

Coal Mining Risk Assessment



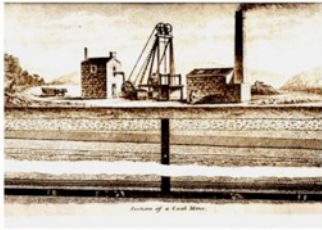
Shady Oak Inn, Fernilee

8 September 2012

Hughes & Crawford
Ferndale Court
Chester Road
Pentre
Deeside CH5 2DJ

1222

**Nkc Geotech Ltd
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NKC Geotech Ltd

Site

A proposed drainage scheme for The Shady Oak Inn at Fernilee, Whaley Bridge.

Risk Assessment by

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Summary of relevant mining information

Publication CIRIA32 'Construction over Abandoned Mineworkings'

Coal Authority Report 51000130468001

Mineplan 1632.1

Geological Survey 1:10560 plans

Nkc Geotech Ltd reports:

none relevant

Assessment of risk that coal mining poses to the proposed development

Recorded mine entries on or within 20m of the site boundary

The Coal Authority Report 51000130468001 of July 2012 states that Mine Entry 401379-024 is present on the site. This is the adit of the former Fernihill Colliery, dipping west under the A5004 from the car park. This adit is also shown on the Geological Survey 1:10560 plan.

Past underground coal mining

There are no records of any past mining activity under the site, but coal is known to be present close to the surface and therefore unrecorded mining at shallow depth may have taken place in the past.

Present underground coal workings

There is no current coal mining within 20km of the site

Underground shallow coal workings

Coal Authority report 51000130468001 refers to the possible presence of shallow mineworkings given the proximity of the outcrop of the Bassey Coal and the mineplan of Fernihill Colliery showing adit 401379-024 passing through previous old workings.

Unrecorded shallow mine workings and/or mine entries

Unrecorded coal mining is known to be present and unrecorded mine entries might be present on or close to the site.

Mine gas emissions

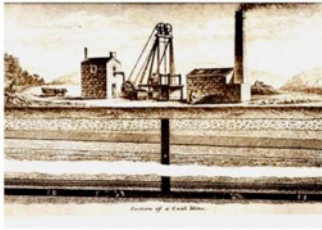
There are no recorded mine gas emissions within the site boundary

License to remove coal

There are no licenses to remove coal

Faults

There are no faults shown on the published Geological Survey



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Surface hazards

There are no recorded remedial works being carried out by the Coal Authority on the site, but depressions caused by unrecorded mining activity have been treated by the Coal Authority in the field opposite the car park, immediately west of the A5004. A pronounced depression is currently visible in this field, this is Coal Authority Hazard 5346.

Past opencast mining

There are no former opencast coal mining sites within 200m of the site

Present opencast mining within 200m

There are no current opencast coal mining sites within 200m of the site

Further information

The coal seams of the Goyt Valley are of Lower Coal Measure age and extremely variable in thickness and lateral extent. The naming of the coal seams is also variable and erratic, this being inevitable with seams of limited extent. The Bassey Coal is recorded as being 1.5m to 1.8m in thickness but to contain black shale layers. The presence of unrecorded shallow mineworkings close to the site and the size and frequency of surface hazards treated by the Coal Authority in the adjacent field indicate that in this locality the Bassey Coal is of workable thickness and has been historically mined under an area of unknown extent.

The outcrop of the Bassey Coal is east of the Shady Oak Inn and dips westwards under the inn and car park to reach a recorded depth of 8m at Hazard 5346. The probable depth to the Bassey Coal under the proposed development is 6m to 9m.

Mitigation measures

The site must be investigated by drilling to prove the absence or confirm the presence and depth of any mineworkings in the Bassey Coal.

Mine Entry 401379-024 is over 30m from the proposed development and no further investigation work is required on this adit.

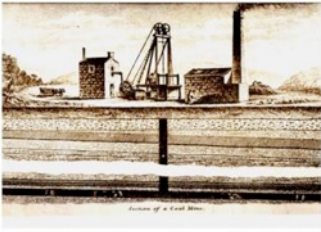
If mineworkings are encountered in the Bassey Coal within 30m of the surface a remedial scheme of stabilisation by drilling and grouting should be carried out in accordance with CIRIA32. Unless an area extending upto 0.75 x the seam depth around the proposed buildings is also stabilised by grouting, the proposed building should be constructed with a structural foundation designed to span 3.0m.

Coal Authority Permit

A Coal Authority Permit must be obtained to allow the intrusive investigation of the shallow mineworkings.

For Nkc Geotech Ltd

Neil Catlow, B.Sc, F.G.S



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Site plan

scale 1:1500

