The Coal Authority

Coal Mining Risk Assessment

For development at: 53 Netherton Avenue, Lynn Estate, North Shields, North Tyneside, NE29 8JG

For proposal: New two-storey dwelling adjoining 53 Netherton Avenue and extension to 53 Netherton Avenue

Assessment Summary

Assessment Result	HIGH RISK
Recommended Further Work	INTRUSIVE SITE INVESTIGATION BEFORE FINALISING LAYOUT

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 of Business, Energy and Industrial Strategy. This report is valid for 90 days.

Version	Compiled	Checked	Date
1.1	PB	HB	5th November 2020

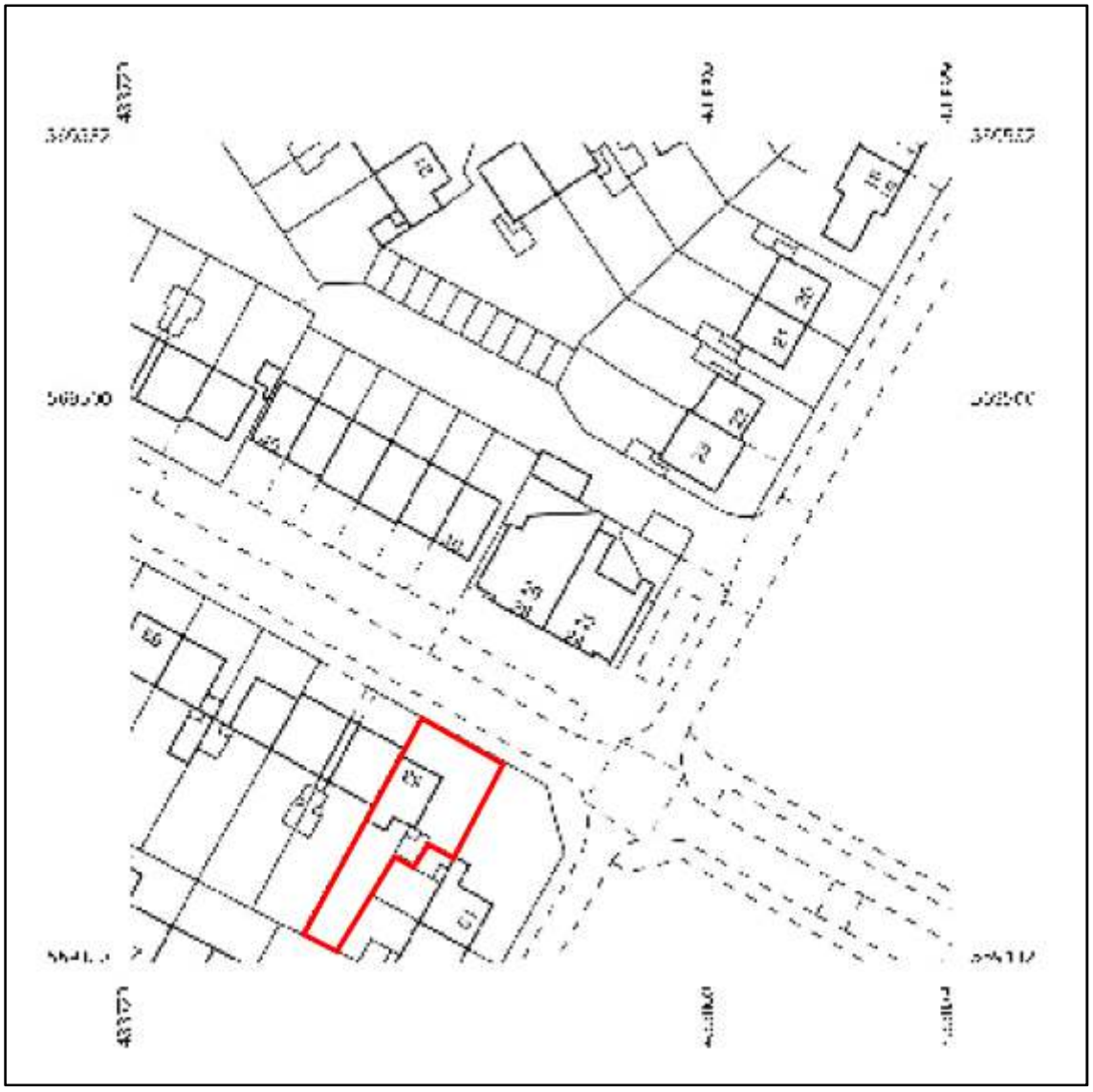
Section 1 – Description of site and proposed development

a) Site location and Description

The Coal Authority has been commissioned to prepare a Coal Mining Risk Assessment Report for a proposed development at 53 Netherton Avenue, Lynn Estate, North Shields, North Tyneside, NE29 8JG (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 E433762, N569449. The proposed development area requires access via Netherton Avenue. The site has an approximate elevation of 61m AOD.

Figure 1: Site location plan



b) Description and layout of proposed development

The Coal Authority understands that the developer plans to construct a new two-storey dwelling adjoining the existing property of 53 Netherton Avenue and a side extension to 53 Netherton Avenue (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 – 10306/5/9 'Preston No.1 or Edwina Nos.2, 3, 4'
Geological plans	X		OS Geological Sheet NZ36NW (1981 edition), Geological Survey of England and Wales 1:63,360/1:50,000 geological map series, New Series sheet 15 – Tynemouth
BGS Boreholes	X		NZ36NW192
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
b) Underground coal mining (probable at shallow depths)	X		Medium risk	Probable workings in Metal coal
c) Mine entries (shafts and adits)	X		High risk	Three mine entries within 100m of the site boundary, 433569-019 located 8m from development boundary considered to pose risk to development
d) Coal mining geology (faults and fissures)		X	Low risk	None recorded
e) Record of past mine gas emissions or potential	X		Medium risk	Nine recorded past gas incidents recorded in the surrounding area, all of which relate to elevated levels of Carbon Dioxide emanating from High Main seam, with this seam not present beneath site. Possible elevated carbon dioxide levels may still exist in locality. 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		Medium risk	Above mentioned gas incidents
g) Surface mining (opencast workings)	X		Low risk	Site recorded 401m northeast however not considered to influence development

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 Consultants 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 the site is underlain by, or is in proximity to, workings in four seams of coal at between 59m-180m bgl. The shallowest of these is the Yard seam, recorded to have been worked beneath the development area at 59m bgl with an extraction thickness of 2m and last worked in 1912.

The workings in the Yard seam are shown on abandonment plan 10306/5/9 'Preston No.1 or Edwina Nos.2, 3, 4' with the area beneath the site shown worked by pillar and stall workings. No record of depth is shown accompanying the workings however the plan includes a statement stating the "depth of Yard coal from surface 20 Fathoms" equating to a depth of 36.58m. It is unclear as to what portion of workings this statement relates to. A section on the plan shows the seam to be made up of bands of coal and slate with a total extraction thickness of 7ft (2.13m). It is discussed within section 3b that using the recorded seam separations in the locality, the seam can be calculated as being at 58.1m depth, corresponding with the 59m depth recorded within the Consultants Coal Mining Report.

Borehole NZ36NW192 located 244m east of the site and showing details of the Billy Mill shaft shows a coal seam to have been encountered at 22ftms 1ft 11in (40.82m) depth with the seam shown to be made up of three coal bands 2ft, 9in and 2ft 9in (0.84m, 0.23m and 0.84m) separated by two bands 3in and 1ft 3in (0.08m and 0.38m) giving a total extraction thickness of giving a total extraction thickness of 2.13m and with the seam thought to represent the Yard coal. The borehole shows rockhead to have been encountered at 7.37m giving 33.45m of cover above the Yard seam. Given the seam is recorded to be present at a greater depth beneath the site it is considered that sufficient competent cover should exist above the recorded workings in the Yard coal. Consequently the risk to this development from underground coal mining (recorded at shallow depth) 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 not in an area of probable shallow coal mine workings.

The OS geological sheet NZ36NW (1981 edition) records the Metal coal seam to outcrop 275m east of the site, orientated approximately NNE-SSW. The generalised vertical section (GVS) records the seam to be between 22-52in (0.56-1.32m) in thickness with the Billy Mill Well borehole (NZ36NW192) 244m east of the site recording the seam to be 54in (1.37m) in thickness at 39ft (11.89m) depth with rockhead recorded to be at 4fthms 2in (7.37m) depth. The borehole records the seam to be intact with the coal labelled as being "bad" however does not disclose the reasons for this.

Although labelled to be bad at borehole NZ36NW192, it could be feasible that roadways within this seam, if worked in the wider area, could extend up to approximately 1.5m.

Geological Survey of England and Wales 1:63,360/1:50,000 geological map series, New Series sheet 15 – Tynemouth, records the strata do dip at 3° to the southwest 1.4km northeast of the site. Using the distance to the borehole 260m east and the local recorded seam dip the seam could be calculated as being at a depth of 25.51m below surface and 18.14m below rockhead.

Mine entry 433569-019 is located adjacent to the site boundary with no records detailing the shafts depth or seam worked. It is considered possible that this mine entry may correspond with unrecorded workings in the Metal coal.

The GVS records the Metal seam to be underlain by the Five Quarter, Bentinck (Top Main) and Yard (Main or Bottom Main) seam with both the Five Quarter, Bentinck (Top Main) both recorded to be laterally discontinuous and thin. The Yard seam is recorded to be 24-48in (0.61-1.22m) in thickness and is shown to be approximately 33m below the Metal seam. These seams are not recorded to have been encountered within the Billy Mill Well borehole. Using the recorded separation between the Metal and Yard seams together with the calculated depth of the Metal seam, the Yard seam could be calculated as being at 58.1m depth, corresponding with the 59m depth recorded within the Consultants Coal Mining Report.

One further seam (likely to be the Five Quarter coal) is recorded between the seams assumed to be the Metal and Yard coals within the Billy Mill borehole however this seam is recorded to be 1ft (0.3m) in thickness at 21.31m depth and considered unlikely to be worked via underground methods.

The OS geological sheet records the conjectured High Main seam to outcrop 18m west of the site and dip to the west. Due to the location of the outcrop and direction of dip this seam should be absent beneath the site.

Given the depth of the Metal seam beneath the site and due to the presence of mine entry 433569-019 adjacent to the site boundary, it is considered that the seam could be worked and that if worked insufficient cover may exist above the seam. Due to the conjectured nature of the High Main outcrop and its close proximity to the site, it may be prudent to confirm the absence of this seam. Consequently the risk to this development from underground coal mining (probable at shallow depth) is considered to be medium.

c) Mine entries (shafts and adits)

The Coal Authority Consultants Coal Mining Report in Appendix B shows three mine entries are recorded within 100m of the development site, the source plans for which have been reviewed as part of this coal mining risk assessment. The results of this exercise are recorded in the table below:

Reference	Easting	Northing	Plot distance from site boundary	Source	Revised position
433569-018	433794	569509	56m northeast	Original source unknown obtained from former NCB shaft register	N/A
433569-019	433780	569449	8m east	Original source unknown obtained from former NCB shaft register	N/A
433569-020	433783	569374	65m south	Original source unknown obtained from former NCB shaft register	N/A

The Coal Authority seeks to ensure that development is avoided above, or within the zone of influence of, all mine entries where possible. The zone of influence can be calculated as the sum of the departure value (up to 10m to account for discrepancies in source material), plus the local depth to rockhead (discussed in 3d below as likely to be up to 7.37m), plus the entry radius (nominally assumed to be 1.25m unless proven otherwise). On the basis of the above the zone of influence for these entries can be assumed to be a distance of 18.62m from the recorded positions detailed above. Based on the distance of these entries from the site boundary, the risk to the development from recorded mine entries 433569-018 and 433569-020 is considered to be low.

Due to the close proximity between the site boundary and mine entry 433569-019, the risk to this development from this mine entry is considered to be high. As this shaft could

be located on land that may not owned by the developer, an intrusive investigation to determine the location of the shaft over its full departure area may not be possible, however at this time it is considered that this shaft could exist close to, or within the east of the site and consequently the risk to the proposed development from this mine entry is high. Ground investigations can be undertaken to confirm the depth to rockhead, however if the zone of influence for this – and potentially other recorded mine entries in the area – is likely to fall across the entire site, a structural engineer should be consulted to determine if the risk from these mine entries can be accommodated within a foundation solution.

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.

d) Coal mining geology (Faults and fissures)

The development site sits upon the Pennine Middle Coal Measures Formation, consisting of coal, sandstones, siltstones and mudstones. Surficial deposits consist of soil and clay with borehole NZ36NW192 showing rockhead to have been encountered at 7.37m depth, however local ground conditions at the development site should be proven through ground investigations.

No faults, fissures or break lines are known to affect the development site.

e) Record of past mine gas emissions or potential

There are nine recorded past gas emissions recorded in the surrounding area. The Coal Authority's Public Safety team were consulted and gave the following response:

"There are a number of historic gas related incidents (around 1997) the other side of Billy Mill Lane (to the west of the proposed development). These incidents were in relation to the housing estate the other side of this road which was constructed on top of a backfilled sandstone quarry. There are shallow workings beneath this quarry, in the High Main Seam at 30m. It is believed that elevated levels of carbon dioxide, contained within these shallow workings flow into the backfill material at times of pressure drop and saturate the quarry material and as a result this 'blackdamp' was finding its way into properties on the backfilled quarry.

The result of these incidents was that an active ventilation system was installed by which a fan station, operated by the Coal Authority, was installed on the grounds of St Thomas Moore High School to control the carbon dioxide concentrations in these shallow workings."

As the conjectured High Main seam outcrops to the west of the development site boundary and dips away from the site it is considered the risk from this seam is low

however the developer should be aware of the history of elevated carbon dioxide associated with shallow workings in the area.

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 more detailed gas risk assessment to be undertaken in accordance with relevant guidance.

The High Main and Maudlin seams mentioned in the Consultants Coal Mining Report are recorded as being prone to spontaneous combustion however is considered unlikely to be encountered.

f) Recorded coal mining surface hazard

None recorded in addition to gas incidents recorded within section 3e.

g) Surface mining (opencast workings)

The Consultants Coal Mining Report records a disused opencast mine to be present 401m northeast of the site. Due to the distance between the site and the opencast boundary it is considered 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 presence of probable unrecorded shallow mine workings in the Metal coal seam and the presence of mine entry 433569-019, an intrusive site investigation will be required. The High Main seam is not expected to be present beneath the development however due to the conjectured nature of this outcrop and the close proximity to the site, it may be prudent to prove the absence of this seam during any site investigation. The High Main seam is recorded to be prone to spontaneous combustion.

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

There are numerous gas incidents recorded in the locality and the possibility of raised levels of carbon dioxide should be considered during development.

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

Mine entry 433569-019 will subsequently require further investigation to confirm its state and provide information which will aid the design of any treatment proposals, where it is considered necessary. The occurrence of unrecorded mine entries across the whole of the site cannot be discounted and consequently in areas of new build development a watching brief should be maintained throughout the site works to identify this risk. As a result all site operatives should be made aware of this potential risk. Where mine entries exist close to the boundary the developer should be aware that this could complicate

treatment if they straddle the boundary or works needed to treat them require access to land owned by third parties.

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 Special Publication 32 "Construction over Abandoned Mine Workings".

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.

c) Implications for development layout

The coal mining legacy issues outlined in this report, particularly 433569-019 will have implications for layout in the proposed development outlined in Appendix A. The positions of these features will have to be delineated by intrusive techniques as far as possible by investigating the departure area that exists within the site boundary. If found, the size and position will need to be proven to allow appropriate adjustments in layout to be made and to inform any pre-treatment or ground improvement deemed necessary along with foundation design. As the mine entry is recorded to be located off site, if the full departure area cannot be searched it should be considered possible that the mine entry is present immediately beyond the site boundary. At this time the zone of influence for this mine entry may incorporate the entire development site area an engineering solution is likely to be required.

Section 5 – Conclusions

This report has identified that the proposed development site has been subject to past coal mining activity, namely the presence of probable workings in the Metal coal seam and mine entry 433569-019. The risk to the site from legacy mining features is high.

The intrusive investigations recommended in Section 4a of this report should be undertaken prior to the layout of the development being confirmed.

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: 01623 646 333 (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

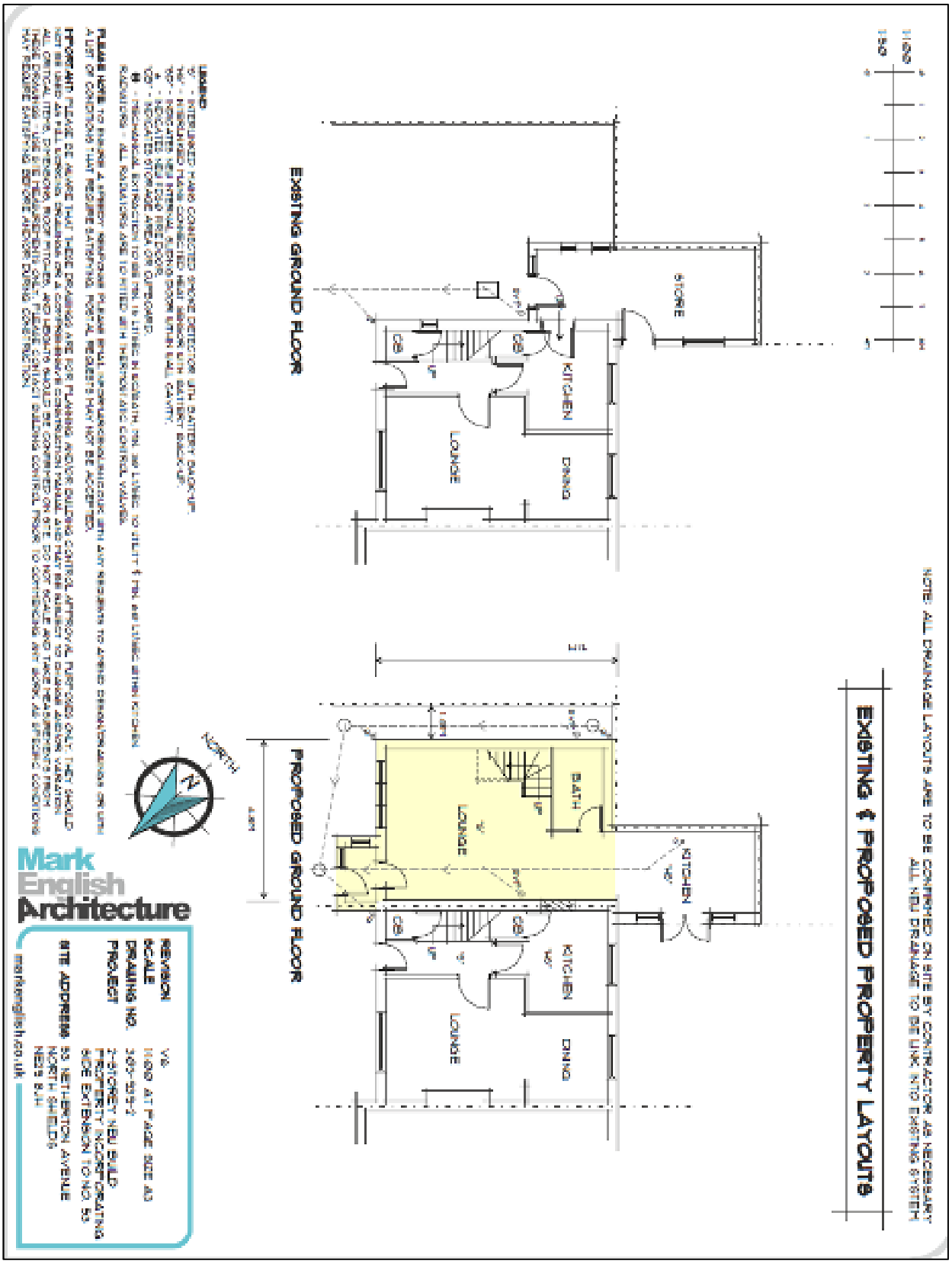
Email: permissions@coal.gov.uk

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

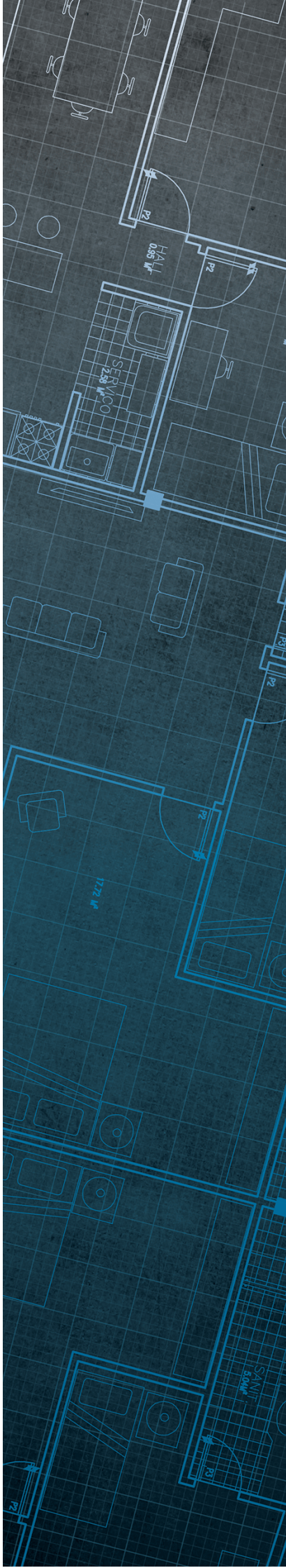
The Coal Authority

Consultants

Coal Mining Report

53 Netherton Avenue
Lynn Estate
North Shields
North Tyneside
NE29 8JG

Date of enquiry:	**4 November 2020**
Date enquiry received:	**4 November 2020**
Issue date:	**4 November 2020**
Our reference:	**71007370695001**
Your reference:	



Consultants

Coal Mining Report

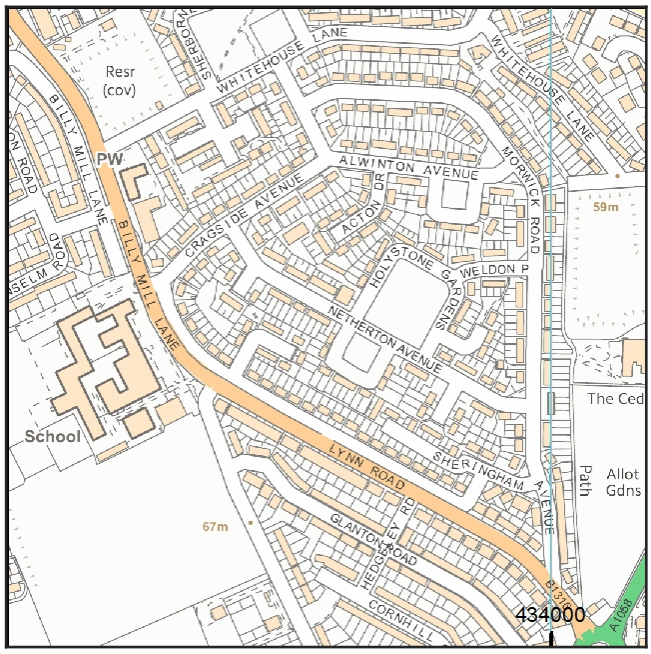
This report is based on and limited to the records held by the Coal Authority at the time the report was produced.

Client name

THE COAL AUTHORITY

Enquiry address

53 Netherton Avenue
Lynn Estate
North Shields
North Tyneside
NE29 8JG



Approximate position of property

How to contact us

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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
PRESTON	YARD	Coal	51ZZ	59	Beneath Property	2.2	South	200	1912
PRESTON	MAUDLIN	Coal	54QP	93	Beneath Property	2.2	West	150	1929
PRESTON	HUTTON	Coal	51YR	101	Beneath Property	3.3	South-West	130	1918
PRESTON	TILLEY	Coal	51YS	175	North-East	2.6	South-West	140	1926
PRESTON	TILLEY	Coal	51XS	180	Beneath Property	2.6	South-West	150	1923
PRESTON	TILLEY	Coal	51WS	180	South-East	2.6	South-West	150	1923

Probable unrecorded shallow workings

None.

Spine roadways at shallow depth

No spine roadway recorded at shallow depth.

Mine entries

Entry type	Reference	Grid reference	Treatment description	Mineral	Conveyancing details
Shaft	433569-018	433794 569509		Coal	
Shaft	433569-019	433780 569449		Coal	
Shaft	433569-020	433783 569374		Coal	

Abandoned mine plan catalogue numbers

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

10306	PO0	

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

Distance to gas incident/remediation (m)	Direction
341.9	North-West
425.1	West
417.4	West
367.5	West
356.4	West
406.2	North-West
324.8	West
411.9	North-West
425.1	West

See Section 4 for further information.

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.

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.

Mine gas remedial works

The site is within an area of previous interest. It is close to where the Coal Authority has investigated and subsequently remediated the effects of mine or ground gas emissions following specific reported hazards.

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

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

Section 5 – Data definitions

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

Past underground coal mining

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

Probable unrecorded shallow workings

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

Spine roadways at shallow depth

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

Mine entries

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

Abandoned mine plan catalogue numbers

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

Outcrops

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

Geological faults, fissures and breaklines

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

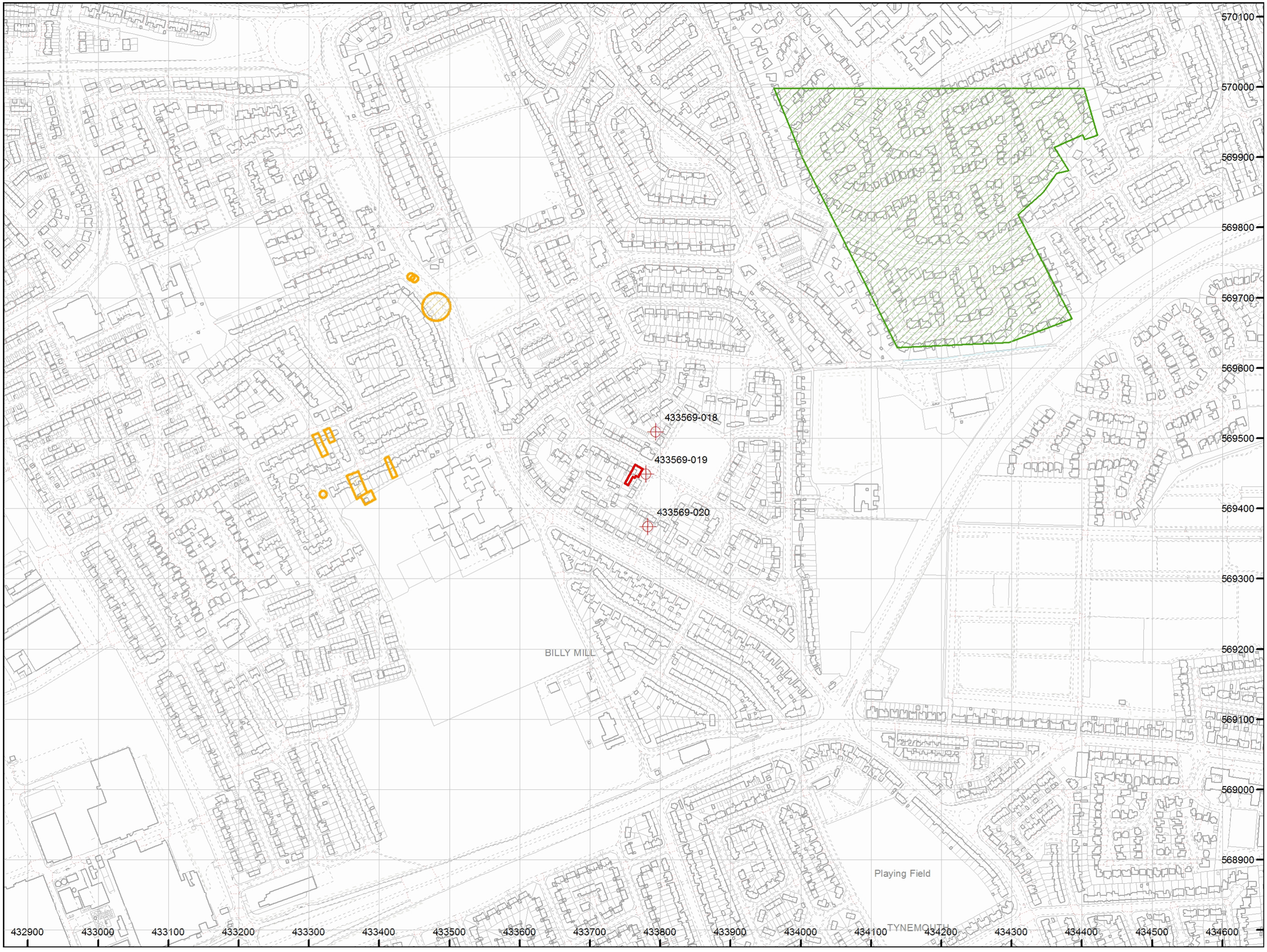
The Coal Authority

Summary of findings

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
- Disused mine shaft
- Unlicensed opencast site
- Mine gas remedial works



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