arbtech

Coal Mining Risk Assessment: Desk Study

Alrawi Knights LLT

Land adjacent to 25 Lower Gladstone Street

Heanor

Derbyshire

DE75 7PT

10 June 2026

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Executive Summary

Brief	Arbtech Consulting Ltd was commissioned by Alrawi Knights LLT to prepare a Coal Mining Risk Assessment (CMRA) for the site at Land adjacent to 25 Lower Gladstone Street, Heanor, Derbyshire, DE75 7PT. The assessment addresses the proposed construction of a three-bedroom residential dwelling and satisfies Amber Valley Borough Council Building Control requirements. It demonstrates compliance with national planning policy and Coal Authority guidance for High-Risk Development Areas.
Site location	The site is located at the south-eastern corner of Lower Gladstone Street and Fletcher Street within a densely developed residential area of Heanor. The development footprint occupies part of the existing garden and driveway associated with No. 25 Lower Gladstone Street. The ground is generally level, comprising hardstanding and landscaped garden areas.
Environmental Setting	The site lies within the Coal Authority High-Risk Development Area over the Derbyshire Coalfield. Historical coal seams are recorded at depths of approximately 147–400 m beneath the site, with mining activity last recorded between 1895 and 1969. Probable unrecorded shallow workings exist locally, though no spine roadways or mine entries are recorded beneath the site. Nine abandoned mine plan catalogue numbers intersect the site boundary (EM686, EM1004, EM578, EM1005, EM576, 2420, 16768, 13333, EM687), documenting deep historic workings with no associated subsidence, remedial works, or gas incidents at the site or No. 25. Historical opencast workings occur approximately 345 m northeast, and the geology comprises competent Pennine Middle Coal Measures Formation bedrock with mudstone, siltstone, and sandstone; no faults, fissures, or breaklines are recorded. Shallow groundwater in the area is approximately 2–3 m below ground level.
Conclusions of the Coal Mining Risk Assessment	The site lies within a Coal Authority Development High Risk Area underlain by Pennine Middle Coal Measures, with deep coal seams at approximately 147–400 m bgl that are not considered a constraint due to depth, age and lack of associated surface impacts. The Coal Authority identifies probable unrecorded shallow workings, which represent the principal residual uncertainty, as no confirmed shallow workings, mine entries or spine roadways are recorded beneath the site. Nine intersecting abandoned mine plans relate to deep extraction only, and no subsidence, mine gas incidents or remedial works are recorded locally. While deep mining is discounted, uncertainty remains regarding shallow workings, requiring further assessment prior to detailed design.
Recommendations	Intrusive investigation in accordance with Coal Authority permitting requirements is required prior to foundation design to resolve uncertainty associated with probable shallow workings. Foundation design shall be determined following the results of this investigation. All works affecting coal mining features shall be undertaken in accordance with Coal Authority requirements.

The Executive Summary is intended as a summary only. Further detail and the limitation of the assessment is provided within the main body of the Report.

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Introduction

Background

Arbtech Consulting Ltd has been commissioned by Alrawi Knights LLT to prepare a Coal Mining Risk Assessment (CMRA) for the site at Land adjacent to 25 Lower Gladstone Street, Heanor, Derbyshire, DE75 7PT. The proposed development comprises a three-bedroom residential property. As part of the building control process, Amber Valley Borough Council requires confirmation that any potential legacy coal mining hazards have been suitably considered in accordance with current planning guidance and the Coal Authority's requirements.

The site is located within the Coal Authority High Risk Development Area. Therefore, a Coal Mining Risk Assessment is required to document the potential risks associated with historic coal mining in relation to a proposed development.

Scope of Works

⇒ Review of all available information on the coal mining issues which are relevant to the application site;
⇒ Identify and assess the risks to the proposed development from coal mining, including the cumulative impact of issues;
⇒ Recommend mitigation measures to address the coal mining 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.

A CMRA is required in the UK as part of the planning application process in coal mining areas, primarily due to address safety and land stability risks.

Town and Country Planning Act 1990
National Planning Policy Framework (NPPF)
Coal Authority's standing advice and role under DMPO 2015

Sources of information

⇒ Consultants Coal Mining Report 51003539016001 (2025)
⇒ Groundsure.io and Coal Authority Interactive Mapping
⇒ British Geological Survey geological data
⇒ Historical Ordnance Survey mapping
⇒ Past desk-based assessments and intrusive site investigations for the site or adjacent areas
⇒ Research into the coal mining history of Heanor and the Derbyshire Coalfield

Site Context

Site Information



Fig.1 2025 Aerial Photograph
Contains Data from, © OpenStreetMap



Fig 2 Contains OS data © Crown copyright and database rights 2025© Mapbox© OpenStreetMap© Maxar

Site co-ordinates:	(NGR) 443283, 346888	**Site Area:**	c.0.01ha

Site Location	The site is located directly to the southeast corner of Lower Gladstone St (north, oriented slightly northwest to southeast) and Fletcher Street (west, oriented northwest to southeast) within the densely urban area to the northwest of Heanor, Derbyshire.
Current Site use	The site forms part of the adjacent drive and garden to a residential property, comprising the existing dwelling at No. 25 Lower Gladstone St to the east of the site, and associated garden and external areas. The ground is generally level, with a mix of hardstanding and garden landscaping to the south and west. The area for the proposed development is currently used for standard domestic purposes.
Surrounding Area and Coal Mining	The site is located in a residential area of Heanor, comprising mainly two-storey terraced and semi-detached dwellings, with local streets and small areas of open space. It lies within the Coal Authority High-Risk Development Area over the Derbyshire Coalfield, where historical shallow and deep coal workings, including mine entries, may pose ground stability risks. A Coal Mining Risk Assessment (CMRA) is therefore required to assess these hazards and recommend mitigation for the proposed three-bedroom dwelling.

Data Review

Environmental Setting and Geology		
Feature		**Information**
BGS 1:50 000 Sheet 125 – Derby (Bedrock & Superficial Deposits) **(Representative mapping presented as Appendix 2)**	**Artificial**	No recorded Infilled Ground or Artificial Deposit recorded on the subject site.
	Superficial	No Superficial geology is recorded on site.
	Bedrock	Bedrock geology is recorded as Pennine Middle Coal Measures Formation-Mudstone, Siltstone and Sandstone
	BGS Logs	No BGS logs on the subject site itself, the nearest is c.75m northwest Ref. SK44NW102 from 1988 recording Made Ground to 6.60mbgl, over Mudstone to 7.40mbgl over Sandstone to a final refusal depth of 8.50mbgl with a water strike recorded at 5.50mbgl, rising to 5.00mbgl. Used as indicative only due to relative distance from site.
Minerals and Mining	**Coal Report**	The site is within an area which could be affected by past, current or future coal mining.
	Development Risk	A development high risk is associated with the site from coal mining.
Derbyshire Coalfield	**Heanor**	The site at Land adjacent to 25 Lower Gladstone Street, Heanor, Derbyshire lies within the historic Derbyshire Coalfield. Coal seams in this area were historically worked at shallow to moderate depths, with records of small pits, shafts, and other early mining features distributed across Heanor and the wider Amber Valley area. There are no recorded coal workings directly beneath the site; however, historic abandoned mine plan catalogue numbers and probable shallow workings have been documented in the vicinity. These legacy features present a potential risk of localised ground instability, subsidence, or void migration. Additionally, abandoned workings in the area may influence local groundwater behaviour. A Coal Mining Risk Assessment (CMRA) is therefore required to identify any credible mining-related hazards, assess their impact on the proposed three-bedroom residential development, and recommend appropriate mitigation measures where necessary.
	Colliery Records	Historic coal mining in the immediate Heanor area includes small-scale workings, early pits, and some documented mine shafts in surrounding streets. Local collieries were operated under names such as Church Colliery (associated with the

Environmental Setting and Geology	
Feature	**Information**
	Heanor & Marlpool Colliery Company), as well as larger nearby operations including Loscoe and Ormonde Collieries. More distant collieries, such as New Hucknall and Ripley, lie several kilometres from the site, reflecting the broader Derbyshire Coalfield rather than workings directly beneath the application area. These documented legacy features are considered when assessing potential risks to the proposed development and informing the design of any ground investigation or foundation strategy.

Mining Activity and Geology	
Feature	**Information**
Strategy	The Coal Authority Mining Report (Ref.51003539016001) dated 19th November 2025 has been obtained for the site and is presented as Appendix 3 with a summary of findings in Appendix 4. Additional sources of information have been used to carry out the assessment, pertinent images are included in Appendix 2.
Past underground mining	24No. past underground mining recorded: ⇒ Colliery: Ormonde Seam: Roof Soft Depth: 147m Direction to working: North-East Dipping rate: 5.7° Dipped direction: South-West Extraction thickness: 86 cm Year last mined: 1900 ⇒ Colliery: Baileys Brook Seam: Deep Soft Depth: 148m Direction to working: Beneath Property Dipping rate: 11.9° Dipped direction: South Extraction thickness: 104 cm Year last mined: 1895 ⇒ Colliery: Ormonde Seam: Roof Soft Depth: 149m Direction to working: North Dipping rate: 10.3° Dipped direction: South-West Extraction thickness: 107 cm Year last mined: 1958 ⇒ Colliery: Baileys Brook Seam: Deep Soft Depth: 162m Direction to working: North Dipping rate: 6.1° Dipped direction: South-West Extraction thickness: 104 cm Year last mined: 1912 ⇒ Colliery: Baileys Brook Seam: Deep Hard Depth: 173m Direction to working: North Dipping rate: 3.5° Dipped direction: South-West Extraction thickness: 119 cm Year last mined: 1900 ⇒ Colliery: Baileys Brook Seam: Deep Hard Depth: 179m Direction to working: Beneath Property Dipping rate: 4.4° Dipped direction: South-West Extraction thickness: 125cm Year last mined: 1900 ⇒ Colliery: Baileys Brook Seam: Deep Soft Depth: 182m Direction to working: North Dipping rate: 4.8° Dipped direction: South-East Extraction thickness: 104 cm Year last mined: 1910

Environmental Setting and Geology	
Feature	**Information**
	⇒ Colliery: Baileys Brook Seam: Deep Hard Depth: 183m Direction to working: Beneath Property Dipping rate: 2.2° Dipped direction: North-East Extraction thickness: 125 cm Year last mined: 1900 ⇒ Colliery: Ormonde Seam: First Piper Depth: 186 m Direction to working: North Dipping rate: 3.4° Dipped direction: West Extraction thickness: 112cm Year last mined: 1969 ⇒ Colliery: Baileys Brook Seam: First Piper Depth: 190m Direction to working: North-East Dipping rate: 5.6° Dipped direction: South-West Extraction thickness: 107cm Year last mined: 1964 ⇒ Colliery: Ormonde Seam: Low Main / Thorncliffe Depth: 221m Direction to working: Beneath Property Dipping rate: 4.3° Dipped direction: South-West Extraction thickness: 119cm Year last mined: 1955 ⇒ Colliery: Ormonde Seam: Low Main / Thorncliffe Depth: 221m Direction to working: North Dipping rate: 2.6° Dipped direction: West Extraction thickness: 124cm Year last mined: 1955 ⇒ Colliery: Ormonde Seam: Low Main / Thorncliffe Depth: 237 m Direction to working: North-West Dipping rate: 4.1° Dipped direction: South-East Extraction thickness: 117cm Year last mined: 1954 ⇒ Colliery: Ormonde Seam: Blackshale Depth: 264m Direction to working: Beneath Property Dipping rate: 4.1° Dipped direction: South-West Extraction thickness: 165cm Year last mined: 1947 ⇒ Colliery: Ormonde Seam: Blackshale Depth: 266m Direction to working: North Dipping rate: 1.7° Dipped direction: East Extraction thickness: 135cm Year last mined: 1946 ⇒ Colliery: Ormonde Seam: Blackshale Depth: 273m Direction to working: North Dipping rate: 15.5° Dipped direction: South-West Extraction thickness: 155cm Year last mined: 1946 ⇒ Colliery: Ormonde Seam: Ashgate / Mickley Depth: 291m Direction to working: North-East Dipping rate: 4.3° Dipped direction: West Extraction thickness: 162cm Year last mined: 1959 ⇒ Colliery: Ormonde Seam: Ashgate / Mickley Depth: 292m Direction to working: North-East Dipping rate: 3.7° Dipped direction: West Extraction thickness: 162cm Year last mined: 1959 ⇒ Colliery: Ormonde Seam: Mickley Thick Depth: 295m Direction to working: North Dipping rate: 1.7° Dipped direction: South-East Extraction thickness: 84cm Year last mined: 1959 ⇒ Colliery: Unnamed Seam: Kilburn Depth: 394m Direction to working: Beneath Property Dipping rate: 8.4° Dipped direction: South-West Extraction thickness: 100cm Year last mined: 1940 ⇒ Colliery: Ormonde / Baileys Brook Seam: Kilburn Depth: 397m Direction to working: West Dipping rate: 3.5° Dipped direction: East Extraction thickness: 100cm Year last mined: 1936

Environmental Setting and Geology	
Feature	**Information**
	⇒ Colliery: Unnamed Seam: Kilburn Depth: 399m Direction to working: North-West Dipping rate: 4.1° Dipped direction: South-East Extraction thickness: 100cm Year last mined: 1935 ⇒ Colliery: Unnamed Seam: Kilburn Depth: 400m Direction to working: North Dipping rate: 10.1° Dipped direction: South-West Extraction thickness: 100cm Year last mined: 1934
Probable unrecorded shallow workings	The site is in an area of probable unrecorded shallow workings.
Spine roadways at shallow depth	No spine roadway recorded at shallow depth.
Mine entries	No recorded mine entries within 100 metres of the enquiry boundary.
Abandoned Mine Plans	9No. records for abandoned mine plan catalogue numbers. Abandoned mine plan catalogue numbers intersect with some, or all, of the enquiry boundary. EM686 / EM1004 / EM578 EM1005 / EM576 / 2420 16768 / 13333 / EM687
Outcrops	No. outcrops recorded.
Geological faults, fissures and breaklines	No faults, fissures or breaklines recorded.
Opencast mines	Based on the Coal Authority records, opencast coal sites have been identified within 500 metres of the Lower Gladstone Street site. The nearest is located c. 345m to the northeast Consequently, the risk of ground instability or mining-related impacts associated with former opencast workings is considered low for the proposed development.
Coal Authority managed tips	None recorded within 500 metres of the enquiry boundary.

Mining Remediation (Coal) Authority Search: Investigative or remedial activity		
Feature	**Information**	
Investigative or remedial activity	**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	No mine gas emissions are recorded within the boundary of the property.
	Mine Water Treatment Schemes	None recorded within 500 metres of the enquiry boundary.

Mining Remediation (Coal) Licensing and Future Mining Activity		
Feature	**Information**	
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.

Coal Authority Consultation and Communications	
Feature	**Information**
Substantive Concern	Following submission of planning application reference AVA/2026/0316 for the demolition of a shed and erection of a new dwelling at 25 Lower Gladstone Street, Heanor, Derbyshire, DE75 7PT, the Coal Authority was consulted by Amber Valley Borough Council in its capacity as a statutory consultee. In correspondence dated 4 June 2026, prepared by Chris MacArthur B.Sc. (Hons), DipTP, MRTPI, Planning Liaison Manager, the Coal Authority issued a response of "Substantive Concern". The consultation response confirmed that the application site lies within the defined Development High Risk Area and that Coal Authority records indicate the presence of probable shallow coal workings within the site and surrounding area. The response noted that voids and broken ground associated with such workings may pose a risk of ground instability and may also provide pathways for the migration of mine gases. The Coal Authority reviewed the Coal Mining Risk Assessment prepared by Arbtech Consulting Ltd dated 16 December 2025 and concluded that the assessment did not provide sufficient justification for the low risk attributed to potentially unrecorded shallow coal workings. In particular, it was noted that the conclusions appeared to rely principally upon the absence of evidence of structural distress within the surrounding developed area. Furthermore, the Coal Authority considered that foundation recommendations could not be justified without a fuller understanding of the ground conditions beneath the site. Consequently, the Coal Authority objected to the planning application and advised that further consideration should be given to the risks associated with probable shallow coal workings and their potential implications for ground stability and mine gas migration. The observations and concerns raised by the Coal Authority have been taken into account within this revised Coal Mining Risk Assessment.

Coal Mining Risk Assessment

Overview

This risk assessment comprises a desk-based review of all available information on coal mining issues that are relevant to the application site deemed to be located within a high-risk area. This includes:

- ⇒ Interpretation of information to identify and assess the risks to the proposed development from coal mining legacy, including the cumulative impact of issues;
- ⇒ Setting 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
- ⇒ Demonstrating 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.

The Mining Remediation Authority operates a risk-based approach to the assessment of potential instability issues associated with future development of land located within the predefined CA consultation areas. This risk-based approach subdivides the potential risk into “low” and “high” risk categories.

The risk categories can be defined as:

- ⇒ Low-Risk Sites – Deemed to be land where coal mining has taken place, however it was at such depth not to pose a risk to new development, and it therefore contains no known recorded risks and as such no further assessment is required.

If the proposed development is within the Development Low Risk Area, there is no requirement to submit any coal mining information with your planning application and The Mining Remediation Authority will not be consulted by the LPA. The LPA will include Standing Advice as an informative note within the decision notice.

High-Risk Sites – Deemed to be landholdings located within an area known to contain legacy risks that include:

- ⇒ Mine entries (shaft or adit);
- ⇒ Shallow coal workings (recorded and probable);
- ⇒ Workable coal seam outcrops;
- ⇒ Mine gas sites and areas;
- ⇒ Recorded coal-mining-related hazards;
- ⇒ Geological features (fissures and break lines); and
- ⇒ Former surface mining sites (sometimes using historic opencast extraction methods).

Summary of Coal Mining Risk Assessment

Coal Mining Risk Assessment	Yes/No	Risk Rating	Comment / Mitigation
Recorded coal workings at shallow depth (<30 m)	No	Low	No recorded shallow coal workings are present beneath the application site. Consequently, risks associated with recorded shallow workings are considered low.
Recorded coal workings at greater depth (>30 m)	Yes	Low	Multiple recorded coal seams occur at depths of approximately 147–400 m beneath the site. Given the depth of workings, age of extraction and absence of recorded instability, the risk posed to the proposed development is considered low.
Unrecorded coal workings / extraction of coal outcrop	Yes	High	The site lies within an area identified by the Coal Authority as having probable shallow unrecorded workings. Voids and broken ground associated with such workings may pose a risk of ground instability and may provide pathways for mine gas migration. The presence and condition of any such workings cannot be confirmed from desk-based information alone and further intrusive investigation is recommended.
Unrecorded underground coal mining at shallow depth (<30 m)	Yes	High	Whilst no recorded shallow workings or spine roadways are present beneath the site, the Coal Authority has identified probable shallow workings within the site area. Consequently, a residual risk remains which should be further assessed through intrusive investigation undertaken with the appropriate permissions.
Recorded mine entries (shafts / adits)	No	Low	No recorded mine entries are present within 100 m of the enquiry boundary and risks associated with recorded shafts or adits are considered low.
Unrecorded mine entries	Yes	Low	Historical mining activity within the wider Heanor area gives rise to the potential for undocumented features. However, no evidence of mine entries has been identified within or immediately adjacent to the site and the associated risk is considered low.
Coal mining geology (faults, fissures, breaklines)	No	Low	No faults, fissures or breaklines associated with coal mining are recorded beneath the site.
Recorded mine gas emissions	No	Low	No recorded mine gas emissions or incidents have been identified affecting the site. However, potential gas migration pathways associated with shallow workings should be considered during any intrusive investigation.
Recorded coal mining surface hazards	No	Low	No subsidence claims, remedial works or other recorded coal mining hazards have been identified affecting the site or surrounding properties.
Surface mining (opencast workings)	Yes	Low	Historical opencast workings are located approximately 345 m northeast of the site and are not considered to present a significant risk to the proposed development.

Recommendations and Development	
Conclusions	The Coal Mining Risk Assessment for Land adjacent to 25 Lower Gladstone Street, Heanor, Derbyshire (DE75 7PT) has been revised in response to the Coal Authority consultation response identifying "Substantive Concern" in relation to probable unrecorded shallow coal workings and the adequacy of justification provided in the previous assessment. The site lies within the Coal Authority Development High Risk Area and is underlain by the Pennine Middle Coal Measures Formation. Coal Authority records confirm multiple coal seams at depth between approximately 147 m and 400 m, worked historically between the late 19th and mid-20th century. These deep workings are not considered to present a risk to shallow ground conditions due to their depth, age and lack of any recorded associated instability affecting the site or surrounding area. The Coal Authority identifies the site as being within an area of probable unrecorded shallow coal workings. No direct records of shallow extraction, spine roadways or mine entries are identified beneath the site; however, the absence of records does not confirm their absence. This introduces a residual uncertainty which cannot be fully resolved through desk-based review alone and represents the principal coal mining consideration affecting the site. Nine abandoned mine plan references intersect the site boundary, but these relate predominantly to deeper workings and do not provide evidence of shallow or near-surface extraction. No subsidence claims, mine gas incidents, Coal Authority remedial works, or other recorded mining-related ground instability are associated with the site or immediate surroundings. No opencast workings, faults, fissures or other mapped coal mining geological hazards are identified beneath the site. In conclusion, while deep mining can be discounted as a constraint, the presence of probable unrecorded shallow workings means that a residual coal mining uncertainty remains which cannot be eliminated on available information alone. This requires consideration through appropriate follow-on assessment rather than reliance on desk-based inference.
Ciria Mine Gas Risk Assessment	A mine gas risk assessment has been undertaken in accordance with CIRIA C758, considering the site geology, Coal Authority records and proposed residential end use. The site is underlain by the Pennine Middle Coal Measures Formation. Deep coal workings are present at approximately 147–400 m bgl and are not considered to influence near-surface gas conditions. The site also lies within an area of probable unrecorded shallow coal workings, which remains the key uncertainty in relation to mine gas potential. No mine entries or spine roadways are recorded within or adjacent to the site. Nine abandoned mine plan references (EM686, EM1004, EM578, EM1005, EM576, 2420, 16768, 13333, EM687) relate to deeper mining horizons and do not indicate shallow voiding.

	Shallow groundwater at approximately 2–3 m bgl may provide limited migration potential, but no confirmed shallow gas source has been identified. Methane and carbon dioxide are the principal gases of concern. Deep workings are not considered a significant gas source; however, the potential for shallow unrecorded workings introduces residual uncertainty. The proposed dwelling will be constructed using standard reinforced concrete ground floor construction with damp proofing, providing inherent resistance to ground gas ingress. Overall, deep mining poses low gas risk, with residual uncertainty linked to probable shallow workings. This should be confirmed through site-specific investigation in accordance with CIRIA C758.
Recommendations	In response to the Coal Authority objection and the identified uncertainty associated with probable unrecorded shallow coal workings, the following measures are recommended for the proposed development. A site-specific intrusive ground investigation should be undertaken in accordance with Coal Authority permitting requirements prior to finalisation of foundation design. This should be targeted to characterise near-surface ground conditions within the footprint of the proposed dwelling and reduce uncertainty relating to potential shallow workings. Foundation design should be informed by the results of the intrusive investigation. In the absence of confirmatory data at design stage, a conservative approach should be adopted to account for potential variability in near-surface ground conditions associated with historic coal mining. All intrusive works and any subsequent treatment of mine workings or ground stabilisation must be undertaken in accordance with Coal Authority permitting requirements. Abandoned mine plans intersecting the site (EM686, EM1004, EM578, EM1005, EM576, 2420, 16768, 13333, EM687) should be considered at detailed design stage as supporting context for construction planning, although they do not independently define shallow ground conditions. Following completion of intrusive investigation and confirmation of ground conditions, the development should proceed on the basis of foundation and construction measures appropriate to the verified site conditions.
Overall Assessment	The site lies within a Coal Authority Development High Risk Area where the main residual uncertainty relates to probable unrecorded shallow coal workings. No confirmed shallow workings or mine entries are recorded, and deep mining at 147–400 m bgl is not considered a constraint. In line with the Coal Authority objection, intrusive investigation is required to reduce uncertainty prior to foundation design. Subject to confirmed ground conditions, the development is expected to proceed using conventional residential construction, with Coal Authority permitting requirements applying to any intrusive works.

Appendices

Appendix 1: Proposed development Plans

Appendix 2: Images

Appendix 3: Coal Authority Mining Report

Appendix 4: Coal Authority Summary of findings

Appendix 5: BGS Borehole Records

Appendix 6: Document Production Record

If you require clarification of the information contained herein, please do not hesitate to contact us via 01244 661170.

Yours Sincerely,

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Appendix 1: Site plan / Proposed development Plans



PLANNING BY DESIGN
FROM CONCEPT TO COMPLETION

Appendix 2: Mapping Images

Drawings/Images



Plate 1: Location of the site

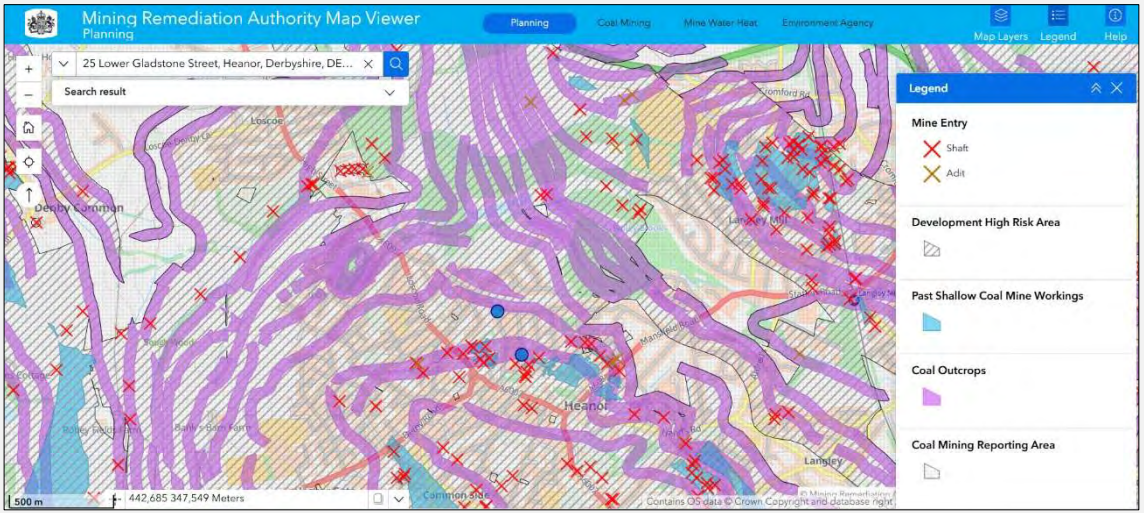


Plate 2a: Mining Remediation Authority Map 'Planning' (approximate location of site is most northern blue circle)

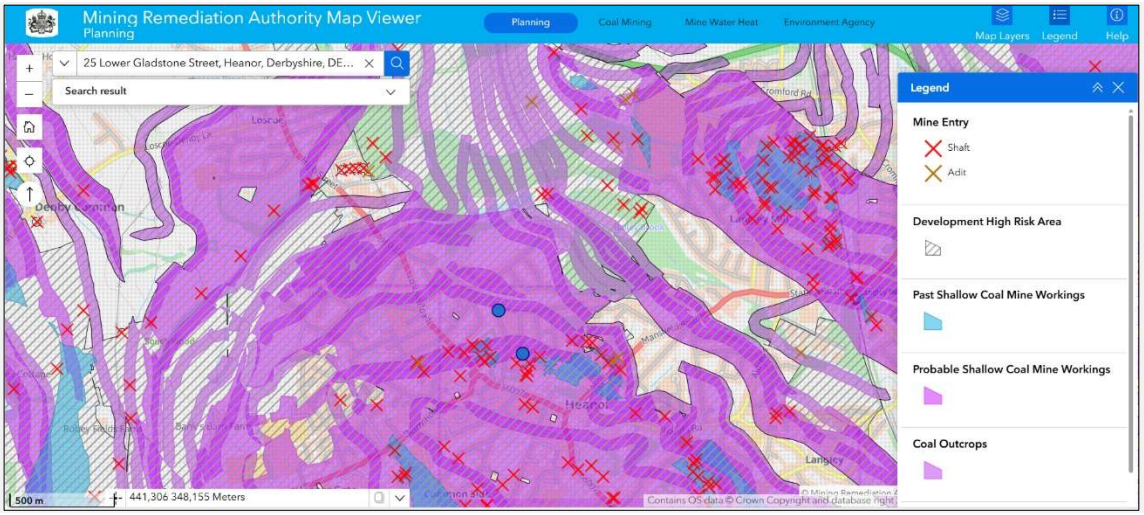


Plate 2b: Mining Remediation Authority Map 'Planning' (approximate location of site is most northern blue circle) to include probable shallow coal mine workings

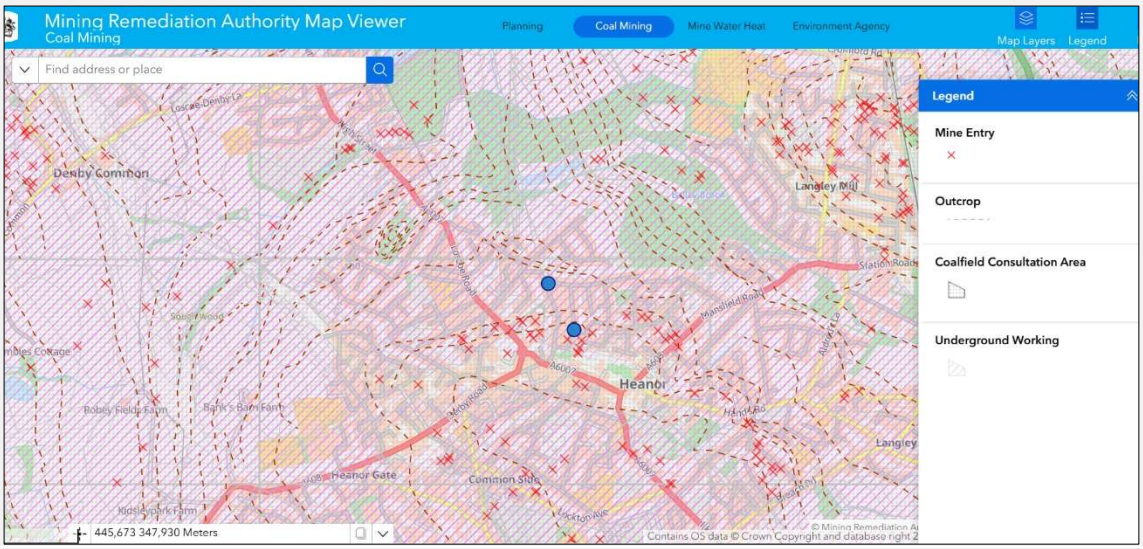


Plate 2c: Mining Remediation Authority Map 'Coal mining' (approximate location of site is most northern blue circle)



Plate 3: Lidar Imagery Groundsure insights



Plate 4: BGS 50k Linear Features and BGS 50k Artificial Ground Groundsure insights

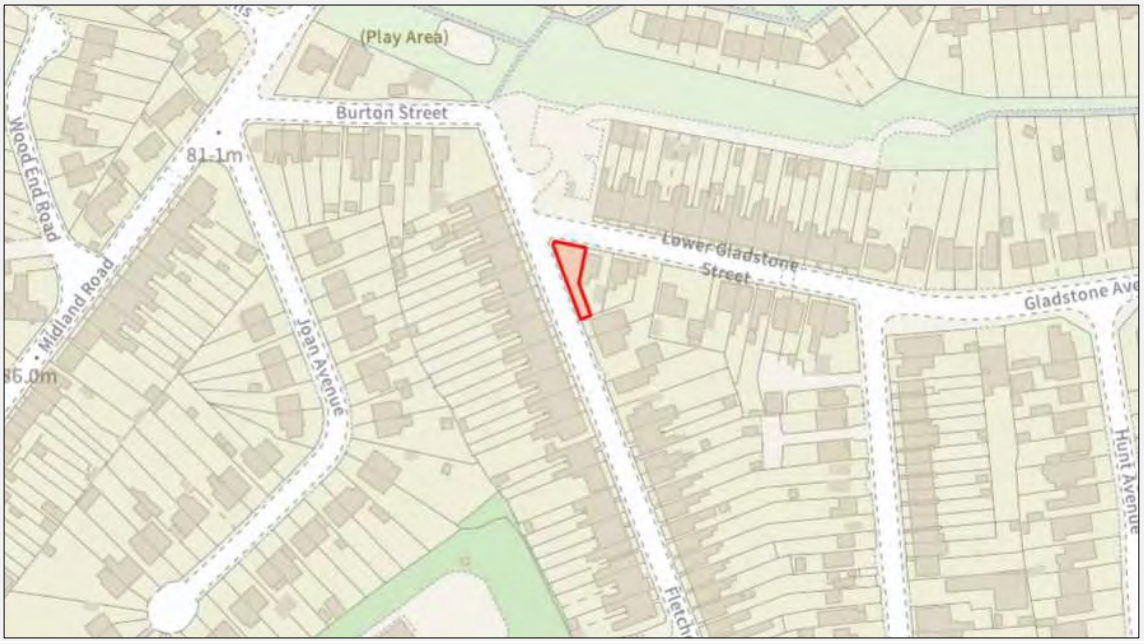


Plate 5: BGS 50k Superficial Deposits – None recorded Groundsure insights



Plate 6: BGS 50k Bedrock - Pennine Middle Coal Measures Formation-Mudstone, siltstone and sandstone Groundsure insights

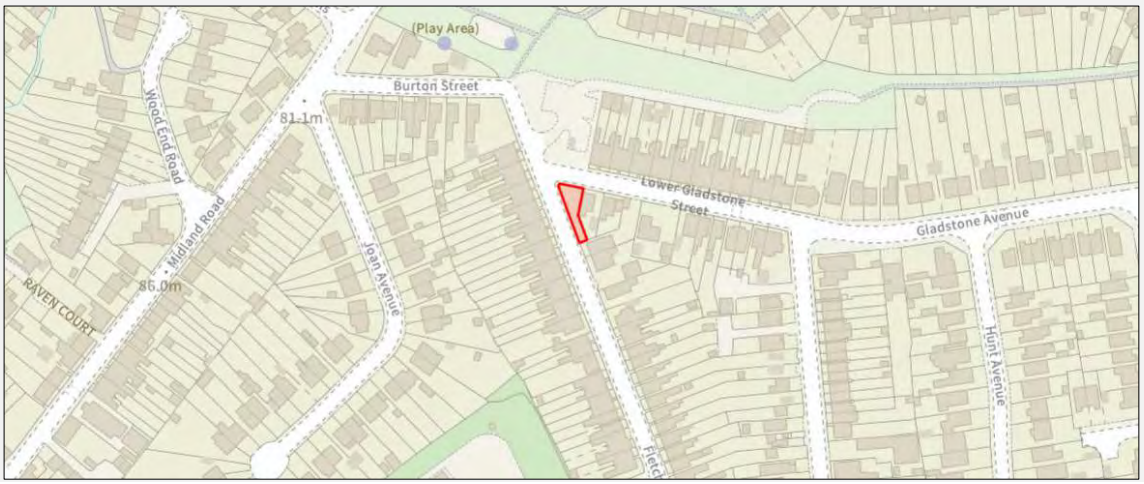


Plate 7: BGS borehole records surrounding the site Groundsure insights



Plate 8: Georeferenced Maps viewer - Map images - National Library of Scotland OS Six Inch 1830-1880



Plate 9: Georeferenced Maps viewer - Map images - National Library of Scotland OS Six Inch 1888-1915

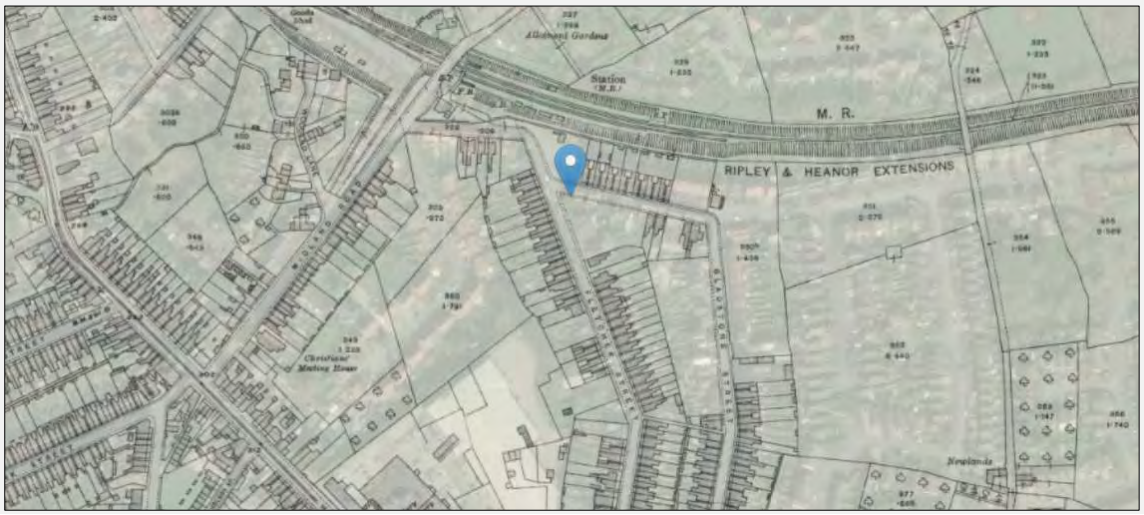


Plate 10: Georeferenced Maps viewer - Map images - National Library of Scotland OS 25 inch 1892-1914

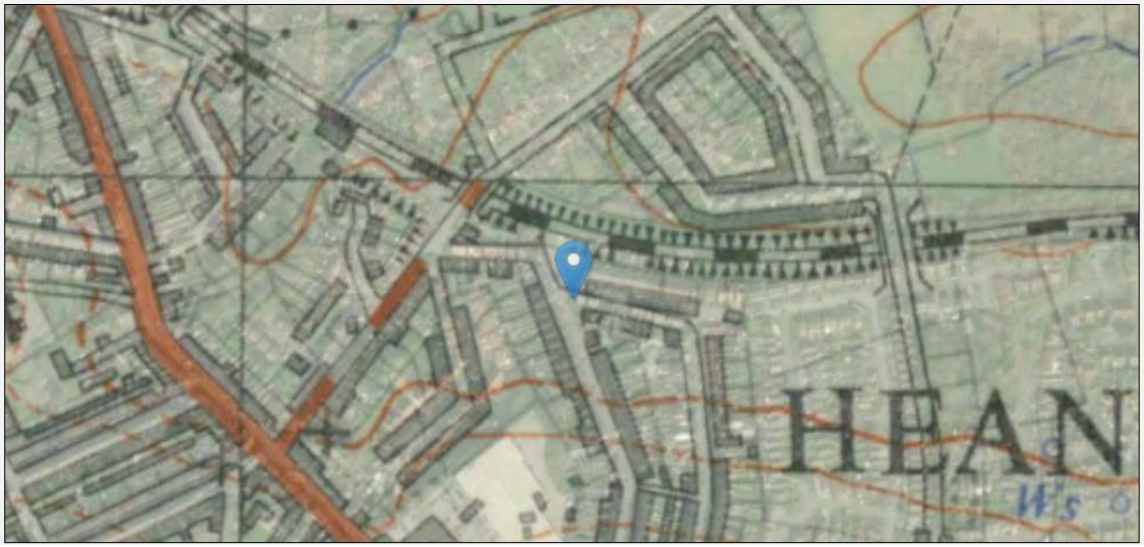


Plate 11: Georeferenced Maps viewer - Map images - National Library of Scotland OS 1:25,000 1937-61

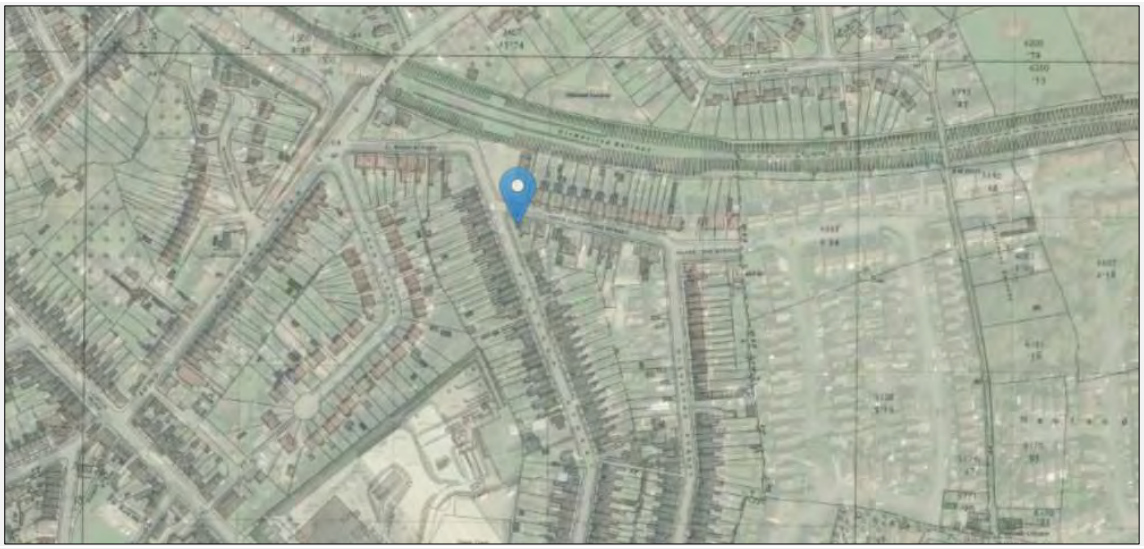


Plate 12: Georeferenced Maps viewer - Map images - National Library of Scotland OS 1:2,500 1948-74

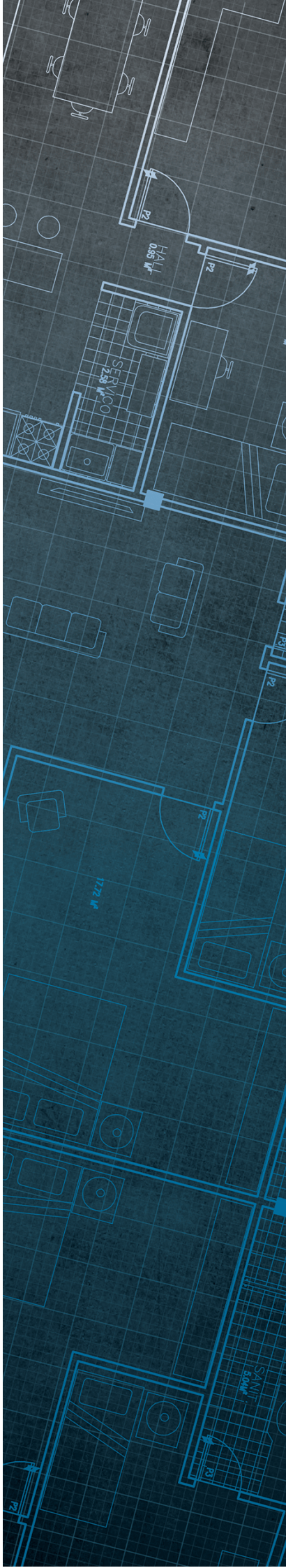
Appendix 3: Coal Authority Mining Report

The Coal Authority

Consultants

Coal Mining Report

Land Adjacent To 25 Lower
Gladstone Street, Heanor,
Derbyshire, De75 7pt
Derbyshire



Date of enquiry:	**19 November 2025**
Date enquiry received:	**19 November 2025**
Issue date:	**19 November 2025**
Our reference:	**51003539016001**
Your reference:	**GS-P2O-MIT-Z32-F6L**

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

GROUNDSURE LIMITED

Enquiry address

Land Adjacent To 25 Lower Gladstone Street,
Heanor, Derbyshire, De75 7pt
Derbyshire



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
ORMONDE	ROOF SOFT	Coal	4VV7	147	North-East	5.7	South-West	86	1900
BAILEYS BROOK	DEEP SOFT	Coal	4VUS	148	Beneath Property	11.9	South	104	1895
ORMONDE	ROOF SOFT	Coal	4JVT	149	North	10.3	South-West	107	1958
BAILEYS BROOK	DEEP SOFT	Coal	4JVX	162	North	6.1	South-West	104	1912
BAILEYS BROOK	DEEP HARD	Coal	4JW9	173	North	3.5	South-West	119	1900
BAILEYS BROOK	DEEP HARD	Coal	63C2	179	Beneath Property	4.4	South-West	125	1900
BAILEYS BROOK	DEEP SOFT	Coal	4JVW	182	North	4.8	South-East	104	1910
BAILEYS BROOK	DEEP HARD	Coal	4VV8	183	Beneath Property	2.2	North-East	125	1900
ORMONDE	FIRST PIPER	Coal	4JW1	186	North	3.4	West	112	1969
BAILEYS BROOK	FIRST PIPER	Coal	4VVH	190	North-East	5.6	South-West	107	1964
ORMONDE	LOW MAIN/THORNCLIFFE	Coal	4VVL	221	Beneath Property	4.3	South-West	119	1955
ORMONDE	LOW MAIN/THORNCLIFFE	Coal	4JWF	221	North	2.6	West	124	1955
ORMONDE	LOW MAIN/THORNCLIFFE	Coal	4JWD	237	North-West	4.1	South-East	117	1954
ORMONDE	BLACKSHALE	Coal	4VVS	264	Beneath Property	4.1	South-West	165	1947
ORMONDE	BLACKSHALE	Coal	4JWX	266	North	1.7	East	135	1946
ORMONDE	BLACKSHALE	Coal	4JWY	273	North	15.5	South-West	155	1946
ORMONDE	ASHGATE/MICKLEY	Coal	4JWO	291	North-East	4.3	West	162	1959
ORMONDE	ASHGATE/MICKLEY	Coal	4VVV	292	North-East	3.7	West	162	1959
ORMONDE	MICKLEY THICK	Coal	4JWT	295	North	1.7	South-East	84	1959
unnamed	KILBURN	Coal	4VW7	394	Beneath Property	8.4	South-West	100	1940
ORMONDE / BAILEY BROOK	KILBURN	Coal	4VW4	397	West	3.5	East	100	1936

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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	KILBURN	Coal	4JWU	399	North-West	4.1	South-East	100	1935
unnamed	KILBURN	Coal	4JWV	400	North	10.1	South-West	100	1934

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:

EM686	EM1004	EM578
EM1005	EM576	2420
16768	13333	EM687

Our records show we have more plans than those shown above which could affect the enquiry boundary.

For assistance in identifying the specific abandoned mine plans relevant to your requirements, **please contact us at InformationManagers@MiningRemediation.gov.uk**.

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.

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Section 2 – Investigative or remedial activity

Please refer to the 'Summary of findings' map (on separate sheet) for details of any activity within the area of the site boundary.

Site investigations
None recorded within 50 metres of the enquiry boundary.

Remediated sites
None recorded within 50 metres of the enquiry boundary.

Coal mining subsidence
The Coal Authority has not received a damage notice or claim for the subject property, or any property within 50 metres of the enquiry boundary, since 31 October 1994.

There is no current Stop Notice delaying the start of remedial works or repairs to the property.

The Coal Authority is not aware of any request having been made to carry out preventive works before coal is worked under section 33 of the Coal Mining Subsidence Act 1991.

Mine gas
None recorded within 500 metres of the enquiry boundary.

Mine water treatment schemes
None recorded within 500 metres of the enquiry boundary.

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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.

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Section 4 – Further information

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

Future development

If development proposals are being considered, technical advice relating to both the investigation of coal and former coal mines and their treatment should be obtained before beginning work on site. All proposals should apply specialist engineering practice required for former mining areas. No development should be undertaken that intersects, disturbs or interferes with any coal or coal mines without first obtaining the permission of the Coal Authority.

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

Development advice

The site is within an area of historical coal mining activity. Should you require advice and/or support on understanding the mining legacy, its risks to your development or what next steps you need to take, please contact us.

For further information on specific site or ground investigations in relation to any issues raised in Section 4, please email us at reports@miningremediation.gov.uk.

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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 **email us at reports@miningremediation.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.

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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.

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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.

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Appendix 4: Coal Authority Summary of findings

The Coal Authority

Summary of findings

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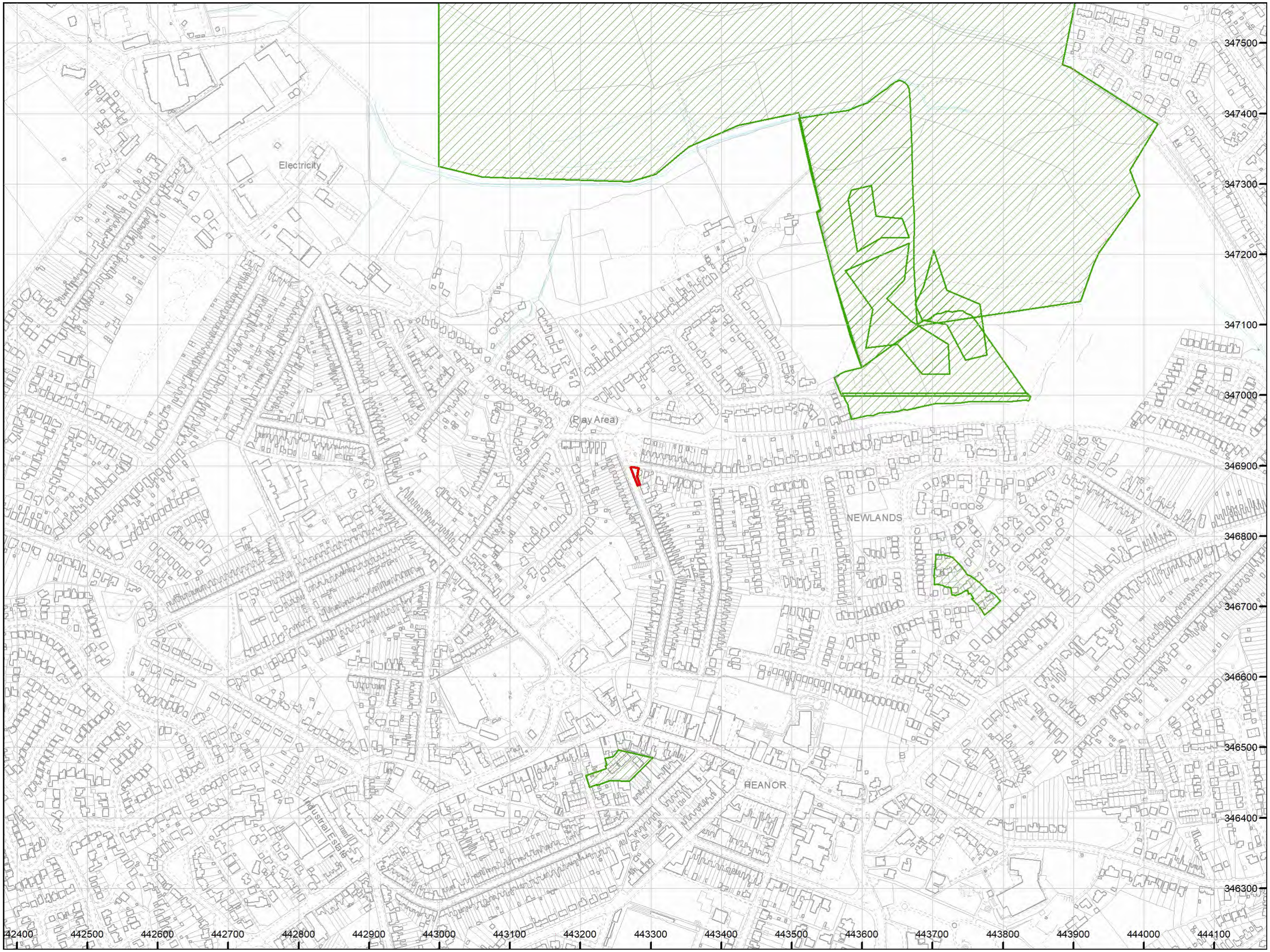
The map highlights any specific surface or subsurface features within or near to the boundary of the site.

Key

Approximate position of the enquiry boundary shown

Unlicensed opencast site



How to contact us
0345 762 6848 (UK)
+44 (0)1623 637 000 (International)
reports@miningremediation.gov.uk

Appendix 5: BGS Borehole Record

British Geological Survey

BGS ID: 222573 : BGS Reference: SK44NW102
British National Grid (27700) : 443250,346960

Norwest Holst Soil Engineering Ltd.

Borehole No. 4

BOREHOLE LOG

Contract No. F8044
Location Heanor - Fall Rd
Client Amber Valley D.C.
Method of Boring Percussion
Diameter of Borehole 150mm

SK44NW-102
4325 4696.

Sheet 1 of 1
Chainage
Ground Level m.A.O.D.
Date 16/8/88 - 17/8/88

Description of Strata	Legend	Depth Below G.L.(m)	O.D. Level (m)	Casing Depth at Sampling	Sampling and Coring	"N"/ R.Q.D.%	Daily Progress
MADE GROUND: Loose black soil, ash, and mudstone fragments with some domestic waste		6.60			1.00 2.00 3.00 4.00 5.00 6.50	8 5 10 8 2 34	
Weathered brown and grey MUDSTONE		7.40					
Weathered grey SANDSTONE		8.30			8.50	50for 75mm	

Type of Sample

- Is S.P.T.
- Undisturbed
- Ic. C.P.T.
- Vane
- O Jar
- Water
- Bulk
- Piezometer

Remarks (Observations of Ground Water etc.)

Water struck at 5.50m, level rose after 20 mins to 5.00m

Contact BGS: ngdc@bgs.ac.uk

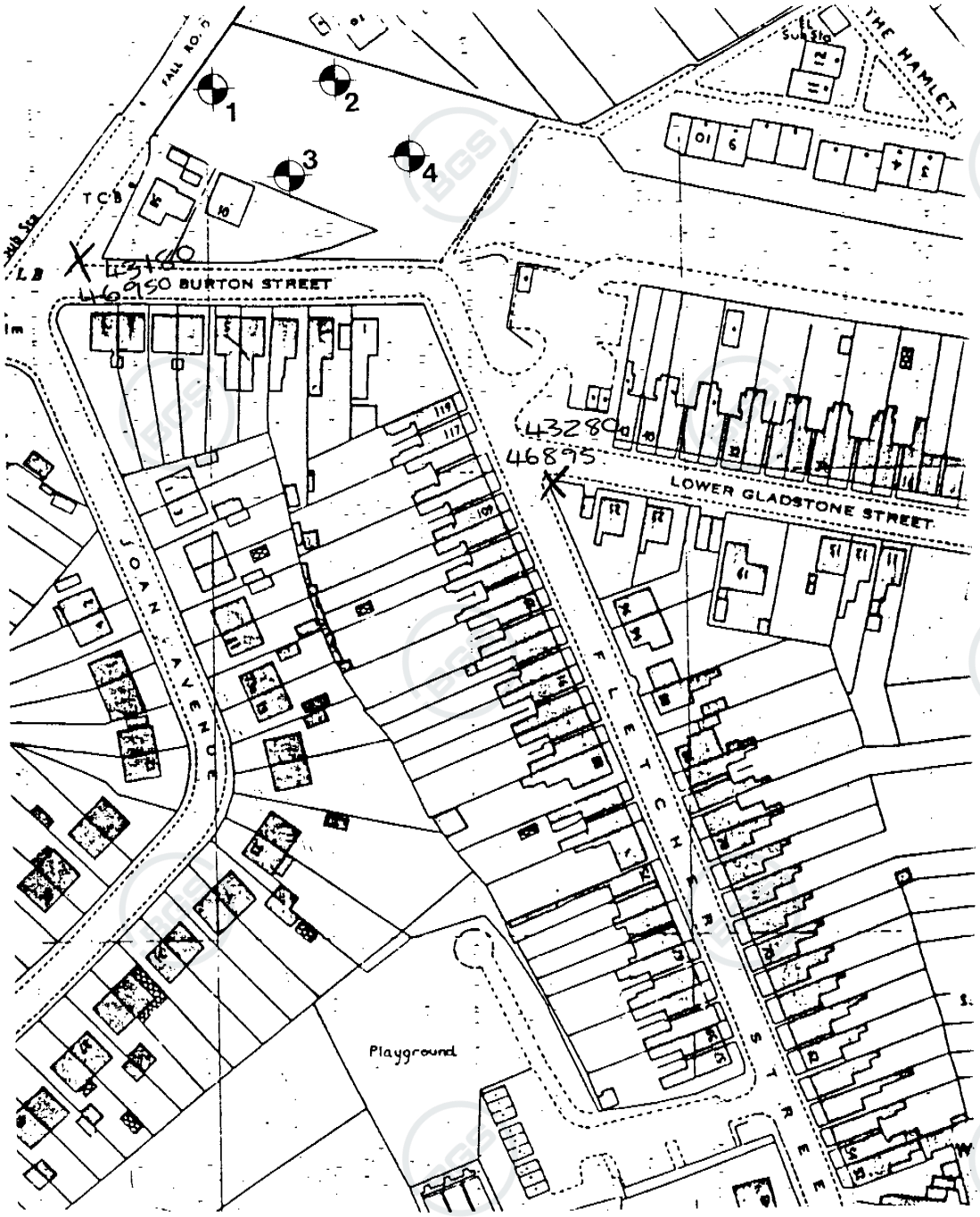
British Geological Survey

BGS ID: 222573 : BGS Reference: SK44NW102
British National Grid (27700) : 443250,346960

SK44NW/99-102

Norwest Holst Soil Engineering Ltd

Client: AMBER VALLEY D.C. *Location:* FALL ROAD, HEANOR.



N.B. Positions of Boreholes and/or Trial Pits are only indicative unless dimensioned.

Contract No, F8044	GROUND INVESTIGATION	*Fig No,* 1
Scale, N.T.S.	BOREHOLE LOCATION PLAN	

Contact BGS: ngdc@bgs.ac.uk

Appendix 6: Document Production Record

Document number	Editor	Position	Issue number	Date
Arbtech LQCMRADE757PTR1V0 44672545	C.A.Radiven BSc Hons MIENVSc MIMM	Geo-Environmental Director	01	16/12/25
Arbtech LQCMRADE757PTR1V1 44672545			02	10/06/26

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