

Envirocheck[®] Report:

Mining and Ground Stability Datasheet

Order Details:

Order Number:

61961705_1_1

Customer Reference:

R2062

National Grid Reference:

336130, 351500

Slice:

A

Site Area (Ha):

28.92

Search Buffer (m):

500

Site Details:

Site at 336180, 351500

Client Details:

MR B Thomas
Smith Grant Partnership
Station House
Station Road
Ruabon
Wrexham
LL14 6DL

Report Section and Details	Page Number
Summary	-
The Summary section provides an overview of the data contained within the report, detailing the number of data set features or the existence of a data set in relation to the buffer selected. For ease of reference, the report is broken down into 4 sections of data; Mining and Natural Cavities Data, Historical Land Use Information (1:2,500), Historical Land Use Information (1:10,000) and Ground Stability Data (1:50,000).	
Mining and Natural Cavities Data	1
The Mining and Natural Cavities Data section features data sets related to the existence of mining areas and their potential hazards; and details of naturally formed cavities. Data sets within this section are not plotted, with the exception of BGS Recorded Mineral Sites and Potential Mining Areas which feature on the Historical Land Use Information (1:10,000) map.	
Historical Land Use Information (1:2,500)	2
The Historical Land Use Information (1:2,500) section contains data captured from analysis carried out by Landmark of 1:1,250 and 1:2,500 scale historical Ordnance Survey mapping, identifying areas where, historically, the land uses were potentially contaminative. For the purpose of this Envirocheck module, only historical data relating to mining and ground stability has been included and plotted on the corresponding Historical Land Use Information (1:2,500) map. This section also includes the Subterranean Features data set, which details various man-made and man-used underground spaces obtained from the Subterranea Britannica society.	
Historical Land Use Information (1:10,000)	3
The Historical Land Use (1:10,000) section covers data captured from the systematic analysis carried out by Landmark of 1:10, 560 and 1:10,000 scale historical Ordnance Survey mapping dating back to the mid-19th century, identifying potentially contaminative past industrial land uses. For the purpose of this Envirocheck module, only data relating to mining and ground stability has been included and plotted on the accompanying Historical Land Use Information (1:10,000) map.	
Ground Stability Data (1:50,000)	4
The Ground Stability (1:50,000) section includes the BGS Geosure data suite, reporting features to 250m and plotted onto 3 separate maps. Also reported is brine subsidence, brine mining and salt mining data sets, of which Brine Pumping and Salt Mining Related Features are plotted, and subsidence insurance claims and insurance investigations data, which is not plotted.	
Motion Map Data (1:2,500)	5
The Motion Map Data (1:2,500) section contains data which is plotted to indicate long-term stability trends from analysis of satellite radar data.	
Historical Map List	7
The Historical Map List section details the historical mapping that has been analysed for your site, in relation to the Historical Land Use Information sections.	
Data Currency	9
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The brine subsidence data relating to the Driotwich area as provided in this report is derived from JPB studies and physical monitoring undertaken annually over more than 35 years. For more detailed interpretation contact enquiries@jpb.co.uk. JPB retain the copyright and intellectual rights to this data and accept no liability for any loss or damage, including in direct or consequential loss, arising from the use of this data.

Data Type	Page Number	On Site	0 to 250m	251 to 500m
Mining and Natural Cavities Data				
BGS Recorded Mineral Sites				
Coal Mining Affected Areas	pg 1	Yes	n/a	n/a
Man Made Mining Cavities				
Mining Instability	pg 1	Yes	n/a	n/a
Natural Cavities				
Non Coal Mining Areas of Great Britain				n/a
Potential Mining Areas				
Historical Land Use Information (1:2,500)				
Extractive Industries or Potential Excavations from 1855-1909 (100m)	pg 2		1	n/a
Extractive Industries or Potential Excavations from 1893-1915 (100m)	pg 2		1	n/a
Extractive Industries or Potential Excavations from 1906-1937 (100m)	pg 2		2	n/a
Extractive Industries or Potential Excavations from 1924-1949 (100m)				n/a
Extractive Industries or Potential Excavations from 1950-1980 (100m)	pg 2	2	2	n/a
Subterranean Features (100m)				n/a
Historical Land Use Information (1:10,000)				
Air Shafts				
Disturbed Ground				
General Quarrying				
Heap, unknown constituents	pg 3	1		
Mineral Railway				
Mining & quarrying general				
Mining of coal & lignite				
Quarrying of sand & clay, operation of sand & gravel pits	pg 3		1	
Former Marshes				
Potentially Infilled Land (Non-Water)	pg 3		1	
Potentially Infilled Land (Water)	pg 3		2	5

Data Type	Page Number	On Site	0 to 250m	251 to 500m
Ground Stability Data (1:50,000)				
Brine Compensation Area			n/a	n/a
Brine Pumping Related Features				
Brine Subsidence Solution Area				
Potential for Collapsible Ground Stability Hazards	pg 4	Yes		n/a
Potential for Compressible Ground Stability Hazards	pg 4	Yes		n/a
Potential for Ground Dissolution Stability Hazards	pg 4	Yes		n/a
Potential for Landslide Ground Stability Hazards	pg 4	Yes		n/a
Potential for Running Sand Ground Stability Hazards	pg 4	Yes		n/a
Potential for Shrinking or Swelling Clay Ground Stability Hazards	pg 4	Yes	Yes	n/a
Salt Mining Related Features				
Subsidence Insurance Claims				n/a
Subsidence Investigations				n/a
Motion Map Data (1:2,500)				
Motion Map (100m)	pg 5	1	31	n/a

Report Version v49.0

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Coal Mining Affected Areas Description: In an area which may be affected by coal mining activity. It is recommended that a coal mining report is obtained from the Coal Authority. Contact details are included in the Useful Contacts section of this report.	A7NW (S)	0	1	336132 351504
	Mining Instability Mining Evidence: Inconclusive Coal Mining Source: Ove Arup & Partners Boundary Quality: As Supplied	A7NW (S)	0	2	336132 351504
	Non Coal Mining Areas of Great Britain No Hazard				

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
1	Extractive Industries or Potential Excavations from 1855-1909 Use: Well First Map Published 1881 Date: Last Map Published Not Applicable Date:	A11SW (NE)	41	-	336290 351809
2	Extractive Industries or Potential Excavations from 1893-1915 Use: Well First Map Published 1899 Date: Last Map Published Not Applicable Date:	A11SW (NE)	41	-	336287 351806
3	Extractive Industries or Potential Excavations from 1906-1937 Use: Well First Map Published 1911 Date: Last Map Published Not Applicable Date:	A11SW (NE)	42	-	336289 351809
4	Extractive Industries or Potential Excavations from 1906-1937 Use: W First Map Published 1911 Date: Last Map Published Not Applicable Date:	A6NE (S)	89	-	336106 351177
5	Extractive Industries or Potential Excavations from 1950-1980 Use: Pond First Map Published 1962 Date: Last Map Published N/A Date:	A7NW (SE)	0	-	336226 351321
6	Extractive Industries or Potential Excavations from 1950-1980 Use: Pond First Map Published 1959 Date: Last Map Published 1959 Date:	A10SE (W)	0	-	336000 351512
7	Extractive Industries or Potential Excavations from 1950-1980 Use: Sand Pit First Map Published 1962 Date: Last Map Published N/A Date:	A11SE (E)	1	-	336467 351595
8	Extractive Industries or Potential Excavations from 1950-1980 Use: Pond First Map Published 1962 Date: Last Map Published N/A Date:	A11SW (NE)	40	-	336295 351813

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
9	Heap, unknown constituents Use: Not Supplied Date of Mapping: 1964 - 1992	A11SE (E)	0	-	336461 351590
10	Quarrying of sand & clay, operation of sand & gravel pits Use: Not Supplied Date of Mapping: 1954	A11SE (NE)	17	-	336478 351748
11	Potentially Infilled Land (Non-Water) Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1992	A11SE (NE)	17	-	336478 351748
12	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1954	A10NE (N)	180	-	335980 351896
13	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1900	A10NW (NW)	241	-	335697 351911
14	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1900	A10NE (NW)	295	-	335812 351990
15	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1964	A6SW (SW)	383	-	335544 350971
16	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1954	A10NW (NW)	406	-	335464 351942
17	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1964	A9SE (W)	433	-	335339 351689
18	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1964	A9SE (NW)	449	-	335353 351828

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Brine Compensation Area The site does not fall within the brine compensation area.				
	Brine Subsidence Solution Area The site does not fall within the brine subsidence solution area.				
19	Potential for Collapsible Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A7NW (S)	0	3	336132 351504
	Potential for Compressible Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A7NW (S)	0	3	336132 351504
	Potential for Ground Dissolution Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A7NW (S)	0	3	336132 351504
20	Potential for Landslide Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A7NW (S)	0	3	336132 351504
21	Potential for Running Sand Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A7NW (S)	0	3	336132 351504
	Potential for Running Sand Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A7NE (E)	0	3	336462 351496
22	Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A11SE (NE)	4	3	336481 351745
23	Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A11SE (E)	10	3	336473 351525
24	Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A7SW (S)	163	3	336243 351087
	Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A7NW (S)	0	3	336132 351504

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
25	Motion Map Average Velocity -0.8 Gradient (mmyear):	A10SE (W)	0	-	335774 351557
25	Motion Map Average Velocity -0.6 Gradient (mmyear):	A10SW (W)	1	-	335769 351558
25	Motion Map Average Velocity -0.3 Gradient (mmyear):	A10SW (W)	4	-	335771 351562
26	Motion Map Average Velocity -0.4 Gradient (mmyear):	A10SE (W)	3	-	335777 351561
26	Motion Map Average Velocity 0.0 Gradient (mmyear):	A10SE (W)	11	-	335779 351568
27	Motion Map Average Velocity -0.8 Gradient (mmyear):	A10SE (W)	9	-	335798 351637
28	Motion Map Average Velocity -1.3 Gradient (mmyear):	A10SE (W)	10	-	335817 351587
28	Motion Map Average Velocity -1.2 Gradient (mmyear):	A10SE (W)	11	-	335815 351583
29	Motion Map Average Velocity 0.3 Gradient (mmyear):	A10SE (W)	12	-	335814 351576
29	Motion Map Average Velocity -0.7 Gradient (mmyear):	A10SE (W)	12	-	335814 351572
29	Motion Map Average Velocity -0.9 Gradient (mmyear):	A10SE (W)	13	-	335812 351568
29	Motion Map Average Velocity -0.9 Gradient (mmyear):	A10SE (W)	14	-	335810 351569
29	Motion Map Average Velocity -0.7 Gradient (mmyear):	A10SE (W)	16	-	335810 351573
30	Motion Map Average Velocity -0.2 Gradient (mmyear):	A10SE (W)	17	-	335795 351572
31	Motion Map Average Velocity -0.7 Gradient (mmyear):	A10SE (NW)	29	-	335809 351720
32	Motion Map Average Velocity -1.4 Gradient (mmyear):	A6NE (SW)	30	-	335855 351198
33	Motion Map Average Velocity -0.7 Gradient (mmyear):	A10SW (NW)	34	-	335754 351709
33	Motion Map Average Velocity -0.6 Gradient (mmyear):	A10SW (NW)	37	-	335755 351713
34	Motion Map Average Velocity 0.2 Gradient (mmyear):	A10SW (W)	49	-	335750 351612
34	Motion Map Average Velocity -0.1 Gradient (mmyear):	A10SW (W)	52	-	335748 351608

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
35	Motion Map Average Velocity -1.1 Gradient (mmyear):	A10SE (NW)	55	-	335825 351749
35	Motion Map Average Velocity -0.9 Gradient (mmyear):	A10SE (NW)	59	-	335824 351753
35	Motion Map Average Velocity -0.6 Gradient (mmyear):	A10SE (NW)	62	-	335818 351754
36	Motion Map Average Velocity 1.0 Gradient (mmyear):	A11SE (NE)	65	-	336531 351707
36	Motion Map Average Velocity 0.2 Gradient (mmyear):	A11SE (NE)	66	-	336532 351703
36	Motion Map Average Velocity 0.7 Gradient (mmyear):	A11SE (NE)	69	-	336535 351706
37	Motion Map Average Velocity -0.3 Gradient (mmyear):	A11SE (NE)	68	-	336533 351723
37	Motion Map Average Velocity -0.1 Gradient (mmyear):	A11SE (NE)	70	-	336536 351722
37	Motion Map Average Velocity -0.4 Gradient (mmyear):	A11SE (NE)	73	-	336537 351726
38	Motion Map Average Velocity -1.2 Gradient (mmyear):	A7NW (S)	89	-	336247 351180
39	Motion Map Average Velocity -0.8 Gradient (mmyear):	A7NW (S)	95	-	336237 351174
40	Motion Map Average Velocity -0.5 Gradient (mmyear):	A10SW (W)	100	-	335679 351682

The following mapping has been analysed for Historical Land Use Information (1:2,500):

1:2,500	Mapsheet	Published Date
Denbighshire	029_05	1881
Denbighshire	029_05	1881
Denbighshire	029_05	1881
Denbighshire	029_05	1881
Denbighshire	029_05	1899
Denbighshire	029_05	1899
Denbighshire	029_05	1899
Denbighshire	029_05	1899
Denbighshire	029_05	1911
Denbighshire	029_05	1911
Denbighshire	029_05	1911
Denbighshire	029_05	1911
Ordnance Survey Plan	SJ3650	1961
Ordnance Survey Plan	SJ3650	1961
Ordnance Survey Plan	SJ3552	1962
Ordnance Survey Plan	SJ3651	1962
Ordnance Survey Plan	SJ3651	1962
Ordnance Survey Plan	SJ3651	1962
Ordnance Survey Plan	SJ3651	1962
Ordnance Survey Plan	SJ3651	1962
Ordnance Survey Plan	SJ3652	1962
Ordnance Survey Plan	SJ3652	1962

The following mapping has been analysed for Historical Land Use Information (1:10,000):

1:10,560	Mapsheet	Published Date
Denbighshire	028_00	1879
Denbighshire	029_00	1881
Cheshire	053_00	1881
Cheshire	059_00	1881
Denbighshire	029_SW	1899
Denbighshire	028_NE	1900
Denbighshire	028_SE	1900
Denbighshire	029_NW	1900
Flintshire	020_NW	1914
Denbighshire	028_SE	1914
Denbighshire	029_NW	1914
Denbighshire	029_SW	1914
Denbighshire	028_NE	1915
Denbighshire	028_NE	1938
Denbighshire	028_SE	1938
Denbighshire	029_SW	1938
Denbighshire	029_NW	1954
Ordnance Survey Plan	SJ35SE	1964
Ordnance Survey Plan	SJ35SW	1964
1:10,000	Mapsheet	Published Date
Ordnance Survey Plan	SJ35SE	1992
Ordnance Survey Plan	SJ35SW	1992

Mining and Cavities Data	Version	Update Cycle
BGS Recorded Mineral Sites British Geological Survey - National Geoscience Information Service	October 2014	Bi-Annually
Coal Mining Affected Areas The Coal Authority - Mining Report Service	December 2013	As notified
Man Made Mining Cavities Peter Brett Associates	August 2014	Bi-Annually
Mining Instability Ove Arup & Partners	October 2000	Not Applicable
Natural Cavities Peter Brett Associates	August 2014	Bi-Annually
Non Coal Mining Areas of Great Britain British Geological Survey - National Geoscience Information Service	July 2014	Not Applicable
Historical Land Use Information (1:2,500)	Version	Update Cycle
Subterranean Features Landmark Information Group Limited	September 2014	Bi-Annually
Ground Stability Data (1:50,000)	Version	Update Cycle
Potential for Collapsible Ground Stability Hazards British Geological Survey - National Geoscience Information Service	June 2014	Annually
Potential for Compressible Ground Stability Hazards British Geological Survey - National Geoscience Information Service	June 2014	Annually
Potential for Ground Dissolution Stability Hazards British Geological Survey - National Geoscience Information Service	June 2014	Annually
Potential for Landslide Ground Stability Hazards British Geological Survey - National Geoscience Information Service	June 2014	Annually
Potential for Running Sand Ground Stability Hazards British Geological Survey - National Geoscience Information Service	June 2014	Annually
Potential for Shrinking or Swelling Clay Ground Stability Hazards British Geological Survey - National Geoscience Information Service	June 2014	Annually
Subsidence Insurance Claims SP Property Services	November 2014	Quarterly
Subsidence Investigations CET Structures Ltd	November 2014	Quarterly

Motion Map Data (1:2,500)	Version	Update Cycle
Motion Map		
Nigel Press Associates - Hampshire	February 2011	As notified
Nigel Press Associates - Cambridge	January 2011	As notified
Nigel Press Associates - Ipswich	January 2011	As notified
Nigel Press Associates - Norwich	January 2011	As notified
Nigel Press Associates - Peterborough	January 2011	As notified
Nigel Press Associates - Barnstaple	July 2010	As notified
Nigel Press Associates - Derbyshire	July 2010	As notified
Nigel Press Associates - Humberside	July 2010	As notified
Nigel Press Associates - Kent	July 2010	As notified
Nigel Press Associates - Lincolnshire	July 2010	As notified
Nigel Press Associates - Nottinghamshire	July 2010	As notified
Nigel Press Associates - Birmingham	May 2009	As notified
Nigel Press Associates - Bournemouth	May 2009	As notified
Nigel Press Associates - Brighton	May 2009	As notified
Nigel Press Associates - Bristol	May 2009	As notified
Nigel Press Associates - Cardiff	May 2009	As notified
Nigel Press Associates - Central London	May 2009	As notified
Nigel Press Associates - Cheltenham	May 2009	As notified
Nigel Press Associates - Coventry	May 2009	As notified
Nigel Press Associates - Crawley	May 2009	As notified
Nigel Press Associates - Edinburgh	May 2009	As notified
Nigel Press Associates - Exeter	May 2009	As notified
Nigel Press Associates - Glasgow	May 2009	As notified
Nigel Press Associates - Isle of Wight	May 2009	As notified
Nigel Press Associates - Leeds	May 2009	As notified
Nigel Press Associates - Leicester	May 2009	As notified
Nigel Press Associates - Liverpool	May 2009	As notified
Nigel Press Associates - Manchester	May 2009	As notified
Nigel Press Associates - Milton Keynes	May 2009	As notified
Nigel Press Associates - Newcastle	May 2009	As notified
Nigel Press Associates - Northwich	May 2009	As notified
Nigel Press Associates - Nottingham	May 2009	As notified
Nigel Press Associates - Oxford	May 2009	As notified
Nigel Press Associates - Plymouth	May 2009	As notified
Nigel Press Associates - Portsmouth	May 2009	As notified
Nigel Press Associates - Preston	May 2009	As notified
Nigel Press Associates - Reading	May 2009	As notified
Nigel Press Associates - Sheffield	May 2009	As notified
Nigel Press Associates - Stoke	May 2009	As notified
Nigel Press Associates - Swindon	May 2009	As notified
Nigel Press Associates - Tonbridge	May 2009	As notified
Nigel Press Associates - North London	November 2008	As notified
Nigel Press Associates - Head Office	September 2008	As notified

A selection of organisations who provide data within this report

Data Supplier	Data Supplier Logo
Ordnance Survey	
British Geological Survey	 British Geological Survey NATURAL ENVIRONMENT RESEARCH COUNCIL
The Coal Authority	
Ove Arup	
Peter Brett Associates	
Wardell Armstrong	
Johnson Poole & Bloomer	

Contact	Name and Address	Contact Details
1	The Coal Authority - Mining Report Service 200 Lichfield Lane, Mansfield, Nottinghamshire, NG18 4RG	Telephone: 0845 7626848 Email: thecoalauthority@coal.gov.uk
2	Ove Arup & Partners Central Square, Forth Street, Newcastle upon Tyne, Tyne and Wear, NE1 3PL	Telephone: 0191 261 6080 Fax: 0191 261 7879
3	British Geological Survey - Enquiry Service British Geological Survey, Kingsley Dunham Centre, Keyworth, Nottingham, Nottinghamshire, NG12 5GG	Telephone: 0115 936 3143 Fax: 0115 936 3276 Email: enquiries@bgs.ac.uk Website: www.bgs.ac.uk
-	Landmark Information Group Limited Imperium, Imperial Way, Reading, Berkshire, RG2 0TD	Telephone: 0844 844 9952 Fax: 0844 844 9951 Email: customerservices@landmarkinfo.co.uk Website: www.landmarkinfo.co.uk