

Report No: C312
Date: February 2019

**PRELIMINARY INVESTIGATION
of land at
COCKLE EDGE FARM, INGBIRCHWORTH, Nr PENISTONE,
SOUTH YORKSHIRE**



Prepared for
Mr Peter Cadman

Prepared by
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REPORT NUMBER:	C312	REPORT STATUS:	Final
REPORT TYPE:	Preliminary Investigation		
REPORT DATE:	February 2019		
SITE:	Land at Cockle Edge Farm, Ingbirchworth, Nr Penistone, South Yorkshire		
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1.0 INTRODUCTION.

G&M Consulting Ltd (G&M) was commissioned by Mr Peter Cadman, to undertake a preliminary investigation (desk study) of land at Cockle Edge Farm, Ingbirchworth, near Penistone, South Yorkshire. It is understood that planning approval (Ref 2017/0343) has been granted by Barnsley Metropolitan Council for the development of the site with a change of use from agricultural buildings to 2 No dwelling houses. This report has been prepared in support of the discharge of Condition 5 of the above approval.

A drawing for the proposed development is shown on Drawing No 1023/1, dated 9th May 2017, prepared by Gable Design Ltd, a copy of which is presented in Appendix A of this report.

The aims of this investigation are as follows;

- To determine the land use history of the site from an inspection of available historical Ordnance Survey (OS) plans;
- To determine the environmental setting of the site, including the details of the geology, hydrogeology and hydrology;
- To determine the likelihood of shallow coal mine workings beneath the site;
- To determine whether the site had previously been used for any purpose that may have given rise to significant ground contamination;
- Develop a Preliminary Conceptual Site Model; and,
- To provide recommendations for any further works, if required.

As part of the desk study, information was sourced from GroundSure Limited (GroundSure), British Geological Survey (BGS), The Coal Authority (CA), The Environment Agency (EA) and Building Research Establishment (BRE). A site inspection (walk-over survey) was also carried out by a G&M Geologist on 1st February 2019.

This report is based on the data obtained from the preliminary investigation, it is limited to that data, and responsibility cannot be accepted for conditions not revealed by the investigation. Any diagram or opinion of the possible configuration of the ground conditions is conjectural and given for guidance only.

During the course of the site walk-over G&M did not note the possible presence of Japanese Knotweed on the subject site. However, it should be borne in mind G&M are not qualified ecologists and as such cannot guarantee the presence of knotweed or other invasive vegetation. If necessary the possible presence of such vegetation should be confirmed by a qualified ecologist.

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2.0 SITE DESCRIPTION.

2.1 Site Location.

The site is located at Cockle Edge Farm, Huddersfield Road, Ingbirchworth, approximately 3km north of Penistone town centre, at National Grid Reference SE 229 005. A site location plan is shown on Drawing No. C312/01, presented in Appendix A of this report.

2.2 Site Features.

The site is a roughly square shaped piece land, approximately 0.105 Ha in size. The site is a gently sloping parcel of land, descending from east to west with a fall of approximately 6 m.

The site is accessed through a gate, off Huddersfield Road, which runs to the north-west and to the east of the site, and opens into an area of tarmac and gravel hardstand which extends past the current residence on the site, along to the western boundary. The site is bounded to the west and the south by agricultural land, to the north by an area of hard stand with a stable, temporary accommodation and an old stable which was not accessed. The east of the site is bounded by agricultural land, the access track to Huddersfield Road and the current farmhouse.

The site is currently occupied by three agricultural barns comprising;

One building attached to the current farm house, accessed from the southern boundary of the site, brick built in a current good state of repair.

One 'lean to' style building with no roof and is in a poor state of repair with only the steel frame of the building still in place, an old oil/lubricant drum was noted on the gravel area/concrete slab within the building.

The third is a two storey barn in a poor state of repair being used for storage of vehicles, construction materials equine materials. The building appeared to be constructed of concrete blocks with probable asbestos sheeting forming the upper sides, roof and drain pipes with a concrete slab floor.

An area of stockpiled bricks, clay and rubble was noted to the west of the third building.

A set of site condition photographs have been retained by G&M for inspection if required.

3.0 SITE HISTORY.

A GroundSure report was commissioned, as part of this investigation, in order to review the environmental and regulatory information for the site and the immediate surrounding area. A copy of the report is presented in Appendix B of this report. A summary of the findings of the report and the general setting of the site is described below.

Below is a summary of the salient points relating to the history of the site, dated from 1854. It is not the intention of this report to describe, in detail, all the changes that have occurred on or adjacent to the site, only those pertinent to the proposed development. This approach is intended to reduce uncertainty in the desk study review process to an acceptable level in line with BS10175:2013.

Date (Scale)	Site Usage	Surrounding Area Usage
1854 (1:10,560)	Two Cockle Edge Farm buildings already shown on the site	- Agricultural land surrounds the site on all sides - Unlabelled road (Huddersfield Road) shown 50m north and east of the site to the south east - Ingbirchworth Dike located approximately 150m west of the site - Sheffield Junction Railway noted 480m east of the site. - The Rose and Crown public house noted 300m north-west of the site - Ingbirchworth village centre located 500m north-west of the site - Sandstone quarry noted 600m south-east of the site
1891-1892 (1:10,560) & 1893 (1:2,500) County Series	No significant change	- Spring noted 250m east of the site - Railway to the east of the site now named Huddersfield and Penistone Line
1903-1904 (1:10,560) & 1906 (1:2,500) County Series	Third building towards the north of the site now shown	No significant change
1929-1933, 1938 (partial map) (1:10,560) County Series	No significant change	- Ingbirchworth Dike now flooded to form Scout Dike Reservoir, with the edge of the reservoir approximately 100m south-west of the site - Isolation Hospital now shown 500m south-east of the site
1948 (1:10,560) County Series & 1951 (1:10,560) Provisional	No significant change	Hospital now named Stanhope Hospital
1959 & 1958-1960 (1:2,500) National Grid	Some smaller buildings now appear on the site	Sewage Works now shown approximately 150m north-west of the site
1967 (1:10,560) Provisional	No significant change	Village of Ingbirchworth now shown to be more significantly developed
1983 - 1987 (1:10,000) & 1993, 1994 (1:2,500) National Grid	No significant change	Hospital now named Lakeside View
2002 (1:10,000) Raster	No significant change	No significant change
2010, 2014 (1:10,000) National Grid	No significant change	No significant change

4.0 ENVIRONMENTAL SETTING.

4.1 Published Geology

Maps/publications referenced	1:50,000, Sheet 86 (Glossop) Bedrock and Drift Edition Geological Memoir
Drift Geology	None indicated on the geological maps
Solid Geology	Site is shown to be underlain by the Pennine Lower Coal Measures (Mudstone and Siltstones – and Penistone Flags (Sandstone) – Langsettian Sub-age
Dip	Map shows locally 2-4° north-east
Faults	Closest located 68m north – Normal Fault, inferred

4.2 Hydrology

According to the GroundSure report the site is not located on a fluvial indicative floodplain.

Groundsure report indicates there are 4 surface water features within 250m of the site. Based on a review of the OS maps these features are all between 77 and 92m south-west of the site and are likely to be attributed to the Scout Dike Reservoir.

The site is shown not to be within a Source Protection Zone.

The site is not shown to be within a Nitrate Sensitive Area.

4.3 Hydrogeology

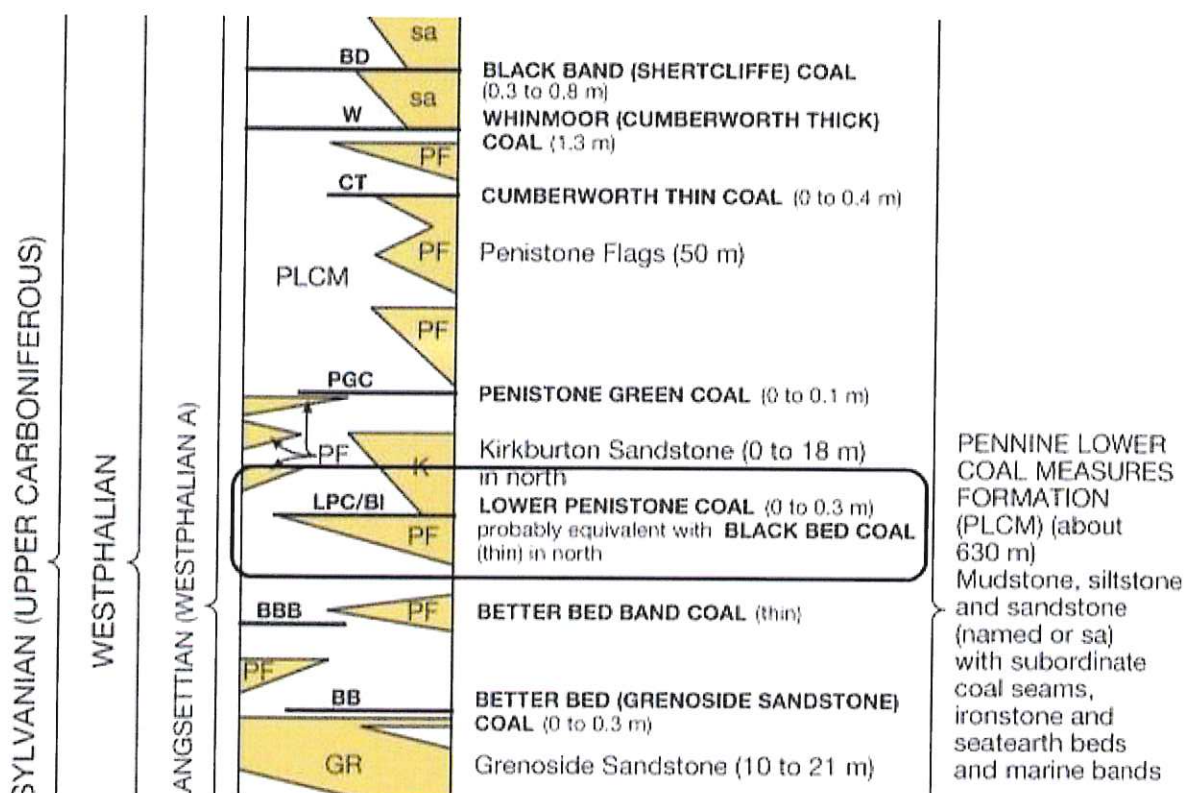
Information provided by the EA indicates that the underlying bedrocks (Pennine Lower Coal Measures & Penistone Flags) is classified as 'Secondary A', which is defined as having;

'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 formally classified as minor aquifers'

4.4 Mining and Quarrying

According to the CA interactive map (<http://mapaps2.bgs.co.uk/coalauthority/home.html>) shows a relatively thin 'development high risk area' running through the site. This appears to follow the coal outcrop which is shown to pass through the site on the CA map. The CA map does not indicate past or probable shallow coal mining associated with the high risk zone, so it appears to be solely based on the coal out crop being present.

However, the BGS online geindex does not show a coal seam. The geology is the Penistone Flags which are a series of sandstone's interbedded with undifferentiated coal measures within which are three seams of coal and two more at the top and bottom of the sequence, see attached stratigraphic column.



Earlier editions of the geological maps published up to 1981 do show a coal seam, the Lower Penistone Coal running through the site. The most recent 1:50,000 map, published in 2012 shows this coal to be faulted out. It is possible that the CA map is therefore based on the earlier geological maps.

Inspection of the OS Plans has revealed no evidence of quarrying on the site, or within the immediate environs.

4.5 Radon

To determine whether the site is at risk from radon gas, the BRE Document 'BRE 211 – Radon: Guidance on the protective measures for new dwellings' together with the National Radiological Protection Board (NRPB) 'Radon Atlas of England and Wales' have been referenced.

These documents indicate that the site lies within an area where **no** radon protective measures are necessary.

5.0 PRELIMINARY CONCEPTUAL SITE MODEL.

5.1 Introduction

The findings of the desk study have been used to identify and assess potential sources of contamination and to develop a preliminary conceptual model of the site in order to investigate potential pollution linkages and identify complete pollutant linkages that may require further investigation or analysis and/or remediation. This approach is in line with CLR11 (Model Procedures for the Management of Land Contamination - Environment Agency 2004).

The scope of the model is intended primarily to identify potential impacts to human health and environmental receptors from potential on-site and off-site contamination sources.

Source-Pathway-Receptor elements within the model are defined as follows:

Contaminant Source	A hazardous substance or agent, present at levels that have the potential to cause harm or damage a receptor.
Receptor	An entity (human, aquatic environment, flora and fauna etc) that is vulnerable to the adverse effects of the contaminant.
Pathway	The means by or through which a contaminant comes into contact with or otherwise effects a receptor.

Where all three elements are present, the relationship is termed a complete 'pollution linkage'. It should be recognised that for a health or environmental harm to occur and for potential unacceptable risk to exist, all three elements of the relationship or linkage must be present.

In line with CLR11:2004, the purpose of the site specific conceptual model is to support:

1. Hazard assessment – analysis of the potential for unacceptable risk: pathways and receptors that could be present.
2. Risk estimation – a prediction of the magnitude and probability of the possible consequences of any exposure: what degree of harm may result and the likelihood of harm.
3. Risk evaluation – decision as to whether a risk is unacceptable.

It should be noted that if a potential contaminant source is identified but there is no receptor present that can be adversely affected, no harm or damage can arise. Similarly even where both a contaminant and a receptor are present, no harm or damage will occur if there is no pathway by or through which a linkage between the two can be established and therefore a risk may be acceptable.

In assessing risk, the categorisation shown below has been developed. The table is intended to be an aid to assessing the degree of risk. It should be noted that in terms of Part 2A of the Environmental Protection Act 1990 (as amended) there is no differing degree of risk. It is either 'significant' or not.

Term	Description
Very High Risk	There is a high probability that severe harm could arise to a designated receptor from an identified hazard at the site without appropriate remedial action
High Risk	Harm is likely to arise to a designated receptor from an identified hazard at the site without appropriate remedial action
Moderate Risk	It is possible that without appropriate remedial action harm could arise to a designated receptor. It is relatively unlikely that any such harm would be severe, and if any harm were to occur it is more likely that such harm would be relatively mild.
Low Risk	It is possible that harm could arise to a designated receptor from an identified hazard. It is likely that, at worst, if any harm was realised any effects would be mild.
Negligible Risk	The presence of an identified hazard does not give rise to the potential to cause harm to a designated receptor.

5.2 Assessment of Potential Sources of Contamination

Potential sources of contamination have been assessed which include both current and historical on site sources together with those originating from off-site locations which may migrate onto the site.

Historical maps relating to the site indicate that the site has been occupied by buildings, probably associated with Cockle Edge Farm, since at least 1854; with a further building added sometime before 1903. It is considered the former and current site uses are considered to be potential sources of contamination.

The findings of the Groundsure report, presented in Appendix B, in relation to other potential pollution sources on and off site are presented below together with recommendations for further consideration.

Source	Location	Discussion	Does source warrant further consideration
Historic Tanks	On Site	None identified	No
Historic Energy Facilities	On site	None identified	No
Petrol and Fuel sites	On site	None identified	No
	Within 500m	None identified	
Garage/Motor Vehicle Repair	On site	None identified	No
	Within 500m	None identified	
Infilled Land	On site	None identified	No

Source	Location	Discussion	Does source warrant further consideration
	Within 500m	12 noted, the closest is 93m south-west and is listed as a reservoir. The rest are listed as Water body, reservoir and cuttings	No
Environmental permits/incidents/registers	On site	4 identified, the closest is 149m south of the site in 2017 and relates to a contamination of water with effluent (likely associated with the reservoir) it had a category 1 (Major) impact on water	No
	Within 500m		
Licenced/Permitted/ Authorised industrial sites	On site	2 located within 500m of the site, located 161m and 192m west of the site which are listed as Sewage Works and Works respectively	No
	Within 500m		
Part A1/IPC Authorisations	On site	None identified	No
	Within 500m		
Red List discharge consents	On site	None identified	No
	Within 500m		
Dangerous substances	On site	None identified	No
	Within 500m		
A2/Part B Activities/ Enforcements	On site	None identified	No
	Within 500m	None identified	
Radioactive substances	On site	None identified	No
	Within 500m		
Licenced Discharge Consents	On site	None identified	No
	Within 250m	19 located within 250m of the site and are all related to the Sewage Works to the west of the site, with the receiving water listed as Ingbirchworth Dyke and The River Don	
Water Industry Referrals	On site	None identified	No
	Within 500m		
Hazardous Substances	On site	None identified	No
	Within 500m		
Pollution Incidents	On site	4 identified, the closest is 149m south of the site in 2017 and relates to a contamination of water with effluent (likely associated with the reservoir) it had a category 1 (Major) impact on water	No
	Within 500m		
Historic Landfill/Waste Sites	On site	None identified	No
	Within 500m	None identified	
Waste treatment, transfer or disposal sites	On site	None identified	No
	Within 500m	None identified	
Operational landfill sites	On site		No

Source	Location	Discussion	Does source warrant further consideration
	Within 500m	None identified	
Underground cables/pipelines	On site	None identified	No
	Within 500m		
	General area	None identified	
Current Industrial Sites Data	General area	2 noted within 250m, noted as the Sewage Works and Works which are both west of the site	No

5.3 Potential Receptors

The following potential receptors have been identified for the site:

Receptor	Details
Human Receptors	Future site occupiers
	Construction workers
Controlled Waters	Pennine Lower Coal Measures & Penistone Flags (Secondary A Aquifer)
Built Development	Building foundations/substructures and utility connections.

5.4 Potential Pathways

Taking into account the intended use of the site, the following potential pathways by which the above receptors and sources may be linked as follows;

Receptor	Pathway
Human (Future site users, construction workers)	Ingestion of soil/soil dust Dermal contact with soil/soil dust Indoor/outdoor inhalation of fugitive dust
Controlled Waters	Percolation and mobilisation of contaminants within any shallow soils into the groundwater.
Built Development	Direct contact with aggressive ground conditions via migration and/or percolation out of the ground

5.5 Qualitative Risk Assessment

The findings of the desk study, and source receptor pathway analyses, have been accounted for and assessed in the conceptual model presented below. The purpose of the model is to determine the potential linkage(s) existing on the site, and the likelihood of the linkage being present and determining a consequent level of risk.

Preliminary Conceptual Site Model

Receptor	Source	Potential Pollutant	Pathway	Probability	Risk
Future Site Occupiers	On-site sources (current or historical)	Unknown – Made ground contaminants, metals, inorganic and organic compounds, including herbicides and pesticides	Ingestion and Dermal contact	Possible – Possible sources of potential contamination identified from historical records or noted during walk over survey. Sources associated with storage barns. Possible pesticides/herbicides associated with agricultural use of site	Moderate
	Off-site sources (current or historical).	Unknown – Made ground contaminants, including metals, inorganic and organic compounds	Leaching/migration of contaminants through soil	Unlikely – No industrial uses recorded adjacent to the site.	Negligible
	On-site/Off-site sources (current or historical)	Hazardous Gas	Inhalation	Possible – volatile hydrocarbon impacted soils associated with former site uses. No historical landfills shown adjacent to site boundary. Radon protection measures not required. Site not shown to be underlain by organic rich alluvial soils.	Low
		Asbestos Containing Materials (ACMs)	Inhalation/Dermal contact	Possible – ACMs present within the fabric of the historical buildings	High
Construction Workers	On-site/Off-site sources (current or historical)	Unknown – Made ground contaminants, including metals, inorganic and organic compounds, including PCBs	Ingestion and Dermal contact	Possible – Any contamination present on site mitigated using PPE	Moderate/High
Controlled Waters			Leaching/migration of contaminants through soil	Unlikely – Site not shown to be underlain by permeable superficial soils. Site underlain by Secondary A aquifer, (Pennine Lower Coal Measures & Penistone)	Low
Built Development			Direct contact with aggressive ground conditions	Possible – Made ground likely to be present on site. Possible elevated levels of contaminants affecting utilities and foundation concrete	Moderate

The preliminary conceptual site model does indicate a number of potential complete pollutant linkages, associated with the former and current site uses that require further assessment and investigation.

6.0 CONCLUSIONS AND RECOMMENDATIONS.

It is understood that planning approval (Ref 2017/0343) has been granted by Barnsley Metropolitan Council for the development of the site with two residential dwelling. This report has been prepared in support of the discharge of Condition 5 of the above approval.

A drawing for the proposed development is shown on Drawing No 1023/1, dated 9th May 2017, prepared by Gable Design Ltd, a copy of which is presented in Appendix A of this report.

The site currently comprises an existing residential property, and three agricultural buildings in various states of repair, and areas of concrete and gravel hardstand.

The site is not located on a fluvial indicative floodplain

According to the CA interactive map a relatively thin 'development high risk area' running through the site. This appears to follow the coal outcrop which is shown to pass through the site on the CA map. The CA map does not indicate past or probable shallow coal mining associated with the high risk zone, so it appears to be solely based on the coal out crop being present. However, the BGS online geindex does not show a coal seam. Earlier editions of the geological maps published up to 1981 do show a coal seam, the

Lower Penistone Coal running through the site. The most recent 1:50,000 map, published in 2012 shows this coal to be faulted out. It is possible that the CA map is therefore based on the earlier geological maps. As a consequence of this it is considered that the site is at low risk from possible shallow workings beneath the site.

The preliminary conceptual site model does indicate a number of potential complete pollutant linkages, associated with the former and current site uses that require further assessment and investigation. No potential off-site sources of contamination have been identified as part of this desk study.

Prior to demolition/refurbishment of the existing buildings, an asbestos survey should be carried out by a suitably experienced contractor/consultant to assess the extent of the probable asbestos cement sheeting and other building materials containing asbestos that will require disposal from site.

Based on the findings of this desk study report it is recommended that an intrusive geoenvironmental investigation is carried out to assess the risk identified receptors. The scope of the investigation should include the following:

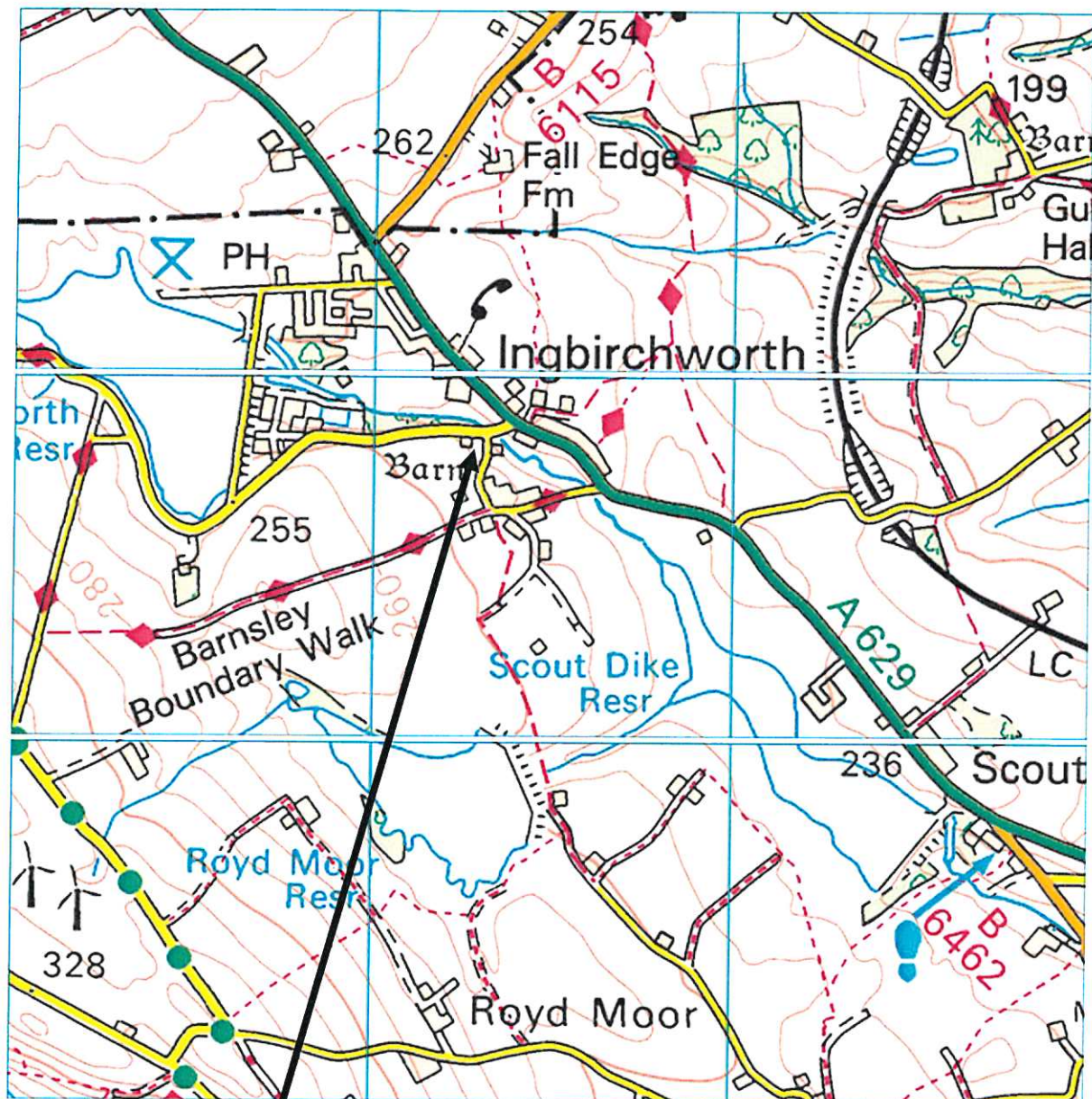
- Excavation of trial pits across the site, with the recovery of selected samples of made ground and natural soils for chemical testing.
- Chemical testing of recovered samples at a UKAS/MCERTS accredited laboratory.
- Preparation of a factual and interpretative Phase II Report, detailing the findings of the investigation, including a qualitative risk assessment and recommendations for the preparation of a Remediation Strategy (if required)

The conclusions and recommendations presented above are considered practical based on the findings of this report. However they cannot however be guaranteed to gain regulatory approval, and therefore this report should be submitted to the regulators for their comment/approval prior to any further development of the site.



APPENDIX A

DRAWINGS



The Site

Site Location Plan Drawing No C312/1

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APPENDIX B

GROUNDSURE REPORT

Address: COCKLE EDGE, HUDDERSFIELD ROAD, INGBIRCHWORTH, BARNSELEY, S36 7GF
Date: 7 Feb 2019
Reference: GS-5805841
Client: G&M Consulting Ltd



Aerial Photograph Capture date: 07-Jun-2013
Grid Reference: 422920,405559
Site Size: 0.16ha

Report Reference: GS-5805841
Client Reference: C312

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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	4	14
1.2 Additional Information – Historical Tank Database	0	0	5	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	0	0	5	7

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	19	0
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	2	2
2.3.2 National Incidents Recording System, List 1	0	0	0	0
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	0	Not searched
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 searched
3.2.2 Environment Agency/Natural Resources Wales Licensed Waste Sites	0	0	0	0	0	0

Section 4: Current Land Use	On-site	0-50m	51-250	251-500
4.1 Current Industrial Sites Data	0	0	2	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 Records of Artificial Ground and Made Ground present beneath the study site	None identified
5.2 Records of Superficial Ground and Drift Geology present beneath the study site	None identified
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 Records of Strata Classification in the Superficial Geology within 500m of the study site	Identified
6.2 Records of Strata Classification in the Bedrock Geology within 500m of the study site	Identified

	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	0	0	16
6.4 Surface Water Abstraction Licences (within 2000m of the study site)	0	0	0	0	1	1
6.5 Potable Water Abstraction Licences (within 2000m of the study site)	0	0	0	0	1	5
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)	1	0	#250GWV #	#500GWV #	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 Environment Agency/Natural Resources Wales information on river quality within 1500m of the study site	No	No	No	Yes	Yes	Yes
6.10 Ordnance Survey MasterMap Water Network entries within 500m of the site	0	0	18	22	Not searched	Not searched
6.11 Surface water features within 250m of the study site	No	No	Yes	Not searched	Not searched	Not searched

Section 7: Flooding

7.1 Environment Agency Zone 2 floodplains within 250m of the study site	Identified
7.2 Environment Agency/Natural Resources Wales Zone 3 floodplains within 250m of the study site	Identified
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 identified
7.5 Areas benefiting from Flood Defences within 250m of the study site	None identified
7.6 Areas used for Flood Storage within 250m of the study site	None identified
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	Low

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	2	2
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	1	0	0	0	0
8.14 Records of Green Belt land	1	0	0	0	1	0

Section 9: Natural Hazards

9.1 Maximum risk of natural ground subsidence

Very Low

9.1.1 Maximum Shrink-Swell hazard rating identified on the study site

Very Low

9.1.2 Maximum Landslides hazard rating identified on the study site

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

Negligible

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 site is not in a Radon Affected Area, as less than 1% 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 Coal mining areas within 75m of the study site

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.

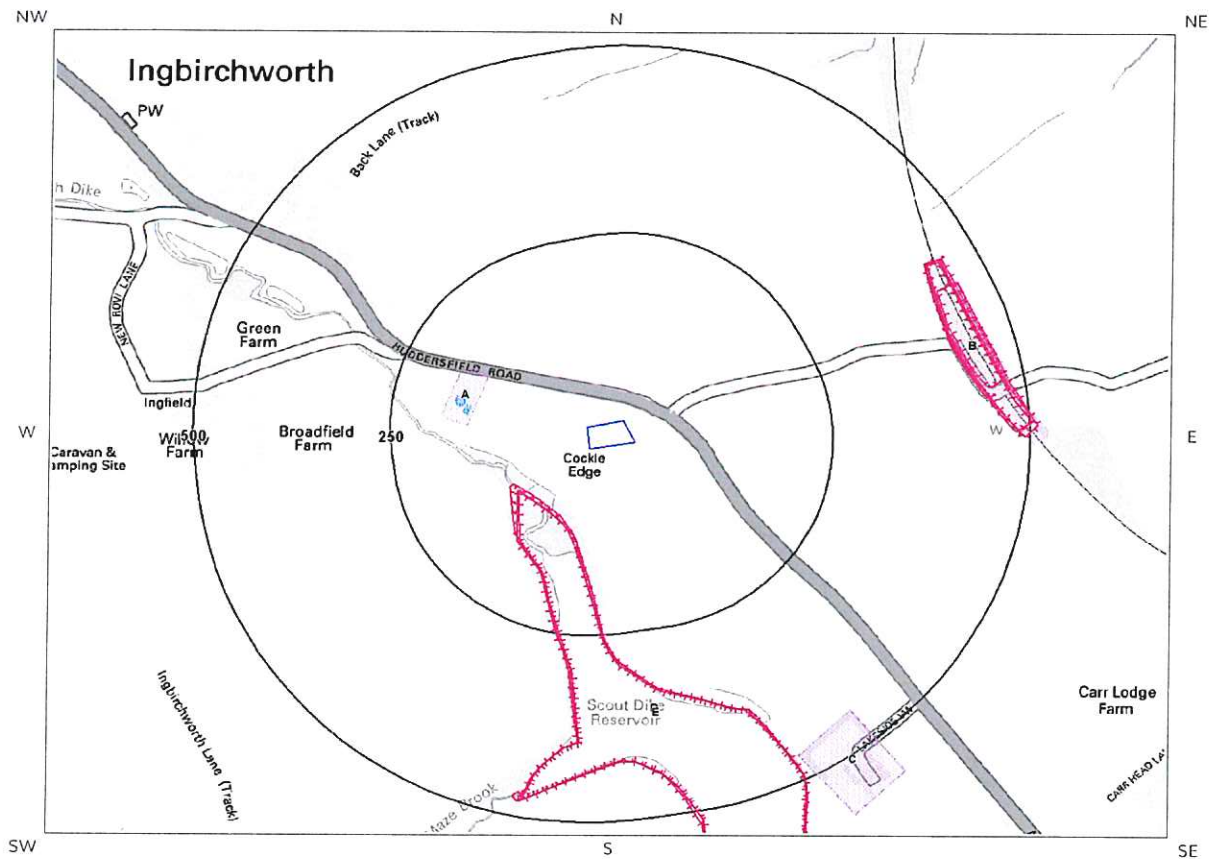
Note: Maps

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).

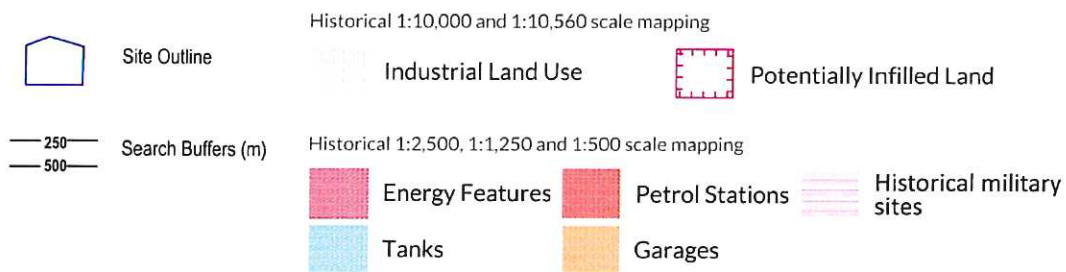
Where a feature is reported in the data tables to a distance greater than the map area, it is noted in the data table as "Not Shown".

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



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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: 18

ID	Distance [m]	Direction	Use	Date
1A	141	W	Unspecified Works	1983
2A	142	NW	Unspecified Works	1967
3A	160	W	Unspecified Tank	1967
4A	160	W	Unspecified Tank	1983
5B	418	E	Cuttings	1891
6B	420	E	Cuttings	1948
7B	420	E	Cuttings	1903
8B	420	E	Cuttings	1951
9B	420	E	Cuttings	1967
10B	421	E	Cuttings	1938
11B	422	E	Cuttings	1929
12B	424	E	Cuttings	1983
13B	424	E	Cuttings	1850
14C	450	SE	Hospital	1967
15C	450	SE	Hospital	1951
16C	450	SE	Isolation Hospital	1948
17C	450	SE	Isolation Hospital	1929
18C	450	SE	Isolation Hospital	1938

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: 5

ID	Distance (m)	Direction	Use	Date
19A	150	W	Settling Tank	1958
20A	152	W	Settling Tank	1994
21A	159	W	Unspecified Tank	1959
22A	159	W	Unspecified Tank	
23A	160	W	Unspecified Tank	

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

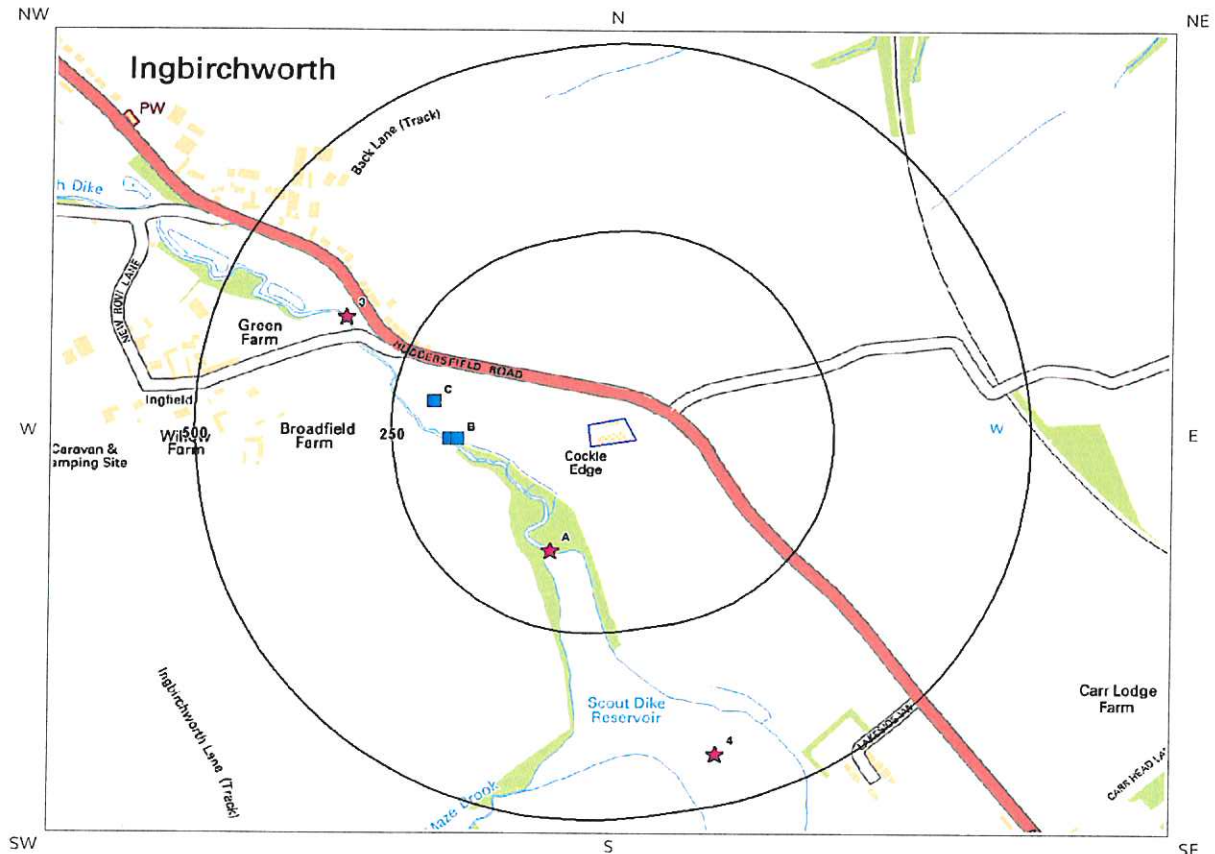
Records of Potentially Infilled Features from 1:10,000 scale mapping within 500m of the study site: 12

The following Historical Potentially Infilled Features derived from the Historical Mapping information is

provided by Groundsure:

ID	Distance(m)	Direction	Use	Date
24D	93	SW	Reservoir	1983
25D	93	SW	Water Body	1967
26D	93	SW	Reservoir	1951
27E	98	SW	Reservoir	1938
28E	99	SW	Reservoir	1948
29B	418	E	Cuttings	1891
30B	420	E	Cuttings	1948
31B	420	E	Cuttings	1903
32B	420	E	Cuttings	1967
33B	420	E	Cuttings	1951
34B	421	E	Cuttings	1938
35B	424	E	Cuttings	1983

2. Environmental Permits, Incidents and Registers Map



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- | | | |
|-----------------------------|---------------------------------------|--|
| Site Outline | Recorded Pollution Incident | RAS 3 & 4 Authorisations |
| Search Buffers (m) | Dangerous Substances (List 1) | Part A(1) Authorised Processes and Historic IPC Authorisations |
| 250 | Dangerous Substances (List 2) | Part A(2) and Part B Authorised Processes |
| 500 | Water Industry Referrals | COMAH / NIHHS Sites |
| Licenced Discharge Consents | Sites Determined as Contaminated Land | Hazardous Substance Consents and Enforcements |
| Red List Discharge Consents | | |

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:

0

Database searched and no data found.

2.1.7 Records of Category 3 or 4 Radioactive Substances Authorisations:

0

Database searched and no data found.

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

19

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

ID	Distance (m)	Direction	NGR	Details
5B	167	W	422730 405550	Address: INGBIRCHWORTH STW, HUDDERSFIELD ROAD, PENISTONE, BARNSELY, SOUTH YORKSHIRE Effluent Type: SEWAGE DISCHARGES - PUMPING STATION - WATER COMPANY Permit Number: WRA7365 Permit Version: 1 Receiving Water: RIVER DON Status: NEW CONSENT (WRA 91, S88 & SCHED 10 AS AMENDED BY ENV ACT 1995) Issue date: 24/10/1997 Effective Date: 24-Oct-1997 Revocation Date: 08/09/1998
6B	167	W	422730 405550	Address: INGBIRCHWORTH STW, HUDDERSFIELD ROAD, PENISTONE, BARNSELY, SOUTH YORKSHIRE Effluent Type: SEWAGE DISCHARGES - STW STORM OVERFLOW/STORM TANK - WATER COMPANY Permit Number: WRA7365 Permit Version: 5 Receiving Water: RIVER DON & INGBIRCHWORTH DYKE Status: MODIFIED - (WRA 91 SCHED 10 - AS AMENDED BY ENV ACT 1995) Issue date: 14/10/2008 Effective Date: 01-Apr-2009 Revocation Date: 31/03/2010
7B	167	W	422730 405550	Address: INGBIRCHWORTH STW, HUDDERSFIELD ROAD, PENISTONE, BARNSELY, SOUTH YORKSHIRE Effluent Type: SEWAGE DISCHARGES - STW STORM OVERFLOW/STORM TANK - WATER COMPANY Permit Number: WRA7365 Permit Version: 3 Receiving Water: RIVER DON & INGBIRCHWORTH DYKE Status: MODIFIED - (WRA 91 SCHED 10 - AS AMENDED BY ENV ACT 1995) Issue date: 11/09/2003 Effective Date: 11-Sep-2003 Revocation Date: 31/12/2003
8B	167	W	422730 405550	Address: INGBIRCHWORTH STW, HUDDERSFIELD ROAD, PENISTONE, BARNSELY, SOUTH YORKSHIRE Effluent Type: SEWAGE DISCHARGES - PUMPING STATION - WATER COMPANY Permit Number: WRA7365 Permit Version: 4 Receiving Water: RIVER DON & INGBIRCHWORTH DYKE Status: MODIFIED - (WRA 91 SCHED 10 - AS AMENDED BY ENV ACT 1995) Issue date: 11/09/2003 Effective Date: 01-Jan-2004 Revocation Date: 31/03/2009
9B	167	W	422730 405550	Address: INGBIRCHWORTH STW, HUDDERSFIELD ROAD, PENISTONE, BARNSELY, SOUTH YORKSHIRE Effluent Type: SEWAGE DISCHARGES - PUMPING STATION - WATER COMPANY Permit Number: WRA7365 Permit Version: 2 Receiving Water: RIVER DON & INGBIRCHWORTH DYKE Status: MODIFIED - (WRA 91 SCHED 10 - AS AMENDED BY ENV ACT 1995) Issue date: 09/09/1998 Effective Date: 09-Sep-1998 Revocation Date: 10/09/2003

ID	Distance (m)	Direction	NGR	Details
10B	167	W	422730 405550	Address: INGBIRCHWORTH STW, HUDDERSFIELD ROAD, PENISTONE, BARNSELY, SOUTH YORKSHIRE Effluent Type: SEWAGE DISCHARGES - STW STORM OVERFLOW/STORM TANK - WATER COMPANY Permit Number: WRA7365 Permit Version: 6 Receiving Water: RIVER DON & INGBIRCHWORTH DYKE Status: MODIFIED - (WRA 91 SCHED 10 - AS AMENDED BY ENV ACT 1995) Issue date: 01/04/2010 Effective Date: 01-Apr-2010 Revocation Date: 16/04/2012
11B	167	W	422730 405550	Address: INGBIRCHWORTH STW, HUDDERSFIELD ROAD, PENISTONE, BARNSELY, SOUTH YORKSHIRE Effluent Type: SEWAGE DISCHARGES - PUMPING STATION - WATER COMPANY Permit Number: WRA7365 Permit Version: 6 Receiving Water: RIVER DON & INGBIRCHWORTH DYKE Status: MODIFIED - (WRA 91 SCHED 10 - AS AMENDED BY ENV ACT 1995) Issue date: 01/04/2010 Effective Date: 01-Apr-2010 Revocation Date: 16/04/2012
12B	167	W	422730 405550	Address: INGBIRCHWORTH STW, HUDDERSFIELD ROAD, PENISTONE, BARNSELY, SOUTH YORKSHIRE Effluent Type: SEWAGE DISCHARGES - PUMPING STATION - WATER COMPANY Permit Number: WRA7365 Permit Version: 1 Receiving Water: RIVER DON Status: NEW CONSENT (WRA 91, S88 & SCHED 10 AS AMENDED BY ENV ACT 1995) Issue date: 24/10/1997 Effective Date: 24-Oct-1997 Revocation Date: 08/09/1998
13B	167	W	422730 405550	Address: INGBIRCHWORTH STW, HUDDERSFIELD ROAD, PENISTONE, BARNSELY, SOUTH YORKSHIRE Effluent Type: SEWAGE DISCHARGES - PUMPING STATION - WATER COMPANY Permit Number: WRA7365 Permit Version: 5 Receiving Water: RIVER DON & INGBIRCHWORTH DYKE Status: MODIFIED - (WRA 91 SCHED 10 - AS AMENDED BY ENV ACT 1995) Issue date: 14/10/2008 Effective Date: 01-Apr-2009 Revocation Date: 31/03/2010
14B	167	W	422730 405550	Address: INGBIRCHWORTH STW, HUDDERSFIELD ROAD, PENISTONE, BARNSELY, SOUTH YORKSHIRE Effluent Type: SEWAGE DISCHARGES - PUMPING STATION - WATER COMPANY Permit Number: WRA7365 Permit Version: 3 Receiving Water: RIVER DON & INGBIRCHWORTH DYKE Status: MODIFIED - (WRA 91 SCHED 10 - AS AMENDED BY ENV ACT 1995) Issue date: 11/09/2003 Effective Date: 11-Sep-2003 Revocation Date: 31/12/2003
15B	167	W	422730 405550	Address: INGBIRCHWORTH STW, HUDDERSFIELD ROAD, PENISTONE, BARNSELY, SOUTH YORKSHIRE Effluent Type: SEWAGE DISCHARGES - STW STORM OVERFLOW/STORM TANK - WATER COMPANY Permit Number: WRA7365 Permit Version: 4 Receiving Water: RIVER DON & INGBIRCHWORTH DYKE Status: MODIFIED - (WRA 91 SCHED 10 - AS AMENDED BY ENV ACT 1995) Issue date: 11/09/2003 Effective Date: 01-Jan-2004 Revocation Date: 31/03/2009
16B	167	W	422730 405550	Address: INGBIRCHWORTH STW, HUDDERSFIELD ROAD, PENISTONE, BARNSELY, SOUTH YORKSHIRE Effluent Type: SEWAGE DISCHARGES - PUMPING STATION - WATER COMPANY Permit Number: WRA7365 Permit Version: 2 Receiving Water: RIVER DON & INGBIRCHWORTH DYKE Status: MODIFIED - (WRA 91 SCHED 10 - AS AMENDED BY ENV ACT 1995) Issue date: 09/09/1998 Effective Date: 09-Sep-1998 Revocation Date: 10/09/2003
17B	177	W	422720 405550	Address: INGBIRCHWORTH STW, HUDDERSFIELD ROAD, PENISTONE, BARNSELY, SOUTH YORKSHIRE Effluent Type: SEWAGE DISCHARGES - STW STORM OVERFLOW/STORM TANK - WATER COMPANY Permit Number: WRA7365 Permit Version: 7 Receiving Water: RIVER DON & INGBIRCHWORTH DYKE Status: MODIFIED - (WRA 91 SCHED 10 - AS AMENDED BY ENV ACT 1995) Issue date: 17/04/2012 Effective Date: 17-Apr-2012 Revocation Date: -
18B	177	W	422720 405550	Address: INGBIRCHWORTH STW, HUDDERSFIELD ROAD, PENISTONE, BARNSELY, SOUTH YORKSHIRE Effluent Type: SEWAGE DISCHARGES - PUMPING STATION - WATER COMPANY Receiving Water: RIVER DON & INGBIRCHWORTH DYKE Status: MODIFIED - (WRA 91 SCHED 10 - AS AMENDED BY ENV ACT 1995) Issue date: 17/04/2012

ID	Distance (m)	Direction	NGR	Details	
19C	198	W	422700 405600	Permit Number: WRA7365 Permit Version: 7	Effective Date: 17-Apr-2012 Revocation Date: -
				Address: INGBIRCHWORTH STW, HUDDERSFIELD ROAD, PENISTONE, BARNLEY, SOUTH YORKSHIRE	Receiving Water: INGBIRCHWORTH DYKE Status: TRANSFERRED FROM R(PP)A 1951-1961
				Effluent Type: SEWAGE DISCHARGES - FINAL/TREATED EFFLUENT - WATER COMPANY	Issue date: 25/07/1956 Effective Date: 25-Jul-1956 Revocation Date: 31/05/1981
				Permit Number: 559 Permit Version: 4	
				Address: INGBIRCHWORTH STW, HUDDERSFIELD ROAD, PENISTONE, BARNLEY, SOUTH YORKSHIRE	Receiving Water: INGBIRCHWORTH DYKE Status: TRANSFERRED FROM R(PP)A 1951-1961
20C	198	W	422700 405600	Effluent Type: SEWAGE DISCHARGES - STW STORM OVERFLOW/STORM TANK - WATER COMPANY	Issue date: 25/07/1956 Effective Date: 25-Jul-1956 Revocation Date: 31/05/1981
				Permit Number: 559 Permit Version: 4	
				Address: INGBIRCHWORTH STW, HUDDERSFIELD ROAD, PENISTONE, BARNLEY, SOUTH YORKSHIRE	Receiving Water: INGBIRCHWORTH DYKE Status: TRANSFERRED FROM 1978 ORDER
				Effluent Type: SEWAGE DISCHARGES - STW STORM OVERFLOW/STORM TANK - WATER COMPANY	Issue date: 01/06/1981 Effective Date: 01-Jun-1981 Revocation Date: 05/05/1986
				Permit Number: 559 Permit Version: 2	
21C	198	W	422700 405600	Address: INGBIRCHWORTH STW, HUDDERSFIELD ROAD, PENISTONE, BARNLEY, SOUTH YORKSHIRE	Receiving Water: INGBIRCHWORTH DYKE Status: TRANSFERRED FROM 1978 ORDER
				Effluent Type: SEWAGE DISCHARGES - FINAL/TREATED EFFLUENT - WATER COMPANY	Issue date: 01/06/1981 Effective Date: 01-Jun-1981 Revocation Date: 05/05/1986
				Permit Number: 559 Permit Version: 2	
				Address: INGBIRCHWORTH STW, HUDDERSFIELD ROAD, PENISTONE, BARNLEY, SOUTH YORKSHIRE	Receiving Water: INGBIRCHWORTH DYKE Status: TRANSFERRED FROM 1978 ORDER
				Effluent Type: SEWAGE DISCHARGES - FINAL/TREATED EFFLUENT - WATER COMPANY	Issue date: 01/06/1981 Effective Date: 01-Jun-1981 Revocation Date: 05/05/1986
22C	198	W	422700 405600	Permit Number: 559 Permit Version: 2	
				Address: INGBIRCHWORTH STW, HUDDERSFIELD ROAD, PENISTONE, BARNLEY, SOUTH YORKSHIRE	Receiving Water: INGBIRCHWORTH DYKE Status: REVOKED (WRA 91, S88 & SCHED 10 AS AMENDED BY ENV ACT 1995)
				Effluent Type: SEWAGE DISCHARGES - FINAL/TREATED EFFLUENT - WATER COMPANY	Issue date: 06/05/1986 Effective Date: 06-May-1986 Revocation Date: 23/10/1997
				Permit Number: 559 Permit Version: 3	
				Address: INGBIRCHWORTH STW, HUDDERSFIELD ROAD, PENISTONE, BARNLEY, SOUTH YORKSHIRE	Receiving Water: INGBIRCHWORTH DYKE Status: REVOKED (WRA 91, S88 & SCHED 10 AS AMENDED BY ENV ACT 1995)
23C	198	W	422700 405600	Effluent Type: SEWAGE DISCHARGES - FINAL/TREATED EFFLUENT - WATER COMPANY	Issue date: 06/05/1986 Effective Date: 06-May-1986 Revocation Date: 23/10/1997
				Permit Number: 559 Permit Version: 3	
				Address: INGBIRCHWORTH STW, HUDDERSFIELD ROAD, PENISTONE, BARNLEY, SOUTH YORKSHIRE	Receiving Water: INGBIRCHWORTH DYKE Status: REVOKED (WRA 91, S88 & SCHED 10 AS AMENDED BY ENV ACT 1995)
				Effluent Type: SEWAGE DISCHARGES - FINAL/TREATED EFFLUENT - WATER COMPANY	Issue date: 06/05/1986 Effective Date: 06-May-1986 Revocation Date: 23/10/1997
				Permit Number: 559 Permit Version: 3	

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:

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:

4

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	149	S	422848 405401	Incident Date: 26-Nov-2017 Incident Identification: 1570196 Pollutant: Contaminated Water Pollutant Description: Backwash Effluent Water Impact: Category 1 (Major) Land Impact: Category 4 (No Impact) Air Impact: Category 4 (No Impact)
2A	149	S	422848 405401	Incident Date: 26-Nov-2017 Incident Identification: 1570196 Pollutant: Contaminated Water Pollutant Description: Other Contaminated Water Water Impact: Category 1 (Major) Land Impact: Category 4 (No Impact) Air Impact: Category 4 (No Impact)
3	341	NW	422587 405712	Incident Date: 20-Jan-2013 Incident Identification: 1079386 Pollutant: Oils and Fuel Pollutant Description: Diesel Water Impact: Category 2 (Significant) Land Impact: Category 4 (No Impact) Air Impact: Category 4 (No Impact)
4	431	S	423060 405130	Incident Date: 21-Sep-2001 Incident Identification: 32150 Pollutant: Other Pollutant Pollutant Description: Microbiological Water Impact: Category 3 (Minor) Land Impact: Category 4 (No Impact) Air Impact: Category 4 (No Impact)

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

0

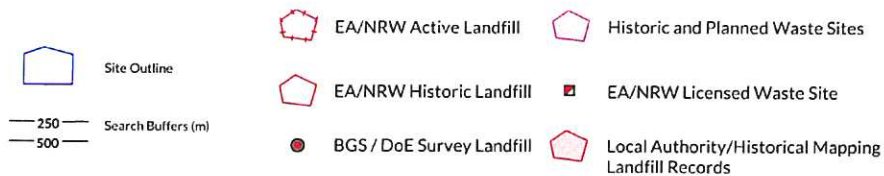
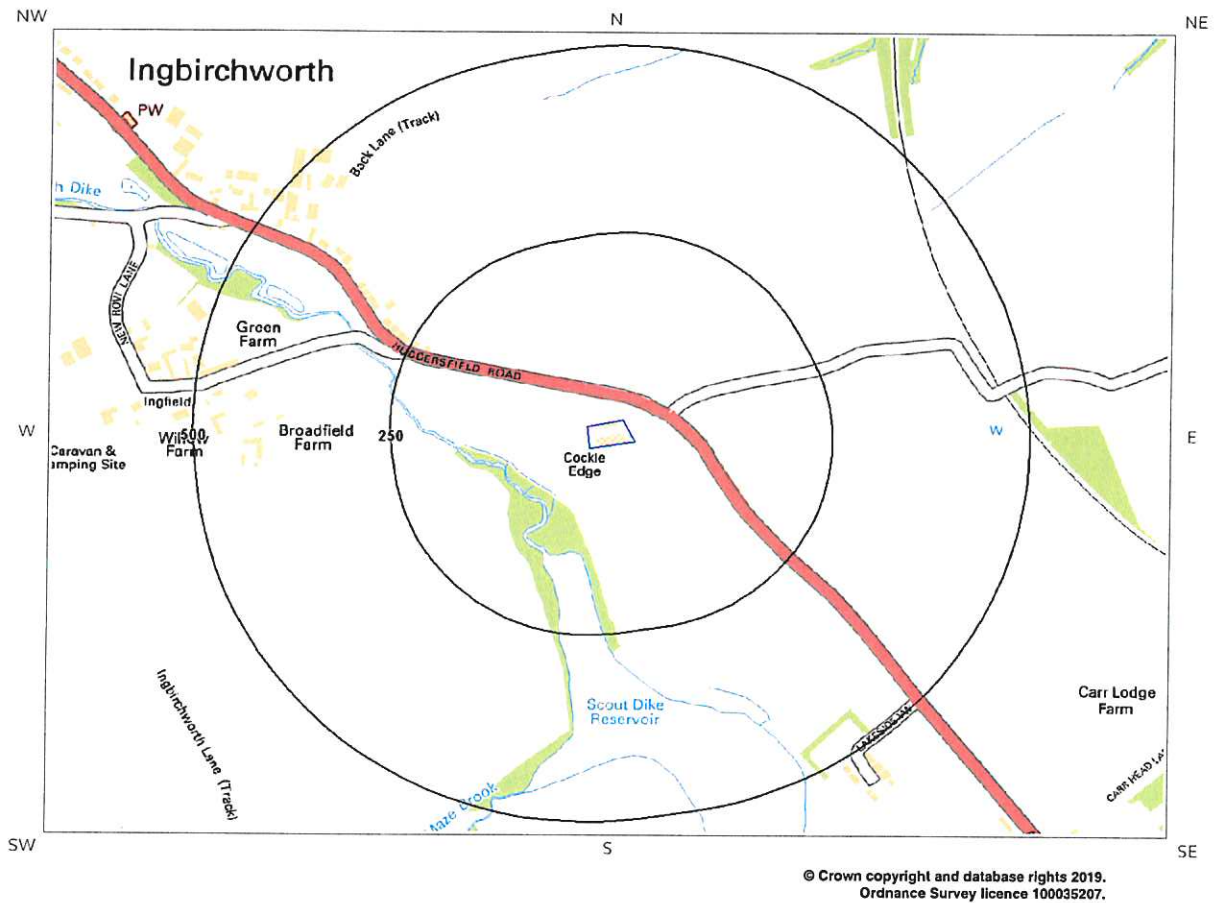
Database searched and no data found.

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 0

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:

0

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:

0

Database searched and no data found.

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

0

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:

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

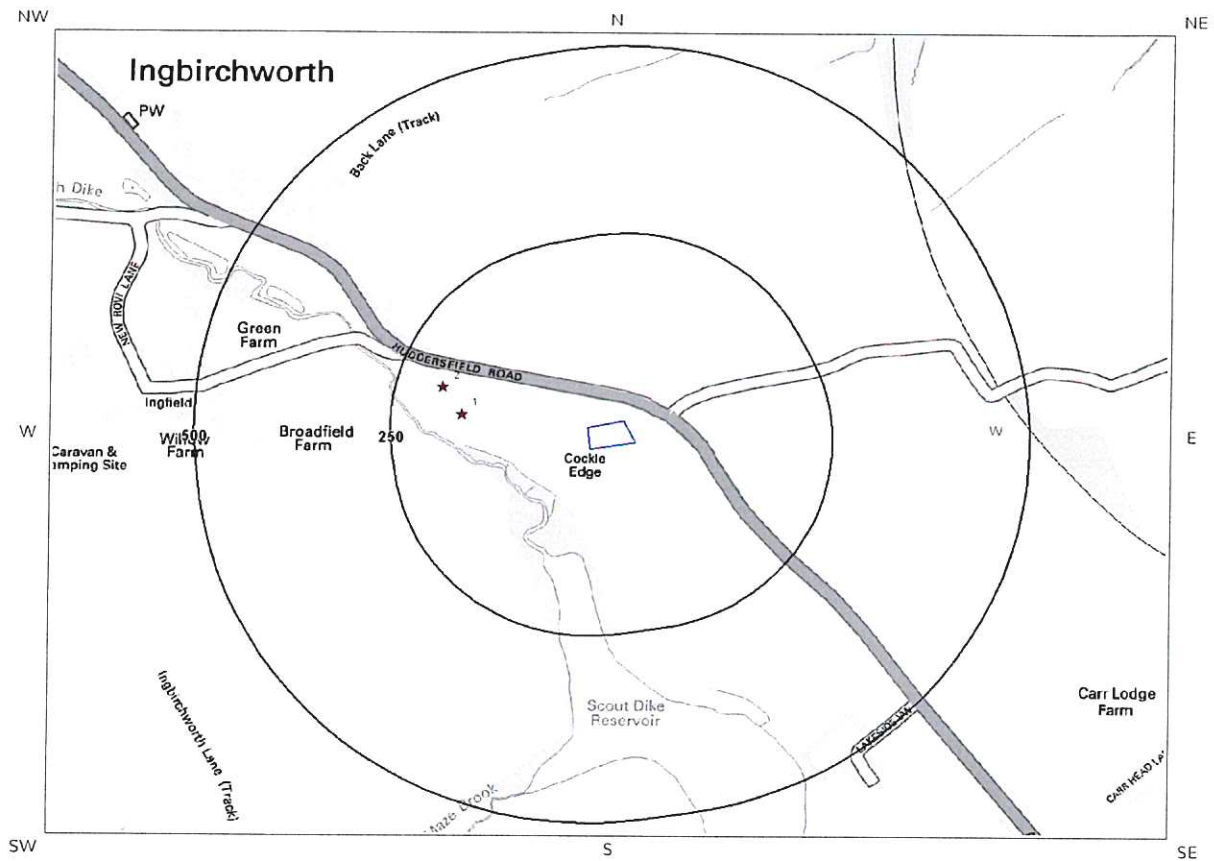
Database searched and no data found.

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

0

Database searched and no data found.

4. Current Land Use Map



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