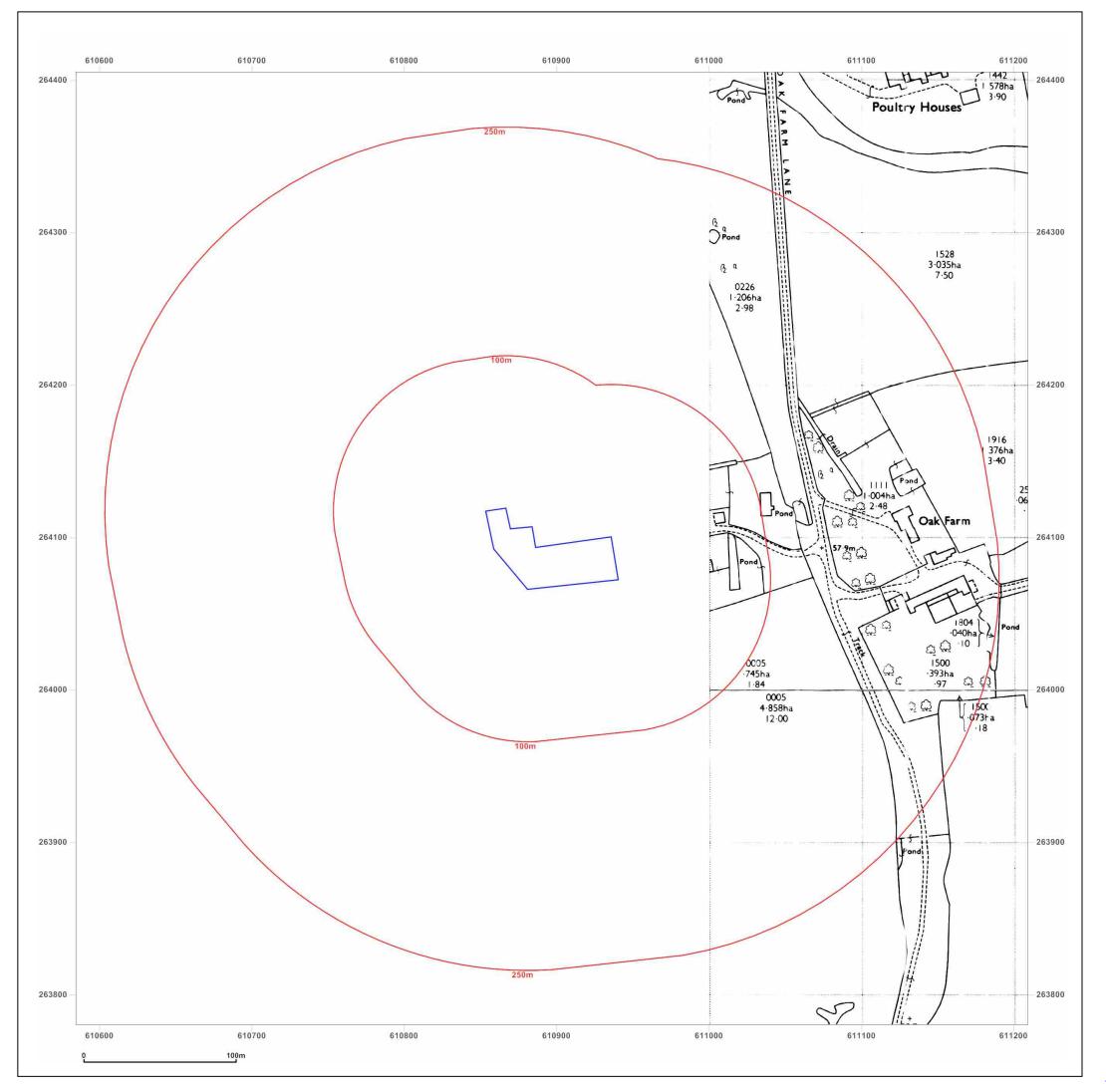




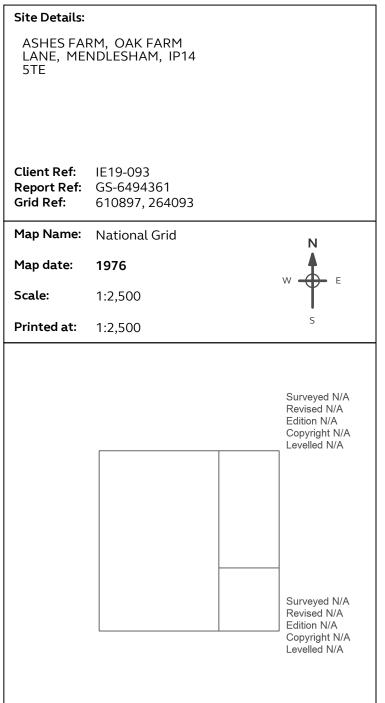
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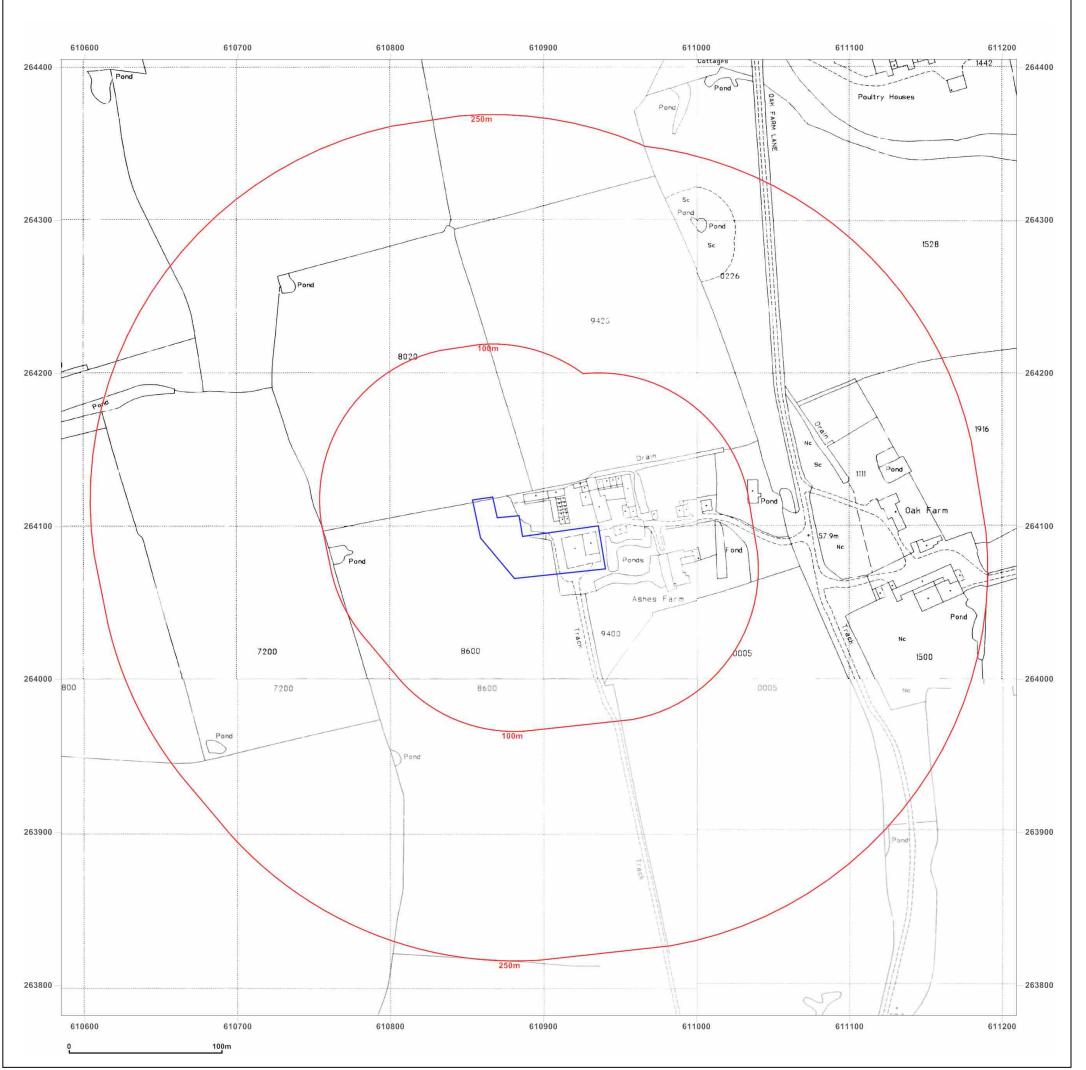




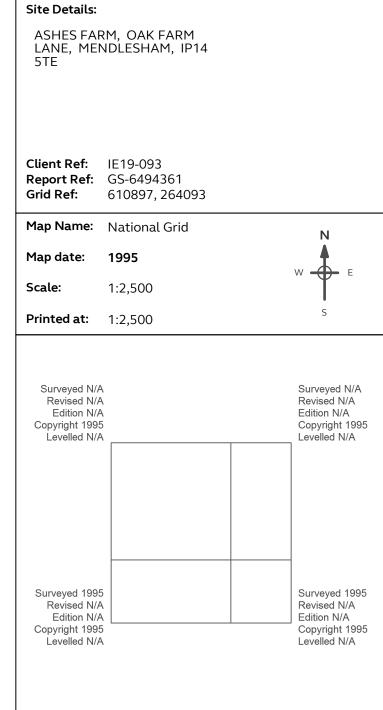
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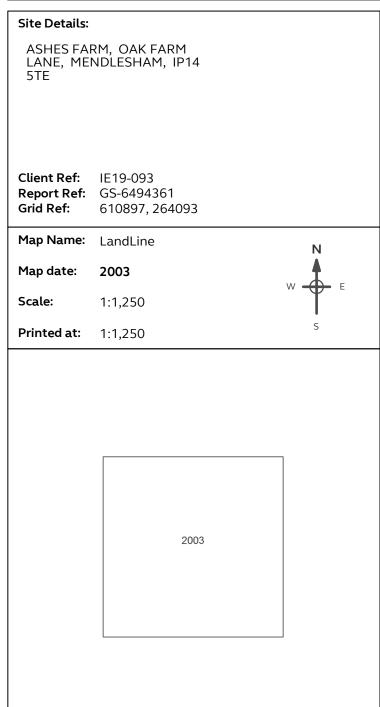
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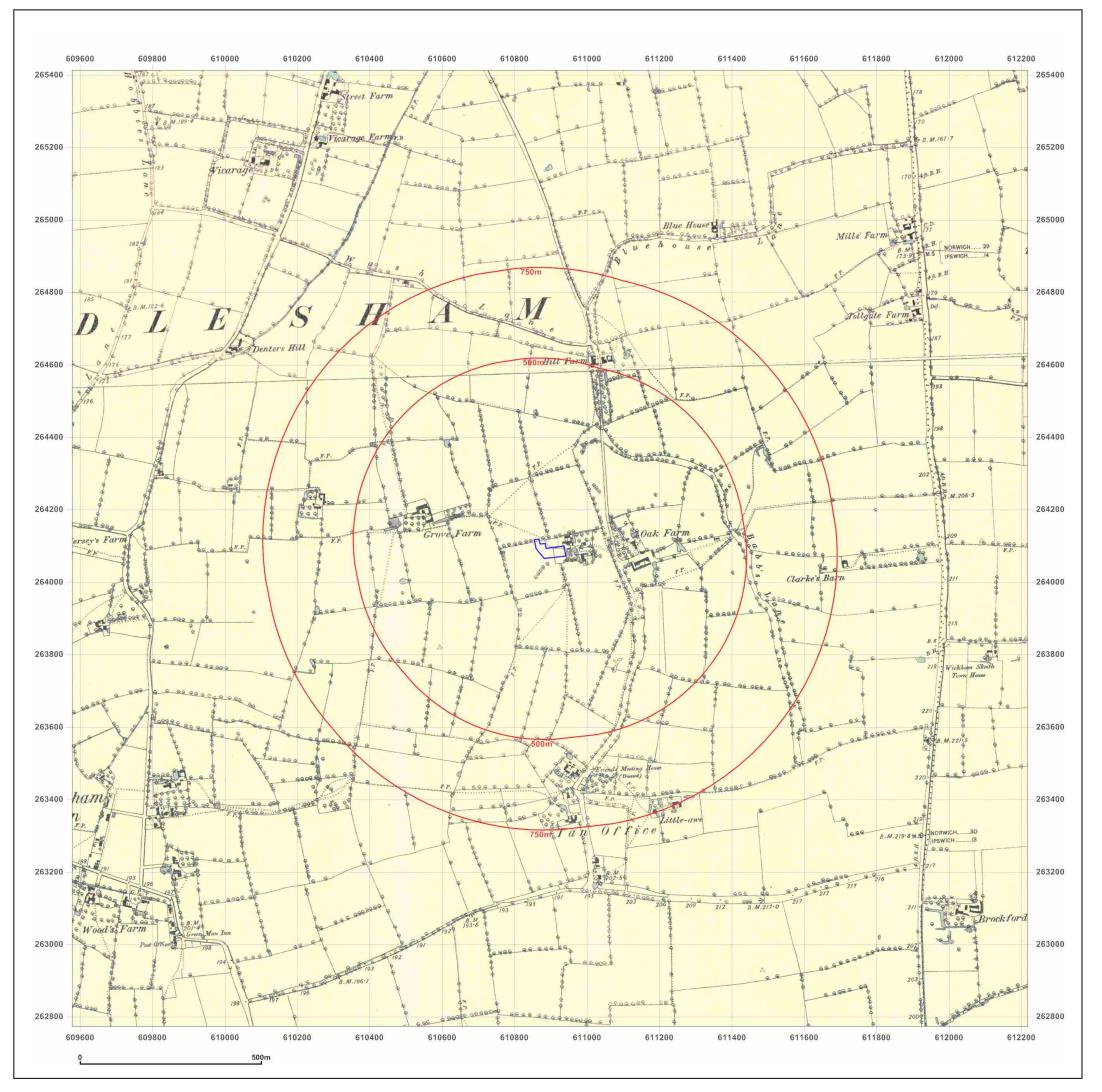




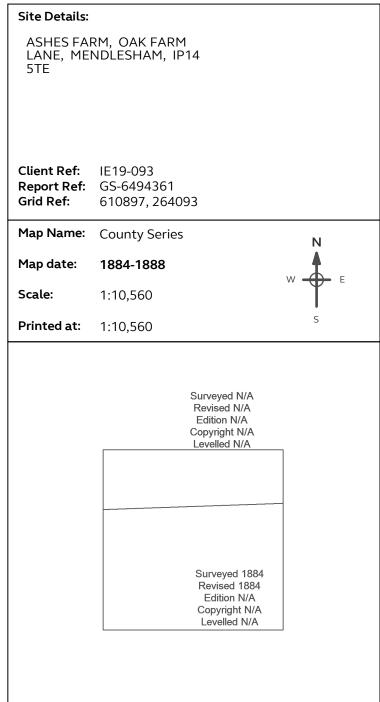
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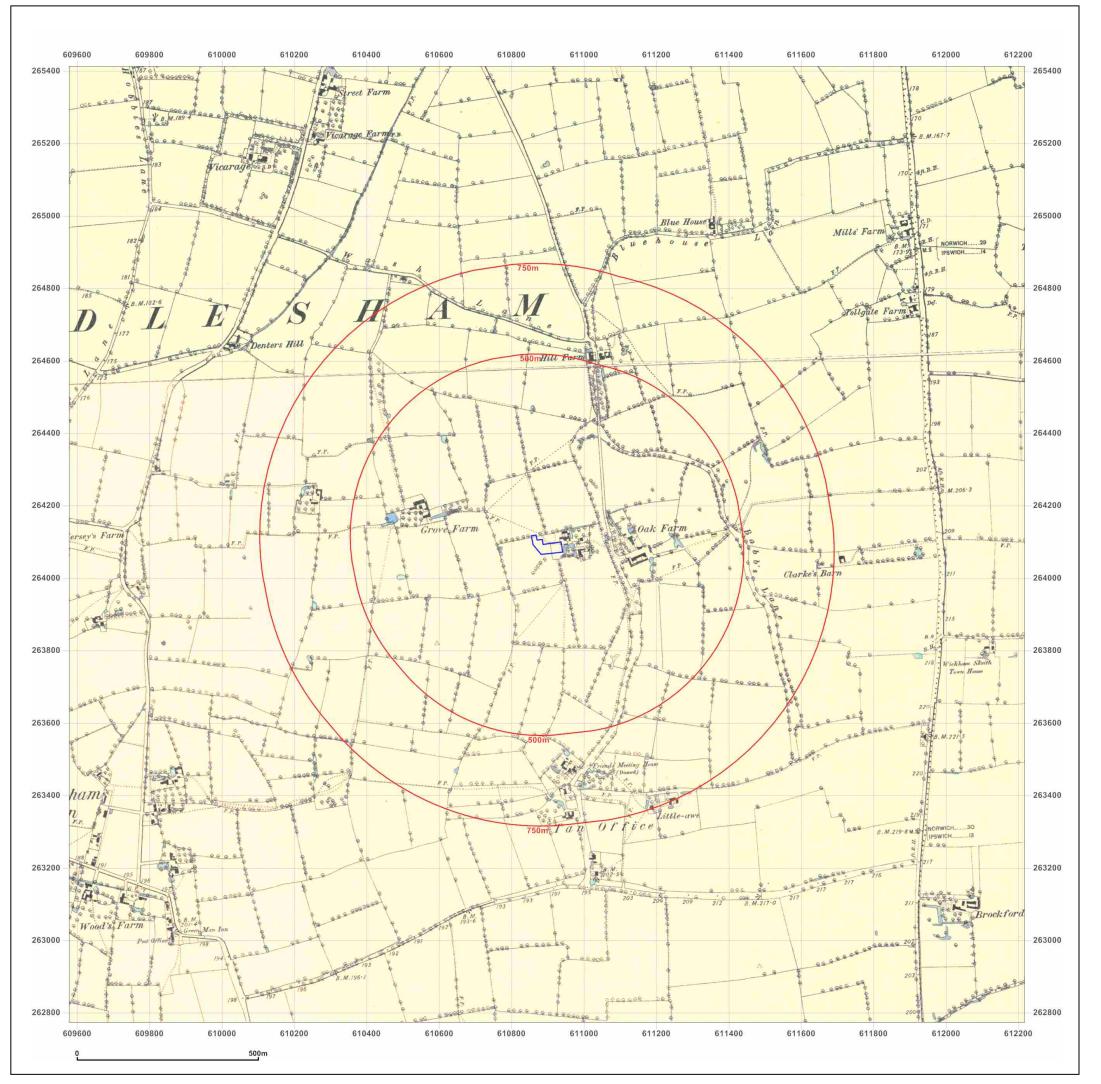




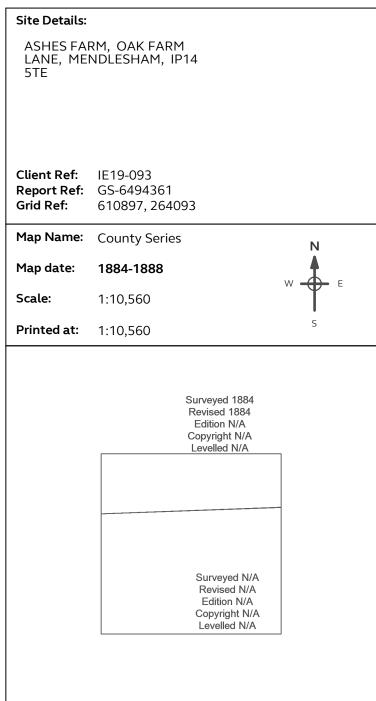
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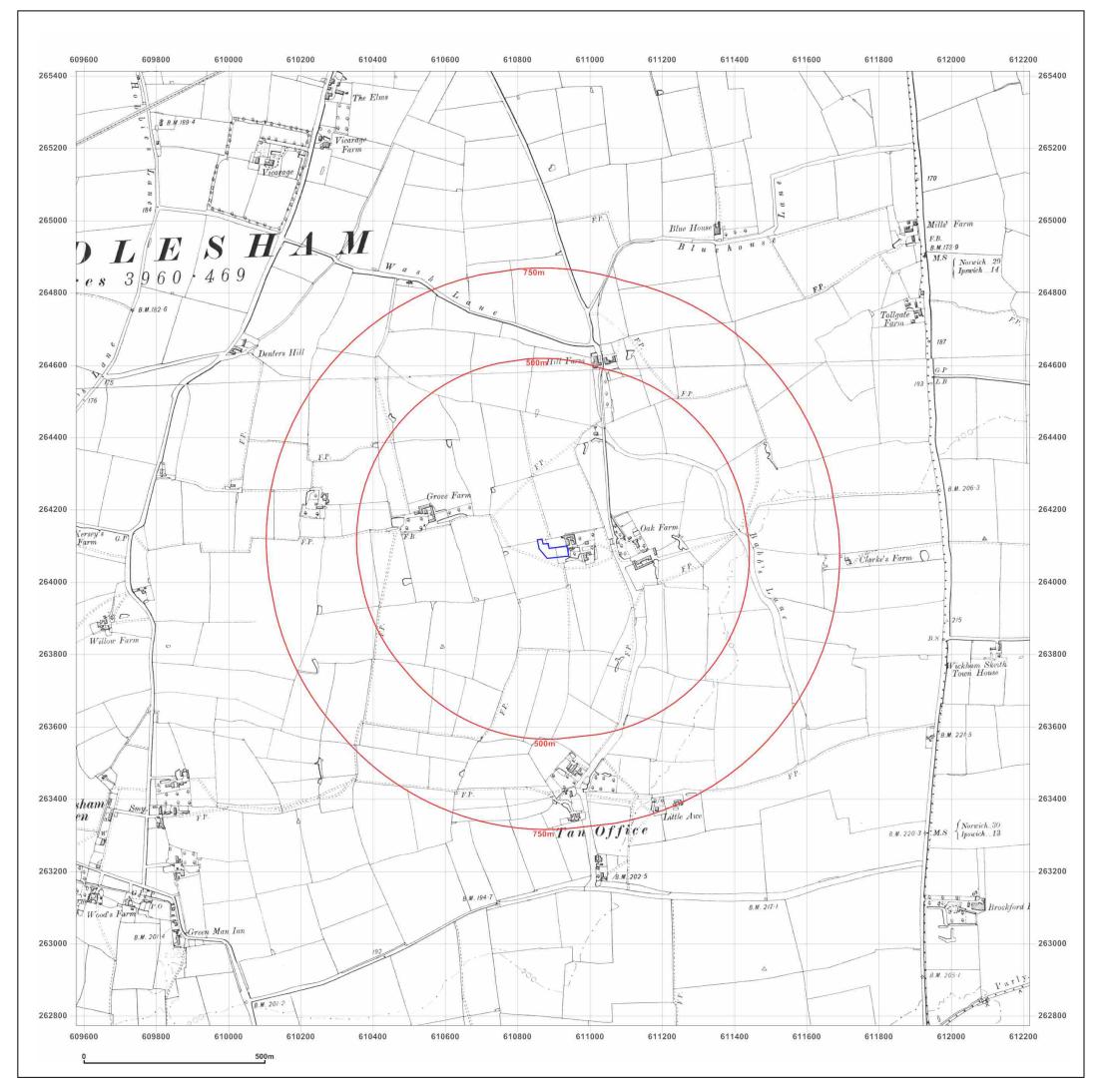




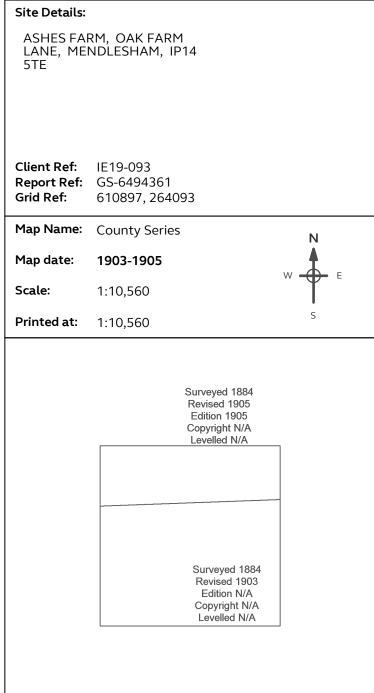
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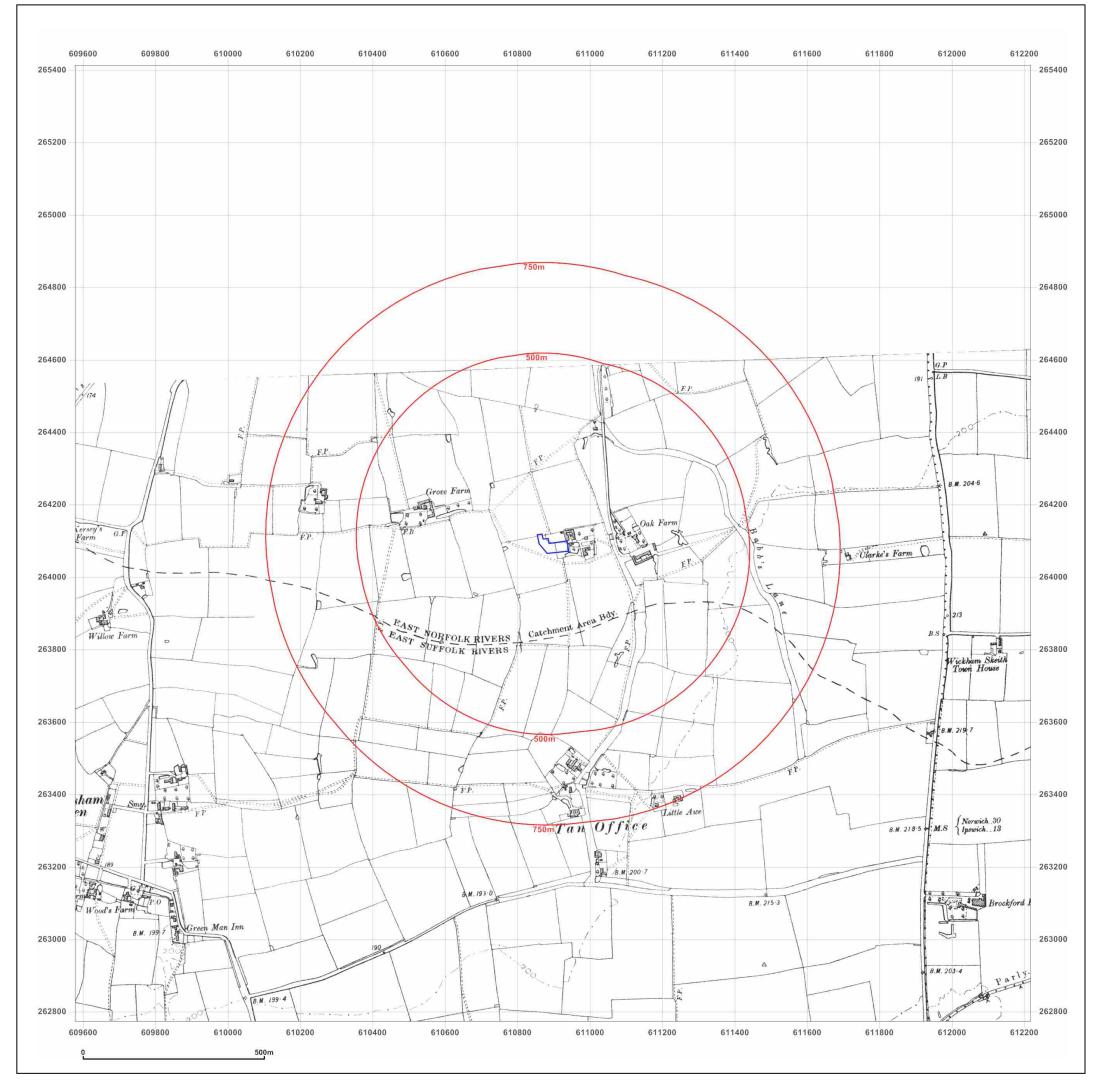




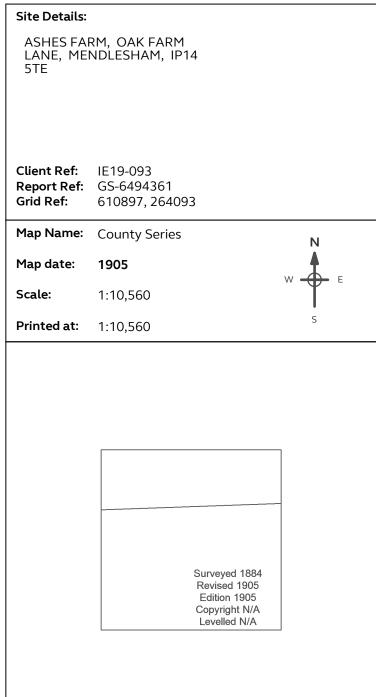
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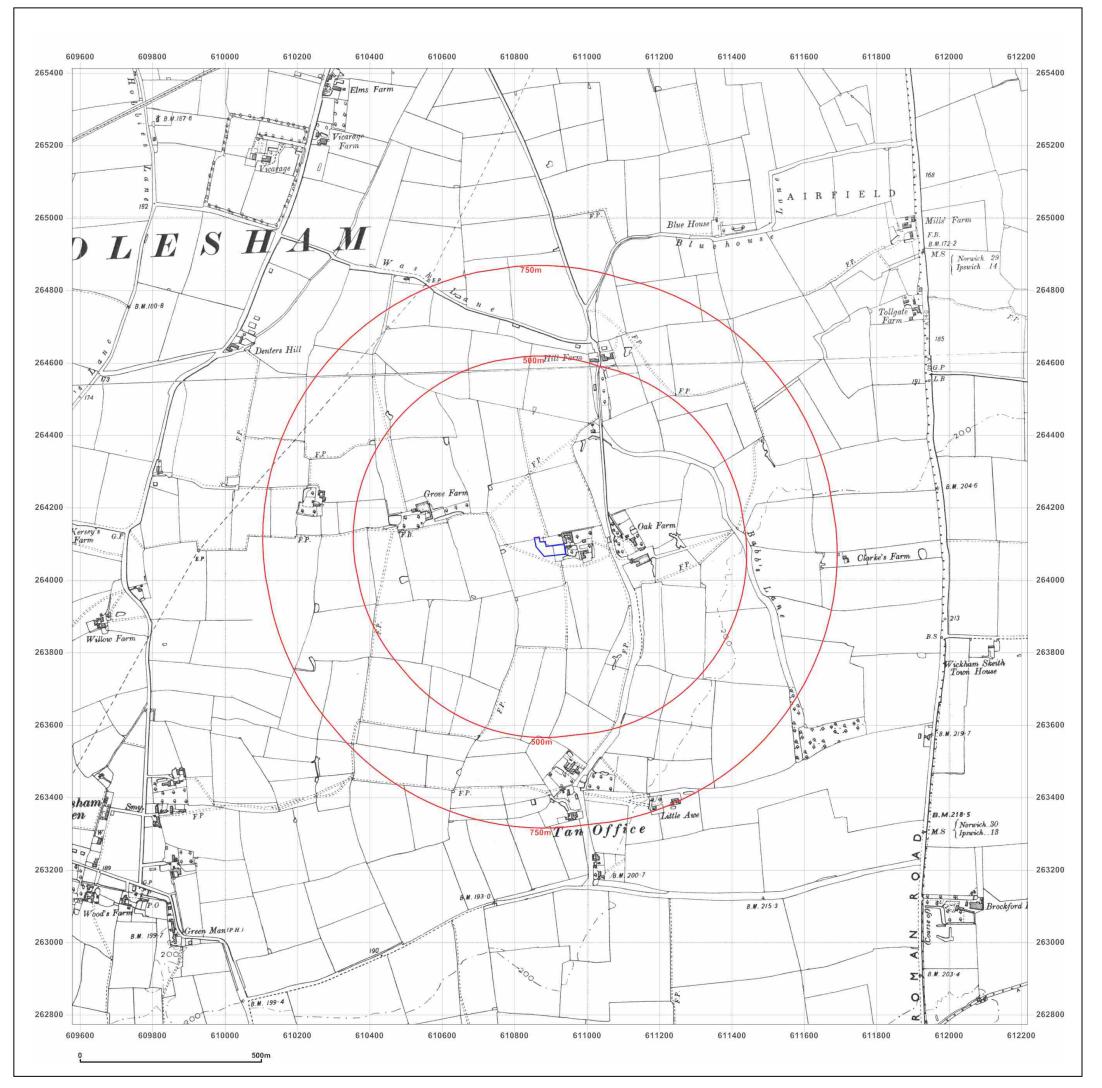




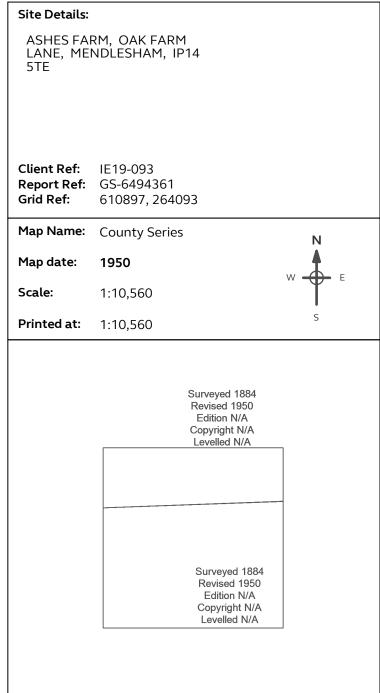
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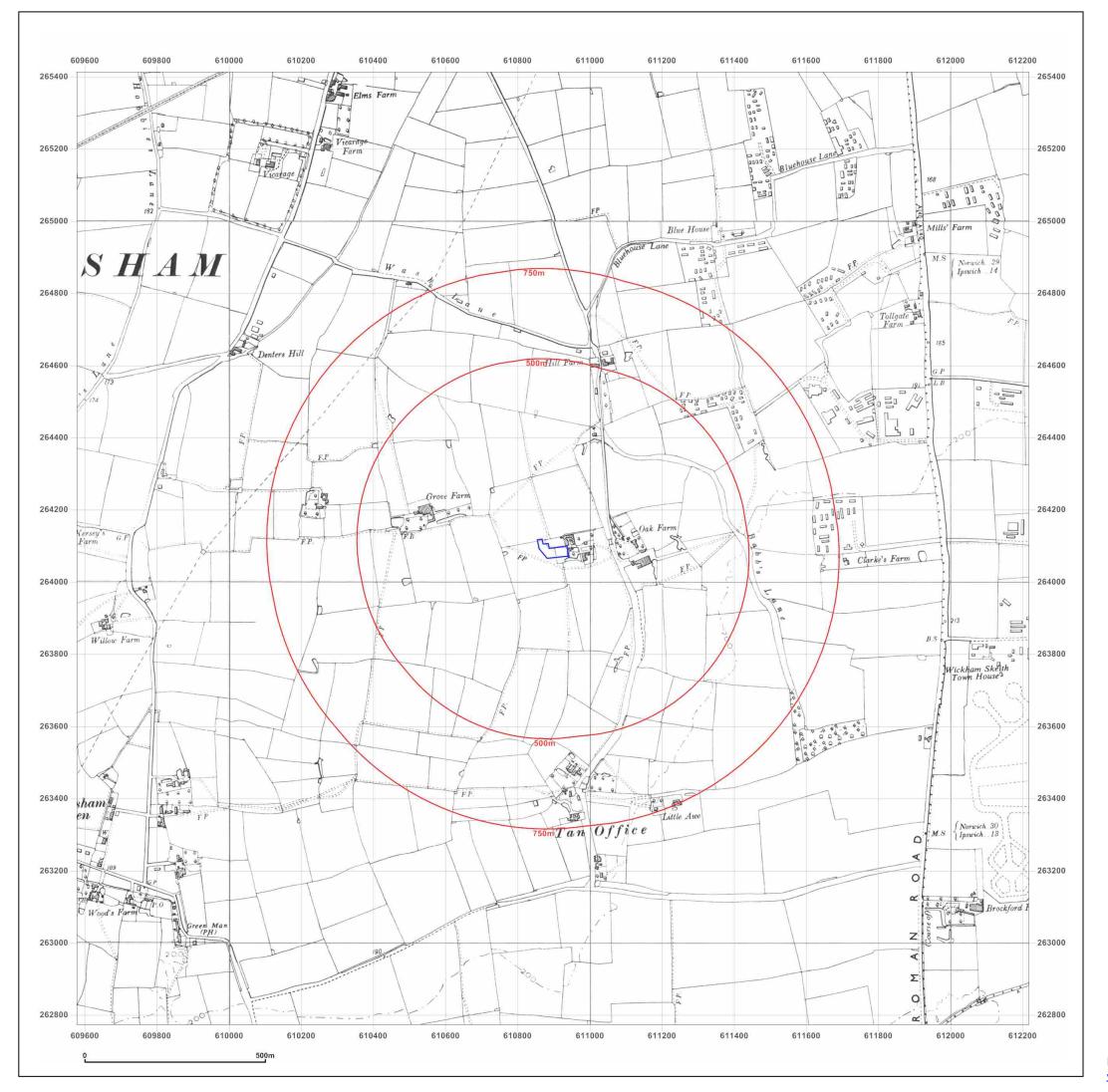




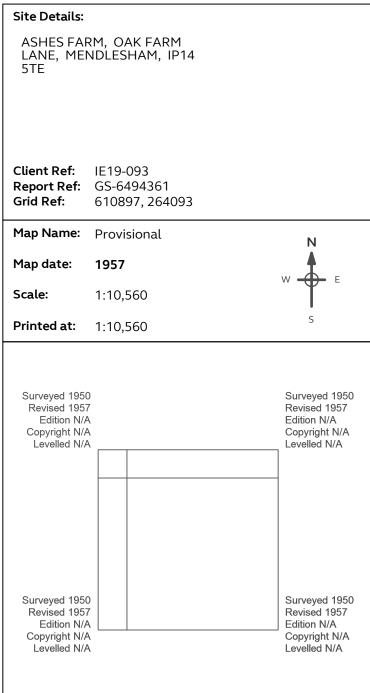
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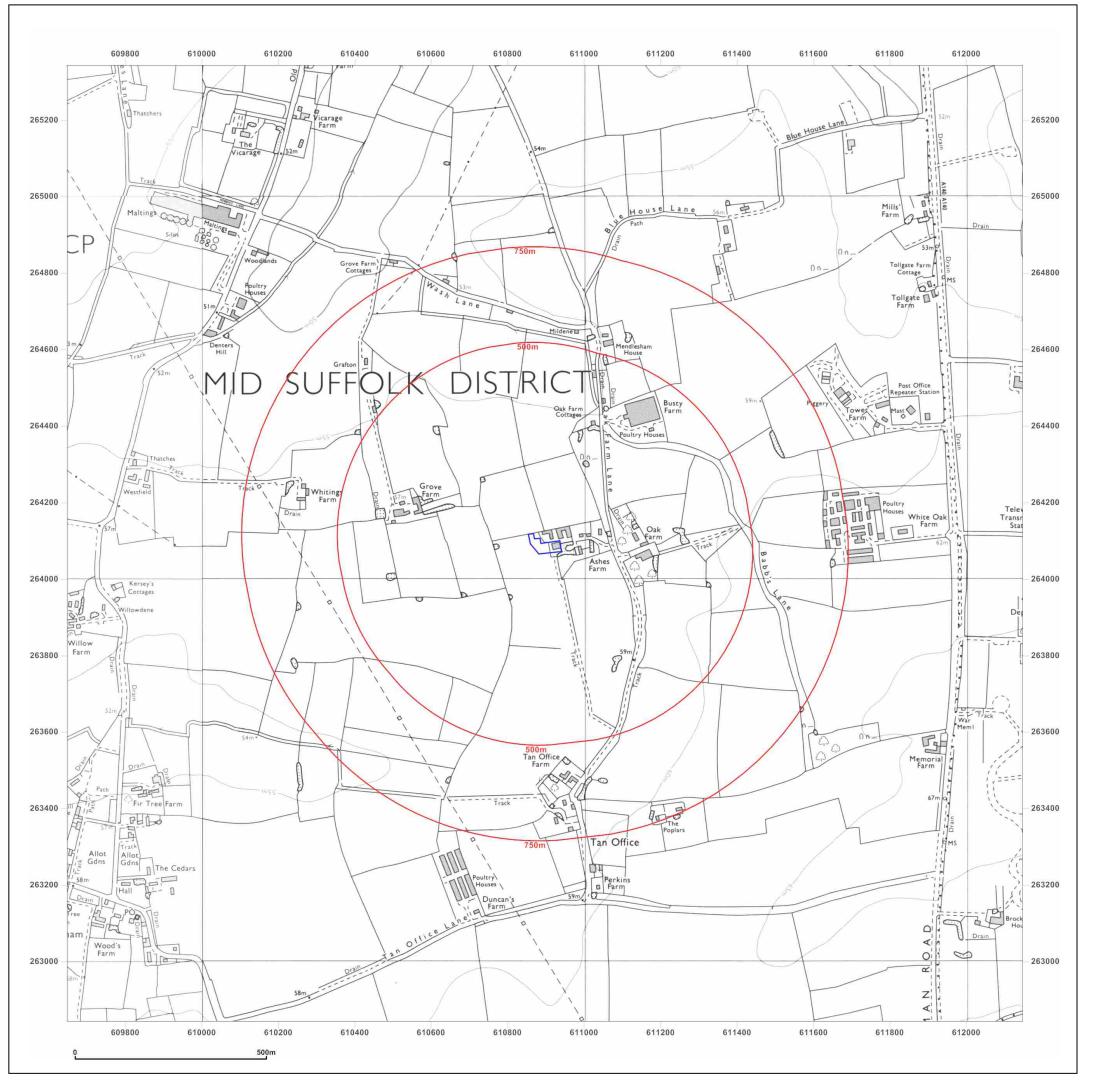




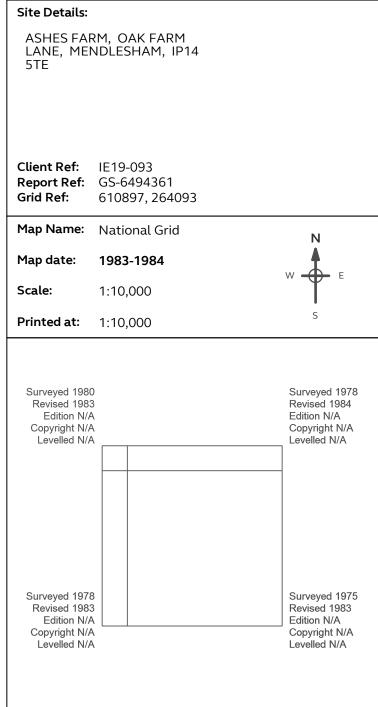
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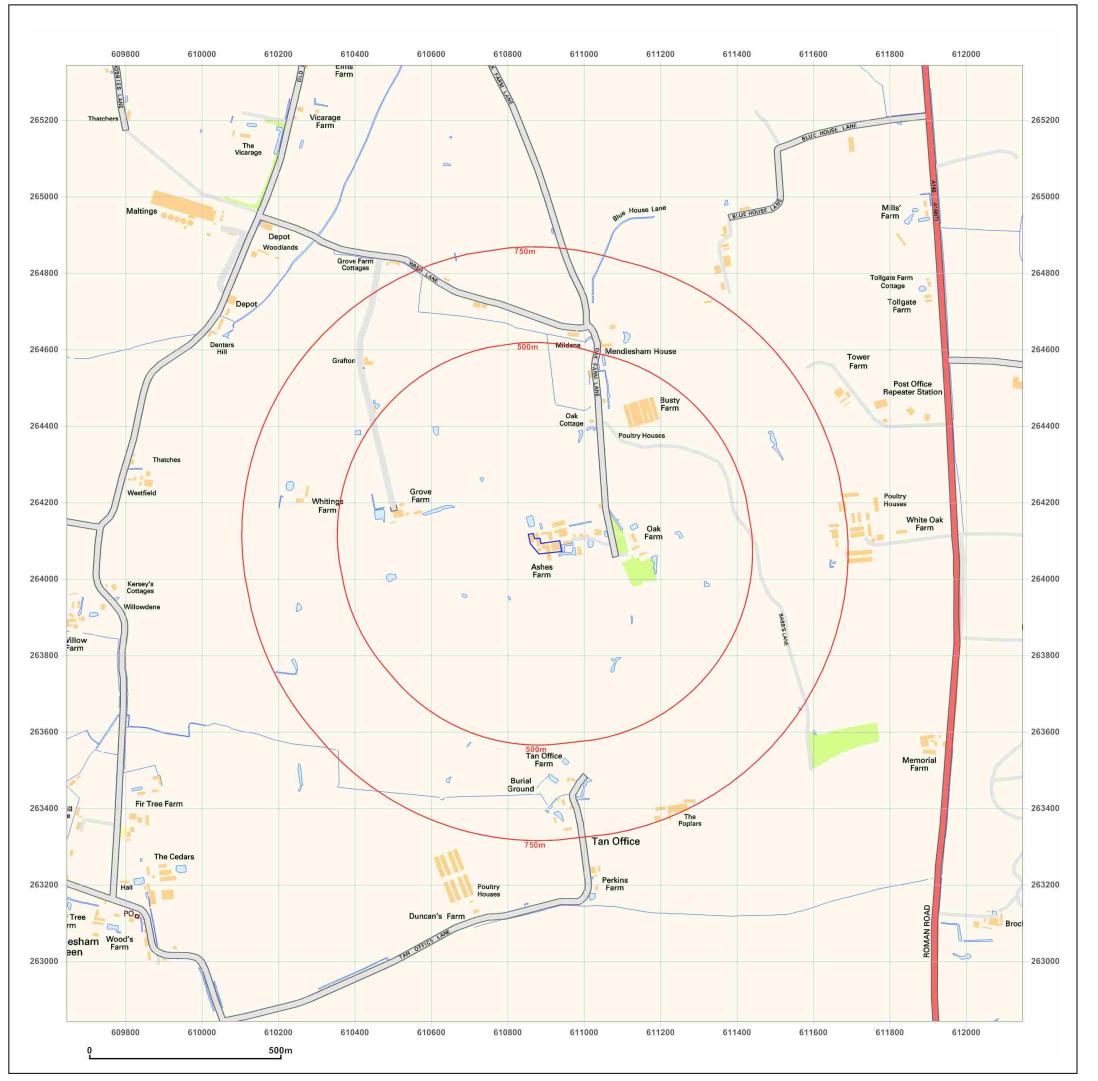




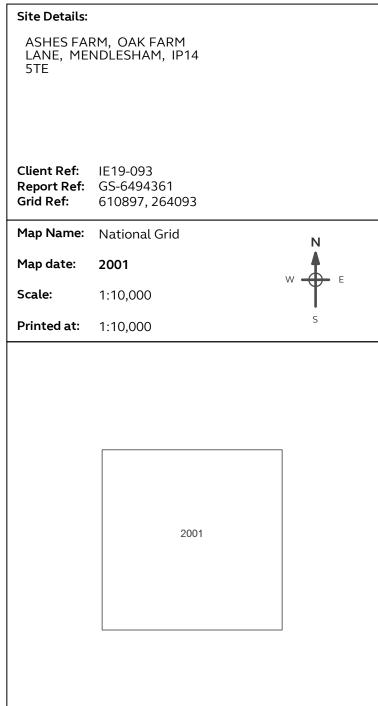
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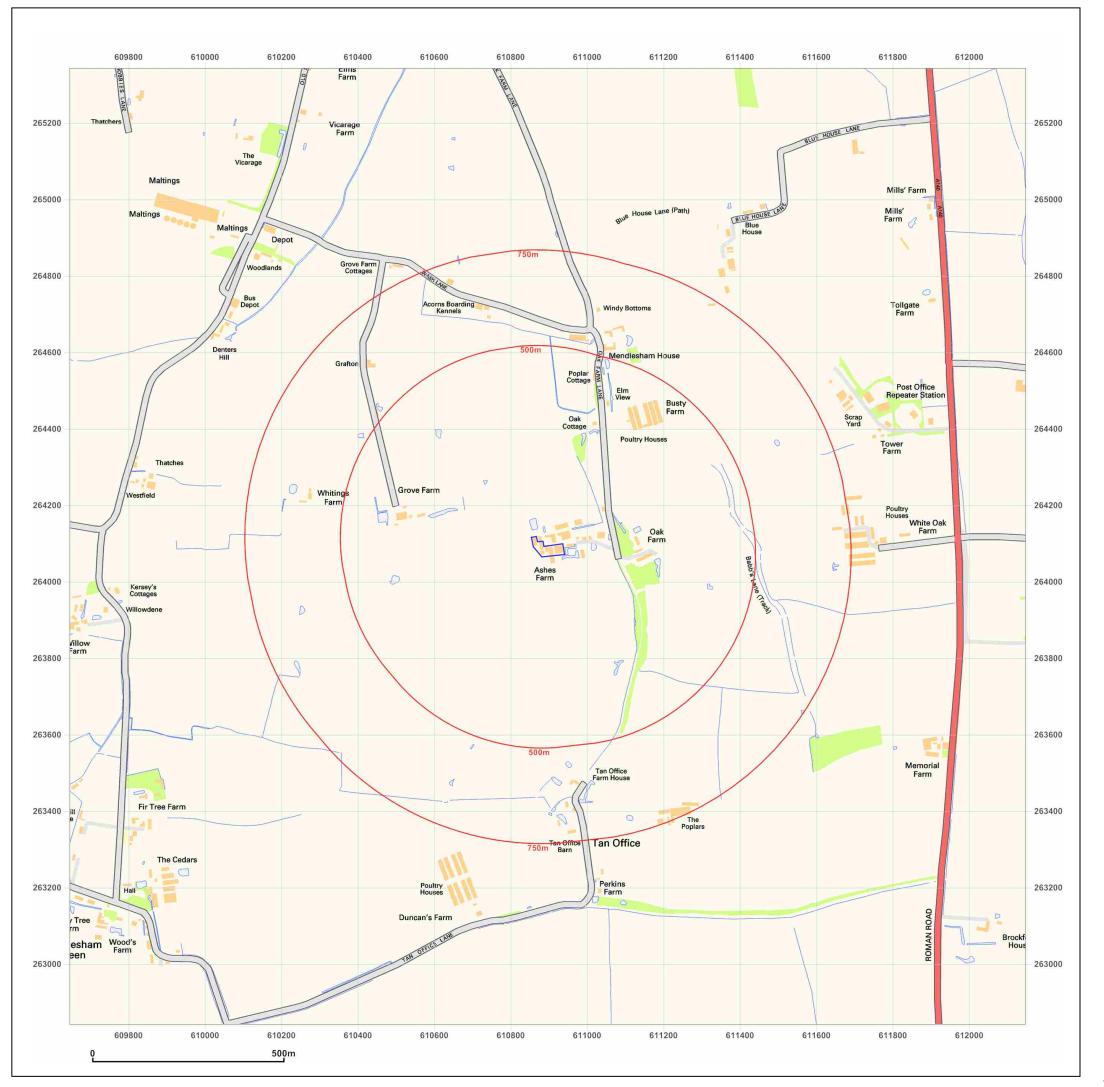




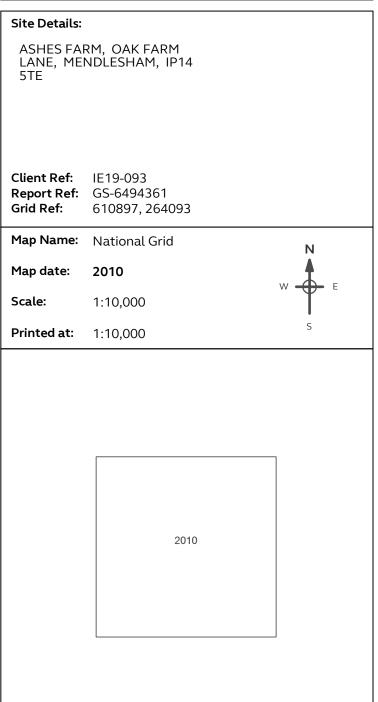
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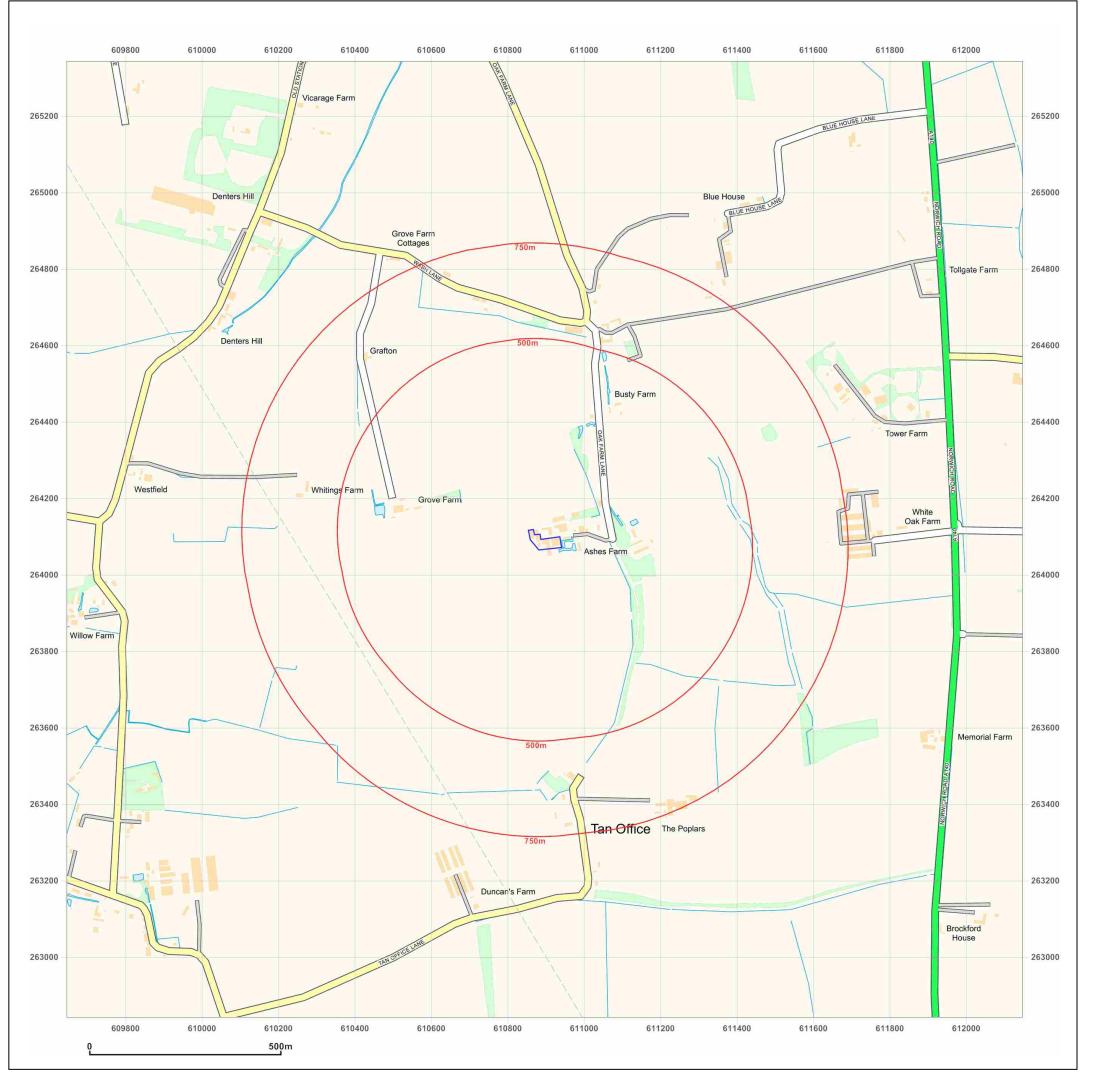




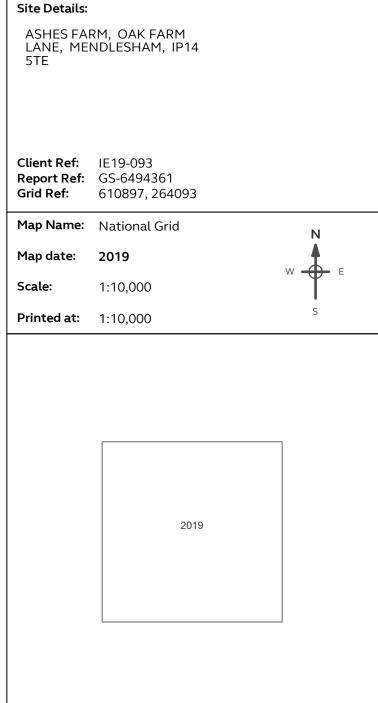
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### Appendix E – Enviro Insight Report

For: Mr Simon Colchester

Our Reference: IE19/093 Date: 06/10/2021



LOCATION INTELLIGENCE

J P Chick & Partners Ltd

7 J P CHICK & PARTNERS, MUSEUM STREET, IPSWICH, IP1 1HQ

Groundsure

GS-6494360

Reference:

Your Reference: IE19-093

Report Date 2 Dec 2019

Report Delivery Email - pdf

Method:

#### **Enviro Insight**

Address: ASHES FARM, OAK FARM LANE, MENDLESHAM, IP14 5TE

Dear Sir/ Madam,

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

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

Yours faithfully,

Managing Director **Groundsure Limited** 

Enc.

Groundsure Enviroinsight



## Groundsure Enviro Insight

Address: ASHES FARM, OAK FARM LANE, MENDLESHAM, IP14 5TE

2 Dec 2019 Date:

Reference: GS-6494360

Client: J P Chick & Partners Ltd

NW NE



Aerial Photograph Capture date: 05-May-2018

Grid Reference: 610894,264084

Site Size: 0.2423ha



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## **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	0	0	0	0
1.2 Additional Information – Historical Tank Database	2	0	0	0
1.3 Additional Information – Historical Energy Features Database	0	0	0	0
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	0	0	0
1.6 Historical military sites	0	0	0	0
1.7 Potentially Infilled Land	3	2	13	19
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	0	0	0	0
2.1.7 Records of Category 3 or 4 Radioactive Substances Authorisations	0	0	0	0
2.1.8 Records of Licensed Discharge Consents	0	0	0	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	0	0	0	0
2.3 Environment Agency/Natural Resources Wales Recorded Pollution Incidents				
2.3.1 National Incidents Recording System, List 2	0	0	0	0
2.3.2 National Incidents Recording System, List 1	0	0	0	0
2.4 Sites Determined as Contaminated Land under Part 2A EPA	0	0	0	0



					LOCATION INT	ELLIGENCE
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	0	Not searche
3.1.2 Environment Agency/Natural Resources Wales Historic Landfill Sites	0	0	0	0	0	0
3.1.3 BGS/DoE Landfill Site Survey	0	0	0	0	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 searche
3.2.2 Environment Agency/Natural Resources Wales Licensed Waste Sites	0	0	0	0	0	0
Section 4: Current Land Use	On-sit	e	0-50m	51-25	50 2	51-500
4.1 Current Industrial Sites Data	2		2	0	No	ot 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
<ul> <li>5.1 Records of Artificial Ground and Made Ground present beneath the study site</li> <li>5.2 Records of Superficial Ground and Drift Geology present</li> </ul>	th None identified					
5.2 Records of Superficial Ground and Drift Geology present			lden	tified		
beneath the study site 5.3 For records of Bedrock and Solid Geology beneath the study site see the detailed findings section.						
Section 6: Hydrogeology and Hydrology			0-5	00m		
6.1 Records of Strata Classification in the Superficial Geology within 500m of the study site			Iden	tified		
6.2 Records of Strata Classification in the Bedrock Geology within 500m of the study site			Iden	tified		
	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	1	1	3	2
6.4 Surface Water Abstraction Licences (within 2000m of the study site)	0	0	0	0	0	0
6.5 Potable Water Abstraction Licences (within 2000m of the study site)	0	0	0	0	3	0
6.6 Source Protection Zones (within 500m of the study site)	1	0	0	1	Not searched	Not searche
6.7 Source Protection Zones within Confined Aquifer	0	0	0	0	Not searched	Not searche
6.8 Groundwater Vulnerability and Soil Leaching Potential (within 500m of the study site)	1	0	0	0	Not searched	Not searche



Section 6: Hydrogeology and Hydrology	0-500m				LEIGENCE	
, 3 3, , 3	On-site	0-50m	51-250	251-500	501-1000	1000- 1500
6.9 Environment Agency/Natural Resources Wales information on river quality within 1500m of the study site	No	No	No	No	No	Yes
6.10 Ordnance Survey MasterMap Water Network entries within 500m of the site	0	4	10	32	Not searched	Not searched
6.11 Surface water features within 250m of the study site	No	Yes	Yes	Not searched	Not searched	Not searched
Section 7: Flooding						
7.1 Enviroment Agency Zone 2 floodplains within 250m of the study site			None id	dentified		
7.2 Environment Agency/Natural Resources Wales Zone 3 floodplains within 250m of the study site			None id	dentified		
7.3 Risk of flooding from Rivers and the Sea (RoFRaS) rating for the study site			Very	/ Low		
7.4 Flood Defences within 250m of the study site			None id	dentified		
7.5 Areas benefiting from Flood Defences within 250m of the study site			None id	dentified		
7.6 Areas used for Flood Storage within 250m of the study site			None id	dentified		
7.7 Maximum BGS Groundwater Flooding susceptibility within 50m of the study site			Limited	potential		
7.8 BGS confidence rating for the Groundwater Flooding susceptibility areas			Lo	OW		
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	0	0	0	0
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	0	0	0	0	0
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	0	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	0	2	0	0	0	1
8.14 Records of Green Belt land	0	0	0	0	0	0

#### Section 9: Natural Hazards

9.1 Maximum risk of natural ground subsidence	Low
9.1.1 Maximum Shrink-Swell hazard rating identified on the study site	Low
9.1.2 Maximum Landslides hazard rating identified on the study site	Very Low
9.1.3 Maximum Soluble Rocks hazard rating identified on the study site	Negligible
9.1.4 Maximum Compressible Ground hazard rating identified on the study site	Negligible
9.1.5 Maximum Collapsible Rocks hazard rating identified on the study site	Very Low
9.1.6 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?

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.

The site is not in a Radon Affected Area, as less than 1% of properties

are above the Action Level.

#### Section 10: Mining

10.1 Coal mining areas within 75m of the study site	None identified
10.2 Non-Coal Mining areas within 50m of the study site boundary	None identified
10.3 Brine affected areas within 75m of the study site	None identified



### 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 licences, 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**

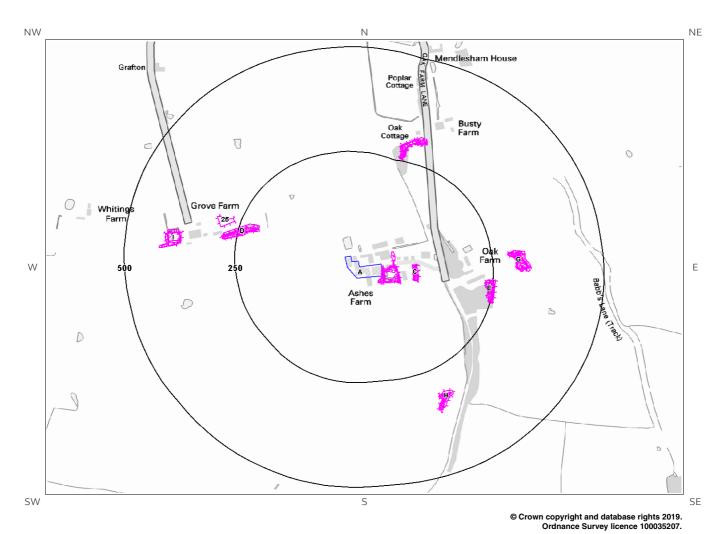
Only certain features are placed on the maps within the report. All features represented on maps found within this search are given an identification number. This number identifies the feature on the mapping and correlates it to the additional information provided below. This identification number precedes 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).

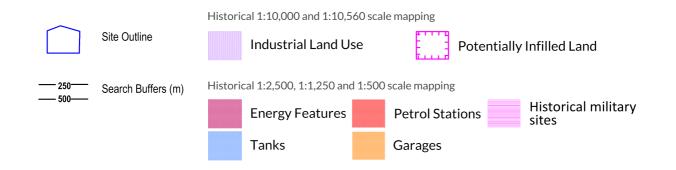
Where a feature is reported in the data tables to a distance greater than the map area, it is noted in the data table as "Not Shown".

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







## 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:

 $\cap$ 

Database searched and no data found.

#### 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:

2

ID	Distance (m)	Direction	Use	Date
1A	0	On Site	Unspecified Tank	1996
2A	0	On Site	Unspecified Tank	1997

#### 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:

0

Database searched and no data found.

#### 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:

0

Database searched and no data found.

#### 1.6 Historical military sites

Certain military installations were not noted on historic mapping for security reasons. Whilst not all military land is necessarily of concern, Groundsure has researched and digitised a number of Ordnance Factories and other military industrial features (e.g. Ordnance Depots, Munitions Testing Grounds) which may be of contaminative concern. This research was drawn from a number of different sources, and should not be regarded as a definitive or exhaustive database of potentially contaminative military installations. The boundaries of sites within this database have been estimated from the best evidence available to Groundsure at the time of compilation.

Records of historical military sites within 500m of the search boundary:

0

Database searched and no data found.

#### 1.7 Potentially Infilled Land

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

37

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

ID	Distance(m)	Direction	Use	Date
3B	0	On Site	Ponds	1957
4B	0	On Site	Ponds	1905
5B	0	On Site	Ponds	1983
6B	1	E	Ponds	1950
7B	1	E	Ponds	1884
8C	68	E	Pond	1957
9C	70	E	Pond	1905
10C	73	E	Pond	1950
11D	203	W	Pond	1884
12D	203	W	Pond	1950
13D	206	W	Pond	1983
14D	208	W	Pond	1905
15D	209	W	Pond	1957
16E	230	Е	Pond	1957
17E	232	Е	Pond	1905
18E	239	Е	Pond	1950
19E	239	Е	Pond	1884
20E	240	Е	Pond	1983
21F	253	N	Ponds	1957

Report Reference: GS-6494360 Client Reference: IE19-093

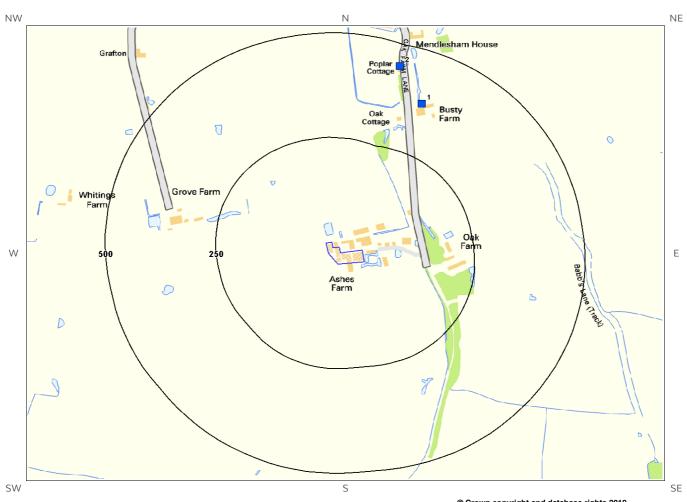
13

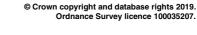


				LOCATION INTELLIGENCE
22F	255	N	Ponds	1905
23F	257	N	Ponds	1950
24F	261	N	Ponds	1983
25	263	W	Pond	1983
26G	286	E	Pond	1957
27G	289	E	Pond	1905
28G	291	E	Pond	1950
29G	295	E	Pond	1983
30G	296	E	Pond	1884
31H	308	SE	Pond	1983
32H	312	SE	Pond	1957
33H	312	SE	Pond	1905
34H	313	SE	Pond	1950
351	373	W	Ponds	1950
361	373	W	Ponds	1884
371	374	W	Ponds	1957
381	374	W	Pond	1905
391	376	W	Pond	1983



# 2. Environmental Permits, Incidents and Registers Map









## 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 an Authorities reveal the following information:	d Local
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 500m of the study site:	) within
	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.	O



2

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

		0
	Database searched and no data found.	
2.1.7 Records of Categ	ory 3 or 4 Radioactive Substances Authorisations:	
		0
	Database searched and no data found.	
2.1.8 Records of Licens	ed 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			
1	374	N	611070 264450	Address: BUSTY FARM, OAK FARM LANE, MENDLESHAM Effluent Type: SEWAGE DISCHARGES - FINAL/TREATED EFFLUENT - NOT WATER COMPANY Permit Number: PRENF20623 Permit Version: 1	Receiving Water: DITCH TRIB OF RIVER DOVE Status: NEW CONSENT (WRA 91, S88 & SCHED 10 AS AMENDED BY ENV ACT 1995) Issue date: 18/04/2007 Effective Date: 18-Apr-2007 Revocation Date:		
2	448	N	611020 264540	Address: MENDLESHAM HOUSE, OAK FARM LANE, MENDLESHAM Effluent Type: SEWAGE DISCHARGES - FINAL/TREATED EFFLUENT - NOT WATER COMPANY Permit Number: PRENF13426 Permit Version: 1	Receiving Water: TRIBUTARY RIVER DOVE Status: NEW CONSENT, BY APPLICATION (WRA 91, SECTION 88) Issue date: 12/03/2001 Effective Date: 26-Jan-2001 Revocation Date:		

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

Database searched and no data found.

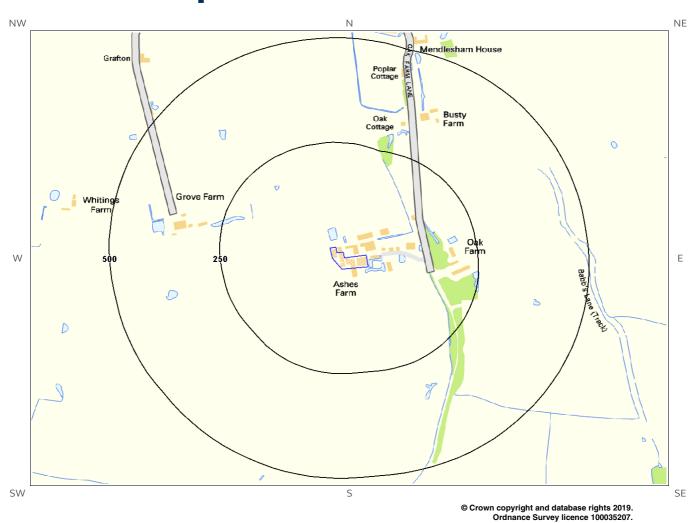
Report Reference: GS-6494360 Client Reference: IE19-093 0



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: 0 Database searched and no data found. 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: 0 Database searched and no data found. 2.3.2 Records of National Incidents Recording System, List 1 within 500m of the study site: 0 Database searched and no data found. 2.4 Sites Determined as Contaminated Land under Part 2A EPA 1990 Records of sites determined as contaminated land under Section 78R of the Environmental Protection Act 1990 are there within 500m of the study site Database searched and no data found.



## 3. Landfill and Other Waste Sites Map







## 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:
Database searched and no data found.
3.1.2 Records of Environment Agency/Natural Resources Wales historic landfill sites within 1500m of the study site:
C
Database searched and no data found.
3.1.3 Records of BGS/DoE non-operational landfill sites within 1500m of the study site:
C
Database searched and no data found.
3.1.4 Records of Landfills from Local Authority and Historical Mapping Records within 1500m of the study site:
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:
C
Database searched and no data found.



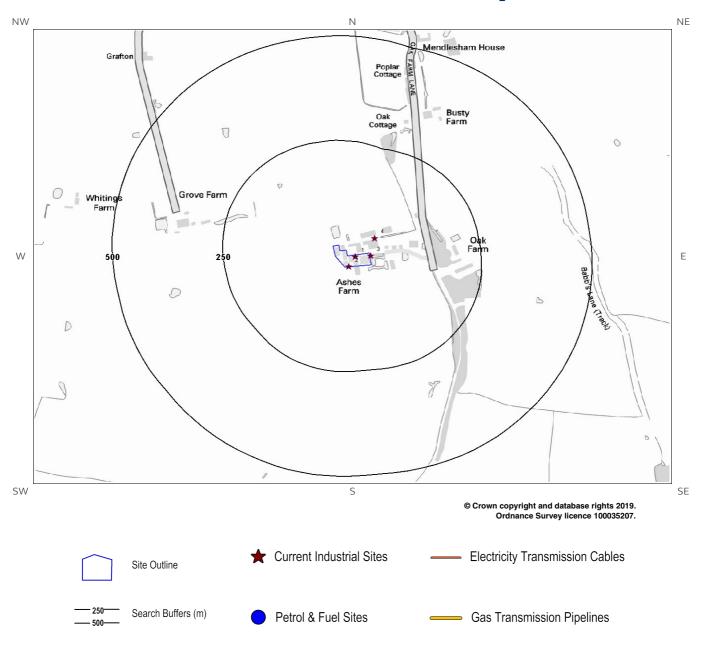
3.2.2 Records of Environment Agency/Natural Resources Wales licensed waste sites within 1500m of the study site:

		-
	ι	

Database searched and no data found.



# 4. Current Land Use Map





# 4. Current Land Uses

# 4.1 Current Industrial Data

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

4

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

ID	Distance (m)	Directio n	Company	NGR	Address	Activity	Category	
1	0	On Site	Hopper	610904 264092	Suffolk, IP14	Hoppers and Silos	Farming	
2	0	On Site	Tank	610889 264068	Suffolk, IP14	Tanks (Generic)	Industrial Features	
3	1	E	Hopper	610938 264094	Suffolk, IP14	Hoppers and Silos	Farming	
4	37	N	Hoppers	610947 264136	Suffolk, IP14	Hoppers and Silos	Farming	

# 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:

Database searched and no data found.

0



# 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

Database searched and no data found.

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

# 5.2 Superficial Ground and Drift Geology

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

Lex Code	Description	Rock Type		
LOFT-DMTN	LOWESTOFT FORMATION	DIAMICTON		

# 5.3 Bedrock and Solid Geology

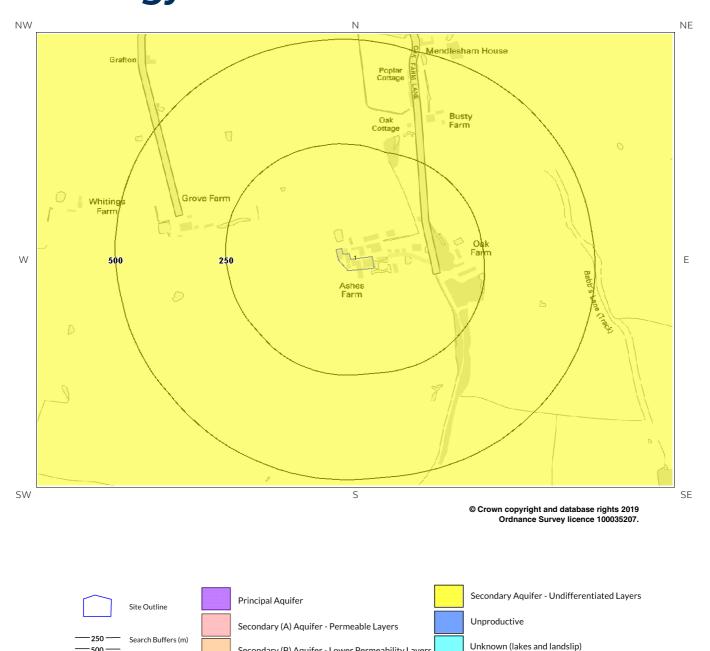
The database has been searched on site, including a 50m buffer.

Lex Code	Description	Rock Type		
CRAG-S	CRAG GROUP	SAND		

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



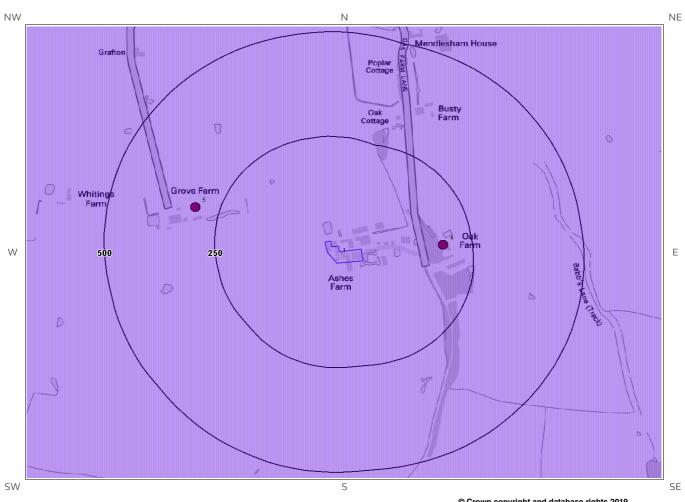
# 6 Hydrogeology and Hydrology 6a. Aquifer Within Superficial Geology

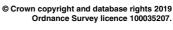


Secondary (B) Aquifer - Lower Permeability Layers



# 6b. Aquifer Within Bedrock Geology and Abstraction Licences

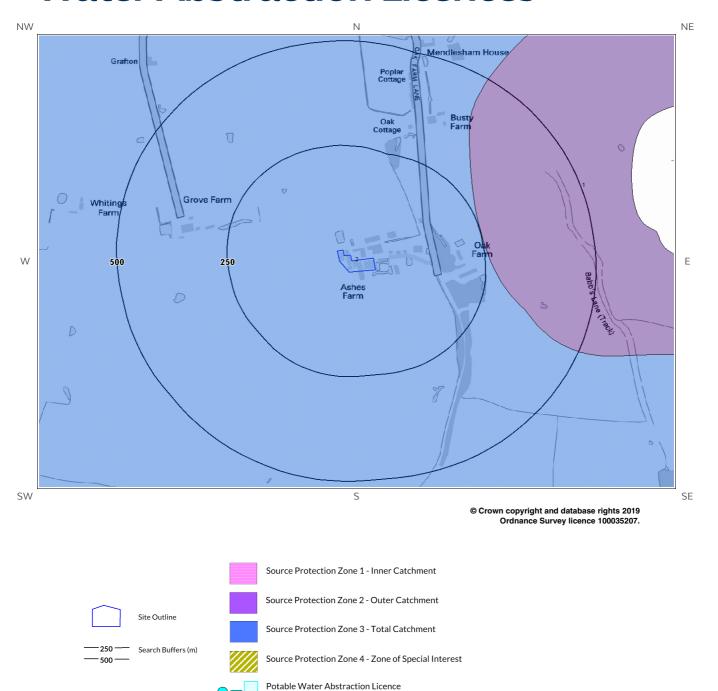






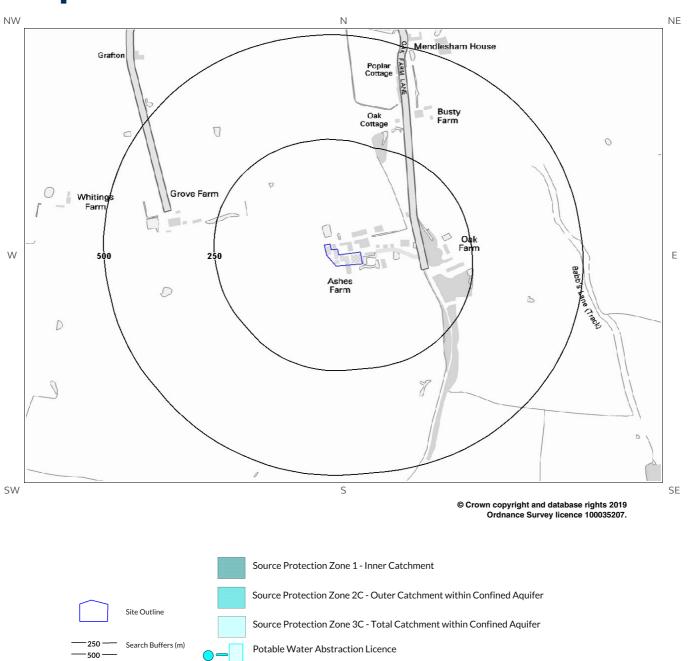


# 6c. Hydrogeology – Source Protection Zones and Potable Water Abstraction Licences



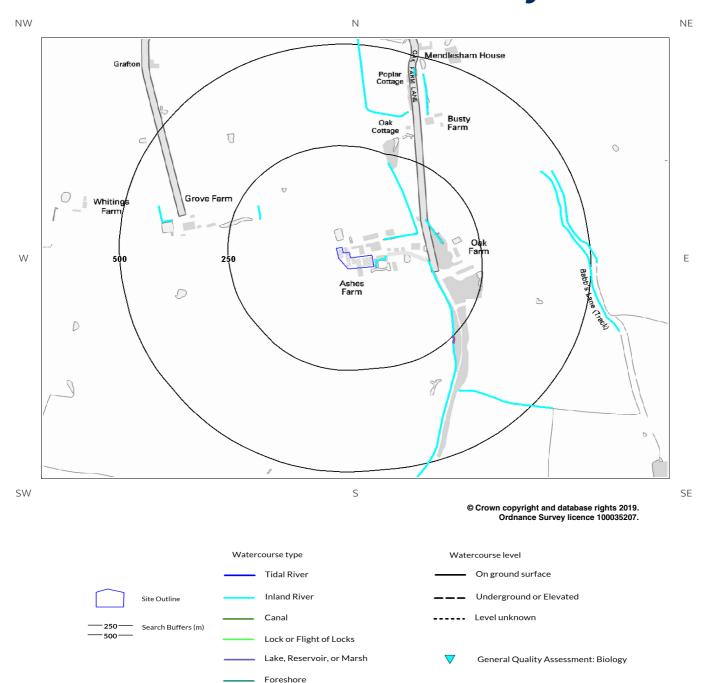


# 6d. Hydrogeology – Source Protection Zones within confined aquifer





# 6e. Hydrology – Watercourse Network and River Quality



Drain or Transfer

Report Reference: GS-6494360 Client Reference: IE19-093 General Quality Assessment: Chemistry



# 6. Hydrogeology and Hydrology

# 6.1 Aquifer within Superficial Deposits

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	ID Distanc e (m) Direction Designation		Designation	Description
1	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

# **6.2 Aquifer within Bedrock Deposits**

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	Distanc e (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



# **6.3 Groundwater Abstraction Licences**

Groundwater Abstraction Licences within 2000m of the study site

Identified

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

ID	Distance (m)	Direction	n NGR	Details				
4	183	E	611120 264110	Status: Historical Licence No: 7/34/17/*G/0038 Details: General Farming & Domestic Direct Source: GROUND WATER SOURCE OF SUPPLY Point: BORE AT OAK FM,MENDLESHAM GR'N Data Type: Point Name: BISHOP	Annual Volume (m³): - Max Daily Volume (m³): - Original Application No: - Original Start Date: 01/06/1966 Expiry Date: - Issue No: 101 Version Start Date: 01/10/2004 Version End Date:			
5	305	W	610560 264200	Status: Historical Licence No: 7/34/17/*G/0037 Details: General Farming & Domestic Direct Source: GROUND WATER SOURCE OF SUPPLY Point: BORE AT GROVE FM,MEND'M GREEN Data Type: Point Name: JUBY BROS	Annual Volume (m³): - Max Daily Volume (m³): - Original Application No: - Original Start Date: 01/05/1966 Expiry Date: - Issue No: 100 Version Start Date: 01/05/1966 Version End Date:			
Not show n	868	E	611750 264400	Status: Historical Licence No: 7/34/16/*G/0048 Details: Potable Water Supply - Direct Direct Source: GROUND WATER SOURCE OF SUPPLY Point: BORE OFF ROMAN ROAD,MENDLESHAM Data Type: Point Name: NORTHUMBRIAN WATER LTD	Annual Volume (m³): 2,569,100 Max Daily Volume (m³): 12,773 Original Application No: - Original Start Date: 01/12/1966 Expiry Date: - Issue No: 107 Version Start Date: 05/12/2016 Version End Date:			
Not show n	877	E	611761 264397	Status: Historical Licence No: 7/34/16/*G/0048 Details: Potable Water Supply - Direct Direct Source: GROUND WATER SOURCE OF SUPPLY Point: BORE OFF ROMAN ROAD,MENDLESHAM Data Type: Point Name: Northumbrian Water Ltd	Annual Volume (m³): 2,569,100 Max Daily Volume (m³): 12,773 Original Application No: - Original Start Date: 01/12/1966 Expiry Date: - Issue No: 108 Version Start Date: 27/09/2018 Version End Date:			
Not show n	877	E	611761 264397	Status: Active Licence No: 7/34/16/*G/0048 Details: Potable Water Supply - Direct Direct Source: GROUND WATER SOURCE OF SUPPLY Point: BORE OFF ROMAN ROAD,MENDLESHAM -POINT E Data Type: Point Name: Northumbrian Water Ltd	Annual Volume (m³): 2,569,100 Max Daily Volume (m³): 12,773 Original Application No: - Original Start Date: 01/12/1966 Expiry Date: - Issue No: 109 Version Start Date: 31/07/2019 Version End Date:			
Not show n	1491	SE	612070 263100	Status: Historical Licence No: 7/35/08/*G/0017 Details: General Farming & Domestic Direct Source: GROUND WATER SOURCE OF SUPPLY Point: BORE AT BROCKFORD HOUSE,WETHER Data Type: Point Name: GEORGE STEDMAN & SON	Annual Volume (m³): - Max Daily Volume (m³): - Original Application No: - Original Start Date: 01/01/1966 Expiry Date: - Issue No: 100 Version Start Date: 01/01/1966 Version End Date:			



ID	Distance (m)	Direction	NGR	Details		
Not show n	1738	SE	611680 262500	Status: Historical Licence No: 7/35/08/*G/0017 Details: General Farming & Domestic Direct Source: GROUND WATER SOURCE OF SUPPLY Point: BORE AT WALTHAM HALL,L.STONHAM Data Type: Point Name: GEORGE STEDMAN & SON	Annual Volume (m³): - Max Daily Volume (m³): - Original Application No: - Original Start Date: 01/01/1966 Expiry Date: - Issue No: 100 Version Start Date: 01/01/1966 Version End Date:	

# **6.4 Surface Water Abstraction Licences**

Surface Water Abstraction Licences within 2000m of the study site

None identified

Database searched and no data found.

# **6.5 Potable Water Abstraction Licences**

Potable Water Abstraction Licences within 2000m of the study site

Identified

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	Distanc e (m)	Direction	NGR	Details				
Not shown	868	E	611750 264400	Status: Historical Licence No: 7/34/16/*G/0048 Details: Potable Water Supply - Direct Direct Source: GROUND WATER SOURCE OF SUPPLY Point: BORE OFF ROMAN ROAD,MENDLESHAM Data Type: Point Name: NORTHUMBRIAN WATER LTD	Annual Volume (m³): - Max Daily Volume (m³): 15,319 Original Application No: - Original Start Date: 01/12/1966 Expiry Date: - Issue No: 107 Version Start Date: Version End Date:			
Not shown	877 F			Status: Active Licence No: 7/34/16/*G/0048 Details: Potable Water Supply - Direct Direct Source: GROUND WATER SOURCE OF SUPPLY Point: BORE OFF ROMAN ROAD,MENDLESHAM -POINT E Data Type: Point Name: Northumbrian Water Ltd	Annual Volume (m³): - Max Daily Volume (m³): 15,319 Original Application No: - Original Start Date: 01/12/1966 Expiry Date: - Issue No: 109 Version Start Date: Version End Date:			
Not shown	n 877 E 611761 n 264397		Status: Historical Licence No: 7/34/16/*G/0048 Details: Potable Water Supply - Direct Direct Source: GROUND WATER SOURCE OF		Annual Volume (m³): - Max Daily Volume (m³): 15,319 Original Application No: - Original Start Date: 01/12/1966 Expiry Date: - Issue No: 108 Version Start Date: Version End Date:			



# **6.6 Source Protection Zones**

Source Protection Zones within 500m of the study site

Identified

The following Source Protection Zones records are represented on the SPZ and Potable Water Abstraction Map (6c):

ID Distanc Direction Zone E		Description		
2	0	On Site	3	Total catchment
1	251	E	2	Outer catchment

# **6.7 Source Protection Zones within Confined Aquifer**

Source Protection Zones within the Confined Aquifer within 500m of the study site

None identified

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

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

Identified

Distance (m)	Direction	Classification	Soil Vulnerability Category	Description
0	On Site	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

Environment Agency/Natural Resources Wales information on river quality within 1500m of the study site



# 6.9.1 Biological Quality:

Database searched and no data found.

# 6.9.2 Chemical Quality:

Chemical quality data is based on the General Quality Assessment Headline Indicators scheme (GQAHI). In England, each chemical sample is measured for ammonia and dissolved oxygen. In Wales, the samples are measured for biological oxygen demand (BOD), ammonia and dissolved oxygen. The results are graded from A ('Very Good') to F ('Bad').

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

					Chemical Quality Grade				
ID	Distanc Direction NGR River Quality Grade e (m)		2005	2006	2007	2008	2009		
Not shown	1194	River Name: Gipping W 609750 Reach: Mendlesham Green Bridge Farm 263650 End/Start of Stretch: Start of Stretch NGR		D	D	D	С	D	

# 6.10 Ordnance Survey MasterMap Water Network

Ordnance Survey Master Map Water Network entries within 500m of the study site

This watercourse information is provided by Ordnance Survey MasterMap Water Network. The data provides a detailed centre line following the curve of the waterway precisely, so all distances provided in the report should be understood as measurements to the centreline rather than a measurement to the nearest point of the watercourse. Underground watercourses are inferred from entry and exit points so caution is advised in using these to indicate precise locations of underground watercourses when planning site investigation and development.

The following Ordnance Survey MasterMap Water Network records are represented on the Hydrology Map (6e):

ID	Distance/ Direction	Name	Type of Watercourse	Additional Details	
1	5 _ Alternative Name: -		Inland river not influenced by normal tidal action.	Catchment Area: Waveney Relationship to Ground Level: On ground surface Permanence: Watercourse contains water year round (in normal conditions) Average Width in Watercourse Section (m): 4.0	
13	5 E	- Alternative Name: -	Inland river not influenced by normal tidal action.	Catchment Area: Waveney Relationship to Ground Level: On ground surface Permanence: Watercourse contains water year round (in normal conditions) Average Width in Watercourse Section (m): 4.0	
2	48 - Inland river not influenced Permane NE Alternative Name: - by normal tidal action. Condition			Catchment Area: Waveney Relationship to Ground Level: On ground surface Permanence: Watercourse contains water year round (in normal conditions) Average Width in Watercourse Section (m): 2.8	
14	48	-	Inland river not influenced	Catchment Area: Waveney	



ID	Distance/ Direction	Name	Type of Watercourse	Additional Details	
	NE	Alternative Name: -	by normal tidal action.	Relationship to Ground Level: On ground surface Permanence: Watercourse contains water year round (in normal conditions) Average Width in Watercourse Section (m): 2.8	
3	118 NE	- Alternative Name: -	Inland river not influenced by normal tidal action.	Catchment Area: Waveney Relationship to Ground Level: On ground surface Permanence: Watercourse contains water year round (in normal conditions) Average Width in Watercourse Section (m): Not Provided	
15	118 NE	- Alternative Name: -	Inland river not influenced by normal tidal action.	Catchment Area: Waveney Relationship to Ground Level: On ground surface Permanence: Watercourse contains water year round (in normal conditions) Average Width in Watercourse Section (m): Not Provided	
4	125 E	- Alternative Name: -	Inland river not influenced by normal tidal action.	Catchment Area: Waveney Relationship to Ground Level: On ground surface Permanence: Watercourse contains water year round (in normal conditions) Average Width in Watercourse Section (m): Not Provided	
16	125 E	- Alternative Name: -	Inland river not influenced by normal tidal action.	Catchment Area: Waveney Relationship to Ground Level: On ground surface Permanence: Watercourse contains water year round (in normal conditions) Average Width in Watercourse Section (m): Not Provided	
5	150 NE	- Alternative Name: -	Inland river not influenced by normal tidal action.	Catchment Area: Waveney Relationship to Ground Level: On ground surface Permanence: Watercourse contains water year round (in normal conditions) Average Width in Watercourse Section (m): 3.3	
17	150 NE	- Alternative Name: -	Inland river not influenced by normal tidal action.	Catchment Area: Waveney Relationship to Ground Level: On ground surface Permanence: Watercourse contains water year round (in normal conditions) Average Width in Watercourse Section (m): 3.3	
6	188 W	- Alternative Name: -	Inland river not influenced by normal tidal action.	Catchment Area: Waveney Relationship to Ground Level: On ground surface Permanence: Watercourse contains water year round (in normal conditions) Average Width in Watercourse Section (m): Not Provided	
18	188 W	- Alternative Name: -	Inland river not influenced by normal tidal action.	Catchment Area: Waveney Relationship to Ground Level: On ground surface Permanence: Watercourse contains water year round (in normal conditions) Average Width in Watercourse Section (m): Not Provided	
7	249 SE	- Alternative Name: -	Lake, loch or reservoir.	Catchment Area: - Relationship to Ground Level: On ground surface Permanence: Watercourse contains water year round (in normal conditions) Average Width in Watercourse Section (m): 2.5	
19	249 SE	- Alternative Name: -	Lake, loch or reservoir.	Catchment Area: - Relationship to Ground Level: On ground surface Permanence: Watercourse contains water year round (in normal conditions) Average Width in Watercourse Section (m): 2.5	
8	264 SE	- Alternative Name: -	Inland river not influenced by normal tidal action.	Catchment Area: Gipping Relationship to Ground Level: On ground surface Permanence: Watercourse contains water year round (in normal conditions) Average Width in Watercourse Section (m): Not Provided	
20	264 SE	- Inland river not influenced Catchment Area: Gipping Alternative Name: - by normal tidal action. Relationship to Ground Level: On ground surface			



				LOCATION INTELLIGENCE	
ID Distance/ Direction		Name	Type of Watercourse	Additional Details	
				conditions) Average Width in Watercourse Section (m): Not Provided	
9	341 N	Alternative Name: - by normal tidal action. Permanence: Watercourse contains water y conditions)		Relationship to Ground Level: On ground surface Permanence: Watercourse contains water year round (in normal	
Not shown	Catchment Area: Waveney Relationship to Ground Level: On ground surface Permanence: Watercourse contains water year rou conditions) Average Width in Watercourse Section (m): 1.8		Relationship to Ground Level: On ground surface Permanence: Watercourse contains water year round (in normal conditions)		
10	362 SE	- Alternative Name: -	Inland river not influenced by normal tidal action.	Catchment Area: Gipping Relationship to Ground Level: On ground surface Permanence: Watercourse contains water year round (in normal conditions) Average Width in Watercourse Section (m): Not Provided	
Not shown	362 SE	- Alternative Name: -	Inland river not influenced by normal tidal action.	Catchment Area: Gipping Relationship to Ground Level: On ground surface Permanence: Watercourse contains water year round (in normal conditions) Average Width in Watercourse Section (m): Not Provided	
11	368 N	- Alternative Name: -	Inland river not influenced by normal tidal action.	Catchment Area: Waveney Relationship to Ground Level: On ground surface Permanence: Watercourse contains water year round (in normal conditions) Average Width in Watercourse Section (m): 3.0	
Not shown	368 N	- Alternative Name: -	Catchment Area: Waveney Inland river not influenced by normal tidal action.  Catchment Area: Waveney Relationship to Ground Level: On ground surface Permanence: Watercourse contains water year round (in conditions) Average Width in Watercourse Section (m): 3.0		
12	384 W	- Alternative Name: -	Inland river not influenced by normal tidal action.	Catchment Area: Waveney Relationship to Ground Level: On ground surface Permanence: Watercourse contains water year round (in normal conditions) Average Width in Watercourse Section (m): 2.4	
Not shown	384 W	- Alternative Name: -	Inland river not influenced by normal tidal action.	Catchment Area: Waveney Relationship to Ground Level: On ground surface	
13	439 NE	- Alternative Name: -	Catchment Area: Waveney Inland river not influenced Relationship to Ground Level: On ground surface Permanence: Watercourse contains water year round (in r		
Not shown	439 NE	- Alternative Name: -	Inland river not influenced by normal tidal action.	Catchment Area: Waveney Relationship to Ground Level: On ground surface Permanence: Watercourse contains water year round (in normal conditions) Average Width in Watercourse Section (m): Not Provided	
14	440 N	- Alternative Name: -	Inland river not influenced by normal tidal action.	Catchment Area: Waveney Relationship to Ground Level: Underground Permanence: Watercourse contains water year round (in normal conditions) Average Width in Watercourse Section (m): Not Provided	
Not shown	440 N	- Alternative Name: -	Inland river not influenced by normal tidal action.	Catchment Area: Waveney Relationship to Ground Level: Underground Permanence: Watercourse contains water year round (in normal conditions) Average Width in Watercourse Section (m): Not Provided	



	LOCATION INTE			LOCATION INTELLIGENCE	
ID	Distance/ Direction	Name	Type of Watercourse	Additional Details	
15	444 N	- Alternative Name: -	Inland river not influenced by normal tidal action.	Catchment Area: Waveney Relationship to Ground Level: On ground surface Permanence: Watercourse contains water year round (in normal conditions) Average Width in Watercourse Section (m): 2.8	
Not shown	444 N	- Alternative Name: -	Inland river not influenced by normal tidal action.	Catchment Area: Waveney Relationship to Ground Level: On ground surface Permanence: Watercourse contains water year round (in normal conditions) Average Width in Watercourse Section (m): 2.8	
16	446 E	- Alternative Name: -	Inland river not influenced by normal tidal action.	Catchment Area: Waveney Relationship to Ground Level: Underground Permanence: Watercourse contains water year round (in normal conditions) Average Width in Watercourse Section (m): Not Provided	
17	446 E	- Alternative Name: -	Inland river not influenced by normal tidal action.	Catchment Area: Waveney Relationship to Ground Level: On ground surface Permanence: Watercourse contains water year round (in normal conditions) Average Width in Watercourse Section (m): Not Provided	
Not shown	446 E	- Alternative Name: -	Inland river not influenced by normal tidal action.	Catchment Area: Waveney Relationship to Ground Level: Underground Permanence: Watercourse contains water year round (in normal conditions) Average Width in Watercourse Section (m): Not Provided	
Not shown	446 E	- Alternative Name: -	Inland river not influenced by normal tidal action.	Catchment Area: Waveney Relationship to Ground Level: On ground surface Permanence: Watercourse contains water year round (in normal conditions) Average Width in Watercourse Section (m): Not Provided	
18	453 N	- Alternative Name: -	Inland river not influenced by normal tidal action.	Catchment Area: Waveney Relationship to Ground Level: On ground surface Permanence: Watercourse contains water year round (in normal conditions) Average Width in Watercourse Section (m): 3.4	
Not shown	453 N	- Alternative Name: -	Inland river not influenced by normal tidal action.	Catchment Area: Waveney Relationship to Ground Level: On ground surface Permanence: Watercourse contains water year round (in normal conditions) Average Width in Watercourse Section (m): 3.4	
19	458 E	- Alternative Name: -	Inland river not influenced by normal tidal action.	Catchment Area: Waveney Relationship to Ground Level: On ground surface Permanence: Watercourse contains water year round (in normal conditions) Average Width in Watercourse Section (m): Not Provided	
Not shown	458 E	- Alternative Name: -	Inland river not influenced by normal tidal action.	Catchment Area: Waveney Relationship to Ground Level: On ground surface Permanence: Watercourse contains water year round (in normal conditions) Average Width in Watercourse Section (m): Not Provided	
20	463 E	- Alternative Name: -	Inland river not influenced by normal tidal action.	Catchment Area: Waveney Relationship to Ground Level: Underground Permanence: Watercourse contains water year round (in normal conditions) Average Width in Watercourse Section (m): Not Provided	
Not shown	463 E	- Alternative Name: -	Inland river not influenced by normal tidal action.	Catchment Area: Waveney Relationship to Ground Level: Underground Permanence: Watercourse contains water year round (in normal conditions) Average Width in Watercourse Section (m): Not Provided	
21	470	- Alternative Name: -	Inland river not influenced by normal tidal action.	Catchment Area: Waveney Relationship to Ground Level: On ground surface	



ID	Distance/ Direction	Name	Type of Watercourse	Additional Details	
	Е			Permanence: Watercourse contains water year round (in normal conditions)  Average Width in Watercourse Section (m): Not Provided	
Not shown	shown E Alternative Name: - by normal tidal action. Permanence: Watercourse contains water conditions)		Relationship to Ground Level: On ground surface Permanence: Watercourse contains water year round (in normal		
22	474 E	- Alternative Name: -	Inland river not influenced me: - by normal tidal action.  Catchment Area: Waveney Relationship to Ground Level: Underground Permanence: Watercourse contains water year round conditions) Average Width in Watercourse Section (m): Not Prov		
Not shown E Inland river not influenced by normal tidal action.  Relationship to Ground Permanence: Watercours conditions)		Catchment Area: Waveney Relationship to Ground Level: Underground Permanence: Watercourse contains water year round (in normal conditions) Average Width in Watercourse Section (m): Not Provided			
23	478 E	- Alternative Name: -	Inland river not influenced by normal tidal action.	Catchment Area: Waveney Relationship to Ground Level: On ground surface Permanence: Watercourse contains water year round (in normal conditions) Average Width in Watercourse Section (m): Not Provided	
Not shown	478 E	- Inland river not influenced Alternative Name: - by normal tidal action.		Catchment Area: Waveney Relationship to Ground Level: On ground surface Permanence: Watercourse contains water year round (in normal conditions) Average Width in Watercourse Section (m): Not Provided	

# **6.11 Surface Water Features**

Surface water features within 250m of the study site

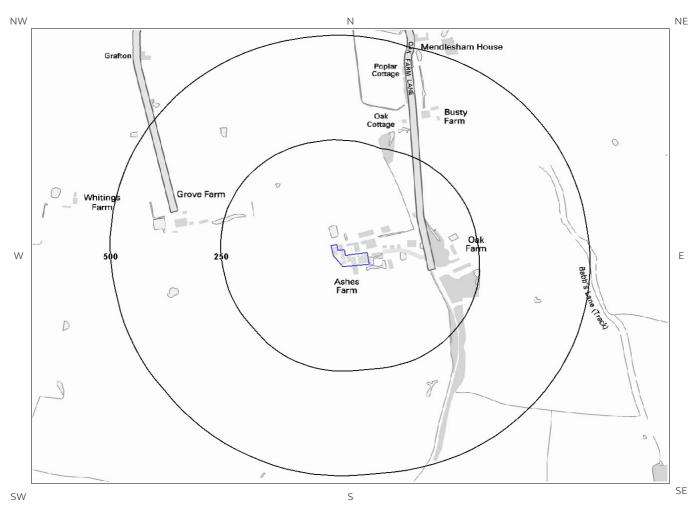
Identified

The following surface water records are not represented on mapping:

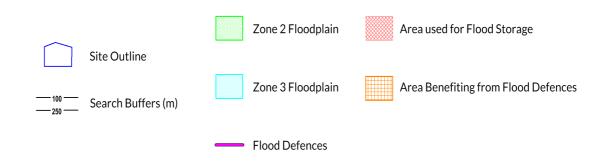
Distance (m)	Direction
2	E
4	SE
96	NE
125	E
150	NE
188	E
188	W



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

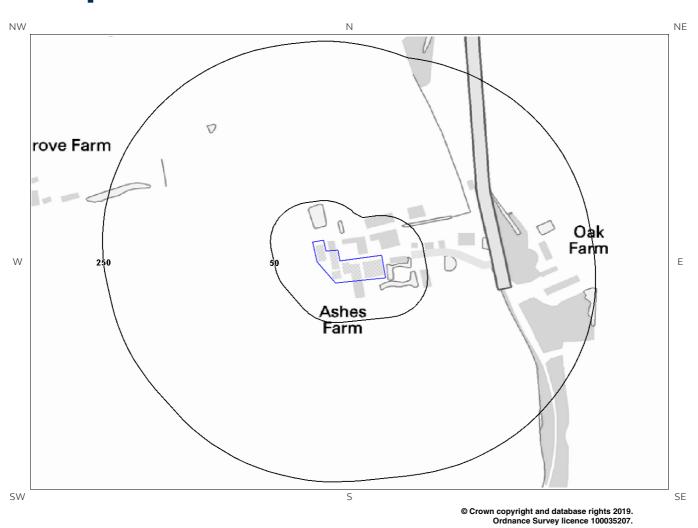


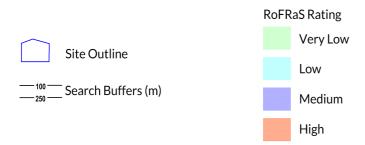
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# 7b. Environment Agency/Natural Resources Wales Risk of Flooding from Rivers and the Sea (RoFRaS) Map







# 7 Flooding

# 7.1 River and Coastal Zone 2 Flooding

Environment Agency/Natural Resources Wales Zone 2 floodplain within 250m

None identified

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

Environment Agency/Natural Resources Wales Zone 3 floodplain within 250m

None identified

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

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

Flood Defences within 250m of the study site

None identified

Database searched and no data found.

# 7.5 Areas benefiting from Flood Defences

Areas benefiting from Flood Defences within 250m of the study site

None identified



# 7.6 Areas benefiting from Flood Storage

Areas used for Flood Storage within 250m of the study site

None identified

# 7.7 Groundwater Flooding Susceptibility Areas

7.7.1 British Geological Survey groundwater flooding susceptibility areas within 50m of the boundary of the study site

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 Highest susceptibility to groundwater flooding in the search area based on the underlying geological conditions

Limited potential

Where limited potential for groundwater flooding to occur is indicated, this means that although given the geological conditions there may be a groundwater flooding hazard, unless other relevant information, e.g. records of previous flooding, suggests groundwater flooding has occurred before in this area, you need take no further action in relation to groundwater flooding hazard.

# 7.8 Groundwater Flooding Confidence Areas

British Geological Survey confidence rating in this result

Low

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.

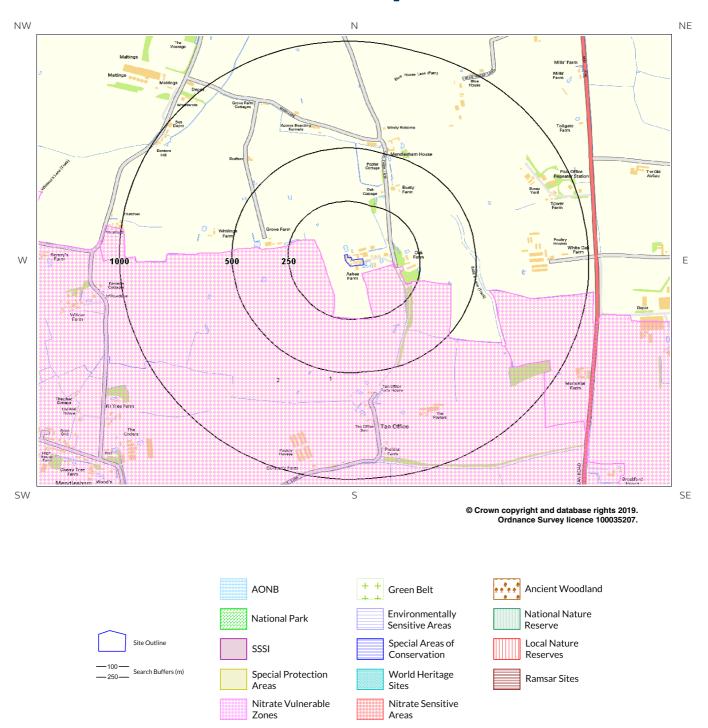
The confidence rating is on a threefold scale - Low, Moderate and High. This provides a relative indication of the BGS confidence in the accuracy of the susceptibility result for groundwater flooding. This is based on the amount and precision of the information used in the assessment. In areas with a 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.

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# 8. Designated Environmentally Sensitive Sites Map





# 8. Designated Environmentally Sensitive Sites

Designated Environmentally Sensitive Sites within 2000m of the study site	Identified
8.1 Records of Sites of Special Scientific Interest (SSSI) within 2000m of the stusite:	ıdy
	0
Database searched and no data found.	
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 s	site:
	0
Database searched and no data found.	
8.4 Records of Special Protection Areas (SPA) within 2000m of the study site:	
Database searched and no data found.	0
Database searched and no data round.	
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:

Database searched and no data found.	0
8.7 Records of Local Nature Reserves (LNR) within 2000m of the study site:	
Database searched and no data found.	0
8.8 Records of World Heritage Sites within 2000m of the study site:	
Database searched and no data found.	0
8.9 Records of Environmentally Sensitive Areas within 2000m of the study site:	0
Database searched and no data found.	0
8.10 Records of Areas of Outstanding Natural Beauty (AONB) within 2000m of the study site:	
Database searched and no data found.	0
8.11 Records of National Parks (NP) within 2000m of the study site:	
Database searched and no data found.	0
8.12 Records of Nitrate Sensitive Areas within 2000m of the study site:	0
Database searched and no data found.	0



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

3

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
1	37	S	Existing	DEFRA
2	37	S	Existing	DEFRA
Not shown	1864	N	Existing	DEFRA

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

Database searched and no data found.

0



# 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

Maximum Shrink-Swell\*\* 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

Ground conditions predominantly medium plasticity. Do not plant trees with high soil moisture demands near to buildings. For new build, consideration should be given to advice published by the National House Building Council (NHBC) and the Building Research Establishment (BRE). There is a possible increase in construction cost to reduce potential shrink-swell problems. For existing property, there is a possible increase in insurance risk, especially during droughts or where vegetation with high moisture demands is present.

# 9.1.2 Landslides

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

Maximum Soluble Rocks\* 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

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.

<sup>\*</sup> This indicates an automatically generated 50m buffer and site.



# 9.1.4 Compressible Ground

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

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

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.

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<sup>\*</sup> This indicates an automatically generated 50m buffer and site.



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

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

## 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

Coal mining areas within 75m of the study site

None identified

Database searched and no data found.

# 10.2 Non-Coal Mining

Non-Coal Mining areas within 50m of the study site boundary

None identified

Database searched and no data found.

# **10.3 Brine Affected Areas**

Brine affected areas within 75m of the study site Guidance: No Guidance Required.

None identified



# **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:  $\frac{www.environment-agency.gov.uk}{\text{Email: enquiries@environment-agency.gov.uk}}$ 

### 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: Mid Suffolk District Council
Phone: 03001 234 000
Web: http://www.midsuffolk.gov.uk/
Address: Endeavor House, 8 Russell Road, Ipswich, IP1 2BX

# **Gemapping PLC**

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















Acknowledgements: Site of Special Scientific Interest, National Nature Reserve, Ramsar Site, Special Protection Area, Special Area of Conservation data is provided by, and used with the permission of, Natural England/Natural Resources Wales who retain the Copyright and Intellectual Property Rights for the data.

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Groundsure's Terms and Conditions can be viewed online at this link:

https://www.groundsure.com/terms-and-conditions-feb11-2019