



# BROWNFIELD SOLUTIONS LTD

GEO-ENVIRONMENTAL ENGINEERING EXCELLENCE

## ALDI STORES LTD

Westgate, Skelmersdale

Coal Mining Risk Assessment

JMC/C3788/7390

January 2018

## PROJECT QUALITY CONTROL DATA SHEET

<b>Site Name:</b>	Westgate, Skelmersdale field		
<b>Report Title:</b>	Coal Mining Risk Assessment		
<b>Report No:</b>	JMC/C3788/7390		
<b>Status:</b>	Final		
<b>Date:</b>	26 January 2018		
<b>Revision:</b>			

<b>Client: Aldi Stores Ltd</b>	<b>Engineer: SWF Consulting Ltd</b>
Unit D1 Logistics North Bridgewater Avenue Middle Hulton Bolton BL5 1EE	Unit 4 Millbank House Riverside Park Wilmslow Cheshire SK9 1BJ
<b>Contact:</b>	<b>Contact: Mr D Rogers</b>

Written by:



J Champion  
BSc(Hons) FGS

Checked by:



J Jacob  
BSc(Hons) CGeol FGSi

Approved by:



J Jacob  
BSc(Hons) CGeol FGSi

## CONTENTS

<b>1.0</b>	<b>INTRODUCTION.....</b>	<b>1</b>
1.1	OBJECTIVES .....	1
1.2	SITE DETAILS.....	1
1.3	PROPOSED DEVELOPMENT .....	1
1.4	SCOPE .....	1
<b>2.0</b>	<b>THE SITE .....</b>	<b>2</b>
2.1	LOCATION & ACCESS.....	2
2.2	SITE DESCRIPTION.....	2
<b>3.0</b>	<b>GEOLOGICAL SETTING .....</b>	<b>3</b>
3.1	SOURCES OF INFORMATION .....	3
3.2	GEOLOGY .....	3
3.3	BGS BOREHOLES.....	5
3.3	COAL AUTHORITY SEARCH .....	6
3.4	COAL AUTHORITY INTERACTIVE MAP .....	7
<b>4.0</b>	<b>RISK ASSESSMENT .....</b>	<b>8</b>
4.1	SUMMARY.....	8
4.2	RECORDED COAL WORKINGS .....	8
4.3	UNRECORDED COAL WORKINGS .....	8
4.4	RECORDED MINE ENTRIES .....	8
4.5	UNRECORDED MINE ENTRIES .....	9
4.6	OTHER MINING ISSUES .....	9
<b>5.0</b>	<b>RECOMMENDATIONS.....</b>	<b>10</b>
5.1	IDENTIFIED COAL MINING ISSUES.....	10
5.2	RECOMMENDATIONS.....	10

DRAWINGS		
Drawing Number	Rev	Title
C3788/01	-	Site Location Plan
C3788/02	-	Pertinent Site Features Plan
C3788/03	-	Boreholes and Coal Seam Extract
C3788/04		Probable Shallow Coal Mine Workings and Development High Risk Area

APPENDICES	
<b>APPENDIX A</b>	<b>Coal Authority Report</b>
<b>APPENDIX B</b>	<b>BGS Boreholes</b>
<b>APPENDIX C</b>	<b>Limitations</b>

**COAL MINING RISK ASSESSMENT  
FOR OFF WESTGATE,  
SKELMERSDALE**

**1.0 INTRODUCTION**

**1.1 Objectives**

1.1.1 Brownfield Solutions Limited have been commissioned by SWF Consulting Ltd on behalf of Aldi Stores Ltd to undertake a Coal Mining Risk Assessment to assess the land stability of the subject site due to coal mining.

**1.2 Site Details**

1.2.1 The site is centred on National Grid Reference 346912, 405873 as shown on the Site Location Plan C3788/01.

**1.3 Proposed Development**

1.3.1 The proposed development is commercial end use comprising a steel framed retail building and associated car park areas.

**1.4 Scope**

1.4.1 The purpose of the Coal Mining Risk Assessment is as follows:

- Review of all available information on the coal mining issues which are relevant to the application site;
- Identify and assess the risks to the proposed development from coal mining, including the cumulative impact of issues;
- Recommend mitigation measures to address the coal mining issues affecting the site, including any necessary remedial works and/or demonstrate how coal mining issues have influenced the proposed development;
- 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.

## **2.0 THE SITE**

### **2.1 Location & Access**

- 2.1.1 The site covers an area of approximately 1.24 hectares and is situated approximately 11.3 km west of Wigan Town Centre.
- 2.1.2 The site is centred on National Grid Reference 346912, 405873 as shown on the Site Location Plan C3788/01.
- 2.1.3 Access to the site is gained off High Street to the north of the site or off Westgate to the west of the site.

### **2.2 Site Description**

- 2.2.1 The site is currently a vacant office with associated car park. The main building is irregular in shape and occupies the majority of the north of the site.
- 2.2.2 The area surrounding the building to the north and west are surfaced in soft landscaping with trees and shrubs and steps down to the main office from the north of the site. East and south of the building are surfaced in tarmac and are used for car parking.
- 2.2.3 The site is split on two levels. The southern car park is circa 1.00m lower in level than the building and eastern car park area. The boundary between these comprises soft landscaping and steps. There is also a fence here surrounding the eastern car park and the main building. The southern car park is bound by fencing to the east and south and by removable concrete blocks to the west.
- 2.2.4 Two electronic gates are situated towards the north of the site and the east of the eastern car park area. The area beyond the eastern gate slopes down towards the southern car park.
- 2.2.5 The site has a slope from north to the south and the difference in height is circa 4.50m.
- 2.2.6 Anecdotal evidence states asbestos is present in the existing building.
- 2.2.7 The above are shown on the Pertinent Site Features Plan, Drawing No. C3788/02

### 3.0 GEOLOGICAL SETTING

#### 3.1 Sources of Information

3.1.1 The following sources of information have been obtained to undertake the Assessment:

- Coal Authority Non-Residential Coal and Brine Report
- Interactive Coal Authority Maps.
- Historical Mapping.
- Geological Survey 1:50,000 Scale Geological Sheet 84, Wigan-Solid and Drift Editions.
- BGS Geology Sheet 84 Memoir of Wigan District, 1938.

#### 3.2 Geology

##### Superficial Deposits

3.2.1 According to BGS records the superficial deposits underlying the site are indicated to be Glacial Till. This strata typically comprises firm to stiff clay.

##### Solid Geology

3.2.2 The deeper solid geology beneath the site is the Pennine Lower Coal Measures, this strata comprises interbedded mudstone, siltstone and sandstone with coal seams. This is Carboniferous in age with strata indicated to be dipping circa 6-8 degrees to the east.

3.2.3 Blaguegate Fault is located circa 250m east of the site. The fault trends from north to south east with strata being downthrown to the east.

3.2.3 The site is located in an area where coal seams are abundant. The angle of dip in this area is between 6° and 8°. Based on geological mapping, information gained from the BGS maps, geological memoir and the Coal Authority Interactive Map, the following seams are shown to dip beneath the site.

Seam	Approximate Distance From Site	Thickness (m)	Anticipated Depth Beneath Site (m)
Unknown Seam	Onsite	Unknown	Sub-cropping on site beneath the superficial deposits
<b>Sk ED</b> -Skelmersdale Earthy Delf	200m W	1.8m-2.28m	21m-28m
<b>Rv</b> -Ravine, Plodder	400m W	6.1m- 9.1m	42m-56m
<b>P</b> -Park Yard	700m W	>2.1m	73m-98m
<b>BN</b> -Bone	1000m W	0.60m	105m-140m
<b>R Pk</b> -Rushy Park, Smith	1080m W	0.60m-0.91m	113m-151m
<b>AM</b> - Arley Mine	1360m W	1.2m-1.3m	142m-192m

3.2.4 The BGS has no record of the coal seam indicated to subcrop on site however the coal seam is shown on the Coal Authority Coal Mining Data Interactive Map.

- 3.2.5 However information taken from The Geological Survey Memoir for sheet 84 states that “of the upper part of the Skelmersdale Coal Measure comparatively little is known” and the higher coals were worked.
- 3.2.6 The generalised section of the coal measures at Skelmersdale show two thin coals to overlie the Earthy Delf mine, the lower is the Yard and the upper is the Dam. These two seams are of importance locally however the Dam mine may be subject to washouts which may be an explanation of the absence of the Dam mine from White Moss Colliery located circa 750m east of the site. The unknown coal seam on site may be the Dam or Yard mine however it is not known if this has been worked.
- 3.2.7 In the BGS memoir for sheet 84 the Skelmersdale Earthy Delf comprises 3 seams of coal each about 2ft to 2ft 6 inches (0.60m-0.762m) separated by fireclay. This seam has a maximum thickness of 2.28m.
- 3.2.8 The next seam in the series is the Ravine. This is comprised of a series of approximately 4 thin coal seams and coaly shales (dirt) up to 20 to 30ft (6.1m to 9.1m) in thickness. This coal seam has not been worked and nowhere attains high quality.
- 3.2.9 Below the Ravine lies the Park Mine. This coal seam is valuable and yields upwards of 7ft (2.1m) of good coal.
- 3.2.10 The next coal seam in the series is the Bone. This coal is of excellent quality but rarely exceeds 2ft (0.60m). This is the most persistent seam and is recognised in the north and north east of the Skelmersdale coal field but is unidentifiable elsewhere however it may be represented by a few inches of coal.
- 3.2.11 The Rushy Park Mine is approximately 2 to 3 ft (0.60m to 0.91m) in thickness and is good workable coal.
- 3.2.12 The final coal seam and the base of the series is the Arley which yields 4ft to 4ft 6in (1.2m to 1.3m) of coal and is likely to have been worked.



### 3.3 BGS Boreholes

3.3.1 There are several BGS boreholes between 60m, and 300m of the site which prove coal has been worked in the area. A summary of the information obtained from the boreholes is shown in the table below.

Borehole	Made ground	Superficial	Bedrock	Workings	Shallowest Coal
SD40NE1253 60m NE	GL-2ft GL-0.60m	2-24f 6in 0.60-7.5m	24ft 6in-64ft 7.5-19.5m	70ft 6-74ft 6in 21—22.7m	64-66ft 6in 19.5-20.26m
SD40NE1254 100m NW	GL-2ft 6 GL-0.7m	2ft 6-32ft 6in 0.7-9.9m	32ft 6-44ft 9.9-13.4m	50ft 6-54ft 15.4- 16.4m	44-f -45ft 6in 13.4-13.86m
SD40NE1255 100m N	GL-2ft 6 GL-0.7m	2ft 6-28ft 6in 0.7-8.7m	28ft 6in-31ft 8.7-9.4m	31ft-48ft 9.4-14.6m	-
SD40NE1252 140m NE	GL-2ft 9 GL-0.8m	2ft 9-28ft 0.8-8.5m	28-52ft 8.5m-15.84	52-60ft 15.84- 18.28m	61-62ft 18.6-18.8m
SD40NE1256 150m NW	GL-2 ft GL-0.6m	2-28ft 0.6-8.5m	28-31ft 8.5-9.4m	31-45ft 9.4-13.7m	45-46ft 13.7-14.0m

3.3.2 Information from BGS borehole SD40NE1255 located circa 100m east of the Skelmersdale Earthy Delf seam shows workings have been encountered at 9.4m to 14.63m bgl (5.19m thick). Based on the assumed dip of 6°-8° this would place the seam at depths of around 10m-14m in this borehole location. This indicated the Skelmersdale Earthy Delf has been worked in this area however the thickness of workings is over double the size of the seam thickness.

3.3.3 BGS Borehole SD40NE1254 is located circa 120m east of this coal seam and shows coal at 13.86m (0.46m thick) and collapsed workings from 15.4m to 16.4m (1.00m thickness). Based on the assumed dip of 6°-8° this would place the seam at depths of around 12m to 16m in this borehole location. This borehole is adjacent to the site along the strike.

3.3.4 BGS Borehole SD40NE1253 is located 240m east of the coal seam and collapsed workings have been proven from 21m to 22.70m (1.70m thick). This borehole is adjacent to the site along the strike.

3.3.5 BGS Borehole SD40NE1252 is also located circa 240m east of the coals seam. This borehole encountered collapsed workings from 15.8m to 18.2m (2.40m) and coal from 18.6m to 18.8m (0.20m). Based on the assumed dip of 6°-8° this would place the seam at depths of around 25m to 33m in these locations. These two boreholes do not correlate with the depth of the coal seam however the accuracy of the location of the boreholes cannot be guaranteed and therefore these workings are assumed to be park of the Skelmersdale Earthy Delf seam.

3.3.6 The geological seams and BGS boreholes in relation to the site are shown on Drawing C3788/03. The BGS boreholes are presented in Appendix B.



### **3.3 Coal Authority Search**

3.3.1 The site lies in an area where the Law Society and Coal Authority recommends a mining search be undertaken as the site could be affected by past or current mining.

3.3.2 Therefore a search was carried out with the Coal Authority, which is presented in Appendix A, the main findings of which are presented overleaf.

#### Past Mining

3.3.3 The property is in a surface area that could be affected by underground mining in 3 seams of coal at 100m to 290m deep, and last worked in 1897.

3.3.4 In addition the property is in an area where the Coal Authority believe there is coal at or close to the surface. This coal may have been worked at some time in the past.

3.3.5 The potential presence of coal workings at or close to the surface should be considered prior to any site works of future development activity.

#### Present Mining

3.3.6 The property is not within a surface area that could be affected by present underground mining.

#### Future Mining

3.3.7 The property is not in an area where the Coal Authority has plans to grant a licence to remove coal using underground methods.

3.3.8 The property is not in an area where a licence has been granted to remove or otherwise work coal using underground methods.

3.3.9 The property is not in an area likely to be affected from any planned future underground coal mining. However, reserves of coal exist in the local area which could be worked at some time in the future.

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

#### Mine Entries

3.3.11 There are no known coal mine entries within, or within 20 metres of, the boundary property.

3.3.12 There may however be additional mine entries in the local area which the coal authority has no knowledge of.

#### Coal Mining Geology

3.3.13 The Authority is not aware of any damage arising due to geological faults or lines of weakness that have been affected by coal mining.

Opencast Coal Mining

- 3.3.14 The property is not in an area affected by past or present coal mining extracted by opencast methods. The property is also not in an area affected by a proposed opencast coal mine.

Subsidence

- 3.3.15 The Coal Authority has not received a damage notice or claim for the subject property or any property within 50 metres, since 31<sup>st</sup> October 1994.
- 3.3.16 There is no current Stop Notice delaying the start of remedial works or repairs to the property.

Mine Gas

- 3.3.17 There is no record of mine gas emission requiring action by the Coal Authority within the boundary of the property.

Hazards related to coal mining

- 3.3.18 The property has not been subject to remedial works, by or on behalf of the Authority, under its Emergency Surface Hazard Call Out Procedures.

Withdrawal of Support

- 3.3.19 The property is not in an area which notice to withdraw support has been given.
- 3.3.20 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.

Working Facilities

- 3.3.21 The property is not in an area where an order has been made under the provisions of the Mines (Working facilities and Support) Act 1923 and 1966 or any statutory modification or amendment thereof.

**3.4 Coal Authority Interactive Map**

- 3.4.1 The Coal Authority interactive map indicates that site lies in a development High Risk Area.
- 3.4.2 The site is also shown to be area underlain by Probable Shallow Coal Mine Workings.
- 3.4.3 The site is also located in a Surface Coal Resource Area.
- 3.4.4 The site is located within the abandoned mines catalogue and the closest mine shaft is approximately 215m west of the site.
- 3.4.5 There are two points located on the interactive map relating to working dates along the unknown coal seam which indicate the coal seam on site has been worked during the dates of 1880 and 1897.
- 3.4.6 The location of the site in relation to the Probable Shallow Coal Mine Workings and coal seams is shown on Drawing C3788/04.

## 4.0 RISK ASSESSMENT

### 4.1 Summary

4.1.1 A summary of the assessment of the risks is presented in the table below and they are discussed in more detail in the subsequent sections. A moderate risk or greater should be considered as requiring further investigation or remedial action.

Coal Mining Issue	Known Issue	Risk Assessment
Recorded Coal Workings	Yes	High
Unrecorded Coal Workings	YES	High
Recorded Mine Entries	NO	Low
Unrecorded Mine Entries	NO	Low
Coal Mining Geology (fissures)	NO	Low
Records of mine gas emissions	NO	Low
Recorded coal mining surface hazard	NO	Low
Surface mining (opencast workings)	NO	Low

### 4.2 Recorded Coal Workings

4.2.1 From the information available the Skelmersdale Earthy Delf seam has been worked and is placed between 21m and 28m beneath the site.

4.2.2 The coal seam is indicated to be made up of 3 seams separated by fire clay and according to the memoir is at a maximum thickness of 2.28m however workings have been proven at almost 5.20m thick in a BGS borehole less than 100m north of the site. It is likely the thickness of the workings underlying the site exceed 2.28m therefore there is not considered to be sufficient bedrock cover at the site (10 times thickness of seam).

4.2.3 The risk to the proposed development is considered to be **high** without remedial measures.

### 4.3 Unrecorded Coal Workings

4.3.1 A unknown coal seam is indicated to subcrop on site and dip to the east. According to information from the memoir this could be the Yard or Dam mine which are both thin coals however this could be considered to be workable thickness. No further information on these seams is held.

4.3.2 The risk to the proposed development from unrecorded mine workings is therefore considered to be **high**.

### 4.4 Recorded Mine Entries

4.4.1 There are no recorded mine entries within 20m of the site boundary.

4.4.2 The risk from recorded mine entries is therefore considered to be **Low**.



#### 4.5 Unrecorded Mine Entries

- 4.5.1 There have been no mines or collieries identified within an influencing distance of the site therefore unrecorded mine entries are unlikely and the risk is considered to be **low**.

#### 4.6 Other Mining Issues

- 4.6.1 The Coal Authority does not have any evidence of mine gas being an issue at the site therefore the risk is **Low**.
- 4.6.2 The Coal Authority report indicates that the site is not within the boundary of an opencast site from which coal has been extracted. The historic maps show no indication of opencast mines within the site boundary. Therefore the risk from opencast mining is considered to be **Low**.
- 4.6.3 The nearest fault to the site is circa 250m from the site. The reactivation of the fault is generally considered unlikely to occur due to the age. The risk is therefore considered to be **Low**.



## **5.0 RECOMMENDATIONS**

### **5.1 Identified Coal Mining Issues**

5.1.1 The following issues are considered to require further investigation and / or remediation prior to redevelopment:

- Recorded Coal Workings
- Unrecorded Coal Workings

### **5.2 Recommendations**

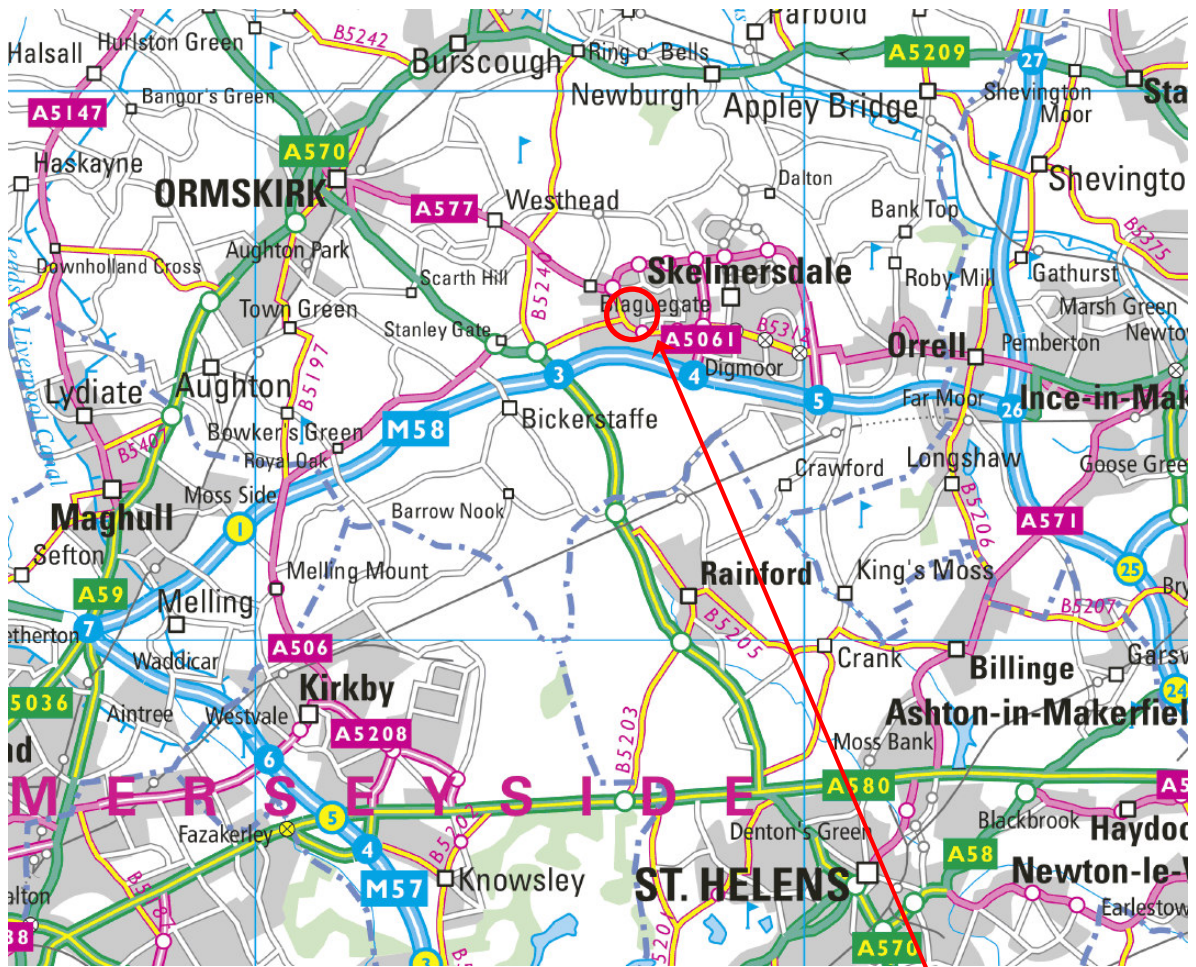
5.2.1 It is recommended that a coal mining investigation is undertaken to confirm the presence mine workings beneath the site and the depth and thickness of the unknown coal seam which sub crops on site and to confirm or otherwise if this has been worked.

5.2.2 Mine gas detectors should be attached to the drilling rig in order to monitor for potentially asphyxiant and noxious gases which may be released during the drilling.

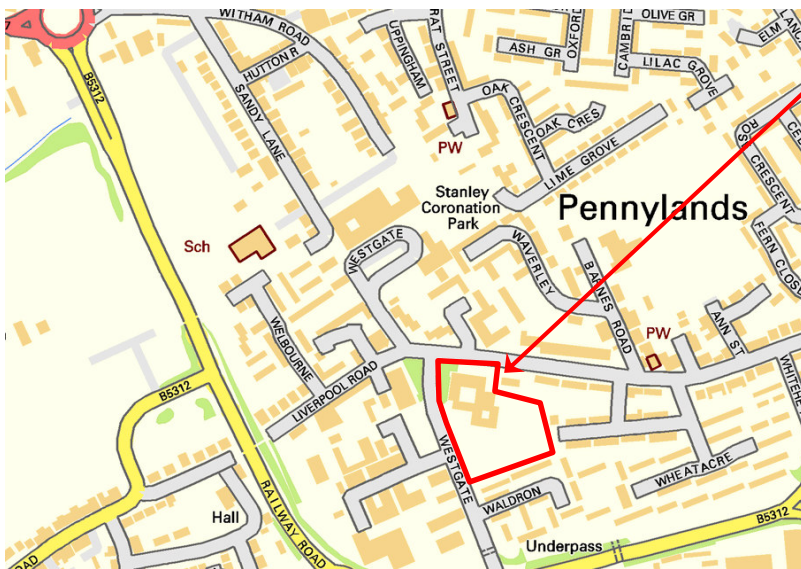
### **5.3 Remediation**

5.3.1 As shallow mine workings are likely to underlie the site the proposed development will require treatment. This will comprise drilling and grouting. The section of the drilling and grouting will be determined by the coal mining investigation.

**DRAWINGS**



**SITE**



 <b>BROWNFIELD SOLUTIONS LTD</b> <small>GEO-ENVIRONMENTAL ENGINEERING EXCELLENCE</small>	
<b>ALDI STORES LTD</b>	
Westgate, Skelmersdale	
Site Location Plan	
Drawing Number C3788/01	
Scale: NTS	
Drawn By: JMC	Checked By: AJS



Soft Landscaping

Existing building

Access blocked by concrete blocks

Steps


Electric gates

Tarmac car parks

Perimeter fence

Steps

- NOTES
1. ALL DIMENSIONS TO BE CHECKED ON SITE BEFORE COMMENCING WORKS. ANY DISCREPANCIES ARE TO BE REPORTED TO THE ARCHITECT & ENGINEER FOR VERIFICATION. FIGURED DIMENSIONS ONLY ARE TO BE TAKEN FROM THIS DRAWING.
  2. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL RELEVANT ENGINEERS REPORTS THIS DRAWING IS COPYRIGHT OF BSL.
  3. DRAWING NOT FOR CONSTRUCTION PURPOSES.

DESCRIPTION	REV	DATE
 <b>BROWNFIELD SOLUTIONS LTD</b> <small>GEO-ENVIRONMENTAL ENGINEERING EXCELLENCE</small>		
CLIENT	ALDI STORES LTD	
PROJECT TITLE	WESTGATE, SKELMERSDALE	
DRAWING DETAIL	PERTINENT SITE FEATURES PLAN	
DRAWN	JMC	CHECKED JMJ
DATE	JANUARY 2018	SCALE NTS
DRAWING NUMBER	C3788/02	REVISION -





Approximate extent of site boundary

Approximate location of Skelmersdale Earthy Delf Seam

Approximate location of unknown Coal Seam



<b>ALDI STORES LTD</b>	
Westgate, Skelmersdale	
Boreholes and Coal Seams Extract	
Drawing No. C3788/03	
Scale: NTS	
Drawn By: JMC	Checked By: JMJ

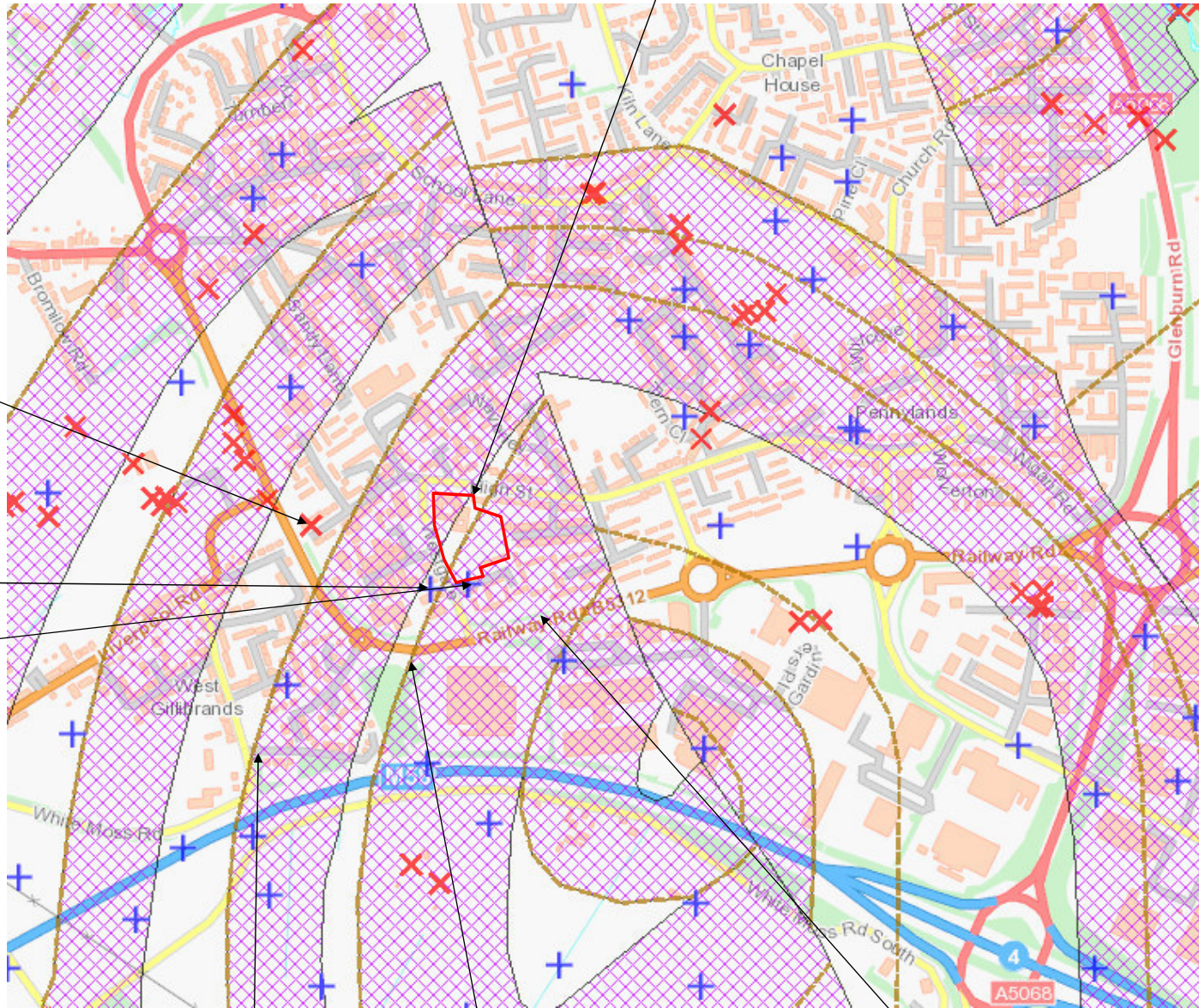


Approximate extent of site boundary

Closest mine shaft circa 215m west of site

Working date 1897

Working date 1880



Approximate location of Skelmersdale Earthy Delf Seam

Approximate location of unknown Coal Seam

Areas of probable workings



ALDI STORES LTD

Westgate, Skelmersdale

Coal Authority Extract Showing Shallow Mine Workings

Drawing No. C3788/04

Scale: NTS

Drawn By: JMC

Checked By: JMJ

**APPENDIX A  
Coal Authority Report**



The Coal  
Authority

Resolving the **impacts** of mining

# CON29M Non-Residential Mining Report

WESTGATE  
SKELMERSDALE  
LANCASHIRE  
WN8 8AZ

Date of enquiry: 03 January 2018  
Date enquiry received: 03 January 2018  
Issue date: 03 January 2018

Our reference: 51001733337001  
Your reference: c3788/5379



# CON29M Non-Residential Mining Report

This report is based on, and limited to, the records held by the Coal Authority and the Cheshire Brine Subsidence Compensation Board's records, at the time we answer the search.

## Client name

BROWNFIELD SOLUTIONS LIMITED

## Enquiry address

WESTGATE, SKELMERSDALE, LANCASHIRE, WN8 8AZ

## How to contact us

0345 762 6848 (UK)  
+44 (0)1623 637 000 (International)

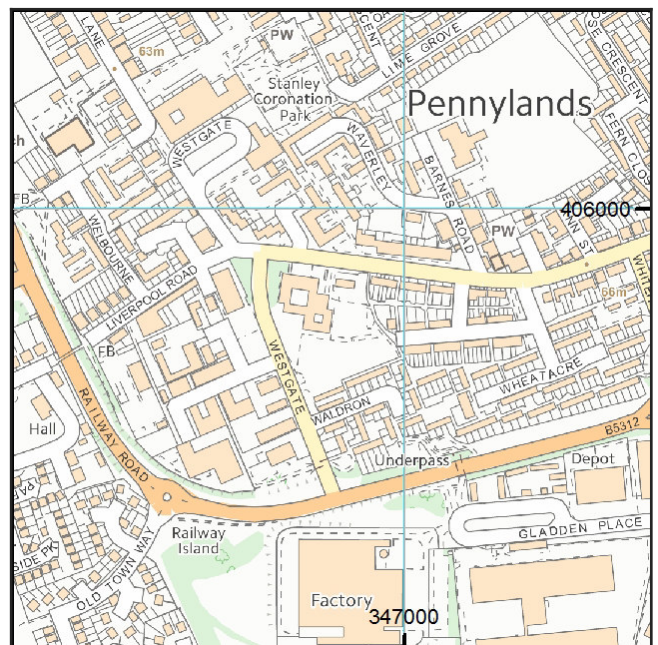
200 Lichfield Lane  
Mansfield  
Nottinghamshire  
NG18 4RG

[www.groundstability.com](http://www.groundstability.com)

[in](https://www.linkedin.com/company/the-coal-authority) /company/the-coal-authority

[f](https://www.facebook.com/thecoalauthority) /thecoalauthority

[t](https://twitter.com/coalauthority) /coalauthority



Approximate position of property



Reproduced by permission of Ordnance Survey on behalf of HMSO. © Crown copyright and database right 2018. All rights reserved.

Ordnance Survey Licence number: 100020315

# Summary

Has the search report highlighted evidence or potential of		
1	Past underground coal mining	Yes
2	Present underground coal mining	No
3	Future underground coal mining	Yes
4	Mine entries	Yes
5	Coal mining geology	No
6	Past opencast coal mining	No
7	Present opencast coal mining	No
8	Future opencast coal mining	No
9	Coal mining subsidence	No
10	Mine gas	No
11	Hazards related to coal mining	No
12	Withdrawal of support	No
13	Working facilities order	No
14	Payments to owners of former copyhold land	No
15	Information from the Cheshire Brine Subsidence Compensation Board	No

**For detailed findings, please go to page 4.**

# Detailed findings

## 1. Past underground coal mining

The property is in a surface area that could be affected by underground mining in 3 seams of coal at 100m to 290m depth, and last worked in 1897.

Any movement in the ground due to coal mining activity should have stopped.

In addition the property is in an area where the Coal Authority believe there is coal at or close to the surface. This coal may have been worked at some time in the past. The potential presence of coal workings at or close to the surface should be considered prior to any site works or future development activity. Your attention is drawn to the Comments on the Coal Authority information section of the report.

## 2. Present underground coal mining

The property is not within a surface area that could be affected by present underground mining.

## 3. Future underground coal mining

The property is not in an area where the Coal Authority has plans to grant a licence to remove coal using underground methods.

The property is not in an area where a licence has been granted to remove or otherwise work coal using underground methods.

The property is not in an area likely to be affected from any planned future underground coal mining.

However, reserves of coal exist in the local area which could be worked at some time in the future.

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

## 4. Mine entries

There are no known coal mine entries within, or within 20 metres of, the boundary of the property.

There may however be mine entries/additional mine entries in the local area which the Coal Authority has no knowledge of.

## **5. Coal mining geology**

The Coal Authority is not aware of any damage due to geological faults or other lines of weakness that have been affected by coal mining.

## **6. Past opencast coal mining**

The property is not within the boundary of an opencast site from which coal has been removed by opencast methods.

## **7. Present opencast coal mining**

The property does not lie within 200 metres of the boundary of an opencast site from which coal is being removed by opencast methods.

## **8. Future opencast coal mining**

There are no licence requests outstanding to remove coal by opencast methods within 800 metres of the boundary.

The property is not within 800 metres of the boundary of an opencast site for which a licence to remove coal by opencast methods has been granted.

## **9. 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 31st 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.

## **10. Mine gas**

The Coal Authority has no record of a mine gas emission requiring action.

## **11. Hazards related to coal mining**

The property has not been subject to remedial works, by or on behalf of the Authority, under its Emergency Surface Hazard Call Out procedures.

## **12. Withdrawal of support**

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.

## **13. Working facilities order**

The property is not in an area where an order has been made, under the provisions of the Mines (Working Facilities and Support) Acts 1923 and 1966 or any statutory modification or amendment thereof.



#### **14. 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.

#### **15. Information from the Cheshire Brine Subsidence Compensation Board**

The property lies outside the Cheshire Brine Compensation District.

# Comments on the Coal Authority information

The Coal Authority own the copyright in this report and the information used is protected by our database right.

In view of the mining circumstances a prudent developer would seek appropriate technical advice before any works are undertaken.

Therefore 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 good engineering practice developed for mining areas. No development should be undertaken that intersects, disturbs or interferes with any coal or mines of coal without the permission of the Coal Authority. Developers should be aware that the investigation of coal seams/former mines of coal may have the potential to generate and/or displace underground gases and these risks both under and adjacent to the development should be fully considered in developing any proposals. The need for effective measures to prevent gases entering into public properties either during investigation or after development also needs to be assessed and properly addressed. This is necessary due to the public safety implications of any development in these circumstances.

## Additional remarks

Information provided by the Coal Authority in this report is compiled in response to the Law Society's Con29M Coal Mining and Brine Subsidence Claim enquiries. The said enquiries are protected by copyright owned by the Law Society of 113 Chancery Lane, London WC2A 1PL. Please note that Brine Subsidence Claim enquiries are only relevant for England and Wales. This report is prepared in accordance with the Law Society's Guidance Notes 2006, the User Guide 2006 and the Coal Authority and Cheshire Brine Board's Terms and Conditions applicable at the time the report was produced.

## Disclaimer

The Coal Authority owns the copyright in this report and the information used to produce this report is protected by our database rights. All rights are reserved and unauthorised use is prohibited. If we provide a report for you, this does not mean that copyright and any other rights will pass to you. However, you can use the report for your own purposes.

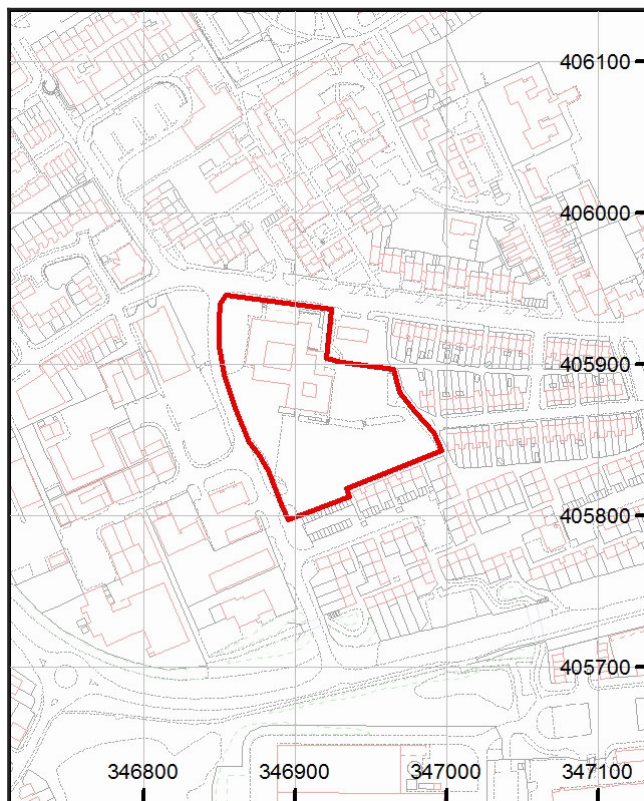
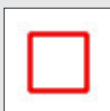
## Alternative formats

If you would like this report in an alternative format, please contact our communications team.

# Enquiry boundary

## Key

Approximate position of enquiry boundary shown




## How to contact us

0345 762 6848 (UK)  
+44 (0)1623 637 000 (International)

200 Lichfield Lane  
Mansfield  
Nottinghamshire  
NG18 4RG

[www.groundstability.com](http://www.groundstability.com)

 /company/the-coal-authority

 /thecoalauthority

 /coalauthority



Reproduced by permission of Ordnance Survey on behalf of HMSO. © Crown copyright and database right 2018. All rights reserved.

Ordnance Survey Licence number: 100020315

**APPENDIX B  
BGS Boreholes**

Date: Geological Survey SEPTEMBER 1971	Scale 5 1/2" : 100m	Job No. British Geological Survey 799	Location HIGH STREET REDEVELOPMENT.	British Geological Survey	Borehole <b>1</b>
Method SNELL AND AUGER / ROTARY.			Client SKELMERSDALE DEVELOPMENT CORP.		

Drilling & Casing Progress	Water Notes & Levels	Sample Type & Depths	S.P.T. 'N' value or Cohesion*	Description	O.D. Level	Legend	Depth
2024	slight 2' 0" medium 5' 0" sealed 8' 0"	Shell and Auger. O.L. to 23' 0" x 3' 6" - 5' 0" U 6' 6" - 8' 0" U 11' 0" - 12' 6" U 17' 0" - 18' 6"	6 20.6 (8°) 30.6 (9°) 89.0	FILLED SOIL, BRICKS, ETC. DRY BROWN MED COARSE SAND DARK BROWN SAND SLIGHT PEAT TRACES SOFT BROWN SANDY BOULDER CLAY TRACES OF OLD ROOTS FIRM BROWN BOULDER CLAY STIFF BROWN BOULDER CLAY.	222.0 220.0 219.7 215.0 213.5 212.0		0' 0" 2' 0" 3' 0" 5' 0" 6' 6" 10' 0"
		CORE DRILLING 23' 0" to 32' 0" (2' 6") 32' 0" to 39' 0" (5' 0") 39' 0" to 45' 0" (6' 6") 45' 0" to 53' 0" (5' 0") 53' 0" to 63' 0" (7' 6") 63' 0" to 72' 0" (2' 0") 72' 0" to 80' 0" (4' 6")		WEATHERED GREY SHALE. SOFT GREY SHALE WITH SANDY SHALE BANDS GREY FRACTURED SHALE GREY FRACTURED SHALE WITH VERY SOFT BANDS. GREY FRACTURED SANDY SHALE GREY FRACTURED SHALE WITH IRONSTONE BANDS. COAL, SHALE COLLAPSED WORKING VERY LOOSE DRILLING. GREY SHALE	201.5 199.0 197.0 183.0 176.0 168.0 153.5 144.0 142.0		12' 0" 20' 6" 23' 0" 25' 0" 39' 0" 48' 0" 54' 0" 68' 6" 78' 0" 80' 0"
2161.	50% Water Loss						

Bore depth  
 Cased depth  
 \* Cohesion in kN/cm m

U Undisturbed sample  
 D Disturbed sample  
 Ø is zero unless given in brackets

X Standard penetration test  
 W Water sample

**APPENDIX C  
Limitations**

---

## Standard Limitations

This Coal Mining Risk Assessment report was conducted and has been prepared for the sole internal use and reliance of the Client, Aldi Stores Ltd. This report shall not be relied upon or transferred to any other parties without the express written authorisation of BSL. If an unauthorised third party comes into possession of this report they rely on it at their risk and the authors owe them no duty of care or skill.

The findings and opinions conveyed via the desk study are based on information obtained from a variety of sources as detailed within this report, which BSL believes are reliable. Nevertheless, BSL cannot and does not guarantee the authenticity or reliability of the information it has relied upon.

Any recommendations made in this report should be confirmed with the Regulatory bodies and Planning Authority prior to implementation to ensure compliance.

The site plans enclosed in this report should not be scaled off.