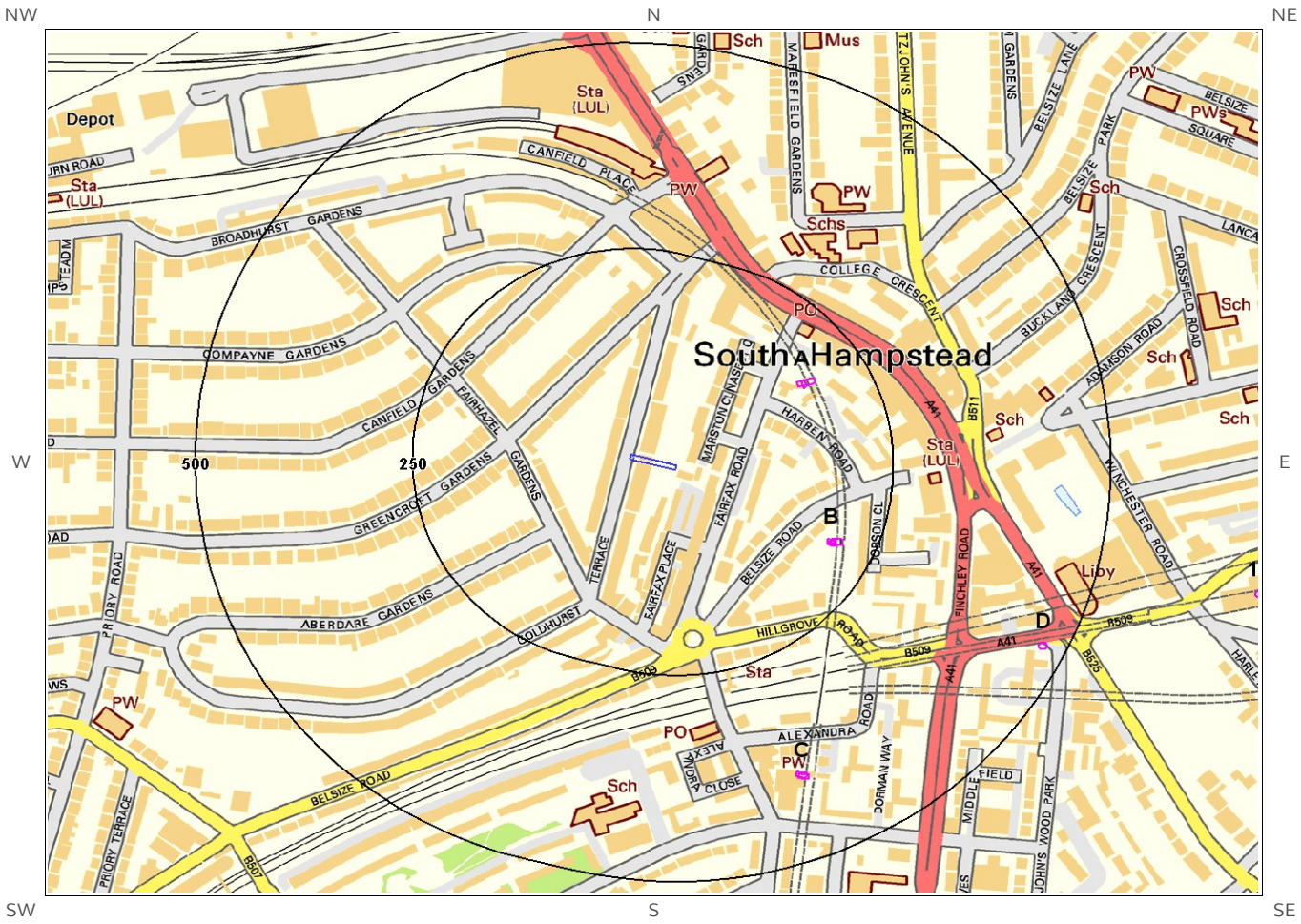
5 Mining, Extraction & Natural Cavities map



Mining, Extraction and Natural Cavities Legend

Site Outline

Search Buffers (m) — 250 — 500

Historical Mining

Non-Coal Mining Cavities

Natural Cavities (point data)

Natural Cavities (polygon data)

Non-Coal Mining

Highly likely

Likely

Unlikely

Highly unlikely

Rare

5 Mining, Extraction & Natural Cavities

5.1 Historical Mining

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

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

The following Historical Mining information is provided by Groundsure:

ID	Distance (m)	Direction	NGR	Details	Date
1A	169.0	NE	526462 184429	Air Shaft	1940
2A	174.0	NE	526471 184430	Air Shaft	1957
3B	194.0	SE	526496 184238	Air Shaft	1940
4B	197.0	SE	526499 184237	Air Shaft	1920
5B	198.0	SE	526504 184237	Air Shaft	1957
6C	392.0	S	526463 183954	Air Shaft	1940
7C	392.0	S	526463 183954	Air Shaft	1957
8C	392.0	S	526463 183954	Air Shaft	1968
9C	395.0	S	526465 183953	Air Shaft	1920
10D	469.0	SE	526740 184111	Air Shaft	1968
11D	469.0	SE	526740 184111	Air Shaft	1973
Not shown	550.0	S	526440 183785	Air Shafts	1940
Not shown	615.0	S	526434 183717	Air Shafts	1940
Not shown	671.0	S	526434 183659	Air Shaft	1940
Not shown	675.0	N	526464 184994	Air Shaft	1989
Not shown	675.0	N	526464 184994	Air Shaft	1973
Not shown	677.0	N	526461 184996	Air Shaft	1940
Not shown	677.0	N	526461 184995	Air Shaft	1920
19	684.0	E	526989 184174	Air Shaft	1940
Not shown	813.0	NE	526752 185021	Unspecified Shaft	1866

ID	Distance (m)	Direction	NGR	Details	Date
Not shown	833.0	NE	526706 185071	Air Shaft	1920
Not shown	869.0	E	527156 184083	Air Shaft	1940
Not shown	869.0	E	527156 184083	Air Shaft	1957
Not shown	869.0	E	527156 184083	Air Shaft	1989
Not shown	869.0	E	527156 184083	Air Shaft	1968
Not shown	869.0	E	527156 184083	Air Shaft	1973
Not shown	873.0	E	527162 184082	Air Shaft	1894

5.2 Coal Mining

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

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

Database searched and no data found.

5.3 Johnson Poole and Bloomer

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

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

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

5.4 Non-Coal Mining

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

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

Database searched and no data found.

5.5 Non-Coal Mining Cavities

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

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

Database searched and no data found.

5.6 Natural Cavities

This dataset provides information based on the Peter Brett Associates natural cavities database. The dataset is made up of points and polygons. Where polygons are used these represent an area in which it is expected the cavities could be found. It does not indicate that cavities are present everywhere within the polygon, and caution should be used in the interpretation of this data.

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

Database searched and no data found.

5.7 Brine Extraction

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

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

Database searched and no data found.

5.8 Gypsum Extraction

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

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

Database searched and no data found.

5.9 Tin Mining

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

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

Database searched and no data found.

5.10 Clay Mining

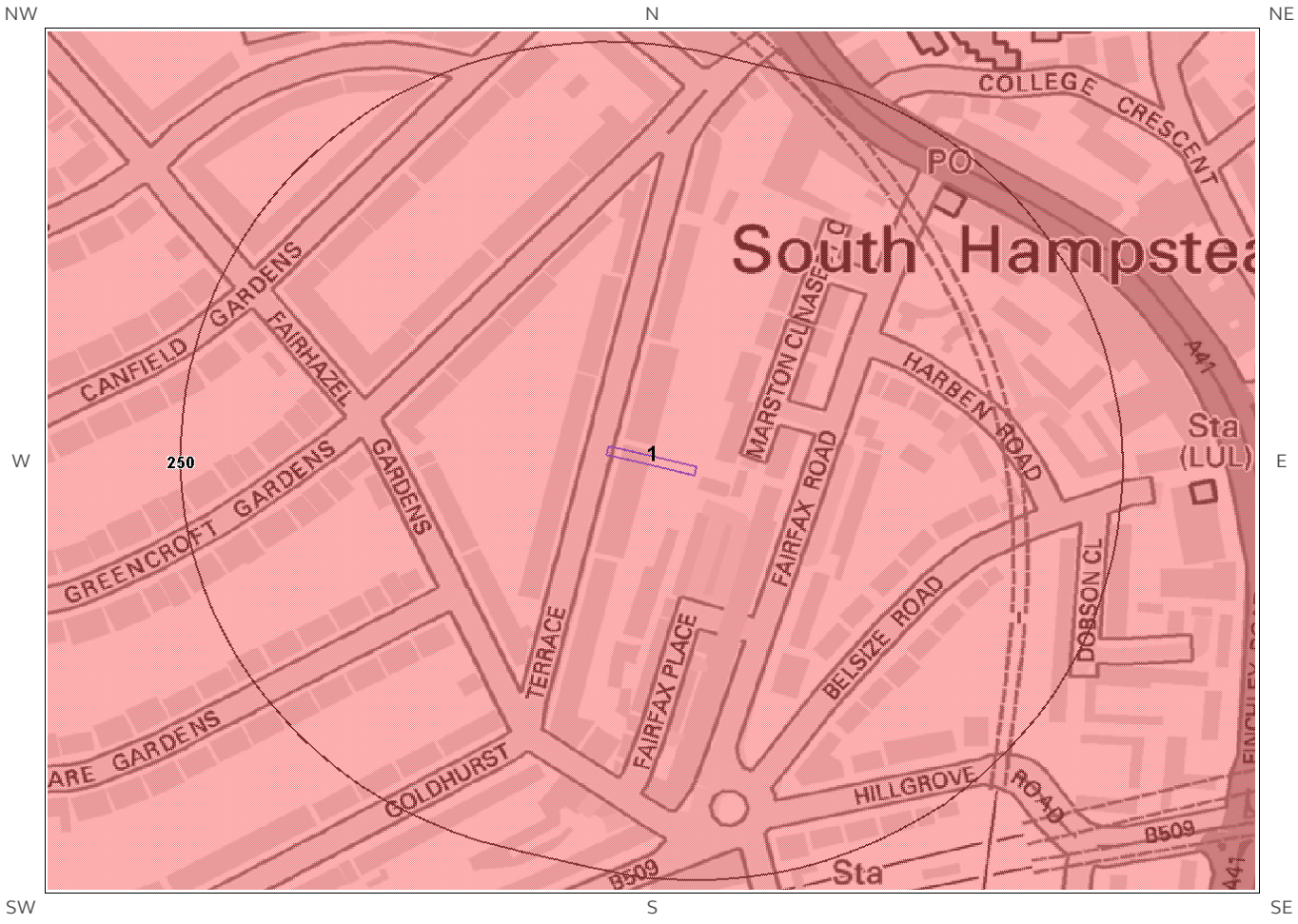
This dataset provides information on Kaolin and Ball Clay mining from relevant mining records.

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

Database searched and no data found.

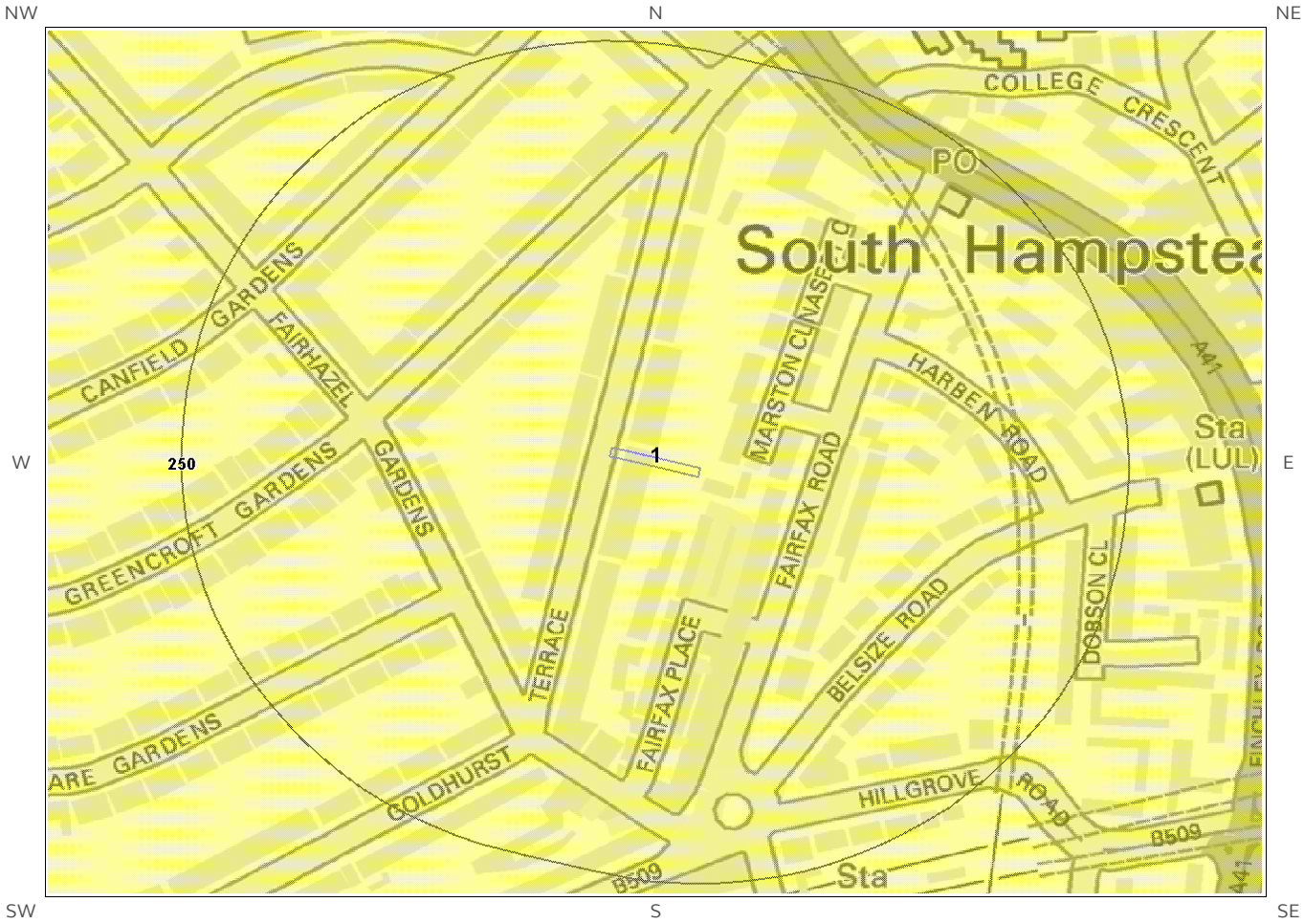
6 Natural Ground Subsidence

6.1 Shrink-Swell Clay map



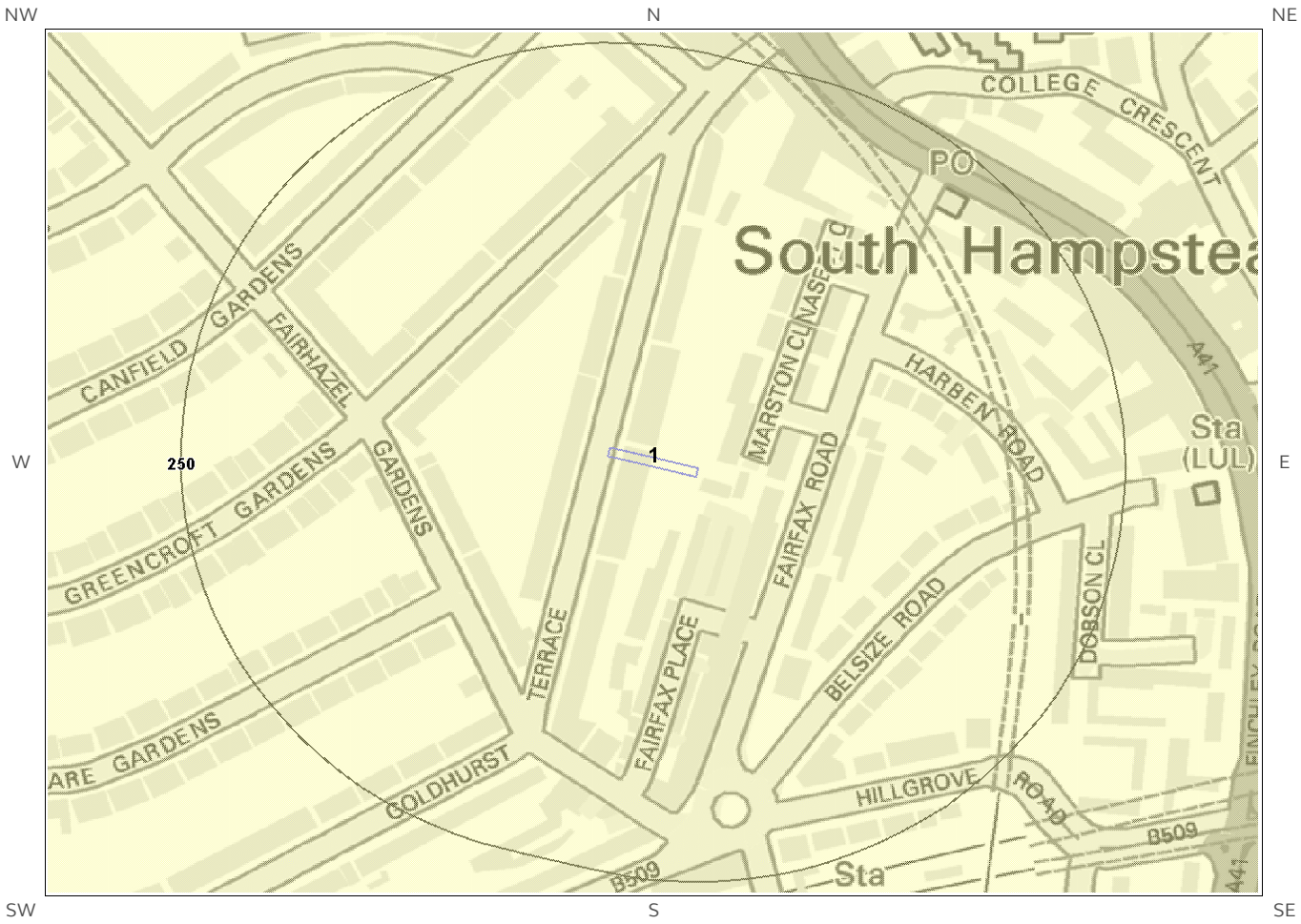
Shrink Swell Clay Legend

6.2 Landslides map



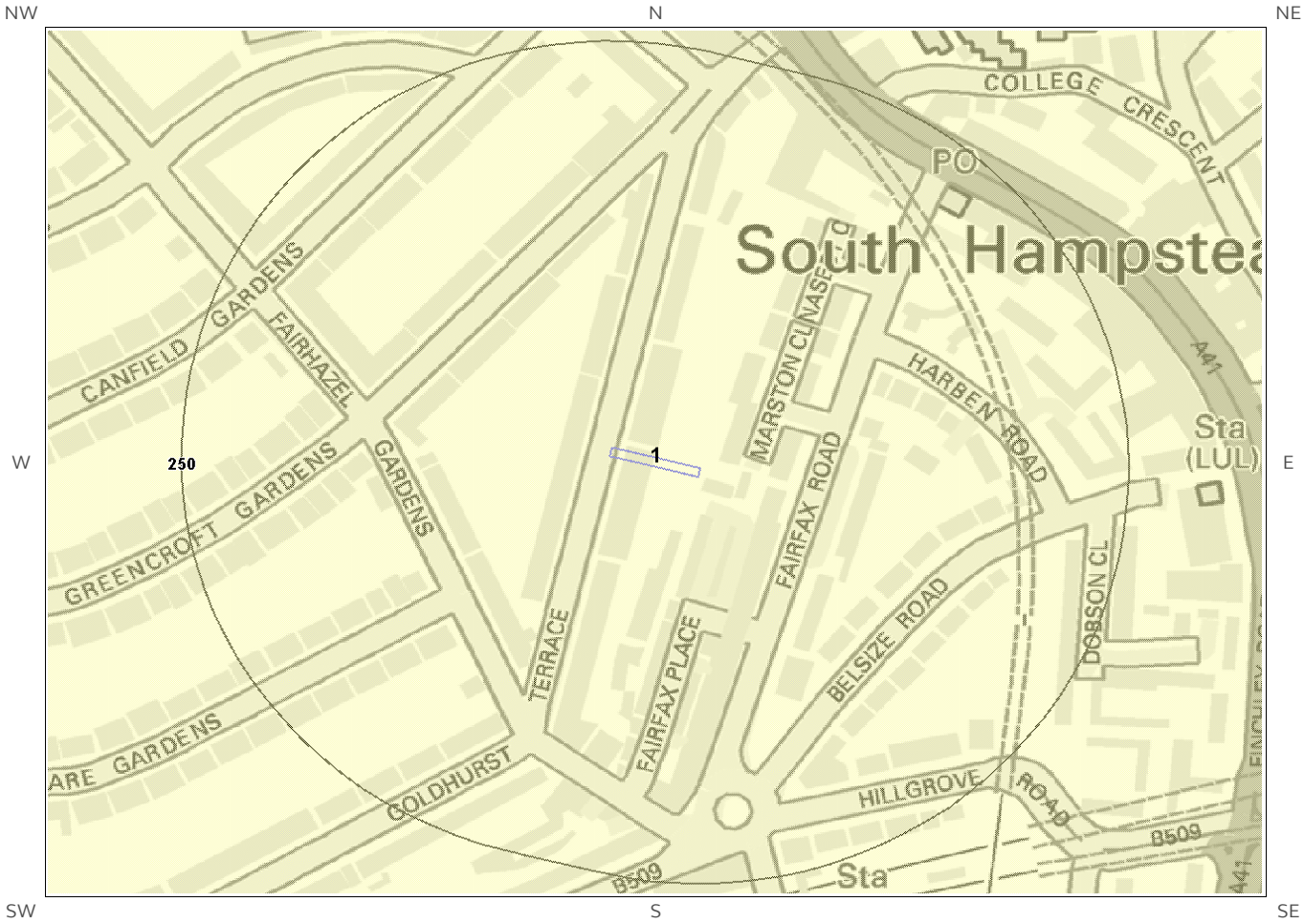
Landslides Legend

6.3 Ground Dissolution of Soluble Rocks map



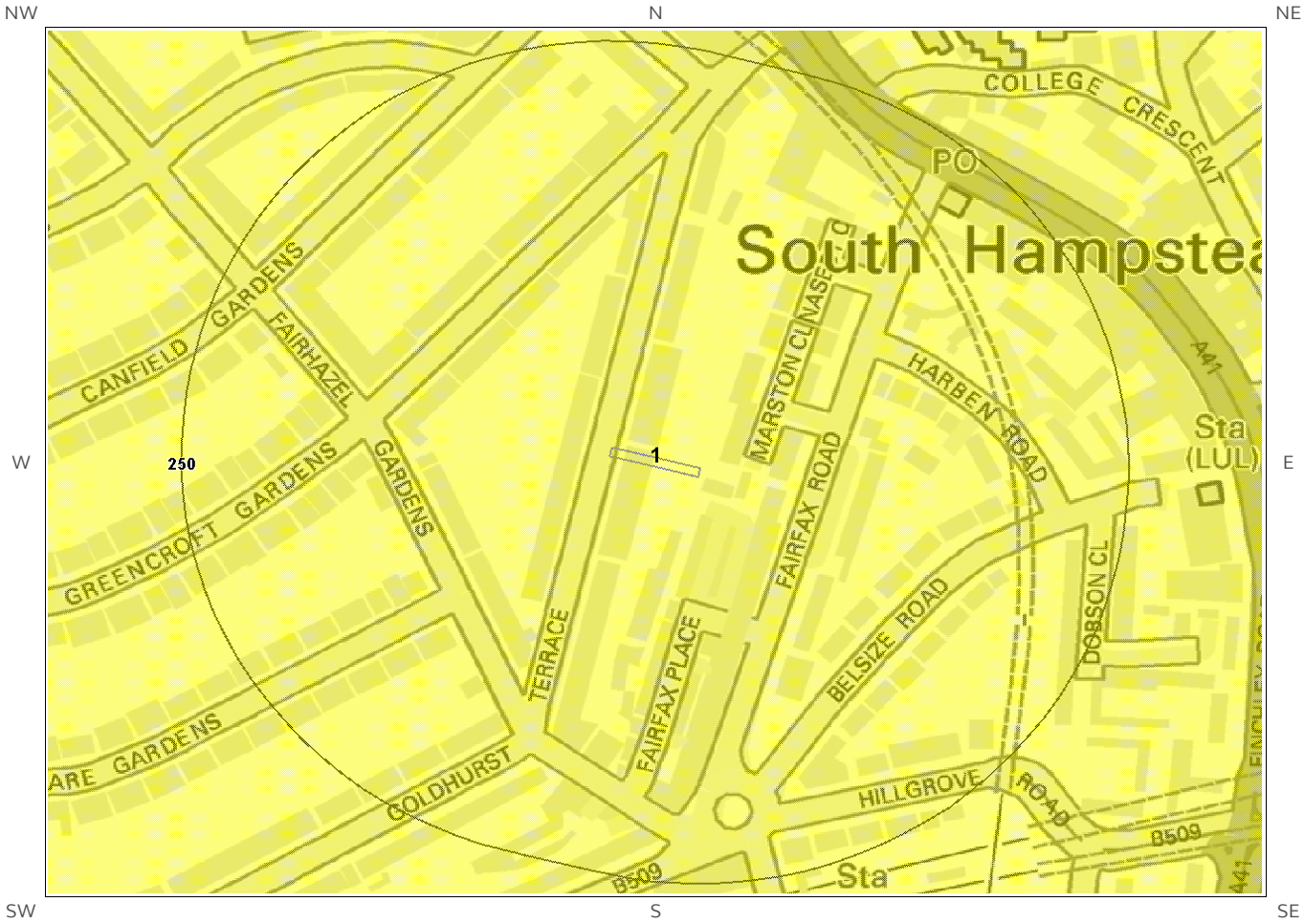
Ground Dissolution Soluble Rocks Legend

6.4 Compressible Deposits map



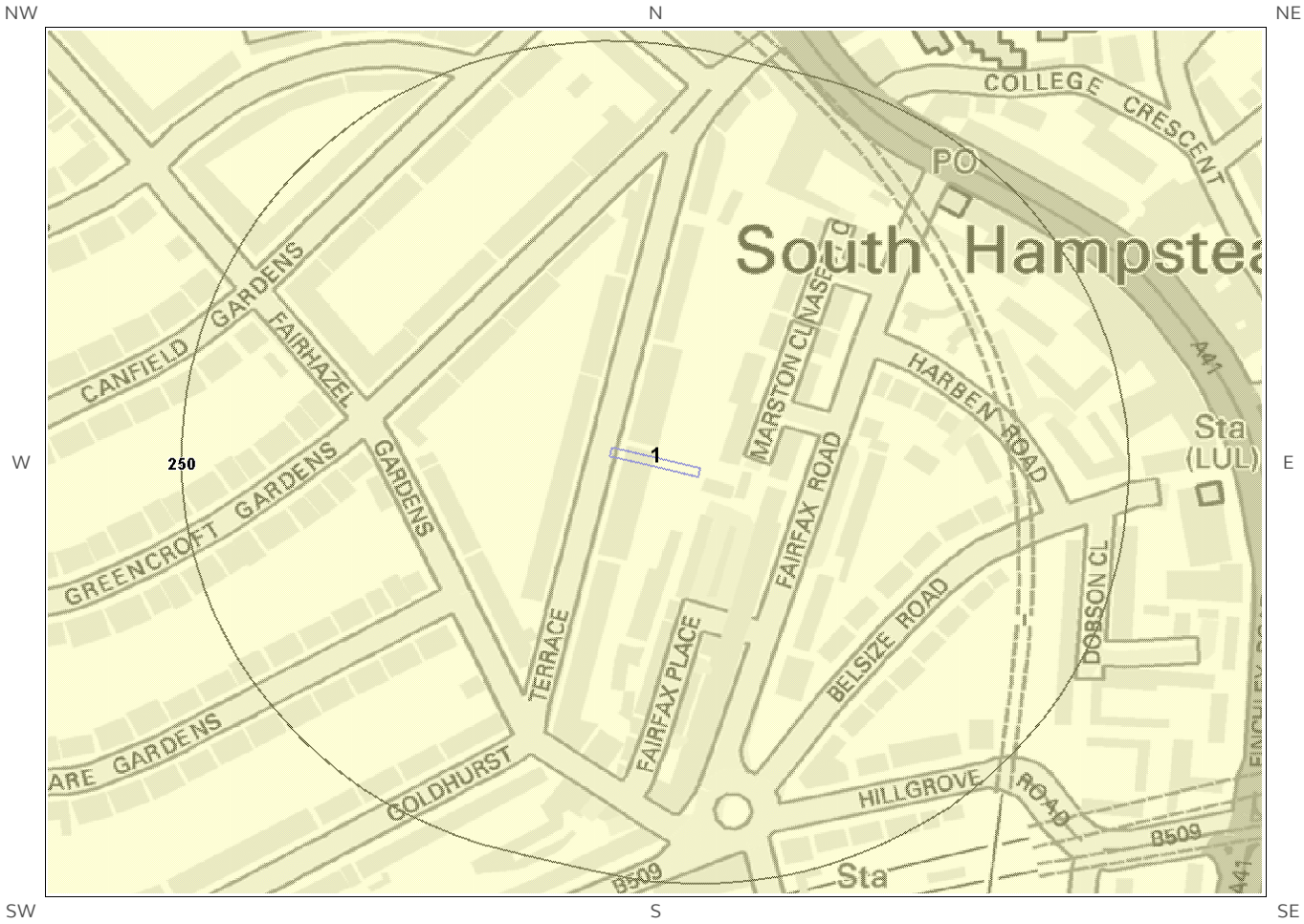
Compressible Deposits Legend

6.5 Collapsible Deposits map



Collapsible Deposits Legend

6.6 Running Sand map



Running Sand Legend

6 Natural Ground Subsidence

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

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

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

6.1 Shrink-Swell Clays

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

ID	Distance (m)	Direction	Hazard Rating	Details
1	0.0	On Site	Moderate	Ground conditions predominantly high plasticity. Do not plant or remove trees or shrubs near to buildings without expert advice about their effect and management. For new build, consideration should be given to advice published by the National House Building Council (NHBC) and the Building Research Establishment (BRE). There is a probable increase in construction cost to reduce potential shrink-swell problems. For existing property, there is a probable increase in insurance risk during droughts or where vegetation with high moisture demands is present.

6.2 Landslides

The following Landslides information provided by the British Geological Survey:

ID	Distance (m)	Direction	Hazard Rating	Details
1	0.0	On Site	Very Low	Slope instability problems are unlikely to be present. No special actions required to avoid problems due to landslides. No special ground investigation required, and increased construction costs or increased financial risks are unlikely due to potential problems with landslides.

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

6.3 Ground Dissolution of Soluble Rocks

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

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

6.4 Compressible Deposits

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

ID	Distance (m)	Direction	Hazard Rating	Details
1	0.0	On Site	Negligible	No indicators for compressible deposits identified. No special actions required to avoid problems due to compressible deposits. No special ground investigation required, and increased construction costs or increased financial risks are unlikely due to potential problems with compressible deposits.

6.5 Collapsible Deposits

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

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

6.6 Running Sands

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

ID	Distance (m)	Direction	Hazard Rating	Details
1	0.0	On Site	Negligible	No indicators for running sand identified. No special actions required to avoid problems due to running sand. No special ground investigation required, and increased construction costs or increased financial risks are unlikely due to potential problems with running sand.

7 Borehole Records map

Borehole Records Legend

Site Outline

Borehole Locations

125
250
Search Buffers (m)

7 Borehole Records

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

Records of boreholes within 250m of the study site boundary: 1

ID	Distance (m)	Direction	NGR	BGS Reference	Drilled Length	Borehole Name
1	239.0	S	526230 184100	TQ28SE276	7.62	COLRIDGE GARDENS SWISS COTTAGE

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

#1: scans.bgs.ac.uk/sobi_scans/boreholes/591794

8 Estimated Background Soil Chemistry

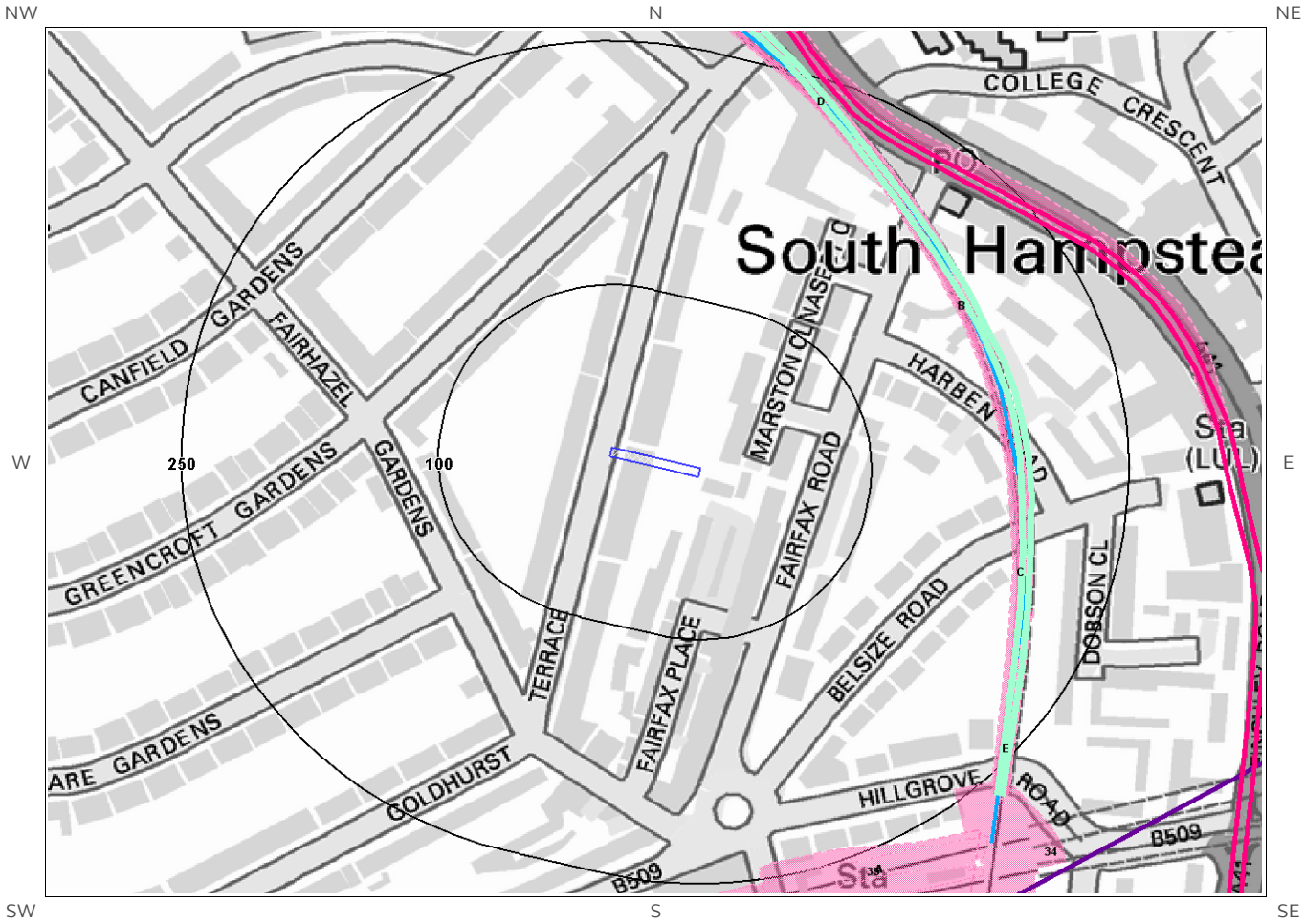
Records of background estimated soil chemistry within 250m of the study site boundary: 1

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

Distance (m)	Direction	Sample Type	Arsenic (As)	Cadmium (Cd)	Chromium (Cr)	Nickel (Ni)	Lead (Pb)
0.0	On Site	London	No data	No data	No data	No data	No data

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

9 Railways and Tunnels map



Railways and Tunnels Legend

- Site Outline
- Search Buffers (m) — 250 — 500
- Underground or Partially Underground Railway / Subway System
- Railway Tunnel (OS Mapping)
- Abandoned or Dismantled Railway (OpenStreetMap)
- Railway Track (OS Mapping)
- Railway Track (OpenStreetMap)
- High Speed 2
- High Speed 2 Revised Proposed Route
- Crossrail 1
- Railway and/or Tunnel Feature from Historical Mapping

9 Railways and Tunnels

9.1 Tunnels

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

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

Have any underground railway lines been identified within 250m of the study site boundary? Yes

Distance (m)	Direction	Detail
230	NE	London Underground - Metropolitan Line

The approximate depth value for the nearest London Underground line given in this dataset has been extrapolated from published depths of tube lines at station platforms, and assume a constant gradient between stations. Using this method, topographical variation has resulted in some parts of the line having associated depth values either shallower or deeper than the real-world situation. Depth values are for indication only and should not be relied upon for any calculation or technical purpose and are in no way a substitute for a professional survey.

Line
London Underground Line: Metropolitan Line Depth: 7mbgl Track Type: Tunnel

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

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

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

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

Database searched and no data found.

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

9.2 Historical Railway and Tunnel Features

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

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

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

ID	Distance (m)	Direction	NGR	Details	Date
36F	175	E	526483 184398	Tunnel	1968
37G	175	E	526483 184398	Tunnel	1973
38G	175	E	526483 184398	Tunnel	1957
3B	177	E	526480 184414	Tunnel	1999
4B	177	E	526480 184414	Tunnel	1974
5B	177	E	526480 184416	Tunnel	1991
6B	177	E	526480 184416	Tunnel	1983
7B	177	E	526480 184416	Tunnel	1953
8B	177	E	526480 184416	Tunnel	1967
9B	177	E	526480 184416	Tunnel	1962
10F	178	E	526487 184399	Tunnel	1955
11C	181	E	526506 184258	Tunnel	1962
12C	181	E	526506 184258	Tunnel	1973
13C	181	E	526506 184258	Tunnel	1953
14C	181	E	526506 184258	Tunnel	1967
15C	181	E	526506 184257	Tunnel	1995
16C	182	E	526506 184262	Tunnel	1991
17C	182	E	526506 184262	Tunnel	1984
18C	182	E	526506 184262	Tunnel	1978
19C	182	E	526506 184262	Tunnel	1979
20D	202	NE	526362 184584	Tunnel	1991
21D	202	NE	526362 184584	Tunnel	1986
22D	202	NE	526363 184583	Tunnel	1994

ID	Distance (m)	Direction	NGR	Details	Date
23D	202	NE	526363 184583	Tunnel	1953
24D	202	NE	526363 184583	Tunnel	1971
25D	202	NE	526363 184583	Tunnel	1960
26E	218	SE	526498 184168	Tunnel	1999
27E	218	SE	526498 184168	Tunnel	1974
28E	219	SE	526495 184166	Tunnel	1983
29E	219	SE	526495 184166	Tunnel	1991
30E	220	SE	526495 184166	Tunnel	1953
31E	220	SE	526495 184166	Tunnel	1967
32E	220	SE	526495 184166	Tunnel	1962
33	235	NE	n/a	Tunnel	1896
1A	241	S	526417 184067	Railway Sidings	1968
2A	241	S	526417 184067	Railway Sidings	1973
34	243	SE	n/a	Railway	1915
35	250	S	526395 184066	Railway Sidings	1999

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

9.3 Historical Railways

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

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

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

Database searched and no data found.

Multiple sections of the same track may be listed in the detail above
Any records that have been identified are represented on the Railways and Tunnels map.

9.4 Active Railways

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

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

Have any active railway lines been identified within 250m of the study site boundary? Yes

Distance (m)	Direction	Name	Type
181	E	Not given	Multi Track
181	E	Not given	Multi Track
184	NE	Chiltern Main Line	Rail
184	NE	Chiltern Main Line	Rail
188	NE	Chiltern Main Line	Rail
188	NE	Chiltern Main Line	Rail
204	SE	Chiltern Main Line	Rail
204	SE	Chiltern Main Line	Rail
206	SE	Chiltern Main Line	Rail
206	SE	Chiltern Main Line	Rail
208	SE	Chiltern Main Line	Rail
208	SE	Chiltern Main Line	Rail
210	SE	Chiltern Main Line	Rail
210	SE	Chiltern Main Line	Rail

Multiple sections of the same track may be listed in the detail above
Any records that have been identified are represented on the Railways and Tunnels map.

9.5 Railway Projects

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

Is the study site within 5km of the route of the High Speed 2 rail project? Yes

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

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

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

Please note that this assessment takes account of both the original Phase 2b proposed route and the amended route proposed in 2016. As the Phase 2b route is still under consultation, Groundsure are providing information on both options until the final route is formally confirmed. Practitioners should take account of this uncertainty when advising clients.