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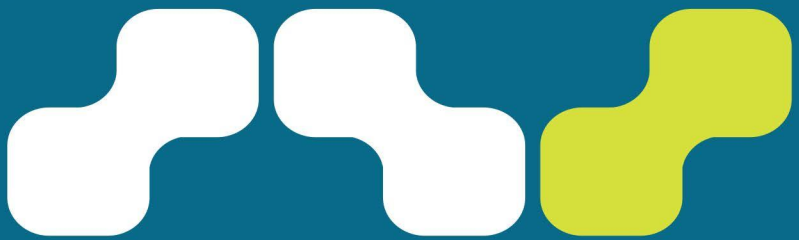

SURVEY & ENGINEERING PROJECTS

Coal Mining Risk Assessment Report

Proposed Development of land at

Haleview Road
Huyton

October 2018

There are no changes to this report date 12/11/2026

Contract:

Coal Mining Risk Assessment
Report
for
Proposed Development
of land at
Haleview Road
Huyton

Client:

BLM Developments

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OCTOBER 2018

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Proposed Development of land at Haleview Road, Huyton

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1.0 INTRODUCTION

On the instructions of SEP (Site Engineering Personnel) Limited a Coal Mining Risk Assessment report has been prepared by Geo-Ventures (UK) Limited for the proposed development of land at Haleview Road, Huyton.

The purpose of this report is to assess the legacy of past underground coal mining activity in the area and its impact on the proposed development of the site.

2.0 BACKGROUND

Both a Phase 1 Desk Study / Preliminary Risk Assessment report and a Phase 2 intrusive investigation and report was carried out by Geo-Ventures (UK) Limited in 2012.

The proposed development of the land did not proceed at that time but a new scheme for residential housing is now under consideration.

It has been advised that all of the information gathered by Geo-Ventures (UK) Limited in 2012 is the property of the client for the scheme and as such has been used in the compilation of this report.

3.0 OBJECTIVE AND SCOPE OF WORK

The principal objective of this desk study based risk assessment is to investigate the potential for any historical coalmining at the site and related issues with particular respect to any unrecorded workings at shallow depth and associated mine entries and to determine the geotechnical constraints these may pose to the proposed development.

If historical coal workings or any other issues associated with coalmining legacy are identified at the site and it is determined that they pose a plausible risk to the proposed development then this assessment will provide recommendations if any remedial works are considered necessary and result in the land being suitable for its proposed end use.

The report will also include details of any future intrusive investigation works considered necessary.

This assessment has utilised the following data:

- The information in the Phase 1 and Phase 2 reports prepared by Geo-Ventures (UK) Limited in 2012.

- A Coal Authority Mining Report for the site dated 6th August 2012.

4.0 THE SITE

This is located at the eastern end of Hale View Road, Huyton and is a small parcel of sensibly level land.

5.0 THE PROPOSAL

It is understood that it is proposed to construct residential housing with associated carparking on the land.

6.0 SOURCES OF INFORMATION

6.1 Historical Records

As noted in the Phase 1 report, the old plans of the general area indicate a history of past mining activities, with reference to both former collieries and opencast mining sites.

However, neither of these features impinge on the site itself.

6.2 Geology

From information published by the British Geological Survey the site and its adjacent areas are underlain by rocks of the Westphalian of Carboniferous age which include an interbedded succession of sandstones, siltstones and mudstones with subordinate coal seams.

These solid rocks have a covering of recent superficial drift deposits principally comprising glacial till.

6.3 Mining Records

In the report from the Coal Authority it is evident that the site has been directly undermined or is within influencing distance of workings in one seam of coal at 420m depth and last worked in 1883.

Any ground movement from these coal workings should have stopped by now.

However, the report notes that the Coal Authority believe the site is in an area where coal is present at or close to the surface which may have been worked at some time in the past.
In addition, there are no known mine entries within or directly adjacent to the site, no records of mine gas emissions requiring action by the Authority or instances of subsidence damage.

With respect to opencast mining the site is not within 200m of any past or current extraction activities.

7.0 RISK ASSESSMENT

This follows the protocol as outlined in the document "Requirements of a Coal Mining Risk Assessment report" published by the Coal Authority.

The assessment considers the likelihood or probability of a particular event taking place in conjunction with its potential consequence or impact as shown on the matrix below based on that outlined in CIRIA report C552.

		Consequence (Impact)			
		Severe	**Medium**	**Mild**	**Minor**
Probability (Likelihood)	**High Likelihood**	Very High Risk	High Risk	Moderate Risk	Moderate/Low Risk
	Likely	High Risk	Moderate Risk	Moderate/Low Risk	Low Risk
	Low Likelihood	Moderate Risk	Moderate/Low Risk	Low Risk	Negligible Risk
	Unlikely	Moderate/Low Risk	Low Risk	Negligible Risk	Negligible Risk

7.1 Deep Coalmining

Due to the limited extent, depth and date of past deep mining, the overall risk of any future ground movements is considered to be NEGLIGIBLE.

7.2 Shallow Coalmining

This term is usually taken to refer to any workings above 30m depth

In order to check that the site is not underlain by any unrecorded shallow workings, two rotary open holes were sunk to a depth of 30.00m into bedrock beneath the site.

Neither of these boreholes recorded the presence of any coal or indications of old shallow workings such as loss of flush, increased rates of penetration or abrupt changes in groundwater conditions.

On this basis it is considered reasonable to assume that any risks due to past shallow mining are NEGLIGIBLE.

7.3 Mine Entries

There are no records held by the Coal Authority of any abandoned mine entries within the site boundary.

However, it could be argued that if the site had been shown to be here may be old affected by shallow unrecorded workings, there could have been previously unknown mine entries beneath the site, but as the possibility of old shallow workings has been discounted the presence of old shafts can equally be ruled out.

As a consequence any risks are judged to be NEGLIGIBLE.

7.4 Open Cast Mining

Although the site is within the general area where opencast activity has taken place in the past, these have not affected the site itself.

Any risks are therefore classified as NEGLIGIBLE.

7.5 Mine Gas

The Coal Authority hold no records of any previous emissions of mine gas.

This is not surprising as the only past deep mining activity was at considerable depth and intrusive investigation work has not shown any evidence of any former unrecorded shallow workings.

As a consequence any risks associated with the presence of mine gases are considered to be NEGLIGIBLE.

7.6 Overview

As may be seen from the above individual risk assessments, all are judged to be NEGLIGIBLE.

8.0 SUMMARY

Despite the fact that the site is within a general area where past mining activities have taken place, the land itself has not been affected and any specific risks are considered to be NEGLIGIBLE.

It should be noted that any comments in this report are advisory only and all design decisions remain the responsibility of others.

Dr John Crook

Geo-Ventures (UK) Limited
October 2018

SEP (SITE ENGINEERING PERSONNEL) LTD

SURVEY & ENGINEERING PROJECTS

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