

Envirocheck[®] Report:

Mining and Ground Stability Datasheet

Order Details:

Order Number: 46017294_1_1

Customer Reference: LE11872

National Grid Reference: 357240, 400880

Slice:

Site Area (Ha): 34.34

Search Buffer (m): 1000

Site Details:

Landgate Wigan

Client Details:

Mr A Kingsnorth Wardell Armstrong LLP 2 The Avenue Leigh Lancashire WN7 1ES





Report Section and Details	Page Number
Summary	-
The Summary section provides an overview of the data contained within the report, detailing t 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 C Land Use Information (1:2,500), Historical Land Use Information (1:10,000) and Ground Stabi	avities Data, Historical
Mining and Natural Cavities Data	1
The Mining and Natural Cavities Data section features data sets related to the existence of m potential hazards; and details of naturally formed cavities. Data sets within this section are not plotted, with the exception of BGS Recorded Mineral Site Areas which feature on the Historical Land Use Information (1:10,000) map.	-
Historical Land Use Information (1:2,500)	7
The Historical Land Use Information (1:2,500) section contains data captured from analysis ca 1:1,250 and 1:2,500 scale historical Ordnance Survey mapping, identifying areas where, histor potentially contaminative. For the purpose of this Envirocheck module, only historical data relating to mining and ground included and plotted on the corresponding Historical Land Use Information (1:2,500) map. This Subterranean Features data set, which details various man-made and man-used underground Subterranea Britannica society.	rically, the land uses were I stability has been s section also includes th
Historical Land Use Information (1:10,000)	12
The Historical Land Use (1:10,000) section covers data captured from the systematic analysis of 1:10, 560 and 1:10,000 scale historical Ordnance Survey mapping dating back to the mid-1 potentially contaminative past industrial land uses. For the purpose of this Envirocheck module, only data relating to mining and ground stability I plotted on the accompanying Historical Land Use Information (1:10,000) map.	9th century, identifying
Ground Stability Data (1:50,000)	16
The Ground Stability (1:50,000) section includes the BGS Geosure data suite, reporting featu onto 3 separate maps. Also reported is brine subsidence, brine mining and salt mining data se Pumping and Salt Mining Related Features are plotted, and subsidence insurance claims and data, which is not plotted.	ets, of which Brine
Motion Map Data (1:2,500)	17
The Motion Map Data (1:2,500) section contains data which is plotted to indicate long-term start of satellite radar data.	ability trends from analysi
Historical Map List	22
	site in relation to the
The Historical Map List section details the historical mapping that has been analysed for your Historical Land Use Information sections. Data Currency	24
	•

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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.

Report Version v47.0

Data Type	Page Number	On Site	0 to 250m	251 to 500m	501 to 1000m
Mining and Natural Cavities Data					
BGS Recorded Mineral Sites	pg 1		2		2
Coal Mining Affected Areas	pg 1	Yes	n/a	n/a	n/a
Man Made Mining Cavities					
Mining Instability	pg 1	Yes	n/a	n/a	n/a
Natural Cavities					
Non Coal Mining Areas of Great Britain				n/a	n/a
Potential Mining Areas	pg 1	12	9	5	12
Historical Land Use Information (1:2,500)					
Extractive Industries or Potential Excavations from 1855-1909 (100m)	pg 7	1	10	n/a	n/a
Extractive Industries or Potential Excavations from 1893-1915 (100m)	pg 8	2	7	n/a	n/a
Extractive Industries or Potential Excavations from 1906-1937 (100m)	pg 9	1	8	n/a	n/a
Extractive Industries or Potential Excavations from 1924-1949 (100m)				n/a	n/a
Extractive Industries or Potential Excavations from 1950-1980 (100m)	pg 9	1	13	n/a	n/a
Subterranean Features (100m)				n/a	n/a
Historical Land Use Information (1:10,000)					
Air Shafts					
Disturbed Ground					
General Quarrying					
Heap, unknown constituents					
Mineral Railway	pg 12			2	6
Mining & quarrying general	pg 12				1
Mining of coal & lignite	pg 12		2		6
Quarrying of sand & clay, operation of sand & gravel pits					
Former Marshes					
Potentially Infilled Land (Non-Water)	pg 12		3		7

pg 13

10

1

16

29

Potentially Infilled Land (Water)



	Page Number	On Site	
ta (1·50 000)			

Data Type 0 to 250m 251 to 500m 501 to 1000m Ground Stability Data (1:50,000) Brine Compensation Area n/a n/a n/a Brine Pumping Related Features Brine Subsidence Solution Area Potential for Collapsible Ground Stability Hazards pg 16 Yes n/a n/a Potential for Compressible Ground Stability Hazards pg 16 Yes n/a n/a Potential for Ground Dissolution Stability Hazards n/a n/a Potential for Landslide Ground Stability Hazards pg 16 Yes n/a n/a Potential for Running Sand Ground Stability Hazards pg 16 Yes n/a n/a Potential for Shrinking or Swelling Clay Ground Stability Hazards pg 16 Yes n/a n/a Salt Mining Related Features Subsidence Insurance Claims n/a n/a

pg 16

pg 17

1

97

n/a

n/a

n/a

n/a

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Motion Map (100m)

Subsidence Investigations

Motion Map Data (1:2,500)

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Summary



Map ID		Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS Recorded Min	eral Sites				
1	Site Name: Location: Source: Reference: Type: Status: Operator: Operator Location: Periodic Type: Geology: Commodity: Positional Accuracy:	Park Lane Brick Works , Rose Hill, Ashton In Makerfield, Lancashire British Geological Survey, National Geoscience Information Service 95068 Opencast Ceased Unknown Operator Unknown Operator Carboniferous Pennine Middle Coal Measures Formation Common Clay and Shale Located by supplier to within 10m	A14SW (NW)	52	1	356849 401202
	BGS Recorded Min	eral Sites				
2	Site Name: Location: Source: Reference: Type: Status: Operator: Operator Location: Periodic Type: Geology: Commodity:	Garswood Hall Collieries , Ashton In Makerfield, Lancashire British Geological Survey, National Geoscience Information Service 95071 Underground Ceased Unknown Operator Unknown Operator Carboniferous Pennine Coal Measures Group Coal - Deep Located by supplier to within 10m	A11NE (E)	197	1	357684 400882
	BGS Recorded Min	eral Sites				
3	Site Name: Location: Source: Reference: Type: Status: Operator: Operator Location: Periodic Type: Geology: Commodity: Positional Accuracy:	Garswood Hall Collieries , Ashton In Makerfield, Lancashire British Geological Survey, National Geoscience Information Service 95070 Underground Ceased Unknown Operator Unknown Operator Carboniferous Pennine Coal Measures Group Coal - Deep Located by supplier to within 10m	A12NW (E)	627	1	358201 401087
	BGS Recorded Min	eral Sites				
3	Site Name: Location: Source: Reference: Type: Status: Operator: Operator Location: Periodic Type: Geology: Commodity:	Garswood Hall Collieries , Ashton In Makerfield, Lancashire British Geological Survey, National Geoscience Information Service 95070 Underground Ceased Unknown Operator Unknown Operator Carboniferous Pennine Coal Measures Group Common Clay and Shale Located by supplier to within 10m	A12NW (E)	627	1	358201 401087
	Coal Mining Affecte	ed 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.	A10NE (SW)	0	2	357242 400882
	Mining Instability Mining Evidence: Source: Boundary Quality:	Inconclusive Coal Mining Ove Arup & Partners As Supplied	A10NE (SW)	0	3	357242 400882
	Non Coal Mining Ar No Hazard	reas of Great Britain				
	Potential Mining Ar	eas				
4	Name: Ceased Operation: Commodity: Reference: Alternate Name/Mine: Custodian:	Ince 1915 Coal; New; Ince Four Feet 6549 Not Supplied Not Supplied	A10NE (N)	0	4	357242 400949



Map ID		Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
5	Potential Mining Ar Name: Ceased Operation: Commodity: Reference: Alternate Name/Mine: Custodian:	eas Park Lane 1922 Coal; Orrell Four Feet 7586 Nos. 1, 2, 3 Not Supplied	A10NE (SW)	0	4	357242 400882
6	Potential Mining Ar Name: Ceased Operation: Commodity: Reference: Alternate Name/Mine: Alternate Name/Mine: Custodian:	eas Park Lane 1902 Coal; Orrell Four Feet; Orrell Five Feet 4782 Middle Nos. 1, 2, 3 Not Supplied	A10NE (N)	0	4	357242 400949
7	Potential Mining Ar Name: Ceased Operation: Commodity: Reference: Alternate Name/Mine: Custodian:	eas Park Lane 1911 Coal; Wigan Five Feet; Wigan Four Feet; Wigan Nine Feet 5742 Nos. 1, 2, 3, 4 Not Supplied	A10NE (N)	0	4	357242 400949
8	Potential Mining Ar Name: Ceased Operation: Commodity: Reference: Alternate Name/Mine: Custodian:	eas Garswood Hall 1901 Coal; Pemberton Four Feet 4201 Not Supplied Not Supplied	A10NE (SW)	0	4	357242 400882
9	Potential Mining Ar Name: Ceased Operation: Commodity: Reference: Alternate Name/Mine: Custodian:	eas Garswood hall 1893 Coal; Wigan Nine Feet 2915 Nos. 1, 2, 3 Not Supplied	A11NW (E)	0	4	357512 400947
10	Potential Mining Ar Name: Ceased Operation: Commodity: Reference: Alternate Name/Mine: Custodian:	eas Garswood Hall 1927 Coal; New Mine Bottoms; Bull Dog; Ince Seven Feet; Ince Four Feet; Ince Yard; New Mine Tops 9198 Nos. 5, 6, 7 Not Supplied	A10NE (SW)	0	4	357242 400882
11	Potential Mining Ar Name: Ceased Operation: Commodity: Reference: Alternate Name/Mine: Custodian:	eas Garswood Hall 1898 Coal; Wigan Five Feet 3766 Not Supplied Not Supplied	A15SW (NE)	0	4	357516 401349
12	Potential Mining Ar Name: Ceased Operation: Commodity: Reference: Alternate Name/Mine: Custodian:	eas Garswood Hall 1900 Coal; Wigan Five Feet 4045 Not Supplied Not Supplied	A10NE (SW)	0	4	357242 400882



Map ID		Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
13	Potential Mining Ar Name: Ceased Operation: Commodity: Reference: Alternate Name/Mine: Alternate Name/Mine: Alternate Name/Mine: Alternate Name/Mine: Custodian:	eas Park Lane 1916 Coal; Orrell Five Feet; Ince Seven Feet New; New Top; Ince Four Feet 9985 Deep Ince No. 1 Pemberton Not Supplied	A10NE (N)	0	4	357242 400949
14	Potential Mining Ar Name: Ceased Operation: Commodity: Reference: Alternate Name/Mine: Alternate Name/Mine: Alternate Name/Mine: Alternate Name/Mine: Custodian:	Park Lane 1929 Coal; Orrell Yard; Ravine; King; Ince Yard; Pemberton Four Feet 9986 Deep Ince Nos. 1, 2, 3 Pemberton Not Supplied	A10NE (SW)	0	4	357242 400882
15	Potential Mining Ar Name: Ceased Operation: Commodity: Reference: Alternate Name/Mine: Alternate Name/Mine: Custodian:	eas Garswood Hall 1935 Coal; Pemberton Yard or King; Pemberton Two Feet; Orrell Four Feet or Arley 11631 Evan's Edge Green Nos. 2, 3, 6, 7, 9 Not Supplied	A10NE (SW)	0	4	357242 400882
16	Potential Mining Ar Name: Ceased Operation: Commodity: Reference: Alternate Name/Mine: Custodian:	eas Long Lane (Crow) 1933 Coal; Ince Four Feet 10906 Nos. 1, 2 Not Supplied	A11NW (E)	15	4	357512 400880
17	Potential Mining Ar Name: Ceased Operation: Commodity: Reference: Alternate Name/Mine: Custodian:		A11NW (E)	15	4	357512 400880
18	Potential Mining Ar Name: Ceased Operation: Commodity: Reference: Alternate Name/Mine: Custodian:	eas Long Lane 1933 Coal; Pemberton Two Feet; Pemberton Four Feet; Pemberton Five Feet 11078 Not Supplied Not Supplied	A10SE (S)	173	4	357239 400547
19	Potential Mining Ar Name: Ceased Operation: Commodity: Reference: Alternate Name/Mine: Custodian:	eas Downall Green 1888 Coal; Wigan Four Feet; Wigan Five Feet; Wigan Nine Feet Not Supplied Not Supplied J. and R. Stone, Ltd., The Park Collieries, Garswood, Wigan.	A10NW (W)	188	4	356708 400887



Map ID		Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Potential Mining Ar	eas				
20	Name: Ceased Operation: Commodity: Reference: Alternate Name/Mine:	Downall Green 1890 Coal; Wigan Five Feet; Wigan Four Feet or Main Delf; Wigan Nine Feet Not Supplied Not Supplied	A10NW (W)	188	4	356708 400887
	Custodian:	Lord Gerard, Estate Office, Garswood, Ashton-in-Makerfield.				
	Potential Mining Ar	eas				
21	Name: Ceased Operation: Commodity: Reference: Alternate Name/Mine: Custodian:	Park Lane 1929 Coal; Ravine; Orrell Yard 9984 Middle Place Not Supplied	A10SE (S)	188	4	357107 400548
	Potential Mining Ar	eas				
22	Name: Ceased Operation: Commodity: Reference: Alternate Name/Mine: Custodian:	Park Lane 1908 Coal; Wigan Four Feet; Wigan Five Feet; Wigan Nine Feet 5307 Ashton Not Supplied	A10SE (S)	210	4	357107 400548
	Potential Mining Ar	eas				
23	Name: Ceased Operation: Commodity: Reference: Alternate Name/Mine: Alternate Name/Mine: Name/Mine:	Bryn Hall 1919 Coal; Pemberton Four Feet 6889 Bryn Moss Nos. 1, 2, 3 Pemberton	A15SE (NE)	237	4	357918 401346
	Custodian:	Not Supplied				
24	Potential Mining Ar Name: Ceased Operation: Commodity: Reference: Alternate Name/Mine: Alternate Name/Mine: Alternate Name/Mine: Custodian:	eas Pemberton 1912 Coal; Pemberton Four Feet 5975 King Prince Queen Not Supplied	A15NW (N)	237	4	357249 401754
	Potential Mining Ar					
25	Name: Ceased Operation: Commodity: Reference: Alternate Name/Mine: Custodian:	Bryn Hall 1921 Coal; Wigan Nine Feet or Six Feet 7298 Nos. 1, 2, 3 Not Supplied	A15SE (NE)	335	4	357918 401346
	Potential Mining Ar					
26	Name: Ceased Operation: Commodity: Reference: Alternate Name/Mine: Alternate Name/Mine: Alternate Name/Mine: Custodian:	Bryn Hall 1917 Coal; Arley 6731 Bryn Moss Nos. 1, 2, 3 Pemberton Not Supplied	A12NE (E)	449	4	358317 400940
	Potential Mining Ar	eas				
27	Name: Ceased Operation: Commodity: Reference: Alternate Name/Mine: Custodian:	Bryn 1876 Coal; Wigan Five Feet Not Supplied Not Supplied Lord Gerard, Estate Office, Garswood, Ashton-in-Makerfield.	A16NW (NE)	449	4	357922 401748



Map ID		Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
28	Potential Mining Ar Name: Ceased Operation: Commodity: Reference: Alternate Name/Mine: Custodian:	eas Bryn Hall 1915 Coal; Wigan Five Feet 6533 Nos. 1, 2, 3 Not Supplied	A12NE (E)	449	4	358317 400940
29	Potential Mining Ar Name: Ceased Operation: Commodity: Reference: Alternate Name/Mine: Custodian:	eas Bryn Hall 1936 Coal; Wigan Four Feet 11720 Nos. 1, 2, 3 Not Supplied	A12NE (E)	449	4	358317 400940
30	Potential Mining Ar Name: Ceased Operation: Commodity: Reference: Alternate Name/Mine: Custodian:	eas Park Lane 1876 Coal; Wigan Four Feet 463 Not Supplied Not Supplied	A13SE (NW)	603	4	356309 401360
31	Potential Mining Ar Name: Ceased Operation: Commodity: Reference: Alternate Name/Mine: Custodian:	eas Highbrooks 1887 Coal; Nine Feet or Wigan Six Feet; Orrell Five Feet 9983 Not Supplied Not Supplied	A13SE (NW)	603	4	356309 401360
32	Potential Mining Ar Name: Ceased Operation: Commodity: Reference: Alternate Name/Mine: Custodian:	eas Barrow Lane Not Supplied Coal Not Supplied Not Supplied	A6NE (S)	607	4	357103 400146
33	Potential Mining Ar Name: Ceased Operation: Commodity: Reference: Alternate Name/Mine: Alternate Name/Mine: Alternate Name/Mine: Custodian:	eas Edge Green 1928 Coal; Wigan Five Feet; Wigan Nine Feet 9526 Garswood Hall Lily Lane Nos. 1, 2 Not Supplied	A12NE (E)	731	4	358316 400873
34	Potential Mining Ar Name: Ceased Operation: Commodity: Reference: Alternate Name/Mine: Custodian:	eas Birchenheds 1912 Coal; Rushey Park; Arley 5850 Not Supplied Not Supplied	A6NW (SW)	752	4	356701 400150
35	Potential Mining Ar Name: Ceased Operation: Commodity: Reference: Alternate Name/Mine: Custodian:	eas Birchenheds 1930 Coal; King; Upper King 10402 Not Supplied Not Supplied	A6NW (SW)	752	4	356701 400150



Map ID		Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Potential Mining Ar	eas				
36	Name: Ceased Operation: Commodity:	Pewfall 1854 Coal; Six Feet or Wigan Four Feet; Nine Feet or Wigan Six Feet; Lower Florida	A9SE (W)	763	4	356302 400555
	Reference: Alternate Name/Mine: Custodian:	Not Supplied Not Supplied Lord Gerard, Estate Office, Garswood, Ashton-in-Makerfield.				
37	Potential Mining Ar		A13NE	777	4	050040
37	Name: Ceased Operation: Commodity: Reference: Alternate Name/Mine: Custodian:	Highbrooks 1885 Coal; Nine Feet or Wigan Six Feet; Six Feet or Wigan Four Feet Not Supplied Not Supplied Lord Gerard, Estate Office, Garswood, Ashton-in-Makerfield.	(NW)		4	356313 401762
	Potential Mining Ar	eas				
38	Name: Ceased Operation: Commodity: Reference: Alternate Name/Mine:	Ashton 1855 Coal; Higher Florida; Lower Florida Not Supplied Not Supplied	A2NE (S)	977	4	357232 399743
	Custodian:	Lord Gerard, Estate Office, Garswood, Ashton-in-Makerfield.				
	Potential Mining Ar	eas				
39	Name: Ceased Operation: Commodity: Reference: Alternate Name/Mine: Alternate Name/Mine: Custodian:	Park 1923 Coal; Lower Florida 7596 Ashton No. 4 Not Supplied	A2NE (S)	999	4	357100 399744
	Potential Mining Ar	eas				
40	Name: Ceased Operation: Commodity: Reference: Alternate Name/Mine: Custodian:	Ashton Old Not Supplied Coal; Upper Florida; Lower Florida Not Supplied Not Supplied J. and R. Stone, Ltd., The Park Collieries, Garswood, Wigan.	A2NE (S)	999	4	357100 399744
	Potential Mining Ar	eas				
41	Name: Ceased Operation: Commodity: Reference: Alternate Name/Mine: Custodian:	Park Lane 1888 Coal; Orrell Four Feet 2133 Not Supplied	A13SW (W)	1000	4	355907 401363



Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
42	Extractive Industries or Potential Excavations from 1855-1909 Use: W First Map Published 1893 Date: Last Map Published Not Applicable Date: Date: Date:	A14SE (NW)	0	-	357059 401224
43	Extractive Industries or Potential Excavations from 1855-1909 Use: W First Map Published 1893 Date: Last Map Published Not Applicable Date: Date: Date: Date: Date: Date: Date: Date: Date:	A10NE (NW)	1	-	356926 401054
44	Extractive Industries or Potential Excavations from 1855-1909 Use: Railway Embankment First Map Published 1893 Date: Image: Colspan="2">Colspan="2"	A15SW (NE)	2	-	357571 401373
45	Extractive Industries or Potential Excavations from 1855-1909 Use: Railway Cutting First Map Published 1893 Date: Last Map Published Last Map Published 1893 Date: Last Map Published	A11SW (SE)	5	-	357369 400773
46	Extractive Industries or Potential Excavations from 1855-1909 Use: Park Lane Collieries First Map Published 1893 Date: Last Map Published Last Map Published 1893 Date: 1893	A15NW (NE)	14	-	357551 401521
47	Extractive Industries or Potential Excavations from 1855-1909 Use: Park Lane Brick Works First Map Published 1893 Date: Last Map Published Last Map Published Not Applicable Date: Last Map Published	A14SW (NW)	15	-	356889 401143
48	Extractive Industries or Potential Excavations from 1855-1909 Use: W First Map Published 1893 Date: Last Map Published Last Map Published Not Applicable Date: Last Map Published	A10NE (W)	37	_	356976 400878
49	Extractive Industries or Potential Excavations from 1855-1909 Use: Skelton Well First Map Published 1893 Date: Last Map Published Last Map Published Not Applicable Date: Date:	A10NE (W)	40	_	356961 400893
50	Extractive Industries or Potential Excavations from 1855-1909 Use: Unspecified Deposited Material First Map Published 1893 Date: Last Map Published Last Map Published Not Applicable Date: Date:	A11SW (SE)	59	-	357390 400713
51	Extractive Industries or Potential Excavations from 1855-1909 Use: Garswood Hall Collieries First Map Published 1893 Date: Last Map Published Last Map Published Not Applicable Date: Date:	A11NW (E)	96	-	357580 400902
52	Extractive Industries or Potential Excavations from 1855-1909 Use: Unspecified Deposited Material First Map Published 1893 Date: Last Map Published Not Applicable Date:	A11NW (E)	96	-	357580 400902



Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
53	Extractive Industries or Potential Excavations from 1893-1915 Use: Reservoir First Map Published 1908 Date: Image: Colspan="2">Colspan="2">Colspan="2">Colspan="2">Colspan="2">Colspan="2">Colspan="2">Colspan="2">Colspan="2">Colspan="2">Colspan="2">Colspan="2">Colspan="2">Colspan="2"Colspan="2"Colspan="2"Colspan="2"Colspan="2"Colspan="2">Colspan="2"	A15SW (N)	0	-	357303 401211
54	Extractive Industries or Potential Excavations from 1893-1915 Use: W First Map Published 1908 Date: Last Map Published Not Applicable Date:	A14SE (NW)	0	-	357060 401223
55	Extractive Industries or Potential Excavations from 1893-1915 Use: Railway Embankment First Map Published 1908 Date: Last Map Published Date: Not Applicable Date: Date:	A15SW (NE)	2	-	357573 401364
56	Extractive Industries or Potential Excavations from 1893-1915Use:Railway CuttingFirst Map Published1908Date:IsolationLast Map Published1908Date:Isolation	A11SW (SE)	6	-	357372 400774
57	Extractive Industries or Potential Excavations from 1893-1915 Use: Park Lane Collieries First Map Published 1908 Date: Last Map Published Last Map Published 1908 Date: Last Map Published	A15NW (NE)	13	-	357546 401525
58	Extractive Industries or Potential Excavations from 1893-1915 Use: Park Lane Brick Works First Map Published 1908 Date: Last Map Published Last Map Published Not Applicable Date: Date:	A14SW (NW)	13	-	356892 401126
59	Extractive Industries or Potential Excavations from 1893-1915 Use: Railway Embankment First Map Published 1908 Date: Last Map Published Last Map Published 1908	A15NW (NE)	16	-	357551 401524
60	Extractive Industries or Potential Excavations from 1893-1915 Use: Unspecified Pit First Map Published 1908 Date: Last Map Published Last Map Published Not Applicable Date: Date:	A14SW (NW)	23	-	356885 401122
61	Extractive Industries or Potential Excavations from 1893-1915 Use: Garswood Hall Collieries First Map Published 1908 Date: Last Map Published Last Map Published 1908 Date: Last Map Published Last Map Published 1908	A11SW (SE)	45	-	357410 400754
62	Extractive Industries or Potential Excavations from 1893-1915 Use: Skelton Well First Map Published 1908 Date: Last Map Published Last Map Published Not Applicable Date: Date:	A10NE (W)	64	-	356940 400881
63	Extractive Industries or Potential Excavations from 1893-1915 Use: Reservoir First Map Published 1908 Date: Last Map Published Not Applicable Date:	A14SW (NW)	85	-	356813 401232



Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
64	Extractive Industries or Potential Excavations from 1906-1937 Use: Reservoir First Map Published 1928 Date: Last Map Published Not Applicable Date:	A15SW (N)	0	-	357306 401207
65	Extractive Industries or Potential Excavations from 1906-1937 Use: Railway Embankment First Map Published 1928 Date: Last Map Published Last Map Published Not Applicable Date: Date:	A15SW (NE)	2	-	357565 401395
66	Extractive Industries or Potential Excavations from 1906-1937 Use: Railway Cutting First Map Published 1928 Date: 1928 Last Map Published 1928 Date: 1928	A11SW (SE)	3	-	357372 400774
67	Extractive Industries or Potential Excavations from 1906-1937 Use: Railway Embankment First Map Published 1928 Date: Image: Comparison Last Map Published 1929 Date: Image: Comparison Date: Image: Comparison Rest: Image: Comparison Date: Image: Comparison Last Map Published 1929 Date: Image: Comparison	A15NW (NE)	12	-	357547 401522
68	Extractive Industries or Potential Excavations from 1906-1937 Use: Unspecified Pit First Map Published 1928 Date: Last Map Published Not Applicable Date:	A14SW (NW)	25	-	356880 401124
69	Extractive Industries or Potential Excavations from 1906-1937 Use: Garswood Hall Collieries (New Pits) First Map Published 1928 Date: Last Map Published Last: Date:	A11SW (SE)	45	-	357409 400753
70	Extractive Industries or Potential Excavations from 1906-1937 Use: Unspecified Deposited Material First Map Published 1928 Date: Last Map Published Last Map Published Not Applicable Date: Date:	A14SW (NW)	59	-	356848 401134
71	Extractive Industries or Potential Excavations from 1906-1937 Use: Unspecified Deposited Material First Map Published 1928 Date: Last Map Published Last: Not Applicable Date: Date:	A11NW (E)	59	-	357581 400961
72	Extractive Industries or Potential Excavations from 1906-1937 Use: Unspecified Deposited Material First Map Published 1928 Date: Last Map Published Last Map Published Not Applicable Date: Last Map Published	A11NW (E)	80	-	357557 400890
73	Extractive Industries or Potential Excavations from 1950-1980 Use: Pond First Map Published 1960 Date: Last Map Published N/A Date:	A11NW (NE)	0	-	357385 401060
74	Extractive Industries or Potential Excavations from 1950-1980 Use: Railway Embankment First Map Published 1960 Date: Last Map Published Last Map Published N/A Date: Last Map Published	A15SW (NE)	3	-	357572 401372



Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
75	Extractive Industries or Potential Excavations from 1950-1980 Use: Ponds First Map Published 1960 Date: Last Map Published Last Map Published N/A Date:	A14SE (N)	4	-	357134 401255
76	Extractive Industries or Potential Excavations from 1950-1980 Use: Railway Cutting First Map Published 1960 Date: Image: Constraint of the second se	A11NW (NE)	5	-	357563 401061
77	Extractive Industries or Potential Excavations from 1950-1980 Use: Railway Cutting First Map Published 1960 Date: Image: Constraint of the published Last Map Published Not Applicable Date: Image: Constraint of the published Use: Image: Constraint of the published Date: Image: Constraint of the published Date: Image: Constraint of the published Date: Image: Constraint of the published	A11SW (SE)	6	-	357367 400771
78	Extractive Industries or Potential Excavations from 1950-1980 Use: Ponds First Map Published 1960 Date: Last Map Published Last Map Published N/A Date: Last Map Published	A14SE (N)	20	-	357096 401281
79	Extractive Industries or Potential Excavations from 1950-1980 Use: Unspecified Pit First Map Published 1960 Date: Image: Colored	A14SW (NW)	24	-	356883 401126
80	Extractive Industries or Potential Excavations from 1950-1980 Use: Disused Mine First Map Published 1960 Date: Last Map Published Last Map Published N/A Date: Last Map Published	A11SW (SE)	43	-	357407 400755
81	Extractive Industries or Potential Excavations from 1950-1980 Use: Mine First Map Published 1960 Date: Last Map Published Last Map Published Not Applicable Date: Date:	A15NW (NE)	45	-	357537 401559
82	Extractive Industries or Potential Excavations from 1950-1980 Use: Unspecified Deposited Material First Map Published 1960 Date: Last Map Published N/A Date:	A15NW (NE)	45	-	357537 401559
83	Extractive Industries or Potential Excavations from 1950-1980 Use: Unspecified Deposited Material First Map Published 1960 Date: Last Map Published Date: Not Applicable	A11NW (E)	55	-	357579 400963
84	Extractive Industries or Potential Excavations from 1950-1980 Use: Mine First Map Published 1960 Date: Last Map Published N/A Date:	A11NE (E)	59	-	357592 401000
85	Extractive Industries or Potential Excavations from 1950-1980 Use: Unspecified Deposited Material First Map Published 1960 Date: Last Map Published Last Map Published N/A Date: 1960	A14SW (NW)	65	-	356843 401131



Map ID		Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Extractive Industries	or Potential Excavations from 1950-1980				
86	Use: I First Map Published 7 Date: Last Map Published 1 Date:		A11SW (SE)	82	-	357457 400767



Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
87	Mineral Railway Use: Not Supplied Date of Mapping: 1894 - 1909	A15SE (NE)	282	-	357870 401276
88	Mineral Railway Use: Not Supplied Date of Mapping: 1894 - 1956	(N)	394	-	357055 401793
89	Mineral Railway Use: Not Supplied Date of Mapping: 1894 - 1929	A14NW (NW)	575	-	356590 401742
90	Mineral Railway Use: Not Supplied Date of Mapping: 1894 - 1956	A16NE (NE)	758	-	358270 401744
91	Mineral Railway Use: Not Supplied Date of Mapping: 1909 - 1956	A12NE (E)	821	-	358379 400974
92	Mineral Railway Use: Not Supplied Date of Mapping: 1909 - 1956	A8NW (SE)	920	-	358233 400393
93	Mineral Railway Use: Not Supplied Date of Mapping: 1894 - 1909	A13NW (NW)	965	-	356053 401706
94	Mineral Railway Use: Not Supplied Date of Mapping: 1956	A12NE (E)	978	-	358522 400900
95	Mining & quarrying general Use: Not Supplied Date of Mapping: 1956	A5NE (SW)	925	-	356257 400354
96	Mining of coal & lignite Use: Not Supplied Date of Mapping: 1894 - 1956	A15NW (NE)	21	-	357544 401535
97	Mining of coal & lignite Use: Not Supplied Date of Mapping: 1894 - 1956	A11SW (SE)	33	-	357408 400769
98	Mining of coal & lignite Use: Not Supplied Date of Mapping: 1894 - 1909	A6NW (SW)	607	-	356811 400250
99	Mining of coal & lignite Use: Not Supplied Date of Mapping: 1894 - 1956	A16NW (NE)	611	-	358115 401717
100	Mining of coal & lignite Use: Not Supplied Date of Mapping: 1894	A9SE (SW)	642	-	356509 400495
101	Mining of coal & lignite Use: Not Supplied Date of Mapping: 1894 - 1956	A13NE (NW)	748	-	356245 401607
102	Mining of coal & lignite Use: Not Supplied Date of Mapping: 1909 - 1956	A8NW (SE)	848	-	358088 400328
103	Mining of coal & lignite Use: Not Supplied Date of Mapping: 1909	A6SE (S)	994	-	356947 399780
104	Potentially Infilled Land (Non-Water) Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1992	A15NW (NE)	21	-	357544 401535
105	Potentially Infilled Land (Non-Water) Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1992	A14SW (NW)	22	-	356884 401127
106	Potentially Infilled Land (Non-Water) Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1992	A11SW (SE)	42	-	357410 400758
107	Potentially Infilled Land (Non-Water) Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1992	A6NW (SW)	607	-	356811 400250



Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Potentially Infilled Land (Non-Water)				
108	Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1992	A16NW (NE)	611	-	358115 401717
109	Potentially Infilled Land (Non-Water) Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1992	A9SE (SW)	642	-	356509 400495
110	Potentially Infilled Land (Non-Water) Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1992	A13NE (NW)	748	-	356245 401607
111	Potentially Infilled Land (Non-Water) Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1992	A8NW (SE)	848	-	358088 400328
112	Potentially Infilled Land (Non-Water)Use:Unknown Filled Ground (Pit, quarry etc)Date of Mapping:1992	A5NE (SW)	925	-	356257 400354
113	Potentially Infilled Land (Non-Water) Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1995	A6SE (S)	994	-	356947 399780
114	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1894	A11NW (NE)	0	-	357389 401033
115	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1849	A15SE (NE)	28	-	357614 401214
116	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1956	A14SE (N)	47	-	357111 401443
117	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1849	A11SW (S)	137	-	357290 400585
118	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1849	A15NW (N)	176	-	357413 401654
119	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1849	A10SE (SW)	189	-	357060 400587
120	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1894	A10NW (W)	215	-	356760 400858
121	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1956	A14NW (NW)	221	-	356861 401480
122	Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1894	A11SW (SE)	235	-	357466 400542
123	Dotentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1956	A11SW (SE)	239	-	357452 400525
124	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1956	A15NW (N)	242	-	357307 401667
125	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1894	A14SW (NW)	254	-	356655 401302
126	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1929	A7NW (SE)	317	-	357451 400434
127	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1956	A11SE (SE)	334	-	357674 400634
128	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1894	A7NW (S)	370	-	357351 400351



Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Potentially Infilled Land (Water)				
129	Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1956	A7NW (SE)	383	-	357566 400431
130	Detentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1956	A11SE (E)	397	-	357817 400699
131	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1909	A10SW (SW)	419	-	356732 400571
132	Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1909	A11SE (SE)	451	-	357711 400493
133	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1849	A10SW (SW)	452		356687 400574
134	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc)	A14NW	455		356845
135	Date of Mapping: 1849 Potentially Infilled Land (Water) Use: Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc)	(NW) A10SW	461	_	401752 356709
136	Date of Mapping: 1956 Potentially Infilled Land (Water) Use: Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc)	(SW) A11SE	479		400534 357737
	Date of Mapping: 1909 Potentially Infilled Land (Water)	(SE)			400480
137	Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1894 Potentially Infilled Land (Water)	A9NE (W)	486	-	356431 400975
138	Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1849 Potentially Infilled Land (Water)	A10SW (SW)	490	-	356683 400518
139	Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1956 Potentially Infilled Land (Water)	A10SW (SW)	495	-	356693 400500
140	Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1956	A12SW (E)	499	-	357938 400718
141	Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1956	A10SW (SW)	501	-	356648 400545
142	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1956	A9SE (W)	508	-	356521 400688
143	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1894	A6NE (S)	512	-	357236 400213
144	Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1849	A10SW (SW)	513	-	356658 400513
145	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1956	A16NW (NE)	525	_	358004 401755
146	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1849	A11SE (SE)	536	-	357896 400584
147	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1849	A12SW (E)	596	-	358034 400690
148	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1909	A12NW (E)	597	-	358099 400819
149	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1894	A7NW (S)	601	-	357398 400124



Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Potentially Infilled Land (Water)				
150	Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1909	A12SW (E)	630	-	358010 400583
151	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1849	A7SW (S)	646	-	357409 400081
152	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1929	A13NE (NW)	650	-	356488 401759
153	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1894	A6SE (S)	678	-	357028 400086
154	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1909	A12SW (SE)	688	-	358031 400511
155	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1956	A6NW (SW)	697	-	356873 400113
156	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1894	A7NE (SE)	710	-	357761 400168
157	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1956	A6SE (S)	712	-	357015 400055
158	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1909	A13NE (NW)	735	-	356392 401786
159	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1894	A8NW (SE)	759	-	358020 400385
160	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1894	A12SW (E)	827	-	358191 400500
161	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1894	A8NW (SE)	833	-	358072 400332
162	Botentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1894	A8NW (SE)	836	-	357941 400167
163	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1956	A12SW (SE)	852	-	358208 400481
164	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1956	A6SW (S)	858	-	356893 399935
165	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1894	A7SE (SE)	905	-	357864 400000
166	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1849	A9SW (W)	983	-	356036 400577
167	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1849	A9SW (W)	983	-	356073 400506
168	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1929	A13NW (NW)	990	-	355981 401606
169	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1894	A16SE (E)	990	-	358582 401255



Ground Stability Data (1:50,000)

Map ID		Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Brine Compensation					
	The site does not fall	within the brine compensation area.				
	Brine Subsidence S	olution Area				
	The site does not fall	within the brine subsidence solution area.				
	Potential for Collaps	sible Ground Stability Hazards				
170	Hazard Potential: Source:	Very Low British Geological Survey, National Geoscience Information Service	A10NE (SW)	0	1	357242 400882
	Potential for Compr	essible Ground Stability Hazards				
	Hazard Potential: Source:	No Hazard British Geological Survey, National Geoscience Information Service	A10NE (SW)	0	1	357242 400882
	Potential for Ground	d Dissolution Stability Hazards				
	No Hazard					
	Potential for Landsl	ide Ground Stability Hazards				
171	Hazard Potential: Source:	Very Low British Geological Survey, National Geoscience Information Service	A10NE (SW)	0	1	357242 400882
	Potential for Runnin	ng Sand Ground Stability Hazards				
172	Hazard Potential: Source:	Very Low British Geological Survey, National Geoscience Information Service	A10NE (SW)	0	1	357242 400882
	Potential for Runnir	ng Sand Ground Stability Hazards				
	Hazard Potential: Source:	No Hazard British Geological Survey, National Geoscience Information Service	A14SE (N)	0	1	357152 401121
	Potential for Runnin	ng Sand Ground Stability Hazards				
	Hazard Potential: Source:	No Hazard British Geological Survey, National Geoscience Information Service	A15SW (N)	0	1	357273 401288
	Potential for Shrink	ing or Swelling Clay Ground Stability Hazards				
173	Hazard Potential: Source:	Very Low British Geological Survey, National Geoscience Information Service	A10NE (SW)	0	1	357242 400882
	Subsidence Investig	yations				
	Site Investigation Date:	18th February 2003			-	
	Root Survey: CCTV Drain Survey:	No Yes				
	Depth of Foundation Footing:	Not Supplied				
	Soil Classification:	Not Supplied				



Motion Map Data (1:2,500)

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Motion Map				
174	Average Velocity 0.4 Gradient (mmyear):	A14SE (NW)	3	-	356908 401266
174	Motion Map Average Velocity 0.0 Gradient (mmyear):	A14SE (NW)	6	-	356910 401270
175	Motion Map Average Velocity 2.1 Gradient (mmyear): 2.1	A10NE (SW)	3	-	357120 400790
175	Motion Map Average Velocity 1.6 Gradient (mmyear):	A10NE (SW)	4	-	357123 400785
176	Motion Map Average Velocity 2.5 Gradient (mmyear):	A10NE (W)	5	-	357084 400880
176	Motion Map Average Velocity 2.4 Gradient (mmyear):	A10NE (W)	8	-	357080 400881
177	Motion Map Average Velocity 1.5 Gradient (mmyear):	A10NE (SW)	6	-	357115 400791
178	Motion Map Average Velocity 2.5 Gradient (mmyear):	A10SE (S)	9	-	357224 400732
179	Motion Map Average Velocity 2.0 Gradient (mmyear):	A10NE (W)	15	-	357087 400819
179	Motion Map Average Velocity 2.1 Gradient (mmyear):	A10NE (SW)	17	-	357087 400814
180	Motion Map Average Velocity 2.7 Gradient (mmyear):	A11SW (SE)	20	-	357329 400707
180	Motion Map Average Velocity 2.6 Gradient (mmyear):	A11SW (SE)	23	-	357329 400703
181	Motion Map Average Velocity 2.3 Gradient (mmyear):	A10SE (SW)	24	-	357124 400756
182	Motion Map Average Velocity 2.5 Gradient (mmyear):	A11SW (S)	24	-	357281 400706
182	Motion Map Average Velocity 2.3 Gradient (mmyear):	A11SW (S)	28	-	357281 400702
182	Motion Map Average Velocity 2.1 Gradient (mmyear):	A11SW (S)	32	-	357284 400697
182	Motion Map Average Velocity 2.2 Gradient (mmyear):	A11SW (S)	32	-	357280 400698
183	Motion Map Average Velocity 2.6 Gradient (mmyear):	A14SE (N)	25	-	357121 401321
184	Motion Map Average Velocity 1.4 Gradient (mmyear):	A14SW (NW)	26	-	356901 401288
185	Motion Map Average Velocity 1.8 Gradient (mmyear):	A10SE (S)	28	-	357204 400716



Motion Map Data (1:2,500)

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
186	Motion Map Average Velocity 1.7 Gradient (mmyear):	A14SW (NW)	30	-	356902 401292
186	Motion MapAverage Velocity2.0Gradient (mmyear):	A14SW (NW)	33	-	356902 401296
186	Motion Map Average Velocity 2.3 Gradient (mmyear): 2.3	A14SW (NW)	37	-	356901 401300
187	Motion Map Average Velocity 1.5 Gradient (mmyear):	A10SE (S)	32	-	357206 400712
187	Motion Map Average Velocity 1.5 Gradient (mmyear):	A10SE (S)	36	-	357206 400708
187	Motion Map Average Velocity 0.8 Gradient (mmyear):	A10SE (S)	36	-	357202 400708
188	Motion Map Average Velocity 1.8 Gradient (mmyear):	A10SE (SW)	34	-	357096 400771
189	Motion Map Average Velocity 1.9 Gradient (mmyear):	A10SE (SW)	35	-	357102 400762
190	Motion Map Average Velocity 2.2 Gradient (mmyear):	A11NW (E)	37	-	357573 401015
191	Motion Map Average Velocity 2.3 Gradient (mmyear):	A14SW (NW)	45	-	356904 401308
191	Motion Map Average Velocity 2.4 Gradient (mmyear):	A14SW (NW)	49	-	356904 401312
191	Motion Map Average Velocity 2.4 Gradient (mmyear):	A14SW (NW)	50	-	356902 401313
191	Motion Map Average Velocity 2.3 Gradient (mmyear):	A14SW (NW)	52	-	356905 401316
191	Motion Map Average Velocity 2.4 Gradient (mmyear):	A14SW (NW)	53	-	356903 401316
192	Motion Map Average Velocity 1.8 Gradient (mmyear):	A14SW (NW)	48	-	356869 401288
192	Motion Map Average Velocity 1.7 Gradient (mmyear):	A14SW (NW)	49	-	356869 401292
193	Motion Map Average Velocity 1.8 Gradient (mmyear):	A10SE (SW)	48	-	357133 400709
193	Motion Map Average Velocity 1.7 Gradient (mmyear):	A10SE (SW)	51	-	357134 400705
193	Motion Map Average Velocity 1.6 Gradient (mmyear):	A10SE (SW)	55	-	357133 400701
194	Motion Map Average Velocity 1.4 Gradient (mmyear):	A11NE (NE)	55	-	357616 401082



Motion Map Data (1:2,500)

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
195	Motion Map Average Velocity 1.9 Gradient (mmyear):	A10SE (SW)	60	-	357143 400694
196	Motion Map Average Velocity 1.5 Gradient (mmyear):	A10SE (SW)	61	-	357104 400712
197	Motion Map Average Velocity 2.6 Gradient (mmyear):	A14NE (N)	62	-	357123 401467
197	Motion Map Average Velocity 2.8 Gradient (mmyear):	A14NE (N)	65	-	357125 401471
197	Motion Map Average Velocity 2.9 Gradient (mmyear):	A14NE (N)	68	-	357127 401475
198	Motion Map Average Velocity 1.9 Gradient (mmyear):	A10SE (SW)	63	-	357037 400769
199	Motion Map Average Velocity 1.6 Gradient (mmyear):	A10SE (SW)	64	-	357103 400708
200	Motion Map Average Velocity 3.4 Gradient (mmyear):	A11NW (E)	64	-	357508 400855
201	Motion Map Average Velocity 1.4 Gradient (mmyear):	A10NW (NW)	66	-	356844 401098
202	Motion Map Average Velocity -3.8 Gradient (mmyear):	A14SE (NW)	68	-	356945 401327
203	Motion Map Average Velocity 2.1 Gradient (mmyear):	A11NW (E)	68	-	357498 400837
203	Motion Map Average Velocity 2.1 Gradient (mmyear):	A11NW (E)	70	-	357494 400830
204	Motion Map Average Velocity 1.4 Gradient (mmyear):	A10SE (SW)	70	-	357020 400774
204	Motion Map Average Velocity 1.2 Gradient (mmyear):	A10SE (SW)	73	-	357019 400770
205	Motion Map Average Velocity 0.7 Gradient (mmyear):	A10SE (SW)	71	-	357101 400700
206	Motion Map Average Velocity -1.8 Gradient (mmyear):	A14SE (NW)	72	-	356946 401331
207	Motion Map Average Velocity 2.5 Gradient (mmyear):	A11NW (E)	73	-	357573 400937
207	Motion Map Average Velocity 3.0 Gradient (mmyear):	A11NW (E)	74	-	357576 400941
207	Motion Map Average Velocity 2.7 Gradient (mmyear):	A11NW (E)	75	-	357576 400937
207	Motion Map Average Velocity 2.9 Gradient (mmyear):	A11NW (E)	78	-	357580 400940



Motion Map Data (1:2,500)

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
207	Motion Map Average Velocity 2.4 Gradient (mmyear):	A11NW (E)	78	-	357576 400932
207	Motion Map Average Velocity 2.8 Gradient (mmyear): 2.8	A11NW (E)	78	-	357575 400929
207	Motion Map Average Velocity 2.6 Gradient (mmyear):	A11NW (E)	79	-	357579 400936
208	Motion Map Average Velocity 2.6 Gradient (mmyear):	A14SE (NW)	77	-	357022 401341
208	Motion Map Average Velocity 2.6 Gradient (mmyear):	A14SE (NW)	80	-	357027 401344
208	Motion Map Average Velocity 2.5 Gradient (mmyear):	A14SE (NW)	81	-	357024 401344
209	Motion Map Average Velocity 2.1 Gradient (mmyear):	A14SW (NW)	80	-	356869 401333
209	Motion Map Average Velocity 2.1 Gradient (mmyear):	A14SW (NW)	83	-	356870 401337
209	Motion Map Average Velocity 2.2 Gradient (mmyear):	A14SW (NW)	87	-	356869 401341
210	Motion Map Average Velocity 1.5 Gradient (mmyear):	A10NE (W)	81	-	356990 400789
211	Motion MapAverage Velocity2.5Gradient (mmyear):	A11NE (E)	83	-	357586 400938
211	Motion MapAverage Velocity2.6Gradient (mmyear):	A11NE (E)	88	-	357583 400923
211	Motion MapAverage Velocity2.6Gradient (mmyear):	A11NE (E)	89	-	357587 400930
211	Motion MapAverage Velocity2.8Gradient (mmyear):	A11NE (E)	90	-	357591 400933
211	Motion MapAverage Velocity2.9Gradient (mmyear):	A11NE (E)	94	-	357592 400928
212	Motion Map Average Velocity 0.8 Gradient (mmyear): 0.8	A10NE (W)	85	-	356964 400815
212	Motion MapAverage Velocity0.7Gradient (mmyear):	A10NE (W)	87	-	356962 400816
212	Motion Map Average Velocity 0.8 Gradient (mmyear):	A10NE (W)	89	-	356963 400812
212	Motion Map Average Velocity 0.7 Gradient (mmyear):	A10NE (W)	90	-	356960 400812
212	Motion Map Average Velocity 1.0 Gradient (mmyear):	A10NE (W)	92	-	356962 400808



Motion Map Data (1:2,500)

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Motion Map				
212	Average Velocity 0.9 Gradient (mmyear):	A10NE (W)	93	-	356959 400808
	Motion Map				
213	Average Velocity 2.4 Gradient (mmyear):	A14NE (N)	88	-	357224 401479
	Motion Map				
214	Average Velocity 2.4 Gradient (mmyear):	A14NE (N)	91	-	357106 401492
	Motion Map				
214	Average Velocity 2.7 Gradient (mmyear):	A14NE (N)	95	-	357107 401496
	Motion Map				
215	Average Velocity 2.2 Gradient (mmyear):	A14SW (NW)	91	-	356900 401354
	Motion Map				
215	Average Velocity 2.2 Gradient (mmyear):	A14SW (NW)	94	-	356901 401358
	Motion Map				
216	Average Velocity 1.4 Gradient (mmyear):	A10SE (SW)	91	-	357002 400761
	Motion Map				
217	Average Velocity 2.1 Gradient (mmyear):	A11SW (SE)	94	-	357369 400644
	Motion Map				
218	Average Velocity 3.4 Gradient (mmyear):	A11NW (E)	94	-	357511 400813
	Motion Map				
218	Average Velocity 3.0 Gradient (mmyear):	A11NW (E)	98	-	357519 400815
	Motion Map				
219	Average Velocity 1.2 Gradient (mmyear):	A10NE (W)	95	-	356961 400804
	Motion Map				
219	Average Velocity 1.1 Gradient (mmyear):	A10NE (W)	96	-	356958 400805
	Motion Map				
220	Average Velocity 2.1 Gradient (mmyear):	A10NW (W)	97	-	356852 400932
	Motion Map				
221	Average Velocity 2.1 Gradient (mmyear):	A11SW (SE)	98	-	357479 400768
	Motion Map				
221	Average Velocity 2.9 Gradient (mmyear):	A11SW (SE)	100	-	357478 400764
	Motion Map				
222	Average Velocity 2.4 Gradient (mmyear):	A14SW (NW)	98	-	356870 401353
	Motion Map				
222	Average Velocity 1.9 Gradient (mmyear):	A14SW (NW)	100	-	356873 401357



Historical Map List

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

1:2,500	Mapsheet	Published Date
Lancashire And Furness	093_15	1893
Lancashire And Furness	093_15	1893
Lancashire And Furness	101_03	1893
Lancashire And Furness	101_03	1893
Lancashire And Furness	101_03	1893
Lancashire And Furness	101_03	1893
Lancashire And Furness	101_04	1893
Lancashire And Furness	101_04	1893
Lancashire And Furness	093_15	1908
Lancashire And Furness	093_15	1908
Lancashire And Furness	101_03	1908
Lancashire And Furness	101_03	1908
Lancashire And Furness	101_03	1908
Lancashire And Furness	101_03	1908
Lancashire And Furness	101_04	1908
Lancashire And Furness	101_04	1908
Lancashire And Furness	101_03	1928
Lancashire And Furness	101_03	1928
Lancashire And Furness	101_03	1928
Lancashire And Furness	101_03	1928
Lancashire And Furness	101_04	1928
Lancashire And Furness	101_04	1928
Lancashire And Furness	093_15	1929
Lancashire And Furness	093_15	1929
Ordnance Survey Plan	SD5600	1960
Ordnance Survey Plan	SD5601	1960
Ordnance Survey Plan	SD5601	1960
Ordnance Survey Plan	SD5700	1960
Ordnance Survey Plan	SD5700	1960
Ordnance Survey Plan	SD5701	1960
Ordnance Survey Plan	SD5701	1960
Ordnance Survey Plan	SD5701	1960
Ordnance Survey Plan	SD5701	1960



Historical Map List

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

1:10,560	Mapsheet	Published Date
Lancashire And Furness	093_00	1849
Lancashire And Furness	101_00	1849
Lancashire And Furness	093_SE	1894
Lancashire And Furness	101_NE	1894
Lancashire And Furness	093_SE	1909
Lancashire And Furness	101_NE	1909
Lancashire And Furness	101_NE	1929
Lancashire And Furness	093_SE	1930
Ordnance Survey Plan	SD50SE	1956
Ordnance Survey Plan	SJ59NE	1956
1:10,000	Mapsheet	Published Date
Ordnance Survey Plan	SD50SE	1992
Ordnance Survey Plan	SJ59NE	1995

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Data Currency

Mining and Cavities Data	Version	Update Cycle	
BGS Recorded Mineral Sites British Geological Survey - National Geoscience Information Service	April 2013	Bi-Annually	
Coal Mining Affected Areas The Coal Authority - Mining Report Service	January 2012	As notified	
Man Made Mining Cavities Peter Brett Associates	November 2012	Bi-Annually	
Mining Instability Ove Arup & Partners	October 2000	Not Applicable	
Natural Cavities Peter Brett Associates	November 2012	Bi-Annually	
Non Coal Mining Areas of Great Britain British Geological Survey - National Geoscience Information Service	February 2011	Not Applicable	
Historical Land Use Information (1:2,500)	Version	Update Cycle	
Subterranean Features Landmark Information Group Limited	March 2013	Bi-Annually	
Ground Stability Data (1:50,000)	Version	Update Cycle	
Brine Compensation Area Cheshire Brine Subsidence Compensation Board	August 2011	Not Applicable	
Potential for Collapsible Ground Stability Hazards British Geological Survey - National Geoscience Information Service	February 2011	Annually	
Potential for Compressible Ground Stability Hazards British Geological Survey - National Geoscience Information Service	February 2011	Annually	
Potential for Ground Dissolution Stability Hazards British Geological Survey - National Geoscience Information Service	February 2011	Annually	
Potential for Landslide Ground Stability Hazards British Geological Survey - National Geoscience Information Service	February 2011	Annually	
Potential for Running Sand Ground Stability Hazards British Geological Survey - National Geoscience Information Service	February 2011	Annually	
Potential for Shrinking or Swelling Clay Ground Stability Hazards British Geological Survey - National Geoscience Information Service	February 2011	Annually	
Subsidence Insurance Claims SP Property Services	October 2012	Quarterly	
Subsidence Investigations CET Group	October 2012	Quarterly	



Data Currency

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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 - Cheltenahm	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 - Stoke Nigel Press Associates - Swindon	May 2009 May 2009	As notified
Nigel Press Associates - Tonbridge	May 2009 May 2009	As notified
Nigel Press Associates - Volbridge 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	Licensed Partner	
British Geological Survey	British Geological Survey	
The Coal Authority	THE COAL AUTHORITY	
Ove Arup	ARUP	
Peter Brett Associates	peterbrett	
Wardell Armstrong	your earth our world	
Johnson Poole & Bloomer	JPB	



Useful Contacts

Contact	Name and Address	Contact Details
1	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
2	The Coal Authority - Mining Report Service 200 Lichfield Lane, Mansfield, Nottinghamshire, NG18 4RG	Telephone: 0845 7626848 Email: thecoalauthority@coal.gov.uk
3	Ove Arup & Partners Central Square, Forth Street, Newcastle upon Tyne, Tyne and Wear, NE1 3PL	Telephone: 0191 261 6080 Fax: 0191 261 7879
4	Landmark Information Group Limited Imperium, Imperial Way, Reading, Berkshire, RG2 0TD	Telephone: 0844 844 9960 Fax: 0844 844 9951 Email: customerservice@promap.co.uk Website: www.landmarkinfo.co.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