

Westchurch Homes

Desk Study Report

For

Land at Radcliffe Moor Road, Bury

October 2020

REPORT NO: 20WCH011/DS

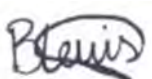
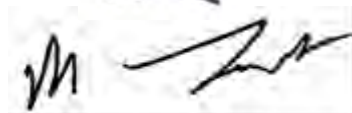
- *Desk Studies and Site Walkovers*
- *Intrusive Contaminated Land Investigations*
- *Geotechnical Appraisals and Ground Investigations*
- *Landfill Gas Assessments and Remedial Design*
- *Remediation Design and Implementation*
- *Remediation Project Management and Supervision*
- *Site Abnormal Assessments (Foundations and Contaminated Land)*

GEOTECHNICAL - CONTAMINATED LAND - FLOOD RISK

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DOCUMENT ISSUE RECORD

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1 EXECUTIVE SUMMARY

Note – The following summary is not exhaustive and is to be used for guidance purposes only. The full report should be consulted for full details.

Site Location

The site is located to the south of Bury New Road and either side of Radcliffe Moor Road, Bury, BL2 6QU. The coordinates on the British National Grid CRS are 375680, 408903. The proposed site is approximately 11.73 hectares in total.

Proposed Development

A proposed football club with basic changing and leisure facilities.

Site Description

On Site

Site is split across two (2 No.) parcels of land and are located to the south of Bury New Road on both sides of Radcliffe Moor Road. The two parcels are irregular in plan form and comprise several fields. Approximately halfway along the eastern boundary of the western parcel was a small hump with bushes and rush/sedge vegetation was noted. This is where the former coal mine was located and is discussed in more detail in the sections below. A high-pressure gas pipeline was noted running across the middle of both parcels. In the north of this parcel an area of vehicular related rubbish was noted at the boundary with an adjacent garage and Himalayan Balsam also present here.

The eastern parcel lies to the east of Radcliffe Moor Road and comprises fields laid to grass. The topography is similar to the previous parcel with the north lying at circa 115m AOD with a slope down to the south with the lower end lying at circa 105m AOD. In the south-west corner a potential bund of earth appears to have been made up to the road which lies at circa 3m above the parcel at this end. Potential Japanese Knotweed is present in the boundaries of the south-west corner of the parcel. An area of rushes with soft ground is present in the south east corner.

Site History

On Site

The site has a number of historic uses including a former well, a pumping pit (for drainage of coal mines), possible mound of made ground and former houses along the boundary edge.

Published Geology

The BGS map shows the geology (1:10,000) beneath the site as the following:

- Very South of Site - Artificial Ground and Landslip – Made Ground – Undivided.
- Drift – Glacial Till – Sandy gravelly CLAY.
- Bedrock – Very north and south - Pennine Lower Coal Measures Formation – Mudstone, Siltstone and Sandstone. Centre of site - Cannel Rock (south Lancashire) – Sandstone and Trencherbone Rock - Sandstone

Coal Mining

According to the Coal Authority records, there are is one (1 No) shaft located on site and a further four (4 No) in the immediate area. There is a Very High risk of recorded and unrecorded shallow workings with possible bell pits, shallow shafts, day holes and adits across the site. The presence of unrecorded day holes, adits and shallow workings is deemed very likely.

Hydrogeology and Hydrology

- The Superficial deposits of the Glacial Till are classed as a Secondary Aquifer - Undifferentiated.
- The bedrock deposits of the Sandstone and Pennine Coal Measure are classed as a Secondary A Aquifer - High Permeability.
- The site does not lie within Groundwater Source Protection Zone as defined by Natural Resources Wales.
- There are no current licenced groundwater water abstractions within 250m of site although there are four (4 No) historic licenses.
- The nearest surface water features are the reservoirs located immediately south west of site.

Radon Protection

The site boundary is in a lower probability area, as less than 1% of properties are above the action level. Therefore, no radon protective measures are necessary in the construction of new dwellings or extensions.

Summary of Environmental Data

Possible Contamination Sources;

- Current Site Use – On Site – No.
- Historical Site Use – Coal Mining – On Site – Yes
- Historical Site Use – Refuse Tip/Made Ground – On Site – Yes western parcel. No eastern parcel.
- Historical Site Use – Well – On Site – Yes western parcel. No eastern parcel.
- Infilled reservoirs/ponds – Immediately S - Possible
- Historical Bleach and Dye Works within 250m – Yes
- Collieries – 700m S - Yes

Pathways and Receptors;

- Aquifers – Below Site – Possible.
- Reservoirs – Immediately S – Possible.
- Site End Users/Construction Workers – Yes.

Qualitative Risk Assessment:

In this qualitative risk assessment, a Moderate risk for ground gas and contamination exists across the site, with the higher risk existing on the western parcel, but is dependant upon the proposed layout / type of structures.

However, the proposed development simply involves a football pitch with associated small buildings – changing rooms and pavilion. If the development consists of placing units on hardstanding or placing on elevated steel frames, and the units have no garden areas then the risk is deemed low as no significant pathway to site end users is anticipated. See section 8 for more details.

If the proposed site involves ground breaking works and/or proposed landscaping, remedial action will be necessary at the site, the likes of which cannot be confirmed until a geotechnical and contamination ground investigation has been completed. See section 8 for more details.

Notes on Ground Investigation/Contamination Risk

Although significant ground gas and contamination sources are evident both on and adjacent to site, it is suggested that there is not a significant ongoing risk based on the current proposals for the site other than from shallow coal mining.

On assessing the potential risks on site, we have compiled the following recommendations for initial investigation;

- Rotary borehole coal investigation (subject to CA licence) to identify shallow workings and potential shafts.
- Six (6 No.) window sample boreholes to 3.0mbgl all with gas monitoring installs targeting made ground near offsite shafts and achieving site spread.
- Six (6 No.) ground gas/water monitoring visits over 3 months at varying barometric pressures.
- One (1 No.) days of mechanically excavated trial pits for assessment of shallow soils both for geotechnical suitability and chemical assessment. Trial pits targeted to areas where buildings are proposed.
- Fifteen (15 No.) soil samples taken for chemical assessment - depending on ground conditions encountered this should include testing (topsoil, made ground and natural) to benchmark contamination levels across the site. Proposed testing will include but not be limited to the following; heavy metals suite (comprising; As, Cd (low level), Cr Vi, Pb, Hg, Se, Ni, Cu, Zn), Organic Matter, Sulphate, pH, speciated polycyclic aromatic hydrocarbons and TPH CWG. Asbestos testing within topsoil and Made Ground (if present) with quantification for positive samples.
- Three (3 No.) samples taken for geotechnical analysis if clay strata is encountered (anticipated) in areas of proposed

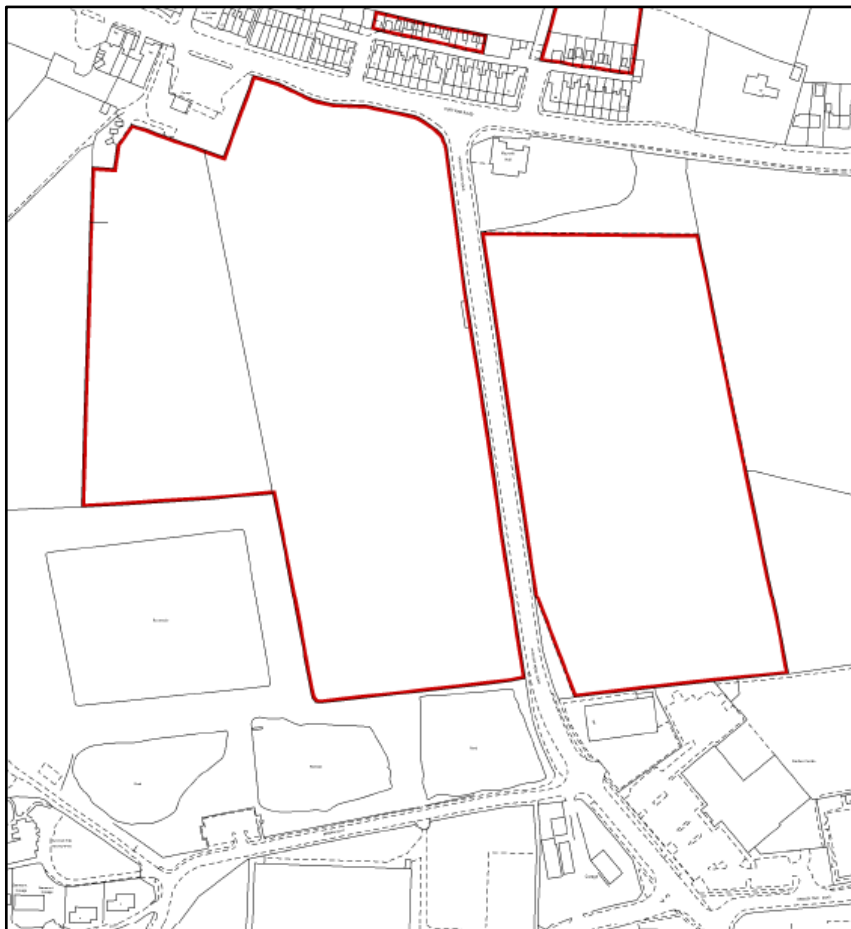
buildings for tree heave protection and concrete design classification.

The scope of works should be agreed with the Local Authority prior to the intrusive ground investigation and as such may change.

2 SITE DESCRIPTION

2.1 Introduction

This investigation was carried out on the instruction of Westchurch Homes. The purpose of the work was to carry out a Desk Study to provide preliminary geotechnical and contamination risk assessment information to support a planning application for a proposed football club with basic changing and leisure facilities. At the time of writing this report, a proposed layout wasn't available therefore a site boundary plan can be seen below;



2.2 Site Location

The site is located to the south of Bury New Road and either side of Radcliffe Moor Road, Bury, BL2 6QU. The coordinates on the British National Grid CRS are 375680, 408903. The proposed site is approximately 11.73 hectares in total. See Site Location Plan in Appendix A.

2.3 Site Description

2.3.1 On Site

Site was visited by a Geo-Environmental Engineer on 19th October 2020 and the following section outlines the main features of site. Photographs from the site walkover can be seen in APPENDIX A.

Site is split across two (2 No.) parcels of land and are located to the south of Bury New Road on both sites of Radcliffe Moor Road. The two parcels are irregular in plan form and comprise several fields. The western of the two parcels is currently laid down to rough grass with a hedgerow dividing the parcel into two fields. The area in the south of this parcel was noted as being wet and soft underfoot and is generally lower at circa 100m AOD with the northern end lying at circa 115m AOD. Approximately halfway along the eastern boundary a small hump with bushes and rush/sedge vegetation was noted. This is where the former coal mine was located and is discussed in more detail in the sections below. A high-pressure gas pipeline was noted running across the middle of both parcels roughly orientated east-west with marker posts close where it crosses hedges. In the north of this parcel an area of vehicular related rubbish was noted at the boundary with an adjacent garage and Himalayan Balsam also present here.

Access onto this eastern parcel is from Radcliffe Moor Road in the south-east corner of the parcel. The eastern parcel lies to the east of Radcliffe Moor Road and comprises fields laid to grass. The topography is similar to the previous parcel with the north lying at circa 115m AOD with a slope down to the south with the lower end lying at circa 105m AOD. In the south-west corner a potential bund of earth appears to have been made up to the road which lies at circa 3m above the parcel at this end. Potential Japanese Knotweed is present in the boundaries of the south-west corner of the parcel. An area of rushes with soft ground is present in the south east corner. A high-pressure gas pipeline was noted running across the middle both parcels roughly orientated east-west with marker posts close where it crosses hedges.

2.3.2 Surrounding Area

Surrounding land uses for the site are as follows:

- North – Immediately north is Bury New Road followed by a row of residential properties. Beyond is a mixture of agricultural land and a large farm.
- East – 0m – 500m E is agricultural land.
- South – Immediately south is a reservoir followed by Browns Road. Beyond Browns Road is an industrial estate to 350m S with residential properties beyond.
- West – 0m – 250m W are agricultural fields followed by a Brinks Lane, a watercourse and residential properties.

3 SITE HISTORY

3.1 Site History from Ordnance Survey Maps

A search of available historic maps was undertaken to establish the land use history of the site. Extracts of the maps are discussed below and can be found in full in Appendix B of this report. All maps are Ordnance Survey unless otherwise stated. All distances quoted on OS maps are taken from the site boundary, which is marked on the map.

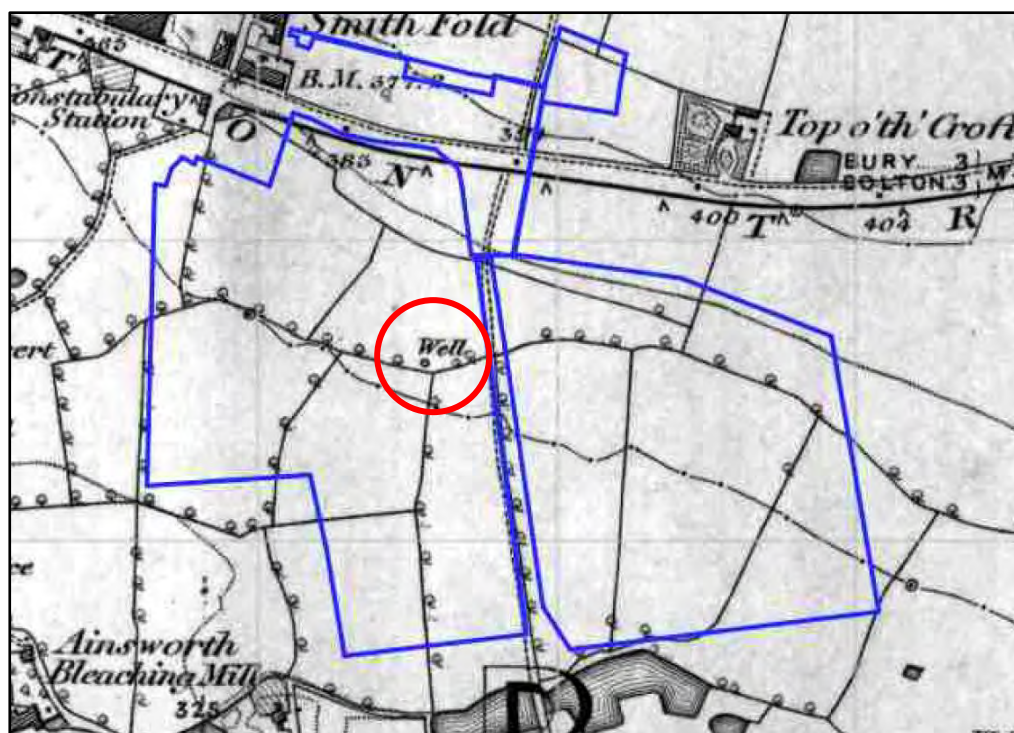
It is important to note that since the ordering of the Desk Study data set the small parcels to the very north of site are no longer included within the site boundary. Where possible, the information given below has been updated to reflect these changes.

3.2 Summary of Site History

3.2.1 On Site

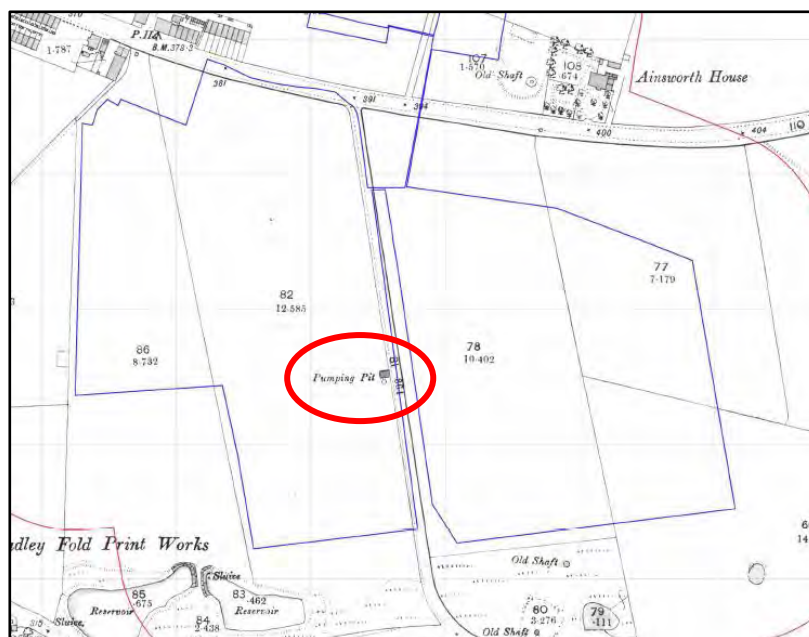
The earliest available map of site is the 1850 1:10,560 map which shows the site as undeveloped. A well is shown in the centre of site. An extract of this map is shown below;

1850 1:10,560 Map



On the next available map (the 1890 1:2,500 map), the well is no longer shown, and a 'pumping pit' is shown along the eastern boundary of the western parcel. The field boundaries have also altered slightly. An extract of this map is shown overleaf;

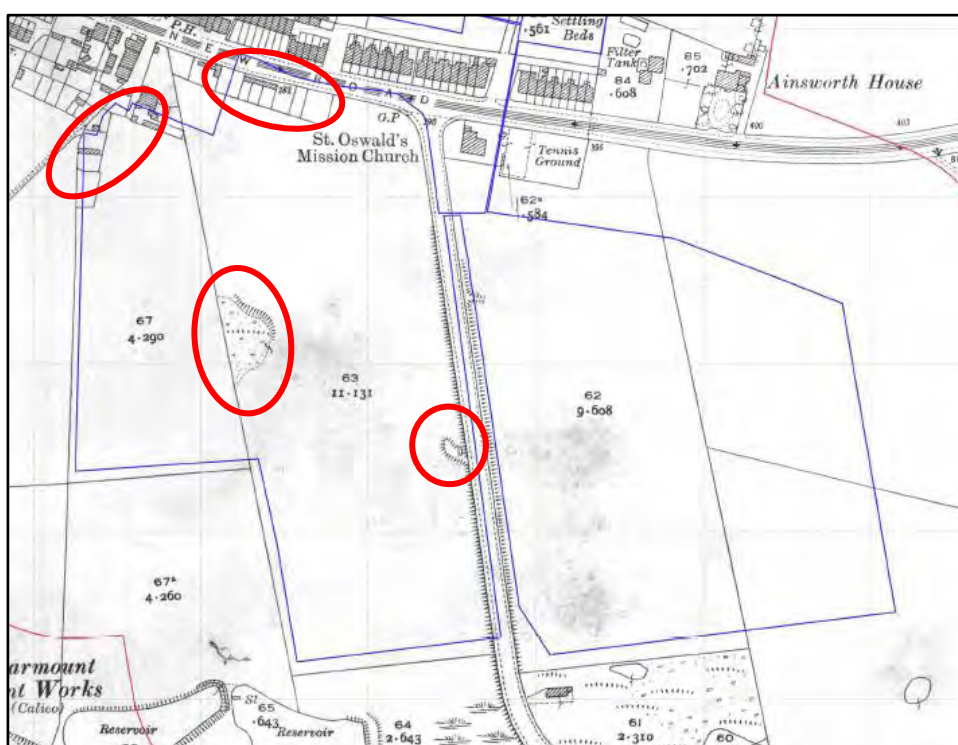
1890 1:1,250 Map



It is important to note that a 'pumping pit' was built for the purpose of draining coal mines and therefore it is highly likely that a shaft exists on site. The former well in the middle of no development is also likely to be a shaft.

No further major changes are shown to occur onsite until the 1930 1:2,500 map where the pumping station is no longer shown and instead is just a hollow and a possible mound of made ground is shown in the centre of the western parcel. A number of buildings are also shown along the very northern boundary of the western parcel. An extract of this map is shown below:

1930 1:1,250 Map



The houses along the northern boundary are no longer shown circa 1937, and the refuse tip and former pumping station hollow are no longer shown circa 1955. No further changes occur across the remainder of the historic maps to present day.

3.2.2 Surrounding Area

The following table summarises the significant changes in historical use surrounding the site:

Date First Shown	Land Uses
1850	10m S – Reservoir (no longer shown circa 1890) 150m NW – Cotton Mill (shown as mill circa 1890. Shown as Bleach and dye works circa 1910). 260m SW – Bleaching Works with associated sluices (shown as print works circa 1890) 300m NW – Smithy (shown as mill circa 1890) 265m S – Railway line (shown as dismantled circa 1980) 400m N – Sandstone Quarry (no longer shown circa 1890) Within 500m – a number of coal pits to the S and W (no longer shown circa 1890) 700m S – Tonge Lane Colliery (shown as Bradley Fold Pottery circa 1890. Shown as saw mill circa 1974 and depot circa 1980 and residential circa 2010)
1890	10m SW – Reservoirs (expands circa 1937. Still present) 15m and 45m S – Old shafts (no longer shown circa 1937) 100m N – Old Shaft (no longer shown circa 1930) 400m N – Reservoir – still present
1910	0m N – Tramway (no longer shown circa 1937) 0m S – Pond (no longer shown circa 1972). 20m S – Refuse tip (no longer shown circa 1955). 250m SW – Bradley Fold Works (expands circa 1927. Labelled as works circa 1965 and trading estate circa 1980 to present)
1927	10m N – Tennis Ground (no longer shown circa 1955) 40m N – Small residential development (still present). 60m S – Soap Works (no longer shown circa 1955). 100m N – Filter Tank (no longer shown circa 1955). 250m S – Bradley Fold Mill (no longer labelled as mill circa 2020).
1937	5m SW – Reservoir (still present) 60m NE – small residential development (still present)
1955	10m S – Works (saw mill) (shown as metal works circa 1972. No longer labelled circa 2001. Building still present). 20m N – St Oswalds Church (shown as Masonic hall circa 1986).
1965	5m S – Additional reservoir (still present). 400m – 500m NW – Residential development (still present).
1974	270m – 400m W – Large residential development (still present).
1980	150m S – Residential Development (still present).
1991	60m SSE – Garden centre (no longer labelled as such circa 2020).
2001	260m SW – Large residential development (still present).
2010	No significant changes
2020	No significant changes

4 GEOLOGY

The following section details the published and available geological data available for the site and the surrounding area. All data is taken from the Groundsure Data report located in Appendix C unless otherwise stated. This report should be referred to for full details.

It is important to note that since the ordering of the Desk Study data set the small parcels to the very north of site are no longer included within the site boundary. Where possible, the information given below has been updated to reflect these changes.

4.1 Published Geology

The documented geology of the site is summarised on the British Geological Survey map principally, with further site-specific details detailed below.

Geology	Artificial Ground & Land Slip	Drift	Solid
1:10,000	Very southern area - Made Ground	Glacial Till – Sandy gravelly clay.	Very north and south - Pennine Lower Coal Measures Formation – Mudstone, Siltstone and Sandstone Centre of site - Cannel Rock (south Lancashire) – Sandstone and Trencherbone Rock - Sandstone

Artificial Ground & Land Slip

ID	Location	LEX Code	Description	Rock description
A	On site	MGR-ARTDP	Made Ground (Undivided)	Artificial Deposit



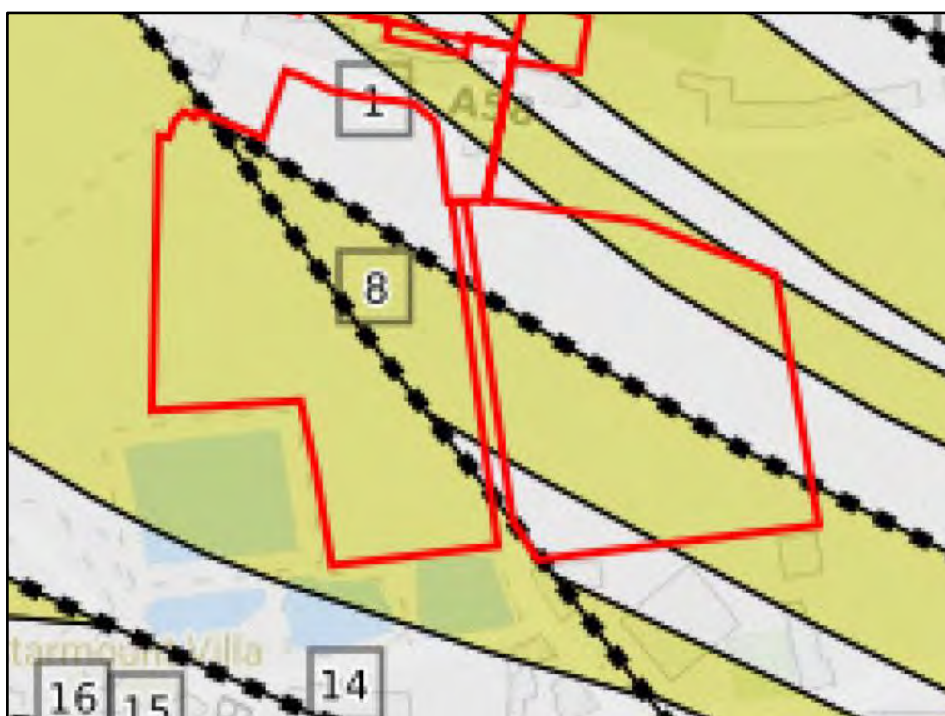
Superficial Geology

ID	Location	LEX Code	Description	Rock description
1	On site	TILLD- DMTN	Till, Devensian - Diamicton	Diamicton



Bedrock Geology

ID	Location	LEX Code	Description	Rock age
1	On site	PLCM-MDSS	Pennine Lower Coal Measures Formation - Mudstone, Siltstone And Sandstone	Langsettian Sub-age
2	On site	PLCM-MDSS	Pennine Lower Coal Measures Formation - Mudstone, Siltstone And Sandstone	Langsettian Sub-age
3	On site	CAR-SDST	Cannel Rock (south Lancashire) - Sandstone	Langsettian Sub-age
4	On site	TRBR-SDST	Trencherbone Rock - Sandstone	Langsettian Sub-age
5	On site	PLCM-MDSS	Pennine Lower Coal Measures Formation - Mudstone, Siltstone And Sandstone	Langsettian Sub-age
6	On site	CAR-SDST	Cannel Rock (south Lancashire) - Sandstone	Langsettian Sub-age



4.1.1 Linear Features

There are two (2 No) linear features on site (one coal seam and one fault line) and a further five (5 No) linear features within 250m of site (two coal seams and three faults). These are detailed below.

ID	Location	Category	Description
7	On site	ROCK	Coal seam, inferred coincident with bedrock geology boundary
8	On site	FAULT	Normal fault, inferred; crossmarks on downthrow side
13	95m NE	FAULT	Normal fault, inferred; crossmarks on downthrow side
14	106m SW	FAULT	Normal fault, inferred; crossmarks on downthrow side
16	143m S	ROCK	Coal seam, inferred
18	202m NE	ROCK	Coal seam, inferred
21	236m S	FAULT	Normal fault, inferred; crossmarks on downthrow side

4.1.2 Historic Borehole Records

There are several historic borehole records within 125m of site as detailed below. For full details please refer to Appendix C.



BH01 - Historic well to 234 ft. Mainly comprised of shale however coal was identified at 97 ft with a thickness of 6 inches.

BH02 – Historic well to 234 ft. Again mainly comprised of shale however coal was identified at 97 ft with a thickness of 6 inches.

BH A - Hole first bored by Messrs. Thom, but was not vertical, filled up to 73ft with cement and rebored. Hole comprised of mainly sandstone, shale and mudstone. Possible coal at 199ft with a thickness of 4 inches.

BH B – Clay to 1.65mbgl overlying a mixture of sandstone and mudstone. Coal was identified between 3.35mbgl – 4.00mbgl, 8.85mbgl – 8.95mbgl and 11.85mbgl – 12.30mbgl. Hole terminated at 20.00mbgl.

4.2 Geological Features

The table below summarises the presence/absence of recorded mining, extraction and natural cavities records within 500m of site. If entries are present within 250m, further details are provided in the relevant section below.

Data Type	On Site	0 – 50m	50 – 250m	250 – 500m
Geological				
Natural Cavities	-	-	-	-
BritPits	-	-	-	1
Surface Ground Workings	6	24	37	-
Underground Workings	-	4	4	-
Historic Mineral Planning Areas	-	-	-	-
Non Coal Mining	-	-	-	1
Mining Cavities	-	-	-	-

4.2.1 Surface Ground Workings

There are six (6 No) surface ground workings recorded on site with a further sixty one (61 No) identified within 250m of site. Those on site are detailed below. For further details please refer to Appendix C.

ID	Location	Land Use	Year of mapping	Mapping scale
1	On site	Refuse Heap	1955	1:10560
A	On site	Unspecified Heap	1965	1:10560
B	On site	Ponds	1965	1:10560
C	On site	Unspecified Heap	1927	1:10560
C	On site	Unspecified Ground Workings	1955	1:10560
C	On site	Pumping Pit	1890	1:10560

4.2.2 Under Ground Workings

There are eight (8 No) under ground workings recorded within 250m of site. These are detailed overleaf and all relate to old shafts;

ID	Location	Land Use	Year of mapping	Mapping scale
A	20m S	Unspecified Old Shafts	1890	1:10560
D	24m SE	Unspecified Old Shaft	1890	1:10560
A	26m S	Unspecified Old Shafts	1908	1:10560
D	28m SE	Unspecified Old Shaft	1908	1:10560
A	65m S	Unspecified Disused Shaft	1977	1:10000
A	67m S	Unspecified Old Shafts	1890	1:10560
A	74m S	Unspecified Old Shafts	1908	1:10560
A	78m S	Unspecified Old Shaft	1927	1:10560

4.2.2 Radon

The site boundary is in a lower probability area, as less than 1% of properties are above the action level. Therefore, no radon protective measures are necessary in the construction of new dwellings or extensions.

4.2.2 Coal Mining

The site lies within an area affected by historical coal mining and a Coal Authority Report was obtained, the full report is available in Appendix C however extracts are shown below;

Past underground mining

Colliery	Seam	Mineral	Coal Authority reference	Depth (m)	Direction to working	Dipping rate of seam worked (degrees)	Dipped direction of seam worked	Extraction thickness (cm)	Year last mined
unnamed	CANNEL	Coal	3Y5I	16	Beneath Property	14.0	South	150	1900
unnamed	TRENCHERB ONE	Coal	3Y96	23	Beneath Property	14.0	South	160	1908
unnamed	CANNEL	Coal	3Y5L	32	Beneath Property	14.0	South	150	1870
unnamed	CANNEL	Coal	3Y5K	33	Beneath Property	14.0	South	150	1900

Probable unrecorded shallow workings

Yes.

Mine entries

Entry type	Reference	Grid reference	Treatment description	Mineral	Conveyancing details
Shaft	375408-006	375761 408850		Coal	
Shaft	375408-007	375896 408720	This shaft was located in May 1989 by a prospective developer but there is no record of any treatment being afforded to the shaft.	Coal	
Shaft	375408-008	375873 408666	This shaft was located in May 1989 by a prospective developer but there is no record of any treatment being afforded to the shaft.	Coal	
Shaft	375409-001	375847 409128		Coal	
Shaft	375409-002	375871 409073	A visual inspection of the site in July 2002 revealed a shaft of about 3m in diameter filled with unknown material. A reinforced concrete cap was constructed in November 2002 by JMC Mining Services Ltd acting on behalf of the Coal Authority. The cap measures 5 metres square by 600mm thick and is sited 1.5 metres below ground level	Coal	

Abandoned mine plan catalogue numbers

The following abandoned mine plan catalogue numbers intersect with some, or all, of the enquiry boundary:

NW362	5419	NW1157
16820	POO	

Please contact us on 0345 762 6848 to determine the exact abandoned mine plans you require based on your needs.

Outcrops

Seam name	Mineral	Seam workable	Distance to outcrop (m)	Direction to outcrop	Bearing of outcrop
CANNEL	Coal	Yes	121.1	East	128
TRENCHBONE	Coal	Yes	Within	N/A	94
TRENCHBONE	Coal	Yes	Within	N/A	102
TRENCHBONE	Coal	Yes	Within	N/A	296
TRENCHBONE	Coal	Yes	Within	N/A	300

Geological faults, fissures and breaklines

Please refer to the 'Summary of findings' map (on separate sheet) for details of any geological faults, fissures or breaklines either within or intersecting the enquiry boundary.

Faults under or close to the property recorded.

Opencast mines

None recorded within 500 metres of the enquiry boundary.

Coal Authority managed tips

None recorded within 500 metres of the enquiry boundary.

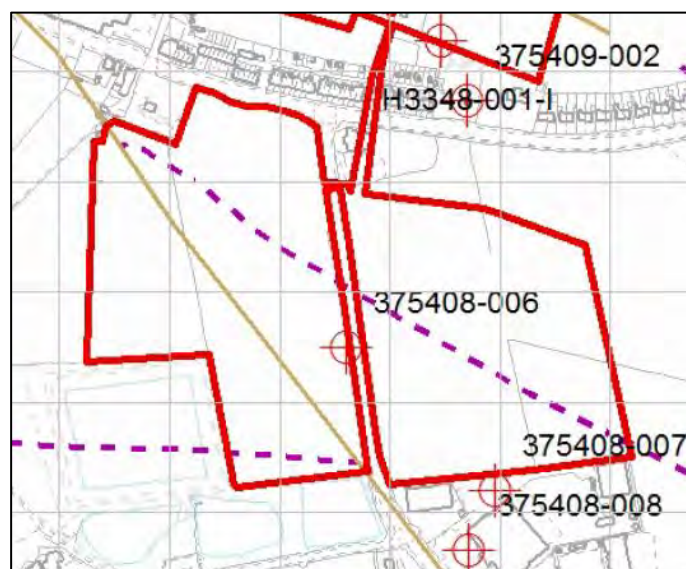
Remediated sites

Distance to site remediation (m)	Direction
37.1	South

See Section 4 for further information.

4.2.3 Shafts

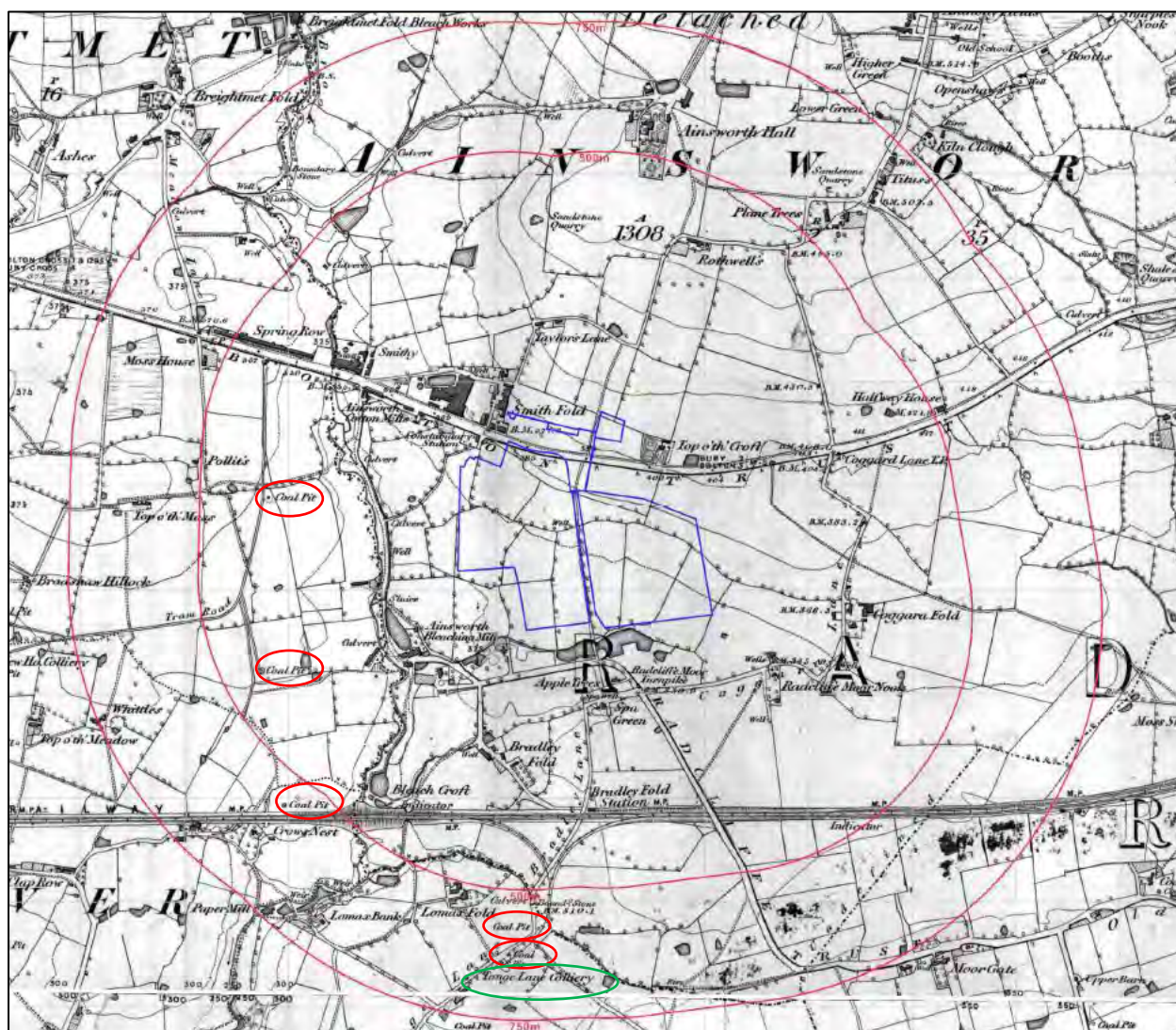
According to the Coal Authority records, there are is one (1 No) shaft located on site and a further four (4 No) in the immediate area. An extract of this record is shown below.



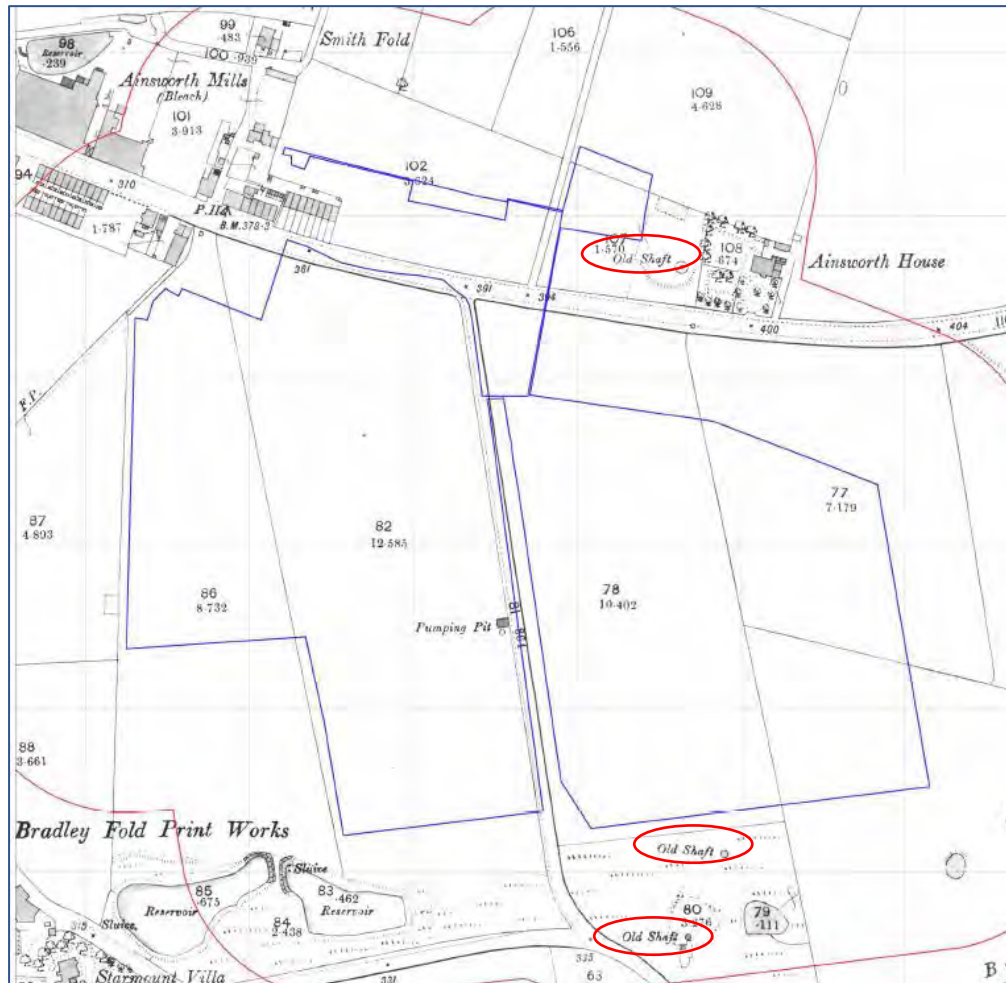
Adits and day holes indicate shallow workings, as they are horizontal/near horizontal mine entrances, the site is likely to have unknown adits, shallow bell pits and shafts that pre-date the recording of coal mine shafts in the area (pre 1850's).

4.2.4 Mining History

The earliest sign of mining is shown the 1850 1:10,560 map with numerous coal pits to the south and west of the site. One (1 No) collieries is also located within 750m of site – Tonge Lane Colliery. An extract of the map can be seen below with any coal mining features highlighted;



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4.2.5 Conclusion

There is a Very High risk of recorded and unrecorded shallow workings with possible bell pits, shallow shafts, day holes and adits across the site. The presence of unrecorded day holes, adits and shallow workings is deemed very likely.

4.3 Hydrogeological and Hydrological Features

The table below summarises the presence/absence of any hydrological licences and incidents within 500m of the proposed site. If entries are present within 250m, further details are provided in the relevant subsection below;

Data Type	On Site	0 – 50m	50 – 250m	250 – 500m
Hydrogeology & Hydrology				
Licensed Discharges to Controlled Waters	-	1	-	-
Pollutant Release to Surface Waters (Red List Discharge Consents)	-	-	-	-
Groundwater Abstraction Licences	-	-	4	4
Surface Water Abstraction Licences	-	-	-	3
Potable Water Abstraction Licences	-	-	-	-
Source Protection Zones	-	-	-	-
Surface Water Features	-	3	8	-

4.3.1 Licensed Discharges to Controlled Waters

There is one (1 No) Licensed Discharge to Controlled Waters located within 250m of site as detailed below;

ID	Location	Address	Details	
A	27m S	GARDEN STORE LTD SWO, RADCLIFFE MOOR ROAD, RADCLIFFE, BURY, GREATER MANCHESTER	Effluent Type: MISCELLANEOUS DISCHARGES – SURFACE WATER Permit Number: 016991449 Permit Version: 1 Receiving Water: COASTAL TRIB FOR DA 68/69	Status: REVOKED – UNSPECIFIED Issue date: - Effective Date: 01/04/1992 Revocation Date: 01/04/1992

4.3.2 Groundwater Abstraction Licenses

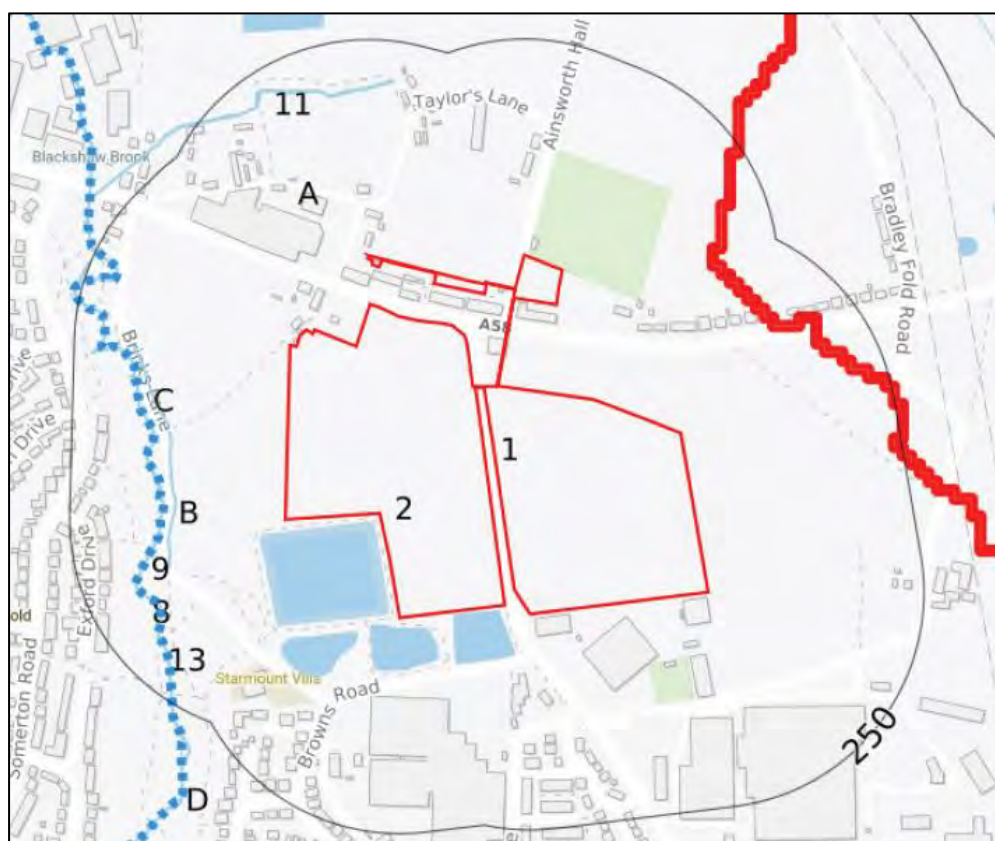
There are four (4 No) Groundwater Abstraction Licenses located within 250m of site as detailed below;

ID	Location	Details	
A	134m NW	Status: Historical Licence No: 2569003012 Details: Process water Direct Source: Ground Water – North West Region Point: "BOREHOLE AT PREMISES, AINSWORTH MILLBREIGHTMET, BOLTON" Data Type: Point Name: AINSWORTH FINISHING COMPANY LTD. Easting: 375500 Northing: 409200	Annual Volume (m³): - Max Daily Volume (m³): - Original Application No: - Original Start Date: 02/02/1966 Expiry Date: - Issue No: 102 Version Start Date: 23/02/2001 Version End Date: -
A	134m NW	Status: Historical Licence No: 2569003012 Details: Process water Direct Source: Ground Water – North West Region Point: BOREHOLE AT PREMISES, AINSWORTH MILLBREIGHTMET, BOLTON Data Type: Point Name: AINSWORTH FINISHING COMPANY LTD. Easting: 375500 Northing: 409200	Annual Volume (m³): - Max Daily Volume (m³): - Original Application No: - Original Start Date: 02/02/1966 Expiry Date: - Issue No: 102 Version Start Date: 23/02/2001 Version End Date: -

A	161m NW	Status: Historical Licence No: 2569003012 Details: Process Water Direct Source: Ground Water - North West Region Point: BOREHOLE AT PREMISES, AINSWORTH MILLBREIGHTMET, BOLTON Data Type: Point Name: PNC PROPERTIES LLP Easting: 375460 Northing: 409190	Annual Volume (m ³): 44840 Max Daily Volume (m ³): 700 Original Application No: - Original Start Date: 02/02/1966 Expiry Date: 05/08/2010 Issue No: 104 Version Start Date: 15/10/2007 Version End Date: -
A	161m NW	Status: Historical Licence No: 2569003012/R1 Details: Process Water Direct Source: Ground Water - North West Region Point: BOREHOLE AT PREMISES, AINSWORTH MILLBREIGHTMET, BOLTON Data Type: Point Name: PCN PROPERTIES LLP Easting: 375460 Northing: 409190	Annual Volume (m ³): 8183 Max Daily Volume (m ³): 27.28 Original Application No: - Original Start Date: 02/02/1966 Expiry Date: - Issue No: 104 Version Start Date: 06/08/2010 Version End Date: -

4.3.3 Surface Water Features

There are eleven (11 No) surface water features located within 250m of site, the closest of which are the reservoirs located immediately south west of site.



4.3.5 Hydrogeology

- The Superficial deposits of the Glacial Till are classed as a Secondary Aquifer – Undifferentiated.
- The bedrock deposits of the Sandstone and Pennine Coal Measure are classed as a Secondary A Aquifer – High Permeability.
- The site does not lie within Groundwater Source Protection Zone as defined by Natural Resources Wales.
- There are no current licenced groundwater water abstractions within 250m of site although there are four (4 No) historic licenses.
- The nearest surface water features are the reservoirs located immediately south west of site.

5 ENVIRONMENTAL DATA

The following section details environmental data available for the site and the surrounding area. Full details can be found in the Groundsure Report by located in Appendix C.

The table below summarises the presence/absence of any waste, hazardous substance sites of industrial land uses within 500m of the proposed site. If entries are present within 250m, further details are provided in the relevant section below.

Data Type	On Site	0 – 50m	50 – 250m	250 – 500m
Current Industrial Land Use				
Recent Industrial Land Uses	-	3	18	-
Current or Recent Petrol Stations	-	-	-	-
Electricity Cables	-	-	-	-
Gas Pipelines	-	-	-	-
Sites Determined as Contaminated Land	-	-	-	-
Control of Major Accident Hazards	-	-	-	-
Regulated Explosive Sites	-	-	-	-
Hazardous Substance/Storage	-	-	-	-
Historical Licensed Industrial Activities (IPC)	-	-	-	-
Licensed Industrial Activities	-	-	1	-
License Pollutant Release	-	-	1	1
Radioactive Substance Authorisations	-	-	-	-
Licensed Discharges to Controlled Waters	-	1	-	-
Pollutant Release to Surface Waters	-	-	-	-
Pollutant Release to Public Sewer	-	-	-	-
List 1 & 2 Dangerous Substances	-	-	1	-
Pollution Incidents (EA/NRW)	-	1	-	2
Pollution Inventory Substances	-	-	-	-
Pollution Inventory Waste Transfers	-	-	-	-
Pollution Inventory Radioactive Waste	-	-	-	-
Waste and Landfill				
Active or recent landfill (EA/NRW)	-	-	-	-
Historical Landfill (BGS Records)	-	-	-	-
Historic Landfill (LA)	-	-	-	-
Historic Landfill (EA/ NRW)	-	-	-	-
Historical Waste Sites	-	1	-	-
Licensed Waste Sites (EA / NRW)ites	-	-	2	-
Waste Exemptions	-	-	19	9

Past Land Use				
Historical Industrial Land Uses	8	21	45	85
Historical Tanks	1	2	24	32
Historical Energy Features	1	1	5	15
Historical Petrol Stations	-	-	-	-
Historical Garages	1	3	2	6
Environmental Designations				
Sites of Special Scientific Interest (SSSI)	-	-	-	-
Special Areas of Conservation (SAC)	-	-	-	-
Special Protection Areas (SPA)	-	-	-	-
Areas of Outstanding Natural Beauty (AONB)	-	-	-	-
National Parks	-	-	-	-
Green Belt Land	1	-	-	-
Nitrate Vulnerable Zones	-	-	-	-

5.1 Current Industrial Land Use

5.1.1 Recent Industrial Land Uses

There are twenty-one (21 No) entries within 250m of site. Those within 100m are detailed below. For full details please refer to Appendix C;

ID	Location	Company	Address	Activity	Category
1	5m E	Electricity Sub Station	Greater Manchester, BL2	Electrical Features	Infrastructure and Facilities
A	11m S	Les Williams & Co Electrical Insulation Ltd	Carlton Works 250, Radcliffe Moor Road, Bolton, Greater Manchester, BL2 6RE	Electrical and Electronic Engineers	Engineering Services
2	45m NW	Tank	Greater Manchester, BL2	Tanks (Generic)	Industrial Features
3	70m S	Radmoor Car Sales	Radcliffe Moor Road, Bolton, Greater Manchester, BL2 6RE	Secondhand Vehicles	Motoring

5.1.2 Licenced Industrial Activities

There is one (1 No) Licenced Industrial Activity within 250m of site as detailed below;

ID	Location	Details
B	99m NW	Operator: AINSWORTH FINISHING COMPANY LIMITED Installation Name: AINSWORTH FINISHING CO LTD Process: COATING, PRINTING AND TEXTILES; PRE-TREATING BY WASHING ETC >10T/DAY Permit Number: WP3636SP Original Permit Number: BM9165IK EPR Reference: - Issue Date: 06/09/2005 Effective Date: 07/09/2005 Last date noted as effective: 28/09/2020 Status: REVOKED

5.1.3 Licenced Pollutant Release

There is one (1 No) Licenced Pollutant Release within 250m of site as detailed below;

ID	Location	Address	Details	
B	130m W	Ainsworth Finishing Co, Ainsworth Mill, Bury New Road, BL2 7QL	Process: Coating Processes Status: Historical Permit Permit Type: Part B	Enforcement: No Enforcements Notified Date of enforcement: No Enforcements Notified Comment: No Enforcements Notified
13	368m NW	Tarmac Topmix, Vale Street, BL2 6QF	Process: Use of Bulk Cement Status: Historical Permit Permit Type: Part B	Enforcement: No Enforcements Notified Date of enforcement: No Enforcements Notified Comment: No Enforcements Notified

5.1.4 Licenced Discharge to Controlled Waters

There is one (1 No) Licenced Discharge to Controlled Waters within 250m of site as detailed below;

ID	Location	Address	Details	
A	27m S	GARDEN STORE LTD SWO, RADCLIFFE MOOR ROAD, RADCLIFFE, BURY, GREATER MANCHESTER	Effluent Type: MISCELLANEOUS DISCHARGES - SURFACE WATER Permit Number: 016991449 Permit Version: 1 Receiving Water: COASTAL TRIB FOR DA 68/69	Status: REVOKED - UNSPECIFIED Issue date: - Effective Date: 01/04/1992 Revocation Date: 01/04/1992

5.1.5 List 1 Dangerous Substance

There is one (1 No) List 1 Dangerous Substance within 250m of site as detailed below;

ID	Location	Name	Status	Receiving Water	Authorised Substances
B	101m NW	Ainsworth Finishing Company Ltd	Active	-	Mercury (other), Pentachlorophenol

5.1.6 Pollution Incidents (EA/NRW)

There is one (1 No) pollution incident recorded within 250m of site as detailed below;

ID	Location	Details	
A	34m S	Incident Date: 22/09/2001 Incident Identification: 32300 Pollutant: Other Pollutant Pollutant Description: Natural Ochre	Water Impact: Category 3 (Minor) Land Impact: Category 4 (No Impact) Air Impact: Category 4 (No Impact)
11	319m S	Incident Date: 12/06/2001 Incident Identification: 8753 Pollutant: Other Pollutant Pollutant Description: Other	Water Impact: Category 2 (Significant) Land Impact: Category 4 (No Impact) Air Impact: Category 4 (No Impact)
12	344m NW	Incident Date: 08/09/2001 Incident Identification: 29669 Pollutant: Specific Waste Materials Pollutant Description: Organic Chemical Wastes	Water Impact: Category 4 (No Impact) Land Impact: Category 3 (Minor) Air Impact: Category 4 (No Impact)

5.2 Waste and Landfill

5.2.1 Historical Waste Sites

There is one (1 No) historic waste site recorded within 250m of site as detailed below:

ID	Location	Address	Further Details	Date
A	22m W	Site Address: Land at Ainsworth Mill, Bury New Road, Breightmet, Bolton, Greater Manchester, BL2 6QB	Type of Site: Recycling Centre (Conversion/Alterations) Planning application reference: 56933 Description: Scheme comprises change of use of land to metal recycling/storage (Sui Generis) and siting of containers 2 and refurbishment of temporary building for office use. Data source: Historic Planning Application Data Type: Point	-

5.2.2 Licensed Waste Sites (EA/NRW)

There are two (2 No) Licensed waste sites recorded within 250m of site as detailed below;

ID	Location	Details		
A	76m N	Site Name: Ainsworth Mill Site Address: Ainsworth Mill, Bury New Road, Breightmet, Bolton, Lancashire, BL2 6QB Correspondence Address: -	Type of Site: Metal Recycling Site 25000 tps Size: 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: HAM052 EPR reference: EA/EPR/AB3604KG/A001 Operator: Hamer Mr Laszlo Waste Management licence No: 400747 Annual Tonnage: 24999	Issue Date: 06/03/2014 Effective Date: - Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Expired
A	76m N	Site Name: Ainsworth Mill Site Address: Ainsworth Mill, Bury New Road, Breightmet, Bolton, Lancashire, BL2 6QB Correspondence Address: -	Type of Site: Metal Recycling Site 25000 tps Size: 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: HAM052 EPR reference: EA/EPR/AB3604KG/A001 Operator: Hamer Laszlo Waste Management licence No: 400747 Annual Tonnage: 24999	Issue Date: 06/03/2014 Effective Date: - Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Issued

5.2.3 Waste Exemptions

There are nineteen (19 No) Waste Exemptions recorded within 250m of site. The closest three have been detailed below. For full details please refer to Appendix C;

ID	Location	Site	Reference	Category	Sub-Category	Description
1	71m S	RADCLIFFE MOOR ROAD, BOLTON, BL2 6RE	WEX037268	Using waste exemption	Not on a farm	Use of waste for a specified purpose
2	196m S	FOLD MILL, BRADLEY LANE, BOLTON, BL2 6RA	WEX224958	Using waste exemption	Not on a farm	Use of waste to manufacture finished goods
B	224m SE	UNIT 8, BRADLEY FOLD TRADING ESTATE, RADCLIFFE MOOR ROAD, BRADLEY FOLD, BOLTON, BL2 6RT	WEX007495	Treating waste exemption	Not on a farm	Preparatory treatments (baling, sorting, shredding etc)

5.3 Past Land Use

5.3.1 Historical Industrial Land Uses

There are eight (8 No) historical land uses recorded on site with a further sixty six (66 No) located within 250m of site. Those located on site are detailed below. For full details please refer to Appendix C;

ID	Location	Land use	Dates present	Group ID
1	On site	Refuse Heap	1955	678009
A	On site	Unspecified Ground Workings	1955	645699
A	On site	Unspecified Heap	1927	650890
A	On site	Pumping Pit	1890	653313
B	On site	Pumping Station	1927	742474
C	On site	Unspecified Heap	1965	650891
C	On site	Unspecified Works	1988 - 1991	743909
D	On site	Garage	1988 - 1991	769930

5.3.2 Historical Tanks

There are twenty seven (27 No.) entries for historical tanks located within 250m of site, one (1 No) of which is on site and is detailed below. For full details please refer to Appendix C;

ID	Location	Land use	Dates present	Group ID
A	On site	Unspecified Tank	1890	84788

5.3.3 Historical Energy Features

There are seven (7 No) entries for historical energy features located within 250m of site, one of which is on site and is detailed below;

ID	Location	Land use	Dates present	Group ID
B	On site	Electricity Substation	1987 - 1992	48115

It is important to note that this substation is now off site as a result of the change in site boundary.

5.3.4 Historical Garages

There are six (6 No) entries for historical garages located within 250m of site, one of which is on site and is detailed below;

ID	Location	Land use	Dates present	Group ID
D	On site	Garage	1987	16599

It is important to note that this garage is now off site as a result of the change in site boundary.

5.4 Environmental Designations

5.4.1 Greenbelt

There is one (1 no) Greenbelt area located on site as detailed below:

ID	Location	Name	Local Authority name
1	On site	Liverpool and Manchester	Bury

6 SUMMARY OF ENVIRONMENTAL SENSITIVITY

The following section is a review of the environmental sensitivity of the site as discussed in Sections 2 - 5. Significant potential risks are discussed in the following subsections and will then be evaluated as part of the Site Conceptual Model in Section 7.

Sources are defined as where pollution comes from, pathways are a route in which the pollution travels and receptors are anything affected by a pollutant. Further details on Source-Pathway-Receptor methodology can be found in Appendix D.

The table in section 6.1 focuses on significant site-specific sources, pathways and receptors. More 'generic' pathways and receptors (such as site end uses) will be covered as part of the full Site Conceptual Model in Section 7.

6.1 Sources

Source	Distance/ Direction	Details	Significant Risk
Current Site Use	On Site	The site is currently used for agricultural purposes. Low risk of contamination from current use.	No
Historic Site Use	On Site	Site has historically been open fields with scattering of other uses (see below for individual sources). Generally low risk of contamination, apart from former refuse tip area and coal mining area all of which are on the western parcel.	See Below
Coal Mining	On Site	The site has been identified by Coal Authority as potential shallow coal mining historically, possible bell pits, shallow shafts and possible adits. One known shaft on site and many in the immediate vicinity. Abandonment Plans to be consulted.	Yes
Refuse Tip	On Site	Refuse tip shown in the centre of the western parcel circa 1930 – 1955. Likely to contain colliery spoil given the coal mining on site. Unknown material within tip could contain heavy metals, TPH's and PAH's. Also potential ground gas source. Ground investigation to confirm.	Yes – western parcel No – eastern parcel
Wells	On Site	Wells shown from 1850's to 1890's, unknown size and sort. Investigation and delineation required to assess risk.	Yes – western parcel No – eastern parcel
Infilled Reservoirs/Ponds	Immediately S	Infilled reservoirs/ponds located to the S of site. Unknown material within the area could contain heavy metals, TPH's and PAH's. Also potential ground gas source. Age of infilling being greater than 50 years ago lowers any risk. Ground investigation to confirm.	Possible
Historical Bleach and Dye Works	Within 250m of site	A number of historic bleach and dye works located to the NW, S and SW of site. Possible courses of contamination include heavy metals, TPH's, PAH's, asbestos, SVOC's, VOC's, phenols and cyanides. Site anticipated to be surrounded by cohesive superficial geology limiting any migration pathway. Ground investigation to confirm.	Possible
Collieries	700m S	Collieries surrounding site, possible shallow workings interconnecting beneath site. Number of known shafts shown on OS Maps. Possible ground gas source due to methane from shallow coal and shafts/adits acting as pathway.	Yes

6.2 Pathways and Receptors

Pathways and Receptors	Distance/ Direction	Details	Significant Risk
Aquifers	Below Site	Bedrock aquifer designated as a Secondary A Aquifer however the anticipated cohesive glacial till should limit significant lateral and vertical spread of contamination as it is classed as an unproductive strata. No active groundwater abstractions within 250m of site however significant contamination anticipated on site. Former coal shafts may act as a pathway.	Possible
Reservoirs	Immediately S	Possible pathway and receptor for any contamination however the anticipated cohesive glacial till should limit significant lateral and vertical spread of contamination as they are classed as an unproductive stratum. Significant contamination anticipated on site.	Possible
Site End Users/ Construction Workers	On Site	Significant contamination anticipated on site however current proposals are for a football pitch with associated pavilion and changing rooms. If the proposals are to include ground breaking works then there is a significant risk to site end users and construction workers.	Yes

7 INITIAL CONTAMINATION CONCEPTUAL MODEL

For details on how the conceptual model is evaluated please refer to Appendix D.

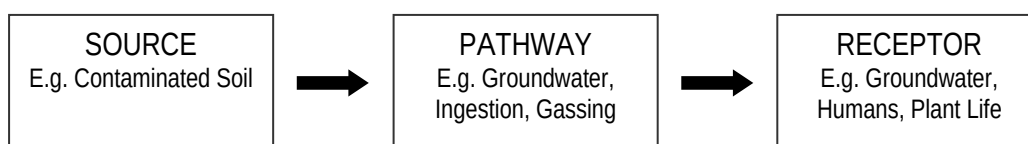
This section of the report aims to identify land which could potentially be affected by contamination, such that it could affect the value or re-use of the land, or such that mitigation would be required for certain proposed end uses of the land.

Potential contamination sources and environmentally sensitive receptors have been discussed in Section 6. Potentially significant risks are evaluated as part of the subsequent sub-sections.

7.1 Source-Pathway-Receptor-Linkages

The risk assessment uses a 'Source-Pathway-Receptor' methodology for assessing whether a source of contamination could potentially lead to harmful consequences. This means that there needs to be a pollutant linkage from source to receptor for harm to be caused, this linkage consisting of: a source of pollution; a pathway for the pollutant to move along; a receptor that is affected by the pollutant.

The current potential risks to site arising from various Source-Pathway-Receptor linkages are assessed below. A risk may be considered significant if all three of the stages are present and therefore providing a pollution linkage. The various sources, pathways and receptors are considered separately. The assessment is based on the future use, which is understood to be a proposed football club with basic changing and leisure facilities.



Type of Contamination	Potential Sources	Potential Pathway	Potential Receptors	Pollution Linkage	Comment	Estimated Level of Risk
Ground Gas	Coal Mining on Site	Inhalation of Vapours	Construction/ Maintenance Workers	Potentially Active	Possible ground gas from localised Made Ground in infilled ponds/reservoirs immediately off site and former refuse tip on site (in western parcel). High risk of ground gas from coal mining on site and in immediate area. Site anticipated to have cohesive superficial geology. Ground investigation and ground gas monitoring to confirm. PPE to minimise risk.	High – western parcel Moderate – eastern parcel
	Made Ground On Site					
	Former Well on Site	Vapours Penetrating Unprotected Buildings	Future Site Users	Potentially Active	Although ground gas sources have been identified on site the proposed site use is a football pitch with associated pavilion and changing rooms. Highest risk to proposed buildings on site but site end users wont be in the buildings for long and type of building proposed should allow for sufficient ventilation or ground has protection measures.	High – western parcel Moderate – eastern parcel
	Infilled Reservoir/ Pond immediately S					
Surface and Near Surface Contaminants Within Soils	As above	Ingestion, Inhalation, Dermal Contact	Current Site Users	Potentially Active	Possible contamination from all sources mentioned in table 6.1 however the current site use is open space/agricultural land which lowers any risk.	Low/ Moderate
			Construction Workers	Potentially Active	Significant contamination anticipated on site however current proposals are for a football pitch with associated pavilion and changing rooms. If the proposals are to include ground breaking works then there is a significant risk to site end users and construction workers.	Moderate
			Future Site Users	Potentially Active	Although contamination sources have been identified on site the proposed site use is a football pitch with associated pavilion and changing rooms. Highest risk from coal mining on site. Ground investigation to confirm.	Moderate
			Adjacent Land Users	Potentially Active	Majority of surrounding area is either industrial or commercial use.	Low
		Direct Contact	Structures	Potentially Active	Large number of contamination sources identified from desk study however limited structures are anticipated as part of the proposed development. Anticipated that the buildings will be placed on elevated steel frames so the risk is lowered.	Low if properties placed on elevated steel frames. Moderate if properties placed directly into ground
		Absorption in Root Zone	Plants	Potentially Active	Large number of contamination sources identified from desk study however no gardens are proposed as part of the proposed development.	Low
Mobile Contaminants, Leachables e.g. from Pollution Sources Adjacent to Site/On Site	As above	Leaching into Groundwater	Groundwater	Potentially Active	Superficial geology is classed as an Unproductive Strata. Significant contamination anticipated on site. Ground investigation to confirm.	Moderate
		Off-site Migration in Groundwater	Abstractions	Potentially Active	No current licensed groundwater abstractions within 250m. Not in a Groundwater Source Protection Zone.	Low

Type of Contamination	Potential Sources	Potential Pathway	Potential Receptors	Pollution Linkage	Comment	Estimated Level of Risk
		er	Controlled Waters	Potentially Active	Closest surface water features are the reservoirs immediately S. Possible receptor but anticipated cohesive superficial geology limits any migration pathway.	Moderate.
Organic and Inorganic Contaminants Within Soils / Groundwater	As above	Potable Water Supply Pipes	Utilities Workers	Potentially Active	Possible localised solvents, TPH and PAH contamination from former uses and neighbouring uses. Ground investigation to confirm, then liaise with local water authority supplier.	Low if no ground breaking works proposed High if ground breaking works and new pipelines are proposed.

7.2 Contamination Summary

In this qualitative risk assessment, a Moderate risk for ground gas and contamination exists across the site, with the higher risk existing on the western parcel, but is dependant upon the proposed layout / type of structures.

However, the proposed development simply involves a football pitch with associated small buildings – changing rooms and pavilion. If the development consists of placing units on hardstanding or placing on elevated steel frames, and the units have no garden areas then the risk is deemed low as no significant pathway to site end users is anticipated. See section 8 for more details.

If the proposed site involves ground breaking works and/or proposed landscaping, remedial action will be necessary at the site, the likes of which cannot be confirmed until a geotechnical and contamination ground investigation has been completed. See section 8 for more details.

7.3 Geotechnical Constraints

- Existing and redundant services across site.
- Extent of Made Ground on site in vicinity of former reservoirs/ponds to the south and in the vicinity of the known refuse tip.
- High risk of shallow coal mining, bell pits and shafts.
- Former well.
- One (1 No) known shaft on site. Area around shaft should be avoided for buildings. Easement to known shafts should be anticipated.
- Potential tree heave should cohesive stratum be encountered on site (anticipated).

8 NOTES ON INTRUSIVE GROUND INVESTIGATION/CONTAMINATION RISK

Although significant ground gas and contamination sources are evident both on and adjacent to site, it is suggested that there is not a significant ongoing risk based on the current proposals for the site other than from shallow coal mining.

On assessing the potential risks on site, we have compiled the following recommendations for initial investigation;

- Rotary borehole coal investigation (subject to CA licence) to identify shallow workings and potential shafts.
- Six (6 No.) window sample boreholes to 3.0mbgl all with gas monitoring installs targeting made ground near offsite shafts and achieving site spread.
- Six (6 No.) ground gas/water monitoring visits over 3 months at varying barometric pressures.
- One (1 No.) days of mechanically excavated trial pits for assessment of shallow soils both for geotechnical suitability and chemical assessment. Trial pits targeted to areas where buildings are proposed.
- Fifteen (15 No.) soil samples taken for chemical assessment - depending on ground conditions encountered this should include testing (topsoil, made ground and natural) to benchmark contamination levels across the site. Proposed testing will include but not be limited to the following; heavy metals suite (comprising; As, Cd (low level), Cr Vi, Pb, Hg, Se, Ni, Cu, Zn), Organic Matter, Sulphate, pH, speciated polycyclic aromatic hydrocarbons and TPH CWG. Asbestos testing within topsoil and Made Ground (if present) with quantification for positive samples.
- Three (3 No.) samples taken for geotechnical analysis if clay strata is encountered (anticipated) in areas of proposed buildings for tree heave protection and concrete design classification.

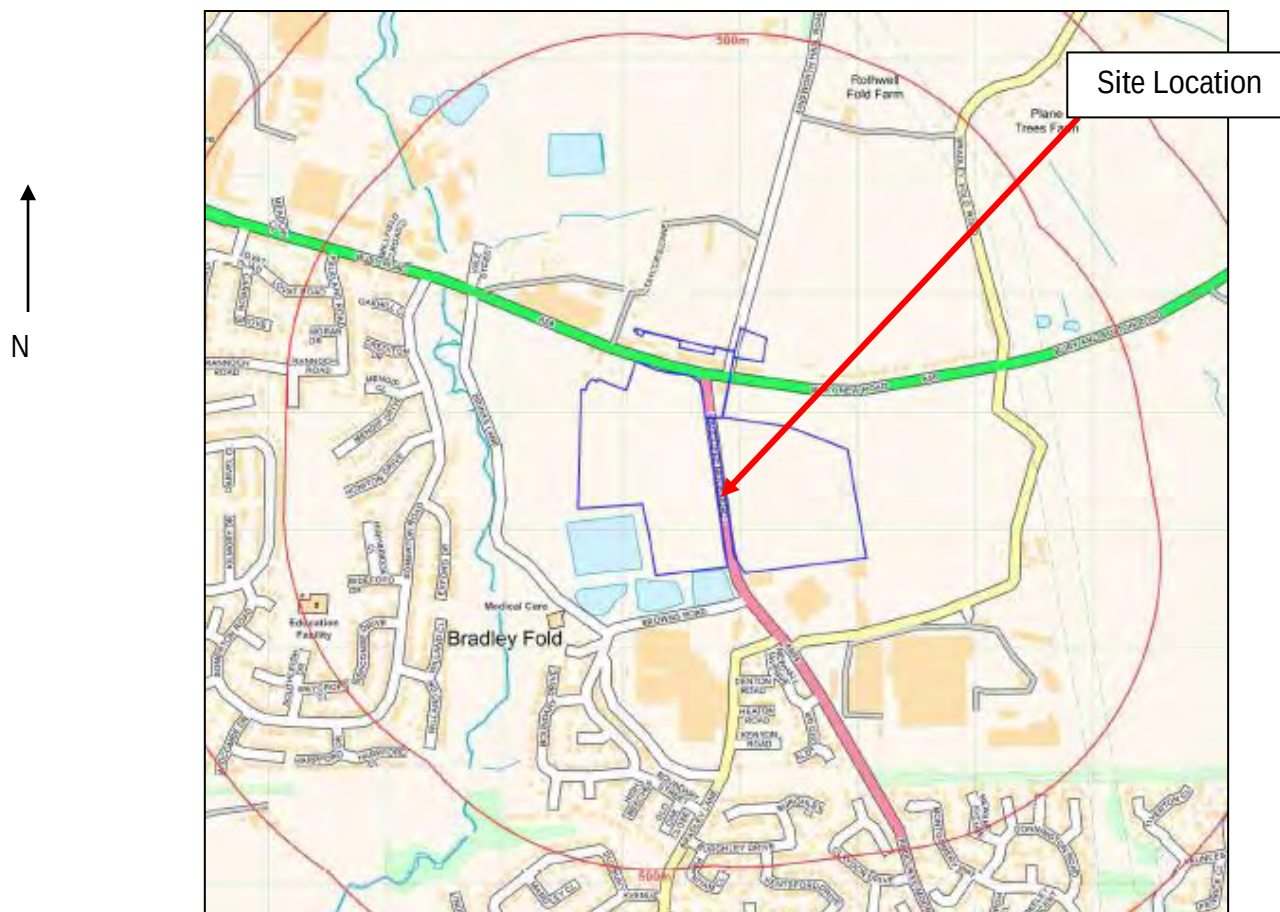
The scope of works should be agreed with the Local Authority prior to the intrusive ground investigation and as such may change.

9 REFERENCES

- 9.1 *BS 5930:2015 Code of Practice for Ground Investigation.*
- 9.2 Investigation of Potentially contaminated sites BS10175:2011 +A1:2013.
- 9.3 BS8576:2013 Guidance on investigations for ground gas.
- 9.4 R & D Publication CLR 8 (March 2002) Assessment of Risks to Human Health from Land Contamination: An Overview of the Development of Soil Guideline Values and Related Research. Environment Agency.
- 9.5 R & D Publication CLR 10 (March 2002) The Contaminated Land Exposure Assessment Model (CLEA): Technical basis and algorithms. Environment Agency.
- 9.6 Contaminated Land Risk Assessment; a Guide to Good Practice; CIRIA C552: 2001.
- 9.7 BRE 211 Radon: guidance on protective measures for new buildings (including supplementary advice for extensions, conversions and refurbishment) (2007 edition).
- 9.8 Assessment of risks to human health from land contamination: an overview of the development of guideline values and related research. EA, 2002.
- 9.9 Health and Safety in Construction, HSG150, HSE, 1996.
- 9.10 Baker W (1987), Investigation Strategy - lecture at City of Birmingham Development Department Symposium on Methane Generating Sites, 9 December 1987, Industrial Research Laboratories, Birmingham.
- 9.11 NHBC Standards, Chapter 4.2, 2017 Building Near Trees.
- 9.12 'Guidance on Evaluation of Development Proposals on Sites Where Methane and Carbon Dioxide are Present', Report Edition No.04 March 2007 NHBC – designed for use with low rise residential properties.
- 9.13 CIRIA C665 'Assessing risks posed by hazardous ground gases for buildings' 2007 - for high rise residential / flats.
- 9.14 BS8485:2015 'Code of practice for the design of protective measures for methane and carbon dioxide ground gases for new buildings'.
- 9.15 BRE 414 'Protective measures for housing on gas-contaminated land' Roger Johnson, Parkman Environment 2001.
- 9.16 BS 8500-2:2015+A1:2016 'Concrete British Standard to BS EN 206. Specification for constituent materials and concrete'.
- 9.17 CLR11 'Model Procedures for the Management of Land Contamination' DEFRA 2004.
- 9.18 'Land Contamination Risk Management (LCRM)' Environment Agency (October 2020).

APPENDIX A

(i) Site Location Plan



The site is located to the south of Bury New Road and either side of Radcliffe Moor Road, Bury, BL2 6QU. The coordinates on the British National Grid CRS are 375680, 408903. The proposed site is approximately 11.73 hectares in total.

Site Photographs









APPENDIX B

(i) Historical Mapping

Site Details:

POTENTIAL RELOCATION OF
WYRESDALE FC, BURY NEW
ROAD, RADCLIFFE, BL2 6QU

Client Ref: 20WCH011_-_BG3885
Report Ref: GS-7150956
Grid Ref: 375770, 408932

Map Name: County Series

Map date: 1890

Scale: 1:2,500

Printed at: 1:2,500



Surveyed 1890
Revised 1890
Edition N/A
Copyright N/A
Levelled N/A

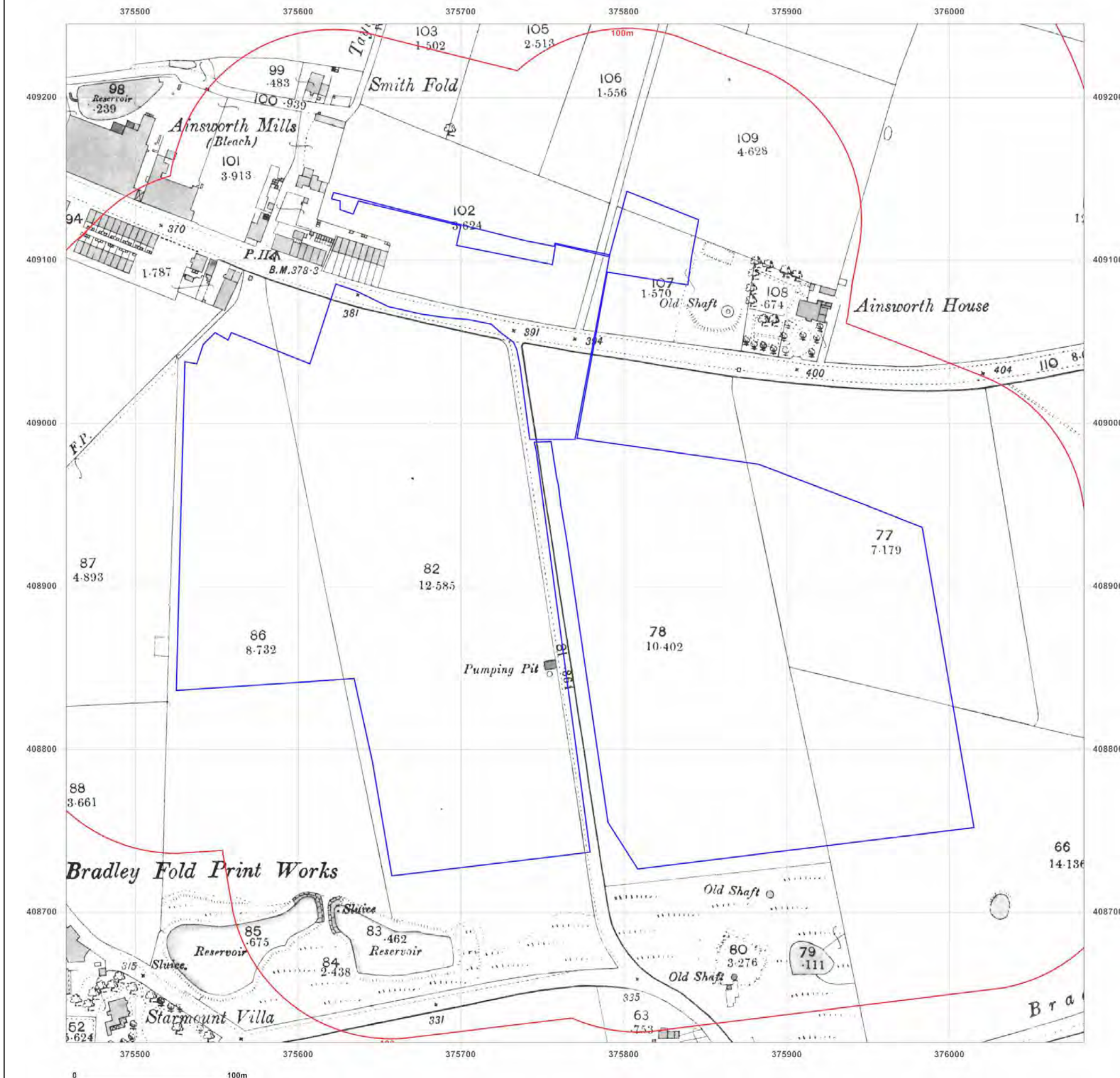


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Production date: 12 October 2020

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



Site Details:

POTENTIAL RELOCATION OF
WYRESDALE FC, BURY NEW
ROAD, RADCLIFFE, BL2 6QU

Client Ref: 20WCH011_-_BG3885
Report Ref: GS-7150956
Grid Ref: 375770, 408932

Map Name: County Series

Map date: 1910

Scale: 1:2,500

Printed at: 1:2,500



Surveyed 1910
Revised 1910
Edition N/A
Copyright N/A
Levelled N/A

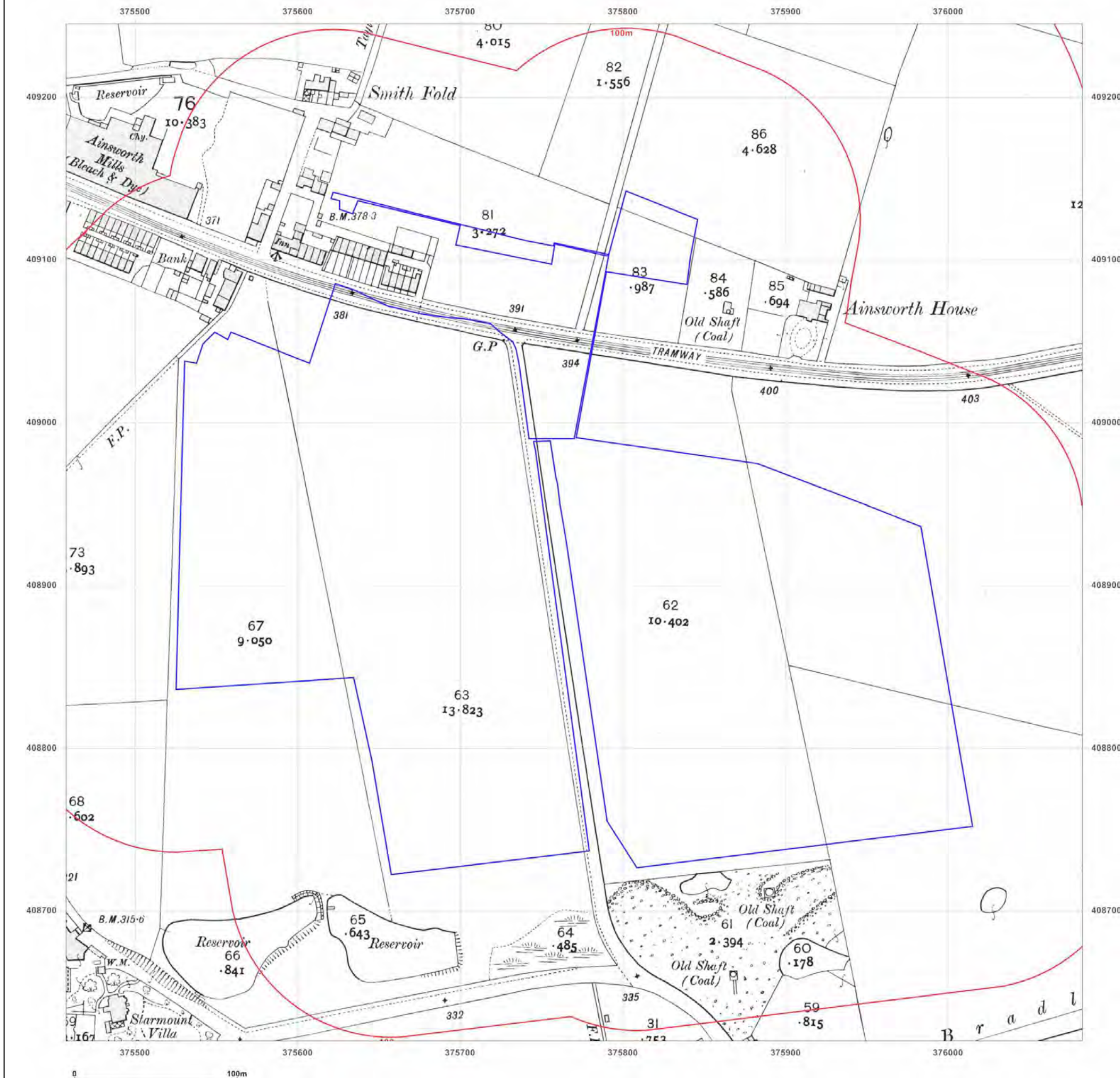


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Site Details:

POTENTIAL RELOCATION OF
WYRESDALE FC, BURY NEW
ROAD, RADCLIFFE, BL2 6QU

Client Ref: 20WCH011_-_BG3885
Report Ref: GS-7150956
Grid Ref: 375770, 408932

Map Name: County Series

Map date: 1930

Scale: 1:2,500

Printed at: 1:2,500



Surveyed 1930
Revised 1930
Edition N/A
Copyright N/A
Levelled N/A

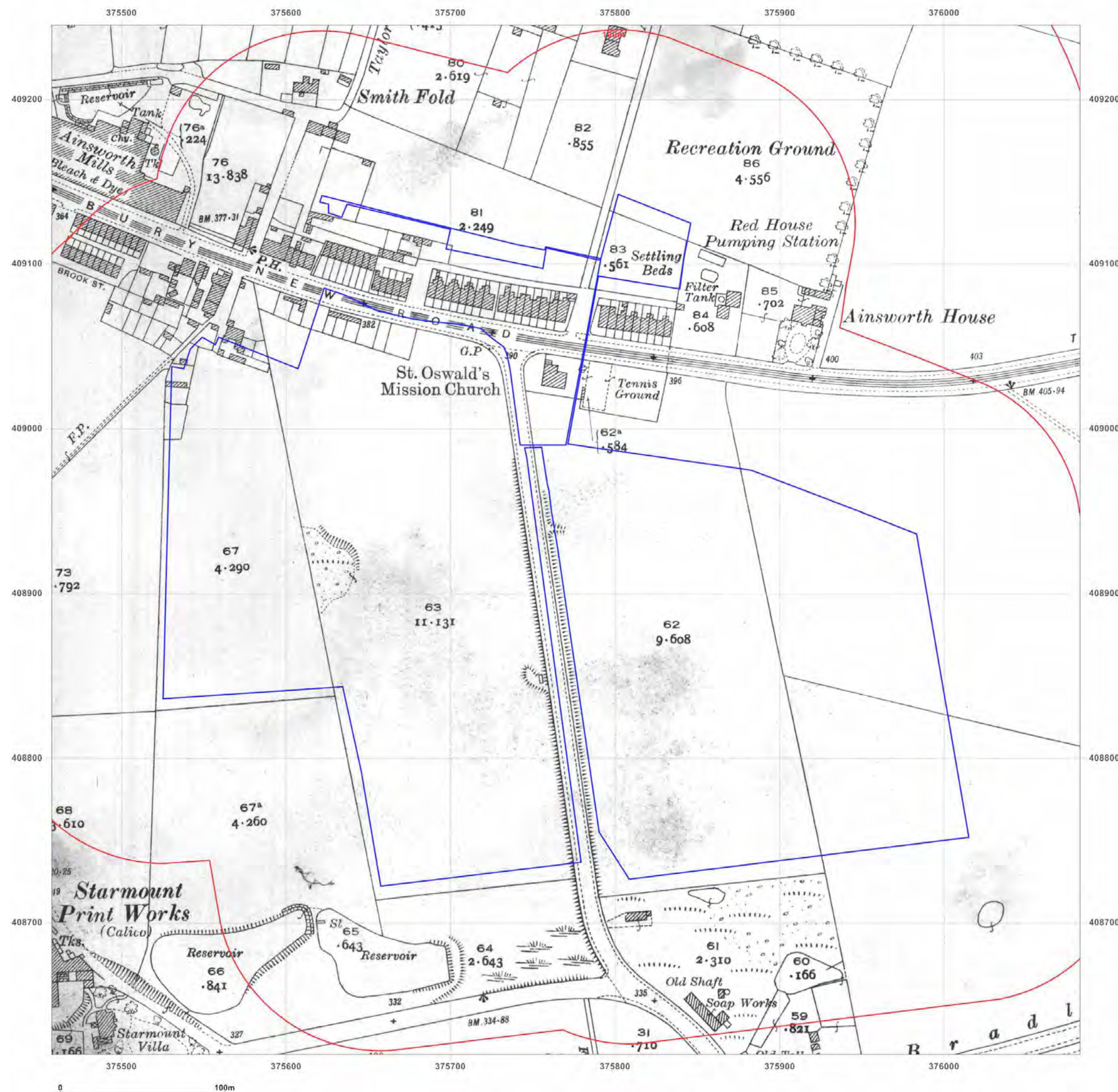


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Site Details:

POTENTIAL RELOCATION OF
WYRESDALE FC, BURY NEW
ROAD, RADCLIFFE, BL2 6QU

Client Ref: 20WCH011_-_BG3885
Report Ref: GS-7150956
Grid Ref: 375770, 408932

Map Name: County Series

Map date: 1937

Scale: 1:2,500

Printed at: 1:2,500



Surveyed 1937
Revised 1937
Edition N/A
Copyright N/A
Levelled N/A

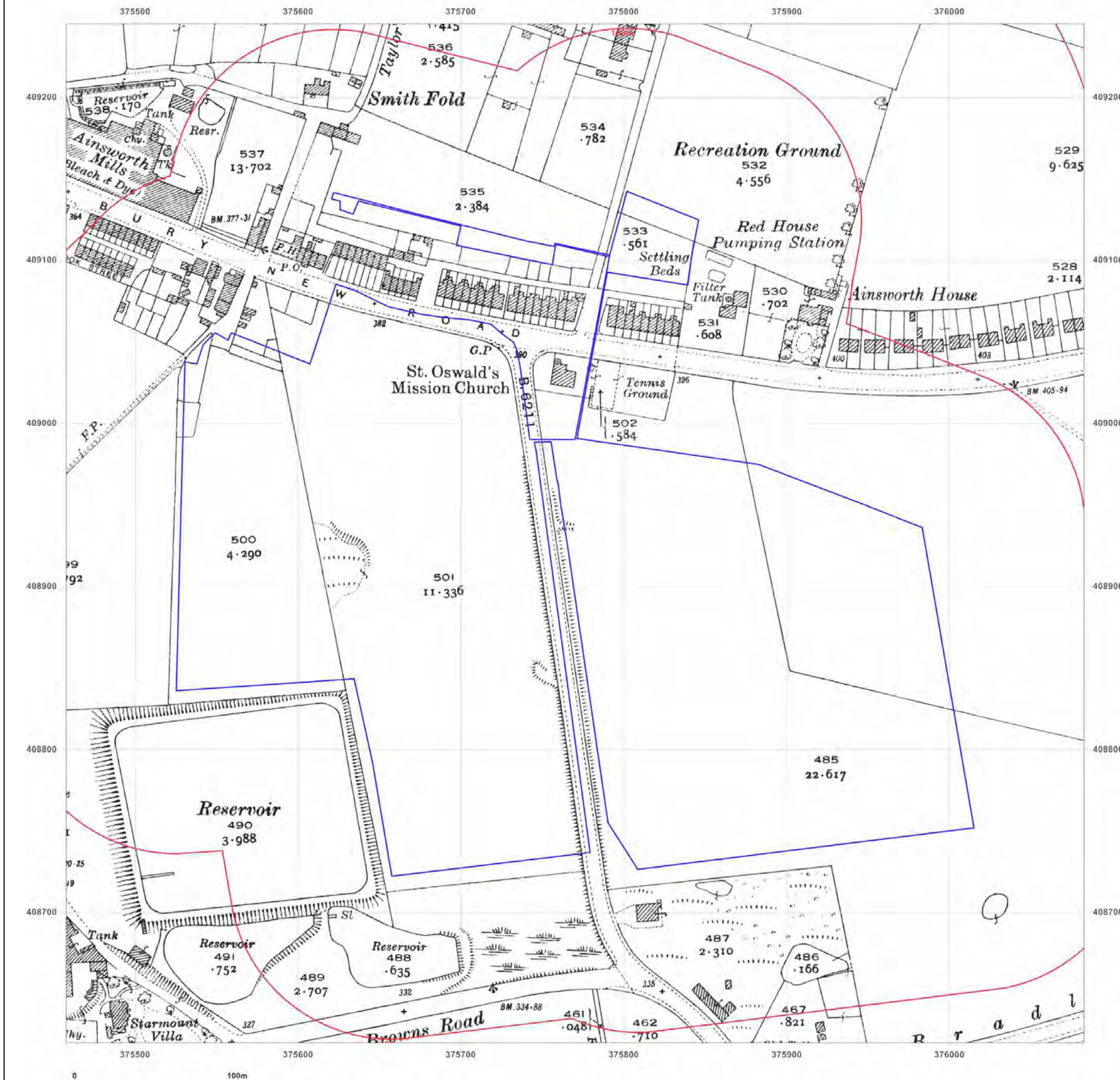


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Site Details:

POTENTIAL RELOCATION OF
WYRESDALE FC, BURY NEW
ROAD, RADCLIFFE, BL2 6QU

Client Ref: 20WCH011_-_BG3885
Report Ref: GS-7150956
Grid Ref: 375770, 408932

Map Name: National Grid

Map date: 1955

Scale: 1:1,250

Printed at: 1:2,000



Surveyed 1955
Revised 1955
Edition N/A
Copyright N/A
Levelled 1927

Surveyed 1955
Revised 1955
Edition N/A
Copyright N/A
Levelled 1949

Surveyed 1955
Revised 1955
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Levelled 1949

Surveyed 1955
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Client Ref: 20WCH011_-_BG3885
Report Ref: GS-7150956
Grid Ref: 375770, 408932

Map Name: National Grid

Map date: 1955

Scale: 1:2,500

Printed at: 1:2,500



Surveyed 1955
Revised 1955
Edition 1956
Copyright N/A
Levelled 1949

Surveyed 1955
Revised 1955
Edition 1956
Copyright N/A
Levelled 1949

Surveyed 1955
Revised 1955
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Copyright N/A
Levelled 1949

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Revised 1955
Edition 1956
Copyright N/A
Levelled 1949

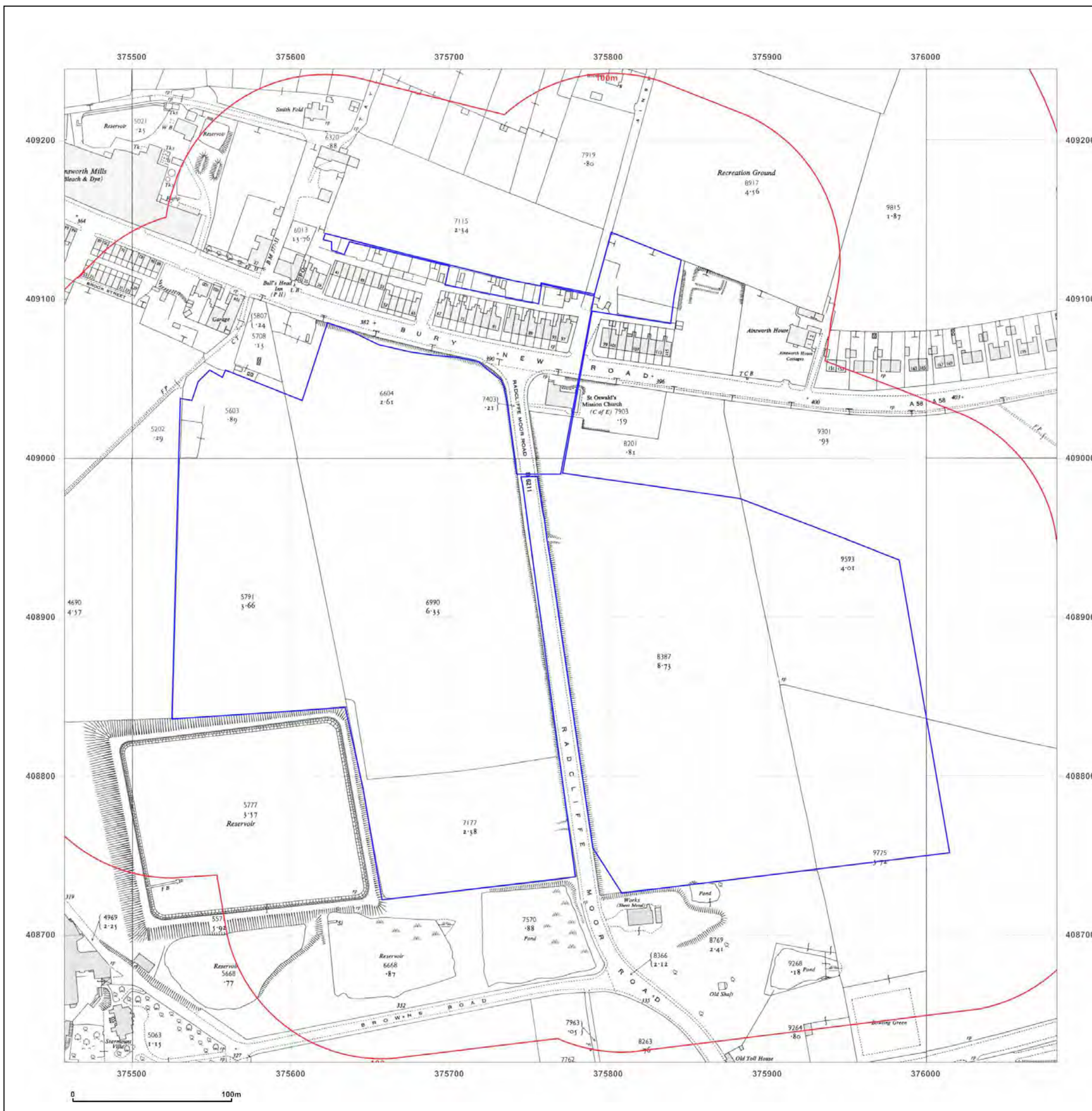


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Site Details:

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ROAD, RADCLIFFE, BL2 6QU

Client Ref: 20WCH011_-_BG3885
Report Ref: GS-7150956
Grid Ref: 375770, 408932

Map Name: National Grid

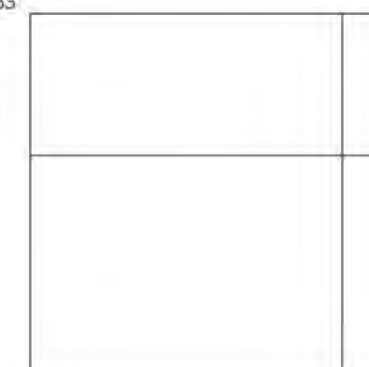
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Scale: 1:2,500

Printed at: 1:2,500



Surveyed 1968
Revised 1968
Edition N/A
Copyright 1969
Levelled 1963



Surveyed 1967
Revised 1967
Edition N/A
Copyright 1970
Levelled 1963

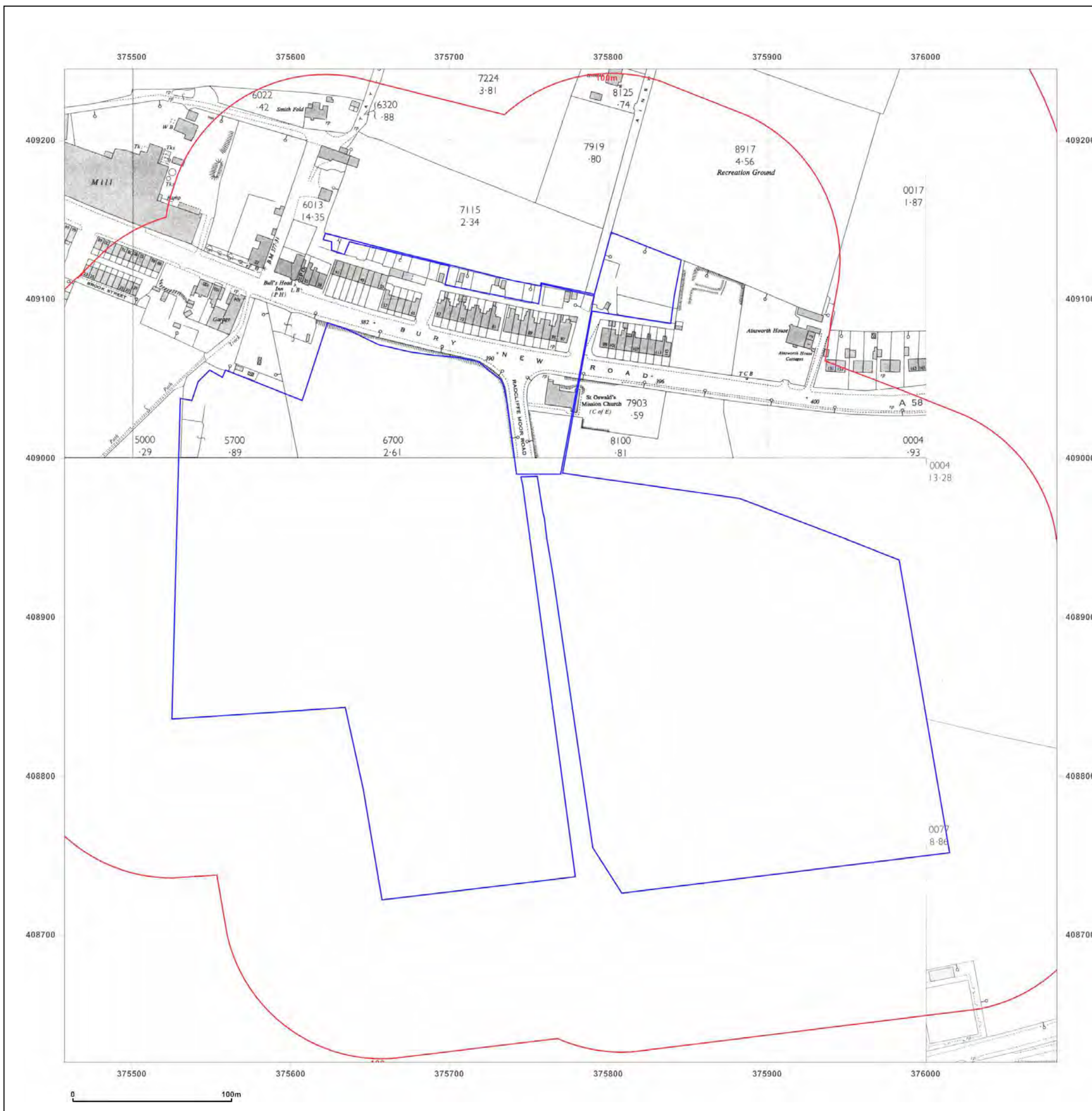


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Site Details:

POTENTIAL RELOCATION OF
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ROAD, RADCLIFFE, BL2 6QU

Client Ref: 20WCH011_-_BG3885
Report Ref: GS-7150956
Grid Ref: 375770, 408932

Map Name: National Grid

Map date: 1972

Scale: 1:1,250

Printed at: 1:2,000



Surveyed 1955
Revised 1971
Edition N/A
Copyright 1972
Levelled 1963

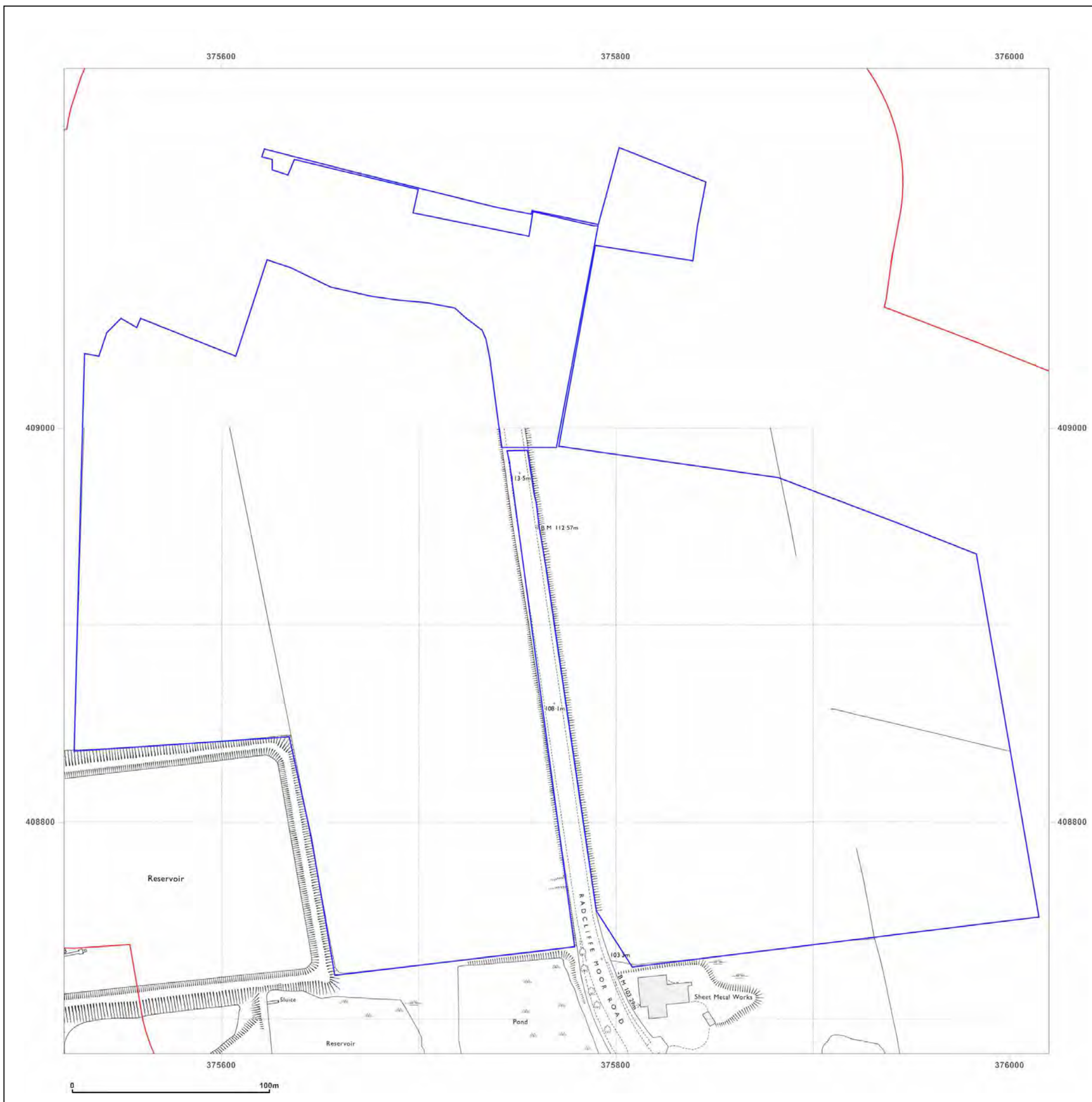


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POTENTIAL RELOCATION OF
WYRESDALE FC, BURY NEW
ROAD, RADCLIFFE, BL2 6QU

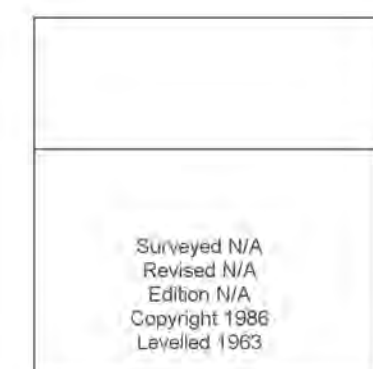
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Report Ref: GS-7150956
Grid Ref: 375770, 408932

Map Name: National Grid

Map date: 1986

Scale: 1:1,250

Printed at: 1:2,000



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Site Details:

POTENTIAL RELOCATION OF
WYRESDALE FC, BURY NEW
ROAD, RADCLIFFE, BL2 6QU

Client Ref: 20WCH011_-_BG3885
Report Ref: GS-7150956
Grid Ref: 375770, 408932

Map Name: National Grid

Map date: 1986-1987

Scale: 1:1,250

Printed at: 1:2,000



Surveyed 1962
Revised 1987
Edition N/A
Copyright 1987
Levelled 1962

Surveyed N/A
Revised 1986
Edition N/A
Copyright 1986
Levelled 1962

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Revised 1986
Edition N/A
Copyright 1986
Levelled 1963

Surveyed 1963
Revised 1986
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Site Details:

POTENTIAL RELOCATION OF
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ROAD, RADCLIFFE, BL2 6QU

Client Ref: 20WCH011_-_BG3885
Report Ref: GS-7150956
Grid Ref: 375770, 408932

Map Name: National Grid

Map date: 1992

Scale: 1:1,250

Printed at: 1:2,000



Surveyed 1992
Revised N/A
Edition N/A
Copyright 1992
Levelled N/A

Surveyed 1992
Revised N/A
Edition N/A
Copyright 1992
Levelled N/A

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Site Details:

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WYRESDALE FC, BURY NEW
ROAD, RADCLIFFE, BL2 6QU

Client Ref: 20WCH011_-_BG3885
Report Ref: GS-7150956
Grid Ref: 375770, 408932

Map Name: National Grid

Map date: 1992-1994

Scale: 1:1,250

Printed at: 1:2,000



Surveyed 1992
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Edition N/A
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Client Ref: 20WCH011_-_BG3885
Report Ref: GS-7150956
Grid Ref: 375770, 408932

Map Name: National Grid

Map date: 1994

Scale: 1:1,250

Printed at: 1:2,000



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

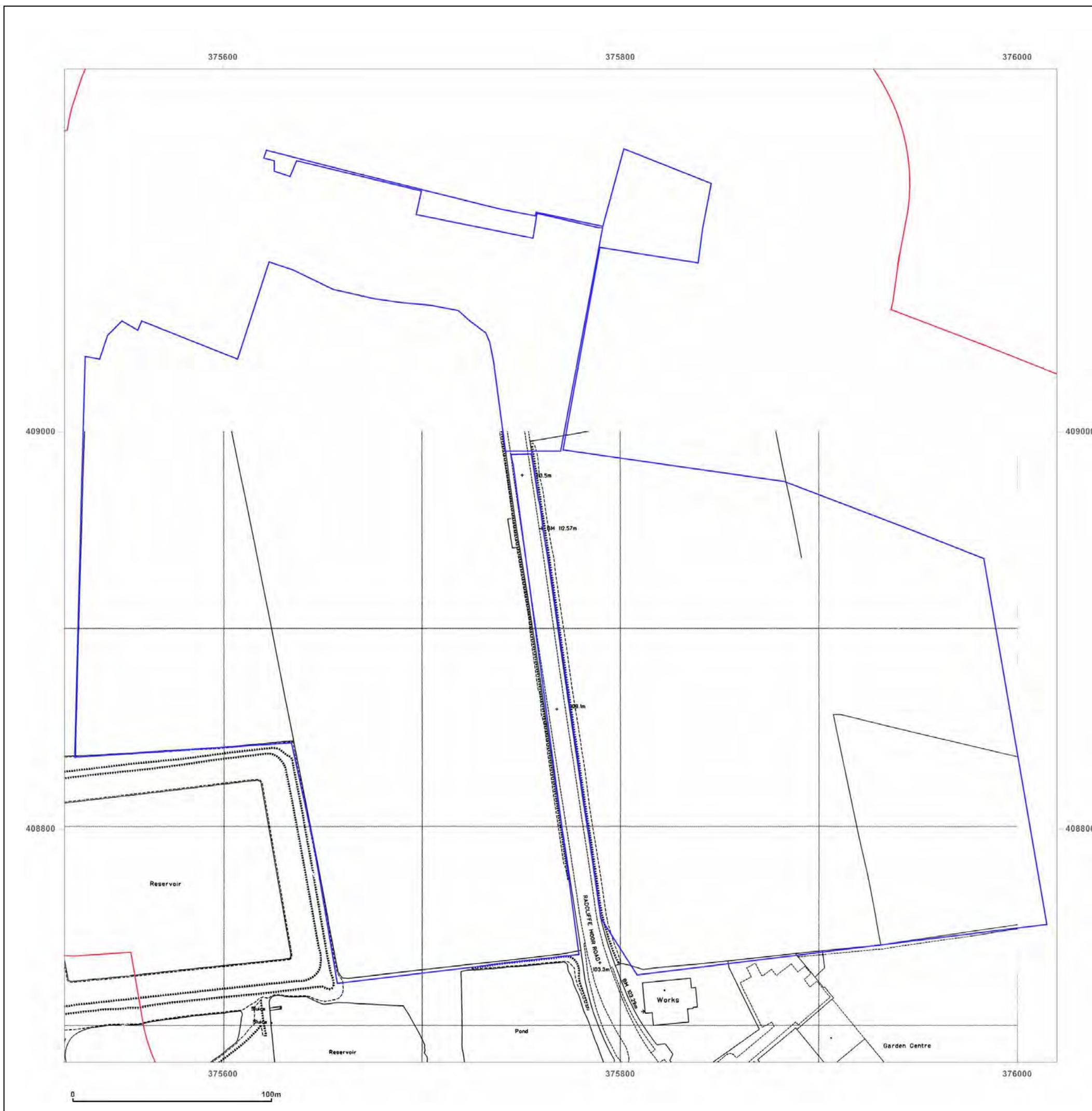


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Site Details:

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ROAD, RADCLIFFE, BL2 6QU

Client Ref: 20WCH011_-_BG3885
Report Ref: GS-7150956
Grid Ref: 375770, 408932

Map Name: LandLine

Map date: 2003

Scale: 1:1,250

Printed at: 1:1,250



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Site Details:

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ROAD, RADCLIFFE, BL2 6QU

Client Ref: 20WCH011_-_BG3885
Report Ref: GS-7150956
Grid Ref: 375770, 408932

Map Name: County Series

Map date: 1850

Scale: 1:10,560

Printed at: 1:10,560



Surveyed 1847
Revised N/A
Edition 1850
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Levelled N/A

Surveyed 1846
Revised N/A
Edition 1850
Copyright N/A
Levelled N/A

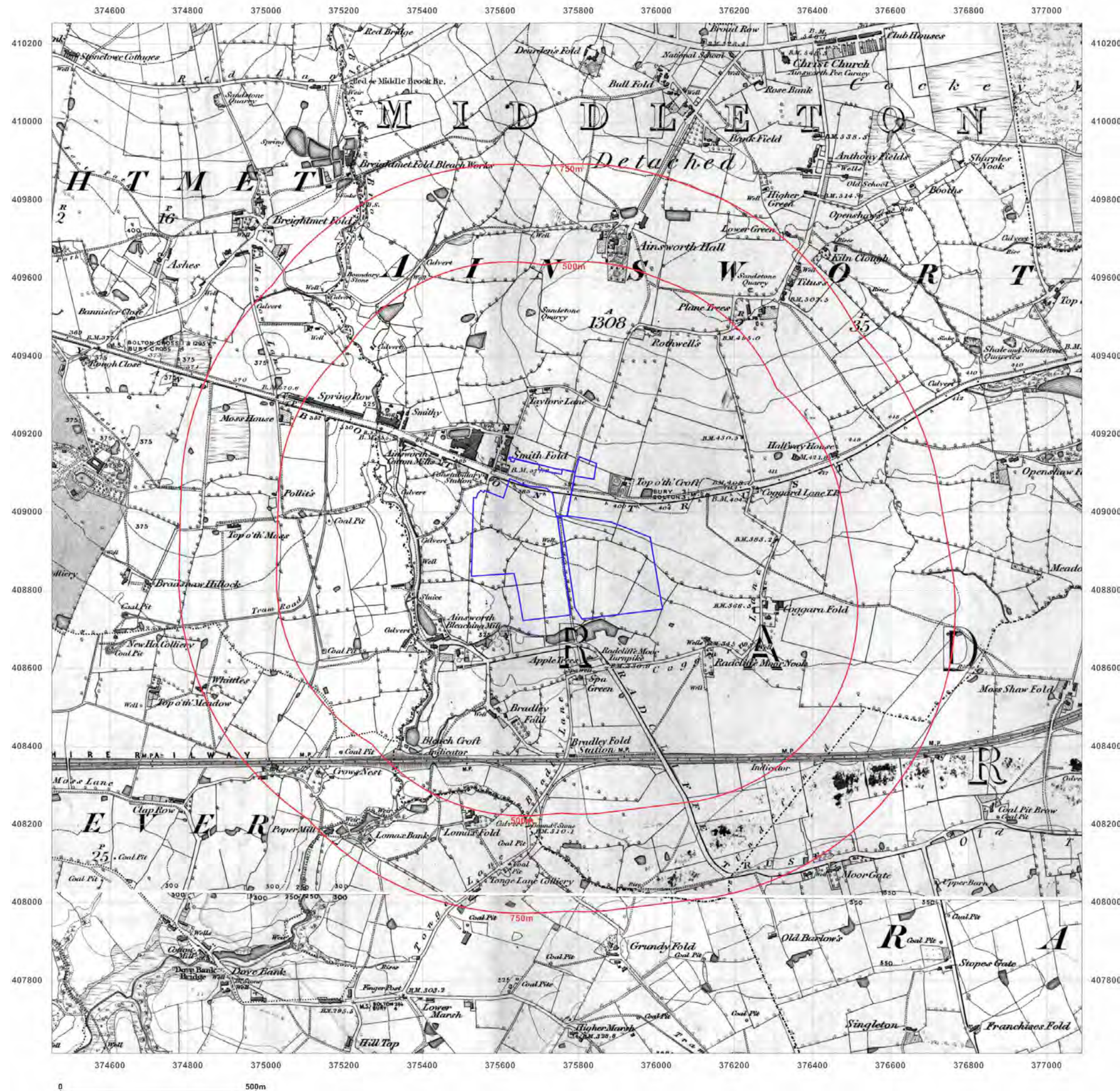


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Site Details:

POTENTIAL RELOCATION OF
WYRESDALE FC, BURY NEW
ROAD, RADCLIFFE, BL2 6QU

Client Ref: 20WCH011_-_BG3885
Report Ref: GS-7150956
Grid Ref: 375770, 408932

Map Name: County Series

Map date: 1890-1891

Scale: 1:10,560

Printed at: 1:10,560



Surveyed 1890 Revised 1890 Edition N/A Copyright N/A Levelled N/A	Surveyed 1891 Revised 1891 Edition N/A Copyright N/A Levelled N/A
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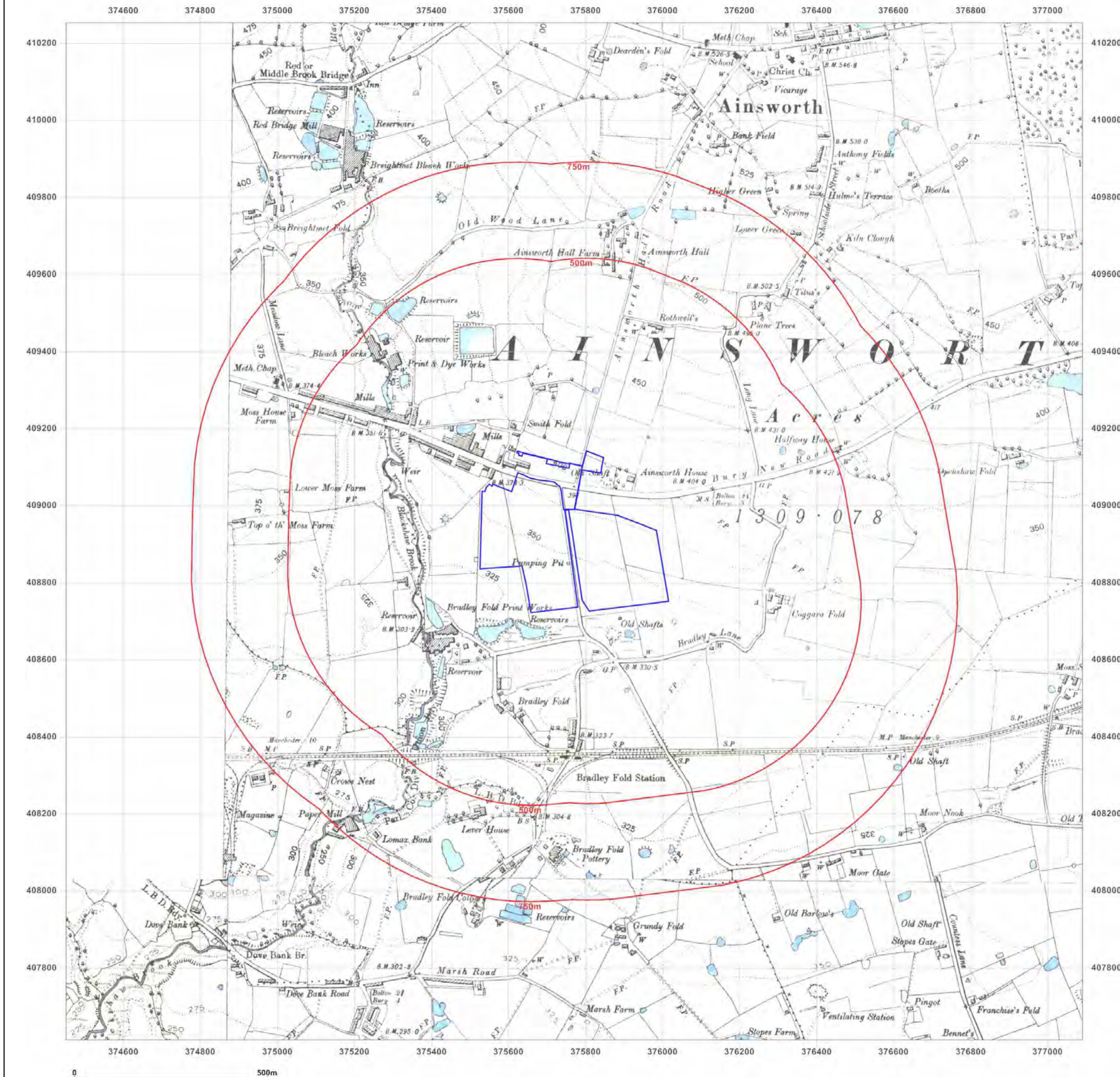


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Site Details:

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ROAD, RADCLIFFE, BL2 6QU

Client Ref: 20WCH011_-BG3885
Report Ref: GS-7150956
Grid Ref: 375770, 408932

Map Name: County Series

Map date: 1908

Scale: 1:10,560

Printed at: 1:10,560



Surveyed 1845
Revised 1908
Edition N/A
Copyright N/A
Levelled N/A

Surveyed 1844
Revised 1908
Edition N/A
Copyright N/A
Levelled N/A

Surveyed 1845
Revised 1908
Edition N/A
Copyright N/A
Levelled N/A

Surveyed 1844
Revised 1908
Edition N/A
Copyright N/A
Levelled N/A

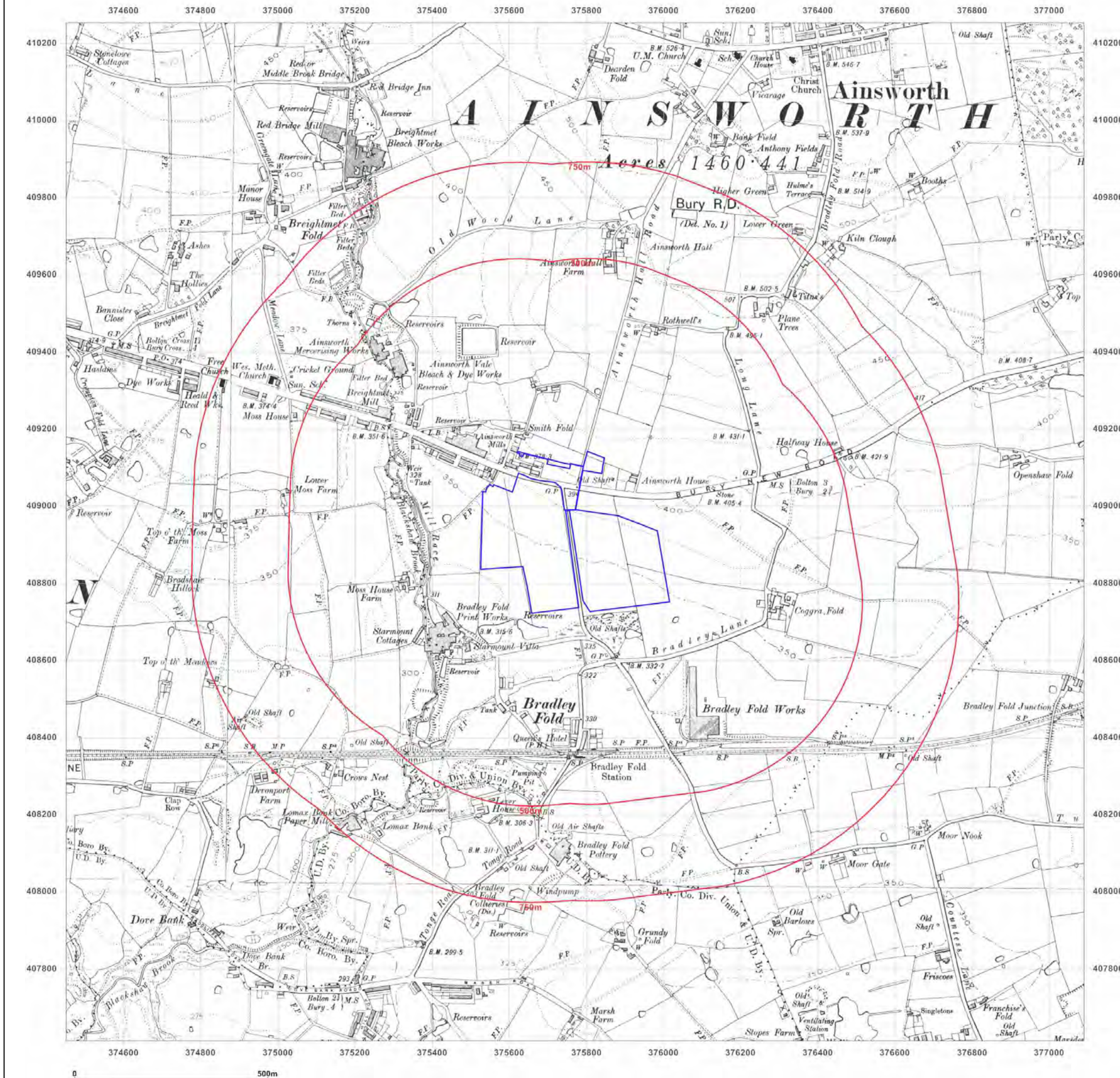


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ROAD, RADCLIFFE, BL2 6QU

Client Ref: 20WCH011_-_BG3885
Report Ref: GS-7150956
Grid Ref: 375770, 408932

Map Name: County Series

Map date: 1938

Scale: 1:10,560

Printed at: 1:10,560



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Revised 1938
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Copyright N/A
Levelled N/A

Surveyed 1844
Revised 1938
Edition N/A
Copyright N/A
Levelled N/A

Surveyed 1845
Revised 1938
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Copyright N/A
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Surveyed 1844
Revised 1938
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Copyright N/A
Levelled N/A

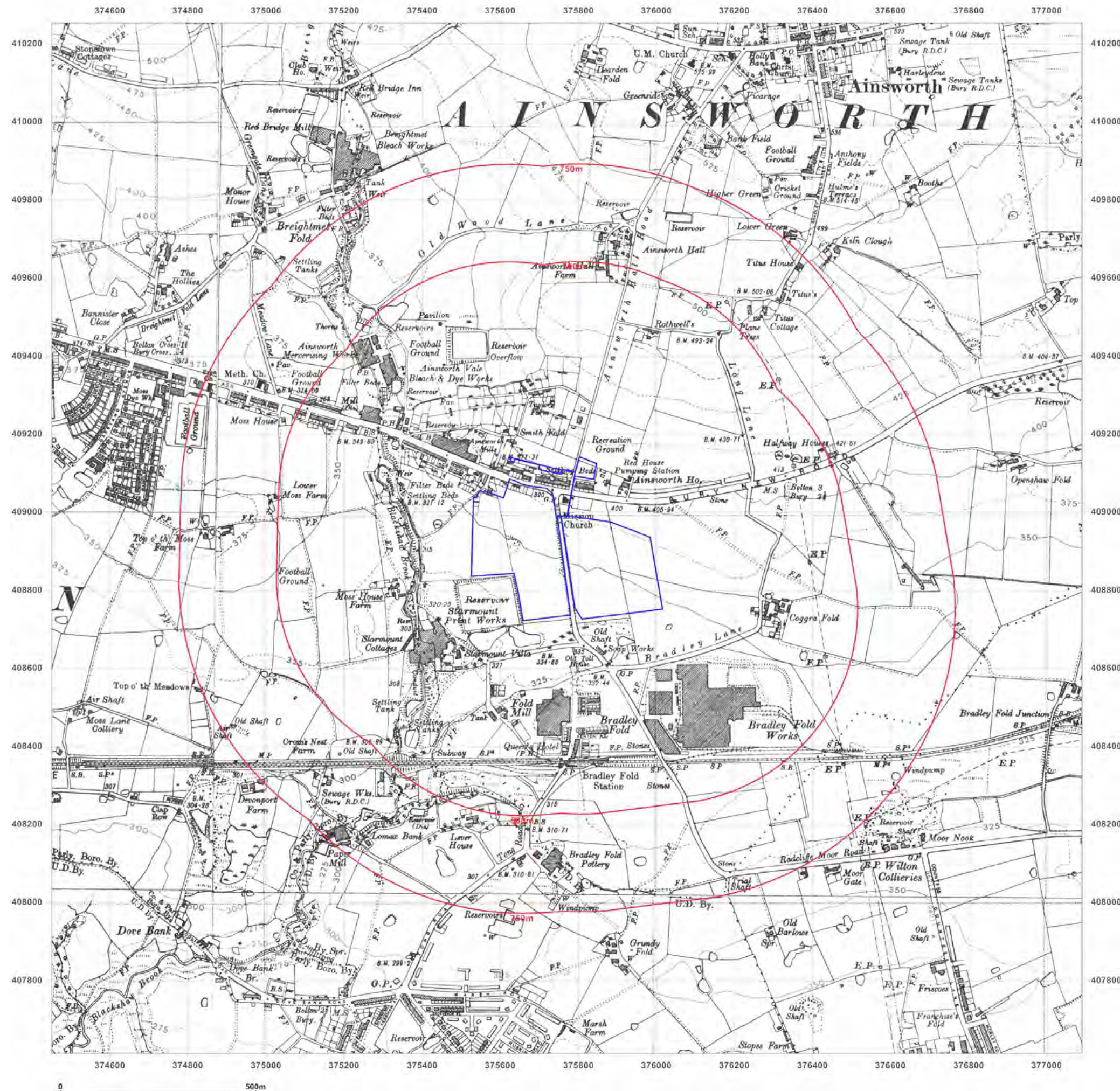


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Site Details:

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ROAD, RADCLIFFE, BL2 6QU

Client Ref: 20WCH011_-_BG3885
Report Ref: GS-7150956
Grid Ref: 375770, 408932

Map Name: Provisional

Map date: 1955-1956

Scale: 1:10,560

Printed at: 1:10,560



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

Surveyed 1949
Revised 1949
Edition N/A
Copyright 1956
Levelled N/A

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

Surveyed 1950
Revised 1955
Edition 1955
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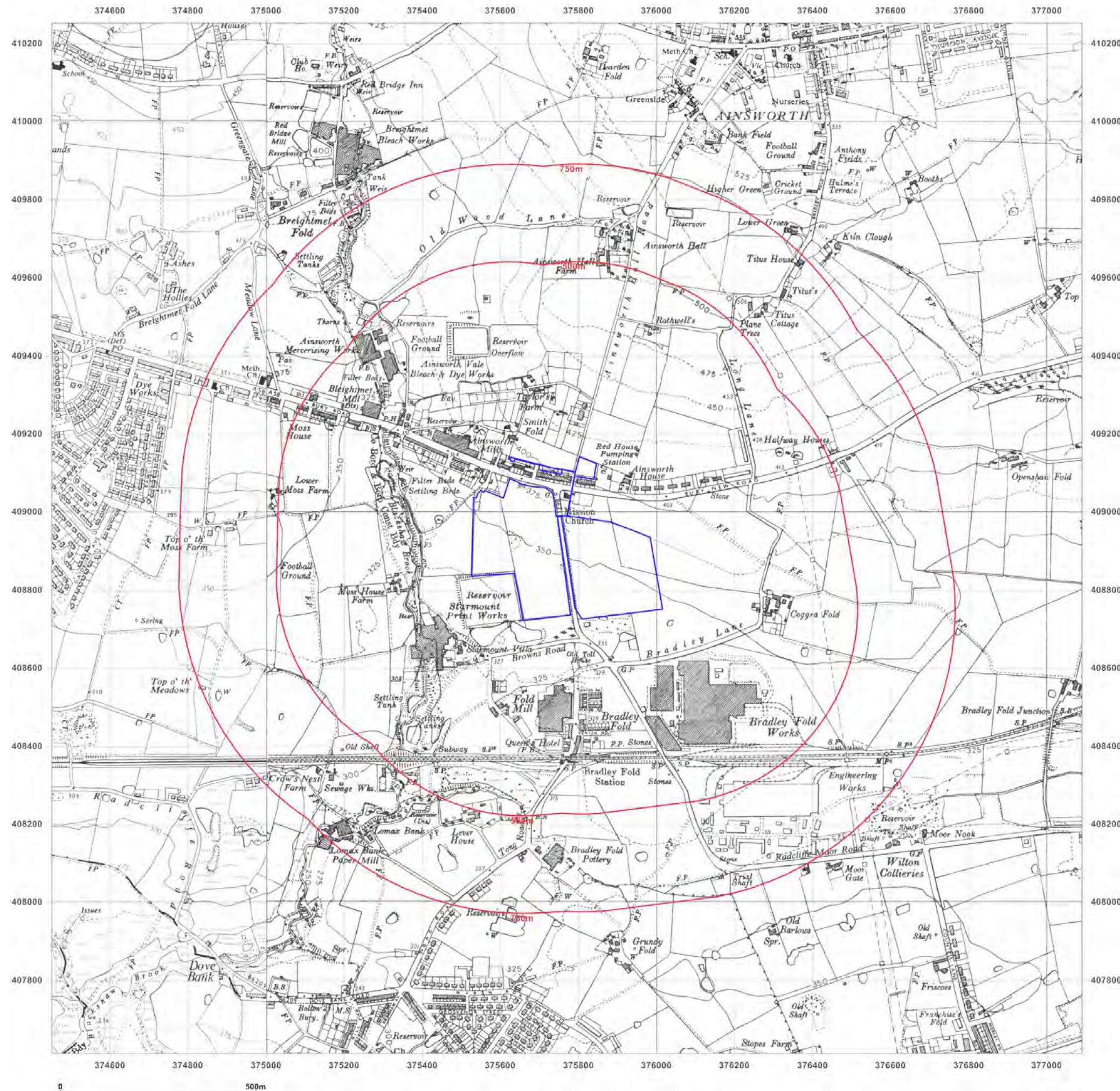


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Client Ref: 20WCH011_-_BG3885
Report Ref: GS-7150956
Grid Ref: 375770, 408932

Map Name: Provisional

Map date: 1965-1969

Scale: 1:10,560

Printed at: 1:10,560



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Revised 1969
Edition N/A
Copyright N/A
Levelled N/A

Surveyed 1967
Revised 1967
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Copyright N/A
Levelled N/A

Surveyed 1965
Revised 1965
Edition N/A
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Levelled N/A

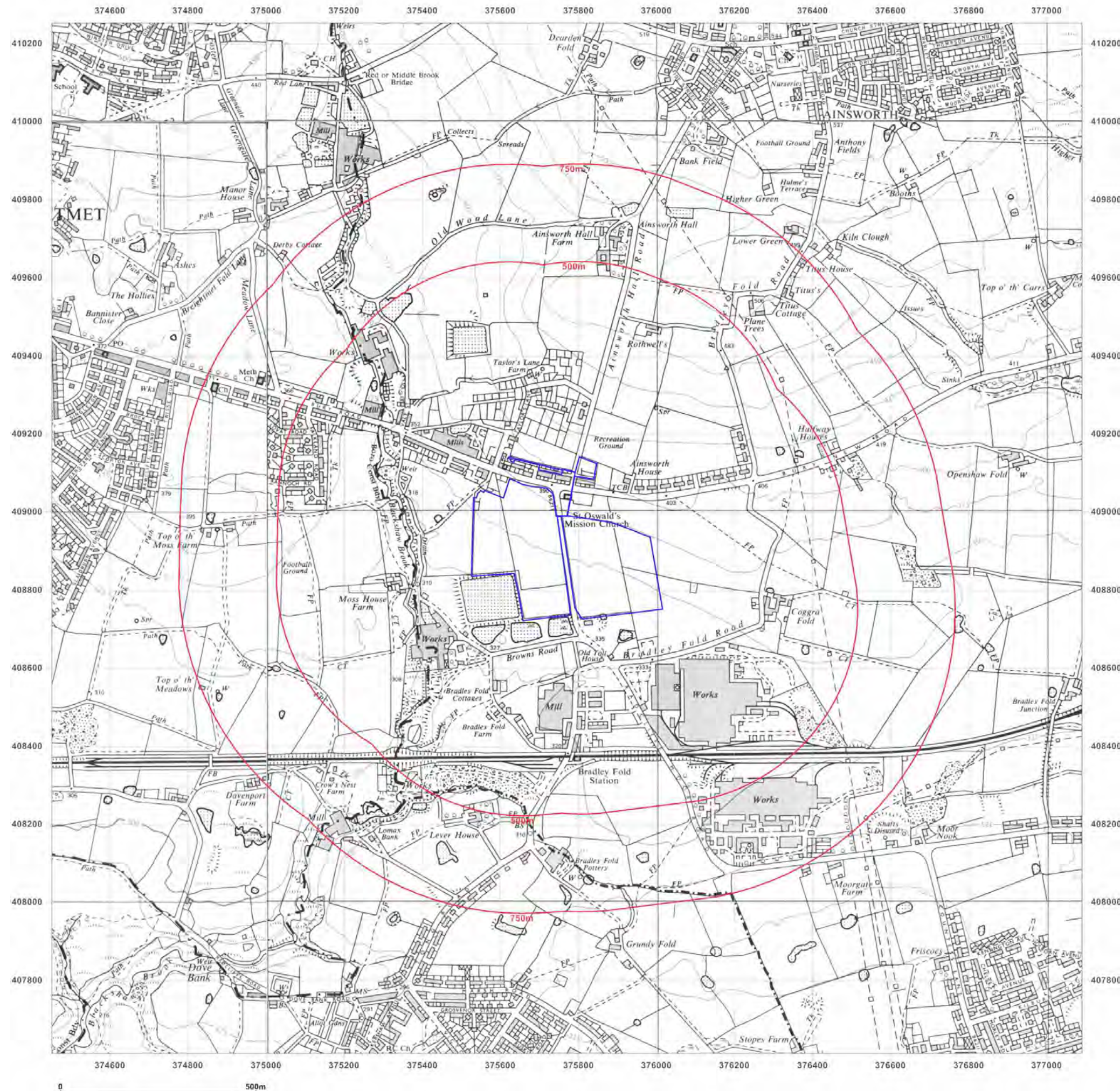


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ROAD, RADCLIFFE, BL2 6QU

Client Ref: 20WCH011_-_BG3885
Report Ref: GS-7150956
Grid Ref: 375770, 408932

Map Name: National Grid

Map date: 1974-1977

Scale: 1:10,000

Printed at: 1:10,000



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Revised 1974
Edition N/A
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Levelled N/A

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

Surveyed 1976
Revised 1977
Edition N/A
Copyright N/A
Levelled N/A

Surveyed 1976
Revised 1977
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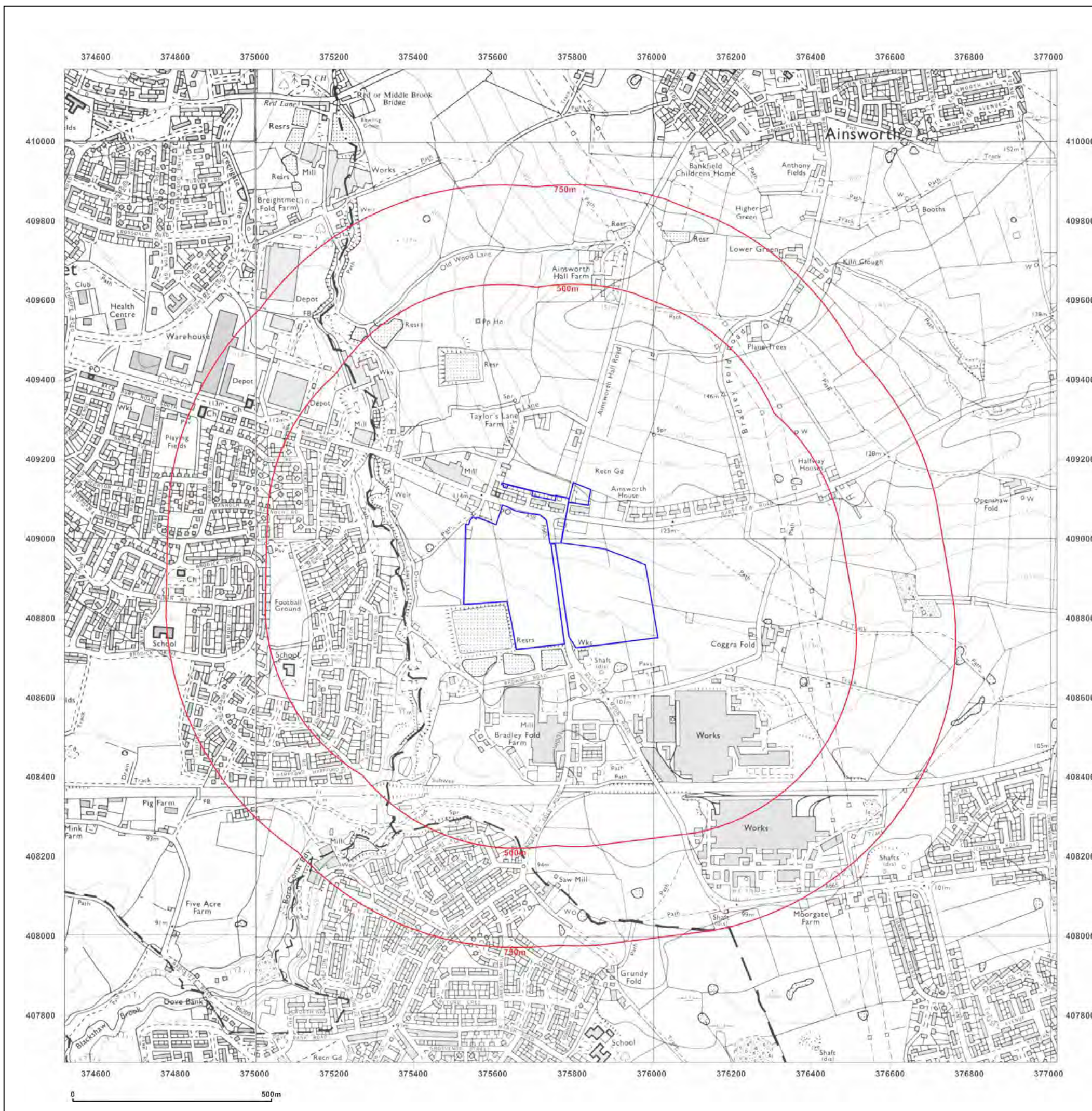


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ROAD, RADCLIFFE, BL2 6QU

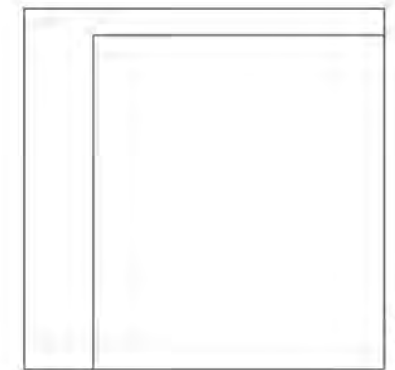
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Report Ref: GS-7150956
Grid Ref: 375770, 408932

Map Name: National Grid

Map date: 1991

Scale: 1:10,000

Printed at: 1:10,000



Surveyed 1987
Revised 1991
Edition N/A
Copyright N/A
Levelled N/A

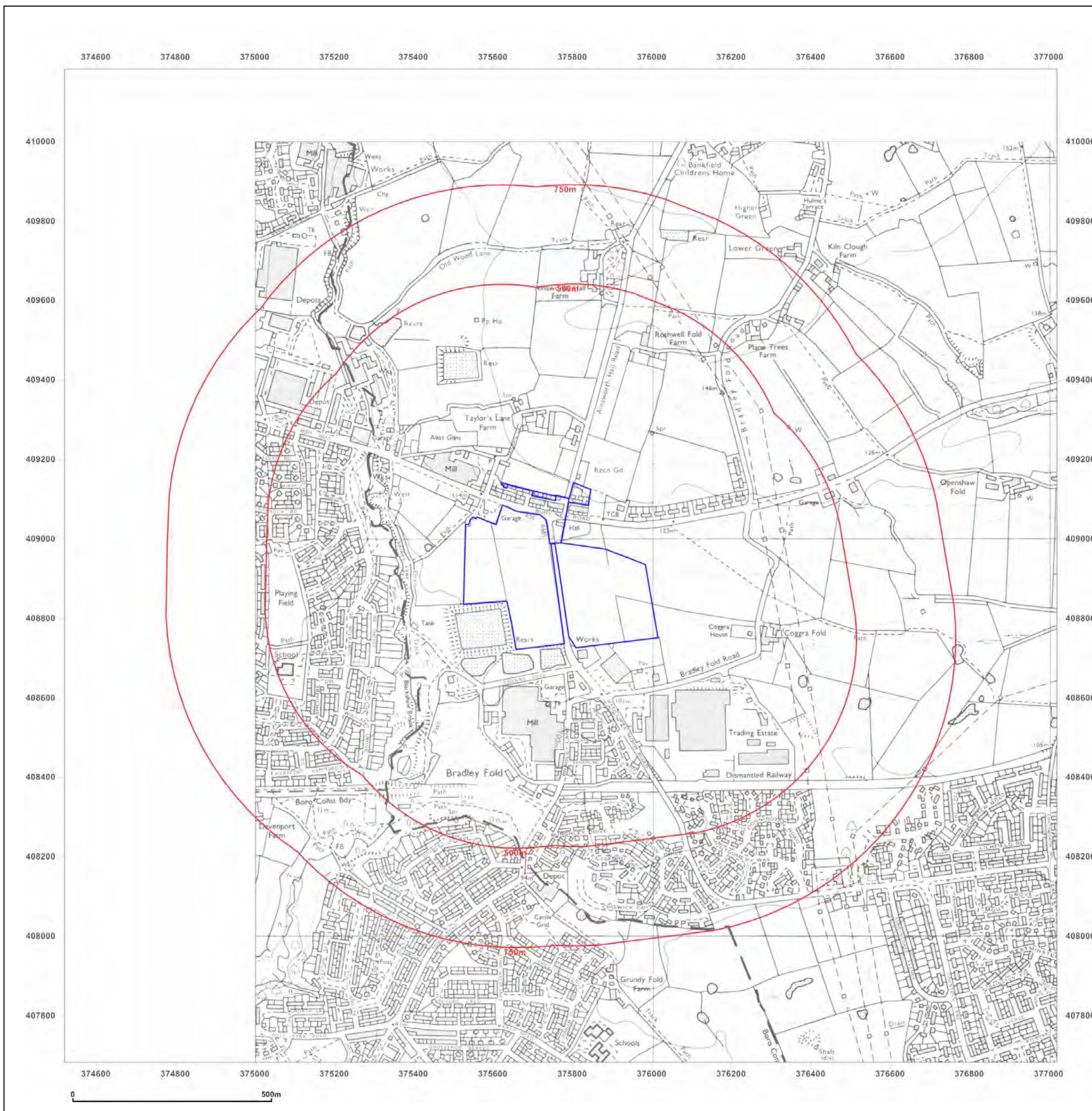


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Site Details:

POTENTIAL RELOCATION OF
WYRESDALE FC, BURY NEW
ROAD, RADCLIFFE, BL2 6QU

Client Ref: 20WCH011_-_BG3885
Report Ref: GS-7150956
Grid Ref: 375770, 408932

Map Name: National Grid

Map date: 2001

Scale: 1:10,000

Printed at: 1:10,000

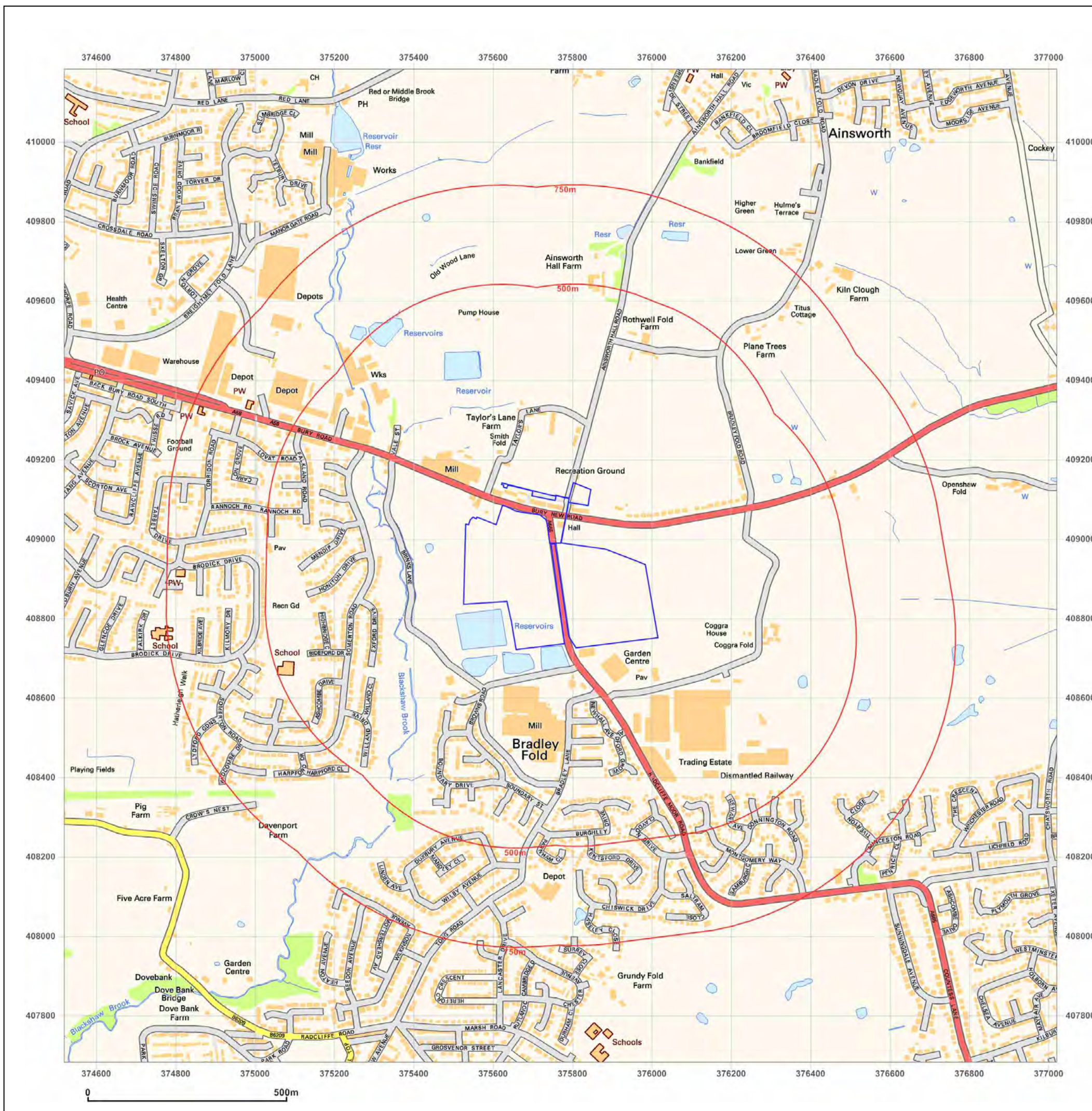


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Site Details:

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ROAD, RADCLIFFE, BL2 6QU

Client Ref: 20WCH011_-_BG3885
Report Ref: GS-7150956
Grid Ref: 375770, 408932

Map Name: National Grid

Map date: 2010

Scale: 1:10,000

Printed at: 1:10,000

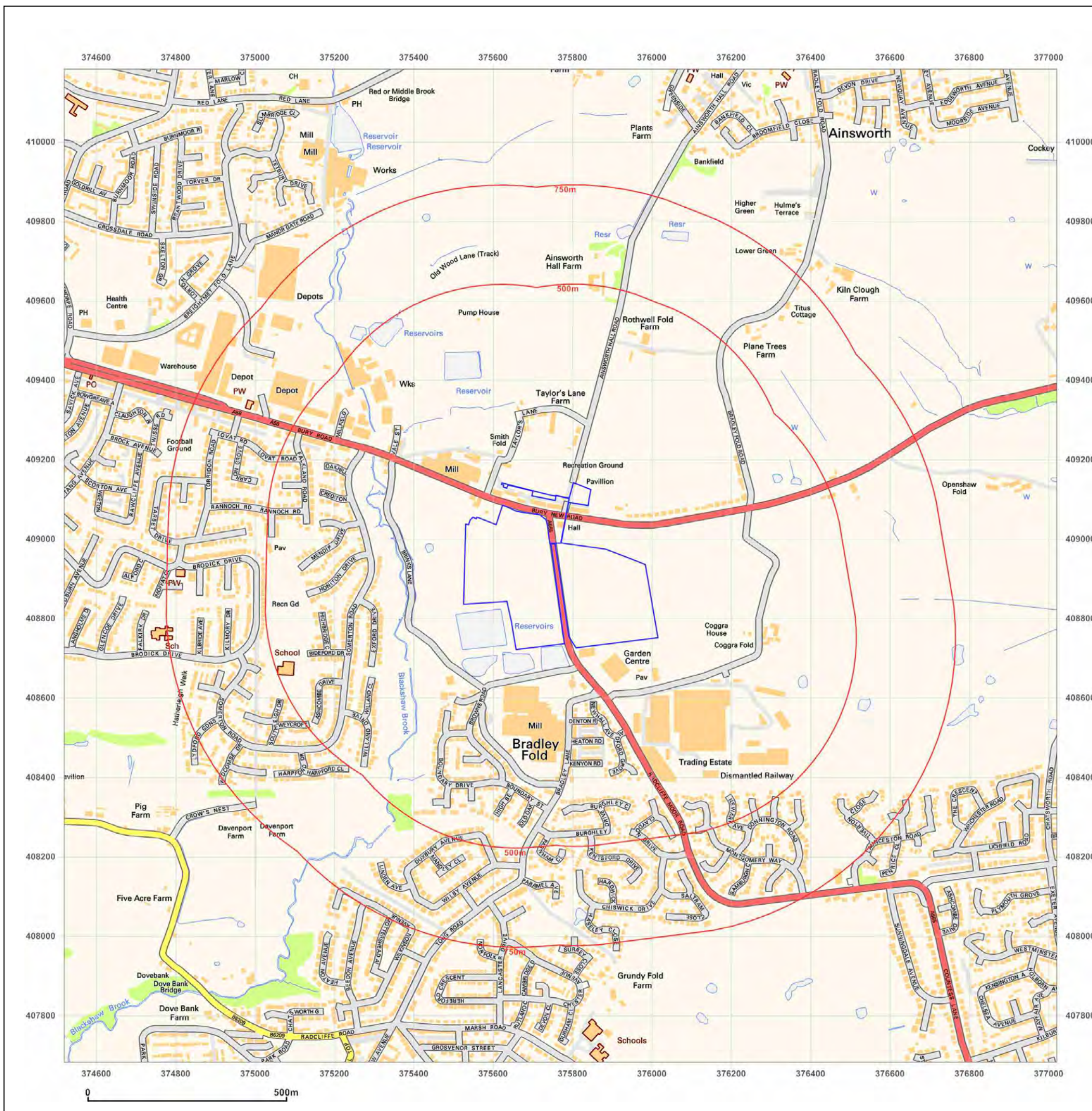


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APPENDIX C

- (i) Groundsure Report
- (ii) Coal Authority Report

POTENTIAL RELOCATION OF WYRESDALE FC, BURY NEW ROAD, RADCLIFFE, BL2 6QU

Order Details

Date: 12/10/2020
Your ref: 20WCH011_-_BG3885
Our Ref: GS-7150958
Client: Betts Geo Ltd

Site Details

Location: 375680 408903
Area: 11.73 ha
Authority: [Bury Metropolitan Borough Council](#)



Summary of findings

p. 2

Aerial image

p. 8

OS MasterMap site plan

N/A: >10ha

groundsure.com/insightuserguide

Summary of findings

Page	Section	Past land use	On site	0-50m	50-250m	250-500m	500-2000m
12	1.1	Historical industrial land uses	8	21	45	85	-
18	1.2	Historical tanks	1	2	24	32	-
21	1.3	Historical energy features	1	1	5	15	-
22	1.4	Historical petrol stations	0	0	0	0	-
22	1.5	Historical garages	1	3	2	6	-
23	1.6	Historical military land	0	0	0	0	-
Page	Section	Past land use - un-grouped	On site	0-50m	50-250m	250-500m	500-2000m
24	2.1	Historical industrial land uses	10	27	62	119	-
32	2.2	Historical tanks	1	4	44	54	-
36	2.3	Historical energy features	1	3	9	38	-
38	2.4	Historical petrol stations	0	0	0	0	-
39	2.5	Historical garages	1	4	5	8	-
Page	Section	Waste and landfill	On site	0-50m	50-250m	250-500m	500-2000m
40	3.1	Active or recent landfill	0	0	0	0	-
40	3.2	Historical landfill (BGS records)	0	0	0	0	-
41	3.3	Historical landfill (LA/mapping records)	0	0	0	0	-
41	3.4	Historical landfill (EA/NRW records)	0	0	0	0	-
41	3.5	Historical waste sites	0	1	0	0	-
41	3.6	Licensed waste sites	0	0	2	0	-
42	3.7	Waste exemptions	0	0	19	9	-
Page	Section	Current industrial land use	On site	0-50m	50-250m	250-500m	500-2000m
46	4.1	Recent industrial land uses	0	3	18	-	-
48	4.2	Current or recent petrol stations	0	0	0	0	-
48	4.3	Electricity cables	0	0	0	0	-
48	4.4	Gas pipelines	0	0	0	0	-
48	4.5	Sites determined as Contaminated Land	0	0	0	0	-



49	4.6	Control of Major Accident Hazards (COMAH)	0	0	0	0	-
49	4.7	Regulated explosive sites	0	0	0	0	-
49	4.8	Hazardous substance storage/usage	0	0	0	0	-
49	4.9	Historical licensed industrial activities (IPC)	0	0	0	0	-
49	4.10	<u>Licensed industrial activities (Part A(1))</u>	0	0	1	0	-
50	4.11	<u>Licensed pollutant release (Part A(2)/B)</u>	0	0	1	1	-
50	4.12	Radioactive Substance Authorisations	0	0	0	0	-
51	4.13	<u>Licensed Discharges to controlled waters</u>	0	1	0	0	-
51	4.14	Pollutant release to surface waters (Red List)	0	0	0	0	-
51	4.15	Pollutant release to public sewer	0	0	0	0	-
51	4.16	<u>List 1 Dangerous Substances</u>	0	0	1	0	-
52	4.17	List 2 Dangerous Substances	0	0	0	0	-
52	4.18	<u>Pollution Incidents (EA/NRW)</u>	0	1	0	2	-
52	4.19	Pollution inventory substances	0	0	0	0	-
53	4.20	Pollution inventory waste transfers	0	0	0	0	-
53	4.21	Pollution inventory radioactive waste	0	0	0	0	-
Page	Section	Hydrogeology	On site	0-50m	50-250m	250-500m	500-2000m
54	5.1	<u>Superficial aquifer</u>	Identified (within 500m)				
55	5.2	<u>Bedrock aquifer</u>	Identified (within 500m)				
56	5.3	<u>Groundwater vulnerability</u>	Identified (within 50m)				
57	5.4	Groundwater vulnerability- soluble rock risk	None (within 0m)				
57	5.5	Groundwater vulnerability- local information	None (within 0m)				
58	5.6	<u>Groundwater abstractions</u>	0	0	4	4	7
62	5.7	<u>Surface water abstractions</u>	0	0	0	3	8
65	5.8	Potable abstractions	0	0	0	0	0
66	5.9	Source Protection Zones	0	0	0	0	-
66	5.10	Source Protection Zones (confined aquifer)	0	0	0	0	-
Page	Section	Hydrology	On site	0-50m	50-250m	250-500m	500-2000m
67	6.1	<u>Water Network (OS MasterMap)</u>	0	0	16	-	-

69	6.2	<u>Surface water features</u>	0	3	8	-	-
69	6.3	<u>WFD Surface water body catchments</u>	1	-	-	-	-
70	6.4	<u>WFD Surface water bodies</u>	0	0	1	-	-
70	6.5	<u>WFD Groundwater bodies</u>	1	-	-	-	-
Page	Section	River and coastal flooding	On site	0-50m	50-250m	250-500m	500-2000m
71	7.1	Risk of Flooding from Rivers and Sea (RoFRaS)	None (within 50m)				
72	7.2	<u>Historical Flood Events</u>	0	0	2	-	-
72	7.3	Flood Defences	0	0	0	-	-
72	7.4	Areas Benefiting from Flood Defences	0	0	0	-	-
73	7.5	Flood Storage Areas	0	0	0	-	-
74	7.6	Flood Zone 2	None (within 50m)				
74	7.7	Flood Zone 3	None (within 50m)				
Page	Section	Surface water flooding					
75	8.1	<u>Surface water flooding</u>	1 in 30 year, 0.3m - 1.0m (within 50m)				
Page	Section	Groundwater flooding					
77	9.1	<u>Groundwater flooding</u>	Low (within 50m)				
Page	Section	Environmental designations	On site	0-50m	50-250m	250-500m	500-2000m
78	10.1	Sites of Special Scientific Interest (SSSI)	0	0	0	0	0
79	10.2	Conserved wetland sites (Ramsar sites)	0	0	0	0	0
79	10.3	Special Areas of Conservation (SAC)	0	0	0	0	0
79	10.4	Special Protection Areas (SPA)	0	0	0	0	0
79	10.5	National Nature Reserves (NNR)	0	0	0	0	0
80	10.6	<u>Local Nature Reserves (LNR)</u>	0	0	0	0	7
80	10.7	Designated Ancient Woodland	0	0	0	0	0
80	10.8	Biosphere Reserves	0	0	0	0	0
81	10.9	Forest Parks	0	0	0	0	0
81	10.10	Marine Conservation Zones	0	0	0	0	0
81	10.11	<u>Green Belt</u>	1	0	0	0	4
81	10.12	Proposed Ramsar sites	0	0	0	0	0

82	10.13	Possible Special Areas of Conservation (pSAC)	0	0	0	0	0
82	10.14	Potential Special Protection Areas (pSPA)	0	0	0	0	0
82	10.15	Nitrate Sensitive Areas	0	0	0	0	0
82	10.16	Nitrate Vulnerable Zones	0	0	0	0	0
83	<u>10.17</u>	<u>SSSI Impact Risk Zones</u>	1	-	-	-	-
84	10.18	SSSI Units	0	0	0	0	0
Page	Section	Visual and cultural designations	On site	0-50m	50-250m	250-500m	500-2000m
85	11.1	World Heritage Sites	0	0	0	-	-
86	11.2	Area of Outstanding Natural Beauty	0	0	0	-	-
86	11.3	National Parks	0	0	0	-	-
86	<u>11.4</u>	<u>Listed Buildings</u>	0	0	1	-	-
87	<u>11.5</u>	<u>Conservation Areas</u>	0	0	1	-	-
87	11.6	Scheduled Ancient Monuments	0	0	0	-	-
87	11.7	Registered Parks and Gardens	0	0	0	-	-
Page	Section	Agricultural designations	On site	0-50m	50-250m	250-500m	500-2000m
88	<u>12.1</u>	<u>Agricultural Land Classification</u>	Urban (within 250m)				
89	12.2	Open Access Land	0	0	0	-	-
89	12.3	Tree Felling Licences	0	0	0	-	-
89	12.4	Environmental Stewardship Schemes	0	0	0	-	-
89	12.5	Countryside Stewardship Schemes	0	0	0	-	-
Page	Section	Habitat designations	On site	0-50m	50-250m	250-500m	500-2000m
90	<u>13.1</u>	<u>Priority Habitat Inventory</u>	0	0	5	-	-
91	<u>13.2</u>	<u>Habitat Networks</u>	1	0	3	-	-
91	13.3	Open Mosaic Habitat	0	0	0	-	-
91	13.4	Limestone Pavement Orders	0	0	0	-	-
Page	Section	Geology 1:10,000 scale	On site	0-50m	50-250m	250-500m	500-2000m
93	<u>14.1</u>	<u>10k Availability</u>	Identified (within 500m)				
94	<u>14.2</u>	<u>Artificial and made ground (10k)</u>	1	4	2	11	-
96	<u>14.3</u>	<u>Superficial geology (10k)</u>	1	0	1	0	-

97	14.4	Landslip (10k)	0	0	0	0	-
98	14.5	<u>Bedrock geology (10k)</u>	6	2	6	4	-
99	14.6	<u>Bedrock faults and other linear features (10k)</u>	2	0	5	7	-
Page	Section	Geology 1:50,000 scale	On site	0-50m	50-250m	250-500m	500-2000m
101	15.1	<u>50k Availability</u>	Identified (within 500m)				
102	15.2	<u>Artificial and made ground (50k)</u>	0	0	1	0	-
103	15.3	Artificial ground permeability (50k)	0	0	-	-	-
104	15.4	<u>Superficial geology (50k)</u>	1	0	0	0	-
105	15.5	<u>Superficial permeability (50k)</u>	Identified (within 50m)				
105	15.6	Landslip (50k)	0	0	0	0	-
105	15.7	Landslip permeability (50k)	None (within 50m)				
106	15.8	<u>Bedrock geology (50k)</u>	5	2	6	3	-
107	15.9	<u>Bedrock permeability (50k)</u>	Identified (within 50m)				
108	15.10	<u>Bedrock faults and other linear features (50k)</u>	2	0	4	6	-
Page	Section	Boreholes	On site	0-50m	50-250m	250-500m	500-2000m
109	16.1	<u>BGS Boreholes</u>	0	0	27	-	-
Page	Section	Natural ground subsidence					
111	17.1	<u>Shrink swell clays</u>	Very low (within 50m)				
112	17.2	<u>Running sands</u>	Very low (within 50m)				
113	17.3	<u>Compressible deposits</u>	Negligible (within 50m)				
114	17.4	<u>Collapsible deposits</u>	Very low (within 50m)				
115	17.5	<u>Landslides</u>	Very low (within 50m)				
116	17.6	<u>Ground dissolution of soluble rocks</u>	Negligible (within 50m)				
Page	Section	Mining, ground workings and natural cavities	On site	0-50m	50-250m	250-500m	500-2000m
118	18.1	Natural cavities	0	0	0	0	-
119	18.2	<u>BritPits</u>	0	0	0	1	-
119	18.3	<u>Surface ground workings</u>	6	24	37	-	-
122	18.4	<u>Underground workings</u>	0	4	4	0	31
123	18.5	Historical Mineral Planning Areas	0	0	0	0	-



123	18.6	Non-coal mining	0	0	0	0	0
124	18.7	Mining cavities	0	0	0	0	0
124	18.8	<u>JPB mining areas</u>	Identified (within 0m)				
124	18.9	<u>Coal mining</u>	Identified (within 0m)				
125	18.10	Brine areas	None (within 0m)				
125	18.11	Gypsum areas	None (within 0m)				
125	18.12	Tin mining	None (within 0m)				
125	18.13	Clay mining	None (within 0m)				
Page	Section	Radon					
126	19.1	<u>Radon</u>	Less than 1% (within 0m)				
Page	Section	Soil chemistry	On site	0-50m	50-250m	250-500m	500-2000m
127	20.1	<u>BGS Estimated Background Soil Chemistry</u>	14	9	-	-	-
128	20.2	BGS Estimated Urban Soil Chemistry	0	0	-	-	-
129	20.3	BGS Measured Urban Soil Chemistry	0	0	-	-	-
Page	Section	Railway infrastructure and projects	On site	0-50m	50-250m	250-500m	500-2000m
130	21.1	Underground railways (London)	0	0	0	-	-
130	21.2	Underground railways (Non-London)	0	0	0	-	-
131	21.3	Railway tunnels	0	0	0	-	-
131	21.4	<u>Historical railway and tunnel features</u>	0	0	12	-	-
132	21.5	Royal Mail tunnels	0	0	0	-	-
132	21.6	Historical railways	0	0	0	-	-
132	21.7	Railways	0	0	0	-	-
132	21.8	Crossrail 1	0	0	0	0	-
132	21.9	Crossrail 2	0	0	0	0	-
133	21.10	HS2	0	0	0	0	-

Recent aerial photograph



Capture Date: 22/05/2019

Site Area: 11.73ha



Recent site history - 2015 aerial photograph



Capture Date: 11/06/2015

Site Area: 11.73ha



Recent site history - 2011 aerial photograph



Capture Date: 01/05/2011

Site Area: 11.73ha



Recent site history - 2000 aerial photograph

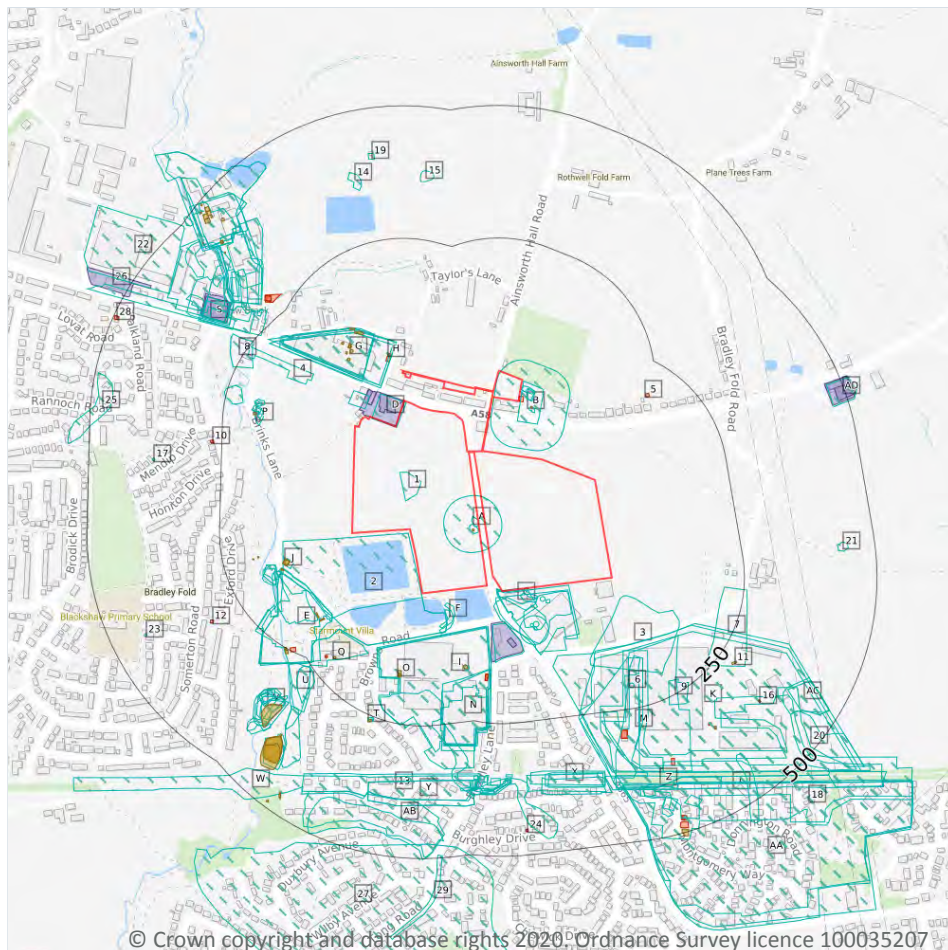


Capture Date: 04/09/2000

Site Area: 11.73ha



1 Past land use



- Site Outline
- Search buffers in metres (m)
- Historical industrial land uses
- Historical tanks
- Historical energy features
- Historical garages

1.1 Historical industrial land uses

Records within 500m

159

Potentially contaminative land use features digitised from historical Ordnance Survey mapping at 1:10,000 and 1:10,560 scale, intelligently grouped into contiguous features. To prevent misrepresentation of the size of historical features at any given time, features are only grouped if they have similar geometries within immediately preceding or succeeding map editions. See section 2 for a breakdown of grouping if required. Grouped and the original un-grouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

Features are displayed on the Past land use map on **page 12**

ID	Location	Land use	Dates present	Group ID
1	On site	Refuse Heap	1955	678009



ID	Location	Land use	Dates present	Group ID
A	On site	Unspecified Ground Workings	1955	645699
A	On site	Unspecified Heap	1927	650890
A	On site	Pumping Pit	1890	653313
B	On site	Pumping Station	1927	742474
C	On site	Unspecified Heap	1965	650891
C	On site	Unspecified Works	1988 - 1991	743909
D	On site	Garage	1988 - 1991	769930
C	2m SW	Unspecified Works	1977	773251
2	2m W	Print Works	1938	721771
B	2m E	Unspecified Pit	1890	691035
B	3m E	Pumping Station	1938 - 1955	754954
C	7m S	Unspecified Ground Workings	1977	645698
E	8m S	Print Works	1927	733848
C	11m S	Soap Works	1927 - 1938	720918
B	11m E	Filter Beds	1938	665801
C	13m S	Refuse Heap	1908	747916
B	14m E	Settling Beds	1927	656632
D	15m N	Constabulary Station	1851	644969
C	20m S	Unspecified Old Shafts	1890	640156
F	23m S	Unspecified Ground Workings	1955	645697
B	24m SE	Unspecified Old Shaft	1890 - 1908	721339
C	26m S	Unspecified Old Shafts	1908	640157
G	30m W	Unspecified Mill	1977 - 1988	721894
G	31m W	Unspecified Mills	1890 - 1908	775348
C	34m S	Refuse Heap	1890	776564
G	34m W	Unspecified Mill	1991	767309
F	36m S	Unspecified Heap	1927 - 1938	782639
3	41m SE	Unspecified Pit	1890	691037



ID	Location	Land use	Dates present	Group ID
C	53m S	Unspecified Old Shaft	1927 - 1938	718025
C	61m S	Garage	1988 - 1991	702772
C	65m S	Unspecified Disused Shaft	1977	664294
G	66m N	Unspecified Mills	1927 - 1938	774092
C	67m S	Unspecified Old Shafts	1890	640154
G	70m W	Unspecified Mills	1965	772680
G	70m W	Unspecified Mills	1955	789258
I	72m S	Unspecified Mill	1988	730369
I	73m SW	Unspecified Mill	1991	789839
C	74m S	Unspecified Old Shafts	1908	640155
I	74m S	Unspecified Mill	1977	727374
4	119m NW	Cotton Mills	1851	659311
J	125m SW	Unspecified Tank	1988 - 1991	753799
K	130m S	Unspecified Works	1965 - 1977	770660
K	131m S	Unspecified Works	1955	715216
E	131m SW	Unspecified Works	1965	678404
E	132m SW	Print Works	1955	771683
E	137m SW	Print Works	1890 - 1908	781467
L	139m S	Railway Sidings	1955 - 1965	719415
E	140m SW	Bleaching Mill	1851	668321
K	140m S	Unspecified Works	1927 - 1938	785091
M	145m S	Unspecified Works	1908	703234
I	145m S	Unspecified Tank	1988 - 1991	791151
N	148m S	Unspecified Mill	1955	739798
N	148m S	Unspecified Mill	1965	739246
L	153m S	Railway Sidings	1908	703952
M	154m S	Railway Sidings	1977	734680
J	157m SW	Refuse Heap	1955	715818



ID	Location	Land use	Dates present	Group ID
J	157m SW	Unspecified Heap	1977 - 1991	739913
J	160m SW	Refuse Heap	1927	730342
P	173m W	Settling Beds	1927 - 1938	744414
P	174m W	Unspecified Tanks	1965 - 1977	736662
P	175m W	Settling Beds	1955	769655
P	179m W	Filter Beds	1927 - 1938	698977
P	180m W	Filter Beds	1955	665802
P	183m W	Unspecified Tank	1908	674792
N	184m S	Unspecified Mill	1927 - 1938	768037
L	186m S	Railway Sidings	1927 - 1938	756058
6	202m S	Unspecified Tank	1965 - 1977	768792
7	209m E	Cuttings	1890	642640
P	215m W	Refuse Heap	1965	678010
8	221m NW	Unspecified Works	1991	678405
9	223m SE	Railway Station	1890	672379
R	239m S	Unspecified Ground Workings	1890	645696
S	246m NW	Unspecified Mills	1890	653116
T	251m S	Unspecified Tank	1938	736489
U	253m SW	Unspecified Heap	1927 - 1938	734552
U	253m SW	Unspecified Heap	1955	742950
T	254m S	Unspecified Tank	1908 - 1927	790073
S	264m NW	Unspecified Disused Mill	1927 - 1938	731910
S	273m NW	Smithy	1851	692999
S	289m NW	Bleach and Dye works	1927 - 1938	772269
S	291m NW	Unspecified Ground Workings	1965 - 1977	699129
S	292m NW	Printing and Dyeing Works	1890	657686
S	294m NW	Unspecified Mill	1908	759695
S	295m NW	Bleach and Dye works	1955	763614



ID	Location	Land use	Dates present	Group ID
S	303m NW	Unspecified Mill	1977	720725
S	304m NW	Unspecified Mill	1965	791143
S	310m NW	Garage	1988 - 1991	742368
S	315m NW	Bleach and Dye works	1908	697465
S	315m NW	Unspecified Disused Mill	1955	707344
V	320m SW	Settling Tank	1955	758452
V	320m SW	Unspecified Heap	1977	730073
S	322m NW	Filter Beds	1927 - 1938	727520
V	325m SW	Unspecified Pit	1908	696180
V	326m SW	Unspecified Pits	1965	658877
S	327m NW	Filter Beds	1955	738487
V	329m SW	Unspecified Pit	1890	698090
V	329m SW	Unspecified Ground Workings	1977	725712
V	330m SW	Unspecified Ground Workings	1991	704503
V	331m SW	Settling Tank	1927 - 1938	770192
V	334m SW	Unspecified Ground Workings	1988	761332
S	336m NW	Unspecified Works	1965 - 1991	730458
13	341m S	Railway Sidings	1965	702992
W	344m S	Railway Sidings	1955	787506
X	346m S	Cuttings	1965	740423
R	346m S	Railway Building	1955	670243
R	348m S	Railway Station	1955	695639
14	350m N	Unspecified Ground Workings	1965 - 1991	700492
X	350m S	Cuttings	1851	718185
R	351m S	Railway Station	1851	707636
R	351m S	Railway Building	1955	670244
X	351m S	Cuttings	1977 - 1988	728144
R	353m S	Railway Station	1965	762378



ID	Location	Land use	Dates present	Group ID
Y	353m S	Railway Sidings	1908 - 1927	788042
Y	353m S	Railway Sidings	1938	788532
X	355m S	Cuttings	1955	701477
R	355m S	Railway Station	1938	722160
R	357m S	Railway Station	1927	743255
R	357m S	Railway Station	1908	718771
X	358m S	Cuttings	1890 - 1938	724953
15	358m N	Sandstone Quarry	1851	686658
R	359m S	Railway Building	1955 - 1965	745658
S	360m NW	Unspecified Ground Workings	1965 - 1977	777356
R	361m S	Railway Station	1890	761165
S	369m NW	Filter Bed	1908	643472
Z	370m S	Cuttings	1851	701197
V	375m SW	Settling Tanks	1955	741718
17	375m W	Coal Pit	1851	654020
V	377m SW	Unspecified Pit	1955	752707
V	381m SW	Unspecified Pit	1965	708329
V	385m SW	Settling Tanks	1927 - 1938	774942
AA	386m S	Engineering Works	1955	659521
AB	387m S	Refuse Heap	1955 - 1965	743354
AC	389m SE	Unspecified Heap	1965	760780
AA	391m S	Unspecified Works	1965	737968
AA	393m S	Unspecified Works	1977 - 1988	723108
AC	393m SE	Unspecified Heap	1988 - 1991	731964
S	396m NW	Mercerising Works	1955	780168
Z	397m S	Cuttings	1965 - 1977	719651
18	397m S	Railway Sidings	1977	721073
Z	400m S	Unspecified Ground Workings	1977 - 1988	755620



ID	Location	Land use	Dates present	Group ID
S	401m NW	Unspecified Ground Workings	1965 - 1977	731004
S	402m NW	Mercerising Works	1927 - 1938	771901
19	403m N	Pumping House	1977 - 1991	768134
S	403m NW	Mercerising Works	1908	769435
L	409m SE	Unspecified Ground Workings	1890	648158
S	410m NW	Bleach Works	1890	658142
AB	414m S	Pumping Pit	1908	653314
20	424m SE	Refuse Heap	1965	678012
Z	425m S	Cuttings	1965	642652
21	430m E	Unspecified Pit	1890	691036
22	430m NW	Unspecified Depot	1977 - 1991	770004
23	432m SW	Coal Pit	1851	654022
Z	436m S	Cuttings	1965	642653
25	461m W	Unspecified Ground Workings	1890	645702
AD	471m E	Garage	1988 - 1991	709797
27	473m S	Bleach Works	1890	658163
S	483m NW	Unspecified Pit	1927	691020
29	494m S	Railway Sidings	1851	641652

This data is sourced from Ordnance Survey / Groundsure.

1.2 Historical tanks

Records within 500m

59

Tank features digitised from historical Ordnance Survey mapping at high-detail 1:1,250 and 1:2,500 scale, intelligently grouped into contiguous features. To prevent misrepresentation of the size of historical features at any given time, features are only grouped if they have similar geometries within immediately preceding or succeeding map editions. See section 2 for a breakdown of grouping if required. Grouped and the original ungrouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

Features are displayed on the Past land use map on **page 12**



ID	Location	Land use	Dates present	Group ID
A	On site	Unspecified Tank	1890	84788
B	25m SE	Filter Tank	1930 - 1937	103981
H	38m NW	Unspecified Tank	1987 - 1992	97644
G	102m W	Tanks	1955 - 1968	89317
G	102m W	Unspecified Tank	1930 - 1937	99841
G	102m NW	Unspecified Tank	1987	84787
G	108m NW	Tanks	1955 - 1968	103234
G	109m NW	Tanks	1955	93624
G	111m W	Unspecified Tank	1930 - 1937	97901
G	113m NW	Unspecified Tank	1992	84786
G	121m NW	Tanks	1955	89108
G	124m NW	Unspecified Tank	1955 - 1968	89156
J	129m SW	Unspecified Tank	1955 - 1975	98440
J	130m SW	Unspecified Tank	1986 - 1992	89709
I	143m S	Unspecified Tank	1986 - 1994	103911
J	147m SW	Unspecified Tank	1955	96577
O	151m S	Tanks	1986 - 1994	98673
O	156m S	Tanks	1972	102342
E	164m SW	Tanks	1930	87152
E	169m S	Unspecified Tank	1937	84784
J	182m W	Unspecified Tank	1955	92696
J	182m W	Unspecified Tank	1955	94836
P	187m W	Unspecified Tank	1890 - 1910	98605
J	192m W	Unspecified Tank	1955	94604
J	192m W	Unspecified Tank	1955	97829
Q	203m SW	Unspecified Tank	1992	84783
E	249m SW	Unspecified Tank	1955	102894
E	252m SW	Unspecified Tank	1955 - 1975	100887

ID	Location	Land use	Dates present	Group ID
T	256m S	Unspecified Tank	1910 - 1930	92638
11	277m SE	Unspecified Tank	1986	84778
V	339m SW	Settling Tank	1930 - 1937	97874
K	341m SE	Unspecified Tank	1955	102575
16	361m SE	Unspecified Tank	1986	84777
V	376m SW	Unspecified Tank	1955 - 1967	98378
V	379m SW	Disused Settling Tanks	1955 - 1989	93425
V	379m SW	Disused Settling Tanks	1955	96115
V	379m SW	Disused Settling Tanks	1986 - 1995	94142
V	394m SW	Settling Tanks	1930 - 1937	103884
S	402m NW	Unspecified Tank	1910	84785
S	416m NW	Tank or Trough	1910	88309
S	416m NW	Unspecified Tank	1930 - 1937	97653
S	441m NW	Unspecified Tank	1890	84791
S	447m NW	Tank or Trough	1890	88308
S	459m NW	Unspecified Tank	1937	84790
S	461m NW	Unspecified Tank	1930	84792
W	462m SW	Unspecified Tank	1955	91907
W	462m SW	Unspecified Tank	1967	93607
W	462m SW	Unspecified Tank	1955	94368
W	463m SW	Unspecified Tank	1955 - 1967	90666
S	467m NW	Unspecified Tank	1955	95564
S	467m NW	Unspecified Tank	1937	90253
W	469m SW	Unspecified Tank	1955	91680
W	469m SW	Unspecified Tank	1967	96596
W	469m SW	Unspecified Tank	1955	91899
S	474m NW	Unspecified Tank	1955	99991
S	483m NW	Unspecified Tank	1930	84800



ID	Location	Land use	Dates present	Group ID
W	486m SW	Unspecified Tank	1955 - 1967	99320
S	491m NW	Unspecified Tank	1910	84799
Z	493m S	Tanks	1955 - 1968	96280

This data is sourced from Ordnance Survey / Groundsure.

1.3 Historical energy features

Records within 500m

22

Energy features digitised from historical Ordnance Survey mapping at high-detail 1:1,250 and 1:2,500 scale, intelligently grouped into contiguous features. To prevent misrepresentation of the size of historical features at any given time, features are only grouped if they have similar geometries within immediately preceding or succeeding map editions. See section 2 for a breakdown of grouping if required. Grouped and the original ungrouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

Features are displayed on the Past land use map on **page 12**

ID	Location	Land use	Dates present	Group ID
B	On site	Electricity Substation	1987 - 1992	48115
H	32m NW	Electricity Substation	1987 - 1992	50351
I	158m S	Electricity Substation	1986	55539
I	160m S	Electricity Substation	1972 - 1994	55905
5	184m NE	Electricity Substation	1986	45679
Q	214m SW	Electricity Substation	1986 - 1992	52196
E	241m SW	Electricity Substation	1955	45685
10	265m W	Electricity Substation	1973 - 1992	50297
S	272m NW	Electricity Substation	1992	50641
S	280m NW	Electricity Substation	1955	51291
S	281m NW	Electricity Substation	1955 - 1987	56390
M	288m S	Electricity Substation	1992	50701
M	288m S	Electricity Substation	1986 - 1988	55014
12	309m SW	Electricity Substation	1975 - 1992	53255
K	329m SE	Electricity Substation	1955 - 1992	48586



ID	Location	Land use	Dates present	Group ID
Z	359m S	Electricity Substation	1992	45684
24	451m S	Electricity Substation	1992 - 1994	46727
Z	467m S	Electricity Substation	1986 - 1988	47186
Z	468m S	Electricity Substation	1955	55474
Z	473m S	Electricity Substation	1955 - 1968	51094
Z	479m S	Electricity Substation	1955 - 1967	47342
28	490m NW	Electricity Substation	1973 - 1992	54432

This data is sourced from Ordnance Survey / Groundsure.

1.4 Historical petrol stations

Records within 500m	0
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Petrol stations digitised from historical Ordnance Survey mapping at high-detail 1:1,250 and 1:2,500 scale, intelligently grouped into contiguous features. To prevent misrepresentation of the size of historical features at any given time, features are only grouped if they have similar geometries within immediately preceding or succeeding map editions. See section 2 for a breakdown of grouping if required. Grouped and the original ungrouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

This data is sourced from Ordnance Survey / Groundsure.

1.5 Historical garages

Records within 500m	12
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Garages digitised from historical Ordnance Survey mapping at high-detail 1:1,250 and 1:2,500 scale, intelligently grouped into contiguous features. To prevent misrepresentation of the size of historical features at any given time, features are only grouped if they have similar geometries within immediately preceding or succeeding map editions. See section 2 for a breakdown of grouping if required. Grouped and the original ungrouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

Features are displayed on the Past land use map on **page 12**

ID	Location	Land use	Dates present	Group ID
D	On site	Garage	1987	16599
D	2m W	Garage	1992	16633
D	22m N	Garage	1955 - 1968	18550
D	25m N	Garage	1955	16208

ID	Location	Land use	Dates present	Group ID
C	58m S	Garage	1986 - 1994	17948
C	89m S	Garage	1972	15926
S	310m NW	Garage	1984 - 1987	17921
S	314m NW	Garage	1992	15925
26	465m NW	Garage	1973 - 1984	17864
AD	468m E	Garage	1955	16971
AD	469m E	Garage	1986	15372
AD	483m E	Garage	1955	16464

This data is sourced from Ordnance Survey / Groundsure.

1.6 Historical military land

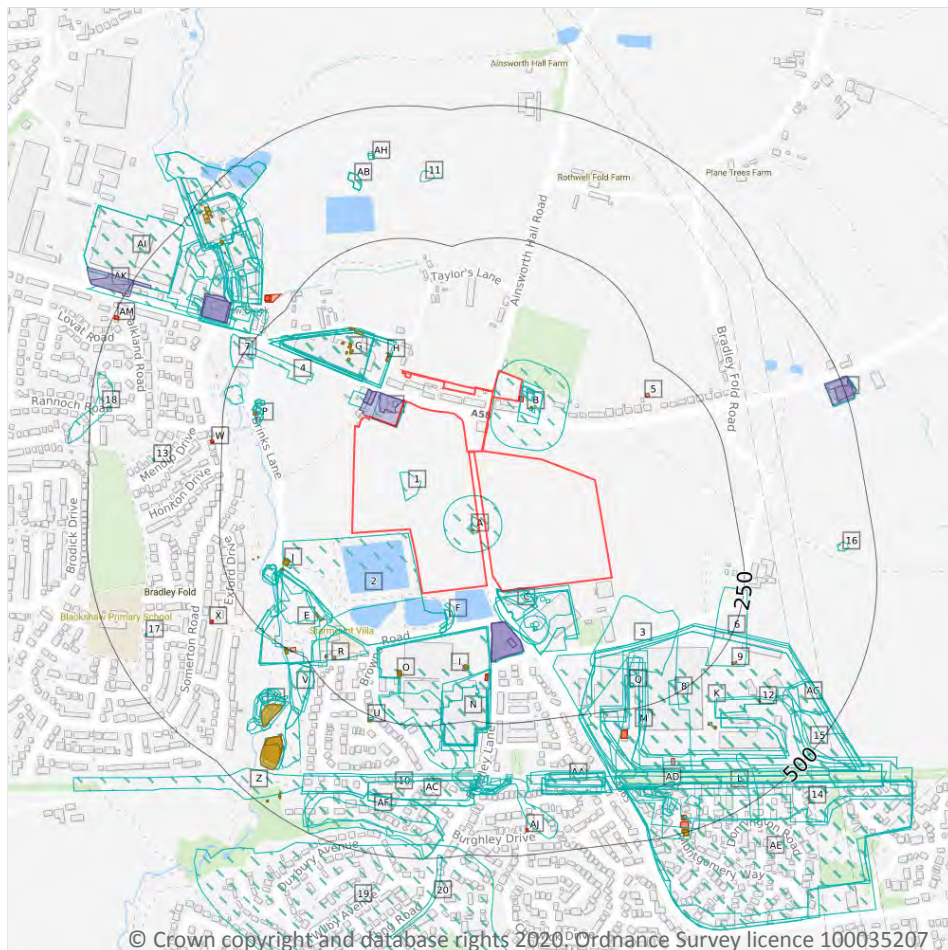
Records within 500m

0

Areas of military land digitised from multiple sources including the National Archives, local records, MOD records and verified other sources, intelligently grouped into contiguous features.

This data is sourced from Ordnance Survey / Groundsure / other sources.

2 Past land use - un-grouped



- Site Outline
- Search buffers in metres (m)
- Historical industrial land uses
- Historical tanks
- Historical energy features
- Historical garages

2.1 Historical industrial land uses

Records within 500m

218

Potentially contaminative land use features digitised from historical Ordnance Survey mapping at 1:10,000 and 10,560 scale. Any records shown are available intelligently grouped in section 1. Grouped and the original un-grouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

Features are displayed on the Past land use - un-grouped map on **page 24**

ID	Location	Land Use	Date	Group ID
1	On site	Refuse Heap	1955	678009
A	On site	Unspecified Heap	1927	650890
A	On site	Unspecified Ground Workings	1955	645699



ID	Location	Land Use	Date	Group ID
A	On site	Pumping Pit	1890	653313
B	On site	Pumping Station	1927	742474
C	On site	Unspecified Works	1991	743909
C	On site	Unspecified Heap	1965	650891
C	On site	Unspecified Works	1988	743909
D	On site	Garage	1991	769930
D	On site	Garage	1988	769930
C	2m SW	Unspecified Works	1977	773251
2	2m W	Print Works	1938	721771
B	2m E	Unspecified Pit	1890	691035
B	3m E	Pumping Station	1955	754954
B	3m E	Pumping Station	1938	754954
C	7m S	Unspecified Ground Workings	1977	645698
E	8m S	Print Works	1927	733848
C	11m S	Soap Works	1938	720918
C	11m S	Soap Works	1927	720918
B	11m E	Filter Beds	1938	665801
C	13m S	Refuse Heap	1908	747916
B	14m E	Settling Beds	1927	656632
D	15m N	Constabulary Station	1851	644969
C	20m S	Unspecified Old Shafts	1890	640156
F	23m S	Unspecified Ground Workings	1955	645697
B	24m SE	Unspecified Old Shaft	1890	721339
C	26m S	Unspecified Old Shafts	1908	640157
B	28m SE	Unspecified Old Shaft	1908	721339
G	30m W	Unspecified Mill	1977	721894
G	30m W	Unspecified Mill	1988	721894
G	31m W	Unspecified Mills	1908	775348



ID	Location	Land Use	Date	Group ID
G	31m W	Unspecified Mills	1890	775348
C	34m S	Refuse Heap	1890	776564
G	34m W	Unspecified Mill	1991	767309
F	36m S	Unspecified Heap	1938	782639
F	36m S	Unspecified Heap	1927	782639
3	41m SE	Unspecified Pit	1890	691037
C	53m S	Unspecified Old Shaft	1938	718025
C	61m S	Garage	1991	702772
C	61m S	Garage	1988	702772
C	65m S	Unspecified Disused Shaft	1977	664294
G	66m N	Unspecified Mills	1938	774092
G	66m N	Unspecified Mills	1927	774092
C	67m S	Unspecified Old Shafts	1890	640154
G	70m W	Unspecified Mills	1965	772680
G	70m W	Unspecified Mills	1955	789258
I	72m S	Unspecified Mill	1988	730369
I	73m SW	Unspecified Mill	1991	789839
C	74m S	Unspecified Old Shafts	1908	640155
I	74m S	Unspecified Mill	1977	727374
C	78m S	Unspecified Old Shaft	1927	718025
4	119m NW	Cotton Mills	1851	659311
J	125m SW	Unspecified Tank	1991	753799
J	125m SW	Unspecified Tank	1988	753799
K	130m S	Unspecified Works	1965	770660
K	131m S	Unspecified Works	1955	715216
E	131m SW	Unspecified Works	1965	678404
E	132m SW	Print Works	1955	771683
K	134m S	Unspecified Works	1977	770660



ID	Location	Land Use	Date	Group ID
E	137m SW	Print Works	1908	781467
E	139m SW	Print Works	1890	781467
L	139m S	Railway Sidings	1965	719415
E	140m SW	Bleaching Mill	1851	668321
K	140m S	Unspecified Works	1938	785091
K	140m S	Unspecified Works	1927	785091
M	145m S	Unspecified Works	1908	703234
I	145m S	Unspecified Tank	1991	791151
I	145m S	Unspecified Tank	1988	791151
N	148m S	Unspecified Mill	1955	739798
N	148m S	Unspecified Mill	1965	739246
L	153m S	Railway Sidings	1908	703952
M	154m S	Railway Sidings	1977	734680
J	157m SW	Refuse Heap	1955	715818
J	157m SW	Unspecified Heap	1991	739913
J	157m SW	Unspecified Heap	1977	739913
J	157m SW	Unspecified Heap	1988	739913
J	160m SW	Refuse Heap	1927	730342
L	163m S	Railway Sidings	1955	719415
P	173m W	Settling Beds	1938	744414
P	173m W	Settling Beds	1927	744414
P	174m W	Unspecified Tanks	1977	736662
P	174m W	Unspecified Tanks	1965	736662
P	175m W	Settling Beds	1955	769655
P	179m W	Filter Beds	1938	698977
P	179m W	Filter Beds	1927	698977
P	180m W	Filter Beds	1955	665802
P	183m W	Unspecified Tank	1908	674792

ID	Location	Land Use	Date	Group ID
N	184m S	Unspecified Mill	1938	768037
N	184m S	Unspecified Mill	1927	768037
L	186m S	Railway Sidings	1938	756058
L	186m S	Railway Sidings	1927	756058
Q	202m S	Unspecified Tank	1977	768792
Q	202m S	Unspecified Tank	1965	768792
6	209m E	Cuttings	1890	642640
P	215m W	Refuse Heap	1965	678010
7	221m NW	Unspecified Works	1991	678405
8	223m SE	Railway Station	1890	672379
S	239m S	Unspecified Ground Workings	1890	645696
T	246m NW	Unspecified Mills	1890	653116
U	251m S	Unspecified Tank	1938	736489
V	253m SW	Unspecified Heap	1938	734552
V	253m SW	Unspecified Heap	1927	734552
V	253m SW	Unspecified Heap	1955	742950
U	254m S	Unspecified Tank	1908	790073
U	255m S	Unspecified Tank	1927	790073
T	264m NW	Unspecified Disused Mill	1938	731910
T	264m NW	Unspecified Disused Mill	1927	731910
T	273m NW	Smithy	1851	692999
T	289m NW	Bleach and Dye works	1938	772269
T	289m NW	Bleach and Dye works	1927	772269
T	291m NW	Unspecified Ground Workings	1977	699129
T	291m NW	Unspecified Ground Workings	1965	699129
T	292m NW	Printing and Dyeing Works	1890	657686
T	294m NW	Unspecified Mill	1908	759695
T	295m NW	Bleach and Dye works	1955	763614



ID	Location	Land Use	Date	Group ID
T	303m NW	Unspecified Mill	1977	720725
T	304m NW	Unspecified Mill	1965	791143
T	310m NW	Garage	1991	742368
T	310m NW	Garage	1988	742368
T	315m NW	Bleach and Dye works	1908	697465
T	315m NW	Unspecified Disused Mill	1955	707344
Y	320m SW	Settling Tank	1955	758452
Y	320m SW	Unspecified Heap	1977	730073
T	322m NW	Filter Beds	1938	727520
T	322m NW	Filter Beds	1927	727520
Y	325m SW	Unspecified Pit	1908	696180
Y	326m SW	Unspecified Pits	1965	658877
T	327m NW	Filter Beds	1955	738487
Y	329m SW	Unspecified Pit	1890	698090
Y	329m SW	Unspecified Ground Workings	1977	725712
Y	330m SW	Unspecified Ground Workings	1991	704503
Y	331m SW	Settling Tank	1938	770192
Y	331m SW	Settling Tank	1927	770192
Y	334m SW	Unspecified Ground Workings	1988	761332
T	336m NW	Unspecified Works	1991	730458
T	336m NW	Unspecified Works	1988	730458
10	341m S	Railway Sidings	1965	702992
Z	344m S	Railway Sidings	1955	787506
AA	346m S	Cuttings	1965	740423
S	346m S	Railway Building	1955	670243
T	347m NW	Unspecified Works	1977	730458
T	347m NW	Unspecified Works	1965	730458
S	348m S	Railway Station	1955	695639

ID	Location	Land Use	Date	Group ID
AB	350m N	Unspecified Ground Workings	1991	700492
AB	350m N	Unspecified Ground Workings	1977	700492
AB	350m N	Unspecified Ground Workings	1965	700492
AB	350m N	Unspecified Ground Workings	1988	700492
AA	350m S	Cuttings	1851	718185
S	351m S	Railway Station	1851	707636
S	351m S	Railway Building	1955	670244
AA	351m S	Cuttings	1977	728144
AA	351m S	Cuttings	1988	728144
S	353m S	Railway Station	1965	762378
AC	353m S	Railway Sidings	1938	788532
AC	353m S	Railway Sidings	1927	788042
AC	353m S	Railway Sidings	1908	788042
AA	355m S	Cuttings	1955	701477
S	355m S	Railway Station	1938	722160
S	357m S	Railway Station	1927	743255
S	357m S	Railway Station	1908	718771
AA	358m S	Cuttings	1938	724953
AA	358m S	Cuttings	1908	724953
AA	358m S	Cuttings	1890	724953
11	358m N	Sandstone Quarry	1851	686658
S	359m S	Railway Building	1965	745658
T	360m NW	Unspecified Ground Workings	1977	777356
S	361m S	Railway Station	1890	761165
T	363m NW	Unspecified Ground Workings	1965	777356
AA	365m S	Cuttings	1927	724953
S	367m S	Railway Building	1955	745658
T	369m NW	Filter Bed	1908	643472



ID	Location	Land Use	Date	Group ID
AD	370m S	Cuttings	1851	701197
Y	375m SW	Settling Tanks	1955	741718
13	375m W	Coal Pit	1851	654020
Y	377m SW	Unspecified Pit	1955	752707
Y	381m SW	Unspecified Pit	1965	708329
Y	385m SW	Settling Tanks	1938	774942
Y	385m SW	Settling Tanks	1927	774942
AE	386m S	Engineering Works	1955	659521
AF	387m S	Refuse Heap	1965	743354
AF	389m S	Refuse Heap	1955	743354
AG	389m SE	Unspecified Heap	1965	760780
AE	391m S	Unspecified Works	1965	737968
AE	393m S	Unspecified Works	1977	723108
AE	393m S	Unspecified Works	1988	723108
AG	393m SE	Unspecified Heap	1991	731964
AG	393m SE	Unspecified Heap	1988	731964
T	396m NW	Mercerising Works	1955	780168
AD	397m S	Cuttings	1965	719651
14	397m S	Railway Sidings	1977	721073
AD	400m S	Unspecified Ground Workings	1988	755620
T	401m NW	Unspecified Ground Workings	1977	731004
T	401m NW	Unspecified Ground Workings	1965	731004
AD	401m S	Cuttings	1977	719651
T	402m NW	Mercerising Works	1938	771901
T	402m NW	Mercerising Works	1927	771901
T	403m NW	Mercerising Works	1908	769435
AH	403m N	Pumping House	1991	768134
AH	403m N	Pumping House	1977	768134



ID	Location	Land Use	Date	Group ID
AH	403m N	Pumping House	1988	768134
L	409m SE	Unspecified Ground Workings	1890	648158
T	410m NW	Bleach Works	1890	658142
AD	414m S	Unspecified Ground Workings	1977	755620
AF	414m S	Pumping Pit	1908	653314
15	424m SE	Refuse Heap	1965	678012
AD	425m S	Cuttings	1965	642652
16	430m E	Unspecified Pit	1890	691036
AI	430m NW	Unspecified Depot	1991	770004
AI	430m NW	Unspecified Depot	1977	770004
AI	430m NW	Unspecified Depot	1988	770004
17	432m SW	Coal Pit	1851	654022
AD	436m S	Cuttings	1965	642653
18	461m W	Unspecified Ground Workings	1890	645702
AL	471m E	Garage	1991	709797
AL	471m E	Garage	1988	709797
19	473m S	Bleach Works	1890	658163
T	483m NW	Unspecified Pit	1927	691020
20	494m S	Railway Sidings	1851	641652

This data is sourced from Ordnance Survey / Groundsure.

2.2 Historical tanks

Records within 500m

103

Tank features digitised from historical Ordnance Survey mapping at high-detail 1:1,250 and 1:2,500 scale. Any records shown are available intelligently grouped in section 1. Grouped and the original un-grouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

Features are displayed on the Past land use - un-grouped map on **page 24**

ID	Location	Land Use	Date	Group ID
A	On site	Unspecified Tank	1890	84788



ID	Location	Land Use	Date	Group ID
B	25m SE	Filter Tank	1930	103981
B	25m SE	Filter Tank	1937	103981
H	38m NW	Unspecified Tank	1987	97644
H	38m NW	Unspecified Tank	1992	97644
G	102m W	Tanks	1955	89317
G	102m W	Tanks	1968	89317
G	102m W	Tanks	1955	89317
G	102m W	Unspecified Tank	1930	99841
G	102m W	Unspecified Tank	1937	99841
G	102m NW	Unspecified Tank	1987	84787
G	108m NW	Tanks	1955	103234
G	108m NW	Tanks	1968	103234
G	109m NW	Tanks	1955	93624
G	111m W	Unspecified Tank	1930	97901
G	111m W	Unspecified Tank	1937	97901
G	113m NW	Unspecified Tank	1992	84786
G	121m NW	Tanks	1955	89108
G	121m NW	Tanks	1955	89108
G	124m NW	Unspecified Tank	1955	89156
G	124m NW	Unspecified Tank	1968	89156
G	124m NW	Unspecified Tank	1955	89156
J	129m SW	Unspecified Tank	1955	98440
J	129m SW	Unspecified Tank	1975	98440
J	129m SW	Unspecified Tank	1955	98440
J	130m SW	Unspecified Tank	1992	89709
J	131m SW	Unspecified Tank	1986	89709
I	143m S	Unspecified Tank	1994	103911
I	143m S	Unspecified Tank	1992	103911

ID	Location	Land Use	Date	Group ID
I	145m S	Unspecified Tank	1986	103911
I	145m S	Unspecified Tank	1986	103911
J	147m SW	Unspecified Tank	1955	96577
J	147m SW	Unspecified Tank	1955	96577
O	151m S	Tanks	1994	98673
O	151m S	Tanks	1992	98673
O	152m S	Tanks	1986	98673
O	152m S	Tanks	1986	98673
O	156m S	Tanks	1972	102342
E	164m SW	Tanks	1930	87152
E	169m S	Unspecified Tank	1937	84784
J	182m W	Unspecified Tank	1955	92696
J	182m W	Unspecified Tank	1955	94836
P	187m W	Unspecified Tank	1890	98605
P	187m W	Unspecified Tank	1910	98605
J	192m W	Unspecified Tank	1955	94604
J	192m W	Unspecified Tank	1955	97829
R	203m SW	Unspecified Tank	1992	84783
E	249m SW	Unspecified Tank	1955	102894
E	249m SW	Unspecified Tank	1955	102894
E	252m SW	Unspecified Tank	1955	100887
E	252m SW	Unspecified Tank	1975	100887
E	252m SW	Unspecified Tank	1955	100887
U	256m S	Unspecified Tank	1910	92638
U	257m S	Unspecified Tank	1930	92638
9	277m SE	Unspecified Tank	1986	84778
Y	339m SW	Settling Tank	1930	97874
Y	339m SW	Settling Tank	1937	97874

ID	Location	Land Use	Date	Group ID
K	341m SE	Unspecified Tank	1955	102575
K	341m SE	Unspecified Tank	1955	102575
12	361m SE	Unspecified Tank	1986	84777
Y	376m SW	Unspecified Tank	1955	98378
Y	376m SW	Unspecified Tank	1967	98378
Y	376m SW	Unspecified Tank	1955	98378
Y	379m SW	Disused Settling Tanks	1967	93425
Y	379m SW	Disused Settling Tanks	1955	93425
Y	379m SW	Disused Settling Tanks	1989	93425
Y	379m SW	Disused Settling Tanks	1972	93425
Y	379m SW	Disused Settling Tanks	1955	96115
Y	379m SW	Disused Settling Tanks	1986	94142
Y	380m SW	Disused Settling Tanks	1995	94142
Y	394m SW	Settling Tanks	1930	103884
Y	394m SW	Settling Tanks	1937	103884
T	402m NW	Unspecified Tank	1910	84785
T	416m NW	Tank or Trough	1910	88309
T	416m NW	Unspecified Tank	1930	97653
T	416m NW	Unspecified Tank	1937	97653
T	441m NW	Unspecified Tank	1890	84791
T	447m NW	Tank or Trough	1890	88308
T	459m NW	Unspecified Tank	1937	84790
T	461m NW	Unspecified Tank	1930	84792
Z	462m SW	Unspecified Tank	1967	93607
Z	462m SW	Unspecified Tank	1955	91907
Z	462m SW	Unspecified Tank	1955	94368
Z	463m SW	Unspecified Tank	1967	90666
Z	463m SW	Unspecified Tank	1955	90666



ID	Location	Land Use	Date	Group ID
Z	463m SW	Unspecified Tank	1955	90666
T	467m NW	Unspecified Tank	1955	95564
T	467m NW	Unspecified Tank	1955	95564
T	467m NW	Unspecified Tank	1937	90253
Z	469m SW	Unspecified Tank	1967	96596
Z	469m SW	Unspecified Tank	1955	91680
Z	469m SW	Unspecified Tank	1955	91899
T	474m NW	Unspecified Tank	1955	99991
T	475m NW	Unspecified Tank	1955	99991
T	483m NW	Unspecified Tank	1930	84800
Z	486m SW	Unspecified Tank	1967	99320
Z	486m SW	Unspecified Tank	1955	99320
Z	487m SW	Unspecified Tank	1955	99320
T	491m NW	Unspecified Tank	1910	84799
AD	493m S	Tanks	1955	96280
AD	493m S	Tanks	1967	96280
AD	494m S	Tanks	1955	96280
AD	494m S	Tanks	1968	96280

This data is sourced from Ordnance Survey / Groundsure.

2.3 Historical energy features

Records within 500m

51

Energy features digitised from historical Ordnance Survey mapping at high-detail 1:1,250 and 1:2,500 scale. Any records shown are available intelligently grouped in section 1. Grouped and the original un-grouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

Features are displayed on the Past land use - un-grouped map on **page 24**

ID	Location	Land Use	Date	Group ID
B	On site	Electricity Substation	1992	48115
B	1m E	Electricity Substation	1987	48115



ID	Location	Land Use	Date	Group ID
H	32m NW	Electricity Substation	1992	50351
H	32m NW	Electricity Substation	1987	50351
I	158m S	Electricity Substation	1986	55539
I	158m S	Electricity Substation	1986	55539
I	160m S	Electricity Substation	1994	55905
I	160m S	Electricity Substation	1992	55905
I	161m S	Electricity Substation	1972	55905
5	184m NE	Electricity Substation	1986	45679
R	214m SW	Electricity Substation	1992	52196
R	214m SW	Electricity Substation	1986	52196
E	241m SW	Electricity Substation	1955	45685
W	265m W	Electricity Substation	1992	50297
W	265m W	Electricity Substation	1973	50297
W	266m W	Electricity Substation	1987	50297
W	266m W	Electricity Substation	1984	50297
T	272m NW	Electricity Substation	1992	50641
T	280m NW	Electricity Substation	1955	51291
T	281m NW	Electricity Substation	1955	56390
T	281m NW	Electricity Substation	1973	56390
T	283m NW	Electricity Substation	1987	56390
T	283m NW	Electricity Substation	1984	56390
M	288m S	Electricity Substation	1992	50701
M	288m S	Electricity Substation	1986	55014
M	288m S	Electricity Substation	1988	55014
M	288m S	Electricity Substation	1988	55014
X	309m SW	Electricity Substation	1992	53255
X	309m SW	Electricity Substation	1975	53255
X	310m SW	Electricity Substation	1986	53255

ID	Location	Land Use	Date	Group ID
K	329m SE	Electricity Substation	1955	48586
K	329m SE	Electricity Substation	1992	48586
K	329m SE	Electricity Substation	1968	48586
K	329m SE	Electricity Substation	1955	48586
K	329m SE	Electricity Substation	1967	48586
AD	359m S	Electricity Substation	1992	45684
AJ	451m S	Electricity Substation	1994	46727
AJ	451m S	Electricity Substation	1994	46727
AJ	451m S	Electricity Substation	1992	46727
AJ	451m S	Electricity Substation	1994	46727
AD	467m S	Electricity Substation	1986	47186
AD	467m S	Electricity Substation	1988	47186
AD	468m S	Electricity Substation	1955	55474
AD	473m S	Electricity Substation	1955	51094
AD	473m S	Electricity Substation	1968	51094
AD	479m S	Electricity Substation	1955	47342
AD	479m S	Electricity Substation	1967	47342
AM	490m NW	Electricity Substation	1987	54432
AM	490m NW	Electricity Substation	1984	54432
AM	490m NW	Electricity Substation	1992	54432
AM	490m NW	Electricity Substation	1973	54432

This data is sourced from Ordnance Survey / Groundsure.

2.4 Historical petrol stations

Records within 500m

0

Petrol stations digitised from historical Ordnance Survey mapping at high-detail 1:1,250 and 1:2,500 scale. Any records shown are available intelligently grouped in section 1. Grouped and the original un-grouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

This data is sourced from Ordnance Survey / Groundsure.



2.5 Historical garages

Records within 500m

18

Garages digitised from historical Ordnance Survey mapping at high-detail 1:1,250 and 1:2,500 scale. Any records shown are available intelligently grouped in section 1. Grouped and the original un-grouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

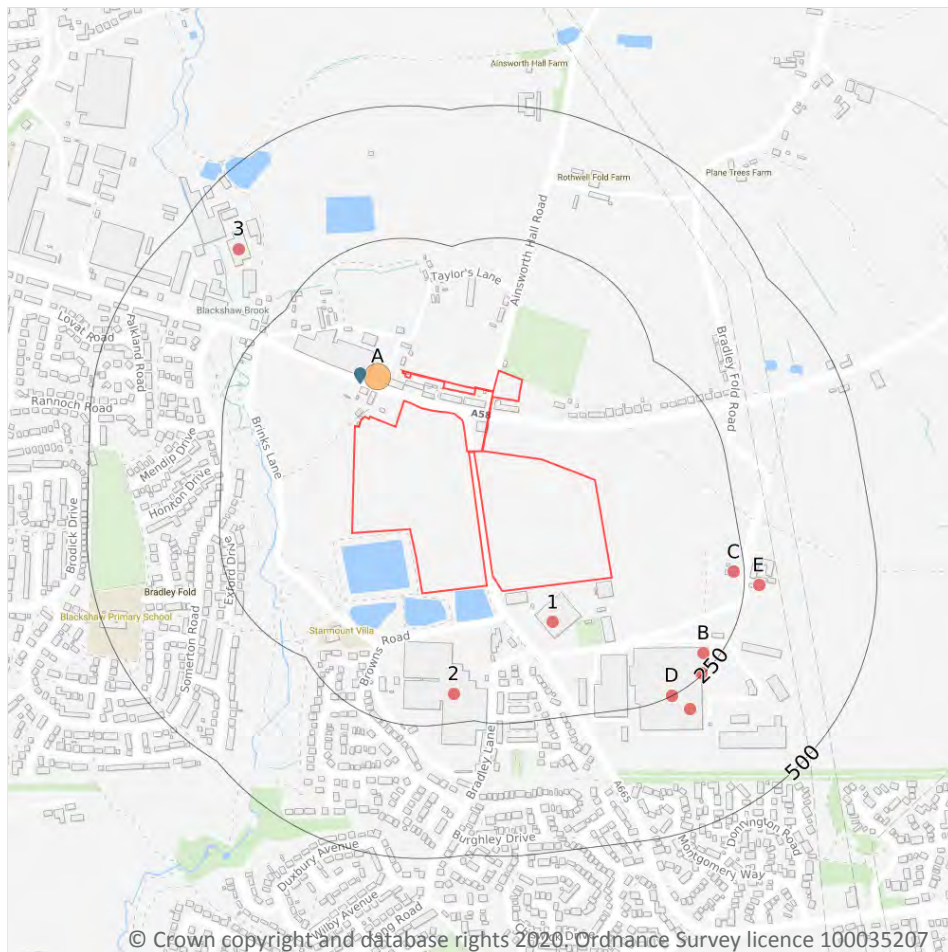
Features are displayed on the Past land use - un-grouped map on **page 24**

ID	Location	Land Use	Date	Group ID
D	On site	Garage	1987	16599
D	2m W	Garage	1992	16633
D	22m N	Garage	1955	18550
D	22m N	Garage	1968	18550
D	25m N	Garage	1955	16208
C	58m S	Garage	1992	17948
C	58m S	Garage	1994	17948
C	59m S	Garage	1986	17948
C	59m S	Garage	1986	17948
C	89m S	Garage	1972	15926
T	310m NW	Garage	1984	17921
T	310m NW	Garage	1987	17921
T	314m NW	Garage	1992	15925
AK	465m NW	Garage	1973	17864
AL	468m E	Garage	1955	16971
AL	469m E	Garage	1986	15372
AL	483m E	Garage	1955	16464
AK	490m NW	Garage	1984	17864

This data is sourced from Ordnance Survey / Groundsure.



3 Waste and landfill



- Site Outline
- Search buffers in metres (m)
- Historical waste sites
- Licensed waste sites
- Waste exemptions

3.1 Active or recent landfill

Records within 500m

0

Active or recently closed landfill sites under Environment Agency/Natural Resources Wales regulation.

This data is sourced from the Environment Agency and Natural Resources Wales.

3.2 Historical landfill (BGS records)

Records within 500m

0

Landfill sites identified on a survey carried out on behalf of the DoE in 1973. These sites may have been closed or operational at this time.

This data is sourced from the British Geological Survey.



3.3 Historical landfill (LA/mapping records)

Records within 500m

0

Landfill sites identified from Local Authority records and high detail historical mapping.

This data is sourced from the Ordnance Survey/Groundsure and Local Authority records.

3.4 Historical landfill (EA/NRW records)

Records within 500m

0

Known historical (closed) landfill sites (e.g. sites where there is no PPC permit or waste management licence currently in force). This includes sites that existed before the waste licensing regime and sites that have been licensed in the past but where a licence has been revoked, ceased to exist or surrendered and a certificate of completion has been issued.

This data is sourced from the Environment Agency and Natural Resources Wales.

3.5 Historical waste sites

Records within 500m

1

Waste site records derived from Local Authority planning records and high detail historical mapping.

Features are displayed on the Waste and landfill map on **page 40**

ID	Location	Address	Further Details	Date
A	22m W	Site Address: Land at Ainsworth Mill, Bury New Road, Broughton, Bolton, Greater Manchester, BL2 6QB	Type of Site: Recycling Centre (Conversion/Alterations) Planning application reference: 56933 Description: Scheme comprises change of use of land to metal recycling/storage (Sui Generis) and siting of containers 2 and refurbishment of temporary building for office use. Data source: Historic Planning Application Data Type: Point	-

This data is sourced from Ordnance Survey/Groundsure and Local Authority records.

3.6 Licensed waste sites

Records within 500m

2

Active or recently closed waste sites under Environment Agency/Natural Resources Wales regulation.

Features are displayed on the Waste and landfill map on **page 40**

ID	Location	Details		
A	76m N	Site Name: Ainsworth Mill Site Address: Ainsworth Mill, Bury New Road, Brightmet, Bolton, Lancashire, BL2 6QB Correspondence Address: -	Type of Site: Metal Recycling Site 25000 tps Size: 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: HAM052 EPR reference: EA/EPR/AB3604KG/A001 Operator: Hamer Mr Laszlo Waste Management licence No: 400747 Annual Tonnage: 24999	Issue Date: 06/03/2014 Effective Date: - Modified:: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Expired
A	76m N	Site Name: Ainsworth Mill Site Address: Ainsworth Mill, Bury New Road, Brightmet, Bolton, Lancashire, BL2 6QB Correspondence Address: -	Type of Site: Metal Recycling Site 25000 tps Size: 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: HAM052 EPR reference: EA/EPR/AB3604KG/A001 Operator: Hamer Laszlo Waste Management licence No: 400747 Annual Tonnage: 24999	Issue Date: 06/03/2014 Effective Date: - Modified:: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Issued

This data is sourced from the Environment Agency and Natural Resources Wales.

3.7 Waste exemptions

Records within 500m	28
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Activities involving the storage, treatment, use or disposal of waste that are exempt from needing a permit. Exemptions have specific limits and conditions that must be adhered to.

Features are displayed on the Waste and landfill map on **page 40**

ID	Location	Site	Reference	Category	Sub-Category	Description
1	71m S	RADCLIFFE MOOR ROAD, BOLTON, BL2 6RE	WEX037268	Using waste exemption	Not on a farm	Use of waste for a specified purpose
2	196m S	FOLD MILL, BRADLEY LANE, BOLTON, BL2 6RA	WEX224958	Using waste exemption	Not on a farm	Use of waste to manufacture finished goods
B	224m SE	UNIT 8, BRADLEY FOLD TRADING ESTATE, RADCLIFFE MOOR ROAD, BRADLEY FOLD, BOLTON, BL2 6RT	WEX007495	Treating waste exemption	Not on a farm	Preparatory treatments (baling, sorting, shredding etc)



ID	Location	Site	Reference	Category	Sub-Category	Description
C	230m E	Coggra Fold Farm Bradley Fold Road BOLTON BL2 6RL	EPR/YH0570ME/A001	Disposing of waste exemption	Both agricultural and non-agricultural waste	Burning waste in the open
C	230m E	Coggra Fold Farm Bradley Fold Road BOLTON BL2 6RL	EPR/YH0570ME/A001	Treating waste exemption	Both agricultural and non-agricultural waste	Treatment of waste wood and waste plant matter by chipping, shredding, cutting or pulverising
C	230m E	Coggra Fold Farm Bradley Fold Road BOLTON BL2 6RL	EPR/YH0570ME/A001	Using waste exemption	Both agricultural and non-agricultural waste	Spreading waste on agricultural land to confer benefit
B	246m SE	Bradley Fold Trading Estate Unit 1 Radcliffe Moor Road BOLTON BL2 6RT	EPR/NF0232JE/A001	Storing waste exemption	Non-Agricultural Waste Only	Storage of waste in a secure place
B	246m SE	Bradley Fold Trading Estate Unit 1 Radcliffe Moor Road BOLTON BL2 6RT	EPR/NF0232JE/A001	Treating waste exemption	Non-Agricultural Waste Only	Preparatory treatments (baling, sorting, shredding etc)
D	250m SE	UNIT 8, BRADLEY FOLD TRADING ESTATE, RADCLIFFE MOOR ROAD, BRADLEY FOLD, BOLTON, BL2 6RT	WEX181515	Storing waste exemption	Not on a farm	Storage of waste in a secure place
D	250m SE	UNIT 8, BRADLEY FOLD TRADING ESTATE, RADCLIFFE MOOR ROAD, BRADLEY FOLD, BOLTON, BL2 6RT	WEX181515	Treating waste exemption	Not on a farm	Preparatory treatments (baling, sorting, shredding etc)
D	250m SE	UNIT 1, BRADLEY FOLD TRADING ESTATE, RADCLIFFE MOOR ROAD, BRADLEY FOLD, BOLTON, BL2 6RT	WEX244118	Storing waste exemption	Not on a farm	Storage of waste in a secure place
D	250m SE	UNIT 1, BRADLEY FOLD TRADING ESTATE, RADCLIFFE MOOR ROAD, BRADLEY FOLD, BOLTON, BL2 6RT	WEX244118	Treating waste exemption	Not on a farm	Preparatory treatments (baling, sorting, shredding etc)



ID	Location	Site	Reference	Category	Sub-Category	Description
D	250m SE	UNIT 1, BRADLEY FOLD TRADING ESTATE, RADCLIFFE MOOR ROAD, BRADLEY FOLD, BOLTON, BL2 6RT	WEX101960	Storing waste exemption	Not on a farm	Storage of waste in a secure place
D	250m SE	UNIT 1, BRADLEY FOLD TRADING ESTATE, RADCLIFFE MOOR ROAD, BRADLEY FOLD, BOLTON, BL2 6RT	WEX101960	Treating waste exemption	Not on a farm	Preparatory treatments (baling, sorting, shredding etc)
D	250m SE	UNIT 8, BRADLEY FOLD TRADING ESTATE, RADCLIFFE MOOR ROAD, BRADLEY FOLD, BOLTON, BL2 6RT	WEX241509	Storing waste exemption	Not on a farm	Storage of waste in a secure place
D	250m SE	UNIT 8, BRADLEY FOLD TRADING ESTATE, RADCLIFFE MOOR ROAD, BRADLEY FOLD, BOLTON, BL2 6RT	WEX241509	Using waste exemption	Not on a farm	Use of waste to manufacture finished goods
D	250m SE	UNIT 8, BRADLEY FOLD TRADING ESTATE, RADCLIFFE MOOR ROAD, BRADLEY FOLD, BOLTON, BL2 6RT	WEX242358	Treating waste exemption	Not on a farm	Preparatory treatments (baling, sorting, shredding etc)
D	250m SE	UNIT 8, BRADLEY FOLD TRADING ESTATE, RADCLIFFE MOOR ROAD, BRADLEY FOLD, BOLTON, BL2 6RT	WEX095510	Storing waste exemption	Not on a farm	Storage of waste in a secure place
D	250m SE	UNIT 8, BRADLEY FOLD TRADING ESTATE, RADCLIFFE MOOR ROAD, BRADLEY FOLD, BOLTON, BL2 6RT	WEX095510	Using waste exemption	Not on a farm	Use of waste to manufacture finished goods
E	277m E	COGGRA FOLD FARM, BRADLEY FOLD ROAD, BRADLEY FOLD, BOLTON, BL2 6RL	WEX170083	Treating waste exemption	On a farm	Treatment of waste wood and waste plant matter by chipping, shredding, cutting or pulverising
E	277m E	COGGRA FOLD FARM, BRADLEY FOLD ROAD, BRADLEY FOLD, BOLTON, BL2 6RL	WEX170083	Using waste exemption	On a farm	Use of waste in construction

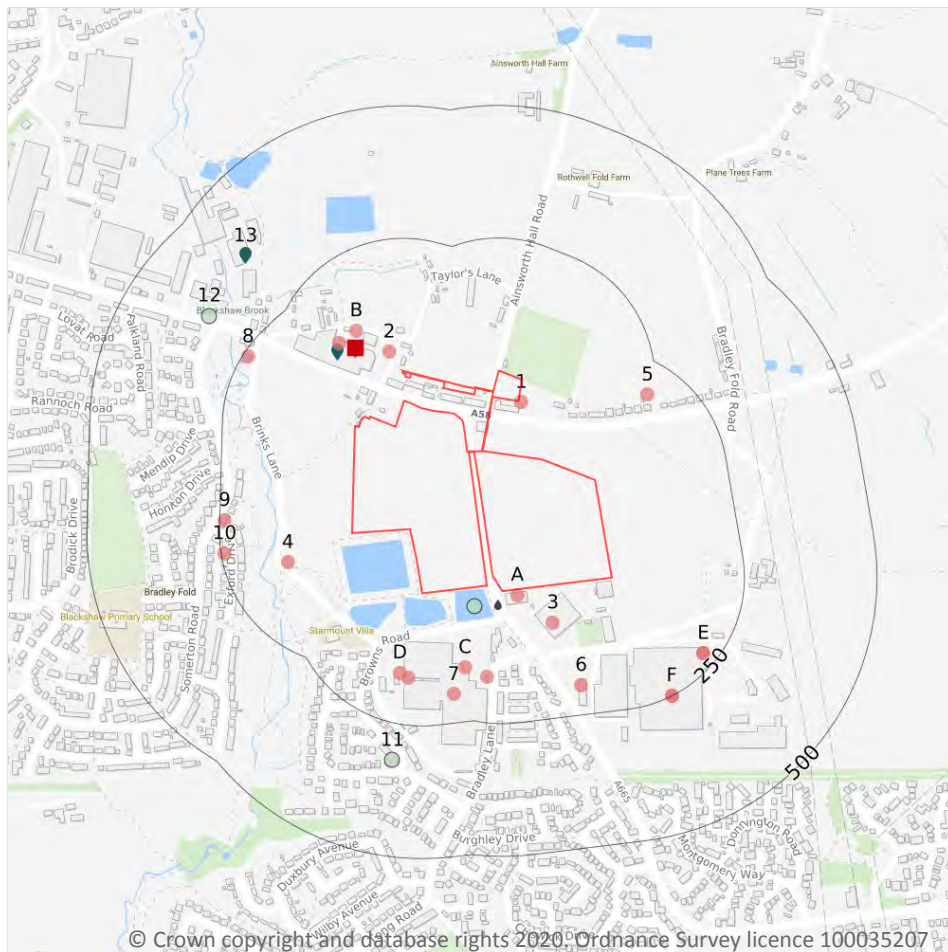


ID	Location	Site	Reference	Category	Sub-Category	Description
E	277m E	COGGRA FOLD FARM, BRADLEY FOLD ROAD, BRADLEY FOLD, BOLTON, BL2 6RL	WEX170083	Disposing of waste exemption	On a farm	Burning waste in the open
E	277m E	COGGRA FOLD FARM, BRADLEY FOLD ROAD, BRADLEY FOLD, BOLTON, BL2 6RL	WEX011326	Disposing of waste exemption	On a farm	Burning waste in the open
E	277m E	COGGRA FOLD FARM, BRADLEY FOLD ROAD, BRADLEY FOLD, BOLTON, BL2 6RL	WEX011326	Treating waste exemption	On a farm	Treatment of waste wood and waste plant matter by chipping, shredding, cutting or pulverising
E	277m E	COGGRA FOLD FARM, BRADLEY FOLD ROAD, BRADLEY FOLD, BOLTON, BL2 6RL	WEX011326	Using waste exemption	On a farm	Use of waste in construction
E	277m E	COGGRA FOLD FARM, BRADLEY FOLD ROAD, BRADLEY FOLD, BOLTON, BL2 6RL	WEX011326	Using waste exemption	On a farm	Spreading waste on agricultural land to confer benefit
D	288m SE	Unit 8 Bradley Fold Trading Estate Radcliffe Moor Road Lancashire BL2 6RT	EPR/GH0414Q B/A001	Treating waste exemption	Non- Agricultural Waste Only	Preparatory treatments (baling, sorting, shredding etc)
3	386m NW	VALE MILL, UNIT 1, VALE STREET, BOLTON, BL2 6QF	WEX141584	Using waste exemption	Not on a farm	Use of waste in construction

This data is sourced from the Environment Agency and Natural Resources Wales.



4 Current industrial land use



- Site Outline
- Search buffers in metres (m)
- Recent industrial land uses
- Part A(1) industrial activities
- Licensed pollutant release (Part A(2)/B)
- Licensed Discharges to controlled waters
- List 1 Dangerous Substances
- Pollution Incidents (EA/NRW)

4.1 Recent industrial land uses

Records within 250m

21

Current potentially contaminative industrial sites.

Features are displayed on the Current industrial land use map on **page 46**

ID	Location	Company	Address	Activity	Category
1	5m E	Electricity Sub Station	Greater Manchester, BL2	Electrical Features	Infrastructure and Facilities
A	11m S	Les Williams & Co Electrical Insulation Ltd	Carlton Works 250, Radcliffe Moor Road, Bolton, Greater Manchester, BL2 6RE	Electrical and Electronic Engineers	Engineering Services



ID	Location	Company	Address	Activity	Category
2	45m NW	Tank	Greater Manchester, BL2	Tanks (Generic)	Industrial Features
3	70m S	Radmoor Car Sales	Radcliffe Moor Road, Bolton, Greater Manchester, BL2 6RE	Secondhand Vehicles	Motoring
B	117m NW	Tank	Greater Manchester, BL2	Tanks (Generic)	Industrial Features
B	132m NW	Chimney	Greater Manchester, BL2	Chimneys	Industrial Features
4	133m SW	Tank	Greater Manchester, BL2	Tanks (Generic)	Industrial Features
C	148m S	Tank	Greater Manchester, BL2	Tanks (Generic)	Industrial Features
D	155m S	Tank	Greater Manchester, BL2	Tanks (Generic)	Industrial Features
D	162m S	Chimney	Greater Manchester, BL2	Chimneys	Industrial Features
C	164m S	Electricity Sub Station	Greater Manchester, BL2	Electrical Features	Infrastructure and Facilities
5	189m NE	Electricity Sub Station	Greater Manchester, BL2	Electrical Features	Infrastructure and Facilities
6	194m S	Peter Evans Bolton Ltd	Unit 119 Bradley Fold Trading Estate, Radcliffe Moor Road, Bradley Fold, Bolton, Greater Manchester, BL2 6RT	General Construction Supplies	Industrial Products
7	196m S	Pennine Manufacturing Ltd	Fold Mill, Bradley Lane, Bolton, Greater Manchester, BL2 6RA	Rubber, Silicones and Plastics	Industrial Products
E	224m SE	Engineering Metal Services Ltd	Unit 4 Bradley Fold Trading Estate, Radcliffe Moor Road, Bradley Fold, Bolton, Greater Manchester, BL2 6RT	Metals Manufacturers, Fabricators and Stockholders	Industrial Products
E	224m SE	Abacus Nw Powder Coatings	Unit 15 Bradley Fold Trading Estate, Radcliffe Moor Road, Bradley Fold, Bolton, Greater Manchester, BL2 6RT	Industrial Coatings and Finishings	Industrial Products
8	240m NW	Works	Greater Manchester, BL2	Unspecified Works Or Factories	Industrial Features
9	241m W	A M S Tuning	51, Somerton Road, Bolton, Greater Manchester, BL2 6LL	Vehicle Repair, Testing and Servicing	Repair and Servicing



ID	Location	Company	Address	Activity	Category
10	244m W	Premier Pest Services Ltd	10, Exford Drive, Bolton, Greater Manchester, BL2 6TB	Pest and Vermin Control	Contract Services
F	249m SE	The Only Way Is Melts by Tracy	Unit 120 Bradley Fold Trading Estate, Radcliffe Moor Road, Bradley Fold, Bolton, Greater Manchester, BL2 6RT	Candles	Consumer Products
F	249m SE	Carpet & Latex International Ltd	Bradley Fold Trading Estate, Bradley Fold Road, Radcliffe, Greater Manchester, BL2 6RL	Colours, Chemicals and Water Softeners and Supplies	Industrial Products

This data is sourced from Ordnance Survey.

4.2 Current or recent petrol stations

Records within 500m

0

Open, closed, under development and obsolete petrol stations.

This data is sourced from Experian.

4.3 Electricity cables

Records within 500m

0

High voltage underground electricity transmission cables.

This data is sourced from National Grid.

4.4 Gas pipelines

Records within 500m

0

High pressure underground gas transmission pipelines.

This data is sourced from National Grid.

4.5 Sites determined as Contaminated Land

Records within 500m

0

Contaminated Land Register of sites designated under Part 2a of the Environmental Protection Act 1990.

This data is sourced from Local Authority records.



4.6 Control of Major Accident Hazards (COMAH)

Records within 500m**0**

Control of Major Accident Hazards (COMAH) sites. This data includes upper and lower tier sites, and includes a historical archive of COMAH sites and Notification of Installations Handling Hazardous Substances (NIHHS) records.

This data is sourced from the Health and Safety Executive.

4.7 Regulated explosive sites

Records within 500m**0**

Sites registered and licensed by the Health and Safety Executive under the Manufacture and Storage of Explosives Regulations 2005 (MSER). The last update to this data was in April 2011.

This data is sourced from the Health and Safety Executive.

4.8 Hazardous substance storage/usage

Records within 500m**0**

Consents granted for a site to hold certain quantities of hazardous substances at or above defined limits in accordance with the Planning (Hazardous Substances) Regulations 2015.

This data is sourced from Local Authority records.

4.9 Historical licensed industrial activities (IPC)

Records within 500m**0**

Integrated Pollution Control (IPC) records of substance releases to air, land and water. This data represents a historical archive as the IPC regime has been superseded.

This data is sourced from the Environment Agency and Natural Resources Wales.

4.10 Licensed industrial activities (Part A(1))

Records within 500m**1**

Records of Part A(1) installations regulated under the Environmental Permitting (England and Wales) Regulations 2016 for the release of substances to the environment.

Features are displayed on the Current industrial land use map on **page 46**

ID	Location	Details	
B	99m NW	Operator: AINSWORTH FINISHING COMPANY LIMITED Installation Name: AINSWORTH FINISHING CO LTD Process: COATING, PRINTING AND TEXTILES; PRE-TREATING BY WASHING ETC >10T/DAY Permit Number: WP3636SP Original Permit Number: BM9165IK	EPR Reference: - Issue Date: 06/09/2005 Effective Date: 07/09/2005 Last date noted as effective: 28/09/2020 Status: REVOKED

This data is sourced from the Environment Agency and Natural Resources Wales.

4.11 Licensed pollutant release (Part A(2)/B)

Records within 500m	2
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Records of Part A(2) and Part B installations regulated under the Environmental Permitting (England and Wales) Regulations 2016 for the release of substances to the environment.

Features are displayed on the Current industrial land use map on **page 46**

ID	Location	Address	Details	
B	130m W	Ainsworth Finishing Co, Ainsworth Mill, Bury New Road, BL2 7QL	Process: Coating Processes Status: Historical Permit Permit Type: Part B	Enforcement: No Enforcements Notified Date of enforcement: No Enforcements Notified Comment: No Enforcements Notified
13	368m NW	Tarmac Topmix, Vale Street, BL2 6QF	Process: Use of Bulk Cement Status: Historical Permit Permit Type: Part B	Enforcement: No Enforcements Notified Date of enforcement: No Enforcements Notified Comment: No Enforcements Notified

This data is sourced from Local Authority records.

4.12 Radioactive Substance Authorisations

Records within 500m	0
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Records of the storage, use, accumulation and disposal of radioactive substances regulated under the Radioactive Substances Act 1993.

This data is sourced from the Environment Agency and Natural Resources Wales.

4.13 Licensed Discharges to controlled waters

Records within 500m

1

Discharges of treated or untreated effluent to controlled waters under the Water Resources Act 1991.

Features are displayed on the Current industrial land use map on **page 46**

ID	Location	Address	Details	
A	27m S	GARDEN STORE LTD SWO, RADCLIFFE MOOR ROAD, RADCLIFFE, BURY, GREATER MANCHESTER	Effluent Type: MISCELLANEOUS DISCHARGES - SURFACE WATER Permit Number: 016991449 Permit Version: 1 Receiving Water: COASTAL TRIB FOR DA 68/69	Status: REVOKED - UNSPECIFIED Issue date: - Effective Date: 01/04/1992 Revocation Date: 01/04/1992

This data is sourced from the Environment Agency and Natural Resources Wales.

4.14 Pollutant release to surface waters (Red List)

Records within 500m

0

Discharges of specified substances under the Environmental Protection (Prescribed Processes and Substances) Regulations 1991.

This data is sourced from the Environment Agency and Natural Resources Wales.

4.15 Pollutant release to public sewer

Records within 500m

0

Discharges of Special Category Effluents to the public sewer.

This data is sourced from the Environment Agency and Natural Resources Wales.

4.16 List 1 Dangerous Substances

Records within 500m

1

Discharges of substances identified on List I of European Directive E 2006/11/EC, and regulated under the Environmental Damage (Prevention and Remediation) Regulations 2015.

Features are displayed on the Current industrial land use map on **page 46**

ID	Location	Name	Status	Receiving Water	Authorised Substances
B	101m NW	Ainsworth Finishing Company Ltd	Active	-	Mercury (other), Pentachlorophenol

This data is sourced from the Environment Agency and Natural Resources Wales.



4.17 List 2 Dangerous Substances

Records within 500m

0

Discharges of substances identified on List II of European Directive E 2006/11/EC, and regulated under the Environmental Damage (Prevention and Remediation) Regulations 2015.

This data is sourced from the Environment Agency and Natural Resources Wales.

4.18 Pollution Incidents (EA/NRW)

Records within 500m

3

Records of substantiated pollution incidents. Since 2006 this data has only included category 1 (major) and 2 (significant) pollution incidents.

Features are displayed on the Current industrial land use map on **page 46**

ID	Location	Details	
A	34m S	Incident Date: 22/09/2001 Incident Identification: 32300 Pollutant: Other Pollutant Pollutant Description: Natural Ochre	Water Impact: Category 3 (Minor) Land Impact: Category 4 (No Impact) Air Impact: Category 4 (No Impact)
11	319m S	Incident Date: 12/06/2001 Incident Identification: 8753 Pollutant: Other Pollutant Pollutant Description: Other	Water Impact: Category 2 (Significant) Land Impact: Category 4 (No Impact) Air Impact: Category 4 (No Impact)
12	344m NW	Incident Date: 08/09/2001 Incident Identification: 29669 Pollutant: Specific Waste Materials Pollutant Description: Organic Chemical Wastes	Water Impact: Category 4 (No Impact) Land Impact: Category 3 (Minor) Air Impact: Category 4 (No Impact)

This data is sourced from the Environment Agency and Natural Resources Wales.

4.19 Pollution inventory substances

Records within 500m

0

The pollution inventory (substances) includes reporting on annual emissions of certain regulated substances to air, controlled waters and land. A reporting threshold for each substance is also included. Where emissions fall below the reporting threshold, no value will be given. The data is given for the most recent complete year available.

This data is sourced from the Environment Agency and the Scottish Environment Protection Agency.



4.20 Pollution inventory waste transfers

Records within 500m**0**

The pollution inventory (waste transfers) includes reporting on annual transfers and recovery/disposal of controlled wastes from a site. A reporting threshold for each waste type is also included. Where releases fall below the reporting threshold, no value will be given. The data is given for the most recent complete year available.

This data is sourced from the Environment Agency and the Scottish Environment Protection Agency.

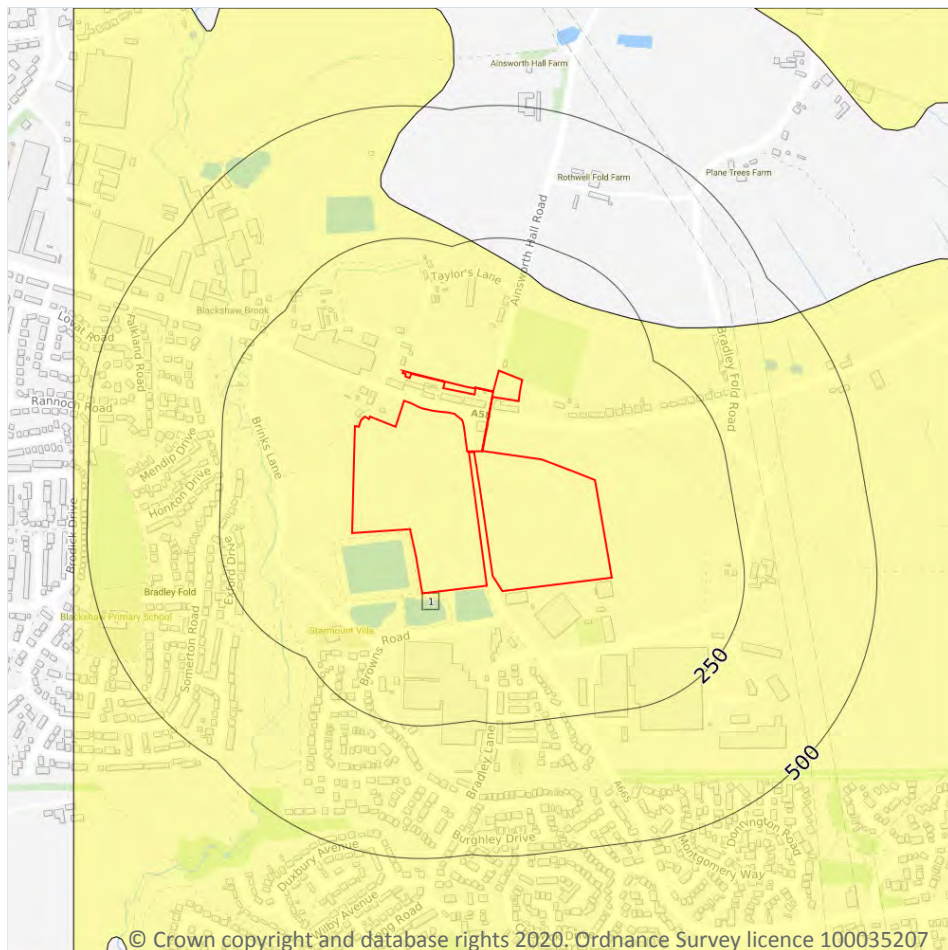
4.21 Pollution inventory radioactive waste

Records within 500m**0**

The pollution inventory (radioactive wastes) includes reporting on annual releases of radioactive substances from a site, including the means of release. Where releases fall below the reporting threshold, no value will be given. The data is given for the most recent complete year available.

This data is sourced from the Environment Agency and the Scottish Environment Protection Agency.

5 Hydrogeology - Superficial aquifer



- Site Outline
- Search buffers in metres (m)
- Principal
 - Secondary A
 - Secondary B
 - Secondary Undifferentiated
 - Unproductive
 - Unknown

5.1 Superficial aquifer

Records within 500m

1

Aquifer status of groundwater held within superficial geology.

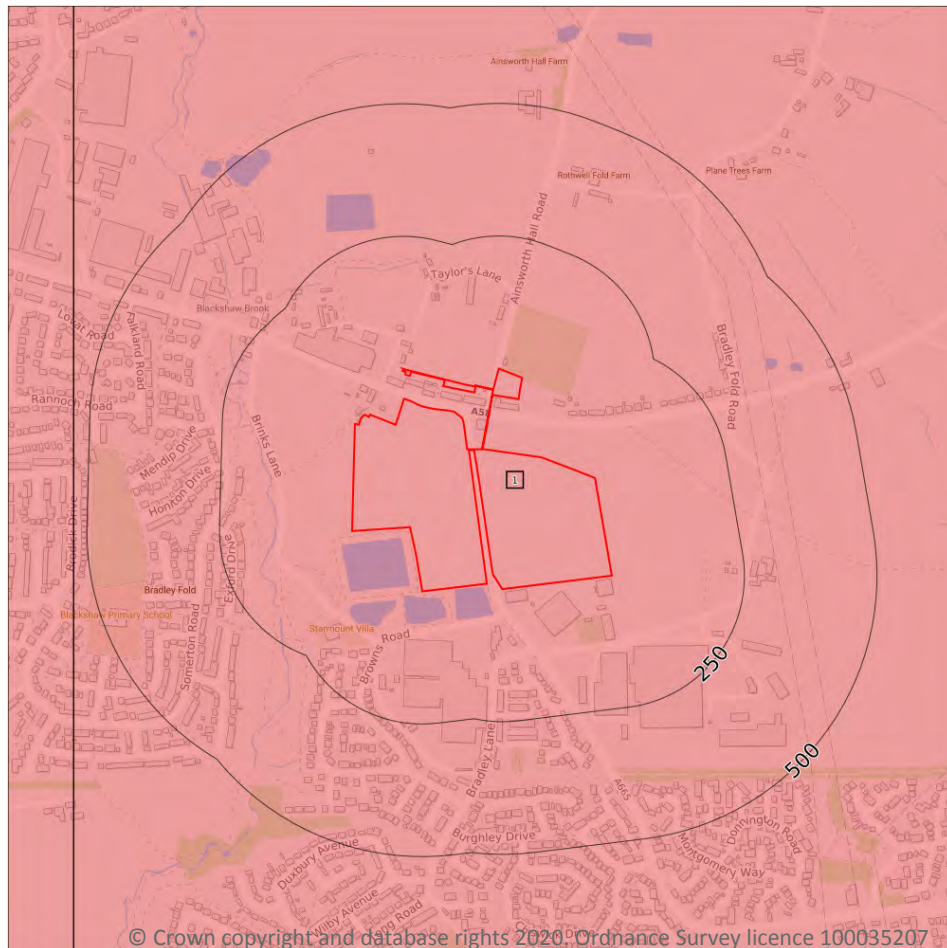
Features are displayed on the Hydrogeology map on **page 54**

ID	Location	Designation	Description
1	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

This data is sourced from the British Geological Survey, the Environment Agency and Natural Resources Wales.



Bedrock aquifer



5.2 Bedrock aquifer

Records within 500m

1

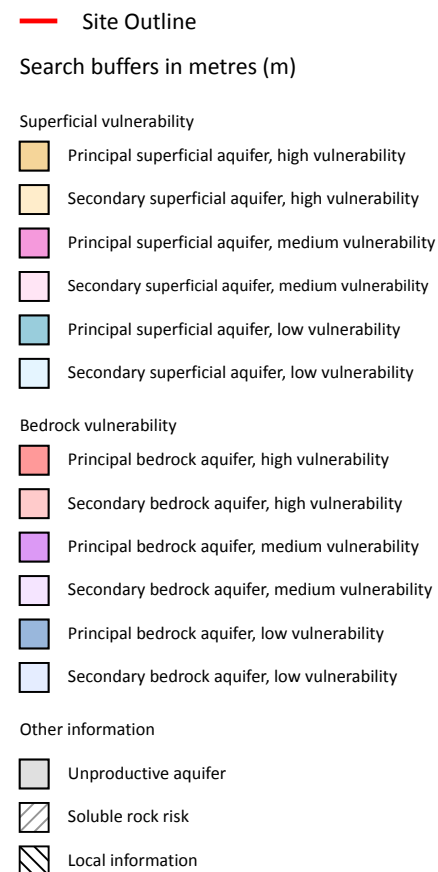
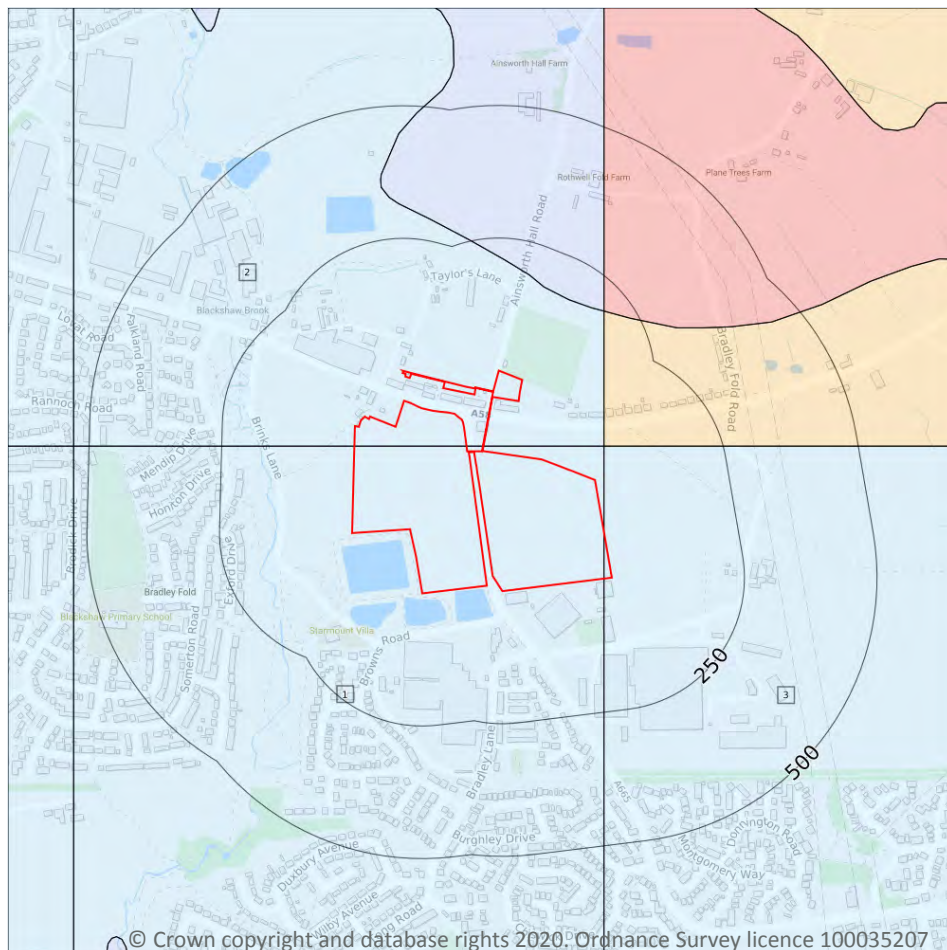
Aquifer status of groundwater held within bedrock geology.

Features are displayed on the Bedrock aquifer map on **page 55**

ID	Location	Designation	Description
1	On site	Secondary A	Permeable layers capable of supporting water supplies at a local rather than strategic scale, and in some cases forming an important source of base flow to rivers. These are generally aquifers formerly classified as minor aquifers

This data is sourced from the British Geological Survey, the Environment Agency and Natural Resources Wales.

Groundwater vulnerability



5.3 Groundwater vulnerability

Records within 50m

3

An assessment of the vulnerability of groundwater to a pollutant discharged at ground level based on the hydrological, geological, hydrogeological and soil properties within a one kilometre square grid. Groundwater vulnerability is described as High, Medium or Low as follows:

- High - Areas able to easily transmit pollution to groundwater. They are likely to be characterised by high leaching soils and the absence of low permeability superficial deposits.
- Medium - Intermediate between high and low vulnerability.
- Low - Areas that provide the greatest protection from pollution. They are likely to be characterised by low leaching soils and/or the presence of superficial deposits characterised by a low permeability.

Features are displayed on the Groundwater vulnerability map on **page 56**

ID	Location	Summary	Soil / surface	Superficial geology	Bedrock geology
1	On site	Summary Classification: Secondary superficial aquifer - Low Vulnerability Combined classification: Productive Bedrock Aquifer, Productive Superficial Aquifer	Leaching class: Low Infiltration value: <40% Dilution value: >550mm/year	Vulnerability: Low Aquifer type: Secondary Thickness: >10m Patchiness value: >90% Recharge potential: Low	Vulnerability: Low Aquifer type: Secondary Flow mechanism: Well connected fractures
2	On site	Summary Classification: Secondary superficial aquifer - Low Vulnerability Combined classification: Productive Bedrock Aquifer, Productive Superficial Aquifer	Leaching class: Low Infiltration value: <40% Dilution value: >550mm/year	Vulnerability: Low Aquifer type: Secondary Thickness: 3-10m Patchiness value: >90% Recharge potential: No Data	Vulnerability: Low Aquifer type: Secondary Flow mechanism: Well connected fractures
3	On site	Summary Classification: Secondary superficial aquifer - Low Vulnerability Combined classification: Productive Bedrock Aquifer, Productive Superficial Aquifer	Leaching class: Low Infiltration value: <40% Dilution value: >550mm/year	Vulnerability: Low Aquifer type: Secondary Thickness: 3-10m Patchiness value: >90% Recharge potential: Low	Vulnerability: Low Aquifer type: Secondary Flow mechanism: Well connected fractures

This data is sourced from the British Geological Survey, the Environment Agency and Natural Resources Wales.

5.4 Groundwater vulnerability- soluble rock risk

Records on site

0

This dataset identifies areas where solution features that enable rapid movement of a pollutant may be present within a 1km grid square.

This data is sourced from the British Geological Survey and the Environment Agency.

5.5 Groundwater vulnerability- local information

Records on site

0

This dataset identifies areas where additional local information affecting vulnerability is held by the Environment Agency. Further information can be obtained by contacting the Environment Agency local Area groundwater team through the Environment Agency National Customer Call Centre on 03798 506 506 or by email on enquiries@environment-agency.gov.uk.

This data is sourced from the British Geological Survey and the Environment Agency.

