

Peter Dixon
Dudleys Consulting Engineers
Tithe House
35 Town Street
Leeds
LS18 5LJ

9th June 2025

Dear Peter,



Solum House
Unit 1 Elliott Court
St John's Road
Meadowfield
Durham
DH7 8PN

Re: Proposed Residential Development, Healey Lane, Batley

Following completion of the recent investigation works, we have pleasure in providing you with our supplementary ground investigation report. The following documents are attached.

- Updated Site Walkover Photographic Record Sheet
- Investigation Works Record Sheet
- Mining Remediation Authority Permit (Ref. 29972)
- Shaft Plan and Data Sheets (Ref; 51003499308001)

1.0 Introduction

Following comments made by Kirklees Council's Environmental Protection Team regarding the previous Phase 2 Ground Investigation Report being out of date and a supplementary Phase 2 Intrusive site investigation should be carried out to determine the risks to human health. Discussions have been held with the client, where it was confirmed that no works have occurred on site since the completion of the previous report. As a result, Arc Environmental Ltd have carried out an updated site reconnaissance (walkover) survey to confirm that no works (i.e. development and /or deposition of soils) has been carried out across the site and to verify that the previous Phase 2 Ground Investigation Report remains valid.

In addition, when considering the mine entry (ref: 422423-005) recorded immediately adjacent to the southeastern boundary of the site, as highlighted within the previous report, intrusive investigation works have been carried out to determine if this feature encroaches onto site and any potential impact this may have on the proposed development.

This supplementary report should be read in conjunction with the following technical reports which have been produced for the site.

- Phase 1: Geoenvironmental Report, completed by Patrick Parsons (Ref. H17075DTS, April 2018).
- Coal Mining Risk Assessment, Completed by Patrick Parsons (Ref. H17075CMRA, April 2018)
- Phase 2: Geoenvironmental Appraisal, completed by Patrick Parsons (Ref. H17075, May 2018).
- Hazardous Ground Gas Risk Assessment, completed by Patrick Parsons (Ref. ACV/JR/H17075GRA July 2018)

These supplementary investigation works undertaken by Arc Environmental Ltd comprised 2 no. mechanically excavated trial trenches (TT01 & TT02). The positions can be seen on the Investigation Works Record Sheet attached in Appendix II and this plan should be used for orientating purposes only, as the positions shown are approximate and the plan is not to a standard scale.

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Re: Proposed Residential Development, Healey Lane, Batley (Cont'd)

2.0 Review of Patrick Parsons Phase 2 Geoenvironmental Appraisal & Hazardous Ground Gas Risk Assessment

As part of the previous Phase 2 Investigation, 11 no. mechanically excavated trial pits (TP01 to TP04, TP04A and TP05 to TP10) and 6 no. mini percussive boreholes (WS01 to WS06) incorporating the installation of combined ground gas and groundwater monitoring standpipes and 5 no rotary open hole boreholes (BH01 to BH05) were carried out across the site.

The exploratory locations recorded a layer of topsoil / made ground (c.<1.0m thick) was recorded across the site generally comprising brown sandy gravelly clay with occasional anthropogenic debris (i.e. brick, concrete, etc). The underlying natural deposits comprised residual soils (firm to stiff clays and clayey gravel), recorded to depths of between c.0.90m to c.2.30m bgl. Underlying the residual soils, bands of mudstone and sandstone were recorded to a depth of at least c.30m bgl.

From the rotary boreholes carried out, no evidence of broken ground / voiding was recorded to the terminal depths of the boreholes (up to c.30m bgl) with intact coal recorded in BH01 only at a depth of between c.21.30m to c.22.10m (c.0.80m thick). As a result, the site is not felt to be at risk from shallow coal workings, and no further assessment is required.

With regards to the recorded mine entry immediately adjacent to the southeastern boundary of the site, 4 no. trial pits (TP04, TP04A, TP05 & TP06) were carried out to determine the presence of this feature. From the works carried out, no evidence of the mine entry was recorded with topsoil overlying natural clays recorded. However, it was recommended that further investigation of this feature was carried out during any site strip.

From the ground gas monitoring carried out, elevated levels of CO₂ were recorded and from the results risk assessment carried out a gas screening value (GSV) of 0.118l/hr was recorded. Therefore, in accordance with CIRIA 665, the site was classified as CS2, resulting in gas protection measures being required for the proposed development.

Ground contamination screening was carried out on 6 no soil samples (1 no. natural soil, 4 no made ground and 1 no. topsoil) to determine the risk to human health. From the results of the screening, elevated levels of Arsenic and speciated PAHs were recorded that represent a potential risk to human health where exposure pathways are available. No asbestos was recorded within the samples tested. As a result, it was determined the most suitable form of remediation would be the installation of a clean cover system (c.0.60m thick) within all areas of soft landscaping / private gardens.

3.0 Updated Site Reconnaissance (walkover) Survey

Following discussions with the client, it was understood that no works have been carried out on site (i.e. development or deposition of any soils, etc) since the completion of the previous Phase 2 Geoenvironmental Assessment, therefore, a representative of Arc Environmental carried out a site walkover survey on the 4th June to confirm the discussions with the client. A site photographic record sheet can be found in appendix I.

From the findings of the site walkover, no development works or any soil deposition have been carried out since the completion of the previous report in 2018 albeit for some recent vegetation clearance to erect heras fencing to delineate the tree protection zone.

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Re: Proposed Residential Development, Healey Lane, Batley (Cont'd)

3.0 Updated Site Reconnaissance (walkover) Survey (Cont'd)

When considering no works have been carried out, it is in the opinion of Arc Environmental that the previous Phase 2 Geoenvironmental Assessment carried out by Patrick Parsons in 2018 remains valid and if any supplementary investigation works were to be carried out, this would not change the recommendations within the report (i.e. requirement for remediation of the site).

4.0 Investigation of Mine Entry

When considering the mine entry recorded immediately to the southeastern boundary of the site, although the previous investigation works did not record this to be on site, it was recommended that further investigation works were carried out to confirm its absence on site.

As a result, a permit was obtained from the Mining Remediation Authority (MRA), formerly Coal Authority to investigate this feature, a copy of which can be seen in Appendix III. In addition, the shaft Plan and Data Sheets for this mine entry were obtained from the MRA to determine and additional information relating to this entry and if any treatment of the entry has occurred. A copy of which can be seen in Appendix IV.

The report indicates that no treatment details are available as to how the entry was treated upon abandonment although the likelihood is that the shaft will have been treated in some way when it became abandoned and overtime obscured from view. This report conflicts with the MRA interactive map viewer which indicates that this entry has been treated (although no details are available). In addition, the co-ordinates provided in the Shaft Plan and Data Sheets conflict with the co-ordinates in the Coal Consultants report (contained within the Phase 1 Geoenvironmental Report) with these two sets of co-ordinates being c.20m apart. A departure (degree of accuracy) of 8m has been given for the mine entry.

Bearing in mind the above, Arc Environmental carried out intrusive investigation works on the 4th June to determine if the mine entry encroached within the proposed development area. However, when considering the existing tree root protection zone currently in force along the southern boundary of the site (as highlighted within the attached Investigation Works Record Sheet), due to the potential damage to retained trees and their roots, this restricted what works could be carried out.

The intrusive investigation works comprised the mechanical excavation of trial trenches to confirm / dismiss the presence of this entry. The co-ordinates (both sets) for the mine entry were first located and the departure zones marked out, with co-ordinates E:422760, N:423955 placing the mine entry out with the site boundary and departure zone just on the boundary of the site whilst co-ordinates E:422740, N:423654 place the entry out with the site boundary with the departure zone within the site boundary (within tree protection zone).

When considering these potential locations the departure zones, are either just on the site boundary or within the tree protection zone. A plan showing the potential locations of the mine entry (using both sets of co-ordinates) and departure zone is attached in Appendix II. As a result, due to the tree protection zone, the trial trenches were carried out just out with the departure zone for the mine entry co-ordinates E:422740, N:423654.

From the trial trenches carried out no evidence of the mine entry was recorded with topsoil recorded to depths of between c.0.50m to c.0.60m bgl overlying natural firm to stiff clays, recorded to a depth of c.1.10m bgl.

Re: Proposed Residential Development, Healey Lane, Batley (Cont'd)

4.0 Investigation of Mine Entry (Cont'd)

Therefore, when considering the findings of the trial trenches along with the discrepancy regarding the potential location, it is felt that the potential mine entry is likely located out with the proposed development area.

However, if this feature is within the site boundary, due to the current tree root protection zone currently in force, due to the potential damage to retained trees and their roots, no further works intrusive investigation works to locate this feature will be possible.

5.0 Conclusions

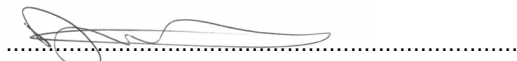
When considering the recent site walkover survey carried out, it has been confirmed that no works have occurred on site since the completion of the previous ground investigation report carried out by Patrick Parsons in 2018. As a result, it is in the opinion of Arc Environmental Ltd that this report remains valid and if further works were carried out, this would not change the findings of the previous report therefore, no further investigation works should be required.

The report concludes that due to the presence of Arsenic and PAH contamination, remedial works will be required to protect the end users with these works comprising the installation of a clean cover system (c.0.60m thick) within all gardens and area of soft landscaping. In addition, the proposed development requires gas protection measures to CS2 classification.

With regards to the mine entry recorded close to the southeastern boundary of the site, from the intrusive investigation works carried out, no evidence of this feature was recorded onsite. However, due to the tree root protection zone currently in force on the southern boundary of the site, the investigation works carried out were limited to out with this protection zone (as highlighted within the attached) due to the potential damage to retained trees and their roots and no further works to locate this potential feature will be possible. As a mitigation measure, the foundations to the property closest to the potential mine entry (Plots 8 & 9) will be extended and based wholly within the natural bedrock at a depth of c.1.80m bgl (taken from the previous investigation works).

We trust the information provided within this supplementary report to you is to your satisfaction, however if you require any further information or clarification, please do not hesitate to contact us.

Yours sincerely,



For and on behalf of Arc Environmental Limited
Darren McGrath MEnvSc FGS Tech IOSH
Director

Updated Site Walkover Photographic Record Sheet

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View: Looking WEST towards adjacent buildings to the west



View: NW corner of site looking in NW direction



View: Relic manhole in the WEST of site



View: SW corner of site looking in a SW direction



View: Looking EAST along heras security fencing along the southern site area



View: Looking NE across the central site area with school development in background



View: Looking EAST across the central site area with school development in background



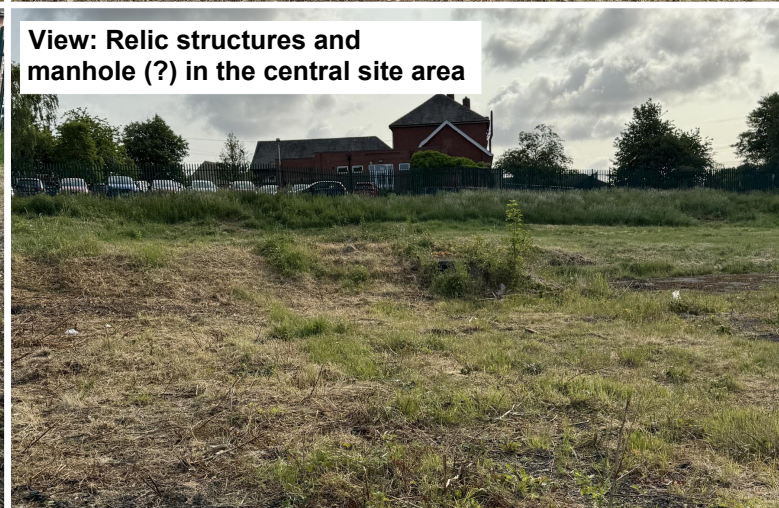
View: Looking WEST along southern site area



View: Looking NORTH along land in the east of site



View: Looking NORTH along land in the east of site



View: Relic structures and manhole (?) in the central site area



View: Looking SE towards the SE corner of site with relic tarmac in foreground



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rev.	date	amendments	drawn chckd

Client:
CONCORDE HOMES

Project Title:
Proposed Residential Development
Healey Lane, Healey
Batley, Kirklees, WF17 8BN

Drawing Title:
Site Photographic Record Sheet

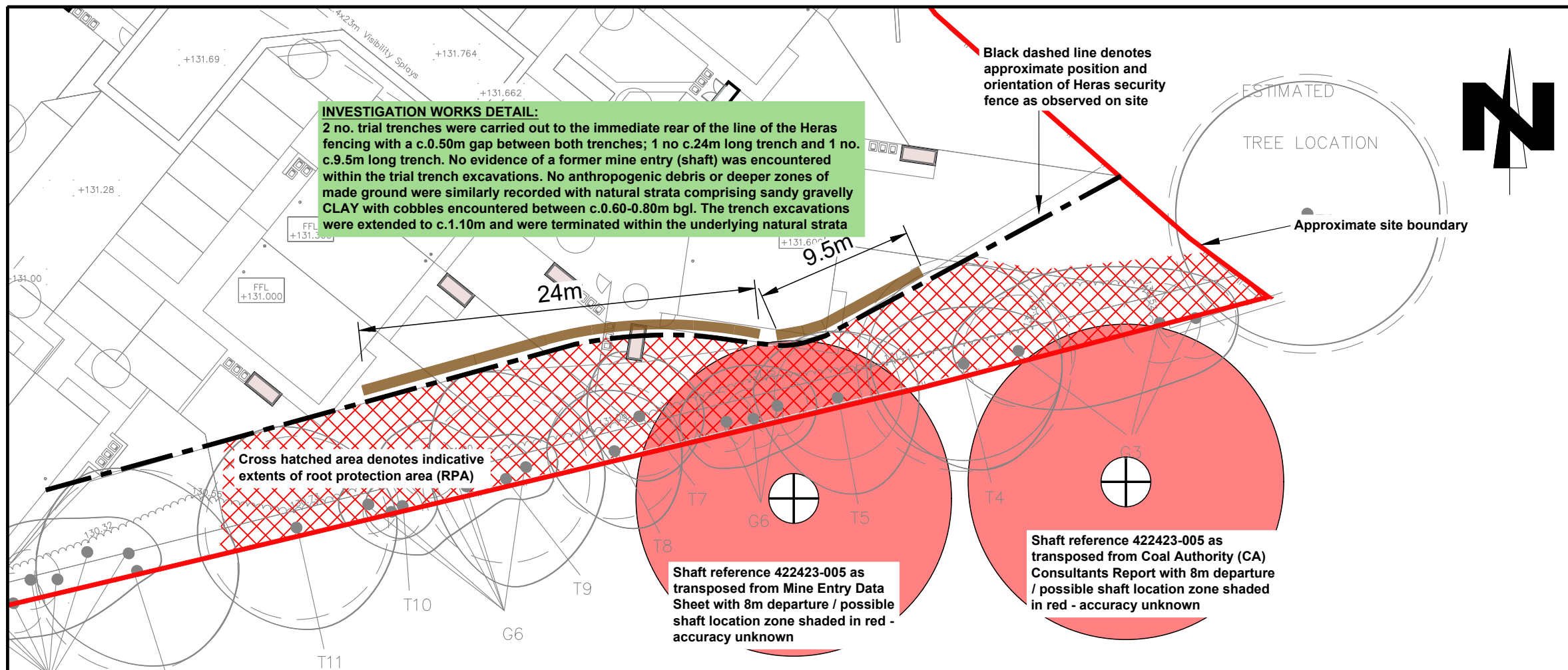
Scale at A3: NTS @ A3	Date: 03.06.25	Drawn by: P.D	Approved by: D.M
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Job Ref: 25-010	Drg no: -	Rev: -
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Investigation Works Record Sheet

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rev.	date	amendments	drawn	chckd

Client:
CONCORDE HOMES

Project Title:
 Proposed Residential Development
 Healey Lane, Healey
 Batley, Kirklees, WF17 8BN

Drawing Title:
 Investigation Works Record Sheet

Scale at A3: NTS @ A3 | Date: 03.06.25 | Drawn by: P.D | Approved by: D.M

Job Ref: 25-010 | Drg no: - | Rev: -

Mining Remediation Authority Permit

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Mining
Remediation
Authority

Permit to Enter or Disturb Mining Remediation Authority Interests

Permit 29972

Name and Address of Permit Holder:

Hall Road (Eccleshill) Limited
13 Richardshaw Business Centre
Grangefield Industrial Estate
Pudsey
Leeds
LS28 6RW

Site Location:

Land adjacent to Healey Lane
Batley
WF17 8BN

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

Ground investigation by excavation to locate one mine entry (422423-005) within the Authority's interests at the identified site location above as shown on the Grant Permit Boundary (overleaf) for the period of **12 months** from the granted date shown below. *The granting of this Permit does not constitute advice given by the Authority in relation to the proposed operations. It is the Permit Holder's responsibility to obtain appropriate health, safety, environmental, technical and legal advice.*

Conditions:

- *Manned entry (i.e.) into mine entries/workings) is strictly prohibited.*
- *Gas Monitoring CO, CH₄, CO₂, O₂, H₂S at excavations*
- *Operators undertaking the work must be in possession of this certificate and the Permit boundary plan at the time of works*
- *Appropriate backfilling of excavations without delay and to withstand site level changes*

Signed: Jake Morris Granted Date: 02/06/2025

For and on behalf of the Mining Remediation Authority

Nominated Representative: Jake Morris, Permitting Manager;

Mining Remediation Authority, Permitting Office, 200 Lichfield Lane, Mansfield, Notts, NG18 4RG

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



Mining
Remediation
Authority

Granted Permit Boundary

Permit Ref: 29972

Permit Boundary:



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The Mining Remediation Authority is the trading name of the Coal Authority ('TCA') established pursuant to Section 1 of the Coal Industry Act 1994, of 200 Lichfield Lane, Berry Hill, Mansfield, Nottinghamshire, NG18 4RG. The Coal Authority remains the legal name of the Authority

Shaft Plan and Data Sheets

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The Coal
Authority

Issued by:

The Coal Authority, Property Search Services, 200 Lichfield Lane, Berry Hill, Mansfield, Nottinghamshire, NG18 4RG
Website: www.groundstability.com Phone: 0345 762 6848

ARC ENVIRONMENTAL LTD	Our reference:	51003499308001
ELLIOTT COURT	Your reference:	25-010
ST JOHNS ROAD	Date of your enquiry:	19 May 2025
MEADOWFIELD INDUSTRIAL ESTATE	Date we received your enquiry:	19 May 2025
MEADOWFIELD	Date of issue:	19 May 2025
DURHAM		
DH7 8PN		

This report is for the property described in the address below and the attached plan.

Shaft Plan and Data Sheets

HEALEY LANE, HEALEY, BATLEY, KIRKLEES, WF17 8BN

I refer to the enquiry dated 19 May 2025, received 19 May 2025, in connection with the above.

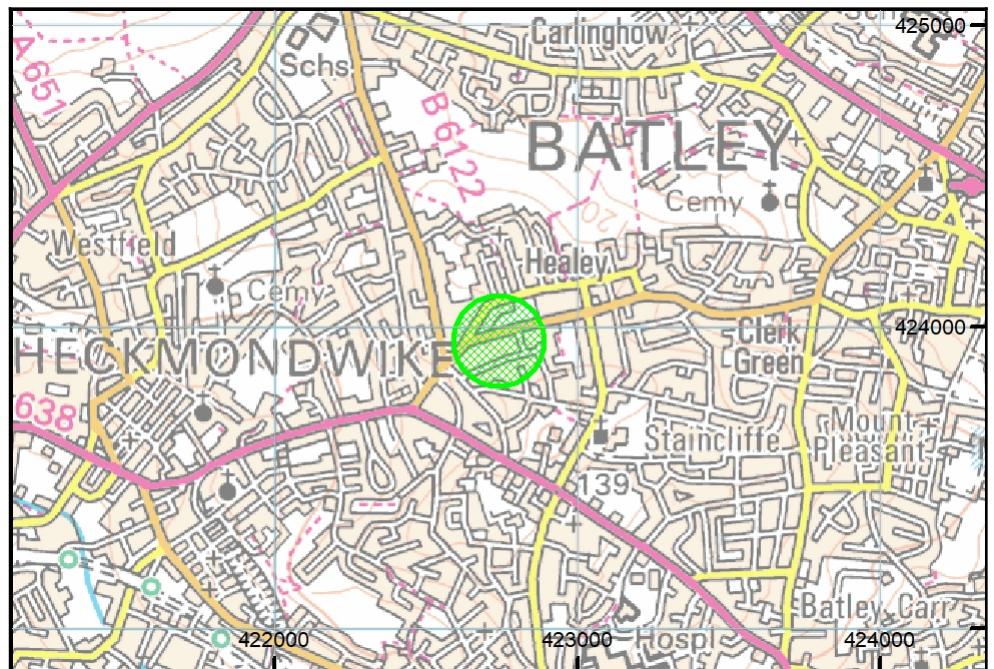
As requested I enclose the mine entry data sheet(s) held for the mine entry/entries referred to.

Mine Entry Data

Shaft/adit:	Shaft
Reference:	422423-005
Source:	Ab plan FGB568. 1st and 2nd Ed. Geological.
Colliery name:	Unknown
Entry name:	Unknown
Date abandoned:	Unknown
Depth of superficial deposits (m):	Unknown
Depth of shaft (m):	54.9
Diameter of shaft (m):	Unknown
Probable adit azimuth:	Not Applicable
Treatment details:	We have no treatment details as to how this mine entry was treated upon abandonment, however it only became a requirement to record treatment details after the coal industry was nationalised in 1947. The likelihood is the shaft will have been treated in some way when it became abandoned and then, over time, became obscured from view.
Conveyance:	Not Applicable
Easting:	422740
Northing:	423954
Other information:	None

Location map

Approximate position of enquiry



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This plan shows the approximate location of the disused mine entry / entries referred to in the attached mining report. For reasons of clarity, mine entry symbols may not be drawn to the same scale as the plan.

Property owners have the benefit of statutory protection (under the Coal Mining Subsidence Act 1991). This contains provision for the making good, to the reasonable satisfaction of the owner, of physical damage from disused coal mine workings including disused coal mine entries. A leaflet setting out the rights and obligations of either the Coal Authority or other responsible persons under the 1991 Act can be obtained by visiting www.groundstability.com.

If you wish to discuss the relevance of any of the information contained in this report, you should seek the advice of a qualified mining engineer or surveyor. If you or your advisor wish to examine the source plans from which the information has been taken, these are available to view, free of charge, at our Head Office in Mansfield. To book an appointment please ring 0345 762 6848. Should you or your advisor wish to carry out a physical investigation that may enter, disturb or interfere with any disused mine entry, prior permission of the owner must be sought. For coal mine entries, the owner will normally be the Coal Authority.

The Coal Authority, regardless of responsibility and in conjunction with other public bodies, provide an emergency call out facility in coalfield areas to assess the public safety implications of mining features (including disused mine entries).

Our emergency telephone number is 0800 288 4242.

Key

Disused Adit or Mineshaft

