



**Earth Environmental**  
& Geotechnical

## Coal Mining Risk Assessment

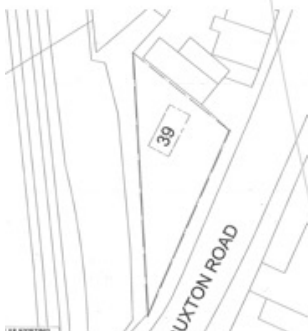
39 Buxton Road

Whaley Bridge

August 2016

On behalf of

Galley Bar Company



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**39 BUXTON ROAD**

**WHALEY BRIDGE**



**COAL MINING RISK ASSESSMENT**

**FOR**

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**Report No. A1584/G/1**

**August 2016**

<b>Report Title:</b>	<b>39 Buxton Road, Whaley Bridge Coal Mining Risk Assessment</b>
<b>Report Reference:</b>	<b>A1584/G/1</b>
<b>Client:</b>	<b>Galley Bar Company</b>
<b>Issue Date:</b>	<b>7<sup>th</sup> August 2016</b>
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## 1.0 INTRODUCTION

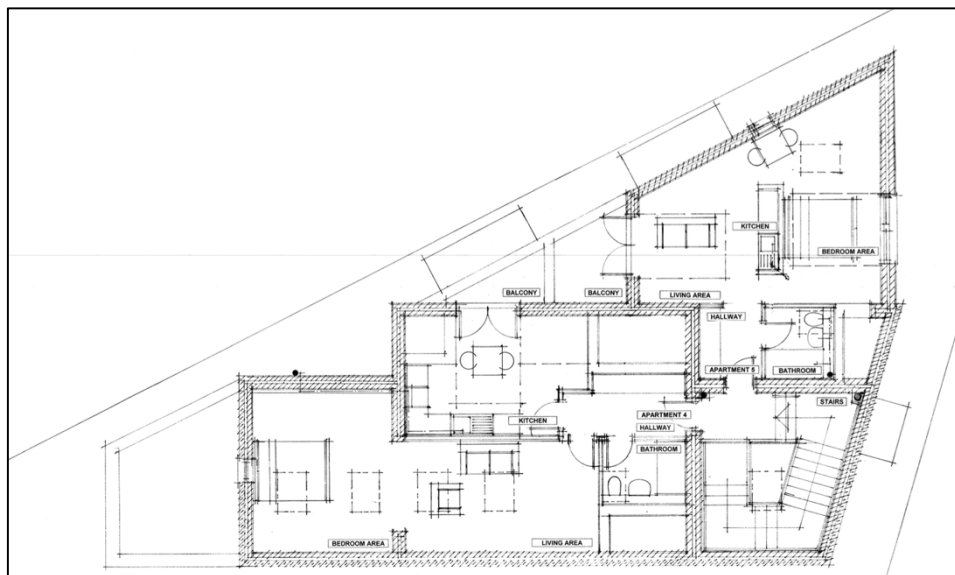
### Appointment

- 1.1 Earth Environmental & Geotechnical Ltd was commissioned by Plan:8 Town Planning Ltd on behalf of Galley Bar Company (the client) to undertake a Coal Mining Risk Assessment for a proposed development at 39 Buxton Road, Whaley Bridge.

### Proposed Development

- 1.2 A planning application has been submitted to High Peak Borough Council for the demolition of existing building & erection of a three storey building with part-basement, roof space utilised to form a restaurant & cafe bar at ground floor & self-contained flat within the roof space.
- 1.3 Figure 1 (below) shows a development layout plan provided by the client.

**Figure 1 Development Layout Plan**



- 1.4 A Coal Mining Risk Assessment is required to support a planning application to High Peak Borough Council and to assist with the site design process.

### Objective

- 1.5 The purpose of the Coal Mining Risk Assessment is to collate available geological, mining and historical data in order to assess the potential for the site to be affected by underground mining. This report has been drafted in accordance with the Coal Authority Coal Mining Risk Assessment Template, January 2011.

## **Sources of Information**

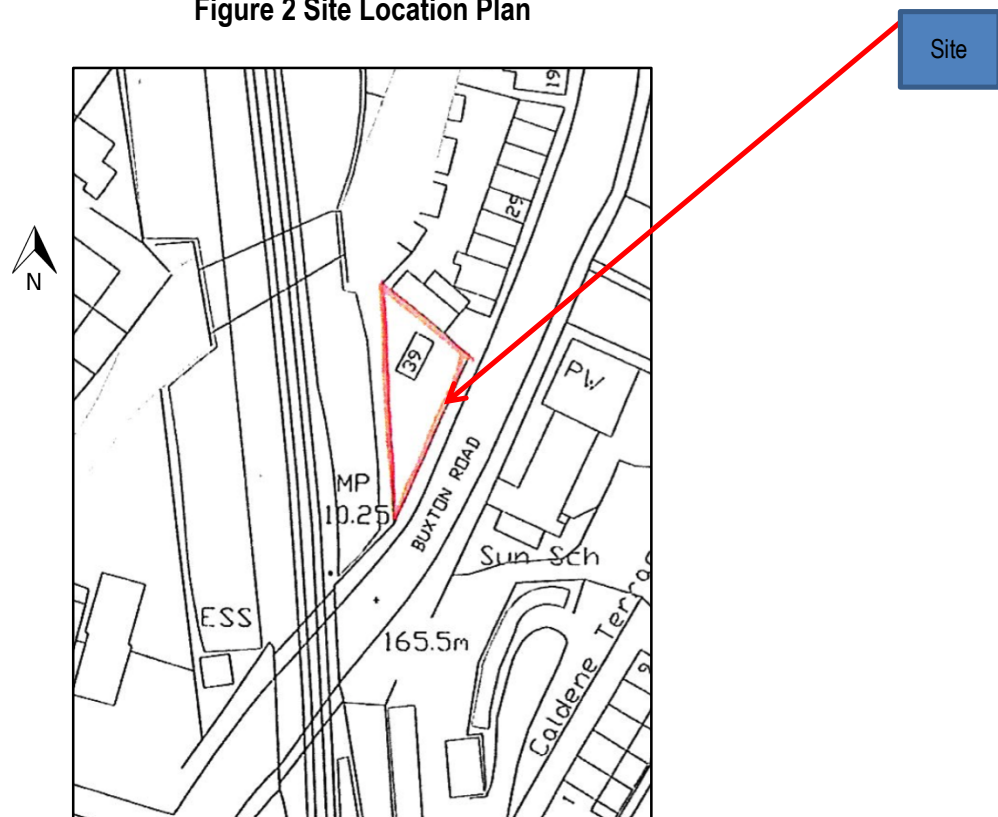
1.6 The Coal Mining Risk Assessment comprises of a review of the following information sources:

- Online British Geological Survey maps and data.
- Geological Survey of England & Wales, SK08SW, 1/10,560 scale, edition of 1965.
- Coal Authority Consultants Mining Report, dated 7<sup>th</sup> August 2016.
- Coal Authority Interactive Map Viewer.
- British Geological Survey online borehole records.
- Google Earth imagery.
- Online Historical Ordnance Survey maps.
- High Peak Borough Council, planning portal.

## 2.0 SITE LOCATION AND DESCRIPTION

- 2.1 The site is located adjacent to a residential area and the approximate National Grid Reference for the centre of the site is SK01183 401183, at postcode SK23 7HT.
- 2.2 The site is the Taxi Office located on Buxton Road, adjacent to (to the south of) the Memories of India Restaurant in Whaley Bridge. The site is not within a Conservation Area but is within the defined town centre of Whaley Bridge. As described within the High peak Urban Capacity Study of 2003 Whaley Bridge "Whaley Bridge has an attractive town centre most of which lies within the Conservation Area designated in 1994.
- 2.3 There is a single storey building on the site at present that is not of any architectural interest which does not add to the streetscene. The triangular shaped site is flat although it is bounded and framed by the railway embankment to the west and south sides. The railway bridge that crosses Buxton Road also frames the site. To the north is the modern suburban looking Memories of India beyond which are long terraces of stone properties all within the town centre of Whaley Bridge. The United Reform Church opposite the site is stone built with slate roof and is of substantial construction with some relief within the elevations. The Church is framed by the hill behind it and to an extent by the railway bridge.
- 2.4 The site has a frontage onto Buxton Road of some 30m which is currently defined by a low stone wall whilst the rear boundary has a low natural stone retaining wall supporting the embankment to the railway.
- 2.5 A location plan showing the surrounding area is shown below as Figure 2.

**Figure 2 Site Location Plan**



### **3.0 ASSESSMENT OF DATA**

#### **Geological Information**

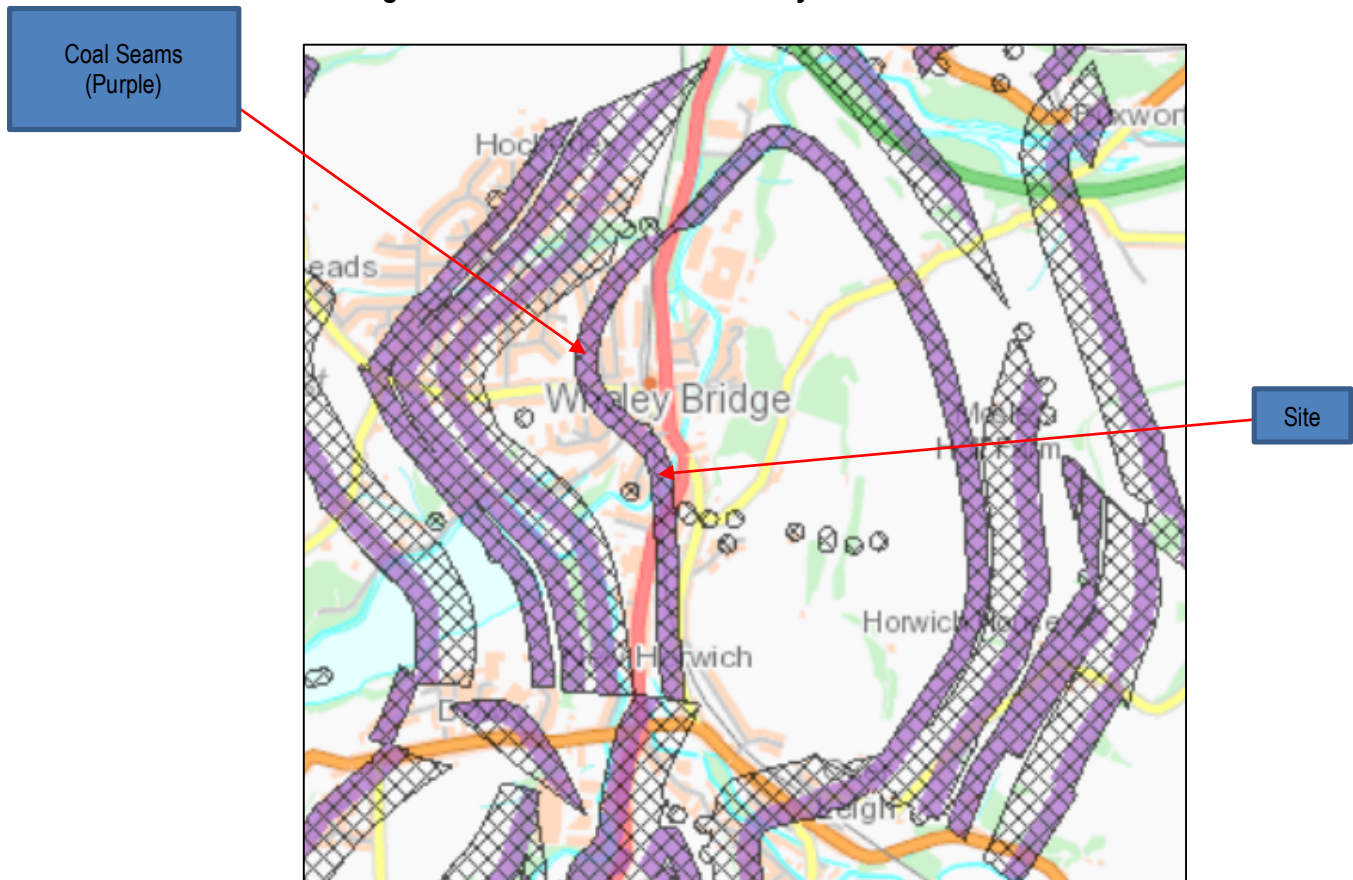
- 3.1 The geology of the site has been determined from acquisition of geological maps for the area and examination of Coal Authority records. The British Geological Survey (BGS) map and online maps shows superficial deposits to be present with alluvium, consisting of clay, silt, sand and gravel.
- 3.2 The alluvium is underlain by the Pennine Lower Coal Measures Formation consisting of mudstone, siltstone, sandstone and coal seams.
- 3.3 The BGS online borehole database reveals an absence of any records within the area, which could allow for a better understanding of the local geology and mining regime.
- 3.4 Local strata are indicated on the geological map to dip to the east at an angle of approximately ten degrees.
- 3.5 The Big Smut coal seam is conjectured as outcropping to the west of the site and could be present beneath the site at shallow depth (less than 30m from the surface).
- 3.6 Information suggests that the Big Smut coal seam reaches a maximum thickness of 0.30m.

#### **Coal Authority Records**

- 3.7 A Coal Authority Mining Report has been acquired for the site and this reveals that there are proven coal mineworkings below the site, with the Bassey Coal Seam (1.40m thick) at a depth of 102m. This was last worked in 1895.
- 3.8 Probable unrecorded coal workings at shallow depth are stated as being absent.
- 3.9 The nearest coal outcrop is the Upper Mountain coal seam, 32m to the west of the site.
- 3.10 No damage notices, mine gas emissions, or opencast sites are recorded.
- 3.11 There are no mine shafts within 20m of the site boundary.
- 3.12 Examination of the Coal Authority online interactive map viewer shows that the site is within a Development High Risk Area, associated with the Big Smut coal seam outcrop.



Figure 3 Extract from Coal Authority Online Interactive Viewer



### Historical Records

- 3.13 Readily available historical maps have been reviewed.
- 3.14 Historical mapping dating from 1879 has been reviewed.
- 3.15 There has been very little change in the site since this time and no mining features are evident throughout the mapped history.

## **4.0 COAL MINING RISK ASSESSMENT**

### **Scope of Coal Mining Risk Assessment**

- 4.1 Objectives of the coal mining risk assessment are to provide a desk based assessment of available geological and mining information relating to the site (and wider area) and to use this information so as to identify risks present to the development from the legacy of mining.
- 4.2 As part of the risk assessment potential mitigation measures (if required) should be considered, including any necessary remedial works.
- 4.3 The outcome of the risk assessment should demonstrate to the Local Authority that the proposed development is, or can be made safe (and stable) to meet the requirements of the National Planning Policy Framework (NPPF).

### **Data Limitations**

- 4.4 It should be appreciated that it did not become a legal requirement to deposit coal mining abandonment plans until the 1870's and that this requirement was not rigorously enforced for some time after. Many shallow coal seams were worked prior to the introduction of first edition Ordnance Survey Maps and information on these workings is often not available. Therefore if coal seams were accessible then invariably they could have been worked by formal or informal means.
- 4.5 It is also possible that if unrecorded workings are present then unrecorded mine entries may be present.

### **Coal Mining Risks**

- 4.6 The risks associated with coal mining are as follows:
  - Collapse of relict workings beneath buildings causing damage to the building fabric and infrastructure.
  - Migration of mine gases from old mine works and mine entries resulting in build-up of flammable and asphyxiating gases in confined areas.
  - Consolidation of relict workings and overlying strata causing structural defects in building fabric and infrastructure.
  - Failure of mine entries causing loss of ground beneath building and external areas.
  - Spontaneous combustion of old mineworkings.

### **Summary of Risk**

- 4.7 There are no recorded or unrecorded shallow workings beneath the site. The site is located within a Development High Risk area, due to an inferred coal seam outcrop to the west of the site.

### **Proposed Mitigation Strategy**

- 4.8 The Coal Authority report has highlighted an absence of recorded and unrecorded shallow coal mineworkings beneath the site.
- 4.9 As a result, no further site investigation work is considered necessary and remedial measures do not need to be implemented.



# **APPENDIX 1**

## **COAL AUTHORITY MINING REPORT**



## **APPENDIX 2**

### **REPORT LIMITATIONS**



## **REPORT LIMITATIONS**

This contract was completed by Earth Environmental & Geotechnical Ltd on the basis of a defined programme and scope of works and terms and conditions agreed with the client. This report was compiled with all reasonable skill, and care, bearing in mind the project objectives, the agreed scope of works, the prevailing site conditions, the budget and staff resources allocated to the project.

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The services are based upon Earth Environmental & Geotechnical Ltd observations of existing physical conditions at the site gained from a walkover survey of the site together with Earth Environmental & Geotechnical Ltd interpretation of information including documentation, obtained from third parties and from the client on the history and usage of the site. The findings and recommendations contained in this report are based in part upon information provided by third parties, and whilst Earth Environmental & Geotechnical Ltd have no reason to doubt the accuracy and that it has been provided in full from those it was requested from, the items relied on have not been verified.

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Where field investigations have been carried out these have been restricted to a level of detail required to achieve the stated objectives of the work. Ground conditions can also be variable and as investigation excavations only allow examination of the ground at discrete locations. The potential exists for ground conditions to be encountered which are different to those considered in this report. The extent of the limited area depends on the soil and groundwater conditions, together with the position of any current structures and underground facilities and natural and other activities on site. In addition, chemical analysis was carried out for a limited number of parameters [as stipulated in the contract between the client and Earth Environmental & Geotechnical Ltd] based on an understanding of the available operational and historical information, and it should not be inferred that other chemical species are not present.

The groundwater conditions entered on the exploratory hole records are those observed at the time of investigation. The normal speed of investigation usually does not permit the recording of an equilibrium water level for any one water strike. Moreover, groundwater levels are subject to seasonal variation or changes in local drainage conditions and higher groundwater levels may occur at other times of the year than were recorded during this investigation.

Any site drawing(s) provided in this report is (are) not meant to be an accurate base plan, but is (are) used to present the general relative locations of features on, and surrounding, the site.