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Coal Mining Risk Assessment

269 Sackup Lane

Darton

Barnsley

S75 5AX

Date: 12th December 2025

Version 1

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Document Verification

Site Address	269 Sackup Lane, Darton, Barnsley, S75 5AX		
Report Title	Coal Mining Risk Assessment		
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Date Issued	12th December 2025	Report Version	1
Prepared by	Tom Craig BSc MSc FGS	Signature	[redacted]
Checked by	Phil Shelton PhD BSc CEng MIMMM FGS	Signature	[redacted]

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Appendices

1 Introduction

1.1 Site Location and Description

The site for a proposed residential development is located at 269 Sackup Lane, Barnsley, S75 5AX. The British National Grid Reference for the approximate site centre is GR: 432265 410845.

The site is roughly square shaped and covers an approximate area of 1,990m^2.

The site is currently occupied by a large detached residential property with surrounding lawn space and driveway access off Sackup Lane.

The site slopes lies within a shallow 'saddle', gently sloping to the southwest from about 146m aOD to 143m aOD and rising to the northwest and southeast.

A plan showing the location of the site is presented in **Figure 1**.

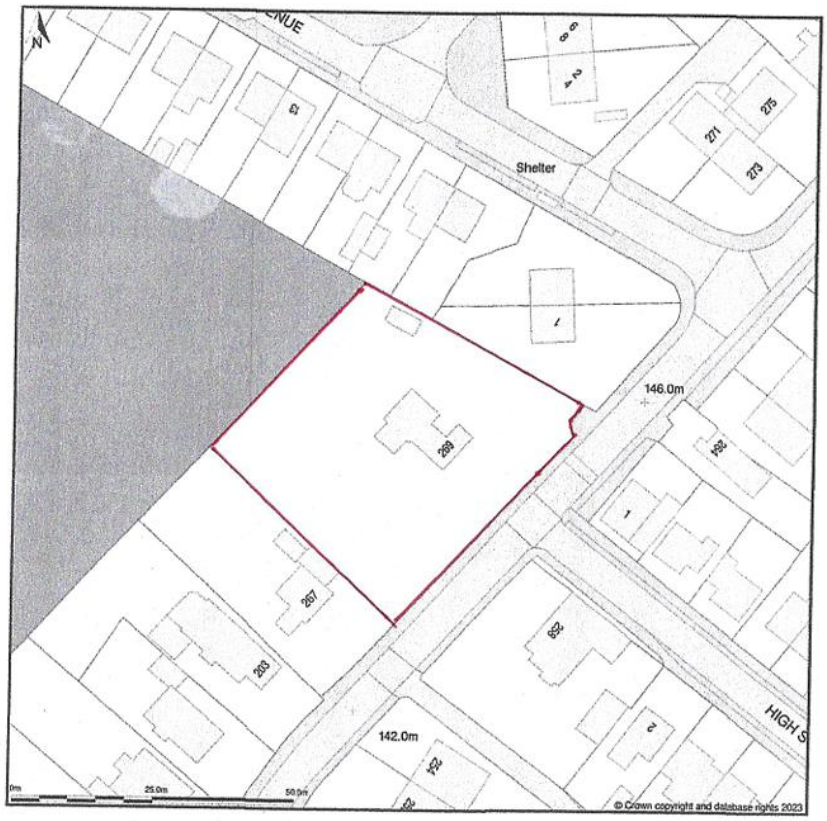


Figure 1) Site Location Map

1.2 Development Proposal

It is understood that the development proposal includes the demolition of the existing property and the construction of 5 no. residential dwellings.

The development plans are included in **Figure 3** in **Appendix A**.

1.3 Scope of Coal Mining Risk Assessment

EnviroSolution Ltd (ES) has been commissioned to prepare a Coal Mining Risk Assessment Report (CMRA) for the proposed development site, in order to provide the Local Planning Authority with information on the coal mining legacy risk(s), an assessment of their potential impact on land stability, and provide recommendations for the need to carry out any further investigations (including intrusive boreholes if necessary) to address these risk(s).

The CMRA has been undertaken in accordance with the principles of best practice including the Coal Authority's guidance document "Risk Based Approach to Development Management - Resources for Developers Version 3" (2014) (Ref. 1), CIRIA "SP32 Construction over Abandoned Mine Workings" (2002) (Ref. 2) and CIRIA "C758D Abandoned Mine Workings Manual" (2019) (Ref. 3), CIRIA, Publication C665, Assessing risks posed by hazardous ground gases to buildings (Ref. 4) and CL:AIRE "Good Practice for Risk Assessment for Coal Mine Gas Emissions", October 2021 (Ref. 5).

The purpose of the CMRA Report is to:

- present a desk-based review of available information on the coal mining issues that 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 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; and
- 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.

1.4 Sources of Information

This report is based on current information of past mining activities relevant to the site. The following information sources have been used:

- Consultants Coal Mining Report dated 1st August 2023 (Ref: 51003370071001 **Appendix B**);
- BGS Geoindex geological map
- BGS geological 1:50,000 England and Wales Sheet 87 Barnsley;
- Geology of the Barnsley district — a brief explanation of the geological map Sheet 87 Barnsley;
- Mining Remediation Authority Map Viewer;
- Historical Ordnance Survey maps.

2 Environmental Setting

2.1 Historic Coal Mining Activity

The development site and surrounding area has been reviewed with reference to historical Ordnance Survey (OS) maps. The history of the site and immediate surrounding area are summarised in Table 1. Copies of the historical OS maps are included in **Appendix D**.

Table 1 - Historic Mapping Review

Date	Scale	Historic Mining Activity
1849	1:10,560	- The site is undeveloped and lies within an agricultural field. - Sandstone quarries located 150m southeast, 530m south and 760m southeast. - Old coal pit located 380m southeast.
1891	1:10,560	- Whooley Colliery located 1.2km northwest. - Wheatley Wood Colliery located 800m north.
1929	1:10,560	- Old coal shaft located 280m north. - Darton Main Colliery located 1.37km southwest. - Coal levels located 470m southwest.
1938	1:10,560	- Site developed with two detached houses.

The BGS memoir gives the following summary of mining in the Barnsley District:

"Mining in the Barnsley district has a long history, and includes the extraction of coal, fireclay, ganister, ironstone, building stone, and sand. Of these, coal and fireclay have been of greatest importance, and their exploitation dates back to at least the 13th century. It is known that mining subsidence can be particularly severe in the vicinity of fault zones, and can give rise to significant linear subsidence features (Taylor, 1968: Young and Culshaw, 2001)". – See also Chapter 6, C758D Abandoned Mine Workings Manual (*ibid*).

2.2 Geological Context

The BGS geological mapping (Geoindex and BGS Sheet 87 Barnsley) shows that the site lies close to or may be partially intersected by infilled ground, related to an opencast working.

Geological mapping indicates that the site is not directly underlain by superficial deposits.

The underlying bedrock consists of the Pennine Middle Coal Measures Formation, which is of Carboniferous age. The Pennine Middle Coal Measures Formation generally consists of interbedded grey mudstone, siltstone, pale grey sandstone and commonly coal seams. According to the BGS, the bedrock has an approximate regional dip of 4° towards the northeast – **See Appendix D**.

A geological fault is shown to intersect the western area of site close to the boundary with an approximate trend of 040° (Whole Circle Bearing). The fault downthrows to the northwest.

It is understood that South Yorkshire Mining Advisory Service has confirmed that several properties on Coniston Avenue to the north had to be demolished due to structural instability

from movement within the fault line. The fault movement was initiated by deep mining subsidence.

Named coal seams expected to be present beneath the site include the Top Beamshaw, Low Beamshaw, High Hazels and Kents Thin coal seams (see **Figure 2**).

The BGS memoir gives the following information on the seams:

Coal Seam	Thickness (m)	Types of Working and Former Use
Adby	0m – 1.9m	Worked (crop, mine, opencast)
Top Beamshaw	0 – 2.9m	Worked (mine, opencast). Household, coking, gas
Low Beamshaw	0 – 1.2m	Worked (mine). Household, coking, gas
High Hazels	0 – 1.3m	
Kents Thin	0 – 1.9m	Worked (opencast)

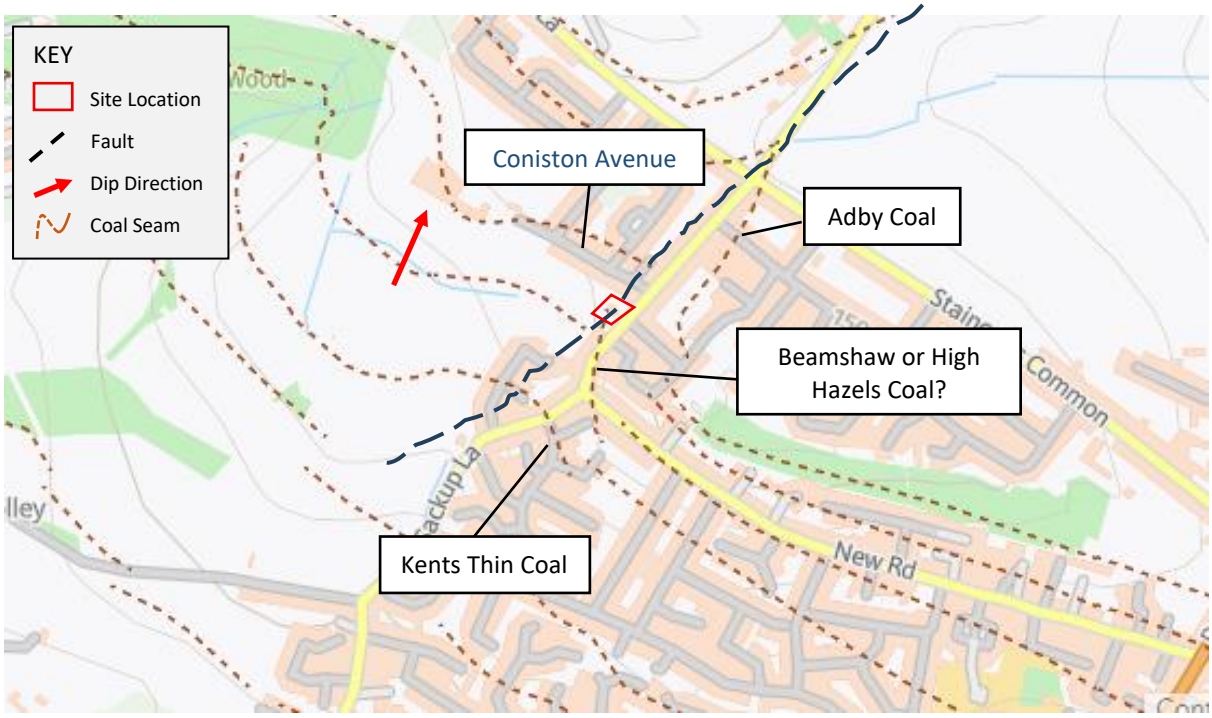


Figure 2) Coal Seam Location Map (Mining Remediation Authority Map Viewer)

The site is situated within a Primary Opencast Coal Resource Area (**Appendix E**). The Primary Opencast Coal Resource Area is defined by the BGS as "an area that constitutes the main target for opencast coal extraction and comprises a relatively closely spaced succession of variable but generally thick coals". Notwithstanding this, it is considered to be very unlikely

that there will be any interest in developing open cast coal mining operations at this location in the short or medium-term.

3 Third Party Investigation Data

The adjacent land to the west has been subject to a third party site investigation. As part of an undecided planning application for a large housing development. This section aims to summarise the works undertaken in relation to coal mining risk.

3.1 Haigh Huddleston & Associates, Geo-Environmental Ground Investigation Report, Pennine View, E21/7786, July 2021

A desk-based and intrusive geo-environmental report was completed by Haigh Huddleston & Associates in 2021. The report can be found under planning application reference 2024/0698 with Barnsley Metropolitan Borough Council.

The investigation works included the following:

- 14 no. trial pits to depths of between 2.5m and 3m bgl.
- 28 boreholes to dpeths of between 3m and 30m bgl.
- Installation of 3 no. gas monitoring wells.
- Gas monitoring.

The key findings are summarised below:

- Made Ground in the form of re-engineered clay and mudstones were recorded in the area of the former opencast pit, shallowing towards the outcrop position and deepening towards the northeast following dip direction.
- The Made Ground thickness ranged between 2.7m and 8.1m.
- Solid bedrock strata beneath the base of the opencast comprised mudstone, siltstone and sandstone. An intact coal seam (0.90m – 1.0m thick) was encountered at depths of between 12.8m and 17.2m.
- A maximum concentration of carbon dioxide was recorded at 4.9%. No methane was detected.
- The gas regime was determined to be Characteristic Situation 1.

4 Identification and Assessment of Site-Specific Coal Mining Risks

Table 2 below summarises the potential risks associated with coal mining legacy for the proposed development site, which have been identified from list sources of information.

Table 2 - Coal Mining Hazards Summary

Coal Mining Issues	Yes	No
Coal outcrops	X	
Underground coal mining (recorded at shallow depths)		X
Underground coal mining (probable at shallow depths)	X	
Recorded mine entries (shafts and adits)		X
Unrecorded mine entries (shafts and adits)	X	
Coal mining geology (fault)	X	
Record of past gas emissions	X	
Recorded coal mining surface hazard	X	
Surface mining (opencast workings)	X	

The MRA Interactive Map Viewer (**Appendix F**) has identified that the site lies within a Development High Risk Area associated with the potential intersection of a historic opencast working and potential unrecorded shallow coal mine workings beneath the site.

The report obtained from the MRA revealed the property is in a surface area that is affected by recorded underground mining in 9 no. coal seams at depths of between 100m and 500m bgl. The seams were last worked in 1987.

Using the generally accepted 'rule-of-thumb' guidance that a competent rock strata thickness equivalent to at least ten times the extraction thickness provides adequate protection against crown-hole development and surface instability (Refs 2 and 3), the workings can be considered to be at such a depth that the recorded workings would not result in surface subsidence and/or crown-hole development.

As presented in Section 2.2, a number of potentially economically viable coal seams (Top Beamshaw, Low Beamshaw, High Hazels) may be present at shallow depths beneath the site and could have been worked in the past.

The Mining Remediation Authority report states that they are not aware of any recorded mine entries within a 20m radius of the development site boundary. Notwithstanding this, there may be mine entries in the vicinity that have not been recorded.

The Mining Remediation Authority report states that the site is partially intersected by a opencast coal mining site. The location of the opencast is shown in Figure 3 below. In particular, the site could be precariously situated on the opencast highwall, where sharp changes in the thicknesses of poorly compacted Made Ground can result in damaging differential settlement for new developments. The highwall may have terminated against the fault (Figure 3).

Figure 3) Mining Remediation Authority Opencast Map

There are no license requests outstanding to remove coal via this method in the future. The risk posed to the site from opencast mining methods is therefore considered to be negligible.

There is a subsidence claim approximately 10m east of the development site. EnviroSolution is aware of a further two damage claims within a 250m radius of the site. The claims were rejected.

There are no recorded past mining 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, it is recommended that a detailed gas risk assessment is undertaken in accordance with relevant guidance such as the CL:AIRE “Good Practice for Risk Assessment for Coal Mine Gas Emissions”, October 2021.

5 Proposed Mitigation Strategy

- The possibility of unrecorded shallow coal workings has been highlighted by the Mining Remediation Authority, and it has been supported by available geological interpretation. It is recommended that up to a minimum of 5 no. rotary boreholes are advanced to a minimum depth of 30m below ground level to investigate for unrecorded shallow coal mine workings and to establish the depth to rockhead and to determine evidence of ground disturbance as a result of fault reactivation. Water flush should be used to safeguard against oxidation and potential spontaneous combustion of shallow coal. The boreholes should be installed with gas monitoring standpipes and a programme of gas monitoring should be undertaken. In order to undertake these works it will be necessary to obtain a drilling permit from The Coal Authority.
- A variable thickness of Made Ground is expected beneath the site as a result of the decommission and infill of the former opencast coal mine. The exact position of the opencast highwall is unknown. There is therefore a risk of differential settlement for the new construction. This risk can be mitigated by appropriate site investigations and foundation design. Trial trenching should be undertaken to record the exact position.
- The possibility of unrecorded mine shafts has been highlighted in the Mining Remediation Authority report. The potential risk can be dealt with through vigilance during the earthworks stage of construction.

6 Conclusions

The Coal Mining Risk Assessment for the site at 269 Sackup Lane in Barnsley has concluded that the potential risks associated with coal mining related issues are 'significant' based on information from the Mining Remediation Authority and geological interpretation.

The principal risks to the development arise from:

- The potential presence of unrecorded shallow mine workings;
- unrecorded mine entries;
- variations in thickness of Made Ground due to infill of opencast workings.
- mine gas.

It is therefore recommended that further intrusive ground investigations are undertaken. These might include the drilling of 5 no. rotary probe borehole(s) to a minimum depth of 30m bgl, located close to the proposed development to determine the superficial and infill thickness along with obtaining evidence of potential unrecorded coal mine workings. The boreholes should be completed with gas monitoring installations. Ground gas concentrations should be monitored for a minimum period of 6 weeks with fortnightly visits.

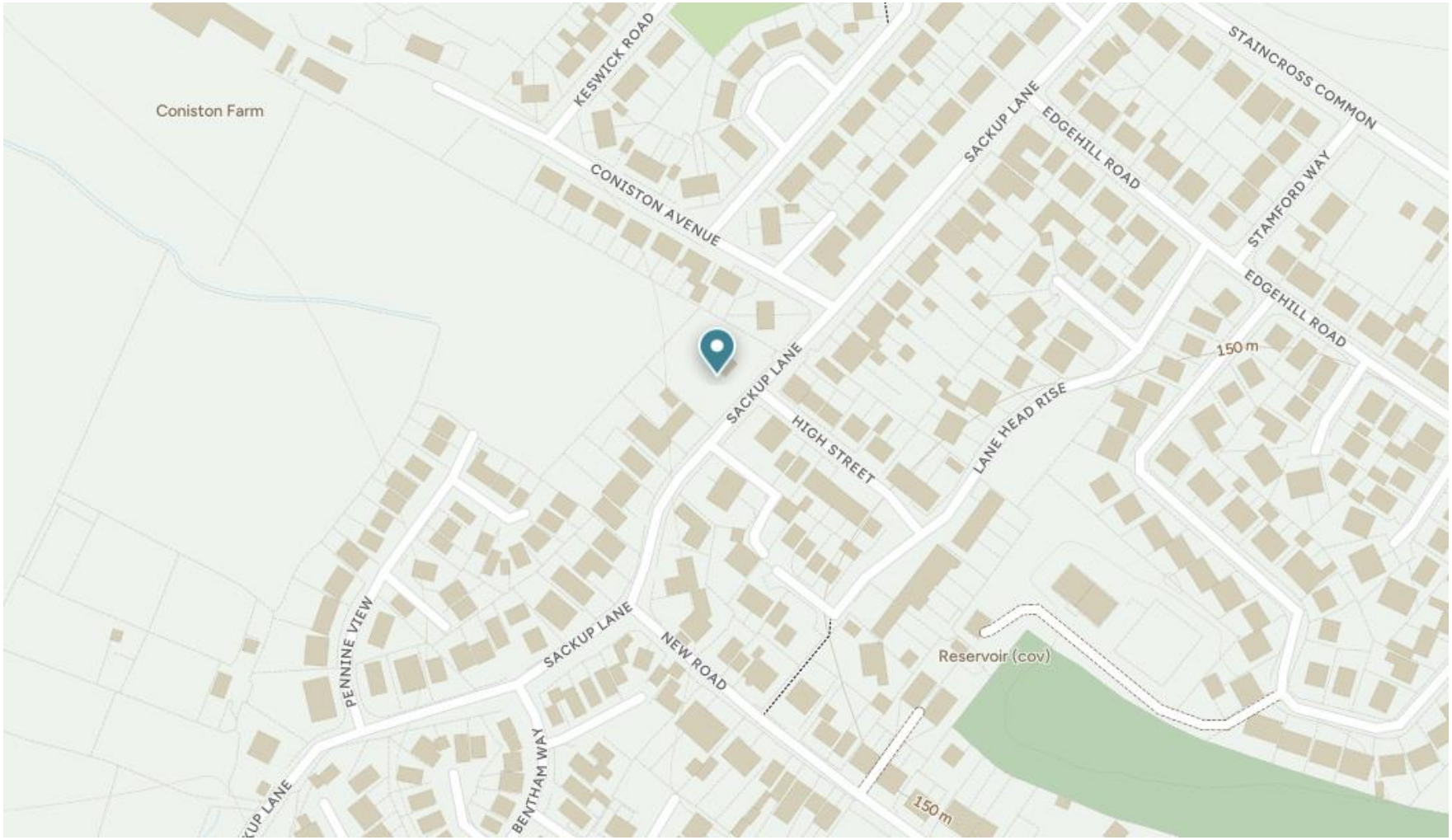
Additionally, it is recommended that trial trenching is undertaken to determine the opencast highwall position. Construction directly over the highwall should be avoided.

Prior to the commencement of intrusive works, a Coal Authority Permit will be required for drilling activities, that will disturb or enter any coal seams, coal mine workings or coal mine entries (shafts and adits). The scope of works for the investigation will need to be submitted and approved by the local authority prior to the commencement of the intrusive works.

7 References

1. Coal Authority, 2014, Risk Based Approach to Development Management Resources for Developers, Version 3.
2. CIRIA, 2002, SP32 Construction over Abandoned Mine Workings.
3. CIRIA, 2019, C758D Abandoned Mine Workings Manual.
4. CIRIA, Publication C665, Assessing risks posed by hazardous ground gases to buildings.
5. CL:AIRE, 2021, Good Practice for Risk Assessment for Coal Mine Gas Emissions.

Appendix A – Site Location



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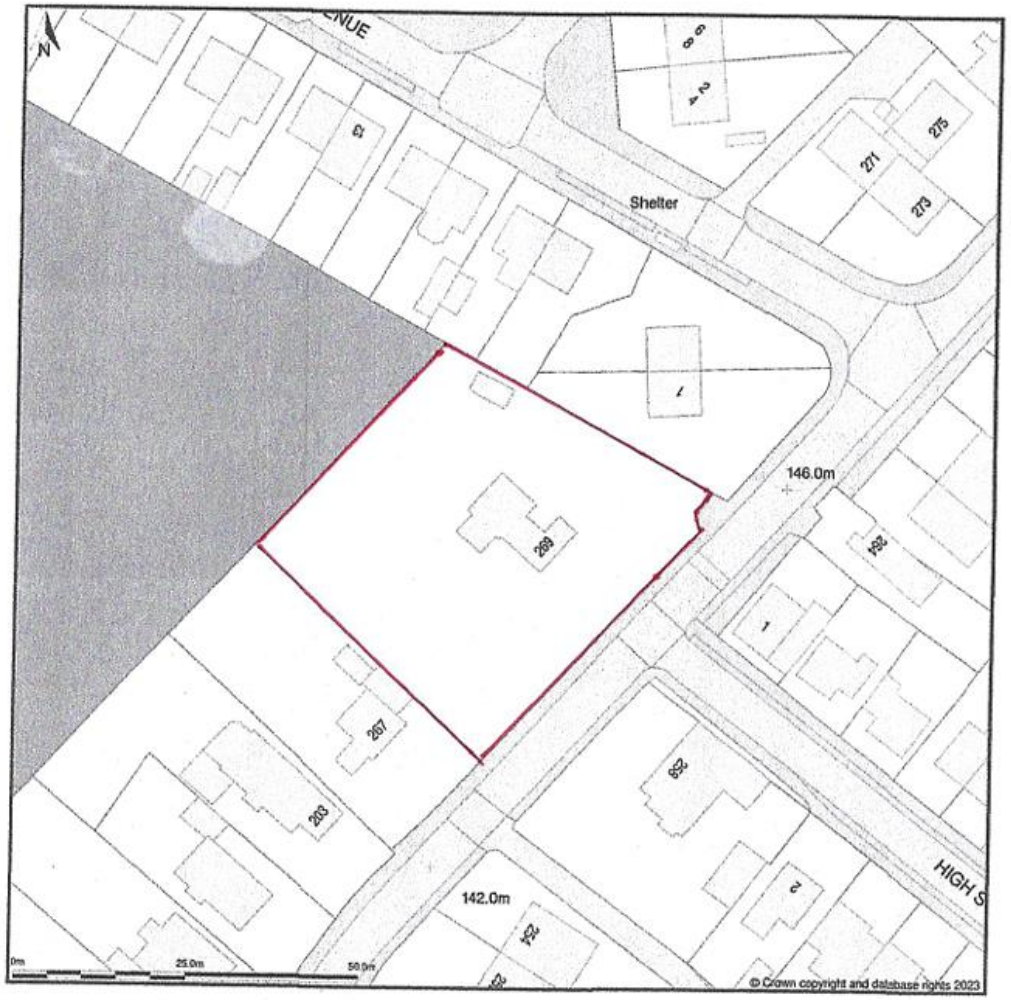
Location Plan



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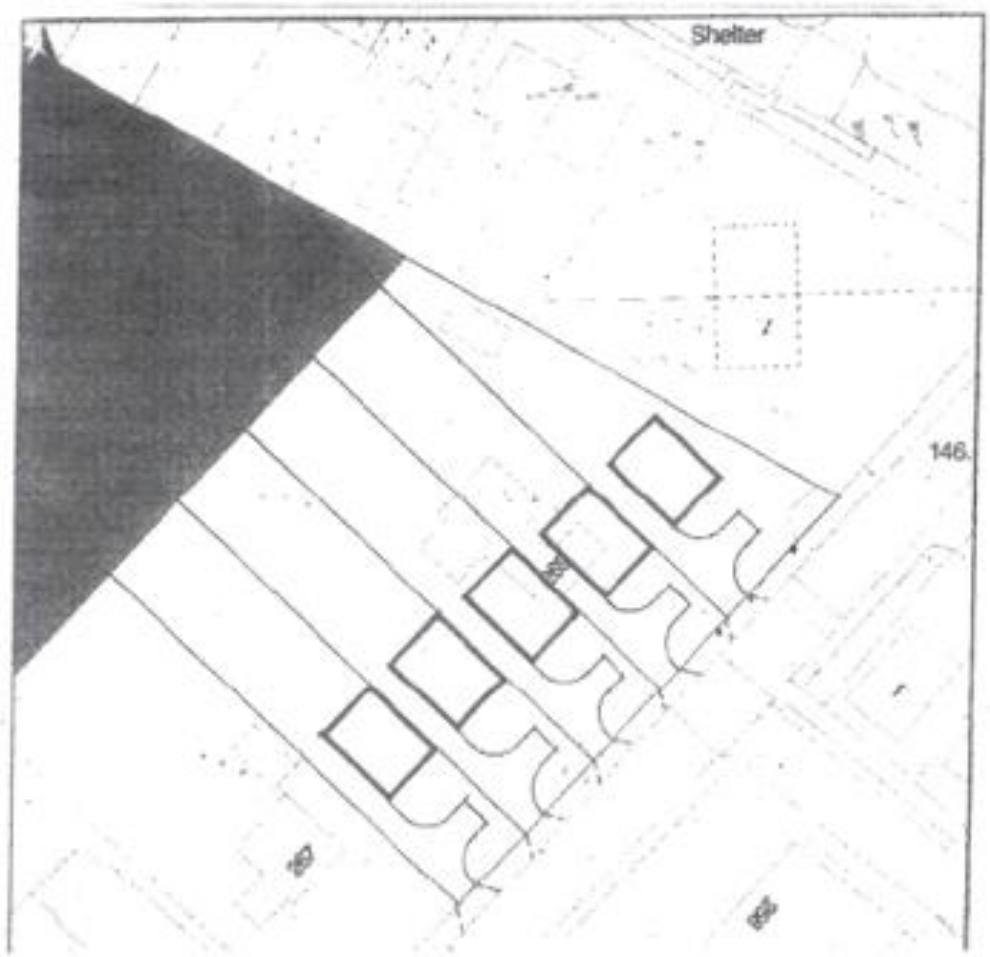
Existing Site Plan



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Proposed Site Plan

Appendix B – Coal Authority Report

The Coal Authority

CON29M
coal mining report

ROUNDHILLS, 269 SACKUP LANE, DARTON, BARNSLEY, BARNSLEY, S75 5AX

Known or potential coal mining risks

Further action

These additional reports can give further detail on the risks identified:

- Subsidence claims 50m buffer report

For more information please see our Further action reports on page 10

Professional opinion

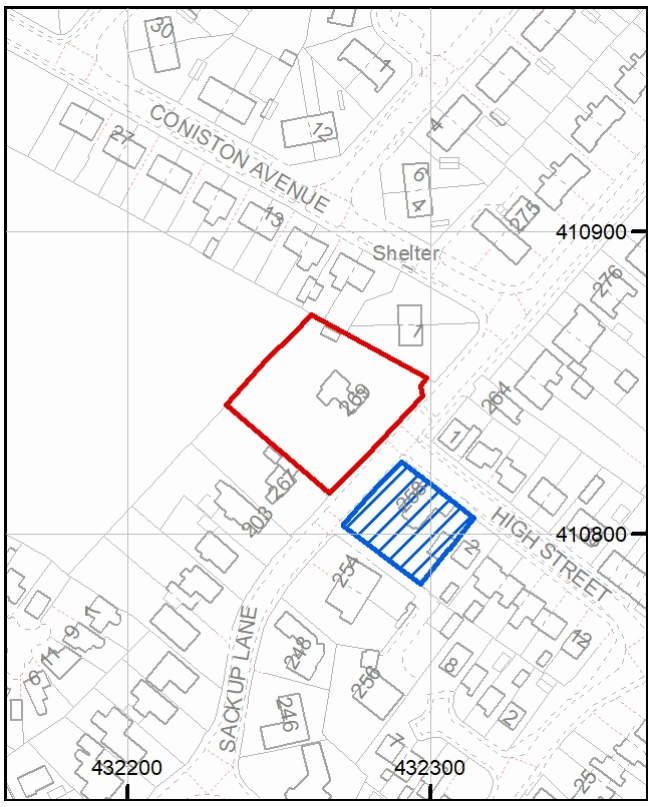
According to the official mining information records held by the Coal Authority at the time of this search, evidence of, or the potential for, coal mining related features have been identified. In view of the coal mining circumstances we would recommend that any planned or future development should follow detailed technical advice before beginning work on site. Please see page 3 for further details on Future development.

Enquiry boundary

Key

Approximate position of enquiry boundary shown

Coal claims



We can confirm that the location is **on the coalfield**

Map data

This report is prepared in accordance with the latest Law Society's Guidance Notes 2018, the User Guide 2018 and the Coal Authority's Terms and Conditions applicable at the time the report was produced.

Accessibility

If you would like this information in an alternative format, please contact our communications team on 0345 762 6848 or email communications@coal.gov.uk.

What if this information changes?

If this report is for a residential property, insurance is included to cover any loss in property value caused by any changes in the information contained in this report. Please see the attached certificate of insurance for the terms and conditions of this insurance. The insurance does not cover non-residential property or further action reports.

Professional opinion

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 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.

If you are looking to develop, or undertake works, within a coal mining development high risk area your Local Authority planning department may require a Coal Mining Risk Assessment to be undertaken by a qualified mining geologist or engineer. Should you require any additional information then please contact the Coal Authority on 0345 762 6848 or email cmra@coal.gov.uk.

Detailed findings

Information provided by the Coal Authority in this report is compiled in response to the Law Society's CON29M Coal Mining enquiries. The said enquiries are protected by copyright owned by the Law Society of 113 Chancery Lane, London WC2A 1PL.

1 Past underground coal mining

The property is in a surface area that could be affected by underground mining in 9 seams of coal at 100m to 500m depth, and last worked in 1987.

Any movement in the ground due to coal mining activity associated with these workings should have stopped by now.

In addition the property is in an area where the Coal Authority believes there is coal at or close to the surface. This coal may have been worked at some time in the past. The potential presence of coal workings at or close to the surface should be considered, particularly prior to any site works or future development activity, as ground movement could still be a risk. Your attention is drawn to the Professional opinion sections of the report.

2 Present underground coal mining

The property is not within a surface area that could be affected by present underground mining.

3 Future underground coal mining

The property is not in an area where the Coal Authority has received an application for, and is currently considering whether to grant a licence to remove or work coal by underground methods.

The property is not in an area where a licence has been granted to remove or otherwise work coal using underground methods.

The property is not in an area likely to be affected from any planned future underground coal mining.

However, reserves of coal exist in the local area which could be worked at some time in the future.

No notices have been given, under section 46 of the Coal Mining Subsidence Act 1991, stating that the land is at risk of subsidence.

4 Mine entries

There are no recorded coal mine entries known to the Coal Authority within, or within 20 metres, of the boundary of the property.

5 Coal mining geology

The Coal Authority is not aware of any damage due to geological faults or other lines of weakness that have been affected by coal mining.

6 Past opencast coal mining

The property is within the boundary of an opencast site from which coal has been removed by opencast methods.

The property is within the boundary of an opencast site from which coal has been removed by opencast methods.

7 Present opencast coal mining

The property does not lie within 200 metres of the boundary of an opencast site from which coal is being removed by opencast methods.

8 Future opencast coal mining

There are no licence requests outstanding to remove coal by opencast methods within 800 metres of the boundary.

The property is not within 800 metres of the boundary of an opencast site for which a licence to remove coal by opencast methods has been granted.

9 Coal mining subsidence

There is a claim within 50 metres of the property boundary that does not match the property address. This is 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.

10 Mine gas

The Coal Authority has no record of a mine gas emission requiring action.

11 Hazards related to coal mining

The property has not been subject to remedial works, by or on behalf of the Coal Authority, under its Emergency Surface Hazard Call Out procedures.

Statutory cover

Coal mining subsidence

In the unlikely event of any coal mining related subsidence damage, the Coal Authority or the mine operator has a duty to take remedial action in respect of subsidence caused by the withdrawal of support from land or property in connection with lawful coal mining operations.

When the works are the responsibility of the Coal Authority, our dedicated public safety and subsidence team will manage the claim. The house or land owner ("the owner") is covered for these works under the terms of the Coal Mining Subsidence Act 1991 (as amended by the Coal Industry Act 1994). Please note, this Act does not apply where coal was worked or gotten by virtue of the grant of a gale in the Forest of Dean, or any other part of the Hundred of St. Briavels in the county of Gloucester.

If you believe your land or property is suffering from coal mining subsidence damage and you need more information on what to do next, please use the following link to our website which sets out what your rights are and what you need to consider before making a claim.
www.gov.uk/government/publications/coal-mining-subsidence-damage-notice-form

Coal mining hazards

Our public safety and subsidence team provide a 24 hour a day, 7 days a week hazard reporting service, to help protect the public from hazards caused by past coal workings, such as a mine shaft or shallow working collapse. To report any hazards please call 0800 288 4242. Further information can be found on our website: www.gov.uk/coalauthority.

On behalf of the insurer

Coal Mining Report Insurance Policy Schedule

Policy number: 30260077

The insurer: Liberty Legal Indemnities – underwritten by Liberty Mutual Insurance Europe SE

Binding Authority contract number: RNMFP2303841

Property: ROUNDHILLS, 269 SACKUP LANE, DARTON, BARNSLEY, BARNSLEY, S75 5AX

Report reference number: 51003370071001

Limit of cover: £50,000.00

Dated: 1 August 2023

This policy and schedule shall be read together and any word or expression to which a specific meaning has been attached in either shall bear such meaning wherever it may appear.

Where a Coal Mining Report has been obtained in connection with a sale of the property, cover is provided for the benefit of a purchaser and their lender; in the case of a re-mortgage or where the existing owner chooses to obtain a Coal Mining Report, cover is provided for the benefit of the owner and their lender.

The policy offers protection against loss sustained by the owner of the property if any new problems or adverse entries are revealed in a subsequent Coal Mining Report which were not revealed by the original report to which the policy was attached.

The insured shall at all times comply with the requirements of the Conditions of this Policy.

Coal Mining Report Terms and Conditions can be viewed online at this link:
https://www.groundstability.com/insurance/terms/20190404/terms.html

Glossary

Key terms

adit - horizontal or sloped entrance to a mine

coal mining subsidence - ground movement caused by the removal of coal by underground mining

Coal Mining Subsidence Act 1991 - the Act setting out the duties of the Coal Authority to repair damage caused by coal mining subsidence

coal mining subsidence damage - damage to land, buildings or structures caused by the removal of coal by underground mining

coal seams - bed of coal of varying thickness

future opencast coal mining - a licence granted, or licence application received, by the Coal Authority to excavate coal from the surface

future underground coal mining - a licence granted, or licence application received, by the Coal Authority to excavate coal underground. Although it is unlikely, remaining coal reserves could create a possibility for future mining, which would be licensed by the Coal Authority

mine entries - collective name for shafts and adits

mine gas - reports of alleged mine gas emissions received by the Coal Authority within 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

payments to owners of former copyhold land - historically, copyhold land gave rights to coal to the copyholder. Legislation was set up to allow others to work this coal, but they had to issue a notice and pay compensation if a copyholder came forward

shaft - vertical entry into a mine

site investigation - investigations of coal mining risks carried out with the Coal Authority's permission

stop notice - a delay to repairs because further coal mining subsidence damage may occur and it would be unwise to carry out permanent repairs

subsidence claim - a formal notice of subsidence damage to the Coal Authority since it was established on 31 October 1994

withdrawal of support - a historic notice informing landowners that the coal beneath their property was going to be worked

working facilities orders - a court order which gave permission, restricted or prevented coal mine workings

Further action reports

Subsidence claims 50m buffer report - gives information on coal mining subsidence claims within 50 metres of the property boundary. To order this report, use the same boundary as the CON29M mining report.

For more information and to order this report please visit:
https://www2.groundstability.com/subsidence-50m-buffer

Appendix C – Historic Maps

1849

Windhill Gate
Malt Kiln Row
Windhill Wood
Mission Room & School
Husband Wood
Reservoir
Woolley Colliery
Long Pye Wood
Pye Wood
Staincross Common
Darton Lane Head
Darton Lane
Bloomhouse
Bloomhouse Lane
Bloomhouse Green
Manor House
Station
Meth. Chap.
School
Darton
Dearne Cottage
Sunday School
Bridge
Vicarage
All Saints' Ch.
Rose & Crown Inn
Darton Hall
Oaks Plantation
The Oaks
Paddock Wood
BARNSLEY BRANCH
L.&Y.R.
Warren
Warren Farm
Warren Well
Spring Lane
Ouler Well
Staincross Lane
Staincross Plantation
Broad Royd Head
Staincross
Green Side
Sandy Well
Police Station
Shaw Lane
Mapplewell
Inn
School
Mission Church
Spring Gardens
Chapel
Blacker
Tipsey Lodge
Spring
D A R T O N

1891


Windhill Wood
Woolley Colliery
Husband Wood
Staincross Common
Darton Lane Head
Bloomhouse Green
Darton
Darton West
Staincross
Mapplewell
Spring Gardens
Blacker
Tudor House
Warren House
Warren Farm
Golf Course
Bloomhouse Lane
Darton Lane
Staincross Lane
Windhill Lane
Spring Lane
Pye Wood
Manor Farm
All Saints Church
Oaks Plantation
Excelsior Works
Sports Ground
Football Ground
Sewage Works
Miners' Welfare Institute
Broad Royd Head
Green Side
Staincross Hall
Club House
Sandy Well
Pinfold
Ouler Well
Lane End Quarry
Darton Lane Head Service Reservoirs
Longsight Works
NORTH GAWBER COLLIERY
The Parsonage
Brewery
Rag Mill
Picture Theatre
U.M. Church
Malt Kiln Row
Brick Row
Windhill Gate
Tunnel
Whatley Wood Colliery Incline
Woolley Rabbit Warren

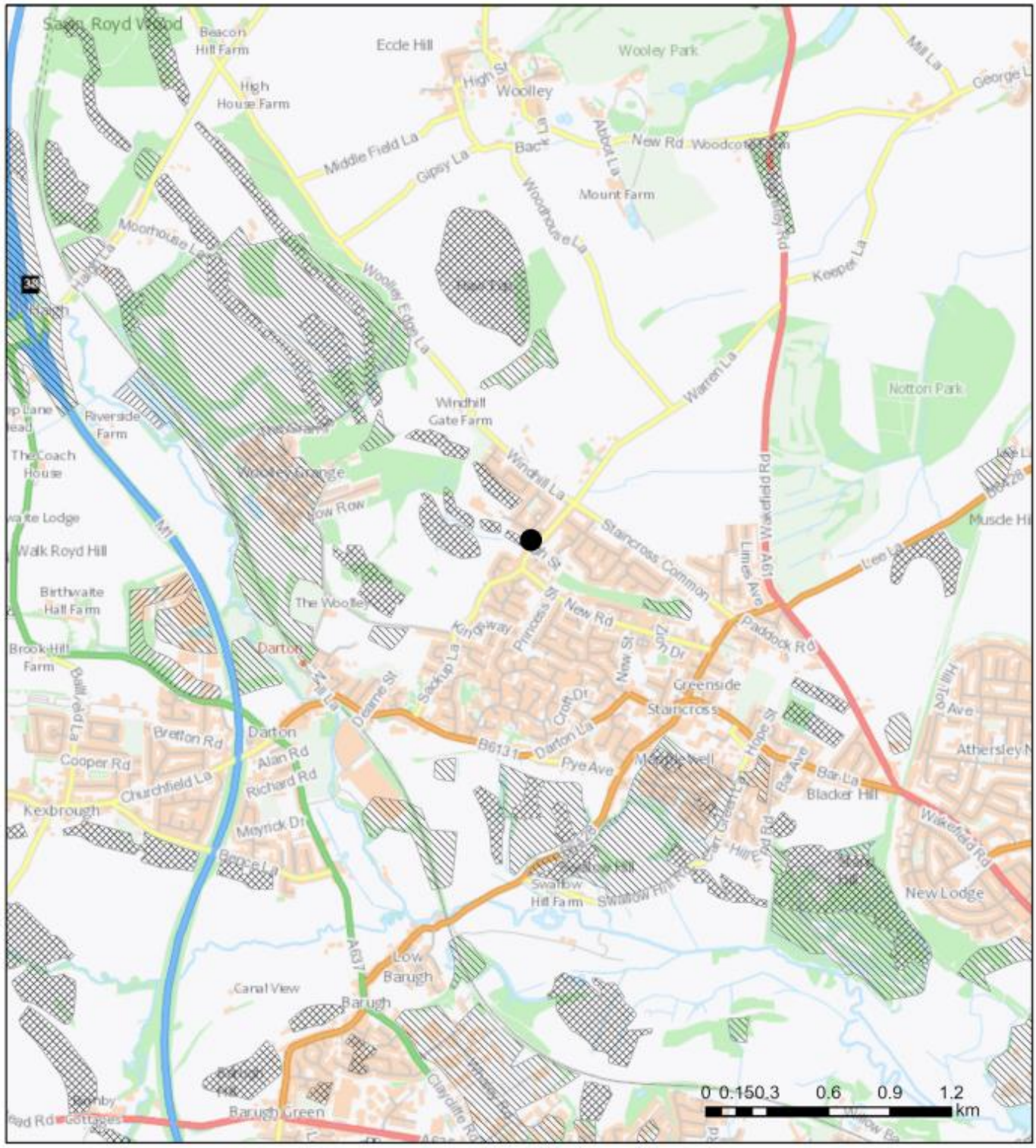
1929


Tunnel
Windhill Gate
Malt Kiln Row
Reservoir
Old Shaft
Wheatley Wood Colliery Incline
Windhill Wood
School
Sewage Works
Husband Wood
Brick Row
Windhill Lane
Woolley Rabbit Warren
Warren House
Warren Farm
Warren Well
Staincross Common
Parly. Boro. By.
Longsight Works
Darton Lane Head
Darton Lane Head Service Reservoirs
Pye Wood
Football Ground
Miners' Welfare Institute
Bloomhouse Lane
Bloomhouse
Bloomhouse Green
Manor Farm
Level
Levels
Quarry
Oaks Plantation
The Oaks
Excelsior Works
Darton Hall
Staincross Lane
Staincross
Green Side
Low End Quarry
Spring Lane
Club House
Spring
Sandy Well
Pinfold
Staincross Hall
Wakefield 6
Barnsley 4

1948

Appendix D – Geological Maps

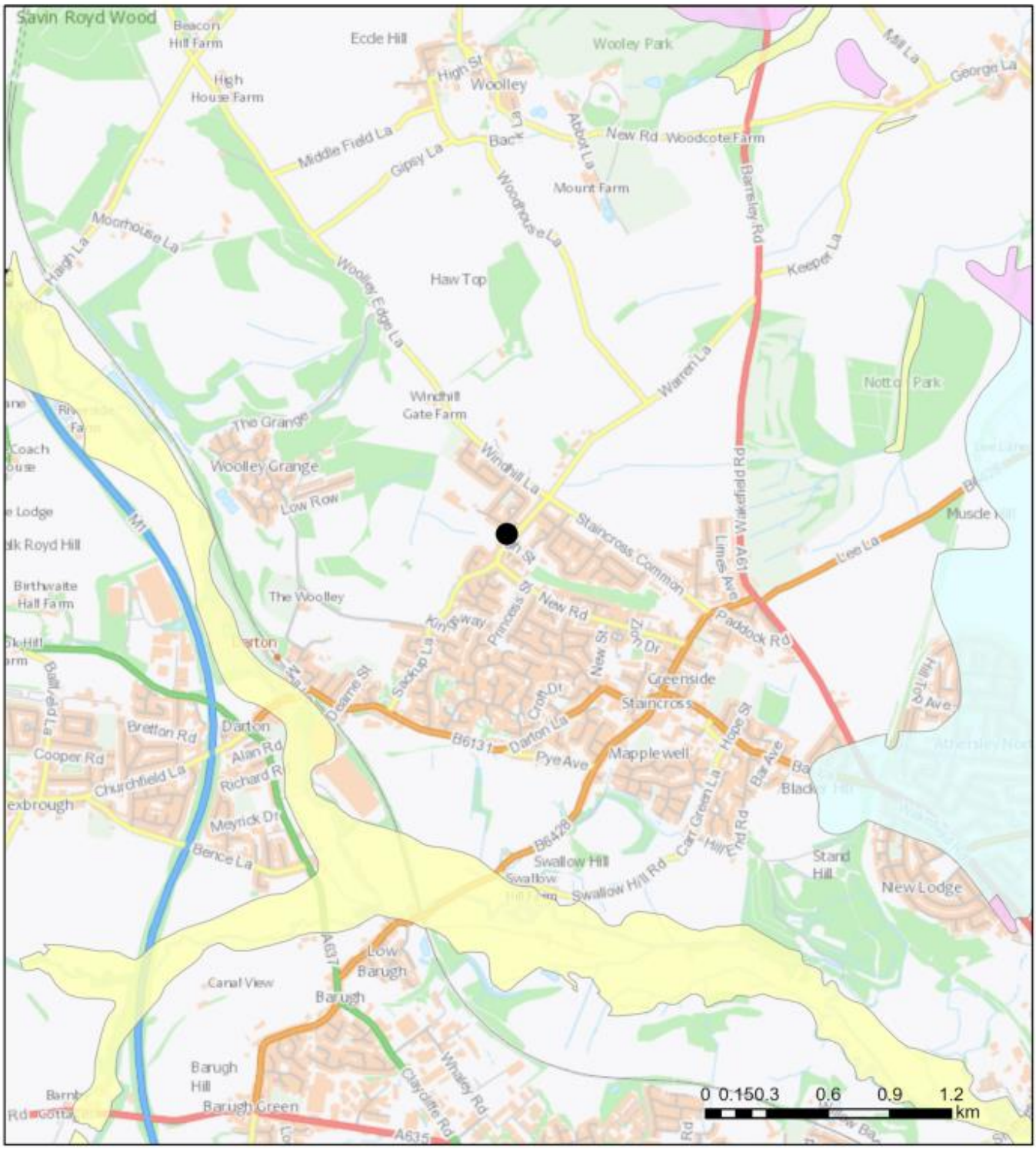
Artificial Geology



Artificial ground 1:50,000 scale

- Made Ground-Artificial deposit
- Worked Ground-Void
- Infilled Ground-Artificial deposit

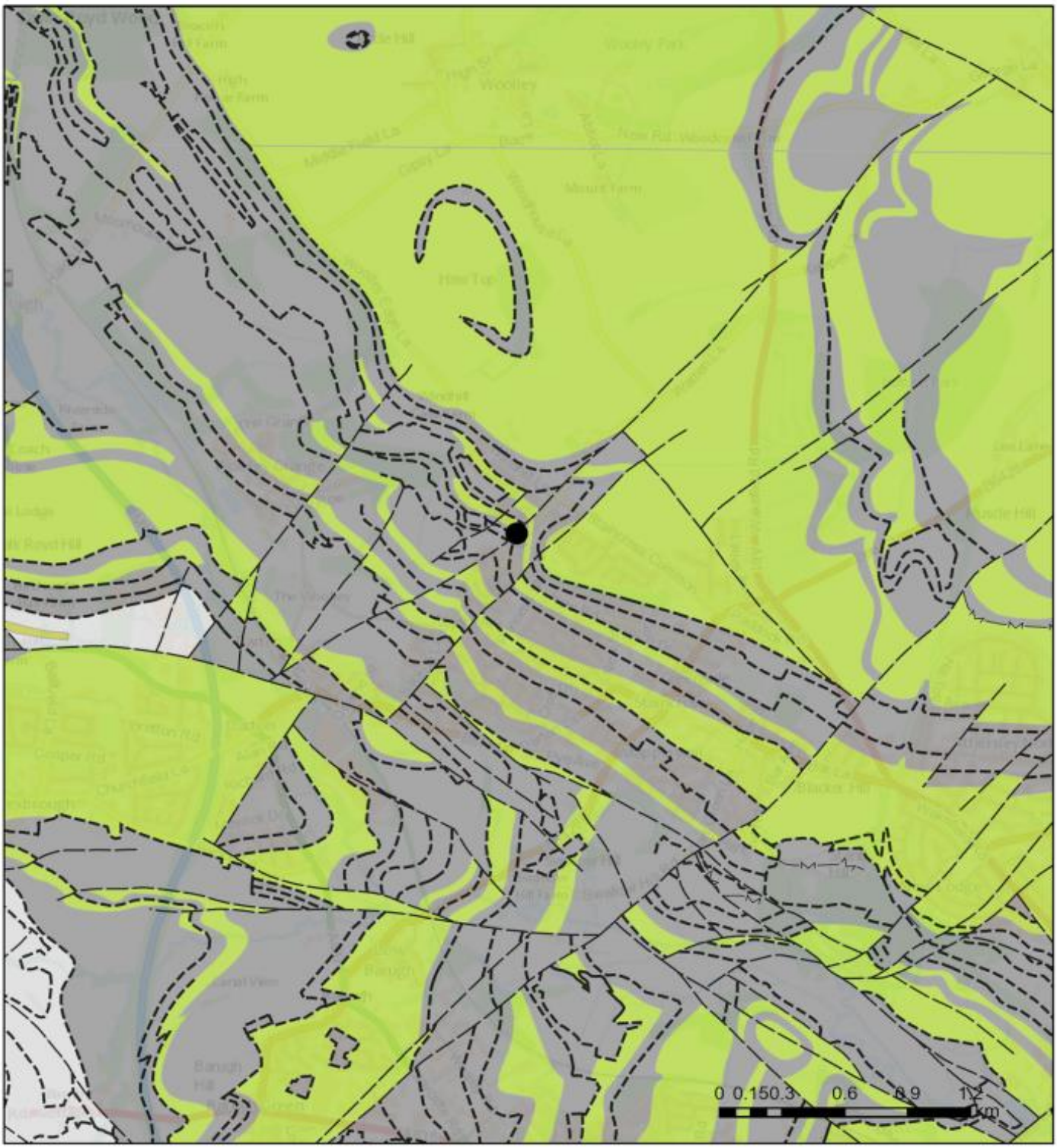
Superficial Geology



Superficial deposits 1:50,000 scale

- Glaciofluvial deposits, Mid Pleistocene-Sand and gravel
- Till, Mid Pleistocene-Diamicton
- Harrogate Till Formation-Gravelly sandy clay
- Alluvium-Clay and silt
- Alluvium-Clay, silt, sand and gravel
- Head-Diamicton

Bedrock Geology



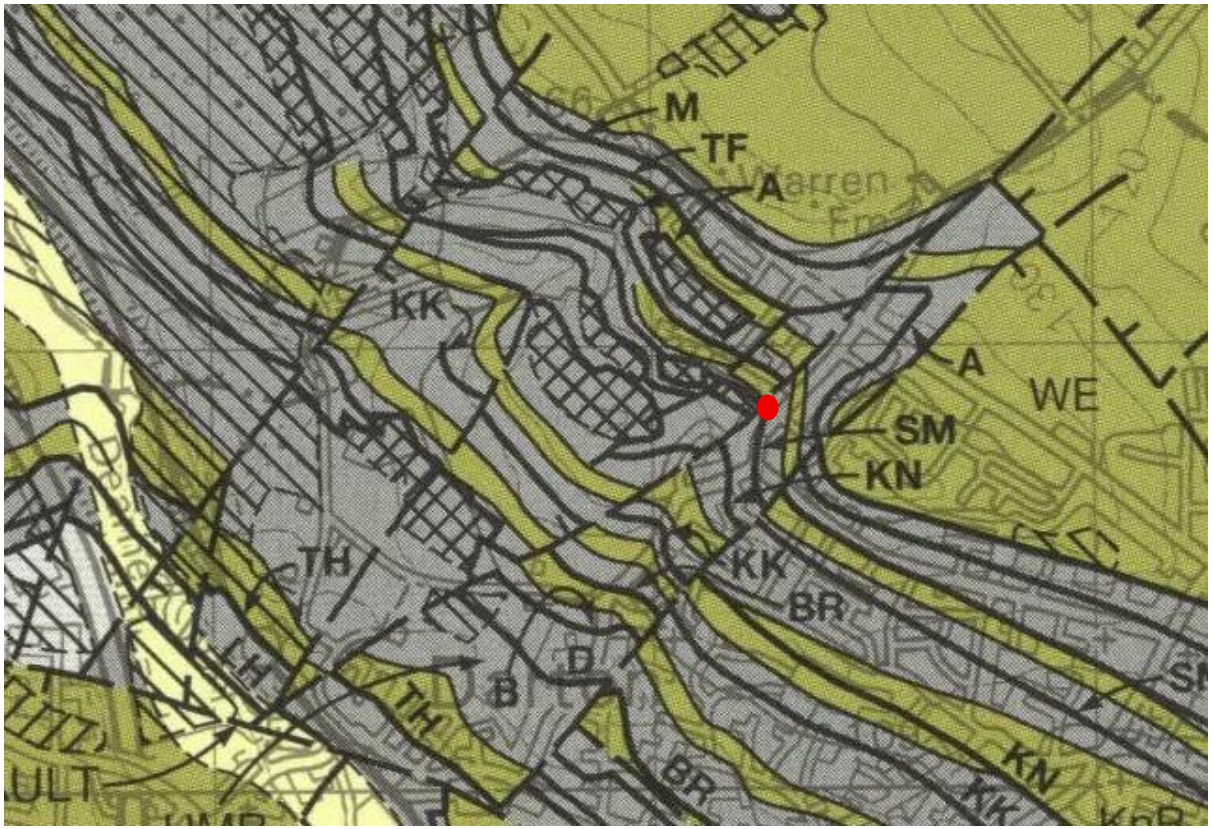
Linear features 1:50,000 scale

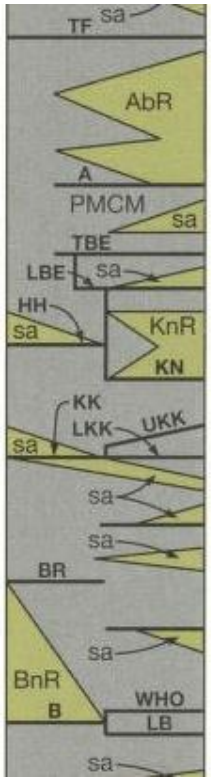
- Coal_seam_Inf
- Coal_seam_Obs
- Fault_Inf_Crossmark_on_downthrow_side
- Fault_Inf_Downthrow_unspecified
- Ironstone_bed_Inf
- Ironstone_bed_Obs
- Marine_band

Bedrock geology 1:50,000 scale

- Pennine Lower Coal Measures Formation-Mudstone, siltstone and sandstone
- Pennine Middle Coal Measures Formation-Mudstone, siltstone and sandstone
- Emley Rock-Sandstone
- Penistone Flags-Sandstone
- Parkgate Rock-Sandstone
- Pennine Lower Coal Measures Formation-Sandstone
- Silkstone Rock-Sandstone
- Ackton Rock-Sandstone
- Glass Houghton Rock-Sandstone
- Mexborough Rock-Sandstone
- Abdy Rock-Sandstone
- Barnsley Rock-Sandstone
- Crigglestone Rock-Sandstone
- Haigh Moor Rock-Sandstone
- Horbury Rock-Sandstone
- Kent's Rock-Sandstone
- Oaks Rock-Sandstone
- Pennine Middle Coal Measures Formation-Sandstone
- Thornhill Rock-Sandstone
- Woolley Edge Rock-Sandstone

BGS Geological Survey 1:50,000 Series England and Wales Sheet 87, Barnsley





TWO-FOOT (ROYSTON; HALF YARD) COAL (0.1 to 2.1 m)

ABDY ROCK (0 to 30 m)

ABDY (WINTER) COAL (0 to 1.9 m)

TOP BEAMSHAW (KILNHURST) COAL (0 to 2.9 m)

LOW BEAMSHAW COAL (0 to 1.2 m)

KENT'S ROCK (0 to 15 m)
HIGH HAZELS COAL (0 to 1.3 m)
KENT'S THIN COAL (0 to 1.9 m)

KENT'S THICK (MAPPLEWELL) COAL (KK) (0.3 to 2.6 m)
UPPER (UKK) AND LOWER (LKK)

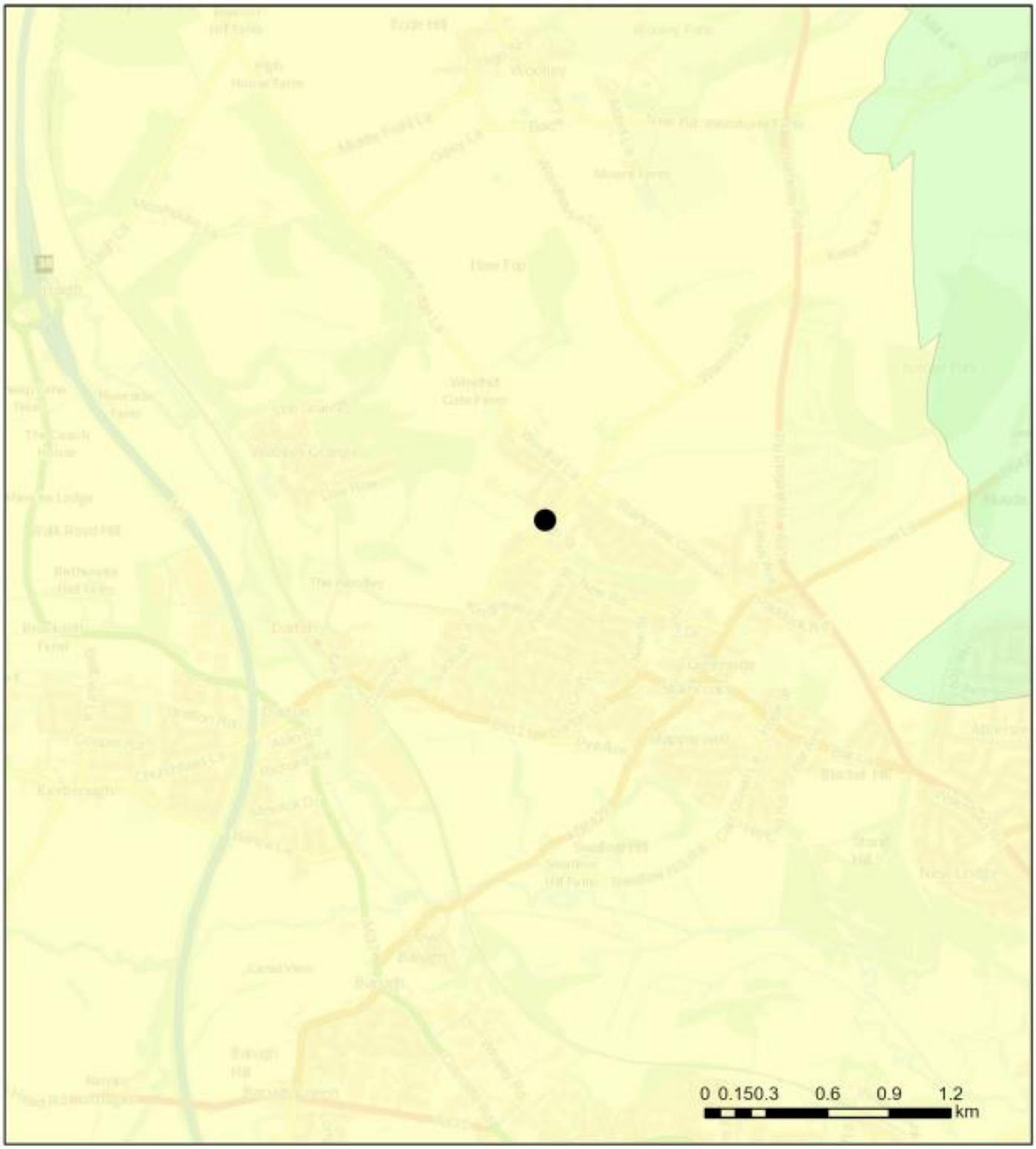
COAL thin

BARNSLEY RIDER COAL (0 to 0.7 m)

COAL thin

BARNSLEY ROCK (0 to 30 m)
WARREN HOUSE COAL (0 to 0.1 m)
BARNSLEY COAL (0 to 3.9 m)
LOW BARNSLEY COAL (0 to 0.1 m)

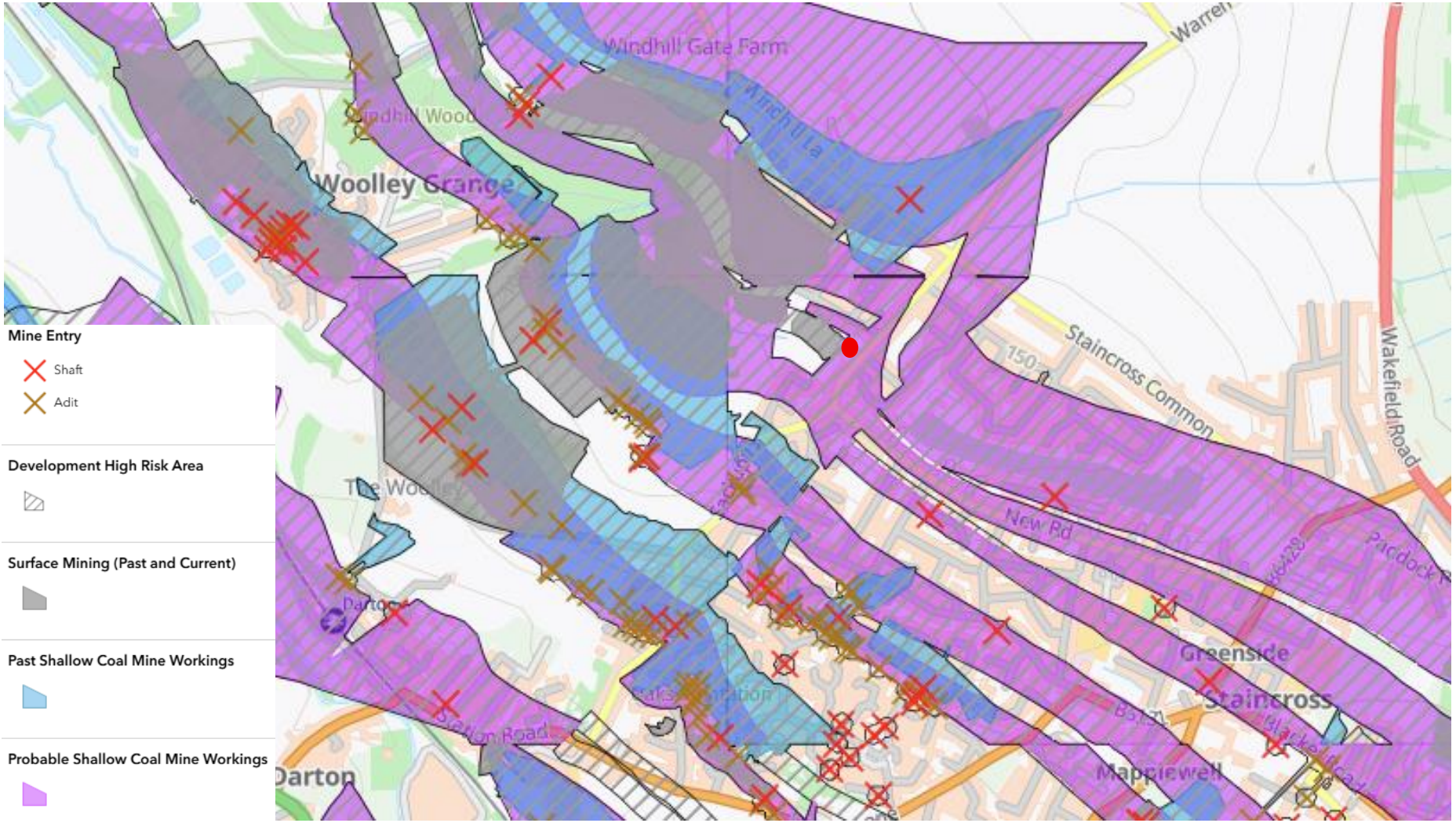
Appendix E – Coal Resource Map



Shallow Coal

- **Buried coal resource overlain by up to 50m overburden**
- **Primary opencast coal resource area**
- **Secondary opencast coal resource area**
- **Tertiary opencast coal resource area**

Appendix F – Coal Mining Summary Map



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Mining Remediation Authority Map