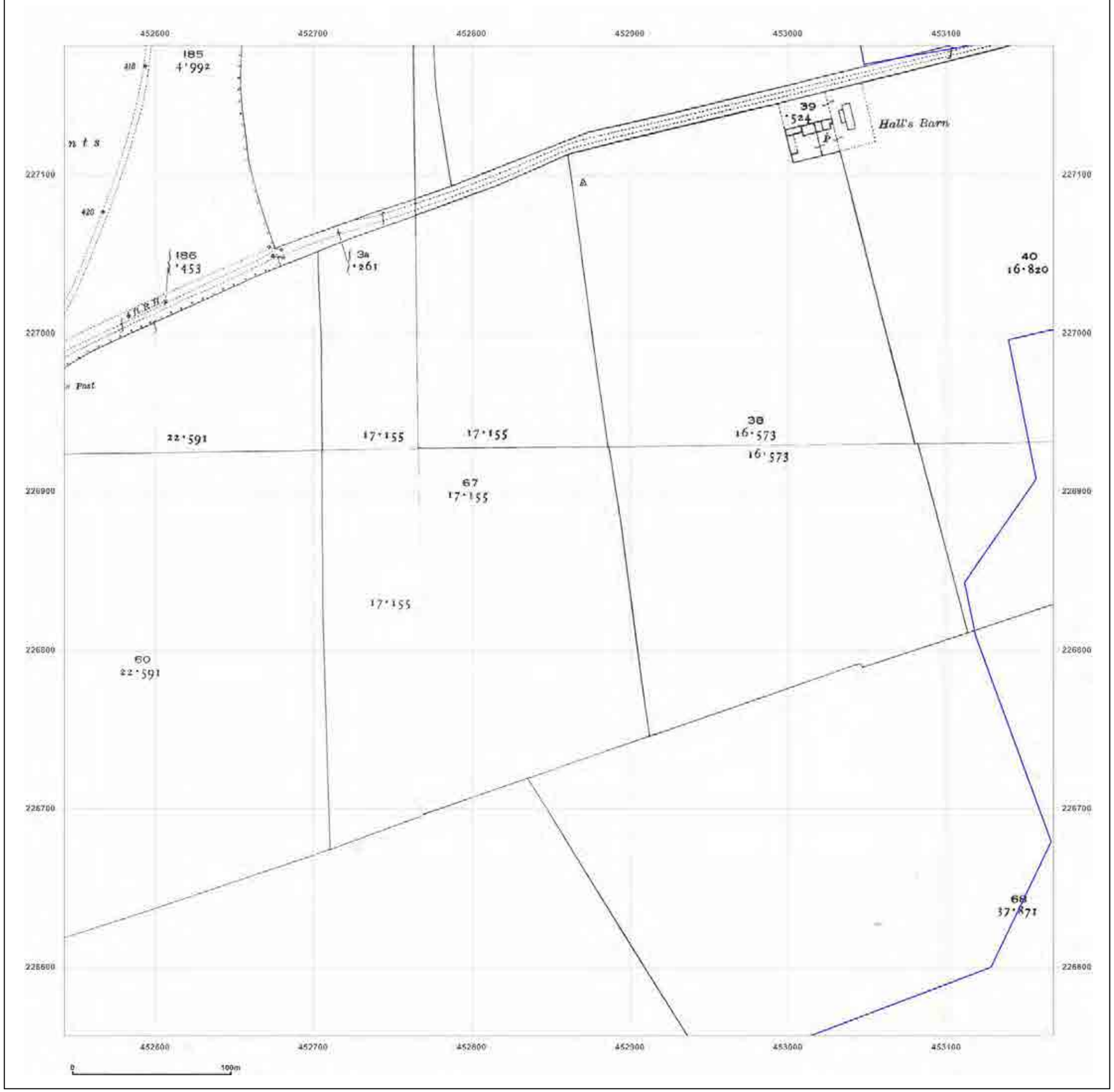

Groundsure INSIGHTS

Site Details:

HEYFORD PARK HOUSE, 52
HEYFORD PARK, CAMP ROAD,
UPPER HEYFORD, OX25 5HD

Client Ref: Heyford_Park
Report Ref: GS-4227860_LS_6_4
Grid Ref: 452855, 226869

Map Name: County Series

Map date: **1922**

Scale: 1:2,500

Printed at: 1:2,500

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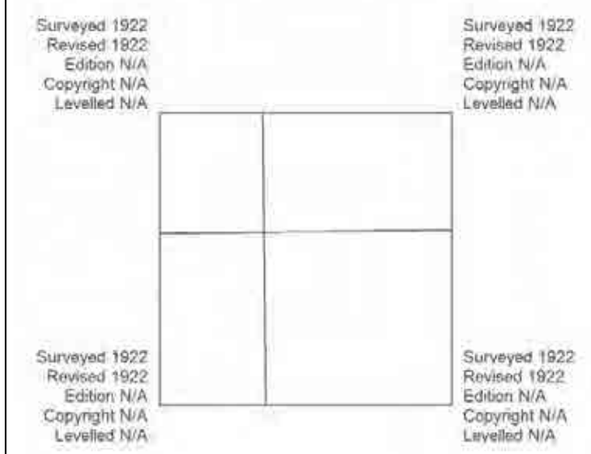

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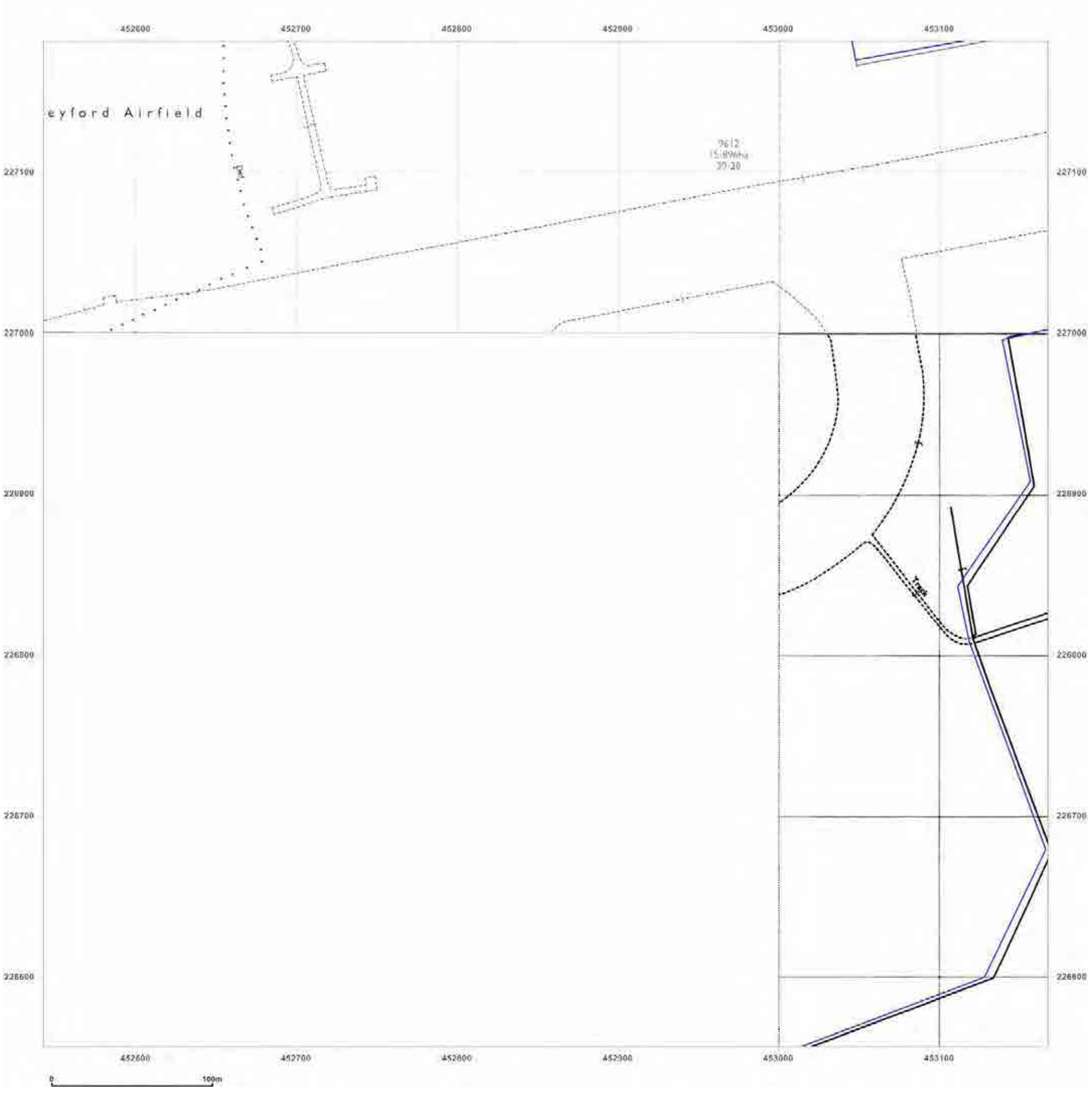

Groundsure INSIGHTS

Site Details:

HEYFORD PARK HOUSE, 52
HEYFORD PARK, CAMP ROAD,
UPPER HEYFORD, OX25 5HD

Client Ref: Heyford_Park
Report Ref: GS-4227860_LS_6_4
Grid Ref: 452855, 226869

Map Name: National Grid
Map date: **1974-1975**
Scale: 1:2,500
Printed at: 1:2,500

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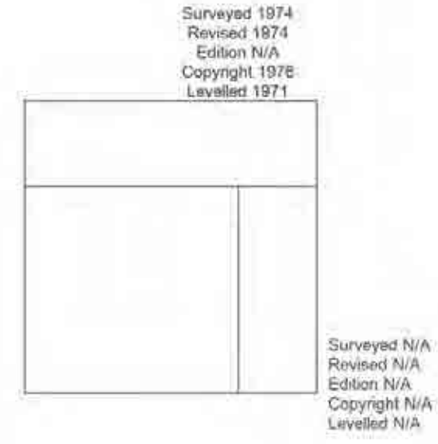

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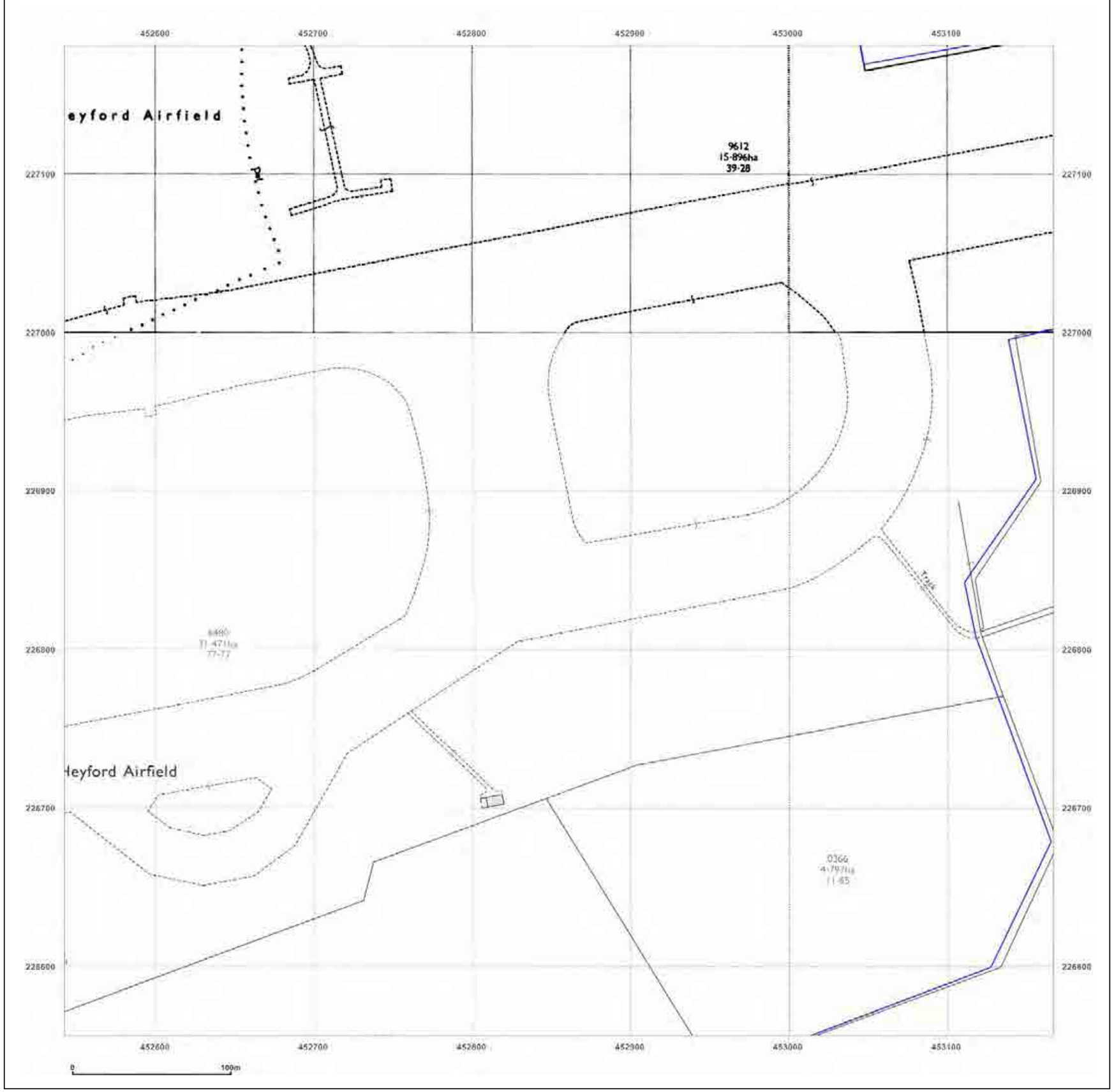

Groundsure INSIGHTS

Site Details:

HEYFORD PARK HOUSE, 52
HEYFORD PARK, CAMP ROAD,
UPPER HEYFORD, OX25 5HD

Client Ref: Heyford_Park
Report Ref: GS-4227860_LS_6_4
Grid Ref: 452855, 226869

Map Name: National Grid

Map date: **1974-1976**

Scale: 1:2,500

Printed at: 1:2,500

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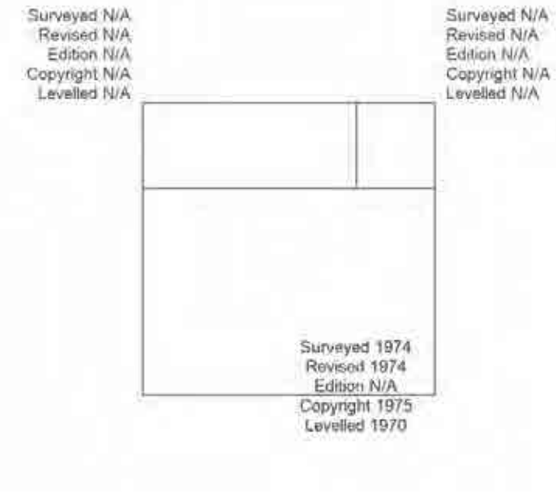

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Production date: 04 September 2017

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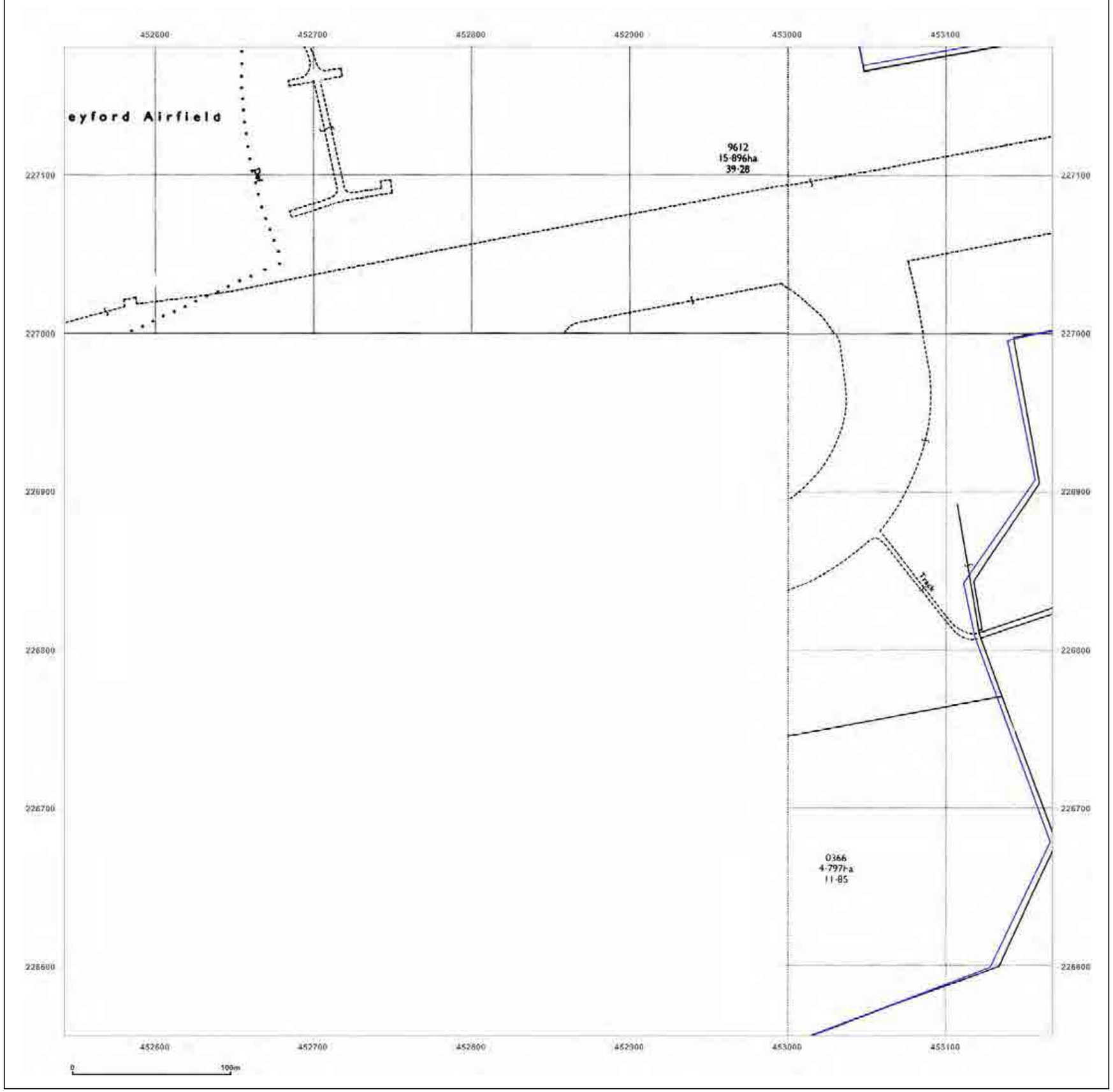

Groundsure INSIGHTS

Site Details:

HEYFORD PARK HOUSE, 52
HEYFORD PARK, CAMP ROAD,
UPPER HEYFORD, OX25 5HD

Client Ref: Heyford_Park
Report Ref: GS-4227860_LS_6_4
Grid Ref: 452855, 226869

Map Name: National Grid

Map date: **1975-1976**

Scale: 1:2,500

Printed at: 1:2,500

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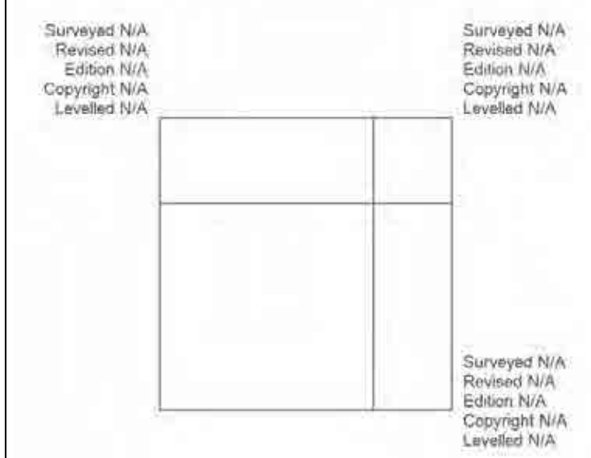

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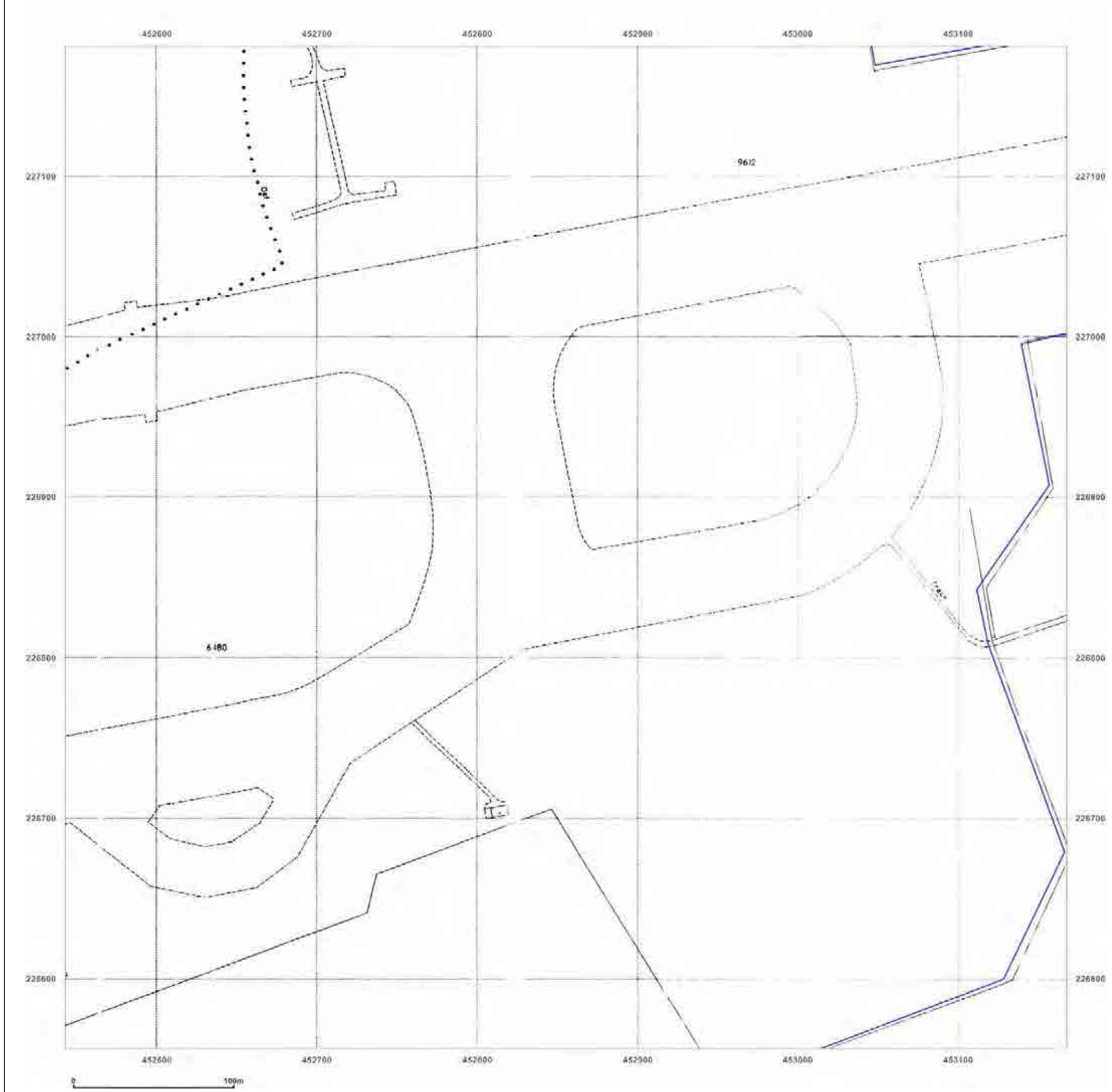
W: www.groundsure.com

Production date: 04 September 2017

To view map legend click here *Legend*



Groundsure INSIGHTS

Site Details:

HEYFORD PARK HOUSE, 52
HEYFORD PARK, CAMP ROAD,
UPPER HEYFORD, OX25 5HD

Client Ref: Heyford_Park
Report Ref: GS-4227860_LS_6_4
Grid Ref: 452855, 226869

Map Name: National Grid
Map date: **1994**
Scale: 1:2,500
Printed at: 1:2,500

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

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

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

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

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W: www.groundsure.com

Production date: 04 September 2017

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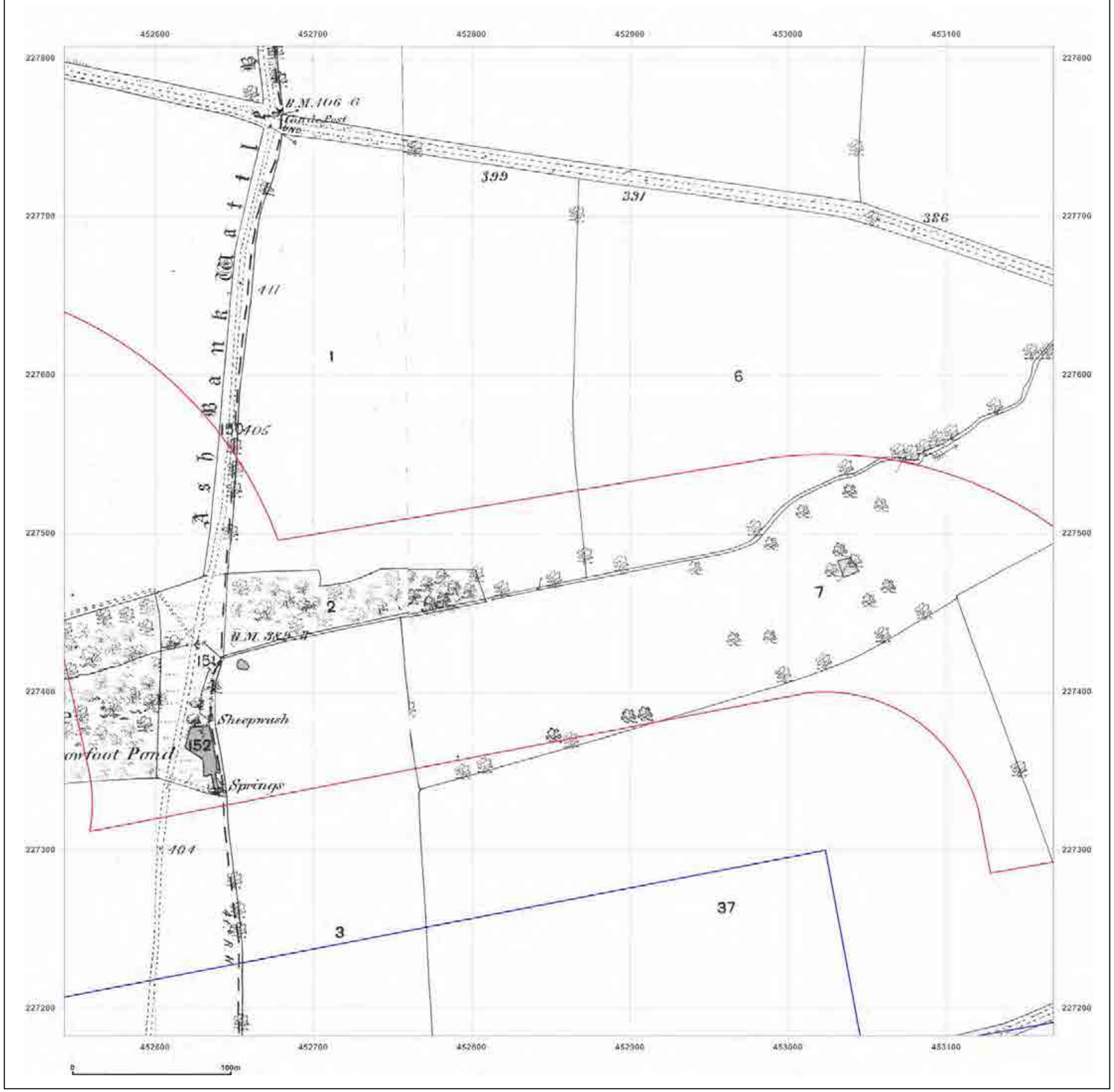

Groundsure INSIGHTS

Site Details:

HEYFORD PARK HOUSE, 52
HEYFORD PARK, CAMP ROAD,
UPPER HEYFORD, OX25 5HD

Client Ref: Heyford_Park
Report Ref: GS-4227860_LS_6_5
Grid Ref: 452855, 227495

Map Name: County Series
Map date: **1881**
Scale: 1:2,500
Printed at: 1:2,500

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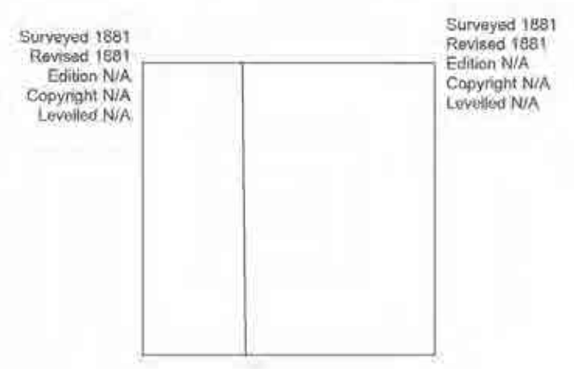

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Production date: 04 September 2017

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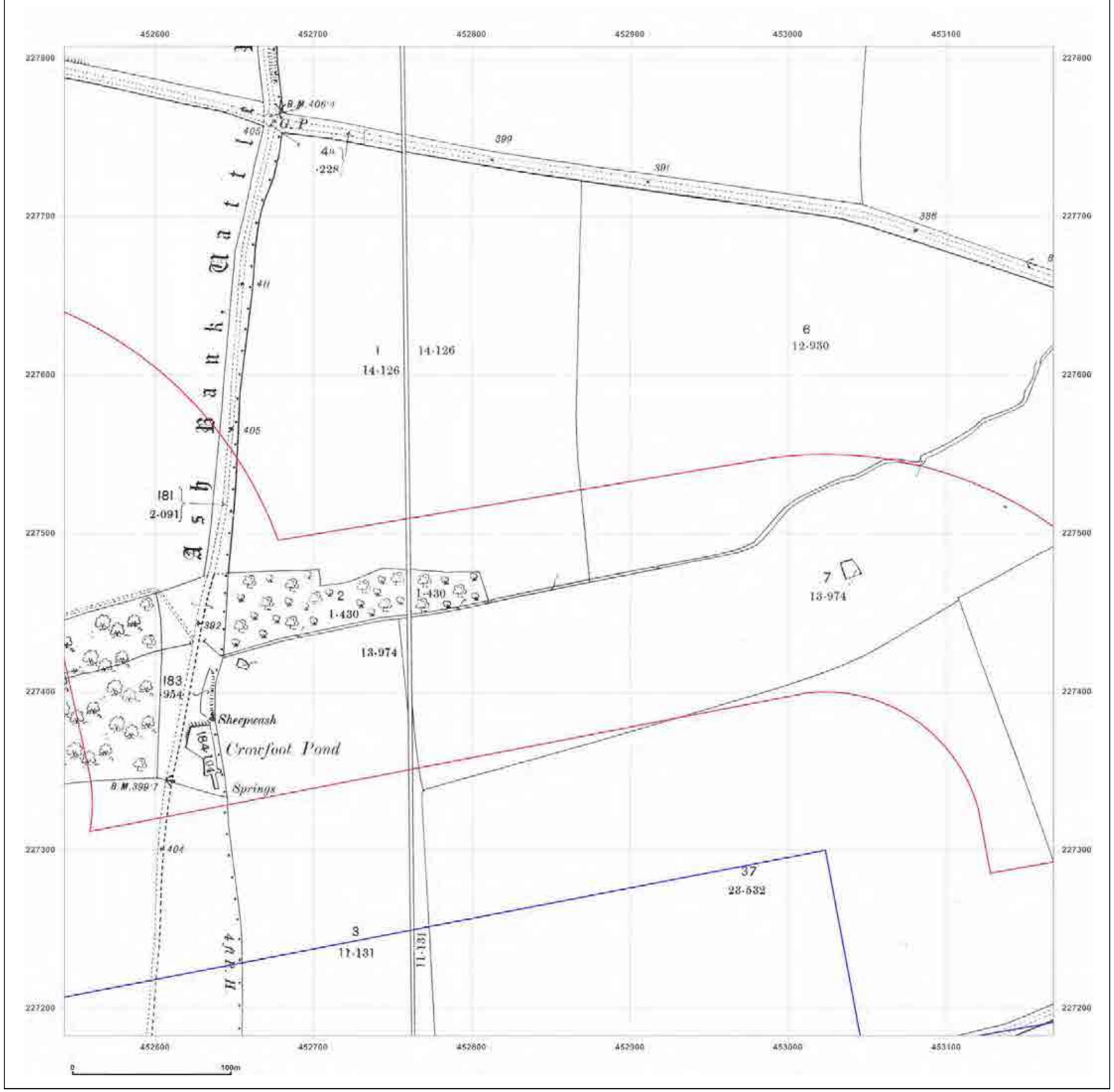

Groundsure INSIGHTS

Site Details:

HEYFORD PARK HOUSE, 52
HEYFORD PARK, CAMP ROAD,
UPPER HEYFORD, OX25 5HD

Client Ref: Heyford_Park
Report Ref: GS-4227860_LS_6_5
Grid Ref: 452855, 227495

Map Name: County Series
Map date: **1900**
Scale: 1:2,500
Printed at: 1:2,500

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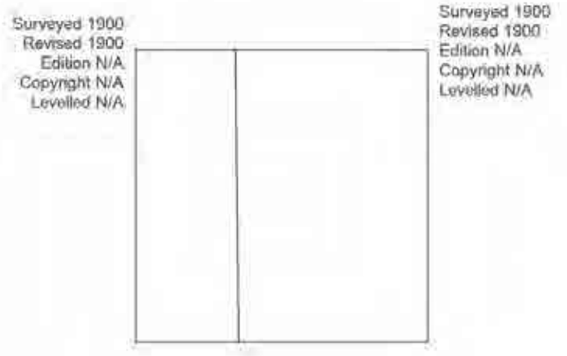

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Production date: 04 September 2017

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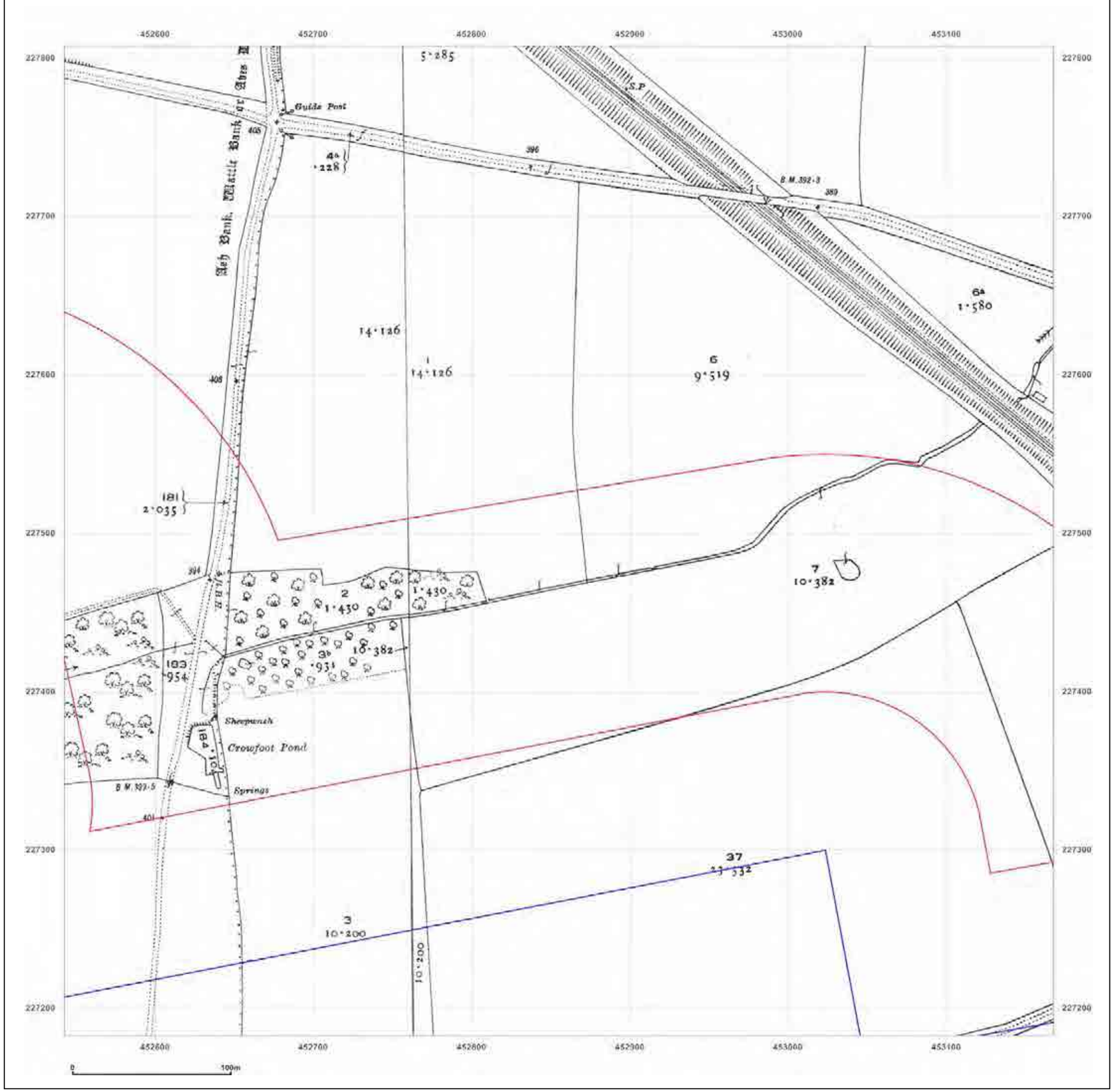

Groundsure INSIGHTS

Site Details:

HEYFORD PARK HOUSE, 52
HEYFORD PARK, CAMP ROAD,
UPPER HEYFORD, OX25 5HD

Client Ref: Heyford_Park
Report Ref: GS-4227860_LS_6_5
Grid Ref: 452855, 227495

Map Name: County Series
Map date: **1922**
Scale: 1:2,500
Printed at: 1:2,500

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Production date: 04 September 2017

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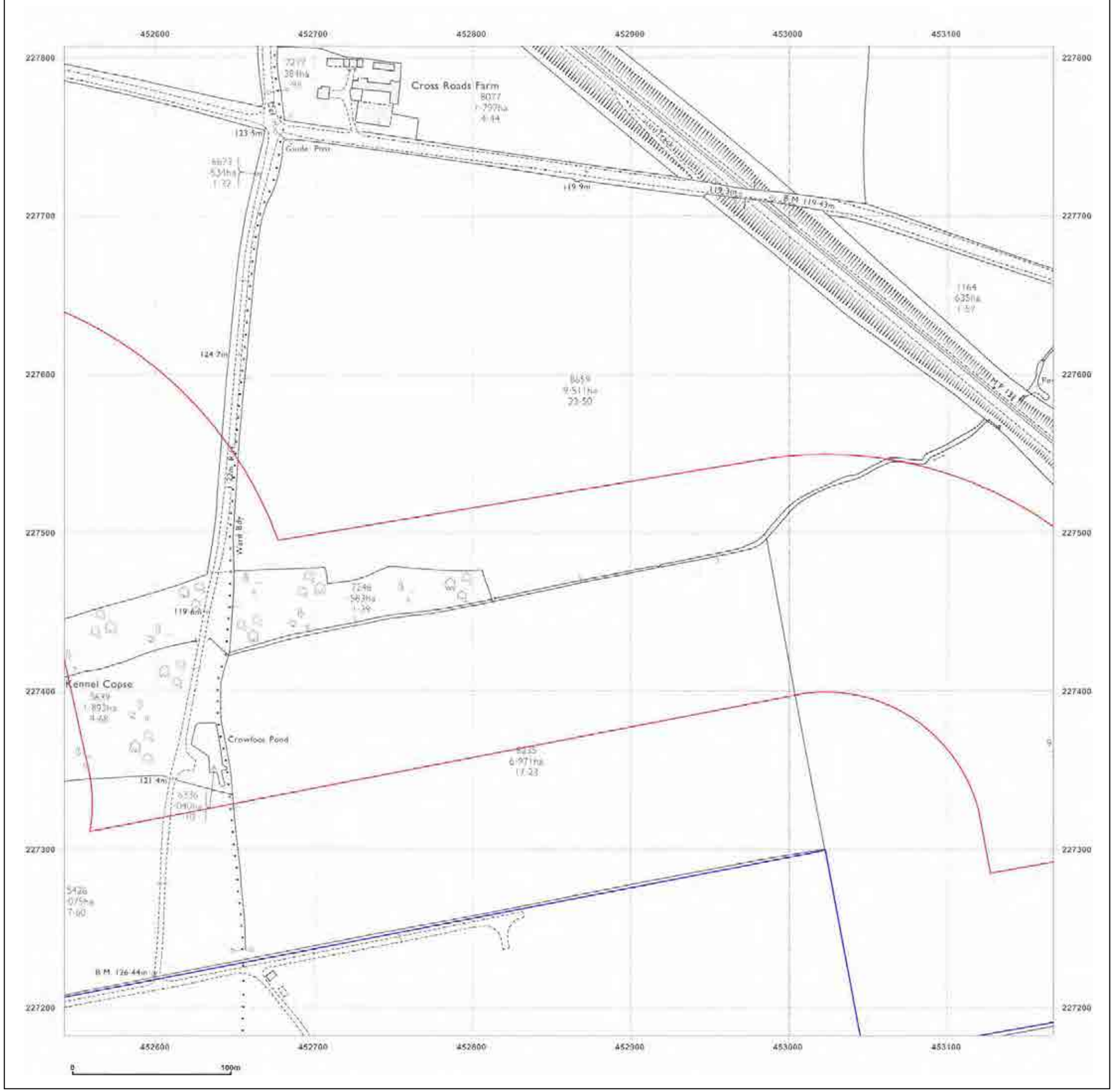

Groundsure INSIGHTS

Site Details:

HEYFORD PARK HOUSE, 52
HEYFORD PARK, CAMP ROAD,
UPPER HEYFORD, OX25 5HD

Client Ref: Heyford_Park
Report Ref: GS-4227860_LS_6_5
Grid Ref: 452855, 227495

Map Name: National Grid
Map date: **1974**
Scale: 1:2,500
Printed at: 1:2,500

N
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Surveyed 1974
Revised 1974
Edition N/A
Copyright 1976
Levelled 1971

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Production date: 04 September 2017

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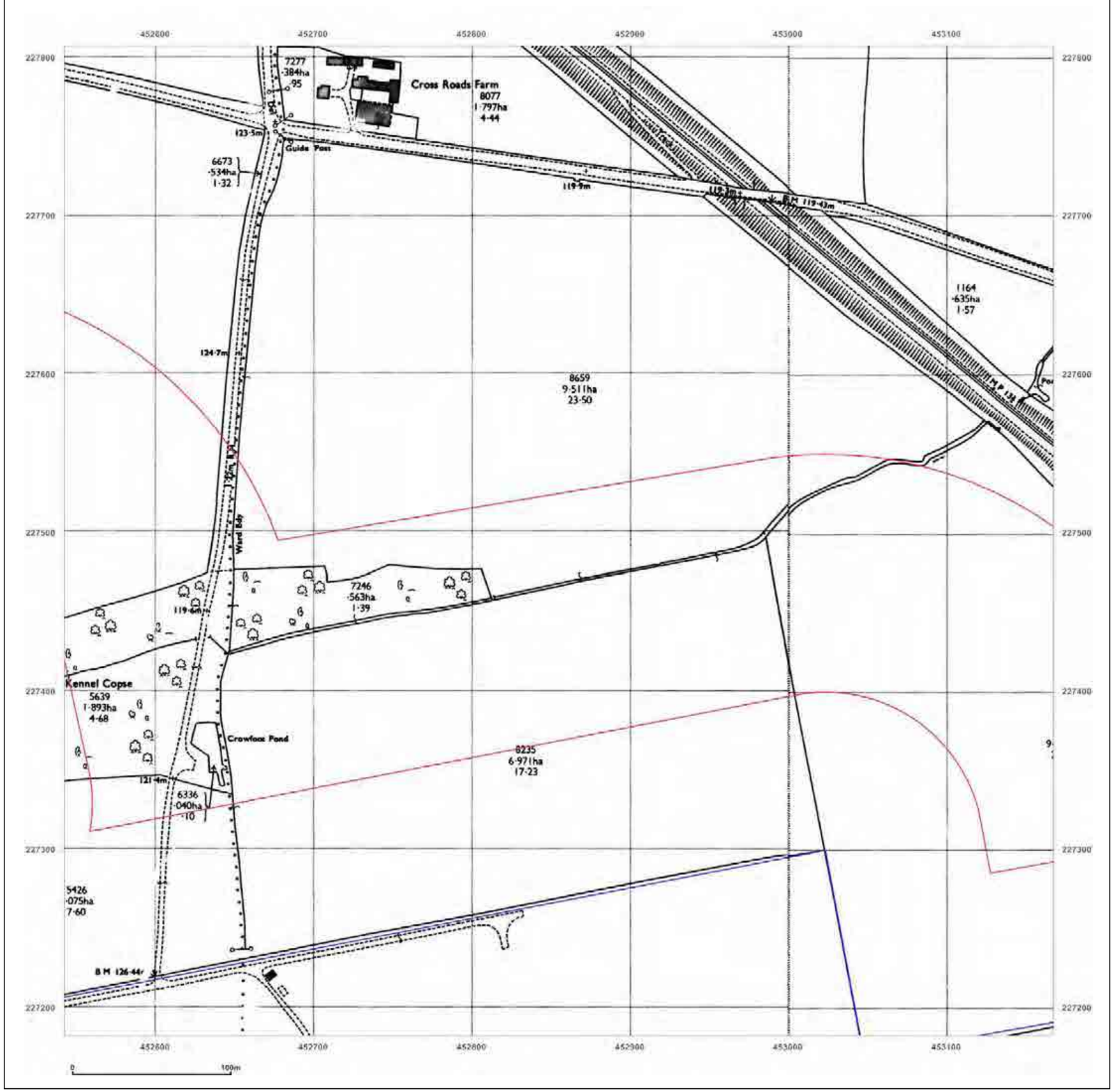

Groundsure INSIGHTS

Site Details:

HEYFORD PARK HOUSE, 52
HEYFORD PARK, CAMP ROAD,
UPPER HEYFORD, OX25 5HD

Client Ref: Heyford_Park
Report Ref: GS-4227860_LS_6_5
Grid Ref: 452855, 227495

Map Name: National Grid
Map date: **1976**
Scale: 1:2,500
Printed at: 1:2,500

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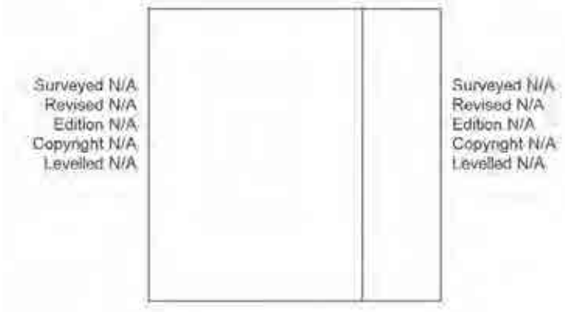

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Production date: 04 September 2017

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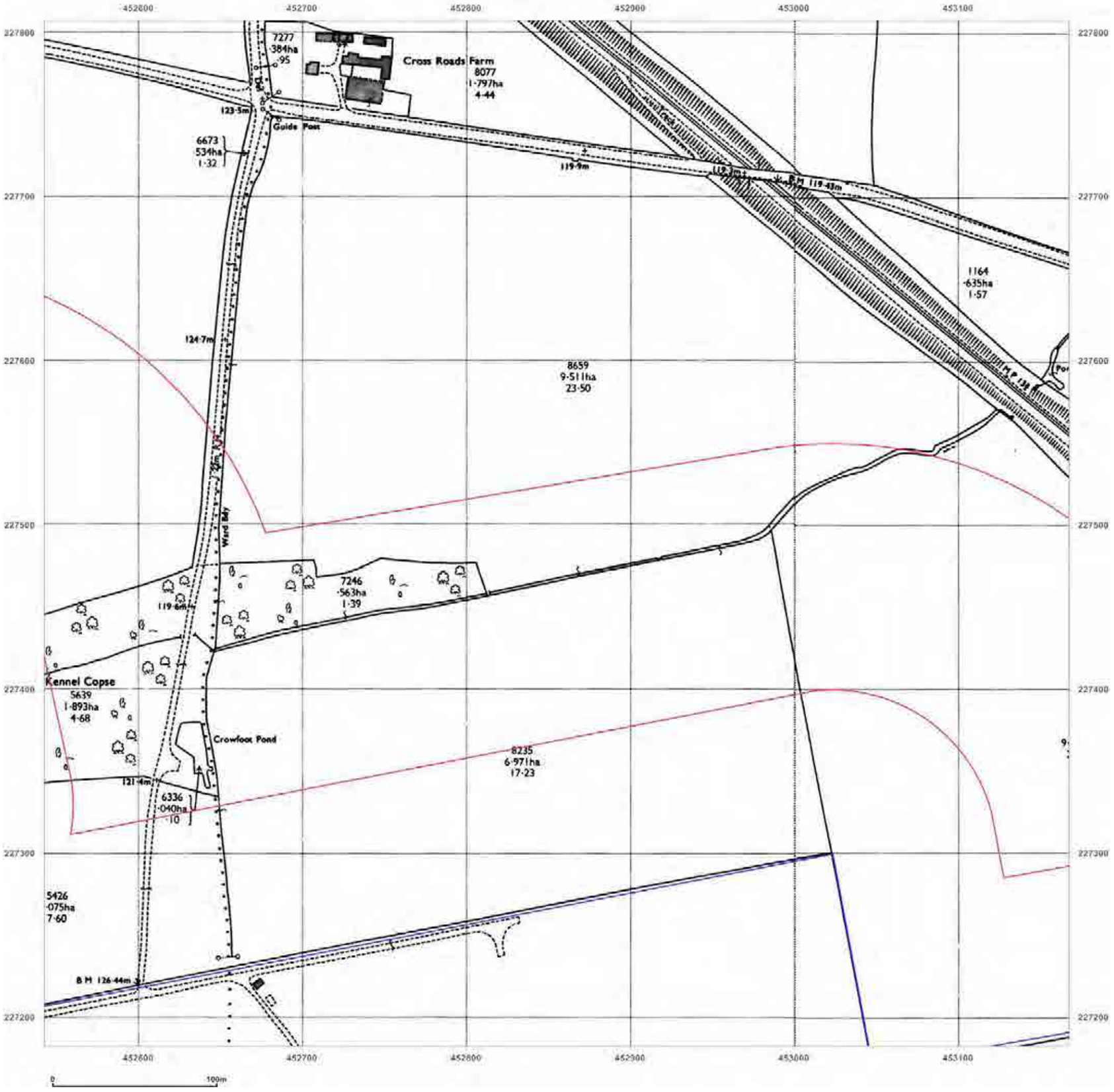

Site Details:

HEYFORD PARK HOUSE, 52
HEYFORD PARK, CAMP ROAD,
UPPER HEYFORD, OX25 5HD

Client Ref: Heyford_Park
Report Ref: GS-4227860_LS_6_5
Grid Ref: 452855, 227495

Map Name: National Grid
Map date: **1976**
Scale: 1:2,500
Printed at: 1:2,500

N
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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

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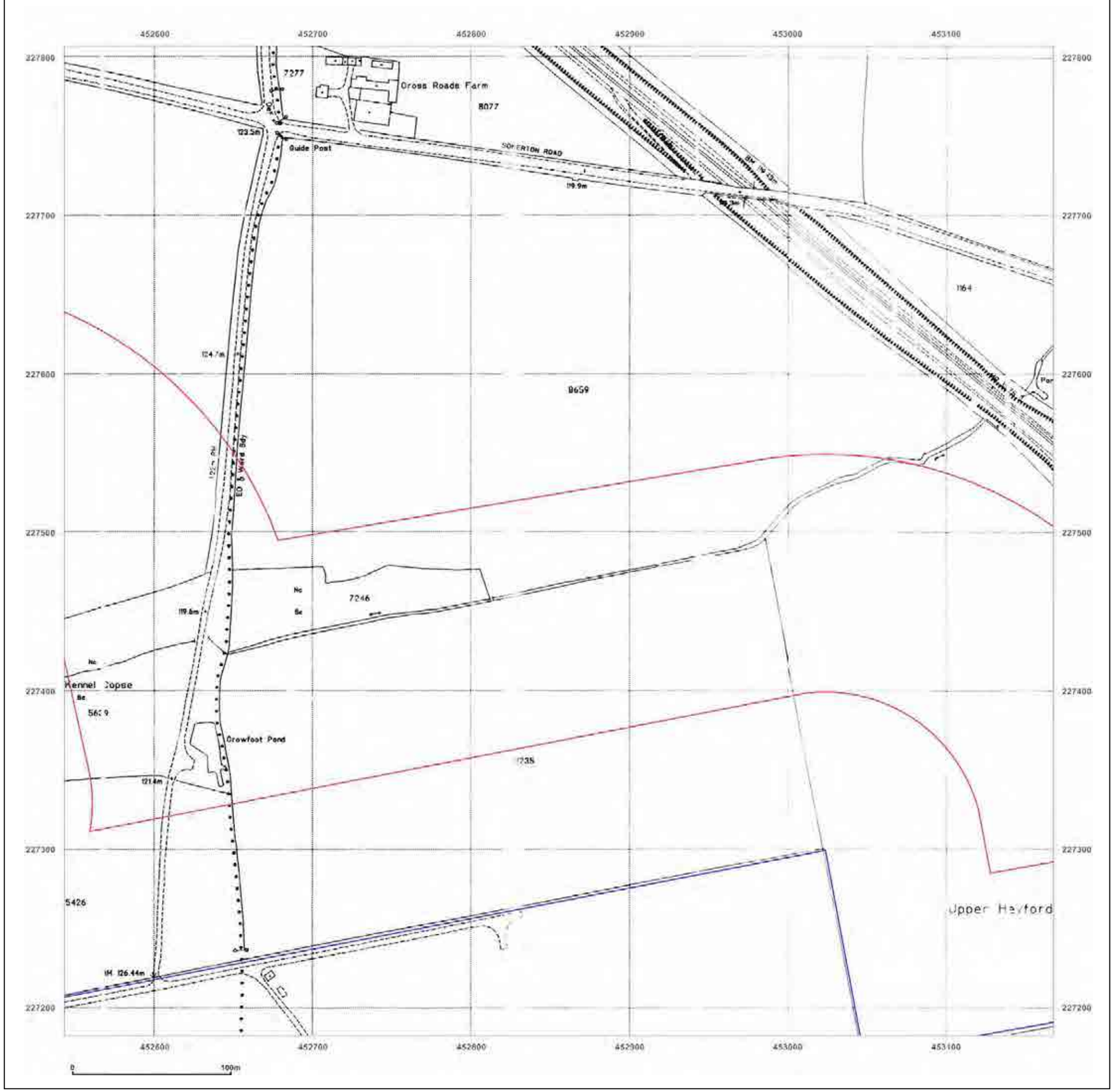
Production date: 04 September 2017

To view map legend click here *Legend*



Groundsure INSIGHTS

Site Details:

HEYFORD PARK HOUSE, 52
HEYFORD PARK, CAMP ROAD,
UPPER HEYFORD, OX25 5HD

Client Ref: Heyford_Park
Report Ref: GS-4227860_LS_6_5
Grid Ref: 452855, 227495

Map Name: National Grid
Map date: **1994**
Scale: 1:2,500
Printed at: 1:2,500

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

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

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Production date: 04 September 2017

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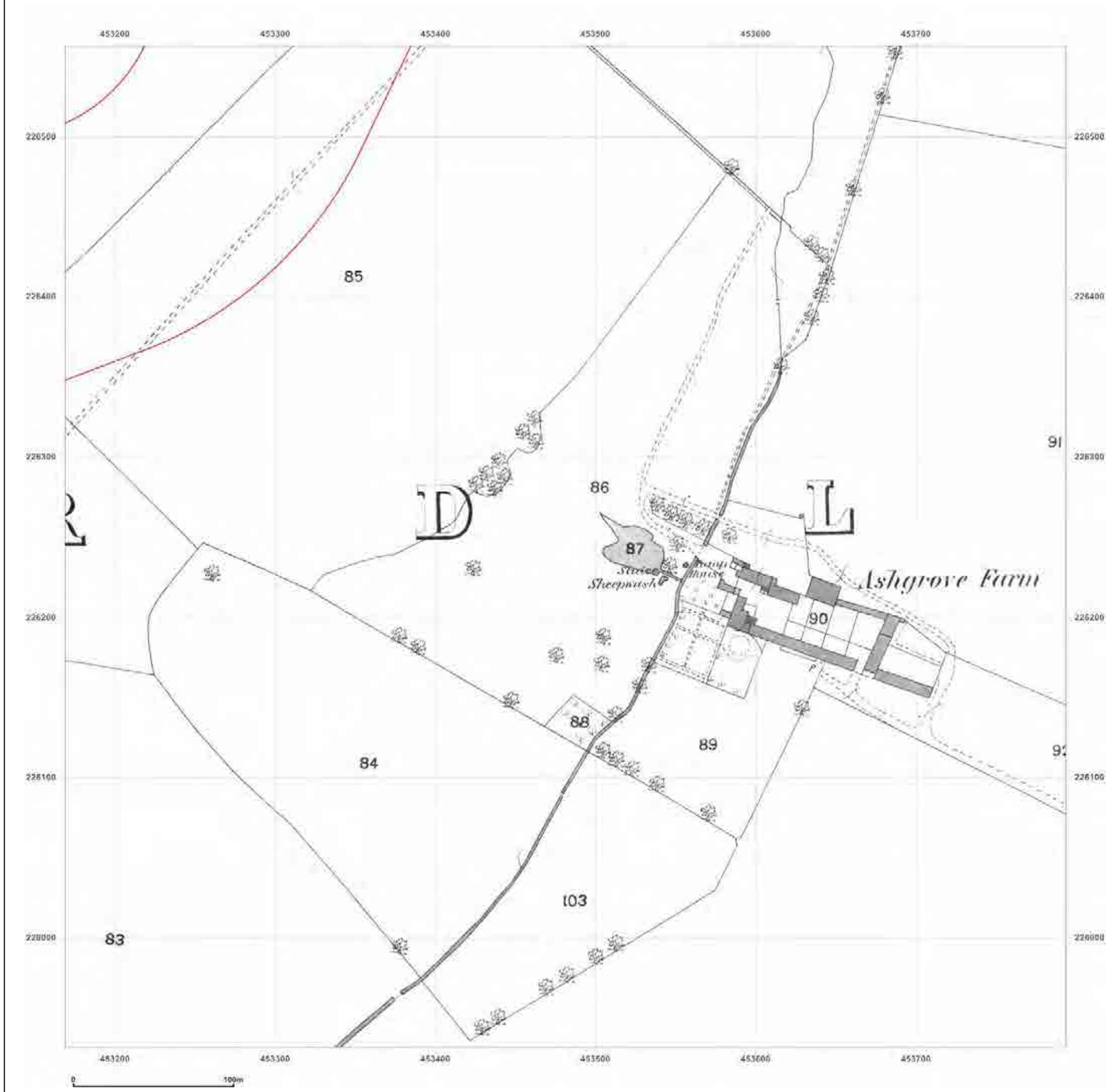

Groundsure INSIGHTS

Site Details:

HEYFORD PARK HOUSE, 52
HEYFORD PARK, CAMP ROAD,
UPPER HEYFORD, OX25 5HD

Client Ref: Heyford_Park
Report Ref: GS-4227860_LS_7_3
Grid Ref: 453481, 226244

Map Name: County Series
Map date: **1881**
Scale: 1:2,500
Printed at: 1:2,500

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Surveyed 1881
Revised 1881
Edition N/A
Copyright N/A
Levelled N/A

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Production date: 04 September 2017

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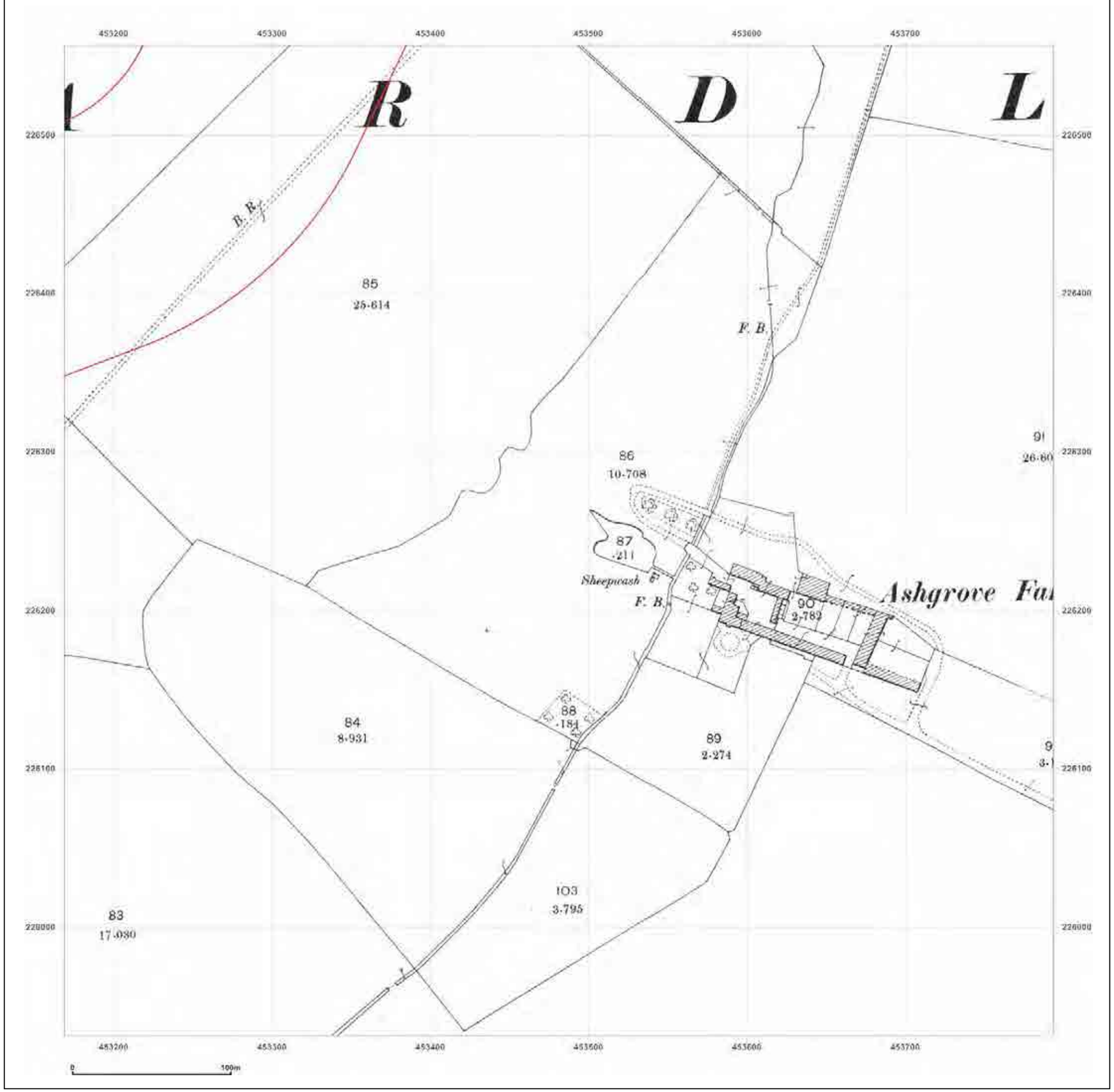

Groundsure INSIGHTS

Site Details:

HEYFORD PARK HOUSE, 52
HEYFORD PARK, CAMP ROAD,
UPPER HEYFORD, OX25 5HD

Client Ref: Heyford_Park
Report Ref: GS-4227860_LS_7_3
Grid Ref: 453481, 226244

Map Name: County Series
Map date: 1900
Scale: 1:2,500
Printed at: 1:2,500

N
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Surveyed 1900
Revised 1900
Edition N/A
Copyright N/A
Levelled N/A

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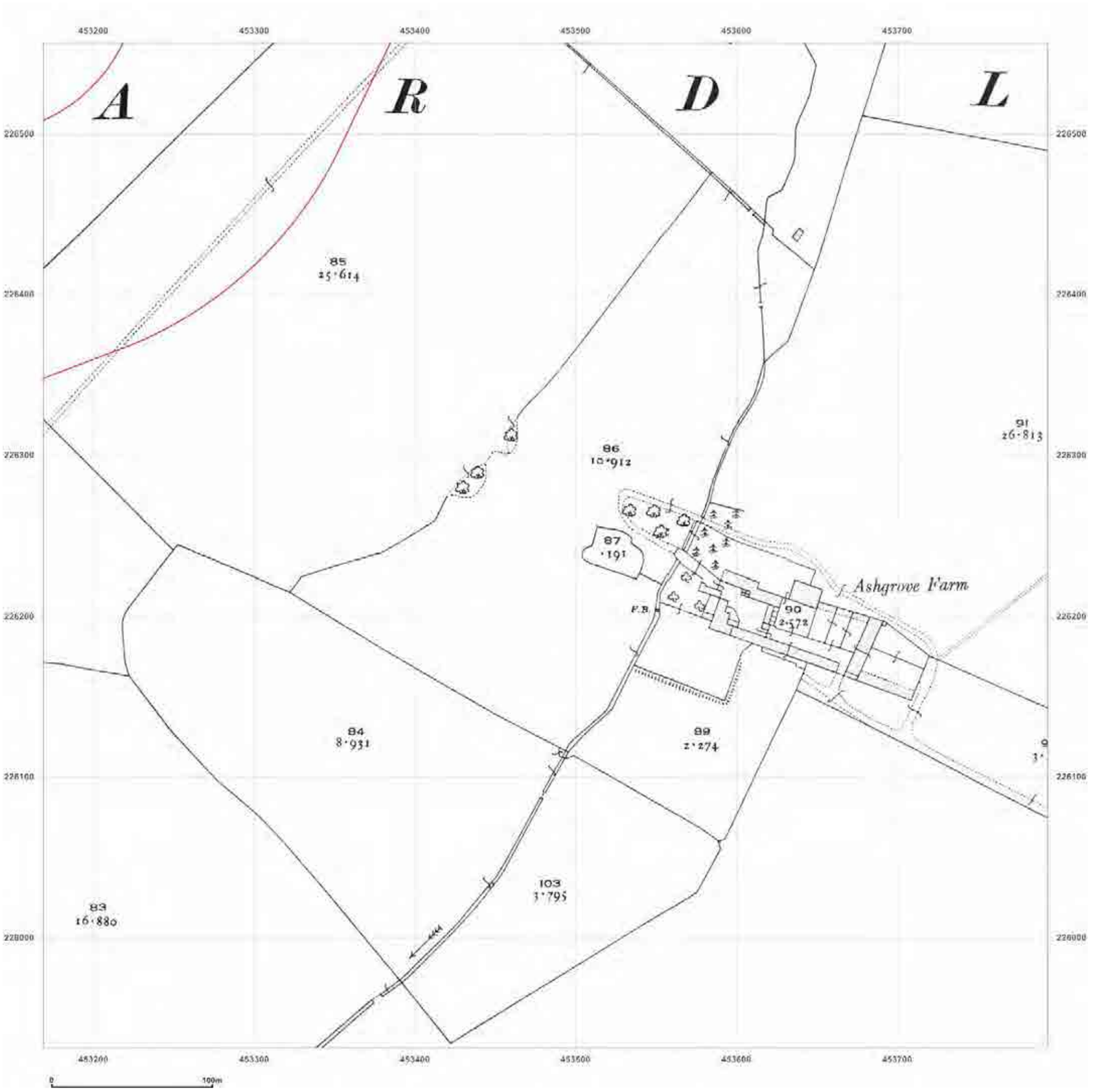
W: www.groundsure.com

Production date: 04 September 2017

To view map legend click here *Legend*



Groundsure INSIGHTS

Site Details:

HEYFORD PARK HOUSE, 52
HEYFORD PARK, CAMP ROAD,
UPPER HEYFORD, OX25 5HD

Client Ref: Heyford_Park
Report Ref: GS-4227860_LS_7_3
Grid Ref: 453481, 226244

Map Name: County Series
Map date: **1922**
Scale: 1:2,500
Printed at: 1:2,500

N
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Surveyed 1922
Revised 1922
Edition N/A
Copyright N/A
Levelled N/A

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W: www.groundsure.com

Production date: 04 September 2017

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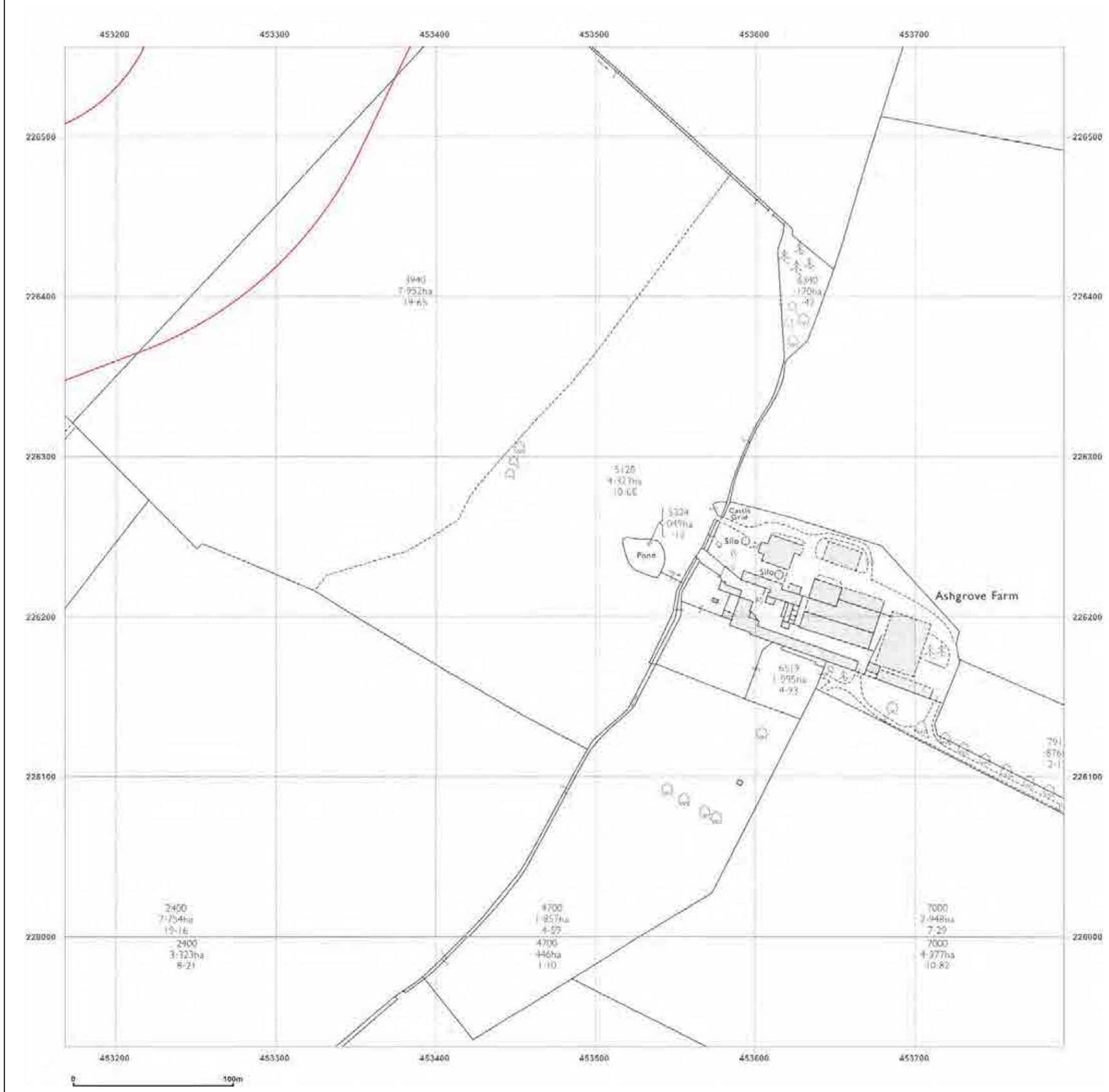

Groundsure INSIGHTS

Site Details:

HEYFORD PARK HOUSE, 52
HEYFORD PARK, CAMP ROAD,
UPPER HEYFORD, OX25 5HD

Client Ref: Heyford_Park
Report Ref: GS-4227860_LS_7_3
Grid Ref: 453481, 226244

Map Name: National Grid
Map date: **1974**
Scale: 1:2,500
Printed at: 1:2,500

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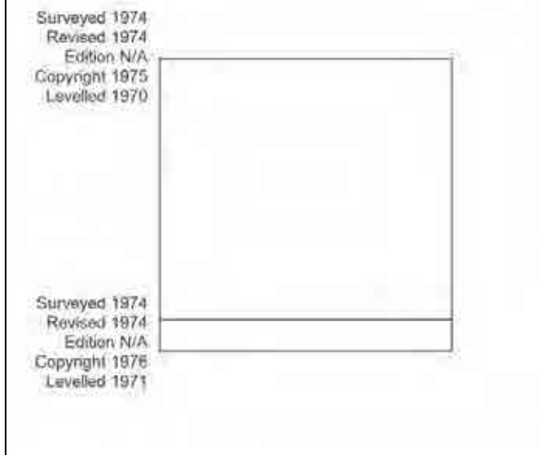

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Production date: 04 September 2017

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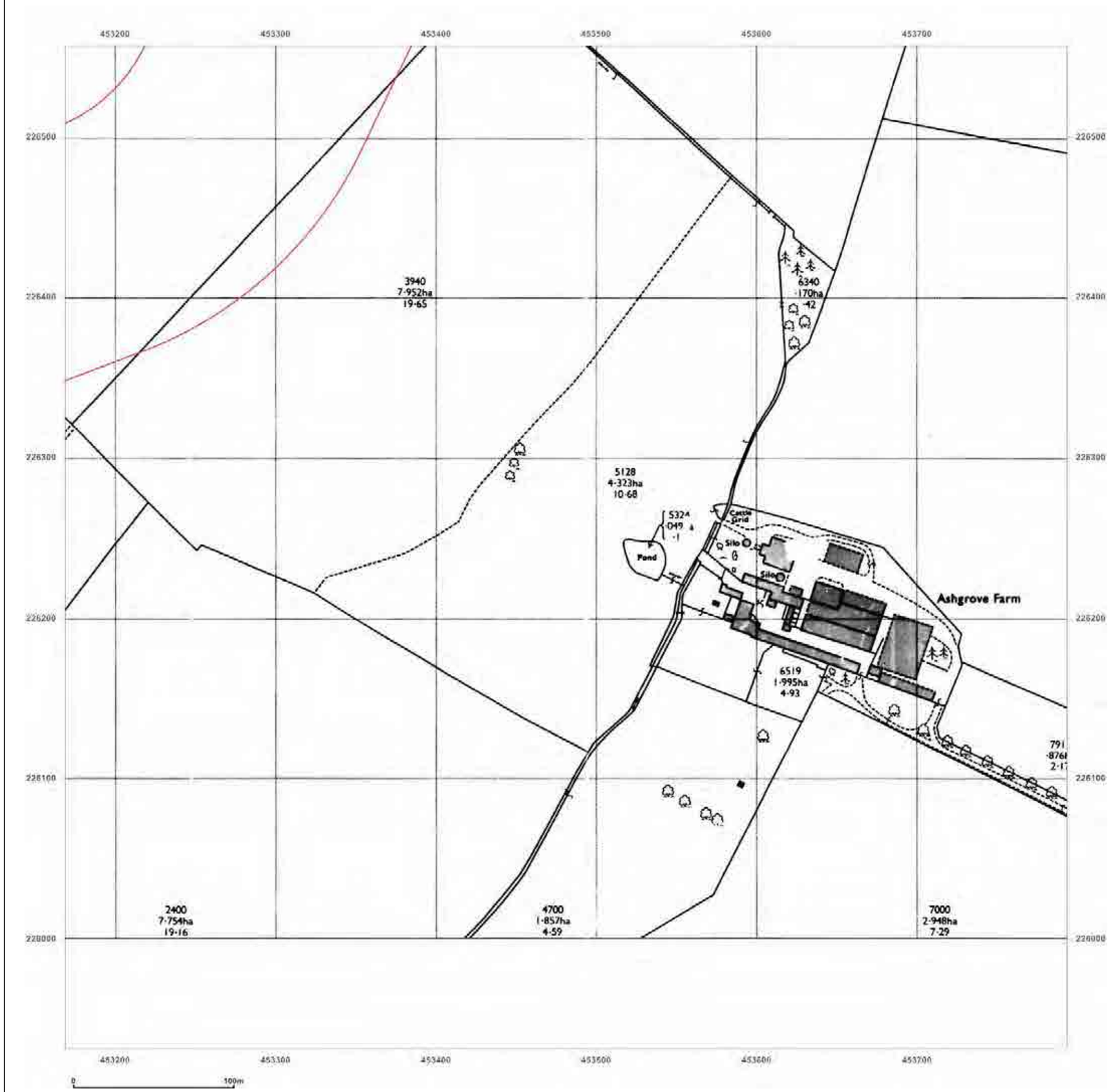

Groundsure INSIGHTS

Site Details:

HEYFORD PARK HOUSE, 52
HEYFORD PARK, CAMP ROAD,
UPPER HEYFORD, OX25 5HD

Client Ref: Heyford_Park
Report Ref: GS-4227860_LS_7_3
Grid Ref: 453481, 226244

Map Name: National Grid
Map date: **1975**
Scale: 1:2,500
Printed at: 1:2,500

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

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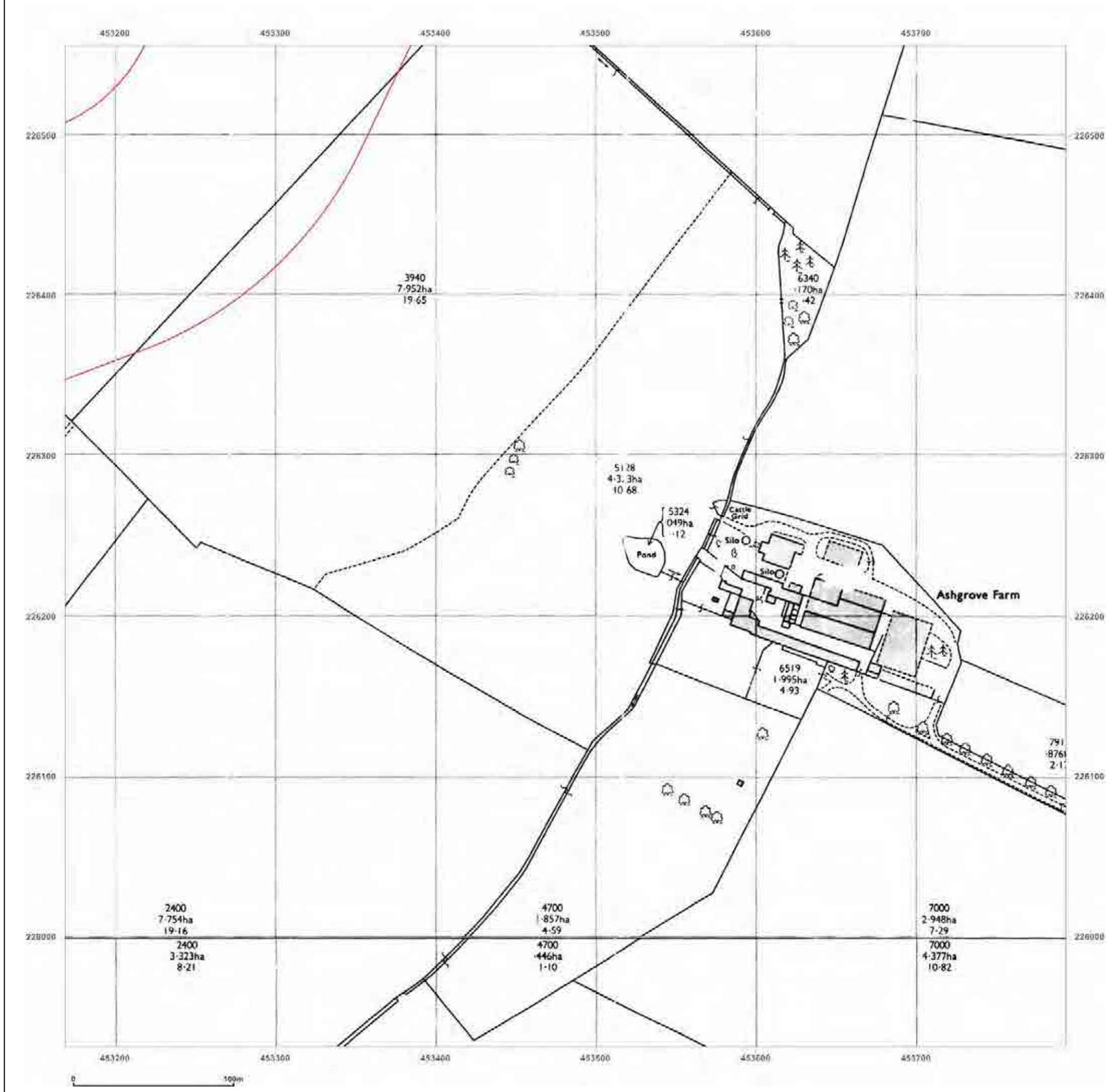
W: www.groundsure.com

Production date: 04 September 2017

To view map legend click here *Legend*



Groundsure INSIGHTS

Site Details:

HEYFORD PARK HOUSE, 52
HEYFORD PARK, CAMP ROAD,
UPPER HEYFORD, OX25 5HD

Client Ref: Heyford_Park
Report Ref: GS-4227860_LS_7_3
Grid Ref: 453481, 226244

Map Name: National Grid
Map date: **1975-1976**
Scale: 1:2,500
Printed at: 1:2,500

N
W E
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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

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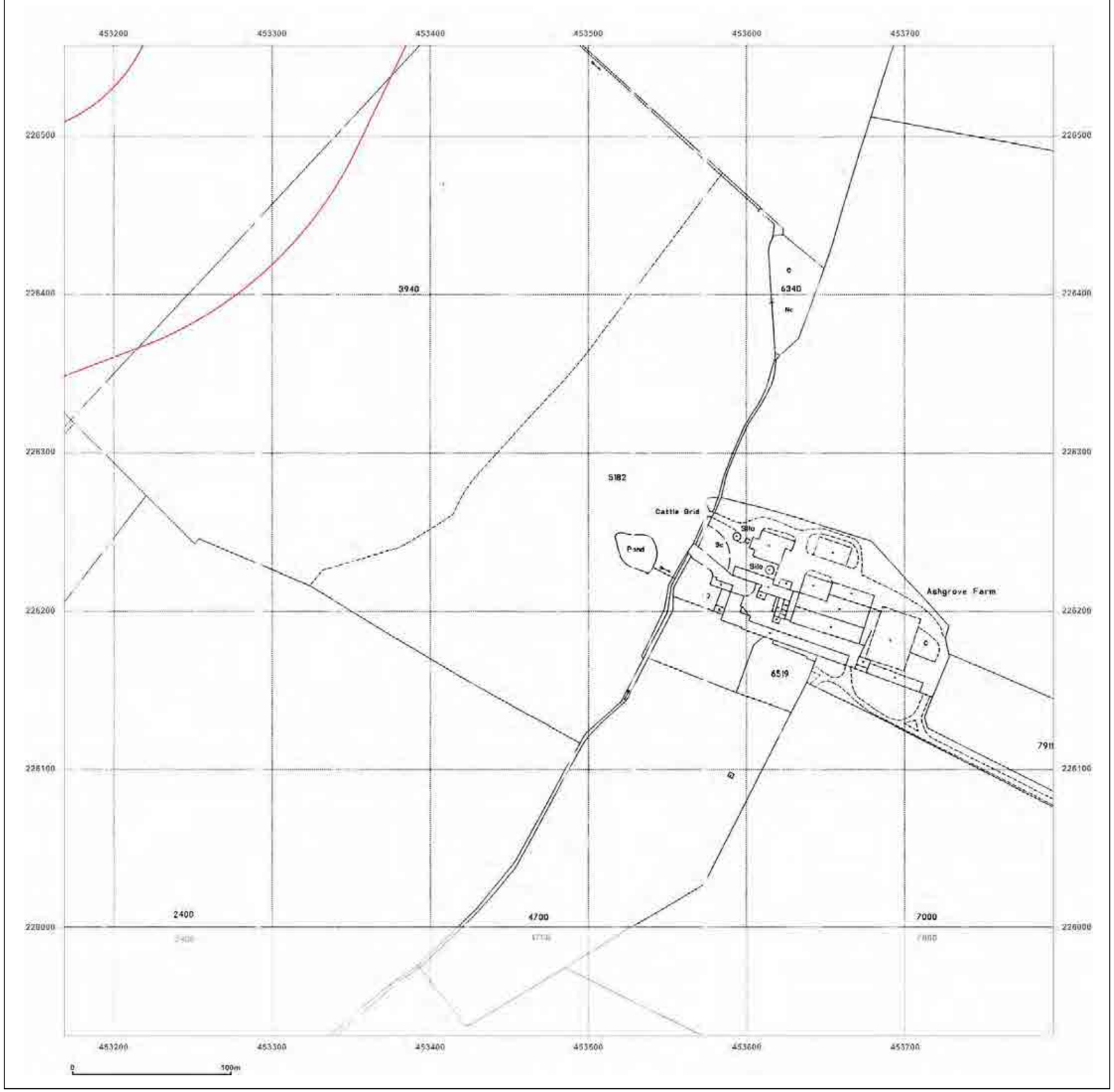
Production date: 04 September 2017

To view map legend click here *Legend*



Groundsure INSIGHTS

Site Details:

HEYFORD PARK HOUSE, 52
HEYFORD PARK, CAMP ROAD,
UPPER HEYFORD, OX25 5HD

Client Ref: Heyford_Park
Report Ref: GS-4227860_LS_7_3
Grid Ref: 453481, 226244

Map Name: National Grid
Map date: **1994**
Scale: 1:2,500
Printed at: 1:2,500

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

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

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Production date: 04 September 2017

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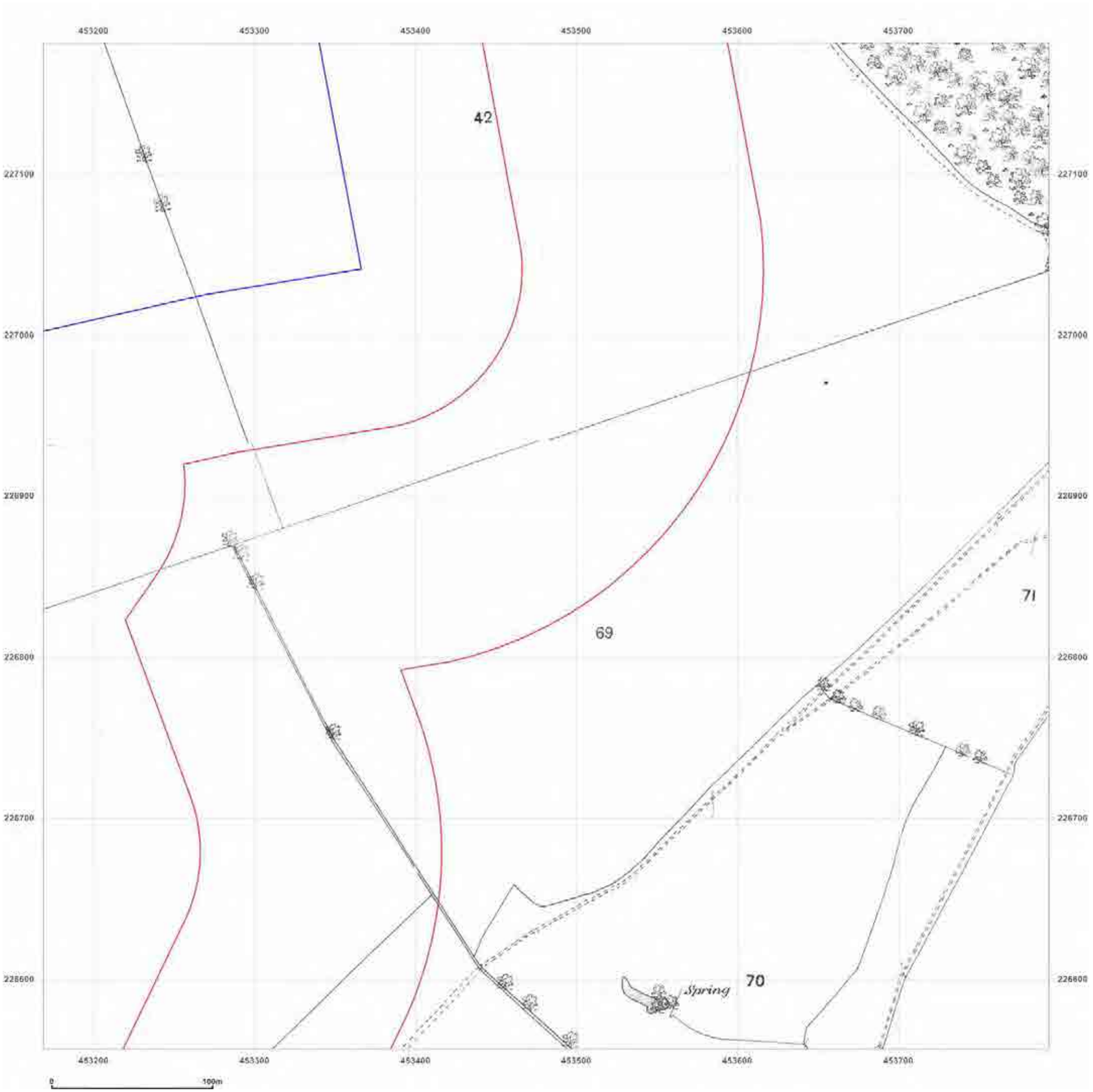

Groundsure INSIGHTS

Site Details:

HEYFORD PARK HOUSE, 52
HEYFORD PARK, CAMP ROAD,
UPPER HEYFORD, OX25 5HD

Client Ref: Heyford_Park
Report Ref: GS-4227860_LS_7_4
Grid Ref: 453481, 226869

Map Name: County Series
Map date: **1881**
Scale: 1:2,500
Printed at: 1:2,500

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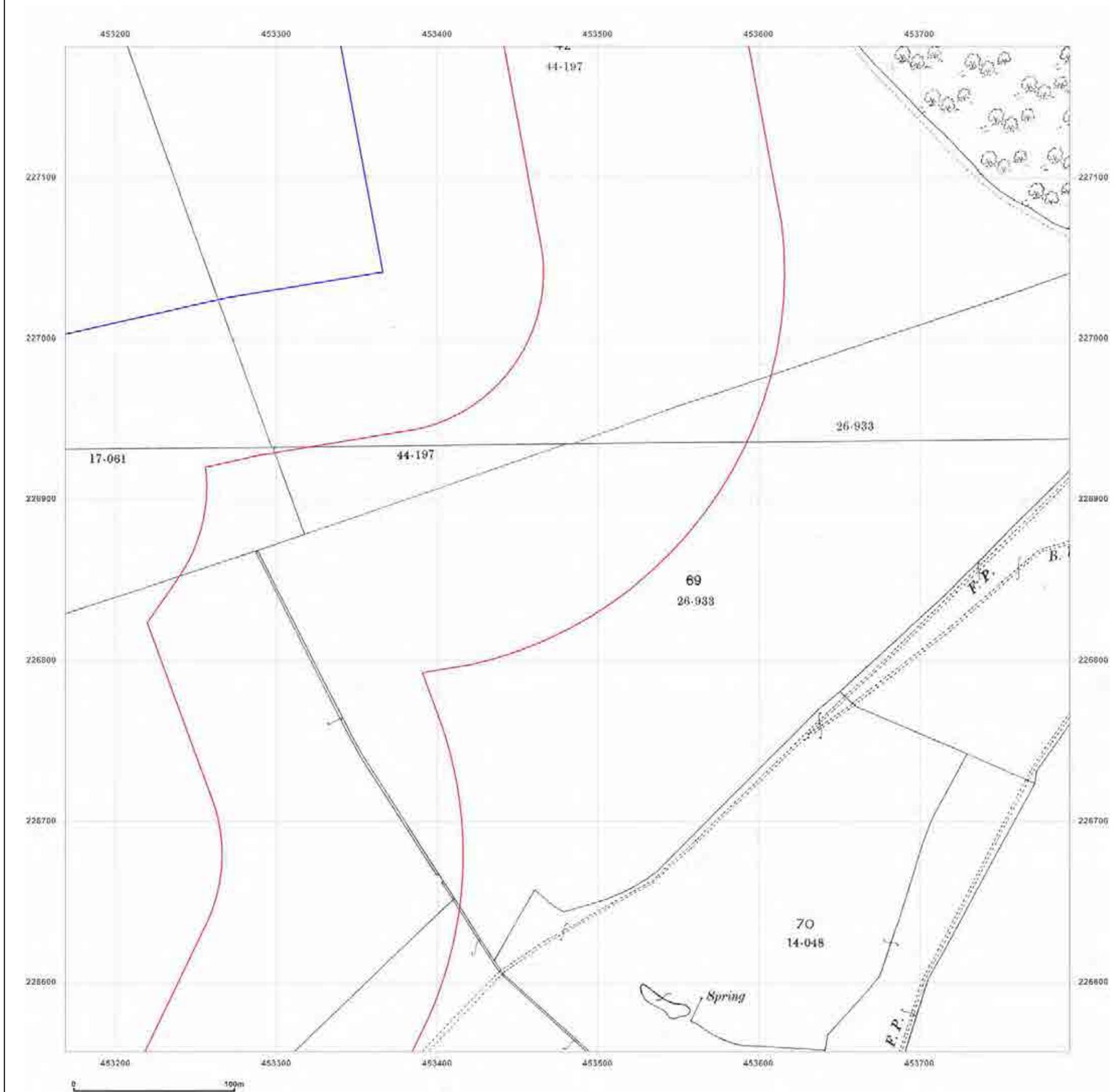
E: info@groundsure.com
W: www.groundsure.com

Production date: 04 September 2017

To view map legend click here *Legend*



Groundsure INSIGHTS

Site Details:

HEYFORD PARK HOUSE, 52
HEYFORD PARK, CAMP ROAD,
UPPER HEYFORD, OX25 5HD

Client Ref: Heyford_Park
Report Ref: GS-4227860_LS_7_4
Grid Ref: 453481, 226869

Map Name: County Series

Map date: **1900**

Scale: 1:2,500

Printed at: 1:2,500

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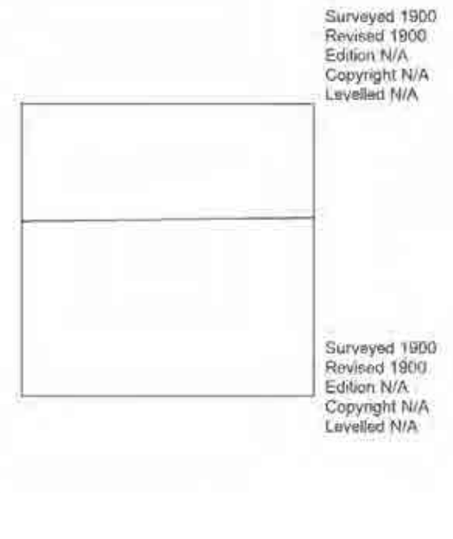

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Production date: 04 September 2017

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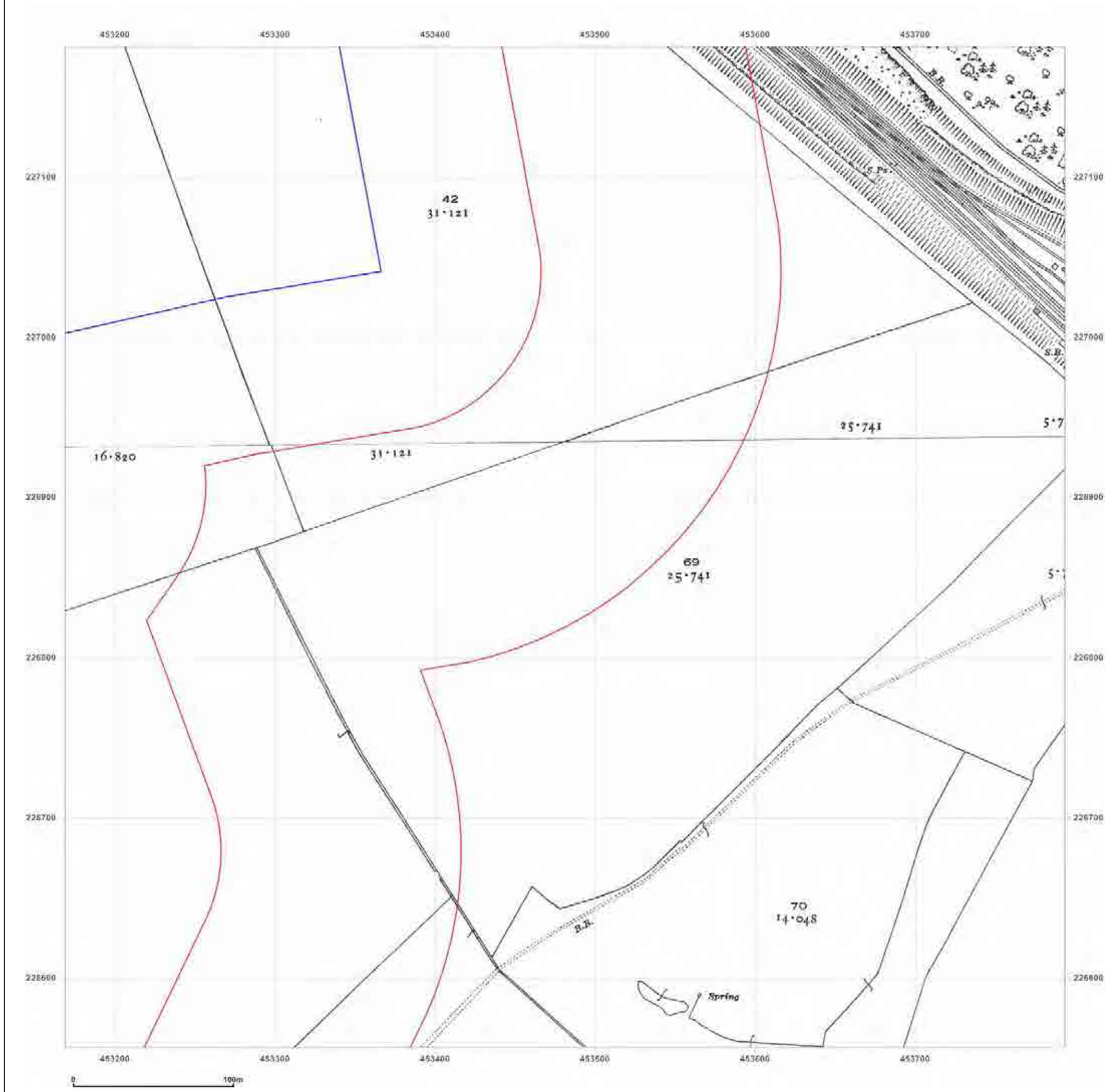

Groundsure INSIGHTS

Site Details:

HEYFORD PARK HOUSE, 52
HEYFORD PARK, CAMP ROAD,
UPPER HEYFORD, OX25 5HD

Client Ref: Heyford_Park
Report Ref: GS-4227860_LS_7_4
Grid Ref: 453481, 226869

Map Name: County Series
Map date: **1922**
Scale: 1:2,500
Printed at: 1:2,500

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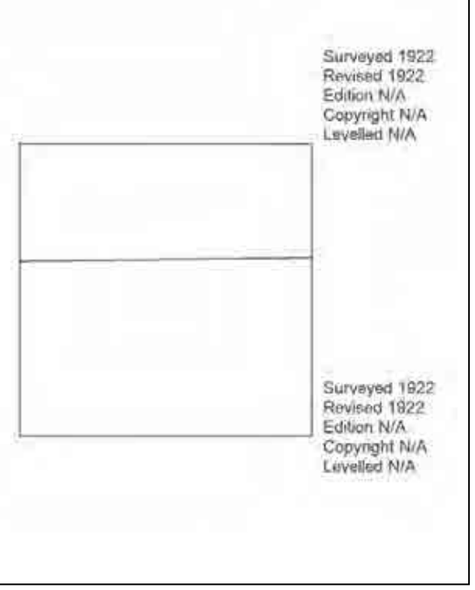

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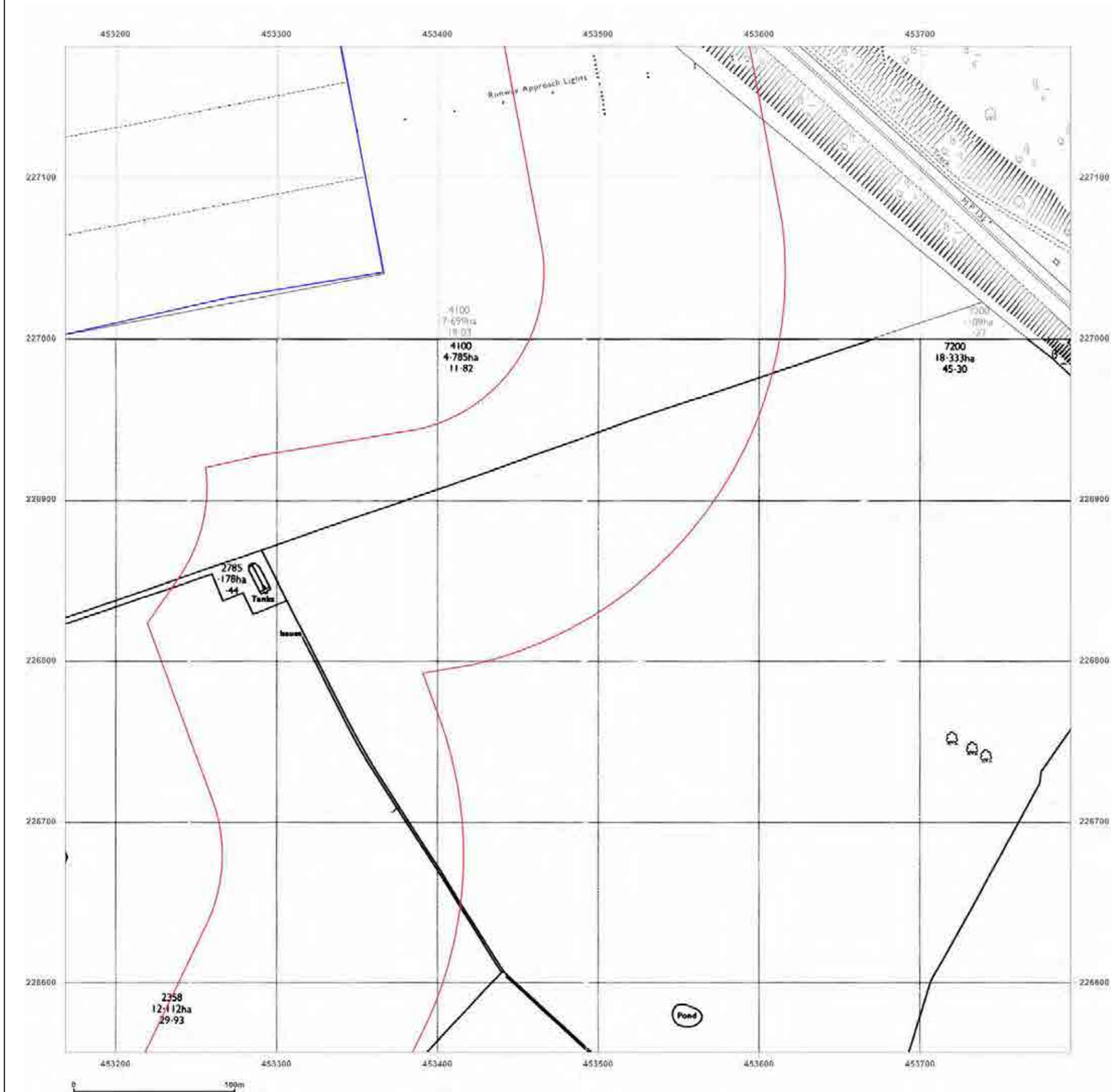

Groundsure INSIGHTS

Site Details:

HEYFORD PARK HOUSE, 52
HEYFORD PARK, CAMP ROAD,
UPPER HEYFORD, OX25 5HD

Client Ref: Heyford_Park
Report Ref: GS-4227860_LS_7_4
Grid Ref: 453481, 226869

Map Name: National Grid
Map date: **1974-1975**
Scale: 1:2,500
Printed at: 1:2,500

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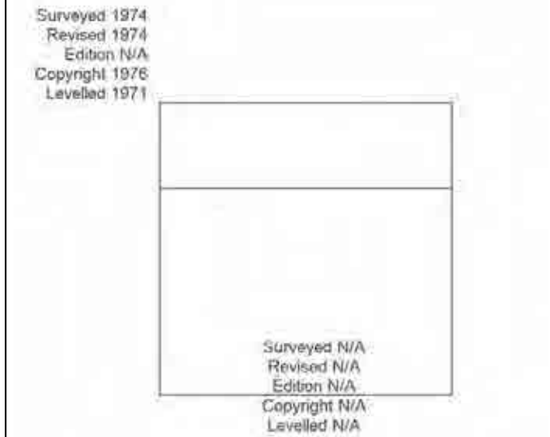

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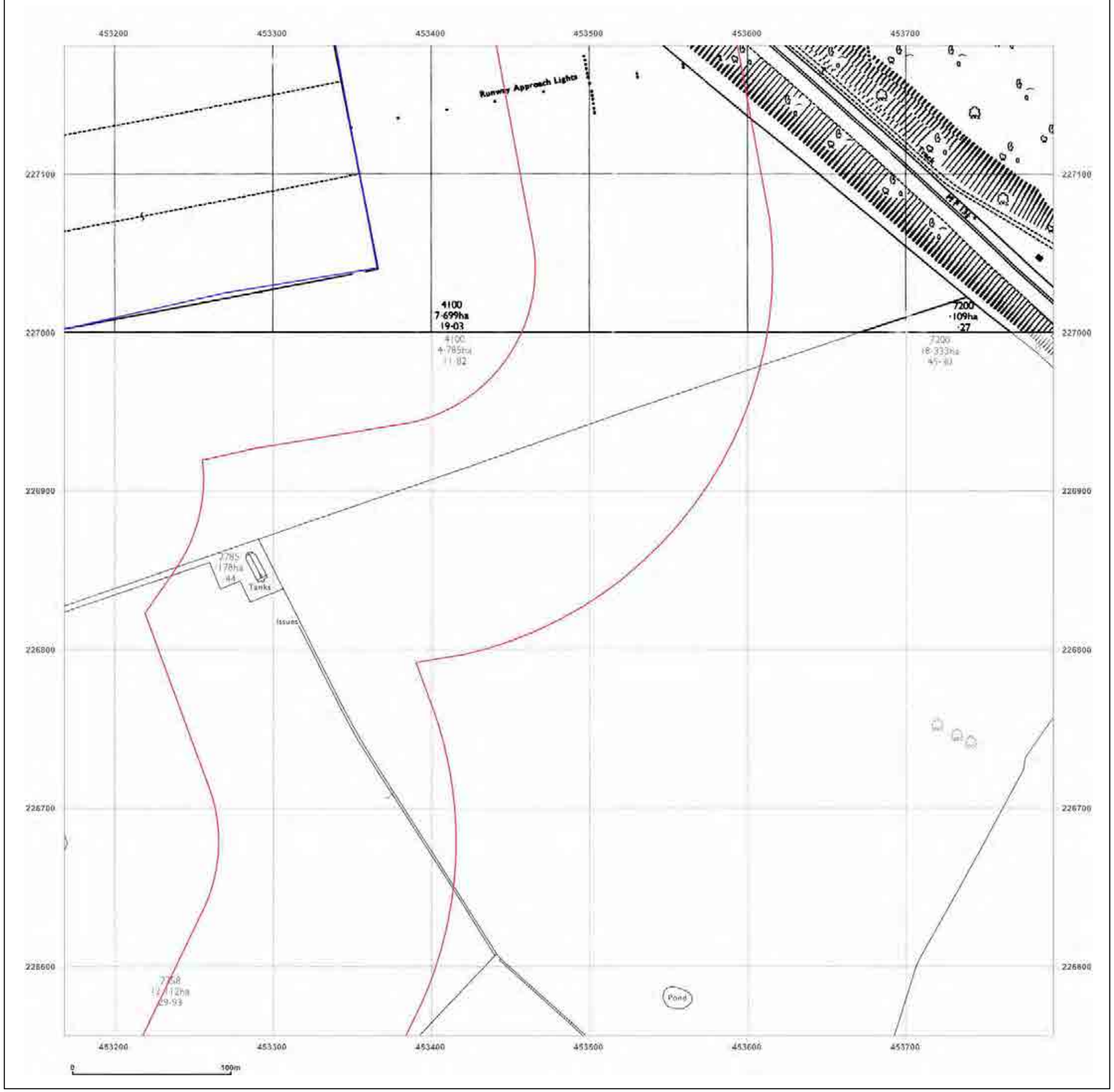

Groundsure INSIGHTS

Site Details:

HEYFORD PARK HOUSE, 52
HEYFORD PARK, CAMP ROAD,
UPPER HEYFORD, OX25 5HD

Client Ref: Heyford_Park
Report Ref: GS-4227860_LS_7_4
Grid Ref: 453481, 226869

Map Name: National Grid

Map date: **1974-1976**

Scale: 1:2,500

Printed at: 1:2,500

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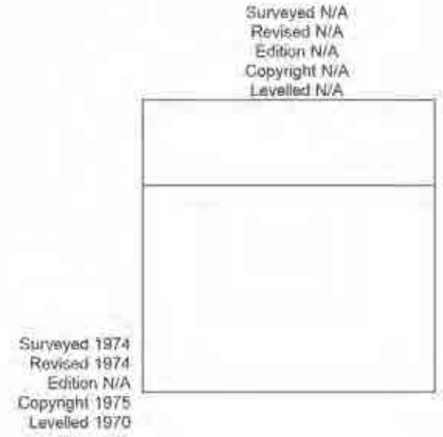

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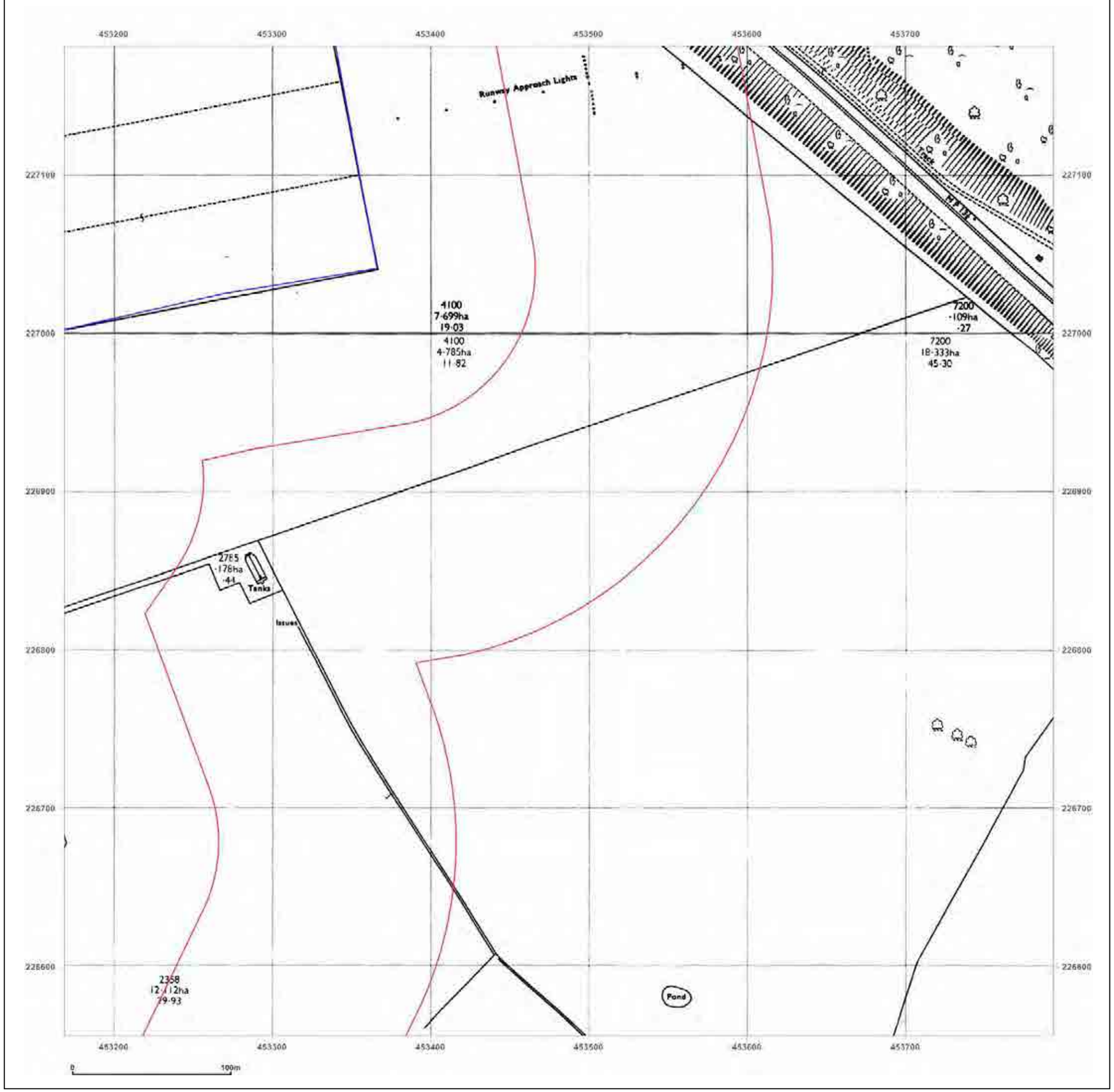
Production date: 04 September 2017

To view map legend click here *Legend*



Groundsure INSIGHTS

Site Details:

HEYFORD PARK HOUSE, 52
HEYFORD PARK, CAMP ROAD,
UPPER HEYFORD, OX25 5HD

Client Ref: Heyford_Park
Report Ref: GS-4227860_LS_7_4
Grid Ref: 453481, 226869

Map Name: National Grid
Map date: **1975-1976**
Scale: 1:2,500
Printed at: 1:2,500

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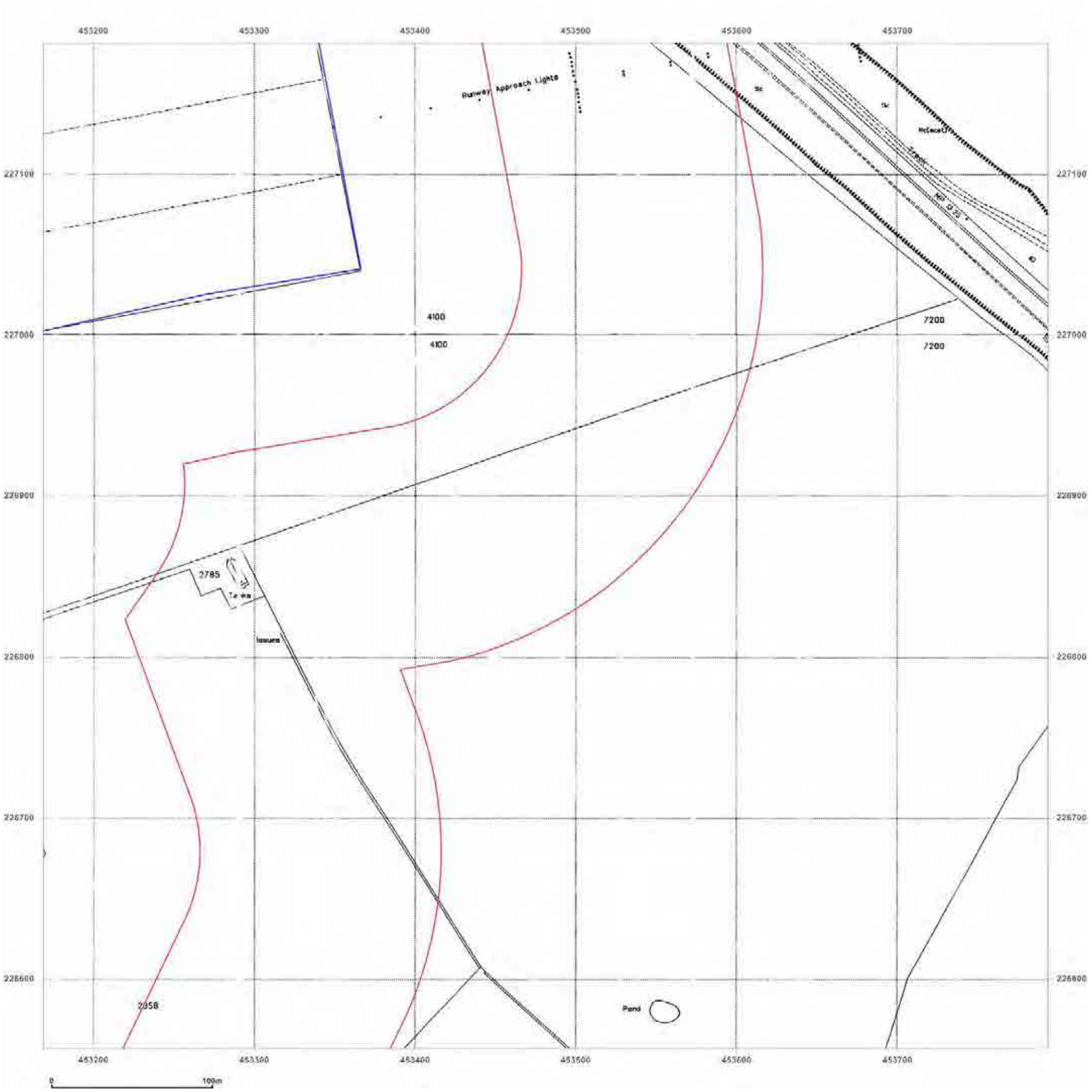
To view map legend click here *Legend*



Groundsure INSIGHTS

Site Details:

HEYFORD PARK HOUSE, 52
HEYFORD PARK, CAMP ROAD,
UPPER HEYFORD, OX25 5HD

Client Ref: Heyford_Park
Report Ref: GS-4227860_LS_7_4
Grid Ref: 453481, 226869

Map Name: National Grid
Map date: **1994**
Scale: 1:2,500
Printed at: 1:2,500

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Surveyed N/A
Revised N/A
Edition N/A
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Edition N/A
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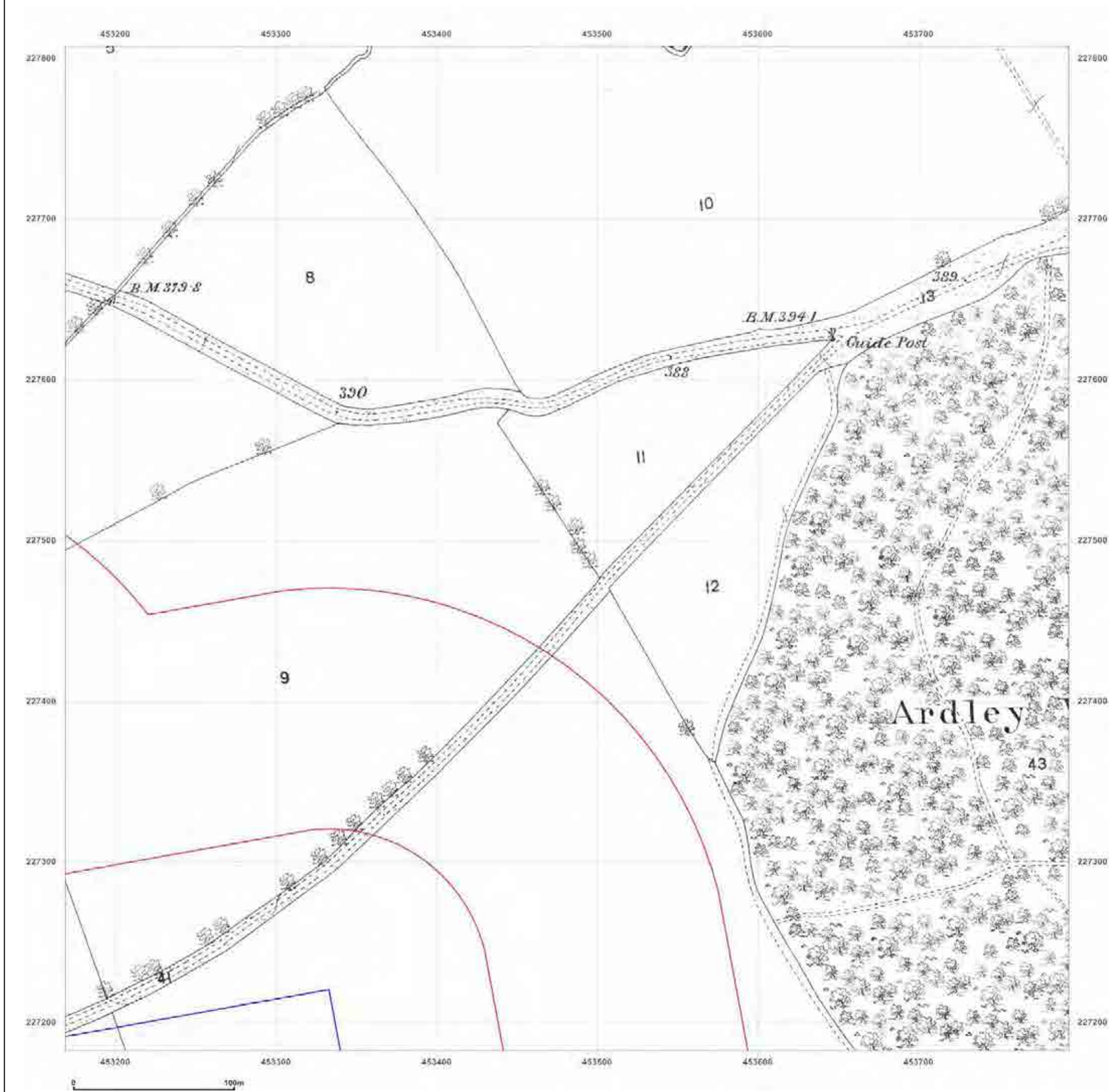

Groundsure INSIGHTS

Site Details:

HEYFORD PARK HOUSE, 52
HEYFORD PARK, CAMP ROAD,
UPPER HEYFORD, OX25 5HD

Client Ref: Heyford_Park
Report Ref: GS-4227860_LS_7_5
Grid Ref: 453481, 227495

Map Name: County Series
Map date: **1881**
Scale: 1:2,500
Printed at: 1:2,500

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Surveyed 1881
Revised 1881
Edition N/A
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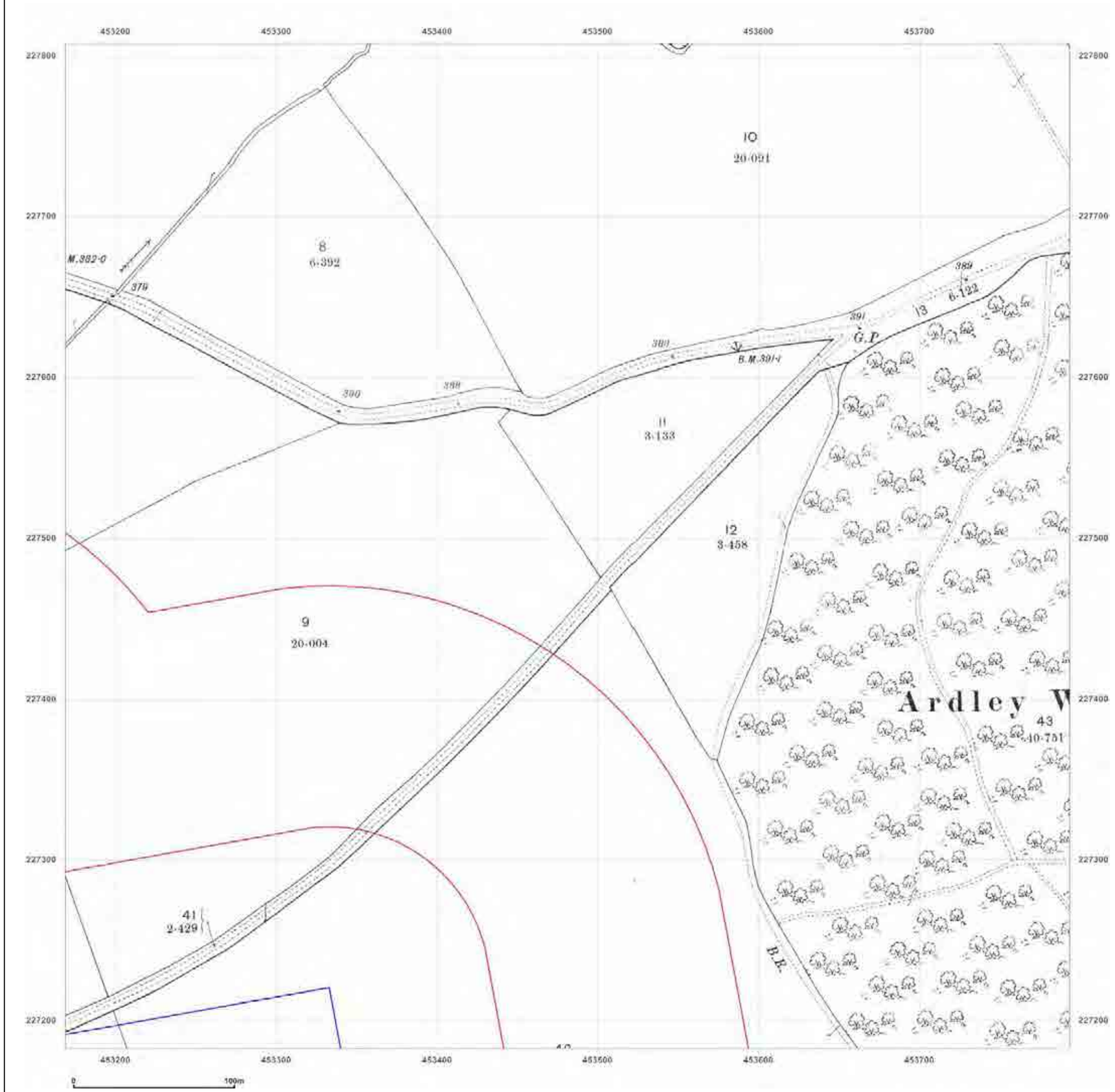

Groundsure INSIGHTS

Site Details:

HEYFORD PARK HOUSE, 52
HEYFORD PARK, CAMP ROAD,
UPPER HEYFORD, OX25 5HD

Client Ref: Heyford_Park
Report Ref: GS-4227860_LS_7_5
Grid Ref: 453481, 227495

Map Name: County Series
Map date: **1900**
Scale: 1:2,500
Printed at: 1:2,500

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Edition N/A
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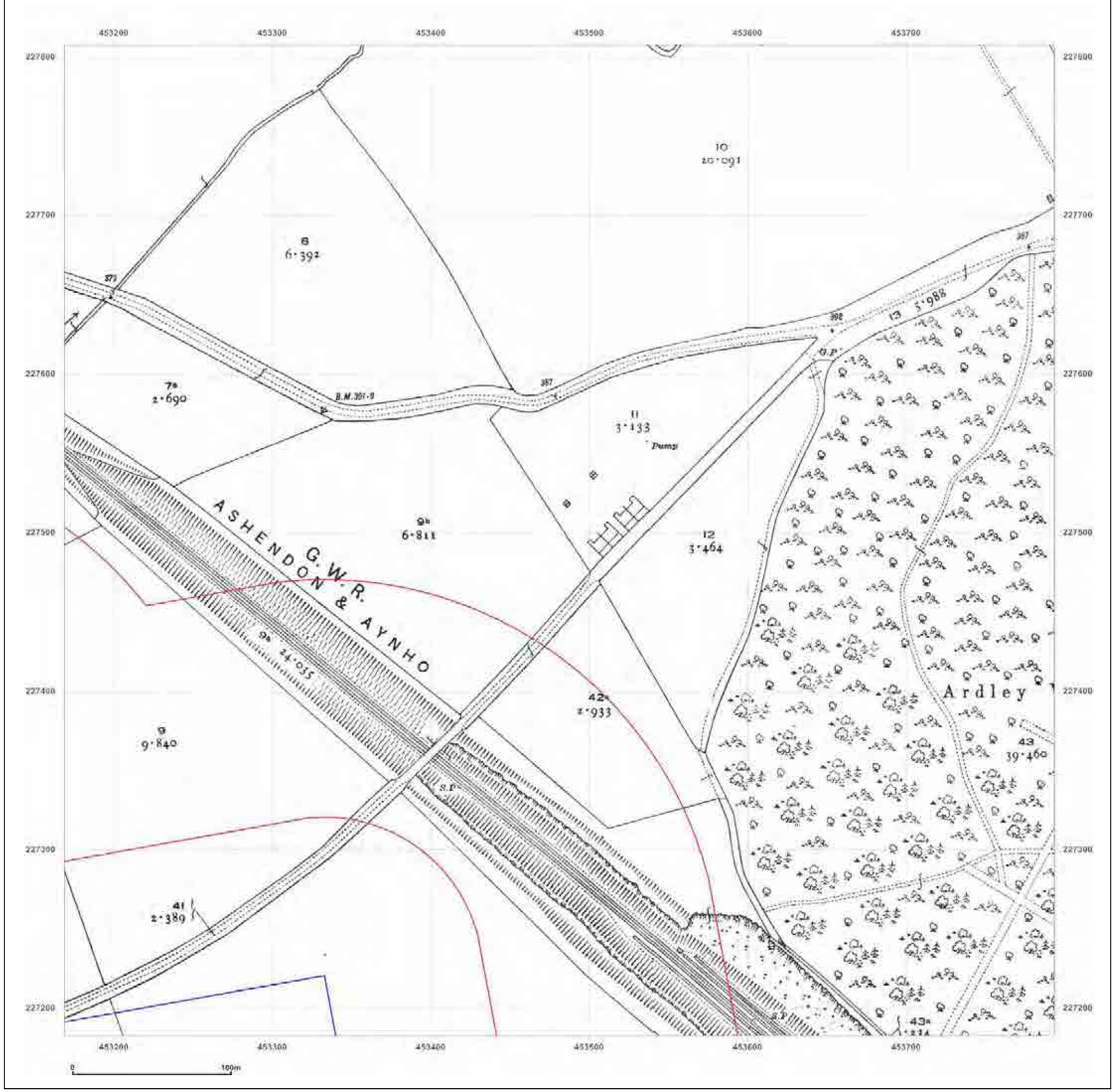

Groundsure INSIGHTS

Site Details:

HEYFORD PARK HOUSE, 52
HEYFORD PARK, CAMP ROAD,
UPPER HEYFORD, OX25 5HD

Client Ref: Heyford_Park
Report Ref: GS-4227860_LS_7_5
Grid Ref: 453481, 227495

Map Name: County Series
Map date: **1922**
Scale: 1:2,500
Printed at: 1:2,500

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Surveyed 1922
Revised 1922
Edition N/A
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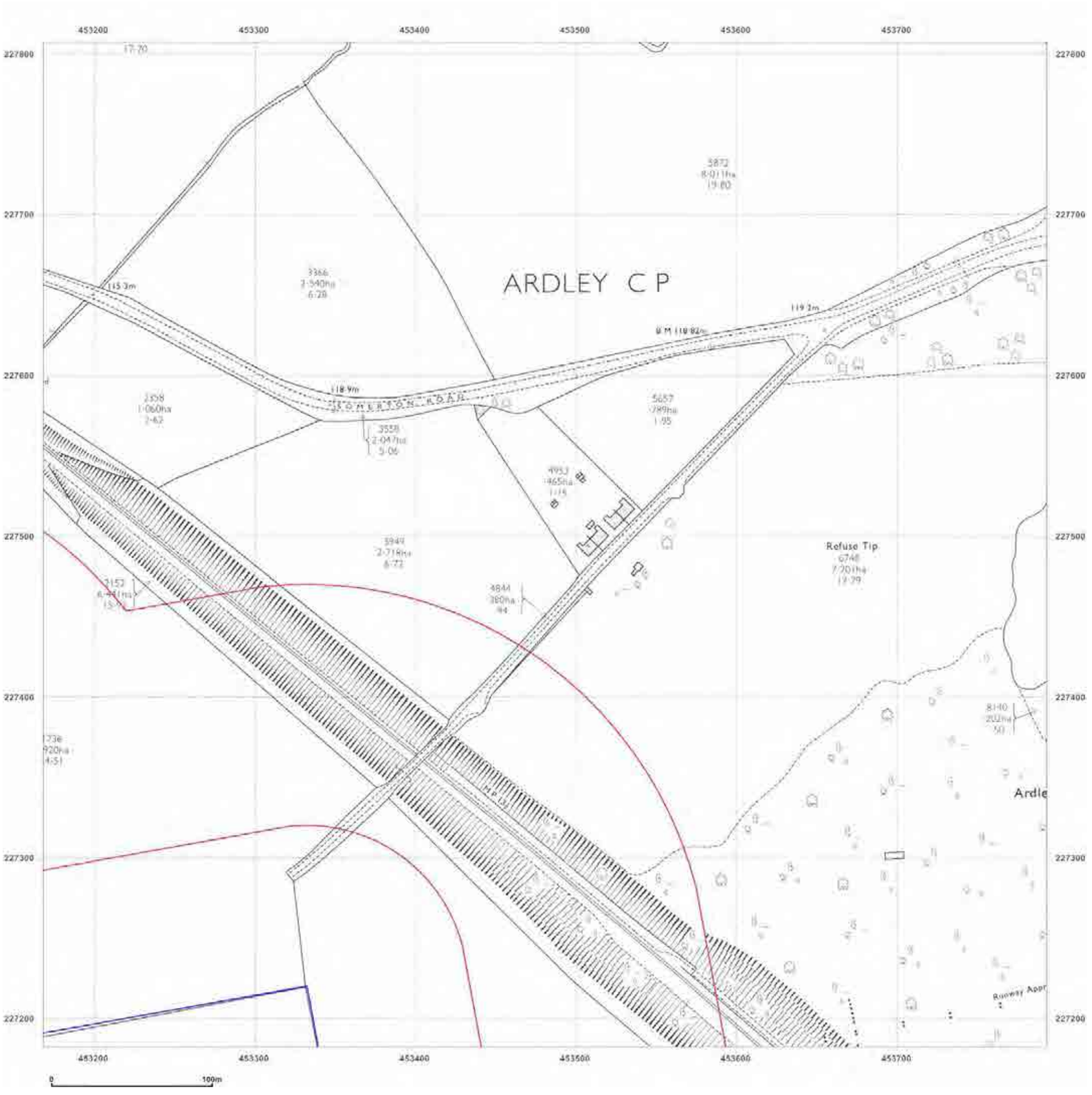

Groundsure INSIGHTS

Site Details:

HEYFORD PARK HOUSE, 52
HEYFORD PARK, CAMP ROAD,
UPPER HEYFORD, OX25 5HD

Client Ref: Heyford_Park
Report Ref: GS-4227860_LS_7_5
Grid Ref: 453481, 227495

Map Name: National Grid
Map date: **1974**
Scale: 1:2,500
Printed at: 1:2,500

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Surveyed 1974
Revised 1974
Edition N/A
Copyright 1976
Levelled 1971

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Production date: 04 September 2017

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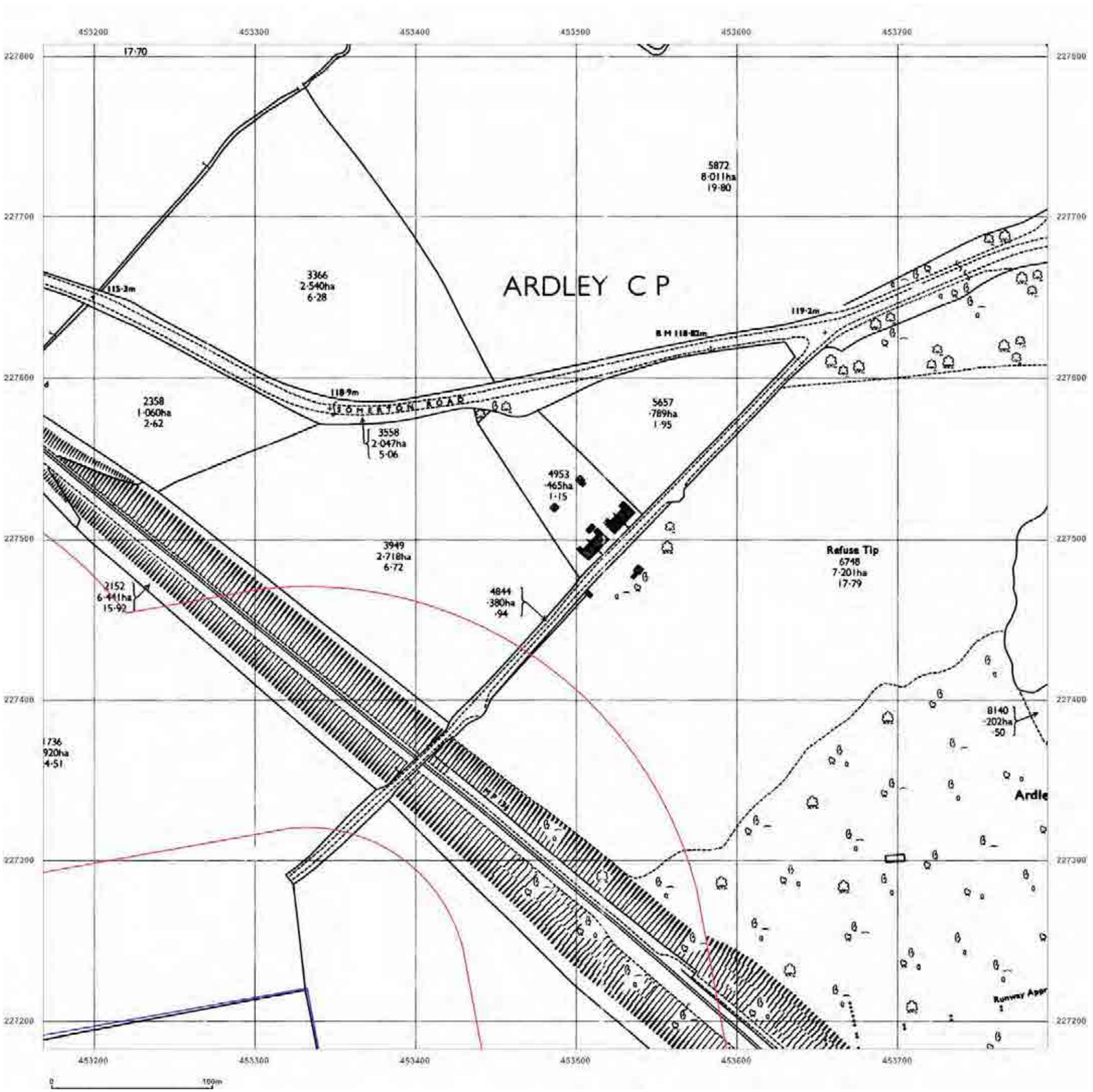

Groundsure INSIGHTS

Site Details:

HEYFORD PARK HOUSE, 52
HEYFORD PARK, CAMP ROAD,
UPPER HEYFORD, OX25 5HD

Client Ref: Heyford_Park
Report Ref: GS-4227860_LS_7_5
Grid Ref: 453481, 227495

Map Name: National Grid
Map date: **1976**
Scale: 1:2,500
Printed at: 1:2,500

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

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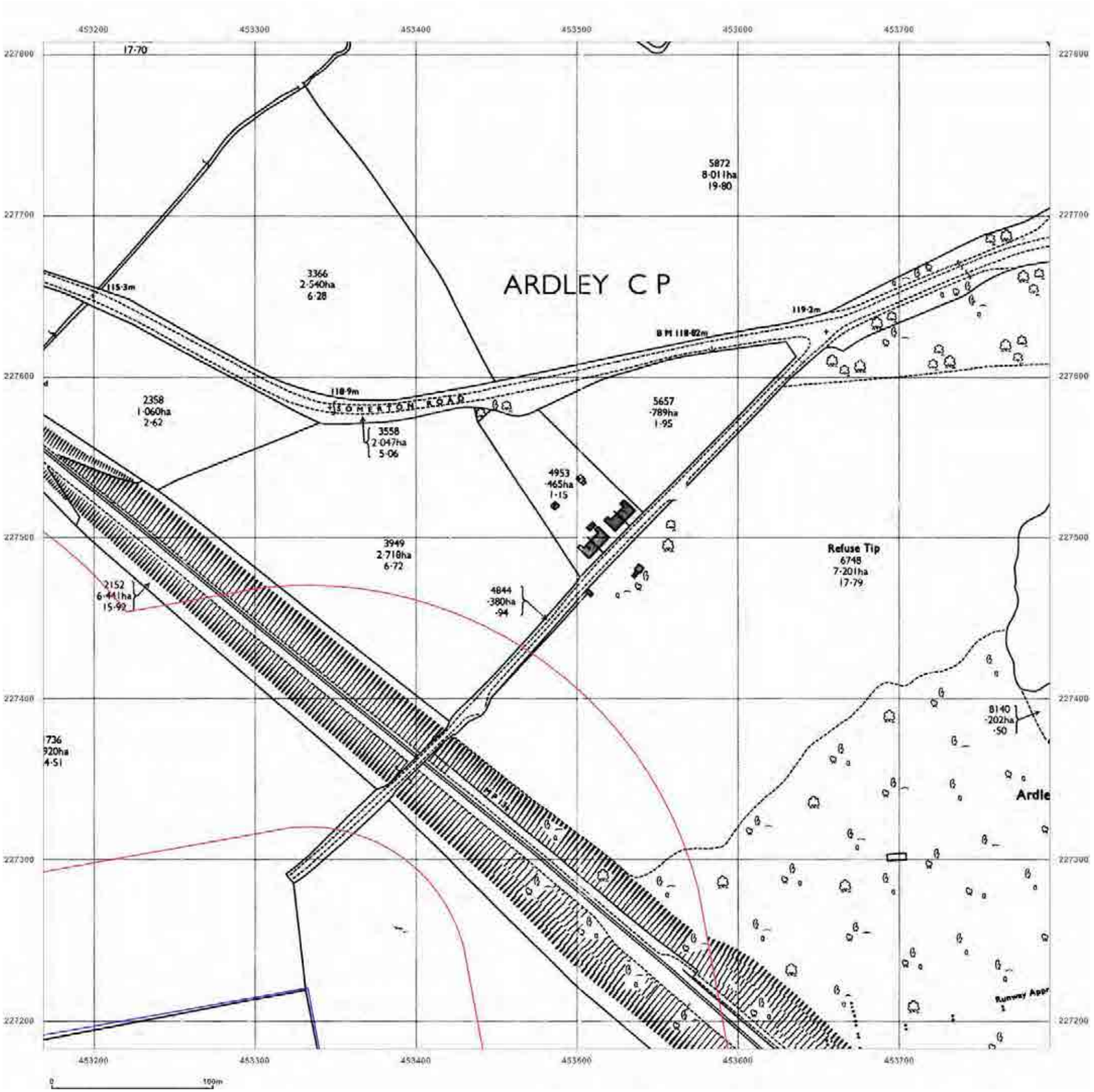

Groundsure INSIGHTS

Site Details:

HEYFORD PARK HOUSE, 52
HEYFORD PARK, CAMP ROAD,
UPPER HEYFORD, OX25 5HD

Client Ref: Heyford_Park
Report Ref: GS-4227860_LS_7_5
Grid Ref: 453481, 227495

Map Name: National Grid
Map date: **1976**
Scale: 1:2,500
Printed at: 1:2,500

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

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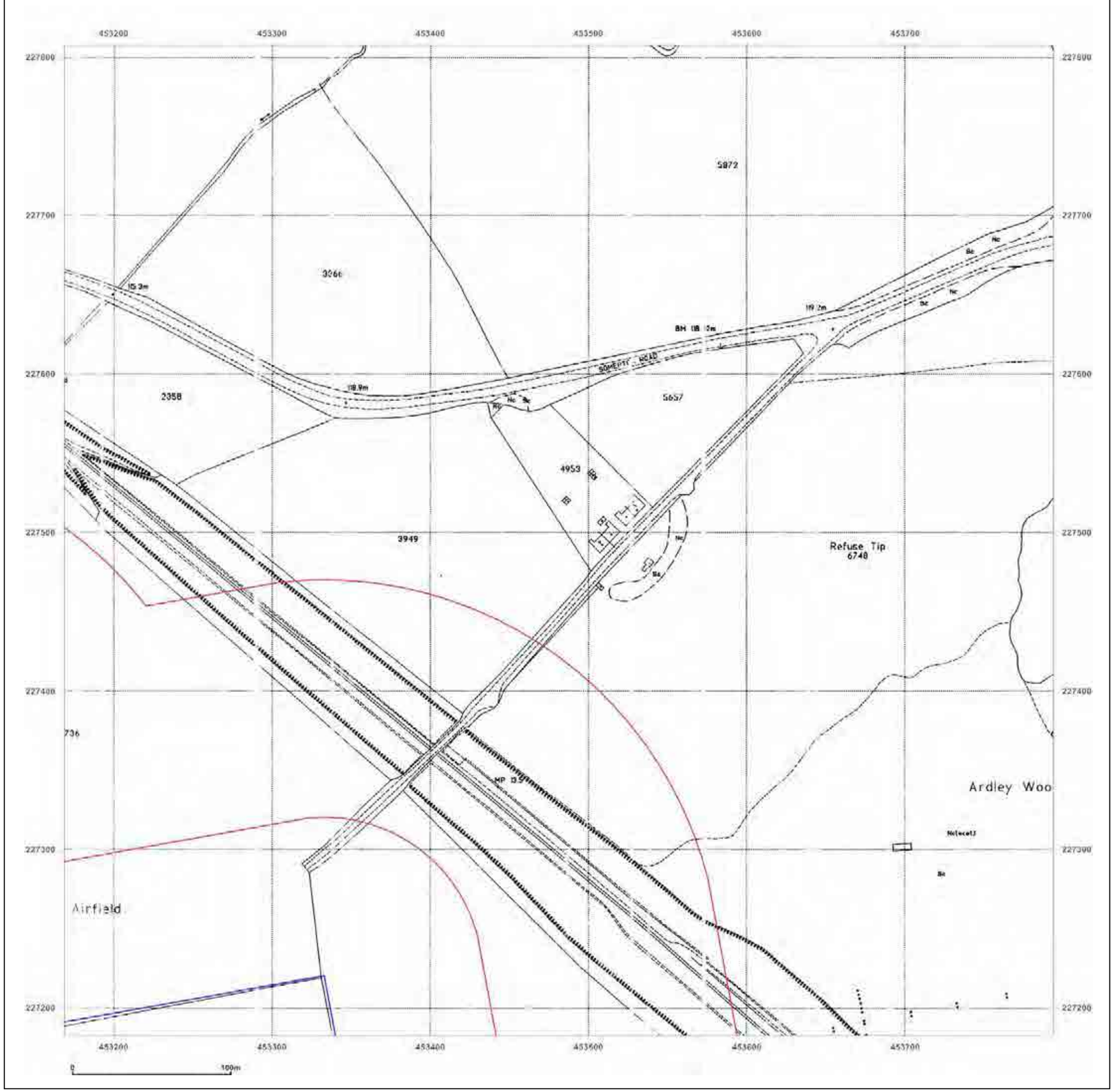
Production date: 04 September 2017

To view map legend click here *Legend*



Groundsure INSIGHTS

Site Details:

HEYFORD PARK HOUSE, 52
HEYFORD PARK, CAMP ROAD,
UPPER HEYFORD, OX25 5HD

Client Ref: Heyford_Park
Report Ref: GS-4227860_LS_7_5
Grid Ref: 453481, 227495

Map Name: National Grid

Map date: **1994**

Scale: 1:2,500

Printed at: 1:2,500

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Surveyed N/A
Revised N/A
Edition N/A
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Production date: 04 September 2017

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Appendix C

Desk Study Research Information

Enviro Insight

Address:	**HEYFORD PARK HOUSE, 52 HEYFORD PARK, CAMP ROAD, UPPER HEYFORD, OX25 5HD**
Date:	**4 Sep 2017**
Reference:	**GS-4227858**
Client:	**Hydrock Consultants Ltd**

NW N NE

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SW S SE

Aerial Photograph Capture date:	12-Jun-2014
Grid Reference:	451981,226893
Site Size:	452.29ha

Report Reference: GS-4227858
Client Reference: Heyford_Park

Contents Page

Overview of Findings

For further details on each dataset, please refer to each individual section in the main 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: Historical Industrial Sites	On-site	0-50	51-250	251-500
1.1 Potentially Contaminative Uses identified from 1:10,000 scale mapping	23	14	31	34
1.2 Additional Information – Historical Tank Database	35	12	8	0
1.3 Additional Information – Historical Energy Features Database	38	16	19	6
1.4 Additional Information – Historical Petrol and Fuel Site Database	0	0	0	0
1.5 Additional Information – Historical Garage and Motor Vehicle Repair Database	0	2	0	0
1.6 Potentially Infilled Land	14	12	33	32

Section 2: Environmental Permits, Incidents and Registers	On-site	0-50m	51-250	251-500
2.1 Industrial Sites Holding Environmental Permits and/or Authorisations				
2.1.1 Records of historic IPC Authorisations	0	0	0	0
2.1.2 Records of Part A(1) and IPPC Authorised Activities	0	0	0	0
2.1.3 Records of Red List Discharge Consents	0	0	0	0
2.1.4 Records of List 1 Dangerous Substances Inventory sites	0	0	0	0
2.1.5 Records of List 2 Dangerous Substances Inventory sites	0	0	0	0
2.1.6 Records of Part A(2) and Part B Activities and Enforcements	2	1	0	0
2.1.7 Records of Category 3 or 4 Radioactive Substances Authorisations	0	0	2	0
2.1.8 Records of Licensed Discharge Consents	4	2	6	2
2.1.9 Records of Water Industry Referrals	0	0	0	0
2.1.10 Records of Planning Hazardous Substance Consents and Enforcements within 500m of the study site	0	0	0	0
2.2 Records of COMAH and NIHHS sites	1	0	0	1
2.3 Environment Agency/Natural Resources Wales Recorded Pollution Incidents				
2.3.1 National Incidents Recording System, List 2	1	1	0	0
2.3.2 National Incidents Recording System, List 1	0	0	0	1
2.4 Sites Determined as Contaminated Land under Part 2A EPA 1990	0	0	0	0

Section 3: Landfill and Other Waste Sites	On-site	0-50m	51-250	251-500	501-1000	1000-1500
3.1 Landfill Sites						
3.1.1 Environment Agency/Natural Resources Wales Registered Landfill Sites	0	0	0	0	1	Not searched
3.1.2 Environment Agency/Natural Resources Wales Historic Landfill Sites	0	0	3	0	2	0
3.1.3 BGS/DoE Landfill Site Survey	0	0	0	2	0	0
3.1.4 Records of Landfills in Local Authority and Historical Mapping Records	0	0	0	0	0	0
3.2 Landfill and Other Waste Sites Findings						
3.2.1 Operational and Non-Operational Waste Treatment, Transfer and Disposal Sites	0	0	0	0	Not searched	Not searched
3.2.2 Environment Agency/Natural Resources Wales Licensed Waste Sites	0	0	0	0	6	8

Section 4: Current Land Use	On-site	0-50m	51-250	251-500
4.1 Current Industrial Sites Data	72	18	19	Not searched
4.2 Records of Petrol and Fuel Sites	0	0	0	0
4.3 National Grid Underground Electricity Cables	0	0	0	0
4.4 National Grid Gas Transmission Pipelines	0	0	0	0

Section 5: Geology	
5.1 Are there any records of Artificial Ground and Made Ground present beneath the study site?	Yes
5.2 Are there any records of Superficial Ground and Drift Geology present beneath the study site?	Yes
5.3 For records of Bedrock and Solid Geology beneath the study site see the detailed findings section.	

Section 6: Hydrogeology and Hydrology	0-500m
6.1 Are there any records of Strata Classification in the Superficial Geology within 500m of the study site?	Yes
6.2 Are there any records of Strata Classification in the Bedrock Geology within 500m of the study site?	Yes

	On-site	0-50m	51-250	251-500	501-1000	1000-2000
6.3 Groundwater Abstraction Licences (within 2000m of the study site)	0	0	0	3	5	2
6.4 Surface Water Abstraction Licences (within 2000m of the study site)	0	0	0	0	0	2
6.5 Potable Water Abstraction Licences (within 2000m of the study site)	0	0	0	1	1	0
6.6 Source Protection Zones (within 500m of the study site)	0	0	0	0	Not searched	Not searched
6.7 Source Protection Zones within Confined Aquifer	0	0	0	0	Not searched	Not searched
6.8 Groundwater Vulnerability and Soil Leaching Potential (within 500m of the study site)	4	1	2	1	Not searched	Not searched

Section 6: Hydrogeology and Hydrology

	0-500m					
	On-site	0-50m	51-250	251-500	501-1000	1000-1500
6.9 Is there any Environment Agency/Natural Resources Wales information on river quality within 1500m of the study site?	No	Yes	No	No	No	No
6.10 Detailed River Network entries within 500m of the site	4	4	11	16	Not searched	Not searched
6.11 Surface water features within 250m of the study site	Yes	Yes	Yes	Not searched	Not searched	Not searched

Section 7: Flooding

7.1 Are there any Enviroment Agency Zone 2 floodplains within 250m of the study site?	No
7.2 Are there any Environment Agency/Natural Resources Wales Zone 3 floodplains within 250m of the study site	No
7.3 What is the Risk of flooding from Rivers and the Sea (RoFRaS) rating for the study site?	Very Low
7.4 Are there any Flood Defences within 250m of the study site?	No
7.5 Are there any areas benefiting from Flood Defences within 250m of the study site?	No
7.6 Are there any areas used for Flood Storage within 250m of the study site?	No
7.7 What is the maximum BGS Groundwater Flooding susceptibility within 50m of the study site?	Potential at Surface
7.8 What is the BGS confidence rating for the Groundwater Flooding susceptibility areas?	High

Section 8: Designated Environmentally Sensitive Sites

	On-site	0-50m	51-250	251-500	501-1000	1000-2000
8.1 Records of Sites of Special Scientific Interest (SSSI)	0	0	2	0	1	3
8.2 Records of National Nature Reserves (NNR)	0	0	0	0	0	0
8.3 Records of Special Areas of Conservation (SAC)	0	0	0	0	0	0
8.4 Records of Special Protection Areas (SPA)	0	0	0	0	0	0
8.5 Records of Ramsar sites	0	0	0	0	0	0
8.6 Records of Ancient Woodlands	0	1	1	1	0	3
8.7 Records of Local Nature Reserves (LNR)	0	0	0	0	0	0
8.8 Records of World Heritage Sites	0	0	0	0	0	0
8.9 Records of Environmentally Sensitive Areas	0	0	0	1	0	0

Section 8: Designated Environmentally Sensitive Sites

	On-site	0-50m	51-250	251-500	501-1000	1000-2000
8.10 Records of Areas of Outstanding Natural Beauty (AONB)	0	0	0	0	0	0
8.11 Records of National Parks	0	0	0	0	0	0
8.12 Records of Nitrate Sensitive Areas	0	0	0	0	0	0
8.13 Records of Nitrate Vulnerable Zones	4	0	0	0	0	0
8.14 Records of Green Belt land	0	0	0	0	0	0

Section 9: Natural Hazards

9.1 What is the maximum risk of natural ground subsidence?	Low
9.1.1 What is the maximum Shrink-Swell hazard rating identified on the study site?	Very Low
9.1.2 What is the maximum Landslides hazard rating identified on the study site?	Very Low
9.1.3 What is the maximum Soluble Rocks hazard rating identified on the study site?	Low
9.1.4 What is the maximum Compressible Ground hazard rating identified on the study site?	Negligible
9.1.5 What is the maximum Collapsible Rocks hazard rating identified on the study site?	Very Low
9.1.6 What is the maximum Running Sand hazard rating identified on the study site?	Very Low
9.2 Radon	
9.2.1 Is the property in a Radon Affected Area as defined by the Health Protection Agency (HPA) and if so what percentage of homes are above the Action Level?	The property is in a Radon Affected Area, as between 1 and 3% of properties are above the Action Level.
9.2.2 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.

Section 10: Mining

10.1 Are there any coal mining areas within 75m of the study site?	No
10.2 Are there any Non-Coal Mining areas within 50m of the study site boundary?	No
10.3 Are there any brine affected areas within 75m of the study site?	No

Using this report

The following report is designed by Environmental Consultants for Environmental Professionals bringing together the most up-to-date market leading environmental data. This report is provided under and subject to the Terms & Conditions agreed between Groundsure and the Client. The document contains the following sections:

1. Historical Industrial Sites

Provides information on past land uses that may pose a risk to the study site in terms of potential contamination from activities or processes. Potentially Infilled Land features are also included. This search is conducted using radii of up to 500m.

2. Environmental Permits, Incidents and Registers

Provides information on Regulated Industrial Activities and Pollution Incidents as recorded by Regulatory Authorities, and sites determined as Contaminated Land. This search is conducted using radii up to 500m.

3. Landfills and Other Waste Sites

Provides information on landfills and other waste sites that may pose a risk to the study site. This search is conducted using radii up to 1500m.

4. Current Land Uses

Provides information on current land uses that may pose a risk to the study site in terms of potential contamination from activities or processes. These searches are conducted using radii of up to 500m. This includes information on potentially contaminative industrial sites, petrol stations and fuel sites as well as high pressure gas pipelines and underground electricity transmission lines.

5. Geology

Provides information on artificial and superficial deposits and bedrock beneath the study site.

6. Hydrogeology and Hydrology

Provides information on productive strata within the bedrock and superficial geological layers, abstraction licenses, Source Protection Zones (SPZs) and river quality. These searches are conducted using radii of up to 2000m.

7. Flooding

Provides information on river and coastal flooding, flood defences, flood storage areas and groundwater flood areas. This search is conducted using radii of up to 250m.

8. Designated Environmentally Sensitive Sites

Provides information on the Sites of Special Scientific Interest (SSSI), National Nature Reserves (NNR), Special Areas of Conservation (SAC), Special Protection Areas (SPA), Ramsar sites, Local Nature Reserves (LNR), Areas of Outstanding Natural Beauty (AONB), National Parks (NP), Environmentally Sensitive Areas, Nitrate Sensitive Areas, Nitrate Vulnerable Zones and World Heritage Sites and Scheduled Ancient Woodland. These searches are conducted using radii of up to 2000m.

9. Natural Hazards

Provides information on a range of natural hazards that may pose a risk to the study site. These factors include natural ground subsidence and radon..

10. Mining

Provides information on areas of coal and non-coal mining and brine affected areas.

11. Contacts

This section of the report provides contact points for statutory bodies and data providers that may be able to provide further information on issues raised within this report. Alternatively, Groundsure provide a free Technical Helpline (08444 159000) for further information and guidance.

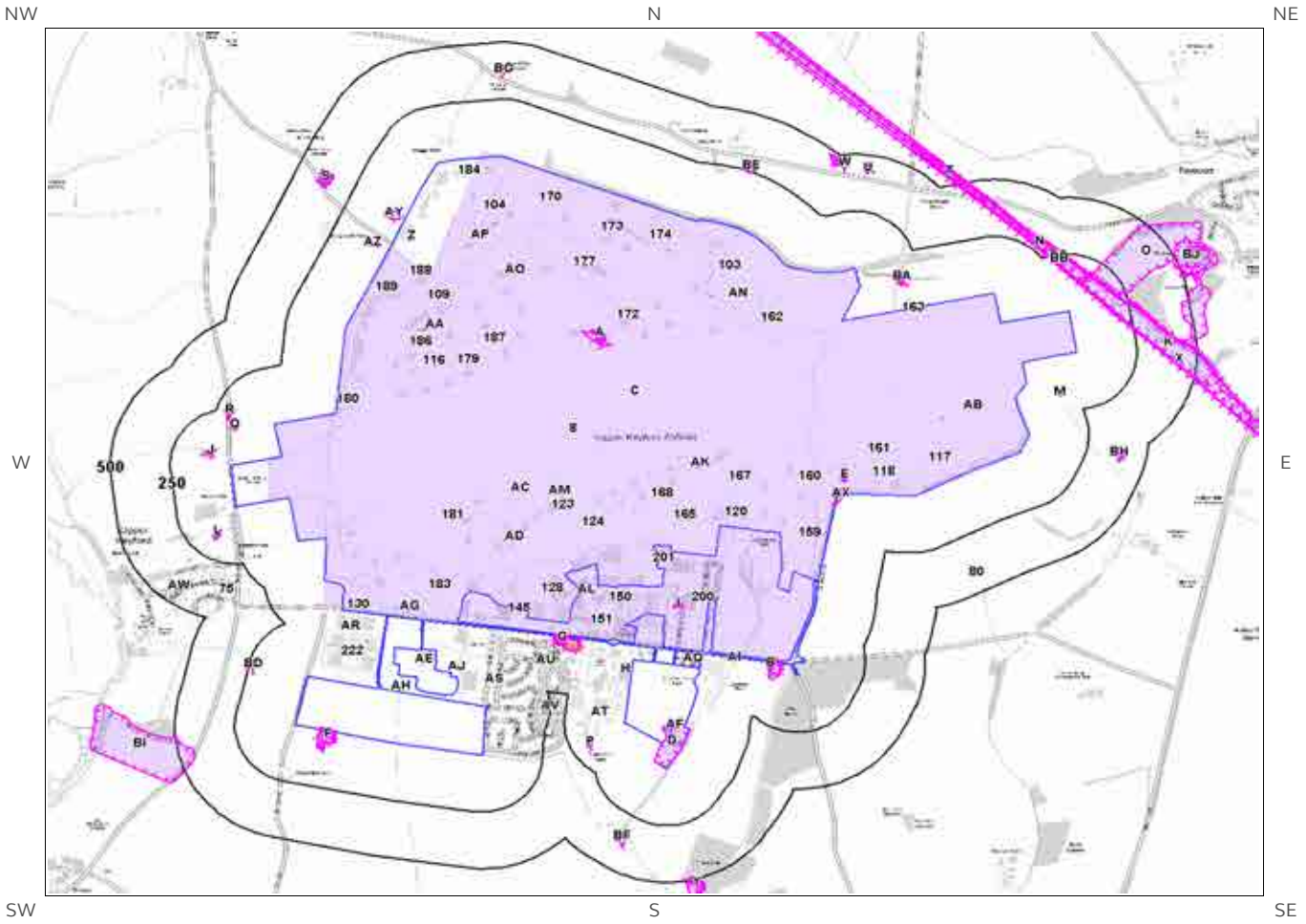
Note: Maps

Only certain features are placed on the maps within the report. All features represented on maps found within this search are given an identification number. This number identifies the feature on the mapping and correlates it to the additional information provided below. This identification number precedes all other information and takes the following format -Id: 1, Id: 2, etc. Where numerous features on the same map are in such close proximity that the numbers would obscure each other a letter identifier is used instead to represent the features. (e.g. Three features which overlap may be given the identifier “A” on the map and would be identified separately as features 1A, 3A, 10A on the data tables provided).

Where a feature is reported in the data tables to a distance greater than the map area, it is noted in the data table as “Not Shown”.

All distances given in this report are in Metres (m). Directions are given as compass headings such as N: North, E: East, NE: North East from the nearest point of the study site boundary.

1. Historical Land Use



Site Outline

250
500
Search Buffers (m)

Historical 1:10,000 and 1:10,560 scale mapping

Industrial Land Use

Potentially Infilled Land

Historical 1:2,500, 1:1,250 and 1:500 scale mapping

Energy Features

Petrol Stations

Tanks

Garages

1. Historical Industrial Sites

1.1 Potentially Contaminative Uses identified from 1:10,000 scale Mapping

The systematic analysis of data extracted from standard 1:10,560 and 1:10,000 scale historical maps provides the following information:

Records of sites with a potentially contaminative past land use within 500m of the search boundary: 102

ID	Distance [m]	Direction	Use	Date
1B	0	On Site	Sand Pit	1880
2E	0	On Site	Unspecified Quarry	1898
3A	0	On Site	Unspecified Quarry	1898
4A	0	On Site	Unspecified Quarry	1923
5B	0	On Site	Unspecified Quarry	1898
6C	0	On Site	Airfield	1980
7C	0	On Site	Airfield	1992
8	0	On Site	Airfield	1954
9A	0	On Site	Unspecified Pit	1923
10A	0	On Site	Unspecified Pit	1880
11D	0	On Site	Sewage Works	1992
12D	0	On Site	Sewage Works	1980
13D	0	On Site	Unspecified Tanks	1992
14D	0	On Site	Unspecified Tanks	1980
15D	0	On Site	Unspecified Tanks	1992
16D	0	On Site	Unspecified Tanks	1980
17D	0	On Site	Unspecified Tank	1980
18D	0	On Site	Unspecified Tank	1992
19B	0	On Site	Unspecified Quarry	1954
20AX	0	On Site	Unspecified Pit	1880
21E	0	On Site	Unspecified Pit	1923
22E	0	On Site	Unspecified Pit	1954
23E	0	On Site	Unspecified Pit	1923
24F	1	S	Unspecified Quarry	1898
25F	2	S	Unspecified Quarry	1954
26G	4	S	Unspecified Quarry	1898
27F	4	S	Unspecified Pit	1880
28F	4	S	Unspecified Quarry	1923
29B	5	S	Unspecified Quarry	1923
30G	8	S	Unspecified Old Quarry	1923
31B	8	S	Unspecified Quarry	1923
32G	8	S	Unspecified Pit	1880
33F	9	S	Unspecified Quarry	1923
34G	9	S	Unspecified Old Quarry	1923

35H	13	W	Hospital	1992
36H	13	W	Hospital	1980
37AY	20	NW	Unspecified Quarry	1880
38I	55	NE	Unspecified Pit	1923
39I	60	NE	Unspecified Pit	1880
40I	61	NE	Unspecified Quarry	1898
41I	61	NE	Unspecified Pit	1923
42AZ	63	NW	Unspecified Pit	1880
43J	89	NW	Unspecified Ground Workings	1954
44J	91	NW	Unspecified Ground Workings	1898
45L	117	SW	Sewage Works	1977
46BB	119	NE	Cuttings	1923
47K	120	NE	Cuttings	1954
48BC	124	NE	Cuttings	1923
49K	126	NE	Cuttings	1992
50K	126	NE	Cuttings	1980
51N	132	N	Cuttings	1954
52L	135	SW	Sewage Tank	1977
53M	139	E	Unspecified Tanks	1992
54M	139	E	Unspecified Tanks	1980
55N	139	N	Cuttings	1992
56N	139	N	Cuttings	1980
57Q	148	N	Unspecified Pit	1880
58K	152	E	Railway Sidings	1923
59K	152	E	Railway Sidings	1923
60K	155	E	Railway Sidings	1954
61P	166	SW	Unspecified Pit	1880
62O	180	NE	Refuse Heap	1980
63O	180	NE	Refuse Heap	1992
64P	183	SW	Unspecified Tank	1923
65Q	185	W	Unspecified Old Quarry	1923
66R	185	W	Unspecified Old Quarry	1954
67R	191	W	Unspecified Old Quarry	1923
68BD	227	W	Refuse Heap	1880
69BF	345	SW	Sand Pit	1875
70S	347	NW	Sand Pit	1923
71S	347	NW	Unspecified Quarry	1880
72S	349	NW	Sand Pit	1954
73S	356	NW	Sand Pit	1923
74BG	359	N	Unspecified Quarry	1898
75	371	SW	Smithy	1898
76S	371	NW	Sand Pit	1898
77T	410	N	Cuttings	1954
78X	418	E	Railway Building	1954

79U	421	N	Unspecified Pit	1923
80	424	SE	Unspecified Tank	1880
81T	424	N	Cuttings	1992
82T	424	N	Cuttings	1980
83U	426	N	Unspecified Pit	1954
84U	428	N	Unspecified Pit	1880
85BI	432	W	Sewage Works	1977
86U	435	N	Unspecified Pit	1923
87W	441	N	Unspecified Pit	1880
88V	443	E	Unspecified Disused Quarry	1980
89V	443	E	Unspecified Disused Quarry	1992
90W	453	NE	Unspecified Pit	1923
91W	457	NE	Unspecified Ground Workings	1954
92X	469	E	Railway Building	1954
93W	469	NE	Unspecified Pit	1923
94W	469	NE	Unspecified Quarry	1898
95X	475	E	Railway Building	1923
96Y	487	S	Unspecified Old Quarry	1923
97Y	487	S	Unspecified Old Quarry	1919
98Y	487	S	Unspecified Quarry	1898
99Y	488	S	Unspecified Quarry	1875
100X	488	E	Railway Station	1954
101X	493	E	Railway Station	1923
102X	495	E	Railway Station	1923

1.2 Additional Information – Historical Tank Database

The systematic analysis of data extracted from High Detailed 1:1,250 and 1:2,500 scale historical maps provides the following information.

Records of historical tanks within 500m of the search boundary: 55

ID	Distance (m)	Direction	Use	Date
103	0	On Site	Unspecified Tank	1998
104	0	On Site	Unspecified Tank	1998
105AN	0	On Site	Unspecified Tank	1998
106Z	0	On Site	Tanks	1998
107Z	0	On Site	Tanks	1998
108Z	0	On Site	Unspecified Tank	1998
109	0	On Site	Unspecified Tank	1998
110AB	0	On Site	Unspecified Tank	1998
111AA	0	On Site	Tanks	1994

112AA	0	On Site	Tanks	1998
113AA	0	On Site	Tanks	1974
114AB	0	On Site	Unspecified Tank	1998
115AA	0	On Site	Tanks	1998
116	0	On Site	Unspecified Tank	1998
117	0	On Site	Unspecified Tank	1998
118	0	On Site	Unspecified Tank	1998
119AK	0	On Site	Unspecified Tank	1998
120	0	On Site	Unspecified Tank	1998
121AM	0	On Site	Unspecified Tank	1998
122AC	0	On Site	Unspecified Tank	1998
123	0	On Site	Unspecified Tank	1998
124	0	On Site	Unspecified Tank	1998
125AC	0	On Site	Unspecified Tank	1998
126AD	0	On Site	Tanks	1998
127AD	0	On Site	Unspecified Tank	1998
128	0	On Site	Unspecified Tank	1975
129AG	0	On Site	Tanks	1975
130	0	On Site	Unspecified Tank	1975
131AE	0	On Site	Unspecified Tank	1994
132AE	0	On Site	Unspecified Tank	1982
133AF	0	On Site	Unspecified Tank	1995
134AF	0	On Site	Unspecified Tank	1995
135AF	0	On Site	Unspecified Tank	1994
136D	0	On Site	Tanks	1995
137D	0	On Site	Tanks	1995
138AG	1	S	Tanks	1975
139AG	2	S	Tanks	1982
140AG	2	S	Tanks	1994
141AH	2	N	Tanks	1982
142AH	4	N	Tanks	1994
143AH	5	N	Tanks	1975
144AI	6	S	Tanks	1975
145	8	S	Unspecified Tank	1975
146AI	18	S	Unspecified Tank	1975
147AL	20	E	Unspecified Tank	1975
148AJ	20	NE	Unspecified Tank	1982
149AJ	21	NE	Unspecified Tank	1994
150	54	S	Unspecified Tank	1975
151	68	N	Tanks	1975
152L	130	SW	Unspecified Tank	1973
153M	134	E	Tanks	1996
154M	135	E	Unspecified Tanks	1974
155L	140	SW	Unspecified Tank	1994
156L	140	SW	Unspecified Tank	1995
157L	140	SW	Unspecified Tank	1995

1.3 Additional Information – Historical Energy Features Database

The systematic analysis of data extracted from High Detailed 1:1,250 and 1:2,500 scale historical maps provides the following information.

Records of historical energy features within 500m of the search boundary: 79

ID	Distance (m)	Direction	Use	Date
158AE	0	On Site	Electricity Substation	1982
159	0	On Site	Electricity Substation	1998
160	0	On Site	Electricity Substation	1998
161	0	On Site	Electricity Substations	1998
162	0	On Site	Electricity Substation	1998
163	0	On Site	Electricity Substation	1998
164AK	0	On Site	Electricity Substation	1998
165	0	On Site	Electricity Substation	1998
166AL	0	On Site	Electricity Substation	1998
167	0	On Site	Electricity Substation	1998
168	0	On Site	Electricity Substation	1998
169AM	0	On Site	Electricity Substation	1998
170	0	On Site	Electricity Substation	1998
171AN	0	On Site	Electricity Substation	1998
172	0	On Site	Electricity Substation	1998
173	0	On Site	Electricity Substation	1998
174	0	On Site	Electricity Substation	1998
175AO	0	On Site	Electricity Substation	1998
176AO	0	On Site	Electricity Substation	1998
177	0	On Site	Electricity Substation	1998
178AF	0	On Site	Electricity Substation	1995
179	0	On Site	Electricity Substation	1998
180	0	On Site	Electricity Substation	1998
181	0	On Site	Electricity Substation	1998
182AD	0	On Site	Electricity Substation	1998
183	0	On Site	Electricity Substation	1998
184	0	On Site	Electricity Substation	1998
185AA	0	On Site	Electricity Substation	1998
186	0	On Site	Electricity Substation	1998
187	0	On Site	Electricity Substation	1998
188	0	On Site	Electricity Substation	1998
189	0	On Site	Electricity Substation	1998
190AP	0	On Site	Electricity Substation	1998
191AP	0	On Site	Electricity Substation	1998
192AE	0	On Site	Electricity Substation	1994

193AF	0	On Site	Electricity Substation	1994
194AF	0	On Site	Electricity Substation	1995
195AF	0	On Site	Electricity Substation	1975
196AQ	7	N	Electricity Substation	1995
197AQ	7	N	Electricity Substation	1994
198AQ	7	N	Electricity Substation	1995
199AQ	13	W	Electricity Substation	1975
200	22	W	Electricity Substation	1975
201	24	E	Electricity Substation	1998
202G	25	S	Electricity Substation	1995
203G	25	S	Electricity Substation	1995
204AJ	27	NE	Electricity Substation	1982
205AJ	27	NE	Electricity Substation	1994
206G	31	S	Electricity Substation	1975
207G	32	S	Electricity Substation	1994
208H	39	W	Electricity Substation	1975
209H	40	W	Electricity Substation	1995
210H	40	W	Electricity Substation	1994
211H	40	W	Electricity Substation	1995
212AR	76	S	Electricity Substation	1982
213AR	76	S	Electricity Substation	1975
214AR	77	S	Electricity Substation	1994
215AS	99	N	Electricity Substation	1982
216AS	100	N	Electricity Substation	1975
217AS	101	N	Electricity Substation	1994
218AT	109	W	Electricity Substation	1975
219AT	109	W	Electricity Substation	1995
220AT	109	W	Electricity Substation	1994
221AT	109	W	Electricity Substation	1995
222	112	W	Electricity Substation	1975
223AU	124	S	Electricity Substation	1975
224AU	126	S	Electricity Substation	1995
225AU	126	S	Electricity Substation	1994
226AU	126	S	Electricity Substation	1995
227AV	245	E	Electricity Substation	1995
228AV	245	E	Electricity Substation	1994
229AV	245	E	Electricity Substation	1995
230AV	246	E	Electricity Substation	1975
231AW	429	SW	Electricity Substation	1973
232AW	430	SW	Electricity Substation	1995
233AW	432	SW	Electricity Substation	1973
234AW	433	SW	Electricity Substation	1995
235AW	438	SW	Electricity Substation	1994
236AW	438	SW	Electricity Substation	1995

1.4 Additional Information – Historical Petrol and Fuel Site Database

The systematic analysis of data extracted from High Detailed 1:1,250 and 1:2,500 scale historical maps provides the following information.

Records of historical petrol stations and fuel sites within 500m of the search boundary: 0

Database searched and no data found.

1.5 Additional Information – Historical Garage and Motor Vehicle Repair Database

The systematic analysis of data extracted from High Detailed 1:1,250 and 1:2,500 scale historical maps provides the following information.

Records of historical garage and motor vehicle repair sites within 500m of the search boundary: 2

ID	Distance (m)	Direction	Use	Date
237G	22	S	Garage	1994
238G	32	S	Garage	1975

1.6 Potentially Infilled Land

Records of Potentially Infilled Features from 1:10,000 scale mapping within 500m of the study site: 91

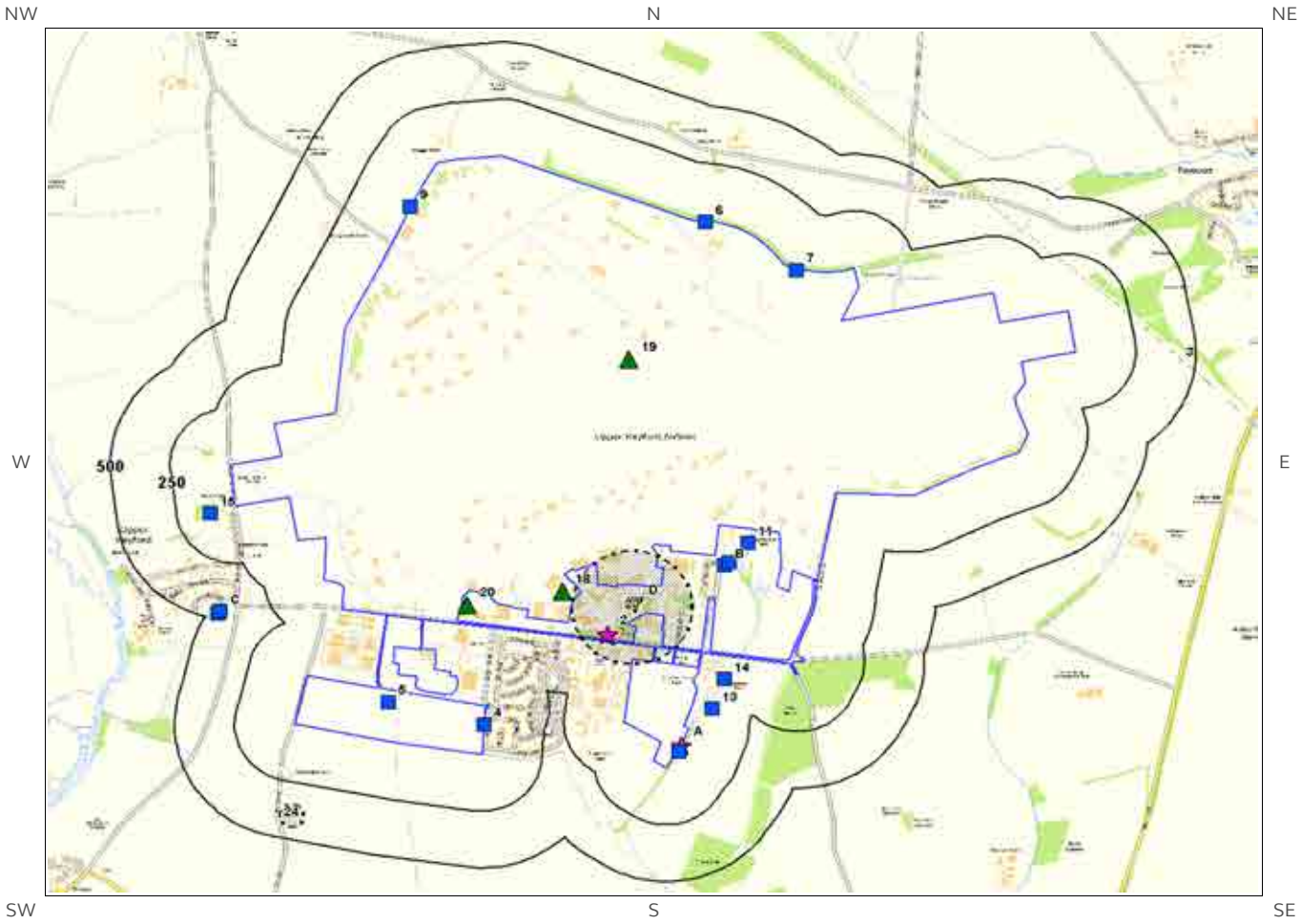
The following Historical Potentially Infilled Features derived from the Historical Mapping information is provided by Groundsure:

ID	Distance(m)	Direction	Use	Date
239B	0	On Site	Sand Pit	1880
240B	0	On Site	Unspecified Quarry	1898
241AX	0	On Site	Unspecified Pit	1880
242E	0	On Site	Unspecified Pit	1923
243E	0	On Site	Unspecified Pit	1923
244E	0	On Site	Unspecified Quarry	1898
245E	0	On Site	Unspecified Pit	1954
246A	0	On Site	Unspecified Pit	1923
247A	0	On Site	Unspecified Pit	1880
248D	0	On Site	Sewage Works	1992
249D	0	On Site	Sewage Works	1980
250B	0	On Site	Unspecified Quarry	1954
251A	0	On Site	Unspecified Quarry	1898
252A	0	On Site	Unspecified Quarry	1923
253F	1	S	Unspecified Quarry	1898
254F	2	S	Unspecified Quarry	1954
255G	4	S	Unspecified Quarry	1898
256F	4	S	Unspecified Pit	1880

257F	4	S	Unspecified Quarry	1923
258B	5	S	Unspecified Quarry	1923
259G	8	S	Unspecified Old Quarry	1923
260B	8	S	Unspecified Quarry	1923
261G	8	S	Unspecified Pit	1880
262F	9	S	Unspecified Quarry	1923
263G	9	S	Unspecified Old Quarry	1923
264AY	20	NW	Unspecified Quarry	1880
265I	55	NE	Unspecified Pit	1923
266I	60	NE	Unspecified Pit	1880
267I	61	NE	Unspecified Pit	1923
268I	61	NE	Unspecified Quarry	1898
269AZ	63	NW	Unspecified Pit	1880
270J	89	NW	Unspecified Ground Workings	1954
271J	91	NW	Unspecified Ground Workings	1898
272BA	108	N	Pond	1923
273BA	113	N	Pond	1880
274BA	115	N	Pond	1992
275BA	115	N	Pond	1980
276BA	116	N	Pond	1923
277BA	116	N	Pond	1898
278L	117	SW	Sewage Works	1977
279BB	119	NE	Cuttings	1923
280K	120	NE	Cuttings	1954
281BA	123	N	Pond	1954
282BC	124	NE	Cuttings	1923
283K	126	NE	Cuttings	1992
284K	126	NE	Cuttings	1980
285N	132	N	Cuttings	1954
286L	135	SW	Sewage Tank	1977
287N	139	N	Cuttings	1980
288N	139	N	Cuttings	1992
289Q	148	N	Unspecified Pit	1880
290P	166	SW	Unspecified Pit	1880
291O	180	NE	Refuse Heap	1992
292O	180	NE	Refuse Heap	1980
293Q	185	W	Unspecified Old Quarry	1923
294R	185	W	Unspecified Old Quarry	1954
295R	191	W	Unspecified Old Quarry	1923
296BD	227	W	Refuse Heap	1880
297BE	244	N	Pond	1923
298BE	251	N	Pond	1954
299BE	254	N	Pond	1923
300BF	345	SW	Sand Pit	1875

301S	347	NW	Sand Pit	1923
302S	347	NW	Unspecified Quarry	1880
303S	349	NW	Sand Pit	1954
304S	356	NW	Sand Pit	1923
305BG	359	N	Unspecified Quarry	1898
306BH	369	E	Pond	1880
307S	371	NW	Sand Pit	1898
308BH	373	E	Pond	1923
309T	410	N	Cuttings	1954
310U	421	N	Unspecified Pit	1923
311T	424	N	Cuttings	1992
312T	424	N	Cuttings	1980
313U	426	N	Unspecified Pit	1954
314U	428	N	Unspecified Pit	1880
315BI	432	W	Sewage Works	1977
316U	435	N	Unspecified Pit	1923
317W	441	N	Unspecified Pit	1880
318V	443	E	Unspecified Disused Quarry	1980
319V	443	E	Unspecified Disused Quarry	1992
320W	453	NE	Unspecified Pit	1923
321W	457	NE	Unspecified Ground Workings	1954
322W	469	NE	Unspecified Pit	1923
323W	469	NE	Unspecified Quarry	1898
324BJ	482	NE	Pond	1980
325BJ	482	NE	Pond	1992
326Y	487	S	Unspecified Old Quarry	1919
327Y	487	S	Unspecified Quarry	1898
328Y	487	S	Unspecified Old Quarry	1923
329Y	488	S	Unspecified Quarry	1875

2. Environmental Permits, Incidents and Registers Map



Site Outline

250
500
Search Buffers (m)

Recorded Pollution Incident

Dangerous Substances (List 1)

Dangerous Substances (List 2)

Water Industry Referrals

Licenced Discharge Consents

Red List Discharge Consents

RAS 3 & 4 Authorisations

Part A(1) Authorised Processes and Historic IPC Authorisations

Part A(2) and Part B Authorised Processes

COMAH / NIHHS Sites

Sites Determined as Contaminated Land

Hazardous Substance Consents and Enforcements

2. Environmental Permits, Incidents and Registers

2.1 Industrial Sites Holding Licences and/or Authorisations

Searches of information provided by the Environment Agency/Natural Resources Wales and Local Authorities reveal the following information:

2.1.1 Records of historic IPC Authorisations within 500m of the study site:

0

Database searched and no data found.

2.1.2 Records of Part A(1) and IPPC Authorised Activities within 500m of the study site:

0

Database searched and no data found.

2.1.3 Records of Red List Discharge Consents (potentially harmful discharges to controlled waters) within 500m of the study site:

0

Database searched and no data found.

2.1.4 Records of List 1 Dangerous Substances Inventory Sites within 500m of the study site:

0

Database searched and no data found.

2.1.5 Records of List 2 Dangerous Substance Inventory Sites within 500m of the study site:

0

Database searched and no data found.

2.1.6 Records of Part A(2) and Part B Activities and Enforcements within 500m of the study site:

3

The following Part A(2) and Part B Activities are represented as points on the Environmental Permits, Incidents and Registers Map:

ID	Distance (m)	Direction	NGR	Details	
18	0	On Site	451226 225978	Address: Paragon Fleet Solutions, 125 Heyford Park, Upper Heyford, Bicester, Oxfordshire, OX25 5HA Process: Respraying of Road Vehicles Status: Current Permit Permit Type: Part B	Enforcement: No Enforcements Notified Date of Enforcement: No Enforcements Notified Comment: No Enforcements Notified
19	0	On Site	451500 227000	Address: Keddy Services Ltd, 125 Heyford Park, Upper Heyford, Bicester, Oxfordshire, OX6 3HA Process: Respraying of Road Vehicles Status: Historical Permit Permit Type: Part B	Enforcement: No Enforcements Notified Date of Enforcement: No Enforcements Notified Comment: No Enforcements Notified
20	23	E	450828 225920	Address: Walon Limited, 342 Heyford Park, Camp Road, Upper Heyford, Bicester, Oxon, OX6 5HB Process: Respraying of Road Vehicles Status: Historical Permit Permit Type: Part B	Enforcement: No Enforcements Notified Date of Enforcement: No Enforcements Notified Comment: No Enforcements Notified

2.1.7 Records of Category 3 or 4 Radioactive Substances Authorisations:

2

The following RAS Licence (3 or 4) records are represented as points on the Environmental Permits, Incidents and Registers Map:

ID	Distance (m)	Direction	NGR	Address	Operator	Type	Permission Number	Dates	Status
25D	56	NW	451530 225930	Oxford Bio-innovation Ltd, 77 Heyford Park, Upper Heyford, Bicester, Oxfordshire, OX25 5HD	Oxford Bio-innovation Ltd	Disposal Of Radioactive Waste (was Rsa60 Section 6).	CA4773	Date of Approval:1/11/2006 Effective from:1/11/2006 Last date of update:2015-01-01	Revoked/cancelled
26D	56	NW	451530 225930	Oxford Bio-innovation Ltd, 77 Heyford Park,upper Heyford, Bicester, Oxfordshire, OX25 5HD	Oxford Bio-innovation Ltd	Keeping And Use Of Radioactive Materials (was Rsa60 Section 1).	CA4765	Date of Approval:1/11/2006 Effective from:1/11/2006 Last date of update:2015-01-01	Revoked/cancelled

2.1.8 Records of Licensed Discharge Consents within 500m of the study site:

The following Licensed Discharge Consents records are represented as points on the Environmental Permits, Incidents and Registers Map:

ID	Distance (m)	Direction	NGR	Details	
4	0	On Site	450900 225400	Address: HEYFORD PARK, UPPER HEYFORD, NEAR B, HEYFORD PARK, UPPER HEYFORD, NEA, R BICESTER, OXFORDSHIRE, -, - Effluent Type: TRADE DISCHARGES - SITE DRAINAGE Permit Number: CATM.2846 Permit Version: 1	Receiving Water: TRIBUTARY OFTHE UPPER HEYFORD Status: NEW CONSENT, BY APPLICATION (WRA 91, SECTION 88) Issue date: 27/03/1997 Effective Date: 27-Mar-1997 Revocation Date: -
5	0	On Site	450500 225500	Address: HEYFORD PARK, UPPER HEYFORD, NEAR B, HEYFORD PARK, UPPER HEYFORD, NEA, R BICESTER, OXFORDSHIRE, -, - Effluent Type: TRADE DISCHARGES - SITE DRAINAGE Permit Number: CATM.2847 Permit Version: 1	Receiving Water: GALLO'S BROOK Status: NEW CONSENT, BY APPLICATION (WRA 91, SECTION 88) Issue date: 27/03/1997 Effective Date: 27-Mar-1997 Revocation Date: -
6	0	On Site	451820 227610	Address: HEYFORD PARK, UPPER HEYFORD, BICESTER, OXON, OX6 3LN Effluent Type: SEWAGE DISCHARGES - FINAL/TREATED EFFLUENT - NOT WATER COMPANY Permit Number: PRCNF05910 Permit Version: 1	Receiving Water: tributary Padbury Brook Status: POST NRA LEGISLATION WHERE ISSUE DATE > 31-AUG-89 (HISTORIC ONLY) Issue date: 14/07/1997 Effective Date: 14-Jul-1997 Revocation Date: -
7	0	On Site	452200 227400	Address: RAF UPPER HEYFORD, UPPER HEYFORD, BICESTER Effluent Type: MISCELLANEOUS DISCHARGES - SURFACE WATER Permit Number: CDCNF1403 Permit Version: 1	Receiving Water: Trib Padbury Brook Status: PRE NRA LEGISLATION WHERE ISSUE DATE < 01-SEP-89 (HISTORIC ONLY) Issue date: 22/08/1983 Effective Date: 22-Aug-1983 Revocation Date: -
8A	3	SE	451710 225280	Address: HEYFORD PARK, UPPER HEYFORD, NEAR B, HEYFORD PARK, UPPER HEYFORD, NEA, R BICESTER, OXFORDSHIRE, -, - Effluent Type: SEWAGE & TRADE COMBINED - UNSPECIFIED Permit Number: CATM.2805 Permit Version: 1	Receiving Water: GALLOWS BROOK Status: NEW CONSENT, BY APPLICATION (WRA 91, SECTION 88) Issue date: 27/03/1997 Effective Date: 27-Mar-1997 Revocation Date: -
9	5	NW	450590 227680	Address: HEYFORD PARK 3140 & 3135, CAMP ROAD, UPPER HEYFORD, BICESTER, OXFORDSHIRE, OX25 5HF Effluent Type: SEWAGE DISCHARGES - FINAL/TREATED EFFLUENT - NOT WATER COMPANY Permit Number: PRCNF05961 Permit Version: 1	Receiving Water: tributary Padbury Brook Status: POST NRA LEGISLATION WHERE ISSUE DATE > 31-AUG-89 (HISTORIC ONLY) Issue date: 19/09/1997 Effective Date: 19-Sep-1997 Revocation Date: -
10B	60	SE	451900 226100	Address: HEYFORD PARK, UPPER HEYFORD, NEAR B, HEYFORD PARK, UPPER HEYFORD, NEA, R BICESTER, OXFORDSHIRE, -, - Effluent Type: TRADE DISCHARGES - SITE DRAINAGE Permit Number: CATM.2849 Permit Version: 1	Receiving Water: LEYS FARM DITCH Status: NEW CONSENT, BY APPLICATION (WRA 91, SECTION 88) Issue date: 27/03/1997 Effective Date: 27-Mar-1997 Revocation Date: -

ID	Distance (m)	Direction	NGR	Details	
11	63	S	452000 226200	Address: HEYFORD PARK, UPPER HEYFORD, NEAR B, HEYFORD PARK, UPPER HEYFORD, NEA, R BICESTER, OXFORDSHIRE, -, - Effluent Type: TRADE DISCHARGES - SITE DRAINAGE Permit Number: CATM.2848 Permit Version: 1	Receiving Water: LEYS FARM DITCH Status: NEW CONSENT, BY APPLICATION (WRA 91, SECTION 88) Issue date: 27/03/1997 Effective Date: 27-Mar-1997 Revocation Date: -
12B	69	SE	451921 226112	Address: LETCHMERE FARM COTTAGE, LETCHMERE FARM COTTAGE, CAMP ROAD, UPPER HEYFORD, BICESTER, OXFORDSHIRE, OX25 5LS Effluent Type: SEWAGE DISCHARGES - FINAL/TREATED EFFLUENT - NOT WATER COMPANY Permit Number: CAWM.1362 Permit Version: 1	Receiving Water: LEYS FARM DITCH Status: NEW CONSENT (WRA 91, S88 & SCHED 10 AS AMENDED BY ENV ACT 1995) Issue date: 17/07/2006 Effective Date: 17-Jul-2006 Revocation Date: -
13	84	E	451850 225470	Address: HEYFORD LEYS MOBILE HOME PARK, HEYFORD LEYS MOBILE HOME PARK, UPPER HEYFORD, OXFORDSHIRE Effluent Type: SEWAGE DISCHARGES - FINAL/TREATED EFFLUENT - NOT WATER COMPANY Permit Number: CNTM.1883 Permit Version: 1	Receiving Water: LEYS FARM DITCH Status: NEW CONSENT, BY APPLICATION (WRA 91, SECTION 88) Issue date: 30/06/1995 Effective Date: 30-Jun-1995 Revocation Date: -
14	106	S	451900 225600	Address: HEYFORD PARK, UPPER HEYFORD, NEAR B, HEYFORD PARK, UPPER HEYFORD, NEA, R BICESTER, OXFORDSHIRE, -, - Effluent Type: TRADE DISCHARGES - SITE DRAINAGE Permit Number: CATM.2850 Permit Version: 1	Receiving Water: LEYS FARM DITCH Status: NEW CONSENT, BY APPLICATION (WRA 91, SECTION 88) Issue date: 27/03/1997 Effective Date: 27-Mar-1997 Revocation Date: -
15	110	W	449760 226330	Address: TWO DWELLINGS, THE BRAMBLES, SOMERTON ROAD, UPPER HEYFORD, OXFORDSHIRE, -, OX25 5BL Effluent Type: SEWAGE DISCHARGES - FINAL/TREATED EFFLUENT - NOT WATER COMPANY Permit Number: CAWM.0785 Permit Version: 1	Receiving Water: GROUNDWATER VIA A SOAKAWAY Status: NEW CONSENT (WRA 91, S88 & SCHED 10 AS AMENDED BY ENV ACT 1995) Issue date: 05/11/2004 Effective Date: 26-Nov-2003 Revocation Date: -
16C	451	SW	449800 225900	Address: UPPER HEYFORD DEPOT, UPPER HEYFORD,, UPPER HEYFORD DEPOT, UPPER HEYFO, RD, OXON, -, - Effluent Type: MISCELLANEOUS DISCHARGES - UNSPECIFIED Permit Number: CTCR.1489 Permit Version: 1	Receiving Water: TRIB OXFORDCANAL Status: REVOKED - UNSPECIFIED Issue date: 28/07/1976 Effective Date: 28-Jul-1976 Revocation Date: 29/10/1992
17C	464	NW	449790 225890	Address: ORCHARD LANE, UPPER HEYFORD, OXON, ORCHARD LANE, UPPER HEYFORD, OXO, N, -, - Effluent Type: MISCELLANEOUS DISCHARGES - SURFACE WATER Permit Number: CTWC.1297 Permit Version: 1	Receiving Water: TRIB OF OXFORD CANL:MIDDLE SEC Status: REVOKED - UNSPECIFIED Issue date: 14/11/1986 Effective Date: 14-Nov-1986 Revocation Date: 29/10/1992

2.1.9 Records of Water Industry Referrals (potentially harmful discharges to the public sewer) within 500m of the study site:

0

Database searched and no data found.

2.1.10 Records of Planning Hazardous Substance Consents and Enforcements within 500m of the study site:

0

Database searched and no data found.

2.2 Dangerous or Hazardous Sites

Records of COMAH & NIHHS sites within 500m of the study site: 2

The following COMAH & NIHHS Authorisation records provided by the Health and Safety Executive are represented as polygons or buffered points on the Environmental Permits, Incidents and Registers Map:

ID	Distance (m)	Direction	Company	Address	Operational Status	Tier
23	0	On Site	Heyford Park Management Company Limited	Heyford Park Management Company Limited, Southern Bomb Store/site, Heyford Park, Camp Road, Upper Heyford, Oxfordshire, OX25 5HD	Current COMAH Site	COMAH Upper Tier Operator
24	348	S	Black Cat Fireworks Ltd	Black Cat Fireworks Ltd, Raf Upper Heyford, Heyford Park, OX6 3HE	Historical COMAH Site	-

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2.3 Environment Agency/Natural Resources Wales Recorded Pollution Incidents

2.3.1 Records of National Incidents Recording System, List 2 within 500m of the study site:

2

The following NIRS List 2 records are represented as points on the Environmental Permits, Incidents and Registers Map:

ID	Distance (m)	Direction	NGR	Details	
1A	0	On Site	451720 225309	Incident Date: 22-May-2007 Incident Identification: 496617 Pollutant: Sewage Materials Pollutant Description: Final Effluent	Water Impact: Category 2 (Significant) Land Impact: Category 4 (No Impact) Air Impact: Category 4 (No Impact)

ID	Distance (m)	Direction	NGR	Details	
2	20	N	451413 225796	Incident Date: 19-May-2003 Incident Identification: 159469 Pollutant: Contaminated Water Pollutant Description: Firefighting Run-Off	Water Impact: Category 4 (No Impact) Land Impact: Category 3 (Minor) Air Impact: Category 3 (Minor)

2.3.2 Records of National Incidents Recording System, List 1 within 500m of the study site:

1

The following NIRS List 1 records are represented as points on the Environmental Permits, Incidents and Registers Map:

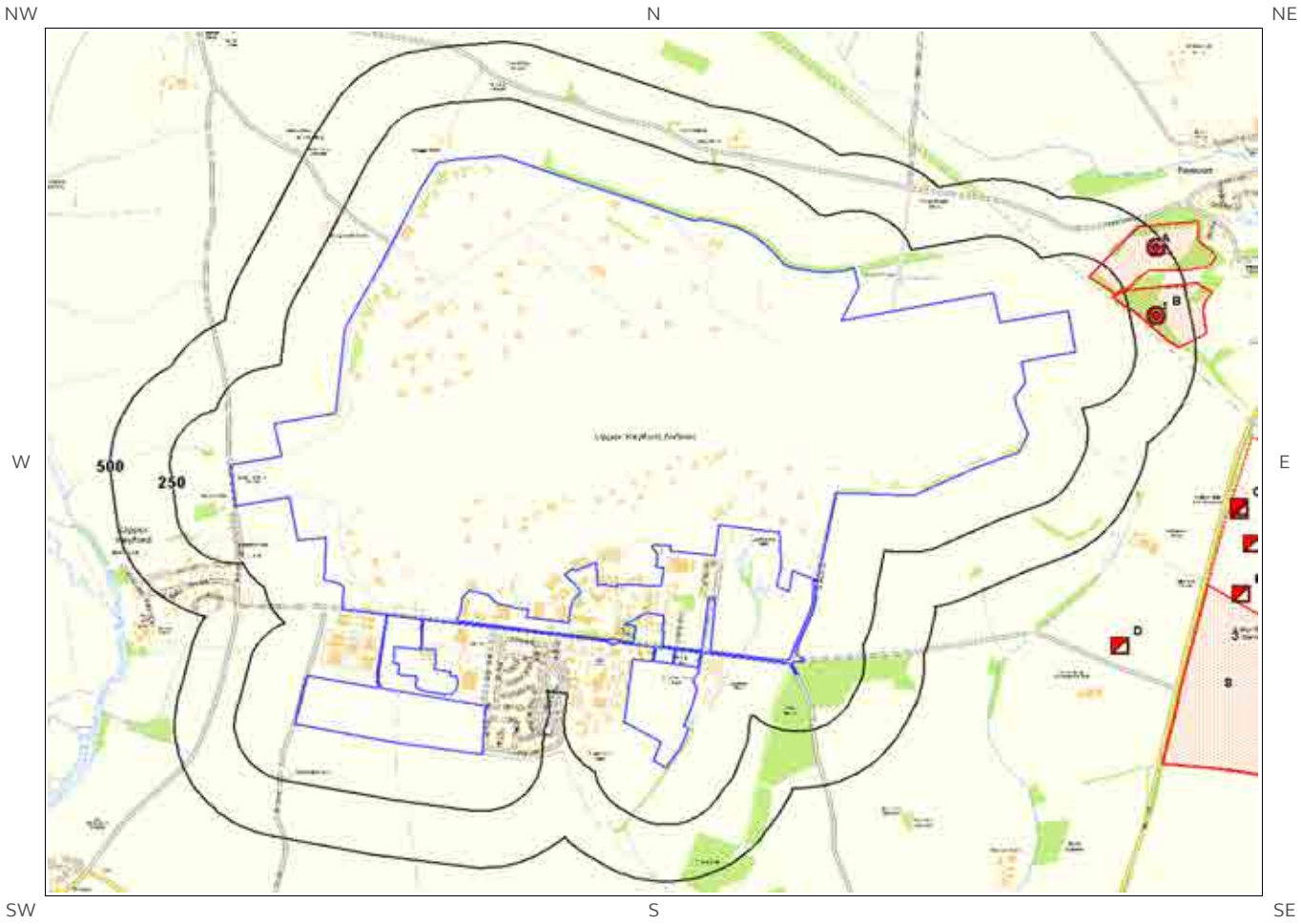
ID	Distance(m)	Direction	NGR	Details	
3	436	E		Incident Date: 12-Jan-1999 Incident Identification: 5318.0 Catchments Name: CHERWELL AND RAY(OXON) Water Description: RIVER STRETCH (FRESHWATER) Water Course: CHERWELL Incident Substantiated: N/A	Priority Description: Three Days Waste Description: Rubber Water Impact: No Impact Land Impact: Significant Impact Air Impact: No Impact Action Taken: Not Available

2.4 Sites Determined as Contaminated Land under Part 2A EPA 1990

How many records of sites determined as contaminated land under Section 78R of the Environmental Protection Act 1990 are there within 500m of the study site? 0

Database searched and no data found.

3. Landfill and Other Waste Sites Map



Site Outline

250
500
Search Buffers (m)

EA/NRW Active Landfill

EA/NRW Historic Landfill

BGS / DoE Survey Landfill

Historic and Planned Waste Sites

EA/NRW Licensed Waste Site

Local Authority/Historical Mapping Landfill Records

3. Landfill and Other Waste Sites

3.1 Landfill Sites

3.1.1 Records from Environment Agency/Natural Resources Wales landfill data within 1000m of the study site:

1

The following Environment Agency/Natural Resources Wales landfill records are represented as polygons on the Landfill and Other Waste Sites map:

ID	Distance (m)	Direction	NGR	Details	
3	818	SE	454040 226340	Address: Ardley Landfill, Ardley Fields Farm, Ardley, Oxfordshire, OX27 7PH Landfill Reference: 0.0 Environmental Permitting Regulations (Waste) Reference: - Landfill Type: WASTE LANDFILLING; >10 T/D WITH CAPACITY >25,000T EXCLUDING INERT WASTE	Operator: Viridor Waste Management Ltd Status: Effective IPPC Reference: EPR Reference:

3.1.2 Records of Environment Agency/Natural Resources Wales historic landfill sites within 1500m of the study site:

5

The following landfill records are represented as either points or polygons on the Landfill and Other Waste Sites map:

ID	Distance (m)	Direction	NGR	Details	
4A	174	NE	453600 227400	Site Address: Ardley Wood, Cherwell Waste Licence: Yes Site Reference: OCC/R/02, W10034, 13.6.5327, TP0612 Waste Type: Inert, Industrial, Commercial, Household Environmental Permitting Regulations (Waste) Reference: -	Licence Issue: 31-May-1977 Licence Surrendered: 01-Oct-1985 Licence Holder Address: - Operator: Oxfordshire County Council Licence Holder: Oxfordshire County Council First Recorded: 31-Dec-1965 Last Recorded: 31-Dec-1980
5B	198	E	453700 227200	Site Address: Ardley Wood, Ardley, Oxfordshire Waste Licence: - Site Reference: - Waste Type: Commercial, Liquid sludge Environmental Permitting Regulations (Waste) Reference: -	Licence Issue: Licence Surrendered: Licence Holder Address: - Operator: Ploughlye Rural District Council Licence Holder: - First Recorded: - Last Recorded: -

ID	Distance (m)	Direction	NGR	Details	
6B	198	E	453700 227200	Site Address: Ardley Wood, Ardley, Oxfordshire Waste Licence: - Site Reference: - Waste Type: Commercial, Household Environmental Permitting Regulations (Waste) Reference: -	Licence Issue: Licence Surrendered: Licence Holder Address: - Operator: - Licence Holder: - First Recorded: 31-Dec-1940 Last Recorded: -
Not shown	842	S	450000 224400	Site Address: Land off Port Way, Lower Heyford, Oxfordshire Waste Licence: - Site Reference: TP0449, 13.6.5024 Waste Type: Inert, Industrial, Commercial, Household, Liquid sludge Environmental Permitting Regulations (Waste) Reference: -	Licence Issue: Licence Surrendered: Licence Holder Address: - Operator: - Licence Holder: - First Recorded: - Last Recorded: -
8	983	SE	454100 225500	Site Address: Ardley Fields Farm 2, Ardley, Bicester, Oxfordshire Waste Licence: Yes Site Reference: BV7346 Waste Type: - Environmental Permitting Regulations (Waste) Reference: TF1/L/HAU004	Licence Issue: 30-Nov-1992 Licence Surrendered: Licence Holder Address: - Operator: - Licence Holder: Viridor Waste Disposal Limited First Recorded: - Last Recorded: -

3.1.3 Records of BGS/DoE non-operational landfill sites within 1500m of the study site:

2

The following landfill records are represented as points on the Landfill and Other Waste Sites map:

ID	Distance (m)	Direction	NGR	Details	
1	357	E	453700.0 227200.0	Address: Ardley Wood, Ardley, Oxon BGS Number: 853.0	Risk: Risk to major aquifer Waste Type: N/A
2A	461	NE	453700.0 227500.0	Address: Ardley Wood, Ardley, Oxon BGS Number: 854.0	Risk: Risk to major aquifer Waste Type: N/A

3.1.4 Records of Landfills from Local Authority and Historical Mapping Records within 1500m of the study site:

0

Database searched and no data found.

3.2 Other Waste Sites

3.2.1 Records of waste treatment, transfer or disposal sites within 500m of the study site:

0

Database searched and no data found.

3.2.2 Records of Environment Agency/Natural Resources Wales licensed waste sites within 1500m of the study site:

14

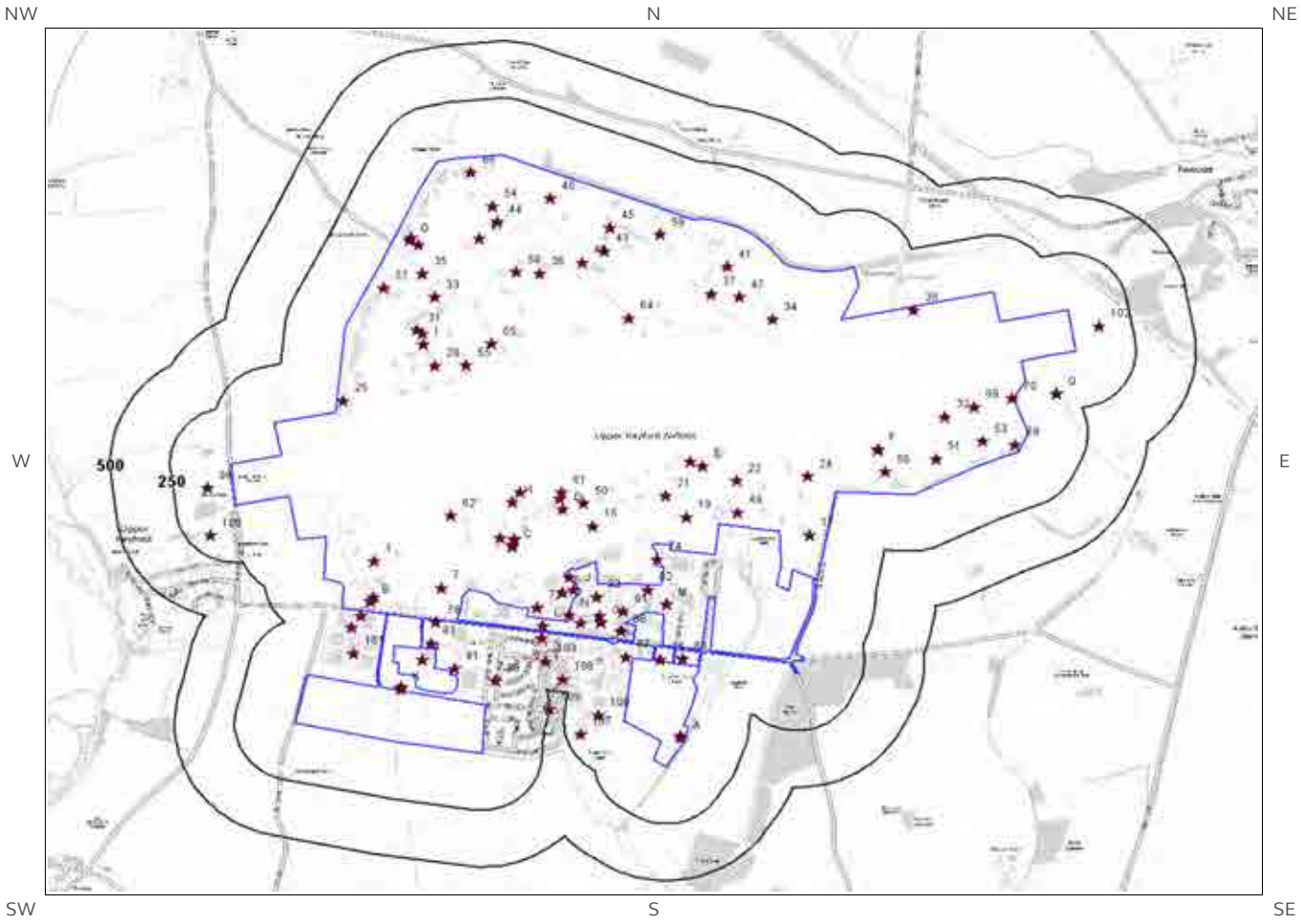
The following waste treatment, transfer or disposal sites records are represented as points on the Landfill and Other Waste Sites map:

ID	Distance (m)	Direction	NGR	Details	
Not shown	860	W	449048 226872	Site Address: Shed 1, Mill Road Works, Mill Road, Wellingborough, Northants, NN8 1QW Type: Metal Recycling Site (mixed MRS's) Size: < 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: WEE028 EPR reference: CP3998VQ/A001 Operator: Weee Environmental (G B) Ltd Waste Management licence No: 100977 Annual Tonnage: 0.0	Issue Date: 11/09/2009 Effective Date: - Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Issued Site Name: Weee Environmental 2 Correspondence Address: -
10C	934	E	454044 226362	Site Address: Ardley Landfill, Ardley Fields Farm, Ardley, Bicester, Oxfordshire, OX27 7PH Type: Biological Treatment Facility Size: >= 25000 tonnes < 75000 tonnes Environmental Permitting Regulations (Waste) Licence Number: VIR005 EPR reference: EA/EPR/PP3495EL/V002 Operator: Viridor Waste Management Ltd Waste Management licence No: 86270 Annual Tonnage: 60000.0	Issue Date: 14/06/2002 Effective Date: - Modified: 10/12/2003 Surrendered Date: 0 Expiry Date: 0 Cancelled Date: 0 Status: Expired Site Name: Ardley Leachate Treatment Plant Correspondence Address: -
11C	934	E	454044 226362	Site Address: Ardley Landfill, Ardley Fields Farm, Ardley, Bicester, Oxfordshire, OX27 7PH Type: Biological Treatment Facility Size: >= 25000 tonnes < 75000 tonnes Environmental Permitting Regulations (Waste) Licence Number: VIR005 EPR reference: - Operator: Viridor Waste Management Ltd Waste Management licence No: 86270 Annual Tonnage: 60000.0	Issue Date: 14/06/2002 Effective Date: - Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Issued Site Name: Ardley Leachate Treatment Plant Correspondence Address: Malling House, Town Hill, West Malling, Kent, ME19 6QL
12C	940	E	454044 226344	Site Address: Ardley Fields Farm, Ardley, Oxfordshire, OX27 7PH Type: HCI Waste TS (no building) Size: < 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: VIR509 EPR reference: EA/EPR/BV7346IM/V011 Operator: Viridor Waste Management Ltd Waste Management licence No: 102516 Annual Tonnage: 0.0	Issue Date: 21/06/2011 Effective Date: - Modified: 08/01/2016 Surrendered Date: 2.01612e+016 Expiry Date: 0 Cancelled Date: 0 Status: Surrendered Site Name: Ardley Landfill Site Correspondence Address: -
13D	949	SE	453550 225750	Site Address: Ashgrove Farm, Ardley, Bicester, Oxfordshire, OX27 7PJ Type: Composting Facility Size: < 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: AGR008 EPR reference: - Operator: Agrivert Ltd Waste Management licence No: 86429 Annual Tonnage: 24999.0	Issue Date: 28/06/2007 Effective Date: - Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Issued Site Name: Ardley Green Compost Centre Correspondence Address: The Stables, Radford, Chipping Norton, Oxfordshire, OX7 4EB

ID	Distance (m)	Direction	NGR	Details	
14D	949	SE	453550 225750	Site Address: Ashgrove Farm, Upper Heyford Road, Ardley, Bicester, Oxfordshire, OX27 7PJ Type: Composting in closed vessels Size: < 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: AGR008 EPR reference: EA/EPR/GP3295EN/V003 Operator: Agrivert Ltd Waste Management licence No: 86429 Annual Tonnage: 74999.0	Issue Date: 28/06/2007 Effective Date: - Modified: 09/10/2015 Surrendered Date: 0 Expiry Date: 0 Cancelled Date: 0 Status: To PPC Site Name: Ardley Green Compost Centre Correspondence Address: -
15E	1049	SE	454100 226200	Site Address: Haul Waste Disposal Ltd, Ardley Fields Farm Quarry, Ardley, Bicester, Oxon, OX27 7PH Type: Co-Disposal Landfill Site Size: >= 75000 tonnes Environmental Permitting Regulations (Waste) Licence Number: HAU004 EPR reference: - Operator: Viridor Waste Disposal Ltd Waste Management licence No: 86150 Annual Tonnage: 0.0	Issue Date: 30/11/1992 Effective Date: - Modified: 18/12/2001 Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Modified Site Name: Ardley Fields Farm 2 Correspondence Address: Haul Waste Disposal Ltd, Great Western House, Station Approach, Taunton, Somerset, TA1 1QW
16E	1049	SE	454100 226200	Site Address: Haul Waste Disposal Ltd, Ardley Fields Farm Quarry, Ardley, Bicester, Oxfordshire, OX27 7PH Type: Co-Disposal Landfill Site Size: < 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: HAU004 EPR reference: EA/EPR/VP3199EF/V005 Operator: Viridor Waste Disposal Ltd Waste Management licence No: 86150 Annual Tonnage: 378802.0	Issue Date: 30/11/1992 Effective Date: - Modified: 18/12/2001 Surrendered Date: 0 Expiry Date: 0 Cancelled Date: 0 Status: Expired Site Name: Ardley Fields Farm 2 Correspondence Address: -
Not shown	1083	SE	454200 226350	Site Address: Haul Waste Disposal Ltd, Ardley Landfill, Ardley Fields Farm, Ardley, Oxfordshire, OX27 7PH Type: Household, Commercial & Industrial Waste T Stn Size: < 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: VIR004 EPR reference: EA/EPR/NP3199EL/V006 Operator: Viridor Waste Disposal Ltd Waste Management licence No: 86128 Annual Tonnage: 24999.0	Issue Date: 14/04/1980 Effective Date: 21/03/2001 Modified: 17/01/2005 Surrendered Date: 0 Expiry Date: 0 Cancelled Date: 0 Status: Modified Site Name: Ardley Fields Farm Correspondence Address: -
Not shown	1083	SE	454200 226350	Site Address: Haul Waste Disposal Ltd, Ardley Landfill, Ardley Fields Farm, Ardley, Oxon, OX27 7PH Type: Household, Commercial & Industrial Waste T Stn Size: >= 75000 tonnes Environmental Permitting Regulations (Waste) Licence Number: VIR004 EPR reference: - Operator: Viridor Waste Disposal Ltd Waste Management licence No: 86128 Annual Tonnage: 24999.0	Issue Date: 14/04/1980 Effective Date: 21/03/2001 Modified: 27/03/2001 Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Transferred Site Name: Ardley Fields Farm Correspondence Address: Haul Waste Disposal Ltd, Great Western House, Station Approach, Taunton, Somerset, TA1 1QW

ID	Distance (m)	Direction	NGR	Details	
19F	1114	SE	454052 225977	Site Address: Ardley Quarry Southern Ext, Ardley Fields Farm, Ardley, Oxfordshire, OX27 7PH Type: Co-Disposal Landfill Site Size: >= 75000 tonnes Environmental Permitting Regulations (Waste) Licence Number: HAU005 EPR reference: - Operator: Viridor Waste Disposal Ltd Waste Management licence No: 86232 Annual Tonnage: 305000.0	Issue Date: 12/07/2000 Effective Date: - Modified: 18/12/2001 Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Modified Site Name: Ardley Quarry (southern Extension) Correspondence Address: Great Western House, Station Approach, Taunton, Somerset, TA1 1QW
20F	1114	SE	454052 225977	Site Address: Ardley Quarry Southern Ext, Ardley Fields Farm, Ardley, Oxfordshire, OX27 7PH Type: Co-Disposal Landfill Site Size: >= 75000 tonnes Environmental Permitting Regulations (Waste) Licence Number: HAU005 EPR reference: - Operator: Viridor Waste Disposal Ltd Waste Management licence No: 86232 Annual Tonnage: 305000.0	Issue Date: 12/07/2000 Effective Date: - Modified: 18/12/2001 Surrendered Date: - Expiry Date: - Cancelled Date: - Status: IPPC Site Name: Ardley Quarry (southern Extension) Correspondence Address: Great Western House, Station Approach, Taunton, Somerset, TA1 1QW
21F	1114	SE	454052 225977	Site Address: Ardley Quarry Southern Ext, Ardley Fields Farm, Ardley, Oxfordshire, OX27 7PH Type: Co-Disposal Landfill Site Size: >= 75000 tonnes Environmental Permitting Regulations (Waste) Licence Number: HAU005 EPR reference: - Operator: Viridor Waste Disposal Ltd Waste Management licence No: 86232 Annual Tonnage: 305000.0	Issue Date: 12/07/2000 Effective Date: - Modified: 18/12/2001 Surrendered Date: - Expiry Date: - Cancelled Date: - Status: IPPC Site Name: Ardley Quarry (southern Extension) Correspondence Address: Ken Rowe, Great Western House, Station Approach, Taunton, Somerset, TA1 1QW
22F	1114	SE	454052 225977	Site Address: Ardley Quarry Southern Ext, Ardley Fields Farm, Ardley, Oxfordshire, OX27 7PH Type: Co-Disposal Landfill Site Size: < 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: HAU005 EPR reference: EA/EPR/JP3999EE/V002 Operator: Viridor Waste Disposal Ltd Waste Management licence No: 86232 Annual Tonnage: 250000.0	Issue Date: 12/07/2000 Effective Date: - Modified: 18/12/2001 Surrendered Date: 0 Expiry Date: 0 Cancelled Date: 0 Status: To PPC Site Name: Ardley Quarry (southern Extension) Correspondence Address: -

4. Current Land Use Map



Site Outline

Search Buffers (m)

250

500

Current Industrial Sites

Petrol & Fuel Sites

Electricity Transmission Cables

Gas Transmission Pipelines

4. Current Land Uses

4.1 Current Industrial Data

Records of potentially contaminative industrial sites within 250m of the study site: 109

The following records are represented as points on the Current Land Uses map.

ID	Distance (m)	Direction	Company	NGR	Address	Activity	Category
1	0	On Site	Quest Medical	450441 226117	3049 Heyford Park, Camp Road, Upper Heyford, Bicester, OX25 5HA	Industrial Repairs and Servicing	Repair and Servicing
2A	0	On Site	Electricity Sub Station	451722 225339	OX25	Electrical Features	Infrastructure and Facilities
3A	0	On Site	Sewage Works	451714 225347	OX25	Waste Storage, Processing and Disposal	Infrastructure and Facilities
4	0	On Site	Tank	450641 225685	OX25	Tanks (Generic)	Industrial Features
5J	0	On Site	B C A	451273 225990	125 Heyford Park, Camp Road, Upper Heyford, Bicester, OX25 5HA	Vehicles	Industrial Products
6	0	On Site	Hertz UK Ltd	451226 225978	125 Heyford Park, Camp Road, Upper Heyford, Bicester, OX25 5HA	Secondhand Vehicles	Motoring
7	0	On Site	Electricity Sub Station	450722 226001	OX25	Electrical Features	Infrastructure and Facilities
8B	0	On Site	Pylon	450426 225940	OX25	Electrical Features	Infrastructure and Facilities
9B	0	On Site	Electricity Sub Station	450438 225960	OX25	Electrical Features	Infrastructure and Facilities
10N	0	On Site	Electricity Sub Station	451252 225880	OX25	Electrical Features	Infrastructure and Facilities
11C	0	On Site	Tank	451016 226182	OX25	Tanks (Generic)	Industrial Features
12C	0	On Site	Tank	451016 226191	OX25	Tanks (Generic)	Industrial Features
13C	0	On Site	Tank	451025 226212	OX25	Tanks (Generic)	Industrial Features
14C	0	On Site	Tank	451023 226218	OX25	Tanks (Generic)	Industrial Features
15C	0	On Site	Electricity Sub Station	450965 226221	OX25	Electrical Features	Infrastructure and Facilities
16	0	On Site	Tank	451351 226273	OX25	Tanks (Generic)	Industrial Features
17	0	On Site	Electricity Sub Station	452256 226233	OX25	Electrical Features	Infrastructure and Facilities
18D	0	On Site	Tank	451225 226345	OX25	Tanks (Generic)	Industrial Features

ID	Distance (m)	Direction	Company	NGR	Address	Activity	Category
19	0	On Site	Electricity Sub Station	451742 226312	OX25	Electrical Features	Infrastructure and Facilities
20D	0	On Site	Electricity Sub Station	451216 226392	OX25	Electrical Features	Infrastructure and Facilities
21	0	On Site	Electricity Sub Station	451656 226407	OX25	Electrical Features	Infrastructure and Facilities
22	0	On Site	Electricity Sub Station	451952 226471	OX25	Electrical Features	Infrastructure and Facilities
23E	0	On Site	Tank	451809 226537	OX25	Tanks (Generic)	Industrial Features
24	0	On Site	Electricity Sub Station	452246 226491	OX25	Electrical Features	Infrastructure and Facilities
25	0	On Site	Electricity Sub Station	450312 226824	OX25	Electrical Features	Infrastructure and Facilities
26E	0	On Site	Electricity Sub Station	451758 226554	OX25	Electrical Features	Infrastructure and Facilities
27F	0	On Site	Electricity Sub Station	452538 226607	OX27	Electrical Features	Infrastructure and Facilities
28	0	On Site	Tank	450692 226979	OX25	Tanks (Generic)	Industrial Features
29F	0	On Site	Electricity Sub Station	452544 226609	OX27	Electrical Features	Infrastructure and Facilities
30I	0	On Site	Electricity Sub Station	450648 227072	OX25	Electrical Features	Infrastructure and Facilities
31	0	On Site	Tank	450620 227134	OX25	Tanks (Generic)	Industrial Features
32	0	On Site	Tank	452818 226753	OX27	Tanks (Generic)	Industrial Features
33	0	On Site	Tank	450692 227279	OX25	Tanks (Generic)	Industrial Features
34	0	On Site	Electricity Sub Station	452101 227182	OX25	Electrical Features	Infrastructure and Facilities
35	0	On Site	Electricity Sub Station	450643 227383	OX25	Electrical Features	Infrastructure and Facilities
36	0	On Site	Electricity Sub Station	451132 227382	OX25	Electrical Features	Infrastructure and Facilities
37	0	On Site	Electricity Sub Station	451845 227293	OX25	Electrical Features	Infrastructure and Facilities
38	0	On Site	Electricity Sub Station	452690 227223	OX27	Electrical Features	Infrastructure and Facilities
39G	0	On Site	Tank	450589 227528	OX25	Tanks (Generic)	Industrial Features
40	0	On Site	Electricity Sub Station	451307 227431	OX25	Electrical Features	Infrastructure and Facilities
41	0	On Site	Tank	451911 227413	OX25	Tanks (Generic)	Industrial Features
42G	0	On Site	Tank	450596 227540	OX25	Tanks (Generic)	Industrial Features
43	0	On Site	Upper Heyford Airfield	451401 227483	OX25	Airports and Landing Strips	Air
44	0	On Site	Electricity Sub Station	450953 227611	OX25	Electrical Features	Infrastructure and Facilities

ID	Distance (m)	Direction	Company	NGR	Address	Activity	Category
45	0	On Site	Electricity Sub Station	451425 227586	OX25	Electrical Features	Infrastructure and Facilities
46	0	On Site	Electricity Sub Station	451176 227713	OX25	Electrical Features	Infrastructure and Facilities
47	0	On Site	Tank	451962 227280	OX25	Tanks (Generic)	Industrial Features
48H	0	On Site	Tank	451018 226377	OX25	Tanks (Generic)	Industrial Features
49	0	On Site	Tank	451955 226332	OX25	Tanks (Generic)	Industrial Features
50	0	On Site	Radio Mast	451314 226373	OX25	Telecommunications Features	Infrastructure and Facilities
51	0	On Site	Tank	452783 226568	OX27	Tanks (Generic)	Industrial Features
52H	0	On Site	Tank	451047 226423	OX25	Tanks (Generic)	Industrial Features
53	0	On Site	Tank	452976 226645	OX27	Tanks (Generic)	Industrial Features
54	0	On Site	Tank	450933 227679	OX25	Tanks (Generic)	Industrial Features
55	0	On Site	Electricity Sub Station	450822 226981	OX25	Electrical Features	Infrastructure and Facilities
56	0	On Site	Tank	452570 226510	OX27	Tanks (Generic)	Industrial Features
57	0	On Site	Electricity Sub Station	450481 227320	OX25	Electrical Features	Infrastructure and Facilities
58	0	On Site	Electricity Sub Station	451034 227390	OX25	Electrical Features	Infrastructure and Facilities
59	0	On Site	Electricity Sub Station	451632 227556	OX25	Electrical Features	Infrastructure and Facilities
60G	0	On Site	Tank	450625 227510	OX25	Tanks (Generic)	Industrial Features
61	0	On Site	Tank	451221 226420	OX25	Tanks (Generic)	Industrial Features
62	0	On Site	Electricity Sub Station	450761 226318	OX25	Electrical Features	Infrastructure and Facilities
63I	0	On Site	Electricity Sub Station	450644 227118	OX25	Electrical Features	Infrastructure and Facilities
64	0	On Site	Electricity Sub Station	451503 227187	OX25	Electrical Features	Infrastructure and Facilities
65	0	On Site	Electricity Sub Station	450931 227075	OX25	Electrical Features	Infrastructure and Facilities
66	0	On Site	Electricity Sub Station	450842 227827	OX25	Electrical Features	Infrastructure and Facilities
67	0	On Site	Electricity Sub Station	450877 227537	OX25	Electrical Features	Infrastructure and Facilities
68	0	On Site	Tank	453109 226632	OX27	Tanks (Generic)	Industrial Features
69	0	On Site	Tank	452942 226796	OX27	Tanks (Generic)	Industrial Features
70	0	On Site	Tank	453100 226835	OX27	Tanks (Generic)	Industrial Features
71B	0	On Site	Mast	450424 225942	OX25	Telecommunications Features	Infrastructure and Facilities

ID	Distance (m)	Direction	Company	NGR	Address	Activity	Category
72	0	On Site	Baumhaus	451120 225913	320 Heyford Park, Camp Road, Upper Heyford, Bicester, OX25 5HA	Carpets, Flooring, Rugs and Soft Furnishings	Consumer Products
73J	1	NE	Electricity Sub Station	451252 226045	OX25	Electrical Features	Infrastructure and Facilities
74	2	E	Electricity Sub Station	451622 226127	OX25	Electrical Features	Infrastructure and Facilities
75	7	N	Chimney	451631 225682	OX25	Chimneys	Industrial Features
76K	7	N	Tank	450551 225554	OX25	Tanks (Generic)	Industrial Features
77K	12	N	Tank	450551 225559	OX25	Tanks (Generic)	Industrial Features
78	13	S	Tank	450698 225848	OX25	Tanks (Generic)	Industrial Features
79K	17	N	Tank	450552 225564	OX25	Tanks (Generic)	Industrial Features
80P	18	S	Water Tower	450386 225879	OX25	Water Pumping Stations	Industrial Features
81	19	NE	Tank	450775 225646	OX25	Tanks (Generic)	Industrial Features
82	21	S	Protyre Heyford	451582 225992	86 Heyford Park, Camp Road, Upper Heyford, Bicester, OX25 5HD	Vehicle Parts and Accessories	Motoring
83	23	N	Electricity Sub Station	450679 225756	OX25	Electrical Features	Infrastructure and Facilities
84L	24	N	Electricity Sub Station	451143 225834	OX25	Electrical Features	Infrastructure and Facilities
85L	25	S	Electricity Sub Station	451139 225780	OX25	Electrical Features	Infrastructure and Facilities
86	26	N	Electricity Sub Station	451725 225688	OX25	Electrical Features	Infrastructure and Facilities
87	31	W	Tank	451490 225697	OX25	Tanks (Generic)	Industrial Features
88	34	S	Laundryquip	451470 225808	52 Heyford Park, Camp Road, Upper Heyford, Bicester, OX25 5HD	Industrial Repairs and Servicing	Repair and Servicing
89M	47	N	Cherwell Innovation Centre	451658 225928	77 Heyford Park, Camp Road, Upper Heyford, Bicester, OX25 5HD	Business Parks and Industrial Estates	Industrial Features
90M	47	N	Everest Biotech Ltd	451658 225928	77 Heyford Park, Camp Road, Upper Heyford, Bicester, OX25 5HD	Measurement and Inspection Equipment	Industrial Products
91	51	NW	Electricity Sub Station	451478 225895	OX25	Electrical Features	Infrastructure and Facilities
92N	51	E	Water Tower	451301 225844	OX25	Water Pumping Stations	Industrial Features
93	55	S	Integration Technology Ltd	451368 225961	115 Heyford Park, Camp Road, Upper Heyford, Bicester, OX25 5HA	Printing Related Machinery	Industrial Products
94O	69	N	Tank	451384 225849	OX25	Tanks (Generic)	Industrial Features
95O	72	N	Tank	451386 225851	OX25	Tanks (Generic)	Industrial Features

ID	Distance (m)	Direction	Company	NGR	Address	Activity	Category
96P	76	S	Electricity Sub Station	450348 225825	OX25	Electrical Features	Infrastructure and Facilities
97O	98	N	Electricity Sub Station	451378 225879	OX25	Electrical Features	Infrastructure and Facilities
98	108	W	Runway Approach Lights	449747 226439	OX25	Aeronautical Features	Air
99	108	N	Electricity Sub Station	450947 225593	OX25	Electrical Features	Infrastructure and Facilities
100	110	W	Electricity Sub Station	451376 225440	OX25	Electrical Features	Infrastructure and Facilities
101	111	W	Chimney	450354 225712	OX25	Chimneys	Industrial Features
102	112	E	Runway Approach Lights	453460 227151	OX27	Aeronautical Features	Air
103	126	S	Electricity Sub Station	451156 225676	OX25	Electrical Features	Infrastructure and Facilities
104Q	138	SE	Tank	453283 226854	OX27	Tanks (Generic)	Industrial Features
105Q	140	E	Tank	453286 226855	OX27	Tanks (Generic)	Industrial Features
106	169	SW	Works	449759 226230	OX25	Unspecified Works Or Factories	Industrial Features
107	189	W	Chimney	451302 225358	OX25	Chimneys	Industrial Features
108	193	S	Jayden Transport UK Ltd	451227 225598	6, Carswell Circle, Upper Heyford, Bicester, OX25 5TX	Distribution and Haulage	Transport, Storage and Delivery
109	249	E	Electricity Sub Station	451171 225466	OX25	Electrical Features	Infrastructure and Facilities

4.2 Petrol and Fuel Sites

Records of petrol or fuel sites within 500m of the study site: 0

Database searched and no data found.

4.3 National Grid High Voltage Underground Electricity Transmission Cables

This dataset identifies the high voltage electricity transmission lines running between generating power plants and electricity substations. The dataset does not include the electricity distribution network (smaller, lower voltage cables distributing power from substations to the local user network). This information has been extracted from databases held by National Grid and is provided for information only with no guarantee as to its completeness or accuracy. National Grid do not offer any warranty as to the accuracy of the available data and are excluded from any liability for any such inaccuracies or errors.

Records of National Grid high voltage underground electricity transmission cables within 500m of the study site: 0

Database searched and no data found.

4.4 National Grid High Pressure Gas Transmission Pipelines

This dataset identifies high-pressure, large diameter pipelines which carry gas between gas terminals, power stations, compressors and storage facilities. The dataset does not include the Local Transmission System (LTS) which supplies gas directly into homes and businesses. This information has been extracted from databases held by National Grid and is provided for information only with no guarantee as to its completeness or accuracy. National Grid do not offer any warranty as to the accuracy of the available data and are excluded from any liability for any such inaccuracies or errors.

Records of National Grid high pressure gas transmission pipelines within 500m of the study site: 0

Database searched and no data found.

5. Geology

5.1 Artificial Ground and Made Ground

The database has been searched on site, including a 50m buffer.

Lex Code	Description	Rock Type
LSGR-ARTGR	LANDSCAPED GROUND (UNDIVIDED)	ARTIFICIALLY MODIFIED GROUND

5.2 Superficial Ground and Drift Geology

The database has been searched on site, including a 50m buffer.

Lex Code	Description	Rock Type
HEAD-XCZSV	HEAD	CLAY, SILT, SAND AND GRAVEL

5.3 Bedrock and Solid Geology

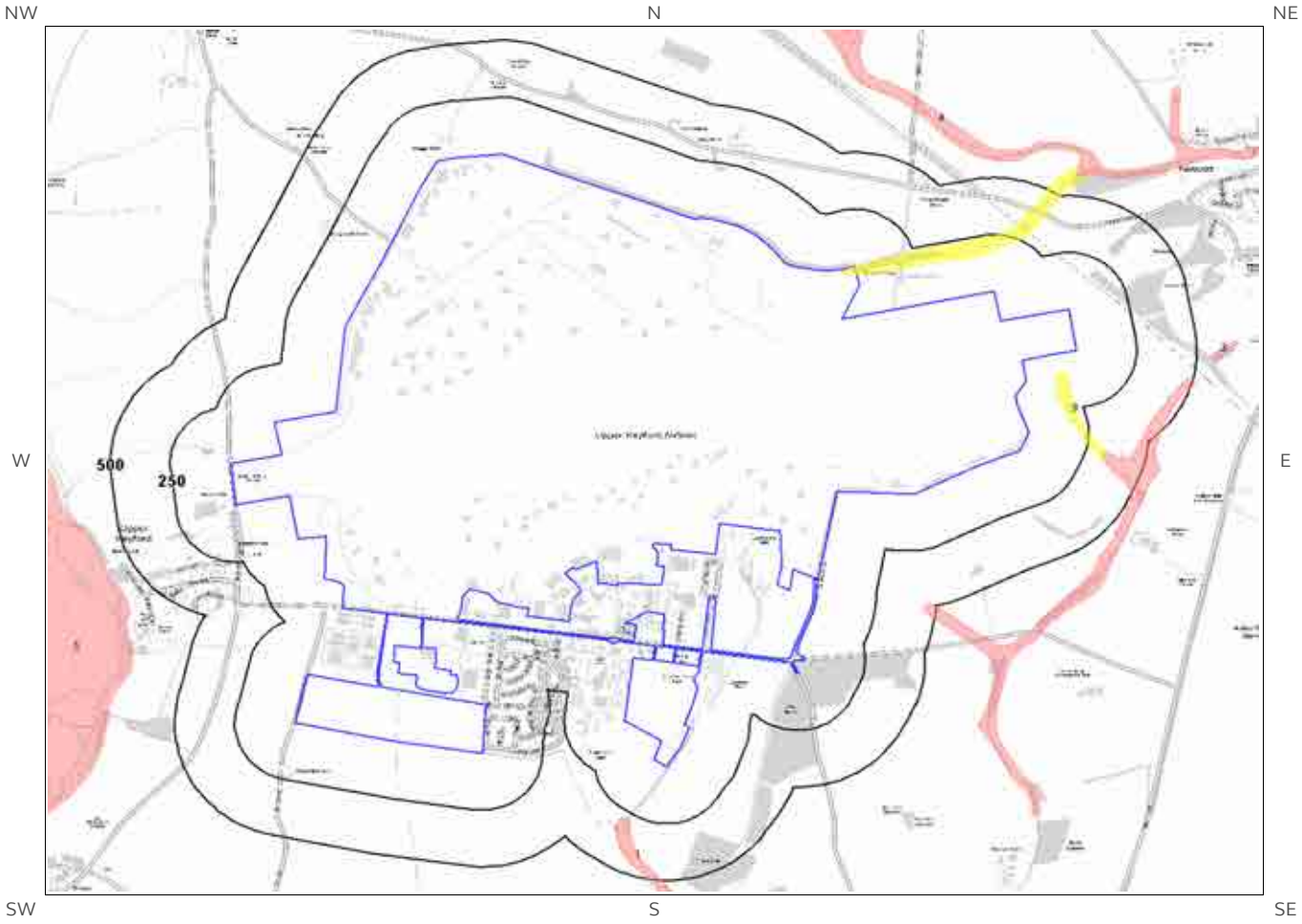
The database has been searched on site, including a 50m buffer.

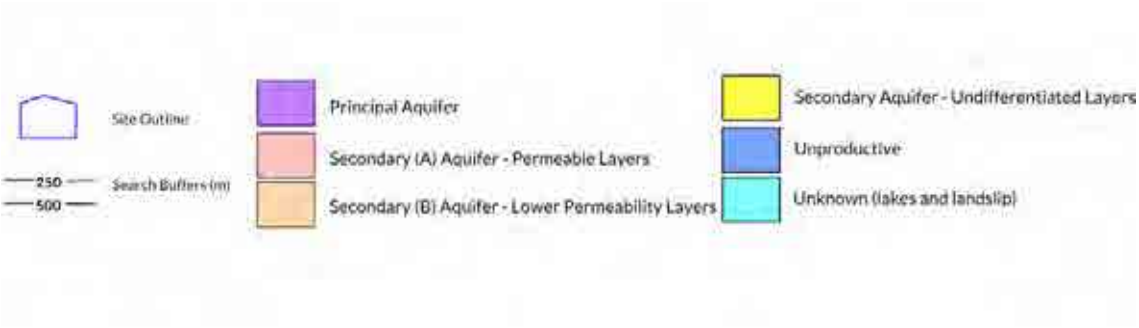
Lex Code	Description	Rock Type
WHL-LMST	WHITE LIMESTONE FORMATION	LIMESTONE
HYSA-SDST	HORSEHAY SAND FORMATION	SANDSTONE
WHL-LMST	WHITE LIMESTONE FORMATION	LIMESTONE
NS-SDLI	NORTHAMPTON SAND FORMATION	SANDSTONE, LIMESTONE AND IRONSTONE

(Derived from the BGS 1:50,000 Digital Geological Map of Great Britain)

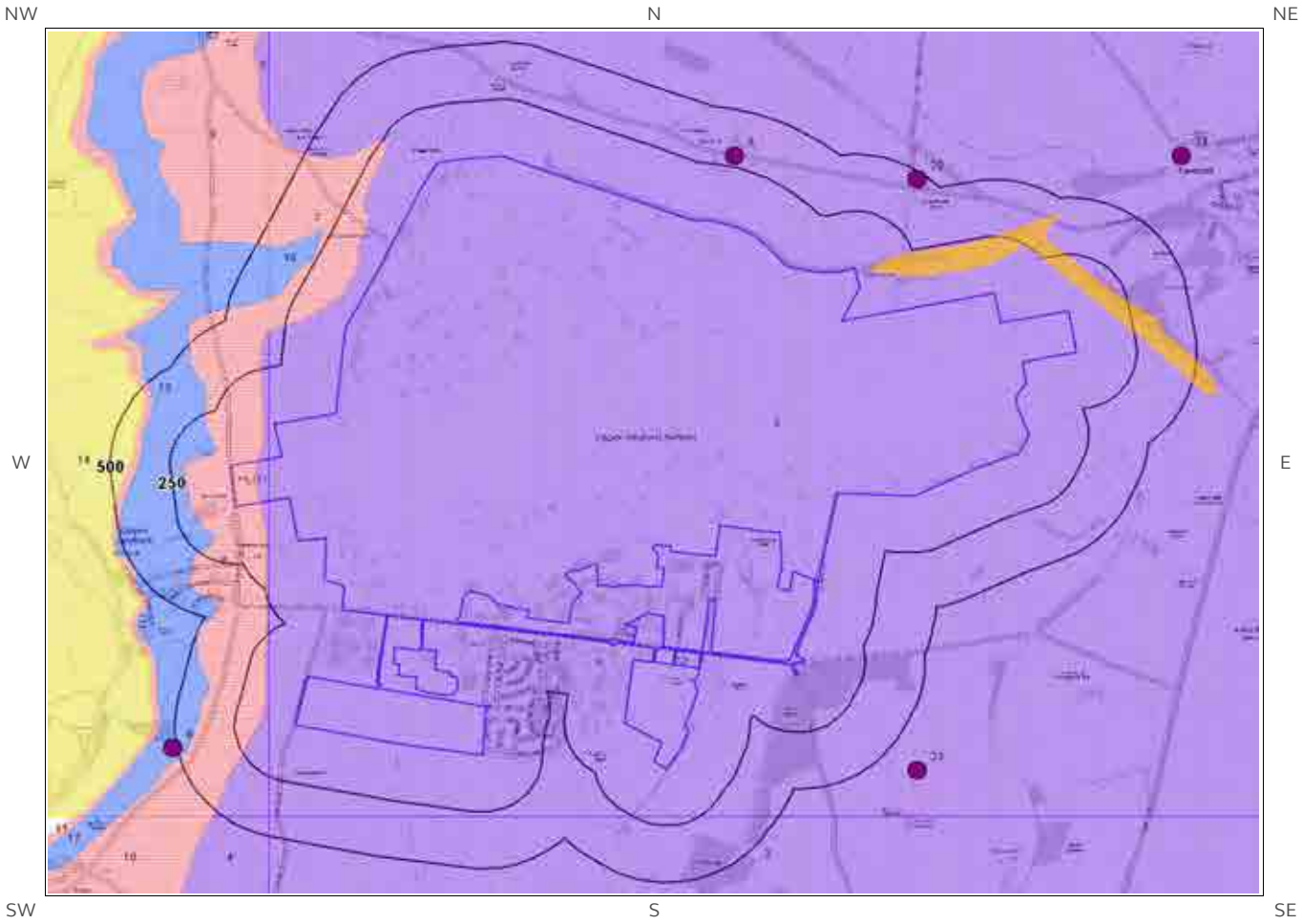
6 Hydrogeology and Hydrology

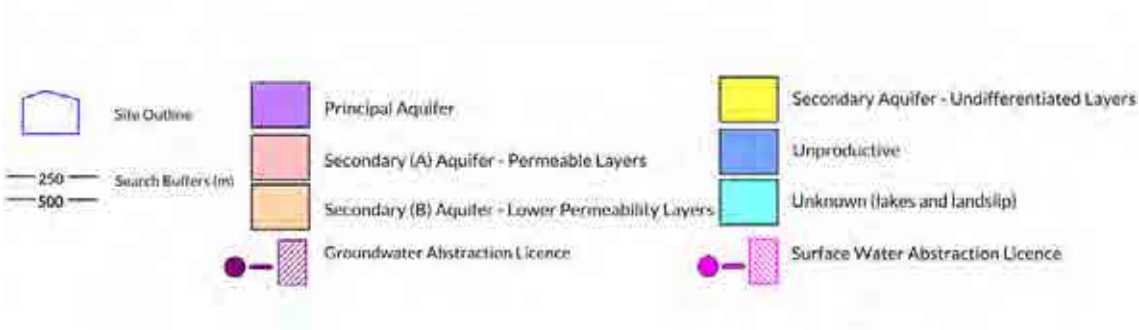
6a. Aquifer Within Superficial Geology



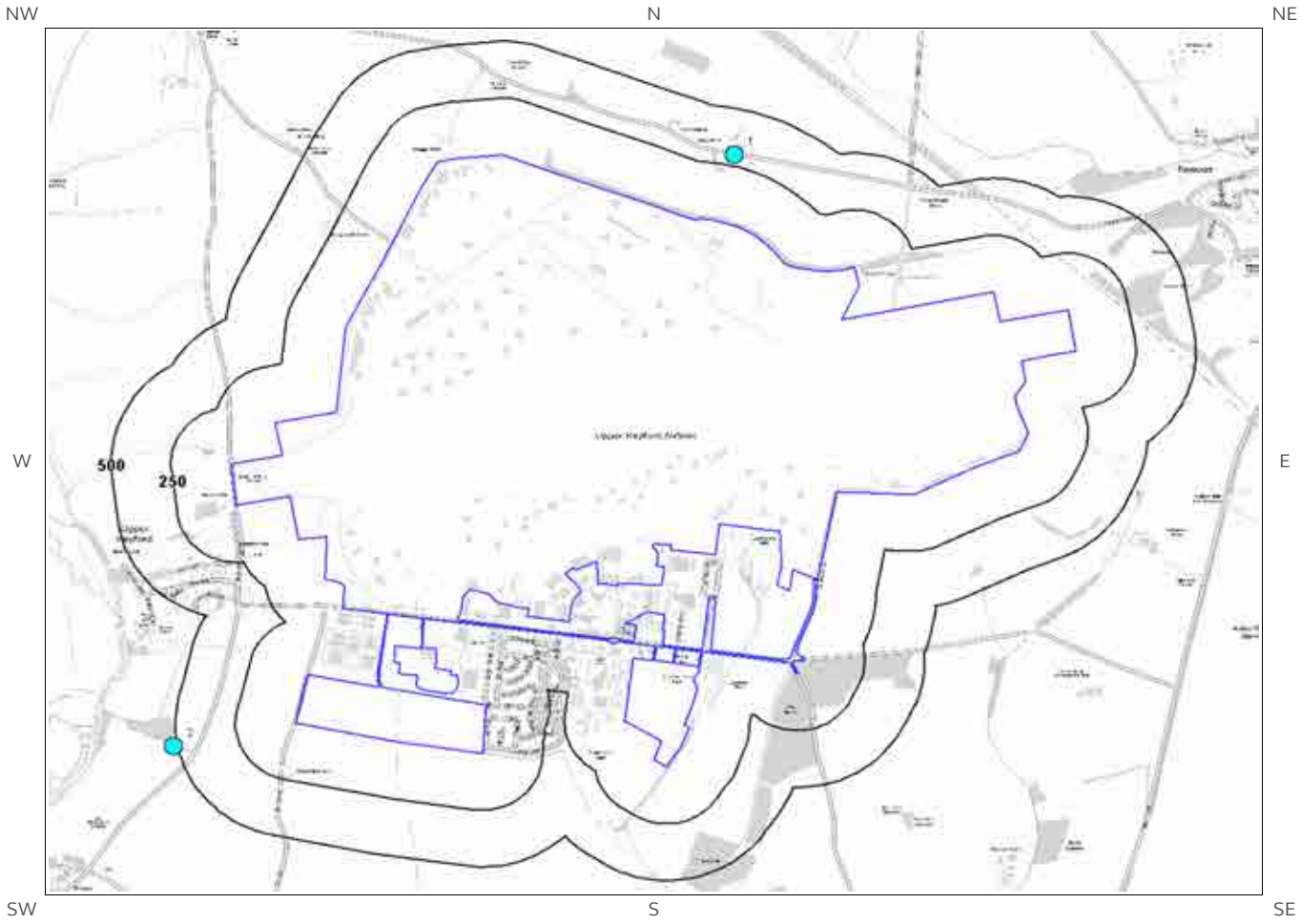


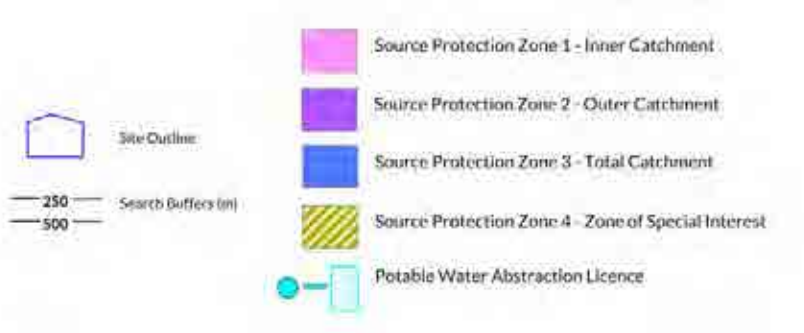
6b. Aquifer Within Bedrock Geology and Abstraction Licenses



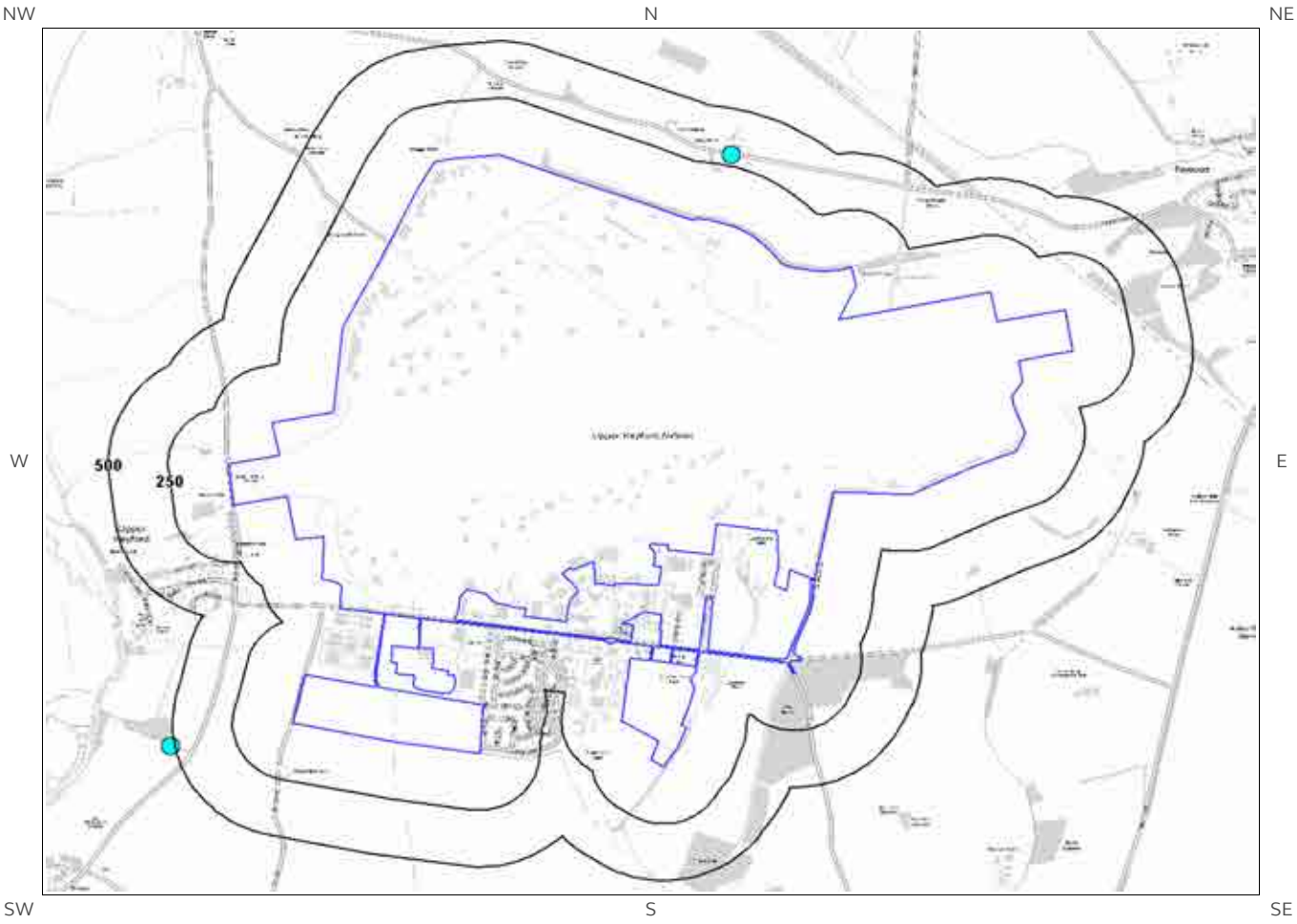


6c. Hydrogeology – Source Protection Zones and Potable Water Abstraction Licenses

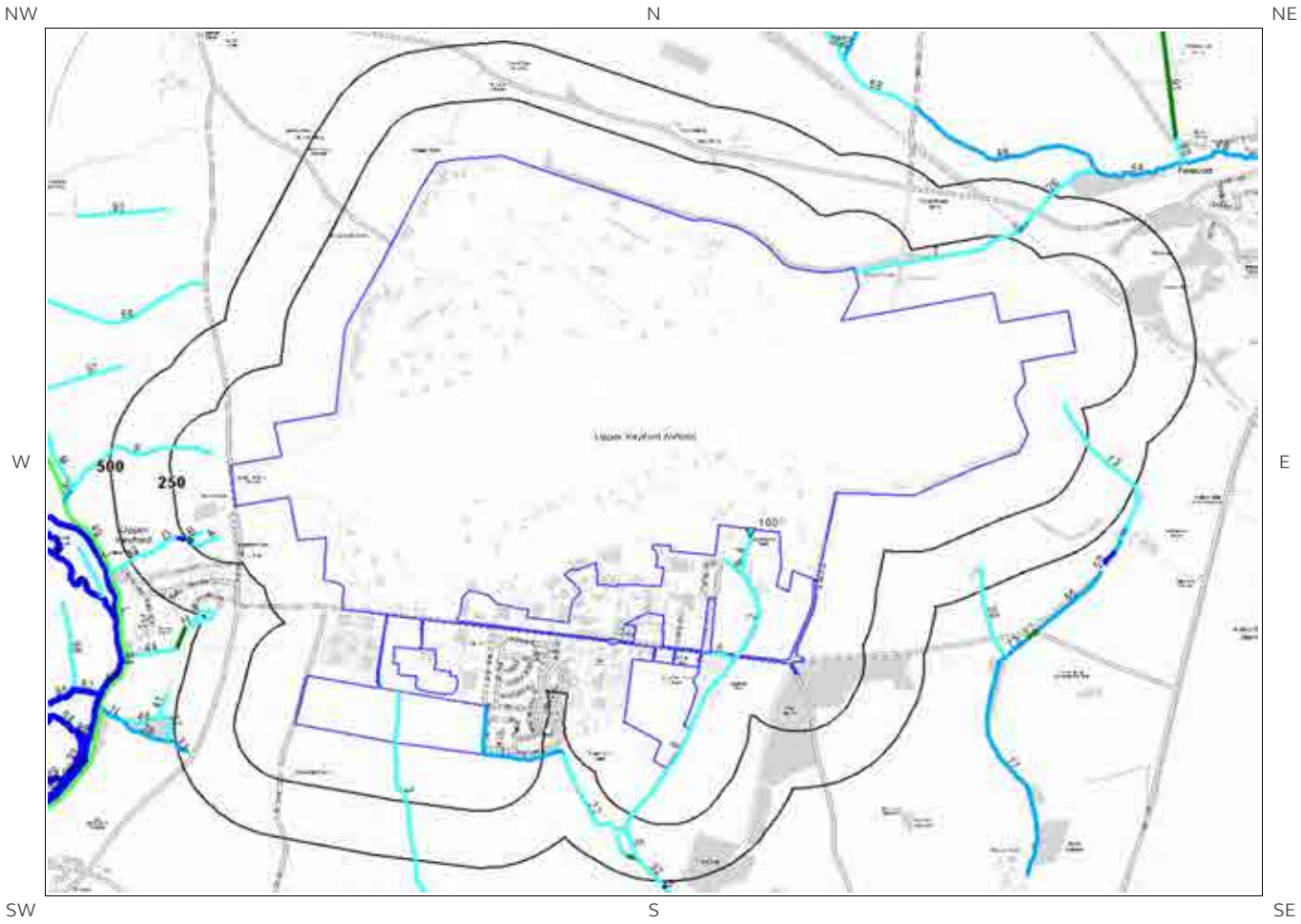


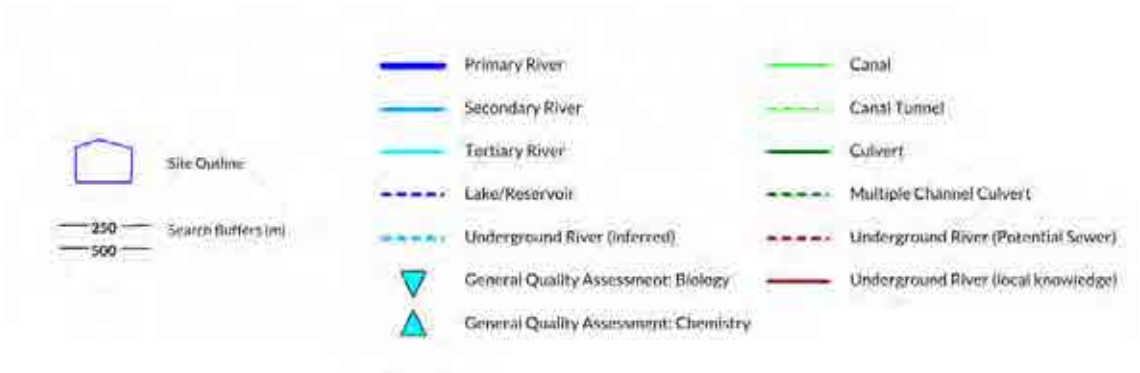


6d. Hydrogeology – Source Protection Zones within confined aquifer



6e. Hydrology – Detailed River Network and River Quality





6.Hydrogeology and Hydrology

6.1 Aquifer within Superficial Deposits

Are there records of strata classification within the superficial geology at or in proximity to the property? Yes

From 1 April 2010, the Environment Agency/Natural Resources Wales's Groundwater Protection Policy has been using aquifer designations consistent with the Water Framework Directive. For further details on the designation and interpretation of this information, please refer to the Groundsure Enviro Insight User Guide.

The following aquifer records are shown on the Aquifer within Superficial Geology Map (6a):

ID	Distance (m)	Direction	Designation	Description
8	0	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
9	76	S	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
1	278	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
2	316	E	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

6.2 Aquifer within Bedrock Deposits

Are there records of strata classification within the bedrock geology at or in proximity to the property? Yes

From 1 April 2010, the Environment Agency/Natural Resources Wales's Groundwater Protection Policy has been using aquifer designations consistent with the Water Framework Directive. For further details on the designation and interpretation of this information, please refer to the Groundsure Enviro Insight User Guide.

The following aquifer records are shown on the Aquifer within Bedrock Geology Map (6b):

ID	Distance (m)	Direction	Designation	Description
1	0	On Site	Principal	Geology of high intergranular and/or fracture permeability, usually providing a high level of water storage and may support water supply/river base flow on a strategic scale. Generally principal aquifers were previously major aquifers
2	0	On Site	Principal	Geology of high intergranular and/or fracture permeability, usually providing a high level of water storage and may support water supply/river base flow on a strategic scale. Generally principal aquifers were previously major aquifers
6	0	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
13	72	E	Secondary B	Predominantly lower permeability layers which may store/yield limited amounts of groundwater due to localised features such as fissures, thin permeablehorizons and weathering. These are generally the water-bearing parts of the former non-aquifers

ID	Distance (m)	Direction	Designation	Description
7	78	NW	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
15	91	NW	Unproductive	These are rock layers or drift deposits with low permeability that have negligible significance for water supply or river base flow
3	211	S	Principal	Geology of high intergranular and/or fracture permeability, usually providing a high level of water storage and may support water supply/river base flow on a strategic scale. Generally principal aquifers were previously major aquifers
16	263	NW	Unproductive	These are rock layers or drift deposits with low permeability that have negligible significance for water supply or river base flow
8	373	W	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
14	410	W	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
4	418	S	Principal	Geology of high intergranular and/or fracture permeability, usually providing a high level of water storage and may support water supply/river base flow on a strategic scale. Generally principal aquifers were previously major aquifers
9	453	NW	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

6.3 Groundwater Abstraction Licences

Are there any Groundwater Abstraction Licences within 2000m of the study site? Yes

The following Abstraction Licences records are represented as points, lines and regions on the Aquifer within Bedrock Geology Map (6b):

ID	Distance (m)	Direction	NGR	Details	
18A	296	N	451940 227900	Status: Historical Licence No: 6/33/02/*G/0128 Details: Drinking, Cooking, Sanitary, Washing, (Small Garden) - Household Direct Source: Ground Water Source Of Supply Point: Borehole At Somerton Data Type: Point Name: POWER	Annual Volume (m^3): - Max Daily Volume (m^3): - Original Application No: - Original Start Date: 1/3/1994 Expiry Date: - Issue No: 100 Version Start Date: 1/3/1994 Version End Date:
19A	296	N	451940 227900	Status: Historical Licence No: 6/33/02/*G/0128 Details: General Farming & Domestic Direct Source: Ground Water Source Of Supply Point: Borehole At Somerton Data Type: Point Name: POWER	Annual Volume (m^3): - Max Daily Volume (m^3): - Original Application No: - Original Start Date: 1/3/1994 Expiry Date: - Issue No: 100 Version Start Date: 1/3/1994 Version End Date:
20	467	NE	452700 227800	Status: Historical Licence No: 6/33/02/*G/0092 Details: General Farming & Domestic Direct Source: Ground Water Source Of Supply Point: Borehole At Ardley Data Type: Point Name: PARKER	Annual Volume (m^3): - Max Daily Volume (m^3): - Original Application No: - Original Start Date: 1/11/1967 Expiry Date: - Issue No: 100 Version Start Date: 1/3/1977 Version End Date:

ID	Distance (m)	Direction	NGR	Details	
21B	521	W	449600 225300	Status: Historical Licence No: 28/39/14/0116 Details: General Farming & Domestic Direct Source: Thames Groundwater Point: Lower Heyford Estate, Oxon (catchpit - A) Data Type: Point Name: THE PRESIDENT & SCHOLARS CORPUS CHRISTI COLLEGE	Annual Volume (m^3): - Max Daily Volume (m^3): - Original Application No: WR.A/2278/1 Original Start Date: 9/1/1967 Expiry Date: - Issue No: 100 Version Start Date: 9/1/1967 Version End Date:
22B	521	W	449600 225300	Status: Historical Licence No: 28/39/14/0116 Details: Drinking, Cooking, Sanitary, Washing, (Small Garden) - Household Direct Source: Thames Groundwater Point: Lower Heyford Estate, Oxon (catchpit - A) Data Type: Point Name: THE PRESIDENT & SCHOLARS CORPUS CHRISTI COLLEGE	Annual Volume (m^3): - Max Daily Volume (m^3): - Original Application No: WR.A/2278/1 Original Start Date: 9/1/1967 Expiry Date: - Issue No: 100 Version Start Date: 9/1/1967 Version End Date:
23	650	SE	452700 225200	Status: Active Licence No: 28/39/14/0102 Details: General Farming & Domestic Direct Source: Thames Groundwater Point: Manor Farm, Middleton Stoney (a) Data Type: Point Name: HILSDON	Annual Volume (m^3): 7319 Max Daily Volume (m^3): 20.23 Original Application No: WR.A/3468 Original Start Date: 12/12/1996 Expiry Date: - Issue No: 100 Version Start Date: 1/9/1998 Version End Date:
24	825	NE	453800 227900	Status: Historical Licence No: 6/33/02/*G/0091 Details: General Farming & Domestic Direct Source: Ground Water Source Of Supply Point: Well At Fewcott Data Type: Point Name: GODWIN	Annual Volume (m^3): - Max Daily Volume (m^3): - Original Application No: CV 3120 Original Start Date: 15/1/1968 Expiry Date: - Issue No: 102 Version Start Date: 21/11/2003 Version End Date:
Not shown	974	SE	452200 224400	Status: Historical Licence No: 28/39/14/0304 Details: General Farming & Domestic Direct Source: Thames Groundwater Point: Park Farm, Middleton Stoney (a) Data Type: Point Name: J H NORMAN & SONS	Annual Volume (m^3): - Max Daily Volume (m^3): - Original Application No: WR.A/5743 Original Start Date: 9/11/1989 Expiry Date: - Issue No: 100 Version Start Date: 9/11/1989 Version End Date:
Not shown	1936	N	452300 229500	Status: Historical Licence No: 6/33/02/*G/0012 Details: General Farming & Domestic Direct Source: Ground Water Source Of Supply Point: Well At Fritwell Data Type: Point Name: DALTON	Annual Volume (m^3): 15092 Max Daily Volume (m^3): 41.36 Original Application No: - Original Start Date: 1/6/1967 Expiry Date: - Issue No: 101 Version Start Date: 1/4/2008 Version End Date:
Not shown	1936	N	452300 229500	Status: Historical Licence No: 6/33/02/*G/0012 Details: Spray Irrigation - Direct Direct Source: Ground Water Source Of Supply Point: Well At Fritwell Data Type: Point Name: DALTON	Annual Volume (m^3): 15092 Max Daily Volume (m^3): 41.36 Original Application No: - Original Start Date: 1/6/1967 Expiry Date: - Issue No: 101 Version Start Date: 1/4/2008 Version End Date:

6.4 Surface Water Abstraction Licences

Are there any Surface Water Abstraction Licences within 2000m of the study site? Yes

The following Surface Water Abstraction Licences records are represented as points, lines and regions on the Aquifer within Bedrock Geology Map (6b):

ID	Distance (m)	Direction	NGR	Details	
Not shown	1631	NW	448800 227800	Status: Historical Licence No: 28/39/14/0340 Details: Supply to a Leat for Throughflow Direct Source: Thames Surface Water - Non Tidal Point: Somerton Mill, Oxon Data Type: Point Name: BRYDEN	Annual Volume (m^3): - Max Daily Volume (m^3): - Application No: WRA./6477 Original Start Date: 8/6/1998 Expiry Date: 30/06/2008 Issue No: 100 Version Start Date: 8/6/1998 Version End Date:
Not shown	1631	NW	448800 227800	Status: Historical Licence No: 28/39/14/0340 Details: Supply To A Leat For Throughflow Direct Source: Thames Surface Water - Non Tidal Point: Somerton Mill, Oxon - R.cherwell Mill Race Data Type: Point Name: BRYDEN	Annual Volume (m^3): 438000 Max Daily Volume (m^3): 1200 Application No: WRA./6477 Original Start Date: 8/6/1998 Expiry Date: 30/6/2008 Issue No: 100 Version Start Date: 8/6/1998 Version End Date:

6.5 Potable Water Abstraction Licences

Are there any Potable Water Abstraction Licences within 2000m of the study site? Yes

The following Potable Water Abstraction Licences records are represented as points, lines and regions on the SPZ and Potable Water Abstraction Licences Map (6c):

ID	Distance (m)	Direction	NGR	Details	
1	296	N	451940 227900	Status: Historical Licence No: 6/33/02/*G/0128 Details: Drinking, Cooking, Sanitary, Washing, (Small Garden) - Household Direct Source: Ground Water Source Of Supply Point: Borehole At Somerton Data Type: Point Name: POWER	Annual Volume (m^3): - Max Daily Volume (m^3): - Original Application No: - Original Start Date: 1/3/1994 Expiry Date: - Issue No: 100 Version Start Date: Version End Date:
2	521	W	449600 225300	Status: Historical Licence No: 28/39/14/0116 Details: Drinking, Cooking, Sanitary, Washing, (Small Garden) - Household Direct Source: Thames Groundwater Point: Lower Heyford Estate, Oxon (catchpit - A) Data Type: Point Name: THE PRESIDENT & SCHOLARS CORPUS CHRISTI COLLEGE	Annual Volume (m^3): - Max Daily Volume (m^3): - Original Application No: WR.A/2278/1 Original Start Date: 9/1/1967 Expiry Date: - Issue No: 100 Version Start Date: Version End Date:

6.6 Source Protection Zones

Are there any Source Protection Zones within 500m of the study site? No

Database searched and no data found.

6.7 Source Protection Zones within Confined Aquifer

Are there any Source Protection Zones within the Confined Aquifer within 500m of the study site? No

Historically, Source Protection Zone maps have been focused on regulation of activities which occur at or near the ground surface, such as prevention of point source pollution and bacterial contamination of water supplies. Sources in confined aquifers were often considered to be protected from these surface pressures due to the presence of a low permeability confining layer (e.g. glacial till, clay). The increased interest in subsurface activities such as onshore oil and gas exploration, ground source heating and cooling requires protection zones for confined sources to be marked on SPZ maps where this has not already been done.

Database searched and no data found.

6.8 Groundwater Vulnerability and Soil Leaching Potential

Is there any Environment Agency/Natural Resources Wales information on groundwater vulnerability and soil leaching potential within 500m of the study site? Yes

Distance (m)	Direction	Classification	Soil Vulnerability Category	Description
0	On Site	Major Aquifer/High Leaching Potential	H3	Coarse textured or moderately shallow soils which readily transmit non-adsorbed pollutants and liquid discharges but have some ability to attenuate adsorbed pollutants because of their clay or organic matter content.
0	On Site	Minor Aquifer/High Leaching Potential	H3	Coarse textured or moderately shallow soils which readily transmit non-adsorbed pollutants and liquid discharges but have some ability to attenuate adsorbed pollutants because of their clay or organic matter content.
0	On Site	Major Aquifer/High Leaching Potential	HU	Soil information for urban areas and restored mineral workings. These soils are therefore assumed to be highly permeable in the absence of site-specific information.
0	On Site	Major Aquifer/High Leaching Potential	H3	Coarse textured or moderately shallow soils which readily transmit non-adsorbed pollutants and liquid discharges but have some ability to attenuate adsorbed pollutants because of their clay or organic matter content.
19	N	Major Aquifer/High Leaching Potential	H3	Coarse textured or moderately shallow soils which readily transmit non-adsorbed pollutants and liquid discharges but have some ability to attenuate adsorbed pollutants because of their clay or organic matter content.
122	NW	Minor Aquifer/Intermediate Leaching Potential	I1	Soils which can possibly transmit a wide range of pollutants.
122	NW	Minor Aquifer/High Leaching Potential	H3	Coarse textured or moderately shallow soils which readily transmit non-adsorbed pollutants and liquid discharges but have some ability to attenuate adsorbed pollutants because of their clay or organic matter content.
412	W	Minor Aquifer/Low Leaching Potential	L	Soils in which pollutants are unlikely to penetrate the soil layer because either water movement is largely horizontal, or they have the ability to attenuate diffuse pollutants.

6.9 River Quality

Is there any Environment Agency/Natural Resources Wales information on river quality within 1500m of the study site? Yes

6.9.1 Biological Quality:

Biological Quality data describes water quality in terms of 83 groups of macroinvertebrates, some of which are pollution sensitive. The results are graded from A ('Very Good') to F ('Bad').

The following Biological Quality records are shown on the Hydrology Map (6e):

ID	Distance (m)	Direction	NGR	River Quality Grade	Biological Quality Grade				
					2005	2006	2007	2008	2009
100	12	SW	452010 226250	River Name: Leys Farm Ditch Reach: Upper Heyford - Gallos Brook End/Start of Stretch: Start of Stretch NGR	C	C	C	C	C

6.9.2 Chemical Quality:

Database searched and no data found.

6.10 Detailed River Network

Are there any Detailed River Network entries within 500m of the study site? Yes

The following Detailed River Network records are represented on the Hydrology Map (6e):

ID	Distance (m)	Direction	Details	
1	0	On Site	River Name: - Welsh River Name: - Alternative Name: -	River Type: Secondary River Main River Status: Currently Undefined
2	0	On Site	River Name: - Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined
3	0	On Site	River Name: Gallos Brook Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined
4	0	On Site	River Name: - Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined
5	1	S	River Name: - Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined
6	3	SE	River Name: - Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined
7	4	E	River Name: - Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined
8	37	SE	River Name: - Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined

ID	Distance (m)	Direction	Details	
9	94	NW	River Name: - Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined
10A	150	SW	River Name: - Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined
11A	151	SW	River Name: - Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined
12A	173	SW	River Name: - Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined
13	181	SE	River Name: - Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined
14B	181	SW	River Name: - Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined
15B	235	SW	River Name: - Welsh River Name: - Alternative Name: -	River Type: Lake/Reservoir Main River Status: Currently Undefined
16B	238	SW	River Name: - Welsh River Name: - Alternative Name: -	River Type: Culvert Main River Status: Currently Undefined
17B	238	SW	River Name: - Welsh River Name: - Alternative Name: -	River Type: Lake/Reservoir Main River Status: Currently Undefined
18B	239	SW	River Name: - Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined
19B	244	SW	River Name: - Welsh River Name: - Alternative Name: -	River Type: Lake/Reservoir Main River Status: Currently Undefined
20D	277	SW	River Name: - Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined
21C	291	N	River Name: - Welsh River Name: - Alternative Name: -	River Type: Secondary River Main River Status: Currently Undefined
22	292	SW	River Name: - Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined
23C	315	NE	River Name: - Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined
24C	319	NE	River Name: - Welsh River Name: - Alternative Name: -	River Type: Secondary River Main River Status: Currently Undefined
25E	332	SW	River Name: - Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined
26	341	NE	River Name: - Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined
27	353	SW	River Name: - Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined

ID	Distance (m)	Direction	Details	
28D	353	SW	River Name: - Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined
29E	363	SW	River Name: Drain Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined
30	401	SE	River Name: - Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined
31E	419	S	River Name: - Welsh River Name: - Alternative Name: -	River Type: Culvert Main River Status: Currently Undefined
32	419	S	River Name: - Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined
33	455	W	River Name: - Welsh River Name: - Alternative Name: -	River Type: Secondary River Main River Status: Currently Undefined
34F	461	SW	River Name: - Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined
35F	467	NW	River Name: - Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined

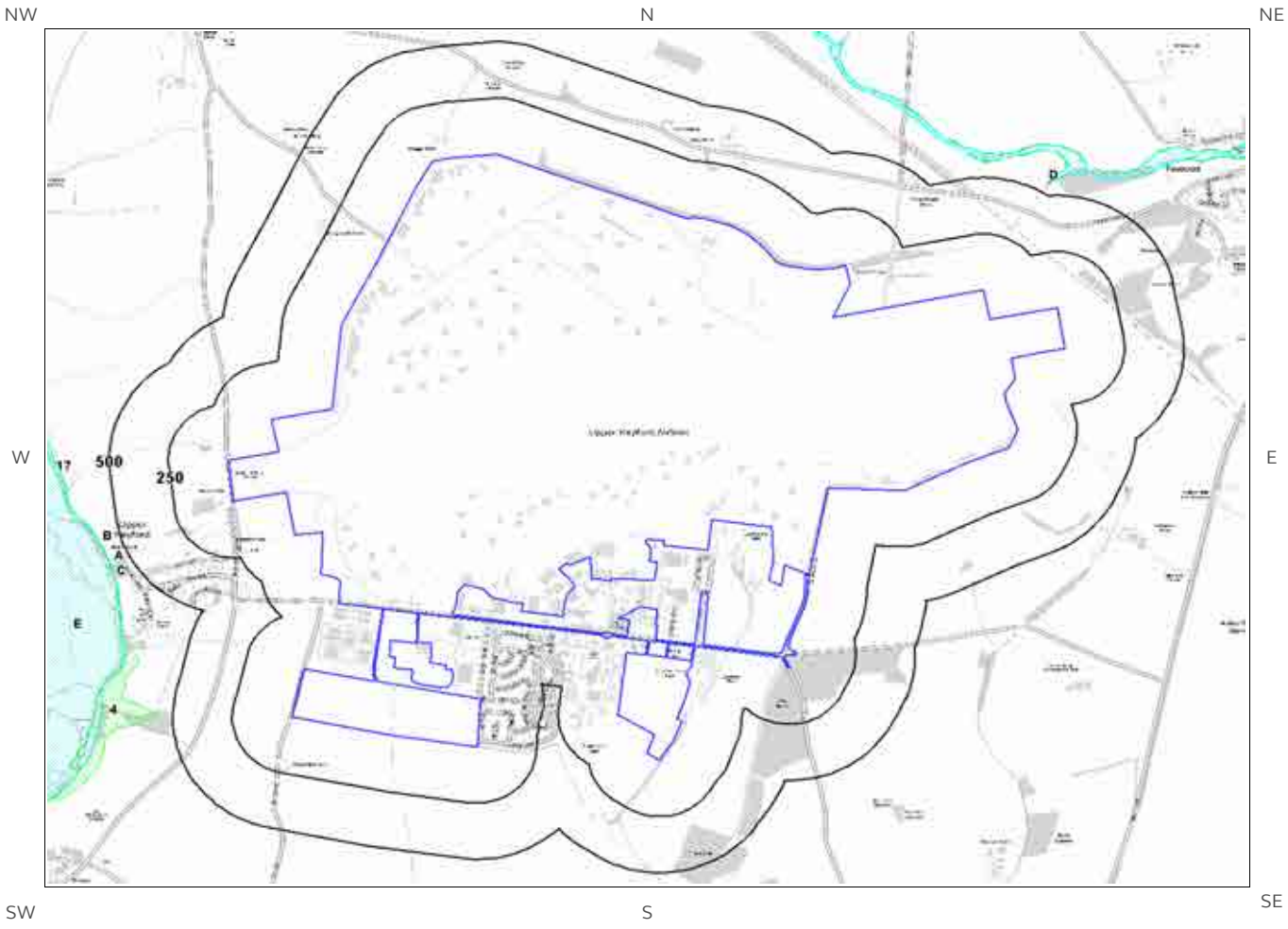
6.11 Surface Water Features

Are there any surface water features within 250m of the study site? Yes

The following surface water records are not represented on mapping:

Distance (m)	Direction
0	On Site
0	On Site
1	S
1	S
3	SE
4	E
5	S
7	N
16	SW
17	N
19	N
26	W
33	E
71	S
82	SE
88	W
94	NW
94	S
107	W
151	SW
155	SW
173	SW
181	SE
185	SW
186	SW
195	N
197	N
230	SW
244	SW

7a. Environment Agency/Natural Resources Wales Flood Map for Planning (from rivers and the sea)



Site Outline

Search Buffers (m)

Zone 2 Floodplain

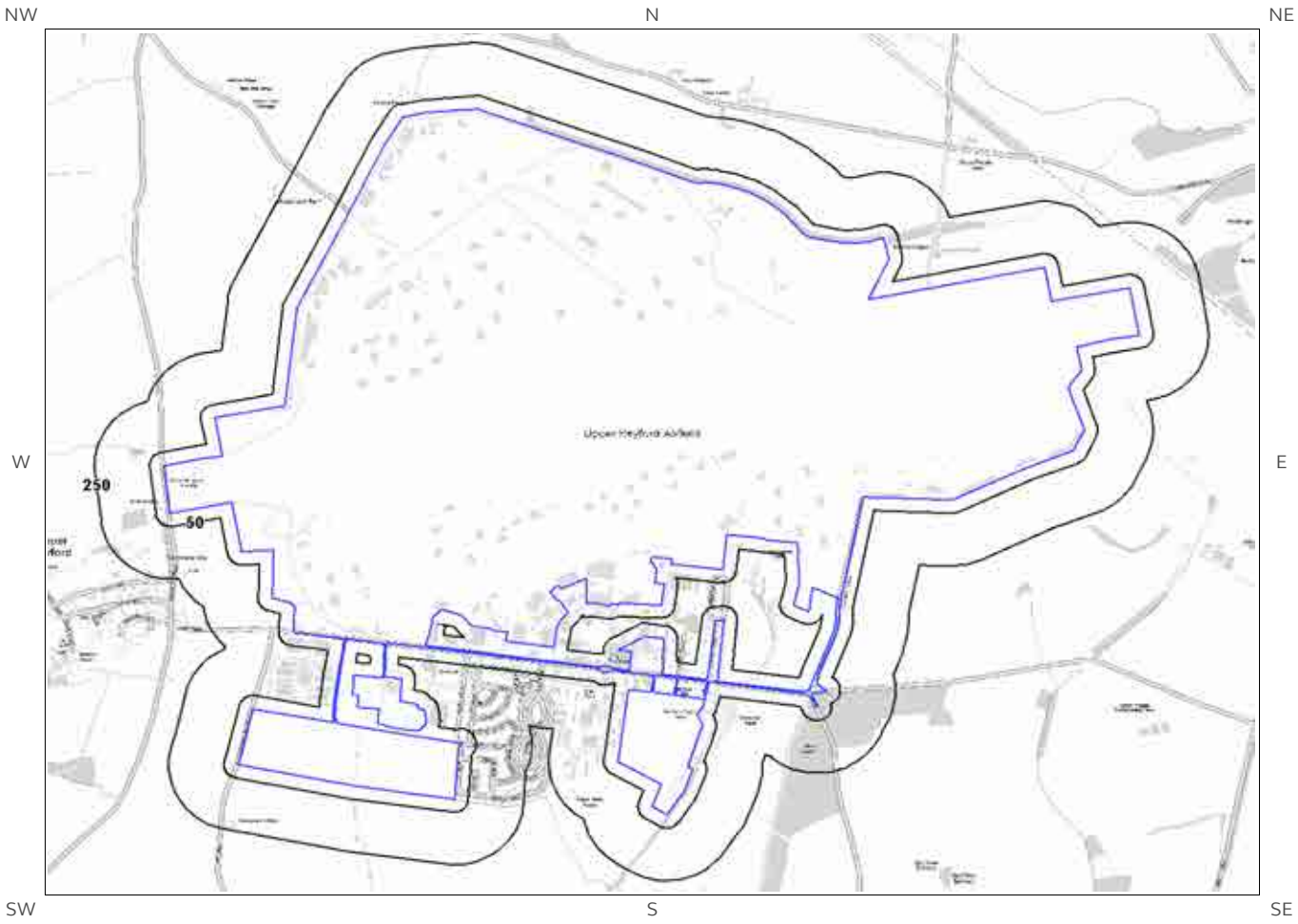
Zone 3 Floodplain

Flood Defences

Area used for Flood Storage

Area Benefiting from Flood Defences

7b. Environment Agency/Natural Resources Wales Risk of Flooding from Rivers and the Sea (RoFRaS) Map



7 Flooding

7.1 River and Coastal Zone 2 Flooding

Is the site within 250m of an Environment Agency/Natural Resources Wales Zone 2 floodplain? No

Environment Agency/Natural Resources Wales Zone 2 floodplains estimate the annual probability of flooding as between 1 in 1000 (0.1%) and 1 in 100 (1%) from rivers and between 1 in 1000 (0.1%) and 1 in 200 (0.5%) from the sea. Any relevant data is represented on Map 7a – Flood Map for Planning:

Database searched and no data found.

7.2 River and Coastal Zone 3 Flooding

Is the site within 250m of an Environment Agency/Natural Resources Wales Zone 3 floodplain? No

Zone 3 shows the extent of a river flood with a 1 in 100 (1%) or greater chance of occurring in any year or a sea flood with a 1 in 200 (0.5%) or greater chance of occurring in any year. Any relevant data is represented on Map 7a – Flood Map for Planning.

Database searched and no data found.

7.3 Risk of Flooding from Rivers and the Sea (RoFRaS) Flood Rating

What is the highest risk of flooding onsite? Very Low

The Environment Agency/Natural Resources Wales RoFRaS database provides an indication of river and coastal flood risk at a national level on a 50m grid with the flood rating at the centre of the grid calculated and given above. The data considers the probability that the flood defences will overtop or breach by considering their location, type, condition and standard of protection.

RoFRaS data for the study site indicates the property is in an area with a Very Low (less than 1 in 1000) chance of flooding in any given year.

7.4 Flood Defences

Are there any Flood Defences within 250m of the study site? No

Database searched and no data found.

7.5 Areas benefiting from Flood Defences

Are there any areas benefiting from Flood Defences within 250m of the study site? No

7.6 Areas benefiting from Flood Storage

Are there any areas used for Flood Storage within 250m of the study site? No

7.7 Groundwater Flooding Susceptibility Areas

7.7.1 Are there any British Geological Survey groundwater flooding susceptibility areas within 50m of the boundary of the study site? Yes

Does this relate to Clearwater Flooding or Superficial Deposits Flooding? Clearwater Flooding

Notes: Groundwater flooding may either be associated with shallow unconsolidated sedimentary aquifers which overlie unproductive aquifers (Superficial Deposits Flooding), or with unconfined aquifers (Clearwater Flooding).

7.7.2 What is the highest susceptibility to groundwater flooding in the search area based on the underlying geological conditions?

Potential at Surface

Where potential for groundwater flooding to occur at surface is indicated, this means that given the geological conditions in the area groundwater flooding hazard should be considered in all land-use planning decisions. It is recommended that other relevant information e.g. records of previous incidence of groundwater flooding, rainfall, property type, and land drainage information be investigated in order to establish relative, but not absolute, risk of groundwater flooding.

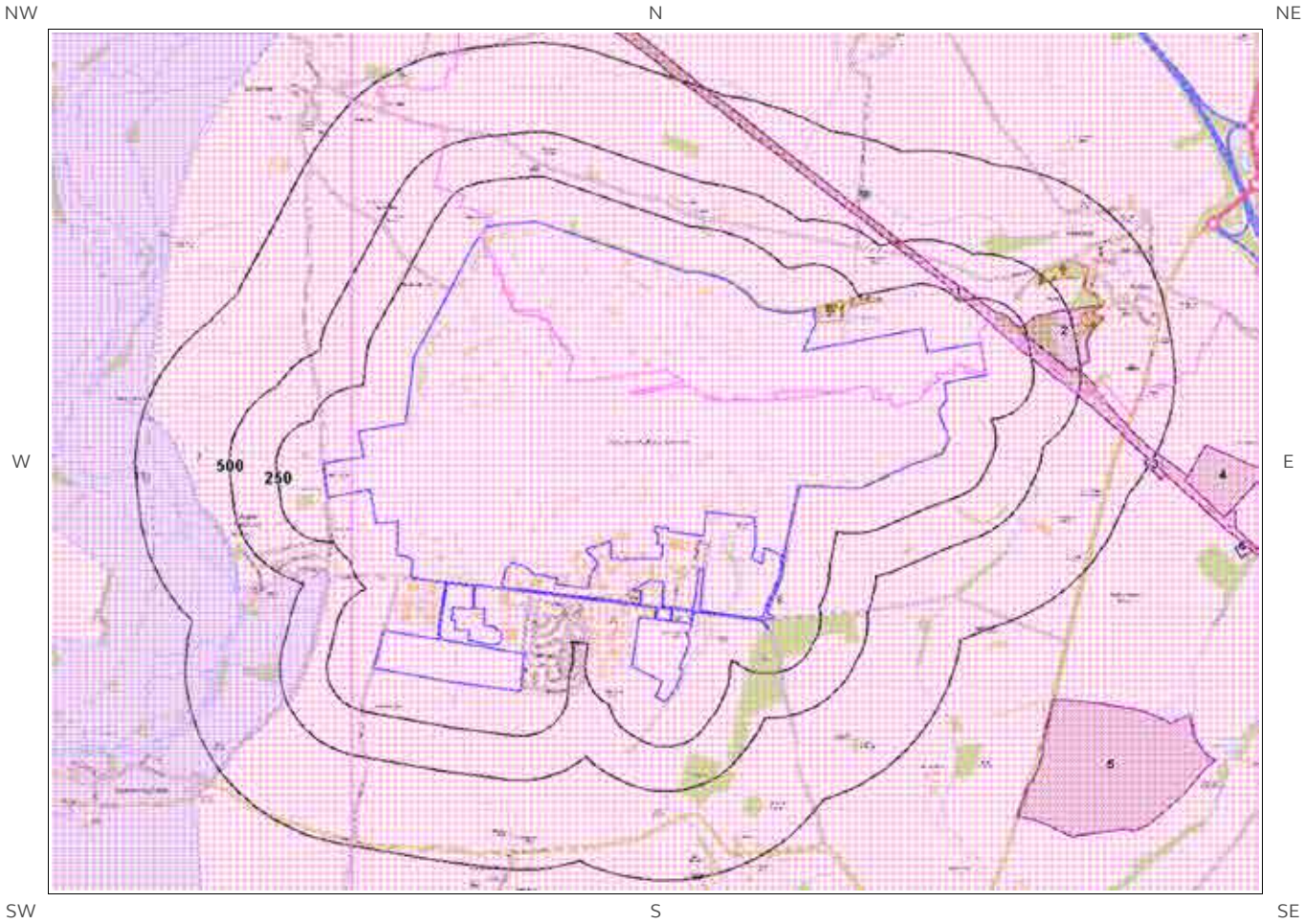
7.8 Groundwater Flooding Confidence Areas

What is the British Geological Survey confidence rating in this result? High

Notes: Groundwater flooding is defined as the emergence of groundwater at the ground surface or the rising of groundwater into man-made ground under conditions where the normal range of groundwater levels is exceeded.

The confidence rating is on a threefold scale - Low, Moderate and High. This provides a relative indication of the BGS confidence in the accuracy of the susceptibility result for groundwater flooding. This is based on the amount and precision of the information used in the assessment. In areas with a relatively lower level of confidence the susceptibility result should be treated with more caution. In other areas with higher levels of confidence the susceptibility result can be used with more confidence.

8. Designated Environmentally Sensitive Sites Map



8. Designated Environmentally Sensitive Sites

Presence of Designated Environmentally Sensitive Sites within 2000m of the study site? Yes

8.1 Records of Sites of Special Scientific Interest (SSSI) within 2000m of the study site:

6

The following Site of Special Scientific Interest (SSSI) records provided by Natural England/Natural Resources Wales are represented as polygons on the Designated Environmentally Sensitive Sites Map:

ID	Distance (m)	Direction	SSSI Name	Data Source
1	118	NE	Ardley Cutting and Quarry	Natural England
2	226	NE	Ardley Cutting and Quarry	Natural England
3	970	SE	Ardley Cutting and Quarry	Natural England
4	1203	SE	Ardley Trackways	Natural England
5	1499	SE	Ardley Trackways	Natural England
6	1640	E	Ardley Cutting and Quarry	Natural England

8.2 Records of National Nature Reserves (NNR) within 2000m of the study site:

0

Database searched and no data found.

8.3 Records of Special Areas of Conservation (SAC) within 2000m of the study site:

0

Database searched and no data found.

8.4 Records of Special Protection Areas (SPA) within 2000m of the study site:

0

Database searched and no data found.

8.5 Records of Ramsar sites within 2000m of the study site:

0

Database searched and no data found.

8.6 Records of Ancient Woodland within 2000m of the study site:

6

The following records of Designated Ancient Woodland provided by Natural England/Natural Resources Wales are represented as polygons on the Designated Environmentally Sensitive Sites Map:

ID	Distance (m)	Direction	Ancient Woodland Name	Data Source
12	10	E	UNKNOWN	Ancient and Semi-Natural Woodland
13	195	N	UNKNOWN	Ancient and Semi-Natural Woodland
14	444	NE	UNKNOWN	Ancient and Semi-Natural Woodland
Not shown	1860	E	UNKNOWN	Ancient Replanted Woodland
Not shown	1863	E	UNKNOWN	Ancient and Semi-Natural Woodland
Not shown	1964	E	UNKNOWN	Ancient Replanted Woodland

8.7 Records of Local Nature Reserves (LNR) within 2000m of the study site:

0

Database searched and no data found.

8.8 Records of World Heritage Sites within 2000m of the study site:

0

Database searched and no data found.

8.9 Records of Environmentally Sensitive Areas within 2000m of the study site:

1

The following Environmentally Sensitive Area records produced by DEFRA are represented as polygons on the Designated Environmentally Sensitive Sites Map:

ID	Distance (m)	Direction	ESA Name	Data Source
11	357	W	Upper Thames Tributaries	Natural England

8.10 Records of Areas of Outstanding Natural Beauty (AONB) within 2000m of the study site:

0

Database searched and no data found.

8.11 Records of National Parks (NP) within 2000m of the study site:

0

Database searched and no data found.

8.12 Records of Nitrate Sensitive Areas within 2000m of the study site:

0

Database searched and no data found.

8.13 Records of Nitrate Vulnerable Zones within 2000m of the study site:

4

The following Nitrate Vulnerable Zone records produced by DEFRA are represented as polygons on the Designated Environmentally Sensitive Sites Map:

ID	Distance (m)	Direction	NVZ Name	Data Source
7	0	On Site	Existing	DEFRA
8	0	On Site	Existing	DEFRA
9	0	On Site	Existing	DEFRA
10	0	On Site	Existing	DEFRA

8.14 Records of Green Belt land within 2000m of the study site:

0

Database searched and no data found.

9. Natural Hazards Findings

9.1 Detailed BGS GeoSure Data

BGS GeoSure Data has been searched to 50m. The data is included in tabular format. If you require further information on geology and ground stability, please obtain a Groundsure Geo Insight, available from our website. The following information has been found:

9.1.1 Shrink Swell

What is the maximum Shrink-Swell*[*] hazard rating identified on the study site? Very Low

The following natural subsidence information provided by the British Geological Survey is not represented on mapping:

Hazard
Ground conditions predominantly low plasticity. No special actions required to avoid problems due to shrink-swell clays. No special ground investigation required, and increased construction costs or increased financial risks are unlikely due to potential problems with shrink-swell clays.

9.1.2 Landslides

What is the maximum Landslide* hazard rating identified on the study site? Very Low

The following natural subsidence information provided by the British Geological Survey is not represented on mapping:

Hazard
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.

9.1.3 Soluble Rocks

What is the maximum Soluble Rocks* hazard rating identified on the study site? Low

The following natural subsidence information provided by the British Geological Survey is not represented on mapping:

Hazard
Significant soluble rocks are present. Low possibility of subsidence occurring naturally, but may be possible in adverse conditions such as high surface or subsurface water flow. Consider implications for stability when changes to drainage or new construction are planned. For new build site investigation should consider potential for dissolution problems on the site and its surroundings. Care should be taken with local drainage into the bedrock. Some possibility groundwater pollution. For existing property possible increase in insurance risk due to soluble rocks.

* This indicates an automatically generated 50m buffer and site.

9.1.4 Compressible Ground

What is the maximum Compressible Ground* hazard rating identified on the study site? Negligible

The following natural subsidence information provided by the British Geological Survey is not represented on mapping:

Hazard
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.

9.1.5 Collapsible Rocks

What is the maximum Collapsible Rocks* hazard rating identified on the study site? Very Low

The following natural subsidence information provided by the British Geological Survey is not represented on mapping:

Hazard
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.

9.1.6 Running Sand

What is the maximum Running Sand*[*] hazard rating identified on the study site? Very Low

The following natural subsidence information provided by the British Geological Survey is not represented on mapping:

Hazard
Very low potential for running sand problems if water table rises or if sandy strata are exposed to water. No special actions required, to avoid problems due to running sand. No special ground investigation required, and increased construction costs or increased financial risks are unlikely due to potential problems with running sand.

9.2 Radon

9.2.1 Radon Affected Areas

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

* This indicates an automatically generated 50m buffer and site.

9.2.2 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.

10. Mining

10.1 Coal Mining

Are there any coal mining areas within 75m of the study site? No

Database searched and no data found.

10.2 Non-Coal Mining

Are there any Non-Coal Mining areas within 50m of the study site boundary? No

Database searched and no data found.

10.3 Brine Affected Areas

Are there any brine affected areas within 75m of the study site? No
Guidance: No Guidance Required.

Contact Details

Groundsure Helpline
Telephone: 08444 159 000
info@groundsure.com

British Geological Survey Enquiries
Kingsley Dunham Centre
Keyworth, Nottingham NG12 5GG
Tel: 0115 936 3143.
Fax: 0115 936 3276.
Email:
Web:**www.bgs.ac.uk**
BGS Geological Hazards Reports and general geological enquiries:
enquiries@bgs.ac.uk

Environment Agency
National Customer Contact Centre, PO Box 544
Rotherham, S60 1BY
Tel: 03708 506 506
Web: **www.environment-agency.gov.uk**
Email: enquiries@environment-agency.gov.uk

Public Health England
Public information access office
Public Health England, Wellington House
133-155 Waterloo Road, London, SE1 8UG
www.gov.uk/phe
Email:**enquiries@phe.gov.uk**
Main switchboard**: 020 7654 8000**

The Coal Authority
200 Lichfield Lane
Mansfield
Notts NG18 4RG
Tel: 0345 7626 848
DX 716176 Mansfield 5
www.coal.gov.uk

Ordnance Survey
Adanac Drive, Southampton
SO16 0AS
Tel: 08456 050505

Local Authority
Authority: Cherwell District Council
Phone: 01295 252 535
Web: http://www.cherwell-dc.gov.uk/
Address: Bodicote House, Bodicote, Banbury, Oxfordshire, OX15 4AA

Gemapping PLC
Virginia Villas, High Street, Hartley Witney,
Hampshire RG27 8NW
Tel: 01252 845444

Standard Terms and Conditions

Groundsure's Terms and Conditions can be viewed online at this link:
https://www.groundsure.com/terms-and-conditions-sept-2016

Geo Insight

Address:	**HEYFORD PARK HOUSE, 52 HEYFORD PARK, CAMP ROAD, UPPER HEYFORD, OX25 5HD**
Date:	**4 Sep 2017**
Reference:	**GS-4227859**
Client:	**Hydrock Consultants Ltd**

NW N NE

W E

SW S SE

Aerial Photograph Capture date:	12-Jun-2014
Grid Reference:	451981,226893
Site Size:	452.29ha

Contents Page

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?*	No
	1.2.2 Are there any records of landslip within 500m of the study site boundary at 1:10,000 scale?	No
1.3 Bedrock, Solid Geology and Faults	1.3.1 For records of Bedrock and Solid Geology beneath the study site* see the detailed findings section.	
	1.3.2 Are there any records of faults within 500m of the study site boundary at 1:10,000 scale?	Yes

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?	Yes
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 landslip 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 Faults	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 faults within 500m of the study site boundary?	Yes

Section 3: Radon

3. Radon	3.1Is the property in a Radon Affected Area as defined by the Health Protection Agency (HPA) and if so what percentage of homes are above the Action Level?	The property is in a Radon Affected Area, as between 1 and 3% of properties are above the Action Level.
	3.2Radon 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	14	12	33	Not Searched	Not Searched
4.2 Historical Underground Workings from Small Scale Mapping	0	0	0	0	0
4.3 Current Ground Workings	2	3	2	4	10

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	0	0	0	0	0
5.4 Non-Coal Mining*	0	0	0	0	0
5.5 Non–Coal Mining Cavities	0	0	0	0	0
5.5 Natural Cavities	0	0	0	0	0

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 Tin Mining	0	0	0	0	0
5.9 Clay Mining	0	0	0	0	0

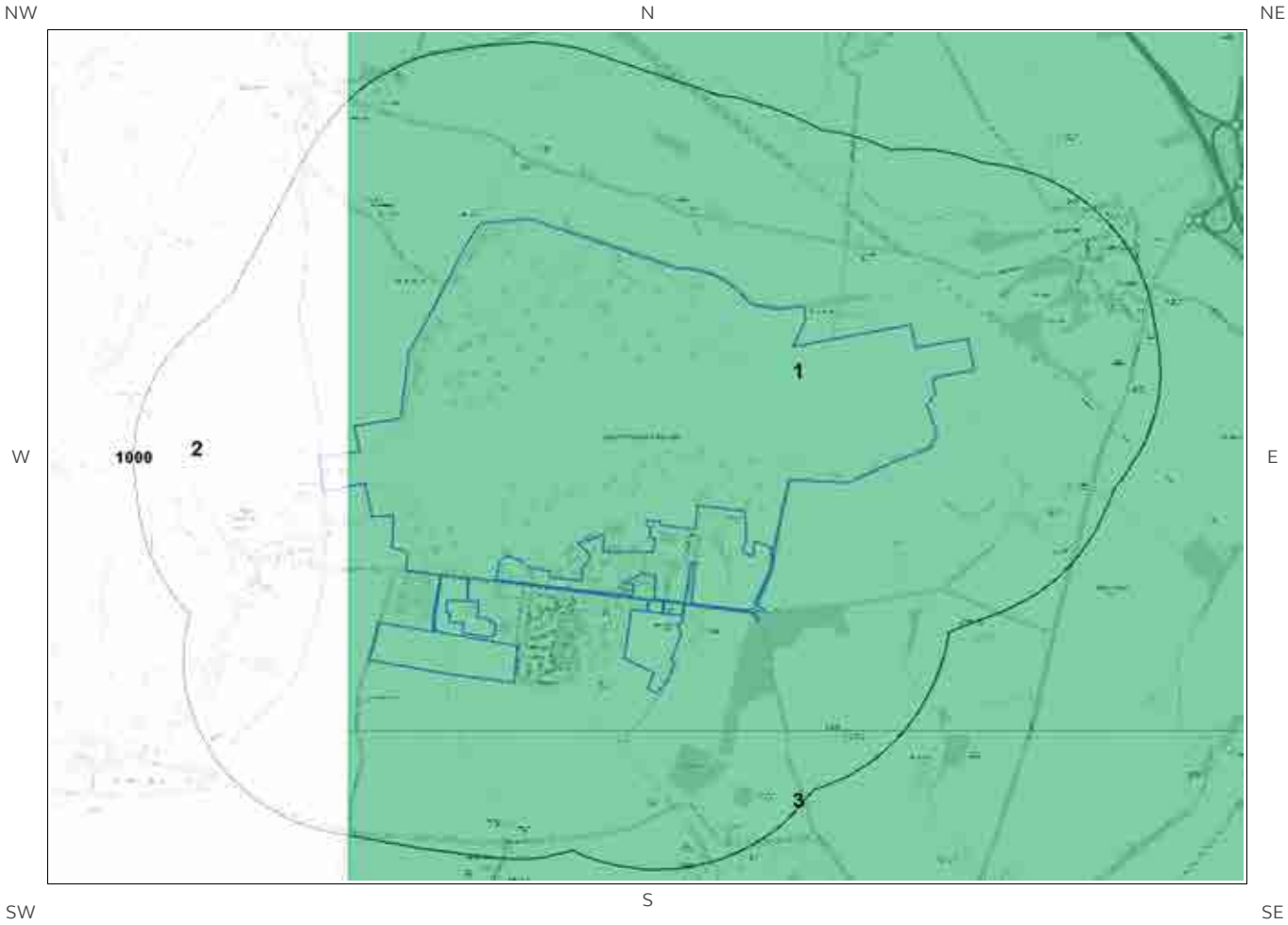
Section 6: Natural Ground Subsidence	On-site
6.1 Shrink-Swell Clay	Very Low
6.2 Landslides	Very Low
6.3 Ground Dissolution of Soluble Rocks	Low
6.4 Compressible Deposits	Negligible
6.5 Collapsible Deposits	Very Low
6.5 Running Sand	Very Low

Section 7: Borehole Records	On-site	0-50m	51-250
7 BGS Recorded Boreholes	51	29	37

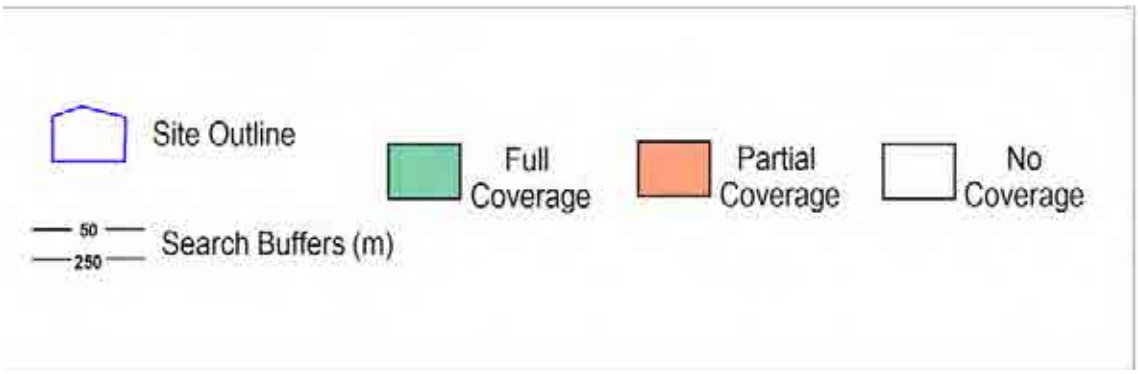
Section 8: Estimated Background Soil Chemistry	On-site	0-50m	51-250
8 Records of Background Soil Chemistry	46	7	0

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	3	Not Searched
9.3 Historical Railways	0	0	0	Not Searched
9.4 Active Railways	0	0	6	Not Searched
9.5 Railway Projects	0	0	0	0

1:10,000 Scale Availability



1_10,000 Availability Legend



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	0.0	No deposits are mapped	No coverage	No coverage	No coverage
3	211.0	Some deposits are mapped	Full	Full	No coverage
N4	1634.0	Some deposits are mapped	Full	Full	No coverage

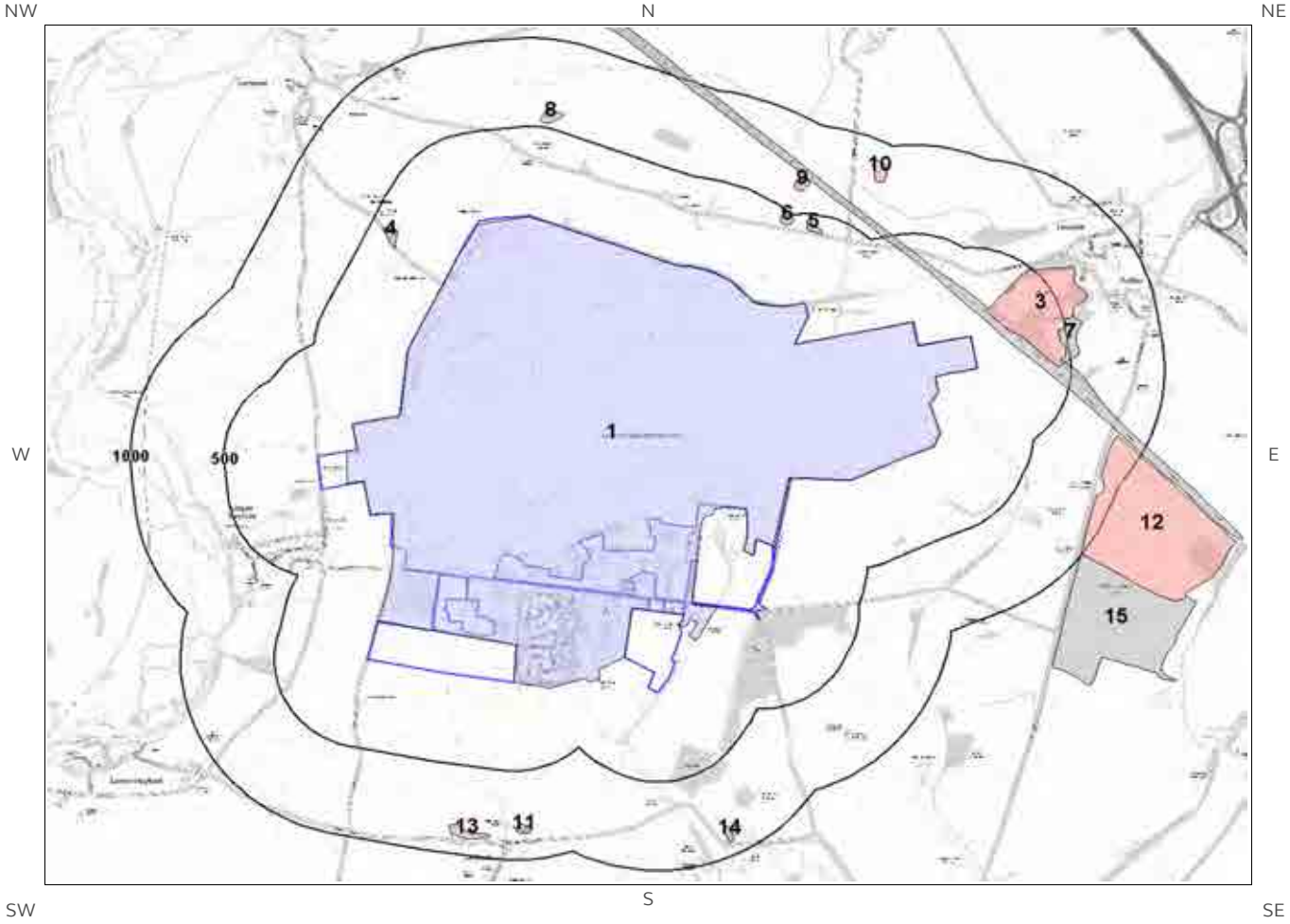
Guidance: The 1:10,000 scale geological interpretation is the most detailed generally available from BGS and is the scale at which most geological surveying is carried out in the field. The database is presented as four types of geology (artificial, mass movement, superficial and bedrock), although not 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

1. Geology 1:10,000 scale

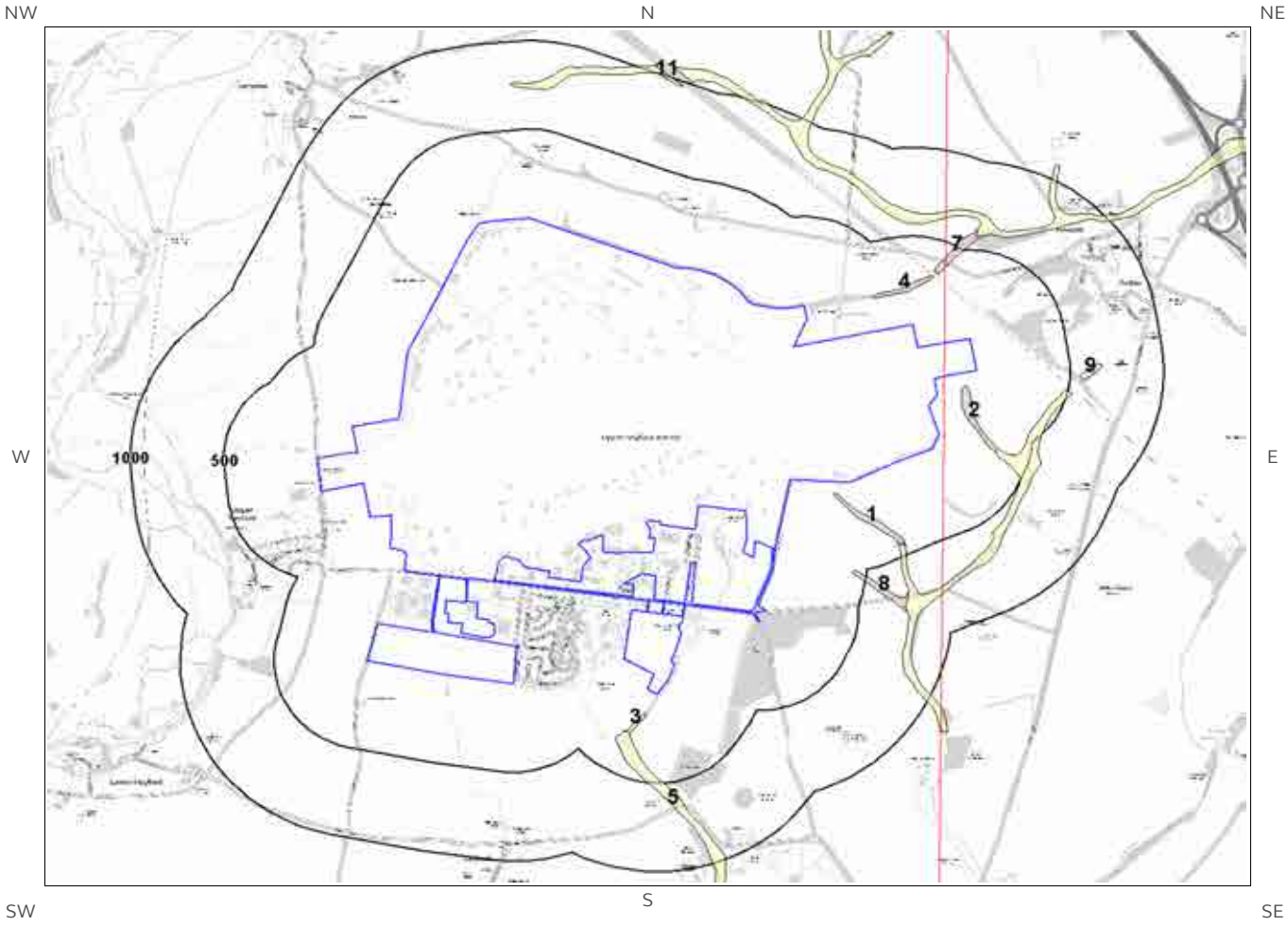
1.1 Artificial Ground

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	0.0	On Site	LSGR-UKNOWN	Landscaped Ground (Undivided)	Unknown/unclassified Entry
2	120.0	NE	WGR-VOID	Worked Ground (Undivided)	Void
3	160.0	NE	WMGR-ARTDP	Infilled Ground	Artificial Deposit
4	326.0	NW	WMGR-ARTDP	Infilled Ground	Artificial Deposit
5	400.0	N	WMGR-ARTDP	Infilled Ground	Artificial Deposit
6	427.0	NE	WMGR-ARTDP	Infilled Ground	Artificial Deposit
7	445.0	E	WGR-VOID	Worked Ground (Undivided)	Void

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



Artificial Ground Legend

Site Outline

500
1000
Search Buffers (m)

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	64.0	S	HEAD-XCZ	Head - Clay And Silt	Clay And Silt
2	76.0	S	HEAD-XCZ	Head - Clay And Silt	Clay And Silt
3	123.0	SW	ALV-CSV	Alluvium - Sandy Gravelly Clay	Clay, Sandy, Gravelly
4	186.0	N	HEAD-XCZ	Head - Clay And Silt	Clay And Silt
5	254.0	SW	ALV-CSV	Alluvium - Sandy Gravelly Clay	Clay, Sandy, Gravelly
6	313.0	E	ALV-CSV	Alluvium - Sandy Gravelly Clay	Clay, Sandy, Gravelly
7	316.0	NE	HEAD-XCZ	Head - Clay And Silt	Clay And Silt
8	423.0	E	HEAD-XCZ	Head - Clay And Silt	Clay And Silt

1.2.2 Landslip

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

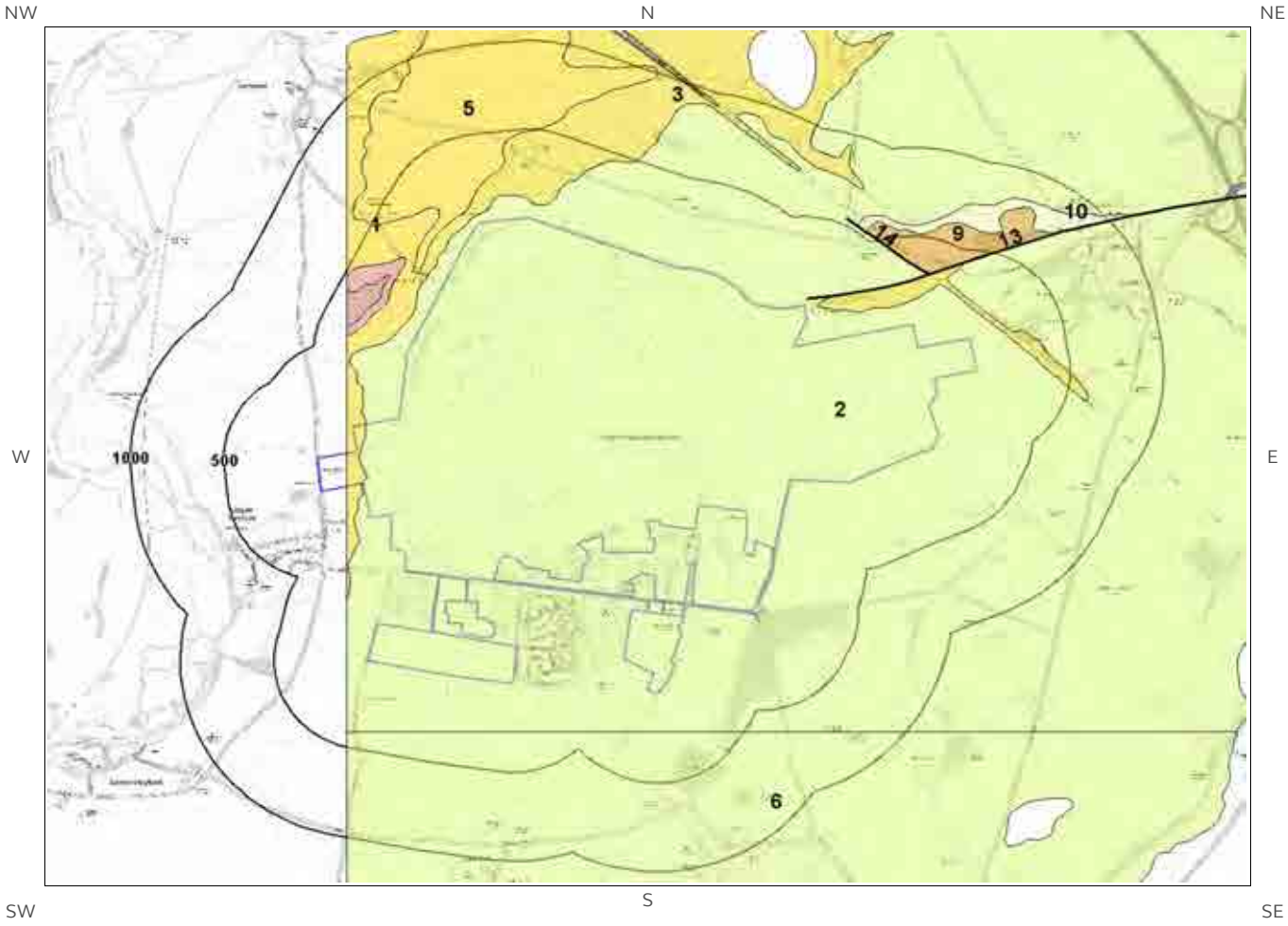
No

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 Faults Map (1:10,000 scale)



Bedrock and Faults Legend

Site Outline

500
1000
Search Buffers (m)

1.3 Bedrock and Faults

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	GOG-LMST	Great Oolite Group - Limestone	Bathonian Age
2	0.0	On Site	WHL-LMST	White Limestone Formation - Limestone	Bathonian Age
3	49.0	NW	RLD-MDST	Rutland Formation - Mudstone	Bathonian Age - Bajocian Age
4	71.0	E	RLD-MDST	Rutland Formation - Mudstone	Bathonian Age - Bajocian Age
5	103.0	NW	TY-LMOOL	Taynton Limestone Formation - Ooidal Limestone	Bathonian Age
6	211.0	S	WHL-LMST	White Limestone Formation - Limestone	Bathonian Age
7A	228.0	NW	NS-SDLI	Northampton Sand Formation - Sandstone, Limestone And Ironstone	Aalenian Age
8A	271.0	NW	WHM-MDST	Whitby Mudstone Formation - Mudstone	Toarcian Age
9	297.0	N	FMB-LMST	Forest Marble Formation - Limestone	Bathonian Age

1.3.2 Faults

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

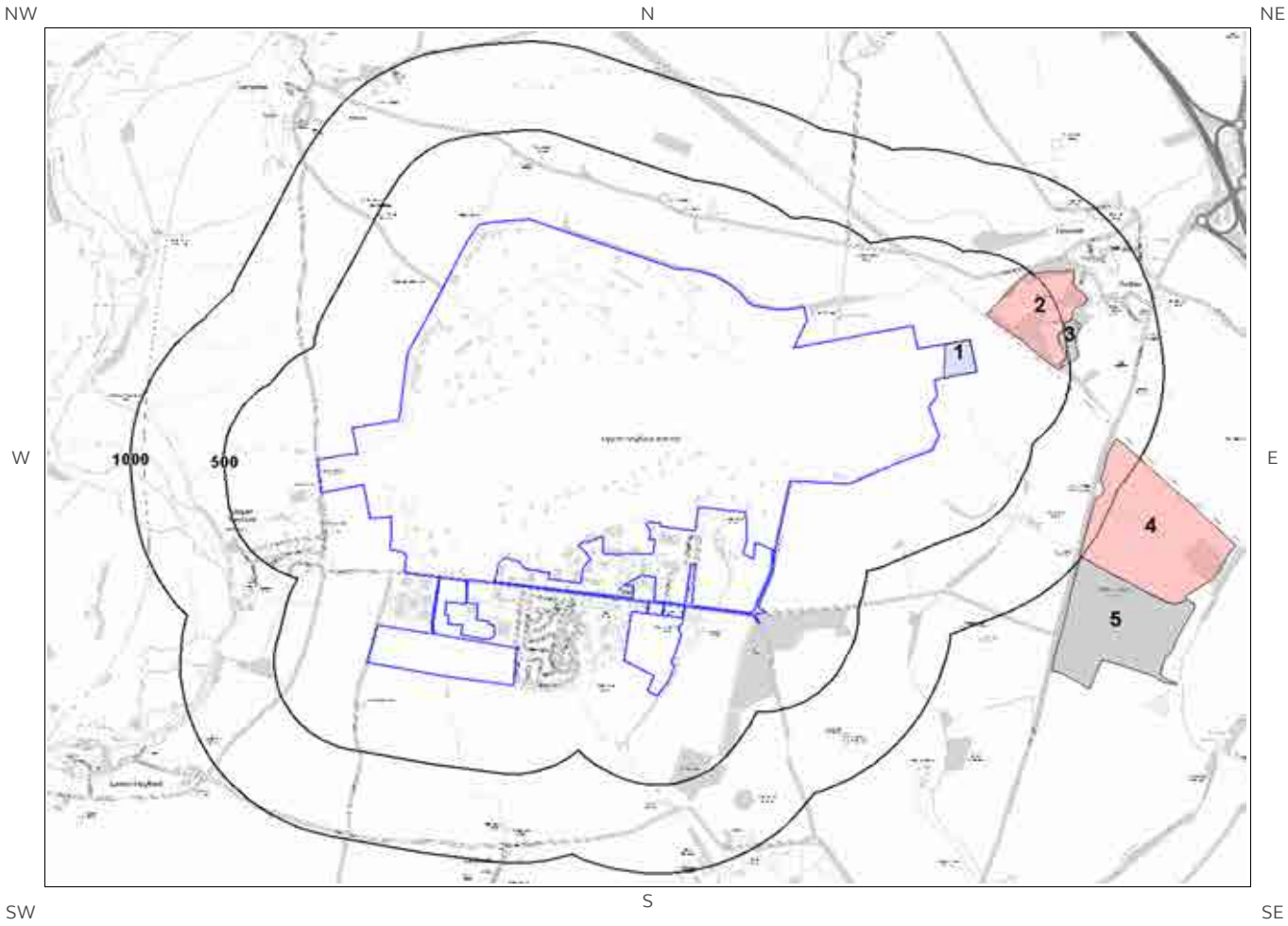
ID	Distance (m)	Direction	Category Description	Feature Description
13	37.0	NE	FAULT	Normal fault, inferred; crossmarks on downthrow side
14	297.0	N	FAULT	Normal fault, inferred; crossmarks on downthrow side

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



Ground Workings Legend

Site Outline

500
1000
Search Buffers (m)

Made Ground (undivided)

Worked Ground (undivided)

Infilled Ground

Disturbed Ground (undivided)

Landscaped Ground (undivided)

Reclaimed Ground

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: 218

2.1.1 Artificial/ Made Ground

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

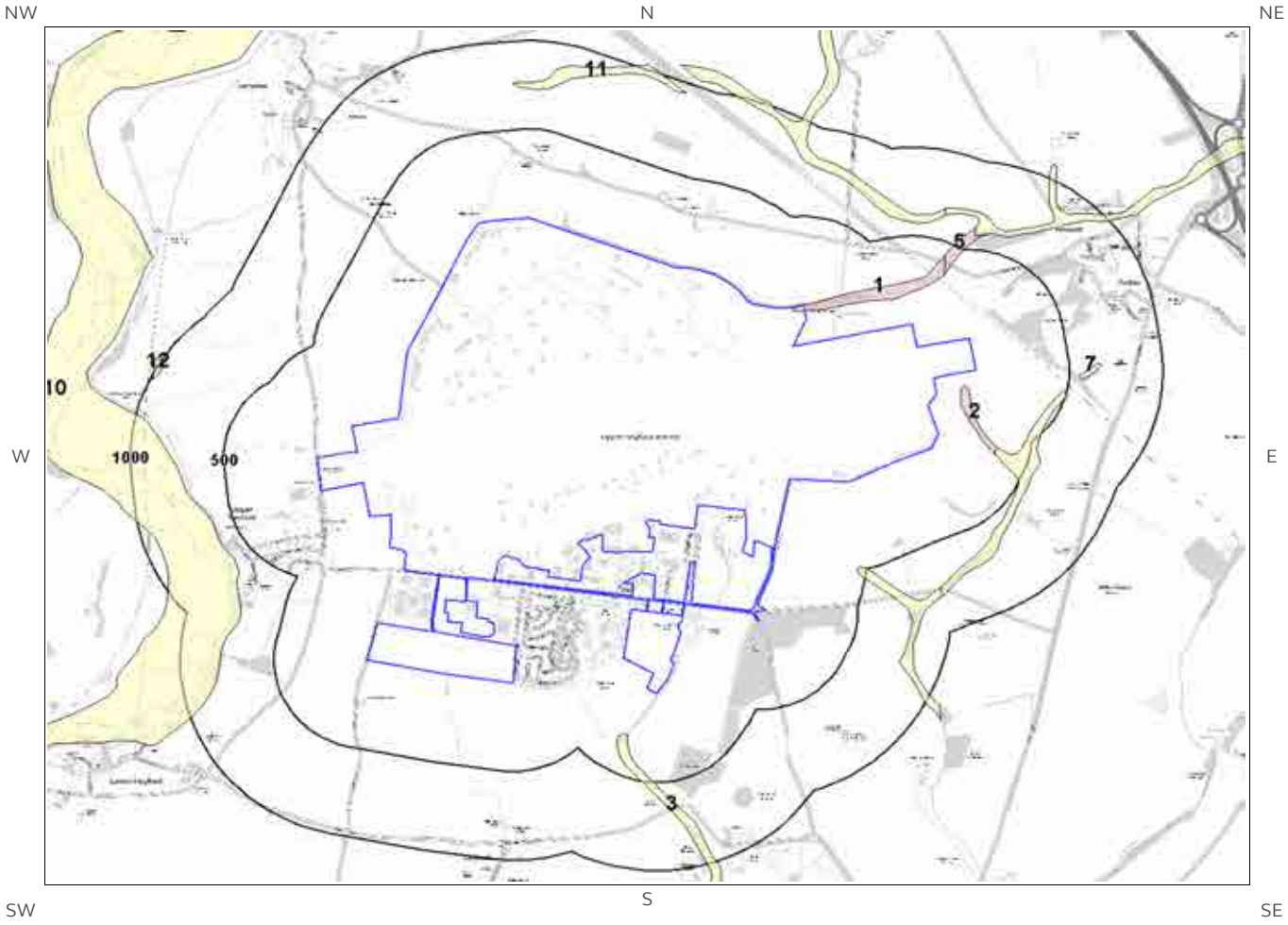
ID	Distance (m)	Direction	LEX Code	Description	Rock Description
1	0.0	On Site	LSGR-ARTGR	LANDSCAPED GROUND (UNDIVIDED)	ARTIFICIALLY MODIFIED GROUND
2	163.0	NE	WMGR-ARTDP	INFILLED GROUND	ARTIFICIAL DEPOSIT
3	446.0	E	WGR-VOID	WORKED GROUND (UNDIVIDED)	VOID

2.1.2 Permeability of Artificial Ground

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

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

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



Ground Workings Legend

Site Outline

500
1000
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	HEAD-XCZSV	HEAD	CLAY, SILT, SAND AND GRAVEL
2	76.0	S	HEAD-XCZSV	HEAD	CLAY, SILT, SAND AND GRAVEL
3	278.0	SW	ALV-XCZSV	ALLUVIUM	CLAY, SILT, SAND AND GRAVEL
4	316.0	E	ALV-XCZSV	ALLUVIUM	CLAY, SILT, SAND AND GRAVEL
5	332.0	NE	HEAD-XCZSV	HEAD	CLAY, SILT, SAND AND GRAVEL
6	452.0	E	ALV-XCZSV	ALLUVIUM	CLAY, SILT, 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	Mixed	High	Very Low

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.

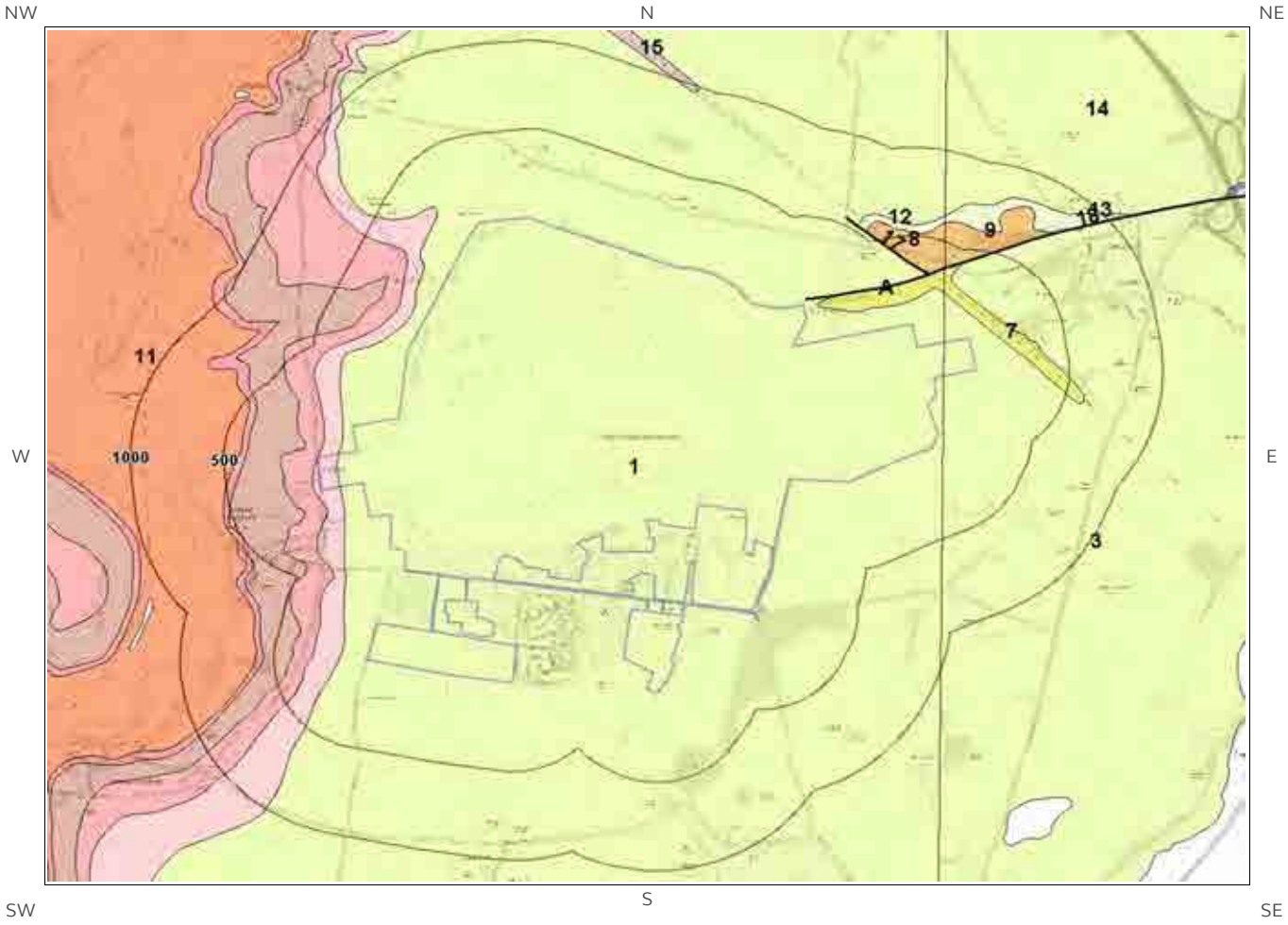
This Geology shows the main components as discrete layers, there are: Artificial/ Made Ground, Superficial/ Drift Geology and Landslips. These are all displayed with the BGS Lexicon code for the rock unit and BGS sheet number. Not all of the main geological components have nationwide coverage.

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 Faults Map (1:50,000 scale)



Ground Workings Legend

Site Outline

500
1000
Search Buffers (m)

2.3 Bedrock, Solid Geology & Faults

The following geological information represented on the mapping is derived from 1:50,000 scale BGS Geological mapping, Sheet No: 218

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	WHL-LMST	WHITE LIMESTONE FORMATION - LIMESTONE	BATHONIAN
2	0.0	On Site	HYSA-SDST	HORSEHAY SAND FORMATION - SANDSTONE	BAJOCIAN
3	0.0	On Site	WHL-LMST	WHITE LIMESTONE FORMATION - LIMESTONE	BATHONIAN
4	2.0	NW	NS-SDLI	NORTHAMPTON SAND FORMATION - SANDSTONE, LIMESTONE AND IRONSTONE	AALENIAN
5A	72.0	E	RLD-MDST	RUTLAND FORMATION - MUDSTONE	BAJOCIAN
6	91.0	NW	WHM-MDST	WHITBY MUDSTONE FORMATION - MUDSTONE	TOARCIAN
7	108.0	NE	RLD-MDST	RUTLAND FORMATION - MUDSTONE	BAJOCIAN
8	297.0	N	FMB-LMST	FOREST MARBLE FORMATION - LIMESTONE	BATHONIAN
9	361.0	NE	FMB-LMST	FOREST MARBLE FORMATION - LIMESTONE	BATHONIAN
10	373.0	W	MRB-FLIR	MARLSTONE ROCK FORMATION - FERRUGINOUS LIMESTONE AND IRONSTONE	PLIENSBACHIAN
11	410.0	W	DYS-SIMD	DYRHAM FORMATION - SILTSTONE AND MUDSTONE, INTERBEDDED	PLIENSBACHIAN

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	Low
0.0	On Site	Fracture	Very High	Low
0.0	On Site	Intergranular	High	High
0.0	On Site	Fracture	Very High	Very High
2.0	NW	Mixed	High	Moderate

2.3.3 Faults

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

ID	Distance	Direction	Category Description	Feature Description
16A	34.0	N	FAULT	Fault, inferred
17	297.0	N	FAULT	Fault, inferred
18	361.0	NE	FAULT	Fault, inferred

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

This Geology shows the main components as discrete layers, these are: Bedrock/Solid Geology and linear features such as Faults. These are all displayed with the BGS Lexicon code for the rock unit and BGS sheet number. Not all of the main geological components have 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 in a Radon Affected Area, as between 1 and 3% of properties are above the Action Level.

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.

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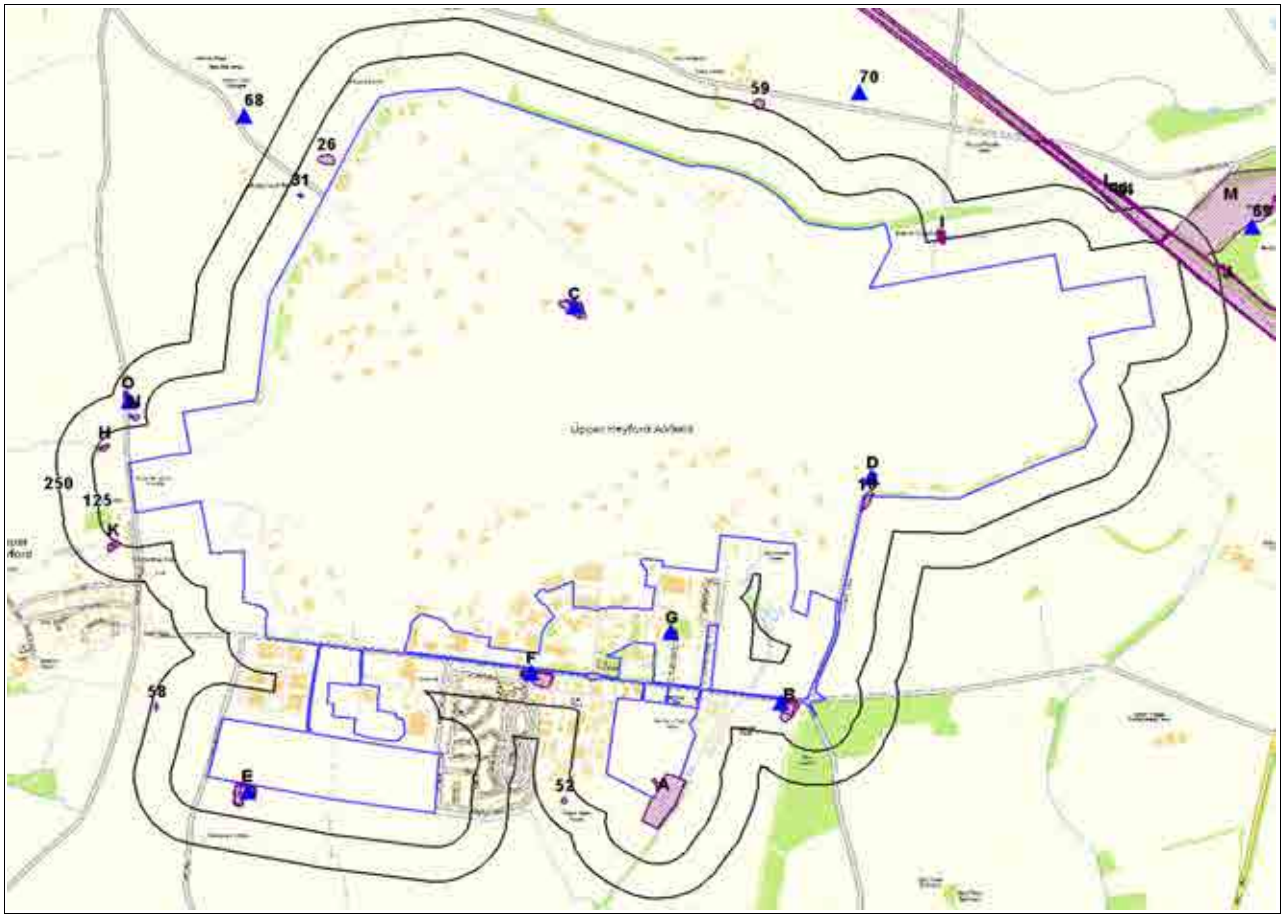
4 Ground Workings Map

NW N NE

W E

SW S SE



Ground Workings Legend

Site Outline

125
250
Search Buffers (m)

Historic Surface Ground Workings

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
1A	0.0	On Site	451680 225314	Sewage Works	1992
2A	0.0	On Site	451680 225314	Sewage Works	1980
3B	0.0	On Site	452112 225641	Unspecified Quarry	1950
4B	0.0	On Site	452091 225668	Unspecified Quarry	1898
5B	0.0	On Site	452090 225661	Sand Pit	1880
6C	0.0	On Site	451366 227098	Unspecified Quarry	1923
7C	0.0	On Site	451374 227109	Unspecified Quarry	1898
8C	0.0	On Site	451374 227109	Unspecified Pit	1920
9C	0.0	On Site	451381 227085	Unspecified Pit	1880
10	0.0	On Site	452381 226403	Unspecified Pit	1880
11D	0.0	On Site	452395 226487	Unspecified Pit	1923
12D	0.0	On Site	452399 226490	Unspecified Quarry	1898
13D	0.0	On Site	452399 226490	Unspecified Pit	1920
14D	0.0	On Site	452397 226493	Unspecified Pit	1950
15E	1.0	S	450250 225350	Unspecified Quarry	1898
16E	2.0	S	450241 225339	Unspecified Quarry	1950
17F	4.0	S	451219 225775	Unspecified Quarry	1898
18E	4.0	S	450260 225355	Unspecified Pit	1880
19E	4.0	S	450238 225337	Unspecified Quarry	1923
20B	5.0	S	452109 225649	Unspecified Quarry	1920
21F	8.0	S	451246 225757	Unspecified Old Quarry	1920

ID	Distance (m)	Direction	NGR	Use	Date
22B	8.0	S	452108 225647	Unspecified Quarry	1923
23F	8.0	S	451210 225776	Unspecified Pit	1880
24E	9.0	S	450238 225333	Unspecified Quarry	1920
25F	9.0	S	451241 225757	Unspecified Old Quarry	1923
26	20.0	NW	450521 227643	Unspecified Quarry	1880
27G	55.0	NE	451705 225922	Unspecified Pit	1923
28G	60.0	NE	451710 225925	Unspecified Pit	1880
29G	61.0	NE	451708 225931	Unspecified Pit	1920
30G	61.0	NE	451708 225931	Unspecified Quarry	1898
31	63.0	NW	450433 227512	Unspecified Pit	1880
32H	89.0	NW	449759 226597	Unspecified Ground Workings	1950
33H	91.0	NW	449756 226598	Unspecified Ground Workings	1898
34I	108.0	N	452633 227356	Pond	1923
35I	113.0	N	452634 227359	Pond	1880
36I	115.0	N	452637 227364	Pond	1980
37I	115.0	N	452637 227364	Pond	1992
38I	116.0	N	452635 227364	Pond	1920
39I	116.0	N	452635 227364	Pond	1898
40K	117.0	SW	449789 226241	Sewage Works	1977
41	119.0	NE	453161 227554	Cuttings	1923
42J	120.0	NE	453724 227067	Cuttings	1950
43I	123.0	N	452625 227370	Pond	1950
44	124.0	NE	453483 227296	Cuttings	1920
45J	126.0	NE	453664 227140	Cuttings	1992
46J	126.0	NE	453664 227140	Cuttings	1980
47L	132.0	N	453180 227528	Cuttings	1950
48K	135.0	SW	449791 226242	Sewage Tank	1977
49L	139.0	N	453187 227532	Cuttings	1980
50L	139.0	N	453187 227532	Cuttings	1992

ID	Distance (m)	Direction	NGR	Use	Date
51N	148.0	N	449860 226708	Unspecified Pit	1880
52	166.0	SW	451338 225316	Unspecified Pit	1880
53M	180.0	NE	453661 227454	Refuse Heap	1992
54M	180.0	NE	453661 227454	Refuse Heap	1980
55N	185.0	W	449838 226770	Unspecified Old Quarry	1923
56O	185.0	W	449839 226775	Unspecified Old Quarry	1950
57O	191.0	W	449833 226777	Unspecified Old Quarry	1920
58	227.0	W	449936 225655	Refuse Heap	1880
59	244.0	N	452008 227844	Pond	1923

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.

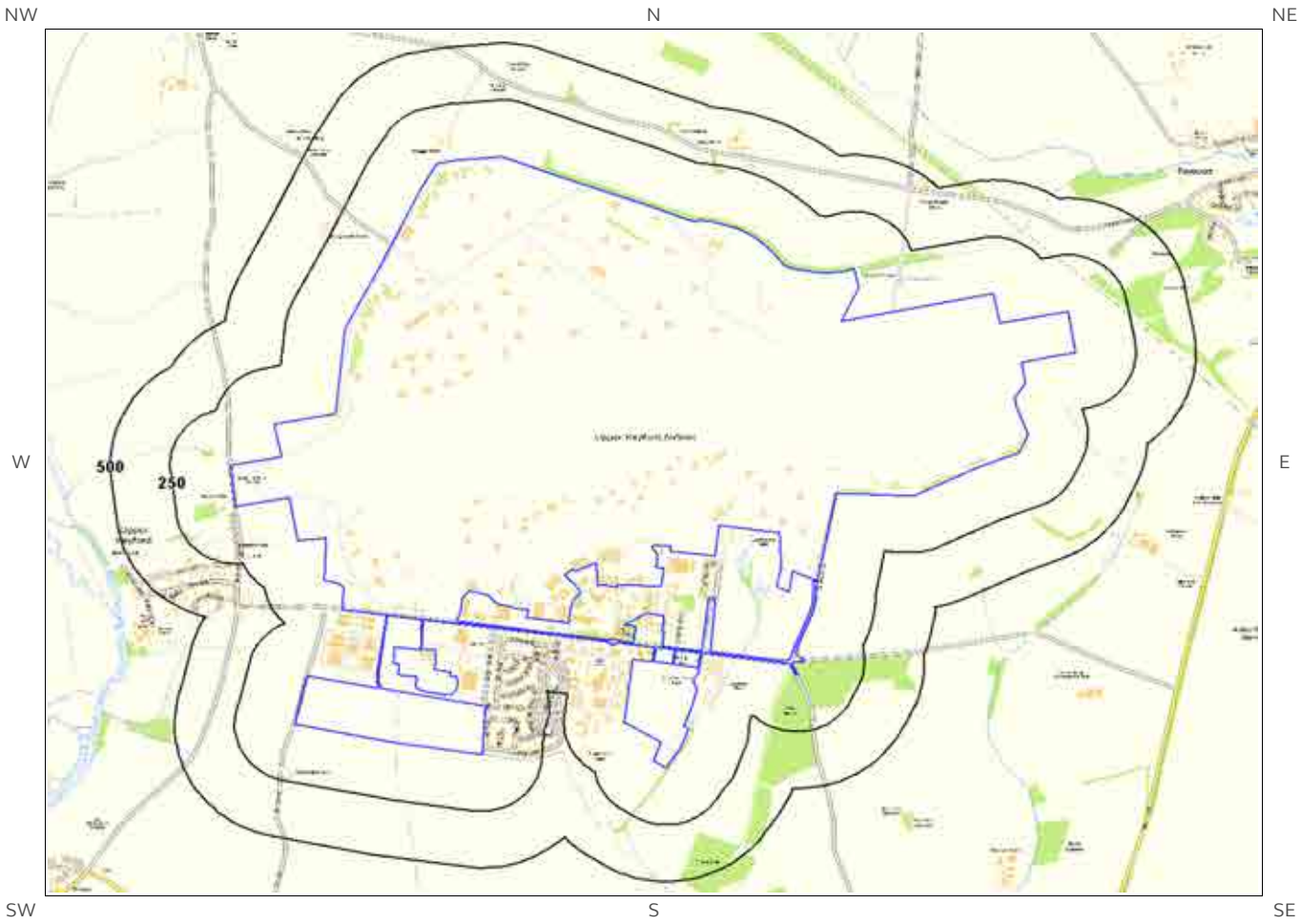
Are there any BGS Current Ground Workings within 1000m of the study site boundary? Yes

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

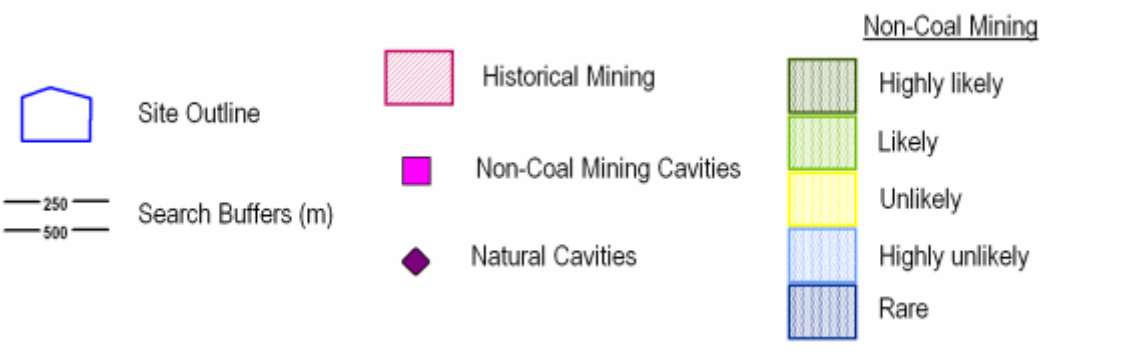
ID	Distance (m)	Direction	NGR	Commodity Produced	Pit Name	Type of working	Status
60C	0.0	On Site	451373 227111	Limestone	North Leys Farm	A surface mineral working. It may be termed Quarry, Sand Pit, Clay Pit or Opencast Coal Site	Ceased
61D	0.0	On Site	452393 226490	Limestone	North Leys Farm	A surface mineral working. It may be termed Quarry, Sand Pit, Clay Pit or Opencast Coal Site	Ceased
62B	12.0	S	452081 225671	Limestone	Leys Farm	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
63F	13.0	S	451224 225780	Limestone	The Tower	A surface mineral working. It may be termed Quarry, Sand Pit, Clay Pit or Opencast Coal Site	Ceased
64E	28.0	S	450250 225347	Limestone	Manor Farm	A surface mineral working. It may be termed Quarry, Sand Pit, Clay Pit or Opencast Coal Site	Ceased
65G	73.0	NE	451705 225928	Limestone	Gorse Covert	A surface mineral working. It may be termed Quarry, Sand Pit, Clay Pit or Opencast Coal Site	Ceased
66O	189.0	W	449842 226764	Mineral	Three Horse Shoes (P.H.)	A surface mineral working. It may be termed Quarry, Sand Pit, Clay Pit or Opencast Coal Site	Ceased
Not shown	372.0	N	450977 228276	Limestone	Troy Farm	A surface mineral working. It may be termed Quarry, Sand Pit, Clay Pit or Opencast Coal Site	Ceased
68	375.0	NW	450237 227801	Sand	Somerton Crossing	A surface mineral working. It may be termed Quarry, Sand Pit, Clay Pit or Opencast Coal Site	Ceased
69	409.0	NE	453700 227400	Limestone	Ardley Woods	A surface mineral working. It may be termed Quarry, Sand Pit, Clay Pit or Opencast Coal Site	Ceased
70	468.0	NE	452352 227887	Limestone	Troy Farm	A surface mineral working. It may be termed Quarry, Sand Pit, Clay Pit or Opencast Coal Site	Ceased
Not shown	553.0	S	451798 224675	Limestone	The Gorse	A surface mineral working. It may be termed Quarry, Sand Pit, Clay Pit or Opencast Coal Site	Ceased
Not shown	604.0	S	451610 224609	Limestone	The Gorse	A surface mineral working. It may be termed Quarry, Sand Pit, Clay Pit or Opencast Coal Site	Ceased
Not shown	816.0	NW	450101 228420	Limestone	Manor House	A surface mineral working. It may be termed Quarry, Sand Pit, Clay Pit or Opencast Coal Site	Ceased
Not shown	821.0	E	454187 227054	Limestone	Manor Farm	A surface mineral working. It may be termed Quarry, Sand Pit, Clay Pit or Opencast Coal Site	Ceased
Not shown	844.0	NW	450077 228435	Limestone	Manor House	A surface mineral working. It may be termed Quarry, Sand Pit, Clay Pit or Opencast Coal Site	Ceased
Not shown	849.0	SE	452026 224445	Limestone	Heyford Lodge	A surface mineral working. It may be termed Quarry, Sand Pit, Clay Pit or Opencast Coal Site	Ceased
Not shown	867.0	S	450563 224441	Sand & Gravel	Horse & Groom (P.H.)	A surface mineral working. It may be termed Quarry, Sand Pit, Clay Pit or Opencast Coal Site	Ceased
Not shown	874.0	NW	450062 228463	Limestone	Manor House	A surface mineral working. It may be termed Quarry, Sand Pit, Clay Pit or Opencast Coal Site	Ceased
Not shown	919.0	NW	450027 228492	Limestone	Manor House	A surface mineral working. It may be termed Quarry, Sand Pit, Clay Pit or Opencast Coal Site	Ceased
Not shown	999.0	NW	449975 228553	Limestone	Manor House	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



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? 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 Peter Brett Associates natural cavities database.

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

Database searched and no data found.

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

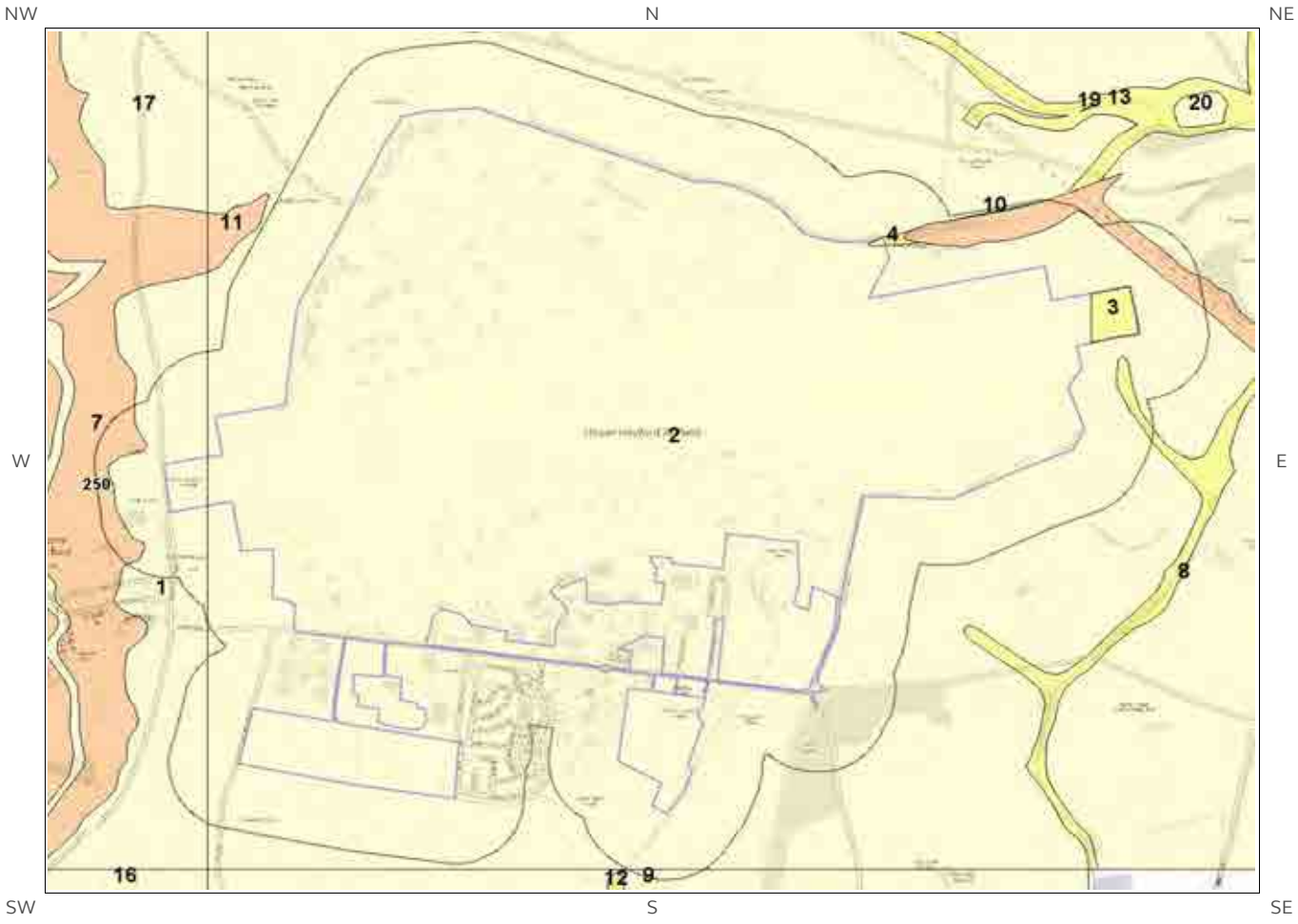
This dataset provides information on Kaolin and Ball Clay mining from relevant mining records.

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

Database searched and no data found.

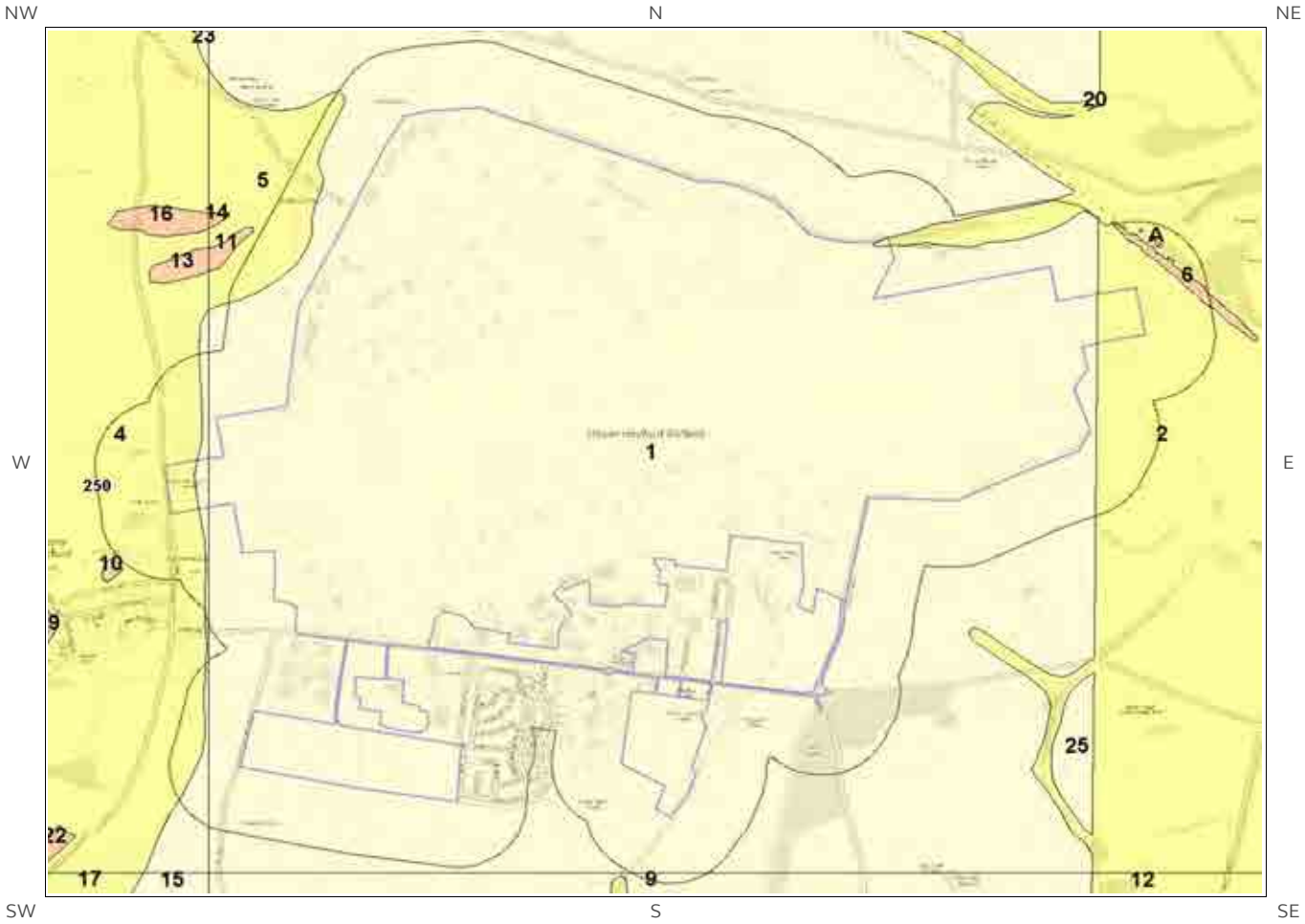
6 Natural Ground Subsidence

6.1 Shrink-Swell Clay Map



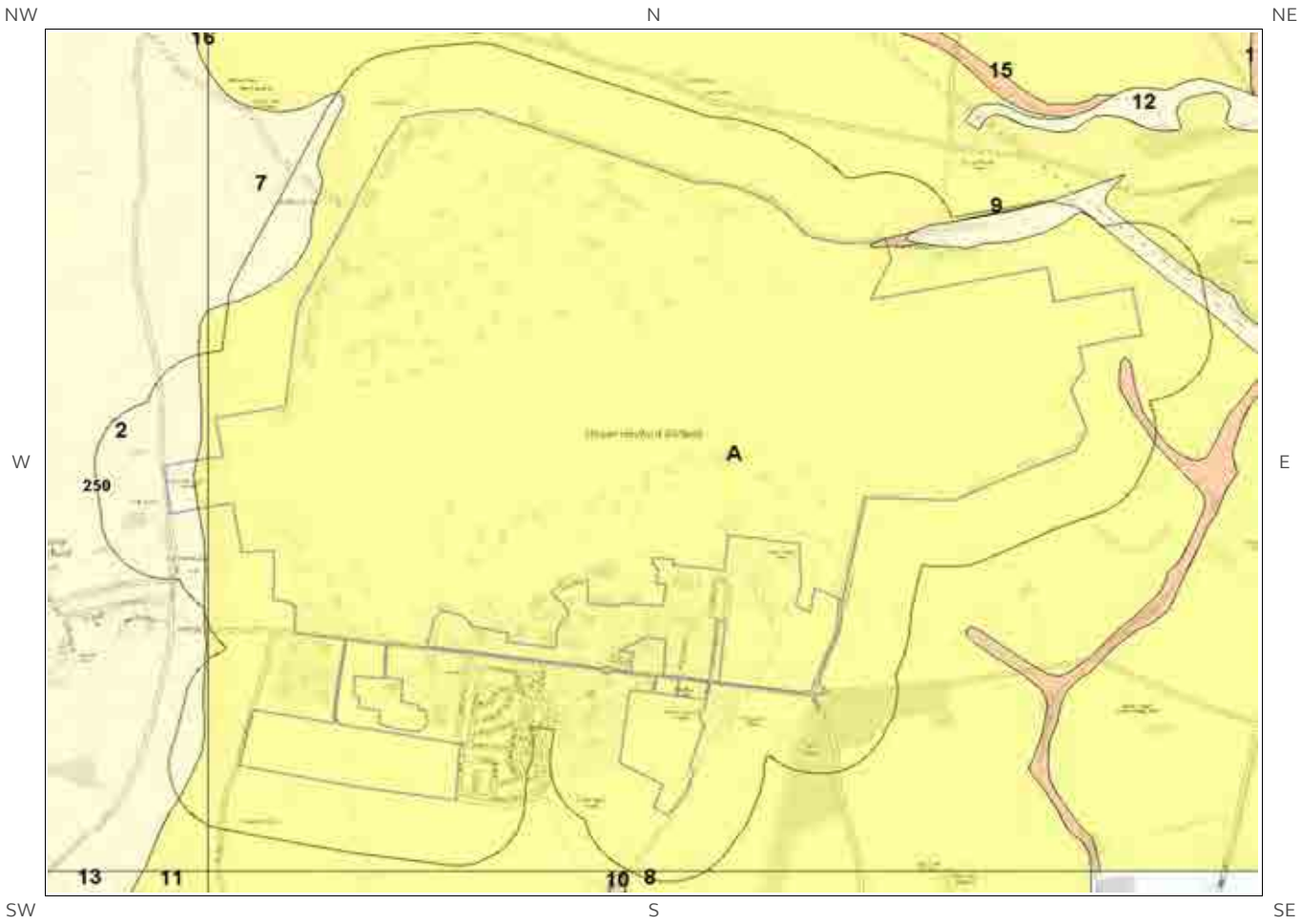
Shrink Swell Clay Legend

6.2 Landslides Map



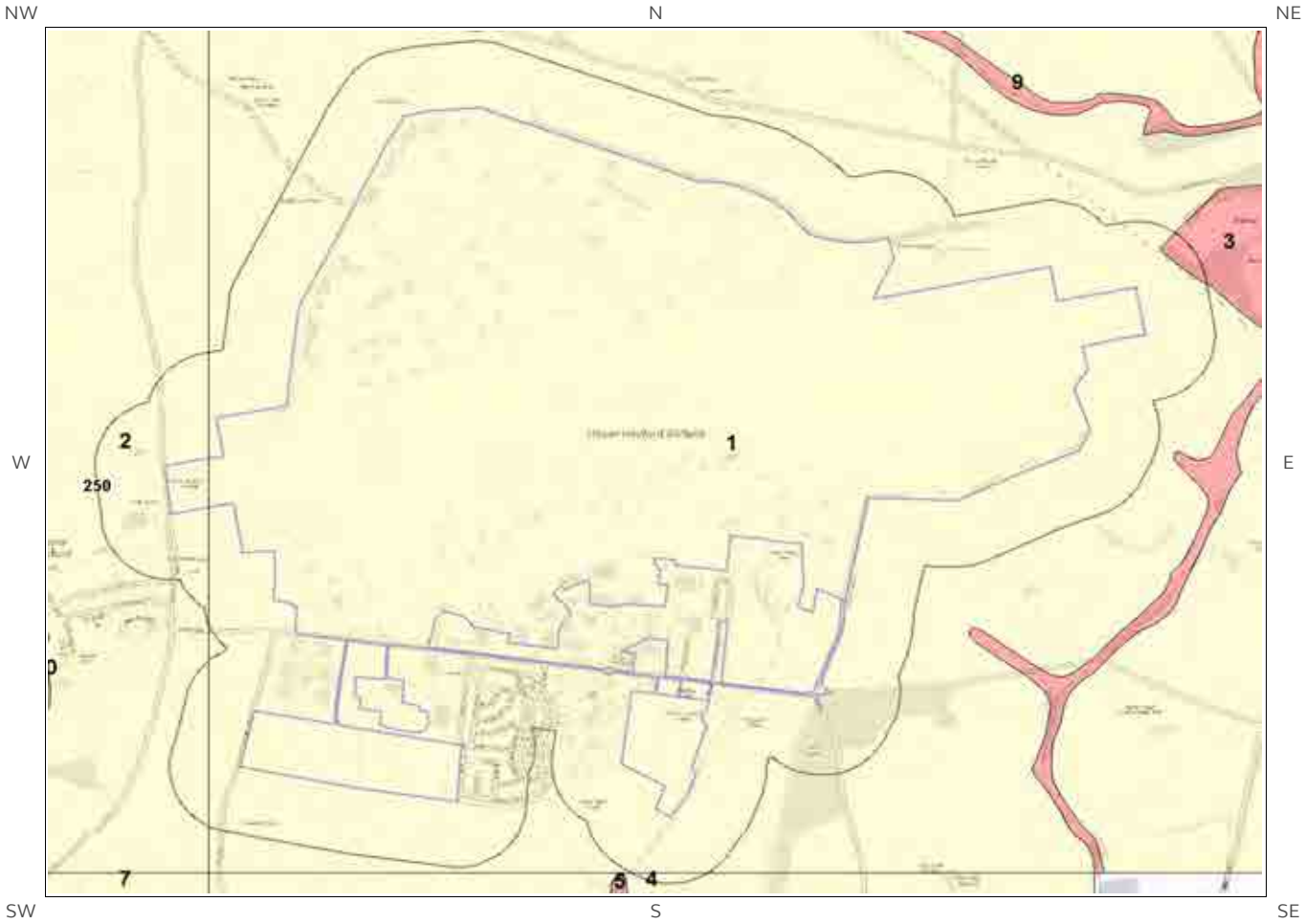
Landslides Legend

6.3 Ground Dissolution of Soluble Rocks Map



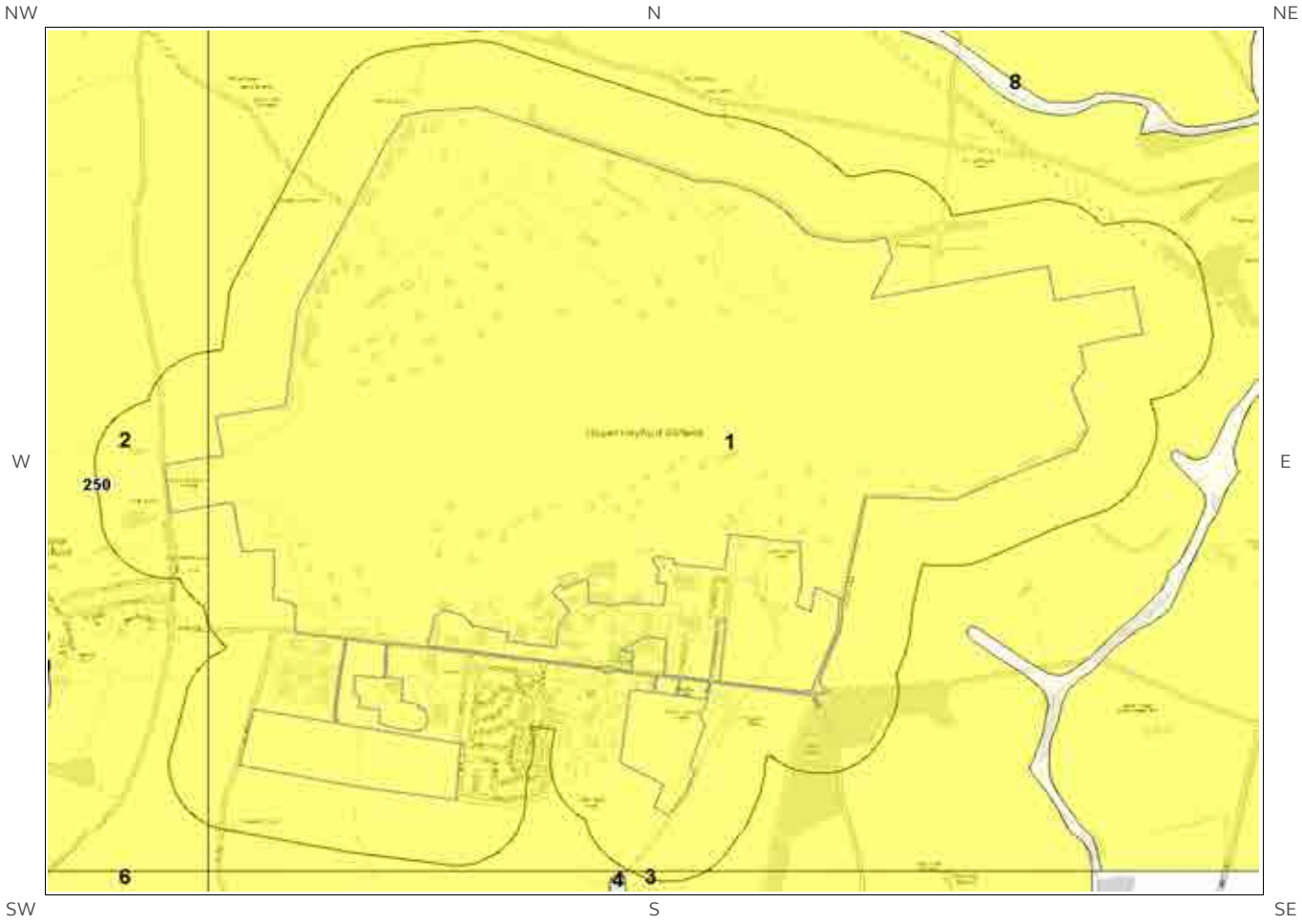
Ground Dissolution
Soluble Rocks Legend

6.4 Compressible Deposits Map



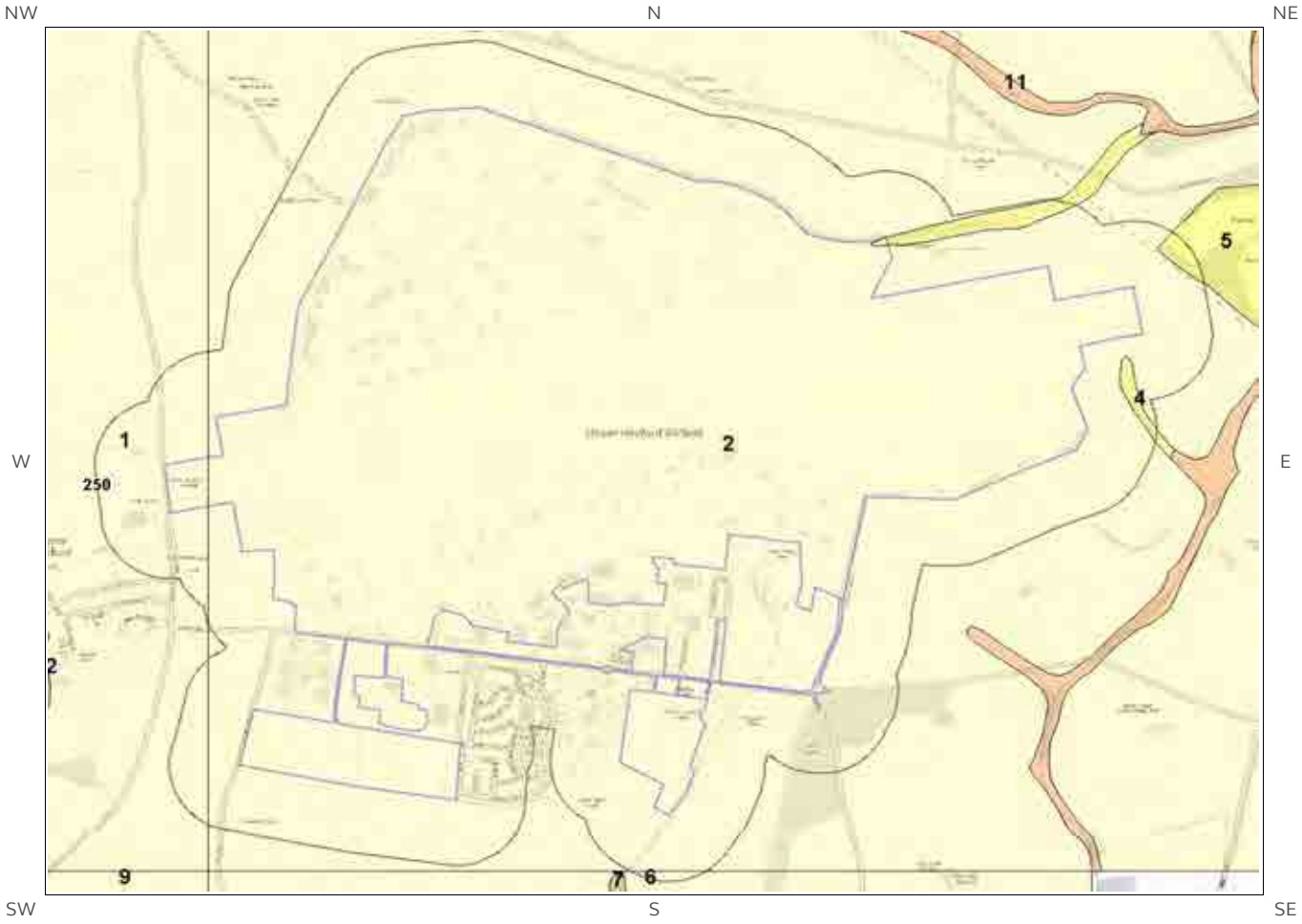
Compressible Deposits Legend

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? Low

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	Negligible	Ground conditions predominantly non-plastic. No special actions required to avoid problems due to shrink-swell clays. No special ground investigation required, and increased construction costs or increased financial risks are unlikely likely due to potential problems with shrink-swell clays.
2	0.0	On Site	Negligible	Ground conditions predominantly non-plastic. No special actions required to avoid problems due to shrink-swell clays. No special ground investigation required, and increased construction costs or increased financial risks are unlikely likely due to potential problems with shrink-swell clays.
3	0.0	On Site	Very Low	Ground conditions predominantly low plasticity. No special actions required to avoid problems due to shrink-swell clays. No special ground investigation required, and increased construction costs or increased financial risks are unlikely due to potential problems with shrink-swell clays.
4	0.0	On Site	Very Low	Ground conditions predominantly low plasticity. No special actions required to avoid problems due to shrink-swell clays. No special ground investigation required, and increased construction costs or increased financial risks are unlikely due to potential problems with shrink-swell clays.

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

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	Negligible	No indicators for slope instability identified. No special actions required to avoid problems due to landslides. No special ground investigation required and increased construction costs or increased financial risks are unlikely due to potential problems with landslides.
2	0.0	On Site	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.
3	0.0	On Site	Negligible	No indicators for slope instability identified. 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.
4	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.

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	Very Low	Significant soluble rocks are present. Problems unlikely except with considerable surface or subsurface water flow. No special actions required to avoid problems due to soluble rocks. No special ground investigation required or increased construction costs are likely. An increase in financial risk due to potential problems with soluble rocks is unlikely.
2	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.
3A	0.0	On Site	Very Low	Significant soluble rocks are present. Problems unlikely except with considerable surface or subsurface water flow. No special actions required to avoid problems due to soluble rocks. No special ground investigation required or increased construction costs are likely. An increase in financial risk due to potential problems with soluble rocks is unlikely.

ID	Distance (m)	Direction	Hazard Rating	Details
4A	0.0	On Site	Low	Significant soluble rocks are present. Low possibility of subsidence occurring naturally, but may be possible in adverse conditions such as high surface or subsurface water flow. Consider implications for stability when changes to drainage or new construction are planned. For new build - site investigation should consider potential for dissolution problems on the site and its surroundings. Care should be taken with local drainage into the bedrock. Some possibility groundwater pollution. For existing property - possible increase in insurance risk due to 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.
2	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.
2	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.

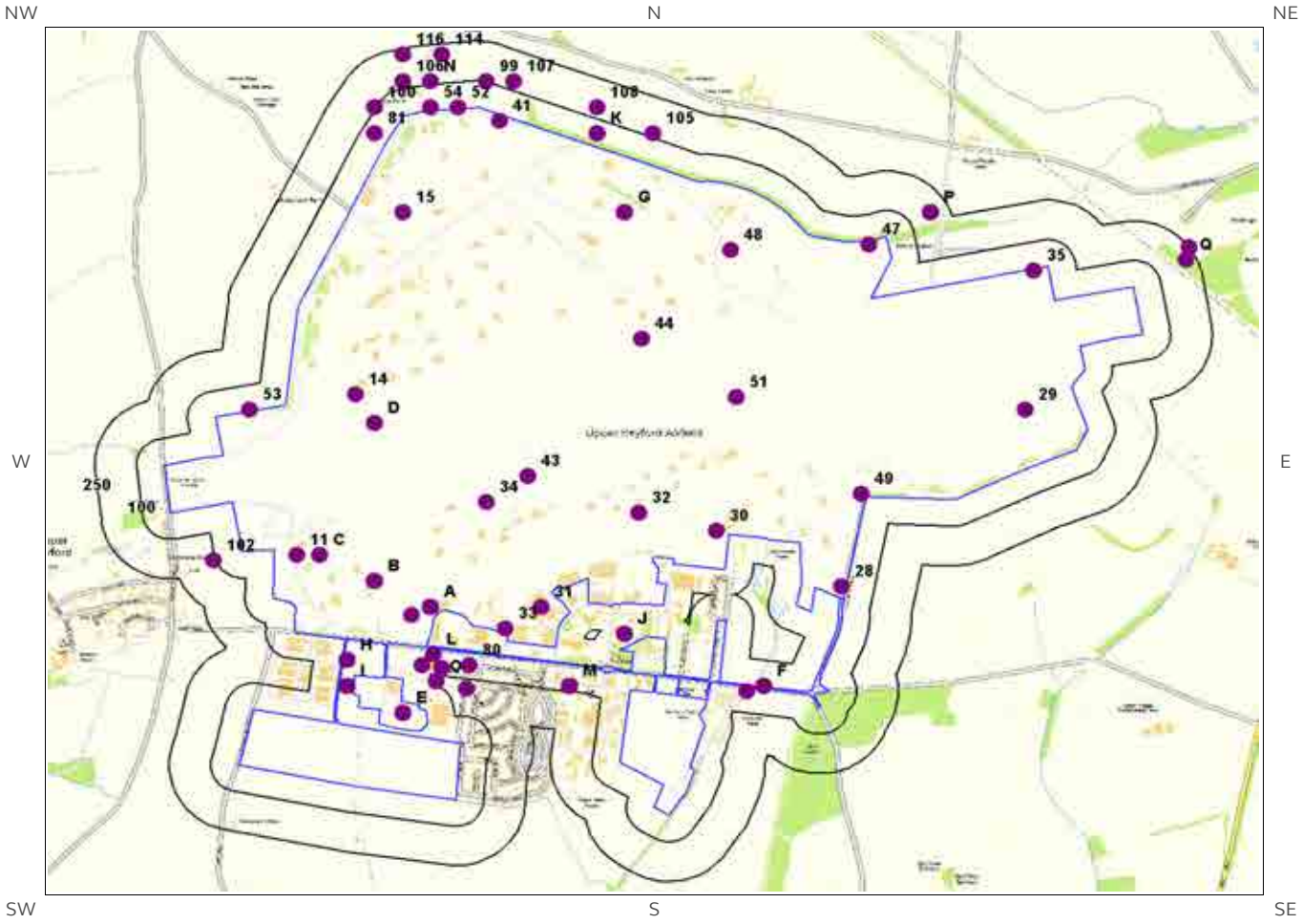
6.6 Running Sands

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.
2	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.

ID	Distance (m)	Direction	Hazard Rating	Details
3	0.0	On Site	Very Low	Very low potential for running sand problems if water table rises or if sandy strata are exposed to water. No special actions required, to avoid problems due to running sand. No special ground investigation required, and increased construction costs or increased financial risks are unlikely due to potential problems with running sand.

7 Borehole Records Map



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: 117

ID	Distance (m)	Direction	NGR	BGS Reference	Drilled Length	Borehole Name
1E	0.0	On Site	450700 225600	SP52NW174	1.0	UPPER HEYFORD RAF COMBAT READINESS TP3
2A	0.0	On Site	450800 226000	SP52NW195	0.0	RAF UPPER HEYFORD G/0245 TP 8
3A	0.0	On Site	450800 226000	SP52NW196	2.0	RAF UPPER HEYFORD G/0245 TP 9
4A	0.0	On Site	450800 226000	SP52NW193	1.0	RAF UPPER HEYFORD G/0245 TP 6
5A	0.0	On Site	450800 226000	SP52NW189	2.0	RAF UPPER HEYFORD G/0245 TP 2
6B	0.0	On Site	450600 226100	SP52NW201	1.0	RAF UPPER HEYFORD G/0259 TP 4
7B	0.0	On Site	450600 226100	SP52NW200	4.0	RAF UPPER HEYFORD G/0259 TP 3
8B	0.0	On Site	450600 226100	SP52NW199	3.0	RAF UPPER HEYFORD G/0259 TP 2
9C	0.0	On Site	450400 226200	SP52NW133	2.0	R.A.F. UPPER HEYFORD DEB FACILITY TP1
10C	0.0	On Site	450400 226200	SP52NW134	1.0	R.A.F. UPPER HEYFORD DEB FACILITY TP2
11	0.0	On Site	450320 226200	SP52NW278	1.5	RAF UPPER HEYFORD OXFORDSHIRE 60
12D	0.0	On Site	450600 226700	SP52NW175	2.0	UPPER HEYFORD RAF COMBAT REPAIR EQP TP1
13D	0.0	On Site	450600 226700	SP52NW176	2.0	UPPER HEYFORD RAF COMBAT REPAIR EQP TP2
14	0.0	On Site	450530 226810	SP52NW279	1.35	RAF UPPER HEYFORD OXFORDSHIRE 63
15	0.0	On Site	450700 227500	SP52NW105	0.0	UPPER HEYFORD R.A.F.
16E	0.0	On Site	450700 225600	SP52NW173	1.0	UPPER HEYFORD RAF COMBAT READINESS TP2
17B	0.0	On Site	450600 226100	SP52NW198	2.0	RAF UPPER HEYFORD G/0259 TP 1
18B	0.0	On Site	450600 226100	SP52NW197	10.0	RAF UPPER HEYFORD G/0259 1
19A	0.0	On Site	450730 225970	SP52NW277	0.85	RAF UPPER HEYFORD OXFORDSHIRE 52
20A	0.0	On Site	450800 226000	SP52NW192	0.0	RAF UPPER HEYFORD G/0245 TP 5
21A	0.0	On Site	450800 226000	SP52NW188	1.0	RAF UPPER HEYFORD G/0245

ID	Distance (m)	Direction	NGR	BGS Reference	Drilled Length	Borehole Name
22A	0.0	On Site	450800 226000	SP52NW190	0.0	RAF UPPER HEYFORD G/0245 TP 3
23E	0.0	On Site	450700 225600	SP52NW172	1.0	UPPER HEYFORD RAF COMBAT READINESS TP1
24A	0.0	On Site	450800 226000	SP52NW194	2.0	RAF UPPER HEYFORD G/0245 TP 7
25A	0.0	On Site	450800 226000	SP52NW191	0.0	RAF UPPER HEYFORD G/0245 TP 4
26F	0.0	On Site	452000 225700	SP52NW207	18.29	RAF UPPER HEYFORD OXON 218/33C
27F	0.0	On Site	452000 225700	SP52NW258	19.81	UPPER HEYFORD AERODROME
28	0.0	On Site	452280 226080	SP52NW273	1.51	RAF UPPER HEYFORD OXFORDSHIRE 37
29	0.0	On Site	452940 226750	SP52NW271	1.11	RAF UPPER HEYFORD OXFORDSHIRE 28
30	0.0	On Site	451830 226290	SP52NW274	1.47	RAF UPPER HEYFORD OXFORDSHIRE 42
31	0.0	On Site	451200 226000	SP52NW89	1.0	RAF UPPER HEYFORD GRAND UNION TOWER
32	0.0	On Site	451550 226360	SP52NW275	1.21	RAF UPPER HEYFORD OXFORDSHIRE 45
33	0.0	On Site	451070 225920	SP52NW17	74.67	UPPER HEYFORD AERODROME
34	0.0	On Site	451000 226400	SP52NW116/A-C	10.0	R.A.F. UPPER HEYFORD BHS2-4
35	0.0	On Site	452970 227280	SP52NW270	1.5	RAF UPPER HEYFORD OXFORDSHIRE 24
36G	0.0	On Site	451500 227500	SP52NW183	2.0	UPPER HEYFORD RAF STOREAGE W/HSE TP7
37G	0.0	On Site	451500 227500	SP52NW177	2.0	UPPER HEYFORD RAF STOREAGE W/HSE TP1
38G	0.0	On Site	451500 227500	SP52NW179	2.0	UPPER HEYFORD RAF STOREAGE W/HSE TP3
39G	0.0	On Site	451500 227500	SP52NW178	2.0	UPPER HEYFORD RAF STOREAGE W/HSE TP2
40G	0.0	On Site	451500 227500	SP52NW181	2.0	UPPER HEYFORD RAF STOREAGE W/HSE TP5
41	0.0	On Site	451050 227850	SP52NW266	1.6	RAF UPPER HEYFORD OXFORDSHIRE 8
42F	0.0	On Site	452000 225700	SP52NW208	19.81	RAF UPPER HEYFORD OXON 218/33D
43	0.0	On Site	451150 226500	SP52NW276	1.25	RAF UPPER HEYFORD OXFORDSHIRE 47
44	0.0	On Site	451560 227020	SP52NW269	1.5	RAF UPPER HEYFORD OXFORDSHIRE 22
45G	0.0	On Site	451500 227500	SP52NW182	2.0	UPPER HEYFORD RAF STOREAGE W/HSE TP6
46G	0.0	On Site	451500 227500	SP52NW180	2.0	UPPER HEYFORD RAF STOREAGE W/HSE TP4
47	0.0	On Site	452380 227380	SP52NW268	1.5	RAF UPPER HEYFORD OXFORDSHIRE 20
48	0.0	On Site	451880 227360	SP52NW267	1.35	RAF UPPER HEYFORD OXFORDSHIRE 16
49	0.0	On Site	452350 226430	SP52NW272	0.9	RAF UPPER HEYFORD OXFORDSHIRE 32
50F	0.0	On Site	452000 225700	SP52NW257	18.29	UPPER HEYFORD AERODROME

ID	Distance (m)	Direction	NGR	BGS Reference	Drilled Length	Borehole Name
51	0.0	On Site	451900 226800	SP52NW117/A-B	2.0	R.A.F. UPPER HEYFORD COMMISSARY ALTERTNS
52	3.0	N	450900 227900	SP52NW92	8.0	UPPER HEYFORD RAF R1
53	3.0	N	450150 226750	SP52NW265	0.2	RAF UPPER HEYFORD OXFORDSHIRE 1
54	12.0	N	450800 227900	SP52NW99	2.0	UPPER HEYFORD RAF 1
55H	14.0	E	450500 225800	SP52NW203	1.0	RAF UPPER HEYFORD G/0399 TP 2
56H	14.0	E	450500 225800	SP52NW202	1.0	RAF UPPER HEYFORD G/0399 TP 1
57H	14.0	E	450500 225800	SP52NW204	1.0	RAF UPPER HEYFORD G/0399 TP 3
58F	22.0	S	451940 225680	SP52NW18	26.82	UPPER HEYFORD AERODROME
59I	25.0	W	450500 225700	SP52NW151	2.0	RAF UPPER HEYFORD COMMISSARY TP2
60I	25.0	W	450500 225700	SP52NW161	8.0	RAF UPPER HEYFORD COMMISSARY BH3
61I	25.0	W	450500 225700	SP52NW152	5.0	RAF UPPER HEYFORD COMMISSARY TP3
62I	25.0	W	450500 225700	SP52NW158	5.0	RAF UPPER HEYFORD COMMISSARY TP7
63I	25.0	W	450500 225700	SP52NW155	0.0	RAF UPPER HEYFORD COMMISSARY TP5
64I	25.0	W	450500 225700	SP52NW153	5.0	RAF UPPER HEYFORD COMMISSARY TP3A
65I	25.0	W	450500 225700	SP52NW163	8.0	RAF UPPER HEYFORD COMMISSARY BH4A
66I	25.0	W	450500 225700	SP52NW159	6.0	RAF UPPER HEYFORD COMMISSARY BH1
67I	25.0	W	450500 225700	SP52NW154	3.0	RAF UPPER HEYFORD COMMISSARY TP4
68I	25.0	W	450500 225700	SP52NW162	3.0	RAF UPPER HEYFORD COMMISSARY BH4
69I	25.0	W	450500 225700	SP52NW157	5.0	RAF UPPER HEYFORD COMMISSARY TP6
70I	25.0	W	450500 225700	SP52NW160	5.0	RAF UPPER HEYFORD COMMISSARY BH2
71I	25.0	W	450500 225700	SP52NW150	2.0	RAF UPPER HEYFORD COMMISSARY TP1
72I	25.0	W	450500 225700	SP52NW156	2.0	RAF UPPER HEYFORD COMMISSARY TP5A
73L	26.0	S	450810 225820	SP52NW288	-1.0	RAF BASE UPPER HEYFORD 5
74J	44.0	NW	451500 225900	SP52NW184	2.0	UPPER HEYFORD G/0004 TP1
75J	44.0	NW	451500 225900	SP52NW185	1.0	UPPER HEYFORD G/0004 TP1
76J	44.0	NW	451500 225900	SP52NW186	1.0	UPPER HEYFORD G/0004 TP1
77J	44.0	NW	451500 225900	SP52NW187	1.0	UPPER HEYFORD G/0004 TP1
78K	45.0	N	451400 227800	SP52NW96	8.0	UPPER HEYFORD RAF R5
79K	45.0	N	451400 227800	SP52NW108	1.0	UPPER HEYFORD R.A.F.

ID	Distance (m)	Direction	NGR	BGS Reference	Drilled Length	Borehole Name
80	50.0	S	450940 225780	SP52NW285	-1.0	RAF BASE UPPER HEYFORD 2
81	51.0	NW	450600 227800	SP52NW93	10.0	UPPER HEYFORD RAF R2
82L	71.0	S	450770 225780	SP52NW289	-1.0	RAF BASE UPPER HEYFORD 6
83L	72.0	S	450840 225770	SP52NW286	-1.0	RAF BASE UPPER HEYFORD 3
84M	83.0	S	451300 225700	SP52NW149	2.0	RAF UPPER HEYFORD BRANCH EXCHANGE PD
85M	83.0	S	451300 225700	SP52NW139	4.0	RAF UPPER HEYFORD BRANCH EXCHANGE BH6
86M	83.0	S	451300 225700	SP52NW143	1.0	RAF UPPER HEYFORD BRANCH EXCHANGE BH10
87M	83.0	S	451300 225700	SP52NW136	3.0	RAF UPPER HEYFORD BRANCH EXCHANGE BH3
88M	83.0	S	451300 225700	SP52NW135	3.0	RAF UPPER HEYFORD BRANCH EXCHANGE BH1
89M	83.0	S	451300 225700	SP52NW145	0.0	RAF UPPER HEYFORD BRANCH EXCHANGE BH12
90M	83.0	S	451300 225700	SP52NW138	1.0	RAF UPPER HEYFORD BRANCH EXCHANGE BH5
91M	83.0	S	451300 225700	SP52NW146	1.0	RAF UPPER HEYFORD BRANCH EXCHANGE PA
92M	83.0	S	451300 225700	SP52NW147	1.0	RAF UPPER HEYFORD BRANCH EXCHANGE PB
93M	83.0	S	451300 225700	SP52NW137	3.0	RAF UPPER HEYFORD BRANCH EXCHANGE BH4
94M	83.0	S	451300 225700	SP52NW141	0.0	RAF UPPER HEYFORD BRANCH EXCHANGE BH8
95M	83.0	S	451300 225700	SP52NW148	2.0	RAF UPPER HEYFORD BRANCH EXCHANGE PC
96M	83.0	S	451300 225700	SP52NW144	1.0	RAF UPPER HEYFORD BRANCH EXCHANGE BH11
97M	83.0	S	451300 225700	SP52NW142	4.0	RAF UPPER HEYFORD BRANCH EXCHANGE BH9
98M	83.0	S	451300 225700	SP52NW140	3.0	RAF UPPER HEYFORD BRANCH EXCHANGE BH7
99	99.0	N	451000 228000	SP52NW107	4.0	UPPER HEYFORD R.A.F.
100	104.0	NW	450600 227900	SP52NW101	0.0	UPPER HEYFORD R.A.F.
101O	105.0	NE	450820 225720	SP52NW287	-1.0	RAF BASE UPPER HEYFORD 4
102	110.0	W	450020 226180	SP52NW254	39.92	UPPER HEYFORD P.S.
103N	111.0	N	450800 228000	SP52NW104	0.0	UPPER HEYFORD R.A.F.
104N	111.0	N	450800 228000	SP52NW103	0.0	UPPER HEYFORD R.A.F.
105	112.0	N	451600 227800	SP52NW97	1.0	UPPER HEYFORD RAF 2
106	127.0	N	450700 228000	SP52NW102	0.0	UPPER HEYFORD R.A.F.
107	133.0	N	451100 228000	SP52NW98	3.0	UPPER HEYFORD RAF 7

ID	Distance (m)	Direction	NGR	BGS Reference	Drilled Length	Borehole Name
108	140.0	N	451400 227900	SP52NW106	0.0	UPPER HEYFORD R.A.F.
109O	141.0	S	450930 225690	SP52NW284	-1.0	RAF BASE UPPER HEYFORD 1
110P	181.0	NE	452600 227500	SP52NW166	2.0	RAF UPPER HEYFORD MISSILE CHECK OUT TP3
111P	181.0	NE	452600 227500	SP52NW165	2.0	RAF UPPER HEYFORD MISSILE CHECK OUT TP2
112P	181.0	NE	452600 227500	SP52NW164	3.0	RAF UPPER HEYFORD MISSILE CHECK OUT TP1
113P	181.0	NE	452600 227500	SP52NW167	2.0	RAF UPPER HEYFORD MISSILE CHECK OUT TP4
114	207.0	N	450840 228100	SP52NW209	18.29	VILLAGE FM SOMERTON
115Q	212.0	NE	453520 227320	SP52NW295	-1.0	CLOSED LANDFILL SITES OXFORDSHIRE ARDLEY RNG29
116	226.0	N	450700 228100	SP52NW94	10.0	UPPER HEYFORD RAF R3
117Q	247.0	NE	453530 227370	SP52NW301	-1.0	CLOSED LANDFILL SITES OXFORDSHIRE ARDLEY NG35

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.

#1E: scans.bgs.ac.uk/sobi_scans/boreholes/336608
#2A: scans.bgs.ac.uk/sobi_scans/boreholes/336629
#3A: scans.bgs.ac.uk/sobi_scans/boreholes/336630
#4A: scans.bgs.ac.uk/sobi_scans/boreholes/336627
#5A: scans.bgs.ac.uk/sobi_scans/boreholes/336623
#6B: scans.bgs.ac.uk/sobi_scans/boreholes/336635
#7B: scans.bgs.ac.uk/sobi_scans/boreholes/336634
#8B: scans.bgs.ac.uk/sobi_scans/boreholes/336633
#9C: scans.bgs.ac.uk/sobi_scans/boreholes/336566
#10C: scans.bgs.ac.uk/sobi_scans/boreholes/336567
#11: scans.bgs.ac.uk/sobi_scans/boreholes/15951667
#12D: scans.bgs.ac.uk/sobi_scans/boreholes/336609
#13D: scans.bgs.ac.uk/sobi_scans/boreholes/336610
#14: scans.bgs.ac.uk/sobi_scans/boreholes/15951668
#15: scans.bgs.ac.uk/sobi_scans/boreholes/336538
#16E: scans.bgs.ac.uk/sobi_scans/boreholes/336607
#17B: scans.bgs.ac.uk/sobi_scans/boreholes/336632
#18B: scans.bgs.ac.uk/sobi_scans/boreholes/336631
#19A: scans.bgs.ac.uk/sobi_scans/boreholes/15951666
#20A: scans.bgs.ac.uk/sobi_scans/boreholes/336626
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Groundsure
LOCATION INTELLIGENCE

8 Estimated Background Soil Chemistry

Records of background estimated soil chemistry within 250m of the study site boundary: 53

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

Distance (m)	Direction	Sample Type	Arsenic (As)	Cadmium (Cd)	Chromium (Cr)	Nickel (Ni)	Lead (Pb)
0.0	On Site	RuralSoil	15 - 25 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<100 mg/kg
0.0	On Site	RuralSoil	<15 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<100 mg/kg
0.0	On Site	RuralSoil	15 - 25 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<100 mg/kg
0.0	On Site	RuralSoil	15 - 25 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<100 mg/kg
0.0	On Site	RuralSoil	<15 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<100 mg/kg
0.0	On Site	RuralSoil	<15 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<100 mg/kg
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0.0	On Site	RuralSoil	15 - 25 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<100 mg/kg
0.0	On Site	RuralSoil	15 - 25 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<100 mg/kg
0.0	On Site	RuralSoil	15 - 25 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<100 mg/kg
0.0	On Site	RuralSoil	15 - 25 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<100 mg/kg
0.0	On Site	RuralSoil	15 - 25 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<100 mg/kg
0.0	On Site	RuralSoil	15 - 25 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<100 mg/kg
0.0	On Site	RuralSoil	15 - 25 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<100 mg/kg
0.0	On Site	RuralSoil	15 - 25 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<100 mg/kg
0.0	On Site	RuralSoil	15 - 25 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<100 mg/kg
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0.0	On Site	RuralSoil	15 - 25 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<100 mg/kg
0.0	On Site	RuralSoil	15 - 25 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<100 mg/kg
0.0	On Site	RuralSoil	15 - 25 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<100 mg/kg
0.0	On Site	RuralSoil	15 - 25 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<100 mg/kg
0.0	On Site	RuralSoil	15 - 25 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<100 mg/kg
0.0	On Site	RuralSoil	15 - 25 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<100 mg/kg
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0.0	On Site	RuralSoil	15 - 25 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<100 mg/kg
0.0	On Site	RuralSoil	15 - 25 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<100 mg/kg
0.0	On Site	RuralSoil	15 - 25 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<100 mg/kg
0.0	On Site	RuralSoil	15 - 25 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<100 mg/kg
0.0	On Site	RuralSoil	15 - 25 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<100 mg/kg
0.0	On Site	RuralSoil	15 - 25 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<100 mg/kg
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0.0	On Site	RuralSoil	15 - 25 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<100 mg/kg
0.0	On Site	RuralSoil	15 - 25 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<100 mg/kg
0.0	On Site	RuralSoil	15 - 25 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<100 mg/kg
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Distance (m)	Direction	Sample Type	Arsenic (As)	Cadmium (Cd)	Chromium (Cr)	Nickel (Ni)	Lead (Pb)
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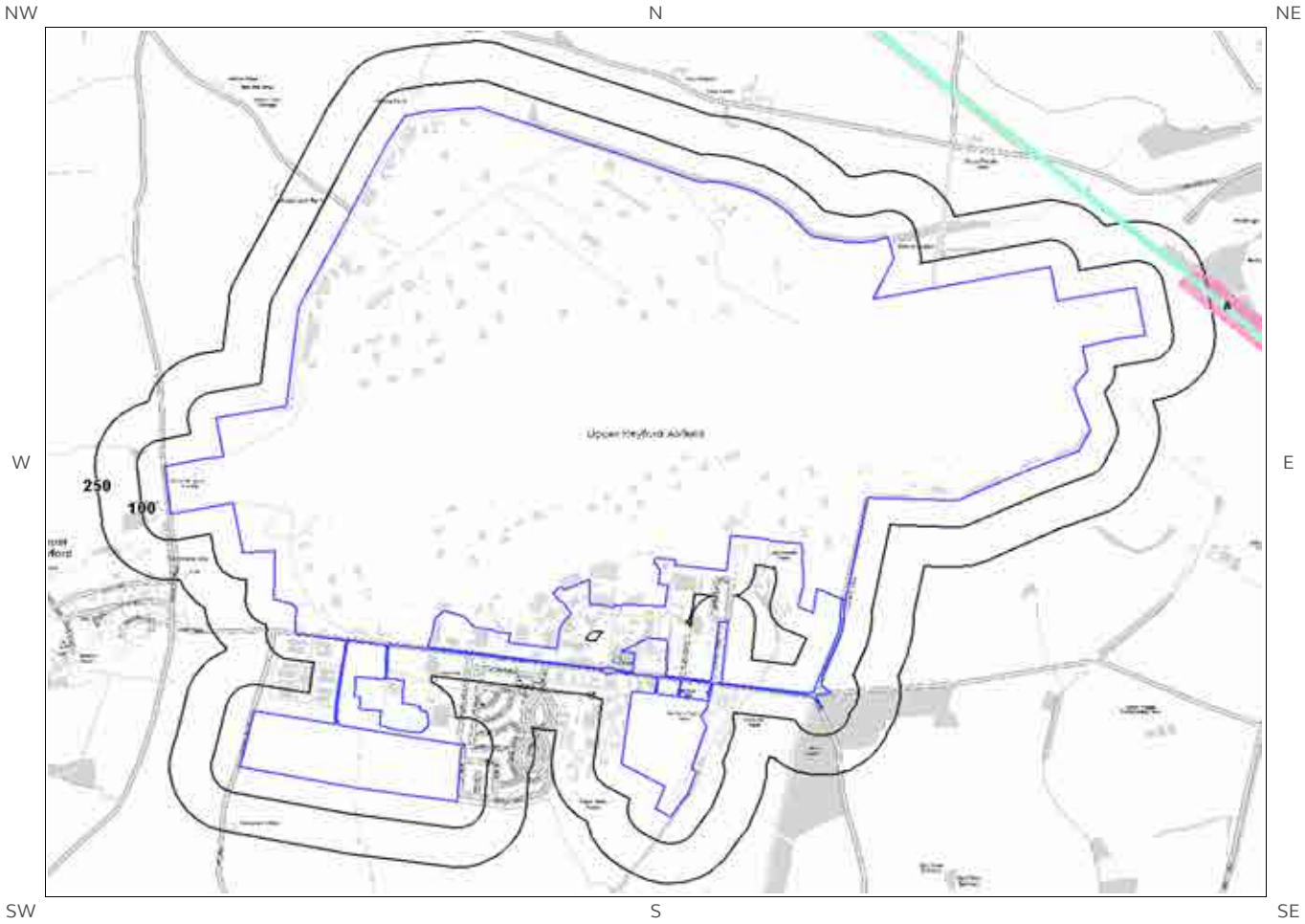
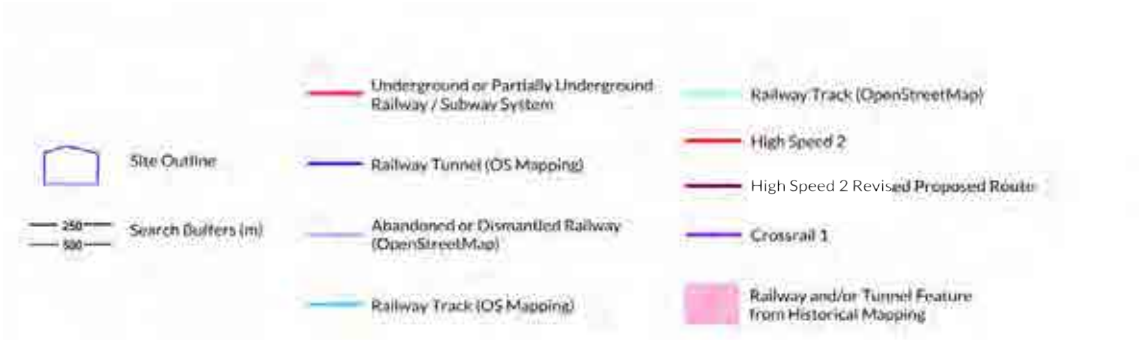
0.0	On Site	RuralSoil	15 - 25 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<100 mg/kg
0.0	On Site	RuralSoil	15 - 25 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<100 mg/kg
0.0	On Site	RuralSoil	15 - 25 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<100 mg/kg
0.0	On Site	RuralSoil	15 - 25 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<100 mg/kg
0.0	On Site	RuralSoil	15 - 25 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<100 mg/kg
2.0	NW	RuralSoil	35 - 45 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<100 mg/kg
6.0	NW	RuralSoil	15 - 25 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<100 mg/kg
8.0	S	RuralSoil	15 - 25 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<100 mg/kg
23.0	W	RuralSoil	35 - 45 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<100 mg/kg
48.0	S	RuralSoil	15 - 25 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<100 mg/kg
48.0	S	RuralSoil	15 - 25 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<100 mg/kg
50.0	E	RuralSoil	15 - 25 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<100 mg/kg

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

9 Railways and Tunnels Map



Railways and Tunnels Legend



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? No

Database searched and no data found.

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

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

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

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

Database searched and no data found.

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

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
1A	152	E	453789 227008	Railway Sidings	1923
2A	152	E	453793 227003	Railway Sidings	1923
3A	155	E	453794 227003	Railway Sidings	1954

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
153	NE	Not given	Multi Track
153	NE	Not given	Multi Track
158	NE	Not given	Multi Track
158	NE	Not given	Multi Track
160	NE	Not given	Rail
160	NE	Not given	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? No

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

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

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

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.

Contact Details

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Fax: 0115 936 3276.
Email:**enquiries@bgs.ac.uk**
Web:**www.bgs.ac.uk**
BGS Geological Hazards Reports and general geological enquiries

British Gypsum

British Gypsum Ltd
East Leake
Loughborough
Leicestershire
LE12 6HX

The Coal Authority

200 Lichfield Lane
Mansfield
Notts NG18 4RG
Tel: 0345 7626 848
DX 716176 Mansfield 5
www.coal.gov.uk

Public Health England

Public information access office
Public Health England, Wellington House
133-155 Waterloo Road, London, SE1 8UG
https://www.gov.uk/government/organisations/public-health-england
Email: **enquiries@phe.gov.uk**
Main switchboard: 020 7654 8000

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Website:**http://www1.getmapping.com/**

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Website:**http://www.peterbrett.com/home**

Standard Terms and Conditions

Groundsure's Terms and Conditions can be viewed online at this link:
https://www.groundsure.com/terms-and-conditions-sept-2016/

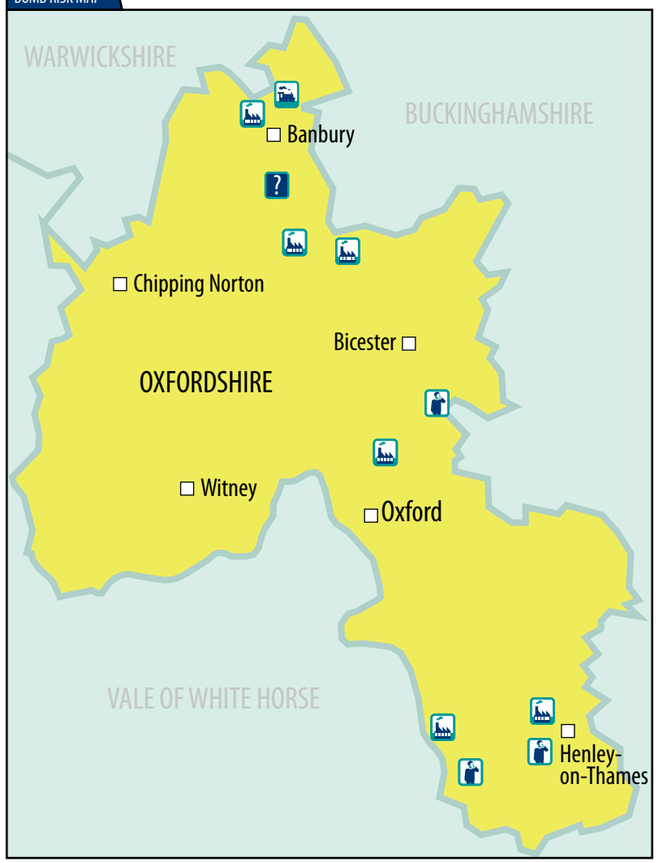
REGIONAL UNEXPLODED BOMB RISK

OXFORDSHIRE

DENSITY OF BOMBS PER BOROUGH

Borough	High explosive	Anti-personnel	Incendiary
Oxford	1	0	1
Banbury	105	0	4
Witney	124	0	4
Bicester	0	0	4
Chipping Norton	187	0	4
Henley on Thames	162	0	4

BOMB RISK MAP



OTHER WWII TARGETS
- military
- transport
- utilities
- industry
- docks
- other

BOMB TONNAGE
- >1000
- >500
- >100
- > 0
- unverified

BOMB RISK
- high
- moderate
- low

The information in this regional UXB risk map is derived from a number of sources and should be read in conjunction with the "Users' Guide" (printed overleaf). Zetica cannot guarantee the accuracy or completeness of the information or data.

This map covers regions of coast with beaches, estuaries and alike. Further consideration of the bomb risk is required in these areas. The often inaccessible nature and changing ground conditions (e.g. movement of silt that may contain ordnance) means that historical bombing records for these areas are often poor or inaccurate and further assessment of the bomb risk may be required as part of a site specific study.

A FOUR-STEP PROCESS

Risk assessment and method statement from a qualified explosive ordnance clearance (EOC) operative.

Surface geophysical survey to allow shallow groundwork.

MAGCONE detects UXBs and obstructions on piling layout to the no-risk depth.

Detected UXBs can be dealt with by our EOC engineers and a Clearance Certificate issued for the site.

BOMB MAP USERS' GUIDE

Sources of information and explanation of bomb risk

Why?

Unexploded bombs (UXB) still present a risk to construction projects long after the end of the Second World War (WWII). UXBs often entered the ground unnoticed at high velocity and penetrated to a depth of several metres. Here they remain – vulnerable to disturbances from construction work. Beyond the depth of shallow excavation work, the greatest risk is to piling, drilling and probing crews. A piling rig could repeatedly hit a UXBs with considerable force before the crew realises an obstruction has been impacted. It could then be up to 72 hours before the detonator activates.

Who?

The responsibility for avoiding UXB risk usually lies with construction companies or house builders particularly those who are redeveloping urban sites. In addition, project engineering or environmental consultants are expected to advise their clients of a site's history. Other interested parties include those organisations whose employees are physically at most risk from intrusive works, normally piling companies, drillers or probing operators.

How?

UXB risk should be assessed for every site, but especially those in known heavily bombed areas or those situated near war-time strategic installations that were priority targets for enemy aircraft, for example, airfields. Zetica's regional bomb risk map is therefore a first point of reference from which the relative, potential abundance of UXBs can be judged. Consultants then advise their clients that an ordnance-risk desk study is required, which they may obtain from external sources. Construction companies or house builders who assess their own risk could choose to come direct to Zetica.

When?

Do not wait for the piling or drilling company to be on site before thinking about UXB risk – it will inevitably cause delays and higher costs. Request the regional bomb risk map from Zetica as soon as a site is being considered, and then use it to help you or your clients to decide if an ordnance-risk desk study is required.

Where?

Maps can be obtained for any county in England, Scotland, Wales or Northern Ireland – or for any London borough. They can help determine the areas that were most heavily bombed – but no part of the country should be considered 100% safe from UXB risk. Even remote rural areas can have a high risk if, for example, they were locations for decoy airfields or beacons that were lit to fool enemy pilots into thinking they had located a burning city that had been successfully hit by others in the raid.

How to use this regional map

This map is designed to give you an indication of the potential risk from UXBs in your area. If you are conducting work that involves excavation, piling or other disturbance of the ground, then you should use the map to identify the category of risk for your site.

The risk boundaries are a guide, compiled from data based on the political areas for which records are held; being just outside a high-risk area does not mean there is no UXB risk. You should use the map to assist in your decision of whether to investigate the UXB risk further.

Information on the regional risk remaining from UXBs in the UK

Zetica has built the largest UXB database of its kind in the UK. It includes a unique digital library of bomb census data, and maps showing key strategic points and bombing densities from the First and Second World Wars. The main sources of information include records from central government (Public Records Office), the Ministry of Defence, and the German Luftwaffe.

Using information from this database, Zetica has published maps of UXB risk on a regional, county and borough scale. The maps indicate relative degrees of UXB risk based on available records for bombing densities and known targeted areas for regions within the UK. The risk is broken down into individual boroughs, towns or cities. The data are based on the historical boroughs and are then overlaid onto the modern map. It is important to note that more-detailed research may be required for individual sites, particularly where proximity to a potential WWII target means the local risk may be higher.

High risk

Areas designated as high risk are those that show a high density of bombing hits (50+ bombs per 1000 acres) and abundant potential WWII targets. In high-risk regions, further action to mitigate UXB risk is considered essential.

Moderate risk

Moderate-risk regions are those that show a bomb density of between 11 and 50 bombs per 1000 acres and that may contain potential WWII targets. Action to mitigate the risk is considered essential, albeit more likely that a reduced scope of work is required compared with that needed for high-risk regions.

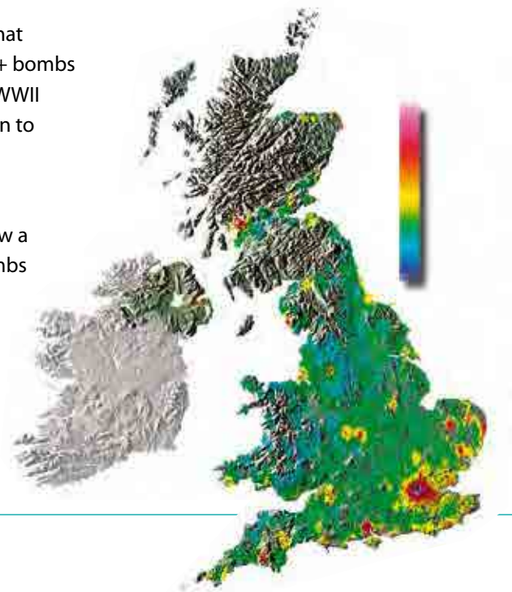
Low risk

Low-risk regions are those with a bombing density of up to 10 bombs per 1000 acres. These areas are considered to have a significant but low UXB risk. In general, further action to mitigate the risk is considered prudent, although not essential. Care is required when assessing the risk for specific sites where the risk may be higher because of local wartime activity.

Other WWII targets

Other regions with the risk of UXBs are key strategic points as defined by the government during WWII as representing potential enemy targets. Where these exist outside areas mapped as high, moderate or low risk, a site-specific assessment of the UXB risk may be required.

Relative UXB risk across UK



What to do if…

…you have a site that has a potential UXB risk

In the absence of current legislation requiring you to address the risk from UXBs, your responsibilities under health and safety legislation and regulations such as construction design and management require that you address all identified risks. The first stage is to request further advice from a professional adviser such as Zetica, or to gain more site-specific information by commissioning an ordnance-risk desk study. Then a strategy to deal with the risk can be established that is tailored to your proposed work.

…you find a suspect item or require advice

If during site works you find a suspect (ordnance-related) item, it is very important that you do not touch or move it (even if it has already been moved by an excavator). If it is clearly ordnance related, then dial 999 and ask for the police. Ensure that the area around the item is kept as clear as possible without placing yourself at risk. If you are unsure and do not wish to cause undue alarm, or you just require some advice, then you can call Zetica. We have experienced qualified UXB specialists on hand who can offer support and advice during any site works.

More-detailed procedures should be established in advance if you are in an area where the risk of finding a UXB is shown to be significant (moderate to high).

Site-specific desktop studies

Zetica is able to provide high-quality, site-specific UXB risk information for any residential, industrial or commercial property in the UK. These desktop studies provide details of the bombing density within an area and for the site itself, in order to indicate the risks of UXBs still being present. A risk assessment is provided to facilitate informed decision making on whether any further risk mitigation measures are required.

Appendix D

Hydrock Methodology

Hydrock desk study report appendix on Hydrock Methodology, version 03 updated 17-08-15 applies to this report.

This appendix may not be included in the printed report to reduce the document size.

It is presented in the PDF version of the report on the CD enclosed with the printed report. Alternatively, it can be supplied on request by quoting the version number and date.

1.0 HYDROCK DESK STUDY REPORT APPENDIX ON HYDROCK METHODOLOGY

This appendix provides additional background information on certain approaches and methods used by Hydrock Consultants Ltd in the preparation of this report.

Throughout the report the term 'geotechnical' is used to describe aspects relating to the physical nature of the site (such as foundation requirements) and the term 'geo-environmental' is used to describe aspects relating to ground-related environmental issues (such as potential contamination). However, it should be appreciated that this is an integrated investigation and these two main aspects are inter-related. The geo-environmental sections are written in broad agreement with BS 10175:2011+A1:2013.

The report is a Preliminary Investigation (BS 10175:2011+A1:2013), often referred to as the Phase 1 Study[1], comprising desk study and walk-over survey, which culminates in the Preliminary Risk Assessment. A preliminary conceptual site model (CSM) is developed. From this are identified any geotechnical and geo-environmental hazards and the qualitative degree of risk associated with them. From the geo-environmental perspective, the Hazard Identification process uses professional judgement to evaluate all the hazards in terms of **possible contaminant linkages** (of source-pathway-receptor). Possible contaminant linkages are potentially unacceptable risks in terms of the current contaminated land regime legal framework and require either remediation or further assessment. These are normally addressed via intrusive ground investigation and generic risk assessment.

[1] Please note that it does not refer to a site development phase.

2.0 DESK STUDY INFORMATION

2.1 Unexploded ordnance

Clients have a legal duty under the CDM 2007 Regulations to provide designers and contractors with project-specific health and safety information needed to identify hazards and risks. This includes the possibility of unexploded ordnance (UXO) being encountered on the site. Further details are given in CIRIA report C681 (Stone *et al* 2009).

A non-UXO specialist screening exercise has been carried out for the site by considering (a) any evidence of UK defence activities on or near the site evident from the gathered desk study information and (b) the unexploded aerial delivered bomb (UXB) regional risk maps produced by Zetica. Other data sources are available, but as a first stage screening exercise the freely available Zetica maps have been used. The level of risk stated is that determined by Zetica, a company experience in the desk study, field investigation and clearance of UX0/UXB.

2.2 Hydrogeology

Under the Water Framework Directive the designations of principal and secondary aquifers is based on the Environment Agency interactive aquifer designation map. Where aquifers have been mapped, and they are capable of sustaining a yield of 10 m^3/day or supplying 50 people on a continuous basis, the Environment Agency has designated a number of Groundwater Bodies to help manage water quality under the River Basin Management Plans. Groundwater bodies are defined based on their support for ecosystems as well as their capacity to supply drinking water. Note that some localised small aquifers capable of supporting the above supply may be too small to map and can be identified only by investigation.

Where an aquifer exists and it contains groundwater but is incapable of sustaining the above supply, the groundwater is not part of a Groundwater Body and is not considered a strategic resource. In which case the groundwater is not a receptor, but can be a pathway to other receptors by virtue of its ability to transport contaminants.

2.3 Radon

Advice on radon protection in England is provided by Public Health England (www.ukradon.org), formerly the Health Protection Agency (*The Indicative Atlas of Radon in England and Wales,* HPA-RPD-033 (Miles *et al* 2007) and RCE-15 (2010)), and by the BRE (BRE Report BR211 (Scivyer 2007)). An area of the country can be categorised according to the percentage of existing homes where radon is present above the Action Level: 0-1% lower probability, 1-3% and 3-10% intermediate probability and >10% higher probability. It is important to understand that the database on which these numbers are based is incomplete and contains more data points in areas of the country that have traditionally been known for high radon concentrations. As more properties are monitored, the categorisation may change.

The areas where >1% of homes exceed the Action Level are known as Radon Affected Areas.

The Building Regulations cite BR211 and require basic radon protection measures in new buildings in areas of England and Wales where 3-10% of properties exceed the Action Level and full radon protection measures where >10% exceed the Action Level.

Landlords and employers have a legal duty to keep radon levels as low as practicable and to install remedial measures if levels are too high. Commercial new build includes protection measures similar to those for new homes, but once occupied they are subject to the HSW Act and IRR99 regulations.

Private residents are advised to have a radon test where their property is in a Radon Affected Area, and to fit remedial measures if levels are too high.

The Law Society's advice to conveyancing solicitors is to ask the vendor standard questions concerning whether the property is in a radon affected area, whether it was constructed with radon protection measures and whether a radon test has been carried out by the vendor. Hydrock understands that PHE is discussing with the Law Society the adoption of stronger wording to these questions.

In 2009 the then Health Protection Agency recommended that Building Regulations and supporting documents should be amended to ensure that *all* new buildings, extensions, conversions and refurbished buildings in the UK include basic radon protective measures as a minimum. This recommendation was rejected by the Government. Consequently, the current situation is that a developer is *required* only to install protective measures in buildings where >3% of existing properties are above the Action Level, but is not required to install them in Radon Affected Areas where 1-3% of existing properties exceed the Action Level (even though there may be future implications for occupiers of these buildings).

3.0 RISK ASSESSMENT RATIONALE

The work presented in this report has been carried out in accordance with recognised best practice as detailed in guidance documents such as in the CLR 11 Model Procedures (Environment Agency 2004a), GP3 (Environment Agency August 2013), BS 5930:2015 and BS 10175:2011+A1:2013. Important aspects of the risk assessment process are transparency and justification. The particular rationale behind the risk assessments presented is given in this appendix.

A preliminary risk assessment is made of both geotechnical and geo-environmental hazards identified at the desk study stage and confirmed (or amended) at the ground investigation stage. In the case of geo-environmental hazards this is based on a simple matrix of probability of occurrence versus the consequence, as explained below, and is referred to as the **exposure model**. In the case of the geotechnical hazard identification, this is referred to as the **ground model**.

The geo-environmental risk assessment process proceeds to the next level, the generic risk assessment, in which actual contaminant concentrations are considered.

3.1 Preliminary risk assessment

In line with the CLR 11 Model Procedures (Environment Agency 2004a), the Preliminary Risk Assessment includes a geo-environmental Hazard Identification, which seeks to list all the suspected contaminant **sources**, the **receptors** that might be harmed by those sources and the **pathways** via which the sources might reach the receptors to cause the harm. The source-pathway-receptor concept is known as a contaminant linkage (formerly a pollutant linkage) and only when a linkage is complete is there any possibility of risk of harm arising.

The Hazard Identification process uses professional judgement to evaluate all the hazards in terms of **possible contaminant linkages**. Possible contaminant linkages are potentially unacceptable risks in terms of the current contaminated land regime legal framework and require either remediation or further assessment. These are normally addressed via intrusive ground investigation and the chemical analysis of soil and water samples.

Where no ground investigation has been carried out (i.e. in a desk study only report) there is greater uncertainty in the information available and so a geoenvironmental consequences and probability assessment is undertaken.

Some linkages may be identified which constitute a theoretical connection between a source and a receptor, but professional judgement shows them not to be possible for some reason. These are labelled ‘no linkage’ in the summary table and no further action is required. If a linkage is possible, a comparison is made of consequence against probability in general accordance with the guidance given in CIRIA Report C552 (Rudland *et al* 2001).

Classification of consequences and probability are given in CIRIA C552 Tables 6.3 and 6.4, respectively, but there are a number of inconsistencies in the original Table 6.3, in particular relating to 'significant harm or significant possibility of significant harm' (SH/SPOSH). Consequently, the table has been updated by Hydrock in line with current practice and the revision presented in R&D Publication 66, Annex 4 (NHBC and Environment Agency. 2008, and is given in Table 3.1 below.

The basis of the classification is that 'severe' and 'medium' are likely to result in SH/SPOSH as defined by the EPA 1990, Part 2A, with 'severe' resulting in acute harm. 'Mild' lies below the level of SH/SPOSH but above the level of 'no harm' as implied by the relevant Generic assessment criterion (GAC, see below). Minor lies below the 'no harm' level.

Table 3.1: Classification of consequences of geo-environmental risks

Classification of Consequences for Geo-environmental Risks		
Classification	**Definition**	**Examples**
Severe	Concentration of contaminants is likely to (or is known from previous data to) exceed that indicative of unacceptable intake or contact. Highly elevated concentrations **likely** to result in "significant harm" to human health as defined by the EPA 1990, Part 2A, if exposure occurs. I.e. >>SH/SPOSH, concentrations are high enough to cause acute (short-term) effects. Equivalent to EA **Category 1** pollution incident including persistent and/or extensive effects on water quality; leading to closure of a potable abstraction point; major impact on amenity value or major damage to agriculture or commerce. Major damage to aquatic or other ecosystems, which is likely to result in a substantial adverse change in its functioning or harm to a species of special interest that endangers the long-term maintenance of the population. Catastrophic damage to crops, buildings or property.	Human health: short-term (acute) effects likely to result in significant harm. E.g. high conc. of cyanide on the surface of an informal recreational area. Significant harm to humans is defined as death, disease*, serious injury, genetic mutation, birth defects or the impairment of reproductive functions. Planting: complete and rapid die-back of landscaped areas. Controlled waters: short-term pollution, e.g. major spillage into controlled water. Major fish kill in surface water from large spillage of contaminants from site. Highly elevated concentrations of List I and II substances present in groundwater close to small potable abstraction (high sensitivity). Buildings etc.: catastrophic damage, e.g. explosion causing collapse. (can also equate to immediate human health risk if buildings are occupied). Ecosystems: acute risk to a particular ecosystem or organism forming part of that ecosystem in a designated protected area, e.g. by contamination spillage. Damage to a protected area of international significance (e.g. Ramsar site). Site workers: risk assessment required to determine PPE and this may involve USEPA Level A, B or C protection.

Classification of Consequences for Geo-environmental Risks		
Classification	**Definition**	**Examples**
Medium	Concentration of contaminants is likely to (or is known from previous data to) exceed that indicative of unacceptable intake or contact. Elevated concentrations which could result in "significant harm" to human health as defined by the EPA 1990, Part 2A if exposure occurs. I.e. >SH/SPOSH. Equivalent to **EA Category 2** pollution incident including significant effect on water quality; notification required to abstractors; reduction in amenity value or significant damage to agriculture or commerce. Significant damage to aquatic or other ecosystems, which may result in a substantial adverse change in its functioning or harm to a species of special interest that may endanger the long-term maintenance of the population. Significant damage to crops, buildings or property.	Human health: long-term (chronic) effects likely to result in significant harm. E.g. high conc. of contaminants close to the surface of a development site. Significant harm to humans is defined as death, disease*, serious injury, genetic mutation, birth defects or the impairment of reproductive functions. Planting: stressed or dead plants in landscaped areas. Controlled waters: pollution of sensitive water resources, e.g. leaching into principal or secondary aquifers or rivers. Buildings etc.: damage renders unsafe to occupy e.g. foundation damage resulting in instability. Ingress of contaminants through plastic potable water pipes. Ecosystems: chronic death of species in a particular ecosystem in a designated protected area, e.g. by contamination spillage. Damage to a protected area of national significance (e.g. Site of Special Scientific Interest). Site workers: risk assessment required to determine PPE and this may involve USEPA Level B, C or D protection.
Mild	Concentration of contaminants is likely to (or is known from previous data to) exceed that indicative of no harm but not unacceptable intake or contact. Exposure to human health **unlikely** to lead to "significant harm". I.e. >SVG/GAC but <SH/SPOSH. Equivalent to **EA Category 3** pollution incident including minimal or short lived effect on water quality; marginal effect on amenity value, agriculture or commerce. Minor or short lived damage to aquatic or other ecosystems, which is unlikely to result in a substantial adverse change in its functioning or harm to a species of special interest that would endanger the long-term maintenance of the population. Minor damage to crops, buildings or property.	Human health: harm but probably not significant harm unless particularly sensitive individual within the receptor group. May be aesthetic/olfactory impacts. Exposure could lead to slight short-term effects (e.g. mild skin rash). Planting: damage to plants in landscaped areas, e.g. stunted growth, discoloration. Controlled waters: pollution of non-sensitive water bodies e.g. leaching into non-classified groundwater or minor ditches. Buildings etc.: damage to sensitive buildings etc. Surface spalling of concrete. Ecosystems: minor change in a particular ecosystem in a designated protected area, but not significant harm. Damage to a locally important area. Site workers: risk assessment required to determine PPE and this may involve USEPA Level C or D protection.

Classification of Consequences for Geo-environmental Risks		
Classification	**Definition**	**Examples**
Minor	Concentration of contaminants is likely to (or is known from previous data to) be less than that indicative of no harm. No measurable effects on humans. I.e. <SGV/GAC. Equivalent to insubstantial pollution incident with no observed effect on water quality or ecosystems. Repairable effects of damage to buildings, structures and services.	No measurable effects, but simple PPE required (USEPA Level D protection, i.e. overalls, boots, goggles, hard hat). The loss of plants in a landscaping scheme. Discoloration of concrete.

CIRIA Report C552 Table 6.4 is reproduced as Table 3.2 below. This provides an estimate of the probability that the event described by the contaminant linkage will occur. For example, the likelihood that pollution of groundwater will occur by leaching of metals into the aquifer.

Table 3.2: Classification of Probability of Geo-environmental Risks

Classification of Probability of Geo-environmental Risks	
Classification	**Definition**
High Likelihood	There is a contaminant linkage and an event that either appears very likely in the short term and almost inevitable over the long term, or there is evidence at the receptor of harm or pollution.
Likely	There is a contaminant linkage and all the elements are present and in the right place, which means that it is probable that an event will occur. Circumstances are such that an event in not inevitable, but possible in the short term and likely over the long term.
Low Likelihood	There is a contaminant linkage and circumstances are possible under which an event could occur. However, it is no means certain that even over a longer period such event could take place, and is less likely in the shorter term.
Unlikely	There is a contaminant linkage but circumstances are such that it is improbable that an event would occur even in the very long term.

The perceived level of risk for each pathway is then derived from the probability versus consequences matrix, modified after CIRIA C552 Table 6.5, given in Table 3.3 below. Note that by definition, no contaminant linkage equates to no risk.

Table 3.3: Qualitative Risk Level from Consequence and Probability

		Consequence			
Probability	*product*	**Severe**	**Medium**	**Mild**	**Minor**
	High Likelihood	Very high risk	High risk	Moderate risk	Low risk
	Likely	High risk	Moderate risk	Low risk	Very low risk
	Low Likelihood	Moderate risk	Low risk	Low risk	Very low risk
	Unlikely	Low risk	Very low risk	Very low risk	Very low risk
	No Linkage	No risk			

This approach assumes an equivalence between probability and consequences and ignores the difficulty that can arise where to probability of occurrence appears to be almost negligible but the consequences are very severe. In such conditions there is a degree of subjectivity in assessing the level of risk and it could be low, moderate or high. Such risks may require specialist consideration beyond the scope of this standard report.

Finally, a description of the classified risks and the likely action required can be determined from Table 3.4 below.

Table 3.4: Description of the Classified Risks and Likely Action Required

Description of Classified Risks and Likely Action Required	
Very High Risk	A significant contaminant linkage, including actual evidence of significant harm or significant possibility and significant harm, is clearly identifiable at the site (e.g. from visual or documentary evidence) under current conditions, with potential for legal and/or financial consequences for the site owner or other Responsible Person. Remediation advisable based on acute impacts being likely. Immediate action should be considered.
High Risk	A contaminant linkage is identifiable at the site under current and future use conditions. Although likely, there is no obvious actual evidence of significant harm or significant possibility and significant harm under current conditions. Extent of risk is therefore subject to confirmation by investigation and risk assessment and most likely to be deemed significant. Realisation of the risk is likely to present a substantial liability to the site owner or other Responsible Person. Remediation required for redevelopment and may also be required under Part 2A for existing receptors.
Moderate Risk	A contaminant linkage is identifiable at the site under current and future use conditions. However, it is not likely to be a significant linkage under current conditions. It is either relatively unlikely that any such harm would be severe, and if any harm were to occur it is more likely, that the harm would be relatively mild. Actual extent of risk subject to confirmation by additional investigation and risk assessment and most likely to lie between no possibility of harm (under current conditions) and significant possibility of significant harm (under conditions created by new use). Remediation may be required for redevelopment.
Low risk	Potential pathways and receptors exist but history of contaminative use or site conditions indicates that contamination is likely to be of limited extent and below the level of no possibility of harm. It is unlikely that the site owner or other Responsible Person would face substantial liabilities from suck a risk. Precautionary investigations and risk assessment advisable on change of use. Any subsequent remedial works are likely to be relatively limited.
Very Low Risk	No contaminant linkage likely to exist under current or future conditions, but this cannot be completely discounted. If harm is realised, it is likely at worst to be mild or minor. Site not capable of being determined under Part 2A where the local authority inspects the site. No further action recommended.
No Risk	No contaminant linkage exists.

4.0 FLOOD RISK

The following additional information concerns the background to flood risk mentioned in the report. Guidance is given in the document *Technical Guidance to the National Planning Policy Framework* (DCLG March 2012) which retains key elements from the withdrawn Planning Policy Statement 25.

The Environment Agency flood maps are divided into Flood Zones, as follows.

- Flood Zone 1 is land outside the extent of extreme flooding and the annual risk is less than 1:1000, low probability (depicted as white on the web-based map).

- Flood Zone 2 is land unlikely to flood except in extreme conditions if no defences are present and the annual risk is between 1:100 and 1:1000 (for rivers) or 1:200 and 1:1000 (for the sea), medium probability (depicted as light blue on the web-based map).

- Flood Zone 3 is land within the floodplain at risk of flooding if no defences are present and the annual risk is greater than or equal to 1:100 (for rivers) or 1:200 (for the sea), high probability (depicted as dark blue on the web-based map).

The Agency flood maps also define the risk of flooding: as 'low' (≤1:200), 'moderate' (>1:200 to ≤1:75) or 'significant' (>1:75), which are not the same divisions as those in the guidance mentioned above. Note that the published flood map only relates to flooding from rivers, estuaries and the sea and does not include other potential sources such as surface water, groundwater, sewers, canals and reservoirs. Note also that the presence on the map of flood defences, or areas benefiting from flood defences, should not be taken to imply that a proposed development in these areas is acceptable.

The **Environment Agency in England** has issued Flood Risk Standing Advice. However, this is to be reviewed following the publication of the NPPF (see http://www.environment-agency.gov.uk/research/planning/33098.aspx for updates and details).

The flood map mentioned above can be accessed at the Agency's website.

The Technical Guidance states:

- Within Flood Zone 1 all uses of land are appropriate. For development proposals on sites comprising one hectare or above, the vulnerability to flooding from other sources as well as from river and sea flooding; and the potential to increase flood risk elsewhere through the addition of hard surfaces and the effect of the new development on surface water run-off, should be incorporated in a flood risk assessment (FRA) to accompany the planning application. This need only be brief unless the factors above or other local considerations require particular attention. For development proposals less than one hectare no flood risk assessment (FRA) is required.

- Within Flood Zone 2, water-compatible, less vulnerable and more vulnerable uses of land and essential infrastructure (as defined in Technical Guidance, Table 2) are appropriate in this zone. The Sequential Test is required and must be passed and for highly vulnerable uses in Table 2 the Exception Test must be applied and passed also. All development proposals in this zone should be accompanied by a flood risk assessment (FRA).

- Flood Zone 3 is sub-divided into 3a and 3b, but these are not distinguished on the published maps. Flood Zone 3a is land having an annual probability of flooding of >1:100 (from rivers) or >1:200 (from the sea). The water-compatible and less vulnerable uses of land (as defined in Technical Guidance, Table 2) are appropriate in this zone. The highly vulnerable uses in Table 2 should not be permitted in this zone. The Sequential Test is required and must be passed and for the more vulnerable and essential infrastructure uses in Table 2 the Exception Test must be applied and passed also. Essential infrastructure permitted in this zone should be designed and constructed to remain operational and safe for users in times of flood. All development proposals in this zone should be accompanied by a flood risk assessment (FRA).

  Flood Zone 3b is known as the 'functional floodplain' and comprises land where water has to flow or be stored in times of flood and should be identified on Strategic Flood Risk Assessments (SFRA) undertaken by the Local Planning Authority. Such land is defined as land which would flood with an annual probability of 1:20 or greater, or is *designed* to flood in an extreme (1:1000) flood, or at another probability to be agreed between the Local Planning Authority and the Environment Agency, including water conveyance routes). Only the water-compatible uses and the essential infrastructure (as defined in Technical Guidance, Table 2) that has to be there should be permitted in this zone. It should be designed and constructed to: remain operational and safe for users in times of flood; result in no net loss of floodplain storage; not impede water flows; and not increase flood risk elsewhere. The Sequential Test is required and must be passed and for essential infrastructure the Exception Test must be applied and passed also. All development proposals in this zone should be accompanied by a FRA.

Natural Resources Wales points users to the Environment Agency flood map, but this is not used for planning purposes (only to provide information on flood risk and to raise awareness). Development advice with respect to flooding is provided by the Welsh Assembly Government (July 2004) Technical Advice Note 15 (TAN15) and the accompanying development advice maps. An interactive map is available from the WAG web site.

The development advice map containing three zones (A, B and C with subdivision into C1 and C2) should be used to trigger the appropriate planning tests.

- Zone A is considered to be at little or no risk of fluvial or tidal/coastal flooding. The justification test (TAN15, Section 6) is not applicable and there is no need to consider flood risk further. This equates to Flood Zone 1 on the Agency maps.

- Zone B is land known to have been flooded in the past evidenced by sedimentary deposits. As part of a precautionary approach site levels should be checked against the extreme (1:1000) flood level. If site levels are greater than the flood levels used to define adjacent extreme flood outline there is no need to consider flood risk further. This land within Flood Zone 1 of the Agency maps but close to Flood Zone 2 or 3.

- Zone C is based on the Environment Agency extreme flood outline, equal to or greater than 1:1000 (river, tidal or coastal) and equates to Flood Zones 2 and 3 on the Agency map. Flooding issues should be considered as an integral part of decision making by the application of the justification test (TAN15, Section 6) including assessment of consequences (TAN15, Section 7) is required. Sub-division C1 is land in the floodplain which are developed and served by significant infrastructure, including flood defences. Development can take place subject to application of the justification test, including acceptability of consequences. Sub-division C2 is land in the floodplain without significant flood defence infrastructure. Only less vulnerable development should be considered subject to application of the justification test, including acceptability of consequences. Emergency services and highly vulnerable development should not be considered. The categories of land use are defined in TAN15, Figure 2.

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