



Photo 9 – View south west from the fishing ponds



Photo 10 – Container associated with the fishing ponds storing fishing equipment



Photo 11 – Culvert located along the northern boundary



Photo 12 – Opening of water course from culvert



Photo 13 – Manhole located adjacent to northern boundary



Photo 14 – Motorway substations



Photo 15 – Track located along northern boundary



Photo 16 – General view along south along south eastern boundary



Photo 17– General view west



Photo 18 – Stockpile of chicken manure



Photo 19 – Small stockpile of garden waste



Photo 20 – Standing water located north of Stakehill Nurseries

APPENDIX F

Site Development Zones

- Existing Agricultural
- Large Industrial
- Mixed Commercial / Leisure Use
- Office
- Open Space
- Small Industrial
- Upgrade To Existing Residential

Development Area Schedule			
Name	Area (m²)	Area (ha)	Area (ac)

Existing Agricultural			
Poultry Farm	7629.12	0.76	1.89

Large Industrial			
Proposed Zone 3	98536.37	9.85	24.35
Proposed Zone 6	59444.40	5.94	14.69

Mixed Commercial / Leisure Use			
Proposed Zone 1	16730.24	1.67	4.13

Office			
Proposed Zone 4	9058.10	0.91	2.24
Proposed Zone 5	15499.68	1.55	3.83

Open Space			
Amenity Space	26665.52	2.67	6.59

Small Industrial			
Proposed Zone 2	26014.22	2.60	6.43

Upgrade To Existing Residential			
New Garage Access	1863.88	0.19	0.46



1 Proposed Site Development Areas
1 : 2000

Drawing:
Proposed Zoning Plan

Client:
Stakehill

1
Proposed zones amended to include office zones

LS
19/04/18

By
Date

Drawing Number:
2299-PL-700-01

Drawn:
LS

Scale:
1 : 2000

Date:
02/13/18

Approved:
PJM

Size:
A1

Rev:
1

Status:
PRELIMINARY

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2299 - Project Name

APPENDIX G

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10 April 2018

FAO Jason Dugdale
Millson Associates
Byron House
10 Kennedy Street
Manchester
M2 4BY

By e-mail

jd@wiplow.co.uk

Dear Jason

Stakehill Business Park, Middleton

TACCL has been instructed by Jason Dugdale on behalf of Milson Associates to prepare a coal mining risk assessment for the above site.

The coal mining risk assessment is required to support a planning application for the proposed redevelopment of the site with the construction of a mixed use industrial and commercial development which will form an extension to the existing Stakehill Business Park. A proposed site layout plan is presented as Millson Associates Drawing No 2299-PL-700-01 in Annex 5.

TACCL has been provided with some specific information for the site and the proposed development and has accessed other data via web based searches.

TACCL has produced this assessment using the Coal Authority's model report template.

1. INTRODUCTION

1.1 Site Location and Description

The site comprises an area of 26 Hectares and is located to the north of Bentley Avenue and the north-east of Stakehill Lane in Middleton, Greater Manchester. The centre of the site is approximately located at NGR SD 89247 08413.

The site is currently largely comprised of undeveloped agricultural land with a number of reservoirs located in the east of the site (to be retained). An existing nursery and part of a poultry farm are located off Stakehill Lane in the east of the site and these also form part of the development area.

A site location plan is presented in Annex 5 with the proposed development area outlined in red.



1.2 Description and Layout of Proposed Development

The application is for outline planning permission for the development of the site with industrial, commercial, leisure and open space use as an extension to the existing Stakehill Business Park which is located immediately to the south of the site.

An indicative site layout is presented in Annex 5.

1.3 Scope

The purpose of this Coal Mining Risk Assessment Report is to:

- Present a desk-based review of all available information on the coal mining issues which are relevant to the application site;
- Use that information to identify and assess the risks to the proposed development from coal mining legacy, including the cumulative impact of issues;
- Set out appropriate mitigation measures to address the coal mining legacy issues affecting the site, including any necessary remedial works and/or demonstrate how coal mining issues have influenced the proposed development; and
- Demonstrate to the Local Planning Authority that the application site is, or can be made, safe and stable to meet the requirements of national planning policy with regard to development on unstable land.

2. SOURCES OF INFORMATION

TACCL has been supplied with the following information:

- (a) A Coal Mining Report (Ref 51001811208001, dated 26 March 2018).
- (b) 1:10,560 scale geological map for the area (Lancs 88 SE)

In addition TACCL has accessed information contained on the Coal Authority and British Geological Survey (BGS) websites in preparation of this assessment.

From the available information TACCL makes the following observations:

2.1 The Coal Authority Website

From the Coal Authority's interactive web viewer it can be seen that:

- (i) The site is in a defined '*coal mining reporting area*'.



- (ii) A '*development high risk area*' is located trending roughly north to south across the eastern part of the site (associated with a coal seam which subcrops beneath the site). However the remainder of the site is not located in a '*development high risk area*'.
- (iii) There are no mine entries within influencing distance of the development site.
- (iv) There is no record of '*past surface mining*' in the vicinity of the site.
- (v) There are no '*past shallow coal mine workings*' at the site.
- (vi) There are no '*probable shallow coal mine workings*' at the site.
- (vii) A '*coal seam*' subcrops beneath the site running north-south beneath the eastern part of the site.

Copies of the Coal Authority images are presented in Annex 1.

2.2 BGS Website

From BGS records, available via the web viewer, it can be seen that the geological conditions at the site include thick superficial deposits, mainly comprising glacial till (Boulder Clay) with glacial sand and gravel on the northern edge, south-eastern corner and western corner of the site.

Solid strata comprise mudstone, siltstone and sandstone of the Pennine Lower Coal Measures formation. The Royley Sandstone is located in the north of the site splitting into two outcrops.

No specific coal seams are shown on the interactive map.

The BGS website includes records of boreholes drilled in the vicinity of the site.

The nearest historical borehole (Ref SD80 NE4) is located approximately 150 m to the west and encountered drift comprising clay and sand to a depth of 95 m bgl with bedrock not proven.

Borehole (Ref SD80 NE5) is located approximately 300 m to the south-west and records clay, sand and gravel to a depth of approximately 55 m where 'hard sandy bind' was encountered. Black shale was encountered at a depth of 59 m bgl.

An historic borehole (Ref SD80 NE3) is located approximately 300 m to the north-west of the site and records boulder clay, sand and clay to a depth of 80 m bgl where 'broken shale with coal was encountered to 81 m bgl. The Arley Mine seam was recorded from 120.3 to 122.0 m bgl.

Copies of the BGS website images are presented at Annex 2.



2.3 Coal Mining Report

The Coal Authority (CA) reports that:

- The property *'is not within a surface area that could be affected by past underground mining'*.
- The property *'is not with a surface area that could be affected by present (or future) underground mining. However, reserves of coal exist in the local area which could be worked at some time in the future'*.
- *'There are no known coal mine entries within, or within 20 m of, the boundary of the property'*.
- *'The property is not within the boundary of an opencast site from which coal has been removed by opencast methods'*.
- *'The Coal Authority has no record of a mine gas emission requiring action'*.
- *'The Coal Authority has not received a damage notice or claim for the subject property or any property within 50 metres since 31 October 1994'*.

A copy of the Coal Mining Report is presented in Annex 4.

2.4 Geological Maps

The 1:10,560 scale geological map for the area (Lancs 88 SE) shows that the western part of the site is underlain by glacial sand and gravel with clay to the north.

Solid strata comprise sandstone and shale of the Pennine Lower and Middle Coal Measures. The Arley Mine Seam is shown to subcrop beneath the east of the site running north to south.

The solid strata in the local area are indicated to dip to the south-west at an angle of approximately 13 °.

2.5 Other Information

Reference to the Rochdale BC planning portal did not identify any intrusive ground investigations that have been conducted as part of planning applications for the site or within the surrounding area.

3. IDENTIFICATION AND ASSESSMENT OF SITE SPECIFIC COAL MINING RISKS

A summary of the potential risks associated with coal mining legacy at the proposed development site, identified from *the available information* is presented in the following table:



Coal Mining Issue	Yes/No	Risk Assessment
Underground coal mining (recorded at shallow depths)	No	No evidence of shallow underground coal mining (<30 m) beneath the site, however 1 seam of coal (Arley Mine) is indicated to be present beneath the site at unknown depth. Boreholes drilled close to the site prove thick superficial soils in the area to depths ranging from 55 to 95 m. However none of the available boreholes are located on the actual development site. One borehole drilled 300 m to the north-west records the Arley Mine seam at a depth of 120 to 122 m bgl which is not within influencing distance of the ground surface.
Underground coal mining (probable at shallow depths)	No	No evidence of probable shallow coal mining. Although a coal seam (Arley Mine) is indicated to subcrop beneath the eastern part of the site which may have been worked, this is believed to be at a depth far in excess of shallow coal mining depth (>30 m).
Mine entries (shafts and adits)	No	
Coal mining geology (fissures)	No	
Record of past mine gas emissions	No	
Recorded coal mining surface hazard	No	
Surface mining (opencast workings)	No	

Based on the information obtained and reviewed as part of this assessment TACCL considers that shallow underground coal and/or coal mine workings are not likely to be present beneath the site and therefore the risk to the stability of the proposed development is low.

4. CONCLUSIONS

TACCL considers that the presence of any unrecorded shallow coal mine workings at the site is very unlikely based on the available evidence. However given the lack of data within the site it may be prudent to undertake an investigation in the vicinity of the coal seam in order to confirm the depth of drift and depth to rockhead.



We trust that this is acceptable, however if you have any queries or want to discuss these findings please contact me.

Yours sincerely

ANDREW BAIN
Senior Engineer

Enc

Annex 1

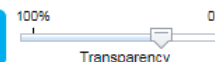
Coal Authority Web Images



🔍 Enter location

Change Theme

- ☐ Mine Entry
- ☐ Abandoned Mines Catalogue
- ☐ Development High Risk Area
- ☐ Surface Coal Resource Areas
- ☐ Mine Entry Potential Zone of Influence
- ☐ Fissures and Breaklines
- ☐ Surface Mining (Past and Current)
- ☒ Past Shallow Coal Mine Workings
- ☐ Probable Shallow Coal Mine Workings
- ☐ Coal Outcrops
- ☒ Coal Mining Reporting Area



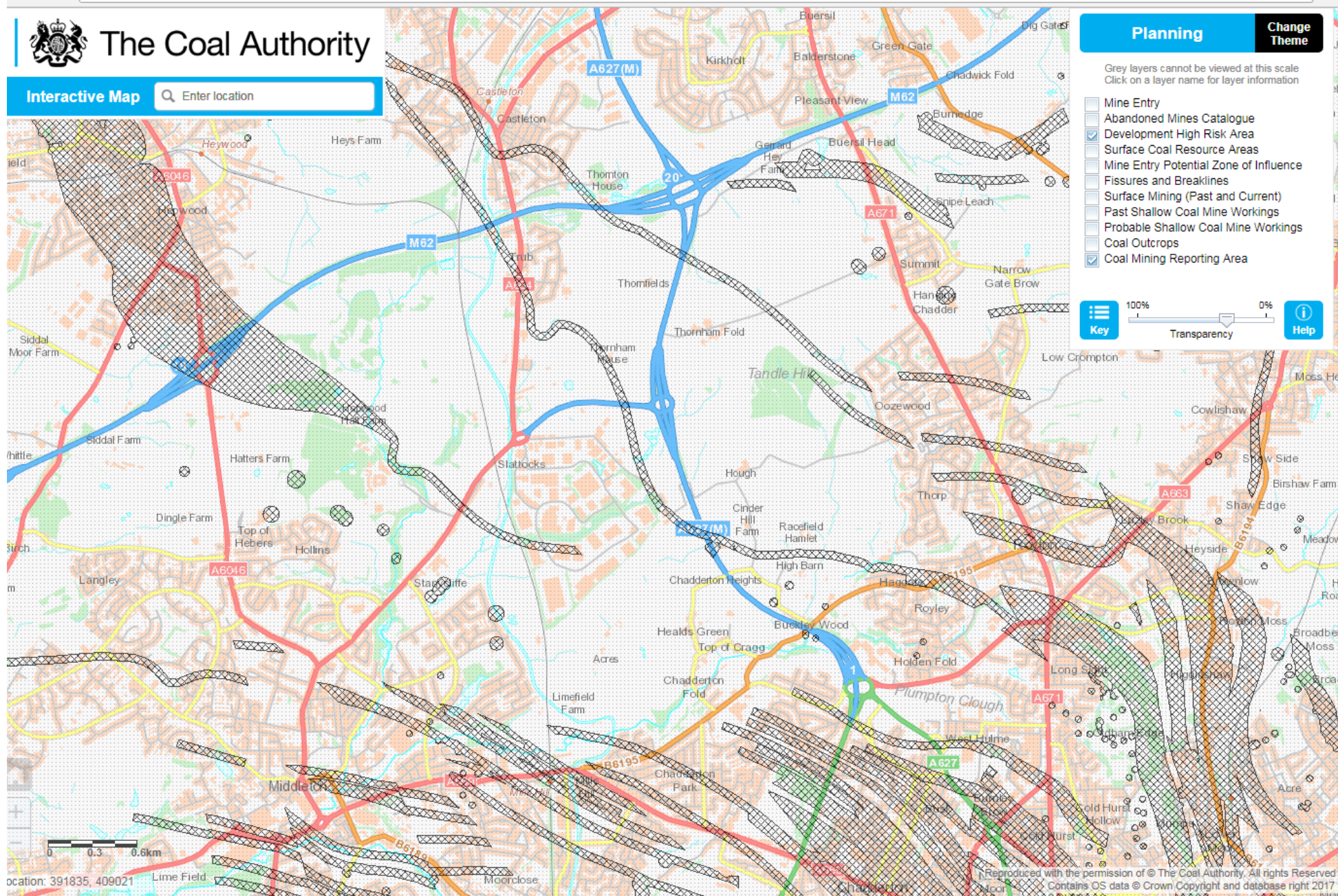
Location: 392251, 409272

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Interactive Map

🔍 Enter location



Grey layers cannot be viewed at this scale
Click on a layer name for layer information

- ☐ Mine Entry
- ☐ Abandoned Mines Catalogue
- ☒ Development High Risk Area
- ☐ Surface Coal Resource Areas
- ☐ Mine Entry Potential Zone of Influence
- ☐ Fissures and Breaklines
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- ☐ Past Shallow Coal Mine Workings
- ☐ Probable Shallow Coal Mine Workings
- ☐ Coal Outcrops
- ☒ Coal Mining Reporting Area



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