

Site Details:

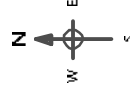
Client Ref: EMS_581031_779609
Report Ref: EMS-581031_779609
Grid Ref: 473003, 175191

Map Name: County Series

Map date: 1933-1938

Scale: 1:10,560

Printed at: 1:10,560



Surveyed 1877
Revised 1938
Edition N/A
Copyright N/A
Levelled N/A

Surveyed 1877
Revised 1933
Edition N/A
Copyright N/A
Levelled N/A



Produced by
Groundsure Insights
www.groundsure.com

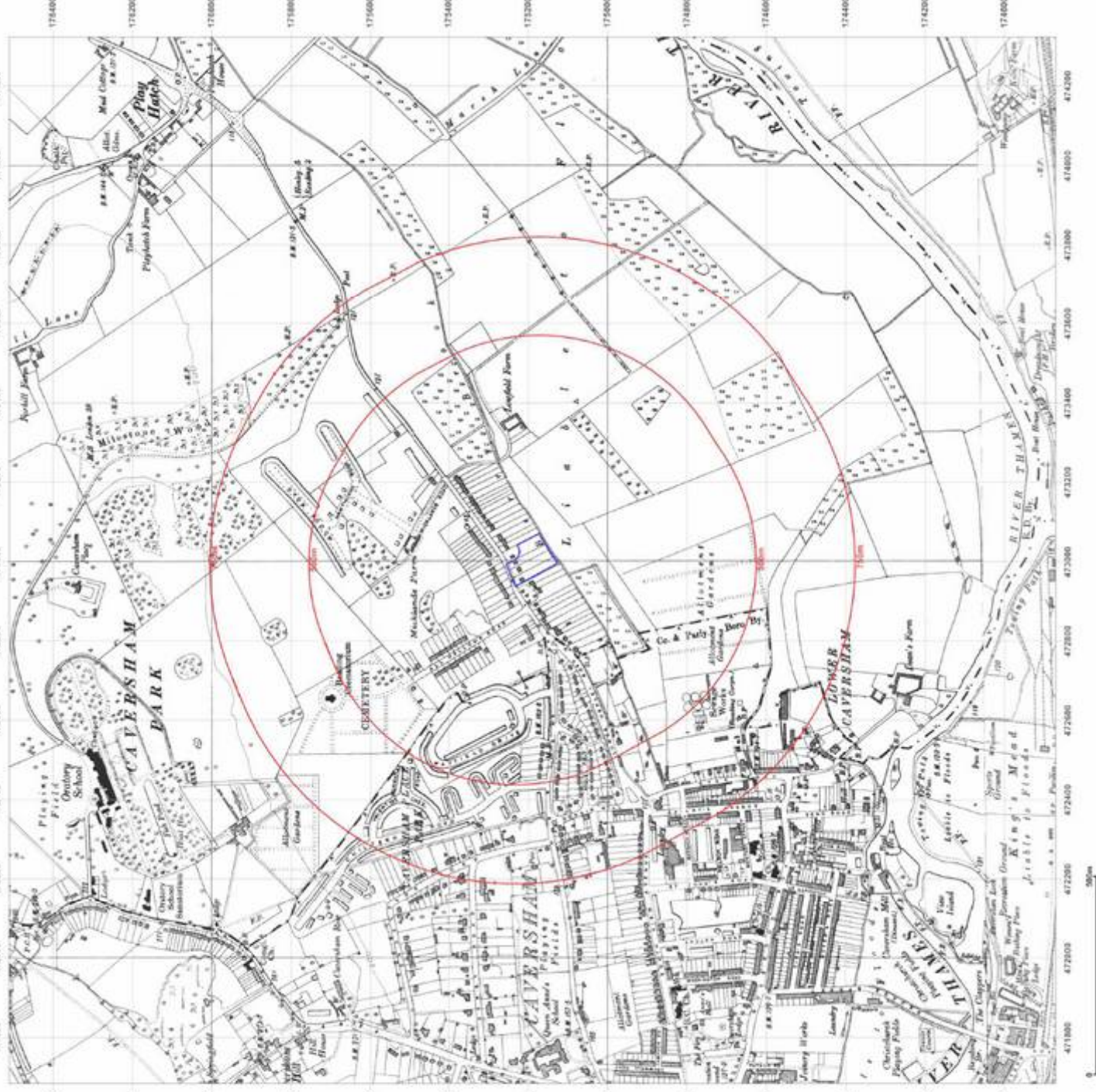


Supplied by:
www.emapsite.com
sales@emapsite.com

© Crown copyright and database rights 2019 Ordnance Survey 100035207
Production date: 02 December 2019

Map legend available at:

www.groundsure.com/sites/default/files/groundsure_legend.pdf



Site Details:

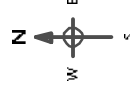
Client Ref: EMS_581031_779609
Report Ref: EMS-581031_779609
Grid Ref: 473003, 175191

Map Name: Provisional

Map date: 1961-1962

Scale: 1:10,560

Printed at: 1:10,560



Surveyed 1877
Revised 1956
Edition N/A
Copyright 1961
Levelled N/A

Surveyed 1959
Revised 1961
Edition N/A
Copyright 1962
Levelled N/A



Produced by
Groundsure Insights
www.groundsure.com

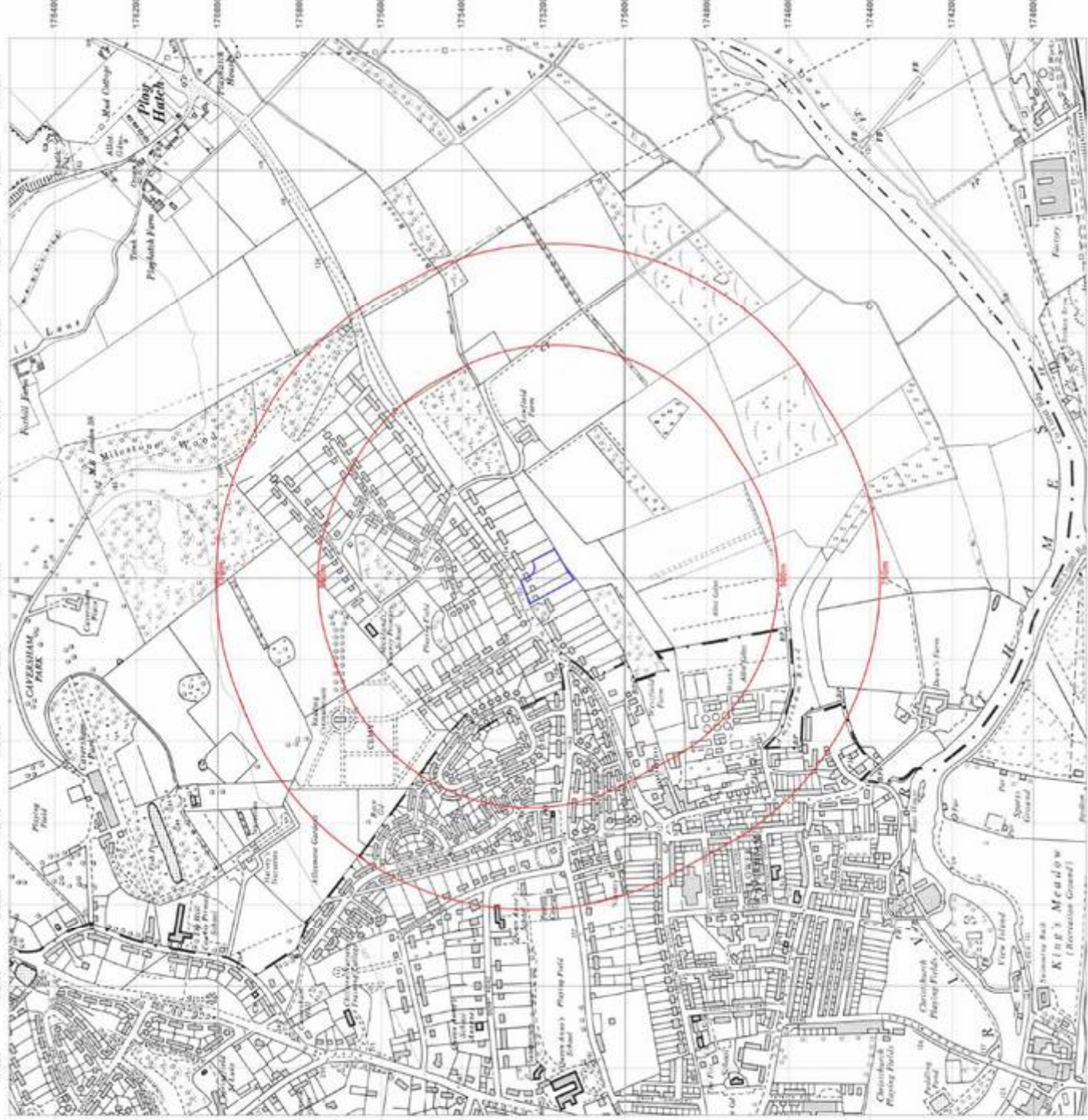


Supplied by:
www.emapsite.com
sales@emapsite.com

© Crown copyright and database rights 2019 Ordnance Survey 100035207
Production date: 02 December 2019

Map legend available at:

www.groundsure.com/sites/default/files/groundsure_legend.pdf



Site Details:

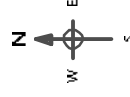
Client Ref: EMS_581031_779609
Report Ref: EMS-581031_779609
Grid Ref: 473003, 175191

Map Name: National Grid

Map date: 1973

Scale: 1:10,000

Printed at: 1:10,000



Surveyed 1971
Revised 1973
Edition N/A
Copyright 1973
Levelled 1969

Surveyed 1970
Revised 1973
Edition N/A
Copyright 1973
Levelled N/A



Produced by
Groundsure Insights
www.groundsure.com

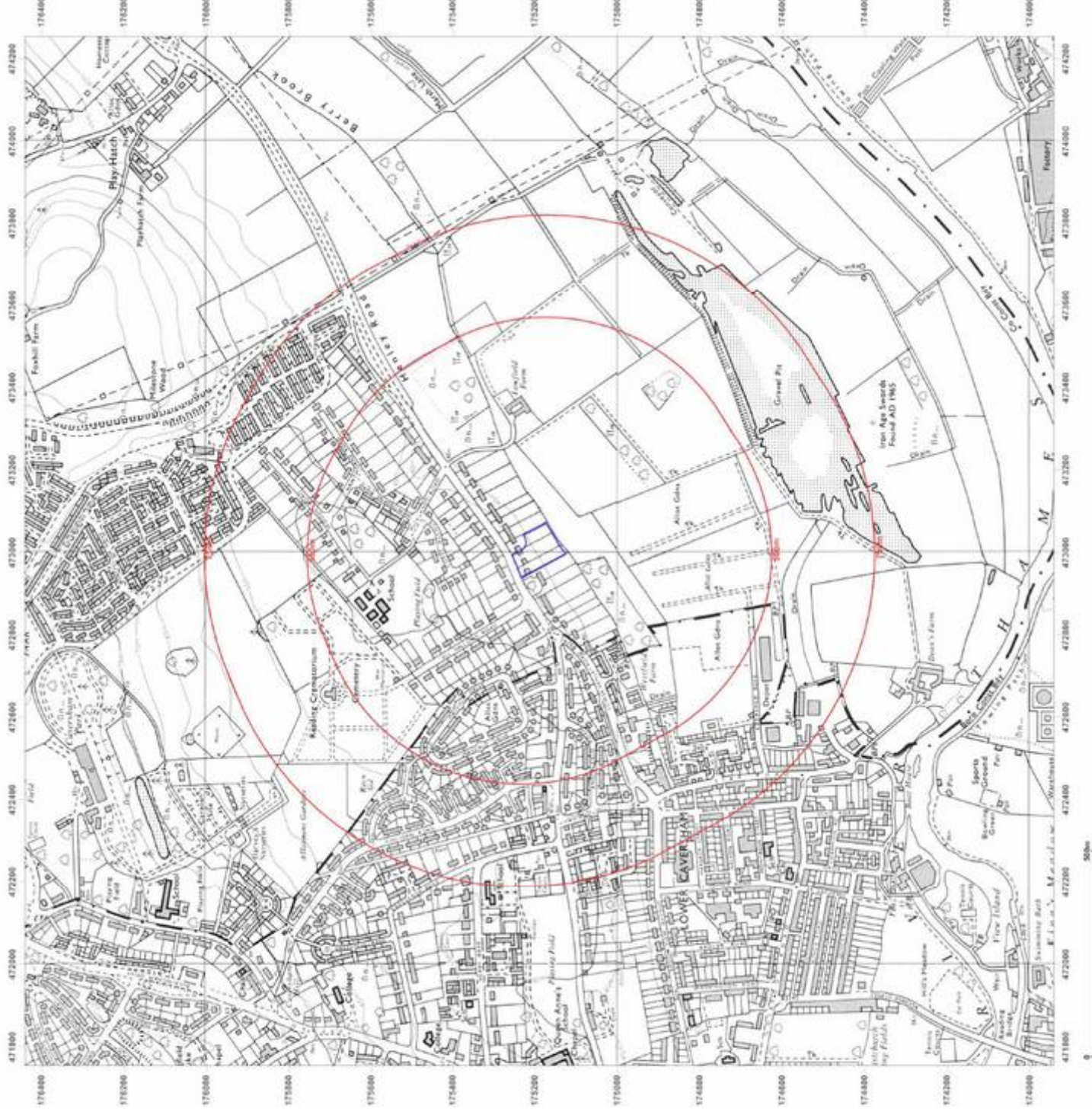


Supplied by:
www.emapsite.com
sales@emapsite.com

© Crown copyright and database rights 2019 Ordnance Survey 100035207
Production date: 02 December 2019

Map legend available at:

www.groundsure.com/sites/default/files/groundsure_legend.pdf



Site Details:

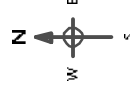
Client Ref: EMS_581031_779609
Report Ref: EMS-581031_779609
Grid Ref: 473003, 175191

Map Name: National Grid

Map date: 1979

Scale: 1:10,000

Printed at: 1:10,000



Surveyed 1977 Revised 1979 Edition N/A Copyright 1979 Levelled 1969	
---	--



Produced by
Groundsure Insights
www.groundsure.com

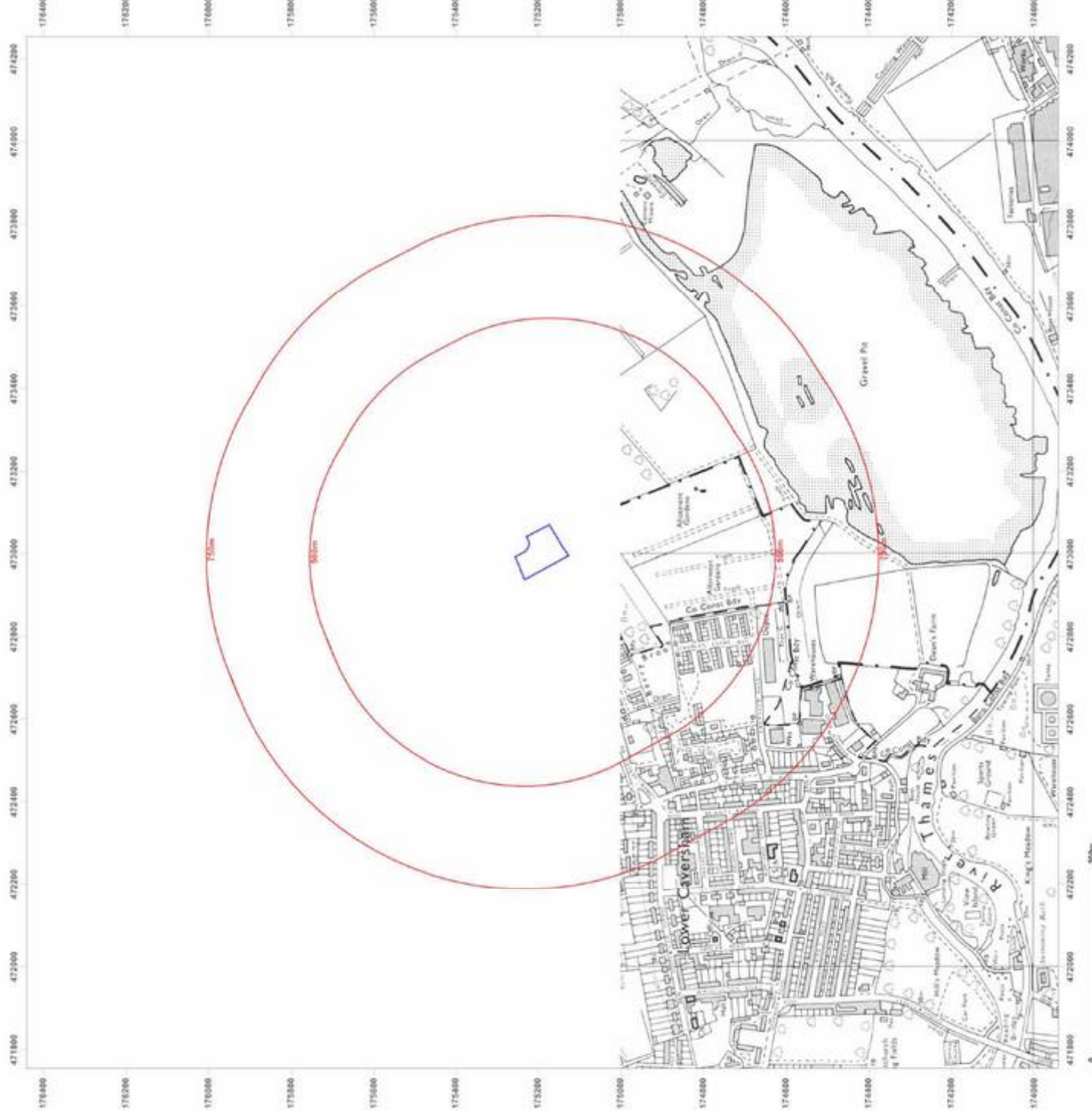


Supplied by:
www.emapsite.com
sales@emapsite.com

© Crown copyright and database rights 2019 Ordnance Survey 100035207
Production date: 02 December 2019

Map legend available at:

www.groundsure.com/sites/default/files/groundsure_legend.pdf



Site Details:

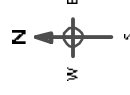
Client Ref: EMS_581031_779609
Report Ref: EMS-581031_779609
Grid Ref: 473003, 175191

Map Name: National Grid

Map date: 1989-1990

Scale: 1:10,000

Printed at: 1:10,000



Surveyed 1985
Revised 1990
Edition N/A
Copyright N/A
Levelled N/A

Surveyed 1987	Copyright N/A
Revised 1989	Levelled N/A
Edition N/A	



Produced by
Groundsure Insights
www.groundsure.com



Supplied by:
www.emapsite.com
sales@emapsite.com

© Crown copyright and database rights 2019 Ordnance Survey 100035207
Production date: 02 December 2019

Map legend available at:

Map legend available at: www.groundsurre.com/sites/default/files/groundsurre_legend.pdf

Site Details:

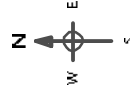
Client Ref: EMS_581031_779609
Report Ref: EMS-581031_779609
Grid Ref: 473003, 175191

Map Name: National Grid

Map date: 1994

Scale: 1:10,000

Printed at: 1:10,000



Surveyed 1987 Revised 1994 Edition N/A Copyright N/A Levelled N/A	



Produced by
Groundsure Insights
www.groundsure.com

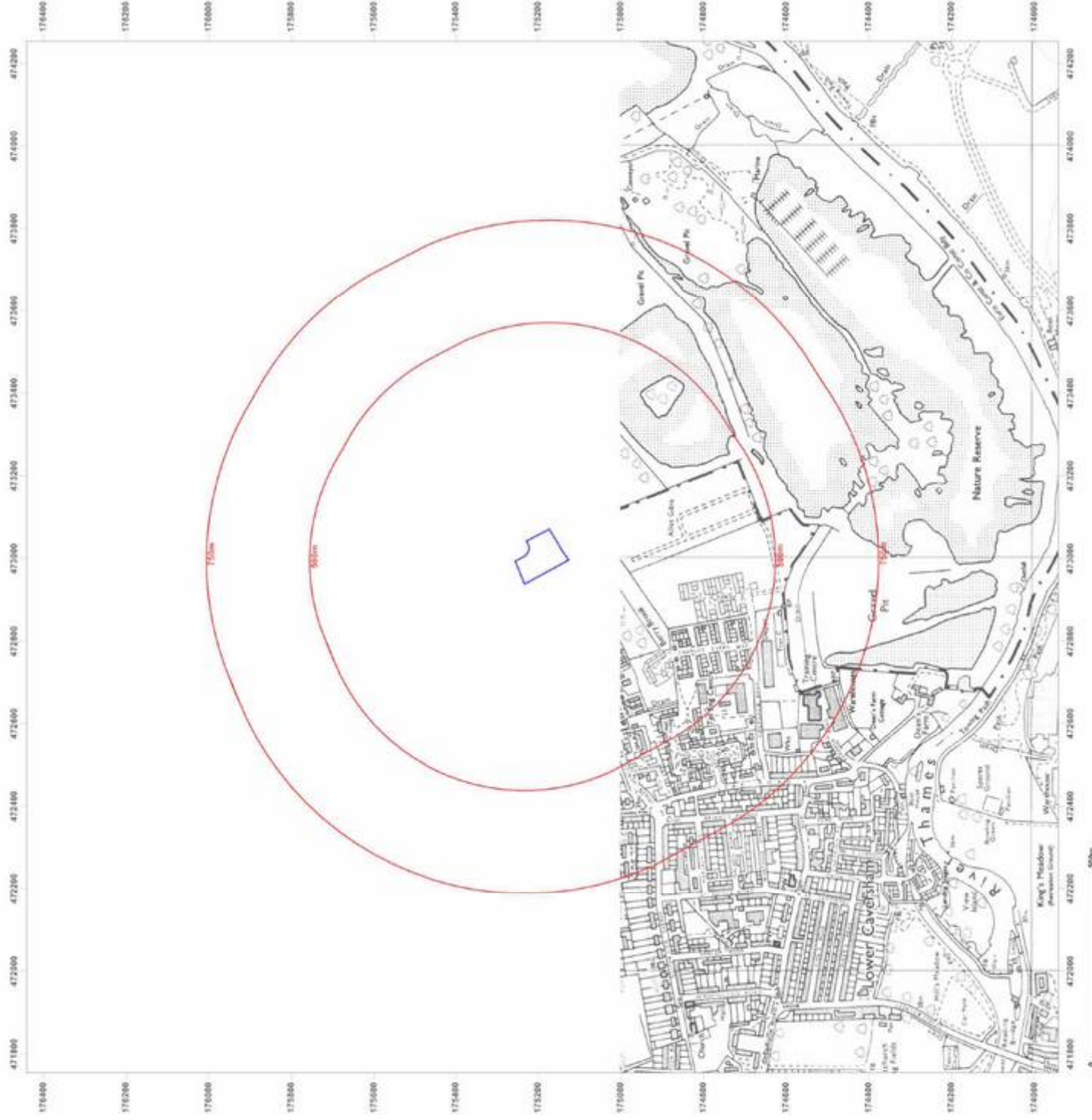


Supplied by:
www.emapsite.com
sales@emapsite.com

© Crown copyright and database rights 2019 Ordnance Survey 100035207
Production date: 02 December 2019

Map legend available at:

www.groundsure.com/sites/default/files/groundsure_legend.pdf



Site Details:

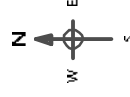
Client Ref: EMS_581031_779609
Report Ref: EMS-581031_779609
Grid Ref: 473003, 175191

Map Name: National Grid

Map date: 2001

Scale: 1:10,000

Printed at: 1:10,000



Produced by
Groundsure Insights
www.groundsure.com

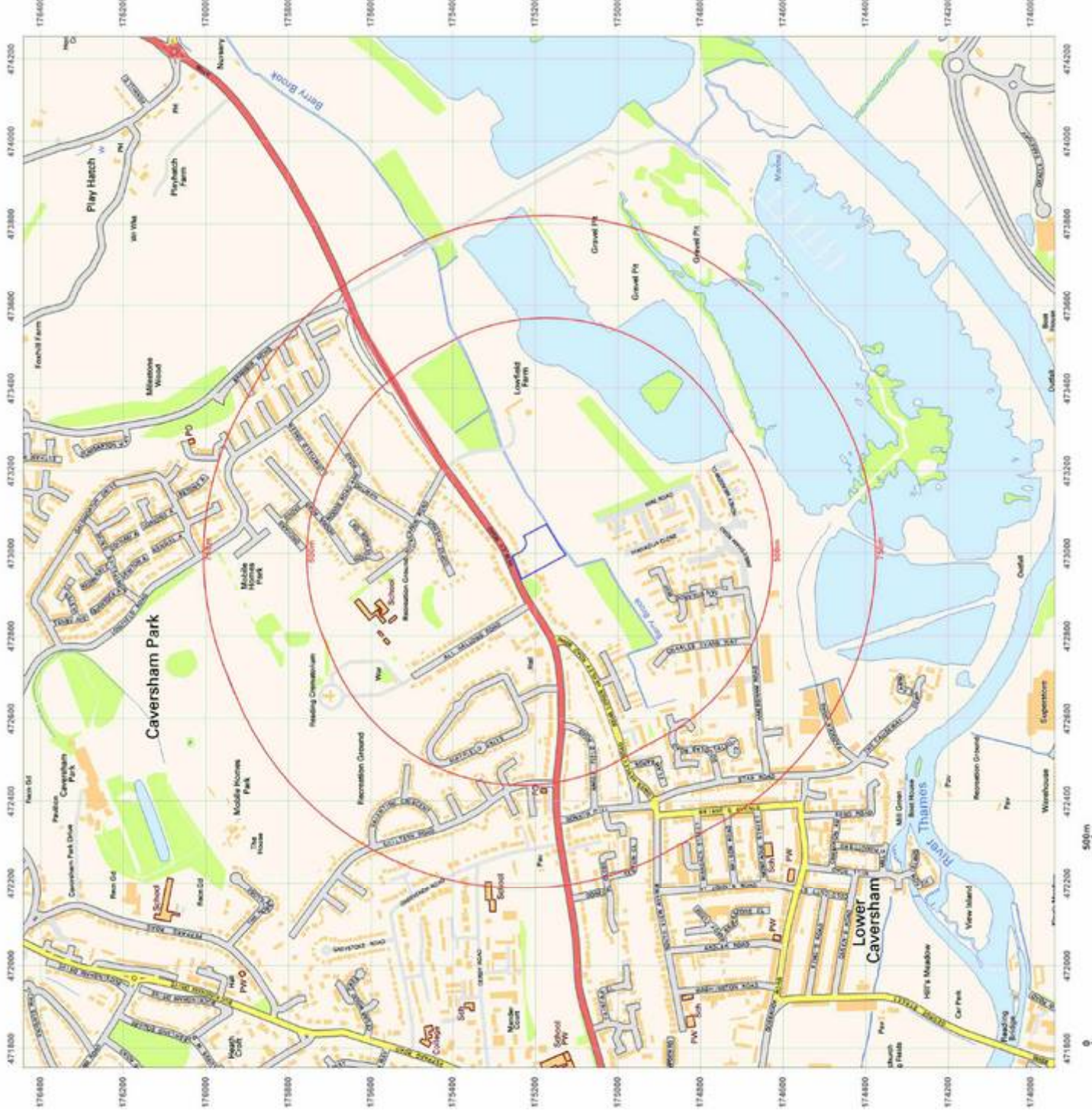


Supplied by:
www.emapsite.com
sales@emapsite.com

© Crown copyright and database rights 2019 Ordnance Survey 100035207
Production date: 02 December 2019

Map legend available at:

www.groundsure.com/sites/default/files/groundsure_legend.pdf



Site Details:

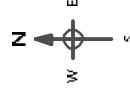
Client Ref: EMS_581031_779609
Report Ref: EMS_581031_779609
Grid Ref: 473003, 175191

Map Name: National Grid

Map date: 2010

Scale: 1:10,000

Printed at: 1:10,000



2010



Produced by
Groundsure Insights
www.groundsure.com

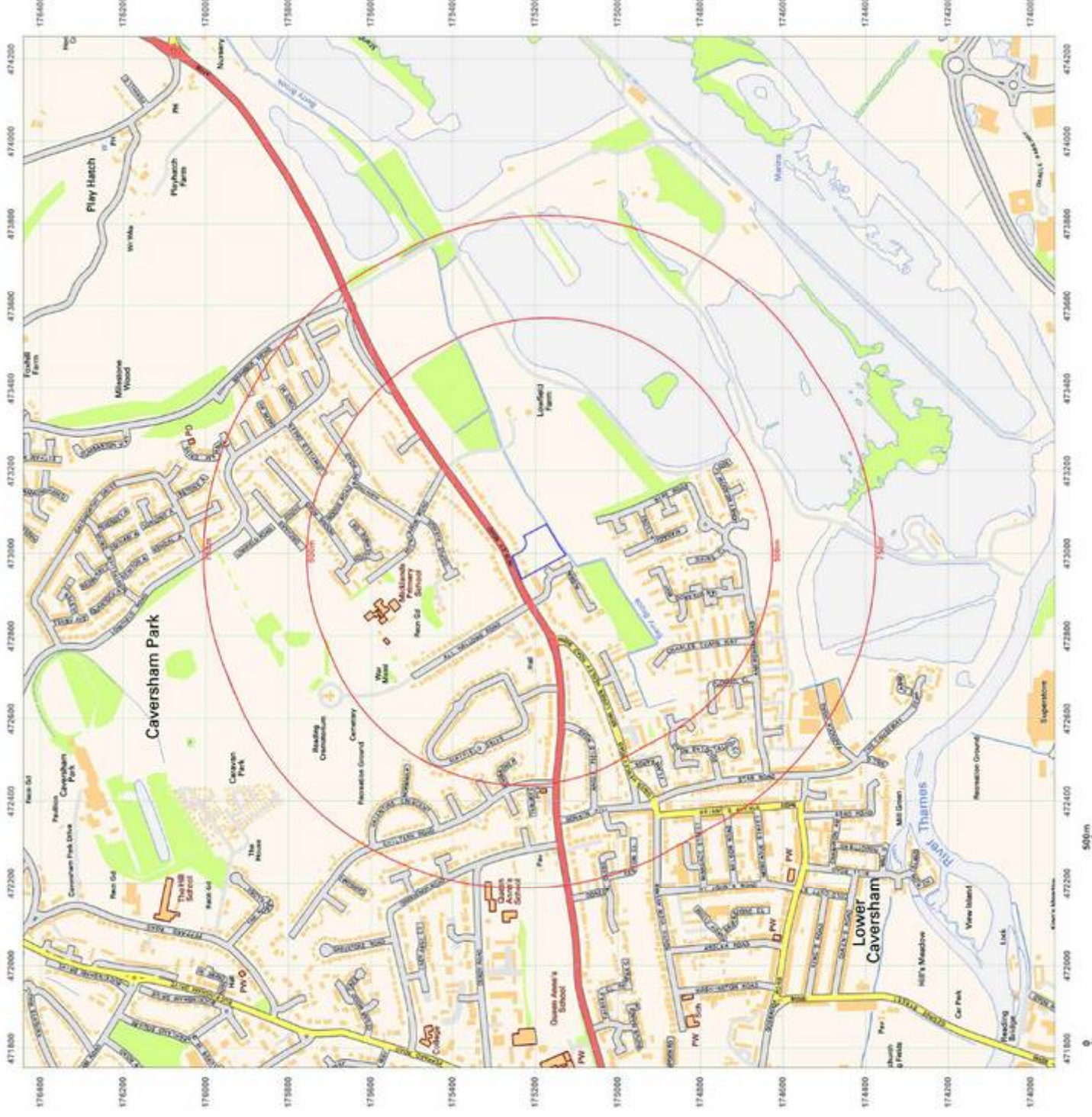


Supplied by:
www.emapsite.com
sales@emapsite.com

© Crown copyright and database rights 2019 Ordnance Survey 100035207
Production date: 02 December 2019

Map legend available at:

www.groundsure.com/sites/default/files/groundsure_legend.pdf



Site Details:

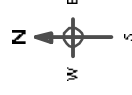
Client Ref: EMS_581031_779609
Report Ref: EMS-581031_779609
Grid Ref: 473003, 175191

Map Name: National Grid

Map date: 2019

Scale: 1:10,000

Printed at: 1:10,000



2019



Produced by
Groundsure Insights
www.groundsure.com

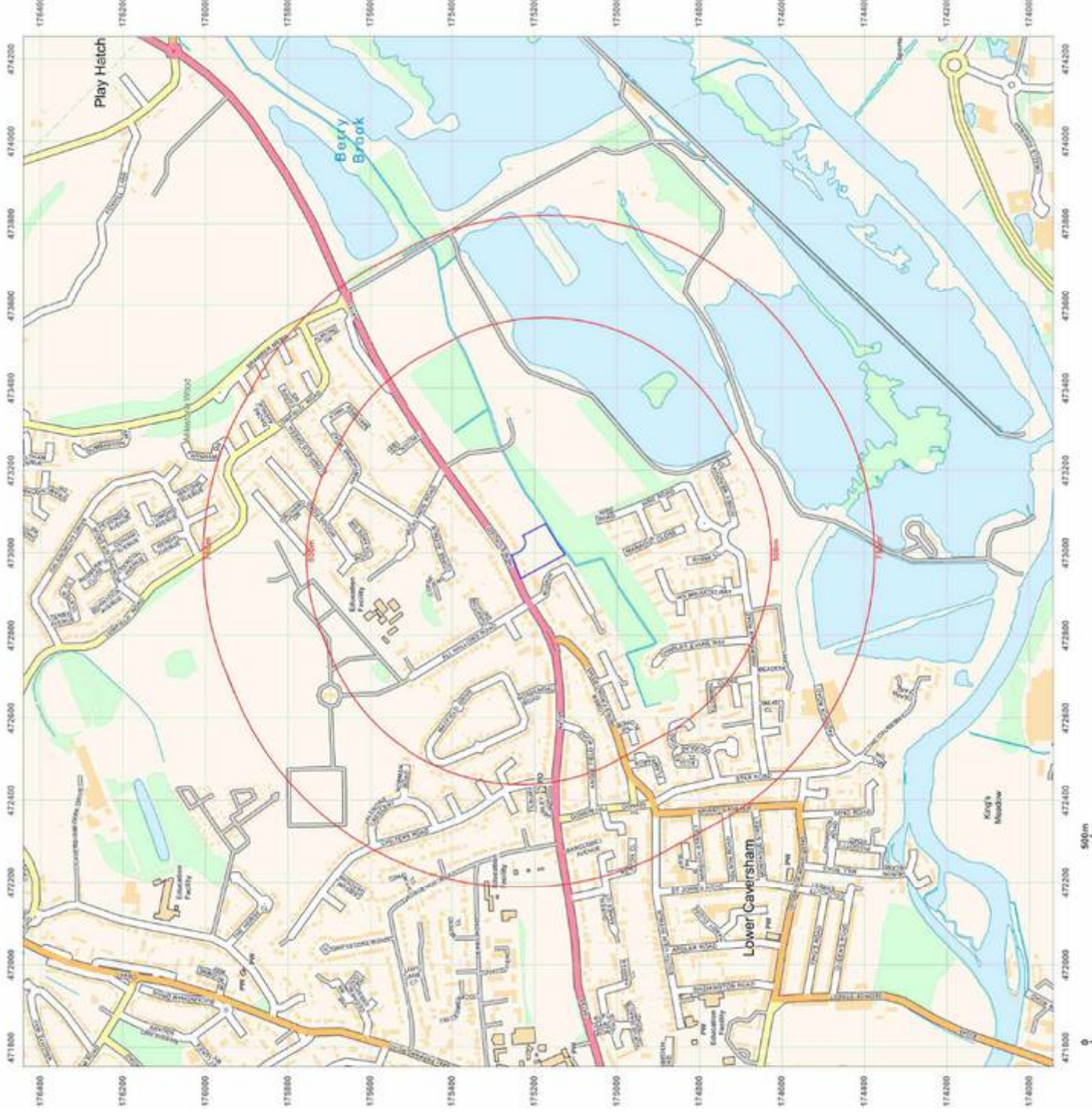


Supplied by:
www.emapsite.com
sales@emapsite.com

© Crown copyright and database rights 2019 Ordnance Survey 100035207
Production date: 02 December 2019

Map legend available at:

www.groundsure.com/sites/default/files/groundsure_legend.pdf



Site Details:

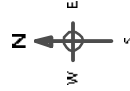
Client Ref: EMS_581031_779609
Report Ref: EMS-581031_779609
Grid Ref: 473003, 175191

Map Name: County Series

Map date: 1872

Scale: 1:2,500

Printed at: 1:2,500



Surveyed 1872
Revised 1872
Edition N/A
Copyright N/A
Levelled N/A



Produced by
Groundsure Insights
www.groundsure.com

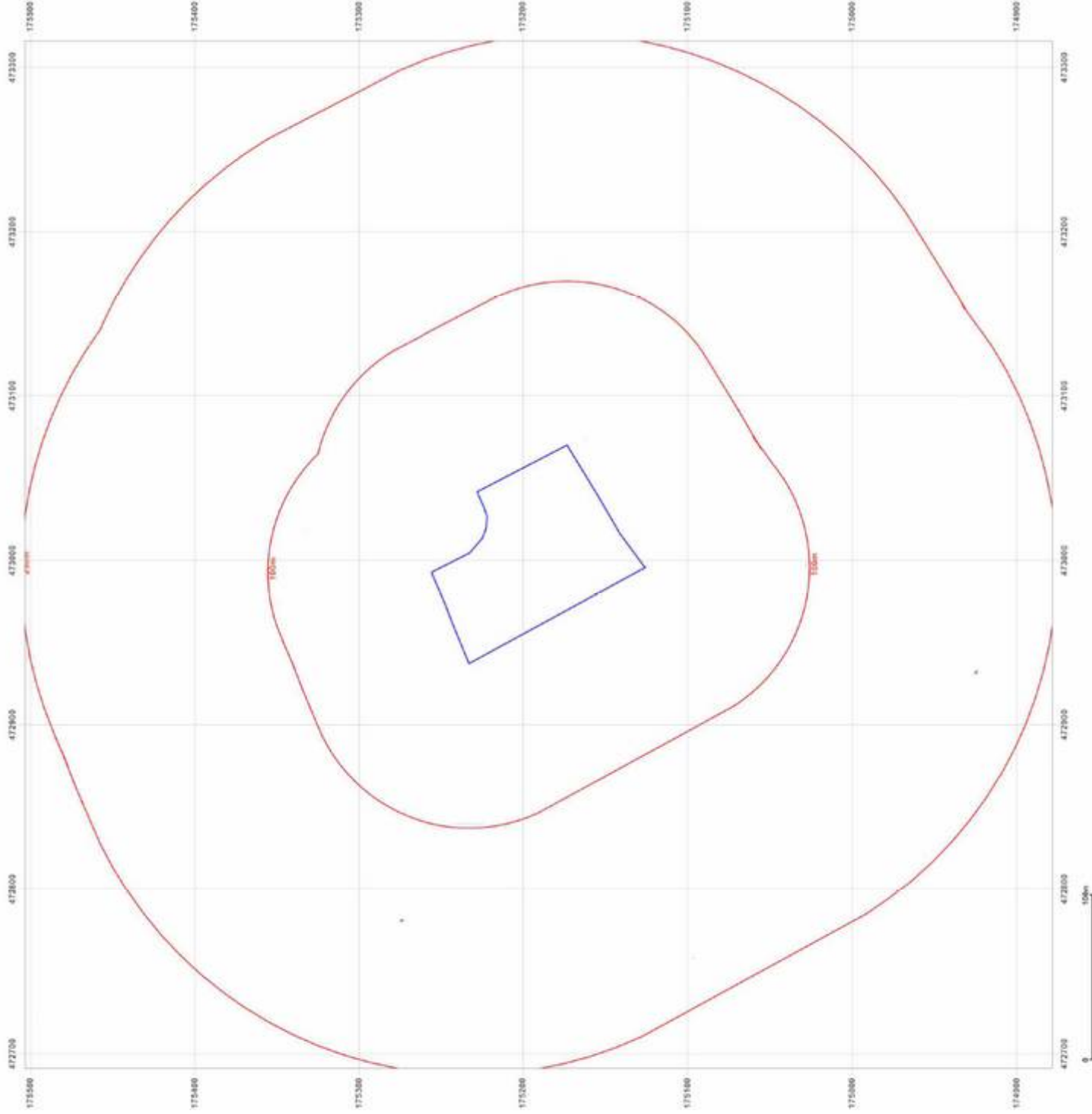


Supplied by:
www.emapsite.com
sales@emapsite.com

© Crown copyright and database rights 2019 Ordnance Survey 100035207
Production date: 02 December 2019

Map legend available at:

www.groundsure.com/sites/default/files/groundsure_legend.pdf



Site Details:

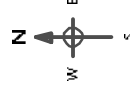
Client Ref: EMS_581031_779609
Report Ref: EMS-581031_779609
Grid Ref: 473003, 175191

Map Name: County Series

Map date: 1879

Scale: 1:2,500

Printed at: 1:2,500



Surveyed 1879
Revised 1879
Edition N/A
Copyright N/A
Levelled N/A



Produced by
Groundsure Insights
www.groundsure.com

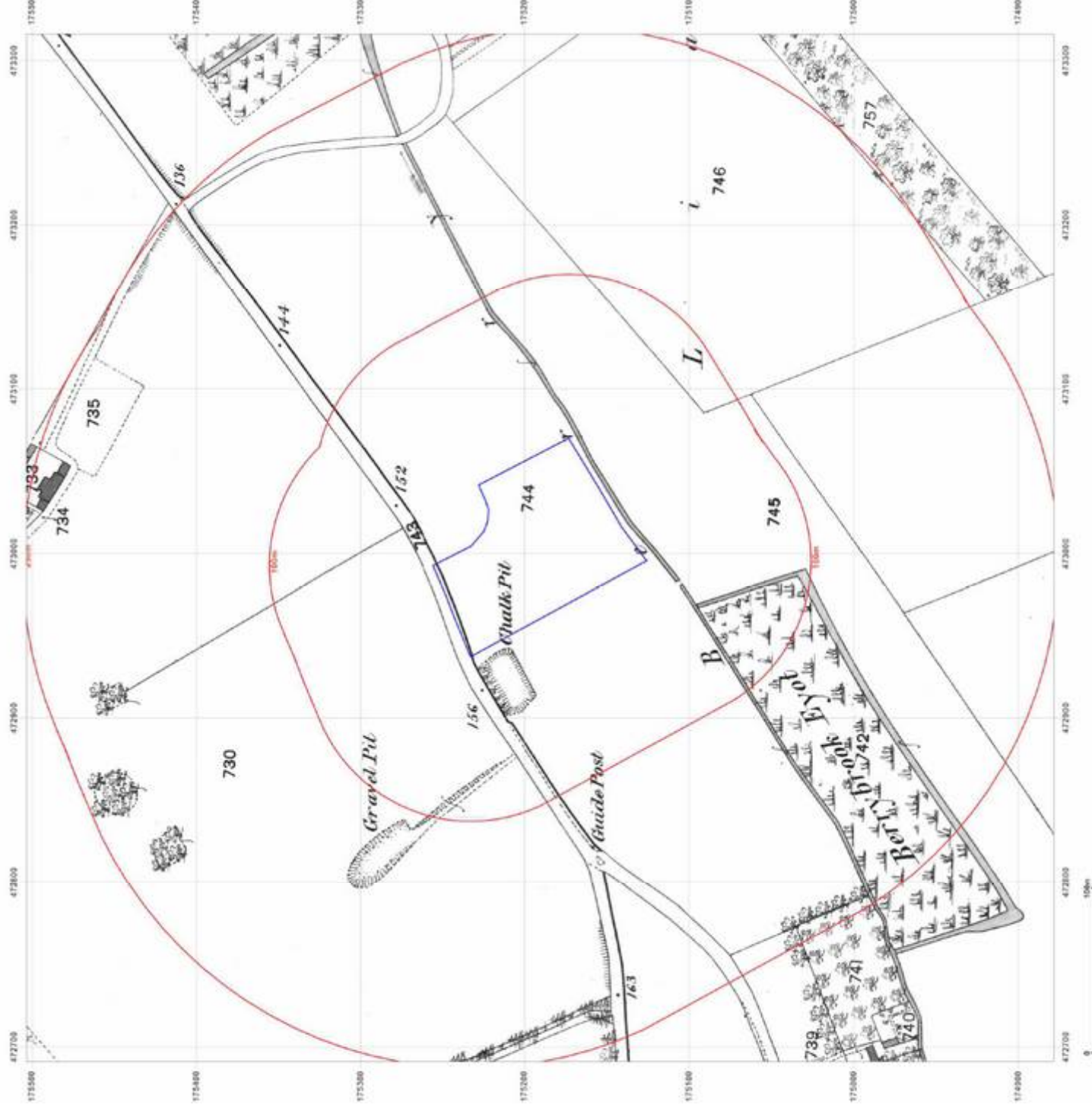


Supplied by:
www.emapsite.com
sales@emapsite.com

© Crown copyright and database rights 2019 Ordnance Survey 100035207
Production date: 02 December 2019

Map legend available at:

www.groundsure.com/sites/default/files/groundsure_legend.pdf



Site Details:

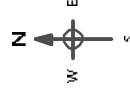
Client Ref: EMS_581031_779609
Report Ref: EMS-581031_779609
Grid Ref: 473003, 175191

Map Name: County Series

Map date: 1898

Scale: 1:2,500

Printed at: 1:2,500



Surveyed 1898	Copyright N/A
Revised 1898	Levelled N/A
Edition N/A	



Produced by
Groundsure Insights
www.groundsure.com

Supplied by:
www.emapsite.com
sales@emapsite.com

© Crown copyright and database rights 2019 Ordnance Survey 100035207
Production date: 02 December 2019

Map legend available at:

Map legend available at:
www.groundsurre.com/sites/default/files/groundsurre_legend.pdf

Site Details:

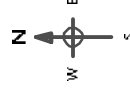
Client Ref: EMS_581031_779609
Report Ref: EMS-581031_779609
Grid Ref: 473003, 175191

Map Name: County Series

Map date: 1913

Scale: 1:2,500

Printed at: 1:2.500



Surveyed 1913
Revised 1913
Edition N/A
Copyright N/A
Levelled N/A



Produced by
Groundsure Insights
www.groundsure.com

Supplied by:
www.emapsite.com
sales@emapsite.com

© Crown copyright and database rights 2019 Ordnance Survey 100035207
Production date: 02 December 2019

Map legend available at:

Map legend available at:
www.groundsurre.com/sites/default/files/groundsurre_legend.pdf

Site Details:

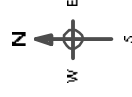
Client Ref: EMS_581031_779609
Report Ref: EMS-581031_779609
Grid Ref: 473003, 175191

Map Name: County Series

Map date: 1932

Scale: 1:2,500

Printed at: 1:2,500



Surveyed 1932
Revised 1932
Edition N/A
Copyright N/A
Levelled N/A



Produced by
Groundsure Insights
www.groundsure.com

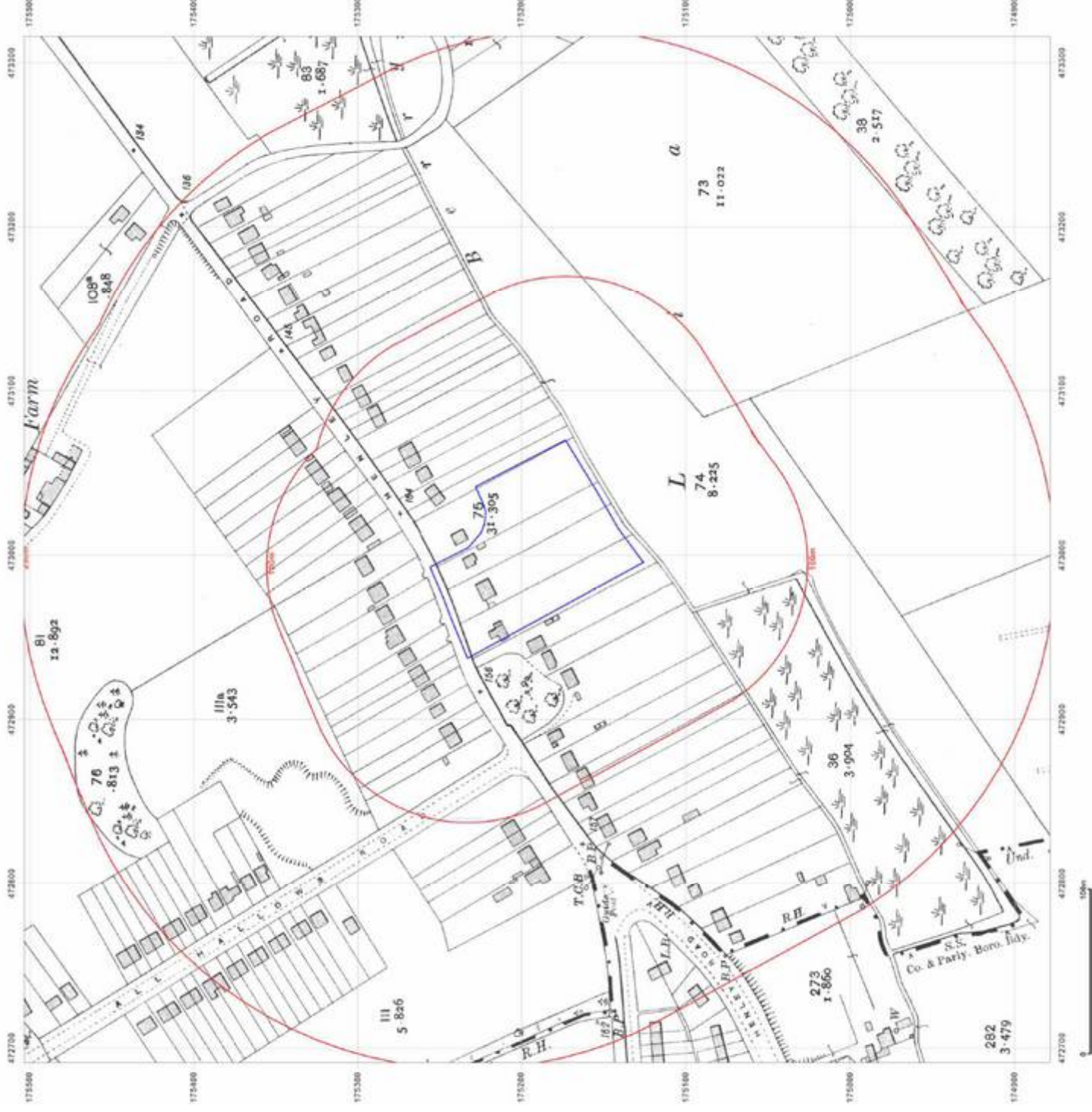


Supplied by:
www.emapsite.com
sales@emapsite.com

© Crown copyright and database rights 2019 Ordnance Survey 100035207
Production date: 02 December 2019

Map legend available at:

www.groundsure.com/sites/default/files/groundsure_legend.pdf



Site Details:

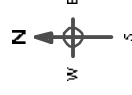
Client Ref: EMS_581031_779609
Report Ref: EMS-581031_779609
Grid Ref: 473003, 175191

Map Name: National Grid

Map date: 1955-1956

Scale: 1:1,250

Printed at: 1:2,000



Surveyed 1955
Revised 1955
Edition N/A
Copyright N/A
Levelled 1951

Surveyed 1955
Revised 1955
Edition N/A
Copyright N/A
Levelled 1951

Surveyed 1956
Revised 1956
Edition N/A
Copyright N/A
Levelled 1951

Surveyed 1956
Revised 1956
Edition N/A
Copyright N/A
Levelled 1951



Produced by
Groundsure Insights
www.groundsure.com



Supplied by:
www.emapsite.com
sales@emapsite.com

© Crown copyright and database rights 2019 Ordnance Survey 100035207
Production date: 02 December 2019

Map legend available at:

Map legend available at:
www.groundsurre.com/sites/default/files/groundsurre_legend.pdf

Site Details:

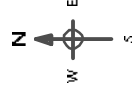
Client Ref: EMS_581031_779609
Report Ref: EMS-581031_779609
Grid Ref: 473003, 175191

Map Name: National Grid

Map date: 1956

Scale: 1:1,250

Printed at: 1:2,000



Surveyed N/A
Revised N/A
Edition N/A
Copyright N/A
Levelled N/A

Surveyed N/A
Revised N/A
Edition N/A
Copyright N/A
Levelled N/A



Produced by
Groundsure Insights
www.groundsure.com

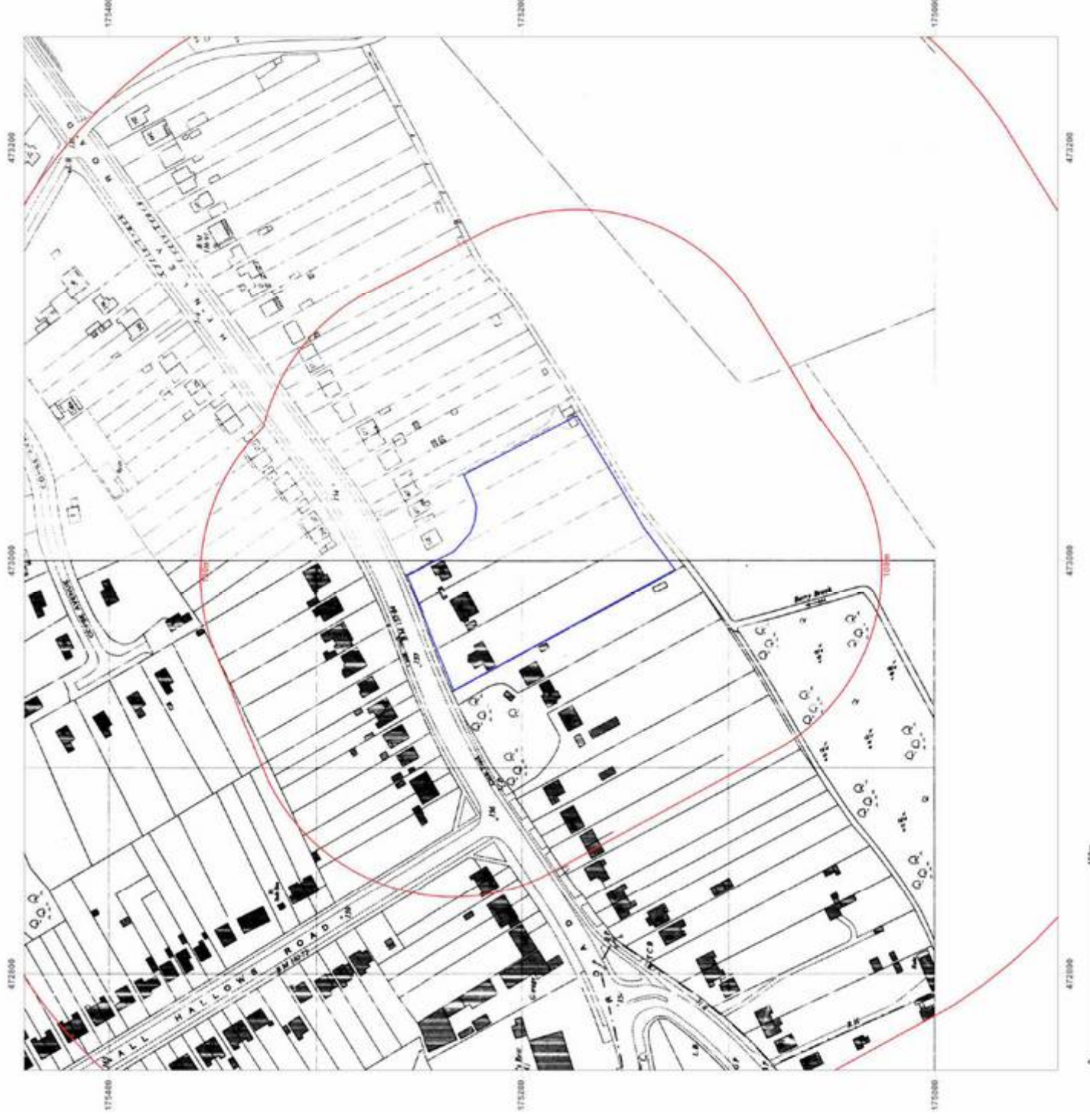


Supplied by:
www.emapsite.com
sales@emapsite.com

© Crown copyright and database rights 2019 Ordnance Survey 100035207
Production date: 02 December 2019

Map legend available at:

www.groundsure.com/sites/default/files/groundsure_legend.pdf



Site Details:

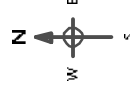
Client Ref: EMS_581031_779609
Report Ref: EMS_581031_779609
Grid Ref: 473003, 175191

Map Name: National Grid

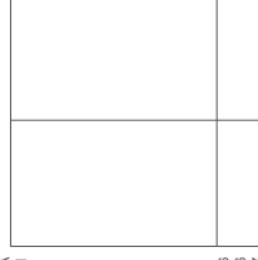
Map date: 1955-1956

Scale: 1:2,500

Printed at: 1:2,500



Surveyed 1955
Revised 1955
Edition 1956
Copyright N/A
Levelled 1951



Surveyed 1956
Revised 1956
Edition 1957
Copyright N/A
Levelled 1951

Surveyed 1955
Revised 1955
Edition 1956
Copyright N/A
Levelled 1951



Produced by
Groundsure Insights
www.groundsure.com

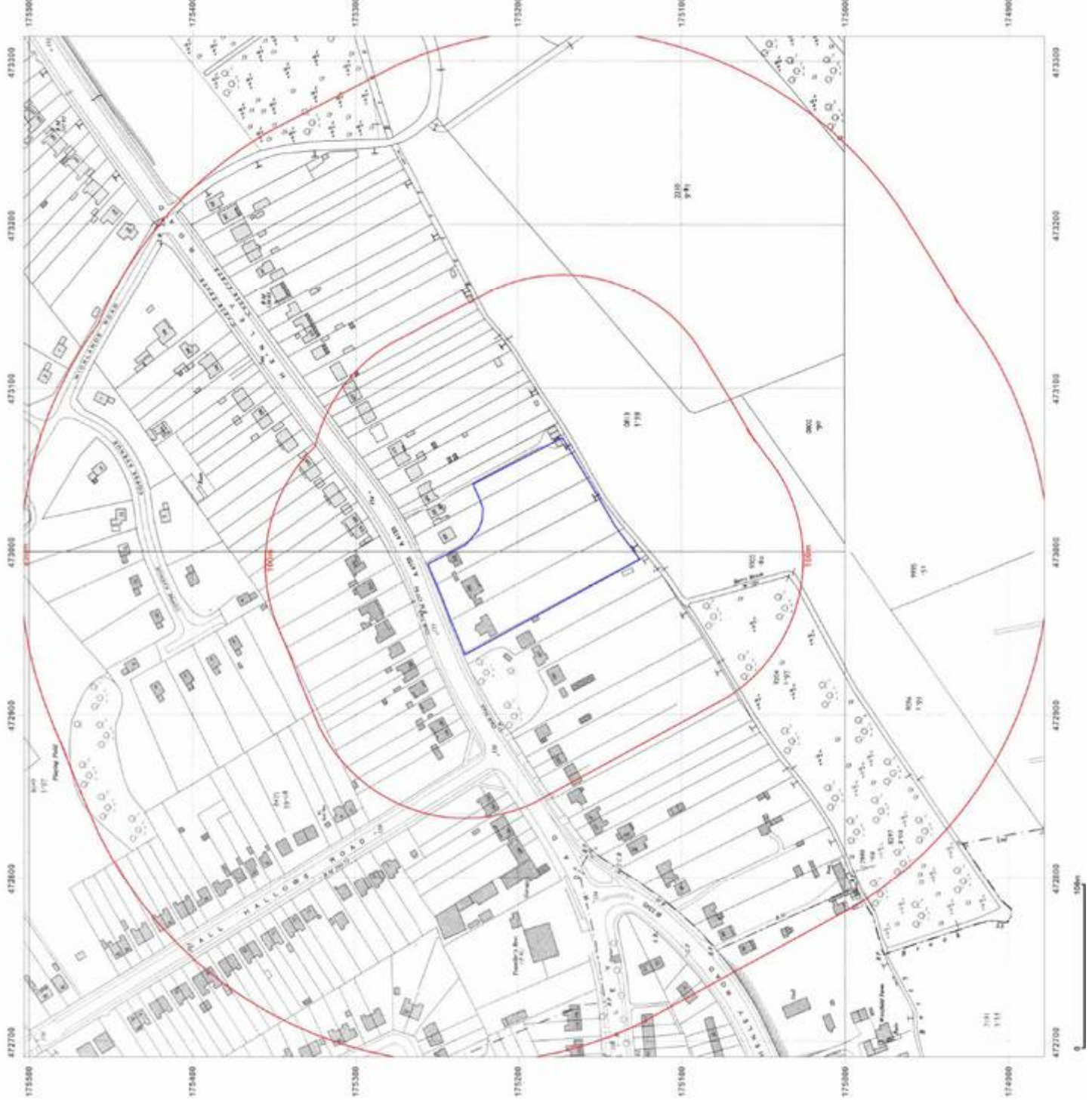


Supplied by:
www.emapsite.com
sales@emapsite.com

© Crown copyright and database rights 2019 Ordnance Survey 100035207
Production date: 02 December 2019

Map legend available at:

www.groundsure.com/sites/default/files/groundsure_legend.pdf



Site Details:

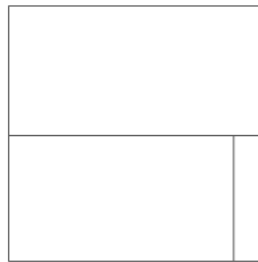
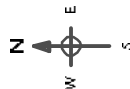
Client Ref: EMS_581031_779609
Report Ref: EMS-581031_779609
Grid Ref: 473003, 175191

Map Name: National Grid

Map date: 1968-1972

Scale: 1:1,250

Printed at: 1:2,000



Surveyed 1955
Revised 1972
Edition N/A
Copyright 1972
Levelled 1951

Surveyed 1956
Revised 1967
Edition N/A
Copyright 1968
Levelled 1951



Produced by
Groundsure Insights
www.groundsure.com



Supplied by:
www.emapsite.com
sales@emapsite.com

© Crown copyright and database rights 2019 Ordnance Survey 100035207
Production date: 02 December 2019

Map legend available at:
www.groundsure.com/sites/default/files/groundsure_legend.pdf

Site Details:

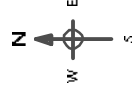
Client Ref: EMS_581031_779609
Report Ref: EMS-581031_779609
Grid Ref: 473003, 175191

Map Name: National Grid

Map date: 1990-1993

Scale: 1:1,250

Printed at: 1:2,000



Surveyed 1983 Revised 1993 Edition N/A Copyright N/A Levelled N/A	Surveyed N/A Revised N/A Edition N/A Copyright 1993 Levelled N/A
---	--

Surveyed 1990
Revised 1990
Edition N/A
Copyright 1990
Levelled N/A



Produced by
Groundsure Insights
www.groundsure.com



Supplied by:
www.emapsite.com
sales@emapsite.com

© Crown copyright and database rights 2019 Ordnance Survey 100035207
Production date: 02 December 2019

Map legend available at:
www.groundsure.com/sites/default/files/groundsure_legend.pdf



Site Details:

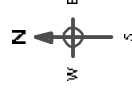
Client Ref: EMS_581031_779609
Report Ref: EMS-581031_779609
Grid Ref: 473003, 175191

Map Name: LandLine

Map date: 2003

Scale: 1:1,250

Printed at: 1:1,250



2003



Produced by
Groundsure Insights
www.groundsure.com



Supplied by:
www.emapsite.com
sales@emapsite.com

© Crown copyright and database rights 2019 Ordnance Survey 100035207
Production date: 02 December 2019

Map legend available at:

Map legend available at: www.groundsurre.com/sites/default/files/groundsurre_legend.pdf



emapsite

Report Reference:EMS-581031_779610

Building A2 Office 1052 Cody Technology Park,
Old Ively Road,
Farnborough, GU14 0LX

Your Reference: EMS_581031_779610

Report Date 2 Dec 2019

Report Delivery Email - pdf
Method:

Geo Insight

Address: ,

Dear Sir/ Madam,

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

If you would like further assistance regarding this report then please contact the emapsite customer services team on 0118 9736883 quoting the above report reference number.

Yours faithfully,

emapsite customer services team

Enc.

Groundsure Geo Insight

Address: ,
Date: 2 Dec 2019
Reference: EMS-581031_779610
Client: emapsite



Aerial Photograph Capture date: 20-Apr-2015
Grid Reference: 473003,175194
Site Size: 0.8795ha

Contents Page

Contents Page.....	3
Overview of Findings.....	5
1:10,000 Scale Availability.....	8
Availability of 1:10,000 Scale Geology Mapping.....	9
1 Geology (1:10,000 scale).....	10
1.1 Artificial Ground map (1:10,000 scale).....	10
1. Geology 1:10,000 scale.....	11
1.1 Artificial Ground.....	11
1.2 Superficial Deposits and Landslips map (1:10,000 scale).....	12
1.2 Superficial Deposits and Landslips.....	13
1.2.1 Superficial Deposits/ Drift Geology.....	13
1.2.2 Landslip.....	13
1.3 Bedrock and linear features map (1:10,000 scale).....	14
1.3 Bedrock and linear features.....	15
1.3.1 Bedrock/ Solid Geology.....	15
1.3.2 Linear features.....	15
2 Geology 1:50,000 Scale.....	16
2.1 Artificial Ground map.....	16
2. Geology 1:50,000 scale.....	17
2.1 Artificial Ground.....	17
2.1.1 Artificial/ Made Ground	17
2.1.2 Permeability of Artificial Ground.....	17
2.2 Superficial Deposits and Landslips map (1:50,000 scale).....	18
2.2 Superficial Deposits and Landslips.....	19
2.2.1 Superficial Deposits/ Drift Geology.....	19
2.2.2 Permeability of Superficial Ground	19
2.2.3 Landslip.....	19
2.2.4 Landslip Permeability.....	20
2.3 Bedrock and linear features map (1:50,000 scale).....	21
2.3 Bedrock, Solid Geology & linear features.....	22
2.3.1 Bedrock/Solid Geology.....	22
2.3.2 Permeability of Bedrock Ground.....	22
2.3.3 Linear features.....	22
3 Radon Data.....	23
3.1 Radon Affected Areas.....	23
3.2 Radon Protection.....	23
4 Ground Workings map.....	24
4 Ground Workings.....	25
4.1 Historical Surface Ground Working Features derived from Historical Mapping.....	25
4.2 Historical Underground Working Features derived from Historical Mapping.....	25
4.3 Current Ground Workings.....	26
5 Mining, Extraction & Natural Cavities.....	29
5.1 Historical Mining.....	29
5.2 Coal Mining.....	29
5.3 Johnson Poole and Bloomer.....	29
5.4 Non-Coal Mining.....	29
5.5 Non-Coal Mining Cavities.....	30
5.6 Natural Cavities.....	30
5.7 Brine Extraction.....	31
5.8 Gypsum Extraction.....	31
5.9 Cornwall and Devon Metalliferous Mining.....	31
5.10 Clay Mining.....	31
6 Natural Ground Subsidence.....	32
6.1 Shrink-Swell Clay map.....	32
6.2 Landslides map.....	33
6.3 Ground Dissolution of Soluble Rocks map.....	34
6.4 Compressible Deposits map.....	35
6.5 Collapsible Deposits map.....	36
6.6 Running Sand map.....	37

6 Natural Ground Subsidence.....	38
6.1 Shrink-Swell Clays.....	38
6.2 Landslides.....	38
6.3 Ground Dissolution of Soluble Rocks.....	39
6.4 Compressible Deposits.....	39
6.5 Collapsible Deposits.....	40
6.6 Running Sands.....	40
7 Borehole Records.....	42
8 Estimated Background Soil Chemistry.....	43
9 Railways and Tunnels map.....	44
9 Railways and Tunnels.....	45
9.1 Tunnels.....	45
9.2 Historical Railway and Tunnel Features.....	45
9.3 Historical Railways.....	46
9.4 Active Railways.....	46
9.5 Railway Projects.....	46

Overview of Findings

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

The report is based on the BGS 1:50,000 and 1:10,000 Digital Geological Map of Great Britain, BGS Geosure data; BRITPITS database; Non-coal mining data and Borehole Records, Coal Authority data including brine extraction areas, PBA non-coal mining and natural cavities database, Johnson Poole and Bloomer mining data and Groundsure's unique database including historical surface ground and underground workings.

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

Section 1: Geology 1:10,000 Scale

1.1 Artificial Ground	1.1 Is there any Artificial Ground/ Made Ground present beneath the study site at 1:10,000 scale?	Yes
1.2 Superficial Geology and Landslips	1.2.1 Is there any Superficial Ground/Drift Geology present beneath the study site at 1:10,000 scale?*	Yes
	1.2.2 Are there any records of landslide within 500m of the study site boundary at 1:10,000 scale?	No
1.3 Bedrock, Solid Geology and linear features	1.3.1 For records of Bedrock and Solid Geology beneath the study site* see the detailed findings section.	
	1.3.2 Are there any records of linear features within 500m of the study site boundary at 1:10,000 scale?	No

Section 2: Geology 1:50,000 Scale

2.1 Artificial Ground	2.1.1 Is there any Artificial Ground/ Made Ground present beneath the study site?	Yes
	2.1.2 Are there any records relating to permeability of artificial ground within the study site*boundary?	No
2.2 Superficial Geology and Landslips	2.2.1 Is there any Superficial Ground/Drift Geology present beneath the study site?*	Yes
	2.2.2 Are there any records of permeability of superficial ground within 500m of the study site?	Yes
	2.2.3 Are there any records of landslide within 500m of the study site boundary?	No
	2.2.4 Are there any records relating to permeability of landslips within the study site* boundary?	No

Section 2: Geology 1:50,000 Scale

2.3 Bedrock, Solid Geology and linear features

2.3.1 For records of Bedrock and Solid Geology beneath the study site* see the detailed findings section.

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

Yes

2.3.3 Are there any records of linear features within 500m of the study site boundary?

No

Section 3: Radon

3. Radon

3.1 Is the property in a Radon Affected Area as defined by the Health Protection Agency (HPA) and if so what percentage of homes are above the Action Level?

The property is not in a Radon Affected Area, as less than 1% of properties are above the Action Level.

3.2 Radon Protection

No radon protective measures are necessary.

Section 4: Ground Workings

	On-site	0-50m	51-250	251-500	501-1000
4.1 Historical Surface Ground Working Features from Small Scale Mapping	2	3	7	Not Searched	Not Searched
4.2 Historical Underground Workings from Small Scale Mapping	0	0	0	0	0
4.3 Current Ground Workings	0	1	3	1	14

Section 5: Mining, Extraction & Natural Cavities

	On-site	0-50m	51-250	251-500	501-1000
5.1 Historical Mining	0	0	0	0	0
5.2 Coal Mining	0	0	0	0	0
5.3 Johnson Poole and Bloomer Mining Area	2	0	2	0	6
5.4 Non-Coal Mining*	1	0	0	1	1
5.5 Non-Coal Mining Cavities	0	0	0	0	0
5.5 Natural Cavities	0	0	0	0	13

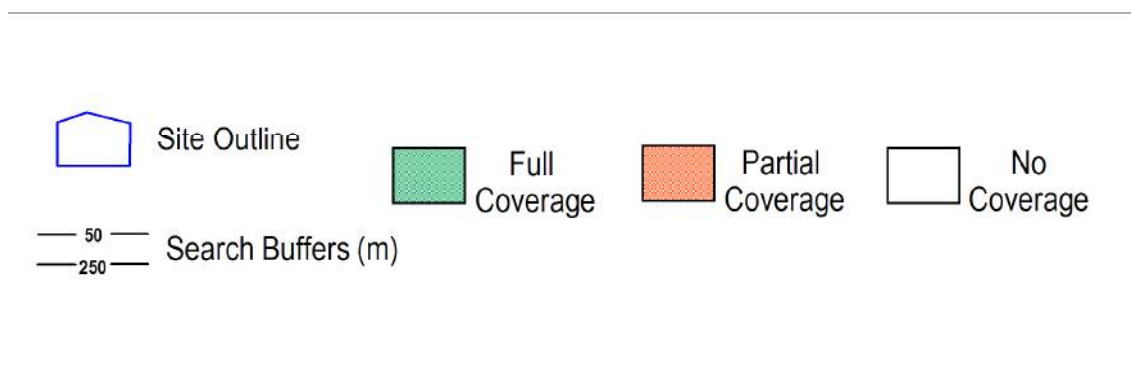
Section 5: Mining, Extraction & Natural Cavities	On-site	0-50m	51-250	251-500	501-1000
5.6 Brine Extraction	0	0	0	0	0
5.7 Gypsum Extraction	0	0	0	0	0
5.8 Cornwall and Devon Metalliferous Mining	0	0	0	0	0
5.9 Clay Mining	0	0	0	0	0
Section 6: Natural Ground Subsidence	On-site				
6.1 Shrink-Swell Clay	Very Low				
6.2 Landslides	Very Low				
6.3 Ground Dissolution of Soluble Rocks	Low				
6.4 Compressible Deposits	Moderate				
6.5 Collapsible Deposits	Very Low				
6.5 Running Sand	Low				
Section 7: Borehole Records	On-site	0-50m	51-250		
7 BGS Recorded Boreholes	0	0	0		
Section 8: Estimated Background Soil Chemistry	On-site	0-50m	51-250		
8 Records of Background Soil Chemistry	6	3	0		
Section 9: Railways and Tunnels	On-site	0-50m	51-250	250-500	
9.1 Tunnels	0	0	0	Not Searched	
9.2 Historical Railway and Tunnel Features	0	0	0	Not Searched	
9.3 Historical Railways	0	0	0	Not Searched	
9.4 Active Railways	0	0	0	Not Searched	
9.5 Railway Projects	0	0	0	0	

1:10,000 Scale Availability



1_10,000 Availability Legend

© Crown copyright and database rights 2019.
Ordnance Survey licence 100035207.



Availability of 1:10,000 Scale Geology Mapping

The following information represents the availability of the key components of the 1:10,000 scale geological data.

ID	Distance	Artificial Coverage	Superficial Coverage	Bedrock Coverage	Mass Movement Coverage
1	0.0	Some deposits are mapped	Full	Full	No coverage
2	126.0	Some deposits are mapped	Full	Full	No coverage
N3	1930.0	Some deposits are mapped	Full	Full	No coverage
N4	1938.0	Some deposits are mapped	Full	Full	No coverage

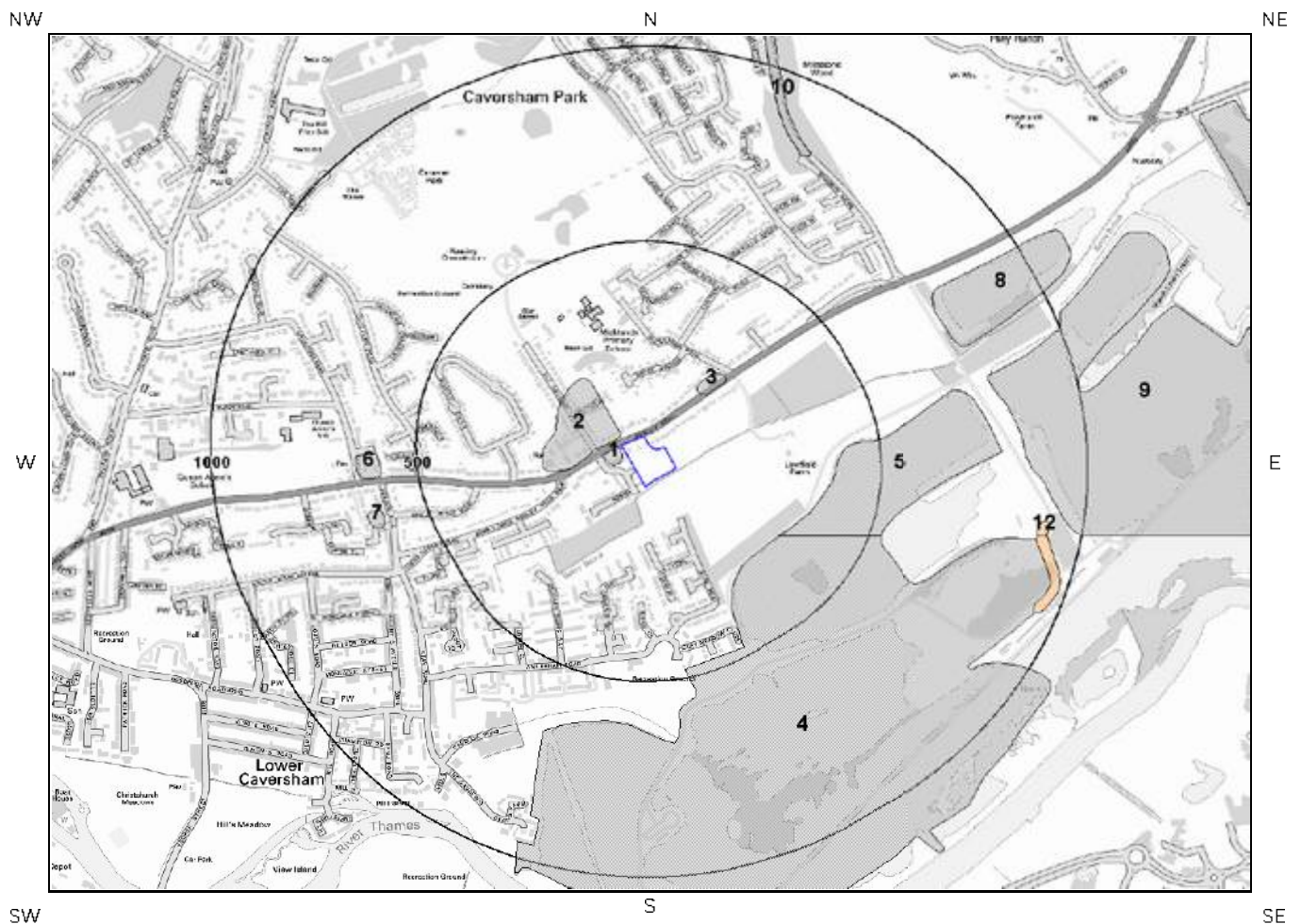
Guidance: The 1:10,000 scale geological interpretation is the most detailed generally available from BGS and is the scale at which most geological surveying is carried out in the field. The database is presented as four types of geology (artificial, mass movement, superficial and bedrock), although not all themes are mapped or available on every map sheet. Therefore a coverage layer showing the availability of the four themes is presented above.

The definitions of coverage are as follows:

Geology	Full Coverage	Partial Coverage	No Coverage
Bedrock	The whole tile has been mapped	Some but not all the tile has been mapped	No coverage
Superficial	The whole tile has been mapped	Some but not all of the tile has been mapped	No coverage
Artificial	Some deposits are mapped on this tile	-	No deposits are mapped
Mass Movement	Some deposits are mapped on this tile	-	No coverage

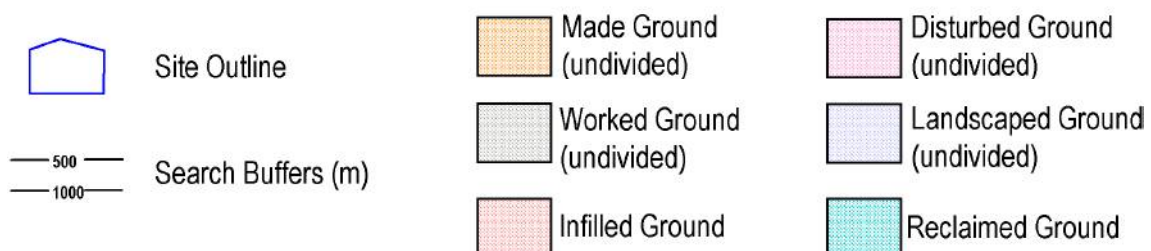
1 Geology (1:10,000 scale).

1.1 Artificial Ground map (1:10,000 scale)



Artificial Ground Legend

© Crown copyright and database rights 2019.
Ordnance Survey licence 100035207.



1. Geology 1:10,000 scale

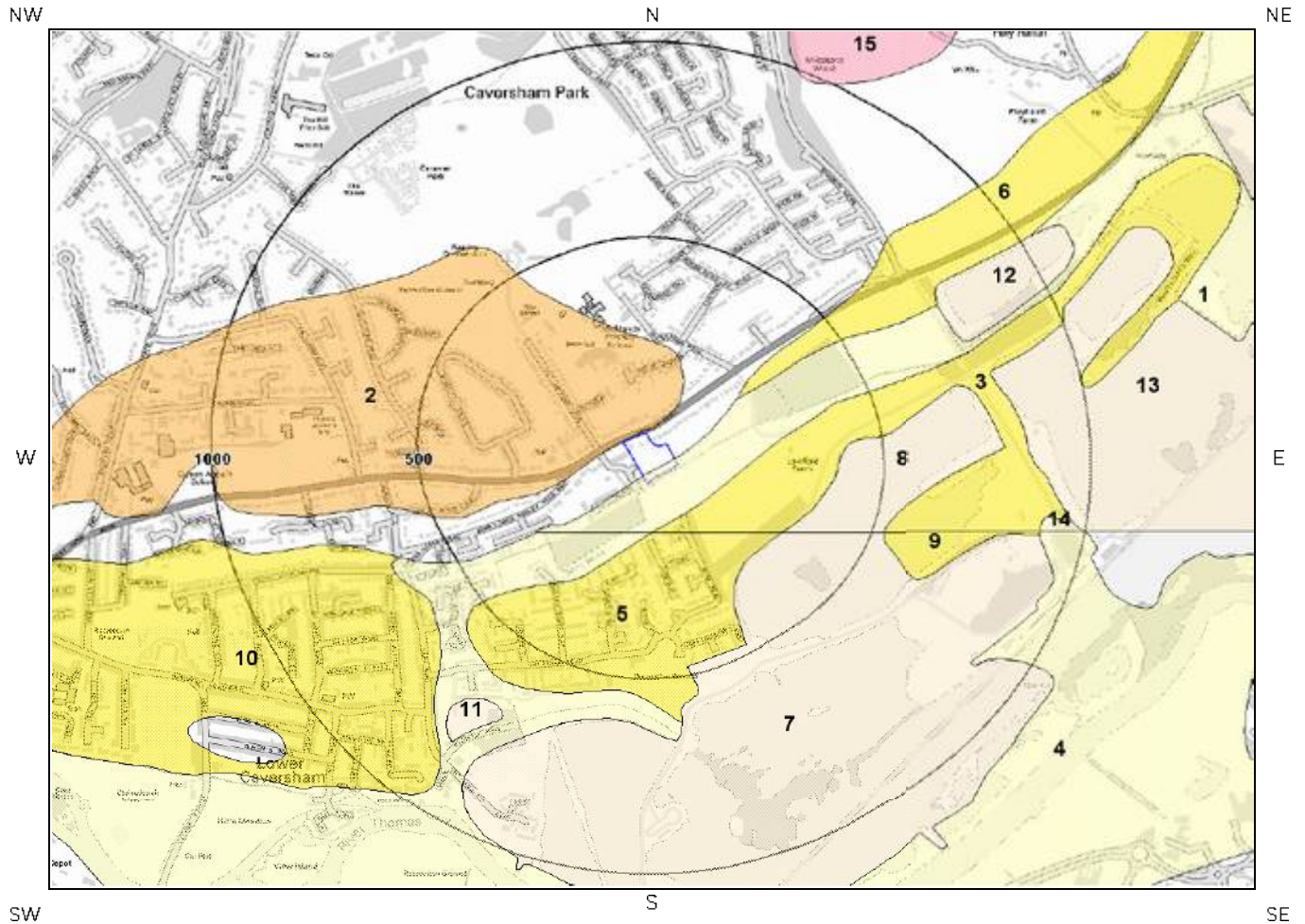
1.1 Artificial Ground

The following geological information represented on the mapping is derived from 1:10,000 scale BGS Geological mapping.

Are there any records of Artificial/ Made Ground within 500m of the study site boundary at 1:10,000 scale? Yes

ID	Distance	Direction	LEX Code	Description	Rock Description
1	9.0	SW	WGR-VOID	Worked Ground (Undivided)	Void
2	21.0	NW	WGR-VOID	Worked Ground (Undivided)	Void
3	162.0	NE	WGR-VOID	Worked Ground (Undivided)	Void
4	292.0	SE	WGR-VOID	Worked Ground (Undivided)	Void
5	302.0	SE	WGR-VOID	Worked Ground (Undivided)	Void

1.2 Superficial Deposits and Landslips map (1:10,000 scale)



Artificial Ground Legend

© Crown copyright and database rights 2019.
Ordnance Survey licence 100035207.



1.2 Superficial Deposits and Landslips

The following geological information represented on the mapping is derived from 1:10,000 scale BGS Geological mapping

1.2.1 Superficial Deposits/ Drift Geology

Are there any records of Superficial Deposits/ Drift Geology within 500m of the study site boundary at 1:10,000 scale? Yes

ID	Distance (m)	Direction	LEX Code	Description	Rock Description
1	0.0	On Site	ALV-Z	Alluvium - Silt (unlithified Deposits Coding Scheme)	Silt
2	2.0	NW	LHGR-XSV	Lynch Hill Gravel Member - Sand And Gravel	Sand And Gravel
3	112.0	SE	LASI-XCZ	Langley Silt Member - Clay And Silt	Clay And Silt
4	126.0	S	ALV-Z	Alluvium - Silt (unlithified Deposits Coding Scheme)	Silt
5	126.0	S	LASI-XCZ	Langley Silt Member - Clay And Silt	Clay And Silt
6	203.0	NE	LASI-XCZ	Langley Silt Member - Clay And Silt	Clay And Silt
7	292.0	SE	KPGR-XSV	Kempton Park Gravel Formation - Sand And Gravel	Sand And Gravel
8	302.0	SE	KPGR-XSV	Kempton Park Gravel Formation - Sand And Gravel	Sand And Gravel

1.2.2 Landslip

Are there any records of Landslip within 500m of the study site boundary at 1:10,000 scale?

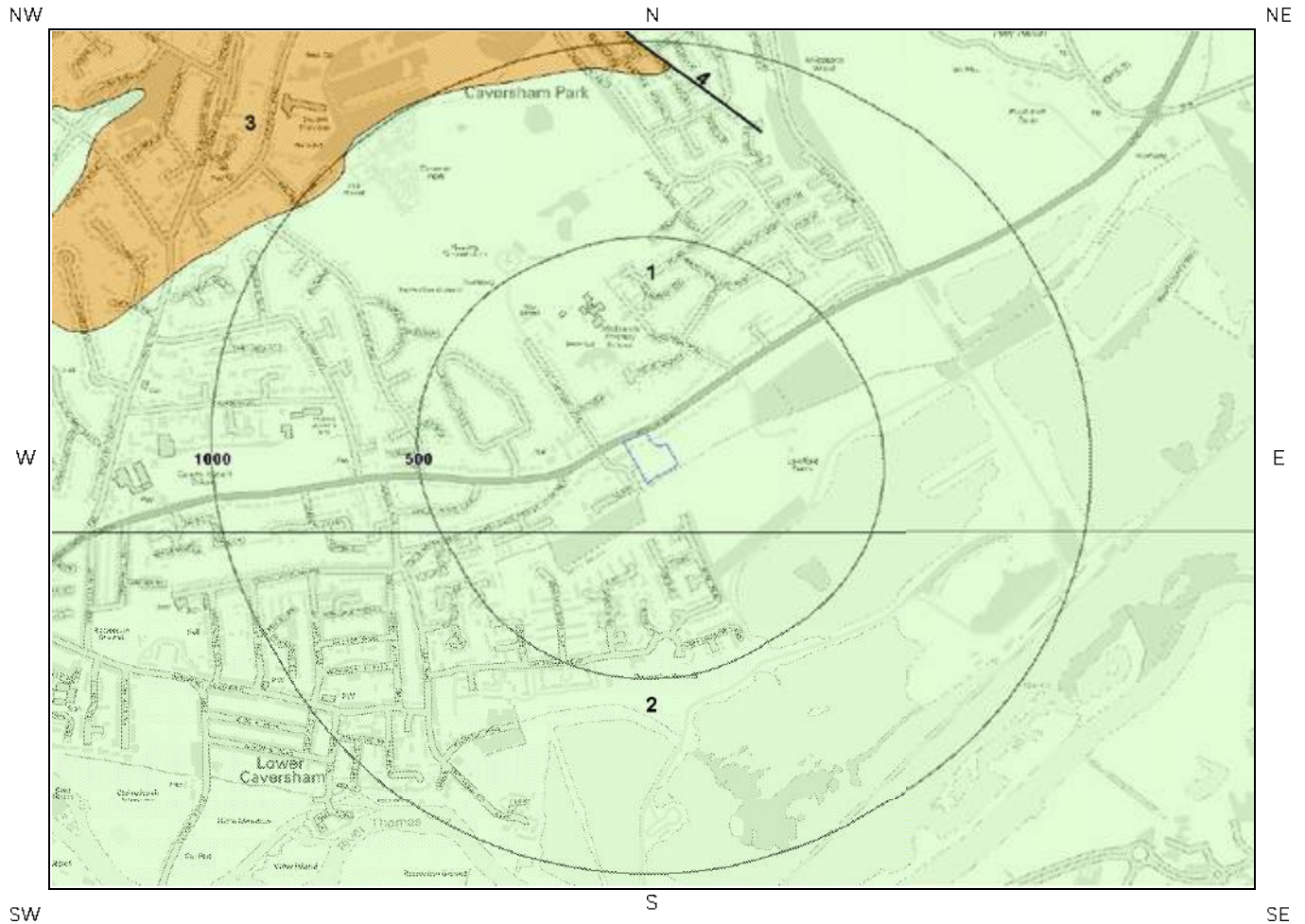
No

Database searched and no data found.

The geology map for the site and surrounding area are extracted from the BGS Digital Geological Map of Great Britain at 1:10,000 scale

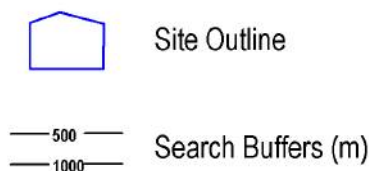
This Geology shows the main components as discrete layers, these are: Artificial / Made Ground, Superficial / Drift Geology and Landslips. These are all displayed with the BGS Lexicon code for the rock unit and BGS sheet number. Not all of the main geological components have nationwide coverage.

1.3 Bedrock and linear features map (1:10,000 scale)



Bedrock and linear features Legend

© Crown copyright and database rights 2019.
Ordnance Survey licence 100035207.



1.3 Bedrock and linear features

The following geological information represented on the mapping is derived from 1:10,000 scale BGS Geological mapping.

1.3.1 Bedrock/ Solid Geology

Records of Bedrock/Solid Geology within 500m of the study site boundary at 1:10,000 scale.

ID	Distance (m)	Direction	LEX Code	Description	Rock Age
1	0.0	On Site	LSNCK-CHLK	Lewes Nodular Chalk Formation, Seaford Chalk Formation And Newhaven Chalk Formation (undifferentiated) - Chalk	Campanian Age - Turonian Age
2	126.0	S	LSNCK-CHLK	Lewes Nodular Chalk Formation, Seaford Chalk Formation And Newhaven Chalk Formation (undifferentiated) - Chalk	Campanian Age - Turonian Age

1.3.2 Linear features

Are there any records of linear features within 500m of the study site boundary at 1:10,000 scale? No

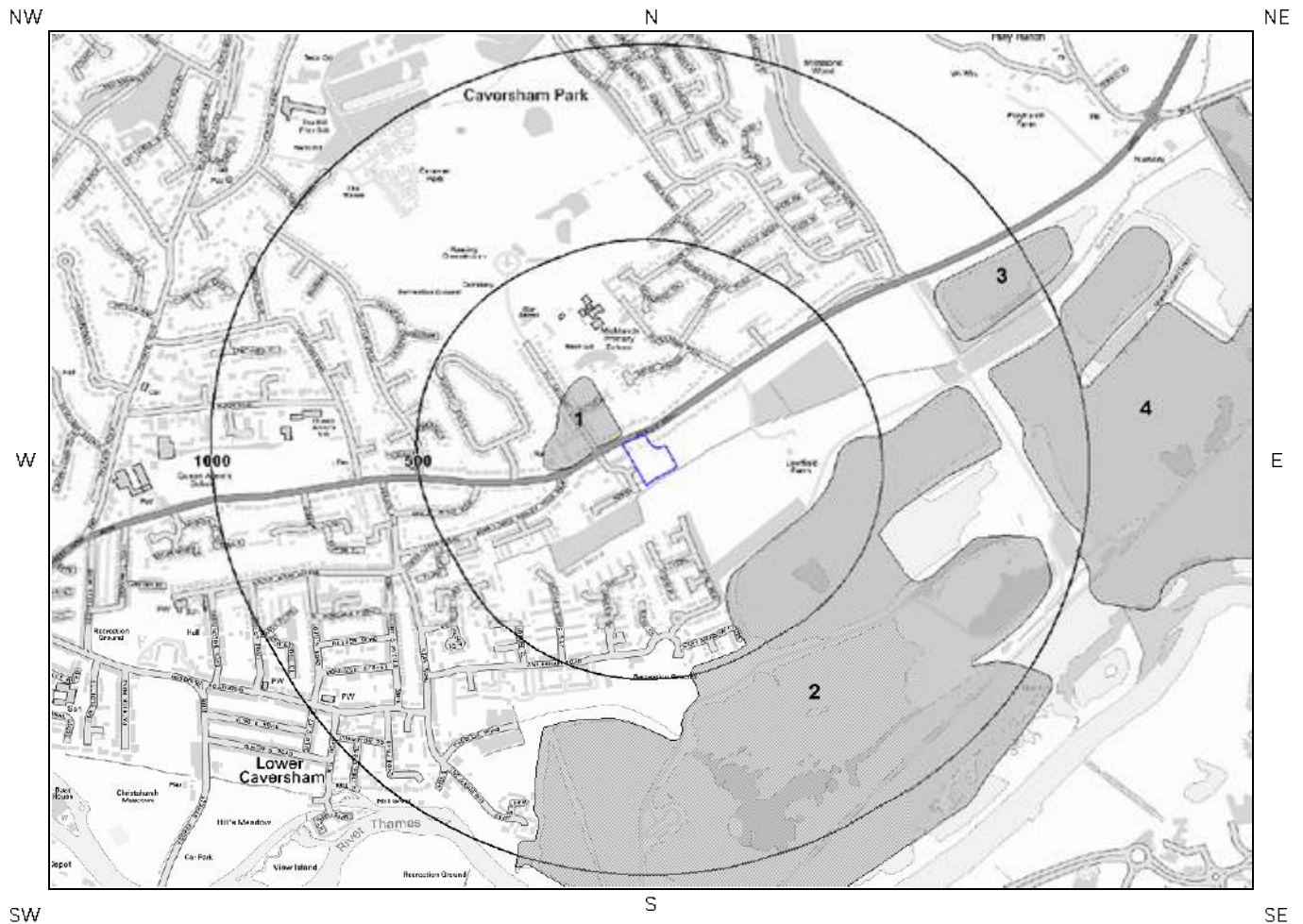
Database searched and no data found at this scale.

The geology map for the site and surrounding area are extracted from the BGS Digital Geological Map of great Britain at 1:10,000 scale.

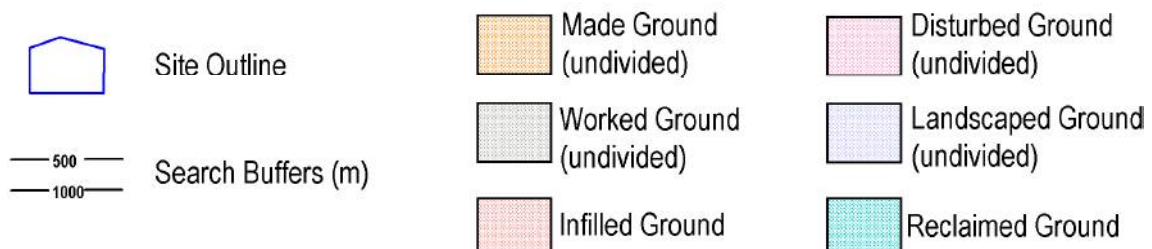
This Geology shows the main components as discrete layers, these are: Bedrock/ Solid Geology and linear features such as faults. These are all displayed with the BGS Lexicon code for the rock unit and BGS sheet number. Not all of the main geological components have nationwide coverage.

2 Geology 1:50,000 Scale

2.1 Artificial Ground map



© Crown copyright and database rights 2019.
Ordnance Survey licence 100035207.



2. Geology 1:50,000 scale

2.1 Artificial Ground

The following geological information represented on the mapping is derived from 1:50,000 scale BGS Geological mapping, Sheet No: 268

2.1.1 Artificial/ Made Ground

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

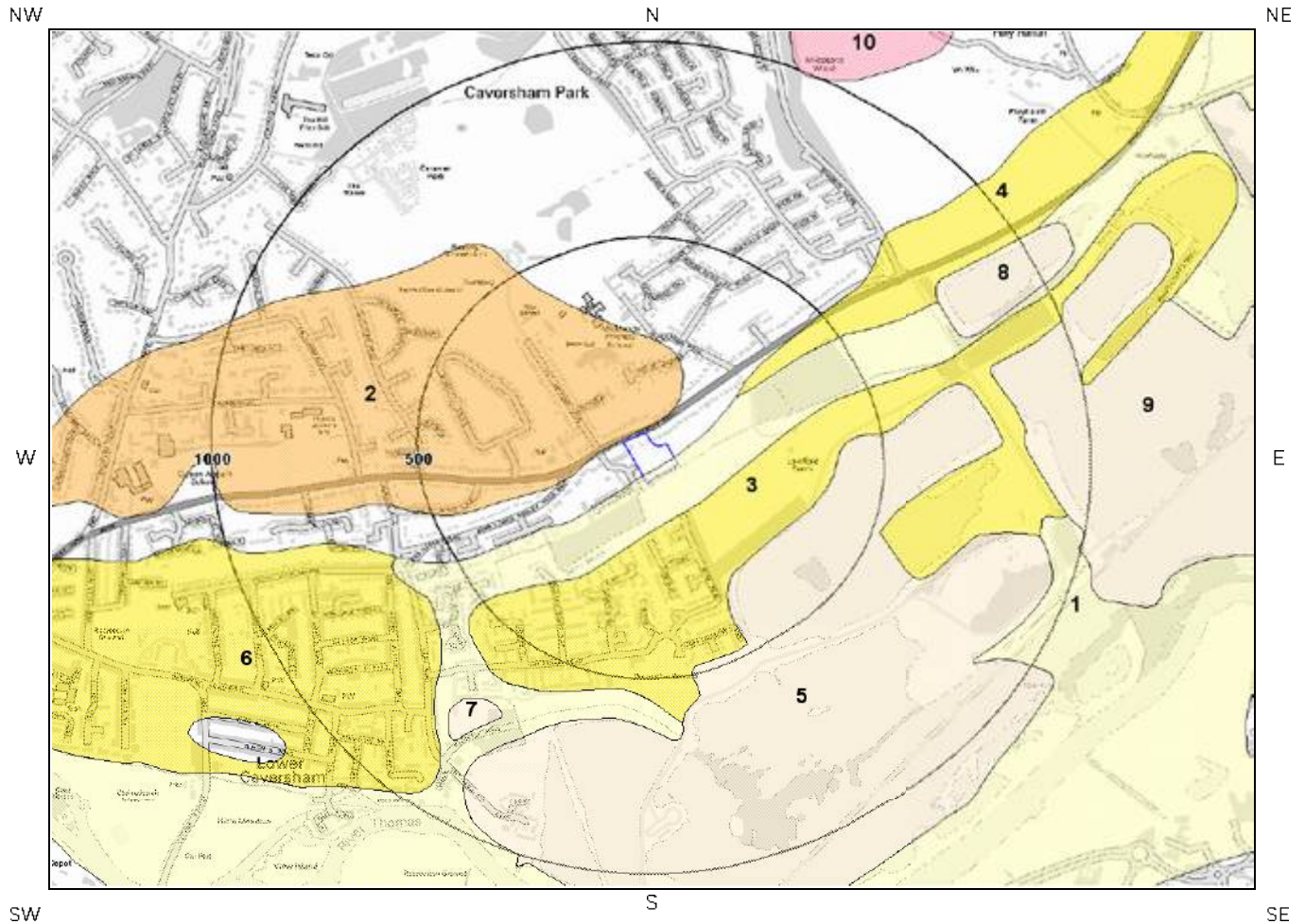
ID	Distance (m)	Direction	LEX Code	Description	Rock Description
1	21.0	NW	WGR-VOID	WORKED GROUND (UNDIVIDED)	VOID
2	292.0	SE	WGR-VOID	WORKED GROUND (UNDIVIDED)	VOID

2.1.2 Permeability of Artificial Ground

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

Database searched and no data found.

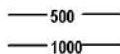
2.2 Superficial Deposits and Landslips map (1:50,000 scale)



© Crown copyright and database rights 2019.
Ordnance Survey licence 100035207.



Site Outline



Search Buffers (m)

2.2 Superficial Deposits and Landslips

2.2.1 Superficial Deposits/ Drift Geology

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

ID	Distance	Direction	LEX Code	Description	Rock Description
1	0.0	On Site	ALV-XCZSV	ALLUVIUM	CLAY, SILT, SAND AND GRAVEL
2	6.0	NW	LHGR-XSV	LYNCH HILL GRAVEL MEMBER	SAND AND GRAVEL
3	109.0	SE	LASI-XCZ	LANGLEY SILT MEMBER	CLAY AND SILT
4	206.0	NE	LASI-XCZ	LANGLEY SILT MEMBER	CLAY AND SILT
5	292.0	SE	KPGR-XSV	KEMPTON PARK GRAVEL MEMBER	SAND AND GRAVEL

2.2.2 Permeability of Superficial Ground

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

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

2.2.3 Landslip

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

Database searched and no data found.

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

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

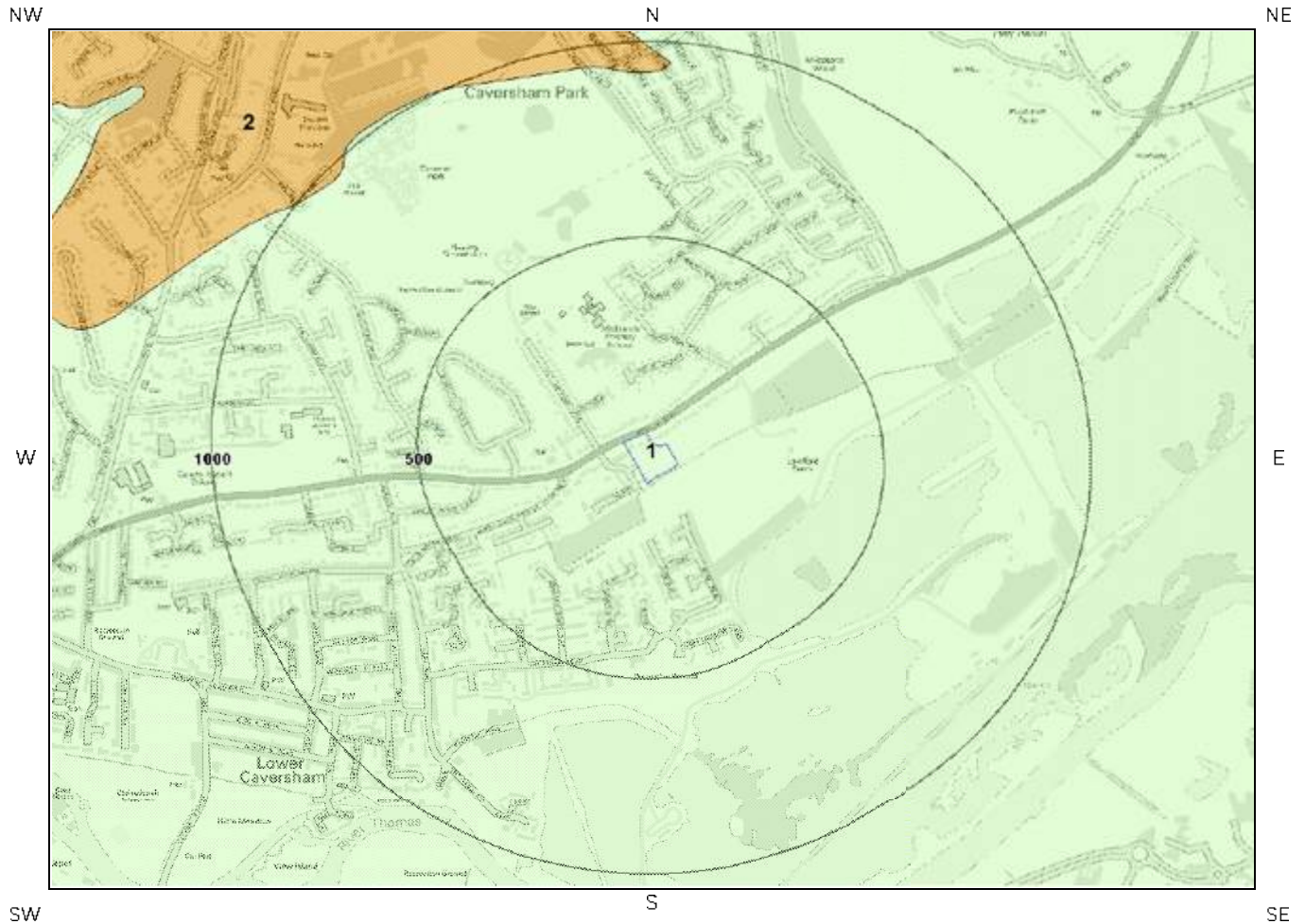
2.2.4 Landslip Permeability

Are there any records relating to permeability of landslips within the study site boundary?

No

Database searched and no data found.

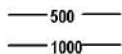
2.3 Bedrock and linear features map (1:50,000 scale)



© Crown copyright and database rights 2019.
Ordnance Survey licence 100035207.



Site Outline



Search Buffers (m)

2.3 Bedrock, Solid Geology & linear features

The following geological information represented on the mapping is derived from 1:50,000 scale BGS Geological mapping, Sheet No: 268

2.3.1 Bedrock/Solid Geology

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

ID	Distance	Direction	LEX Code	Rock Description	Rock Age
1	0.0	On Site	SNCK-CHLK	SEAFORD CHALK FORMATION AND NEWHAVEN CHALK FORMATION (UNDIFFERENTIATED) - CHALK	CONIACIAN

2.3.2 Permeability of Bedrock Ground

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

Distance	Direction	Flow Type	Maximum Permeability	Minimum Permeability
0.0	On Site	Fracture	Very High	Very High

2.3.3 Linear features

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

Database searched and no data found.

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

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

3 Radon Data

3.1 Radon Affected Areas

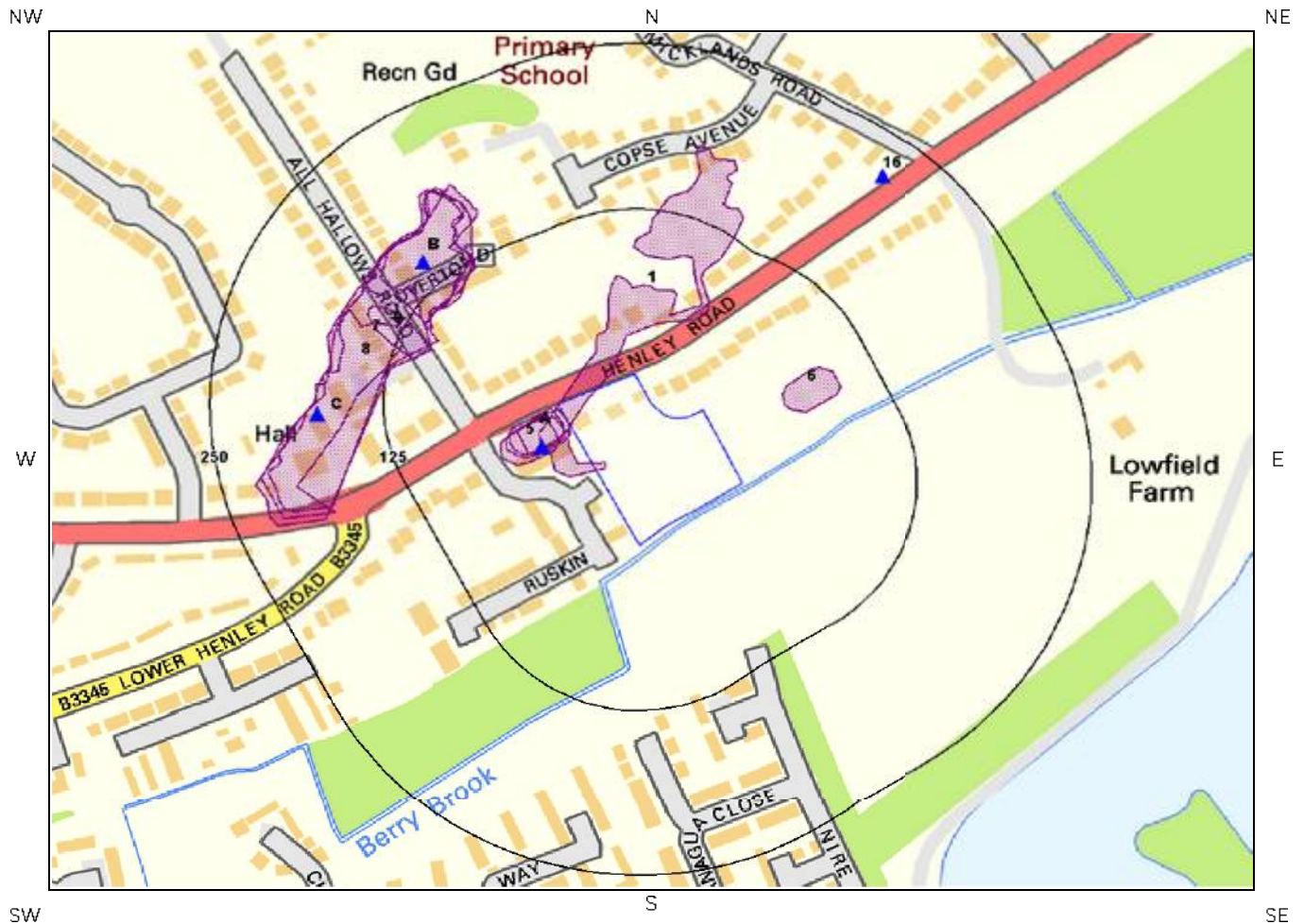
Is the property in a Radon Affected Area as defined by the Health Protection Agency (HPA) and if so what percentage of homes are above the Action Level? The property is not in a Radon Affected Area, as less than 1% of properties are above the Action Level.

The radon data in this report is supplied by the BGS/Public Health England and is the definitive map of Radon Affected Areas in Great Britain and Northern Ireland. The dataset was created using long-term radon measurements in over 479,000 homes across Great Britain and 23,000 homes across Northern Ireland, combined with geological data. The dataset is considered accurate to 50m to allow for the margin of error in geological lines, and the findings of this report supercede any answer given in the less accurate Indicative Atlas of Radon in Great Britain, which simplifies the data to give the highest risk within any given 1km grid square. As such, the radon atlas is considered indicative, whereas the data given in this report is considered definitive.

3.2 Radon Protection

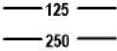
Is the property in an area where Radon Protection are required for new properties or extensions to existing ones as described in publication BR211 by the Building Research Establishment? No radon protective measures are necessary.

4 Ground Workings map



Ground Workings Legend

© Crown copyright and database rights 2019.
Ordnance Survey licence 100035207.

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

4 Ground Workings

4.1 Historical Surface Ground Working Features derived from Historical Mapping

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

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

ID	Distance (m)	Direction	NGR	Use	Date
1	0.0	On Site	472997 175303	Gravel Pit	1901
2A	0.0	SW	472927 175211	Unspecified Pit	1878
3A	4.0	SW	472922 175212	Old Chalk Pit	1910
4A	5.0	SW	472921 175207	Old Chalk Pit	1897
5	11.0	SW	472917 175203	Old Chalk Pit	1900
6	54.0	NE	473119 175243	Old Chalk Pit	1901
7	98.0	NW	472800 175280	Gravel Pit	1897
8	100.0	NW	472796 175268	Gravel Pit	1900
9	102.0	NW	472822 175286	Gravel Pit	1878
10B	107.0	NW	472844 175347	Unspecified Pit	1938
11B	107.0	NW	472837 175343	Old Gravel Pit	1910
12C	121.0	W	472762 175227	Unspecified Pit	1910

4.2 Historical Underground Working Features derived from Historical Mapping

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

Are there any Historical Underground Working Features within 1000m of the study site boundary? No

Database searched and no data found.

4.3 Current Ground Workings

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

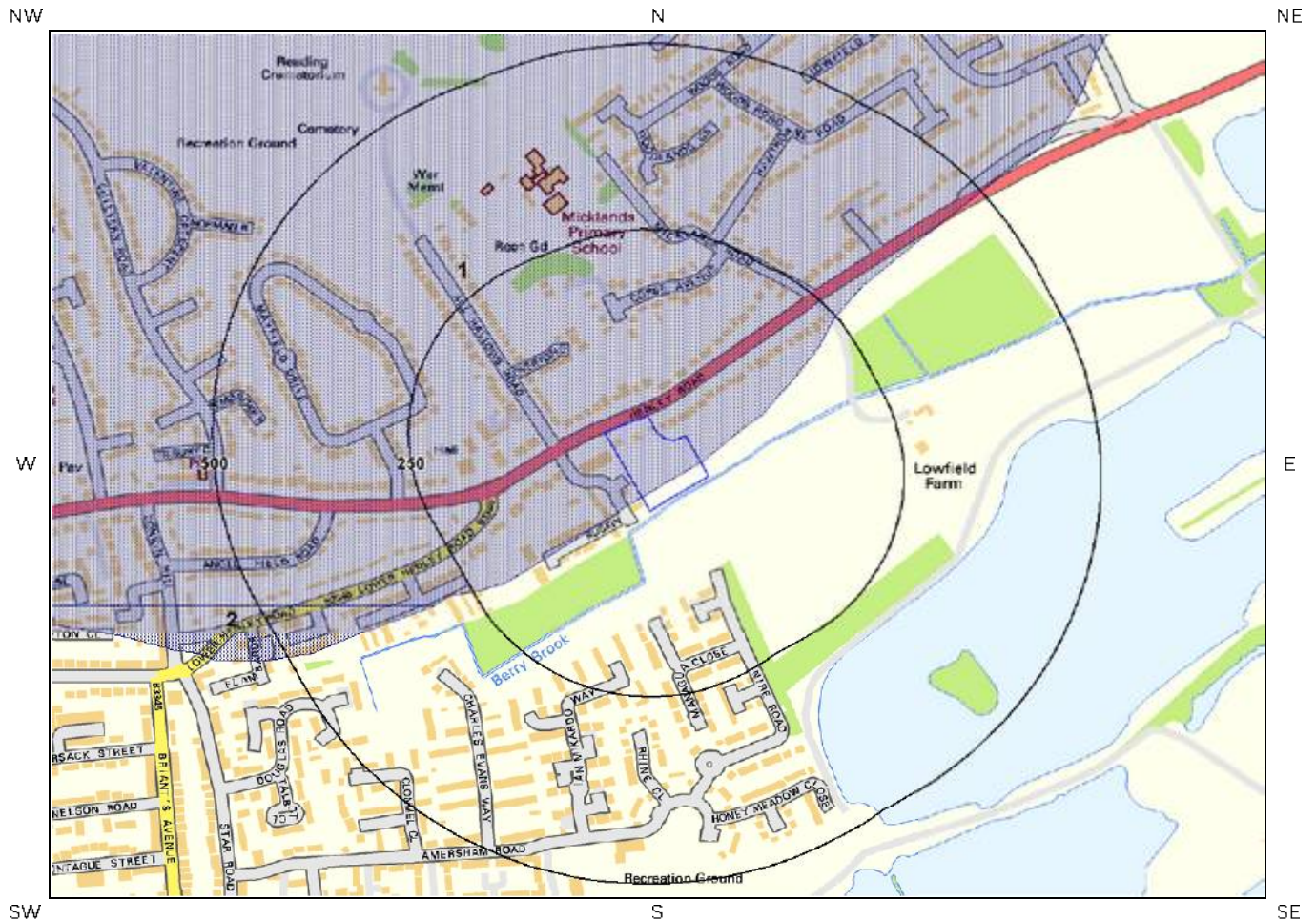
Are there any BGS Current Ground Workings within 1000m of the study site boundary? Yes

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

ID	Distance (m)	Direction	NGR	Commodity Produced	Pit Name	Type of working	Status
13A	26.0	SW	472925 175200	Chalk	Berrybrook Chalk Pit	A surface mineral working. It may be termed Quarry, Sand Pit, Clay Pit or Opencast Coal Site	Ceased
14B	144.0	NW	472840 175340	Sand & Gravel	Micklands Farm Gravel Pit	A surface mineral working. It may be termed Quarry, Sand Pit, Clay Pit or Opencast Coal Site	Ceased
15C	173.0	W	472764 175225	Sand & Gravel	Micklands Farm Gravel Pit	A surface mineral working. It may be termed Quarry, Sand Pit, Clay Pit or Opencast Coal Site	Ceased
16	219.0	NE	473170 175405	Chalk	Micklands Farm	A surface mineral working. It may be termed Quarry, Sand Pit, Clay Pit or Opencast Coal Site	Ceased
Not shown	459.0	SE	473380 174835	Sand & Gravel	Eye and Dundsen Gravel Pit	A surface mineral working. It may be termed Quarry, Sand Pit, Clay Pit or Opencast Coal Site	Ceased
Not shown	530.0	E	473600 175180	Sand & Gravel	Eye and Dundsen Gravel Pit	A surface mineral working. It may be termed Quarry, Sand Pit, Clay Pit or Opencast Coal Site	Ceased
Not shown	616.0	W	472355 175030	Chalk	Ardmillan Chalk Pit	A surface mineral working. It may be termed Quarry, Sand Pit, Clay Pit or Opencast Coal Site	Ceased
Not shown	620.0	W	472320 175175	Sand & Gravel	Caversham Gravel Pit	A surface mineral working. It may be termed Quarry, Sand Pit, Clay Pit or Opencast Coal Site	Ceased
Not shown	660.0	E	473715 175035	Sand & Gravel	Eye and Dundsen Gravel Pit	A surface mineral working. It may be termed Quarry, Sand Pit, Clay Pit or Opencast Coal Site	Ceased
Not shown	680.0	SE	473395 174575	Sand & Gravel	Caversham Quarry	A surface mineral working. It may be termed Quarry, Sand Pit, Clay Pit or Opencast Coal Site	Ceased
Not shown	701.0	SE	473552 174664	Sand & Gravel	Caversham Quarry	A surface mineral working. It may be termed Quarry, Sand Pit, Clay Pit or Opencast Coal Site	Ceased
Not shown	703.0	S	473258 174474	Sand & Gravel	Caversham Quarry	A surface mineral working. It may be termed Quarry, Sand Pit, Clay Pit or Opencast Coal Site	Ceased
Not shown	720.0	SE	473710 174845	Sand & Gravel	Caversham Quarry	A surface mineral working. It may be termed Quarry, Sand Pit, Clay Pit or Opencast Coal Site	Ceased
Not shown	782.0	NE	473515 175850	Chalk	Lodge Chalk Pit	A surface mineral working. It may be termed Quarry, Sand Pit, Clay Pit or Opencast Coal Site	Ceased
Not shown	815.0	S	472859 174322	Sand & Gravel	Caversham Quarry	A surface mineral working. It may be termed Quarry, Sand Pit, Clay Pit or Opencast Coal Site	Ceased
Not shown	895.0	E	473933 175411	Sand & Gravel	Caversham Quarry	A surface mineral working. It may be termed Quarry, Sand Pit, Clay Pit or Opencast Coal Site	Ceased

ID	Distance (m)	Direction	NGR	Commodity Produced	Pit Name	Type of working	Status
Not shown	972.0	NE	473893 175696	Sand & Gravel	Caversham Quarry	A surface mineral working. It may be termed Quarry, Sand Pit, Clay Pit or Opencast Coal Site	Ceased
Not shown	983.0	SE	473790 174505	Sand & Gravel	Caversham Quarry	A surface mineral working. It may be termed Quarry, Sand Pit, Clay Pit or Opencast Coal Site	Ceased
Not shown	991.0	S	473143 174146	Sand & Gravel	Caversham Quarry	A surface mineral working. It may be termed Quarry, Sand Pit, Clay Pit or Opencast Coal Site	Ceased

5 Mining, Extraction & Natural Cavities map



Mining, Extraction and Natural Cavities Legend

© Crown copyright and database rights 2019.
Ordnance Survey licence 100035207.



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? No

Database searched and no data found.

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? Yes

The following information provided by JPB is not represented on mapping: Whilst outside of 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. Further details and a quote for services can be obtained by emailing this report to enquiries.gs@jpb.co.uk.

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? Yes

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

ID	Distance (m)	Direction	Name	Commodity	Assessment of likelihood
1	0.0	On Site	Not available	Chalk	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