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FIRST CHOICE HOUSING ASSOCIATION

NR 2 NANT LAIS, MINERA, WREXHAM, LL11 3YY

**STAGE 1 - PHASE 1 – DESK STUDY AND PRELIMINARY GROUND
CONTAMINATION RISK ASSESSMENT**

Appendix 2	-	EnviroInsight and GeoInsight Report
Appendix 3	-	The Coal Authority Mining Report 510023342780001

REPORT No. E1330.S1.P1.R1

DECEMBER 2020



Appendix 2 - EnviroInsight and GeoInsight Report

2, NANTLAIS, MINERA, WREXHAM, LL11 3YY

Order Details

Date: 08/12/2020
Your ref: E1330
Our Ref: HMD-165-7347690
Client: E-Geo Solutions Ltd

Site Details

Location: 327733 351766
Area: 0.08 ha
Authority: [Wrexham - Wrexham County Borough Council](#)



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Summary of findings

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Aerial image

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OS MasterMap site plan

p.12

groundsure.com/insightuserguide

Contact us with any questions at:

info@groundsure.com

08444 159 000

Summary of findings

Page	Section	Past land use	On site	0-50m	50-250m	250-500m	500-2000m
<u>13</u>	<u>1.1</u>	<u>Historical industrial land uses</u>	0	0	32	46	-
<u>16</u>	<u>1.2</u>	<u>Historical tanks</u>	0	0	0	1	-
<u>17</u>	<u>1.3</u>	<u>Historical energy features</u>	0	0	4	4	-
17	1.4	Historical petrol stations	0	0	0	0	-
<u>18</u>	<u>1.5</u>	<u>Historical garages</u>	0	3	0	3	-
18	1.6	Historical military land	0	0	0	0	-
Page	Section	Past land use - un-grouped	On site	0-50m	50-250m	250-500m	500-2000m
<u>19</u>	<u>2.1</u>	<u>Historical industrial land uses</u>	0	0	43	61	-
<u>23</u>	<u>2.2</u>	<u>Historical tanks</u>	0	0	0	1	-
<u>24</u>	<u>2.3</u>	<u>Historical energy features</u>	0	0	6	10	-
24	2.4	Historical petrol stations	0	0	0	0	-
<u>25</u>	<u>2.5</u>	<u>Historical garages</u>	0	4	0	6	-
Page	Section	Waste and landfill	On site	0-50m	50-250m	250-500m	500-2000m
26	3.1	Active or recent landfill	0	0	0	0	-
26	3.2	Historical landfill (BGS records)	0	0	0	0	-
27	3.3	Historical landfill (LA/mapping records)	0	0	0	0	-
27	3.4	Historical landfill (EA/NRW records)	0	0	0	0	-
27	3.5	Historical waste sites	0	0	0	0	-
<u>27</u>	<u>3.6</u>	<u>Licensed waste sites</u>	0	0	0	6	-
29	3.7	Waste exemptions	0	0	0	0	-
Page	Section	Current industrial land use	On site	0-50m	50-250m	250-500m	500-2000m
<u>30</u>	<u>4.1</u>	<u>Recent industrial land uses</u>	0	1	17	-	-
<u>32</u>	<u>4.2</u>	<u>Current or recent petrol stations</u>	0	0	0	1	-
32	4.3	Electricity cables	0	0	0	0	-
32	4.4	Gas pipelines	0	0	0	0	-
<u>32</u>	<u>4.5</u>	<u>Sites determined as Contaminated Land</u>	0	0	0	16	-



35	4.6	Control of Major Accident Hazards (COMAH)	0	0	0	0	-
35	4.7	Regulated explosive sites	0	0	0	0	-
35	4.8	Hazardous substance storage/usage	0	0	0	0	-
36	4.9	Historical licensed industrial activities (IPC)	0	0	0	0	-
36	4.10	Licensed industrial activities (Part A(1))	0	0	0	0	-
36	4.11	<u>Licensed pollutant release (Part A(2)/B)</u>	0	0	2	2	-
37	4.12	Radioactive Substance Authorisations	0	0	0	0	-
37	4.13	Licensed Discharges to controlled waters	0	0	0	0	-
37	4.14	Pollutant release to surface waters (Red List)	0	0	0	0	-
37	4.15	Pollutant release to public sewer	0	0	0	0	-
38	4.16	List 1 Dangerous Substances	0	0	0	0	-
38	4.17	List 2 Dangerous Substances	0	0	0	0	-
38	4.18	<u>Pollution Incidents (EA/NRW)</u>	0	0	0	7	-
39	4.19	Pollution inventory substances	0	0	0	0	-
39	4.20	Pollution inventory waste transfers	0	0	0	0	-
39	4.21	Pollution inventory radioactive waste	0	0	0	0	-
Page	Section	Hydrogeology	On site	0-50m	50-250m	250-500m	500-2000m
40	5.1	<u>Superficial aquifer</u>	Identified (within 500m)				
42	5.2	<u>Bedrock aquifer</u>	Identified (within 500m)				
43	5.3	<u>Groundwater vulnerability</u>	Identified (within 50m)				
44	5.4	Groundwater vulnerability- soluble rock risk	None (within 0m)				
44	5.5	Groundwater vulnerability- local information	None (within 0m)				
45	5.6	<u>Groundwater abstractions</u>	0	0	0	0	2
46	5.7	Surface water abstractions	0	0	0	0	0
46	5.8	<u>Potable abstractions</u>	0	0	0	0	2
47	5.9	Source Protection Zones	0	0	0	0	-
47	5.10	Source Protection Zones (confined aquifer)	0	0	0	0	-
Page	Section	Hydrology	On site	0-50m	50-250m	250-500m	500-2000m
48	6.1	<u>Water Network (OS MasterMap)</u>	0	0	3	-	-



49	6.2	<u>Surface water features</u>	0	0	2	-	-
49	6.3	<u>WFD Surface water body catchments</u>	1	-	-	-	-
50	6.4	<u>WFD Surface water bodies</u>	0	0	1	-	-
50	6.5	<u>WFD Groundwater bodies</u>	1	-	-	-	-
Page	Section	River and coastal flooding	On site	0-50m	50-250m	250-500m	500-2000m
51	7.1	Risk of Flooding from Rivers and Sea (RoFRaS)	None (within 50m)				
51	7.2	Historical Flood Events	0	0	0	-	-
51	7.3	Flood Defences	0	0	0	-	-
51	7.4	Areas Benefiting from Flood Defences	0	0	0	-	-
52	7.5	Flood Storage Areas	0	0	0	-	-
53	7.6	Flood Zone 2	None (within 50m)				
53	7.7	Flood Zone 3	None (within 50m)				
Page	Section	Surface water flooding					
54	8.1	Surface water flooding	Negligible (within 50m)				
Page	Section	Groundwater flooding					
55	9.1	<u>Groundwater flooding</u>	Low (within 50m)				
Page	Section	Environmental designations	On site	0-50m	50-250m	250-500m	500-2000m
56	10.1	<u>Sites of Special Scientific Interest (SSSI)</u>	0	0	0	0	2
57	10.2	Conserved wetland sites (Ramsar sites)	0	0	0	0	0
57	10.3	<u>Special Areas of Conservation (SAC)</u>	0	0	0	0	3
58	10.4	Special Protection Areas (SPA)	0	0	0	0	0
59	10.5	National Nature Reserves (NNR)	0	0	0	0	0
59	10.6	Local Nature Reserves (LNR)	0	0	0	0	0
59	10.7	<u>Designated Ancient Woodland</u>	0	0	1	1	17
60	10.8	Biosphere Reserves	0	0	0	0	0
60	10.9	Forest Parks	0	0	0	0	0
60	10.10	Marine Conservation Zones	0	0	0	0	0
61	10.11	Green Belt	0	0	0	0	0
61	10.12	Proposed Ramsar sites	0	0	0	0	0



61	10.13	Possible Special Areas of Conservation (pSAC)	0	0	0	0	0
61	10.14	Potential Special Protection Areas (pSPA)	0	0	0	0	0
61	10.15	Nitrate Sensitive Areas	0	0	0	0	0
62	10.16	Nitrate Vulnerable Zones	0	0	0	0	0
63	10.17	SSSI Impact Risk Zones	0	-	-	-	-
63	10.18	SSSI Units	0	0	0	0	0
Page	Section	Visual and cultural designations	On site	0-50m	50-250m	250-500m	500-2000m
64	11.1	World Heritage Sites	0	0	0	-	-
64	11.2	Area of Outstanding Natural Beauty	0	0	0	-	-
64	11.3	National Parks	0	0	0	-	-
64	11.4	Listed Buildings	0	0	0	-	-
65	11.5	Conservation Areas	0	0	0	-	-
65	11.6	Scheduled Ancient Monuments	0	0	0	-	-
65	11.7	Registered Parks and Gardens	0	0	0	-	-
Page	Section	Agricultural designations	On site	0-50m	50-250m	250-500m	500-2000m
66	12.1	<u>Agricultural Land Classification</u>	Grade 3b (within 250m)				
67	12.2	Open Access Land	0	0	0	-	-
67	12.3	Tree Felling Licences	0	0	0	-	-
67	12.4	Environmental Stewardship Schemes	0	0	0	-	-
67	12.5	Countryside Stewardship Schemes	0	0	0	-	-
Page	Section	Habitat designations	On site	0-50m	50-250m	250-500m	500-2000m
68	13.1	Priority Habitat Inventory	0	0	0	-	-
68	13.2	Habitat Networks	0	0	0	-	-
68	13.3	Open Mosaic Habitat	0	0	0	-	-
68	13.4	Limestone Pavement Orders	0	0	0	-	-
Page	Section	Geology 1:10,000 scale	On site	0-50m	50-250m	250-500m	500-2000m
69	14.1	<u>10k Availability</u>	Identified (within 500m)				
70	14.2	<u>Artificial and made ground (10k)</u>	0	0	2	3	-
72	14.3	<u>Superficial geology (10k)</u>	1	0	4	4	-



73	14.4	Landslip (10k)	0	0	1	0	-
74	14.5	Bedrock geology (10k)	1	0	8	8	-
76	14.6	Bedrock faults and other linear features (10k)	0	0	12	9	-
Page	Section	Geology 1:50,000 scale	On site	0-50m	50-250m	250-500m	500-2000m
78	15.1	50k Availability	Identified (within 500m)				
79	15.2	Artificial and made ground (50k)	0	0	1	0	-
80	15.3	Artificial ground permeability (50k)	0	0	-	-	-
81	15.4	Superficial geology (50k)	1	0	2	1	-
82	15.5	Superficial permeability (50k)	Identified (within 50m)				
82	15.6	Landslip (50k)	0	0	1	0	-
82	15.7	Landslip permeability (50k)	None (within 50m)				
83	15.8	Bedrock geology (50k)	1	0	4	8	-
85	15.9	Bedrock permeability (50k)	Identified (within 50m)				
85	15.10	Bedrock faults and other linear features (50k)	0	0	8	6	-
Page	Section	Boreholes	On site	0-50m	50-250m	250-500m	500-2000m
87	16.1	BGS Boreholes	0	0	25	-	-
Page	Section	Natural ground subsidence					
89	17.1	Shrink swell clays	Very low (within 50m)				
90	17.2	Running sands	Very low (within 50m)				
91	17.3	Compressible deposits	Negligible (within 50m)				
92	17.4	Collapsible deposits	Very low (within 50m)				
93	17.5	Landslides	Low (within 50m)				
95	17.6	Ground dissolution of soluble rocks	Negligible (within 50m)				
Page	Section	Mining, ground workings and natural cavities	On site	0-50m	50-250m	250-500m	500-2000m
96	18.1	Natural cavities	0	0	0	0	-
97	18.2	BritPits	0	0	3	4	-
98	18.3	Surface ground workings	0	0	18	-	-
99	18.4	Underground workings	0	0	11	11	42
101	18.5	Historical Mineral Planning Areas	0	0	0	0	-



<u>102</u>	<u>18.6</u>	<u>Non-coal mining</u>	1	0	1	1	8
<u>103</u>	<u>18.7</u>	<u>Mining cavities</u>	0	0	0	0	4
<u>104</u>	<u>18.8</u>	<u>JPB mining areas</u>	Identified (within 0m)				
<u>104</u>	<u>18.9</u>	<u>Coal mining</u>	Identified (within 0m)				
104	18.10	Brine areas	None (within 0m)				
104	18.11	Gypsum areas	None (within 0m)				
105	18.12	Tin mining	None (within 0m)				
105	18.13	Clay mining	None (within 0m)				
Page	Section	Radon					
<u>106</u>	<u>19.1</u>	<u>Radon</u>	Between 5% and 10% (within 0m)				
Page	Section	Soil chemistry	On site	0-50m	50-250m	250-500m	500-2000m
<u>108</u>	<u>20.1</u>	<u>BGS Estimated Background Soil Chemistry</u>	1	0	-	-	-
108	20.2	BGS Estimated Urban Soil Chemistry	0	0	-	-	-
108	20.3	BGS Measured Urban Soil Chemistry	0	0	-	-	-
Page	Section	Railway infrastructure and projects	On site	0-50m	50-250m	250-500m	500-2000m
109	21.1	Underground railways (London)	0	0	0	-	-
109	21.2	Underground railways (Non-London)	0	0	0	-	-
109	21.3	Railway tunnels	0	0	0	-	-
109	21.4	Historical railway and tunnel features	0	0	0	-	-
109	21.5	Royal Mail tunnels	0	0	0	-	-
110	21.6	Historical railways	0	0	0	-	-
110	21.7	Railways	0	0	0	-	-
110	21.8	Crossrail 1	0	0	0	0	-
110	21.9	Crossrail 2	0	0	0	0	-
110	21.10	HS2	0	0	0	0	-



Recent aerial photograph



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Capture Date: 07/05/2017

Site Area: 0.08ha



Recent site history - 2013 aerial photograph



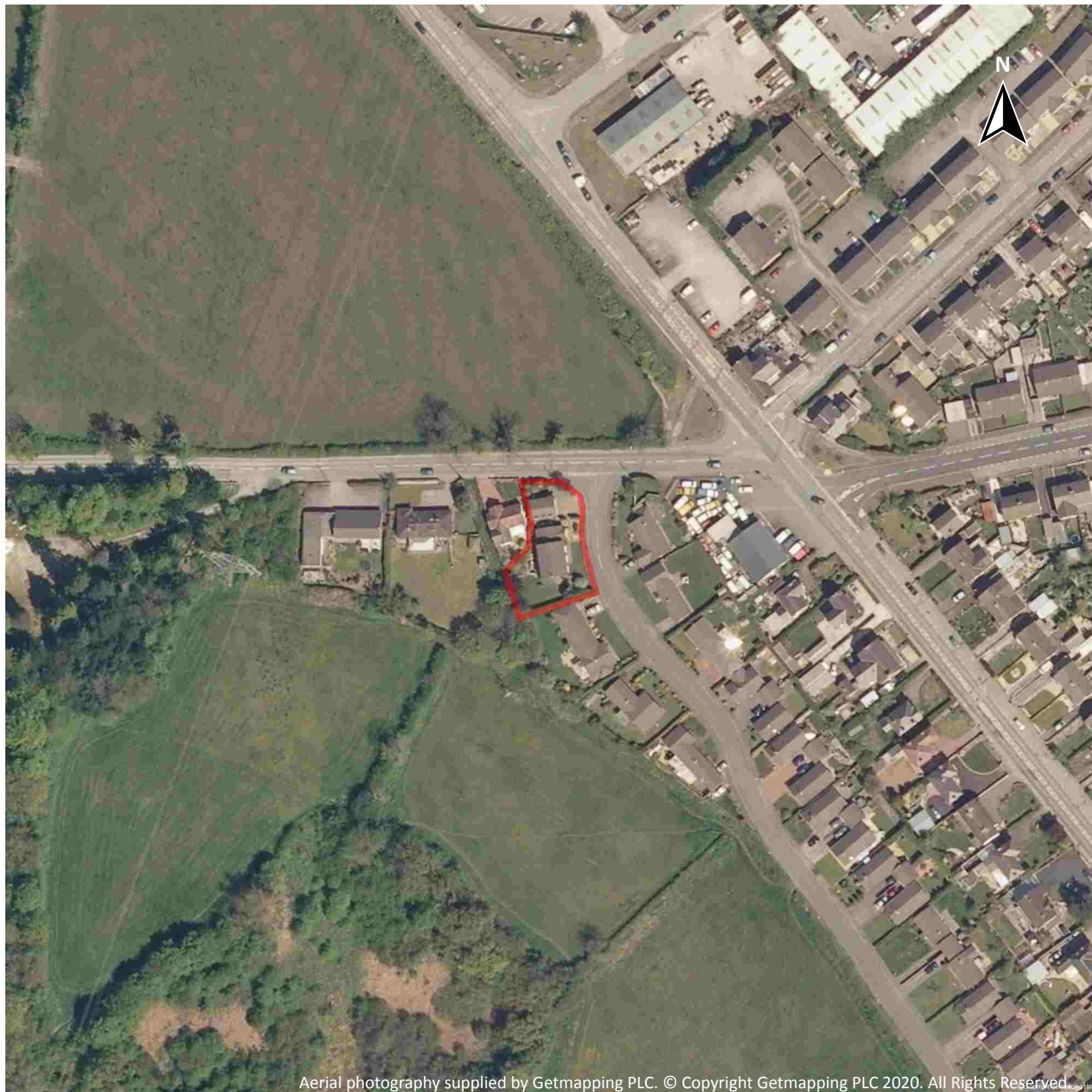
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Capture Date: 09/06/2013

Site Area: 0.08ha



Recent site history - 2009 aerial photograph



Capture Date: 11/05/2009

Site Area: 0.08ha



Recent site history - 2001 aerial photograph



Capture Date: 28/07/2001

Site Area: 0.08ha



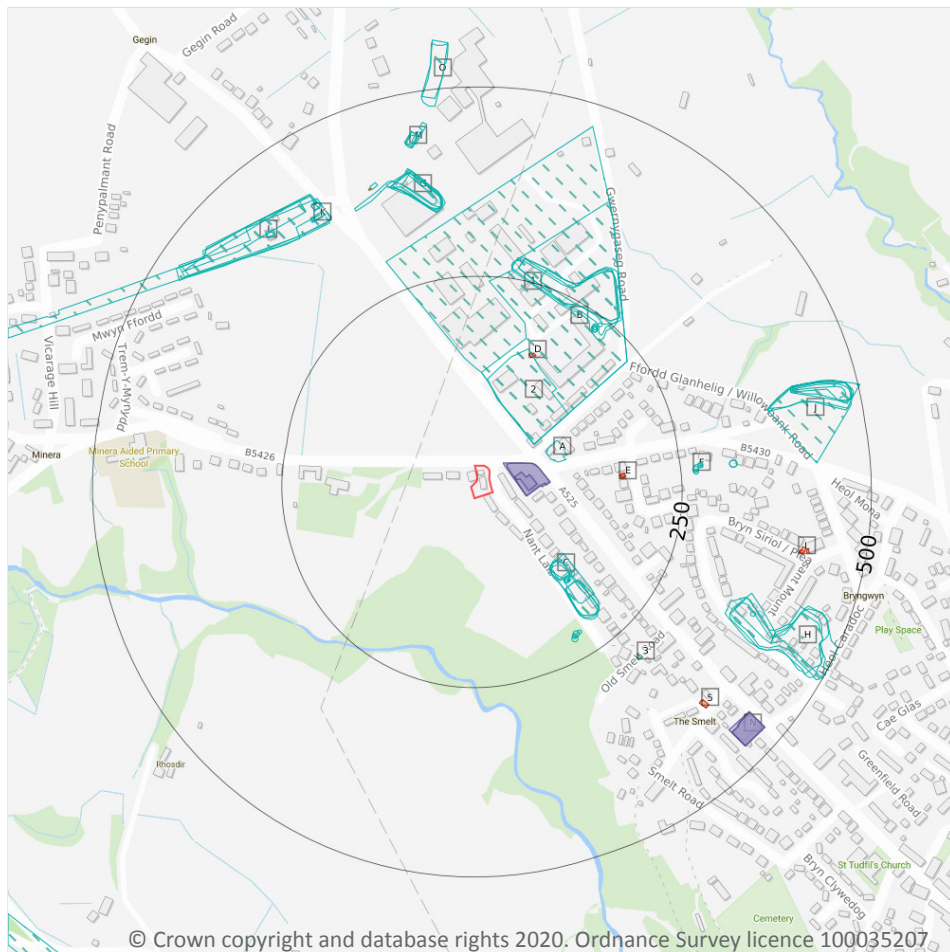
OS MasterMap site plan



Site Area: 0.08ha



1 Past land use



- Site Outline
- Search buffers in metres (m)
- Historical industrial land uses
- Historical tanks
- Historical energy features
- Historical garages

1.1 Historical industrial land uses

Records within 500m

78

Potentially contaminative land use features digitised from historical Ordnance Survey mapping at 1:10,000 and 1:10,560 scale, intelligently grouped into contiguous features. To prevent misrepresentation of the size of historical features at any given time, features are only grouped if they have similar geometries within immediately preceding or succeeding map editions. See section 2 for a breakdown of grouping if required. Grouped and the original un-grouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

Features are displayed on the Past land use map on **page 13**

ID	Location	Land use	Dates present	Group ID
1	67m NE	Unspecified Commercial/Industrial	1989	796382



ID	Location	Land use	Dates present	Group ID
B	67m NE	Unspecified Works	1985	915756
2	67m NE	Unspecified Works	1974	869123
A	78m E	Smithy	1872 - 1900	856457
C	121m SE	Unspecified Heap	1938	885843
C	122m SE	Unspecified Heap	1949	962357
C	123m SE	Unspecified Heaps	1910	831155
C	123m SE	Refuse Heap	1872 - 1900	964331
C	126m SE	Unspecified Heap	1960	990340
C	146m SE	Unspecified Shaft	1900	813410
C	147m SE	Unspecified Shaft	1949	813411
C	148m SE	Unspecified Old Shaft	1938	936799
C	149m SE	Unspecified Tank	1910	823598
C	152m SE	Coal Shaft	1872	830822
C	159m SE	Unspecified Heap	1938	957772
C	160m SE	Unspecified Heap	1949	951781
C	213m SE	Unspecified Old Shaft	1938	900232
C	214m SE	Unspecified Old Shafts	1900	793375
C	215m SE	Unspecified Old Shaft	1949	853064
C	216m SE	Unspecified Old Shaft	1910	960286
C	218m SE	Unspecified Old Shaft	1960	874047
B	224m NE	Unspecified Heap	1938 - 1960	988426
B	228m NE	Unspecified Old Shaft	1949 - 1960	921326
B	228m NE	Unspecified Disused Shaft	1985	931888
B	228m NE	Unspecified Disused Shaft	1974	991294
B	230m NE	Unspecified Old Shaft	1910	922740
B	230m NE	Unspecified Ground Workings	1910	799132
B	231m NE	Unspecified Old Shaft	1938	929977
B	238m NE	Unspecified Old Shaft	1900	862963



ID	Location	Land use	Dates present	Group ID
B	239m NE	Unspecified Heap	1974	856174
B	239m NE	Unspecified Heap	1985	979392
B	244m NE	Unspecified Heap	1900	849342
F	266m E	Unspecified Old Shaft	1938 - 1949	856202
F	266m E	Unspecified Old Shaft	1960	874877
F	266m E	Unspecified Old Shaft	1910	922884
F	273m E	Unspecified Disused Shafts	1985	865121
F	273m E	Unspecified Disused Shafts	1974	905651
F	276m E	Unspecified Old Shaft	1900	805741
3	289m SE	Unspecified Old Shafts	1900	793376
F	315m E	Unspecified Disused Shafts	1985	895365
F	315m E	Unspecified Disused Shafts	1974	980911
G	338m N	Unspecified Heap	1949	937355
G	340m N	Unspecified Heap	1960 - 1974	876538
G	340m N	Unspecified Heap	1985 - 1989	990994
G	342m N	Unspecified Heap	1938	924693
G	343m N	Unspecified Heap	1900	981691
G	343m N	Unspecified Ground Workings	1910	799131
H	346m SE	Unspecified Heap	1910 - 1974	948976
H	352m SE	Unspecified Heap	1985	935350
H	353m SE	Unspecified Heap	1872	851868
H	354m SE	Unspecified Heap	1900	921711
I	373m NW	Railway Sidings	1949	939421
I	376m NW	Mineral Railway Sidings	1938	833978
J	376m E	Old Colliery	1949	869782
H	376m SE	Unspecified Old Shaft	1900	805742
4	376m NW	Railway Sidings	1900	870762
J	377m E	Old Colliery	1910	946283



ID	Location	Land use	Dates present	Group ID
I	379m NW	Railway Sidings	1960	933511
J	380m E	Colliery	1938	940247
K	385m NW	Railway Building	1960	916499
K	386m NW	Railway Building	1938	910311
G	389m N	Railway Building	1949	819026
K	398m NW	Railway Building	1938 - 1949	917680
I	403m NW	Railway Building	1949 - 1960	876559
I	403m NW	Railway Sidings	1910	987025
I	403m NW	Railway Building	1938	941828
J	411m E	Unspecified Ground Workings	1949	922158
J	411m E	Unspecified Heap	1960	939755
J	412m E	Unspecified Ground Workings	1910	859244
J	414m E	Unspecified Heap	1938	928314
H	416m SE	Unspecified Heap	1900	915451
J	417m E	Unspecified Old Shaft	1900	805740
M	428m N	Railway Station	1949 - 1960	976032
M	429m N	Railway Station	1938	925287
M	431m N	Railway Station	1910	978621
M	431m N	Railway Station	1900	857834
O	477m N	Railway Sidings	1960	870072
O	488m N	Railway Sidings	1938	856382

This data is sourced from Ordnance Survey / Groundsure.

1.2 Historical tanks

Records within 500m

1

Tank features digitised from historical Ordnance Survey mapping at high-detail 1:1,250 and 1:2,500 scale, intelligently grouped into contiguous features. To prevent misrepresentation of the size of historical features at any given time, features are only grouped if they have similar geometries within immediately preceding or succeeding map editions. See section 2 for a breakdown of grouping if required. Grouped and the original ungrouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.



Features are displayed on the Past land use map on **page 13**

ID	Location	Land use	Dates present	Group ID
G	389m N	Unspecified Tank	1962	109440

This data is sourced from Ordnance Survey / Groundsure.

1.3 Historical energy features

Records within 500m	8
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Energy features digitised from historical Ordnance Survey mapping at high-detail 1:1,250 and 1:2,500 scale, intelligently grouped into contiguous features. To prevent misrepresentation of the size of historical features at any given time, features are only grouped if they have similar geometries within immediately preceding or succeeding map editions. See section 2 for a breakdown of grouping if required. Grouped and the original ungrouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

Features are displayed on the Past land use map on **page 13**

ID	Location	Land use	Dates present	Group ID
D	156m NE	Electricity Substation	1984 - 1989	75386
D	158m NE	Electricity Substation	1993	71301
E	169m E	Electricity Substation	1984 - 1989	70732
E	171m E	Electricity Substation	1993	85129
5	389m SE	Electricity Substation	1967 - 1993	69199
L	412m E	Electricity Substation	1967 - 1987	77799
L	413m E	Electricity Substation	1983	85390
L	421m E	Electricity Substation	1993	59961

This data is sourced from Ordnance Survey / Groundsure.

1.4 Historical petrol stations

Records within 500m	0
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Petrol stations digitised from historical Ordnance Survey mapping at high-detail 1:1,250 and 1:2,500 scale, intelligently grouped into contiguous features. To prevent misrepresentation of the size of historical features at any given time, features are only grouped if they have similar geometries within immediately preceding or succeeding map editions. See section 2 for a breakdown of grouping if required. Grouped and the original ungrouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

This data is sourced from Ordnance Survey / Groundsure.



1.5 Historical garages

Records within 500m

6

Garages digitised from historical Ordnance Survey mapping at high-detail 1:1,250 and 1:2,500 scale, intelligently grouped into contiguous features. To prevent misrepresentation of the size of historical features at any given time, features are only grouped if they have similar geometries within immediately preceding or succeeding map editions. See section 2 for a breakdown of grouping if required. Grouped and the original ungrouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

Features are displayed on the Past land use map on **page 13**

ID	Location	Land use	Dates present	Group ID
A	21m E	Garage	1962	23227
A	24m E	Garage	1993	21566
A	34m E	Garage	1984 - 1989	26071
N	442m SE	Garage	1993	20963
N	445m SE	Garage	1987	22574
N	446m SE	Garage	1962 - 1983	25745

This data is sourced from Ordnance Survey / Groundsure.

1.6 Historical military land

Records within 500m

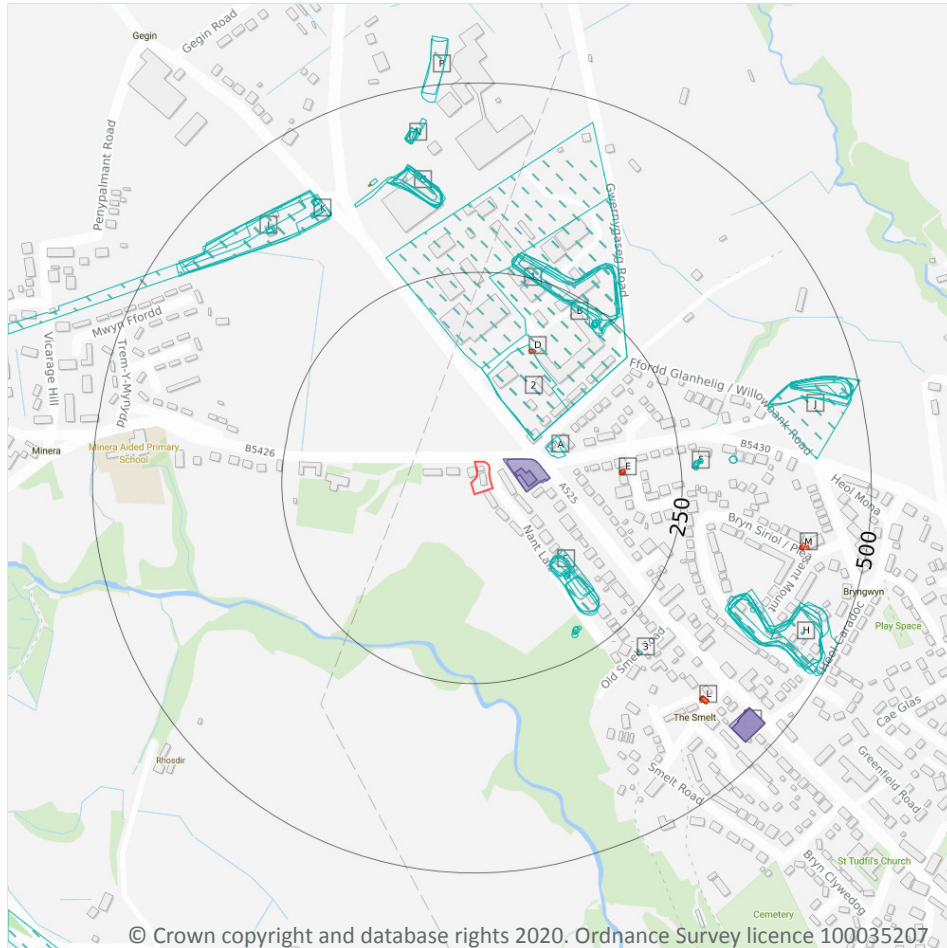
0

Areas of military land digitised from multiple sources including the National Archives, local records, MOD records and verified other sources, intelligently grouped into contiguous features.

This data is sourced from Ordnance Survey / Groundsure / other sources.



2 Past land use - un-grouped



- Site Outline
- Search buffers in metres (m)
- Historical industrial land uses
- Historical tanks
- Historical energy features
- Historical garages

2.1 Historical industrial land uses

Records within 500m

104

Potentially contaminative land use features digitised from historical Ordnance Survey mapping at 1:10,000 and 10,560 scale. Any records shown are available intelligently grouped in section 1. Grouped and the original un-grouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

Features are displayed on the Past land use - un-grouped map on **page 19**

ID	Location	Land Use	Date	Group ID
1	67m NE	Unspecified Commercial/Industrial	1989	796382
B	67m NE	Unspecified Works	1985	915756
2	67m NE	Unspecified Works	1974	869123

ID	Location	Land Use	Date	Group ID
A	78m E	Smithy	1872	856457
A	81m E	Smithy	1900	856457
C	121m SE	Unspecified Heap	1938	885843
C	121m SE	Unspecified Heap	1938	885843
C	122m SE	Unspecified Heap	1949	962357
C	123m SE	Unspecified Heaps	1910	831155
C	123m SE	Refuse Heap	1900	964331
C	126m SE	Refuse Heap	1872	964331
C	126m SE	Unspecified Heap	1960	990340
C	146m SE	Unspecified Shaft	1900	813410
C	147m SE	Unspecified Shaft	1949	813411
C	148m SE	Unspecified Old Shaft	1938	936799
C	148m SE	Unspecified Old Shaft	1938	936799
C	149m SE	Unspecified Tank	1910	823598
C	152m SE	Coal Shaft	1872	830822
C	159m SE	Unspecified Heap	1938	957772
C	159m SE	Unspecified Heap	1938	957772
C	160m SE	Unspecified Heap	1949	951781
C	213m SE	Unspecified Old Shaft	1938	900232
C	213m SE	Unspecified Old Shaft	1938	900232
C	214m SE	Unspecified Old Shafts	1900	793375
C	215m SE	Unspecified Old Shaft	1949	853064
C	216m SE	Unspecified Old Shaft	1910	960286
C	218m SE	Unspecified Old Shaft	1960	874047
B	224m NE	Unspecified Heap	1960	988426
B	225m NE	Unspecified Heap	1949	988426
B	228m NE	Unspecified Disused Shaft	1985	931888
B	228m NE	Unspecified Disused Shaft	1974	991294

ID	Location	Land Use	Date	Group ID
B	228m NE	Unspecified Old Shaft	1960	921326
B	228m NE	Unspecified Old Shaft	1949	921326
B	230m NE	Unspecified Old Shaft	1910	922740
B	230m NE	Unspecified Ground Workings	1910	799132
B	230m NE	Unspecified Heap	1938	988426
B	230m NE	Unspecified Heap	1938	988426
B	231m NE	Unspecified Old Shaft	1938	929977
B	231m NE	Unspecified Old Shaft	1938	929977
B	238m NE	Unspecified Old Shaft	1900	862963
B	239m NE	Unspecified Heap	1985	979392
B	239m NE	Unspecified Heap	1974	856174
B	244m NE	Unspecified Heap	1900	849342
F	266m E	Unspecified Old Shaft	1949	856202
F	266m E	Unspecified Old Shaft	1910	922884
F	266m E	Unspecified Old Shaft	1960	874877
F	268m E	Unspecified Old Shaft	1938	856202
F	268m E	Unspecified Old Shaft	1938	856202
F	273m E	Unspecified Disused Shafts	1985	865121
F	273m E	Unspecified Disused Shafts	1974	905651
F	276m E	Unspecified Old Shaft	1900	805741
3	289m SE	Unspecified Old Shafts	1900	793376
F	315m E	Unspecified Disused Shafts	1985	895365
F	315m E	Unspecified Disused Shafts	1974	980911
G	338m N	Unspecified Heap	1949	937355
G	340m N	Unspecified Heap	1989	990994
G	340m N	Unspecified Heap	1985	990994
G	340m N	Unspecified Heap	1974	876538
G	340m N	Unspecified Heap	1960	876538



ID	Location	Land Use	Date	Group ID
G	342m N	Unspecified Heap	1938	924693
G	342m N	Unspecified Heap	1938	924693
G	343m N	Unspecified Heap	1900	981691
G	343m N	Unspecified Ground Workings	1910	799131
H	346m SE	Unspecified Heap	1949	948976
H	348m SE	Unspecified Heap	1938	948976
H	348m SE	Unspecified Heap	1938	948976
H	348m SE	Unspecified Heap	1910	948976
H	352m SE	Unspecified Heap	1985	935350
H	352m SE	Unspecified Heap	1974	948976
H	352m SE	Unspecified Heap	1960	948976
H	353m SE	Unspecified Heap	1872	851868
H	354m SE	Unspecified Heap	1900	921711
I	373m NW	Railway Sidings	1949	939421
I	376m NW	Mineral Railway Sidings	1938	833978
J	376m E	Old Colliery	1949	869782
H	376m SE	Unspecified Old Shaft	1900	805742
4	376m NW	Railway Sidings	1900	870762
J	377m E	Old Colliery	1910	946283
I	379m NW	Railway Sidings	1960	933511
J	380m E	Colliery	1938	940247
J	380m E	Colliery	1938	940247
K	385m NW	Railway Building	1960	916499
K	386m NW	Railway Building	1938	910311
G	389m N	Railway Building	1949	819026
K	398m NW	Railway Building	1949	917680
K	399m NW	Railway Building	1938	917680
I	403m NW	Railway Building	1960	876559

ID	Location	Land Use	Date	Group ID
I	403m NW	Railway Sidings	1910	987025
I	403m NW	Railway Building	1938	941828
I	404m NW	Railway Building	1949	876559
J	411m E	Unspecified Ground Workings	1949	922158
J	411m E	Unspecified Heap	1960	939755
J	412m E	Unspecified Ground Workings	1910	859244
J	414m E	Unspecified Heap	1938	928314
J	414m E	Unspecified Heap	1938	928314
H	416m SE	Unspecified Heap	1900	915451
J	417m E	Unspecified Old Shaft	1900	805740
N	428m N	Railway Station	1960	976032
N	428m N	Railway Station	1949	976032
N	429m N	Railway Station	1938	925287
N	431m N	Railway Station	1910	978621
N	431m N	Railway Station	1900	857834
P	477m N	Railway Sidings	1960	870072
P	488m N	Railway Sidings	1938	856382

This data is sourced from Ordnance Survey / Groundsure.

2.2 Historical tanks

Records within 500m

1

Tank features digitised from historical Ordnance Survey mapping at high-detail 1:1,250 and 1:2,500 scale. Any records shown are available intelligently grouped in section 1. Grouped and the original un-grouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

Features are displayed on the Past land use - un-grouped map on **page 19**

ID	Location	Land Use	Date	Group ID
G	389m N	Unspecified Tank	1962	109440

This data is sourced from Ordnance Survey / Groundsure.



2.3 Historical energy features

Records within 500m

16

Energy features digitised from historical Ordnance Survey mapping at high-detail 1:1,250 and 1:2,500 scale. Any records shown are available intelligently grouped in section 1. Grouped and the original un-grouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

Features are displayed on the Past land use - un-grouped map on **page 19**

ID	Location	Land Use	Date	Group ID
D	156m NE	Electricity Substation	1984	75386
D	156m NE	Electricity Substation	1989	75386
D	158m NE	Electricity Substation	1993	71301
E	169m E	Electricity Substation	1984	70732
E	169m E	Electricity Substation	1989	70732
E	171m E	Electricity Substation	1993	85129
L	389m SE	Electricity Substation	1993	69199
L	390m SE	Electricity Substation	1987	69199
L	390m SE	Electricity Substation	1983	69199
L	391m SE	Electricity Substation	1967	69199
L	391m SE	Electricity Substation	1978	69199
M	412m E	Electricity Substation	1987	77799
M	413m E	Electricity Substation	1967	77799
M	413m E	Electricity Substation	1978	77799
M	413m E	Electricity Substation	1983	85390
M	421m E	Electricity Substation	1993	59961

This data is sourced from Ordnance Survey / Groundsure.

2.4 Historical petrol stations

Records within 500m

0

Petrol stations digitised from historical Ordnance Survey mapping at high-detail 1:1,250 and 1:2,500 scale. Any records shown are available intelligently grouped in section 1. Grouped and the original un-grouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

This data is sourced from Ordnance Survey / Groundsure.



2.5 Historical garages

Records within 500m

10

Garages digitised from historical Ordnance Survey mapping at high-detail 1:1,250 and 1:2,500 scale. Any records shown are available intelligently grouped in section 1. Grouped and the original un-grouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

Features are displayed on the Past land use - un-grouped map on **page 19**

ID	Location	Land Use	Date	Group ID
A	21m E	Garage	1962	23227
A	24m E	Garage	1993	21566
A	34m E	Garage	1984	26071
A	34m E	Garage	1989	26071
O	442m SE	Garage	1993	20963
O	445m SE	Garage	1987	22574
O	446m SE	Garage	1983	25745
O	446m SE	Garage	1962	25745
O	446m SE	Garage	1967	25745
O	446m SE	Garage	1978	25745

This data is sourced from Ordnance Survey / Groundsure.



3 Waste and landfill



Site Outline

Search buffers in metres (m)

Licensed waste sites

3.1 Active or recent landfill

Records within 500m

0

Active or recently closed landfill sites under Environment Agency/Natural Resources Wales regulation.

This data is sourced from the Environment Agency and Natural Resources Wales.

3.2 Historical landfill (BGS records)

Records within 500m

0

Landfill sites identified on a survey carried out on behalf of the DoE in 1973. These sites may have been closed or operational at this time.

This data is sourced from the British Geological Survey.



3.3 Historical landfill (LA/mapping records)

Records within 500m

0

Landfill sites identified from Local Authority records and high detail historical mapping.

This data is sourced from the Ordnance Survey/Groundsure and Local Authority records.

3.4 Historical landfill (EA/NRW records)

Records within 500m

0

Known historical (closed) landfill sites (e.g. sites where there is no PPC permit or waste management licence currently in force). This includes sites that existed before the waste licensing regime and sites that have been licensed in the past but where a licence has been revoked, ceased to exist or surrendered and a certificate of completion has been issued.

This data is sourced from the Environment Agency and Natural Resources Wales.

3.5 Historical waste sites

Records within 500m

0

Waste site records derived from Local Authority planning records and high detail historical mapping.

This data is sourced from Ordnance Survey/Groundsure and Local Authority records.

3.6 Licensed waste sites

Records within 500m

6

Active or recently closed waste sites under Environment Agency/Natural Resources Wales regulation.

Features are displayed on the Waste and landfill map on **page 26**

ID	Location	Details		
A	401m NW	Site Name: - Site Address: S And K Matthews Skip Hire, Minera, Wrexham, Wrexham, LL11 3YQ Correspondence Address: -	Type of Site: - Size: Unknown Environmental Permitting Regulations (Waste) Licence Number: JP3694FP EPR reference: - Operator: S And K Matthews Skip Hire Waste Management licence No: 0 Annual Tonnage: 5000	Issue Date: 29/11/2005 Effective Date: 29/11/2005 Modified:: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Effective

ID	Location	Details		
A	401m NW	Site Name: - Site Address: S And K Matthews Skip Hire, Minera, Wrexham, Clwyd, LL11 3YQ Correspondence Address: -	Type of Site: Household, Commercial & Industrial Waste T Stn Size: Unknown Environmental Permitting Regulations (Waste) Licence Number: JP3694FP EPR reference: - Operator: - Waste Management licence No: 37287 Annual Tonnage: 5000	Issue Date: 29/11/2005 Effective Date: 29/11/2005 Modified:: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Effective
A	401m NW	Site Name: - Site Address: S And K Matthews Skip Hire, Minera, Wrexham, Clwyd, LL11 3YQ Correspondence Address: -	Type of Site: Household, Commercial & Industrial Waste T Stn Size: - Environmental Permitting Regulations (Waste) Licence Number: JP3694FP EPR reference: - Operator: S And K Matthews Skip Hire Waste Management licence No: 37287 Annual Tonnage: 5000	Issue Date: 29/11/2005 Effective Date: 29/11/2005 Modified:: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Effective
A	401m NW	Site Name: - Site Address: S And K Matthews Skip Hire, Minera, Clwyd, Wrexham, Wrexham, LL11 3YQ Correspondence Address: -	Type of Site: - Size: Unknown Environmental Permitting Regulations (Waste) Licence Number: JP3694FP EPR reference: - Operator: S And K Matthews Skip Hire Waste Management licence No: 37287 Annual Tonnage: 5000	Issue Date: 29/11/2005 Effective Date: 29/11/2005 Modified:: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Effective
A	401m NW	Site Name: - Site Address: S And K Matthews Skip Hire, Minera, Wrexham, Clwyd, LL11 3YQ Correspondence Address: -	Type of Site: Household, Commercial & Industrial Waste T Stn Size: - Environmental Permitting Regulations (Waste) Licence Number: JP3694FP EPR reference: - Operator: S And K Matthews Skip Hire Waste Management licence No: 37287 Annual Tonnage: 5000	Issue Date: 29/11/2005 Effective Date: 29/11/2005 Modified:: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Effective



ID	Location	Details		
A	401m NW	Site Name: S And K Matthews Skip Hire Site Address: Station House, Old Road, Minera, Wrexham, Clwyd, LL11 3YQ Correspondence Address: -	Type of Site: Household, Commercial & Industrial Waste T Stn Size: 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: SKM001 EPR reference: JP3694FP/A001 Operator: S And K Matthews Skip Hire Waste Management licence No: 37287 Annual Tonnage: 4500	Issue Date: 29/11/2005 Effective Date: - Modified:: - Surrendered Date: 0 Expiry Date: 0 Cancelled Date: 0 Status: Issued

This data is sourced from the Environment Agency and Natural Resources Wales.

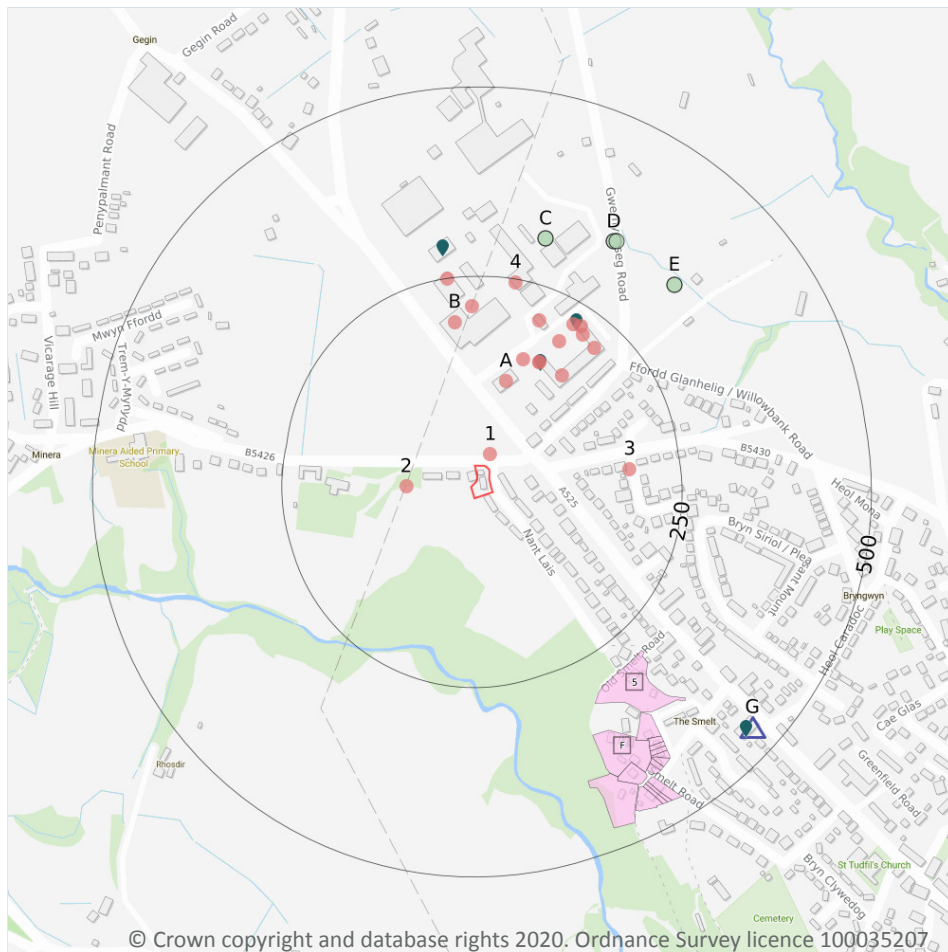
3.7 Waste exemptions

Records within 500m	0
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Activities involving the storage, treatment, use or disposal of waste that are exempt from needing a permit. Exemptions have specific limits and conditions that must be adhered to.

This data is sourced from the Environment Agency and Natural Resources Wales.

4 Current industrial land use



- Site Outline
- Search buffers in metres (m)
- Recent industrial land uses
- ▲ Current or recent petrol stations
- Sites determined as Contaminated Land
- Licensed pollutant release (Part A(2)/B)
- Pollution Incidents (EA/NRW)

4.1 Recent industrial land uses

Records within 250m

18

Current potentially contaminative industrial sites.

Features are displayed on the Current industrial land use map on **page 30**

ID	Location	Company	Address	Activity	Category
1	17m NE	Pumping Station	Clwyd, LL11	Water Pumping Stations	Industrial Features
2	86m W	Pylon	Clwyd, LL11	Electrical Features	Infrastructure and Facilities
A	116m N	Reclaim Services	Unit 50, Five Crosses Industrial Estate, Minera, Wrexham, Clwyd, LL11 3RD	Paints, Varnishes and Lacquers	Industrial Products



ID	Location	Company	Address	Activity	Category
A	150m N	Electricity Sub Station	Clwyd, LL11	Electrical Features	Infrastructure and Facilities
A	155m NE	HiQ Centre	Unit 36, Five Crosses Industrial Estate, Minera, Wrexham, Clwyd, LL11 3RD	Vehicle Repair, Testing and Servicing	Repair and Servicing
A	155m NE	Minera Tyres & Exhausts Ltd	Unit 36, Five Crosses Industrial Estate, Minera, Wrexham, Clwyd, LL11 3RD	Vehicle Parts and Accessories	Motoring
A	157m NE	Wrexham Auto Kraft	Unit 35, Five Crosses Industrial Estate, Wrexham, Clwyd, LL11 3RD	Vehicle Repair, Testing and Servicing	Repair and Servicing
3	183m E	Electricity Sub Station	Clwyd, LL11	Electrical Features	Infrastructure and Facilities
B	192m N	F W B Cymru Ltd	Five Crosses Industrial Estate, Minera, Wrexham, Clwyd, LL11 3RD	General Construction Supplies	Industrial Products
A	192m NE	Gas Valve Compound	Clwyd, LL11	Gas Features	Infrastructure and Facilities
A	205m N	Connectec	Five Crosses Point, Five Crosses Industrial Estate, Minera, Wrexham, Clwyd, LL11 3RD	Electronic Equipment	Industrial Products
B	211m N	Pylon	Clwyd, LL11	Electrical Features	Infrastructure and Facilities
A	212m NE	D C Autos	Unit 23, Five Crosses Industrial Estate, Minera, Wrexham, Clwyd, LL11 3RD	Vehicle Repair, Testing and Servicing	Repair and Servicing
A	217m NE	Minera M O T Centre	Unit 27, Five Crosses Industrial Estate, Minera, Wrexham, Clwyd, LL11 3RD	Vehicle Repair, Testing and Servicing	Repair and Servicing
A	221m NE	Minera Garage	Unit 30, Five Crosses Industrial Estate, Minera, Wrexham, Clwyd, LL11 3RD	Vehicle Repair, Testing and Servicing	Repair and Servicing
A	224m NE	M Performance Auto Services	Unit 28-29, Five Crosses Industrial Estate, Minera, Wrexham, Clwyd, LL11 3RD	Special Purpose Machinery and Equipment	Industrial Products
4	246m N	Site Solutions Engineering Ltd	Unit 1, Five Crosses Industrial Estate, Minera, Wrexham, Clwyd, LL11 3RD	Industrial Engineers	Engineering Services
B	249m N	C J C Motor Services	Unit K-I, Five Crosses Industrial Estate, Minera, Wrexham, Clwyd, LL11 3RD	Vehicle Repair, Testing and Servicing	Repair and Servicing

This data is sourced from Ordnance Survey.



4.2 Current or recent petrol stations

Records within 500m**1**

Open, closed, under development and obsolete petrol stations.

Features are displayed on the Current industrial land use map on **page 30**

ID	Location	Company	Address	LPG	Status
G	462m SE	CO-OP	High Street, Coedpoeth, Wrexham, Wrexham, LL11 3UF	No	Open

This data is sourced from Experian.

4.3 Electricity cables

Records within 500m**0**

High voltage underground electricity transmission cables.

This data is sourced from National Grid.

4.4 Gas pipelines

Records within 500m**0**

High pressure underground gas transmission pipelines.

This data is sourced from National Grid.

4.5 Sites determined as Contaminated Land

Records within 500m**16**

Contaminated Land Register of sites designated under Part 2a of the Environmental Protection Act 1990.

Features are displayed on the Current industrial land use map on **page 30**

ID	Location	Description	Site name	Category	Year identified
5	287m SE	Former Lead Smelter Determination notice issued 13/05/2014 Remediation works undertaken 10/2015 and 12/2015 The mean concentration of Lead in the soil exceeds the derived site specific assessment criteria of 1300mg/kg	Rosebank, Smelt Road, Coedpoeth, Wrexham, LL11 3SH	Contaminated Land - Remediated	2014



ID	Location	Description	Site name	Category	Year identified
F	347m S	Former Lead Smelter Determination notice issued 11/03/2014- Site has been remediated - Notice issued 14/08/2015	Terfynfa, 12 Smelt Road, Coedpoeth, Wrexham, LL11 3SH	Contaminated Land - Remediated	2013
F	350m SE	Former Lead Smelter Determination notice issued 23/01/2014- Site has been remediated - Notice issued 14/08/2015	Chalna, Smelt Lane , Coedpoeth, Wrexham, LL11 3SN	Contaminated Land - Remediated	2013
F	384m SE	Former Lead Smelter Determination notice issued 13/05/2014- Site has been remediated - Notice issued 14/08/2015	4 Smelt lane, Coedpoeth, Wrexham, LL11 3SN	Contaminated Land - Remediated	2014
F	394m SE	Former Lead Smelter Determination notice issued 11/03/2014- Site has been remediated - Notice issued 14/08/2015	3 Smelt lane, Coedpoeth, Wrexham, LL11 3SN	Contaminated Land - Remediated	2014
F	400m SE	Former Lead Smelter Determination notice issued 11/03/2014- Site has been remediated - Notice issued 14/08/2015	Glenside, Smelt Road, Coedpoeth, Wrexham, LL11 3SH	Contaminated Land - Remediated	2014
F	400m SE	Former Lead Smelter Determination notice issued 23/01/2014 -Site has been remediated - Notice issued 05/08/2015	2 Smelt lane, Coedpoeth, Wrexham, LL11 3SN	Contaminated Land - Remediated	2013
F	402m S	Former Lead Smelter Determination notice issued 23/01/2014 Variation of Determination Notice dated 05/03/2016 The mean concentration of Lead in the soil exceeds the derived site specific assessment criteria by more than 3 times the SSSL of 1300mg/kg. Remediation statement clarifies work is still required.	Bryn Onn, Smelt Road, Coedpoeth, Wrexham, LL11 3SH	Contaminated Land - Partially Remediated	2014
F	406m SE	Former Lead Smelter Determination notice issued 23/01/2014 -Site has been remediated - Notice issued 05/08/2015	1 Smelt lane, Coedpoeth, Wrexham, LL11 3SN	Contaminated Land - Remediated	2013



ID	Location	Description	Site name	Category	Year identified
F	408m SE	Former Lead Smelter Determination notice issued 11/03/2014- Site has been remediated - Notice issued 14/08/2015	7 Smelt Road, Coedpoeth, Wrexham, LL11 3SH	Contaminated Land - Remediated	2014
F	408m SE	Former Lead Smelter Determination notice issued 13/05/2014- Site has been remediated - Notice issued 14/08/2015	8 Smelt Road, Coedpoeth, Wrexham, LL11 3SH	Contaminated Land - Remediated	2014
F	414m SE	Former Lead Smelter Determination notice issued 11/03/2014 - Site has been remediated - Notice issued 14/08/2015	9 Smelt Road, Coedpoeth, Wrexham, LL11 3SH	Contaminated Land - Remediated	2014
F	430m SE	Former Lead Smelter Determination notice issued 13/05/2014 Remediation works undertaken 10/2015 and 12/2015 The mean concentration of Lead in the soil exceeds the derived site specific assessment criteria by more than 2 times the SSSL of 1300mg/kg	Whitesmiths, Smelt Road, Coedpoeth, Wrexham, LL11 3SH	Contaminated Land - Remediated	2014
F	433m SE	Former Lead Smelter Determination notice issued 13/05/2014 Remediation works undertaken 10/2015 and 12/2015 The mean concentration of Lead in the soil exceeds the derived site specific assessment criteria by more than 3 times the SSSL of 1300mg/kg	15 Smelt Road, Coedpoeth, Wrexham, LL11 3SH	Contaminated Land - Remediated	2014
F	434m SE	Former Lead Smelter Determination notice issued 23/01/2014 Remediation works undertaken 10/2015 and 12/2015 The mean concentration of Lead in the soil exceeds the derived site specific assessment criteria by more than 3 times the SSSL of 1300mg/kg	17 Smelt Road, Coedpoeth, Wrexham, LL11 3SH	Contaminated Land - Remediated	2014



ID	Location	Description	Site name	Category	Year identified
F	434m SE	Former Lead Smelter Determination notice issued 11/03/2014 Remediation works undertaken 10/2015 and 12/2015 The mean concentration of Lead in the soil exceeds the derived site specific assessment criteria by more than 5 times the SSSL of 1300mg/kg	16 Smelt Road, Coedpoeth, Wrexham, LL11 3SH	Contaminated Land - Remediated	2014

This data is sourced from Local Authority records.

4.6 Control of Major Accident Hazards (COMAH)

Records within 500m

0

Control of Major Accident Hazards (COMAH) sites. This data includes upper and lower tier sites, and includes a historical archive of COMAH sites and Notification of Installations Handling Hazardous Substances (NIHHS) records.

This data is sourced from the Health and Safety Executive.

4.7 Regulated explosive sites

Records within 500m

0

Sites registered and licensed by the Health and Safety Executive under the Manufacture and Storage of Explosives Regulations 2005 (MSER). The last update to this data was in April 2011.

This data is sourced from the Health and Safety Executive.

4.8 Hazardous substance storage/usage

Records within 500m

0

Consents granted for a site to hold certain quantities of hazardous substances at or above defined limits in accordance with the Planning (Hazardous Substances) Regulations 2015.

This data is sourced from Local Authority records.



4.9 Historical licensed industrial activities (IPC)

Records within 500m

0

Integrated Pollution Control (IPC) records of substance releases to air, land and water. This data represents a historical archive as the IPC regime has been superseded.

This data is sourced from the Environment Agency and Natural Resources Wales.

4.10 Licensed industrial activities (Part A(1))

Records within 500m

0

Records of Part A(1) installations regulated under the Environmental Permitting (England and Wales) Regulations 2016 for the release of substances to the environment.

This data is sourced from the Environment Agency and Natural Resources Wales.

4.11 Licensed pollutant release (Part A(2)/B)

Records within 500m

4

Records of Part A(2) and Part B installations regulated under the Environmental Permitting (England and Wales) Regulations 2016 for the release of substances to the environment.

Features are displayed on the Current industrial land use map on **page 30**

ID	Location	Address	Details	
A	155m NE	Minera Tyres and Exhausts Ltd, Unit 36, Five Crosses Industrial Estate, Minera, Wrexham, LL11 3RD	Process: Waste Oil Burner 0.4 MW Status: New Legislation Applies Permit Type: Part B	Enforcement: No Enforcement Notified. Date of enforcement: No Enforcement Notified. Comment: No Enforcement Notified.
A	224m NE	Jones Automotive Services, Minera Garage, Unit 30, Five Crosses Industrial Estate, Minera, Wrexham, LL11 3RD	Process: Waste Oil Burner 0.4 MW Status: New Legislation Applies Permit Type: Part B	Enforcement: No Enforcement Notified. Date of enforcement: No Enforcement Notified. Comment: No Enforcement Notified.
B	291m N	Huws Gray LTD, Five Crosses Industrial Estate, Ruthin Road, Minera, Wrexham, LL11 3RD	Process: Other Mineral Processes Status: Current Permit Permit Type: Part B	Enforcement: No Enforcement Notified. Date of enforcement: No Enforcement Notified. Comment: No Enforcement Notified.



ID	Location	Address	Details	
G	457m SE	Premier Garage, High Street, Coedpoeth, Wrexham, LL11 3UF	Process: Unloading of Petrol into Storage at Service Stations Status: Current Permit Permit Type: Part B	Enforcement: No Enforcement Notified. Date of enforcement: No Enforcement Notified. Comment: No Enforcement Notified.

This data is sourced from Local Authority records.

4.12 Radioactive Substance Authorisations

Records within 500m	0
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Records of the storage, use, accumulation and disposal of radioactive substances regulated under the Radioactive Substances Act 1993.

This data is sourced from the Environment Agency and Natural Resources Wales.

4.13 Licensed Discharges to controlled waters

Records within 500m	0
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Discharges of treated or untreated effluent to controlled waters under the Water Resources Act 1991.

This data is sourced from the Environment Agency and Natural Resources Wales.

4.14 Pollutant release to surface waters (Red List)

Records within 500m	0
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Discharges of specified substances under the Environmental Protection (Prescribed Processes and Substances) Regulations 1991.

This data is sourced from the Environment Agency and Natural Resources Wales.

4.15 Pollutant release to public sewer

Records within 500m	0
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Discharges of Special Category Effluents to the public sewer.

This data is sourced from the Environment Agency and Natural Resources Wales.

4.16 List 1 Dangerous Substances

Records within 500m

0

Discharges of substances identified on List I of European Directive E 2006/11/EC, and regulated under the Environmental Damage (Prevention and Remediation) Regulations 2015.

This data is sourced from the Environment Agency and Natural Resources Wales.

4.17 List 2 Dangerous Substances

Records within 500m

0

Discharges of substances identified on List II of European Directive E 2006/11/EC, and regulated under the Environmental Damage (Prevention and Remediation) Regulations 2015.

This data is sourced from the Environment Agency and Natural Resources Wales.

4.18 Pollution Incidents (EA/NRW)

Records within 500m

7

Records of substantiated pollution incidents. Since 2006 this data has only included category 1 (major) and 2 (significant) pollution incidents.

Features are displayed on the Current industrial land use map on **page 30**

ID	Location	Details	
C	310m N	Incident Date: 09/01/2017 Incident Identification: 1700126 Pollutant: - Pollutant Description: -	Water Impact: Category 3 (Minor) Land Impact: No Details Air Impact: No Details
C	310m N	Incident Date: 09/01/2017 Incident Identification: 1700126 Pollutant: Inert Materials and Waste Pollutant Description: Construction and Demolition Materials and Wastes	Water Impact: Category 3 (Minor) Land Impact: No Details Air Impact: No Details
D	341m NE	Incident Date: 22/04/2016 Incident Identification: 1601934 Pollutant: Contaminated Water Pollutant Description: Dairy Washings	Water Impact: Category 3 (Minor) Land Impact: No Details Air Impact: No Details
D	341m NE	Incident Date: 22/04/2016 Incident Identification: 1601934 Pollutant: - Pollutant Description: -	Water Impact: Category 3 (Minor) Land Impact: No Details Air Impact: No Details

ID	Location	Details	
D	344m NE	Incident Date: 04/10/2013 Incident Identification: 1165060 Pollutant: Contaminated Water Pollutant Description: Dairy Washings	Water Impact: - Land Impact: Category 3 (Minor) Air Impact: Category 4 (No Impact)
E	345m NE	Incident Date: 06/03/2017 Incident Identification: 1701150 Pollutant: - Pollutant Description: -	Water Impact: Category 3 (Minor) Land Impact: No Details Air Impact: Category 3 (Minor)
E	345m NE	Incident Date: 06/03/2017 Incident Identification: 1701150 Pollutant: Oils and Fuels Pollutant Description: Unidentified Oil	Water Impact: Category 3 (Minor) Land Impact: No Details Air Impact: Category 3 (Minor)

This data is sourced from the Environment Agency and Natural Resources Wales.

4.19 Pollution inventory substances

Records within 500m

0

The pollution inventory (substances) includes reporting on annual emissions of certain regulated substances to air, controlled waters and land. A reporting threshold for each substance is also included. Where emissions fall below the reporting threshold, no value will be given. The data is given for the most recent complete year available.

This data is sourced from the Environment Agency and the Scottish Environment Protection Agency.

4.20 Pollution inventory waste transfers

Records within 500m

0

The pollution inventory (waste transfers) includes reporting on annual transfers and recovery/disposal of controlled wastes from a site. A reporting threshold for each waste type is also included. Where releases fall below the reporting threshold, no value will be given. The data is given for the most recent complete year available.

This data is sourced from the Environment Agency and the Scottish Environment Protection Agency.

4.21 Pollution inventory radioactive waste

Records within 500m

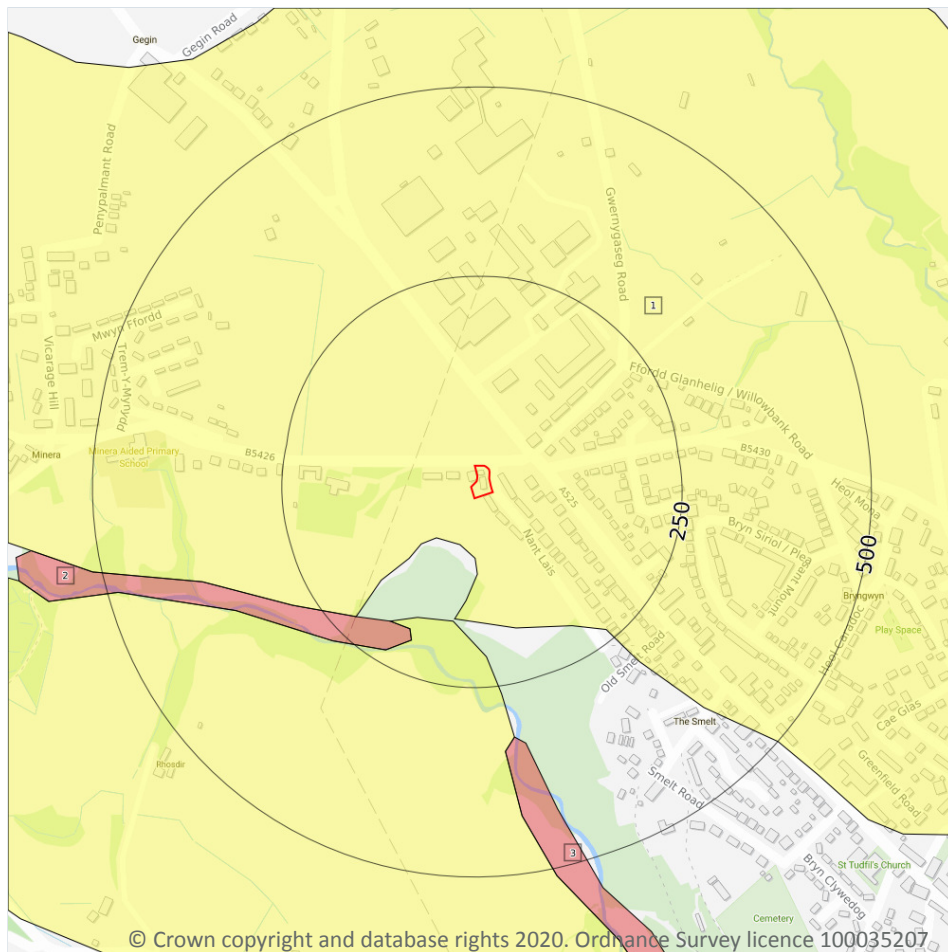
0

The pollution inventory (radioactive wastes) includes reporting on annual releases of radioactive substances from a site, including the means of release. Where releases fall below the reporting threshold, no value will be given. The data is given for the most recent complete year available.

This data is sourced from the Environment Agency and the Scottish Environment Protection Agency.



5 Hydrogeology - Superficial aquifer



- Site Outline**
- Search buffers in metres (m)**
- Principal
 - Secondary A
 - Secondary B
 - Secondary Undifferentiated
 - Unproductive
 - Unknown

5.1 Superficial aquifer

Records within 500m

3

Aquifer status of groundwater held within superficial geology.

Features are displayed on the Hydrogeology map on **page 40**

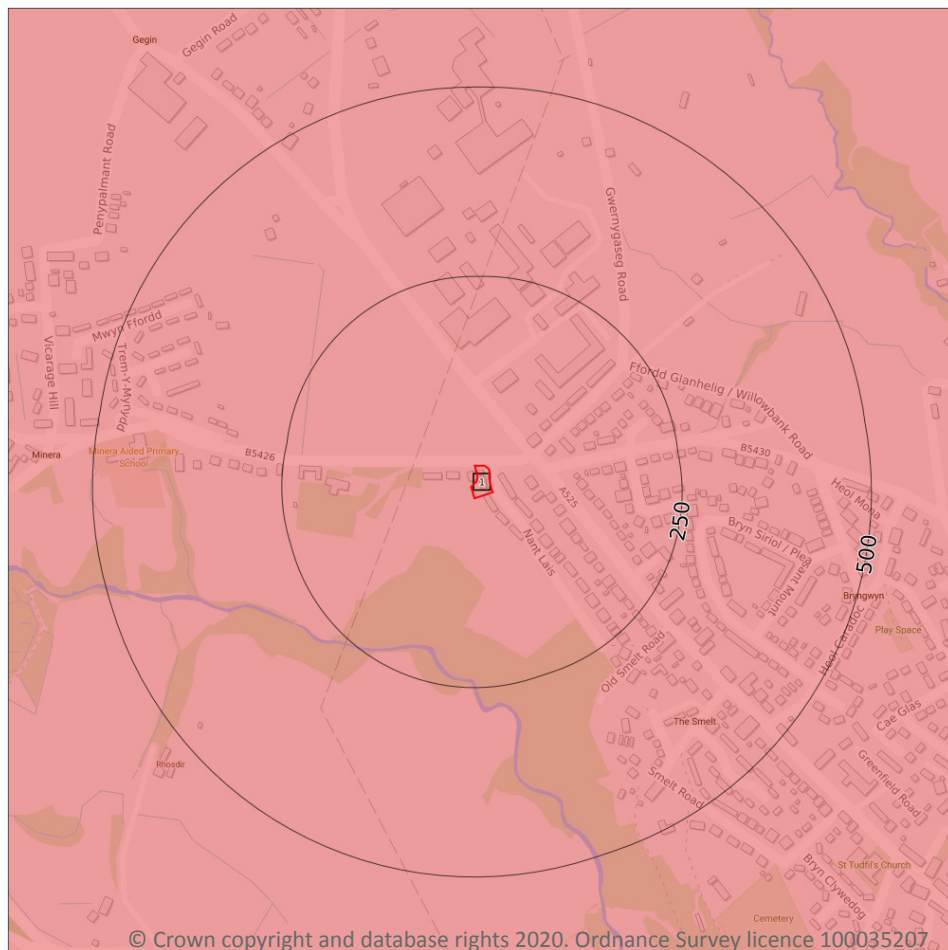
ID	Location	Designation	Description
1	On site	Secondary Undifferentiated	Assigned where it is not possible to attribute either category A or B to a rock type. In general these layers have previously been designated as both minor and non-aquifer in different locations due to the variable characteristics of the rock type
2	192m SW	Secondary A	Permeable layers capable of supporting water supplies at a local rather than strategic scale, and in some cases forming an important source of base flow to rivers. These are generally aquifers formerly classified as minor aquifers

ID	Location	Designation	Description
3	320m S	Secondary A	Permeable layers capable of supporting water supplies at a local rather than strategic scale, and in some cases forming an important source of base flow to rivers. These are generally aquifers formerly classified as minor aquifers

This data is sourced from the British Geological Survey, the Environment Agency and Natural Resources Wales.



Bedrock aquifer



- Site Outline
- Search buffers in metres (m)
- Principal
 - Secondary A
 - Secondary B
 - Secondary Undifferentiated
 - Unproductive

5.2 Bedrock aquifer

Records within 500m

1

Aquifer status of groundwater held within bedrock geology.

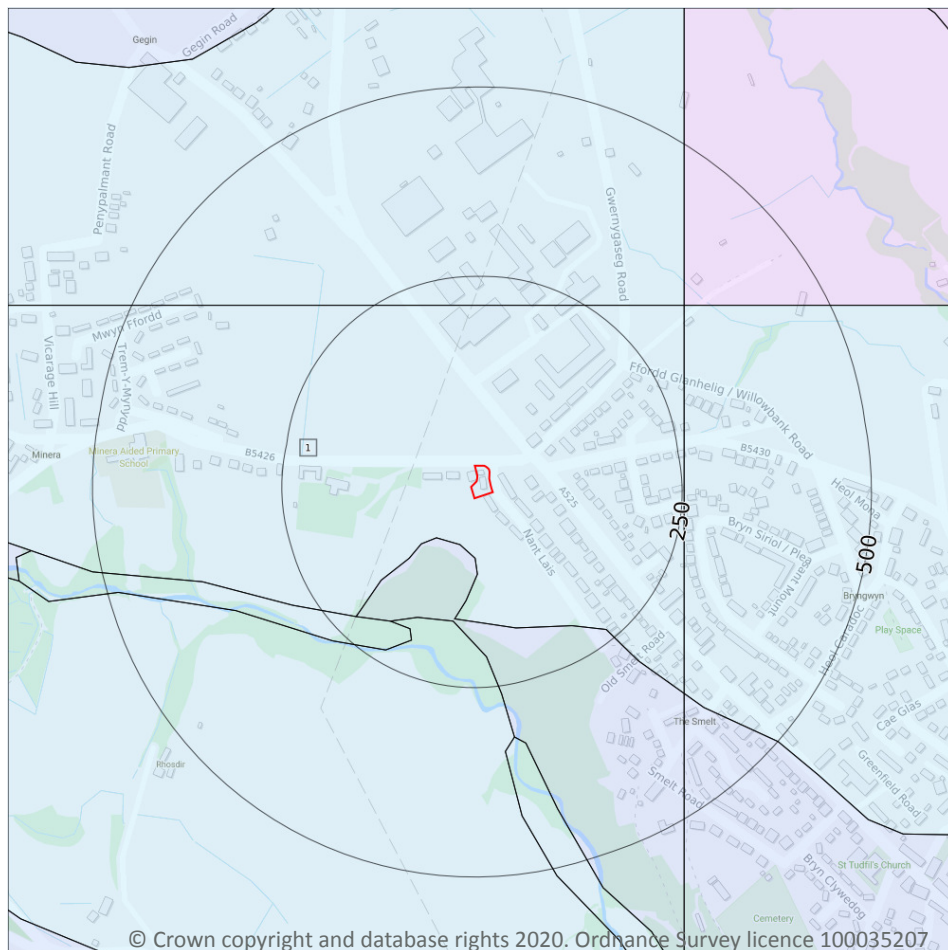
Features are displayed on the Bedrock aquifer map on [page 42](#)

ID	Location	Designation	Description
1	On site	Secondary A	Permeable layers capable of supporting water supplies at a local rather than strategic scale, and in some cases forming an important source of base flow to rivers. These are generally aquifers formerly classified as minor aquifers

This data is sourced from the British Geological Survey, the Environment Agency and Natural Resources Wales.



Groundwater vulnerability



Site Outline

Search buffers in metres (m)

Superficial vulnerability

- Principal superficial aquifer, high vulnerability
- Secondary superficial aquifer, high vulnerability
- Principal superficial aquifer, medium vulnerability
- Secondary superficial aquifer, medium vulnerability
- Principal superficial aquifer, low vulnerability
- Secondary superficial aquifer, low vulnerability

Bedrock vulnerability

- Principal bedrock aquifer, high vulnerability
- Secondary bedrock aquifer, high vulnerability
- Principal bedrock aquifer, medium vulnerability
- Secondary bedrock aquifer, medium vulnerability
- Principal bedrock aquifer, low vulnerability
- Secondary bedrock aquifer, low vulnerability

Other information

- Unproductive aquifer
- Soluble rock risk
- Local information

5.3 Groundwater vulnerability

Records within 50m

1

An assessment of the vulnerability of groundwater to a pollutant discharged at ground level based on the hydrological, geological, hydrogeological and soil properties within a one kilometre square grid. Groundwater vulnerability is described as High, Medium or Low as follows:

- High - Areas able to easily transmit pollution to groundwater. They are likely to be characterised by high leaching soils and the absence of low permeability superficial deposits.
- Medium - Intermediate between high and low vulnerability.
- Low - Areas that provide the greatest protection from pollution. They are likely to be characterised by low leaching soils and/or the presence of superficial deposits characterised by a low permeability.

Features are displayed on the Groundwater vulnerability map on **page 43**



ID	Location	Summary	Soil / surface	Superficial geology	Bedrock geology
1	On site	Summary Classification: Secondary superficial aquifer - Low Vulnerability Combined classification: Productive Bedrock Aquifer, Productive Superficial Aquifer	Leaching class: Low Infiltration value: <40% Dilution value: >550mm/year	Vulnerability: Low Aquifer type: Secondary Thickness: 3-10m Patchiness value: <90% Recharge potential: Low	Vulnerability: Low Aquifer type: Secondary Flow mechanism: Well connected fractures

This data is sourced from the British Geological Survey, the Environment Agency and Natural Resources Wales.

5.4 Groundwater vulnerability- soluble rock risk

Records on site	0
------------------------	----------

This dataset identifies areas where solution features that enable rapid movement of a pollutant may be present within a 1km grid square.

This data is sourced from the British Geological Survey and the Environment Agency.

5.5 Groundwater vulnerability- local information

Records on site	0
------------------------	----------

This dataset identifies areas where additional local information affecting vulnerability is held by the Environment Agency. Further information can be obtained by contacting the Environment Agency local Area groundwater team through the Environment Agency National Customer Call Centre on 03798 506 506 or by email on enquiries@environment-agency.gov.uk.

This data is sourced from the British Geological Survey and the Environment Agency.

Abstractions and Source Protection Zones



- Site Outline
- Search buffers in metres (m)
- Source Protection Zone 1
Inner catchment
- Source Protection Zone 2
Outer catchment
- Source Protection Zone 3
Total catchment
- Source Protection Zone 4
Zone of Special Interest
- Source Protection Zone 1c
Inner catchment - confined aquifer
- Source Protection Zone 2c
Outer catchment - confined aquifer
- Source Protection Zone 3c
Total catchment - confined aquifer
- Drinking water abstraction licences
Polygon features
- Drinking water abstraction licences
Linear features
- Groundwater abstraction licence (point)
- Groundwater abstraction licence (area)
- Groundwater abstraction licence (linear)
- Surface Water Abstractions (point)
- Surface Water Abstractions (area)
- Surface Water Abstractions (linear)

5.6 Groundwater abstractions

Records within 2000m

2

Licensed groundwater abstractions for sites extracting more than 20 cubic metres of water a day and includes active and historical records. The data may be for a single abstraction point, between two points (line data) or a larger area.

Features are displayed on the Abstractions and Source Protection Zones map on **page 45**

ID	Location	Details	
-	679m W	Status: Historical Licence No: 24/67/7/0035 Details: Potable Water Supply - Direct Direct Source: EAW Groundwater Point: PARK DAY LEVEL Data Type: Point Name: Dee Valley Water Plc Easting: 327050 Northing: 351641	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 05/07/1966 Expiry Date: - Issue No: 100 Version Start Date: 05/07/1966 Version End Date: -
-	930m SW	Status: Historical Licence No: 24/67/7/0035 Details: Potable Water Supply - Direct Direct Source: EAW Groundwater Point: SPEEDWELL SHAFT Data Type: Point Name: Dee Valley Water Plc Easting: 326890 Northing: 351330	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 05/07/1966 Expiry Date: - Issue No: 100 Version Start Date: 05/07/1966 Version End Date: -

This data is sourced from the Environment Agency and Natural Resources Wales.

5.7 Surface water abstractions

Records within 2000m	0
-----------------------------	----------

Licensed surface water abstractions for sites extracting more than 20 cubic metres of water a day and includes active and historical records. The data may be for a single abstraction point, a stretch of watercourse or a larger area.

This data is sourced from the Environment Agency and Natural Resources Wales.

5.8 Potable abstractions

Records within 2000m	2
-----------------------------	----------

Licensed potable water abstractions for sites extracting more than 20 cubic metres of water a day and includes active and historical records. The data may be for a single abstraction point, a stretch of watercourse or a larger area.

Features are displayed on the Abstractions and Source Protection Zones map on **page 45**

ID	Location	Details	
-	679m W	Status: Historical Licence No: 24/67/7/0035 Details: Potable Water Supply - Direct Direct Source: EAW Groundwater Point: PARK DAY LEVEL Data Type: Point Name: Dee Valley Water Plc Easting: 327050 Northing: 351641	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 05/07/1966 Expiry Date: - Issue No: 100 Version Start Date: 05/07/1966 Version End Date: -
-	930m SW	Status: Historical Licence No: 24/67/7/0035 Details: Potable Water Supply - Direct Direct Source: EAW Groundwater Point: SPEEDWELL SHAFT Data Type: Point Name: Dee Valley Water Plc Easting: 326890 Northing: 351330	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 05/07/1966 Expiry Date: - Issue No: 100 Version Start Date: 05/07/1966 Version End Date: -

This data is sourced from the Environment Agency and Natural Resources Wales.

5.9 Source Protection Zones

Records within 500m	0
----------------------------	----------

Source Protection Zones define the sensitivity of an area around a potable abstraction site to contamination.

This data is sourced from the Environment Agency and Natural Resources Wales.

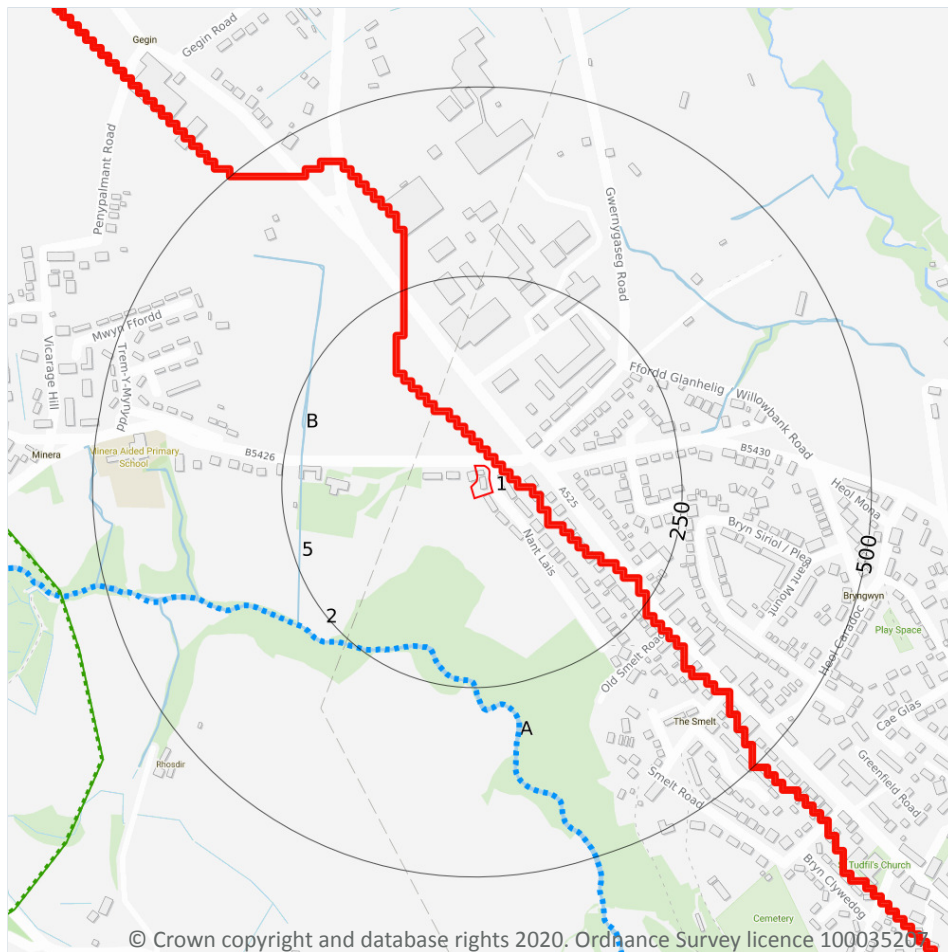
5.10 Source Protection Zones (confined aquifer)

Records within 500m	0
----------------------------	----------

Source Protection Zones in the confined aquifer define the sensitivity around a deep groundwater abstraction to contamination. A confined aquifer would normally be protected from contamination by overlying geology and is only considered a sensitive resource if deep excavation/drilling is taking place.

This data is sourced from the Environment Agency and Natural Resources Wales.

6 Hydrology



- Site Outline
- Search buffers in metres (m)
- Water Network (OS MasterMap)
- Surface water features (wider than 5m)
- Surface water features (narrower than 5m)
- WFD River, canal and surface water transfer water bodies
- WFD Lake water bodies
- WFD Transitional and coastal water bodies
- WFD Surface water body catchments boundaries
- WFD Groundwater body boundaries

6.1 Water Network (OS MasterMap)

Records within 250m

3

Detailed water network of Great Britain showing the flow and precise central course of every river, stream, lake and canal.

Features are displayed on the Hydrology map on **page 48**

ID	Location	Type of water feature	Ground level	Permanence	Name
A	206m S	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	Afon Clywedog



ID	Location	Type of water feature	Ground level	Permanence	Name
5	224m W	Inland river not influenced by normal tidal action.	Not provided	Watercourse contains water year round (in normal circumstances)	-
B	227m W	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-

This data is sourced from the Ordnance Survey.

6.2 Surface water features

Records within 250m	2
----------------------------	----------

Covering rivers, streams and lakes (some overlap with OS MasterMap Water Network data in previous section) but additionally covers smaller features such as ponds. Rivers and streams narrower than 5m are represented as a single line. Lakes, ponds and rivers or streams wider than 5m are represented as polygons.

Features are displayed on the Hydrology map on **page 48**

This data is sourced from the Ordnance Survey.

6.3 WFD Surface water body catchments

Records on site	1
------------------------	----------

The Water Framework Directive is an EU-led framework for the protection of inland surface waters, estuaries, coastal waters and groundwater through river basin-level management planning. In terms of surface water, these basins are broken down into smaller units known as management, operational and water body catchments.

Features are displayed on the Hydrology map on **page 48**

ID	Location	Type	Water body catchment	Water body ID	Operational catchment	Management catchment
2	On site	River WB catchment	Clywedog - above Black Brook	GB111067051720	Clywedog - Dee	Dee

This data is sourced from the Environment Agency and Natural Resources Wales.

6.4 WFD Surface water bodies

Records identified

1

Surface water bodies under the Directive may be rivers, lakes, estuary or coastal. To achieve the purpose of the Directive, environmental objectives have been set and are reported on for each water body. The progress towards delivery of the objectives is then reported on by the relevant competent authorities at the end of each six-year cycle. The river water body directly associated with the catchment listed in the previous section is detailed below, along with any lake, canal, coastal or artificial water body within 250m of the site.

Features are displayed on the Hydrology map on **page 48**

ID	Location	Type	Name	Water body ID	Overall rating	Chemical rating	Ecological rating	Year
4	207m S	River	Clywedog - above Black Brook	GB111067051720	Moderate	Fail	Moderate	2016

This data is sourced from the Environment Agency and Natural Resources Wales.

6.5 WFD Groundwater bodies

Records on site

1

Groundwater bodies are also covered by the Directive and the same regime of objectives and reporting detailed in the previous section is in place.

Features are displayed on the Hydrology map on **page 48**

ID	Location	Name	Water body ID	Overall rating	Chemical rating	Quantitative	Year
1	On site	Dee Carboniferous Coal Measures	GB41102G204800	Poor	Poor	Good	2016

This data is sourced from the Environment Agency and Natural Resources Wales.



7 River and coastal flooding

7.1 Risk of Flooding from Rivers and Sea (RoFRaS)

Records within 50m

0

The chance of flooding from rivers and/or the sea in any given year, based on cells of 50m. Each cell is allocated one of four flood risk categories, taking into account flood defences and their condition; Very low (less than 1 in 1000 chance in any given year), Low (less than 1 in 100 but greater than or equal to 1 in 1000 chance), Medium (less than 1 in 30 but greater than or equal to 1 in 100 chance) or High (greater than or equal to 1 in 30 chance).

This data is sourced from the Environment Agency and Natural Resources Wales.

7.2 Historical Flood Events

Records within 250m

0

Records of historic flooding from rivers, the sea, groundwater and surface water. Records began in 1946 when predecessor bodies started collecting detailed information about flooding incidents, although limited details may be included on flooding incidents prior to this date. Takes into account the presence of defences, structures, and other infrastructure where they existed at the time of flooding, and includes flood extents that may have been affected by overtopping, breaches or blockages.

This data is sourced from the Environment Agency and Natural Resources Wales.

7.3 Flood Defences

Records within 250m

0

Records of flood defences owned, managed or inspected by the Environment Agency and Natural Resources Wales. Flood defences can be structures, buildings or parts of buildings. Typically these are earth banks, stone and concrete walls, or sheet-piling that is used to prevent or control the extent of flooding.

This data is sourced from the Environment Agency and Natural Resources Wales.

7.4 Areas Benefiting from Flood Defences

Records within 250m

0

Areas that would benefit from the presence of flood defences in a 1 in 100 (1%) chance of flooding each year from rivers or 1 in 200 (0.5%) chance of flooding each year from the sea.

This data is sourced from the Environment Agency and Natural Resources Wales.



7.5 Flood Storage Areas

Records within 250m

0

Areas that act as a balancing reservoir, storage basin or balancing pond to attenuate an incoming flood peak to a flow level that can be accepted by the downstream channel or to delay the timing of a flood peak so that its volume is discharged over a longer period.

This data is sourced from the Environment Agency and Natural Resources Wales.



River and coastal flooding - Flood Zones

7.6 Flood Zone 2

Records within 50m

0

Areas of land at risk of flooding, when the presence of flood defences are ignored. Covering land between Flood Zone 3 (see next section) and the extent of the flooding from rivers or the sea with a 1 in 1000 (0.1%) chance of flooding each year.

This data is sourced from the Environment Agency and Natural Resources Wales.

7.7 Flood Zone 3

Records within 50m

0

Areas of land at risk of flooding, when the presence of flood defences are ignored. Covering land with a 1 in 100 (1%) or greater chance of flooding each year from rivers or a 1 in 200 (0.5%) or greater chance of flooding each year from the sea.

This data is sourced from the Environment Agency and Natural Resources Wales.

8 Surface water flooding

8.1 Surface water flooding

Highest risk on site

Negligible

Highest risk within 50m

Negligible

Ambiental Risk Analytics surface water (pluvial) FloodMap identifies areas likely to flood as a result of extreme rainfall events, i.e. land naturally vulnerable to surface water ponding or flooding. This data set was produced by simulating 1 in 30 year, 1 in 100 year, 1 in 250 year and 1 in 1,000 year rainfall events. Modern urban drainage systems are typically built to cope with rainfall events between 1 in 20 and 1 in 30 years, though some older ones may flood in a 1 in 5 year rainfall event.

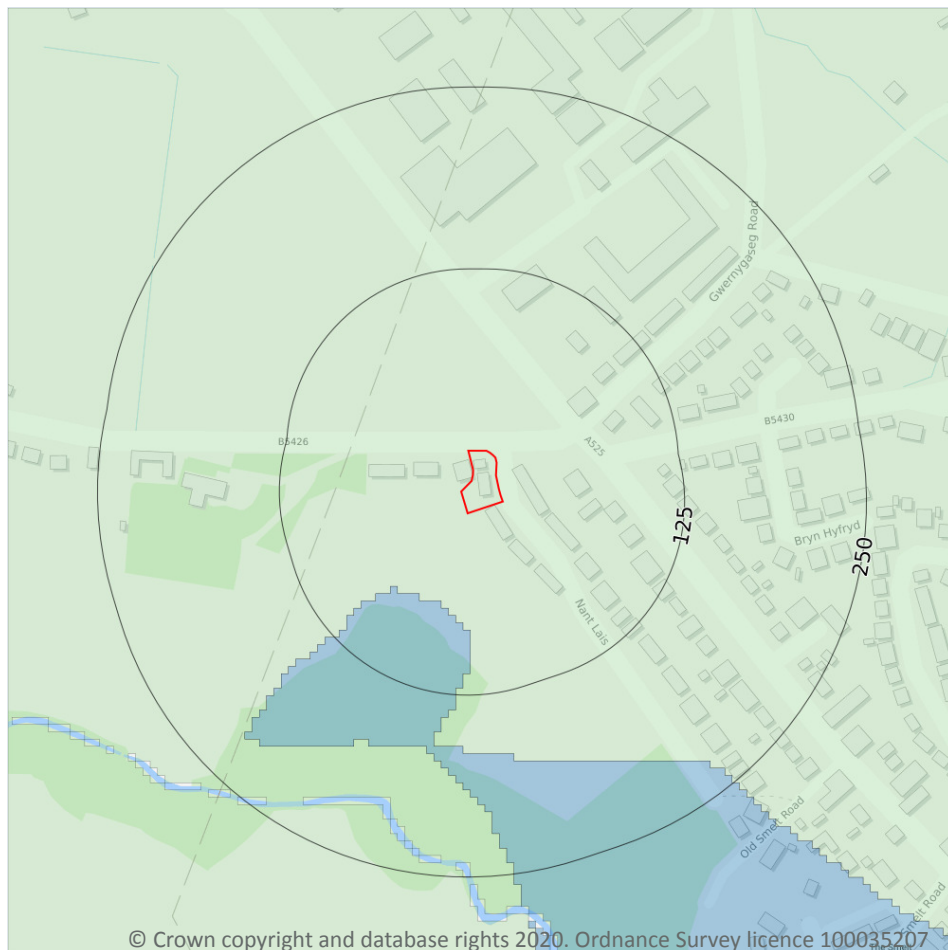
The data shown on the map and in the table above shows the highest likelihood of flood events happening at the site. Lower likelihood events may have greater flood depths and hence a greater potential impact on a site. The table below shows the maximum flood depths for a range of return periods for the site.

Return period	Maximum modelled depth
1 in 1000 year	Negligible
1 in 250 year	Negligible
1 in 100 year	Negligible
1 in 30 year	Negligible

This data is sourced from Ambiental Risk Analytics.



9 Groundwater flooding



— Site Outline
Search buffers in metres (m)

- High
- Moderate - High
- Moderate
- Low
- Negligible

9.1 Groundwater flooding

Highest risk on site

Low

Highest risk within 50m

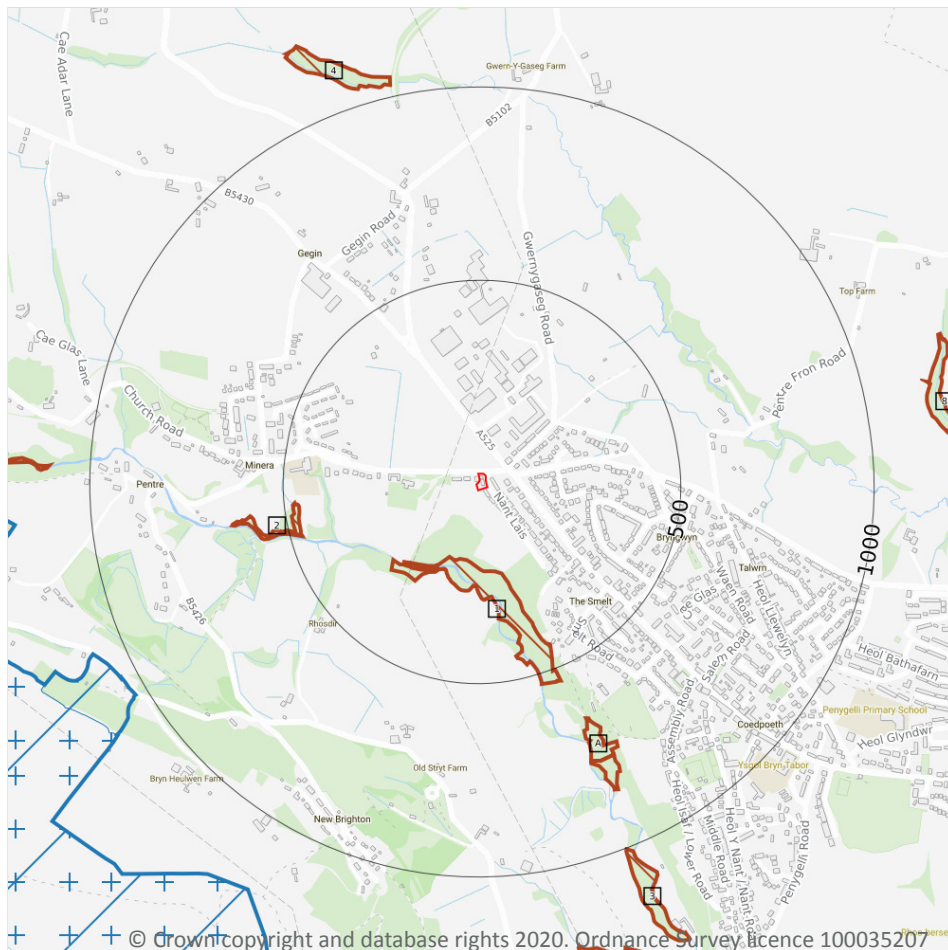
Low

Groundwater flooding is caused by unusually high groundwater levels. It occurs when the water table rises above the ground surface or within underground structures such as basements or cellars. Groundwater flooding tends to exhibit a longer duration than surface water flooding, possibly lasting for weeks or months, and as a result it can cause significant damage to property. This risk assessment is based on a 1 in 100 year return period and a 5m Digital Terrain Model (DTM).

Features are displayed on the Groundwater flooding map on **page 55**

This data is sourced from Ambiantal Risk Analytics.

10 Environmental designations



- Site Outline
- Search buffers in metres (m)
- Sites of Special Scientific Interest (SSSI)
- + Special Areas of Conservation (SAC)
- / Designated Ancient Woodland

10.1 Sites of Special Scientific Interest (SSSI)

Records within 2000m

2

Sites providing statutory protection for the best examples of UK flora, fauna, or geological or physiographical features. Originally notified under the National Parks and Access to the Countryside Act 1949, SSSIs were re-notified under the Wildlife and Countryside Act 1981. Improved provisions for the protection and management of SSSIs were introduced by the Countryside and Rights of Way Act 2000 (in England and Wales) and (in Scotland) by the Nature Conservation (Scotland) Act 2004 and the Wildlife and Natural Environment (Scotland) Act 2010.

Features are displayed on the Environmental designations map on **page 56**

ID	Location	Name	Data source
5	1031m SW	Ruabon/Ilantysilio Mountains And Minera	Natural Resources Wales



ID	Location	Name	Data source
-	1717m W	Ruabon/Illantysilio Mountains And Minera	Natural Resources Wales

This data is sourced from Natural England, Natural Resources Wales and Scottish Natural Heritage.

10.2 Conserved wetland sites (Ramsar sites)

Records within 2000m	0
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Ramsar sites are designated under the Convention on Wetlands of International Importance, agreed in Ramsar, Iran, in 1971. They cover all aspects of wetland conservation and wise use, recognizing wetlands as ecosystems that are extremely important for biodiversity conservation in general and for the well-being of human communities. These sites cover a broad definition of wetland; marsh, fen, peatland or water, whether natural or artificial, permanent or temporary, with water that is static or flowing, fresh, brackish or salt, and even some marine areas.

This data is sourced from Natural England, Natural Resources Wales and Scottish Natural Heritage.

10.3 Special Areas of Conservation (SAC)

Records within 2000m	3
-----------------------------	----------

Areas which have been identified as best representing the range and variety within the European Union of habitats and (non-bird) species listed on Annexes I and II to the Directive. SACs are designated under the EC Habitats Directive.

Features are displayed on the Environmental designations map on **page 56**

ID	Location	Name	Features of interest	Habitat description	Data source
7	1128m SW	Berwyn a Mynyddoedd De Clwyd / Berwyn and South Clwyd Mountains	Wet heathland with cross-leaved heath; Dry heaths; Alpine and subalpine heaths; Grasslands on soils rich in heavy metals; Dry grasslands and scrublands on chalk or limestone; Blanket bog; Very wet mires often identified by an unstable 'quaking' surface; Calcium-rich springwater-fed fens; Acidic scree; Base-rich scree; Plants in crevices in base-rich rocks; Limestone pavements; Caves not open to the public; Mixed woodland on base-rich soils associated with rocky slopes; Western acidic oak woodland; Great crested newt; Lesser horseshoe bat.	Bogs, Marshes, Water fringed vegetation, Fens; Improved grassland; Inland rocks, Scree, Sands, Permanent Snow and ice; Heath, Scrub, Maquis and Garrigue, Phygrana; Coniferous woodland; Humid grassland, Mesophile grassland; Other land (including Towns, Villages, Roads, Waste places, Mines, Industrial sites); Dry grassland, Steppes; Inland water bodies (Standing water, Running water); Broad-leaved deciduous woodland	Natural Resource s Wales



ID	Location	Name	Features of interest	Habitat description	Data source
-	1657m W	Berwyn a Mynyddoedd De Clwyd / Berwyn and South Clwyd Mountains	Wet heathland with cross-leaved heath; Dry heaths; Alpine and subalpine heaths; Grasslands on soils rich in heavy metals; Dry grasslands and scrublands on chalk or limestone; Blanket bog; Very wet mires often identified by an unstable `quaking` surface; Calcium-rich springwater-fed fens; Acidic scree; Base-rich scree; Plants in crevices in base-rich rocks; Limestone pavements; Caves not open to the public; Mixed woodland on base-rich soils associated with rocky slopes; Western acidic oak woodland; Great crested newt; Lesser horseshoe bat.	Bogs, Marshes, Water fringed vegetation, Fens; Improved grassland; Inland rocks, Scree, Sands, Permanent Snow and ice; Heath, Scrub, Maquis and Garrigue, Phygrana; Coniferous woodland; Humid grassland, Mesophile grassland; Other land (including Towns, Villages, Roads, Waste places, Mines, Industrial sites); Dry grassland, Steppes; Inland water bodies (Standing water, Running water); Broad-leaved deciduous woodland	Natural Resources Wales
-	1717m W	Berwyn a Mynyddoedd De Clwyd / Berwyn and South Clwyd Mountains	Wet heathland with cross-leaved heath; Dry heaths; Alpine and subalpine heaths; Grasslands on soils rich in heavy metals; Dry grasslands and scrublands on chalk or limestone; Blanket bog; Very wet mires often identified by an unstable `quaking` surface; Calcium-rich springwater-fed fens; Acidic scree; Base-rich scree; Plants in crevices in base-rich rocks; Limestone pavements; Caves not open to the public; Mixed woodland on base-rich soils associated with rocky slopes; Western acidic oak woodland; Great crested newt; Lesser horseshoe bat.	Bogs, Marshes, Water fringed vegetation, Fens; Improved grassland; Inland rocks, Scree, Sands, Permanent Snow and ice; Heath, Scrub, Maquis and Garrigue, Phygrana; Coniferous woodland; Humid grassland, Mesophile grassland; Other land (including Towns, Villages, Roads, Waste places, Mines, Industrial sites); Dry grassland, Steppes; Inland water bodies (Standing water, Running water); Broad-leaved deciduous woodland	Natural Resources Wales

This data is sourced from Natural England, Natural Resources Wales and Scottish Natural Heritage.

10.4 Special Protection Areas (SPA)

Records within 2000m	0
-----------------------------	----------

Sites classified by the UK Government under the EC Birds Directive, SPAs are areas of the most important habitat for rare (listed on Annex I to the Directive) and migratory birds within the European Union.

This data is sourced from Natural England, Natural Resources Wales and Scottish Natural Heritage.



10.5 National Nature Reserves (NNR)

Records within 2000m

0

Sites containing examples of some of the most important natural and semi-natural terrestrial and coastal ecosystems in Great Britain. They are managed to conserve their habitats, provide special opportunities for scientific study or to provide public recreation compatible with natural heritage interests.

This data is sourced from Natural England, Natural Resources Wales and Scottish Natural Heritage.

10.6 Local Nature Reserves (LNR)

Records within 2000m

0

Sites managed for nature conservation, and to provide opportunities for research and education, or simply enjoying and having contact with nature. They are declared by local authorities under the National Parks and Access to the Countryside Act 1949 after consultation with the relevant statutory nature conservation agency.

This data is sourced from Natural England, Natural Resources Wales and Scottish Natural Heritage.

10.7 Designated Ancient Woodland

Records within 2000m

19

Ancient woodlands are classified as areas which have been wooded continuously since at least 1600 AD. This includes semi-natural woodland and plantations on ancient woodland sites. 'Wooded continuously' does not mean there is or has previously been continuous tree cover across the whole site, and not all trees within the woodland have to be old.

Features are displayed on the Environmental designations map on **page 56**

ID	Location	Name	Woodland Type
1	183m S	Unknown	Ancient Semi Natural Woodland
2	463m W	Unknown	Ancient Semi Natural Woodland
A	649m SE	Unknown	Ancient Semi Natural Woodland
A	757m S	Unknown	Restored Ancient Woodland Site
3	1003m S	Unknown	Ancient Semi Natural Woodland
4	1031m N	Unknown	Restored Ancient Woodland Site
6	1106m W	Unknown	Ancient Semi Natural Woodland
8	1158m E	Unknown	Ancient Semi Natural Woodland
9	1208m S	Unknown	Restored Ancient Woodland Site
-	1223m E	Unknown	Ancient Semi Natural Woodland



ID	Location	Name	Woodland Type
-	1384m N	Unknown	Restored Ancient Woodland Site
-	1396m N	Unknown	Restored Ancient Woodland Site
-	1445m E	Unknown	Ancient Semi Natural Woodland
-	1531m S	Unknown	Restored Ancient Woodland Site
-	1765m SE	Unknown	Restored Ancient Woodland Site
-	1777m SE	Unknown	Ancient Semi Natural Woodland
-	1806m E	Unknown	Ancient Semi Natural Woodland
-	1855m SE	Unknown	Ancient Semi Natural Woodland
-	1919m N	Unknown	Ancient Semi Natural Woodland

This data is sourced from Natural England, Natural Resources Wales and Scottish Natural Heritage.

10.8 Biosphere Reserves

Records within 2000m

0

Biosphere Reserves are internationally recognised by UNESCO as sites of excellence to balance conservation and socioeconomic development between nature and people. They are recognised under the Man and the Biosphere (MAB) Programme with the aim of promoting sustainable development founded on the work of the local community.

This data is sourced from Natural England, Natural Resources Wales and Scottish Natural Heritage.

10.9 Forest Parks

Records within 2000m

0

These are areas managed by the Forestry Commission designated on the basis of recreational, conservation or scenic interest.

This data is sourced from the Forestry Commission.

10.10 Marine Conservation Zones

Records within 2000m

0

A type of marine nature reserve in UK waters established under the Marine and Coastal Access Act (2009). They are designated with the aim to protect nationally important, rare or threatened habitats and species.

This data is sourced from Natural England, Natural Resources Wales and Scottish Natural Heritage.



10.11 Green Belt

Records within 2000m

0

Areas designated to prevent urban sprawl by keeping land permanently open.

This data is sourced from the Ministry of Housing, Communities and Local Government.

10.12 Proposed Ramsar sites

Records within 2000m

0

Ramsar sites are areas listed as a Wetland of International Importance under the Convention on Wetlands of International Importance especially as Waterfowl Habitat (the Ramsar Convention) 1971. The sites here supplied have a status of 'Proposed' having been identified for potential adoption under the framework.

This data is sourced from Natural England.

10.13 Possible Special Areas of Conservation (pSAC)

Records within 2000m

0

Special Areas of Conservation are areas which have been identified as best representing the range and variety within the European Union of habitats and (non-bird) species listed on Annexes I and II to the Directive. SACs are designated under the EC Habitats Directive. Those sites supplied here are those with a status of 'Possible' having been identified for potential adoption under the framework.

This data is sourced from Natural England and Natural Resources Wales.

10.14 Potential Special Protection Areas (pSPA)

Records within 2000m

0

Special Protection Areas (SPAs) are areas designated (or 'classified') under the European Union Wild Birds Directive for the protection of nationally and internationally important populations of wild birds. Those sites supplied here are those with a status of 'Potential' having been identified for potential adoption under the framework.

This data is sourced from Natural England.

10.15 Nitrate Sensitive Areas

Records within 2000m

0

Areas where nitrate concentrations in drinking water sources exceeded or was at risk of exceeding the limit of 50 mg/l set by the 1980 EC Drinking Water Directive. Voluntary agricultural measures as a means of reducing the levels of nitrate were introduced by DEFRA as MAFF, with payments being made to farmers who complied. The scheme was started as a pilot in 1990 in ten areas, later implemented within 32 areas. The scheme was



closed to further new entrants in 1998, although existing agreements continued for their full term. All Nitrate Sensitive Areas fell within the areas designated as Nitrate Vulnerable Zones (NVZs) in 1996 under the EC Nitrate Directive (91/676/EEC).

This data is sourced from Natural England.

10.16 Nitrate Vulnerable Zones

Records within 2000m

0

Areas at risk from agricultural nitrate pollution designated under the EC Nitrate Directive (91/676/EEC). These are areas of land that drain into waters polluted by nitrates. Farmers operating within these areas have to follow mandatory rules to tackle nitrate loss from agriculture.

This data is sourced from Natural England and Natural Resources Wales.



SSSI Impact Zones and Units

10.17 SSSI Impact Risk Zones

Records on site	0
-----------------	---

Developed to allow rapid initial assessment of the potential risks to SSSIs posed by development proposals. They define zones around each SSSI which reflect the particular sensitivities of the features for which it is notified and indicate the types of development proposal which could potentially have adverse impacts.

This data is sourced from Natural England.

10.18 SSSI Units

Records within 2000m	0
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Divisions of SSSIs used to record management and condition details. Units are the smallest areas for which Natural England gives a condition assessment, however, the size of units varies greatly depending on the types of management and the conservation interest.

This data is sourced from Natural England and Natural Resources Wales.



11 Visual and cultural designations

11.1 World Heritage Sites

Records within 250m

0

Sites designated for their globally important cultural or natural interest requiring appropriate management and protection measures. World Heritage Sites are designated to meet the UK's commitments under the World Heritage Convention.

This data is sourced from Historic England, Cadw and Historic Environment Scotland.

11.2 Area of Outstanding Natural Beauty

Records within 250m

0

Areas of Outstanding Natural Beauty (AONB) are conservation areas, chosen because they represent 18% of the finest countryside. Each AONB has been designated for special attention because of the quality of their flora, fauna, historical and cultural associations, and/or scenic views. The National Parks and Access to the Countryside Act of 1949 created AONBs and the Countryside and Rights of Way Act, 2000 added further regulation and protection. There are likely to be restrictions to some developments within these areas.

This data is sourced from Natural England, Natural Resources Wales and Scottish Natural Heritage.

11.3 National Parks

Records within 250m

0

In England and Wales, the purpose of National Parks is to conserve and enhance landscapes within the countryside whilst promoting public enjoyment of them and having regard for the social and economic well-being of those living within them. In Scotland National Parks have the additional purpose of promoting the sustainable use of the natural resources of the area and the sustainable social and economic development of its communities. The National Parks and Access to the Countryside Act 1949 established the National Park designation in England and Wales, and The National Parks (Scotland) Act 2000 in Scotland.

This data is sourced from Natural England, Natural Resources Wales and the Scottish Government.

11.4 Listed Buildings

Records within 250m

0

Buildings listed for their special architectural or historical interest. Building control in the form of 'listed building consent' is required in order to make any changes to that building which might affect its special interest. Listed buildings are graded to indicate their relative importance, however building controls apply to all buildings equally, irrespective of their grade, and apply to the interior and exterior of the building in its entirety, together with any curtilage structures.



This data is sourced from English Heritage, Cadw and Historic Environment Scotland.

11.5 Conservation Areas

Records within 250m

0

Local planning authorities are obliged to designate as conservation areas any parts of their own area that are of special architectural or historic interest, the character and appearance of which it is desirable to preserve or enhance. Designation of a conservation area gives broader protection than the listing of individual buildings. All the features within the area, listed or otherwise, are recognised as part of its character. Conservation area designation is the means of recognising the importance of all factors and of ensuring that planning decisions address the quality of the landscape in its broadest sense.

This data is sourced from English Heritage, Cadw and Historic Environment Scotland.

11.6 Scheduled Ancient Monuments

Records within 250m

0

A scheduled monument is an historic building or site that is included in the Schedule of Monuments kept by the Secretary of State for Digital, Culture, Media and Sport. The regime is set out in the Ancient Monuments and Archaeological Areas Act 1979. The Schedule of Monuments has c.20,000 entries and includes sites such as Roman remains, burial mounds, castles, bridges, earthworks, the remains of deserted villages and industrial sites. Monuments are not graded, but all are, by definition, considered to be of national importance.

This data is sourced from English Heritage, Cadw and Historic Environment Scotland.

11.7 Registered Parks and Gardens

Records within 250m

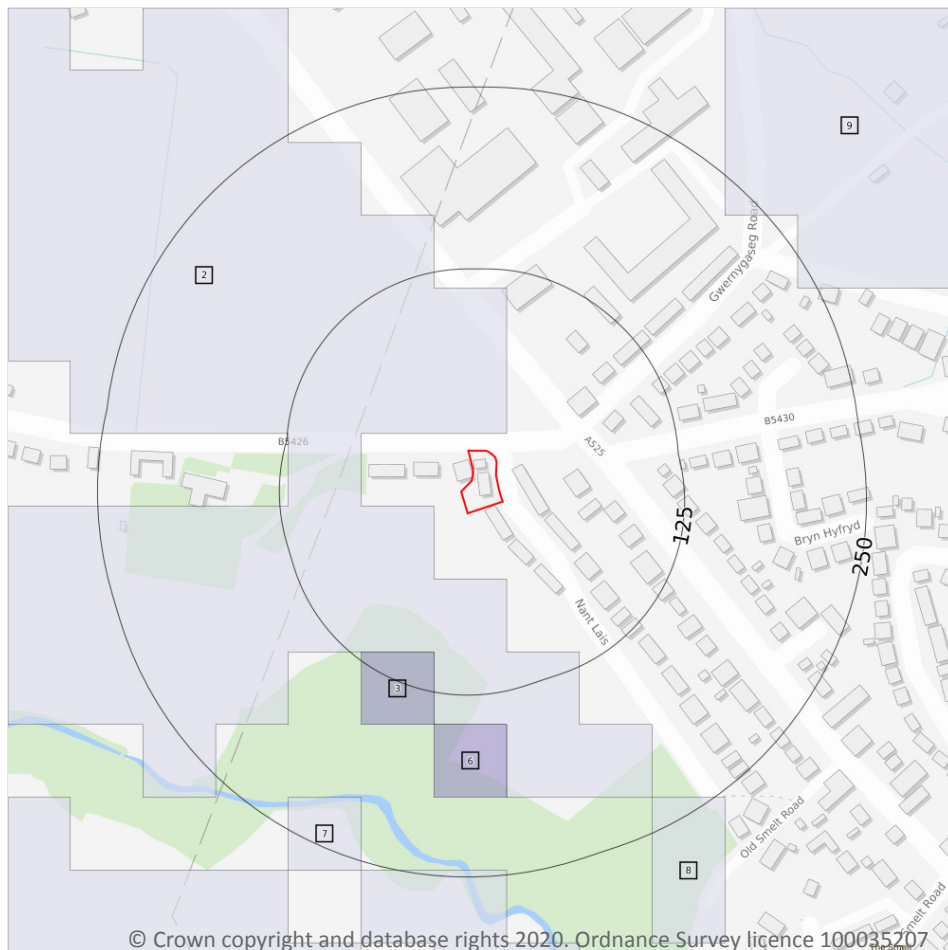
0

Parks and gardens assessed to be of particular interest and of special historic interest. The emphasis being on 'designed' landscapes, rather than on planting or botanical importance. Registration is a 'material consideration' in the planning process, meaning that planning authorities must consider the impact of any proposed development on the special character of the landscape.

This data is sourced from English Heritage, Cadw and Historic Environment Scotland.



12 Agricultural designations



- Site Outline
- Search buffers in metres (m)
- Grade 1 - excellent quality
- Grade 2 - very good quality
- Grade 3a - good quality
- Grade 3b - moderate quality
- Grade 4 - poor quality
- Grade 5 - very poor quality
- Timber felling licences
- Open Access land

12.1 Agricultural Land Classification

Records within 250m

6

Classification of the quality of agricultural land taking into consideration multiple factors including climate, physical geography and soil properties. It should be noted that the categories for the grading of agricultural land are not consistent across England, Wales and Scotland.

Features are displayed on the Agricultural designations map on **page 66**

ID	Location	Classification	Description
2	12m N	Grade 3b	Moderate quality agricultural land
3	98m S	Grade 4	Poor quality agricultural land
6	145m S	Grade 4	Poor quality agricultural land

ID	Location	Classification	Description
7	209m S	Grade 3b	Moderate quality agricultural land
8	228m SE	Grade 3b	Moderate quality agricultural land
9	229m NE	Grade 3b	Moderate quality agricultural land

This data is sourced from Natural Resources Wales.

12.2 Open Access Land

Records within 250m

0

The Countryside and Rights of Way Act 2000 (CROW Act) gives a public right of access to land without having to use paths. Access land includes mountains, moors, heaths and downs that are privately owned. It also includes common land registered with the local council and some land around the England Coast Path. Generally permitted activities on access land are walking, running, watching wildlife and climbing.

This data is sourced from Natural England and Natural Resources Wales.

12.3 Tree Felling Licences

Records within 250m

0

Felling Licence Application (FLA) areas approved by Forestry Commission England. Anyone wishing to fell trees must ensure that a licence or permission under a grant scheme has been issued by the Forestry Commission before any felling is carried out or that one of the exceptions apply.

This data is sourced from the Forestry Commission.

12.4 Environmental Stewardship Schemes

Records within 250m

0

Environmental Stewardship covers a range of schemes that provide financial incentives to farmers, foresters and land managers to look after and improve the environment.

This data is sourced from Natural England.

12.5 Countryside Stewardship Schemes

Records within 250m

0

Countryside Stewardship covers a range of schemes that provide financial incentives to farmers, foresters and land managers to look after and improve the environment. Main objectives are to improve the farmed environment for wildlife and to reduce diffuse water pollution.

This data is sourced from Natural England.



13 Habitat designations

13.1 Priority Habitat Inventory

Records within 250m

0

Habitats of principal importance as named under Natural Environment and Rural Communities Act (2006) Section 41.

This data is sourced from Natural England.

13.2 Habitat Networks

Records within 250m

0

Habitat networks for 18 priority habitat networks (based primarily, but not exclusively, on the priority habitat inventory) and areas suitable for the expansion of networks through restoration and habitat creation.

This data is sourced from Natural England.

13.3 Open Mosaic Habitat

Records within 250m

0

Sites verified as Open Mosaic Habitat. Mosaic habitats are brownfield sites that are identified under the UK Biodiversity Action Plan as a priority habitat due to the habitat variation within a single site, supporting an array of invertebrates.

This data is sourced from Natural England.

13.4 Limestone Pavement Orders

Records within 250m

0

Limestone pavements are outcrops of limestone where the surface has been worn away by natural means over millennia. These rocks have the appearance of paving blocks, hence their name. Not only do they have geological interest, they also provide valuable habitats for wildlife. These habitats are threatened due to their removal for use in gardens and water features. Many limestone pavements have been designated as SSSIs which affords them some protection. In addition, Section 34 of the Wildlife and Countryside Act 1981 gave them additional protection via the creation of Limestone Pavement Orders, which made it a criminal offence to remove any part of the outcrop. The associated Limestone Pavement Priority Habitat is part of the UK Biodiversity Action Plan priority habitat in England.

This data is sourced from Natural England.



14 Geology 1:10,000 scale - Availability



— Site Outline
Search buffers in metres (m)

- Full coverage
- Partial coverage
- No coverage

14.1 10k Availability

Records within 500m

1

An indication on the coverage of 1:10,000 scale geology data for the site, the most detailed dataset provided by the British Geological Survey. Either 'Full', 'Partial' or 'No coverage' for each geological theme.

Features are displayed on the Geology 1:10,000 scale - Availability map on **page 69**

ID	Location	Artificial	Superficial	Bedrock	Mass movement	Sheet No.
1	On site	Full	Full	Full	Full	SJ25SE

This data is sourced from the British Geological Survey.



Geology 1:10,000 scale - Artificial and made ground



- Site Outline**
- Search buffers in metres (m)**
- Reclaimed ground
 - Made ground
 - Worked ground
 - Infilled ground
 - Disturbed ground
 - Landscaped ground

14.2 Artificial and made ground (10k)

Records within 500m

5

Details of made, worked, infilled, disturbed and landscaped ground at 1:10,000 scale. Artificial ground can be associated with potentially contaminated material, unpredictable engineering conditions and instability.

Features are displayed on the Geology 1:10,000 scale - Artificial and made ground map on **page 70**

ID	Location	LEX Code	Description	Rock description
1	102m SE	MGR-ARTDP	Made Ground (Undivided)	Artificial Deposit
2	193m NE	MGR-ARTDP	Made Ground (Undivided)	Artificial Deposit
3	342m N	MGR-ARTDP	Made Ground (Undivided)	Artificial Deposit
4	395m E	MGR-ARTDP	Made Ground (Undivided)	Artificial Deposit

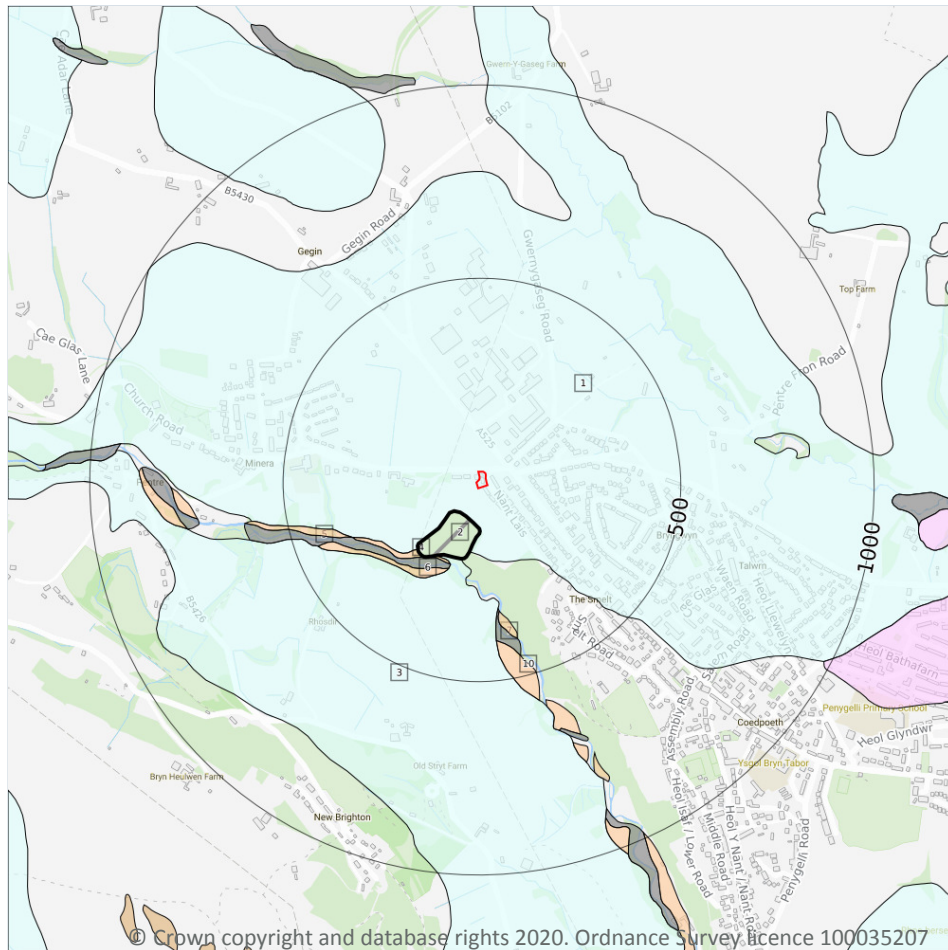


ID	Location	LEX Code	Description	Rock description
5	418m SE	MGR-ARTDP	Made Ground (Undivided)	Artificial Deposit

This data is sourced from the British Geological Survey.



Geology 1:10,000 scale - Superficial



Site Outline

Search buffers in metres (m)

Landslip (10k)

Superficial geology (10k)
Please see table for more details.

14.3 Superficial geology (10k)

Records within 500m

9

Superficial geological deposits at 1:10,000 scale. Also known as 'drift', these are the youngest geological deposits, formed during the Quaternary. They rest on older deposits or rocks referred to as bedrock.

Features are displayed on the Geology 1:10,000 scale - Superficial map on **page 72**

ID	Location	LEX Code	Description	Rock description
1	On site	TILL-DMTN	Till - Diamicton	Diamicton
3	187m S	TILL-DMTN	Till - Diamicton	Diamicton
4	202m SW	RTDU-XSV	River Terrace Deposits (undifferentiated) - Sand And Gravel	Sand And Gravel
5	209m SW	ALV-C	Alluvium - Clay (unlithified Deposits Coding Scheme)	Clay



ID	Location	LEX Code	Description	Rock description
6	221m S	RTDU-XSV	River Terrace Deposits (undifferentiated) - Sand And Gravel	Sand And Gravel
7	315m S	ALV-C	Alluvium - Clay (unlithified Deposits Coding Scheme)	Clay
8	322m S	RTDU-XSV	River Terrace Deposits (undifferentiated) - Sand And Gravel	Sand And Gravel
9	348m W	RTDU-XSV	River Terrace Deposits (undifferentiated) - Sand And Gravel	Sand And Gravel
10	397m S	RTDU-XSV	River Terrace Deposits (undifferentiated) - Sand And Gravel	Sand And Gravel

This data is sourced from the British Geological Survey.

14.4 Landslip (10k)

Records within 500m

1

Mass movement deposits on BGS geological maps at 1:10,000 scale. Primarily superficial deposits that have moved down slope under gravity to form landslips. These affect bedrock, other superficial deposits and artificial ground.

Features are displayed on the Geology 1:10,000 scale - Superficial map on **page 72**

ID	Location	LEX Code	Description	Rock description
2	78m SW	SLIP-UNKNOWN	Landslide Deposits	Unknown/unclassified Entry

This data is sourced from the British Geological Survey.



Geology 1:10,000 scale - Bedrock



— Site Outline

Search buffers in metres (m)

.... Bedrock faults and other linear features (10k)

Bedrock geology (10k)
Please see table for more details.

14.5 Bedrock geology (10k)

Records within 500m

17

Bedrock geology at 1:10,000 scale. The main mass of rocks forming the Earth and present everywhere, whether exposed at the surface in outcrops or concealed beneath superficial deposits or water.

Features are displayed on the Geology 1:10,000 scale - Bedrock map on **page 74**

ID	Location	LEX Code	Description	Rock age
1	On site	PLMC-SDST	Pennine Lower Coal Measures Formation And Pennine Middle Coal Measures Formation (undifferentiated) - Sandstone	Bolsovia Sub-age - Langsettian Sub-age
2	73m W	PLMC-MDSS	Pennine Lower Coal Measures Formation And Pennine Middle Coal Measures Formation (undifferentiated) - Mudstone, Siltstone And Sandstone	Bolsovia Sub-age - Langsettian Sub-age



ID	Location	LEX Code	Description	Rock age
4	106m SE	PLMC-MDSS	Pennine Lower Coal Measures Formation And Pennine Middle Coal Measures Formation (undifferentiated) - Mudstone, Siltstone And Sandstone	Bolsovian Sub-age - Langsettian Sub-age
6	141m SE	PLMC-SDST	Pennine Lower Coal Measures Formation And Pennine Middle Coal Measures Formation (undifferentiated) - Sandstone	Bolsovian Sub-age - Langsettian Sub-age
7	151m NE	PLMC-MDSS	Pennine Lower Coal Measures Formation And Pennine Middle Coal Measures Formation (undifferentiated) - Mudstone, Siltstone And Sandstone	Bolsovian Sub-age - Langsettian Sub-age
9	167m SE	PLMC-MDSS	Pennine Lower Coal Measures Formation And Pennine Middle Coal Measures Formation (undifferentiated) - Mudstone, Siltstone And Sandstone	Bolsovian Sub-age - Langsettian Sub-age
10	177m NE	PLMC-SDST	Pennine Lower Coal Measures Formation And Pennine Middle Coal Measures Formation (undifferentiated) - Sandstone	Bolsovian Sub-age - Langsettian Sub-age
12	187m E	PLMC-MDSS	Pennine Lower Coal Measures Formation And Pennine Middle Coal Measures Formation (undifferentiated) - Mudstone, Siltstone And Sandstone	Bolsovian Sub-age - Langsettian Sub-age
15	198m E	PLMC-MDSS	Pennine Lower Coal Measures Formation And Pennine Middle Coal Measures Formation (undifferentiated) - Mudstone, Siltstone And Sandstone	Bolsovian Sub-age - Langsettian Sub-age
24	313m N	PLMC-MDSS	Pennine Lower Coal Measures Formation And Pennine Middle Coal Measures Formation (undifferentiated) - Mudstone, Siltstone And Sandstone	Bolsovian Sub-age - Langsettian Sub-age
28	353m E	PLMC-MDSS	Pennine Lower Coal Measures Formation And Pennine Middle Coal Measures Formation (undifferentiated) - Mudstone, Siltstone And Sandstone	Bolsovian Sub-age - Langsettian Sub-age
29	353m E	PLMC-SDST	Pennine Lower Coal Measures Formation And Pennine Middle Coal Measures Formation (undifferentiated) - Sandstone	Bolsovian Sub-age - Langsettian Sub-age
30	368m E	PLMC-SDST	Pennine Lower Coal Measures Formation And Pennine Middle Coal Measures Formation (undifferentiated) - Sandstone	Bolsovian Sub-age - Langsettian Sub-age
31	374m NE	PLMC-MDSS	Pennine Lower Coal Measures Formation And Pennine Middle Coal Measures Formation (undifferentiated) - Mudstone, Siltstone And Sandstone	Bolsovian Sub-age - Langsettian Sub-age
33	460m E	PLMC-MDSS	Pennine Lower Coal Measures Formation And Pennine Middle Coal Measures Formation (undifferentiated) - Mudstone, Siltstone And Sandstone	Bolsovian Sub-age - Langsettian Sub-age
34	470m SW	GS-SDAR	Gwespvr Sandstone - Interbedded Sandstone And [subequal/subordinate] Argillaceous Rocks	Langsettian Sub-age - Yeadonian Sub-age



ID	Location	LEX Code	Description	Rock age
37	470m SW	PLMC-MDSS	Pennine Lower Coal Measures Formation And Pennine Middle Coal Measures Formation (undifferentiated) - Mudstone, Siltstone And Sandstone	Bolsovia Sub-age - Langsettian Sub-age

This data is sourced from the British Geological Survey.

14.6 Bedrock faults and other linear features (10k)

Records within 500m	21
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Linear features at the ground or bedrock surface at 1:10,000 scale of six main types; rock, fault, fold axis, mineral vein, alteration area or landform. Features are either observed or inferred, and relate primarily to bedrock.

Features are displayed on the Geology 1:10,000 scale - Bedrock map on **page 74**

ID	Location	Category	Description
3	73m W	FAULT	Normal fault, inferred
5	116m SE	ROCK	Coal seam, inferred
8	165m NE	ROCK	Coal seam, inferred
11	186m SE	ROCK	Coal seam, inferred
13	187m E	FAULT	Normal fault, inferred
14	195m SE	FOSSIL_HORIZON	Fossil horizon, marine band
16	198m E	FAULT	Normal fault, inferred
17	207m E	ROCK	Coal seam, inferred
18	216m E	ROCK	Coal seam, inferred
19	230m NE	ROCK	Coal seam, inferred
20	230m E	ROCK	Coal seam, inferred
21	239m NE	FOSSIL_HORIZON	Fossil horizon, marine band
22	257m NE	ROCK	Coal seam, inferred
23	308m NE	ROCK	Coal seam, inferred
25	319m E	ROCK	Coal seam, inferred
26	347m N	ROCK	Coal seam, inferred
27	353m E	FAULT	Normal fault, inferred
32	437m SE	ROCK	Coal seam, inferred



ID	Location	Category	Description
35	470m SW	FAULT	Normal fault, inferred
36	470m SW	FOSSIL_HORIZON	Fossil horizon, marine band
38	500m NE	ROCK	Coal seam, inferred

This data is sourced from the British Geological Survey.



15 Geology 1:50,000 scale - Availability



— Site Outline

Search buffers in metres (m)

□ Geological map tile

15.1 50k Availability

Records within 500m

1

An indication on the coverage of 1:50,000 scale geology data for the site. Either 'Full' or 'No coverage' for each geological theme. Where 50k data is not available, this area has been filled in with 625k scale data.

Features are displayed on the Geology 1:50,000 scale - Availability map on **page 78**

ID	Location	Artificial	Superficial	Bedrock	Mass movement	Sheet No.
1	On site	Full	Full	Full	Full	EW121_wrexham_v4

This data is sourced from the British Geological Survey.



Geology 1:50,000 scale - Artificial and made ground



- Site Outline
- Search buffers in metres (m)
- Made ground
 - Worked ground
 - Infilled ground
 - Disturbed ground
 - Landscaped ground

15.2 Artificial and made ground (50k)

Records within 500m

1

Details of made, worked, infilled, disturbed and landscaped ground at 1:50,000 scale. Artificial ground can be associated with potentially contaminated material, unpredictable engineering conditions and instability.

Features are displayed on the Geology 1:50,000 scale - Artificial and made ground map on **page 79**

ID	Location	LEX Code	Description	Rock description
1	199m NE	MGR-ARTDP	MADE GROUND (UNDIVIDED)	ARTIFICIAL DEPOSIT

This data is sourced from the British Geological Survey.

15.3 Artificial ground permeability (50k)

Records within 50m

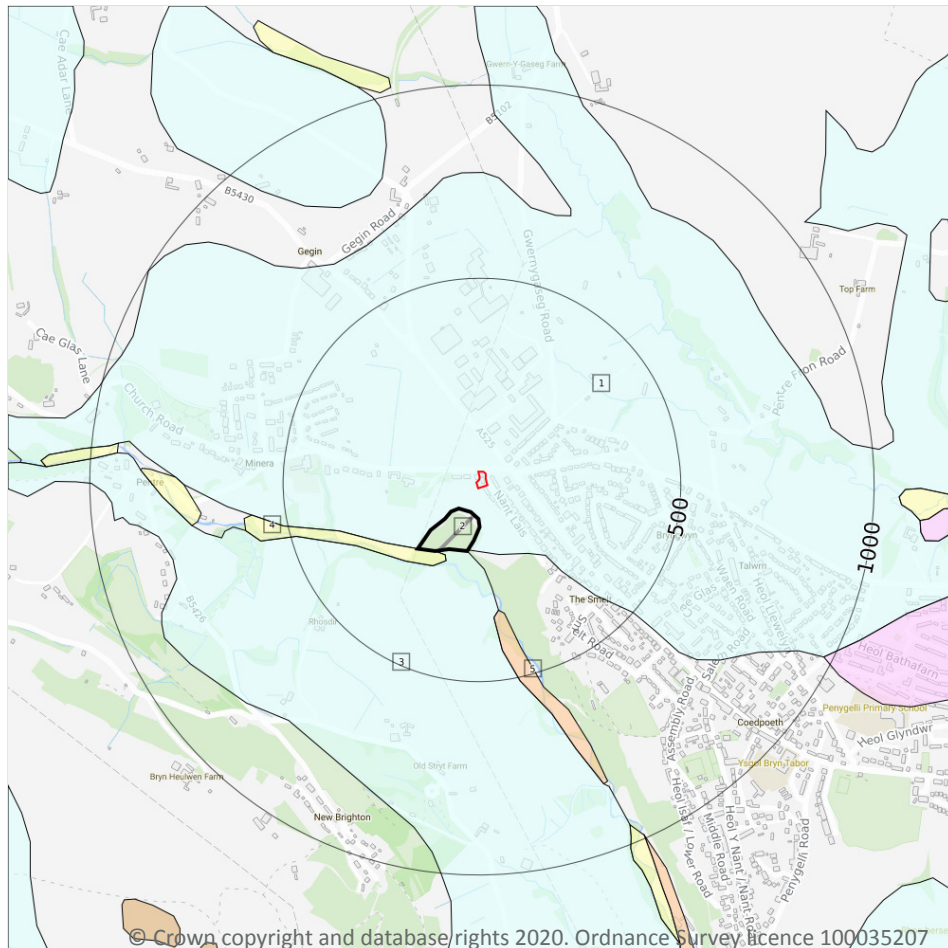
0

A qualitative classification of estimated rates of vertical movement of water from the ground surface through the unsaturated zone of any artificial deposits (the zone between the land surface and the water table).

This data is sourced from the British Geological Survey.



Geology 1:50,000 scale - Superficial



Site Outline

Search buffers in metres (m)

Landslip (50k)

Superficial geology (50k)
Please see table for more details.

15.4 Superficial geology (50k)

Records within 500m

4

Superficial geological deposits at 1:50,000 scale. Also known as 'drift', these are the youngest geological deposits, formed during the Quaternary. They rest on older deposits or rocks referred to as bedrock.

Features are displayed on the Geology 1:50,000 scale - Superficial map on **page 81**

ID	Location	LEX Code	Description	Rock description
1	On site	TILLD-DMTN	TILL, DEVANSIAN	DIAMICTON
3	165m S	TILLD-DMTN	TILL, DEVANSIAN	DIAMICTON
4	192m SW	ALV-XCZSV	ALLUVIUM	CLAY, SILT, SAND AND GRAVEL

ID	Location	LEX Code	Description	Rock description
5	320m S	RTDU-XSV	RIVER TERRACE DEPOSITS (UNDIFFERENTIATED)	SAND AND GRAVEL

This data is sourced from the British Geological Survey.

15.5 Superficial permeability (50k)

Records within 50m	1
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A qualitative classification of estimated rates of vertical movement of water from the ground surface through the unsaturated zone of any superficial deposits (the zone between the land surface and the water table).

Location	Flow type	Maximum permeability	Minimum permeability
On site	Mixed	High	Low

This data is sourced from the British Geological Survey.

15.6 Landslip (50k)

Records within 500m	1
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Mass movement deposits on BGS geological maps at 1:50,000 scale. Primarily superficial deposits that have moved down slope under gravity to form landslips. These affect bedrock, other superficial deposits and artificial ground.

Features are displayed on the Geology 1:50,000 scale - Superficial map on **page 81**

ID	Location	LEX Code	Description	Rock description
2	64m S	SLIP-UNKNOWN	LANDSLIDE DEPOSITS	UNKNOWN/UNCLASSIFIED ENTRY

This data is sourced from the British Geological Survey.

15.7 Landslip permeability (50k)

Records within 50m	0
---------------------------	----------

A qualitative classification of estimated rates of vertical movement of water from the ground surface through the unsaturated zone of any landslip deposits (the zone between the land surface and the water table).

This data is sourced from the British Geological Survey.



Geology 1:50,000 scale - Bedrock



— Site Outline

Search buffers in metres (m)

.... Bedrock faults and other linear features (50k)

Bedrock geology (50k)
Please see table for more details.

15.8 Bedrock geology (50k)

Records within 500m

13

Bedrock geology at 1:50,000 scale. The main mass of rocks forming the Earth and present everywhere, whether exposed at the surface in outcrops or concealed beneath superficial deposits or water.

Features are displayed on the Geology 1:50,000 scale - Bedrock map on **page 83**

ID	Location	LEX Code	Description	Rock age
1	On site	PLMC-SDST	PENNINE LOWER COAL MEASURES FORMATION AND PENNINE MIDDLE COAL MEASURES FORMATION (UNDIFFERENTIATED) - SANDSTONE	WESTPHALIAN

ID	Location	LEX Code	Description	Rock age
2	54m W	PLMC-MDSS	PENNINE LOWER COAL MEASURES FORMATION AND PENNINE MIDDLE COAL MEASURES FORMATION (UNDIFFERENTIATED) - MUDSTONE, SILTSTONE AND SANDSTONE	WESTPHALIAN
7	198m SE	PLMC-MDSS	PENNINE LOWER COAL MEASURES FORMATION AND PENNINE MIDDLE COAL MEASURES FORMATION (UNDIFFERENTIATED) - MUDSTONE, SILTSTONE AND SANDSTONE	WESTPHALIAN
9	203m E	PLMC-MDSS	PENNINE LOWER COAL MEASURES FORMATION AND PENNINE MIDDLE COAL MEASURES FORMATION (UNDIFFERENTIATED) - MUDSTONE, SILTSTONE AND SANDSTONE	WESTPHALIAN
12	222m NE	PLMC-MDSS	PENNINE LOWER COAL MEASURES FORMATION AND PENNINE MIDDLE COAL MEASURES FORMATION (UNDIFFERENTIATED) - MUDSTONE, SILTSTONE AND SANDSTONE	WESTPHALIAN
18	359m N	PLMC-MDSS	PENNINE LOWER COAL MEASURES FORMATION AND PENNINE MIDDLE COAL MEASURES FORMATION (UNDIFFERENTIATED) - MUDSTONE, SILTSTONE AND SANDSTONE	WESTPHALIAN
19	369m E	PLMC-MDSS	PENNINE LOWER COAL MEASURES FORMATION AND PENNINE MIDDLE COAL MEASURES FORMATION (UNDIFFERENTIATED) - MUDSTONE, SILTSTONE AND SANDSTONE	WESTPHALIAN
21	369m E	PLMC-SDST	PENNINE LOWER COAL MEASURES FORMATION AND PENNINE MIDDLE COAL MEASURES FORMATION (UNDIFFERENTIATED) - SANDSTONE	WESTPHALIAN
22	376m E	PLMC-SDST	PENNINE LOWER COAL MEASURES FORMATION AND PENNINE MIDDLE COAL MEASURES FORMATION (UNDIFFERENTIATED) - SANDSTONE	WESTPHALIAN
23	389m NE	PLMC-MDSS	PENNINE LOWER COAL MEASURES FORMATION AND PENNINE MIDDLE COAL MEASURES FORMATION (UNDIFFERENTIATED) - MUDSTONE, SILTSTONE AND SANDSTONE	WESTPHALIAN
25	459m SW	GS-SDAR	GWESPYR SANDSTONE - SANDSTONE AND [SUBEQUAL/SUBORDINATE] ARGILLACEOUS ROCKS, INTERBEDDED	NAMURIAN
26	459m SW	PLMC-MDSS	PENNINE LOWER COAL MEASURES FORMATION AND PENNINE MIDDLE COAL MEASURES FORMATION (UNDIFFERENTIATED) - MUDSTONE, SILTSTONE AND SANDSTONE	WESTPHALIAN



ID	Location	LEX Code	Description	Rock age
27	459m E	PLMC-MDSS	PENNINE LOWER COAL MEASURES FORMATION AND PENNINE MIDDLE COAL MEASURES FORMATION (UNDIFFERENTIATED) - MUDSTONE, SILTSTONE AND SANDSTONE	WESTPHALIAN

This data is sourced from the British Geological Survey.

15.9 Bedrock permeability (50k)

Records within 50m	1
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A qualitative classification of estimated rates of vertical movement of water from the ground surface through the unsaturated zone of bedrock (the zone between the land surface and the water table).

Location	Flow type	Maximum permeability	Minimum permeability
On site	Fracture	High	Moderate

This data is sourced from the British Geological Survey.

15.10 Bedrock faults and other linear features (50k)

Records within 500m	14
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Linear features at the ground or bedrock surface at 1:50,000 scale of six main types; rock, fault, fold axis, mineral vein, alteration area or landform. Features are either observed or inferred, and relate primarily to bedrock.

Features are displayed on the Geology 1:50,000 scale - Bedrock map on **page 83**

ID	Location	Category	Description
3	54m W	FAULT	Fault, inferred, displacement unknown
4	123m SE	ROCK	Coal seam, inferred
5	168m NE	ROCK	Coal seam, inferred
6	198m SE	ROCK	Coal seam, inferred
8	203m E	FAULT	Fault, inferred, displacement unknown
10	205m E	ROCK	Coal seam, inferred
11	222m NE	ROCK	Coal seam, inferred
13	224m E	ROCK	Coal seam, inferred
14	256m NE	ROCK	Coal seam, inferred

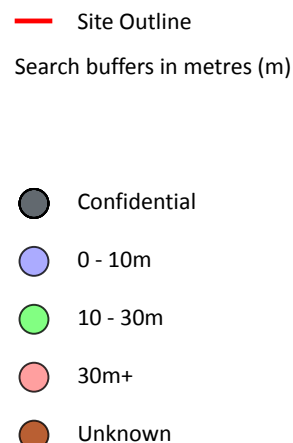
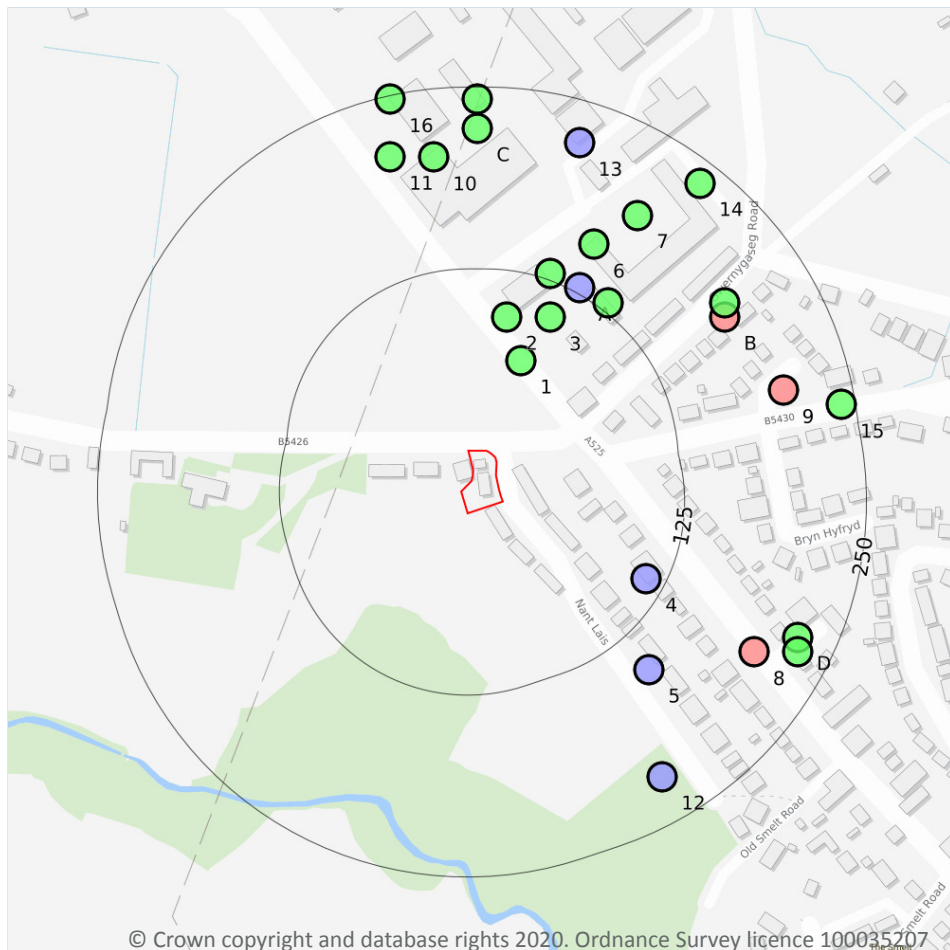


ID	Location	Category	Description
15	312m NE	ROCK	Coal seam, inferred
16	321m E	ROCK	Coal seam, inferred
17	359m N	ROCK	Coal seam, inferred
20	369m E	FAULT	Fault, inferred, displacement unknown
24	459m SW	FAULT	Fault, inferred, displacement unknown

This data is sourced from the British Geological Survey.



16 Boreholes



16.1 BGS Boreholes

Records within 250m

25

The Single Onshore Boreholes Index (SOBI); an index of over one million records of boreholes, shafts and wells from all forms of drilling and site investigation work held by the British Geological Survey. Covering onshore and nearshore boreholes dating back to at least 1790 and ranging from one to several thousand metres deep.

Features are displayed on the Boreholes map on **page 87**

ID	Location	Grid reference	Name	Length	Confidential	Web link
1	66m N	327760 351850	MINERA, RUTHIN RD. 1	21.6	N	146101
2	93m N	327750 351880	NEW GROSVENOR O/C SITE 509	13.0	N	145450
3	102m NE	327780 351880	MINERA, RUTHIN RD. 2	21.3	N	146102

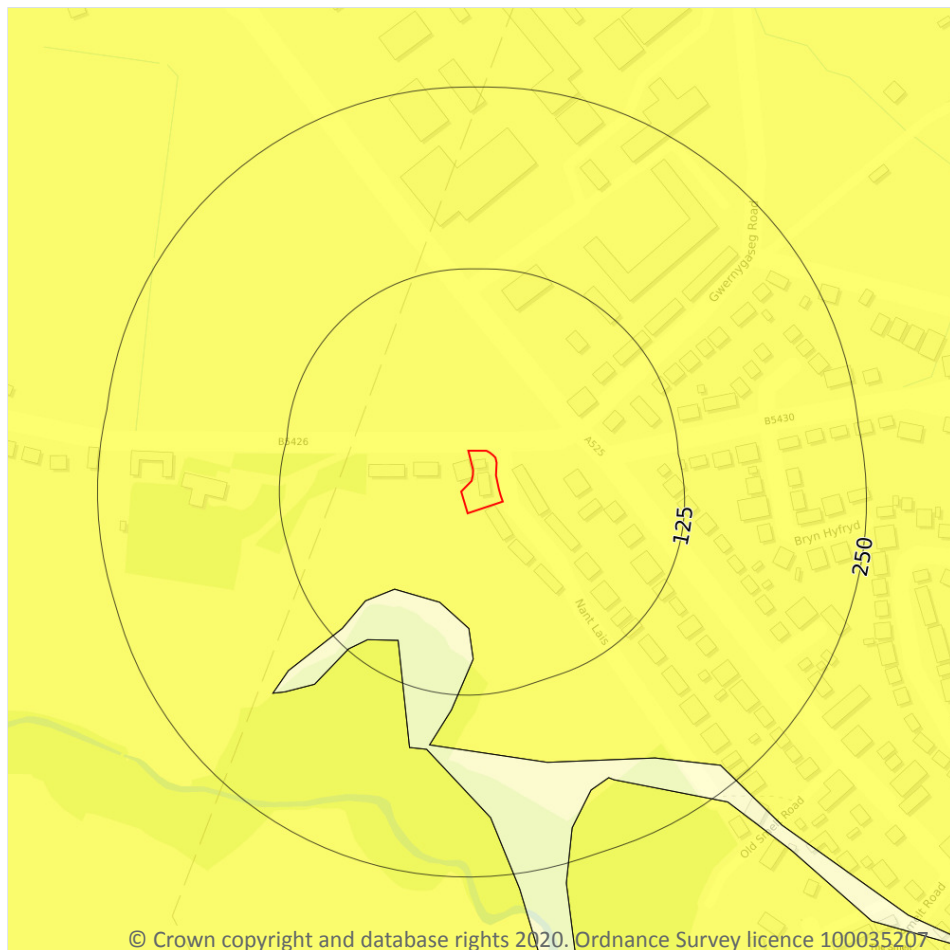


ID	Location	Grid reference	Name	Length	Confidential	Web link
4	112m SE	327846 351700	UNNAMED SHAFT	-2.0	N	146764
A	129m NE	327800 351900	OLD GROSVENOR COLL.	-2.0	N	146077
A	130m N	327780 351910	NEW GROSVENOR O/C SITE 510	13.0	N	145451
A	132m NE	327820 351890	MINERA, RUTHIN RD. 3	21.3	N	146103
5	153m SE	327848 351638	GROSVENOR COLL. NO.6 SHAFT	-2.0	N	146765
6	160m NE	327810 351930	NEW GROSVENOR O/C SITE 511	13.0	N	145452
B	185m NE	327900 351880	COEDPOETH, C.I.L. 4	30.48	N	146092
B	190m NE	327900 351890	COEDPOETH, C.I.L. 1	25.3	N	146091
7	192m NE	327840 351950	NEW GROSVENOR O/C SITE 512	13.0	N	145453
8	201m SE	327920 351650	COEDPOETH, HIGH ST. 1	32.31	N	146104
9	203m E	327940 351830	COEDPOETH, C.I.L. 3	36.58	N	146093
10	203m N	327700 351990	NEW GROSVENOR O/C SITE 502	13.0	N	145443
11	209m N	327670 351990	NEW GROSVENOR O/C SITE 501	13.0	N	145442
12	219m SE	327857 351564	UNNAMED SHAFT	-2.0	N	146766
13	221m N	327800 352000	NEW GROSVENOR COLL.	-2.0	N	146074
C	222m N	327730 352010	NEW GROSVENOR O/C SITE 503	13.0	N	145444
D	223m SE	327950 351660	COEDPOETH, HIGH ST. 2	24.38	N	146105
D	228m SE	327950 351650	COEDPOETH, HIGH ST. 3	21.34	N	146106
14	235m NE	327883 351972	GROSVENOR COLL. OLD SHAFT	26.21	N	145009
15	240m E	327980 351820	COEDPOETH, C.I.L. 2	21.34	N	146094
C	242m N	327730 352030	NEW GROSVENOR O/C SITE 504	13.0	N	145445
16	248m N	327670 352030	NEW GROSVENOR O/C SITE 513	13.0	N	145454

This data is sourced from the British Geological Survey.



17 Natural ground subsidence - Shrink swell clays



- Site Outline
- Search buffers in metres (m)
- ☐ No data
 - ☐ Negligible
 - ☒ Very low
 - ☐ Low
 - ☐ Moderate
 - ☐ High

17.1 Shrink swell clays

Records within 50m

1

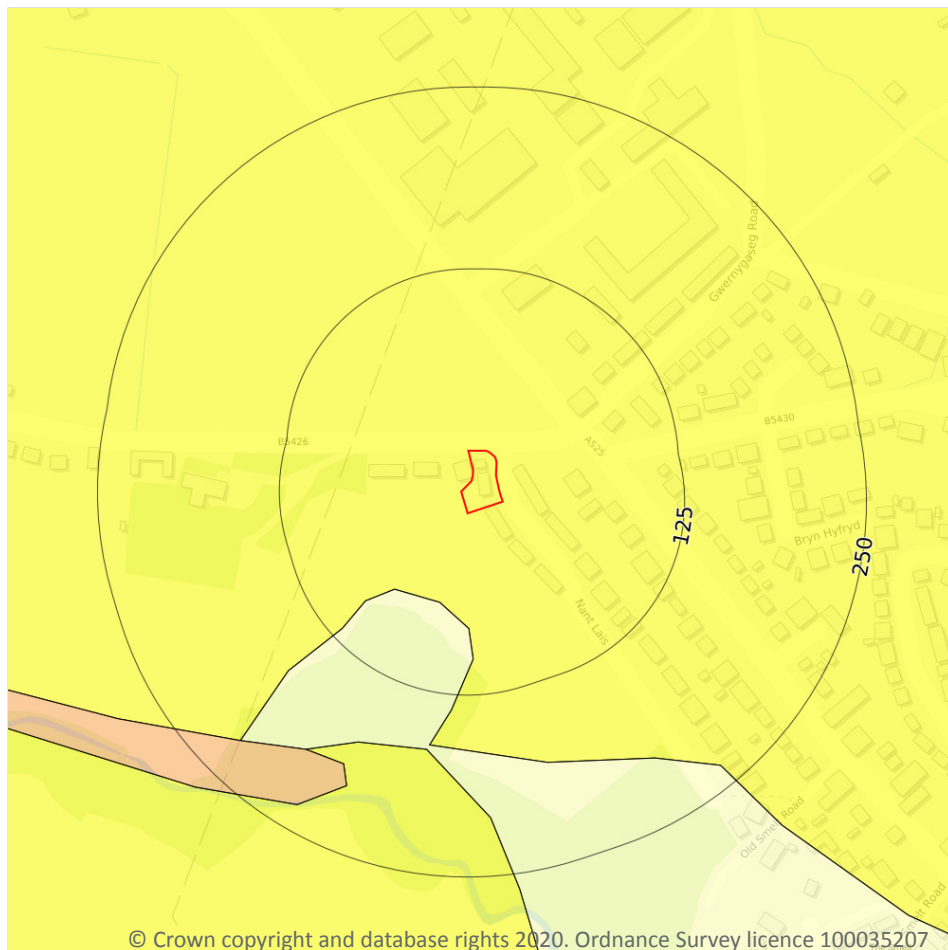
The potential hazard presented by soils that absorb water when wet (making them swell), and lose water as they dry (making them shrink). This shrink-swell behaviour is controlled by the type and amount of clay in the soil, and by seasonal changes in the soil moisture content (related to rainfall and local drainage).

Features are displayed on the Natural ground subsidence - Shrink swell clays map on **page 89**

Location	Hazard rating	Details
On site	Very low	Ground conditions predominantly low plasticity.

This data is sourced from the British Geological Survey.

Natural ground subsidence - Running sands



- Site Outline
- Search buffers in metres (m)
- ☐ No data
 - ☐ Negligible
 - ☐ Very low
 - ☐ Low
 - ☐ Moderate
 - ☐ High

17.2 Running sands

Records within 50m

1

The potential hazard presented by rocks that can contain loosely-packed sandy layers that can become fluidised by water flowing through them. Such sands can 'run', removing support from overlying buildings and causing potential damage.

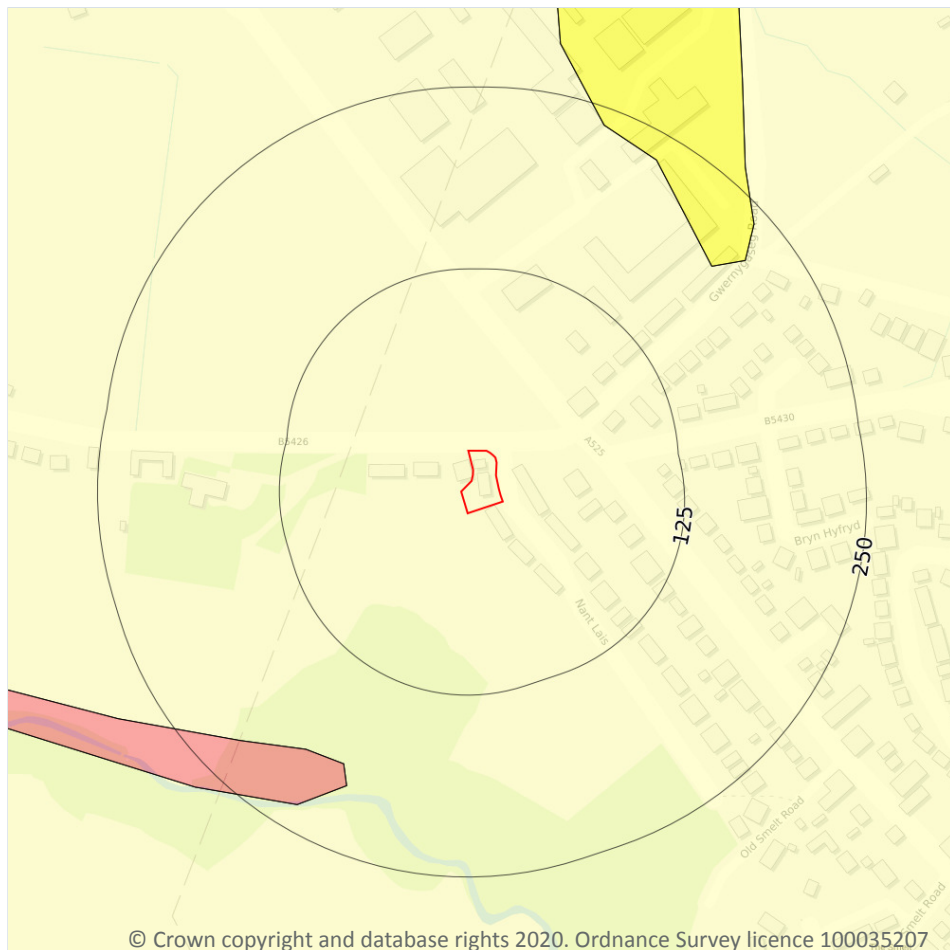
Features are displayed on the Natural ground subsidence - Running sands map on **page 90**

Location	Hazard rating	Details
On site	Very low	Running sand conditions are unlikely. No identified constraints on land use due to running conditions unless water table rises rapidly.

This data is sourced from the British Geological Survey.



Natural ground subsidence - Compressible deposits



- Site Outline
- Search buffers in metres (m)
- ☐ No data
 - ☐ Negligible
 - ☐ Very low
 - ☐ Low
 - ☐ Moderate
 - ☐ High

17.3 Compressible deposits

Records within 50m

1

The potential hazard presented by types of ground that may contain layers of very soft materials like clay or peat and may compress if loaded by overlying structures, or if the groundwater level changes, potentially resulting in depression of the ground and disturbance of foundations.

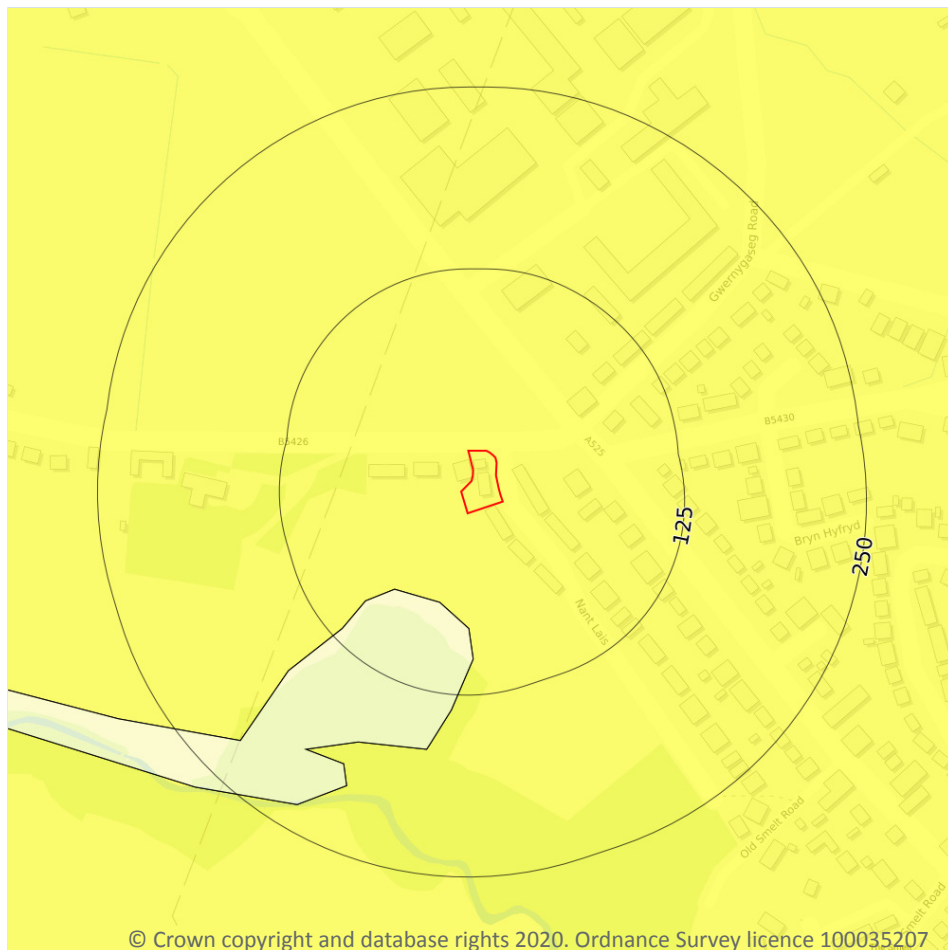
Features are displayed on the Natural ground subsidence - Compressible deposits map on **page 91**

Location	Hazard rating	Details
On site	Negligible	Compressible strata are not thought to occur.

This data is sourced from the British Geological Survey.



Natural ground subsidence - Collapsible deposits



- Site Outline
- Search buffers in metres (m)
- ☐ No data
 - ☐ Negligible
 - ☒ Very low
 - ☐ Low
 - ☐ Moderate
 - ☐ High

17.4 Collapsible deposits

Records within 50m

1

The potential hazard presented by natural deposits that could collapse when a load (such as a building) is placed on them or they become saturated with water.

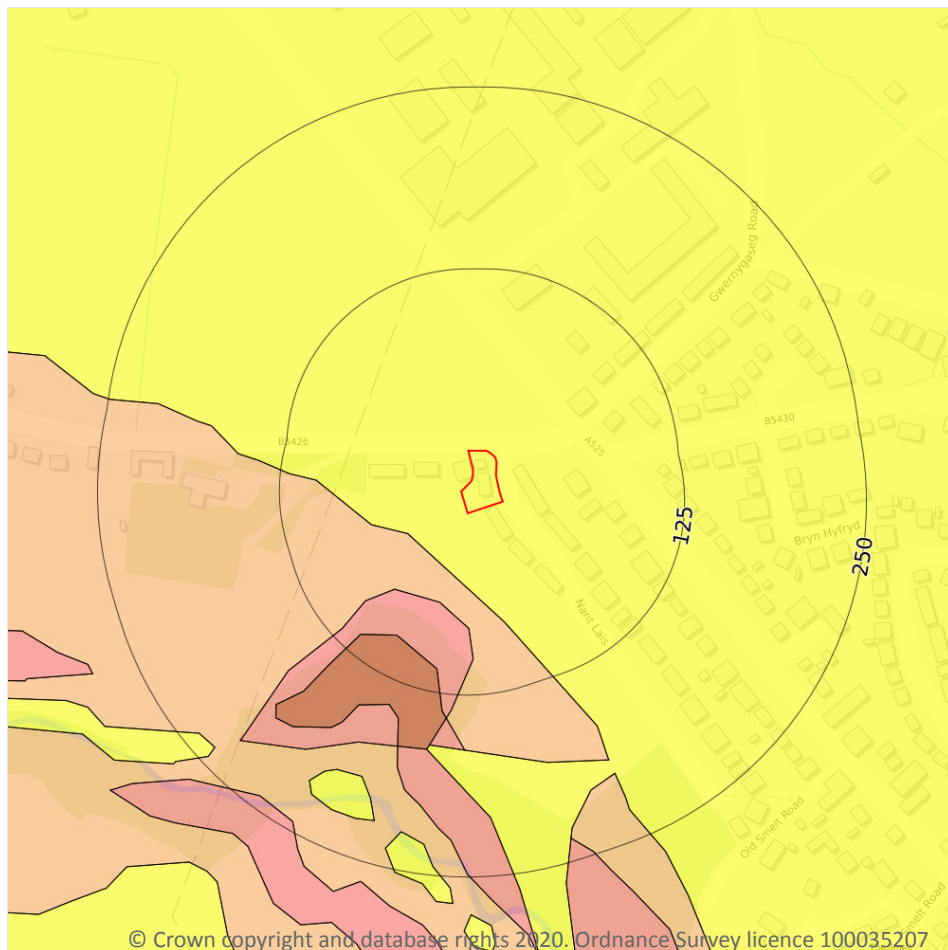
Features are displayed on the Natural ground subsidence - Collapsible deposits map on **page 92**

Location	Hazard rating	Details
On site	Very low	Deposits with potential to collapse when loaded and saturated are unlikely to be present.

This data is sourced from the British Geological Survey.



Natural ground subsidence - Landslides



— Site Outline
Search buffers in metres (m)

- ☐ No data
- ☐ Negligible
- ☐ Very low
- ☐ Low
- ☐ Moderate
- ☐ High

17.5 Landslides

Records within 50m

2

The potential for landsliding (slope instability) to be a hazard assessed using 1:50,000 scale digital maps of superficial and bedrock deposits, combined with information from the BGS National Landslide Database and scientific and engineering reports.

Features are displayed on the Natural ground subsidence - Landslides map on **page 93**

Location	Hazard rating	Details
On site	Very low	Slope instability problems are not likely to occur but consideration to potential problems of adjacent areas impacting on the site should always be considered.

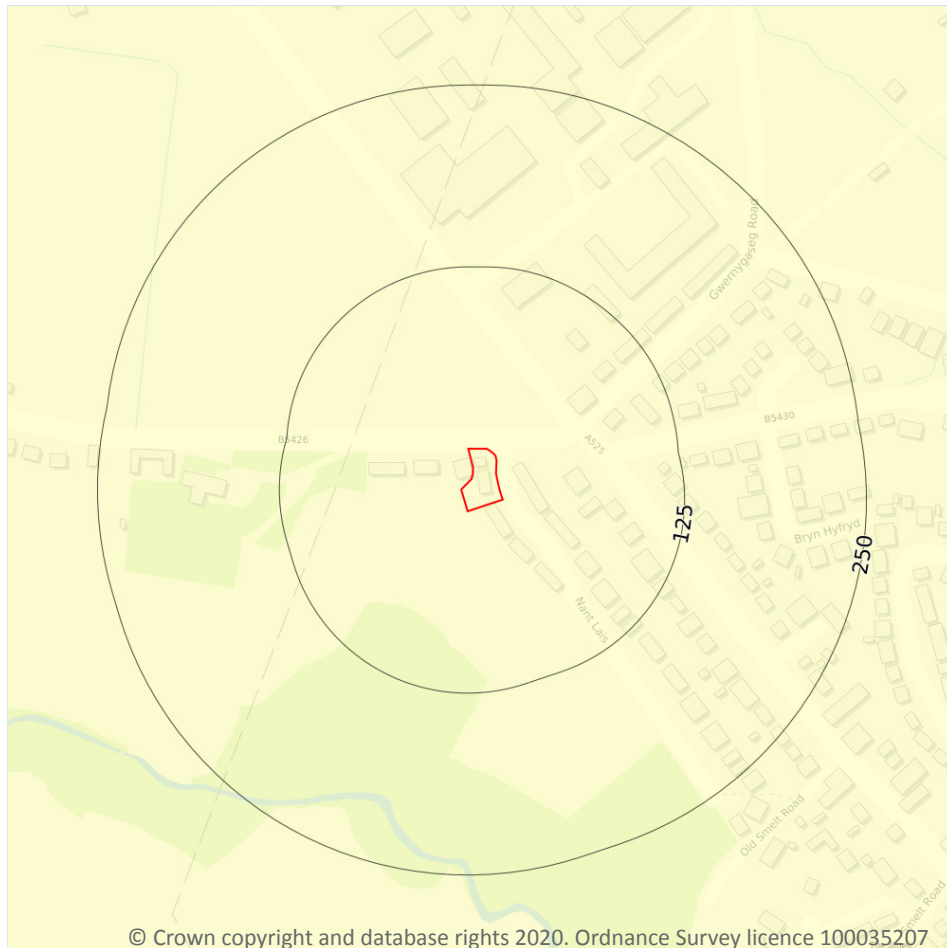


Location	Hazard rating	Details
38m SW	Low	Slope instability problems may be present or anticipated. Site investigation should consider specifically the slope stability of the site.

This data is sourced from the British Geological Survey.



Natural ground subsidence - Ground dissolution of soluble rocks



- Site Outline
- Search buffers in metres (m)
- ☐ No data
 - ☐ Negligible
 - ☐ Very low
 - ☐ Low
 - ☐ Moderate
 - ☐ High

17.6 Ground dissolution of soluble rocks

Records within 50m

1

The potential hazard presented by ground dissolution, which occurs when water passing through soluble rocks produces underground cavities and cave systems. These cavities reduce support to the ground above and can cause localised collapse of the overlying rocks and deposits.

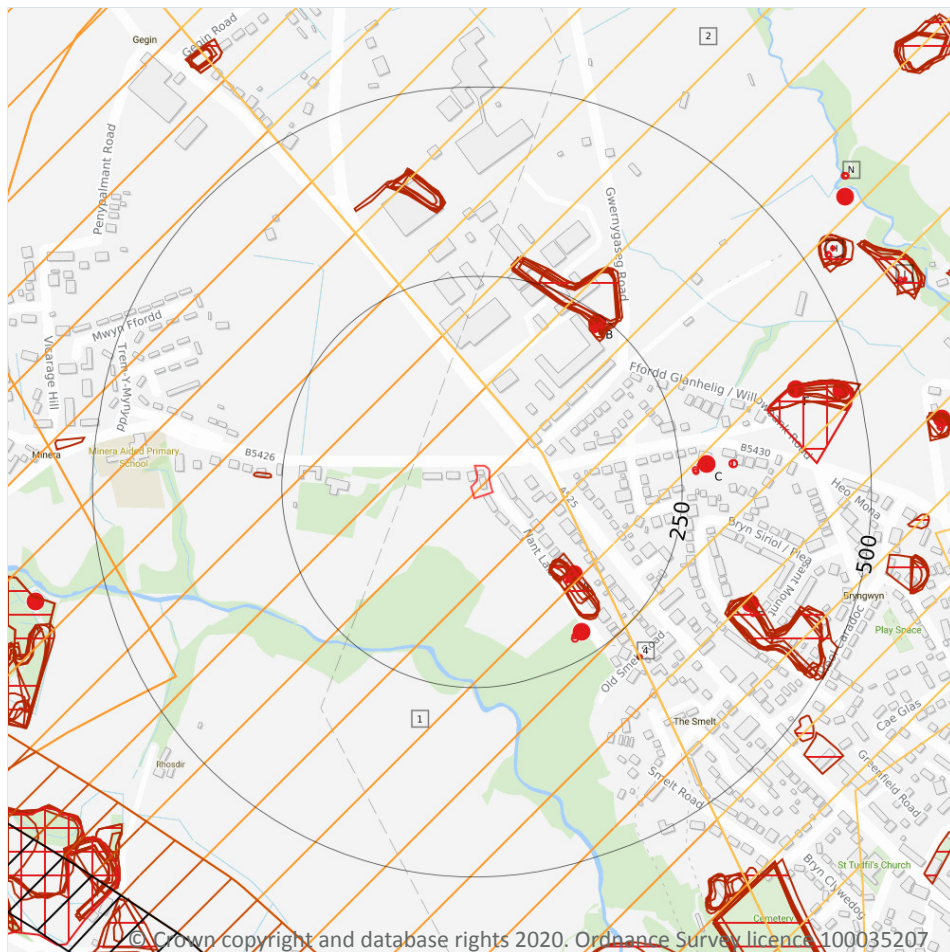
Features are displayed on the Natural ground subsidence - Ground dissolution of soluble rocks map on **page 95**

Location	Hazard rating	Details
On site	Negligible	Soluble rocks are either not thought to be present within the ground, or not prone to dissolution. Dissolution features are unlikely to be present.

This data is sourced from the British Geological Survey.



18 Mining, ground workings and natural cavities



- Site Outline
- Search buffers in metres (m)
- Natural cavities (Area)
- Natural cavities (Point)
- BritPits
- Surface ground workings
- Underground workings
- Historical Mineral Planning Areas
- Mining Cavities
- Non Coal Mining
 - Sporadic underground mining of restricted extent possible
 - Localised small scale underground mining possible
 - Small scale mining possible
 - Underground mining known or likely within or in close proximity
 - Underground mining known within or in very close proximity

18.1 Natural cavities

Records within 500m

0

Industry recognised national database of natural cavities. Sinkholes and caves are formed by the dissolution of soluble rock, such as chalk and limestone, gulls and fissures by cambering. Ground instability can result from movement of loose material contained within these cavities, often triggered by water.

This data is sourced from Peter Brett Associates (PBA).

18.2 BritPits

Records within 500m

7

BritPits (an abbreviation of British Pits) is a database maintained by the British Geological Survey of currently active and closed surface and underground mineral workings. Details of major mineral handling sites, such as wharfs and rail depots are also held in the database.

Features are displayed on the Mining, ground workings and natural cavities map on **page 96**

ID	Location	Details	Description
A	152m SE	Name: Minera Hall Coal Pit Address: Minera, WREXHAM, Clwyd Commodity: Coal, Deep Status: 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)	Type: Ceased Status description: Site which, at date of entry, has ceased to extract minerals. May be considered as Closed by operator. May be considered to have Active, Dormant or Expired planning permissions by Mineral Planning Authority
A	218m SE	Name: Minera Hall Coal Pit Address: Minera, WREXHAM, Clwyd Commodity: Coal, Deep Status: 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)	Type: Ceased Status description: Site which, at date of entry, has ceased to extract minerals. May be considered as Closed by operator. May be considered to have Active, Dormant or Expired planning permissions by Mineral Planning Authority
B	240m NE	Name: Grosvenor New Shaft Address: The Smelt, Minera, WREXHAM, Clwyd Commodity: Coal, Deep Status: 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)	Type: Ceased Status description: Site which, at date of entry, has ceased to extract minerals. May be considered as Closed by operator. May be considered to have Active, Dormant or Expired planning permissions by Mineral Planning Authority
C	285m E	Name: Minera Hall Coal Pit Address: Minera, WREXHAM, Clwyd Commodity: Coal, Deep Status: 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)	Type: Ceased Status description: Site which, at date of entry, has ceased to extract minerals. May be considered as Closed by operator. May be considered to have Active, Dormant or Expired planning permissions by Mineral Planning Authority
E	370m SE	Name: Minera Hall Coal Pit Address: Minera, WREXHAM, Clwyd Commodity: Coal, Deep Status: 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)	Type: Ceased Status description: Site which, at date of entry, has ceased to extract minerals. May be considered as Closed by operator. May be considered to have Active, Dormant or Expired planning permissions by Mineral Planning Authority



ID	Location	Details	Description
F	418m E	Name: Old Talwrn Colliery, No. 1 Shaft Address: Top Talwrn, Coedpoeth, WREXHAM, Clwyd Commodity: Coal, Deep Status: 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)	Type: Ceased Status description: Site which, at date of entry, has ceased to extract minerals. May be considered as Closed by operator. May be considered to have Active, Dormant or Expired planning permissions by Mineral Planning Authority
F	476m E	Name: Old Talwrn Colliery, No. 2 Shaft Address: Top Talwrn, Coedpoeth, WREXHAM, Clwyd Commodity: Coal, Deep Status: 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)	Type: Ceased Status description: Site which, at date of entry, has ceased to extract minerals. May be considered as Closed by operator. May be considered to have Active, Dormant or Expired planning permissions by Mineral Planning Authority

This data is sourced from the British Geological Survey.

18.3 Surface ground workings

Records within 250m	18
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Historical land uses identified from Ordnance Survey mapping that involved ground excavation at the surface. These features may or may not have been subsequently backfilled.

Features are displayed on the Mining, ground workings and natural cavities map on **page 96**

ID	Location	Land Use	Year of mapping	Mapping scale
A	121m SE	Unspecified Heap	1938	1:10560
A	121m SE	Unspecified Heap	1938	1:10560
A	122m SE	Unspecified Heap	1949	1:10560
A	123m SE	Unspecified Heaps	1910	1:10560
A	123m SE	Refuse Heap	1900	1:10560
A	126m SE	Refuse Heap	1872	1:10560
A	126m SE	Unspecified Heap	1960	1:10560
A	159m SE	Unspecified Heap	1938	1:10560
A	159m SE	Unspecified Heap	1938	1:10560
A	160m SE	Unspecified Heap	1949	1:10560
B	224m NE	Unspecified Heap	1960	1:10560
B	225m NE	Unspecified Heap	1949	1:10560



ID	Location	Land Use	Year of mapping	Mapping scale
B	230m NE	Unspecified Ground Workings	1910	1:10560
B	230m NE	Unspecified Heap	1938	1:10560
B	230m NE	Unspecified Heap	1938	1:10560
B	239m NE	Unspecified Heap	1985	1:10000
B	239m NE	Unspecified Heap	1974	1:10000
B	244m NE	Unspecified Heap	1900	1:10560

This is data is sourced from Ordnance Survey/Groundsure.

18.4 Underground workings

Records within 1000m

64

Historical land uses identified from Ordnance Survey mapping that indicate the presence of underground workings e.g. mine shafts.

Features are displayed on the Mining, ground workings and natural cavities map on **page 96**

ID	Location	Land Use	Year of mapping	Mapping scale
A	146m SE	Unspecified Shaft	1900	1:10560
A	147m SE	Unspecified Shaft	1949	1:10560
A	152m SE	Coal Shaft	1872	1:10560
A	214m SE	Unspecified Old Shafts	1900	1:10560
A	215m SE	Unspecified Old Shaft	1949	1:10560
A	218m SE	Unspecified Old Shaft	1960	1:10560
B	228m NE	Unspecified Disused Shaft	1985	1:10000
B	228m NE	Unspecified Disused Shaft	1974	1:10000
B	228m NE	Unspecified Old Shaft	1960	1:10560
B	228m NE	Unspecified Old Shaft	1949	1:10560
B	238m NE	Unspecified Old Shaft	1900	1:10560
C	266m E	Unspecified Old Shaft	1949	1:10560
C	266m E	Unspecified Old Shaft	1960	1:10560
C	273m E	Unspecified Disused Shafts	1985	1:10000



ID	Location	Land Use	Year of mapping	Mapping scale
C	273m E	Unspecified Disused Shafts	1974	1:10000
C	276m E	Unspecified Old Shaft	1900	1:10560
4	289m SE	Unspecified Old Shafts	1900	1:10560
C	315m E	Unspecified Disused Shafts	1985	1:10000
C	315m E	Unspecified Disused Shafts	1974	1:10000
F	376m E	Old Colliery	1949	1:10560
E	376m SE	Unspecified Old Shaft	1900	1:10560
F	417m E	Unspecified Old Shaft	1900	1:10560
H	526m NE	Unspecified Old Shafts	1949	1:10560
H	527m NE	Unspecified Old Shafts	1960	1:10560
H	537m NE	Unspecified Old Shafts	1900	1:10560
L	593m E	Unspecified Old Shaft	1949	1:10560
L	594m E	Unspecified Old Shaft	1960	1:10560
J	594m NE	Unspecified Old Shafts	1949	1:10560
L	595m E	Unspecified Old Shaft	1900	1:10560
J	596m NE	Unspecified Old Shafts	1960	1:10560
J	602m NE	Unspecified Old Shafts	1900	1:10560
N	605m NE	Unspecified Old Shaft	1949	1:10560
N	607m NE	Unspecified Disused Shaft	1989	1:10560
N	607m NE	Unspecified Disused Shaft	1985	1:10000
N	607m NE	Unspecified Disused Shaft	1974	1:10000
N	607m NE	Unspecified Old Shaft	1960	1:10560
9	669m SW	Disused Lead Mines	1949	1:10560
W	694m S	Unspecified Disused Mine	1989	1:10560
W	694m S	Unspecified Disused Mine	1985	1:10000
W	694m S	Unspecified Disused Mine	1974	1:10000
-	771m S	Unspecified Disused Mine	1989	1:10560
-	771m S	Unspecified Disused Mine	1985	1:10000



ID	Location	Land Use	Year of mapping	Mapping scale
-	777m S	Lead Mine	1949	1:10560
-	782m S	Unspecified Mine	1960	1:10560
-	788m E	Disused Colliery	1949	1:10560
-	797m NE	Unspecified Old Shaft	1949	1:10560
-	799m NE	Unspecified Old Shaft	1960	1:10560
-	801m NE	Unspecified Old Shaft	1900	1:10560
-	814m SW	Unspecified Shaft	1900	1:10560
-	820m SW	Unspecified Shaft	1872	1:10560
-	821m S	Unspecified Shaft	1900	1:10560
-	840m S	Unspecified Shaft	1872	1:10560
-	853m SW	Engine Shaft	1872	1:10560
-	853m S	Unspecified Shaft	1960	1:10560
-	860m SW	Unspecified Shaft	1960	1:10560
-	864m S	Unspecified Shaft	1949	1:10560
-	865m E	Unspecified Old Shaft	1900	1:10560
-	871m S	Unspecified Shaft	1960	1:10560
-	888m E	Unspecified Disused Mine	1960	1:10560
-	899m E	Colliery	1872	1:10560
-	902m SW	Unspecified Shaft	1872	1:10560
-	933m SW	Unspecified Shaft	1949	1:10560
-	957m SW	Unspecified Shaft	1900	1:10560
-	970m E	Unspecified Old Shaft	1900	1:10560

This data is sourced from Ordnance Survey/Groundsure.

18.5 Historical Mineral Planning Areas

Records within 500m

0

Boundaries of mineral planning permissions for England and Wales. This data was collated between the 1940s (and retrospectively to the 1930s) and the mid 1980s. The data includes permitted, withdrawn and refused permissions.



This data is sourced from the British Geological Survey.

18.6 Non-coal mining

Records within 1000m

11

The potential for historical non-coal mining to have affected an area. The assessment is drawn from expert knowledge and literature in addition to the digital geological map of Britain. Mineral commodities may be divided into seven general categories - vein minerals, chalk, oil shale, building stone, bedded ores, evaporites and 'other' commodities (including ball clay, jet, black marble, graphite and chert).

Features are displayed on the Mining, ground workings and natural cavities map on **page 96**

ID	Location	Name	Commodity	Class	Likelihood
1	On site	North Wales (Minera)	Iron Ore (Bedded)\Vein Mineral	C	Small scale underground mining may have occurred; mine adits, shafts and tunnels may be present. Potential for localised difficult ground conditions are at a level where they should be considered
2	68m NE	Not available	Iron Ore (Bedded)	B	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
5	459m SW	North Wales (Minera)	Vein Mineral	C	Small scale underground mining may have occurred; mine adits, shafts and tunnels may be present. Potential for localised difficult ground conditions are at a level where they should be considered
8	595m SW	Not available	Vein Mineral\Iron Ore (Bedded)	D	Underground mining is known or considered likely to have occurred within or close to the area. Potential for difficult ground conditions are at a level where they should be considered
10	669m SW	Not available	Vein Mineral	D	Underground mining is known or considered likely to have occurred within or close to the area. Potential for difficult ground conditions are at a level where they should be considered
W	695m SW	Not available	Vein Mineral\Iron Ore (Bedded)	E	Underground mining is known to have occurred within or very close to the area. Potential for difficult ground conditions should be investigated. Potential for localised subsidence is at a level where it should be considered
12	777m SW	Not available	Vein Mineral	E	Underground mining is known to have occurred within or very close to the area. Potential for difficult ground conditions should be investigated. Potential for localised subsidence is at a level where it should be considered



ID	Location	Name	Commodity	Class	Likelihood
-	786m N	Not available	Vein Mineral	A	Sporadic underground mining of restricted extent may have occurred. Potential for difficult ground conditions are unlikely and localised and are at a level where they need not be considered
-	973m W	North Wales (Minera)	Iron Ore (Bedded)\Vein Mineral	C	Small scale underground mining may have occurred; mine adits, shafts and tunnels may be present. Potential for localised difficult ground conditions are at a level where they should be considered
-	977m SE	North Wales (Minera)	Vein Mineral	C	Small scale underground mining may have occurred; mine adits, shafts and tunnels may be present. Potential for localised difficult ground conditions are at a level where they should be considered
-	983m SW	Not available	Vein Mineral	D	Underground mining is known or considered likely to have occurred within or close to the area. Potential for difficult ground conditions are at a level where they should be considered

This data is sourced from the British Geological Survey.

18.7 Mining cavities

Records within 1000m

4

Industry recognised national database of mining cavities. Degraded mines may result in hazardous subsidence (crown holes). Climatic conditions and water escape can also trigger subsidence over mine entrances and workings.

Features are displayed on the Mining, ground workings and natural cavities map on **page 96**

ID	Location	Mine Address	Mineral	Data source	Publisher
-	874m S	Meadow Shaft, Clwyd	-	THE NON FERROUS MINES OF FLINTSHIRE	NORTHERN CAVERN AND MINE RESEARCH SOC.
-	911m SW	Roy's Shaft, Clwyd	-	THE NON FERROUS MINES OF FLINTSHIRE	NORTHERN CAVERN AND MINE RESEARCH SOC.
-	948m S	Burton's Shaft, Minera New, Clwyd	-	THE NON FERROUS MINES OF FLINTSHIRE	NORTHERN CAVERN AND MINE RESEARCH SOC.
-	987m SW	Taylor's Shaft, Clwyd	-	THE NON FERROUS MINES OF FLINTSHIRE	NORTHERN CAVERN AND MINE RESEARCH SOC.

This data is sourced from Peter Brett Associates (PBA).



18.8 JPB mining areas

Records on site	1
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Areas which could be affected by former coal mining. This data includes some mine plans unavailable to the Coal Authority.

Location	Details
On site	In addition to being located inside an area where The Coal Authority have information on coal mining activities, Johnson Poole & Bloomer (JPB) have information such as mining plans and maps held within their archive of mining activities that have occurred within 1km of this property which may supplement this information. Further details and a quote for services can be obtained by emailing this report to enquiries.gs@jpb.co.uk .

This data is sourced from Johnson Poole and Bloomer.

18.9 Coal mining

Records on site	1
-----------------	---

Areas which could be affected by past, current or future coal mining.

Location	Details
On site	The site is located within a coal mining area as defined by the Coal Authority. A Consultants Coal Mining Report is recommended to further assess coal mining issues at the site. This can be ordered directly through Groundsure or your preferred search provider.

This data is sourced from the Coal Authority.

18.10 Brine areas

Records on site	0
-----------------	---

The Cheshire Brine Compensation District indicates areas that may be affected by salt and brine extraction in Cheshire and where compensation would be available where damage from this mining has occurred. Damage from salt and brine mining can still occur outside this district, but no compensation will be available.

This data is sourced from the Cheshire Brine Subsidence Compensation Board.

18.11 Gypsum areas

Records on site	0
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Generalised areas that may be affected by gypsum extraction.

This data is sourced from British Gypsum.



18.12 Tin mining

Records on site	0
-----------------	---

Generalised areas that may be affected by historical tin mining.

This data is sourced from Mining Searches UK.

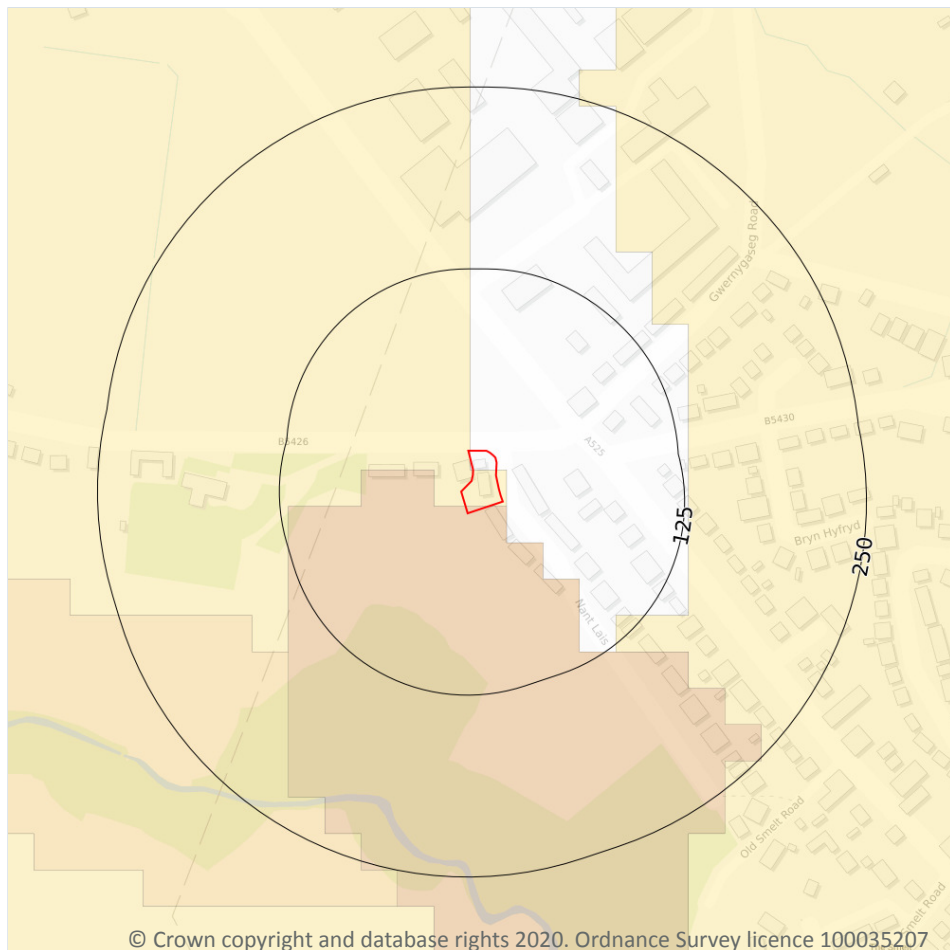
18.13 Clay mining

Records on site	0
-----------------	---

Generalised areas that may be affected by kaolin and ball clay extraction.

This data is sourced from the Kaolin and Ball Clay Association (UK).

19 Radon



- Site Outline**
- Search buffers in metres (m)**
- Greater than 30%
 - Between 10% and 30%
 - Between 5% and 10%
 - Between 3% and 5%
 - Between 1% and 3%
 - Less than 1%

19.1 Radon

Records on site

3

Estimated percentage of dwellings exceeding the Radon Action Level. This data is the highest resolution radon dataset available for the UK and is produced to a 75m level of accuracy to allow for geological data accuracy and a 'residential property' buffer. The findings of this section should supersede any estimations derived from the Indicative Atlas of Radon in Great Britain. The data was derived from both geological assessments and long term measurements of radon in more than 479,000 households.

Features are displayed on the Radon map on **page 106**

Location	Estimated properties affected	Radon Protection Measures required
On site	Between 1% and 3%	None
On site	Less than 1%	None**



Location	Estimated properties affected	Radon Protection Measures required
On site	Between 5% and 10%	Basic

This data is sourced from the British Geological Survey and Public Health England.



20 Soil chemistry

20.1 BGS Estimated Background Soil Chemistry

Records within 50m**1**

The estimated values provide the likely background concentration of the potentially harmful elements Arsenic, Cadmium, Chromium, Lead and Nickel in topsoil. The values are estimated primarily from rural topsoil data collected at a sample density of approximately 1 per 2 km². In areas where rural soil samples are not available, estimation is based on stream sediment data collected from small streams at a sampling density of 1 per 2.5 km²; this is the case for most of Scotland, Wales and southern England. The stream sediment data are converted to soil-equivalent concentrations prior to the estimation.

Location	Arsenic	Bioaccessible Arsenic	Lead	Bioaccessible Lead	Cadmium	Chromium	Nickel
On site	15 mg/kg	No data	>1200 mg/kg	>720 mg/kg	3.0 - 6.0 mg/kg	60 - 90 mg/kg	15 mg/kg

This data is sourced from the British Geological Survey.

20.2 BGS Estimated Urban Soil Chemistry

Records within 50m**0**

Estimated topsoil chemistry of Arsenic, Cadmium, Chromium, Copper, Nickel, Lead, Tin and Zinc and bioaccessible Arsenic and Lead in 23 urban centres across Great Britain. These estimates are derived from interpolation of the measured urban topsoil data referred to above and provide information across each city between the measured sample locations (4 per km²).

This data is sourced from the British Geological Survey.

20.3 BGS Measured Urban Soil Chemistry

Records within 50m**0**

The locations and measured total concentrations (mg/kg) of Arsenic, Cadmium, Chromium, Copper, Nickel, Lead, Tin and Zinc in urban topsoil samples from 23 urban centres across Great Britain. These are collected at a sample density of 4 per km².

This data is sourced from the British Geological Survey.



21 Railway infrastructure and projects

21.1 Underground railways (London)

Records within 250m**0**

Details of all active London Underground lines, including approximate tunnel roof depth and operational hours.

This data is sourced from publicly available information by Groundsure.

21.2 Underground railways (Non-London)

Records within 250m**0**

Details of the Merseyrail system, the Tyne and Wear Metro and the Glasgow Subway. Not all parts of all systems are located underground. The data contains location information only and does not include a depth assessment.

This data is sourced from publicly available information by Groundsure.

21.3 Railway tunnels

Records within 250m**0**

Railway tunnels taken from contemporary Ordnance Survey mapping.

This data is sourced from the Ordnance Survey.

21.4 Historical railway and tunnel features

Records within 250m**0**

Railways and tunnels digitised from historical Ordnance Survey mapping as scales of 1:1,250, 1:2,500, 1:10,000 and 1:10,560.

This data is sourced from Ordnance Survey/Groundsure.

21.5 Royal Mail tunnels

Records within 250m**0**

The Post Office Railway, otherwise known as the Mail Rail, is an underground railway running through Central London from Paddington Head District Sorting Office to Whitechapel Eastern Head Sorting Office. The line is 10.5km long. The data includes details of the full extent of the tunnels, the depth of the tunnel, and the depth to track level.



This data is sourced from Groundsure/the Postal Museum.

21.6 Historical railways

Records within 250m

0

Former railway lines, including dismantled lines, abandoned lines, disused lines, historic railways and razed lines.

This data is sourced from OpenStreetMap.

21.7 Railways

Records within 250m

0

Currently existing railway lines, including standard railways, narrow gauge, funicular, trams and light railways.

This data is sourced from Ordnance Survey and OpenStreetMap.

21.8 Crossrail 1

Records within 500m

0

The Crossrail railway project links 41 stations over 100 kilometres from Reading and Heathrow in the west, through underground sections in central London, to Shenfield and Abbey Wood in the east.

This data is sourced from publicly available information by Groundsure.

21.9 Crossrail 2

Records within 500m

0

Crossrail 2 is a proposed railway linking the national rail networks in Surrey and Hertfordshire via an underground tunnel through London.

This data is sourced from publicly available information by Groundsure.

21.10 HS2

Records within 500m

0

HS2 is a proposed high speed rail network running from London to Manchester and Leeds via Birmingham. Main civils construction on Phase 1 (London to Birmingham) of the project began in 2019, and it is currently anticipated that this phase will be fully operational by 2026. Construction on Phase 2a (Birmingham to Crewe) is anticipated to commence in 2021, with the service fully operational by 2027. Construction on Phase 2b (Crewe to Manchester and Birmingham to Leeds) is scheduled to begin in 2023 and be operational by 2033.

This data is sourced from HS2 Ltd.



Data providers

Groundsure works with respected data providers to bring you the most relevant and accurate information. To find out who they are and their areas of expertise see <https://www.groundsure.com/sources-reference>.

Terms and conditions

Groundsure's Terms and Conditions can be accessed at this link: <https://www.groundsure.com/terms-and-conditions-jan-2020/>.



Appendix 3 - The Coal Authority Mining Report 510023342780001



The Coal
Authority

CON29M

coal mining report

2, NANTLAIS, MINERA, WREXHAM, LL11 3YY, WREXHAM



Known or potential coal mining risks

Past underground coal mining	Page 3
Future underground coal mining	Page 3
Mine entries	Page 4



Further action

No further reports from the Coal Authority are required. Further information on any next steps can be found in our Professional opinion.

For more information on our reports please visit
www.groundstability.com



Professional opinion

According to the official mining information records held by the Coal Authority at the time of this search, evidence of, or the potential for, coal mining related features have been identified. It is unlikely that these features will impact on the stability of the enquiry boundary.

Your reference: **HMD-165-7347689**
Our reference: **51002334278001**
Date: **8 December 2020**

Client name:
GROUNDSURE LIMITED

If you require any further assistance please
contact our experts on:
0345 762 6848
groundstability@coal.gov.uk



The Law
Society

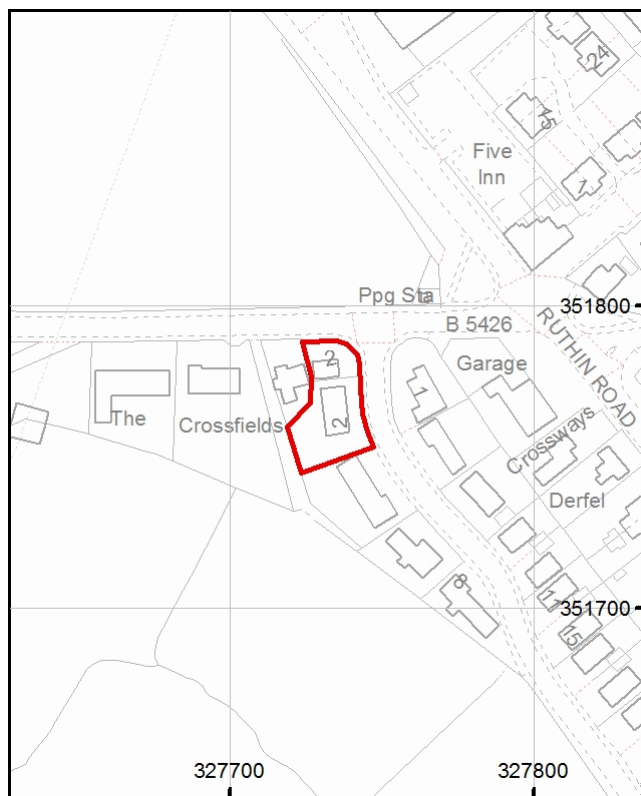
Enquiry boundary

Key

Approximate position of enquiry boundary shown



We can confirm that the location is
on the coalfield



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This report is prepared in accordance with the latest Law Society's Guidance Notes 2018, the User Guide 2018 and the Coal Authority's Terms and Conditions applicable at the time the report was produced.



Accessibility

If you would like this information in an alternative format, please contact our communications team on 0345 762 6848 or email communications@coal.gov.uk.

Detailed findings

Information provided by the Coal Authority in this report is compiled in response to the Law Society's CON29M Coal Mining enquiries. The said enquiries are protected by copyright owned by the Law Society of 113 Chancery Lane, London WC2A 1PL.

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1 Past underground coal mining

The property is in a surface area that could be affected by underground mining in 2 seams of coal at 70m to 100m depth, and last worked in 1884.

Any movement in the ground due to coal mining activity associated with these workings should have stopped by now.

2 Present underground coal mining

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

3 Future underground coal mining

The property is not in an area where the Coal Authority has received an application for, and is currently considering whether to grant a licence to remove or work coal by underground methods.

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

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

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

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

4 Mine entries

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

This information is based on the information that the Coal Authority has at the time of this enquiry.

Based on the Coal Authority's knowledge of the mining circumstances at the time of this enquiry, there may be unrecorded mine entries in the local area that do not appear on Coal Authority records.

5 Coal mining geology

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

6 Past opencast coal mining

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

7 Present opencast coal mining

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

8 Future opencast coal mining

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

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

9 Coal mining subsidence

The Coal Authority has not received a damage notice or claim for the subject property, or any property within 50 metres of the enquiry boundary, since 31 October 1994.

There is no current Stop Notice delaying the start of remedial works or repairs to the property.

The Coal Authority is not aware of any request having been made to carry out preventive works before coal is worked under section 33 of the Coal Mining Subsidence Act 1991.

10 Mine gas

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

11 Hazards related to coal mining

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

12 Withdrawal of support

The property is not in an area where a notice to withdraw support has been given.

The property is not in an area where a notice has been given under section 41 of the Coal Industry Act 1994, cancelling the entitlement to withdraw support.

13 Working facilities order

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

14 Payments to owners of former copyhold land

The property is not in an area where a relevant notice has been published under the Coal Industry Act 1975/Coal Industry Act 1994.

Statutory cover



Coal mining subsidence

In the unlikely event of any coal mining related subsidence damage, the Coal Authority or the mine operator has a duty to take remedial action in respect of subsidence caused by the withdrawal of support from land or property in connection with lawful coal mining operations.

When the works are the responsibility of the Coal Authority, our dedicated public safety and subsidence team will manage the claim. The house or land owner ("the owner") is covered for these works under the terms of the Coal Mining Subsidence Act 1991 (as amended by the Coal Industry Act 1994). Please note, this Act does not apply where coal was worked or gotten by virtue of the grant of a gale in the Forest of Dean, or any other part of the Hundred of St. Briavels in the county of Gloucester.

If you believe your land or property is suffering from coal mining subsidence damage and you need more information on what to do next, please use the following link to our website which sets out what your rights are and what you need to consider before making a claim.

www.gov.uk/government/publications/coal-mining-subsidence-damage-notice-form



Coal mining hazards

Our public safety and subsidence team provide a 24 hour a day, 7 days a week hazard reporting service, to help protect the public from hazards caused by past coal workings, such as a mine shaft or shallow working collapse. To report any hazards please call **01623 646 333**. Further information can be found on our website: www.gov.uk/coalauthority.

Glossary



Key terms

adit - horizontal or sloped entrance to a mine

coal mining subsidence - ground movement caused by the removal of coal by underground mining

Coal Mining Subsidence Act 1991 - the Act setting out the duties of the Coal Authority to repair damage caused by coal mining subsidence

coal mining subsidence damage - damage to land, buildings or structures caused by the removal of coal by underground mining

coal seams - bed of coal of varying thickness

future opencast coal mining - a licence granted, or licence application received, by the Coal Authority to excavate coal from the surface

future underground coal mining - a licence granted, or licence application received, by the Coal Authority to excavate coal underground. Although it is unlikely, remaining coal reserves could create a possibility for future mining, which would be licensed by the Coal Authority

mine entries - collective name for shafts and adits

payments to owners of former copyhold land - historically, copyhold land gave rights to coal to the copyholder. Legislation was set up to allow others to work this coal, but they had to issue a notice and pay compensation if a copyholder came forward

shaft - vertical entry into a mine

site investigation - investigations of coal mining risks carried out with the Coal Authority's permission

stop notice - a delay to repairs because further coal mining subsidence damage may occur and it would be unwise to carry out permanent repairs

subsidence claim - a formal notice of subsidence damage to the Coal Authority since it was established on 31 October 1994

withdrawal of support - a historic notice informing landowners that the coal beneath their property was going to be worked

working facilities orders - a court order which gave permission, restricted or prevented coal mine workings