GROUND INVESTIGATION REPORT

24 VIEWLANDS, SILKSTONE COMMON, BARNSLEY, S75 4QP

PREPARED FOR JOHNSTONE CONSTRUCTION MANAGEMENT LIMITED

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GEOTECHNICAL GEOLOGICAL ENVIRONMENTAL CONSULTANTS

QUALITY CONTROL

Project No.	**GEOL25-6508**	**Client**	**Johnstone Construction Management Limited**
Design Team	**Tractus:DMA Architectural Design**		
Report Type	**Ground Investigation Report**		
Project Type	**Proposed Residential Development**		
Site Address	**24 Viewlands, Silkstone Common, Barnsley, S75 4QP**		
NGR	**429351, 404382**		
Date	**06/05/2025**		

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REPORT REVISION HISTORY				
Issue	**Description**	**Date**	**Author**	**Approval**
1	**Final Issue**	**06/05/2025**	**MD**	**TMc**

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1.0 Introduction

Geol Consultants Limited (GEOL) were instructed by Johnstone Construction Management Limited to undertake a programme of ground investigation works over a parcel of land located at 24 Viewlands, Silkstone Common in Barnsley, where proposals have been made to demolish an existing residential property and re-develop the site with 3 no. new low rise residential houses and gardens sometime soon. The site is centred on OS National Grid Reference 429351, 404382. The proposed development layout can be seen on the Tractus:DMA Architectural Design Drawing 18/544 PL01 Rev C dated September 2022, attached in Appendix I.

The purpose of this Ground Investigation Report (GIR) is to provide information relating to the following to assist with the new development proposals.

- Identify the ground conditions below the new development areas and assess the geotechnical properties of the underlying topsoil and bedrock deposits to assist with building foundation designs
- Confirm the risk posed to the site from potential historical workings in the Silkstone Four Foot (Wheatley Lime) Coal seam
- Determine the ground gas regime and required protection measures for the proposed residential development
- Determine the levels of contamination within the existing shallow soil deposits, to assess the impacts from those contaminants towards the future site end-users (Human Health) given the sensitivity of the proposed development
- Determine the scope of any further investigation works or remediation measures required for the site prior to commencing with the proposed residential development

The information contained in this GIR is limited to the area of the site as shown on the proposed site / block plan attached in Appendix I, and to those areas accessible at the time of the ground investigation works being undertaken. When considering the scope of works completed for the development proposals, any features or issues not specifically mentioned cannot be assumed to have been covered.

2.0 Geological and Coal Mining Setting

Based on available geological maps produced by the British Geological Survey (BGS) Sheet SE20SE, 1:10,000 scale, the site is shown to be in an area where superficial (drift) deposits are absent, and bedrock deposits are expected to be present at or close to the surface – area of solid outcrop. The bedrock deposits are shown to comprise the Pennine Lower Coal Measures (LCM) Formation deposited between 318 and 319 million years ago during the Carboniferous Period where sandstone deposits are present at rockhead level.

2.0 Geological and Coal Mining Setting (Cont'd)

No structural geological faults or artificial ground is shown to be present on the site

The conjectured subcrop position of a thin unnamed seam 0.30m in thickness is shown within the site, generally trending northwest - southeast and dips in a north-easterly direction.

In accordance with the MRA, Consultants Coal Mining Report the Wheatley Lime coal seam (also commonly referred to as the Silkstone Four Foot Coal) is anticipated to be the shallowest worked coal seam present below the site at a depth of 28m below existing site levels with an extraction thickness of 1.35m, last mined in 1926. The SIlkstone seam and Whinmoor seam are all also shown as worked beneath the site.

However, there is a discrepancy in the position of the Middleton Main coal seam (also referred to as the Thorncliffe Coal) on the mapping. On the 1:10,000 sheet dated 2005, the Middleton Main coal seam is placed to the north east of the site boundary, dipping away from the site and with a thickness of 0.4m. The more recent MRA mapping places the Middleton Main coal seam 6.8m to the south west of the site and dipping beneath the site at shallow depth.

The geological setting based on the 2005 map can be observed within Figure 1 along with the MRA map on Figure 2.

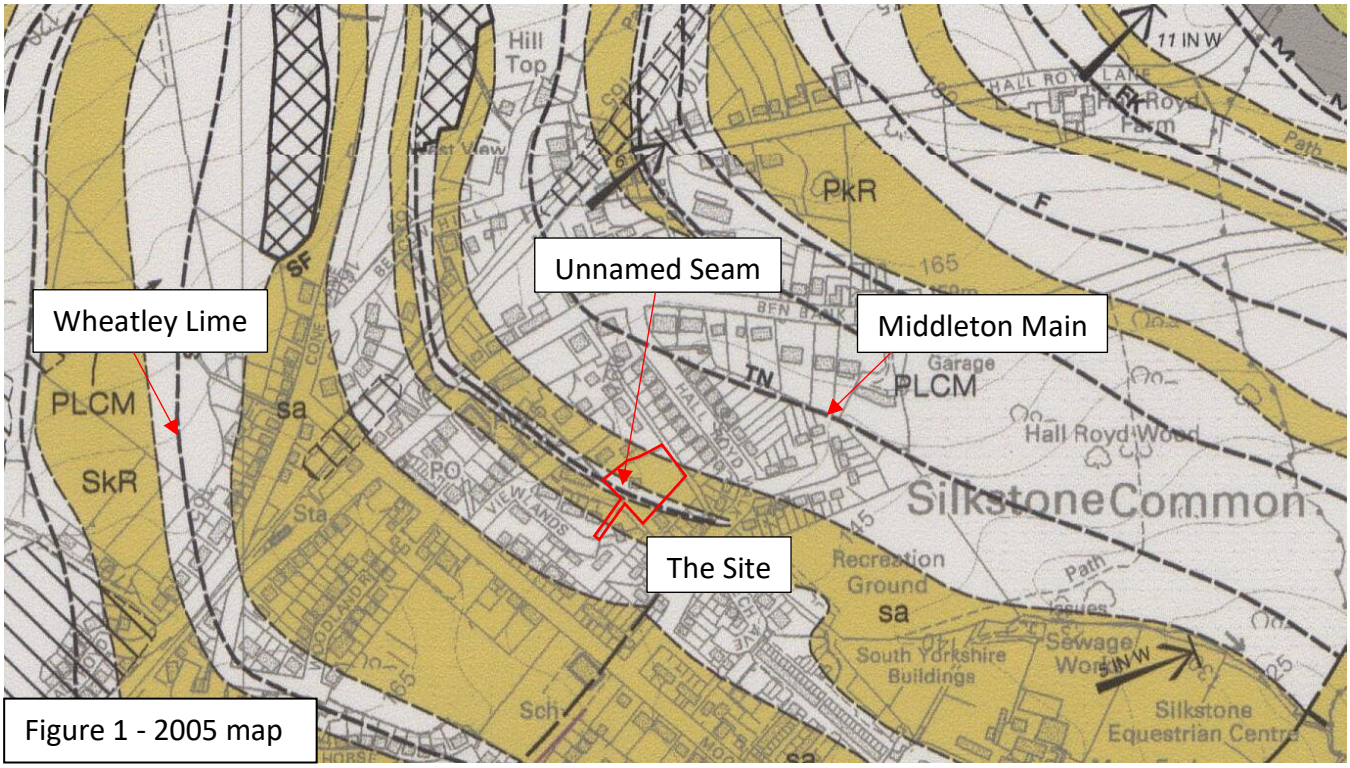

Figure 1 - 2005 map

2.0 Geological and Coal Mining Setting (Cont'd)

Figure 2 - MRA map

Figure 3 shows an extract taken from the County Series Yorkshire Sheet 274SW, 1:10560 scale dated 1936. The map refers to the unnamed seam as the Swilley coal seam 0.36m in thickness and the actual position of the Middleton Main coal seam to the north east of the site.

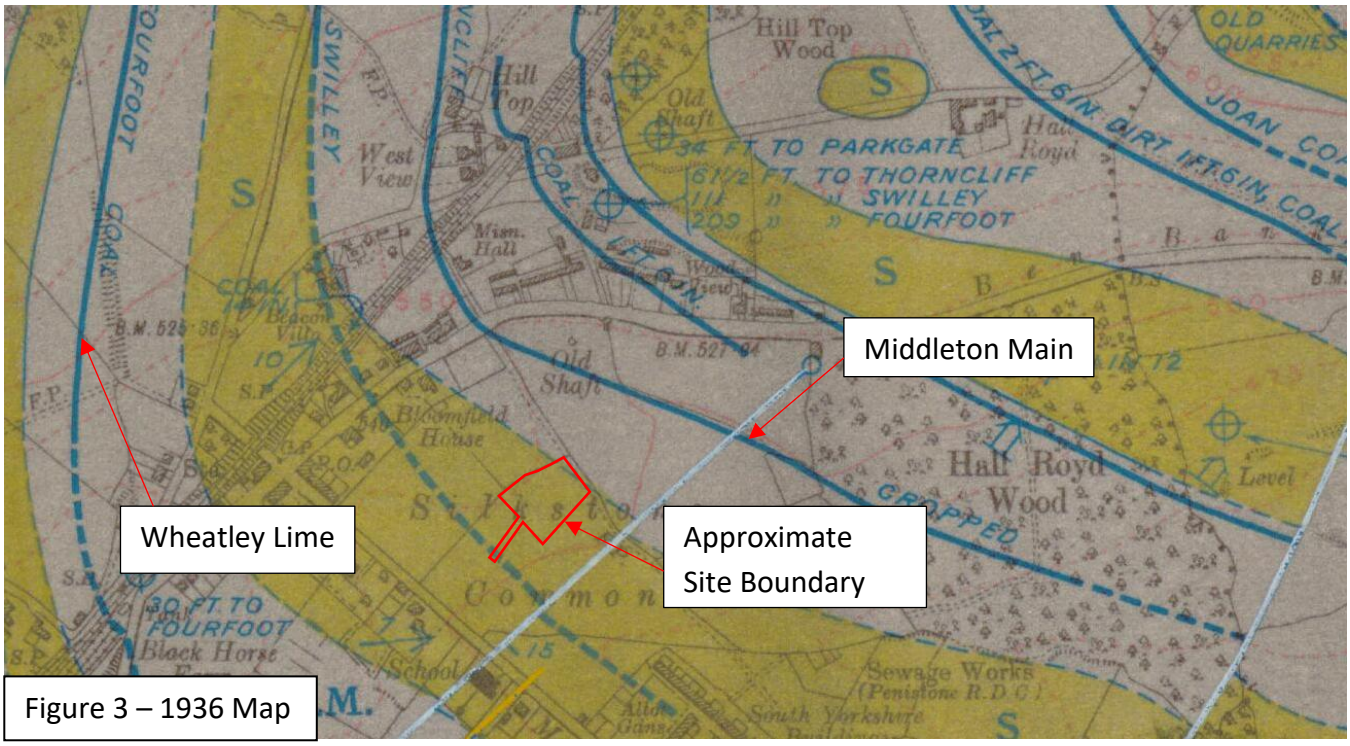

Figure 3 – 1936 Map

2.0 Geological and Coal Mining Setting (Cont'd)

The Mining Remediation Authority (MRA) has divided the coalfield into two areas, referred to as development high risk areas (DHRA's), and development low risk areas (DLRA's). The DHRA forms 15% of the coalfield area, where coal mining risks could be present at shallow depth which could have the potential to affect new developments. The DLRA forms 85% of the coalfield where past coal mining activity has taken place at such depth that it poses a low risk to new development. In accordance with the MRA database the site is shown to lie within a DHRA and within an area where probable shallow coal mine workings may be present.

For completeness, a Consultants Coal Mining Report was procured from the Coal Authority to further assess the risks posed to the site with respect to possible instability issues arising in the future as a direct result of past shallow coal mining activities. The report concludes the relevant information as shown in the Table below.

Coal Mining Activities	Details
Past underground mining	The Coal Authority holds records relating to known workings below the site within the Wheatley Lime coal seam at a depth of 28m with a recorded extraction thickness of 1.35m and last mined in 1926. Records are present relating to known workings within a further two seams below site at depths at between 59m and 105m
Outcrops	The Middleton Main coal seam subcrops 6.8m to the south west of the site, although this does not corroborate with published BGS maps
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.
Geological faults, fissures and breaklines	No faults, fissures or breaklines recorded
Opencast mines	Opencast mining has taken place at two locations to the north, within 500m of the site boundary
Coal mining subsidence	The Coal Authority has not received a damage notice or claim for the subject property, or any property within 50m of the site boundary, since 31st October 1994
Mine gas	None recorded within 500m of the site boundary
Coal Authority managed tips	None recorded within 500m of the site boundary

3.0 Scope of Works

To determine the ground conditions below the site area, the ground investigation works completed by GEOL comprised the sinking of 5 no. windowless sampling boreholes (labelled BH01 to BH05).

Given the nature of the bedrock geology and the findings of the mining risk assessment above, GEOL also completed 3 no. rotary open boreholes (labelled RBH01 to RBH03) using a water flush medium to determine the risks posed to the site from recorded workings in the Silkstone Four Foot (Wheatley Lime) coal seam and to assess the depth to rockhead levels below the site area. A permit (reference 29699) was obtained directly from the MRA to enter or disturb their coal mining related interests prior to undertaking the rotary open hole borehole investigation works, a copy of which can be seen in Appendix II.

In addition, the installation of combined ground gas and water monitoring wells were installed at the locations of BH01, BH03 and BH04 primarily to determine the ground gas regime for the site associated with potential rising mine gases (gas monitoring is currently underway).

Detailed descriptions of the strata encountered during the investigation works, together with the results of all insitu field testing, are presented on the borehole record sheets attached in Appendix II. The borehole positions can be seen on the investigation location plan attached in Appendix II.

4.0 Ground Conditions

4.1 Soil Profile

A summary of the ground conditions encountered in the boreholes sunk across the site can be seen in the Table below.

Strata	Depths Recorded	Description & Comments
TOPSOIL	From 0.00m up to 0.10m to 0.27m	Topsoil was encountered in all the boreholes
SOLID GEOLOGY Pennine Lower Coal Measures (LCM) Formation	From 0.10m to 0.27m up to 1.45m up to 30.18m (base of boreholes)	Bedrock was observed in all the boreholes and comprised weathered light brownish grey MUDSTONE, SILTSTONE and SANDSTONE. Intact banded coal and carbonaceous mudstone was present in this strata at depths in the range 6.10m to 9.45m with a maximum thickness of 1.22m

4.0 Ground Conditions (Cont'd)

4.2 Groundwater and Stability

Groundwater was absent from the boreholes during the investigation period, although the water flush medium may have masked a water strike in the rotary boreholes. Post fieldwork monitoring in the combined gas and groundwater monitoring wells have not any recorded water levels to date, as all boreholes have remained dry. From this it is felt that significant water ingresses are unlikely to occur within shallow construction related excavations, although it may be prudent to allow for the introduction of temporary groundwater control techniques (i.e. sump pumping), to take care of any localised ingresses of groundwater, during the construction period, especially during the wetter periods of the year. It should also be noted that instability within such excavations may occur because of water inflow.

Adequate lateral trench support will also be required for excavations undertaken below 1.20m, to prevent trench wall collapse or over excavation, as well as to create a safe working environment, and any excavations on this site should remain open for as short a period as possible, since the made ground and natural deposits could be susceptible to deterioration if left open to the natural elements for any significant period of time.

4.3 Coal Mining

Three rotary cored boreholes (labelled RBH01 to RBH03) were drilled in the vicinity of the footprint of the proposed new buildings to determine the depths to and condition of rockhead and to investigate the actual depth to recorded workings in the Silkstone Four Foot (Wheatley Lime) Coal seam. Rockhead was recorded at depths in the range 0.10m to 0.27m bgl. Intact banded coal / carbonaceous mudstone, was recorded in RBH01, RBH02 and RBH03 at depths in the range 6.10m to 9.45m with a maximum thickness of 1.22m, with no evidence of mineworkings. This coal seam, given its thickness may be attributable to the Middleton Main as suggested by the MRA. There were no significant gas readings detected during and upon completion of the rotary boreholes. The boreholes were backfilled with bentonite mixed with arisings and made safe upon completion. No strata representative of the Silkstone Four Foot coal seam was recorded below the site, even at the deepest rotary borehole sunk (RBH01) suggesting this coal seam lies below the site at a depth >28m as estimated by the MRA.

Given the estimated depth to the shallowest known coal workings below the site within the Silkstone Four Foot coal seam, located at a depth of >30m below existing site levels and with a recorded extraction thickness of 1.35m, and when taking into consideration a conservative depth to bedrock deposits below the site (1.22m depth) the associated ratio of rock cover to seam thickness will be 1:21 which far exceeds the 10t criterion (1:10) used to confirm stable ground conditions.

4.0 Ground Conditions (Cont'd)

4.3 Coal Mining (Cont'd)

This would also be the case should workings be present at the depth stated by the MRA (28m) where a ratio of rock cover to seam thickness would be calculated at 1:19.

Therefore, when considering the geological and coal mining data reviewed for this site, there are no unrecorded coal workings present within the shallow coal seam encountered, and it is felt that the mechanisms for future ground subsidence and crown hole failures occurring at the surface in the future as a direct result of known shallow coal mining activities below the site area within the Silkstone Four Foot is deemed to be negligible, and thus no further assessment or intrusive investigation works are required with regard to historical shallow coal mining activities, prior to commencing with the development proposals.

5.0 Insitu Testing

5.1 Insitu Standard Penetration Tests

Insitu standard penetration tests (SPT's) was undertaken within the weathered LCM rock deposits encountered at the borehole locations, to determine the relative density / strength of the deposits, and a summary of the results can be seen in the Table below.

Strata	SPT Results	Comments
MUDSTONE	SPT 'N' values ranging from 17 up to 105 were recorded along with 43 and 102 blows for partial penetration	The SPT 'N' values and blow counts obtained for the natural mudstone confirm the competent nature of the deposits

6.0 Preliminary Ground Gas Risk Assessment

Combined ground gas and water monitoring standpipes have been installed within three windowless sampling boreholes (BH01, BH03 and BH04) primarily to confirm the ground gas regime below the site. Two monitoring visits have been undertaken to date.

The monitoring standpipes were constructed using 50mm diameter HDPE standpipe, comprising 1.00m of solid pipe within a bentonite seal and a response zone using slotted pipe to depths of up to 2.05m below existing site levels. Gas monitoring is ongoing and an addendum gas risk assessment will be prepared on completion of the monitoring.

6.0 Preliminary Ground Gas Risk Assessment (Cont'd)

The design of the ground gas risk assessment for this site has been undertaken in general accordance with the CIRIA Report C665 (November 2007), BS8576:2013 – Guidance on investigations for ground gas and BS8485:2015 + A1:2019 – Code of practice for the design of protective measures for methane and carbon dioxide ground gases for new buildings and is based on the criteria below.

- The proposed residential development has been classified as a high sensitivity
- The risk associated with the generation potential of a source has been assessed as very low
- Therefore, in accordance with Tables 5.5a and 5.5b in CIRIA C665, the typical / the initial idealised period of monitoring for this site has been determined as 6 no. recorded readings undertaken over a minimum period of 3 months
- Monitoring visits are undertaken to target and correlate with the worst-case conditions for ground gas emissions to occur, comprising falling atmospheric pressure trends and low atmospheric pressures. Monitoring of the weather conditions and predicted atmospheric pressures were carried out up to 72 hours in advance of the monitoring visits, in order that a reasonable period of data is obtained to determine atmospheric trends, and to target the worst-case scenario

Monitoring is undertaken using a Gas Data GFM436 soil gas analyser with integral flow meter, and a Geotechnical Instruments electronic dip-meter. A summary of the programme of gas monitoring results obtained to date can be seen in the Table below. A copy of the Ground Gas Monitoring Record Sheet can also be seen attached in Appendix IV.

Borehole Position	Date of visit	Atmospheric Pressure (mbar)	Water level (m)	Max CH_4 (%v/v)	Max CO_2 (%v/v)	Min O_2 (%v/v)	Flow Rate (l/hr)
BH01	09/04/2025	1015 (Rising trend)	DRY	0.0	4.2	17.1	<0.1
BH03			DRY	0.0	1.8	19.7	<0.1
BH04			DRY	0.0	2.4	15.8	<0.1
BH01	22/04/2025	997 (Rising trend)	DRY	0.0	4.2	17.2	<0.1
BH03			DRY	0.0	1.1	19.8	<0.1
BH04			DRY	0.0	2.1	18.5	<0.1

Atmospheric pressure trend shown in brackets taken from www.weatheronline.co.uk for Leeds Bradford Airport

No detectable concentrations of Methane have been recorded during the monitoring period completed. However, concentrations of Carbon Dioxide have been recorded, ranging between 1.1% v/v up to 4.2% v/v at the monitoring wells along with marginally depleted levels of Oxygen. No positive flow rates (<0.1 l/hr) have been recorded during the monitoring visits completed. Based on the readings to date it is considered that mine gas protection measures may not be required.

6.0 Preliminary Ground Gas Risk Assessment (Cont'd)

Following completion of all the scheduled ground gas monitoring visits, an updated ground gas risk assessment will be issued as an addendum to this GIR along with our recommendations.

7.0 Laboratory Testing

7.1 Determination of Chemical Attack on Buried Concrete

Seven representative samples of the topsoil and natural deposits recovered from the borehole locations have been tested by Eurofins Chemtest Limited (Chemtest) to determine their pH value and soluble sulphate (sulphate aqueous extract SO_4) levels, so these materials can be classified in accordance with the guidance BRE Special Digest 1:2005, Concrete in Aggressive Ground. The results of the tests are contained in the Chemtest Final Report (reference 25-13410-2) a copy of which can be seen attached in Appendix III.

The laboratory test results have recorded soluble sulphate concentrations ranging between <10mg/l up to 10mg/l and pH values ranging between 6.5 and 7.4. When considering the total number of samples screened (7 no.) and in conjunction with the BRE guidance, for this proposed development site and where future foundations and buried concrete are to be constructed the topsoil and natural deposits should be classified as Design Sulphate Class of DS-1. The Aggressive Chemical Environment for Concrete (ACEC) class should be assessed as AC-1 assuming natural ground and mobile water conditions.

7.2 Contamination Screening / Screening Strategy

Four representative samples of the shallow soil deposits (topsoil) encountered at the borehole locations were screened for a wide range of chemical analytes to determine the levels of contamination present, and to allow an assessment of the risks these materials may pose to the future site end-users and construction workforce. Ground contamination laboratory testing was completed by Chemtest of Newmarket, Suffolk (UKAS & MCERTS accredited), and the suite of chemical analysis carried out is summarised below.

- 4 no. soil samples tested for Arsenic, Cadmium, Chromium (III & VI), Copper, Lead, Mercury, Nickel, Selenium, Zinc, Cyanide (free) and Total Organic Carbon (TOC)
- 4 no. soil samples screened for Speciated Polycyclic Aromatic Hydrocarbons (PAH's) – based on the current USEPA 16 PAH's
- 2 no. soil samples screened for Petroleum Hydrocarbons (Aliphatic & Aromatic split)
- 4 no. soil samples tested for Asbestos (presence)

7.0 Laboratory Testing (Cont'd)

7.2 Contamination Screening / Screening Strategy (Cont'd)

The results of the tests are contained in the Chemtest Final Report (reference 25-13410-2) a copy of which can be seen attached in Appendix III, and a summary of the contamination results can be seen in the Table below and on the following page.

A Human Health Generic Quantitative Risk Assessment (GQRA) is carried out by comparing measured concentrations in soil with generic screening values appropriate for the Conceptual Model and pollutant linkage(s) being assessed. Provided the measured concentrations are below appropriate generic screening criteria, the risk from the pollutant linkages(s) being assessed are unlikely to represent a significant risk. The generic screening values referred to above usually take the form of risk-based Generic Assessment Criteria (GAC) values, that are most typically derived using the Environment Agency's Contaminated Land Exposure Assessment (CLEA) Model. For the purpose of this Human Health contamination risk assessment, and when considering the nature and sensitivity of the proposed development (i.e., Residential with homegrown produce), the results have been compared against currently available assessment values published by LQM / CIEH (Suitable 4 Use Levels – S4UL's), CL:AIRE Category 4 Screening Levels (C4SL's) and Atkins ATRISKsoil Soil Screening Values (SSVs) for Cyanide only. To allow an assessment of the level of risk to be made, the topsoil present on this site has been assessed by comparing the maximum recorded value against the appropriate critical concentration.

Analyte	Critical concentration (mg/kg)	No. of samples screened	Max. concentration recorded (mg/kg)
Arsenic	37[(1)]	4	22
Cadmium	11[(1)]	4	0.31
Chromium III	910[(1)]	4	29
Chromium VI	6[(1)]	4	<0.5
Copper	2,400[(1)]	4	39
Lead	200[(3)]	4	73
Mercury	40[(1)]	4	0.45
Nickel	180[(1)]	4	17
Selenium	250[(1)]	4	0.84
Zinc	3,700[(1)]	4	120
Cyanide	34[(2)]	4	0.8
Asbestos	Presence	4	Not Present

[(1)] = The LQM/CIEH Suitable 4 Use Levels (Residential with homegrown produce land-use, 6% SOM) GEOL S4UL3816, [(2)] = ATRISK[SOIL] SSV (2015), [(3)] = CL:AIRE C4SLs (Residential with homegrown produce land-use)

7.0 Laboratory Testing (Cont'd)

7.2 Contamination Screening / Screening Strategy (Cont'd)

Speciated PAH's	Critical concentration (mg/kg)	No. of samples screened	Max. concentration recorded (mg/kg)
Acenaphthene	1,100[(1)]	4	<0.1
Acenaphthylene	920[(1)]	4	1
Anthracene	11,000[(1)]	4	0.14
Benzo(a)anthracene	13[(1)]	4	0.42
Benzo(a)pyrene	3[(1)]	4	0.69
Benzo(b)fluoranthene	3.7(1)	4	0.4
Benzo(ghi)perylene	350[(1)]	4	0.56
Benzo(k)fluoranthene	100[(1)]	4	1.3
Chrysene	27[(1)]	4	1.2
Dibenz(ah)anthracene	**0.3[(1)]**	**4**	**0.52 (BH03 & BH04)**
Fluoranthene	890[(1)]	4	0.58
Fluorene	860[(1)]	4	0.21
Indeno(123cd)pyrene	41[(1)]	4	0.2
Naphthalene	13[(1)]	4	0.21
Phenanthrene	440[(1)]	4	0.41
Pyrene	2,000[(1)]	4	0.81
Petroleum Hydrocarbons			
Aliphatic C5-C6	160[(1)]	2	< 0.05
Aliphatic C6-C8	530[(1)]	2	< 0.05
Aliphatic C8-C10	150[(1)]	2	< 0.05
Aliphatic C10-C12	760[(1)]	2	5.4
Aliphatic C12-C16	4,300[(1)]	2	< 1.0
Aliphatic C16-C35	110,000[(1)]	2	58.3
Aromatic C5-C7	300[(1)]	2	< 0.05
Aromatic C7-C8	660[(1)]	2	< 0.05
Aromatic C8-C10	190[(1)]	2	< 0.05
Aromatic C10-C12	380[(1)]	2	< 1.0
Aromatic C12-C16	660[(1)]	2	<1.0
Aromatic C16-C21	930[(1)]	2	2.5
Aromatic C21-C35	1,700[(1)]	2	42

[(1)] = The LQM/CIEH Suitable 4 Use Levels (Residential with homegrown produce land-use, 6% SOM) GEOL S4UL3816, [(2)] = ATRISK[SOIL] SSV (2015), [(3)] = CL:AIRE C4SLs (Residential with homegrown produce land-use)

7.0 Laboratory Testing (Cont'd)

7.3 Ground Contamination Risk Assessment

Dibenzo(a,h)anthracene was recorded above the screening level of 0.3mg/kg in samples of topsoil from BH03 (0.47mg/kg) and BH04 (0.52mg/kg) based on a Residential with homegrown produce land-use. Additional assessment to investigate elevated PAH results in the form of a source signature double ratio plot suggested that the most likely source of the elevated readings was from possible tarmac fragments in the sample from BH03 and possible asphalt fragments in the sample from BH04 influencing the results.

The topsoil deposits within these parts of the site (BH03 and BH04) are therefore not be suitable for re-use in domestic gardens as they represent an unacceptable level of risk to future end users. The primary pathway risk driver for these particular contaminants is ingestion of soil and indoor dust, with some contribution from the consumption of homegrown produce and attached soil.

The findings of the risk assessment have identified that the PAH contamination present within the topsoil will require remediation to negate the risks posed to future end users where exposure pathways will be present post-completion of the development, i.e. where areas of private gardens are present. When considering these risks, further sampling and testing is advised centred on BH03 and BH04 in order to attempt to delineate the extent of the PAH contamination.

As such, there will be a requirement for the completion of a Remediation Strategy and a Validation Report on completion of the remediation works specific to ground contamination present on this site.

Although no asbestos fibres were detected , precautions will need to be taken with regards to protecting the health of all construction workers during the groundworks phase of works. When considering the results of the asbestos screening, whilst it would appear that heavy or gross asbestos contamination is not prevalent across the whole of the site, there is always the possibility that unknown / unrecorded ACM's and loose asbestos may be present. A watching brief for asbestos is advised during the development works.

8.0 Recommendations for New Building Foundations

It is proposed that the site will be re-developed for housing with private gardens, roads and parking areas. All the boreholes were terminated on weathered mudstone bedrock at shallow depth.

Post fieldwork monitoring to date has recorded dry conditions in the gas / groundwater monitoring wells.

8.0 Recommendations for New Building Foundations (Cont'd)

Consideration should therefore be given to traditional strip footings placed wholly in the underlying mudstone deposits. The SPTs confirm the competent nature of these deposits. For the purpose of foundation design it is recommended that an allowable bearing capacity of 150 kPa is assumed for these deposits. Any soft spots in the formation should be removed and the footings deepened to found on competent strata which may require dewatering and trench support.

It would be prudent to make allowance for all foundation excavations to be inspected by a suitably qualified engineer during the construction phase of works, to verify the correct founding strata and depth have been achieved, and to ensure that there are no significant changes or variations in the ground conditions identified as part of these investigation works.

9.0 General Comments

For future site works, adequate lateral trench support will be required for excavations, to prevent trench wall collapse or over excavations, as well as to create a safe working environment below a depth of 1.20m, and any excavations on this site should remain open for as short a period as possible, since some of these materials may be susceptible to deterioration, if left open to the natural elements for any significant period of time.

It is also recommended for any new developments, adequate surface drainage should be designed and installed by a competent contractor, in order to prevent surface water 'ponding' or collection, during and post construction, particularly where the existing surface drainage system is disrupted or damaged.

In addition, for deeper excavations, drainage, service runs or the like that may pass close to or beneath any proposed new foundations, these should be undertaken with care and completed prior to the preparation of any new foundations, so as not to allow any loose or granular material to move or 'flow', thus causing settlement to occur to any new foundations based at a higher level.

It should be noted that there is always the possibility of variation in the ground conditions around and between the borehole locations. Therefore, during the ground preparation works and development of the site, should the ground conditions appear to differ from those identified as part of these investigation works, then advice should be sought from a suitably qualified Geotechnical Engineer to determine if a reassessment of the ground conditions and recommendations are required before the development works progress further.

End of Report

APPENDIX I

Site Location Plan &
Proposed Site Layout Plan

Tectonic House, Unit 11, Queens Court North
Third Avenue, Team Valley Trading Estate
Gateshead, Tyne and Wear
NE11 0BU

Tectonic House, Unit 11, Queens Court North,
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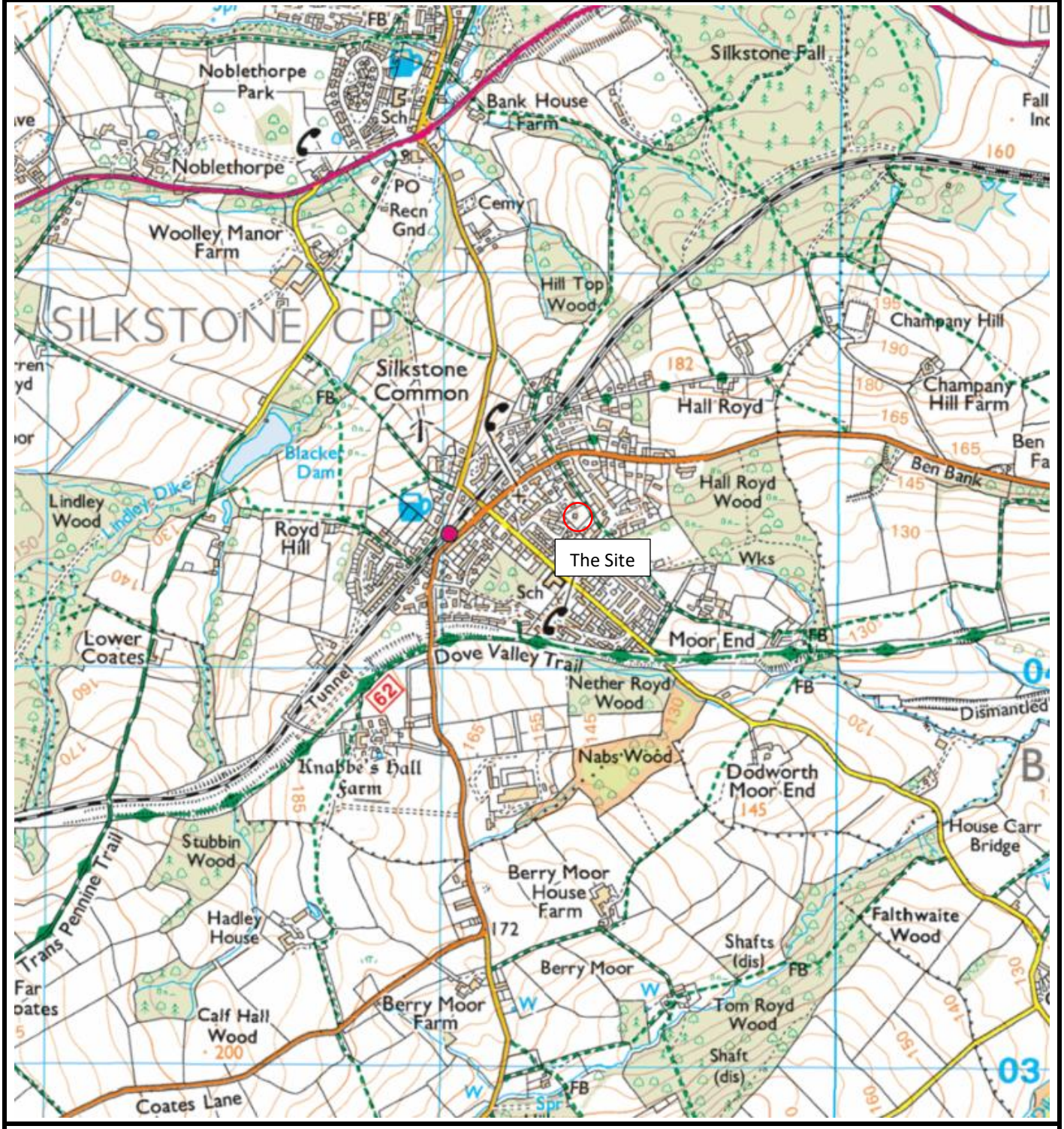
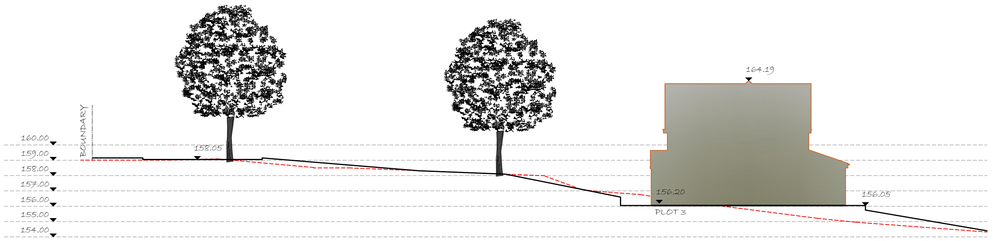


SITE LOCATION PLAN

Report Type: Ground Investigation Report
Site Address: 24 Viewlands, Silkstone Common, Barnsley, S75 4QP
Project No.: GEOL25-6508



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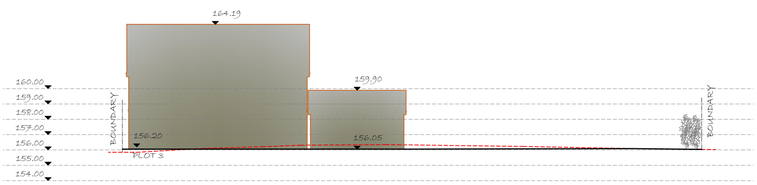

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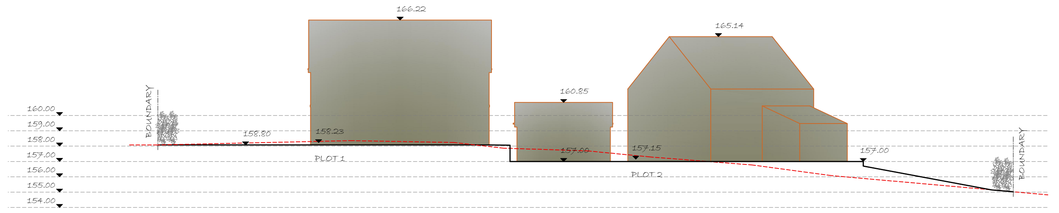
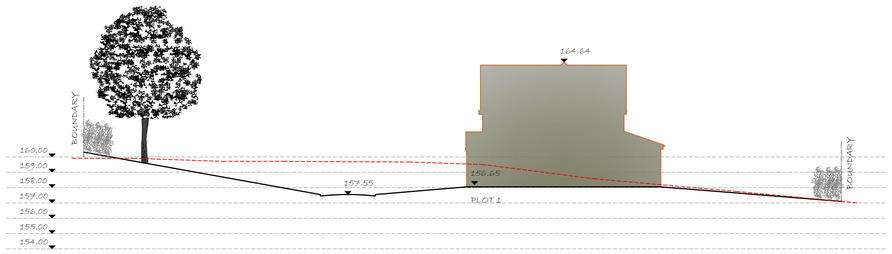


PROPOSED SECTION B-B
SCALE - 1:200



PROPOSED SECTION D-D
SCALE - 1:200

Bins -

Bin storage area allocated for each plot on site (within the site boundaries).

Bins to be put out for collection at the kerb side/ collection point on the collection date and removed after being emptied by Barnsley BMC waste collection services.

NORTH

PROPOSED SITE PLAN
SCALE - 1:200

Note -

E	Electric Vehicle Charging Point Location (EVCP)

1) Single 32 amp external socket to be installed within the detached garage(s) or adjacent to driveway area/parking spaces allowing occupant(s) to upgrade to a charging pod if needed.

2) Minimum IP66 rated socket when positioned externally.

3) Positioning of socket to be 1000mm from ground level.

1) GENERAL BUILDING NOTES

a) All works to be in accordance with Building Regulations, current editions and amendments and to the satisfaction of the Building Control Authority.
b) All works within the contract and by the contractor must be carried out in such a way that all requirements under the Health and Safety at Work Act are satisfied and maintained.
c) All works by the Contractor must be carried out in compliance with the requirements of all British Standards, Codes of Practice etc. and with the requirements of all relevant and current Statutory Authority regulations.
d) All structural calculations if required to be submitted by client appointed Structural Engineers and upgraded as necessary as works proceed to suit any clients requirements.
e) The contractor must ensure and will be held responsible for the stability of the building structure at all stages of the contract.

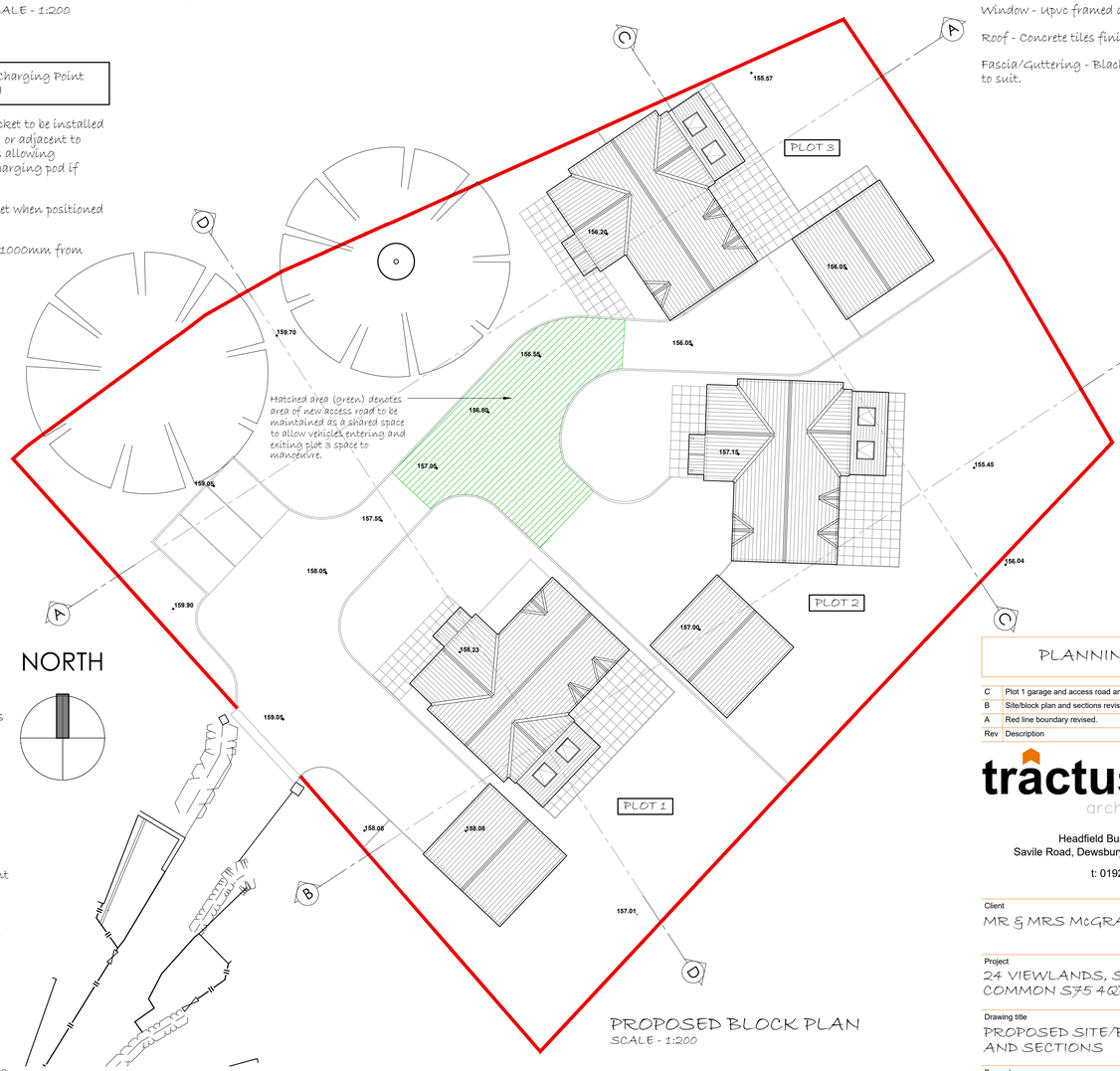
2) APPROVED DOCUMENT A STRUCTURE

a) All structural details and calculations if required to be submitted for approval to Building Control Authority by client appointed Structural Engineer.

CDM 2015

RISKS

1. RESTRICTED ACCESS TO SITE.
2. SITE WELFARE REQUIREMENTS.
3. SITE CLEARANCE.
4. EXCAVATIONS/CONCRETE WORKS.
5. TEMPORARY SUPPORT.
6. WORKING AT HEIGHT.
7. INSTALLATION OF TEMPORARY AND RE-ROUTED SERVICES.
8. HANDLING LOADS.



NORTH

PROPOSED BLOCK PLAN
SCALE - 1:200

NOTES

All efforts have been made in measuring existing site.
However the contractor / builder is responsible, for checking & confirming all given dimensions on site prior to pricing & works.

Extent of boundary ownership confirmed by applicant.

Proposal -

Reserved Matters Application for the demolition of an Existing House and the construction of 3no. New Build Detached Dwellings to meet end-user requirements as illustrated on the application plans.

Materials As Proposed -

Walls - Combination of brickwork to outerleaf with stone quoins including stone head and cills to openings. Through colour render finish to rear elevation.

Doors - Upvc framed doorset(s) with aluminium framed bi-folding door system to rear elevation.

Window - Upvc framed double glazed units.

Roof - Concrete tiles finish.

Fascia/Guttering - Black guttering & downpipes to suit.

PLANNING ISSUE

Rev	Description	Date	By
C	Plot 1 garage and access road amended.	17/08/23	AM
B	Site/block plan and sections revised.	20/03/23	DMA
A	Red line boundary revised.	20/11/20	AM

tractus:dma
architectural design

Headfield Business Centre, Headfield Mills
Savile Road, Dewsbury, West Yorkshire, WF12 9LQ

t: 01924 462 550 m: 07791 717 404
e: asif@tractusad.co.uk

Client
MR & MRS McGRATH

Project
24 VIEWLANDS, SILKSTONE COMMON S75 4QP

Drawing title
PROPOSED SITE/BLOCK PLAN AND SECTIONS

Drawn by		Date	
AM		Sept 2022	
Drawing no	Project no	Scale @ A1	Rev
PL-01	18/544	1:200	C

APPENDIX II

Investigation Location Plan,
Borehole Record Sheets &
Mining Remediation Authority Permit 29699

Tectonic House, Unit 11, Queens Court North
Third Avenue, Team Valley Trading Estate
Gateshead, Tyne and Wear
NE11 0BU

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Gateshead, Tyne and Wear
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Tel: 0191 477 2020
Email: enquiries@geolconsultants.co.uk

INVESTIGATION LOCATION PLAN

Report Type: Ground Investigation Report
Site Address: 24 Viewlands, Silkstone Common, Barnsley, S75 4QP
Project No.: GEOL25-6508

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BOREHOLE LOG

Project				BOREHOLE No
24 Viewlands, Silkstone Common, Barnsley, S75 4QP				BH01
Job No	Date	Ground Level (m)	Co-Ordinates ()	
GEOL25-6508	28-03-25 28-03-25			
Contractor				Sheet
Geol Consultants Limited				1 of 1

SAMPLES & TESTS			Water	STRATA				Geology	Instrument/ Backfill
Depth	Type No	Test Result		Reduced Level	Legend	Depth (Thick-ness)	DESCRIPTION		
0.00-0.10	B					0.15	TOPSOIL: Dark brown, slightly sandy, slightly gravelly clay with roots and rootlets.		
							Light orangish brown and grey, completely weathered MUDSTONE recovered as medium dense, slightly gravelly silt with roots (PENNINE LOWER COAL MEASURES FORMATION).		
0.90-1.00	B					(1.55)			
1.00-1.45	SPT	N=17							
						1.70			
1.90-2.00	B					(0.56)	Light brownish grey with black staining, weathered MUDSTONE (PENNINE LOWER COAL MEASURES FORMATION).		
2.00-2.26	SPT	43 for 105mm				2.26			

Boring Progress and Water Observations						Chiselling			Water Added		GENERAL REMARKS
Date	Time	Depth	Casing Depth	Casing Dia. mm	Water Dpt	From	To	Hours	From	To	

All dimensions in metres Scale 1:50	Client Johnstone Construction Management	Method/ Plant Used Competitor Dart	Logged By MD

AGS3 UK BH GEOL25-6508 LOG.GPJ GINT STD AGS 3_1.GDT 17/04/25

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BOREHOLE LOG

Project				BOREHOLE No
24 Viewlands, Silkstone Common, Barnsley, S75 4QP				**BH02**
Job No	Date	Ground Level (m)	Co-Ordinates ()	
GEOL25-6508	04-04-25 04-04-25			
Contractor				Sheet
Geol Consultants Limited				1 of 1

SAMPLES & TESTS			Water	STRATA				Geology	Instrument/ Backfill
Depth	Type No	Test Result		Reduced Level	Legend	Depth (Thick-ness)	DESCRIPTION		
0.00-0.15	ES					0.15	TOPSOIL: Dark brown, slightly gravelly, fine to coarse SAND with roots and rootlets.		
0.15-1.00	B					(1.30)	Light brownish grey, weathered MUDSTONE recovered as very dense, slightly gravelly silt (PENNINE LOWER COAL MEASURES FORMATION).		
1.00-1.45	SPT	N=105				1.45			

Boring Progress and Water Observations						Chiselling			Water Added		GENERAL REMARKS
Date	Time	Depth	Casing Depth	Casing Dia. mm	Water Dpt	From	To	Hours	From	To	

All dimensions in metres Scale 1:50	Client Johnstone Construction Management	Method/ Plant Used Competitor Dart	Logged By MD

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BOREHOLE LOG

Project				BOREHOLE No
24 Viewlands, Silkstone Common, Barnsley, S75 4QP				BH03
Job No	Date	Ground Level (m)	Co-Ordinates ()	
GEOL25-6508	04-04-25 04-04-25			
Contractor				Sheet
Geol Consultants Limited				1 of 1

SAMPLES & TESTS			Water	STRATA				Geology	Instrument/ Backfill
Depth	Type No	Test Result		Reduced Level	Legend	Depth (Thick-ness)	DESCRIPTION		
0.00-0.10	ES					0.10	TOPSOIL: Dark brown, slightly sandy clay with roots and rootlets.		
0.10-0.20	B					0.20	Light brownish grey, completely weathered MUDSTONE recovered as slightly gravelly silt with roots (PENNINE LOWER COAL MEASURES FORMATION).		
0.80-1.00	B					(1.30)	Light brownish grey, weathered MUDSTONE recovered as dense, angular, fine to coarse gravel (PENNINE LOWER COAL MEASURES FORMATION).		
1.00-1.45	SPT	N=41				1.50			
1.50-1.70	B					(0.55)	Light brownish grey, weathered MUDSTONE (PENNINE LOWER COAL MEASURES FORMATION).		
2.00-2.05	SPT	102 for 220mm				2.05			

Boring Progress and Water Observations						Chiselling			Water Added		GENERAL REMARKS
Date	Time	Depth	Casing Depth	Casing Dia. mm	Water Dpt	From	To	Hours	From	To	No groundwater encountered.

All dimensions in metres Scale 1:50	Client Johnstone Construction Management	Method/ Plant Used Competitor Dart	Logged By MD

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BOREHOLE LOG

Project				BOREHOLE No
24 Viewlands, Silkstone Common, Barnsley, S75 4QP				BH04
Job No	Date	Ground Level (m)	Co-Ordinates ()	
GEOL25-6508	04-04-25 04-04-25			
Contractor				Sheet
Geol Consultants Limited				1 of 1

SAMPLES & TESTS			Water	STRATA				Geology	Instrument/ Backfill
Depth	Type No	Test Result		Reduced Level	Legend	Depth (Thick-ness)	DESCRIPTION		
0.00-0.10	ES					0.10	TOPSOIL: Dark brown, slightly gravelly, fine to coarse sand with roots and rootlets.		
0.10-0.20	B					0.20	Light brownish grey, completely weathered MUDSTONE recovered as slightly gravelly, sandy silt with roots (PENNINE LOWER COAL MEASURES FORMATION).		
						(0.80)			
0.80-1.00	B					1.00	Light brownish grey, weathered MUDSTONE recovered as angular, fine to coarse gravel (PENNINE LOWER COAL MEASURES FORMATION).		
1.00-1.45	SPT	N=65					Light brownish grey, weathered MUDSTONE (PENNINE LOWER COAL MEASURES FORMATION).		
1.40-1.60	B					(1.18)			
2.00-2.18	SPT	50 for 100mm				2.18			

Boring Progress and Water Observations						Chiselling			Water Added		GENERAL REMARKS
Date	Time	Depth	Casing Depth	Casing Dia. mm	Water Dpt	From	To	Hours	From	To	No groundwater encountered.

All dimensions in metres Scale 1:50	Client Johnstone Construction Management	Method/ Plant Used Competitor Dart	Logged By MD

AGS3 UK BH GEOL25-6508 LOG.GPJ GINT STD AGS 3_1.GDT 17/04/25

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BOREHOLE LOG

Project				BOREHOLE No
24 Viewlands, Silkstone Common, Barnsley, S75 4QP				BH05
Job No	Date	Ground Level (m)	Co-Ordinates ()	
GEOL25-6508	04-04-25 04-04-25			
Contractor				Sheet
Geol Consultants Limited				1 of 1

SAMPLES & TESTS			Water	STRATA				Geology	Instrument/ Backfill
Depth	Type No	Test Result		Reduced Level	Legend	Depth (Thick-ness)	DESCRIPTION		
0.00-0.27	ES					0.27	TOPSOIL: Dark brown, slightly sandy, slightly gravelly clay with roots and rootlets.		
0.27-0.77	B					(0.50) 0.77	Light brownish grey, weathered MUDSTONE recovered as slightly clayey, angular, fine to coarse gravel (PENNINE LOWER COAL MEASURES FORMATION).		
0.80-1.00	B					1.10	Light brownish grey with orange staining, weathered MUDSTONE recovered as slightly clayey, angular, fine to coarse gravel (PENNINE LOWER COAL MEASURES FORMATION).		
1.00-1.45	SPT	N=34							
1.80-2.00	B					(1.35)	Light brownish grey with orange and black staining, weathered MUDSTONE recovered as dense and very dense, slightly clayey, angular, fine to coarse gravel (PENNINE LOWER COAL MEASURES FORMATION).		
2.00-2.45	SPT	N=95				2.45			

Boring Progress and Water Observations						Chiselling			Water Added		GENERAL REMARKS
Date	Time	Depth	Casing Depth	Casing Dia. mm	Water Dpt	From	To	Hours	From	To	No groundwater encountered.

All dimensions in metres Scale 1:50	Client Johnstone Construction Management	Method/ Plant Used Competitor Dart	Logged By MD

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ROTARY BOREHOLE LOG

Project				BOREHOLE No.
24 Viewlands, Silkstone Common, Barnsley, S75 4QP				RBH01
Job No	Date	Ground Level (m)	Co-Ordinates ()	
GEOL25-6508	08-04-25 08-04-25			
Contractor				Sheet
Geol Consultants Limited				1 of 4

RUN DETAILS				STRATA					
Depth Date	TCR (SCR) RQD	(SPT) Fracture Spacing	Red'cd Level	Legend	Depth (Thick- ness)	DESCRIPTION Main		Geology	Instrument/ Backfill
					0.20	TOPSOIL: Grass over dark brown soil (Driller's Description).			
					(1.02) 1.22	Firm orange and brown CLAY (Driller's Description).			
					(0.61) 1.83	Light brown, weathered MUDSTONE (Driller's Description).			
					(2.74) 4.57	Light brown and light grey, sandy MUDSTONE with SANDSTONE bands (Driller's Description).			
					(1.53) 6.10	Grey MUDSTONE with light brown sandy MUDSTONE bands (Driller's Description).			
					(1.22) 7.32	Black intact banded COAL with carbonaceous MUDSTONE (Driller's Description).			
						Light grey SILTSTONE / MUDSTONE (Driller's Description).			

Drilling Progress and Water Observations						
Date	Time	Depth	Casing	Core Dia mm	Water Strike	Water Standing

Rotary Flush			
From	To	Type	Returns
0	18.90	water	100

GENERAL REMARKS

Full flush returns from 0.00m to 18.90m.

Partial loss of flush below 18.90m to base of borehole.

No gas detected.

All dimensions in metres Scale 1:62.5	Client Johnstone Construction Management	Method/ Plant Used GEOL Rotary Rig	Logged By Driller

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ROTARY BOREHOLE LOG

Project				BOREHOLE No.
24 Viewlands, Silkstone Common, Barnsley, S75 4QP				**RBH01**
Job No	Date	Ground Level (m)	Co-Ordinates ()	
GEOL25-6508	08-04-25 08-04-25			
Contractor				Sheet
Geol Consultants Limited				2 of 4

RUN DETAILS						STRATA		
Depth Date	TCR (SCR) RQD	(SPT) Fracture Spacing	Red'cd Level	Legend	Depth (Thick- ness)	DESCRIPTION Main	Geology	Instrument/ Backfill
					(6.09) 13.41	Light grey SILTSTONE / MUDSTONE (Driller's Description). *(continued)*		
					(5.49) 18.90	Light grey SILTSTONE / SANDSTONE with occasional MUDSTONE bands (Driller's Description).		
						Hard SANDSTONE some sandy partings (Driller's Description).		

Drilling Progress and Water Observations

Date	Time	Depth	Casing	Core Dia mm	Water Strike	Water Standing

Rotary Flush

From	To	Type	Returns
18.9	30.18	water	30

GENERAL REMARKS

Full flush returns from 0.00m to 18.90m.

Partial loss of flush below 18.90m to base of borehole.

No gas detected.

All dimensions in metres Scale 1:62.5	Client Johnstone Construction Management	Method/ Plant Used GEOL Rotary Rig	Logged By Driller

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ROTARY BOREHOLE LOG

Project				BOREHOLE No.
24 Viewlands, Silkstone Common, Barnsley, S75 4QP				**RBH01**
Job No	Date	Ground Level (m)	Co-Ordinates ()	
GEOL25-6508	08-04-25 08-04-25			
Contractor				Sheet
Geol Consultants Limited				3 of 4

RUN DETAILS				STRATA				
Depth Date	TCR (SCR) RQD	(SPT) Fracture Spacing	Red'cd Level	Legend	Depth (Thick- ness)	DESCRIPTION Main	Geology	Instrument/ Backfill
					(11.28)	Hard SANDSTONE some sandy partings (Driller's Description). *(continued)*		

Drilling Progress and Water Observations							Rotary Flush				GENERAL REMARKS
Date	Time	Depth	Casing	Core Dia mm	Water Strike	Water Standing	From	To	Type	Returns	
											Full flush returns from 0.00m to 18.90m. Partial loss of flush below 18.90m to base of borehole. No gas detected.

All dimensions in metres Scale 1:62.5	Client Johnstone Construction Management	Method/ Plant Used GEOL Rotary Rig	Logged By Driller

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ROTARY BOREHOLE LOG

Project				BOREHOLE No.
24 Viewlands, Silkstone Common, Barnsley, S75 4QP				RBH01
Job No	Date	Ground Level (m)	Co-Ordinates ()	
GEOL25-6508	08-04-25 08-04-25			
Contractor				Sheet
Geol Consultants Limited				4 of 4

RUN DETAILS					STRATA			
Depth Date	TCR (SCR) RQD	(SPT) Fracture Spacing	Red'cd Level	Legend	Depth (Thick- ness)	DESCRIPTION Main	Geology	Instrument/ Backfill
					30.18			
						Borehole terminated at a depth of 30.18m. All descriptions are based purely on drillers interpretation of the cuttings bought to the surface and the drilling rates maintained during the drilling process.		

Drilling Progress and Water Observations							Rotary Flush				GENERAL REMARKS
Date	Time	Depth	Casing	Core Dia mm	Water Strike	Water Standing	From	To	Type	Returns	
											Full flush returns from 0.00m to 18.90m. Partial loss of flush below 18.90m to base of borehole. No gas detected.

All dimensions in metres Scale 1:62.5	Client Johnstone Construction Management	Method/ Plant Used GEOL Rotary Rig	Logged By Driller

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ROTARY BOREHOLE LOG

Project				BOREHOLE No.
24 Viewlands, Silkstone Common, Barnsley, S75 4QP				**RBH02**
Job No	Date	Ground Level (m)	Co-Ordinates ()	
GEOL25-6508	09-04-25 09-04-25			
Contractor				Sheet
Geol Consultants Limited				1 of 2

RUN DETAILS				STRATA				
Depth Date	TCR (SCR) RQD	(SPT) Fracture Spacing	Red'cd Level	Legend	Depth (Thick- ness)	DESCRIPTION Main	Geology	Instrument/ Backfill
					0.20	TOPSOIL: Grass over dark brown soil (Driller's Description).		
					(0.56) 0.76	Firm orange and brown CLAY (Driller's Description).		
					(0.61) 1.37	Possible Rock - sandy MUDSTONE (Driller's Description).		
					1.83	Sandy MUDSTONE (Driller's Description).		
					(1.83) 3.66	SANDSTONE (Driller's Description).		
					(3.96) 7.62	Light brown and grey SANDSTONE with sandy MUDSTONE bands (Driller's Description).		
					(1.83) 9.45	Grey MUDSTONE / SILTSTONE with light brown SANDSTONE bands (Driller's Description).		
						Black intact banded COAL with carbonaceous MUDSTONE (Driller's Description).		

Drilling Progress and Water Observations						
Date	Time	Depth	Casing	Core Dia mm	Water Strike	Water Standing

Rotary Flush			
From	To	Type	Returns
0	13.10	water	100

GENERAL REMARKS

Full flush returns from 0.00m to 13.10m.

No gas detected.

All dimensions in metres Scale 1:62.5	Client Johnstone Construction Management	Method/ Plant Used GEOL Rotary Rig	Logged By Driller

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ROTARY BOREHOLE LOG

Project				BOREHOLE No.
24 Viewlands, Silkstone Common, Barnsley, S75 4QP				**RBH02**
Job No	Date	Ground Level (m)	Co-Ordinates ()	
GEOL25-6508	09-04-25 09-04-25			
Contractor				Sheet
Geol Consultants Limited				2 of 2

RUN DETAILS				STRATA					
Depth Date	TCR (SCR) RQD	(SPT) Fracture Spacing	Red'cd Level	Legend	Depth (Thick- ness)	DESCRIPTION Main		Geology	Instrument/ Backfill
					(1.07) 10.52	Black intact banded COAL with carbonaceous MUDSTONE (Driller's Description). *(continued)*			
					(2.58) 13.10	Light grey SILTSTONE / SANDSTONE with occasional MUDSTONE bands (Driller's Description).			
						Borehole terminated at a depth of 13.10m. All descriptions are based purely on drillers interpretation of the cuttings bought to the surface and the drilling rates maintained during the drilling process.			

Drilling Progress and Water Observations							Rotary Flush				GENERAL REMARKS
Date	Time	Depth	Casing	Core Dia mm	Water Strike	Water Standing	From	To	Type	Returns	
											Full flush returns from 0.00m to 13.10m. No gas detected.

All dimensions in metres Scale 1:62.5	Client Johnstone Construction Management	Method/ Plant Used GEOL Rotary Rig	Logged By Driller

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ROTARY BOREHOLE LOG

Project				BOREHOLE No.
24 Viewlands, Silkstone Common, Barnsley, S75 4QP				**RBH03**
Job No	Date	Ground Level (m)	Co-Ordinates ()	
GEOL25-6508	09-04-25 09-04-25			
Contractor				Sheet
Geol Consultants Limited				1 of 3

RUN DETAILS				STRATA				
Depth Date	TCR (SCR) RQD	(SPT) Fracture Spacing	Red'cd Level	Legend	Depth (Thick-ness)	DESCRIPTION Main	Geology	Instrument/ Backfill
					0.20	TOPSOIL: Grass over dark brown soil (Driller's Description).		
					0.61	Firm orange and light brown CLAY (Driller's Description).		
					0.91	Weathered MUDSTONE / Gravelly CLAY (Driller's Description).		
					(2.75) 3.66	Sandy MUDSTONE with SILTSTONE bands (Driller's Description).		
					(3.96) 7.62	Light brown SANDSTONE with light grey MUDSTONE / SILTSTONE bands (Driller's Description).		
					(1.37) 8.99	Light grey MUDSTONE / SILTSTONE with light brown SANDSTONE bands (Driller's Description).		
					(1.07)	Black intact banded COAL with carbonaceous MUDSTONE (Driller's Description).		

Drilling Progress and Water Observations

Date	Time	Depth	Casing	Core Dia mm	Water Strike	Water Standing

Rotary Flush

From	To	Type	Returns
0	9.14	water	100
9.14	25.30	water	50

GENERAL REMARKS

Full flush returns from 0.00m to 9.14m.

Partial loss of flush below 9.14m to base of borehole.

No gas detected.

All dimensions in metres Scale 1:62.5	Client Johnstone Construction Management	Method/ Plant Used GEOL Rotary Rig	Logged By Driller

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ROTARY BOREHOLE LOG

Project				BOREHOLE No.
24 Viewlands, Silkstone Common, Barnsley, S75 4QP				RBH03
Job No	Date	Ground Level (m)	Co-Ordinates ()	
GEOL25-6508	09-04-25 09-04-25			
Contractor				Sheet
Geol Consultants Limited				2 of 3

RUN DETAILS				STRATA				
Depth Date	TCR (SCR) RQD	(SPT) Fracture Spacing	Red'cd Level	Legend	Depth (Thick- ness)	DESCRIPTION Main	Geology	Instrument/ Backfill
					10.06	Light grey SILTSTONE / MUDSTONE (Driller's Description).		
					(15.24)			

Drilling Progress and Water Observations							Rotary Flush				GENERAL REMARKS
Date	Time	Depth	Casing	Core Dia mm	Water Strike	Water Standing	From	To	Type	Returns	
											Full flush returns from 0.00m to 9.14m. Partial loss of flush below 9.14m to base of borehole. No gas detected.

All dimensions in metres Scale 1:62.5	Client Johnstone Construction Management	Method/ Plant Used GEOL Rotary Rig	Logged By Driller

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Tyne and Wear, NE11 0BU
0191 4772020
enquiries@geolconsultants.co.uk

ROTARY BOREHOLE LOG

Project				BOREHOLE No.
24 Viewlands, Silkstone Common, Barnsley, S75 4QP				RBH03
Job No: GEOL25-6508	Date: 09-04-25 09-04-25	Ground Level (m):	Co-Ordinates ():	
Contractor: Geol Consultants Limited				Sheet: 3 of 3

RUN DETAILS				STRATA				
Depth / Date	TCR (SCR) RQD	(SPT) Fracture Spacing	Red'cd Level	Legend	Depth (Thick-ness)	DESCRIPTION Main	Geology	Instrument/ Backfill
						Light grey SILTSTONE / MUDSTONE (Driller's Description). *(continued)*		
					25.30	Borehole terminated at a depth of 25.30m. All descriptions are based purely on drillers interpretation of the cuttings bought to the surface and the drilling rates maintained during the drilling process.		

Drilling Progress and Water Observations						
Date	Time	Depth	Casing	Core Dia mm	Water Strike	Water Standing

Rotary Flush			
From	To	Type	Returns

GENERAL REMARKS

Full flush returns from 0.00m to 9.14m.

Partial loss of flush below 9.14m to base of borehole.

No gas detected.

All dimensions in metres Scale 1:62.5	Client: Johnstone Construction Management	Method/ Plant Used: GEOL Rotary Rig	Logged By: Driller

Mining Remediation Authority

Permit to Enter or Disturb
Mining Remediation Authority Interests

Permit 29699

Name and Address of Permit Holder:

Johnstone Construction
Unit 16
Venture One Business Park
Long Acre Close
Holbrook
Sheffield
S20 3FR

Site Location:

24 Viewlands
Silkstone Common
Barnsley
S75 4QP

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

Ground investigation by three boreholes to 30m to determine presence of shallow mine workings

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

Conditions:

- *Manned entry (i.e.) into mine entries/workings) is strictly prohibited.*
- *Water flush*
- *Gas Monitoring CO, CH_4, CO_2, O_2, H_2S at borehole and rig*
- *Operators undertaking the work must be in possession of this certificate and the Permit boundary plan at the time of works*
- *Appropriate borehole sealing without delay and to withstand site level changes*

Signed: Helen Day Granted Date: ***30 April 2025***

For and on behalf of the Mining Remediation Authority

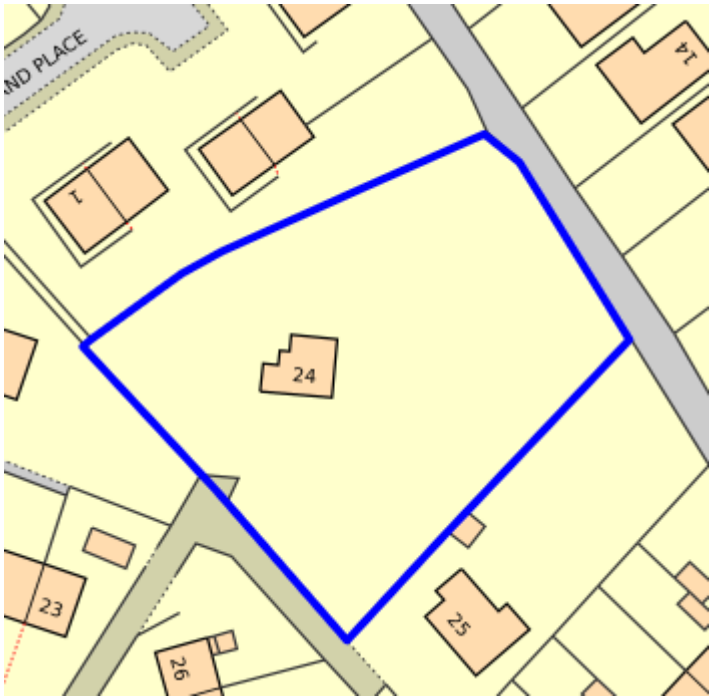
Nominated Representative: Helen Day, Permitting Manager;
Mining Remediation Authority, Permitting Office, 200 Lichfield Lane, Mansfield, Notts, NG18 4RG
Tel: 01623 637450; E-Mail: permissions@coal.gov.uk

Mining Remediation Authority

Granted Permit Boundary

Permit Ref: 29699

Permit Boundary:



APPENDIX III

Laboratory Testing Results

Tectonic House, Unit 11, Queens Court North
Third Avenue, Team Valley Trading Estate
Gateshead, Tyne and Wear
NE11 0BU

Eurofins Chemtest Ltd
Depot Road
Newmarket
CB8 0AL
Tel: 01638 606070
Email: info@chemtest.com

Amended Report

Report No.:	25-13410-2		
Initial Date of Issue:	01-May-2025	**Date of Re-Issue:**	06-May-2025
Re-Issue Details:	This report has been revised and directly supersedes 25-13410-1 in its entirety		
Client	GEOL Consultants Limited		
Client Address:	Tectonic House Unit 11, Queens Court North Third Avenue, Team Valley Trading Estate Gateshead NE11 0BU		
Contact(s):	Martin Davidson		
Project	GEOL25-6508 24 Viewlands		
Quotation No.:	Q24-35924	**Date Received:**	23-Apr-2025
Order No.:		**Date Instructed:**	23-Apr-2025
No. of Samples:	7		
Turnaround (Wkdays):	5	**Results Due:**	29-Apr-2025
Date Approved:	01-May-2025		

Approved By:

Details: David Smith, Technical Director

For details about application of accreditation to specific matrix types, please refer to the Table at the back of this report

Results - Soil

Project: GEOL25-6508 24 Viewlands

Client: GEOL Consultants Limited				**Chemtest Job No.:**		25-13410	25-13410	25-13410	25-13410	25-13410	25-13410	25-13410
Quotation No.: Q24-35924				**Chemtest Sample ID.:**		1963843	1963844	1963845	1963846	1963847	1963848	1963849
Order No.:				Client Sample Ref.:		Topsoil	Topsoil	Topsoil	Topsoil	Mudstone	Mudstone	Mudstone
				Client Sample ID.:		ES	ES	ES	ES	B	B	B
				Sample Location:		BH02	BH03	BH04	BH05	BH02	BH03	BH04
				Sample Type:		SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
				Top Depth (m):		0.00	0.00	0.00	0.00	0.15	0.80	1.40
				Bottom Depth (m):		0.15	0.10	0.10	0.27	1.00	1.00	1.60
				Date Sampled:		04-Apr-2025	04-Apr-2025	04-Apr-2025	04-Apr-2025	04-Apr-2025	04-Apr-2025	04-Apr-2025
				Asbestos Lab:		DURHAM	DURHAM	DURHAM	DURHAM			
Determinand	**HWOL Code**	**Accred.**	**SOP**	**Units**	**LOD**							
ACM Type		N	2192		N/A	-	-	-	-			
Asbestos Identification		U	2192		N/A	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected			
Moisture		N	2030	%	0.020	13	19	21	17	5.3	7.0	7.5
Soil Colour		N	2040		N/A	Brown	Brown	Brown	Brown	Brown	Brown	Brown
Other Material		N	2040		N/A	Stones, Roots and	Stones, Roots and	Stones, Roots and	Stones, Roots and	Stones and	Stones, Roots and	Stones and
Soil Texture		N	2040		N/A	Loam	Loam	Loam	Loam	Sand	Loam	Sand
pH at 20C		M	2010		4.0	6.9	6.5	7.0	7.0	7.4	7.3	7.4
Sulphate (2:1 Water Soluble) as SO4		M	2120	g/l	0.010	< 0.010	< 0.010	0.010	< 0.010	< 0.010	< 0.010	< 0.010
Cyanide (Free)		M	2300	mg/kg	0.50	[B] < 0.50	[B] < 0.50	[B] 0.60	[B] 0.80			
Arsenic		M	2455	mg/kg	0.5	22	20	16	19			
Cadmium		M	2455	mg/kg	0.10	0.27	0.22	0.14	0.31			
Chromium		M	2455	mg/kg	0.5	15	16	10	29			
Copper		M	2455	mg/kg	0.50	29	25	20	39			
Mercury		M	2455	mg/kg	0.05	0.39	0.15	0.45	0.39			
Nickel		M	2455	mg/kg	0.50	17	16	12	17			
Lead		M	2455	mg/kg	0.50	64	58	51	73			
Selenium		M	2455	mg/kg	0.25	0.67	0.70	0.51	0.84			
Zinc		M	2455	mg/kg	0.50	75	75	57	120			
Chromium (Hexavalent)		N	2490	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50			
Aliphatic VPH >C5-C6	HS_2D_AL	U	2780	mg/kg	0.05		[B] < 0.05		[B] < 0.05			
Aliphatic VPH >C6-C7	HS_2D_AL	U	2780	mg/kg	0.05		[B] < 0.05		[B] < 0.05			
Aliphatic VPH >C7-C8	HS_2D_AL	U	2780	mg/kg	0.05		[B] < 0.05		[B] < 0.05			
Aliphatic VPH >C6-C8 (Sum)	HS_2D_AL	N	2780	mg/kg	0.10		[B] < 0.10		[B] < 0.10			
Aliphatic VPH >C8-C10	HS_2D_AL	U	2780	mg/kg	0.05		[B] < 0.05		[B] < 0.05			
Total Aliphatic VPH >C5-C10	HS_2D_AL	U	2780	mg/kg	0.25		[B] < 0.25		[B] < 0.25			
Aliphatic EPH >C10-C12 MC	EH_2D_AL_#1	M	2690	mg/kg	2.00		[B] 5.4		[B] < 2.0			
Aliphatic EPH >C12-C16 MC	EH_2D_AL_#1	M	2690	mg/kg	1.00		[B] < 1.0		[B] < 1.0			
Aliphatic EPH >C16-C21 MC	EH_2D_AL_#1	M	2690	mg/kg	2.00		[B] 3.3		[B] < 2.0			
Aliphatic EPH >C21-C35 MC	EH_2D_AL_#1	M	2690	mg/kg	3.00		[B] 55		[B] 5.1			
Aliphatic EPH >C35-C40 MC	EH_2D_AL_#1	N	2690	mg/kg	10.00		[B] < 10		[B] < 10			
Total Aliphatic EPH >C10-C35 MC	EH_2D_AL_#1	M	2690	mg/kg	5.00		[B] 65		[B] 8.8			
Total Aliphatic EPH >C10-C40 MC	EH_2D_AL_#1	N	2690	mg/kg	10.00		[B] 65		[B] < 10			
Aromatic VPH >C5-C7	HS_2D_AR	U	2780	mg/kg	0.05		[B] < 0.05		[B] < 0.05			
Aromatic VPH >C7-C8	HS_2D_AR	U	2780	mg/kg	0.05		[B] < 0.05		[B] < 0.05			

Results - Soil

Project: GEOL25-6508 24 Viewlands

Client: GEOL Consultants Limited				**Chemtest Job No.:**		25-13410	25-13410	25-13410	25-13410	25-13410	25-13410	25-13410
Quotation No.: Q24-35924				**Chemtest Sample ID.:**		1963843	1963844	1963845	1963846	1963847	1963848	1963849
Order No.:				Client Sample Ref.:		Topsoil	Topsoil	Topsoil	Topsoil	Mudstone	Mudstone	Mudstone
				Client Sample ID.:		ES	ES	ES	ES	B	B	B
				Sample Location:		BH02	BH03	BH04	BH05	BH02	BH03	BH04
				Sample Type:		SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
				Top Depth (m):		0.00	0.00	0.00	0.00	0.15	0.80	1.40
				Bottom Depth (m):		0.15	0.10	0.10	0.27	1.00	1.00	1.60
				Date Sampled:		04-Apr-2025	04-Apr-2025	04-Apr-2025	04-Apr-2025	04-Apr-2025	04-Apr-2025	04-Apr-2025
				Asbestos Lab:		DURHAM	DURHAM	DURHAM	DURHAM			
Determinand	**HWOL Code**	**Accred.**	**SOP**	**Units**	**LOD**							
Aromatic VPH >C8-C10	HS_2D_AR	U	2780	mg/kg	0.05		[B] < 0.05		[B] < 0.05			
Total Aromatic VPH >C5-C10	HS_2D_AR	U	2780	mg/kg	0.25		[B] < 0.25		[B] < 0.25			
Aromatic EPH >C10-C12 MC	EH_2D_AR_#1	U	2690	mg/kg	1.00		[B] < 1.0		[B] < 1.0			
Aromatic EPH >C12-C16 MC	EH_2D_AR_#1	U	2690	mg/kg	1.00		[B] < 1.0		[B] < 1.0			
Aromatic EPH >C16-C21 MC	EH_2D_AR_#1	U	2690	mg/kg	2.00		[B] 2.5		[B] < 2.0			
Aromatic EPH >C21-C35 MC	EH_2D_AR_#1	U	2690	mg/kg	2.00		[B] 42		[B] 6.1			
Aromatic EPH >C35-C40 MC	EH_2D_AR_#1	N	2690	mg/kg	1.00		[B] 9.6		[B] 1.4			
Total Aromatic EPH >C10-C35 MC	EH_2D_AR_#1	U	2690	mg/kg	5.00		[B] 45		[B] 6.1			
Total Aromatic EPH >C10-C40 MC	EH_2D_AR_#1	N	2690	mg/kg	10.00		[B] 55		[B] < 10			
Total VPH >C5-C10	HS_2D_Total	U	2780	mg/kg	0.50		[B] < 0.50		[B] < 0.50			
Total EPH >C10-C35 MC	EH_2D_Total_#1	U	2690	mg/kg	10.00		[B] 110		[B] 15			
Total EPH >C10-C40 MC	EH_2D_Total_#1	N	2690	mg/kg	10.00		[B] 120		[B] 16			
Total Organic Carbon		M	2625	%	0.20	3.9	3.3	5.6	3.1			
Naphthalene		M	2700	mg/kg	0.10	< 0.10	< 0.10	0.21	< 0.10			
Acenaphthylene		M	2700	mg/kg	0.10	< 0.10	< 0.10	1.0	< 0.10			
Acenaphthene		M	2700	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10			
Fluorene		M	2700	mg/kg	0.10	< 0.10	< 0.10	0.21	< 0.10			
Phenanthrene		M	2700	mg/kg	0.10	< 0.10	0.36	0.41	< 0.10			
Anthracene		M	2700	mg/kg	0.10	< 0.10	< 0.10	0.14	< 0.10			
Fluoranthene		M	2700	mg/kg	0.10	< 0.10	0.58	0.56	0.35			
Pyrene		M	2700	mg/kg	0.10	< 0.10	0.52	0.81	0.64			
Benzo[a]anthracene		M	2700	mg/kg	0.10	< 0.10	0.20	0.42	< 0.10			
Chrysene		M	2700	mg/kg	0.10	< 0.10	0.41	1.2	< 0.10			
Benzo[b]fluoranthene		M	2700	mg/kg	0.10	< 0.10	0.39	0.40	< 0.10			
Benzo[k]fluoranthene		M	2700	mg/kg	0.10	< 0.10	0.79	1.3	< 0.10			
Benzo[a]pyrene		M	2700	mg/kg	0.10	< 0.10	0.45	0.69	< 0.10			
Indeno(1,2,3-c,d)Pyrene		M	2700	mg/kg	0.10	< 0.10	0.19	0.20	< 0.10			
Dibenz(a,h)Anthracene		M	2700	mg/kg	0.10	< 0.10	0.47	0.52	< 0.10			
Benzo[g,h,i]perylene		M	2700	mg/kg	0.10	< 0.10	0.23	0.56	< 0.10			
Total Of 16 PAH's		M	2700	mg/kg	2.0	< 2.0	4.6	8.6	< 2.0			

Deviations

In accordance with UKAS Policy on Deviating Samples TPS 63. Chemtest have a procedure to ensure 'upon receipt of each sample a competent laboratory shall assess whether the sample is suitable with regard to the requested test(s)'. This policy and the respective holding times applied, can be supplied upon request.The reason a sample is declared as deviating is detailed below. Where applicable the analysis remains UKAS/MCERTs accredited but the results may be compromised.

Sample:	Sample Ref:	Sample ID:	Sample Location:	Sampled Date:	Deviation Code(s):	Containers Received:
1963843	Topsoil	ES	BH02	04-Apr-2025	B	Amber Glass 250ml
1963843	Topsoil	ES	BH02	04-Apr-2025	B	Amber Glass 60ml
1963843	Topsoil	ES	BH02	04-Apr-2025	B	Plastic Tub 1000g
1963844	Topsoil	ES	BH03	04-Apr-2025	B	Amber Glass 250ml
1963844	Topsoil	ES	BH03	04-Apr-2025	B	Amber Glass 60ml
1963844	Topsoil	ES	BH03	04-Apr-2025	B	Plastic Tub 1000g
1963845	Topsoil	ES	BH04	04-Apr-2025	B	Amber Glass 250ml
1963845	Topsoil	ES	BH04	04-Apr-2025	B	Amber Glass 60ml
1963845	Topsoil	ES	BH04	04-Apr-2025	B	Plastic Tub 1000g
1963846	Topsoil	ES	BH05	04-Apr-2025	B	Amber Glass 250ml
1963846	Topsoil	ES	BH05	04-Apr-2025	B	Amber Glass 60ml
1963846	Topsoil	ES	BH05	04-Apr-2025	B	Plastic Tub 1000g

Test Methods

SOP	Title	Parameters included	Method summary	Water Accred.
2010	pH Value of Soils	pH at 20°C	pH Meter	
2030	Moisture and Stone Content of Soils(Requirement of MCERTS)	Moisture content	Determination of moisture content of soil as a percentage of its as received mass obtained at <30°C.	
2040	Soil Description(Requirement of MCERTS)	Soil description	As received soil is described based upon BS5930	
2120	Water Soluble Boron, Sulphate, Magnesium & Chromium	Boron; Sulphate; Magnesium; Chromium	Aqueous extraction / ICP-OES	
2192	Asbestos	Asbestos	Polarised light microscopy / Gravimetry	
2300	Cyanides & Thiocyanate in Soils	Free (or easy liberatable) Cyanide; total Cyanide; complex Cyanide; Thiocyanate	Allkaline extraction followed by colorimetric determination using Automated Flow Injection Analyser.	
2455	Acid Soluble Metals in Soils	Metals, including: Arsenic; Barium; Beryllium; Cadmium; Chromium; Cobalt; Copper; Lead; Manganese; Mercury; Molybdenum; Nickel; Selenium; Vanadium; Zinc	Acid digestion followed by determination of metals in extract by ICP-MS.	
2490	Hexavalent Chromium in Soils	Chromium [VI]	Soil extracts are prepared by extracting dried and ground soil samples into boiling water. Chromium [VI] is determined by 'Aquakem 600' Discrete Analyser using 1,5-diphenylcarbazide.	
2625	Total Organic Carbon in Soils	Total organic Carbon (TOC)	Determined by high temperature combustion under oxygen, using an Eltra elemental analyser.	
2690	EPH A/A Split	Aliphatics: >C10–C12, >C12–C16, >C16–C21, >C21– C35, >C35– C40 Aromatics: >C10–C12, >C12–C16, >C16–C21, >C21– C35, >C35– C40	Acetone/Heptane extraction / GCxGC FID detection	
2700	Speciated Polynuclear Aromatic Hydrocarbons (PAH) in Soil by GC-FID	Acenaphthene; Acenaphthylene; Anthracene; Benzo[a]Anthracene; Benzo[a]Pyrene; Benzo[b]Fluoranthene; Benzo[ghi]Perylene; Benzo[k]Fluoranthene; Chrysene; Dibenz[ah]Anthracene; Fluoranthene; Fluorene; Indeno[123cd]Pyrene; Naphthalene; Phenanthrene; Pyrene	Dichloromethane extraction / GC-FID (GC-FID detection is non-selective and can be subject to interference from co-eluting compounds)	
2780	VPH A/A Split	Aliphatics: >C5–C6, >C6–C7,>C7–C8,>C8-C10 Aromatics: >C5–C7,>C7-C8,>C8–C10	Water extraction / Headspace GCxGC FID detection	

Report Information

Key	
U	UKAS accredited
M	MCERTS and UKAS accredited
N	Unaccredited
S	This analysis has been subcontracted to a UKAS accredited laboratory that is accredited for this analysis
SN	This analysis has been subcontracted to a UKAS accredited laboratory that is not accredited for this analysis
T	This analysis has been subcontracted to an unaccredited laboratory
I/S	Insufficient Sample
U/S	Unsuitable Sample
N/E	not evaluated
<	"less than"
>	"greater than"
SOP	Standard operating procedure
LOD	Limit of detection

This report shall not be reproduced except in full, and only with the prior approval of the laboratory.
Any comments or interpretations are outside the scope of UKAS accreditation.
The Laboratory is not accredited for any sampling activities and reported results relate to the samples 'as received' at the laboratory.
Uncertainty of measurement for the determinands tested are available upon request .
None of the results in this report have been recovery corrected.
All results are expressed on a dry weight basis.

The following tests were analysed on samples 'as received' and the results subsequently corrected to a dry weight basis EPH, VPH, TPH, BTEX, VOCs, SVOCs, PCBs, Phenols.

For all other tests the samples were dried at ≤ 30°C prior to analysis.
All Asbestos testing is performed at the indicated laboratory .
Issue numbers are sequential starting with 1 all subsequent reports are incremented by 1.

NEW_ASB	Eurofins Chemtest Limited, 11 Depot Road, Newmarket, CB8 0AL
DURHAM	Eurofins Chemtest Limited, Unit A North Wing, Prospect Business Park, Crookhall Lane, Consett, Co Durham, DH8 7PW

Sample Deviation Codes

As a result of any of the below deviations applying, the test results may be unreliable

A - Date of sampling not supplied
B - Sample age exceeds stability time (sampling to extraction)
C - Sample not received in appropriate containers
D - Broken Container
E - The required amount of sample for analysis was not received
H - Appropriate cooling measures were not taken for sample transportation

Sample Retention and Disposal

All soil samples will be retained for a period of 30 days from the date of receipt.
All water samples will be retained for 14 days from the date of receipt.
Charges may apply to extended sample storage.

Report Information

Water Sample Category Key for Accreditation

DW - Drinking Water
GW - Ground Water
LE - Land Leachate
NA - Not Applicable
PL - Prepared Leachate
PW - Processed Water
RE - Recreational Water
SA - Saline Water
SW - Surface Water
TE - Treated Effluent
TS - Treated Sewage
UL - Unspecified Liquid

Clean Up Codes

NC - No Clean Up
MC - Mathematical Clean Up
FC - Florisil Clean Up

HWOL Acronym System

HS - Headspace analysis
EH - Extractable hydrocarbons – i.e. everything extracted by the solvent
CU - Clean-up – e.g. by Florisil, silica gel
1D - GC – Single coil gas chromatography
Total - Aliphatics & Aromatics
AL - Aliphatics only
AR - Aromatic only
2D - GC-GC – Double coil gas chromatography
#1 - EH_2D_Total but with humics mathematically subtracted
#2 - EH_2D_Total but with fatty acids mathematically subtracted
+ - Operator to indicate cumulative e.g. EH+EH_Total or EH_CU+HS_Total

Asbestos Tests LOD = LOQ

Limit of Detection = Limit of Quantification for asbestos results only

If you require extended retention of samples, please email your requirements to:
customerservices@chemtest.com

APPENDIX IV

Ground Gas Monitoring Record Sheet

Tectonic House, Unit 11, Queens Court North
Third Avenue, Team Valley Trading Estate
Gateshead, Tyne and Wear
NE11 0BU

Ground Gas Monitoring Record Sheet

Visit	Date	Time	Equipment	Weather	Site Engineer	Comments	Borehole Position	Gas Flow (l/hr)	Atmospheric Pressure (mbar)	Atmospheric Pressure Trend	Methane (% v/v)		Methane (% LEL)		Carbon Dioxide (% v/v)		Oxygen (% v/v)		Hydrocarbons (GFM 435 only)		Other Gases (PPM)			Depth to Water (m bgl)	Depth to Base (m bgl)
											Initial	Steady	Initial	Steady	Initial	Steady	Initial	Steady	Hex %	PID Cf	PID (Isobutylene)	H_2S	CO		
1	09/04/2025	15:00	GFM436	Sunny, Calm, 10°C	CA		BH01	<0.1	1014	(Leeds Bradford Airport) Rising 1023 -1028		0.0		0.0		4.2		17.1	0.000	1.0		0	0	DRY	2.05
							BH03	<0.1	1015			0.0		0.0		1.8		19.7	0.000	2.0		0	20	DRY	1.77
							BH04	<0.1	1015			0.0		0.0		2.4		15.8	0.000	1.0		0	20	DRY	1.62
2	22/04/2025	12:10	GFM436	Sunny spells, Calm, 15°C	IH		BH01	<0.1	997	Rising 1009 - 1014		0.0		0.0		4.2		17.2	0.000	1.0		0	0	DRY	2.05
							BH03	<0.1	997			0.0		0.0		1.1		19.8	0.000	1.0		0	0	DRY	1.77
							BH04	<0.1	997			0.0		0.0		2.1		18.5	0.000	1.0		0	0	DRY	1.62
3																									
4																									
5																									
6																									

APPENDIX V

Mining Remediation Authority
Consultants Coal Mining Report

Tectonic House, Unit 11, Queens Court North
Third Avenue, Team Valley Trading Estate
Gateshead, Tyne and Wear
NE11 0BU

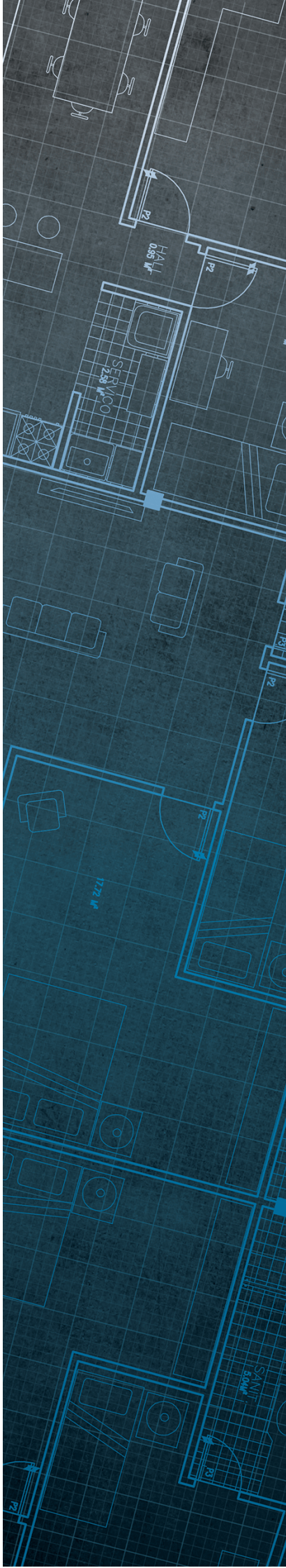
The Coal Authority

Consultants

Coal Mining Report

24 Viewlands
Silkstone Common
Barnsley
Barnsley
S75 4QP

Date of enquiry:	**8 April 2025**
Date enquiry received:	**8 April 2025**
Issue date:	**8 April 2025**
Our reference:	**51003490670001**
Your reference:	**GEOL25-6508**



Consultants

Coal Mining Report

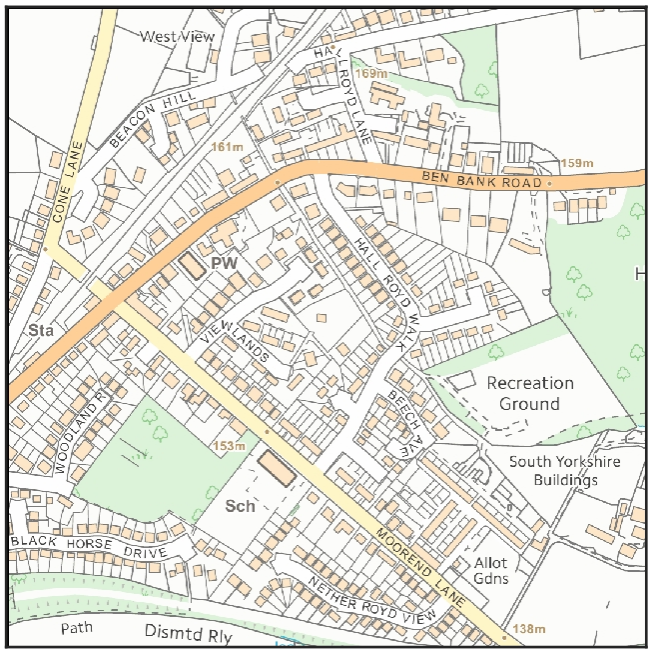
This report is based on and limited to the records held by the Coal Authority at the time the report was produced.

Client name

GEOL CONSULTANTS LIMITED

Enquiry address

24 Viewlands
Silkstone Common
Barnsley
Barnsley
S75 4QP



Approximate position of property

Map data

How to contact us

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200 Lichfield Lane
Mansfield
Nottinghamshire
NG18 4RG

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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
SILKSTONE MAIN	WHEATLEY LIME	Coal	6O9R	28	Beneath Property	7.2	North-East	135	1926
SOVEREIGN	SILKSTONE	Coal	6O9S	59	Beneath Property	5.0	North-East	193	1871
WEST SILKSTONE	WHINMOOR	Coal	6O9V	105	Beneath Property	6.3	North-East	90	1912
unnamed	WHINMOOR	Coal	6O9U	126	North-East	7.7	North-East	90	1963

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:

SY157	7328	M690
5876	PO0	M203
M226	18508 (NR PED2-377)	M3

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

Please contact us on 0345 762 6848 to determine the exact abandoned mine plans you require based on your needs.

Outcrops

Seam name	Mineral	Seam workable	Distance to outcrop (m)	Direction to outcrop	Bearing of outcrop
MIDDLETON MAIN	Coal	Yes	6.8	South-West	315

Geological faults, fissures and breaklines

No faults, fissures or breaklines recorded.

Opencast mines

Please refer to the “Summary of findings” map (on separate sheet) for details of any opencast areas within 500 metres of the enquiry boundary.

Coal Authority managed tips

None recorded within 500 metres of the enquiry boundary.

Section 2 – Investigative or remedial activity

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

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

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

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

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

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

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

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

Section 3 – Licensing and future mining activity

Future underground mining
None recorded.

Coal mining licensing
None recorded within 200 metres of the enquiry boundary.

Court orders
None recorded.

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

Withdrawal of support notices
The property is not in an area where a notice to withdraw support has been given.

The property is not in an area where a notice has been given under section 41 of the Coal Industry Act 1994, cancelling the entitlement to withdraw support.

Payments to owners of former copyhold land
The property is not in an area where a relevant notice has been published under the Coal Industry Act 1975/Coal Industry Act 1994.

Section 4 – Further information

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

Future development

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

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

Development advice

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

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

Section 5 – Data definitions

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

Past underground coal mining

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

Probable unrecorded shallow workings

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

Spine roadways at shallow depth

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

Mine entries

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

Abandoned mine plan catalogue numbers

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

Outcrops

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

Geological faults, fissures and breaklines

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

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

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

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

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

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

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

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

Mine gas
Reports of alleged mine gas emissions received by the Coal Authority, either within or within 500 metres of the enquiry boundary that subsequently required investigation and action by the Coal Authority to mitigate the effects of the mine gas emission. Please note, if there are no recorded instances of mine gas reported, this does not mean that mine gas is not present within the vicinity. The Coal Authority Mine Gas data is limited to only those sites where a Mine Gas incident has been recorded.

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

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

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

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

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

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

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

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

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

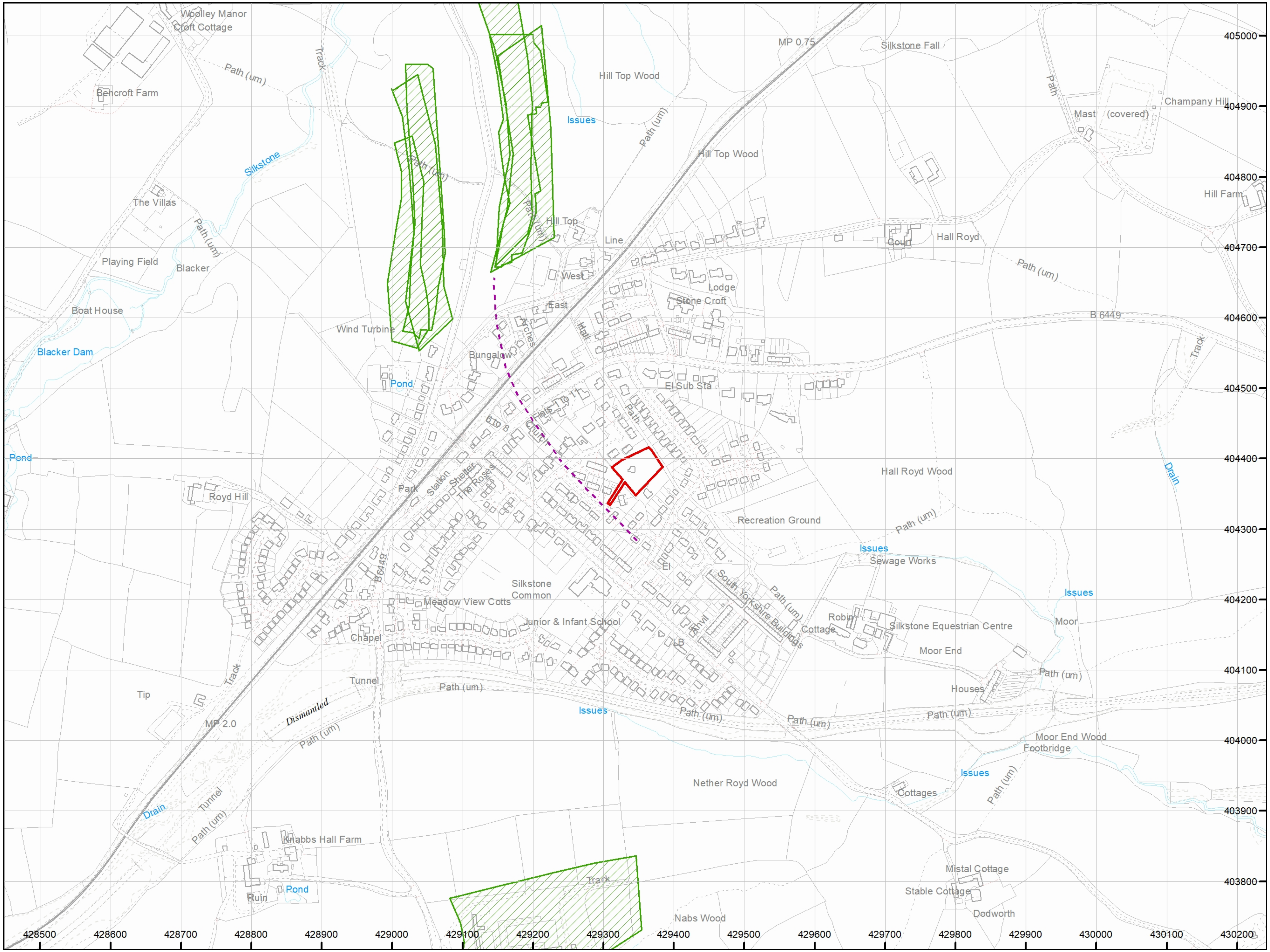
The Coal Authority

Summary of findings

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

Key

- Approximate position of the enquiry boundary shown
- Outcrop (Conjectured)
- Unlicensed opencast site



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