



Groundsure

LOCATION INTELLIGENCE

Mugen Geo Ltd

Machpelah House, Machpelah,
Hebden Bridge, HX7 8AU

Groundsure Reference: GS-3071785

Your Reference: 1605_BD12_7ER_

Report Date 15 Jun 2016

Report Delivery Method: Email - pdf

Groundsure Geo Insight

Address: OAK MILLS, CLIFF HOLLINS LANE, BRADFORD, BD12 7ER

Dear Sir/ Madam,

Thank you for placing your order with Groundsure. Please find enclosed the **Groundsure Geo Insight** as requested.

If you need any further assistance, please do not hesitate to contact our helpline on 08444 159000 quoting the above Groundsure reference number.

Yours faithfully,

Managing Director
Groundsure Limited

Enc.
Groundsure Geoinsight

Groundsure Geo Insight

Address: OAK MILLS, CLIFF HOLLINS LANE, BRADFORD, BD12 7ER
Date: 15 Jun 2016
Reference: GS-3071785
Client: Mugen Geo Ltd

NW N NE



SW S SE

Aerial Photograph Capture date: 26-Mar-2012
Grid Reference: 417783,427871
Site Size: 0.76ha

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Overview of Findings

The Groundsure Geo Insight provides high quality geo-environmental information that allows geo-environmental professionals and their clients to make informed decisions and be forewarned of potential ground instability problems that may affect the ground investigation, foundation design and possibly remediation options that could lead to possible additional costs.

The report is based on the BGS 1:50,000 Digital Geological Map of Great Britain, BGS Geosure data; BRITPITS database; Shallow Mining data and Borehole Records, Coal Authority data including brine extraction areas, PBA non-coal mining and natural cavities database, Johnson Poole and Bloomer mining data and Groundsure's unique database including historical surface ground and underground workings.

For further details on each dataset, please refer to each individual section in the report as listed. Where the database has been searched a numerical result will be recorded. Where the database has not been searched '-' will be recorded.

Section 1:Geology

1.1 Artificial Ground	1.1.1 Is there any Artificial Ground/ Made Ground present beneath the study site?	No
	1.1.2 Are there any records relating to permeability of artificial ground within the study site* boundary?	No
1.2 Superficial Geology and Landslips	1.2.1 Is there any Superficial Ground/Drift Geology present beneath the study site?	Yes
	1.2.2 Are there any records relating to permeability of superficial geology within the study site boundary?	Yes
	1.2.3 Are there any records of landslip within 500m of the study site boundary?	No
	1.2.4 Are there any records relating to permeability of landslips within the study site boundary?	No
1.3 Bedrock, Solid Geology & Faults	1.3.1 For records of Bedrock and Solid Geology beneath the study site* see the detailed findings section.	
	1.3.2 Are there any records relating to permeability of bedrock within the study site boundary?	Yes
	1.3.3 Are there any records of faults within 500m of the study site boundary?	Yes
1.4 Radon data	1.4.1 Is the property in a Radon Affected Area as defined by the Health Protection Agency (HPA) and if so what percentage of homes are above the Action Level?	The property is in a Radon Affected Area, as between 1 and 3% of properties are above the Action Level
	1.4.2 Is the property in an area where Radon Protection Measures are required for new properties or extensions to existing ones as described in publication BR211 by the Building Research Establishment?	No radon protective measures are necessary

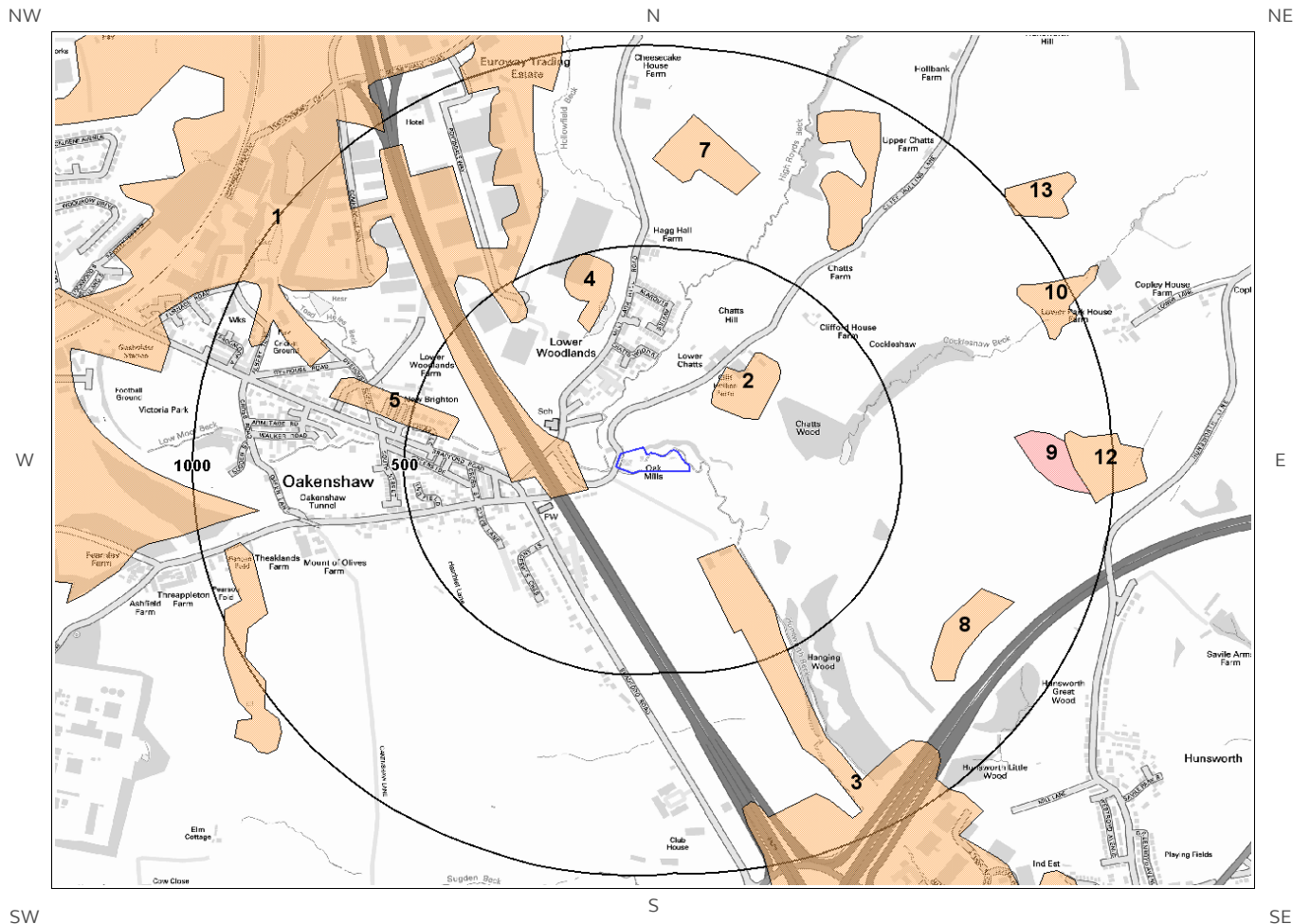
Section 2:Ground Workings	On-site	0-50m	51-250	251-500	501-1000
2.1 Historical Surface Ground Working Features from Small Scale Mapping	1	9	34	Not Searched	Not Searched
2.2 Historical Underground Workings from Small Scale Mapping	0	2	3	3	31
2.3 Current Ground Workings	0	0	6	21	44

Section 3: Mining, Extraction & Natural Cavities	On-site	0-50m	51-250	251-500	501-1000
3.1 Historical Mining	0	2	3	3	23
3.2 Coal Mining	1	0	0	0	0
3.3 Johnson Poole and Bloomer Mining Area	0	0	0	0	0
3.4 Non-Coal Mining	1	0	0	0	5
3.5 Non-Coal Mining Cavities	0	0	0	0	0
3.6 Natural Cavities	0	0	0	0	0
3.7 Brine Extraction	0	0	0	0	0
3.8 Gypsum Extraction	0	0	0	0	0
3.9 Tin Mining	0	0	0	0	0
3.10 Clay Mining	0	0	0	0	0
Section 4: Natural Ground Subsidence	On-site				
4.1 Shrink Swell Clay	Very Low				
4.2 Landslides	Low				
4.3 Ground Dissolution of Soluble Rocks	Negligible				
4.4 Compressible Deposits	Moderate				
4.5 Collapsible Deposits	Very Low				
4.6 Running Sand	Low				
Section 5: Borehole Records	On-site	0-50m	51-250		
5 BGS Recorded Boreholes	0	0	6		
Section 6: Estimated Background Soil Chemistry	On-site	0-50m	51-250		
6 Records of Background Soil Chemistry	3	6	41		
Section 7: Railways and Tunnels	On-site	0-50m	51-250	251-500	
7.1 Tunnels	0	0	0	Not Searched	
7.2 Historical Railway and Tunnel Features	0	0	18	Not Searched	
7.3 Historical Railways	0	0	0	Not Searched	
7.4 Active Railways	0	0	0	Not Searched	

Section 7:Railways and Tunnels	On-site	0-50m	51-250	251-500
7.5 Railway Projects	0	0	0	0

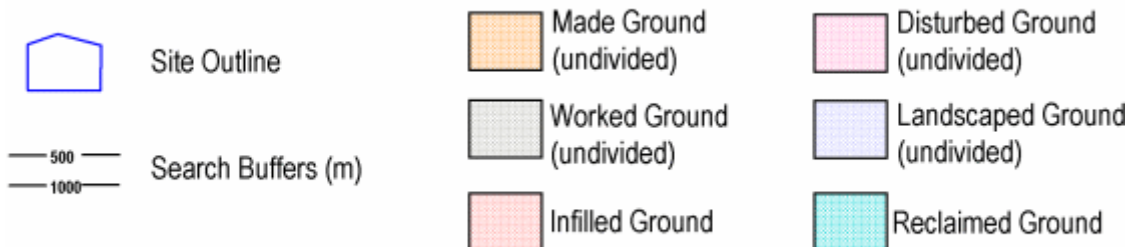
1 Geology

1.1 Artificial Ground Map



Artificial Ground Legend

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1 Geology

1.1 Artificial Ground

1.1.1 Artificial/ Made Ground

The following geological information represented on the mapping is derived from 1:50,000 scale BGS Geological mapping, Sheet No:077

Are there any records of Artificial/Made Ground within 500m of the study site boundary? Yes

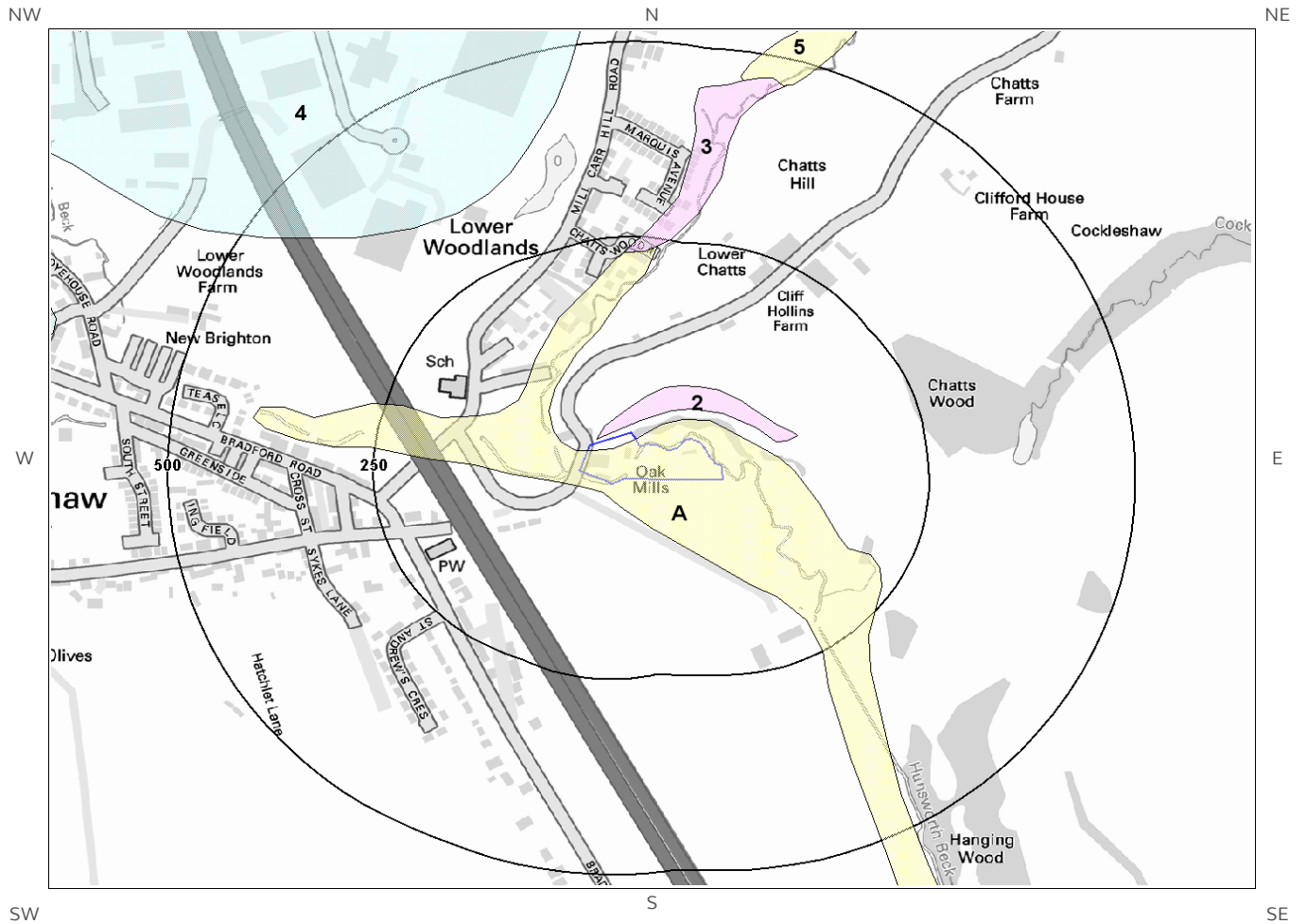
ID	Distance (m)	Direction	LEX Code	Description	Rock Description
1	81.0	W	MGR-MGRD	MADE GROUND (UNDIVIDED)	ARTIFICIAL DEPOSIT
2	143.0	NE	MGR-MGRD	MADE GROUND (UNDIVIDED)	ARTIFICIAL DEPOSIT
3	207.0	SE	MGR-MGRD	MADE GROUND (UNDIVIDED)	ARTIFICIAL DEPOSIT
4	310.0	N	MGR-MGRD	MADE GROUND (UNDIVIDED)	ARTIFICIAL DEPOSIT
5	389.0	W	MGR-MGRD	MADE GROUND (UNDIVIDED)	ARTIFICIAL DEPOSIT

1.1.2 Permeability of Artificial Ground

Are there any records relating to permeability of artificial ground within the study site boundary? No




Database searched and no data found.

1.2 Superficial Deposits and Landslips Map



Superficial Deposits and Landslips Legend

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-  Site Outline
-  Search Buffers (m)
- 

1.2 Superficial Deposits and Landslips

1.2.1 Superficial Deposits/ Drift Geology

Are there any records of Superficial Deposits/ Drift Geology within 500m of the study site boundary? Yes

ID	Distance (m)	Direction	LEX Code	Description	Rock Description
1A	0.0	On Site	ALV	ALLUVIUM	CLAY, SILT, SAND AND GRAVEL [UNLITHIFIED DEPOSITS CODING SCHEME]
6A	0.0	On Site	ALV	ALLUVIUM	CLAY, SILT, SAND AND GRAVEL [UNLITHIFIED DEPOSITS CODING SCHEME]
2	5.0	N	GFDUD	GLACIOFLUVIAL DEPOSITS, DEVENSIAN	SAND AND GRAVEL [UNLITHIFIED DEPOSITS CODING SCHEME]
3	230.0	N	GFDUD	GLACIOFLUVIAL DEPOSITS, DEVENSIAN	SAND AND GRAVEL [UNLITHIFIED DEPOSITS CODING SCHEME]
4	337.0	NW	TILLD	TILL, DEVENSIAN	DIAMICTON
5	462.0	N	ALV	ALLUVIUM	CLAY, SILT, SAND AND GRAVEL [UNLITHIFIED DEPOSITS CODING SCHEME]

1.2.2 Permeability of Superficial Ground

Are there any records relating to permeability of superficial ground within the study site boundary? Yes

Distance (m)	Direction	Flow Type	Maximum Permeability	Minimum Permeability
0.0	On Site	Intergranular	High	Very Low
5.0	N	Intergranular	Very High	High

1.2.3 Landslip

Are there any records of Landslip within 500m of the study site boundary? No

Database searched and no data found.

This Geology shows the main components as discrete layers, these are: Artificial / Made Ground, Superficial / Drift Geology and Landslips. These are all displayed with the BGS Lexicon code for the rock unit and BGS sheet number. Not all of the main geological components have nationwide coverage.

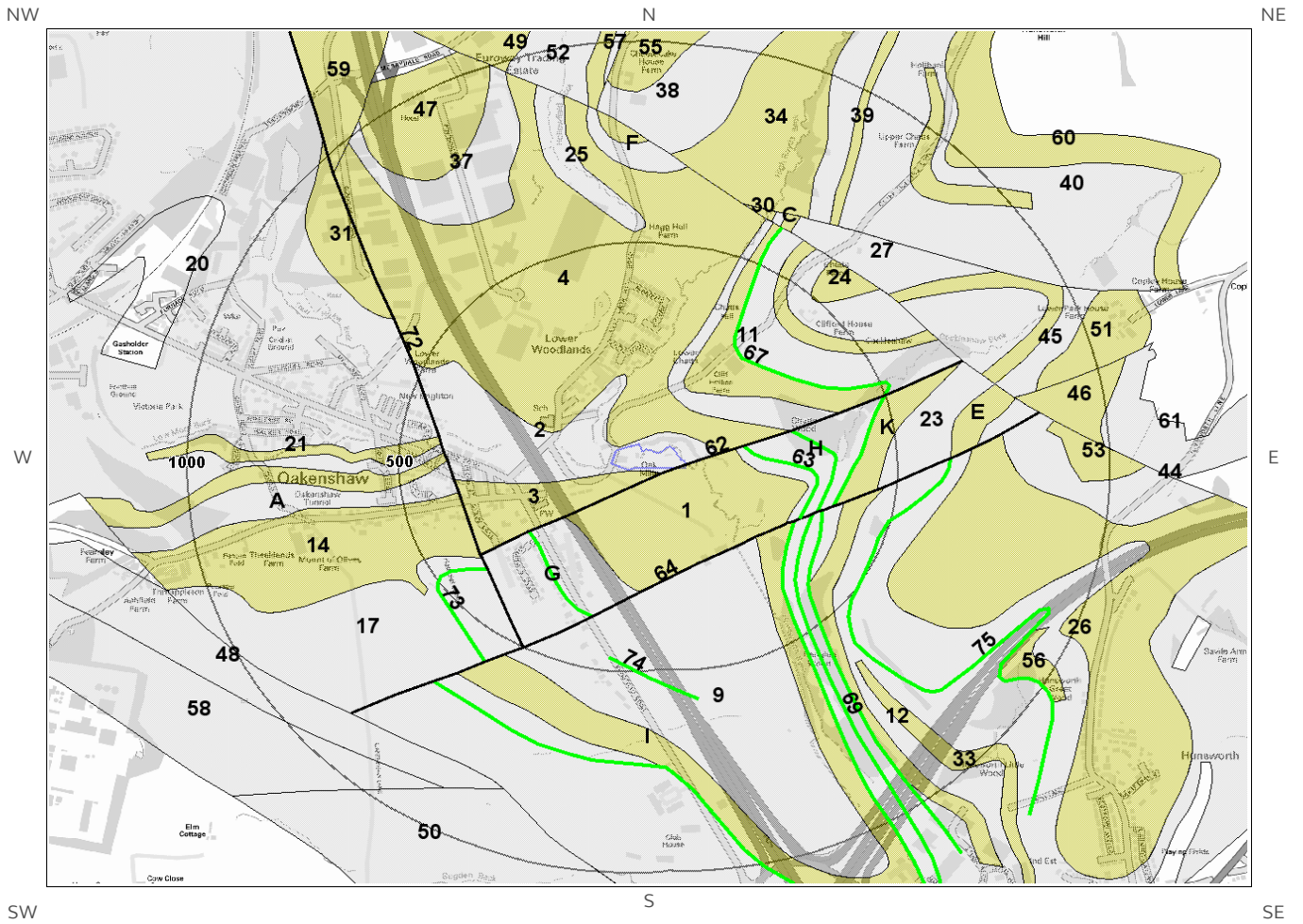
1.2.4 Landslip Permeability

Are there any records relating to permeability of landslips within the study site** boundary? No

Database searched and no data found.




* This includes an automatically generated 50m buffer zone around the site

1.3 Bedrock and Faults Map



Bedrock and Faults Legend

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-  Site Outline
-  500
-  1000 Search Buffers (m)

1.3 Bedrock, Solid Geology & Faults

The following geological information represented on the mapping is derived from 1:50,000 scale BGS Geological mapping, Sheet No:077

1.3.1 Bedrock/ Solid Geology

Records of Bedrock/ Solid Geology within 500m of the study site boundary:

ID	Distance (m)	Direction	LEX Code	Description	Rock Age
1	0.0	On Site	CLRK-SDST	Clifton Rock - Sandstone	Langsettian
2	0.0	On Site	PLCM-MDSS	Pennine Lower Coal Measures Formation - Mudstone, Siltstone And Sandstone	Langsettian
3	2.0	S	CLRK-SDST	Clifton Rock - Sandstone	Langsettian
4	5.0	N	CLRK-SDST	Clifton Rock - Sandstone	Langsettian
5	105.0	NE	PLCM-MDSS	Pennine Lower Coal Measures Formation - Mudstone, Siltstone And Sandstone	Langsettian
6H	123.0	E	PLCM-MDSS	Pennine Lower Coal Measures Formation - Mudstone, Siltstone And Sandstone	Langsettian
7	147.0	N	CLRK-SDST	Clifton Rock - Sandstone	Langsettian
8G	172.0	SW	PLCM-MDSS	Pennine Lower Coal Measures Formation - Mudstone, Siltstone And Sandstone	Langsettian
9	227.0	SE	PLCM-MDSS	Pennine Lower Coal Measures Formation - Mudstone, Siltstone And Sandstone	Langsettian
10I	238.0	SE	CLRK-SDST	Clifton Rock - Sandstone	Langsettian
11	276.0	NE	PLCM-MDSS	Pennine Lower Coal Measures Formation - Mudstone, Siltstone And Sandstone	Langsettian
12	288.0	SE	PLCM-MDSS	Pennine Lower Coal Measures Formation - Mudstone, Siltstone And Sandstone	Langsettian
13K	361.0	E	PLCM-SDST	Pennine Lower Coal Measures Formation - Sandstone	Langsettian
14	363.0	W	CLRK-SDST	Clifton Rock - Sandstone	Langsettian
15A	366.0	W	PLCM-MDSS	Pennine Lower Coal Measures Formation - Mudstone, Siltstone And Sandstone	Langsettian
16J	383.0	E	PLCM-SDST	Pennine Lower Coal Measures Formation - Sandstone	Langsettian
17	384.0	SW	PLCM-MDSS	Pennine Lower Coal Measures Formation - Mudstone, Siltstone And Sandstone	Langsettian
18A	385.0	W	CLRK-SDST	Clifton Rock - Sandstone	Langsettian
19B	395.0	NE	PLCM-SDST	Pennine Lower Coal Measures Formation - Sandstone	Langsettian
20	395.0	W	PLCM-MDSS	Pennine Lower Coal Measures Formation - Mudstone, Siltstone And Sandstone	Langsettian
21	404.0	W	PLCM-SDST	Pennine Lower Coal Measures Formation - Sandstone	Langsettian
22B	435.0	NE	PLCM-MDSS	Pennine Lower Coal Measures Formation - Mudstone, Siltstone And Sandstone	Langsettian
23	453.0	E	PLCM-MDSS	Pennine Lower Coal Measures Formation - Mudstone, Siltstone And Sandstone	Langsettian

ID	Distance (m)	Direction	LEX Code	Description	Rock Age
24	495.0	NE	PLCM-SDST	Pennine Lower Coal Measures Formation - Sandstone	Langsettian

1.3.2 Permeability of Bedrock Ground

Are there any records relating to permeability of bedrock ground within the study site* boundary? Yes

Distance (m)	Direction	Flow Type	Maximum Permeability	Minimum Permeability
0.0	On Site	Fracture	High	Low
0.0	On Site	Fracture	High	Moderate

1.3.3 Faults

Are there any records of Faults within 500m of the study site boundary? Yes

ID	Distance (m)	Direction	Category Description	Feature Description
62	0.0	On Site	FAULT	Fault, inferred, displacement unknown
63	143.0	E	ROCK	Coal seam, inferred
64	227.0	SE	FAULT	Fault, inferred, displacement unknown
65G	257.0	SW	ROCK	Coal seam, inferred
66H	263.0	E	ROCK	Coal seam, inferred
67	276.0	NE	ROCK	Coal seam, inferred
68I	288.0	SE	ROCK	Coal seam, inferred
69	321.0	E	ROCK	Coal seam, inferred
70J	338.0	E	ROCK	Coal seam, inferred
71K	361.0	E	ROCK	Coal seam, inferred
72	363.0	W	FAULT	Fault, inferred, displacement unknown
73	393.0	SW	ROCK	Coal seam, inferred
74	467.0	S	ROCK	Coal seam, inferred
75	486.0	E	ROCK	Coal seam, inferred

The geology map for the site and surrounding area are extracted from the BGS Digital Geological Map of Great Britain at 1:50,000 scale.

This Geology shows the main components as discrete layers, these are: Bedrock/ Solid Geology and linear features such as Faults. These are all displayed with the BGS Lexicon code for the rock unit and BGS sheet number. Not all of the main geological components have nationwide coverage.

* This includes an automatically generated 50m buffer zone around the site

1.4 Radon Data

1.4.1 Radon Affected Areas

Is the property in a Radon Affected Area as defined by the Health Protection Agency (HPA) and if so what percentage of homes are above the Action Level? The property is in a Radon Affected Area, as between 1 and 3% of properties are above the Action Level

1.4.2 Radon Protection




Is the property in an area where Radon Protection are required for new properties or extensions to existing ones as described in publication BR211 by the Building Research Establishment? No radon protective measures are necessary

2 Ground Workings Map



Ground Workings Legend

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-  Site Outline
-  Historic Surface Ground Workings
-  Historic Underground Workings
-  Current Ground Workings
-  125 Search Buffers (m)
-  250 Search Buffers (m)

2 Ground Workings

2.1 Historical Surface Ground Working Features derived from Historical Mapping

This dataset is based on Groundsure's unique Historical Land Use Database derived from 1:10,560 and 1:10,000 scale historical mapping.

Are there any Historical Surface Ground Working Features within 250m of the study site boundary? Yes

The following Historical Surface Ground Working Features are provided by Groundsure:

ID	Distance (m)	Direction	NGR	Use	Date
1	0.0	On Site	417738 427905	Unspecified Pit	1892
2A	2.0	NE	417771 427918	Unspecified Pit	1967
3A	3.0	NE	417771 427918	Unspecified Pit	1974
4A	3.0	NE	417771 427918	Unspecified Pit	1983
5A	3.0	NE	417771 427918	Unspecified Pit	1990
6B	47.0	SW	417601 427852	Pond	1905
7B	47.0	SW	417601 427852	Pond	1892
8C	48.0	NE	417959 428041	Colliery	1932
9C	48.0	NE	417959 428041	Colliery	1948
10D	50.0	S	417713 427786	Unspecified Heap	1951
11D	54.0	S	417720 427783	Unspecified Heap	1967
12D	58.0	S	417724 427779	Unspecified Heap	1948
13D	58.0	S	417724 427779	Unspecified Heap	1932
14D	58.0	S	417724 427779	Refuse Heap	1905
15	59.0	S	417681 427761	Sand Pit	1905
16	62.0	S	417742 427771	Unspecified Pit	1892
17D	65.0	S	417709 427777	Unspecified Pit	1892
18E	97.0	S	417704 427737	Unspecified Heap	1948
19E	97.0	S	417704 427737	Unspecified Heap	1932
20E	97.0	S	417704 427737	Refuse Heap	1905

ID	Distance (m)	Direction	NGR	Use	Date
21E	103.0	S	417696 427738	Unspecified Heap	1951
22M	103.0	S	417692 427717	Unspecified Heaps	1967
23F	104.0	N	417720 428052	Unspecified Quarry	1905
24F	104.0	N	417720 428052	Unspecified Quarry	1932
25F	104.0	N	417720 428052	Unspecified Quarry	1948
26	146.0	SW	417626 427664	Cuttings	1974
27G	152.0	NE	417985 428060	Unspecified Disused Pit	1905
28G	152.0	NE	417985 428060	Refuse Heap	1932
29G	152.0	NE	417985 428060	Refuse Heap	1948
30G	152.0	NE	417985 428060	Refuse Heap	1892
31	166.0	NE	417979 428051	Refuse Heap	1967
32K	167.0	NE	418006 428112	Colliery	1951
33G	168.0	NE	417987 428074	Unspecified Heap	1951
34H	177.0	S	418066 427359	Sewage Works	1951
35H	177.0	S	418066 427359	Sewage Works	1967
36	178.0	S	418016 427416	Sewage Works	1932
37	180.0	S	418069 427331	Sewage Works	1948
38I	182.0	S	418041 427388	Sewage Works	1905
39J	183.0	S	417962 427596	Sewage Works	1892
40	189.0	SE	418028 427441	Filter Beds	1951
41I	190.0	S	418046 427408	Filter Beds	1948
42J	191.0	S	417957 427593	Ponds	1892
43	193.0	SE	417947 427660	Ponds	1932
44	241.0	NE	417951 428142	Unspecified Heap	1905

2.2 Historical Underground Working Features derived from Historical Mapping

This data is derived from the Groundsure unique Historical Land Use Database. It contains data derived from 1:10,000 and 1:10,560 historical Ordnance Survey Mapping and includes some natural topographical features (Shake Holes for example) as well as manmade features that may have implications for ground stability. Underground and mining features have been identified from surface features such as shafts. The distance that these extend underground is not shown.

Are there any Historical Underground Working Features within 1000m of the study site boundary? Yes

The following Historical Underground Working Features are provided by Groundsure:

ID	Distance (m)	Direction	NGR	Use	Date
45C	48.0	NE	417959 428041	Colliery	1932
46C	48.0	NE	417959 428041	Colliery	1948
47K	167.0	NE	418006 428112	Colliery	1951
48	214.0	NE	417963 428079	Unspecified Old Shafts	1932
49G	223.0	NE	417977 428078	Unspecified Old Shafts	1932
50L	297.0	SW	417474 427651	Unspecified Old Shaft	1951
51L	298.0	SW	417473 427652	Unspecified Old Shaft	1948
Not shown	395.0	SW	417338 427669	Unspecified Old Shaft	1905
Not shown	580.0	NE	418198 428432	Colliery	1932
Not shown	580.0	NE	418198 428432	Colliery	1948
Not shown	632.0	SW	417170 427488	Unspecified Old Shafts	1905
Not shown	639.0	SW	417158 427492	Unspecified Old Shafts	1905
Not shown	668.0	NE	418284 428401	Unspecified Shaft	1948
Not shown	672.0	NE	418284 428404	Unspecified Shaft	1932
Not shown	674.0	NE	418290 428406	Unspecified Disused Shaft	1974
Not shown	674.0	NE	418290 428406	Unspecified Disused Shaft	1967
Not shown	708.0	W	416959 427740	Tunnel	1892
Not shown	708.0	W	416959 427740	Tunnel	1905
Not shown	708.0	W	416959 427740	Tunnel	1948
Not shown	719.0	W	416944 427741	Tunnel	1967
Not shown	719.0	W	416944 427741	Tunnel	1974
Not shown	719.0	W	416944 427741	Tunnel	1990

ID	Distance (m)	Direction	NGR	Use	Date
Not shown	719.0	W	416944 427741	Tunnel	1983
Not shown	719.0	W	416944 427741	Tunnel	1951
Not shown	742.0	S	418146 427105	Old Coal Pit	1905
Not shown	765.0	SE	418504 427450	Unspecified Old Shafts	1948
Not shown	765.0	SE	418504 427450	Unspecified Old Shafts	1932
Not shown	766.0	SE	418502 427448	Unspecified Old Shafts	1951
Not shown	769.0	SE	418511 427457	Unspecified Old Shafts	1951
Not shown	769.0	SE	418511 427457	Unspecified Disused Shaft	1967
Not shown	968.0	E	418825 427896	Air Shafts	1951
Not shown	969.0	E	418825 427902	Air Shafts	1948
Not shown	969.0	E	418825 427902	Air Shafts	1932
Not shown	979.0	NE	418333 429046	Coal and Ironstone Pit	1905
Not shown	979.0	NE	418333 429046	Coal and Ironstone Pit	1892
Not shown	985.0	E	418842 427892	Air Shafts	1948
Not shown	985.0	E	418842 427892	Air Shafts	1932
Not shown	987.0	E	418844 427889	Air Shafts	1951
Not shown	999.0	NE	418738 428346	Unspecified Old Shaft	1948

2.3 Current Ground Workings

This dataset is derived from the BGS BRITPITS database covering active; inactive mines; quarries; oil wells; gas wells and mineral wharves; and rail deposits throughout the British Isles.

Are there any BGS Current Ground Workings within 1000m of the study site boundary? Yes

The following Current Ground Workings information is provided by British Geological Survey:

ID	Distance (m)	Direction	NGR	Commodity Produced	Pit Name	Type of working	Status
84	124.0	S	417649 427752	Sandstone	Oakenshaw Mill	A surface mineral working. It may be termed Quarry, Sand Pit, Clay Pit or Opencast Coal Site	Ceased
85	140.0	SW	417592 427763	Sandstone	Oakenshaw Mill	A surface mineral working. It may be termed Quarry, Sand Pit, Clay Pit or Opencast Coal Site	Ceased

ID	Distance (m)	Direction	NGR	Commodity Produced	Pit Name	Type of working	Status
86M	158.0	S	417664 427708	Coal, Deep	Mill Pit	Working is wholly underground, access by shaft, adit or drift. Working may be termed Colliery, Mine, Drift Mine, Slant, Level, Adit or Ingoing Eye (Ingaun Ee - Scots)	Ceased
87	158.0	S	417664 427708	Ironstone	Mill Pit	Working is wholly underground, access by shaft, adit or drift. Working may be termed Colliery, Mine, Drift Mine, Slant, Level, Adit or Ingoing Eye (Ingaun Ee - Scots)	Ceased
88N	189.0	SW	417551 427734	Ironstone	Bridge Pit	Working is wholly underground, access by shaft, adit or drift. Working may be termed Colliery, Mine, Drift Mine, Slant, Level, Adit or Ingoing Eye (Ingaun Ee - Scots)	Ceased
89N	189.0	SW	417551 427734	Coal, Deep	Bridge Pit	Working is wholly underground, access by shaft, adit or drift. Working may be termed Colliery, Mine, Drift Mine, Slant, Level, Adit or Ingoing Eye (Ingaun Ee - Scots)	Ceased
90L	302.0	SW	417472 427653	Coal, Deep	Newton Colliery	A surface mineral working. It may be termed Quarry, Sand Pit, Clay Pit or Opencast Coal Site	Ceased
91L	302.0	SW	417472 427653	Ironstone	Newton Colliery	A surface mineral working. It may be termed Quarry, Sand Pit, Clay Pit or Opencast Coal Site	Ceased
Not shown	305.0	N	417709 428226	Ironstone	Chatts Hill Pit	Working is wholly underground, access by shaft, adit or drift. Working may be termed Colliery, Mine, Drift Mine, Slant, Level, Adit or Ingoing Eye (Ingaun Ee - Scots)	Ceased
Not shown	305.0	N	417709 428226	Coal, Deep	Chatts Hill Pit	Working is wholly underground, access by shaft, adit or drift. Working may be termed Colliery, Mine, Drift Mine, Slant, Level, Adit or Ingoing Eye (Ingaun Ee - Scots)	Ceased
Not shown	321.0	N	417654 428232	Ironstone	Brook Pit	Working is wholly underground, access by shaft, adit or drift. Working may be termed Colliery, Mine, Drift Mine, Slant, Level, Adit or Ingoing Eye (Ingaun Ee - Scots)	Ceased
Not shown	321.0	N	417654 428232	Coal, Deep	Brook Pit	Working is wholly underground, access by shaft, adit or drift. Working may be termed Colliery, Mine, Drift Mine, Slant, Level, Adit or Ingoing Eye (Ingaun Ee - Scots)	Ceased
96O	326.0	NW	417506 428176	Ironstone	Taylor's Pit	Working is wholly underground, access by shaft, adit or drift. Working may be termed Colliery, Mine, Drift Mine, Slant, Level, Adit or Ingoing Eye (Ingaun Ee - Scots)	Ceased
97O	326.0	NW	417506 428176	Coal, Deep	Taylor's Pit	Working is wholly underground, access by shaft, adit or drift. Working may be termed Colliery, Mine, Drift Mine, Slant, Level, Adit or Ingoing Eye (Ingaun Ee - Scots)	Ceased
Not shown	349.0	S	417608 427526	Coal, Deep	Rail Pit	A surface mineral working. It may be termed Quarry, Sand Pit, Clay Pit or Opencast Coal Site	Ceased
Not shown	349.0	S	417608 427526	Ironstone	Rail Pit	A surface mineral working. It may be termed Quarry, Sand Pit, Clay Pit or Opencast Coal Site	Ceased

ID	Distance (m)	Direction	NGR	Commodity Produced	Pit Name	Type of working	Status
100P	366.0	NW	417384 428107	Ironstone	Peter's Pit	Working is wholly underground, access by shaft, adit or drift. Working may be termed Colliery, Mine, Drift Mine, Slant, Level, Adit or Ingoing Eye (Ingaun Ee - Scots)	Ceased
101P	366.0	NW	417384 428107	Coal, Deep	Peter's Pit	Working is wholly underground, access by shaft, adit or drift. Working may be termed Colliery, Mine, Drift Mine, Slant, Level, Adit or Ingoing Eye (Ingaun Ee - Scots)	Ceased
Not shown	402.0	NW	417378 428159	Sandstone	Upper Woodlands	A surface mineral working. It may be termed Quarry, Sand Pit, Clay Pit or Opencast Coal Site	Ceased
Not shown	417.0	N	417624 428323	Coal, Deep	Croft Pit	Working is wholly underground, access by shaft, adit or drift. Working may be termed Colliery, Mine, Drift Mine, Slant, Level, Adit or Ingoing Eye (Ingaun Ee - Scots)	Ceased
Not shown	417.0	N	417624 428323	Ironstone	Croft Pit	Working is wholly underground, access by shaft, adit or drift. Working may be termed Colliery, Mine, Drift Mine, Slant, Level, Adit or Ingoing Eye (Ingaun Ee - Scots)	Ceased
Not shown	455.0	W	417233 427962	Ironstone	Low wood Bottom Pit	A surface mineral working. It may be termed Quarry, Sand Pit, Clay Pit or Opencast Coal Site	Ceased
Not shown	455.0	W	417233 427962	Coal, Deep	Low wood Bottom Pit	A surface mineral working. It may be termed Quarry, Sand Pit, Clay Pit or Opencast Coal Site	Ceased
Not shown	478.0	W	417210 427783	Ironstone	Booth Pit	A surface mineral working. It may be termed Quarry, Sand Pit, Clay Pit or Opencast Coal Site	Ceased
Not shown	478.0	W	417210 427783	Coal, Deep	Booth Pit	A surface mineral working. It may be termed Quarry, Sand Pit, Clay Pit or Opencast Coal Site	Ceased
Not shown	489.0	SW	417250 427638	Ironstone	Shigston Pit	A surface mineral working. It may be termed Quarry, Sand Pit, Clay Pit or Opencast Coal Site	Ceased
Not shown	489.0	SW	417250 427638	Coal, Deep	Shigston Pit	A surface mineral working. It may be termed Quarry, Sand Pit, Clay Pit or Opencast Coal Site	Ceased
Not shown	516.0	W	417184 428018	Ironstone	House Pit	A surface mineral working. It may be termed Quarry, Sand Pit, Clay Pit or Opencast Coal Site	Ceased
Not shown	516.0	W	417184 428018	Coal, Deep	House Pit	A surface mineral working. It may be termed Quarry, Sand Pit, Clay Pit or Opencast Coal Site	Ceased
Not shown	564.0	N	417679 428483	Ironstone	Olive Pit	Working is wholly underground, access by shaft, adit or drift. Working may be termed Colliery, Mine, Drift Mine, Slant, Level, Adit or Ingoing Eye (Ingaun Ee - Scots)	Ceased
Not shown	564.0	N	417679 428483	Coal, Deep	Olive Pit	Working is wholly underground, access by shaft, adit or drift. Working may be termed Colliery, Mine, Drift Mine, Slant, Level, Adit or Ingoing Eye (Ingaun Ee - Scots)	Ceased
Not shown	627.0	NW	417133 428193	Coal, Deep	Snake Hill	A surface mineral working. It may be termed Quarry, Sand Pit, Clay Pit or Opencast Coal Site	Ceased

ID	Distance (m)	Direction	NGR	Commodity Produced	Pit Name	Type of working	Status
Not shown	627.0	NW	417133 428193	Ironstone	Snake Hill	A surface mineral working. It may be termed Quarry, Sand Pit, Clay Pit or Opencast Coal Site	Ceased
Not shown	654.0	N	417587 428558	Sandstone	The Ruddings	A surface mineral working. It may be termed Quarry, Sand Pit, Clay Pit or Opencast Coal Site	Ceased
Not shown	654.0	NW	417301 428432	Ironstone	Thorn Pit	Working is wholly underground, access by shaft, adit or drift. Working may be termed Colliery, Mine, Drift Mine, Slant, Level, Adit or Ingoing Eye (Ingaun Ee - Scots)	Ceased
Not shown	654.0	NW	417301 428432	Coal, Deep	Thorn Pit	Working is wholly underground, access by shaft, adit or drift. Working may be termed Colliery, Mine, Drift Mine, Slant, Level, Adit or Ingoing Eye (Ingaun Ee - Scots)	Ceased
Not shown	662.0	SW	417144 427483	Ironstone	Boyd Colliery	A surface mineral working. It may be termed Quarry, Sand Pit, Clay Pit or Opencast Coal Site	Ceased
Not shown	662.0	SW	417144 427483	Coal, Deep	Boyd Colliery	A surface mineral working. It may be termed Quarry, Sand Pit, Clay Pit or Opencast Coal Site	Ceased
Not shown	668.0	N	417452 428531	Ironstone	Corner Pit	Working is wholly underground, access by shaft, adit or drift. Working may be termed Colliery, Mine, Drift Mine, Slant, Level, Adit or Ingoing Eye (Ingaun Ee - Scots)	Ceased
Not shown	668.0	N	417452 428531	Coal, Deep	Corner Pit	Working is wholly underground, access by shaft, adit or drift. Working may be termed Colliery, Mine, Drift Mine, Slant, Level, Adit or Ingoing Eye (Ingaun Ee - Scots)	Ceased
Not shown	700.0	W	417030 427610	Ironstone	Garth Pit	Working is wholly underground, access by shaft, adit or drift. Working may be termed Colliery, Mine, Drift Mine, Slant, Level, Adit or Ingoing Eye (Ingaun Ee - Scots)	Ceased
Not shown	700.0	W	417030 427610	Coal, Deep	Garth Pit	Working is wholly underground, access by shaft, adit or drift. Working may be termed Colliery, Mine, Drift Mine, Slant, Level, Adit or Ingoing Eye (Ingaun Ee - Scots)	Ceased
Not shown	700.0	W	417005 428063	Coal, Deep	Sale Horn Pit	A surface mineral working. It may be termed Quarry, Sand Pit, Clay Pit or Opencast Coal Site	Ceased
Not shown	700.0	W	417005 428063	Ironstone	Sale Horn Pit	A surface mineral working. It may be termed Quarry, Sand Pit, Clay Pit or Opencast Coal Site	Ceased
Not shown	704.0	N	417764 428627	Ironstone	Hag Pit	Working is wholly underground, access by shaft, adit or drift. Working may be termed Colliery, Mine, Drift Mine, Slant, Level, Adit or Ingoing Eye (Ingaun Ee - Scots)	Ceased
Not shown	704.0	N	417764 428627	Coal, Deep	Hag Pit	Working is wholly underground, access by shaft, adit or drift. Working may be termed Colliery, Mine, Drift Mine, Slant, Level, Adit or Ingoing Eye (Ingaun Ee - Scots)	Ceased
Not shown	717.0	W	416965 427806	Ironstone	Green House Pit	A surface mineral working. It may be termed Quarry, Sand Pit, Clay Pit or Opencast Coal Site	Ceased

ID	Distance (m)	Direction	NGR	Commodity Produced	Pit Name	Type of working	Status
Not shown	717.0	W	416965 427806	Coal, Deep	Green House Pit	A surface mineral working. It may be termed Quarry, Sand Pit, Clay Pit or Opencast Coal Site	Ceased
Not shown	749.0	W	416940 427750	Ironstone	The Brow Pit	Working is wholly underground, access by shaft, adit or drift. Working may be termed Colliery, Mine, Drift Mine, Slant, Level, Adit or Ingoing Eye (Ingaun Ee - Scots)	Ceased
Not shown	749.0	W	416940 427750	Coal, Deep	The Brow Pit	Working is wholly underground, access by shaft, adit or drift. Working may be termed Colliery, Mine, Drift Mine, Slant, Level, Adit or Ingoing Eye (Ingaun Ee - Scots)	Ceased
Not shown	753.0	NE	418199 428564	Ironstone	Clifford Pit No 7	Working is wholly underground, access by shaft, adit or drift. Working may be termed Colliery, Mine, Drift Mine, Slant, Level, Adit or Ingoing Eye (Ingaun Ee - Scots)	Ceased
Not shown	753.0	NE	418199 428564	Coal, Deep	Clifford Pit No 7	Working is wholly underground, access by shaft, adit or drift. Working may be termed Colliery, Mine, Drift Mine, Slant, Level, Adit or Ingoing Eye (Ingaun Ee - Scots)	Ceased
Not shown	794.0	N	417853 428709	Coal, Deep	Knoll Pit	Working is wholly underground, access by shaft, adit or drift. Working may be termed Colliery, Mine, Drift Mine, Slant, Level, Adit or Ingoing Eye (Ingaun Ee - Scots)	Ceased
Not shown	794.0	N	417853 428709	Ironstone	Knoll Pit	Working is wholly underground, access by shaft, adit or drift. Working may be termed Colliery, Mine, Drift Mine, Slant, Level, Adit or Ingoing Eye (Ingaun Ee - Scots)	Ceased
Not shown	817.0	S	418113 427087	Coal, Deep	Hunsworth Little Wood	A surface mineral working. It may be termed Quarry, Sand Pit, Clay Pit or Opencast Coal Site	Ceased
Not shown	833.0	NW	417037 428423	Coal, Deep	Toad Hole Pit	Working is wholly underground, access by shaft, adit or drift. Working may be termed Colliery, Mine, Drift Mine, Slant, Level, Adit or Ingoing Eye (Ingaun Ee - Scots)	Ceased
Not shown	833.0	NW	417037 428423	Ironstone	Toad Hole Pit	Working is wholly underground, access by shaft, adit or drift. Working may be termed Colliery, Mine, Drift Mine, Slant, Level, Adit or Ingoing Eye (Ingaun Ee - Scots)	Ceased
Not shown	837.0	NW	417182 428572	Ironstone	Wilson	A surface mineral working. It may be termed Quarry, Sand Pit, Clay Pit or Opencast Coal Site	Ceased
Not shown	837.0	NW	417182 428572	Coal, Deep	Wilson	A surface mineral working. It may be termed Quarry, Sand Pit, Clay Pit or Opencast Coal Site	Ceased
Not shown	855.0	NW	417358 428694	Ironstone	Gin	A surface mineral working. It may be termed Quarry, Sand Pit, Clay Pit or Opencast Coal Site	Ceased
Not shown	855.0	NW	417358 428694	Coal, Deep	Gin	A surface mineral working. It may be termed Quarry, Sand Pit, Clay Pit or Opencast Coal Site	Ceased

ID	Distance (m)	Direction	NGR	Commodity Produced	Pit Name	Type of working	Status
Not shown	915.0	N	417457 428793	Ironstone	Moor Pit	Working is wholly underground, access by shaft, adit or drift. Working may be termed Colliery, Mine, Drift Mine, Slant, Level, Adit or Ingoing Eye (Ingaun Ee - Scots)	Ceased
Not shown	915.0	N	417457 428793	Coal, Deep	Moor Pit	Working is wholly underground, access by shaft, adit or drift. Working may be termed Colliery, Mine, Drift Mine, Slant, Level, Adit or Ingoing Eye (Ingaun Ee - Scots)	Ceased
Not shown	936.0	N	417727 428859	Coal, Deep	Rock Pit	Working is wholly underground, access by shaft, adit or drift. Working may be termed Colliery, Mine, Drift Mine, Slant, Level, Adit or Ingoing Eye (Ingaun Ee - Scots)	Ceased
Not shown	936.0	N	417727 428859	Ironstone	Rock Pit	Working is wholly underground, access by shaft, adit or drift. Working may be termed Colliery, Mine, Drift Mine, Slant, Level, Adit or Ingoing Eye (Ingaun Ee - Scots)	Ceased
Not shown	965.0	N	417954 428870	Ironstone	Tan Pit	Working is wholly underground, access by shaft, adit or drift. Working may be termed Colliery, Mine, Drift Mine, Slant, Level, Adit or Ingoing Eye (Ingaun Ee - Scots)	Ceased
Not shown	965.0	N	417954 428870	Coal, Deep	Tan Pit	Working is wholly underground, access by shaft, adit or drift. Working may be termed Colliery, Mine, Drift Mine, Slant, Level, Adit or Ingoing Eye (Ingaun Ee - Scots)	Ceased
Not shown	984.0	N	417497 428876	Ironstone	The Ruddings	A surface mineral working. It may be termed Quarry, Sand Pit, Clay Pit or Opencast Coal Site	Ceased
Not shown	984.0	N	417497 428876	Coal, Deep	The Ruddings	A surface mineral working. It may be termed Quarry, Sand Pit, Clay Pit or Opencast Coal Site	Ceased
Not shown	999.0	SW	416764 427471	Coal, Deep	Butler Pit	A surface mineral working. It may be termed Quarry, Sand Pit, Clay Pit or Opencast Coal Site	Ceased
Not shown	999.0	SW	416764 427471	Ironstone	Butler Pit	A surface mineral working. It may be termed Quarry, Sand Pit, Clay Pit or Opencast Coal Site	Ceased

3 Mining, Extraction & Natural Cavities Map



Mining, Extraction and Natural Cavities Legend

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3 Mining, Extraction & Natural Cavities

3.1 Historical Mining

This dataset is derived from Groundsure unique Historical Land-use Database that are indicative of mining or extraction activities.

Are there any Historical Mining areas within 1000m of the study site boundary? Yes

The following Historical Mining information is provided by Groundsure:

ID	Distance (m)	Direction	NGR	Details	Date
7A	48.0	NE	417959 428041	Colliery	1948
8A	48.0	NE	417959 428041	Colliery	1932
9B	167.0	NE	418006 428112	Colliery	1951
10	214.0	NE	417963 428079	Unspecified Old Shafts	1932
11B	223.0	NE	417977 428078	Unspecified Old Shafts	1932
12C	297.0	SW	417474 427651	Unspecified Old Shaft	1951
13C	298.0	SW	417473 427652	Unspecified Old Shaft	1948
14	395.0	SW	417338 427669	Unspecified Old Shaft	1905
15D	580.0	NE	418198 428432	Colliery	1932
16D	580.0	NE	418198 428432	Colliery	1948
17E	632.0	SW	417170 427488	Unspecified Old Shafts	1905
18E	639.0	SW	417158 427492	Unspecified Old Shafts	1905
19F	668.0	NE	418284 428401	Unspecified Shaft	1948
20F	672.0	NE	418284 428404	Unspecified Shaft	1932
21F	674.0	NE	418290 428406	Unspecified Disused Shaft	1974
22F	674.0	NE	418290 428406	Unspecified Disused Shaft	1967
Not shown	742.0	S	418146 427105	Old Coal Pit	1905
Not shown	765.0	SE	418504 427450	Unspecified Old Shafts	1948
Not shown	765.0	SE	418504 427450	Unspecified Old Shafts	1932
Not shown	766.0	SE	418502 427448	Unspecified Old Shafts	1951

ID	Distance (m)	Direction	NGR	Details	Date
Not shown	769.0	SE	418511 427457	Unspecified Disused Shaft	1967
Not shown	769.0	SE	418511 427457	Unspecified Old Shafts	1951
Not shown	968.0	E	418825 427896	Air Shafts	1951
Not shown	969.0	E	418825 427902	Air Shafts	1932
Not shown	969.0	E	418825 427902	Air Shafts	1948
Not shown	979.0	NE	418333 429046	Coal and Ironstone Pit	1905
Not shown	979.0	NE	418333 429046	Coal and Ironstone Pit	1892
Not shown	985.0	E	418842 427892	Air Shafts	1932
Not shown	985.0	E	418842 427892	Air Shafts	1948
Not shown	987.0	E	418844 427889	Air Shafts	1951
Not shown	999.0	NE	418738 428346	Unspecified Old Shaft	1948

3.2 Coal Mining

This dataset provides information as to whether the study site lies within a known coal mining affected area as defined by the coal authority.

Are there any Coal Mining areas within 1000m of the study site boundary? Yes

The following Coal Mining information provided by the Coal Authority is not represented on Mapping:

Distance (m)	Direction	Details
0.0	On Site	The study site is located within the specified search distance of an identified mining area. Further details concerning this can be obtained from the Coal Authority Helpline on 0845 762 6848.

3.3 Johnson Poole and Bloomer

This dataset provides information as to whether the study site lies within an area where JPB hold information relating to mining.

Are there any JPB Mining areas within 1000m of the study site boundary? No

The following information provided by JPB is not represented on mapping: Database searched and no data found.

3.4 Non-Coal Mining

This dataset provides information as to whether the study site lies within an area which may have been subject to non-coal historic mining.

Are there any Non-Coal Mining areas within 1000m of the study site boundary? Yes

The following non-coal mining information is provided by the BGS:

ID	Distance (m)	Direction	Name	Commodity	Assessment of likelihood
1	0.0	On Site	Leeds/Bradford area	Iron Ore (Bedded)	Localised small scale underground mining may have occurred. Potential for difficult ground conditions are unlikely or localised and are at a level where they need not be considered
Not shown	607.0	NE	Leeds/Bradford area	Vein Mineral/Iron ore	Localised small scale underground mining may have occurred. Potential for difficult ground conditions are unlikely or localised and are at a level where they need not be considered
Not shown	670.0	NE	Leeds/Bradford area	Iron Ore (Bedded)	Localised small scale underground mining may have occurred. Potential for difficult ground conditions are unlikely or localised and are at a level where they need not be considered
Not shown	747.0	N	Leeds/Bradford area	Iron Ore (Bedded)	Localised small scale underground mining may have occurred. Potential for difficult ground conditions are unlikely or localised and are at a level where they need not be considered
Not shown	855.0	E	Leeds/Bradford area	Iron Ore (Bedded)	Localised small scale underground mining may have occurred. Potential for difficult ground conditions are unlikely or localised and are at a level where they need not be considered
Not shown	875.0	N	Leeds/Bradford area	Iron Ore (Bedded)	Localised small scale underground mining may have occurred. Potential for difficult ground conditions are unlikely or localised and are at a level where they need not be considered

3.5 Non-Coal Mining Cavities

This dataset provides information from the Peter Brett Associates (PBA) mining cavities database (compiled for the national study entitled “Review of mining instability in Great Britain, 1990” PBA has also continued adding to this database) on mineral extraction by mining.

Are there any Non-Coal Mining cavities within 1000m of the study site boundary? No

Database searched and no data found.

3.6 Natural Cavities

This dataset provides information based on Peter Brett Associates natural cavities database.

Are there any Natural Cavities within 1000m of the study site boundary? No

Database searched and no data found.

3.7 Brine Extraction

This data provides information from the Coal Authority issued on behalf of the Cheshire Brine Subsidence Compensation Board.

Are there any Brine Extraction areas within 1000m of the study site boundary? No

Database searched and no data found.

3.8 Gypsum Extraction

This dataset provides information on Gypsum extraction from British Gypsum records.

Are there any Gypsum Extraction areas within 1000m of the study site boundary? No

Database searched and no data found.

3.9 Tin Mining

This dataset provides information on tin mining areas and is derived from tin mining records. This search is based upon postcode information to a sector level.

Are there any Tin Mining areas within 1000m of the study site boundary? No

Database searched and no data found.

3.10 Clay Mining

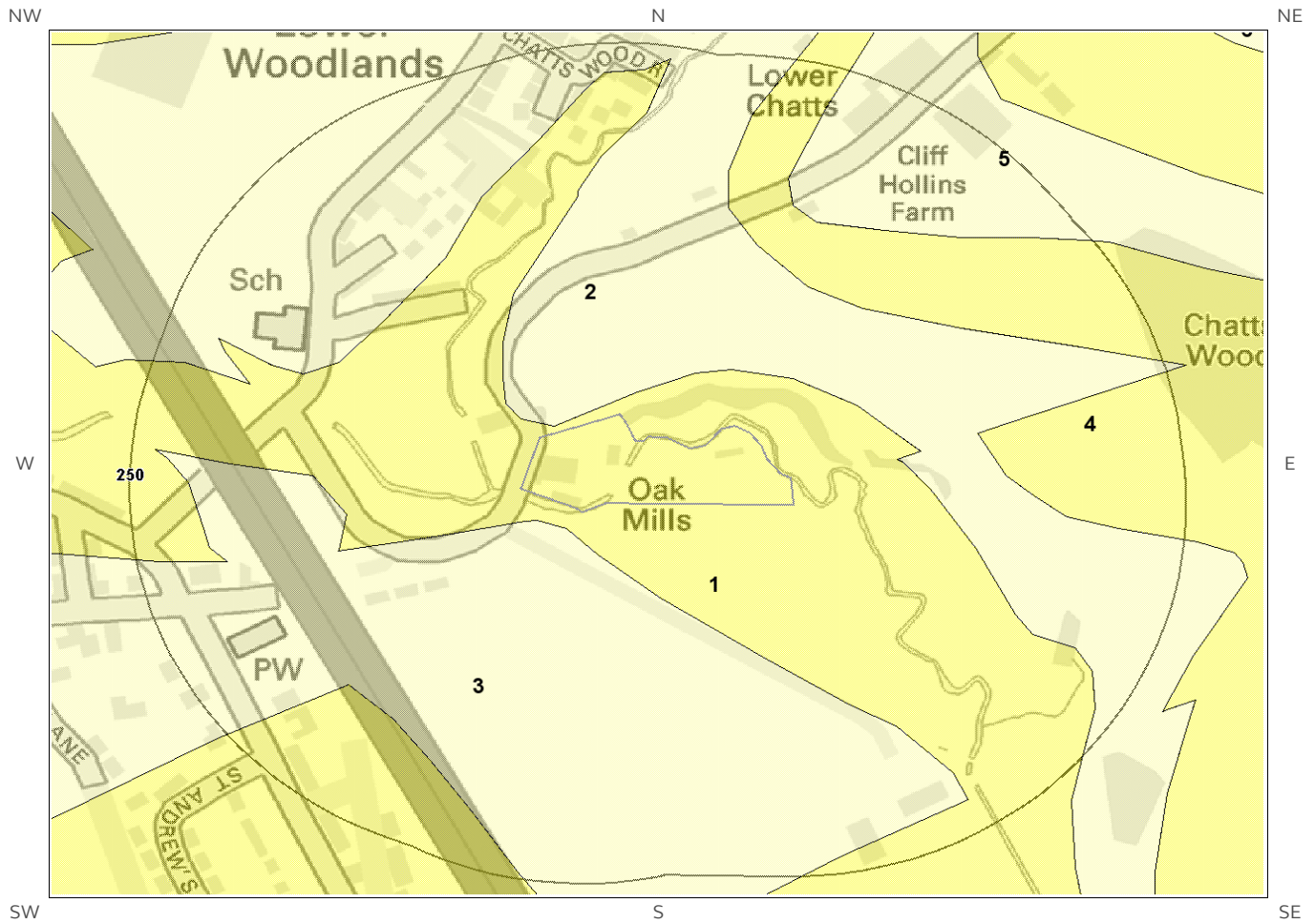
This dataset provides information on Kaolin and Ball Clay mining from relevant mining records.

Are there any Clay Mining areas within 1000m of the study site boundary? No

Database searched and no data found.

4 Natural Ground Subsidence

4.1 Shrink-Swell Clay Map

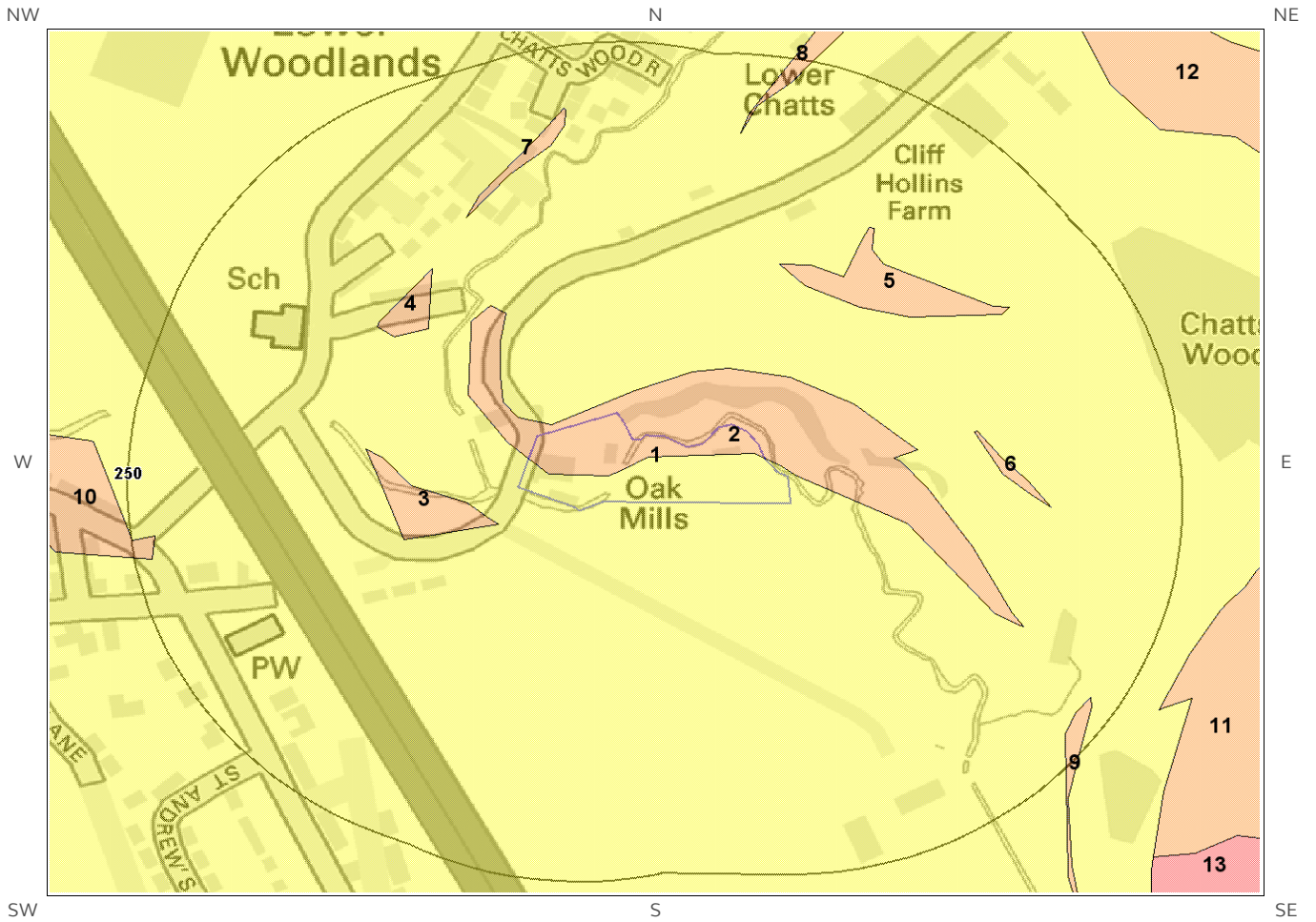


Shrink Swell Clay Legend

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4.2 Landslides Map

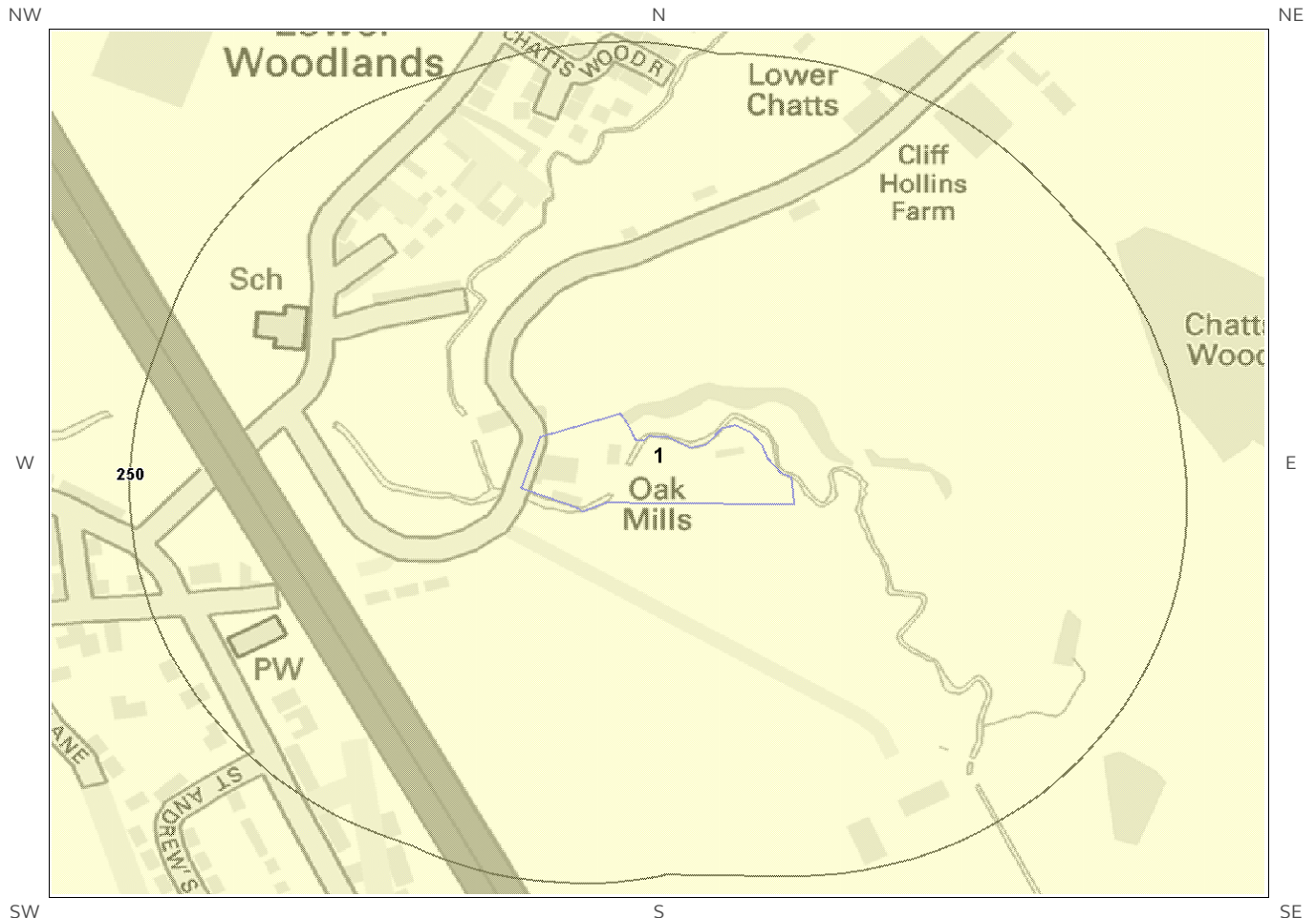


Landslides Legend

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4.3 Ground Dissolution Soluble Rocks Map

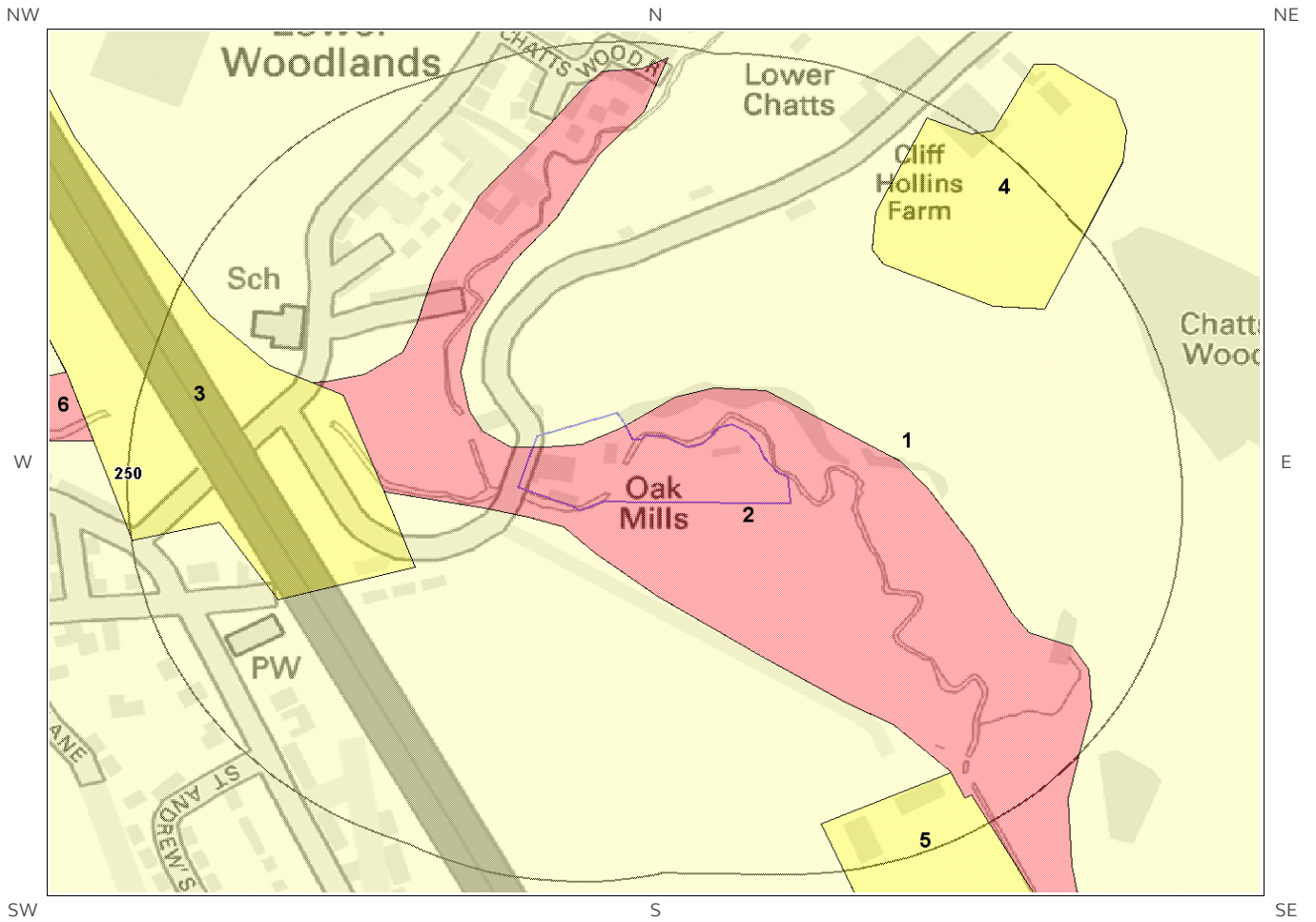


Ground Dissolution Soluble Rocks Legend

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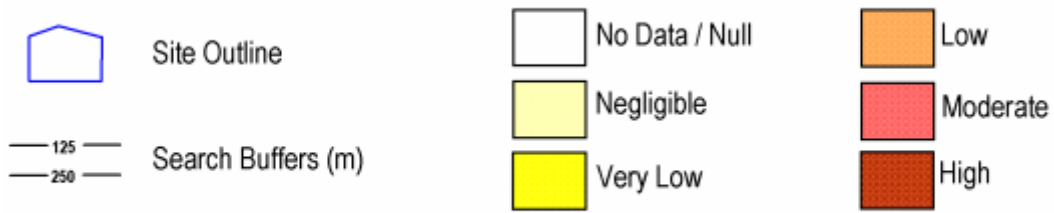


4.4 Compressible Deposits Map

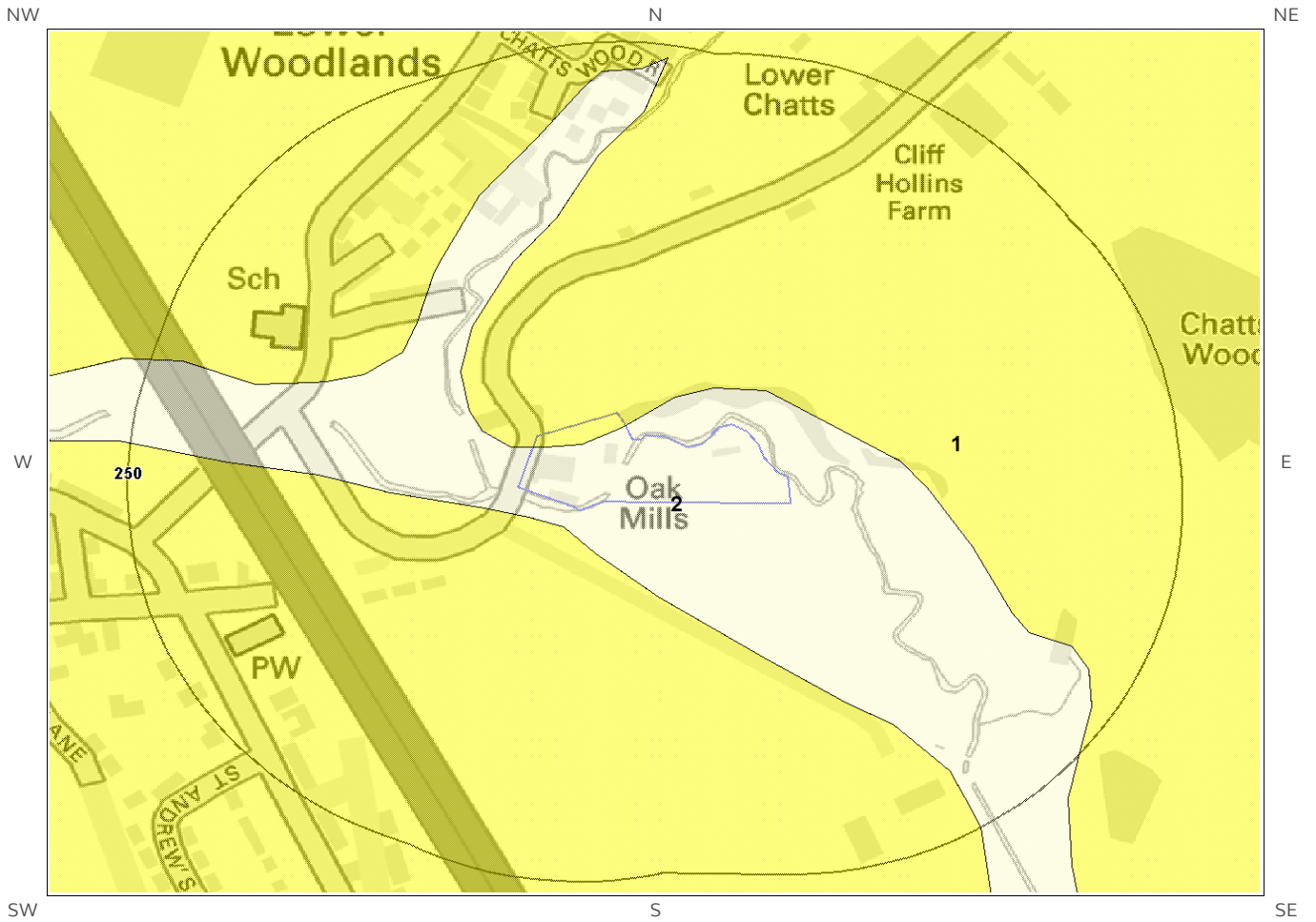


Compressible Deposits Legend

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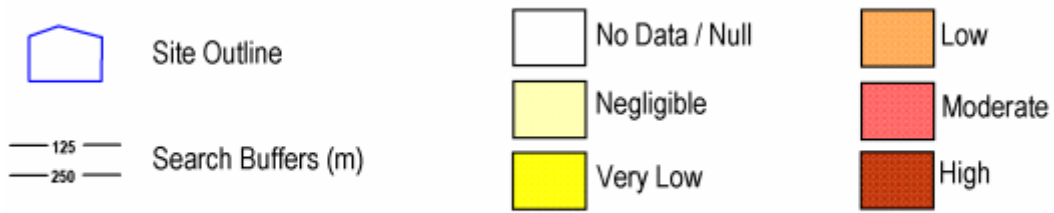


4.5 Collapsible Deposits Map

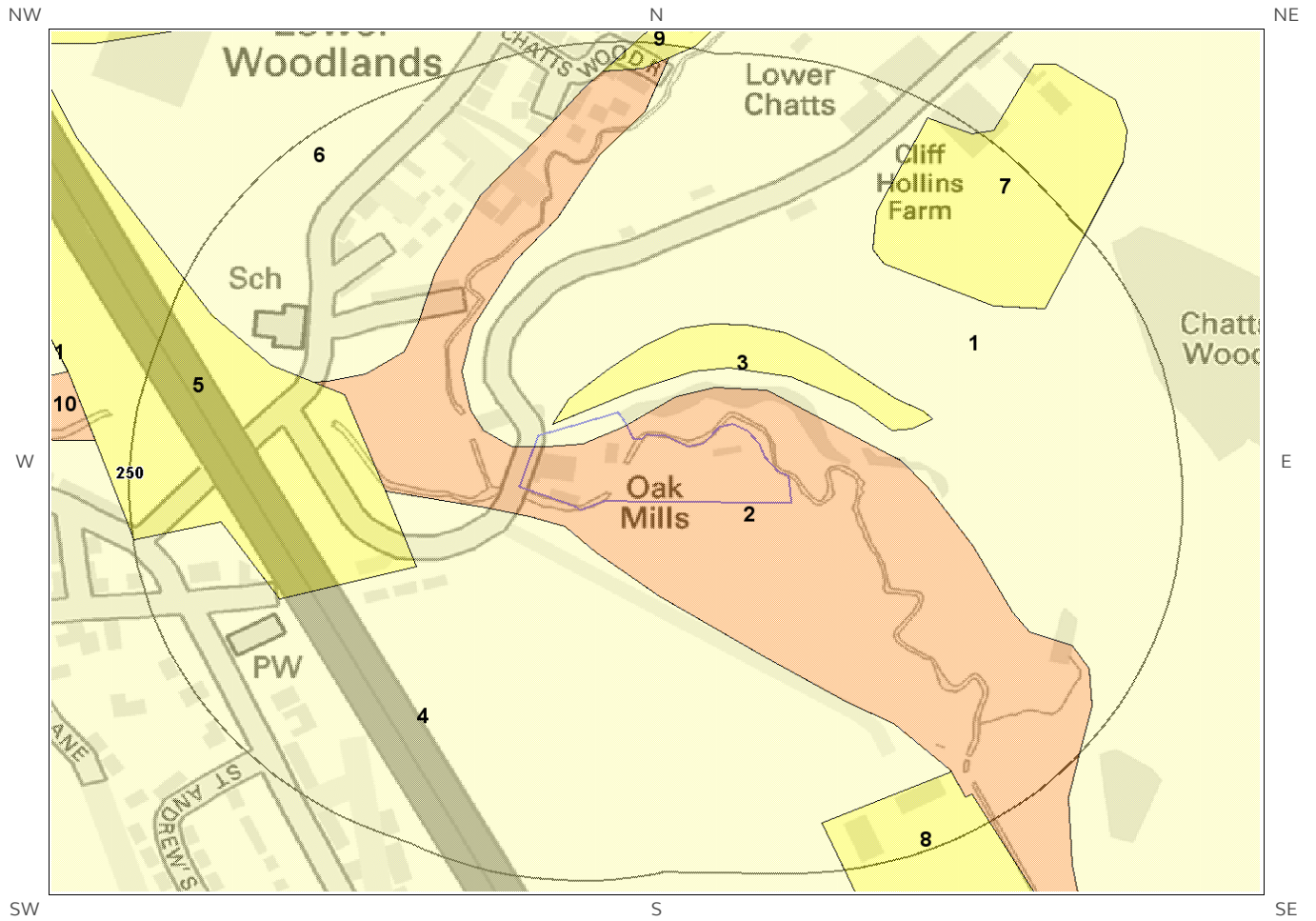


Collapsible Deposits Legend

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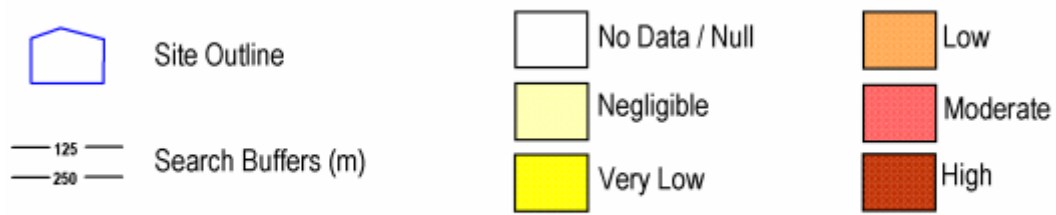


4.6 Running Sand Map



Running Sand Legend

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4 Natural Ground Subsidence

The National Ground Subsidence rating is obtained through the 6 natural ground stability hazard datasets, which are supplied by the British Geological Survey (BGS).

The following GeoSure data represented on the mapping is derived from the BGS Digital Geological map of Great Britain at 1:50,000 scale.

What is the maximum hazard rating of natural subsidence within the study site** boundary? Moderate

4.1 Shrink-Swell Clays

The following Shrink Swell information provided by the British Geological Survey:

ID	Distance (m)	Direction	Hazard Rating	Details
1	0.0	On Site	Very Low	Ground conditions predominantly low plasticity. No special actions required to avoid problems due to shrink-swell clays. No special ground investigation required, and increased construction costs or increased financial risks are unlikely due to potential problems with shrink-swell clays.
2	5.0	N	Negligible	Ground conditions predominantly non-plastic. No special actions required to avoid problems due to shrink-swell clays. No special ground investigation required, and increased construction costs or increased financial risks are unlikely due to potential problems with shrink-swell clays.
3	15.0	SW	Negligible	Ground conditions predominantly non-plastic. No special actions required to avoid problems due to shrink-swell clays. No special ground investigation required, and increased construction costs or increased financial risks are unlikely due to potential problems with shrink-swell clays.

4.2 Landslides

The following Landslides information provided by the British Geological Survey:

ID	Distance (m)	Direction	Hazard Rating	Details
1	0.0	On Site	Very Low	Slope instability problems are unlikely to be present. No special actions required to avoid problems due to landslides. No special ground investigation required, and increased construction costs or increased financial risks are unlikely due to potential problems with landslides.
2	0.0	On Site	Low	Possibility of slope instability problems after major changes in ground conditions. Consideration should be given to stability if changes to the ground, such as drainage or excavations, take place. Possible increase in construction cost to reduce potential slope stability problems. For existing property, no significant increase in insurance risk due to natural slope instability problems.
3	28.0	SW	Low	Possibility of slope instability problems after major changes in ground conditions. Consideration should be given to stability if changes to the ground, such as drainage or excavations, take place. Possible increase in construction cost to reduce potential slope stability problems. For existing property, no significant increase in insurance risk due to natural slope instability problems.

* This includes an automatically generated 50m buffer zone around the site

4.3 Ground Dissolution of Soluble Rocks

The following Ground Dissolution information provided by the British Geological Survey:

ID	Distance (m)	Direction	Hazard Rating	Details
1	0.0	On Site	Negligible	Soluble rocks are present, but unlikely to cause problems except under exceptional conditions. No special actions required to avoid problems due to soluble rocks. No special ground investigation required, and increased construction costs or increased financial risks are unlikely due to potential problems with soluble rocks.

4.4 Compressible Deposits

The following Compressible Deposits information provided by the British Geological Survey:

ID	Distance (m)	Direction	Hazard Rating	Details
1	0.0	On Site	Negligible	No indicators for compressible ground identified. No special actions required to avoid problems due to compressible ground. No special ground investigation required, and increased construction costs or increased financial risks are unlikely due to potential problems with compressible ground.
2	0.0	On Site	Moderate	Significant potential for compressibility problems. Do not drain, load or de-water ground near the property without technical advice. For new build, consider possibility of compressible ground in ground investigation, construction and building design. Consider effects of groundwater changes. Extra construction costs are likely. For existing property, possible increase in insurance risk from compressibility, especially if water conditions or loading of the ground change significantly.

4.5 Collapsible Deposits

The following Collapsible Rocks information provided by the British Geological Survey:

ID	Distance (m)	Direction	Hazard Rating	Details
1	0.0	On Site	Very Low	Deposits with potential to collapse when loaded and saturated are unlikely to be present. No special ground investigation required or increased construction costs or increased financial risk due to potential problems with collapsible deposits.
2	0.0	On Site	Negligible	No indicators for collapsible deposits identified. No actions required to avoid problems due to collapsible deposits. No special ground investigation required, or increased construction costs or increased financial risk due to potential problems with collapsible deposits.

4.6 Running Sands

The following Running Sands information provided by the British Geological Survey:

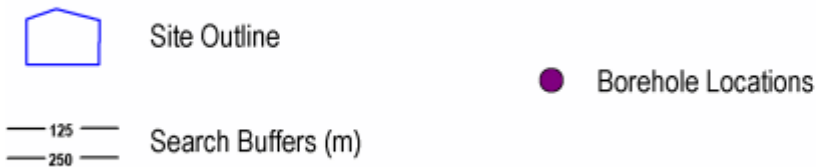
ID	Distance (m)	Direction	Hazard Rating	Details
1	0.0	On Site	Negligible	No indicators for running sand identified. No special actions required to avoid problems due to running sand. No special ground investigation required, and increased construction costs or increased financial risks are unlikely due to potential problems with running sand.
2	0.0	On Site	Low	Possibility of running sand problems after major changes in ground conditions. Normal maintenance to avoid leakage of water-bearing services or water bodies (ponds, swimming pools) should reduce likelihood of problems due to running sand. For new build, consider possibility of running sand into trenches or excavations if water table is high or sandy strata are exposed to water. Avoid concentrated water inputs to site. Unlikely to be an increase in construction costs due to potential for running sand. For existing property, no significant increase in insurance risk due to running sand problems is likely.
3	5.0	N	Very Low	Very low potential for running sand problems if water table rises or if sandy strata are exposed to water. No special actions required to avoid problems due to running sand. No special ground investigation required, and increased construction costs or increased financial risks are unlikely due to potential problems with running sand.
4	15.0	SW	Negligible	No indicators for running sand identified. No special actions required to avoid problems due to running sand. No special ground investigation required, and increased construction costs or increased financial risks are unlikely due to potential problems with running sand.

5 Borehole Records Map



Borehole Records Legend

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5 Borehole Records

The systematic analysis of data extracted from the BGS Borehole Records database provides the following information.

Records of boreholes within 250m of the study site boundary:

6

ID	Distance (m)	Direction	NGR	BGS Reference	Drilled Length	Borehole Name
1	158.0	SW	417580 427750	SE12NE419	4.57	M62 MOTORWAY F143
2	158.0	W	417530 427820	SE12NE420	4.57	M62 MOTORWAY F144
3	172.0	SW	417543 427768	SE12NE978	1.0	M62 EAST/M606 LINK RDS TP 142
4	191.0	W	417490 427900	SE12NE421	3.66	M62 MOTORWAY F145
5	216.0	SW	417630 427660	SE12NE418	6.1	M62 MOTORWAY F142
6	243.0	SW	417622 427634	SE12NE977	1.0	M62 EAST/M606 LINK RDS TP 141

The borehole records are available using the hyperlinks below: Please note that if the donor of the borehole record has requested the information be held as commercial-in-confidence, the additional data will be held separately by the BGS and a formal request must be made for its release.

#1: scans.bgs.ac.uk/sobi_scans/boreholes/42014

#2: scans.bgs.ac.uk/sobi_scans/boreholes/42015

#3: scans.bgs.ac.uk/sobi_scans/boreholes/42573

#4: scans.bgs.ac.uk/sobi_scans/boreholes/42016

#5: scans.bgs.ac.uk/sobi_scans/boreholes/42013

#6: scans.bgs.ac.uk/sobi_scans/boreholes/42572

6 Estimated Background Soil Chemistry

Records of background estimated soil chemistry within 250m of the study site boundary:

50

For further information on how this data is calculated and limitations upon its use, please see the Groundsure Geo Insight User Guide, available on request.

Distance (m)	Direction	Sample Type	Arsenic (As)	Cadmium (Cd)	Chromium (Cr)	Nickel (Ni)	Lead (Pb)
0.0	On Site	RuralSoil	35 - 45 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	100 - 200 mg/kg
0.0	On Site	RuralSoil	35 - 45 mg/kg	<1.8 mg/kg	90 - 120 mg/kg	15 - 30 mg/kg	100 - 200 mg/kg
0.0	On Site	RuralSoil	35 - 45 mg/kg	<1.8 mg/kg	90 - 120 mg/kg	15 - 30 mg/kg	100 - 200 mg/kg
2.0	S	RuralSoil	35 - 45 mg/kg	<1.8 mg/kg	90 - 120 mg/kg	15 - 30 mg/kg	100 - 200 mg/kg
5.0	N	RuralSoil	35 - 45 mg/kg	<1.8 mg/kg	90 - 120 mg/kg	15 - 30 mg/kg	100 - 200 mg/kg
5.0	N	RuralSoil	35 - 45 mg/kg	<1.8 mg/kg	90 - 120 mg/kg	15 - 30 mg/kg	100 - 200 mg/kg
15.0	SW	RuralSoil	35 - 45 mg/kg	<1.8 mg/kg	90 - 120 mg/kg	15 - 30 mg/kg	100 - 200 mg/kg
16.0	S	RuralSoil	35 - 45 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	100 - 200 mg/kg
40.0	S	RuralSoil	35 - 45 mg/kg	<1.8 mg/kg	90 - 120 mg/kg	15 - 30 mg/kg	100 - 200 mg/kg
69.0	E	RuralSoil	35 - 45 mg/kg	<1.8 mg/kg	90 - 120 mg/kg	15 - 30 mg/kg	100 - 200 mg/kg
77.0	N	RuralSoil	35 - 45 mg/kg	<1.8 mg/kg	90 - 120 mg/kg	15 - 30 mg/kg	100 - 200 mg/kg
77.0	N	RuralSoil	35 - 45 mg/kg	<1.8 mg/kg	90 - 120 mg/kg	15 - 30 mg/kg	100 - 200 mg/kg
94.0	N	RuralSoil	35 - 45 mg/kg	<1.8 mg/kg	90 - 120 mg/kg	15 - 30 mg/kg	100 - 200 mg/kg
94.0	N	RuralSoil	35 - 45 mg/kg	<1.8 mg/kg	90 - 120 mg/kg	15 - 30 mg/kg	100 - 200 mg/kg
98.0	N	RuralSoil	35 - 45 mg/kg	<1.8 mg/kg	90 - 120 mg/kg	15 - 30 mg/kg	100 - 200 mg/kg
98.0	N	RuralSoil	35 - 45 mg/kg	<1.8 mg/kg	90 - 120 mg/kg	15 - 30 mg/kg	100 - 200 mg/kg
103.0	NW	RuralSoil	35 - 45 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	100 - 200 mg/kg
105.0	NE	RuralSoil	35 - 45 mg/kg	<1.8 mg/kg	90 - 120 mg/kg	15 - 30 mg/kg	100 - 200 mg/kg
107.0	NE	RuralSoil	35 - 45 mg/kg	<1.8 mg/kg	90 - 120 mg/kg	15 - 30 mg/kg	100 - 200 mg/kg
107.0	NE	RuralSoil	35 - 45 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	100 - 200 mg/kg
118.0	NW	RuralSoil	35 - 45 mg/kg	<1.8 mg/kg	90 - 120 mg/kg	15 - 30 mg/kg	100 - 200 mg/kg
118.0	NW	RuralSoil	35 - 45 mg/kg	<1.8 mg/kg	90 - 120 mg/kg	15 - 30 mg/kg	100 - 200 mg/kg
123.0	E	RuralSoil	35 - 45 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	100 - 200 mg/kg
127.0	NW	RuralSoil	35 - 45 mg/kg	<1.8 mg/kg	90 - 120 mg/kg	15 - 30 mg/kg	100 - 200 mg/kg
127.0	NW	RuralSoil	35 - 45 mg/kg	<1.8 mg/kg	90 - 120 mg/kg	15 - 30 mg/kg	100 - 200 mg/kg
127.0	NW	RuralSoil	35 - 45 mg/kg	<1.8 mg/kg	90 - 120 mg/kg	15 - 30 mg/kg	100 - 200 mg/kg
135.0	NW	RuralSoil	35 - 45 mg/kg	<1.8 mg/kg	90 - 120 mg/kg	15 - 30 mg/kg	100 - 200 mg/kg
147.0	N	RuralSoil	35 - 45 mg/kg	<1.8 mg/kg	90 - 120 mg/kg	15 - 30 mg/kg	100 - 200 mg/kg
147.0	E	RuralSoil	35 - 45 mg/kg	<1.8 mg/kg	90 - 120 mg/kg	15 - 30 mg/kg	100 - 200 mg/kg
147.0	E	RuralSoil	35 - 45 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	100 - 200 mg/kg
154.0	E	RuralSoil	35 - 45 mg/kg	<1.8 mg/kg	90 - 120 mg/kg	15 - 30 mg/kg	100 - 200 mg/kg
168.0	SE	RuralSoil	35 - 45 mg/kg	<1.8 mg/kg	90 - 120 mg/kg	15 - 30 mg/kg	100 - 200 mg/kg
172.0	SW	RuralSoil	35 - 45 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	100 - 200 mg/kg
176.0	NE	RuralSoil	35 - 45 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	100 - 200 mg/kg
179.0	W	RuralSoil	35 - 45 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<100 mg/kg
180.0	W	RuralSoil	35 - 45 mg/kg	<1.8 mg/kg	90 - 120 mg/kg	15 - 30 mg/kg	<100 mg/kg
186.0	W	RuralSoil	35 - 45 mg/kg	<1.8 mg/kg	90 - 120 mg/kg	15 - 30 mg/kg	<100 mg/kg
191.0	NE	RuralSoil	45 - 60 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	100 - 200 mg/kg
191.0	NE	RuralSoil	45 - 60 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	100 - 200 mg/kg

Distance (m)	Direction	Sample Type	Arsenic (As)	Cadmium (Cd)	Chromium (Cr)	Nickel (Ni)	Lead (Pb)
200.0	W	RuralSoil	35 - 45 mg/kg	<1.8 mg/kg	90 - 120 mg/kg	15 - 30 mg/kg	<100 mg/kg
212.0	NW	RuralSoil	35 - 45 mg/kg	<1.8 mg/kg	90 - 120 mg/kg	15 - 30 mg/kg	<100 mg/kg
212.0	NW	RuralSoil	35 - 45 mg/kg	<1.8 mg/kg	90 - 120 mg/kg	15 - 30 mg/kg	100 - 200 mg/kg
219.0	NE	RuralSoil	35 - 45 mg/kg	<1.8 mg/kg	90 - 120 mg/kg	15 - 30 mg/kg	100 - 200 mg/kg
227.0	SE	RuralSoil	35 - 45 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	100 - 200 mg/kg
227.0	SE	RuralSoil	35 - 45 mg/kg	<1.8 mg/kg	90 - 120 mg/kg	15 - 30 mg/kg	100 - 200 mg/kg
230.0	N	RuralSoil	35 - 45 mg/kg	<1.8 mg/kg	90 - 120 mg/kg	15 - 30 mg/kg	100 - 200 mg/kg
233.0	SE	RuralSoil	25 - 35 mg/kg	<1.8 mg/kg	120 - 180 mg/kg	30 - 45 mg/kg	100 - 200 mg/kg
238.0	SE	RuralSoil	35 - 45 mg/kg	<1.8 mg/kg	90 - 120 mg/kg	15 - 30 mg/kg	100 - 200 mg/kg
241.0	SW	RuralSoil	35 - 45 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<100 mg/kg
246.0	SE	RuralSoil	35 - 45 mg/kg	<1.8 mg/kg	90 - 120 mg/kg	15 - 30 mg/kg	100 - 200 mg/kg











*As this data is based upon underlying 1:50,000 scale geological information, a 50m buffer has been added to the search radius.

7 Railways and Tunnels Map



Railways and Tunnels Legend

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- | | | | |
|---|--|---|---|
|  | Underground or Partially Underground Railway / Subway System |  | Railway Track (OpenStreetMap) |
|  | Site Outline |  | Railway Tunnel (OS Mapping) |
|  | Search Buffers (m) |  | High Speed 2 |
| | |  | Abandoned or Dismantled Railway (OpenStreetMap) |
| | |  | Crossrail 1 |
| | |  | Railway Track (OS Mapping) |
| | |  | Railway and/or Tunnel Feature from Historical Mapping |

7 Railways and Tunnels

7.1 Tunnels

This data is derived from OpenStreetMap and provides information on the possible locations of underground railway systems in the UK - the London Underground, the Tyne & Wear Metro and the Glasgow Subway.

Have any underground railway lines been identified within the study site boundary? No

Have any underground railway lines been identified within 250m of the study site boundary? No

Database searched and no data found.

Any records that have been identified are represented on the Railways and Tunnels Map.

This data is derived from Ordnance Survey mapping and provides information on the possible locations of railway tunnels forming part of the UK overground railway network.

Have any other railway tunnels been identified within the site boundary? No

Have any other railway tunnels been identified within 250m of the site boundary? No

Database searched and no data found.

Any records that have been identified are represented on the Railways and Tunnels Map.

7.2 Historical Railway and Tunnel Features

This data is derived from Groundsure's unique Historical Land-use Database and contains features relating to tunnels, railway tracks or associated works that have been identified from historical Ordnance Survey mapping.

Have any historical railway or tunnel features been identified within the study site boundary? No

Have any historical railway or tunnel features been identified within 250m of the study site boundary? Yes

ID	Distance (m)	Direction	NGR	Details	Date
7	84	S	417610 427763	Tramway Sidings	1893
1	119	SW	417642 427743	Tramway Sidings	1892
2	177	S	418089 427408	Tramway Sidings	1955
3	180	S	417927 427656	Tramway Sidings	1948
8	180	S	417934 427657	Railway Sidings	1948
4	182	NE	418052 428212	Railway Sidings	1892

ID	Distance (m)	Direction	NGR	Details	Date
9A	182	S	417907 427683	Tramway Sidings	1956
10	183	S	418079 427409	Tramway Sidings	1938
11A	183	S	417906 427682	Railway Sidings	1956
12	193	NE	417987 428111	Railway Sidings	1893
13B	199	S	417928 427631	Tramway Sidings	1956
14B	201	S	417923 427629	Railway Sidings	1956
15	209	SE	417955 427675	Railway Sidings	1992
5	217	W	417372 427899	Tramway Sidings	1892
6C	222	NE	418071 427975	Tramway Sidings	1938
16C	230	NE	418062 427975	Tramway Sidings	1933
17	239	S	417955 427642	Railway Sidings	1973
18	249	SE	418098 427388	Tramway Sidings	1948

Any records that have been identified are represented on the Railways and Tunnels Map.

7.3 Historical Railways

This data is derived from OpenStreetMap and provides information on the possible alignments of abandoned or dismantled railway lines in proximity to the study site.

Have any historical railway lines been identified within the study site boundary? No

Have any historical railway lines been identified within 250m of the study site boundary? No

Database searched and no data found.

Note: multiple sections of the same track may be listed in the detail above

Any records that have been identified are represented on the Railways and Tunnels Map.

7.4 Active Railways

These datasets are derived from Ordnance Survey mapping and OpenStreetMap and provide information on the possible locations of active railway lines in proximity to the study site.

Have any active railway lines been identified within the study site boundary? No

Have any active railway lines been identified within 250m of the study site boundary? No

Database searched and no data found.

Note: multiple sections of the same track may be listed in the detail above

Any records that have been identified are represented on the Railways and Tunnels Map.

7.5 Railway Projects

These datasets provide information on the location of large scale railway projects High Speed 2 and Crossrail 1 .

Is the study site within 5km of the route of the High Speed 2 rail project? No

Is the study site within 500m of the route of the Crossrail 1 rail project? No

Further information on proximity to these routes, the project construction status and associated works can be obtained through the purchase of a Groundsure HS2 and Crossrail 1 Report.

The route data has been digitised from publicly available maps by Groundsure. The route as provided relates to the Crossrail 1 project only, and does not include any details of the Crossrail 2 project, as final details of the route for Crossrail 2 are still under consultation.

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BGS Geological Hazards Reports and general geological enquiries



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Standard Terms and Conditions

1 Definitions

In these terms and conditions unless the context otherwise requires:

“Beneficiary” means the person or entity for whose benefit the Client has obtained the Services.

“Client” means the party or parties entering into a Contract with Groundsure.

“Commercial” means any building or property which is not Residential.

“Confidential Information” means the contents of this Contract and all information received from the Client as a result of, or in connection with, this Contract other than

(i) information which the Client can prove was rightfully in its possession prior to disclosure by Groundsure and

(ii) any information which is in the public domain (other than by virtue of a breach of this Contract).

“Support Services” means Support Services provided by Groundsure including, without limitation, interpreting third party and in-house environmental data, providing environmental support advice, undertaking environmental audits and assessments, Site investigation, Site monitoring and related items.

“Contract” means the contract between Groundsure and the Client for the provision of the Services, and which shall incorporate these terms and conditions, the Order, and the relevant User Guide.

“Third Party Data Provider” means any third party providing Third Party Content to Groundsure.

“Data Reports” means reports comprising factual data with no accompanying interpretation.

“Fees” has the meaning set out in clause 5.1.

“Groundsure” means Groundsure Limited, a company registered in England and Wales under number 03421028.

“Groundsure Materials” means all materials prepared by Groundsure and provided as part of the Services, including but not limited to Third Party Content, Data Reports, Mapping, and Risk Screening Reports.

“Intellectual Property” means any patent, copyright, design rights, trade or service mark, moral rights, data protection rights, know-how or trade mark in each case whether registered or not and including applications for the same or any other rights of a similar nature anywhere in the world.

“Mapping” means a map, map data or a combination of historical maps of various ages, time periods and scales.

“Order” means an electronic, written or other order form submitted by the Client requesting Services from Groundsure in respect of a specified Site.

“Ordnance Survey” means the Secretary of State for Business, Innovation and Skills, acting through Ordnance Survey, Adanac Drive, Southampton, SO16 0AS, UK.

“Order Website” means the online platform through which Orders may be placed by the Client and accepted by Groundsure.

“Report” means a Risk Screening Report or Data Report for Commercial or Residential property.

“Residential” means any building or property used as or intended to be used as a single dwelling.

“Risk Screening Report” means a risk screening report comprising factual data with an accompanying interpretation by Groundsure.

“Services” means any Report, Mapping and/or Support Services which Groundsure has agreed to provide by accepting an Order pursuant to clause 2.6.

“Site” means the area of land in respect of which the Client has requested Groundsure to provide the Services.

“Third Party Content” means data, database information or other information which is provided to Groundsure by a Third Party Data Provider.

“User Guide” means the user guide, as amended from time to time, available upon request from Groundsure and on the website (www.Groundsure.com) and forming part of this Contract.

2 Scope of Services, terms and conditions, requests for insurance and quotations

2.1 Groundsure agrees to provide the Services in accordance with the Contract.

2.2 Groundsure shall exercise reasonable skill and care in the provision of the Services.

2.3 Subject to clause 7.3 the Client acknowledges that it has not relied on any statement or representation made by or on behalf of Groundsure which is not set out and expressly agreed in writing in the Contract and all such statements and representations are hereby excluded to the fullest extent permitted by law.

2.4 The Client acknowledges that terms and conditions appearing on a Client's order form, printed stationery or other communication, or any terms or conditions implied by custom, practice or course of dealing shall be of no effect, and that this Contract shall prevail over all others in relation to the Order.

2.5 If the Client or Beneficiary requests insurance in conjunction with or as a result of the Services, Groundsure shall use reasonable endeavours to recommend such insurance, but makes no warranty that such insurance shall be available from insurers or that it will be offered on reasonable terms. Any insurance purchased by the Client or Beneficiary shall be subject solely to the terms of the policy issued by insurers and Groundsure will have no liability therefor. In addition you acknowledge and agree that Groundsure does not act as an agent or broker for any insurance providers. The Client should take (and ensure that the Beneficiary takes) independent advice to ensure that the insurance policy requested or offered is suitable for its requirements.

2.6 Groundsure's quotations or proposals are valid for a period of 30 days only unless an alternative period of time is explicitly stipulated by Groundsure.

Groundsure reserves the right to withdraw any quotation or proposal at any time before an Order is accepted by Groundsure. Groundsure's acceptance of an Order shall be binding only when made in writing and signed by Groundsure's authorised representative or when accepted through the Order Website.

3 The Client's obligations

3.1 The Client shall comply with the terms of this Contract and

(i) procure that the Beneficiary or any third party relying on the Services complies with and acts as if it is bound by the Contract and

(ii) be liable to Groundsure for the acts and omissions of the Beneficiary or any third party relying on the Services as if such acts and omissions were those of the Client.

3.2 The Client shall be solely responsible for ensuring that the Services are appropriate and suitable for its and/or the Beneficiary's needs.

3.3 The Client shall supply to Groundsure as soon as practicable and without charge all requisite information (and the Client warrants that such information is accurate, complete and appropriate), including without limitation any environmental information relating to the Site and shall give such assistance as Groundsure shall reasonably require in the provision of the Services including, without limitation, access to the Site, facilities and equipment.

3.4 Where the Client's approval or decision is required to enable Groundsure to carry out work in order to provide the Services, such approval or decision shall be given or procured in reasonable time and so as not to delay or disrupt the performance of the Services.

3.5 Save as expressly permitted by this Contract the Client shall not, and shall procure that the Beneficiary shall not, re-sell, alter, add to, or amend the Groundsure Materials, or use the Groundsure Materials in a manner for which they were not intended. The Client may make the Groundsure Materials available to a third party who is considering acquiring some or all of, or providing funding in relation to, the Site, but such third party cannot rely on the same unless expressly permitted under clause 4.

3.6 The Client is responsible for maintaining the confidentiality of its user name and password if using the Order Website and the Client acknowledges that Groundsure accepts no liability of any kind for any loss or damage suffered by the Client as a consequence of using the Order Website.

4 Reliance

4.1 The Client acknowledges that the Services provided by Groundsure consist of the presentation and analysis of Third Party Content and other content and that information obtained from a Third Party Data Provider cannot be guaranteed or warranted by Groundsure to be reliable.

4.2 In respect of Data Reports, Mapping and Risk Screening Reports, the following classes of person and no other are entitled to rely on their contents;

(i) the Beneficiary,
(ii) the Beneficiary's professional advisers, (iii) any person providing funding to the Beneficiary in relation to the Site (whether directly or as part of a lending syndicate),
(iv) the first purchaser or first tenant of the Site, and
(v) the professional advisers and lenders of the first purchaser or tenant of the Site.

4.3 In respect of Support Services, only the Client, Beneficiary and parties expressly named in a Report and no other parties are entitled to rely on its contents.

4.4 Save as set out in clauses 4.2 and 4.3 and unless otherwise expressly agreed in writing, no other person or entity of any kind is entitled to rely on any Services or Report issued or provided by Groundsure. Any party considering such Reports and Services does so at their own risk.

5 Fees and Disbursements

5.1 Groundsure shall charge and the Client shall pay fees at the rate and frequency specified in the written proposal, Order Website or Order acknowledgement form, plus (in the case of Support Services) all proper disbursements incurred by Groundsure. The Client shall in addition pay all value added tax or other tax payable on such fees and disbursements in relation to the provision of the Services (together “Fees”).

5.2 The Client shall pay all outstanding Fees to Groundsure in full without deduction, counterclaim or set off within 30 days of the date of Groundsure's invoice or such other period as may be agreed in writing between Groundsure and the Client (“Payment Date”). Interest on late payments will accrue on a daily basis from the Payment Date until the date of payment (whether before or after judgment) at the rate of 8% per annum.

5.3 The Client shall be deemed to have agreed the amount of any invoice unless an objection is made in writing within 28 days of the date of the invoice. As soon as reasonably practicable after being notified of an objection, without prejudice to clause 5.2 a member of Groundsure's management team will contact the Client and the parties shall then use all reasonable endeavours to resolve the dispute within 15 days.

6 Intellectual Property and Confidentiality

6.1 Subject to

(i) full payment of all relevant Fees and
(ii) compliance with this Contract, the Client is granted (and is permitted to sub-licence to the Beneficiary) a royalty-free, worldwide, non-assignable and (save to the extent set out in this Contract) non-transferable licence to make use of the Groundsure Materials.

6.2 All Intellectual Property in the Groundsure Materials are and shall remain owned by Groundsure or Groundsure's licensors (including without limitation the Third Party Data Providers) the Client acknowledges, and shall procure

acknowledgement by the Beneficiary of, such ownership. Nothing in this Contract purports to transfer or assign any rights to the Client or the Beneficiary in respect of such Intellectual Property.

6.3 Third Party Data Providers may enforce any breach of clauses 6.1 and 6.2 against the Client or Beneficiary.

6.4 The Client shall, and shall procure that any recipients of the Groundsure Materials shall:

(i) not remove, suppress or modify any trade mark, copyright or other proprietary marking belonging to Groundsure or any third party from the Services;

(ii) use the information obtained as part of the Services in respect of the subject Site only, and shall not store or reuse any information obtained as part of the Services provided in respect of adjacent or nearby sites;

(iii) not create any product or report which is derived directly or indirectly from the Services (save that those acting in a professional capacity to the Beneficiary may provide advice based upon the Services);

(iv) not combine the Services with or incorporate such Services into any other information data or service;

(v) not reformat or otherwise change (whether by modification, addition or enhancement), the Services (save that those acting for the Beneficiary in a professional capacity shall not be in breach of this clause 6.4(v) where such reformatting is in the normal course of providing advice based upon the Services);

(vi) where a Report and/or Mapping contains material belonging to Ordnance Survey, acknowledge and agree that such content is protected by Crown Copyright and shall not use such content for any purpose outside of receiving the Services; and

(vii) not copy in whole or in part by any means any map prints or run-on copies containing content belonging to Ordnance Survey (other than that contained within Ordnance Survey's OS Street Map) without first being in possession of a valid Paper Map Copying Licence from Ordnance Survey,

6.5 Notwithstanding clause 6.4, the Client may make reasonable use of the Groundsure Materials in order to advise the Beneficiary in a professional capacity. However, Groundsure shall have no liability in respect of any advice, opinion or report given or provided to Beneficiaries by the Client.

6.6 The Client shall procure that any person to whom the Services are made available shall notify Groundsure of any request or requirement to disclose, publish or disseminate any information contained in the Services in accordance with the Freedom of Information Act 2000, the Environmental Information Regulations 2004 or any associated legislation or regulations in force from time to time.

7. Liability: Particular Attention Should Be Paid To This Clause

7.1 This Clause 7 sets out the entire liability of Groundsure, including any liability for the acts or omissions of its employees, agents, consultants, subcontractors and Third Party Content, in respect of:

(i) any breach of contract, including any deliberate breach of the Contract by Groundsure or its employees, agents or subcontractors;

(ii) any use made of the Reports, Services, Materials or any part of them; and

(iii) any representation, statement or tortious act or omission (including negligence) arising under or in connection with the Contract.

7.2 All warranties, conditions and other terms implied by statute or common law are, to the fullest extent permitted by law, excluded from the Contract.

7.3 Nothing in the Contract limits or excludes the liability of the Supplier for death or personal injury resulting from negligence, or for any damage or liability incurred by the Client or Beneficiary as a result of fraud or fraudulent misrepresentation.

7.4 Groundsure shall not be liable for

(i) loss of profits;

(ii) loss of business;

(iii) depletion of goodwill and/or similar losses;

(iv) loss of anticipated savings;

(v) loss of goods;

(vi) loss of contract;

(vii) loss of use;

(viii) loss or corruption of data or information;

(ix) business interruption;

(x) any kind of special, indirect, consequential or pure economic loss, costs, damages, charges or expenses;

(xi) loss or damage that arise as a result of the use of all or part of the Groundsure Materials in breach of the Contract;

(xii) loss or damage arising as a result of any error, omission or inaccuracy in any part of the Groundsure Materials where such error, omission or inaccuracy is caused by any Third Party Content or any reasonable interpretation of Third Party Content;

(xiii) loss or damage to a computer, software, modem, telephone or other property; and

(xiv) loss or damage caused by a delay or loss of use of Groundsure's internet ordering service.

7.5 Groundsure's total liability in relation to or under the Contract shall be limited to £10 million for any claim or claims.

7.6 Groundsure shall procure that the Beneficiary shall be bound by limitations and exclusions of liability in favour of Groundsure which accord with those detailed in clauses 7.4 and 7.5 (subject to clause 7.3) in respect of all claims which the Beneficiary may bring against Groundsure in relation to the Services or other matters arising pursuant to the Contract.

8 Groundsure's right to suspend or terminate

8.1 If Groundsure reasonably believes that the Client or Beneficiary has not provided the information or assistance required to enable the proper provision of the Services, Groundsure shall be entitled to suspend all further performance of the Services until such time as any such deficiency has been made good.

8.2 Groundsure shall be entitled to terminate the Contract immediately on written notice in the event that:

(i) the Client fails to pay any sum due to Groundsure within 30 days of the Payment Date; or

(ii) the Client (being an individual) has a bankruptcy order made against him or (being a company) shall enter into liquidation whether compulsory or voluntary or have an administration order made against it or if a receiver shall be appointed over the whole or any part of its property assets or undertaking or if the Client is struck off the Register of Companies or dissolved; or

(iii) the Client being a company is unable to pay its debts within the meaning of Section 123 of the Insolvency Act 1986 or being an individual appears unable to pay his debts within the meaning of Section 268 of the Insolvency Act 1986 or if the Client shall enter into a composition or arrangement with the Client's creditors or shall suffer distress or execution to be levied on his goods; or

(iv) the Client or the Beneficiary breaches any term of the Contract (including, but not limited to, the obligations in clause 4) which is incapable of remedy or if remediable, is not remedied within five days of notice of the breach.

9. Client's Right to Terminate and Suspend

9.1 Subject to clause 10.1, the Client may at any time upon written notice terminate or suspend the provision of all or any of the Services.

9.2 In any event, where the Client is a consumer (and not a business) he/she hereby expressly acknowledges and agrees that:

(i) the supply of Services under this Contract (and therefore the performance of this Contract) commences immediately upon Groundsure's acceptance of the Order; and

(ii) the Reports and/or Mapping provided under this Contract are

(a) supplied to the Client's specification(s) and in any event
(b) by their nature cannot be returned.

10 Consequences of Withdrawal, Termination or Suspension

10.1 Upon termination of the Contract:

(i) Groundsure shall take steps to bring to an end the Services in an orderly manner, vacate any Site with all reasonable speed and shall deliver to the Client and/or Beneficiary any property of the Client and/or Beneficiary in Groundsure's possession or control; and

(ii) the Client shall pay to Groundsure all and any Fees payable in respect of the performance of the Services up to the date of termination or suspension. In respect of any Support Services provided, the Client shall also pay Groundsure any additional costs incurred in relation to the termination or suspension of the Contract.

11 Anti-Bribery

11.1 The Client warrants that it shall:

(i) comply with all applicable laws, statutes and regulations relating to anti-bribery and anti-corruption including but not limited to the Bribery Act 2010;

(ii) comply with such of Groundsure's anti-bribery and anti-corruption policies as are notified to the Client from time to time; and

(iii) promptly report to Groundsure any request or demand for any undue financial or other advantage of any kind received by or on behalf of the Client in connection with the performance of this Contract.

11.2 Breach of this Clause 11 shall be deemed a material breach of this Contract.

12 General

12.1 The Mapping contained in the Services is protected by Crown copyright and must not be used for any purpose other than as part of the Services or as specifically provided in the Contract.

12.2 The Client shall be permitted to make one copy only of each Report or Mapping Order. Thereafter the Client shall be entitled to make unlimited copies of the Report or Mapping Order only in accordance with an Ordnance Survey paper map copy license available through Groundsure.

12.3 Groundsure reserves the right to amend or vary this Contract. No amendment or variation to this Contract shall be valid unless signed by an authorised representative of Groundsure.

12.4 No failure on the part of Groundsure to exercise, and no delay in exercising, any right, power or provision under this Contract shall operate as a waiver thereof.

12.5 Save as expressly provided in this Contract, no person other than the persons set out therein shall have any right under the Contract (Rights of Third Parties) Act 1999 to enforce any terms of the Contract.

12.6 The Secretary of State for Business, Innovation and Skills ("BIS") or BIS' successor body, as the case may be, acting through Ordnance Survey may enforce a breach of clause 6.4(vi) and clause 6.4(vii) of these terms and conditions against the Client in accordance with the provisions of the Contracts (Rights of Third Parties) Act 1999.

12.7 Groundsure shall not be liable to the Client if the provision of the Services is delayed or prevented by one or more of the following circumstances:

- (i) the Client or Beneficiary's failure to provide facilities, access or information;
- (ii) fire, storm, flood, tempest or epidemic;
- (iii) Acts of God or the public enemy;
- (iv) riot, civil commotion or war;
- (v) strikes, labour disputes or industrial action;
- (vi) acts or regulations of any governmental or other agency;
- (vii) suspension or delay of services at public registries by Third Party Data Providers;
- (viii) changes in law; or
- (ix) any other reason beyond Groundsure's reasonable control.

In the event that Groundsure is prevented from performing the Services (or any part thereof) in accordance with this clause 12.6 for a period of not less than 30 days then Groundsure shall be entitled to terminate this Contract immediately on written notice to the Client.

12.8 Any notice provided shall be in writing and shall be deemed to be properly given if delivered by hand or sent by first class post, facsimile or by email to the address, facsimile number or email address of the relevant party as may have been notified by each party to the other for such purpose or in the absence of such notification the last known address.

12.9 Such notice shall be deemed to have been received on the day of delivery if delivered by hand, facsimile or email (save to the extent such day is not a working day where it shall be deemed to have been delivered on the next working day) and on the second working day after the day of posting if sent by first class post.

12.10 The Contract constitutes the entire agreement between the parties and shall supersede all previous arrangements between the parties relating to the subject matter hereof.

12.11 Each of the provisions of the Contract is severable and distinct from the others and if one or more provisions is or should become invalid, illegal or unenforceable, the validity and enforceability of the remaining provisions shall not in any way be tainted or impaired.

12.12 This Contract shall be governed by and construed in accordance with English law and any proceedings arising out of or connected with this Contract shall be subject to the exclusive jurisdiction of the English courts.

12.13 Groundsure is an executive member of the Council of Property Search Organisation (CoPSO) and has signed up to the Search Code administered by the Property Codes Compliance Board (PCCB). All Risk Screening Reports shall be supplied in accordance with the provisions of the Search Code.

12.14 If the Client or Beneficiary has a complaint about the Services, written notice should be given to the Compliance Officer at Groundsure who will respond in a timely manner. In the event you are not satisfied with Groundsure's complaints handling process or you are unable to resolve the complaint, at your discretion you may refer the complaint to The Property Ombudsman Scheme at the following URL/email: website www.tpos.co.uk or email: admin@tpos.co.uk

12.15 The Client agrees that it shall, and shall procure that each Beneficiary shall, treat in confidence all Confidential Information and shall not, and shall procure that each Beneficiary shall not (i) disclose any Confidential Information to any third party other than in accordance with the terms of this Contract; and (ii) use Confidential Information for a purpose other than the exercise of its rights and obligations under this Contract. Subject to clause 6.6, nothing shall prevent the Client or any Beneficiary from disclosing Confidential Information to the extent required by law