be present 23m northwest of the development site boundary. The reasons for which this claim was rejected are unknown and it may be prudent to obtain details of this claim prior to development.

g) Surface mining (opencast workings)

The Coal Authority Consultants Coal Mining Report in Appendix B does not record the presence of opencast workings within 500m of the development site boundary. Consequently the risk to this development from surface mining (opencast workings) is low.

Section 4 – Proposed mitigation strategy

a) Site investigation and/or remediation

Due to the potential for unrecorded workings in the Black Mine (Cannel) seam, an intrusive site investigation will be required.

Roof coal where left in Lancashire known to be liable to spontaneous combustion. All mine workings pose a potential gas risk which should be considered in any future investigations and development precautions should be taken in case of such an incident during all ground works at the site.

A rejected Coal Authority claim is recorded to be present 23m northwest of the development site boundary. The reasons for which this claim was rejected are unknown and it may be prudent to obtain details of this claim prior to further works commencing.

The site investigations will need to be carried out by a competent contractor, taking into account the findings of this report. The results should be interpreted by a qualified and competent person so that an appropriate remedial strategy can be developed.

Guidance on drilling or piling through coal can be found at:

www.gov.uk/government/publications/guidance-on-managing-the-risk-of-hazardous-gases

Due to the difficulties in identifying coal related gas hazards, it may be prudent to consider completing a gas risk assessment for the development site. This may recommend basic gas protection measures within the foundation design, which are resistant to permanent gases (carbon dioxide, methane, carbon monoxide) and comparable to that suggested in BR211, as commonly used to protect against radon in residential properties.

Where development is proposed over areas of coal or past coal workings at shallow depth, developers should consider wherever possible removing any remnant shallow coal. This will enable the ground to be stabilised and remove a hazard prior to construction of any foundations associated with the development. Prior extraction of surface coal requires an Incidental Coal Agreement from the Coal Authority. Further information can be found at:

www.gov.uk/get-a-licence-for-coal-mining

Should coal seams be found, at or near the depth of the development's foundations, they may pose a risk of spontaneous combustion if exposed to air or may act as pathways for ground gases to reach the development. A competent engineer should be consulted if coal is encountered in, or adjacent to, the foundations of the proposed development.

Concrete, cements and renders may be susceptible to attack from elevated levels of sulfates in the ground. The Building Research Establishment reports that most cases of sulfate attack occur in and adjacent to coal field areas and related industrial centres. It would be prudent for the issue of sulfate attack to be considered during the foundation design to ensure they comply with the Building Regulations 2010.

You may also wish to refer to the Construction Industry Research and Information Association (CIRIA) publication C758 "Abandoned Mine Workings Manual".

b) Coal Authority permit

Any intrusive activities, including initial site investigation boreholes and any subsequent treatment of coal mine workings/coal mine entries for ground stability purposes require the prior written permission of the Coal Authority. Application forms for Coal Authority permission and further guidance on this matter can be obtained from the Coal Authority's website at:

www.gov.uk/get-a-permit-to-deal-with-a-coal-mine-on-your-property

Follow on services can be requested using the details in the contacts section.

Section 5 – Conclusions

This report has identified that the proposed development site may have been subject to past coal mining activity which could affect the proposed development, namely the potential for unrecorded workings in the Black Mine (Cannel) seam. The risk to the site from legacy mining features is medium.

Nevertheless, subject to the undertaking of appropriate site investigations and any potential necessary remedial measures as outlined in Section 4a of this report, the Coal Authority considers that the site may be made safe and stable for future development and the risk to the development reduced to low. The recorded coal mining legacy issues present within the site do not pose any particular implications for the layout of the proposed development.

The Coal Authority advises the developer undertake a detailed Gas Risk Assessment where proposed development occurs over shallow coal reserves as is the case here.

Section 6 – Contacts

Planning and Local Authority Liaison Service

Tel: 01623 637 119

Email: planningconsultation@coal.gov.uk

Website: www.gov.uk/planning-applications-coal-mining-risk-assessments

Surface Hazards Emergency Service

Tel: 0800 288 4242 (open 24 hours a day, 7 days a week)

24-hour number for reporting public safety hazards and incidents associated with coal mining

Mining Reports Service

To purchase site specific coal mining information go to our website;

www.groundstability.com

Licensing and Permitting Service

Email: permissions@coal.gov.uk

Tel: 01623 637 320

For permission to enter or disturb coal mine entries and coal seams.

Section 7 – Appendices

Appendix A – Plan showing proposed development layout



Appendix B – Non-Residential Coal Mining Consultants Report

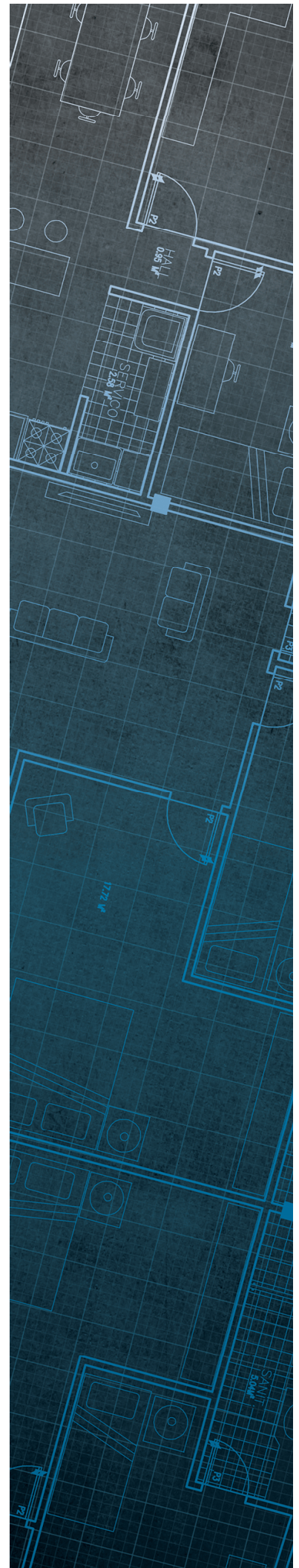
For Internal
Use Only

Consultants Coal Mining Report

Land To The Rear
Old Cock Inn
528 Oldham Road
Middleton
Rochdale
M24 2EB

Date of enquiry: 18 December 2023
Date enquiry received: 18 December 2023
Issue date: 18 December 2023

Our reference: 71009792531001
Your reference:



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

CMRA INTERNAL REPORT

Enquiry address

Land To The Rear
Old Cock Inn
528 Oldham Road
Middleton
Rochdale
M24 2EB

How to contact us

0345 762 6848 (UK)
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200 Lichfield Lane
Mansfield
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	LOWER BENT	Coal	37B9	74	Beneath Property	16.0	South-West	80	1857
unnamed	HALF YARD	Coal	3X22	136	North-West	16.0	South-West	100	1857

Probable unrecorded shallow workings

Yes.

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:

NW1174	6283	NW173
PO0	16820	NW263
NW424		

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
CANNEL	Coal	Yes	Within	N/A	301

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

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.

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. 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

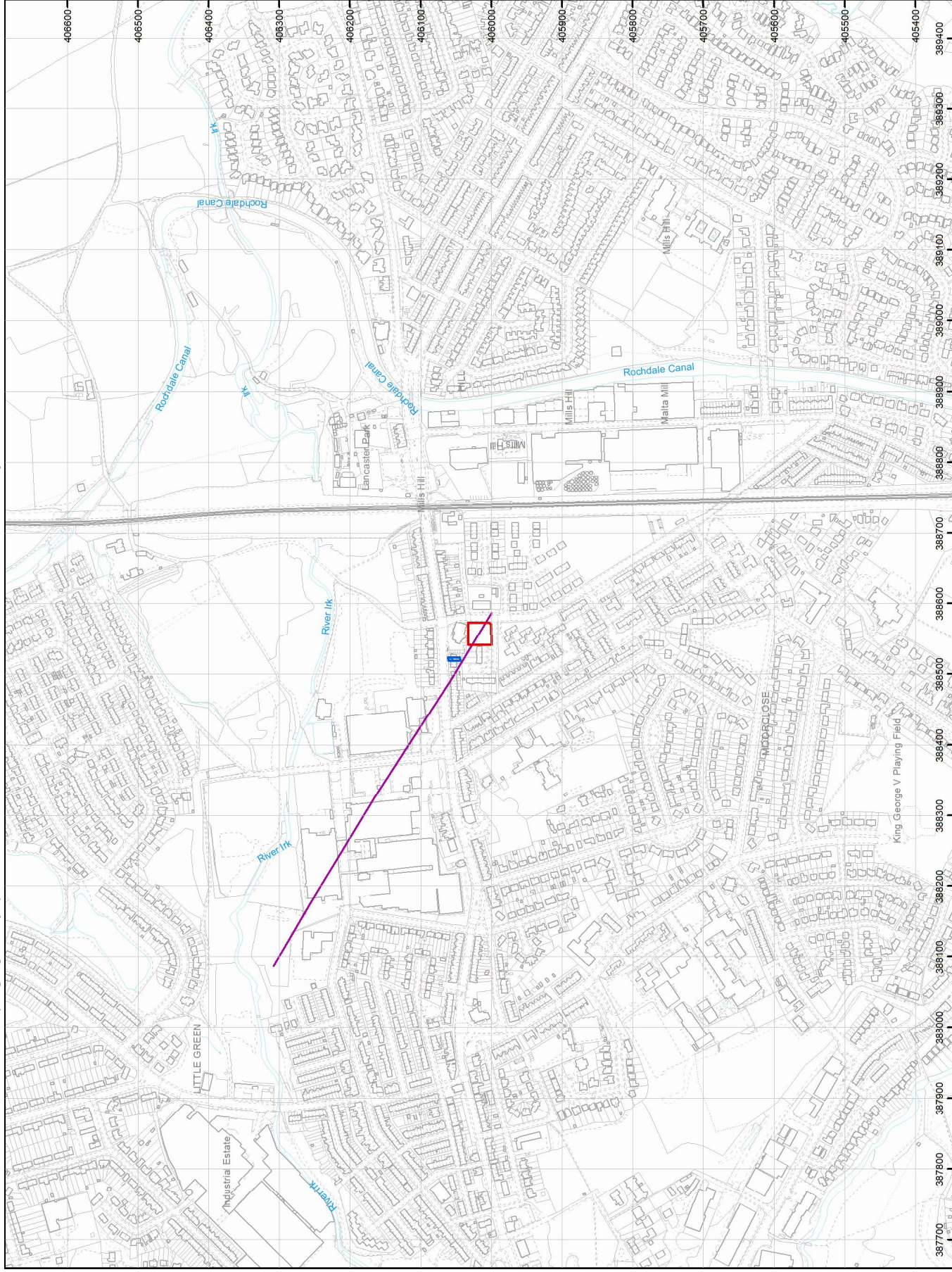
Published notices of entitlement to withdraw support and the date of the notice. Details of any revocation notice withdrawing the entitlement to withdraw support given under Section 41 of the Coal Industry Act 1994.

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
-  Outcrop (Proven)
-  Coal claim

How to contact us

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



The Coal
Authority

Permit to Enter or Disturb Coal Authority Interests

Permit 27955

Name and Address of Permit Holder:

*J.Walker Holmes Limited
Joshua House
35 Joshua Lane
Middleton
Manchester
M24 2AY*

Site Location:

*Land at the Junction of
Baytree Lane - Damson Green
Middleton
Manchester*

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

Ground investigation by two boreholes to 40m 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, CH₄, CO₂, O₂, H₂S 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: Richard Morson Granted Date: 13/02/2024

For and on behalf of The Coal Authority

Nominated Representative: Richard Morson, Permitting Manager;

The Coal Authority, Permitting Office, 200 Lichfield Lane, Mansfield, Notts, NG18 4RG

Tel: 01623 637450; E-Mail: permissions@coal.gov.uk



The Coal
Authority

Granted Permit Boundary

Permit Ref: 27955

Permit Boundary:



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