

DESK STUDY REPORT

**HIGH RIDGE, WARD GREEN,
BARNLEY, SOUTH YORKSHIRE**

Report 552008DS September 2011

Client:

LNT Construction Ltd
Helios 47
Isabella Road
Garforth
LEEDS LS25 2DY

Abbeydale Building Environment Consultants Ltd, 4 Neville Street, Wakefield, WF1 5EF

Tel: 01924 376622 Fax: 01924 376661 Email: info@abbeydalebec.com Website: www.abbeydalebec.com

Director P.J. Lloyd BSc MSc C.Geol FGS

Company Registration No: 06707508 Registered Office: 4 Neville Street, Wakefield, WF1 5EF

**DESK STUDY REPORT
HIGH RIDGE, WARD GREEN,
BARNSELY, SOUTH YORKSHIRE
Report 552008DS September 2011**

CONTENTS

1. INTRODUCTION
2. THE SITE
3. HISTORY
4. GEOLOGY
5. HYDROGEOLOGY
6. MINING
7. ENVIRONMENTAL ENQUIRY
8. SITE WALKOVER
9. LABORATORY TESTING
10. GROUND CONDITIONS
11. ENVIRONMENTAL ASSESSMENT
12. ENGINEERING CONSIDERATIONS
13. REGULATORY APPROVAL
14. DISPOSAL OF SOILS
15. FURTHER INVESTIGATION
16. SUMMARY

APPENDICES

FIGURES

- Figure 1 - Key Plan
- Figure 2 - Site Plan
- Figure 3 - Walkover Observations
- Figure 4 - Conceptual Model
- Figure 5 - Conceptual Model Table

COAL AUTHORITY REPORT

LANDMARK ENVIROCHECK REPORT

EA MAPS / SEARCHES

HISTORIC MAPS

APPENDIX A - CONTAMINATION RISK ASSESSMENT

APPENDIX B - CONCEPTUAL MODEL RISK MATRIX

APPENDIX C - FURTHER REPORTING

**DESK STUDY REPORT
HIGH RIDGE, WARD GREEN,
BARNSELEY, SOUTH YORKSHIRE
Report 552008DS September 2011**

1. INTRODUCTION

On the instruction of LNT Construction Ltd, a desk study was carried out by Abbeydale Building Environment Consultants Ltd on a site off High Ridge, Ward Green, Barnsley, South Yorkshire.

The site is located on the south side of Barnsley and is centred within National Grid Reference square SE 347 043, at approximately 120m AOD. See Fig 1.

This report was produced on behalf of our client, LNT Construction Ltd and their advisors and financiers, and should not be relied upon or transferred to any other parties without the express written authorisation of Abbeydale BEC Ltd and our client. If any unauthorised third party comes into possession of this report, they rely on it at their own risk and the authors owe them no duty of care or skill.

The comments and recommendations presented in this report are based on the findings of a review of available information. There may be other conditions prevailing on the site which have not been recorded by the available information and therefore have not been taken into account by this report. Responsibility cannot be accepted for unrecorded information.

When writing this report the proposed development was for the construction of a residential care home and associated parking facilities at, or close to, existing ground levels. If there are changes to these proposals, then some modification to the comments and recommendations given may be required.

2. THE SITE

The proposed development is to be constructed on an irregular shaped parcel of land located on the west side of High Ridge, north of Dorchester Place. See Fig 2. The site is currently occupied by a derelict former school building towards the northern half of the site, with the areas surrounding the building consisting of tarmac playing areas and grassed / vegetated landscaped areas.

A caretaker's bungalow is present towards the southeastern corner of the site, which is to be demolished as part of the development proposals.

The site is bound to the north by mixed use light commercial premises with residential housing to the east and south. Ward Green Community Park lies immediately beyond the western site boundary.

Ground levels across the site are sloping in a southeasterly direction, with an estimated difference in relative level of around 10m between the northwestern to the southeastern site boundaries.

A more detailed description of prevailing features noted on and around the site are given in Site Walkover, Section 8 of this report.

3. **HISTORY**

The historic Ordnance Survey (OS) maps of the site and surrounding area, appended, have been obtained from a Landmark Envirocheck report, dated 7 September 2011.

The Site

The earliest OS map of 1855 shows the site to be effectively split into two halves, with several buildings towards the southeast of the site and an associated well with a pump to the west of the buildings. The northern half of the site appears to be undeveloped. The subsequent map of 1892 labels the buildings as Ward Green Farm, when a rectangular feature is noted towards the western site boundary. By 1906 a tank is annotated within the courtyard of the farm buildings, towards the southeast of the site. Although the tank is not shown on the 1907 map, it is then shown again on the subsequent historic map of 1931.

Little change is then noted until the 1960 map, on which the majority of the farm buildings, tank and associated features are no longer depicted. The exception is a building towards the southeast of the site which is shown to have been demolished by 1966.

The existing school building and bungalow are illustrated by 1978 and the site is annotated as a school. The small scale map of 1993 confirms that the site took on its current layout by this time. No discernible changes are noted to the site on the later maps, to the most current of 2011.

Surrounding Area

The surrounding area is shown to consist of mainly undeveloped fields and associated farms on the earliest OS map of 1855. Two public houses are annotated around 30m north of the site, with a Smithy labelled 105m northeast of the site. Wells appear to be abundant in the surrounding area.

Indications of extractive industries are noted within the surrounding area, including several sandstone quarries and four collieries, namely Bell Ing Colliery, Prince Albert Colliery, Victoria Colliery and Darley Main Colliery.

An Old Air Shaft is annotated on the 1892 map to the west of the southern end of Jarrett Royd Wood, around 350m southwest of the site and Bottle Well is labelled 200m northeast of the site.

Urbanisation of the surrounding area is noted on the 1894 map some 450m southeast of the site, where several rows of terraced properties are illustrated. The early 1930's

saw the beginning of residential development in the immediate vicinity of the site, focused to the north of the site, on the northern side of Ward Green Road. The Smithy to the northeast of the site is no longer annotated by 1931. By 1932 Houndhill Colliery (formerly called Victoria Colliery) is labelled as disused, and only slag heaps are shown where the Prince Albert and Darley Main collieries were formerly illustrated.

A row of housing fronting onto Vernon Road can be seen just to the southeast of the site by 1938, with further residential housing constructed in subsequent years along with Ward Green Junior School, which is first shown on the 1948 map and annotated as such on the 1960 map. Re-profiling of the undeveloped fields to the west of the site is observed from the 1960 map and the area is labelled as Ward Green Community Park, with steep embankments surrounding a Bowling Green 60m southwest from the site. Although embankments are still shown, the Air Shaft 270m east of the site is no longer depicted from the 1960 map onwards.

An increase in development in the vicinity of the site was noted throughout the 1960's, with residential housing constructed to the south and southwest of the site and a garage just beyond the northern site boundary on the map of 1966. Apart from a continuation of residential development, no significant changes are noted in the surrounding area on subsequent maps.

4. **GEOLOGY**

The Geological Survey maps of the area, BGS Sheet 87, Geological Sheet SE30SW and Yorkshire County Series Sheet 274SE have been examined, along with the memoir of the area. The site is shown to be underlain by undifferentiated Carboniferous Middle Coal Measures strata, dating to the Duckmantian (Westphalian B) era. Surface bedrock will likely be in the form of mudstone.

The maps show the site to be on mudstone and sandstone between the Low Beamshaw Coal which outcrops just beyond the northwestern corner of the site and the Kents Coal shown to outcrop to the southwest of the site. Strata are shown to be dipping to the northeast by around 5 degrees.

No superficial drift deposits are shown in the site area. However, Geological Sheet SE30SW shows an area of made ground to be present within the northern part of the site, extending to the southern extent of the existing school building.

The nearest geological fault is conjectured approximately 50m north of the site, trending on a more or less east-west axis. Strata are downthrown to the north.

5. **HYDROGEOLOGY**

The Environment Agency show that the underlying Coal Measures strata are categorised as a Secondary A aquifer (formerly minor aquifer). The Environment Agency groundwater quality maps indicate that chemical quality is currently regarded as poor and is predicted to remain poor by 2015.

The site is not located within a groundwater source protection zone and there are no abstraction licenses within 250m of the site. The nearest surface water feature is Snape Sike approximately 114m to the northeast of the site and is recorded to flow in a southeasterly direction.

All relevant EA maps are appended.

6. MINING

The presence of rock and mineral seams, including coal, which may have been mined or quarried in the area has been determined from the published geological maps, the memoir of the area and appended Coal Authority report, dated 9 September 2011.

The published geological records indicate the Low Beamshaw Coal seam to outcrop just beyond the northeastern corner of the site, dipping away from the site to the northeast. The memoir records the Low Beamshaw seam to be of little value around Barnsley, and because it will have been weathered and further deteriorated near outcrop, it is unlikely to have been extracted around its outcrop.

The Kents Thin Coal (0.62m to 1.52m thick) seam is anticipated to underlie the site at depths of between 10m to 12m bgl towards the southwestern of the site, increasing in depth to around 18m to 20m bgl towards the northeast of the site. The memoir does not state whether the seam was of particular economic value or extensively worked across the region.

The 0.86m to 1.17m thick Kents Thick Coal seam is recorded 40m to 60m bgl under the site. The seam is recorded to have been worked extensively as a house coal in certain localities across the region, particularly in the north of the area, but is reported to be a worthless mass of coal streaks and black shale around the south and west of Barnsley, so is unlikely to have been of great economic value in the vicinity of the site. However, the abundance of historic air shafts noted in the surrounding area would suggest that mining activities were extensive across the region and the shallow depth coal seams beneath the site may have been worked along with deeper seated seams.

The Coal Authority report states that the site is within the likely zone of physical influence from workings in five seams of coal at 100m to 450m depth and is last recorded to have been worked in 1970. Any associated ground movement should have stopped by now.

The report also states that the Coal Authority believe there is coal at, or close to, the surface which could have been mined at sometime in the past. This will be referring to the Low Beamshaw, Kents Thin and Kents Thick seams mentioned previously.

There are no recorded mine entries on or within 20m of the site. The risk associated with unrecorded shafts can be considered as **moderate**.

Several historic sandstone quarries have been identified in the surrounding area. However, none have been recorded within the immediate vicinity of the site. The risk of unrecorded quarrying on the site can therefore be deemed as **low**.

7. ENVIRONMENTAL ENQUIRY

A Landmark Envirocheck report, dated 7 September 2011, indicates the presence of a historic landfill site around 58m southwest of the site (Map ID 28) known as Land at Rear of Ward Green. The site is recorded to have been operated by Barnsley Metropolitan Borough Council between 31 July 1981 and 31 July 1989, accepting inert, commercial and industrial waste materials. It is not known whether any leachate or gas control measures were in place during operation of the landfill.

The Envirocheck report also highlights the presence of two further landfill sites within 250m of the site (Map ID's 30 and 32), however, it would appear these correlate to the aforementioned landfill site (Map ID 28). This is confirmed by Environment Agency records, which show the outline of the historic landfill site to cover the whole area of the three separate Map ID points. The Environment Agency also confirm the site is recorded to have accepted inert, commercial and industrial waste types. However, the records for Map ID 32 state that the site was authorised to accept wastes including demolition waste, excavated natural materials, horticultural and landscape industrial waste but was prohibited from accepting liquids or slurry in containers with more than a 4 litre capacity.

A discharge consent for Yorkshire Water Services Ltd is recorded 208m west of the site (Map ID 1) off Genn Lane, Ward Green. The consent involves discharging storm waters into a tributary stream of Worsbrough Reservoir.

The Envirocheck report highlights the presence of two pollution incidents to controlled waters in the vicinity of the site, the first of which (Map ID 11) was recorded 21m north of the site, dating back to 3 August 1989. The cause of the incident is not given but was categorised as having a significant severity. The second recorded incident (Map ID 12) occurred around 97m northeast of the site on 19 July 1994. The cause of the incident is not given but was again categorised as having a significant severity.

Environment Agency searches do not indicate the presence of any further recorded pollution incidents or sources of potential industrial pollution within 250m of the site.

The relevant Landmark pages and Environment Agency maps/searches are appended.

8. SITE WALKOVER

As part of the desk study assessment, a site walkover visit was undertaken on 7 September 2011 to determine the presence of any visually identifiable features or potential contamination sources that may pose a risk to future site end-users. The position of features observed during the walkover visit were assessed relative to

existing features and their approximate locations are shown on Fig 3, along with any relevant annotations.

The existing school building was found to be in a derelict state with the windows boarded up and warning signs placed around the perimeter of the building. The building has a covering of tiles and concrete panels.

A metal chimney (approx. 0.5m diameter) was identified to the north of the existing building, entering into the building immediately to the east of its location, which is likely the boiler house of the school. Other evidence of services were noted to the north of the existing building, including a service box housing a small motor and a series of three outbuildings to the northeast of the service box, one of which housed a mains gas service. See Fig 3. Although the gas service will probably have been disconnected when the building was abandoned, the stop lever was noted to be in the "on" position. The easterly most outbuilding was observed to have suffered fire damage, with the roofing timbers and wooden doors charred.

The caretaker's bungalow located towards the southeast of the site was of a brick construction. No visual signs of movement or stressing were observed on the external faces of the bungalow. It was not possible to gain access into the rear garden of the property.

No indication of the historic well or tank that were identified towards the southeast of the site were noted during the site walkover visit undertaken. See Fig 3.

A brick retaining wall of up to approximately 6m height forms the northern site boundary. Several buttresses were noted along the wall but no obvious visual signs of movement or failure of the wall was noted.

Ground levels across the site generally reduce to the south and east, in line with the surrounding topography. An approximate difference in relative level of around 10m was estimated from the northwestern corner to the southeastern corner of the site. From the northern site boundary ground levels reduce down a steep grassed embankment by around 3m, onto a tarmac path which follows the perimeter of the existing school building. The existing building appears to be seated on a more or less even plateau, with ground levels reducing again from the south of the building by around 2.5m, onto the lower tarmac covered playground area. From here ground levels across the tarmac area fall gently to the south and east, with the gradient then increasing again from the southern extent of the tarmac to the southern site boundary.

Evidence of past investigation was noted on the ground surface during the walkover visit. Namely a series of previous window sample holes (PWS's) and evidence of disturbed ground which may be indicative of rotary openhole borehole techniques. At two of the locations, a position reference was identified (PWS04 and PWS05) on the ground adjacent to the hole. These reference numbers were recorded and used to correlate the locations. Other larger areas of disturbed ground are believed to be evidence of previous trial pits (PTP's) having been excavated around the site. The approximate locations of previous exploratory holes or areas of disturbed ground are provided on Fig 3.

A previous window sample hole was found to have a gas monitoring standpipe installation protected by a lockable flush metal stopcock cover. The standpipe was found to consist of a 50mm diameter pipe and extended to a depth of 2.06m bgl. No indication of any groundwater was encountered by dipping the hole with a tape measure.

9. **LABORATORY TESTING**

No laboratory testing has been undertaken at this stage.

10. **GROUND CONDITIONS**

In accordance with the geological records of the region, the anticipated ground conditions are topsoil and made ground, with deeper made ground under raised areas. Residual soils and weathered mudstone bedrock are anticipated directly beneath the made ground deposits.

A coal seam is shown to outcrop southwest of the site, dipping to the northeast, under the site at shallow depth. Other worked seams are recorded at greater depths.

11. **ENVIRONMENTAL ASSESSMENT**

11.1 **General**

Contaminated land is defined under law through Part IIA of the Environmental Protection Act 1990, implemented through Section 57 of the Environment Act 1995. This supports a 'suitable for use' based approach to the risk assessment of contaminated land. The evaluation is based upon an assessment of plausible pollutant linkages, referred to as the **contaminant - pathway - receptor** model, based upon the current or proposed use of the site.

Part IIA states for land to be considered contaminated by the local authority in whose area it is situated it needs to be in such a condition, by reason of substance in on or under the land that :

1. Significant harm is being caused or there is significant possibility of such harm being caused.
2. Pollution of controlled waters is being or is likely to be caused.

11.2 Contamination Assessment

11.2.1 On-Site Contamination

The potential risk of contamination on the site has been assessed by reference to the tables in Appendix A.

The historic records show the site to have been occupied by farm buildings with a tank (unknown use) before construction of the existing school building and bungalow, with a subsequent **low** to **moderate** risk of contamination.

Given the date the tank is first recorded (1906), it is likely the tank was used to store either water or slurry used for the farm rather than being used to hold fuel. However, it is recommended that the area of the former tank is investigated and relevant contamination testing, including PAH-16 testing, is undertaken. If any indication of oil is observed in the area around the tank further TPH testing may be required.

Depending on the materials used to infill the historic well, this could be another source of potential contamination and it is recommended that this area is investigated to determine the exact location of the well and the nature of the materials used to infill the well.

The unknown type of made ground deposits that are recorded on the geological records over the northern part of the site may be another source of potential on-site contamination. If this material was a discard from surrounding historic collieries, elevated levels of metals (particularly Arsenic) and high a sulphur content should be anticipated.

It was not possible to enter the existing building during the site walkover visit. The presence of asbestos materials inside the existing building should be considered and if found relevant health and safety precautions put in place.

No indication of any chemical or fuel stores were noted outside of the existing building. Although it is presumed the school building was more recently heat using mains gas, given the large diameter (~0.5m) metal chimney observed and construction date of the school, it is probable that the building was originally heated using solid fuel. Given the geographic location of the site this will have likely been using coal but could have been oil. It is recommended that the area around the chimney and boiler house is inspected for any visual or olfactory signs of contamination prior to or during demolition of the building. Should any indication of any oil contamination be observed, relevant TPH testing should be undertaken.

Without chemical testing it is not possible to determine the presence and extent of any possible on site hotspots as there was no surface evidence or visually identified potential sources of contamination. However, the presence of localised hotspots should be anticipated, but if found they are not expected to be severe or widespread.

11.2.2 Off-Site Contamination

A historic landfill site has been identified 58m southwest of the site, in the adjacent Ward Green Community Park. The site is recorded to have accepted inert, commercial and industrial wastes from July 1981 to July 1989.

Another source of potential off-site contamination would be a historic Smithy located around 105m northeast from the site.

11.2.3 Potential Receptors

- Future site users.
- Vegetation.
- Construction workers.
- Surface water.
- Groundwater.
- Buildings/substructures.
- Adjacent site users.

11.2.4 Potential Pathways

- Dermal contact (indoor & outdoor).
- Ingestion of soil and indoor dust.
- Consumption of home grown produce and attached soil.
- Indirect ingestion (indoor & outdoor).
- Inhalation of dust (indoor & outdoor).
- Inhalation of vapours (indoor & outdoor).
- Leaching to groundwater.
- Surface water run-off.
- Direct contact with substructures.

11.2.5 Proposed Site Use

The current development proposal for the site is for a residential care home and parking facilities. This end-use is classified as **moderate** sensitivity. Future site users are unlikely to have direct contact with garden soil materials and will not be exposed indirectly to contaminants through uptake by any vegetables grown in any soft landscaped areas.

11.3 Ground Gas

Radon levels have been assessed in accordance with HPA-RPD-033:2007, which illustrates the site to be located in an area where radon protection measures **are not** required. BGS Maps confirm the above, with the Middle Coal Measures strata recorded as having a **moderate** potential for radon emissions. The Envirocheck report also confirms the above indicating that the site is in an intermediate probability radon area and radon protective measures **are not** necessary in the construction of new dwellings.

With the presence of historic landfill sites within 250m of the site and with the potential for deepened areas of made ground beneath the site, ground gas monitoring is recommended to determine the extent of any special ground gas protection measures required for any new buildings on the site. Given the moderate sensitivity of the proposed development, a minimum of six monitoring visits over a period of 12 weeks (3 months) are recommended, as per CIRIA C665 and NHBC guidance.

11.4 **Flood Risk**

The site is not shown to lie within an area deemed by the Environment Agency to be at risk from flooding.

11.5 **Japanese Knotweed**

The existing vegetation in and around the site has been examined. No obvious signs of Japanese Knotweed or other invasive plants were visible. However, because any invasive plants could have been surface stripped or weedkiller applied to the stems prior to a site visit, not seeing the weeds during our time on site cannot be a guarantee that they are not present on or around the site.

11.6 **Risk Assessment**

Risk has been assessed with regard to the tables in Appendix A and is based on the findings of the desk study data presented above.

Without chemical testing it is not possible to determine the presence and extent of any contamination hotspots in the underlying ground materials. Of particular risk are the unknown made ground materials that are recorded beneath the northern part of the site and an area towards the southeast of the site where a historic tank was located. The overall risk rating associated with on-site contamination can therefore be regarded as **moderate**.

Several sources of potential off-site contamination have been identified within the surrounding area and have been regarded as having a **moderate** risk potential to future site users. This includes a historic landfill site recorded around 58m southwest of the site which operated between July 1981 and July 1989.

Along with the potential for deepened areas of made ground anticipated over the northern half of the site, this gives rise to a **moderate to high** risk potential for ground gases beneath the site. Ground gas monitoring and risk assessment would be required to determine the concentration of any ground gases beneath the site and the requirement for any special ground gas precautionary measures.

11.7 Conceptual Model

The conceptual model is based on the source-pathway-receptor model and uses the information presented above to represent the potential risks posed to human health and environmental receptors from both on and off site contaminant sources.

The conceptual model is shown graphically on Fig. 4 and tabulated on Fig 5. See Appendix B for conceptual model risk matrix.

11.8 Remediation Requirements

Chemical testing would be required to determine the presence and extent of any contamination hotspots in the underlying ground materials and whether any remedial measures are required prior to development of the site.

12 ENGINEERING CONSIDERATIONS

12.1 General

An outline plan was available when completing this report. A residential care home and parking facilities are to be constructed at, or close to, existing ground levels. The proposed ground loadings were not known, but for the purpose of this report are assumed to be less than 150 kN/m². If there are any changes to these proposals, then some modification to the comments and recommendations given may be required.

12.2 Mining

With the Kents Thin coal seam at an anticipated depth of 10-12m beneath the southwestern corner of the site, with a potential seam thickness of up to 1.52m, there is a **high** risk of an insufficient thickness of rock cover above any potential mine workings. The more extensively worked Kents Thick Coal should be at sufficient depth not to be a concern. However, this will need to be confirmed.

It is therefore recommended that a shallow mining investigation is undertaken to determine the presence and thickness of any shallow mine workings beneath the footprint of any proposed buildings.

12.3 Foundations

Dependent on the findings of a shallow mining investigation, lightly reinforced strip footings founding at least 250mm into very stiff residual clay or weathered mudstone bedrock can be considered at this stage to provide a nett allowable bearing pressure of at least 150kN/m².

Some deepening of foundations may be required where within the zone of influence of trees, in accordance with NHBC Ch.4.2. If foundations need to be stepped they should be done so in accordance with Building Standards requirements.

If shallow mine workings were found to be a concern, the level of foundation reinforcement and footing width may need to be increased following grouting of any underlying mine workings beneath the footprint of any proposed buildings.

12.4 Floor Slabs

Given the unknown ground conditions and potential for deepened areas of made ground, suspended floors are recommended unless investigation indicates otherwise.

12.5 Highways & Hardstanding

Highways and hardstanding will need to be constructed on re-engineered material. For design purposes a CBR of 2.5% may be assumed provided the formation is proof rolled and any soft spots are removed.

12.6 Drainage & Excavatability

Some difficulties in excavation in the bedrock, and collapse of trenches for sewers and foundations in deepened areas of made ground should be anticipated. Consideration should be given to providing safe temporary support of excavations within made ground or where greater than 1.2m deep.

Care would need to be taken on the north boundary not to undermine or destabilise the retaining wall.

In light of the anticipated geology, soakaways are unlikely to be suitable for this site unless suitable sandstone bands or open fractures are found in the underlying Middle Coal Measures bedrock. If soakaways are to be considered, it is recommended that soakaway tests are carried out at proposed soakaway locations to determine their suitability and the size of soakaway required. These should be placed at least 5m from proposed or existing properties.

12.7 Chemical Precautions

Without chemical testing results sulphate resistant cement should be used for all concrete substructures.

12.8 Ground Source Heating

Providing space heating and hot water using ground source heating could be considered for this site. This would be particularly beneficial considering the size of the proposed development and the potential need for constant heating.

With the current development proposals, it would be most efficient to install vertical ground loop collectors into the underlying Middle Coal Measures strata.

The final depth of ground loop installation will be dependent on the presence of any mine workings in the underlying coal seams. Assuming no mine workings, a typical 100m ground loop installation would provide an average thermal conductivity in the order of 2.8W/mK, based on the anticipated geology beneath the site. It is recommended that a further assessment of the underlying geology and associated thermal properties is undertaken following an intrusive site investigation has confirmed the anticipated ground conditions and whether the depth of ground loop collectors would be limited due to the presence of mine workings beneath the proposed installation area.

Alongside the vertical ground loop collectors, consideration could be given to installing heat collection pipes beneath proposed tarmac covered parking areas. Particularly during the summer months, this would allow any heat absorbed by the tarmac to be extracted and used to contribute to the heating requirements of the building or circulated back into the ground to help replenish any heat extracted, increasing the overall efficiency of the ground source heating system.

If this method of heating is to be considered, the heating demand for the proposed building would need to be calculated. With a known heat demand, we would be pleased to design the most suitable ground loop configuration for this development.

13. REGULATORY APPROVAL

The recommendations given in this report are based on the findings of the desk study, undertaken as described. The conclusions cannot be guaranteed to gain regulatory approval, should the report be required as part of a planning application. If it is required as such, it should therefore be passed to the appropriate authorities for comment and approval, prior to undertaking any remediation or development work.

14. DISPOSAL OF SOILS

Any wastes arising from remediation and/or development of the site, such as excess spoil or material deemed unsuitable for retention on site, should be disposed of in accordance with the Duty of Care Regulations. Waste Acceptance Criteria (WAC) analysis may be required to determine the most appropriate disposal facility for the waste, in accordance with the requirements of the current Landfill Directive.

15. FURTHER INVESTIGATION

An intrusive site investigation, including a shallow mining investigation, is recommended prior to the commencement of any groundworks to assess the ground conditions across the site and obtain samples for relevant environmental and geotechnical testing. The installation of ground gas monitoring standpipes and subsequent gas monitoring is also recommended given the proximity to a historic landfill site and the potential for deepened areas of made ground beneath the site.

As specific sources of potential contamination have been highlighted then targeted exploratory holes locations and sampling will need to be employed adjacent to these sources, with non-targeted sampling used on the remainder of the site.

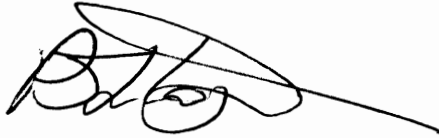
The location of exploratory holes will be restricted by existing buildings and services, if they are present at the time of investigation.

16. SUMMARY

- The site was occupied by farm buildings before construction of the existing school and outbuildings.
- The anticipated ground conditions are made ground over residual soils and weathered mudstone bedrock.
- A shallow mining investigation is recommended to determine the presence of any mine workings beneath the site. If found, grouting of shallow workings will be required.
- Lightly reinforced strip footings founding at least 250mm into very stiff residual soils or weathered bedrock can be considered at this stage.
- Suspended floors are recommended at this stage.
- Soakaways are unlikely to be suitable for this site. However, if they are being considered soakaway tests would be required to determine their suitability and size of soakaway required.
- Chemical testing would be required to determine the presence and extent of any contamination hotspots in the underlying ground materials.
- A historic landfill site has been recorded around 58m southwest of the site, in the adjacent Ward Green Community Park.
- Ground gas monitoring is recommended to determine the presence and concentration of any landfill and ground gases beneath the site.
- The site does not lie within an area susceptible to 100 year flooding.

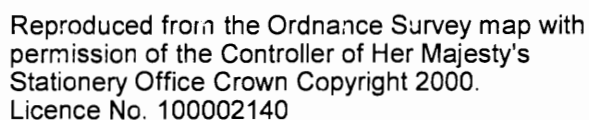
- An intrusive site investigation, including a shallow mining investigation, is recommended prior to development of this site.

For and on behalf of Abbeydale BEC Ltd.

A handwritten signature in black ink, appearing to read 'P. J. Lloyd', with a long horizontal stroke extending to the right.

Peter J Lloyd BSc. MSc. C.Geol FGS.
Senior Geologist
Report 552008DS September 2011.

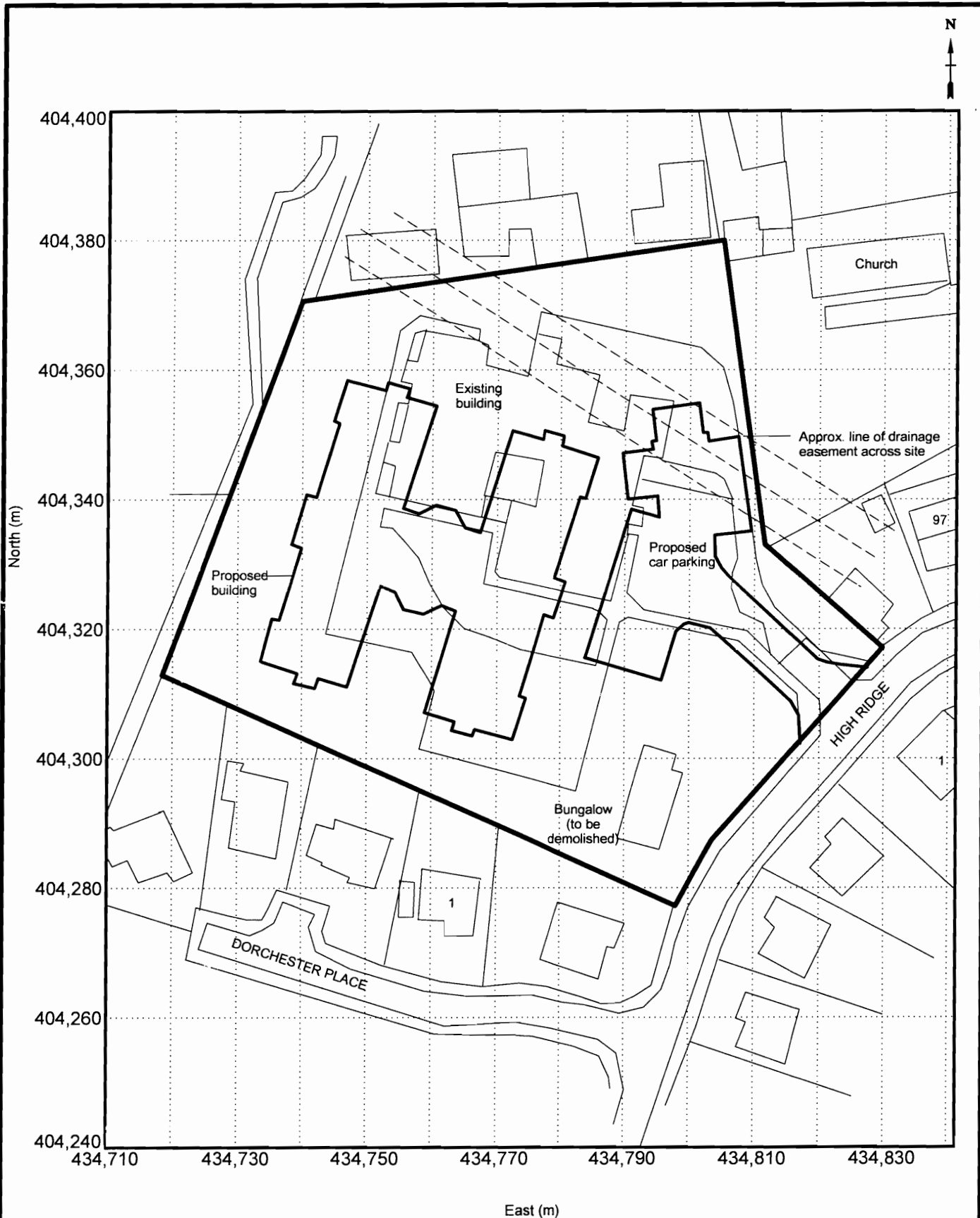
FIGURES



KEY PLAN

Number: 552008

Fig 1



SITE PLAN

Client: LNT Construction Ltd

Project: High Ridge, Ward Green, Barnsley

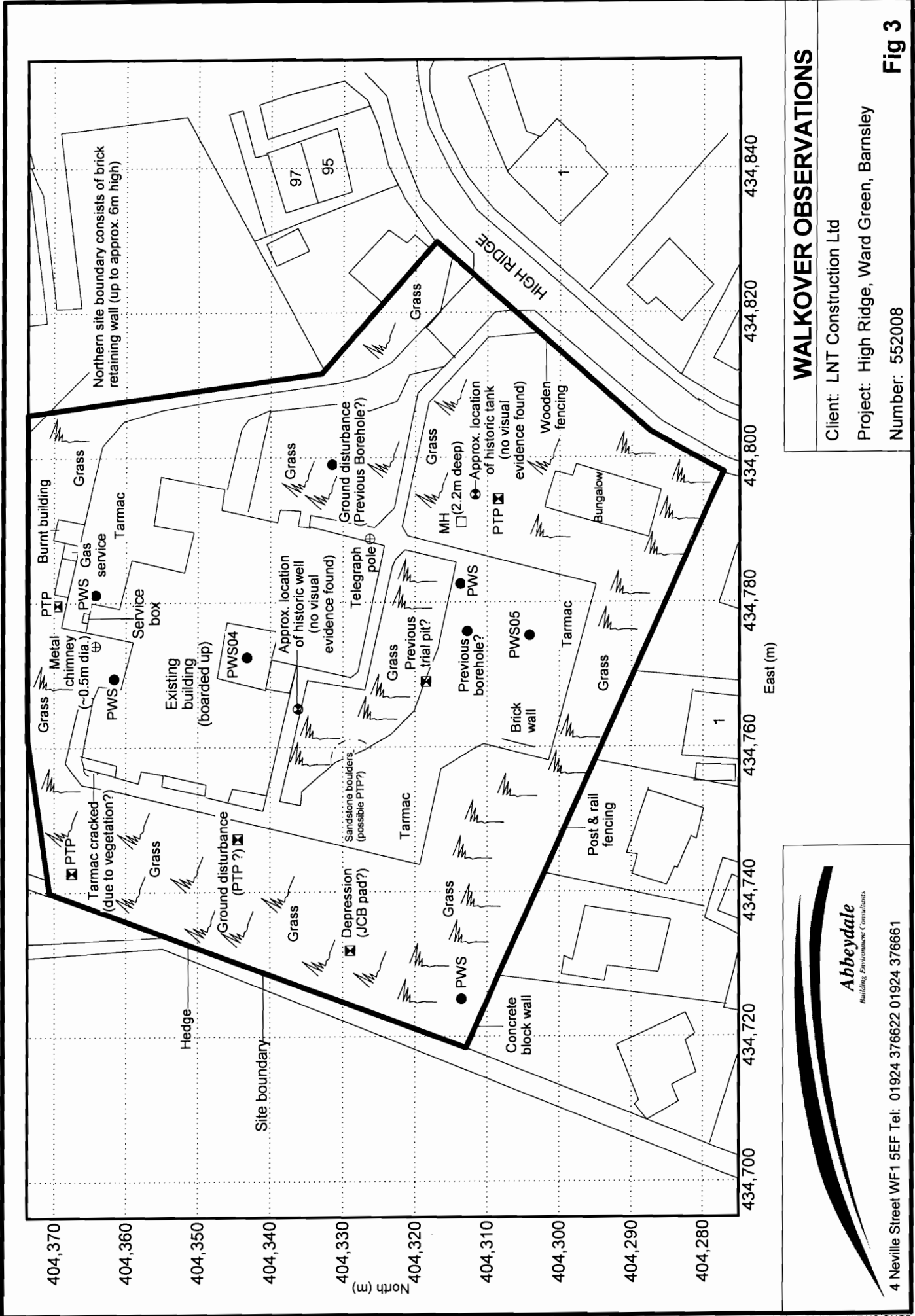
Number: 552008

Fig 2



Abbeydale
Building Environment Consultants

4 Neville Street WF1 5EF Tel: 01924 376622 01924 376661



WALKOVER OBSERVATIONS

Client: LNT Construction Ltd
Project: High Ridge, Ward Green, Barnsley
Number: 552008

Fig 3



4 Neville Street WF1 5EF Tel: 01924 376622 01924 376661

Number	Potential Hazard	Potential Source	Potential Pathway	Receptor	Current anticipated risk (1) - 100%	Comment	Action	Anticipated risk after action -
1	Metals	Made Ground	Ingestion of soil and indoor dust	Residents	Moderate / 100%	Site Investigation required	Subject to SI findings	Low
2	PAH	Made Ground	Ingestion of soil and indoor dust	Residents	Moderate / 100%	Site Investigation required	Subject to SI findings	Low
3	TPH	On site storage tank	Inhalation of vapour (outdoor)	Residents	Moderate / Low 100%	Site Investigation required	Subject to SI findings	Low
4	Sulphate	Made Ground	Direct contact	Concrete Sub-structures	Moderate / 100%	Site Investigation required	Subject to SI findings	Low
5	Leachates	Made Ground	Leaching to groundwater	Groundwater	Moderate / 100%	Site Investigation required	Subject to SI findings	Low
6	Asbestos	Existing Building	Inhalation of dust (outdoor)	Residents	Moderate / 100%	Further assessment required	Vigilance during construction	Low
7	Landfill Gas	Off site landfill site	Inhalation of vapour (indoor)	Residents	Moderate / 100%	Monitoring required	Subject to SI findings	Low
8	Mine / Ground Gas	Mine Workings	Inhalation of vapour (indoor)	Residents	Moderate / 100%	Monitoring required	Subject to SI findings	Low
9	Radon	Bedrock	Inhalation of vapour (indoor)	Residents	Moderate / 100%	No risk at levels present	No further action required	Moderate
10	Trees	Off site trees	Direct contact	Buildings / structures	Low / 100%	Further assessment required	Dependant on final development proposals	Low
11	Japanese Knotweed	N/A	Direct contact	Buildings / structures	Low / 100%	None identified during walkover	Vigilance during construction	Low
12	Flooding	N/A	Over land flow	Residents	Very Low / 100%	Not within EA flood risk zone	No further action required	Low

(1) Anticipated risk over percentage site area
• See Appendix B

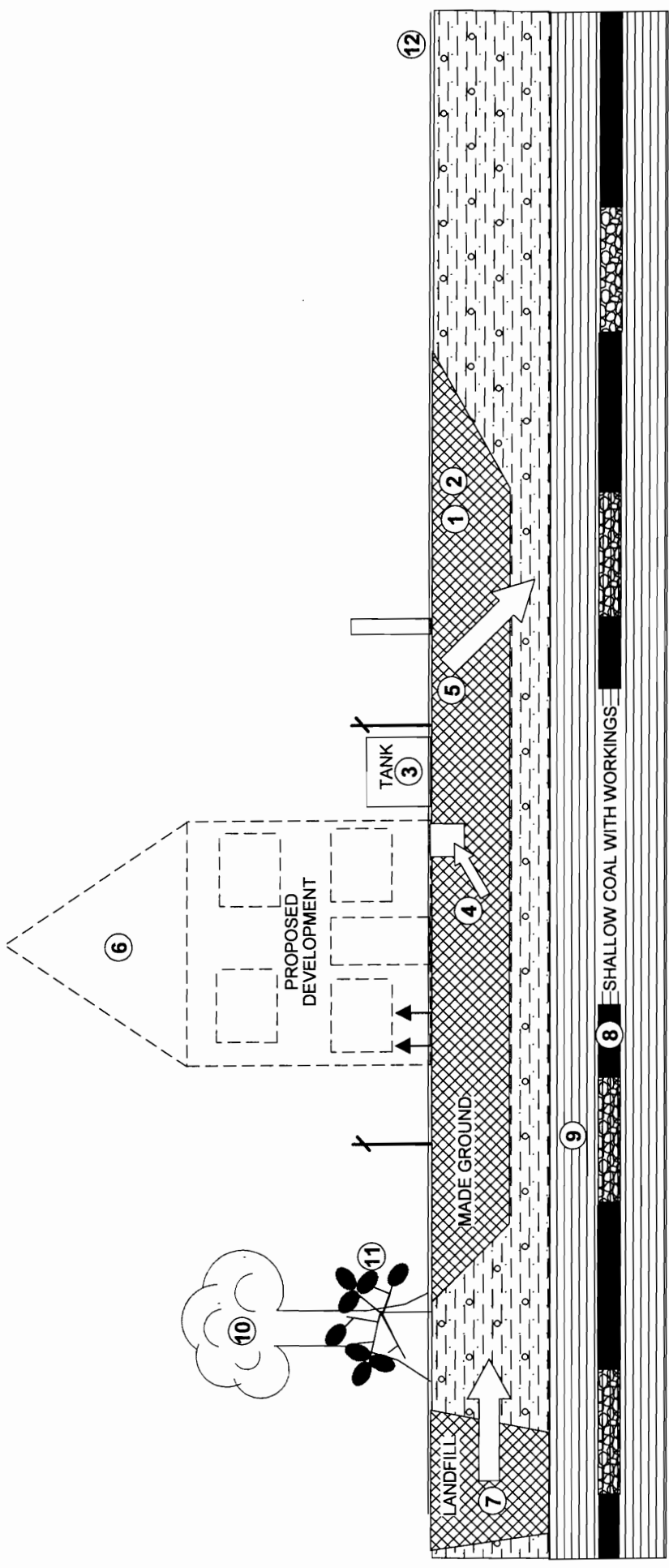


4 Needle Street WF1 5EF Tel: 01924 376622 info@abbeydalebec.com

CONCEPTUAL MODEL TABLE

Client : LNT Construction Ltd
Project : High Ridge, Ward Green, Barnsley
Job No : 552008

Fig 4



Notes: > NOT TO SCALE. This model is schematic only and does not reflect the specific ground conditions identified on or off the site.
> See Fig 4 for Conceptual Model Table

CONCEPTUAL SITE MODEL

Client: LNT Construction Ltd

Project: High Ridge, Ward Green, Barnsley

Number: 552008

Fig 5



Abbeydale
Building Environment Consultants

4 Neville Street WF1 5EF Tel: 01924 376622 01924 376661

COAL MINING REPORT

Issued by:

The Coal Authority, Mining Reports Office, 200 Lichfield Lane, Berry Hill, Mansfield, Nottinghamshire NG18 4RG
ON-Line Service: www.groundstability.com - Phone: 0845 762 6848 - DX 716176 MANSFIELD 5

CUSTOMER SERVICES,
LANDMARK INFORMATION GROUP LIMITED,
ABBAY COURT UNIT 5/7,
EAGLE WAY,
SOWTON INDUSTRIAL ESTATE,
EXETER,
DEVON,
EX2 7HY

Person dealing with this matter:	Keith Pennington
Our reference:	00054665-11
Your reference:	35976698
Electronic Ref:	EME_00016593340001_005
RRUID:	005.00016593340001
Date of your enquiry:	07 September 2011
Date we received your enquiry:	07 September 2011
Date of issue:	09 September 2011

This report is for the property described in the address below and the attached plan.

Non-Residential Coal and Brine Report

Land Off, Vernon Road, Worsbrough, Barnsley, South Yorkshire

This report is based on and limited to the records held by, the Coal Authority, and the Cheshire Brine Subsidence Compensation Board's records, at the time we answer the search.

Coal mining	Yes
Brine Compensation District	No

Information from the Coal Authority

Underground Coal Mining

Past

The property is in the likely zone of influence from workings in 5 seams of coal at 100m to 450m depth, and last worked in 1970.

Any ground movement from these coal workings should have stopped by now.

In addition the property is in an area where the Coal Authority believe there is coal at or close to the surface. This coal may have been worked at some time in the past.

Present

The property is not in the likely zone of influence of any present underground coal workings.

Future

The property is not in an area for which the Coal Authority is determining whether to grant a licence to remove coal using underground methods.

The property is not in an area for which a licence has been granted to remove coal using underground methods.

The property is not in an area that is likely to be affected at the surface from any planned future workings.

However reserves of coal exist in the local area which could be worked at some time in the future.

No notice of the risk of the land being affected by subsidence has been given under section 46 of the Coal Mining Subsidence Act 1991.

Mine entries

There are no known coal mine entries within, or within 20 metres of, the boundary of the property.

Records may be incomplete. Consequently, there may exist in the local area mine entries of which the Coal Authority has no knowledge.

Coal-mining geology

The Authority is not aware of any evidence of damage arising due to geological faults or other lines of weakness that have been affected by coal mining.

Opencast Coal Mining

Past

The property is not within the boundary of an opencast site from which coal has been removed by opencast methods.

Present

The property does not lie within 200 metres of the boundary of an opencast site from which coal is being removed by opencast methods.

Future

The property is not within 800 metres of the boundary of an opencast site for which the Coal Authority is determining whether to grant a licence to remove coal by opencast methods.

The property is not within 800 metres of the boundary of an opencast site for which a licence to remove coal by opencast methods has been granted.

Coal-mining subsidence

The Coal Authority has not received a damage notice or claim for the property since 31 October 1994. There is no current Stop Notice delaying the start of remedial works or repairs to the property.

The Authority is not aware of any request having been made to carry out preventive works before coal is worked under section 33 of the Coal Mining Subsidence Act 1991.

Mine gas

There is no record of a mine gas emission requiring action by the Coal Authority within the boundary of the property.

Hazards related to coal mining

The property has not been subject to remedial works, by or on behalf of the Authority, under its Emergency Surface Hazard Call Out procedures.

Withdrawal of Support

The property is not in an area for which a notice of entitlement to withdraw support has been published.

The property is not in an area for which a notice has been given under section 41 of the Coal Industry Act 1994, revoking the entitlement to withdraw support.

Working Facilities Orders

The property is not in an area for which an Order has been made under the provisions of the Mines (Working Facilities and Support) Acts 1923 and 1966 or any statutory modification or amendment thereof.

Payments to Owners of Former Copyhold Land

The property is not in an area for which a relevant notice has been published under the Coal Industry Act 1975/Coal Industry Act 1994.

Comments on Coal Authority information

In view of the mining circumstances a prudent developer would seek appropriate technical advice before any works are undertaken.

Therefore if development proposals are being considered, technical advice relating to both the investigation of coal and former coal mines and their treatment should be obtained before beginning work on site. All proposals should apply good engineering practice developed for mining areas. No development should be undertaken that intersects, disturbs or interferes with any coal or mines of coal without the permission of the Coal Authority. Developers should be aware that the investigation of coal seams/ former mines of coal may have the potential to generate and/or displace underground gases and these risks both under and adjacent to the development should be fully considered in developing any proposals. The need for effective measures to prevent gases entering into public properties either during investigation or after development also needs to be assessed and properly addressed. This is necessary due to the public safety implications of any development in these circumstances.

Information from the Cheshire Brine Subsidence Compensation Board

The property lies outside the Cheshire Brine Compensation District.

Additional remarks

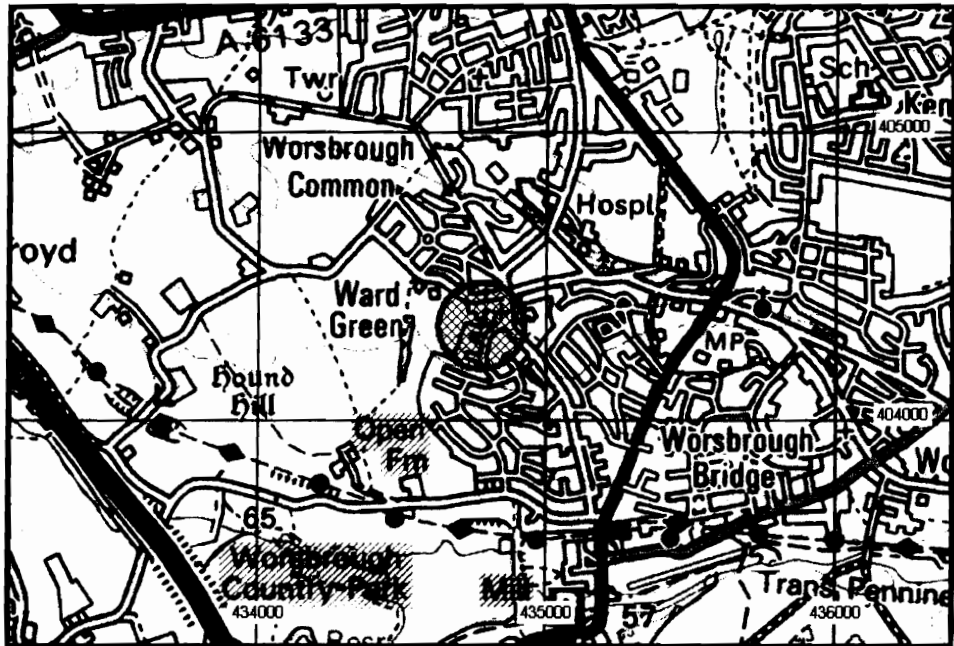
This report is prepared in accordance with the Law Society's Guidance Notes 2006, the User Guide 2006 and the Coal Authority and Cheshire Brine Board's Terms and Conditions 2006. The report is compliant with Home Information Pack requirements.

The Coal Authority owns the copyright in this report. The information we have used to write this report is protected by our database right. All rights are reserved and unauthorised use is prohibited. If we provide a report for you, this does not mean that copyright and any other rights will pass to you. However, you can use the report for your own purposes.

Location map



Approximate
position
of property

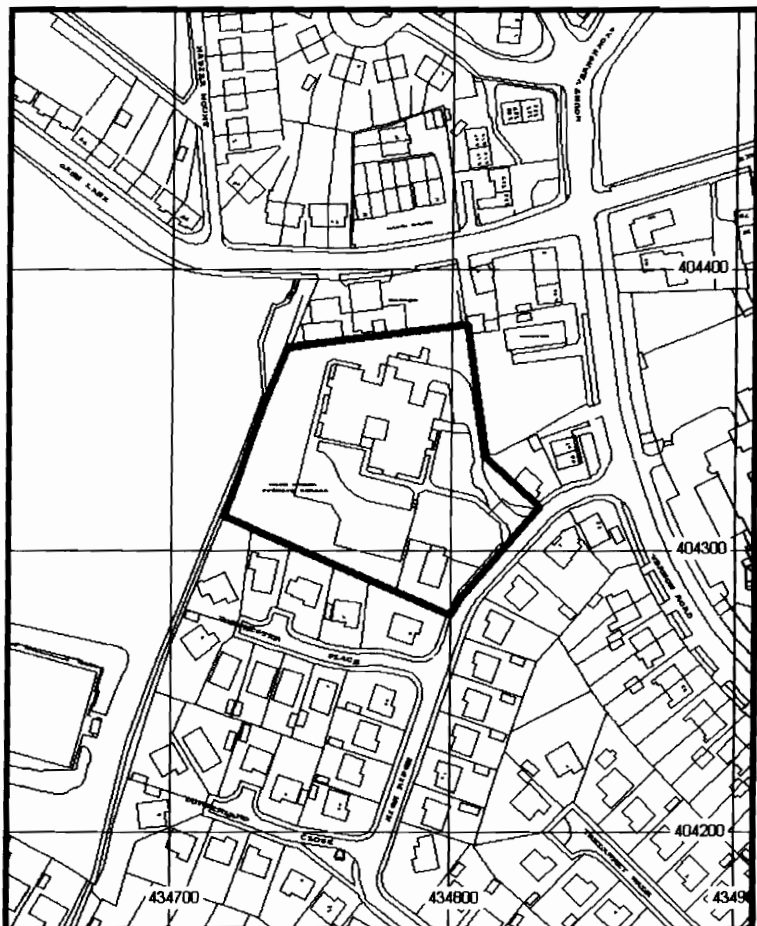


Enquiry boundary

These maps are reproduced from Ordnance Survey material with the permission of Ordnance Survey on behalf of the Controller of Her Majesty's Stationery Office. © Crown copyright. Unauthorised reproduction infringes Crown copyright and may lead to prosecution or civil proceedings. The Coal Authority. Licence number: 100020315. [2006]

Key

Approximate position of enquiry boundary shown



LANDMARK REPORT

Envirocheck[®] Report:

Datasheet

Order Details:

Order Number:

35976698_1_1

Customer Reference:

552008

National Grid Reference:

434780, 404330

Slice:

A

Site Area (Ha):

0.71

Search Buffer (m):

1000

Site Details:

Land Off Vernon Road

Worsbrough

BARNSELY

South Yorkshire

S70 5HJ

Client Details:

Mr P Lloyd

Abbeydale BEC Ltd

4 Neville Street

Wakefield

Yorkshire

WF1 5EF

Report Section	Page Number
Summary	-
Agency & Hydrological	1
Waste	15
Hazardous Substances	-
Geological	17
Industrial Land Use	21
Sensitive Land Use	24
Data Currency	25
Data Suppliers	29
Useful Contacts	30

Introduction

The Environment Act 1995 has made site sensitivity a key issue, as the legislation pays as much attention to the pathways by which contamination could spread, and to the vulnerable targets of contamination, as it does the potential sources of contamination. For this reason, Landmark's Site Sensitivity maps and Datasheet(s) place great emphasis on statutory data provided by the Environment Agency and the Scottish Environment Protection Agency; it also incorporates data from Natural England (and the Scottish and Welsh equivalents) and Local Authorities; and highlights hydrogeological features required by environmental and geotechnical consultants. It does not include any information concerning past uses of land. The datasheet is produced by querying the Landmark database to a distance defined by the client from a site boundary provided by the client.

In the attached datasheet the National Grid References (NGRs) are rounded to the nearest 10m in accordance with Landmark's agreements with a number of Data Suppliers.

Copyright Notice

© Landmark Information Group Limited 2011. The Copyright on the information and data and its format as contained in this Envirocheck® Report ("Report") is the property of Landmark Information Group Limited ("Landmark") and several other Data Providers, including (but not limited to) Ordnance Survey, British Geological Survey, the Environment Agency and Natural England, and must not be reproduced in whole or in part by photocopying or any other method. The Report is supplied under Landmark's Terms and Conditions accepted by the Customer. A copy of Landmark's Terms and Conditions can be found with the Index Map for this report. Additional copies of the Report may be obtained from Landmark, subject to Landmark's charges in force from time to time. The Copyright, design rights and any other intellectual rights shall remain the exclusive property of Landmark and /or other Data providers, whose Copyright material has been included in this Report.

Natural England Copyright Notice

Site of Special Scientific Interest, National Nature Reserve, Ramsar, Special Protection Area, Special Conservation Area, Marine Nature Reserve data (derived from Ordnance Survey 1:10000 raster) is provided by, and used with the permission of, Natural England who retain the copyright and Intellectual Property Rights for the data.

Ove Arup Copyright Notice

The Data provided in this report was obtained on Licence from Ove Arup & Partners Limited (for further information, contact mining.review@arup.com). No reproduction or further use of such Data is to be made without the prior written consent of Ove Arup & Partners Limited. The information and data supplied in the product are derived from publicly available records and other third party sources and neither Ove Arup & Partners nor Landmark warrant the accuracy or completeness of such information or data.

Peter Brett Associates Copyright Notice

The cavity data presented has been extracted from the PBA enhanced version of the original DEFRA national cavity databases. PBA/DEFRA retain the copyright & intellectual property rights in the data. Whilst all reasonable efforts are made to check that the information contained in the cavity databases is accurate we do not warrant that the data is complete or error free. The information is based upon our own researches and those collated from a number of external sources and is continually being augmented and updated by PBA. In no event shall PBA/DEFRA or Landmark be liable for any loss or damage including, without limitation, indirect or consequential loss or damage arising from the use of this data.

Radon Potential dataset Copyright Notice

Information supplied from a joint dataset compiled by The British Geological Survey and the Health Protection Agency.

Report Version v47.0

Data Type	Page Number	On Site	0 to 250m	251 to 500m	501 to 1000m (*up to 2000m)
Agency & Hydrological					
Contaminated Land Register Entries and Notices					
Discharge Consents	pg 1		3		13
Enforcement and Prohibition Notices					
Integrated Pollution Controls					
Integrated Pollution Prevention And Control					
Local Authority Integrated Pollution Prevention And Control					
Local Authority Pollution Prevention and Controls	pg 5				2
Local Authority Pollution Prevention and Control Enforcements					
Nearest Surface Water Feature	pg 5		Yes		
Pollution Incidents to Controlled Waters	pg 5		2		16
Prosecutions Relating to Authorised Processes					
Prosecutions Relating to Controlled Waters					
Registered Radioactive Substances					
River Quality	pg 8				3
River Quality Biology Sampling Points					
River Quality Chemistry Sampling Points					
Substantiated Pollution Incident Register					
Water Abstractions	pg 8				9 (*11)
Water Industry Act Referrals					
Groundwater Vulnerability	pg 13	Yes	n/a	n/a	n/a
Bedrock Aquifer Designations	pg 13	Yes	n/a	n/a	n/a
Superficial Aquifer Designations			n/a	n/a	n/a
Source Protection Zones					
Extreme Flooding from Rivers or Sea without Defences				n/a	n/a
Flooding from Rivers or Sea without Defences				n/a	n/a
Areas Benefiting from Flood Defences				n/a	n/a
Flood Water Storage Areas				n/a	n/a
Flood Defences				n/a	n/a
Waste					
BGS Recorded Landfill Sites					
Historical Landfill Sites	pg 15		1		1
Integrated Pollution Control Registered Waste Sites					
Licensed Waste Management Facilities (Landfill Boundaries)					
Licensed Waste Management Facilities (Locations)					
Local Authority Recorded Landfill Sites	pg 15		1		1
Registered Landfill Sites	pg 16		1		1
Registered Waste Transfer Sites					
Registered Waste Treatment or Disposal Sites					

Data Type	Page Number	On Site	0 to 250m	251 to 500m	501 to 1000m (*up to 2000m)
Hazardous Substances					
Control of Major Accident Hazards Sites (COMAH)					
Explosive Sites					
Notification of Installations Handling Hazardous Substances (NIHHS)					
Planning Hazardous Substance Consents					
Planning Hazardous Substance Enforcements					
Geological					
BGS Recorded Mineral Sites	pg 17			2	7
BGS 1:625,000 Solid Geology	pg 18	Yes	n/a	n/a	n/a
Brine Compensation Area			n/a	n/a	n/a
Coal Mining Affected Areas	pg 18	Yes	n/a	n/a	n/a
Mining Instability	pg 18	Yes	n/a	n/a	n/a
Man-Made Mining Cavities					
Natural Cavities					
Non Coal Mining Areas of Great Britain	pg 18	Yes	Yes	n/a	n/a
Potential for Collapsible Ground Stability Hazards	pg 18	Yes	Yes	n/a	n/a
Potential for Compressible Ground Stability Hazards	pg 18	Yes		n/a	n/a
Potential for Ground Dissolution Stability Hazards				n/a	n/a
Potential for Landslide Ground Stability Hazards	pg 19	Yes	Yes	n/a	n/a
Potential for Running Sand Ground Stability Hazards	pg 19	Yes		n/a	n/a
Potential for Shrinking or Swelling Clay Ground Stability Hazards	pg 19	Yes	Yes	n/a	n/a
Radon Potential - Radon Affected Areas	pg 20	Yes	n/a	n/a	n/a
Radon Potential - Radon Protection Measures			n/a	n/a	n/a
Industrial Land Use					
Contemporary Trade Directory Entries	pg 21		1	7	17
Fuel Station Entries	pg 23				2

Data Type	Page Number	On Site	0 to 250m	251 to 500m	501 to 1000m (*up to 2000m)
Sensitive Land Use					
Areas of Adopted Green Belt	pg 24	1	1		
Areas of Unadopted Green Belt					
Areas of Outstanding Natural Beauty					
Environmentally Sensitive Areas					
Forest Parks					
Local Nature Reserves	pg 24				1
Marine Nature Reserves					
National Nature Reserves					
National Parks					
Nitrate Sensitive Areas					
Nitrate Vulnerable Zones	pg 24	1			
Ramsar Sites					
Sites of Special Scientific Interest					
Special Areas of Conservation					
Special Protection Areas					

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
1	Discharge Consents Operator: Yorkshire Water Services Ltd Property Type: Sewerage Network - Sewers - Water Company Location: Genn Lane Cso Genn Lane, Ward Green, Barnsley, South Yorkshire Authority: Environment Agency, North East Region Catchment Area: Don Tributaries Reference: C5710 Permit Version: 2 Effective Date: 28th March 2003 Issued Date: 28th March 2003 Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Stw Storm Overflow/Storm Tank - Water Company Discharge: Freshwater Stream/River Environment: Trib Of Worsborough Reservoir Receiving Water: Trib Of Worsborough Reservoir Status: Modified (Water Resources Act 1991, Schedule 10 as amended by Environment Act 1995) Positional Accuracy: Located by supplier to within 10m	A13NW (W)	208	1	434530 404400
1	Discharge Consents Operator: Yorkshire Water Services Ltd Property Type: Sewerage Network - Sewers - Water Company Location: Genn Lane Cso Genn Lane, Ward Green, Barnsley, South Yorkshire Authority: Environment Agency, North East Region Catchment Area: Don Tributaries Reference: C5710 Permit Version: 1 Effective Date: 30th August 1989 Issued Date: 30th August 1989 Revocation Date: 27th March 2003 Discharge Type: Sewage Discharges - Stw Storm Overflow/Storm Tank - Water Company Discharge: Freshwater Stream/River Environment: Trib Of Worsborough Reservoir Receiving Water: Trib Of Worsborough Reservoir Status: Transferred from COPA 1974 Positional Accuracy: Located by supplier to within 10m	A13NW (W)	208	1	434530 404400
1	Discharge Consents Operator: Yorkshire Water Services Ltd Property Type: Not Given Location: Genn Lane, Ward Green, BARNSELY, South Yorkshire Authority: Environment Agency, North East Region Catchment Area: Deame Reference: C5710 Permit Version: Not Supplied Effective Date: Not Supplied Issued Date: Not Supplied Revocation Date: Not Supplied Discharge Type: Storm sewage overflow discharge Discharge: Freshwater Stream/River Environment: Unnamed Tributary Of River Dove Receiving Water: Unnamed Tributary Of River Dove Status: Not Supplied Positional Accuracy: Located by supplier to within 100m	A13NW (W)	217	1	434520 404400
2	Discharge Consents Operator: Head Libraries And Cultural Services Property Type: Mixed Farming Location: Bamsley Mbc Wigfield Farm Haverlan, Ds Lane Worsbrough Authority: Environment Agency, North East Region Catchment Area: Don Tributaries Reference: Wa5887 Permit Version: 1 Effective Date: 9th January 1990 Issued Date: 9th January 1990 Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Final/Treated Effluent - Not Water Company Discharge: Freshwater Stream/River Environment: Trib Of Worsbrough Reservoir Receiving Water: Trib Of Worsbrough Reservoir Status: Transferred from Water Act 1989 Positional Accuracy: Located by supplier to within 100m	A8NW (SW)	649	1	434500 403700

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
Local Authority Pollution Prevention and Controls					
10	Name: Action Stations Location: Upper Sheffield Road, Barnsley, S70 4PN Authority: Barnsley Metropolitan Borough Council, Environmental Health and Trading Standards Permit Reference: epa/14 Dated: 24th March 1999 Process Type: Local Authority Pollution Prevention and Control Description: PG1/14 Petrol filling station Status: Permitted Positional Accuracy: Automatically positioned to the address	A19NW (NE)	870	2	435173 405169
Local Authority Pollution Prevention and Controls					
10	Name: Save Retail Limited Location: Upper Sheffield Road, BARNSELY, South Yorkshire, S70 4PN Authority: Barnsley Metropolitan Borough Council, Environmental Health and Trading Standards Permit Reference: Epa/Petrol01 Dated: Not Supplied Process Type: Local Authority Air Pollution Control Description: PG1/14 Petrol filling station Status: Application Withdrawn Positional Accuracy: Automatically positioned to the address	A19NW (NE)	870	2	435173 405169
Nearest Surface Water Feature					
		A13NE (NE)	114	-	434909 404427
Pollution Incidents to Controlled Waters					
11	Property Type: Water Company Sewage: Foul Sewer Location: Markers Bridge B6273, /Darfd A635 Dearne 08 Authority: Environment Agency, North East Region Pollutant: Unknown Sewage Note: Not Supplied Incident Date: 3rd August 1989 Incident Reference: 102046 Catchment Area: Not Given Receiving Water: Freshwater Stream/River Cause of Incident: Not Given Incident Severity: Category 2 - Significant Incident Positional Accuracy: Located by supplier to within 100m	A13NE (N)	21	1	434800 404400
Pollution Incidents to Controlled Waters					
12	Property Type: Miscellaneous Premises: Unknown Location: Darfield/Source Dove(S) Afu Authority: Environment Agency, North East Region Pollutant: Mud/Clay/Soil Note: Not Supplied Incident Date: 19th July 1994 Incident Reference: 152752 Catchment Area: Not Given Receiving Water: Freshwater Stream/River Cause of Incident: Not Given Incident Severity: Category 2 - Significant Incident Positional Accuracy: Located by supplier to within 100m	A13NE (NE)	97	1	434900 404400
Pollution Incidents to Controlled Waters					
13	Property Type: Domestic/Residential Location: Darfield/Source Dove(S) Afu Authority: Environment Agency, North East Region Pollutant: Unknown Note: Not Supplied Incident Date: 17th April 1992 Incident Reference: 132456 Catchment Area: Not Given Receiving Water: Freshwater Stream/River Cause of Incident: Not Given Incident Severity: Category 2 - Significant Incident Positional Accuracy: Located by supplier to within 100m	A8NW (S)	611	1	434600 403700
Pollution Incidents to Controlled Waters					
13	Property Type: Water Company Sewage: Surface Water Outfall Location: Tributary Of, Worsbrough Dam Authority: Environment Agency, North East Region Pollutant: Sewage - Storm Overflow Note: Fish Killed: No Information Incident Date: 26th September 1997 Incident Reference: SH970526 Catchment Area: Deame Tributaries Receiving Water: Freshwater Stream/River Cause of Incident: Not Given Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A8NW (S)	614	1	434605 403695

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
23	Pollution Incidents to Controlled Waters				
	Property Type: Not Given Location: Dodworth Dyke At, Inlet To Reservoir Authority: Environment Agency, North East Region Pollutant: Not Given Note: Pollution Found; No Fish Killed Incident Date: 19th July 1996 Incident Reference: SH960313 Catchment Area: Dearne Tributaries Receiving Water: Freshwater Stream/River Cause of Incident: Unknown Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A7SE (SW)	964	1	434200 403500
24	Pollution Incidents to Controlled Waters				
	Property Type: Industrial Premises Location: Darfield/Source Dove(S) Afu Authority: Environment Agency, North East Region Pollutant: Oils - Diesel (Including Agricultural) Note: Not Supplied Incident Date: 7th August 1994 Incident Reference: 152838 Catchment Area: Not Given Receiving Water: Freshwater Stream/River Cause of Incident: Not Given Incident Severity: Category 2 - Significant Incident Positional Accuracy: Located by supplier to within 100m	A9SW (SE)	965	1	435200 403400
	River Quality				
	Name: River_Dove GQA Grade: River Quality C Reach: Worsbrough_Reservoir_Blacker_Dyk Estimated Distance (km): 2.2 Flow Rate: Flow less than 0.31 cumecs Flow Type: River Year: 2000	A8SE (S)	753	1	434776 403525
	River Quality				
	Name: Rockley_Dike GQA Grade: River Quality C Reach: Warren_Dyke_Worsbrough_Reservoi Estimated Distance (km): 1.3 Flow Rate: Flow less than 0.31 cumecs Flow Type: River Year: 2000	A8SW (S)	875	1	434440 403480
	River Quality				
	Name: Dodworth_Dyke GQA Grade: River Quality C Reach: House_Carr_Dyke_Worsbrough_Reservoi Estimated Distance (km): 1.1 Flow Rate: Flow less than 0.31 cumecs Flow Type: River Year: 2000	A8SW (S)	875	1	434440 403480
25	Water Abstractions				
	Operator: Barnsley Metropolitan Borough Council Licence Number: 2/27/08/143 Permit Version: 1 Location: Worsborough Reservoir Authority: Environment Agency, North East Region Abstraction: Municipal grounds: General use relating to Secondary Category (Very Low Loss) Abstraction Type: Water may be abstracted from a single point Source: Surface Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Worsborough Mill, Worsborough, Barnsley Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 14th February 2008 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m	A3NE (S)	978	1	434800 403300

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Water Abstractions Operator: Sheldale Developments Ltd Licence Number: 2/27/08/110 Permit Version: 101 Location: Spring-Sandstone/Middle Coal Measures-Shaw Lane Authority: Environment Agency, North East Region Abstraction: Food And Drink: Water Bottling Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: 43a Shaw Lane, Barnsley, South Yorkshire Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 8th April 2003 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m	A21NE (NW)	1934	1	433700 406000
	Water Abstractions Operator: Sheldale Water Limited Licence Number: 2/27/08/110 Permit Version: 100 Location: Well/Spring - Sandstone/Middle Coal Measures - Shaw Lane Authority: Environment Agency, North East Region Abstraction: Food And Drink: Water Bottling Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): 200 Yearly Rate (m3): 45000 Details: Land Adjoining To Rear Of 43a Shaw Lane, Barnsley, South Yorkshire Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 1st December 1999 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m	A21NE (NW)	1934	1	433700 406000
	Water Abstractions Operator: Sheldale Developments Ltd Licence Number: 2/27/08/133 Permit Version: 1 Location: Spring - Sandstone&Middle Coal Measures - Barnsley Authority: Environment Agency, North East Region Abstraction: Food And Drink: Water Bottling Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: 43a Shaw Lane, Barnsley, South Yorkshire Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 1st January 2004 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	(NW)	1984	1	433700 406060
	Groundwater Vulnerability Soil Classification: Soils of High Leaching Potential (U) - Soil information for restored mineral workings and urban areas is based on fewer observations than elsewhere. A worst case vulnerability classification (H) assumed, until proved otherwise Map Sheet: Sheet 11 South Pennines Scale: 1:100,000	A13NE (N)	0	1	434776 404330
	Drift Deposits None				
	Bedrock Aquifer Designations Aquifer Desination: Secondary Aquifer - A	A13NE (N)	0	3	434776 404330
	Superficial Aquifer Designations No Data Available				
	Extreme Flooding from Rivers or Sea without Defences None				
	Flooding from Rivers or Sea without Defences None				
	Areas Benefiting from Flood Defences None				
	Flood Water Storage Areas None				

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
Historical Landfill Sites					
28	Licence Holder: Public Services Dept, Barnsley Metropolitan Borough Council Location: Community Centre, Genn Lane, Ward Green, Barnsley Name: Land to rear of Ward Green Operator Location: Public Services Department, Cleansing Division Boundary Accuracy: As Supplied Provider Reference: EAHL04319 First Input Date: 31st July 1981 Last Input Date: 31st December 1989 Specified Waste: Deposited Waste included Inert, Industrial and Commercial Waste Type: EA Waste Ref: Not Supplied Regis Ref: Not Supplied WRC Ref: 4400/0414 BGS Ref: Not Supplied Other Ref: WD20 B327, 4400/B327, CS/WG, 20B327(11)	A13SW (SW)	58	1	434687 404264
Historical Landfill Sites					
29	Licence Holder: R J Norman Location: Knowle Road, Barnsley Name: Highfield Farm Operator Location: Highfield Farm, Knowle Road, Barnsley Boundary Accuracy: As Supplied Provider Reference: EAHL04403 First Input Date: 31st January 1981 Last Input Date: 31st December 1983 Specified Waste: Deposited Waste included Inert Waste Type: EA Waste Ref: Not Supplied Regis Ref: Not Supplied WRC Ref: 4400/0480 BGS Ref: Not Supplied Other Ref: WD20 B311, 4400/B311, 20B311(78)	A19SE (NE)	861	1	435600 404711
Local Authority Landfill Coverage					
	Name: Barnsley Metropolitan Borough Council - Has supplied landfill data		0	2	434776 404330
Local Authority Recorded Landfill Sites					
30	Location: Not Supplied Reference: 11 Authority: Barnsley Metropolitan Borough Council, Environmental Health and Trading Standards Last Reported Status: Types of Waste: Not Supplied Date of Closure: Not Supplied Positional Accuracy: Positioned by the supplier Boundary Quality: Moderate	A13SW (W)	92	2	434635 404275
Local Authority Recorded Landfill Sites					
31	Location: Not Supplied Reference: 78 Authority: Barnsley Metropolitan Borough Council, Environmental Health and Trading Standards Last Reported Status: Types of Waste: Not Supplied Date of Closure: Not Supplied Positional Accuracy: Positioned by the supplier Boundary Quality: Moderate	A19SE (NE)	881	2	435608 404742

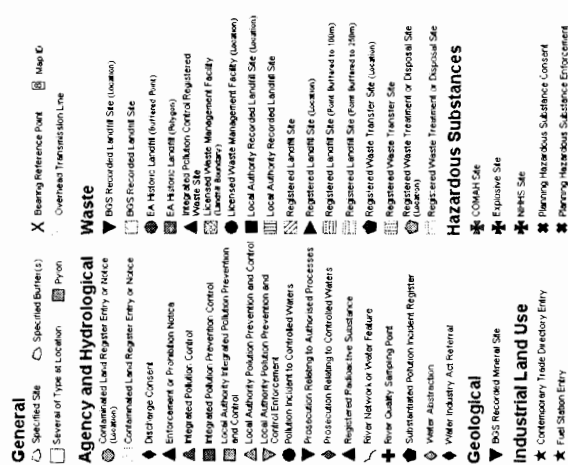
Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
Registered Landfill Sites					
32	Licence Holder: Bamsley M.B.C. Licence Reference: WD20 B 327 Site Location: Ward Green Community Park, Hoyland Nether, Hoyland, Bamsley, South Yorkshire Licence Easting: 434550 Licence Northing: 404350 Operator Location: Cleansing Div. Smithies La.Depot, Bamsley, South Yorkshire Authority: Environment Agency - North East Region, Ridings Area Site Category: Landfill Max Input Rate: Medium (Equal to or greater than 25,000 and less than 75,000 tonnes per year) Waste Source: No known restriction on source of waste Restrictions: Status: Licence lapsed/cancelled/defunct/not applicable/surrenderedCancelled Dated: 1st July 1981 Preceded By: Not Given Licence: Superseded By: Not Given Licence: Positional Accuracy: Manually positioned to the address or location Boundary Accuracy: Not Applicable Authorised Waste: Demolition Waste Excavated Natural Materials \$ Horticultural & Landscape Ind Waste Max.Waste Permitted By Licence(Stated) Prohibited Waste: Liquids In Containers Over 4l Cap. Slurry In Containers Over 4l Cap.	A13NW (W)	173	1	434550 404350
Registered Landfill Sites					
33	Licence Holder: R J Norman Licence Reference: WD20 B 311 Site Location: Highfield Farm, Knowle Road, Bamsley, South Yorkshire Licence Easting: 435650 Licence Northing: 404800 Operator Location: As Site Address Authority: Environment Agency - North East Region, Ridings Area Site Category: Landfill Max Input Rate: Large (Equal to or greater than 75,000 and less than 250,000 tonnes per year) Waste Source: No known restriction on source of waste Restrictions: Status: Licence lapsed/cancelled/defunct/not applicable/surrenderedCancelled Dated: 1st January 1981 Preceded By: Not Given Licence: Superseded By: Not Given Licence: Positional Accuracy: Manually positioned to the address or location Boundary Accuracy: Not Applicable Authorised Waste: Construction And Demolition Wastes	A19SE (NE)	944	1	435650 404800

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
BGS Recorded Mineral Sites					
34	Site Name: High Stone Fold Location: Worsbrough, South Yorkshire Source: British Geological Survey, National Geoscience Information Service Reference: 37865 Type: Opencast Status: Ceased Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Carboniferous Geology: Woolley Edge Rock Commodity: Sandstone Positional Accuracy: Located by supplier to within 10m	A18SE (N)	419	3	434828 404798
BGS Recorded Mineral Sites					
35	Site Name: King Well Location: Worsbrough, South Yorkshire Source: British Geological Survey, National Geoscience Information Service Reference: 37879 Type: Opencast Status: Ceased Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Carboniferous Geology: Woolley Edge Rock Commodity: Sandstone Positional Accuracy: Located by supplier to within 10m	A14NW (NE)	456	3	435233 404536
BGS Recorded Mineral Sites					
36	Site Name: Bell Ing Colliery Location: Worsbrough, South Yorkshire Source: British Geological Survey, National Geoscience Information Service Reference: 37878 Type: Underground Status: Ceased Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Carboniferous Geology: Pennine Middle Coal Measures Formation Commodity: Coal - Deep Positional Accuracy: Located by supplier to within 10m	A14SW (SE)	528	3	435249 403997
BGS Recorded Mineral Sites					
37	Site Name: High Stone Location: Worsbrough, South Yorkshire Source: British Geological Survey, National Geoscience Information Service Reference: 37866 Type: Opencast Status: Ceased Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Carboniferous Geology: Woolley Edge Rock Commodity: Sandstone Positional Accuracy: Located by supplier to within 10m	A18NW (N)	655	3	434629 405016
BGS Recorded Mineral Sites					
38	Site Name: Prince Albert Colliery Location: Worsbrough, South Yorkshire Source: British Geological Survey, National Geoscience Information Service Reference: 37877 Type: Underground Status: Ceased Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Carboniferous Geology: Pennine Middle Coal Measures Formation Commodity: Coal - Deep Positional Accuracy: Located by supplier to within 10m	A7NE (SW)	715	3	434126 403914
BGS Recorded Mineral Sites					
39	Site Name: Worsborough Common Location: Worsbrough, South Yorkshire Source: British Geological Survey, National Geoscience Information Service Reference: 37867 Type: Opencast Status: Ceased Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Carboniferous Geology: Woolley Edge Rock Commodity: Sandstone Positional Accuracy: Located by supplier to within 10m	A18NE (N)	823	3	435044 405167

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
BGS Recorded Mineral Sites					
40	Site Name: Yews Lane Location: Worsbrough, South Yorkshire Source: British Geological Survey, National Geoscience Information Service Reference: 37880 Type: Opencast Status: Ceased Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Carboniferous Geology: Woolley Edge Rock Commodity: Sandstone Positional Accuracy: Located by supplier to within 10m	A14NE (E)	935	3	435758 404427
BGS Recorded Mineral Sites					
41	Site Name: Victoria Colliery Location: Worsbrough, South Yorkshire Source: British Geological Survey, National Geoscience Information Service Reference: 37873 Type: Underground Status: Ceased Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Carboniferous Geology: Pennine Middle Coal Measures Formation Commodity: Coal - Deep Positional Accuracy: Located by supplier to within 10m	A17SW (NW)	983	3	433947 404951
BGS Recorded Mineral Sites					
42	Site Name: Yews Lane Location: Worsbrough, South Yorkshire Source: British Geological Survey, National Geoscience Information Service Reference: 37881 Type: Opencast Status: Ceased Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Carboniferous Geology: Woolley Edge Rock Commodity: Sandstone Positional Accuracy: Located by supplier to within 10m	A15NW (E)	1000	3	435828 404372
BGS 1:625,000 Solid Geology					
	Description: Lower Westphalian (mainly Productive Coal Measures)	A13NE (N)	0	3	434776 404330
Coal Mining Affected Areas					
	Description: In an area which may be affected by coal mining activity. It is recommended that a coal mining report is obtained from the Coal Authority. Contact details are included in the Useful Contacts section of this report.	A13NE (N)	0	4	434776 404330
Mining Instability					
	Mining Evidence: Inconclusive Coal Mining Source: Ove Arup & Partners Boundary Quality: As Supplied	A13NE (N)	0	-	434776 404330
Non Coal Mining Areas of Great Britain					
	Risk: Highly Unlikely Source: British Geological Survey, National Geoscience Information Service	A13NE (N)	0	3	434776 404330
Non Coal Mining Areas of Great Britain					
	Risk: Highly Unlikely Source: British Geological Survey, National Geoscience Information Service	A13NE (E)	170	3	435000 404330
Potential for Collapsible Ground Stability Hazards					
	Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13NE (N)	0	3	434776 404330
Potential for Collapsible Ground Stability Hazards					
	Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13NE (E)	170	3	435000 404330
Potential for Compressible Ground Stability Hazards					
	Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13SE (SE)	0	3	434782 404325
Potential for Compressible Ground Stability Hazards					
	Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13NE (N)	0	3	434776 404330
Potential for Compressible Ground Stability Hazards					
	Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13NE (E)	170	3	435000 404330

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Potential for Ground Dissolution Stability Hazards				
	No Hazard				
	Potential for Landslide Ground Stability Hazards				
	Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13NE (N)	0	3	434776 404330
	Potential for Landslide Ground Stability Hazards				
	Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service	A13NE (NE)	110	3	434874 404465
	Potential for Landslide Ground Stability Hazards				
	Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service	A13SW (SW)	140	3	434650 404186
	Potential for Landslide Ground Stability Hazards				
	Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13NE (E)	170	3	435000 404330
	Potential for Landslide Ground Stability Hazards				
	Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service	A13NE (E)	200	3	435000 404423
	Potential for Landslide Ground Stability Hazards				
	Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service	A13SE (S)	243	3	434841 404039
	Potential for Landslide Ground Stability Hazards				
	Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service	A13SW (SW)	249	3	434527 404155
	Potential for Running Sand Ground Stability Hazards				
	Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13NE (N)	0	3	434776 404330
	Potential for Running Sand Ground Stability Hazards				
	Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13SE (SE)	0	3	434782 404325
	Potential for Running Sand Ground Stability Hazards				
	Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service	A13SW (SW)	0	3	434747 404296
	Potential for Running Sand Ground Stability Hazards				
	Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13SW (SW)	140	3	434650 404186
	Potential for Running Sand Ground Stability Hazards				
	Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13NE (E)	170	3	435000 404330
	Potential for Shrinking or Swelling Clay Ground Stability Hazards				
	Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13SW (SW)	0	3	434747 404296
	Potential for Shrinking or Swelling Clay Ground Stability Hazards				
	Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13NE (N)	0	3	434776 404330
	Potential for Shrinking or Swelling Clay Ground Stability Hazards				
	Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13NE (NE)	80	3	434890 404390
	Potential for Shrinking or Swelling Clay Ground Stability Hazards				
	Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13SW (SW)	140	3	434650 404186
	Potential for Shrinking or Swelling Clay Ground Stability Hazards				
	Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13SW (SW)	163	3	434625 404179
	Potential for Shrinking or Swelling Clay Ground Stability Hazards				
	Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13NE (E)	170	3	435000 404330
	Potential for Shrinking or Swelling Clay Ground Stability Hazards				
	Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13NE (E)	171	3	435000 404332
	Potential for Shrinking or Swelling Clay Ground Stability Hazards				
	Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13SE (E)	178	3	435000 404267

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Potential for Shrinking or Swelling Clay Ground Stability Hazards				
	Hazard Potential: No Hazard	A13SW (SW)	209	3	434543
	Source: British Geological Survey, National Geoscience Information Service				404199
	Radon Potential - Radon Affected Areas				
	Affected Area: The property is in a lower probability radon area, as less than 1% of homes are above the action level	A13NE (NE)	0	3	434800
	Source: British Geological Survey, National Geoscience Information Service				404351
	Radon Potential - Radon Affected Areas				
	Affected Area: The property is in an intermediate probability radon area, as between 1 and 3% of homes are above the action level	A13NE (N)	0	3	434776
	Source: British Geological Survey, National Geoscience Information Service				404330
	Radon Potential - Radon Protection Measures				
	Protection Measure: No radon protective measures are necessary in the construction of new dwellings or extensions	A13NE (NE)	0	3	434800
	Source: British Geological Survey, National Geoscience Information Service				404351
	Radon Potential - Radon Protection Measures				
	Protection Measure: No radon protective measures are necessary in the construction of new dwellings or extensions	A13NE (N)	0	3	434776
	Source: British Geological Survey, National Geoscience Information Service				404330



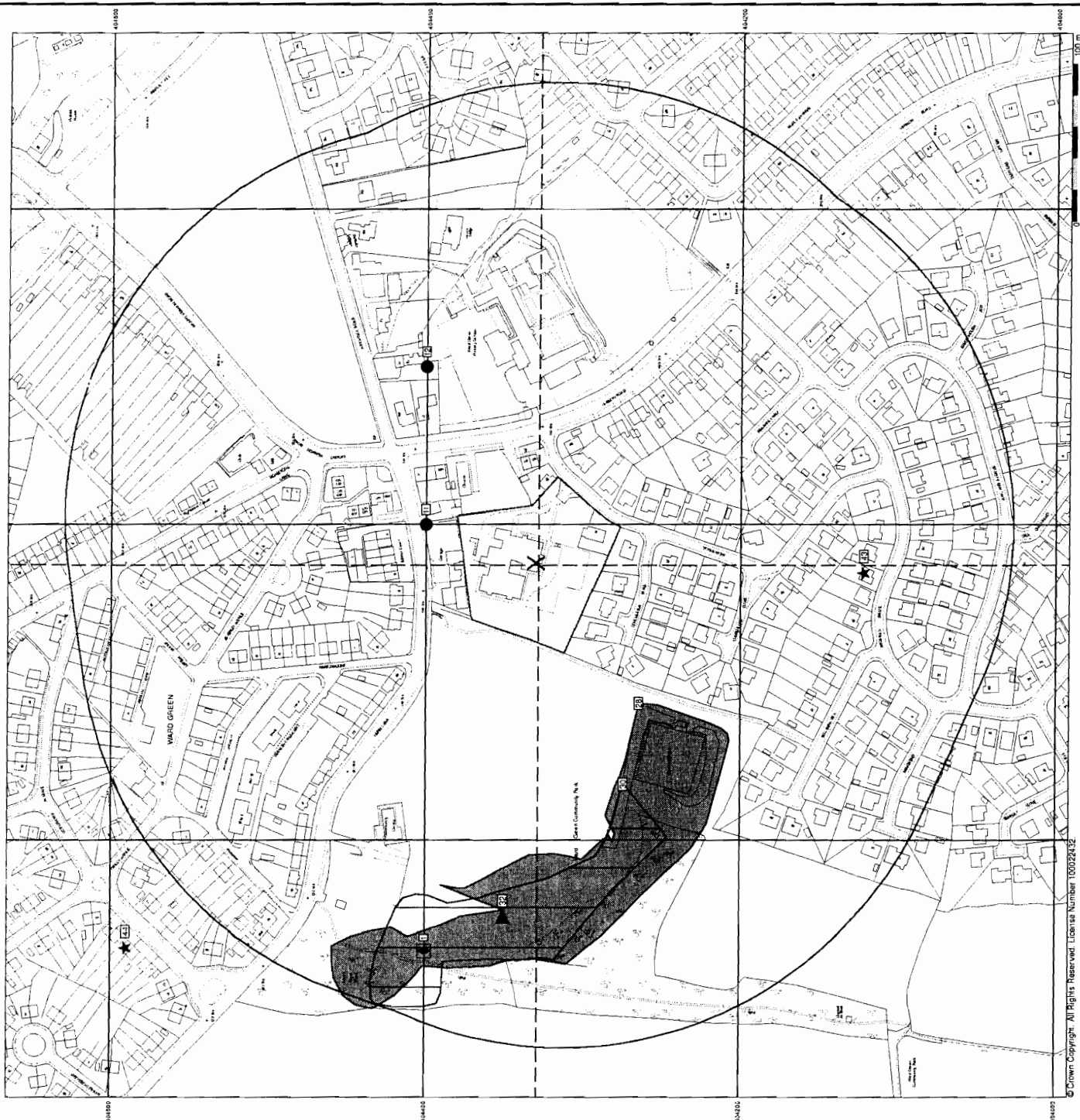
Order Details
Order Number: 35976698_1_1
Customer Ref: 552008
National Grid Reference: 434780, 404330

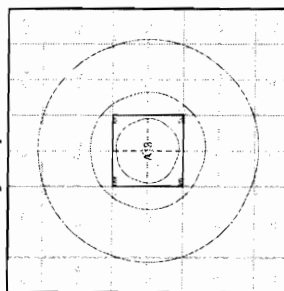
Site Details


Landmark

Tel: 0844 844 9952
Fax: 0844 844 9951
Web: www.envirocheck.co.uk

A Landmark Information Group Service v42.0 07-Sep-2011 Page 1 of 1



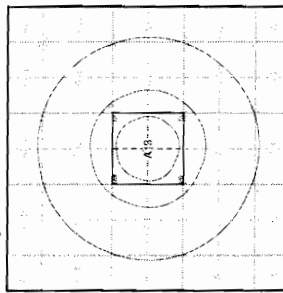


Order Details
Order Number: 35976698_1_1
Customer Ref: 552008
National Grid Reference: 434780, 404330
Slice: A
Site Area (Ha): 0.71
Search Buffer (m): 1000

Site Details
Land Off Vernon Road, Worsbrough, BARNSLEY, South
Yorkshire. S70 5HJ

- General**
- Specified Site
 - Specified Buffer (s)
 - X Bearing Reference Point
- Agency and Hydrological (Flood)**
- Extreme Flooding from Rivers or Sea without Defences (Zone 2)
 - Flooding from Rivers or Sea without Defences (Zone 3)
 - Area Benefiting from Flood Defence
 - Flood Water Storage Areas
 - Flood Defence

Flood Map - Slice A



Order Details

Order Number: 35976698_1_1
 Customer Ref: 552008
 National Grid Reference: 434780, 404330
 Slice: A
 Site Area (Ha): 0.71
 Search Buffer (m): 1000

Site Details

Land Off Vernon Road, Worsbrough, BARNESLEY, South
 Yorkshire, S70 5HJ



General

- ☐ Scheduled Site
- ☐ Nearby Reference Point
- ☐ Map ID
- ☐ Service of Type at Location

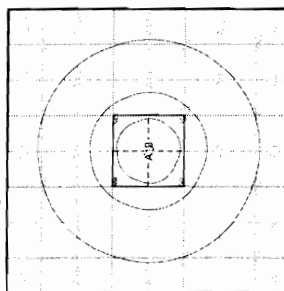
Agency and Hydrological (Boreholes)

- ☐ BGS Borehole Depth 0 - 10m
- ☐ BGS Borehole Depth 10 - 30m
- ☐ BGS Borehole Depth 30m +
- ☐ Contaminated
- ☐ Other

For Borehole information please refer to the Borehole .csv file which accompanied this slice.

A copy of the BGS Borehole Ordering Form is available to download from the Support section of www.envirocheck.co.uk.

Borehole Map - Slice A



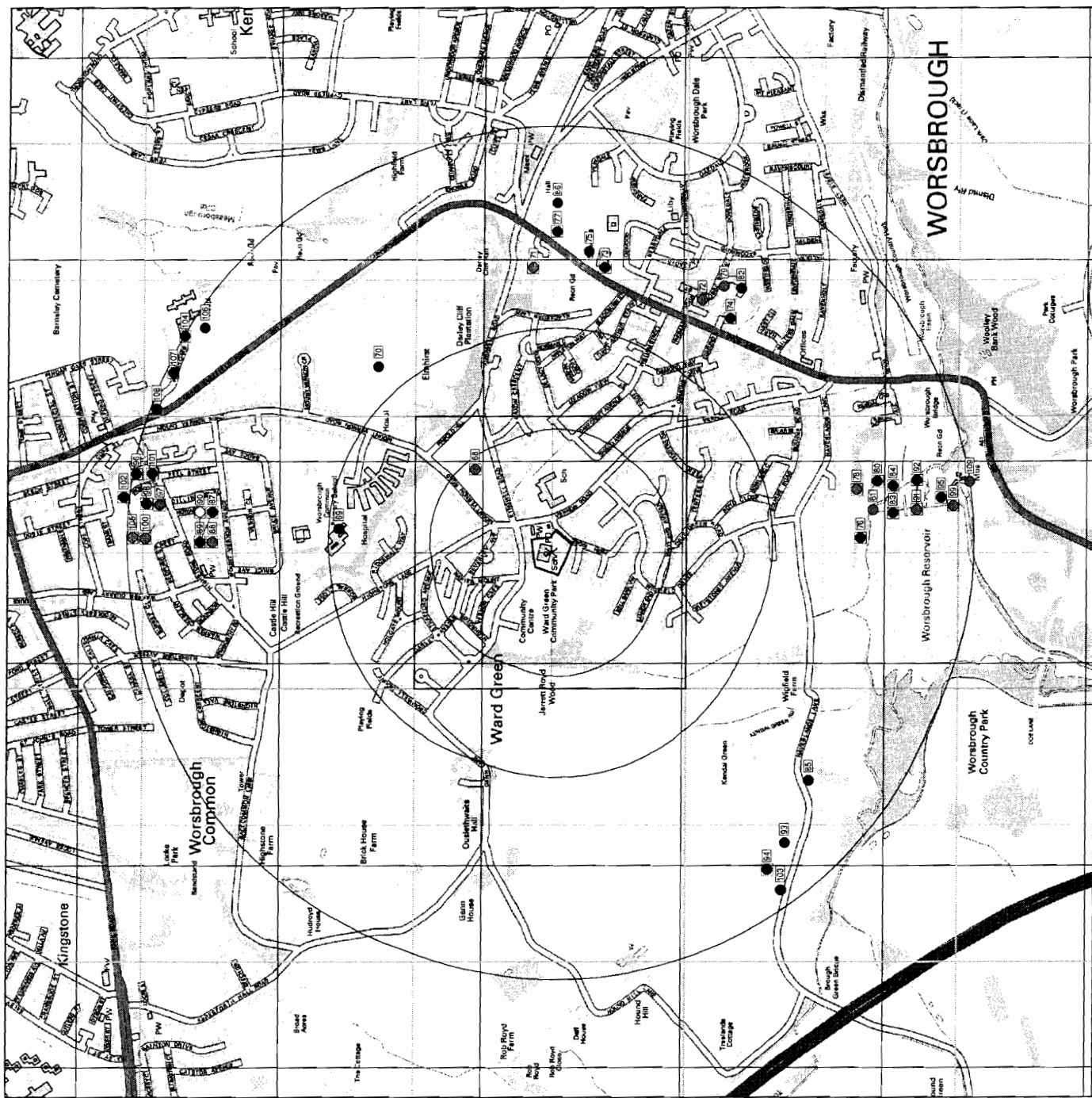
Order Details

Order Number: 35976698_1_1
Customer Ref: 552008
National Grid Reference: 434780, 404330

Site: A
Site Area (Ha): 0.71
Search Buffer (m): 1000

Site Details

Land Off Vernon Road, Worsbrough, BARNESLEY, South
Yorkshire, S70 5HJ



Groundwater Vulnerability

General

-  Specified Site
-  Specified Buffers
-  Bearing Reference Point
-  Site
-  Map ID

Agency and Hydrological

Geological Classes

Major Aquifer
(Highly Permeable)

Minor Aquifer
(Variably Permeable)

Non Aquifer
(Negligibly Permeable)

Water or Sea

Drift Deposit

Soil Classes

High (H) 1, 2, 3, U

Intermediate (I) 1, 2

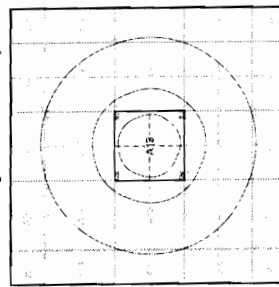
Low

High (H) 1, 2, 3, U

Intermediate (I) 1, 2

Low

Site Sensitivity Context Map - Slice A



Order Details

Order Number: 35976698_1_1
 Customer Ref: 552008
 National Grid Reference: 434780, 404330
 Slice: A
 Site Area (Ha): 0.71
 Search Buffer (m): 1000

Site Details

Land Off Vernon Road, Worsbrough, BARNESLEY, South Yorkshire, S70 5JU



Bedrock Aquifer Designation

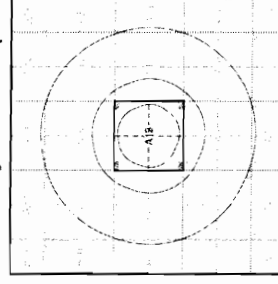
General
△ Specified Site △ Specified Buffer(s) X Bearing Reference Point
□ Site Map ID

Agency and Hydrological

Geological Classes

- Principal Aquifer
- Secondary A Aquifer
- Secondary B Aquifer
- Secondary Undifferentiated
- Unproductive Strata
- Unknown

Site Sensitivity Context Map - Slice A



Order Details

Order Number: 35976698_1_1
Customer Ref: 532008
National Grid Reference: 434780, 404330
Site: A
Site Area (Ha): 0.71
Search Buffer (m): 1000

Site Details

Land Off Vernon Road, Worsbrough, BARNESLEY, South Yorkshire, S70 5HU



Tel: 0844 844 9852
Fax: 0844 844 5651
Web: www.envirocheck.co.uk



Source Protection Zones

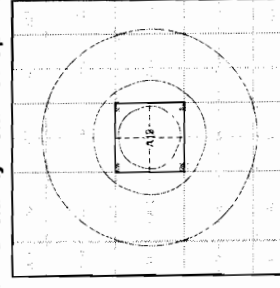
General

-  Specified Site
-  Specified Buffer(s)
-  Bearing Reference Point
-  Slice
-  Map ID

Agency and Hydrological

-  Source Protection Zone I
-  Source Protection Zone II
-  Source Protection Zone III
-  Zone of Special Interest
-  Source Protection Zone Borehole

Site Sensitivity Context Map - Slice A



Order Details

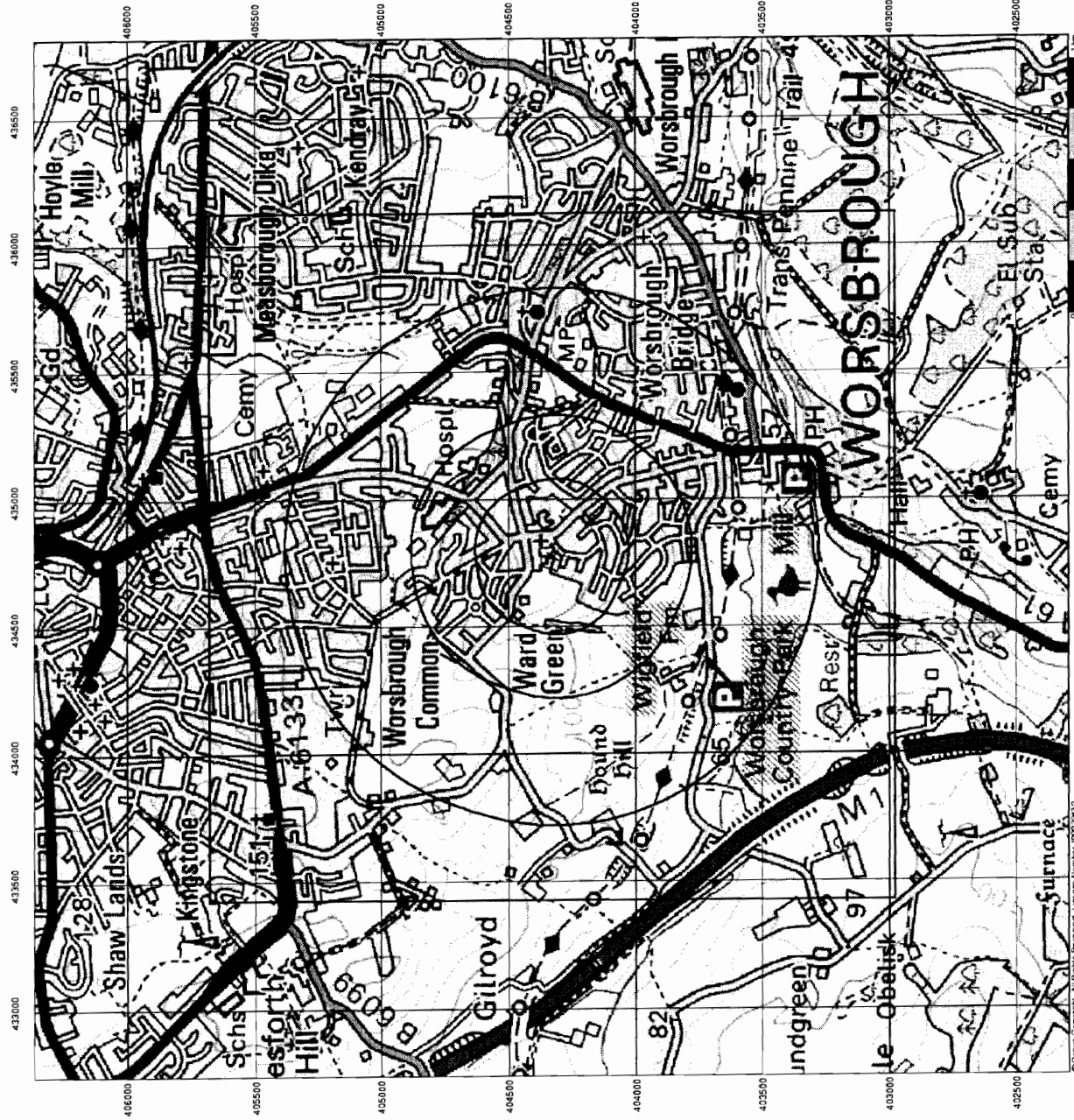
Order Number: 35976698_1.1
 Customer Ref: 552008
 National Grid Reference: 434780, 404330
 Slice: A
 Site Area (Ha): 0.71
 Search Buffer (m): 1000

Site Details

Land Off Vernon Road, Worsbrough, BARNESLEY, South Yorkshire, S70 5HU



Tel: 0844 844 9952
 Fax: 0844 844 9951
 Web: www.landmark.co.uk



Sensitive Land Uses

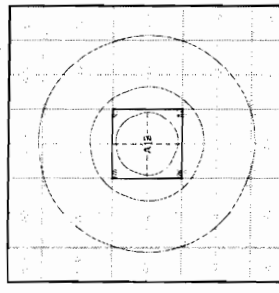
General

-  Specified Site
-  Specified Buffer(s)
-  Bearing Reference Point
-  Site
-  Map ID

Sensitive Land Uses

-  Area of Adopted Green Belt
-  Area of Unadopted Green Belt
-  Area of Outstanding Natural Beauty
-  Environmentally Sensitive Area
-  Forest Park
-  Local Nature Reserve
-  Marine Nature Reserve
-  National Nature Reserve
-  National Park
-  Nitrate Sensitive Area
-  Nitrate Vulnerable Zone
-  Ramsar Site
-  Site of Special Scientific Interest
-  Special Area of Conservation
-  Special Protection Area

Site Sensitivity Context Map - Slice A



Order Details

Order Number: 35976698_1_1
 Customer Ref: 5520008
 National Grid Reference: 434780, 404330
 Slice: A
 Site Area (Ha): 0.71
 Search Buffer (m): 1000

Site Details

Land Off Vernon Road, Worsbrough, BARNESLEY, South Yorkshire, S70 5HU



Tel: 0844 844 9552
 Fax: 0844 844 9551
 Web: www.envirocheck.co.uk



EA MAPS / SEARCHES

Enter a postcode or place name:

Other topics for this area...

Groundwater

Go

Groundwater

Map legend

X: 435,040;Y: 404,394 at scale 1:75,000

Text only version

☒	Groundwater source protection zones
☐	Inner zone
☐	Outer zone
☐	Total catchment
☐	Special interest
☒	Aquifer Maps - Superficial Deposits Designation
☐	Principal
☐	Secondary A
☐	Secondary B
☐	Secondary (undifferentiated)
☐	Unknown (lakes and landslip)
☐	Aquifer Maps - Bedrock Designation
☐	Principal
☐	Secondary A
☐	Secondary B
☐	Secondary (undifferentiated)



© Environment Agency copyright and database rights 2011.
 © Ordnance Survey Crown copyright. All rights reserved. Environment Agency, 100026380,
 contains Royal Mail data © Royal Mail copyright and database right 2011.

[Tell me more](#)**British Geological Survey Aquifer data:****New BGS Aquifer Designation Maps**

From 1st April 2010 new aquifer designations replace the old system of classifying aquifers as Major, Minor and Non-Aquifer. This new system is in line with our Groundwater Protection Policy (GP3) and the Water Framework Directive (WFD) and is based on British Geological Survey mapping.

Groundwater Source Protection Zones data:**Groundwater Source Protection Zones**

Groundwater provides a third of our drinking water. We ensure that your water is safe to drink defining Source Protection Zones. These zones help to monitor the risk of contamination from any activities that might cause pollution in the area.

Facts and figures of our groundwater resources

Find out more about groundwater and groundwater levels.

Enter a postcode or place name:

Other topics for this area...

Groundwater

Go

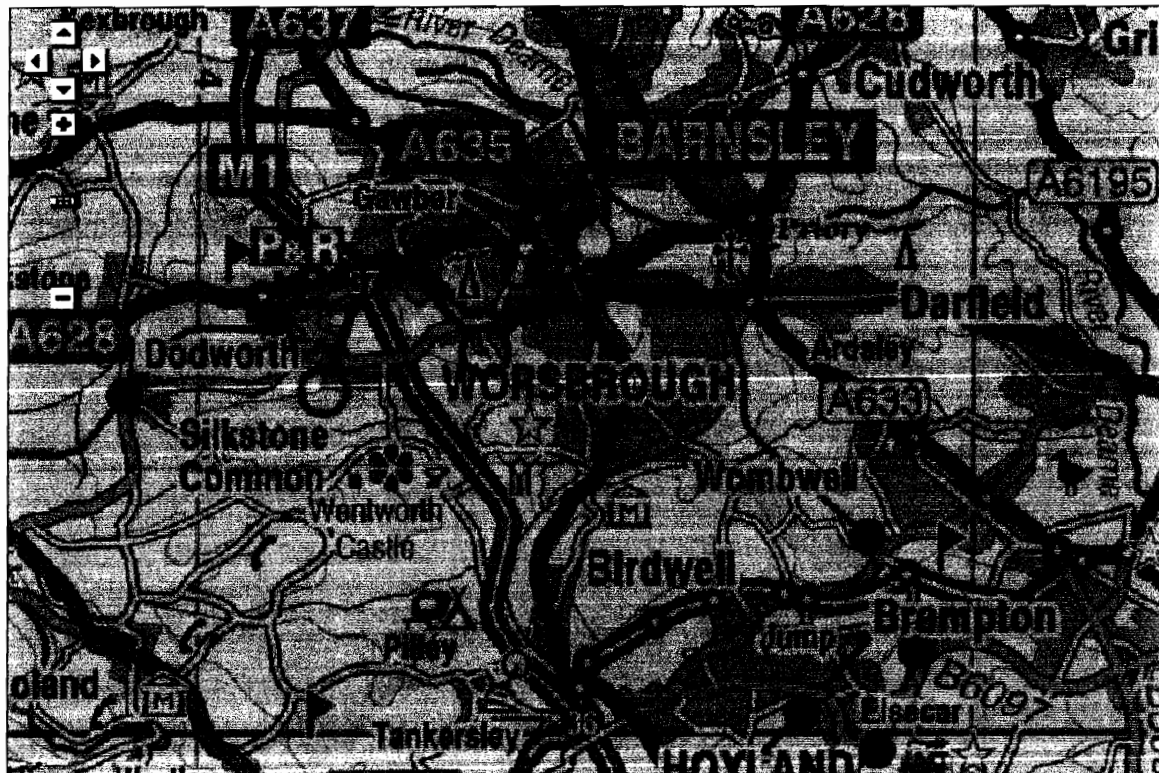
Groundwater

Map legend

X: 435,040;Y: 404,394 at scale 1:75,000

Text only version

☒	Groundwater source protection zones
	Inner zone
	Outer zone
	Total catchment
	Special interest
☒	Aquifer Maps - Superficial Deposits Designation
	Principal
	Secondary A
	Secondary B
	Secondary (undifferentiated)
	Unknown (lakes and landslip)
☒	Aquifer Maps - Bedrock Designation
	Principal
	Secondary A
	Secondary B
	Secondary (undifferentiated)



© Environment Agency copyright and database rights 2011.
 © Ordnance Survey Crown copyright. All rights reserved. Environment Agency, 100026380,
 contains Royal Mail data © Royal Mail copyright and database right 2011.

Tell me more

British Geological Survey Aquifer data:

New BGS Aquifer Designation Maps

From 1st April 2010 new aquifer designations replace the old system of classifying aquifers as Major, Minor and Non-Aquifer. This new system is in line with our Groundwater Protection Policy (GP3) and the Water Framework Directive (WFD) and is based on British Geological Survey mapping.

Groundwater Source Protection Zones data:

Groundwater Source Protection Zones

Groundwater provides a third of our drinking water. We ensure that your water is safe to drink defining Source Protection Zones. These zones help to monitor the risk of contamination from any activities that might cause pollution in the area.

Facts and figures of our groundwater resources

Find out more about groundwater and groundwater levels.

Enter a postcode or place name:

Go

Other topics for this area...

River Basin Management Plans - Groundwater

Water Framework Directive - River Basin
Management Plans - Groundwater

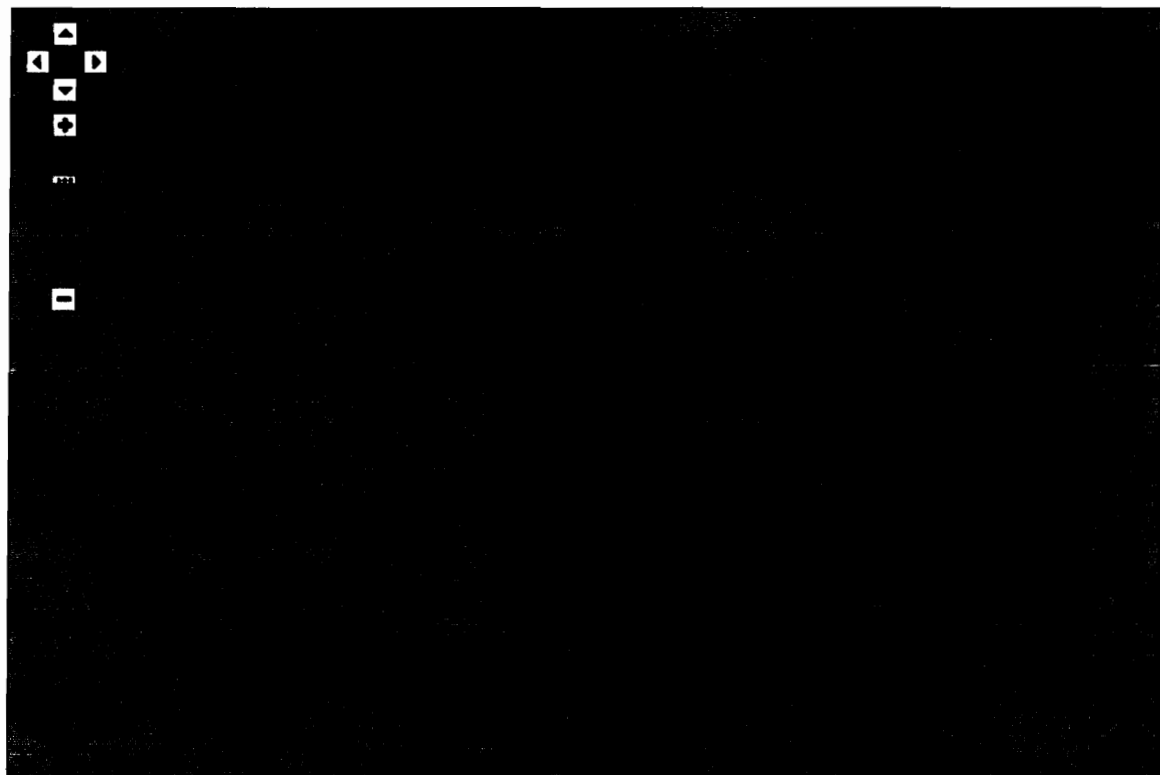
Map legend

Map of X: 435,039.75; Y: 404,394.17 at scale 1:20,000

Text only version

Click on a feature for details
of that site☒ Current Quantitative
Quality ⓘ☒ Good☒ Poor☒ Not yet assessed☒ Current Chemical
Quality ⓘ☒ Good☒ Good (deteriorating)☒ Poor☒ Poor (deteriorating)☒ Not yet assessed☐ 2015 Predicted
Quantitative Quality ⓘ☐ Good☐ Poor☐ Not yet assessed☐ 2015 Predicted
Chemical Quality ⓘ☐ Good☐ Poor☐ Not yet assessed☒ Monitoring Points ⓘ☒ Previous Biology☒ Previous Chemistry☒ Previous Fish☐ Previous Groundwater☒ Future Biology☒ Future Chemistry☒ Continuous Flow☒ River Basin Districts ⓘ

District



© Environment Agency copyright and database rights 2011.
© Ordnance Survey Crown copyright. All rights reserved. Environment Agency, 100026380,
contains Royal Mail data © Royal Mail copyright and database right 2011.

See also:

River Basin Management Plans

View the plans for all river basin districts in England and Wales.

More information

About the Water Framework Directive and River Basin Management Planning.

creating a better place

Follow us: [YouTube](#) [Twitter](#) [Flickr](#) [Facebook](#) [RSS feeds](#)



Enter a postcode or place name:

Other topics for this area...

Water Framework
Managemen

Go

River Basin Management Plans - Groundwater

Map legend

Map of X: 435,039.75; Y: 404,394.17 at scale 1:20,000

Click on a feature for details of that site

☐

☒

Current Quantitative Quality

Good

Poor

Not yet assessed

☐

☐

Current Chemical Quality

Good

Good (deteriorating)

Poor

Poor (deteriorating)

Not yet assessed

☐

☐

2015 Predicted Quantitative Quality

Good

Poor

Not yet assessed

☐

☒

2015 Predicted Chemical Quality

Good

Poor

Not yet assessed

☐

☒

Monitoring Points

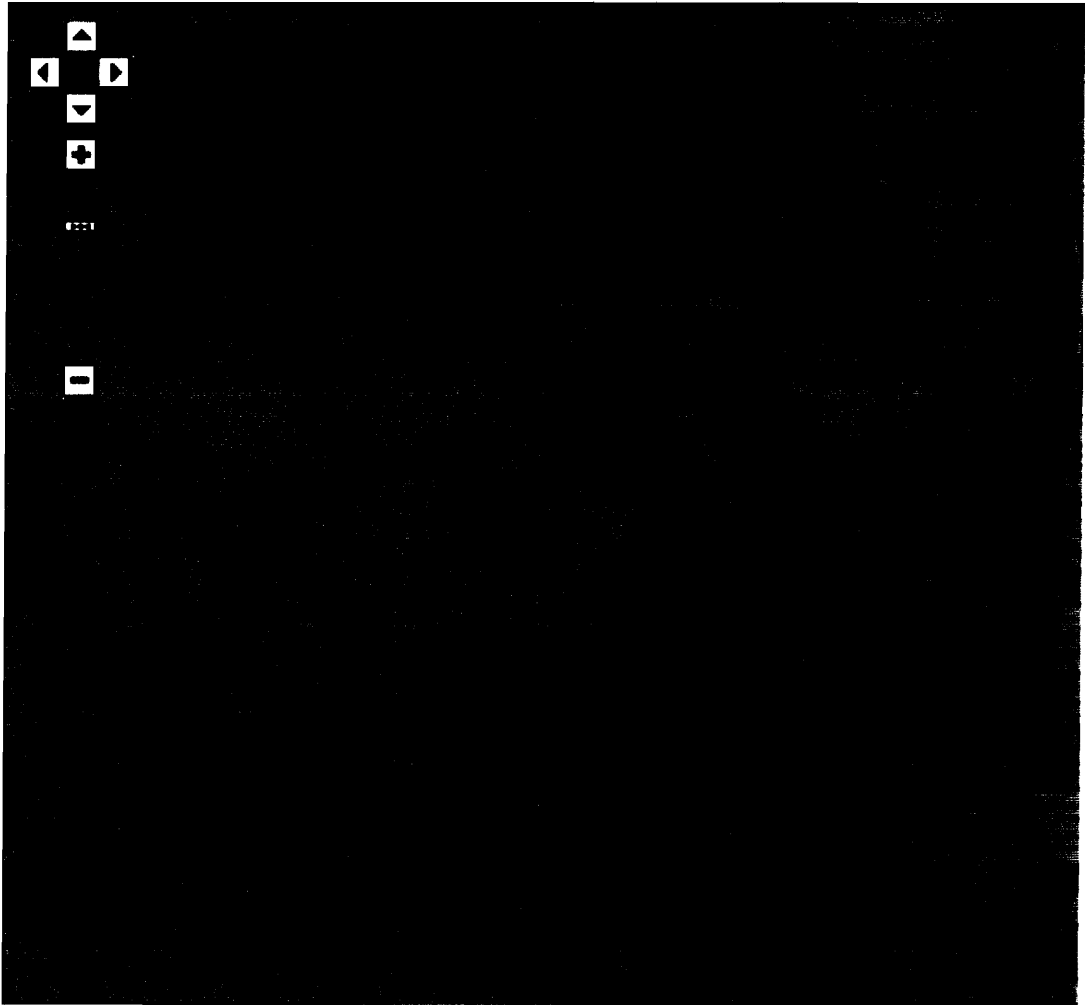
Previous Biology

Previous Chemistry

Previous Fish

Previous Groundwater

Future Biology



© Environment Agency copyright and database rights 2011.
© Ordnance Survey Crown copyright. All rights reserved. Environment Agency, 10
contains Royal Mail data © Royal Mail copyright and database right 2011

See also:

River Basin Management Plans

View the plans for all river basin districts in England and Wales.

Enter a postcode or place name:

Other topics for this area...

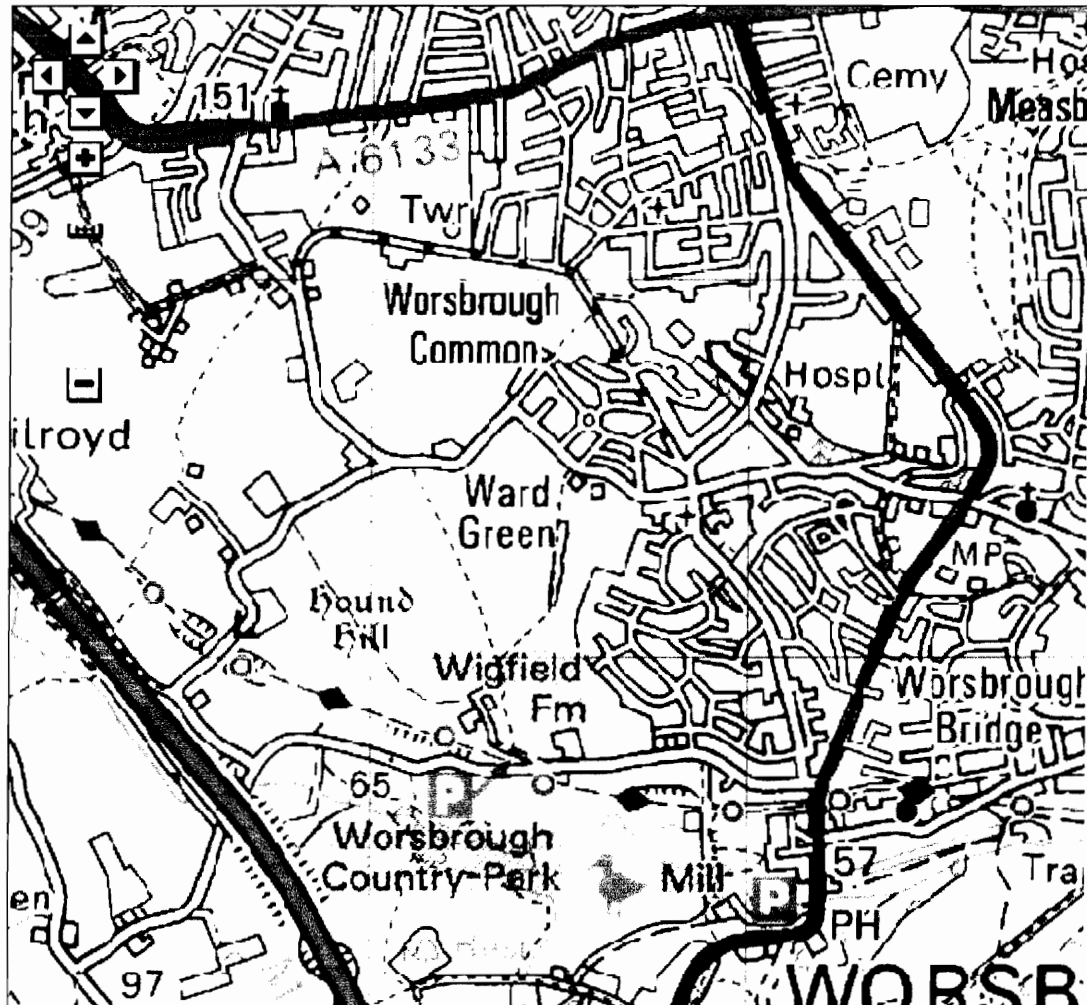
Go

Groundwater

Map legend

☒	Groundwater source protection zones
	Inner zone
	Outer zone
	Total catchment
	Special interest
☐	Aquifer Maps - Superficial Deposits Designation
	Principal
	Secondary A
	Secondary B
	Secondary (undifferentiated)
	Unknown (lakes and landslip)
☐	Aquifer Maps - Bedrock Designation
	Principal
	Secondary A
	Secondary B
	Secondary (undifferentiated)

Map of X: 435,039.75; Y: 404,394.17 at scale 1:20,000



© Environment Agency copyright and database rights 2011.
© Ordnance Survey Crown copyright. All rights reserved. Environment Agency, 10 contains Royal Mail data © Royal Mail copyright and database right 2011

[Tell me more](#)

British Geological Survey Aquifer data:

New BGS Aquifer Designation Maps

From 1st April 2010 new aquifer designations replace the old system of classifying aquifer. This new system is in line with our Groundwater Protection Policy (GP3) and the Water Framework Directive (WFD) and is based on British Geological Survey mapping.

Enter a postcode or place name:

Other topics for this area...

Waste

Go

Landfill

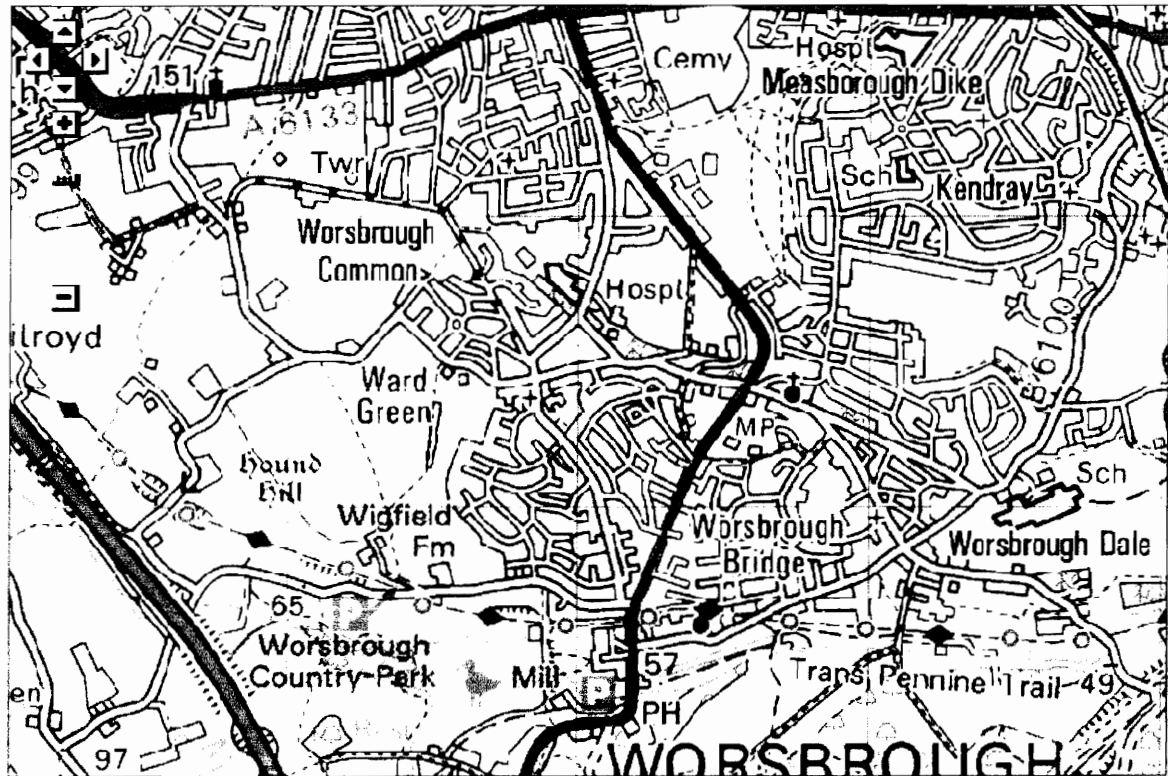
Map legend

Click on a feature for details of that site

☒ Authorised Landfill ☐ Site boundary☒ Historic landfill ☐ Site boundary

Map of X: 435,039.75; Y: 404,394.17 at scale 1:20,000

Text only version



© Environment Agency copyright and database rights 2011.
© Ordnance Survey Crown copyright. All rights reserved. Environment Agency, 100026380.
contains Royal Mail data © Royal Mail copyright and database right 2011.

Tell me more about waste and landfill:

Waste regulation

We regulate waste management through a system of licences. Find out how to get the correct licence here, get data on waste and find out if there are any rules applying to household waste.

Waste facts and figures

The UK produces about 220 million tonnes of controlled wastes per year. Find out about waste incineration, hazardous waste, recycling and landfill.

creating a better place

Follow us: [YouTube](#) [Twitter](#) [Flickr](#) [Facebook](#) [RSS feeds](#)

Author: The Environment Agency | WYBYSUPPORT@environment-agency.gov.uk
Last updated: 15th August 2011

[Privacy policy](#) | [Terms and conditions](#) | [Accessibility](#) | [About us](#) | [Jobs](#) | [Contact us](#) | [Sitemap](#) | [Help](#)
© Environment Agency 2011

Enter a postcode or place name:

Other topics for this area...

Waste

Go

Landfill

Map legend

Click on a feature for details of that site

☒ Authorised Landfill

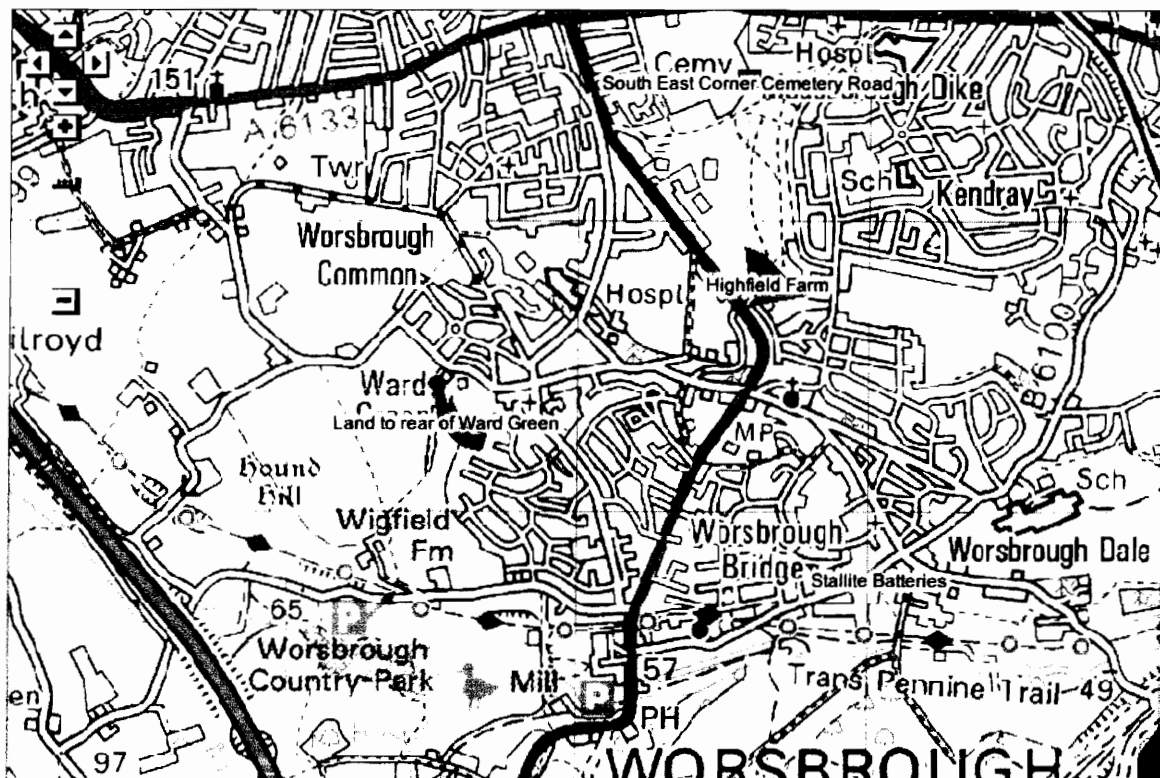
☒ Site boundary

☒ Historic landfill

☒ Site boundary

Map of X: 435,039.75; Y: 404,394.17 at scale 1:20,000

[Text only version](#)



© Environment Agency copyright and database rights 2011.
© Ordnance Survey Crown copyright. All rights reserved. Environment Agency, 100026380.
contains Royal Mail data © Royal Mail copyright and database right 2011.

Tell me more about waste and landfill:

Waste regulation

We regulate waste management through a system of licences. Find out how to get the correct licence here, get data on waste and find out if there are any rules applying to household waste.

Waste facts and figures

The UK produces about 220 million tonnes of controlled wastes per year. Find out about waste incineration, hazardous waste, recycling and landfill.

creating a better place

Follow us: [YouTube](#) [Twitter](#) [Flickr](#) [Facebook](#) [RSS feeds](#)

Author: The Environment Agency | WIYBYSUPPORT@environment-agency.gov.uk
Last updated: 15th August 2011

[Privacy policy](#) | [Terms and conditions](#) | [Accessibility](#) | [About us](#) | [Jobs](#) | [Contact us](#) | [Sitemap](#) | [Help](#)
© Environment Agency 2011



Interactive Maps

Historic landfill (Grid reference: X: 434,579.37; Y: 404,293.62)

Page 1 of 1 (1 result for selected location)

Site name	Site address	First waste received	Last waste received	
Land to rear of Ward Green	Communtiy Centre, Genn Lane, Ward Green, Barnsley	31 JUL 1981	31 DEC 1989	

Tell me more about waste and landfill:

Waste regulation

We regulate waste management through a system of licences. Find out how to get the correct licence here, [get data](#) on waste and find out if there are any rules applying to household waste.

Waste facts and figures

The UK produces about 220 million tonnes of controlled wastes per year. Find out about waste incineration, hazardous waste, recycling and landfill.

creating a better place

Follow us: [YouTube](#) [Twitter](#) [Flickr](#) [Facebook](#) [RSS feeds](#)

Author: The Environment Agency | WIYBYSUPPORT@environment-agency.gov.uk
Last updated: 15th August 2011

[Privacy policy](#) | [Terms and conditions](#) | [Accessibility](#) | [About us](#) | [Jobs](#) | [Contact us](#) | [Sitemap](#) | [Help](#)
© Environment Agency 2011

Interactive Maps

Historic landfill

Site details	
Site name	Land to rear of Ward Green
Site address	Communtiy Centre, Genn Lane, Ward Green, Barnsley
Site operator	Barnsley Metropolitan Borough Council
Licence no.	null

Types of waste buried:

A 'Yes' is shown in the right hand box where there is evidence that the type of waste may have been buried. If there is no evidence or no data currently available, then the box is left blank.

Inert: Waste which remains largely unaltered once buried such as glass, concrete, bricks, tiles, soil and stones.	Yes
Industrial: Waste from a factory or industrial process. It excludes waste from mines, quarries and agricultural wastes.	Yes
Commercial: Waste from premises used wholly or mainly for trade, business, sport, recreation or entertainment. Excludes household and industrial waste.	Yes

[View map of this location](#)

creating a better place

Follow us: [YouTube](#) [Twitter](#) [Flickr](#) [Facebook](#) [RSS feeds](#)Author: The Environment Agency | WIYBYSUPPORT@environment-agency.gov.uk

Last updated: 15th August 2011

[Privacy policy](#) | [Terms and conditions](#) | [Accessibility](#) | [About us](#) | [Jobs](#) | [Contact us](#) | [Sitemap](#) | [Help](#)
© Environment Agency 2011

Enter a postcode or place name:

Other topics for this area...

Pollution

Go

Pollution

Map legend

Map of X: 435,039.75; Y: 404,394.17 at scale 1:20,000

Text only version

Click on a feature for details of that site

  Industrial Pollution 

■ Fuel & Power

☐ Metal

■ Mineral

Chemical

■ Waste

■ Water

☒ Radioactive

■ Associated

☐ Other

■ Not Classified

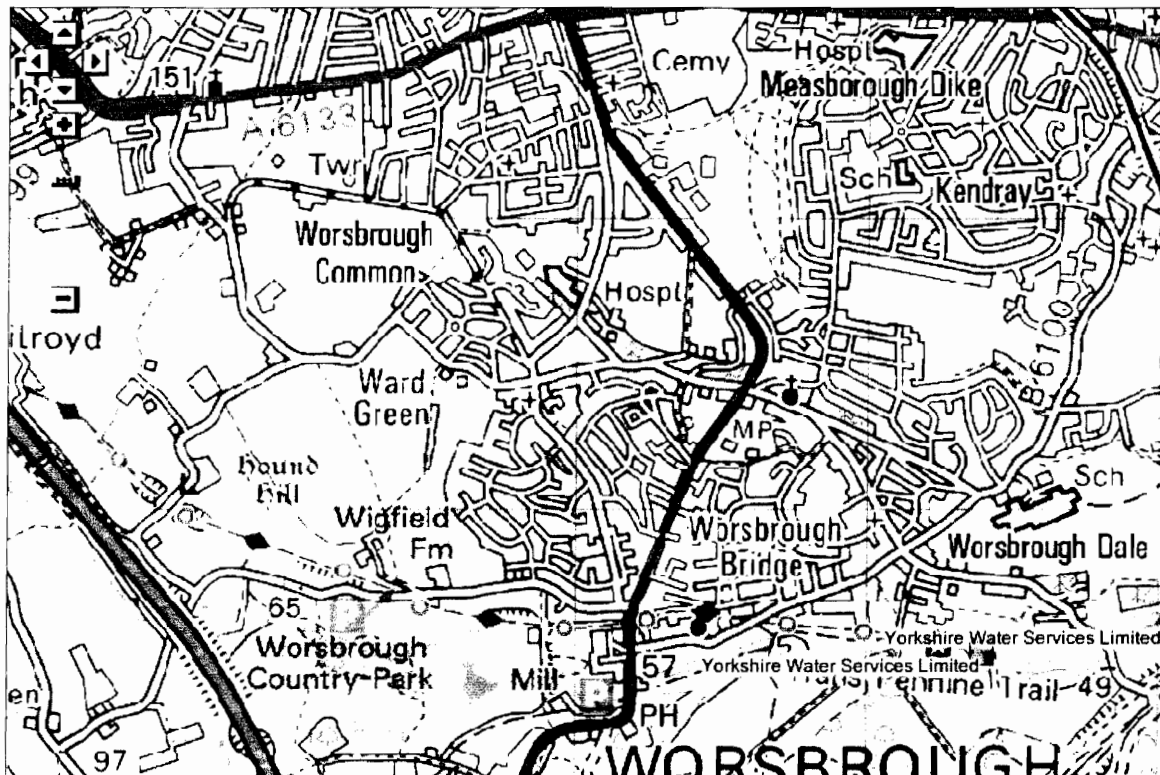
☐ ☒ Industrial Operator Scores (OPRA)

★ Permitted Sites

 Pollution Incidents

▲ Major

▲ Significant



© Environment Agency copyright and database rights 2011.

© Ordnance Survey Crown copyright. All rights reserved. Environment Agency, 100026380.
contains Royal Mail data © Royal Mail copyright and database right 2011.

Tell me more about the map data:

Pollution Incidents

Find out how we categorise incidents and their possible effects on health and the environment

Industrial Pollution

Find out how we monitor and control the releases produced by industrial processes

Industrial Operator Scores (OPRA)

Every industrial process could theoretically pose a risk to human health and the environment. Find out how we measure this risk and how we score operators on their potential to impact the environment.

creating a better place

Follow us: [YouTube](#) [Twitter](#) [Flickr](#) [Facebook](#) [RSS feeds](#)

Author: The Environment Agency | WIYBYSUPPORT@environment-agency.gov.uk

Last updated: 15th August 2011

[Privacy policy](#) | [Terms and conditions](#) | [Accessibility](#) | [About us](#) | [Jobs](#) | [Contact us](#) | [Sitemap](#) | [Help](#)
© Environment Agency 2011

Enter a postcode or place name:

Other topics for this area...

Risk of Flooding from Rivers and Sea

Go

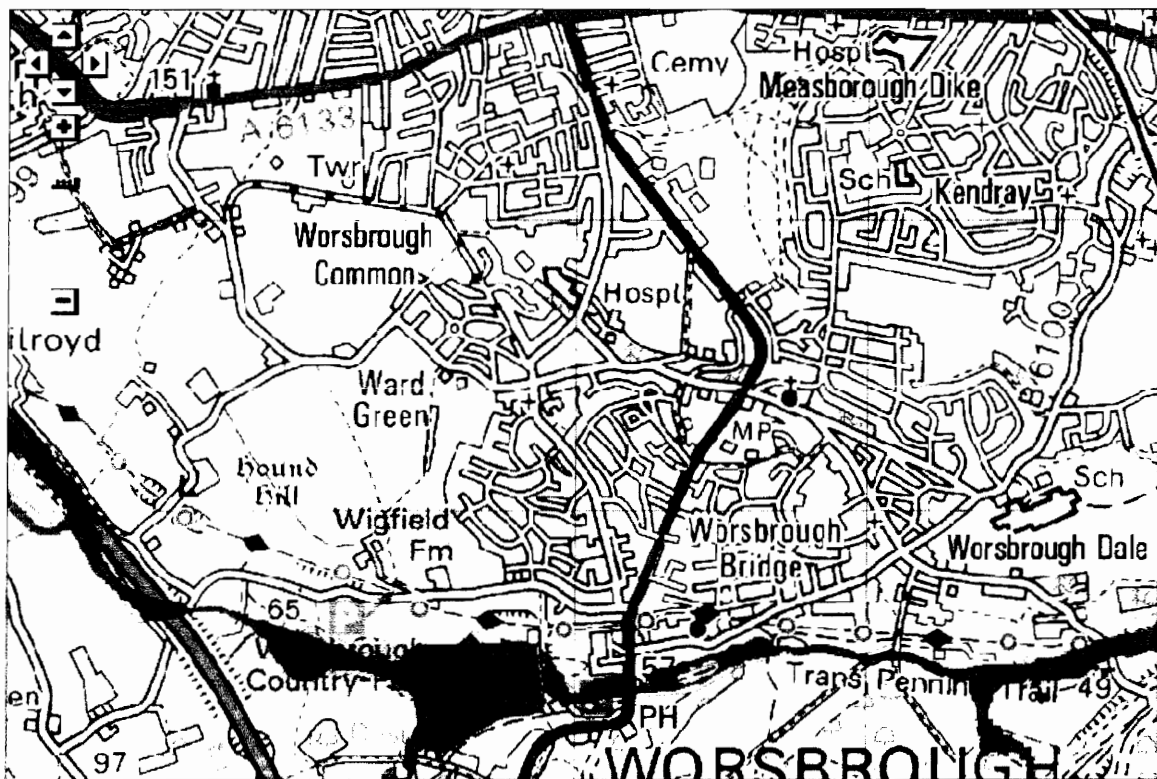
Map legend

Click on the map to see what is the Risk of Flooding at a particular location.

☒ Flood Maps

- Flooding from rivers or sea without defences
- Extent of extreme flood
- Flood defences
- Areas benefiting from flood defences
- Main rivers

Ward Green, Barnsley at scale 1:20,000

[Text only version](#)

© Environment Agency copyright and database rights 2011.
© Ordnance Survey Crown copyright. All rights reserved. Environment Agency, 100026380,
contains Royal Mail data © Royal Mail copyright and database right 2011.

Flood Map – Information Warnings

Manchester Ship Canal

Flood Mapping of the Manchester Ship Canal in Trafford, Salford and Warrington may be subject to revision as a result of representations. For further information please contact the Environment Agency on 03708 506 506.

Users of the Flood Zone Map should be aware that we have received a Judicial review challenge to the mapping of the Manchester Ship Canal at Trafford, Salford and Warrington on the ground that the preparation of the map is flawed in respect of our consideration of the role of the sluice gates in preventing flooding.

We are defending the challenge and believe and are advised that it is ill-founded. Nevertheless, pending determination of the challenge, users of the map need to consider whether the existence of the Challenge, and the basis of it, affects the weight they judge may be given to the zoning of the Manchester Ship Canal within the Flood Map.

More about flooding:

Understanding the flood map

A more detailed explanation to help you understand the flood map shown above.

Current flood warnings

We provide flood warnings online 24 hours a day. Find out the current flood warning status in your local area.

Enter a postcode or place name:

Other topics for this area...

Risk of Flooding from Reservoirs

Go

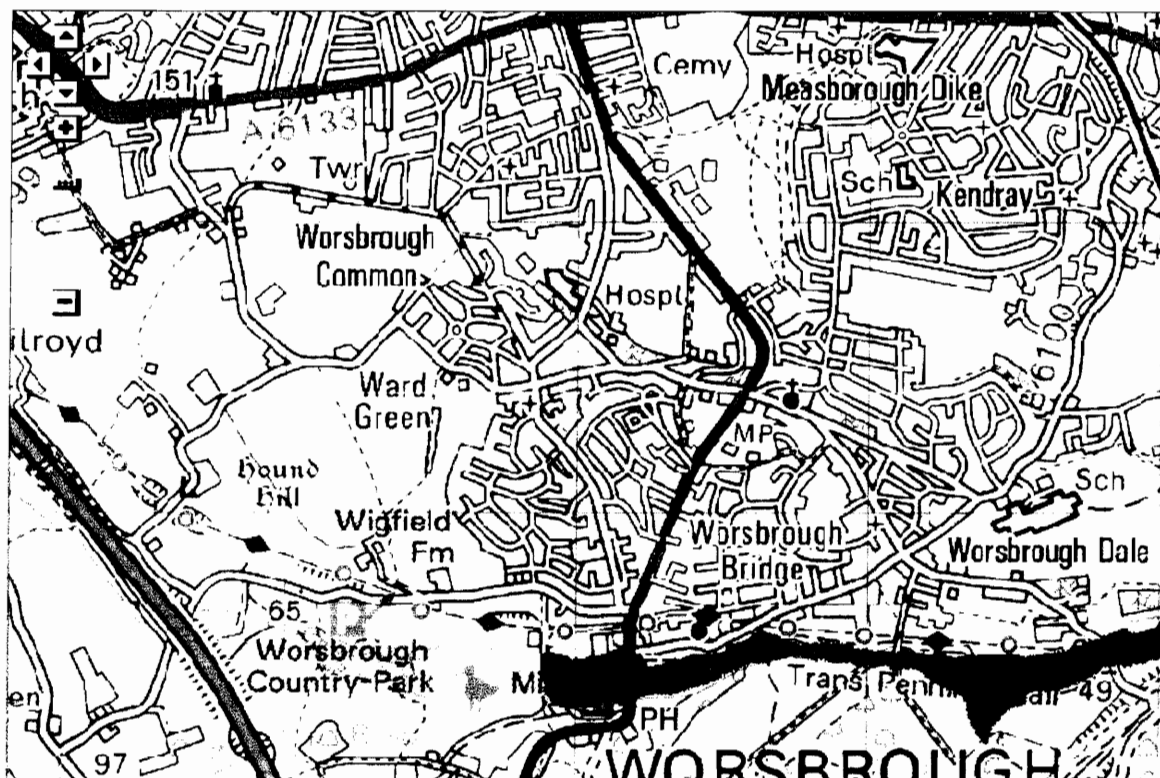
Risk of Flooding from Reservoirs

Map legend

Areas at risk of inundation
from Reservoir flooding☐ Risk of Flooding from
Reservoirs ☒ Areas at risk of inundation
from Reservoir flooding

Map of X: 435,039.75; Y: 404,394.17 at scale 1:20,000

Text only version



© Environment Agency copyright and database rights 2011.
 © Ordnance Survey Crown copyright. All rights reserved. Environment Agency, 100026380,
 contains Royal Mail data © Royal Mail copyright and database right 2011.

Find out more:

This map shows the largest area that might be flooded if a reservoir were to fail and release the water it holds. Since this is a prediction of a worst case scenario, it's unlikely that any actual flood would be this large.

Remember - reservoir flooding is extremely unlikely. There has been no loss of life in the UK from reservoir flooding since 1925. Since then reservoir safety legislation has been introduced to make sure reservoirs are well maintained.

Please note that only flood maps for large reservoirs are displayed. Flood maps are not displayed for smaller reservoirs or for reservoirs commissioned after reservoir mapping began in spring 2009. The reservoir flood maps also don't give any information about how likely any area is to be flooded.

If your property is within the green highlighted area, then you could be affected by reservoir flooding. To find out more about the reservoirs that could cause this flooding, click on the map within the green highlighted area. You will find the name and ownership details of the reservoirs that could cause flooding in your area.

If you want to find out about local emergency plans you should contact the local authority responsible for that emergency plan but be aware that these reservoir flood plans may take some time to develop. You can find out which local authority to contact by clicking on the map.

[Reservoir flooding](#)[Guidance for people living near reservoirs](#)[Your questions answered](#)[Who to contact](#)

HISTORIC MAPS

Historical Mapping Legends

Ordnance Survey County Series 1:10,560

Ordnance Survey Plan 1:10,000

1:10,000 Raster Mapping

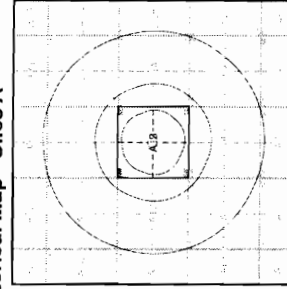
																																		
Gravel Pit	Sand Pit	Other Pits	Quarry	Shingle	Orchard	Marsh	Reeds	Deciduous	Brushwood	Mixed Wood	Fir	Arrow denotes flow of water	Trigonometrical Station	Bench Mark	Well, Spring, Boundary Post	Surface Level	Sketched Contour	Instrumental Contour	Main Roads	Minor Roads	Sunken Road	Road over Railway	Railway over River	Level Crossing	Road over Stream	Road over Canal	Road over Stream	County Boundary (Geographical)	County & Civil Parish Boundary	Administrative County & Civil Parish Boundary	County Borough Boundary (England)	County Borough Boundary (Scotland)	Rural District Boundary	Civil Parish Boundary

Gravel Pit	Rock	Boulders	Shingle	Sand	Slopes	General detail	Overhead detail	Multi-track railway	County boundary (England only)	District, Unitary, Metropolitan, London Borough boundary	Area of wooded vegetation	Non-coniferous trees	Coniferous trees	Positioned tree	Copice or Osiers	Heath	Marsh, Salt Marsh or Reeds	Flow arrows	Mean low water (springs)	Mean high water (springs)	Telephone line (where shown)	Bench mark (where shown)	Point feature (e.g. Guide Post or Mile Stone)	Site of (antiquity)	General Building	Refuse tip or slag heap	Rock (scattered)	Boulders (scattered)	Mud	Sand Pit	Top of cliff	Underground detail	Narrow gauge railway	Single track railway	Civil, parish or community boundary	Constituency boundary	Non-coniferous trees	Coniferous trees	Positioned tree	Copice or Osiers	Heath	Marsh, Salt Marsh or Reeds	Flow arrows	Mean low water (springs)	Mean high water (springs)	Telephone line (where shown)	Bench mark (where shown)	Point feature (e.g. Guide Post or Mile Stone)	Site of (antiquity)	General Building
------------	------	----------	---------	------	--------	----------------	-----------------	---------------------	--------------------------------	--	---------------------------	----------------------	------------------	-----------------	------------------	-------	----------------------------	-------------	--------------------------	---------------------------	------------------------------	--------------------------	---	---------------------	------------------	-------------------------	------------------	----------------------	-----	----------	--------------	--------------------	----------------------	----------------------	-------------------------------------	-----------------------	----------------------	------------------	-----------------	------------------	-------	----------------------------	-------------	--------------------------	---------------------------	------------------------------	--------------------------	---	---------------------	------------------

Historical Mapping & Photography included:

Mapping Type	Scale	Date	Pg
Yorkshire	1:10,560	1855	2
Yorkshire	1:10,560	1893 - 1894	3
Yorkshire	1:10,560	1907	4
Yorkshire	1:10,560	1932	5
Yorkshire	1:10,560	1938	6
Ordnance Survey Plan	1:10,000	1955 - 1956	7
Ordnance Survey Plan	1:10,000	1965 - 1966	8
Ordnance Survey Plan	1:10,000	1973 - 1978	9
Ordnance Survey Plan	1:10,000	1980 - 1984	10
Ordnance Survey Plan	1:10,000	1989	11
Ordnance Survey Plan	1:10,000	1993	12
10K Raster Mapping	1:10,000	2000	13
10K Raster Mapping	1:10,000	2006	14
10K Raster Mapping	1:10,000	2011	15

Historical Map - Slice A



Order Details

Order Number: 35576698_1_1
 Customer Ref: 552008
 National Grid Reference: 434780, 404330
 Slice: A
 Site Area (Ha): 0.71
 Search Buffer (m): 1000

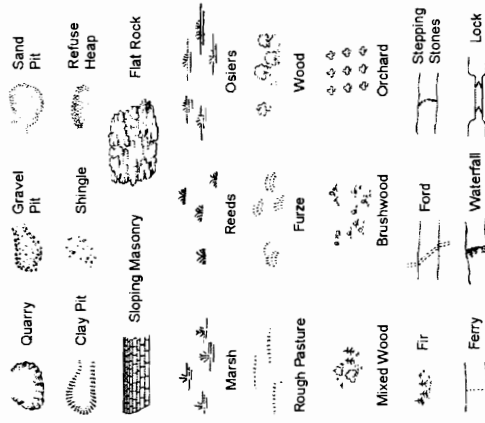
Site Details

Land Off Vernon Road, Worsbrough, BARNESLEY, South Yorkshire, S70 5HU

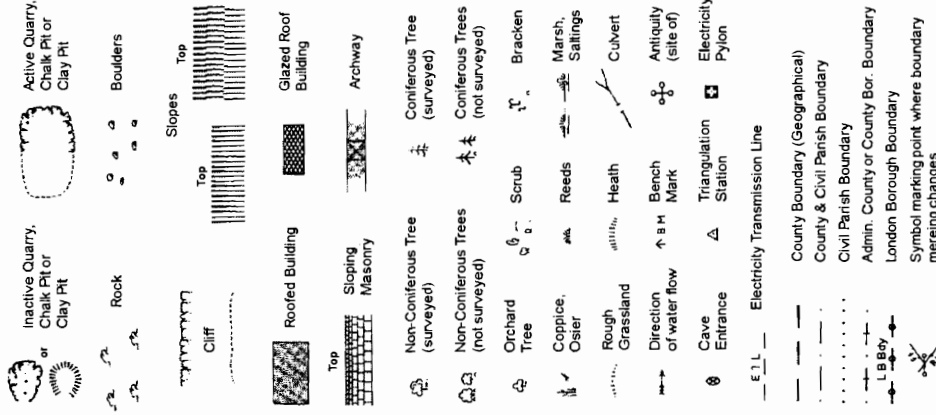


Tel: 0844 844 9552
 Fax: 0844 844 9551
 Web: www.envirocheck.co.uk

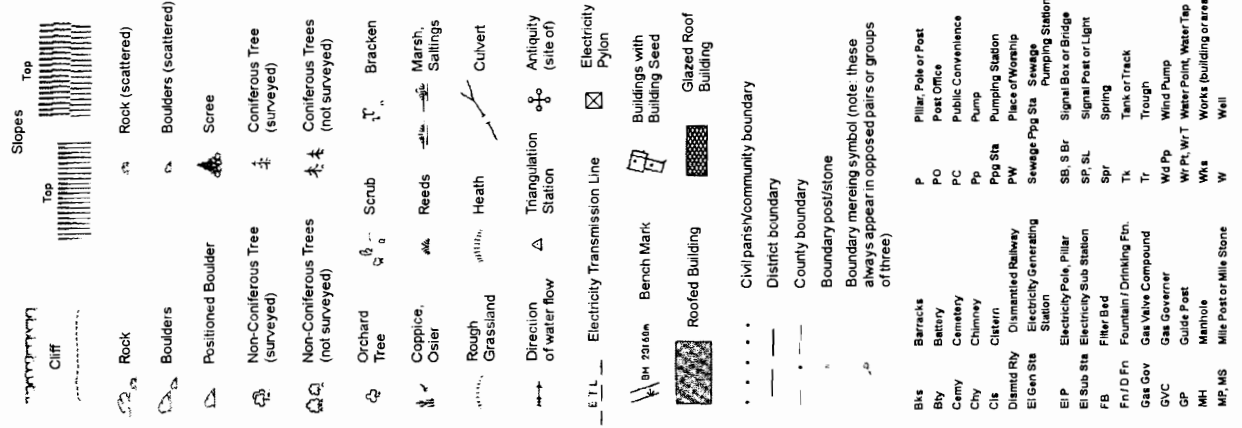
Ordnance Survey County Series and Ordnance Survey Plan 1:2,500



Ordnance Survey Plan, Additional SIMs and Supply of Unpublished Survey Information 1:2,500 and 1:1,250



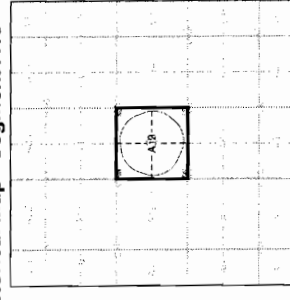
Large-Scale National Grid Data 1:2,500 and 1:1,250



Historical Mapping & Photography included:

Mapping Type	Scale	Date	Pg
Yorkshire	1:2,500	1892 - 1893	2
Yorkshire	1:2,500	1905	3
Yorkshire	1:2,500	1931	4
Ordnance Survey Plan	1:2,500	1960 - 1966	5
Additional SIMs	1:2,500	1960 - 1981	6
Ordnance Survey Plan	1:2,500	1981	7
Ordnance Survey Plan	1:2,500	1986 - 1972	8
Ordnance Survey Plan	1:2,500	1974	9
Supply of Unpublished Survey Information	1:1,250	1976	10
Additional SIMs	1:1,250	1980 - 1991	11
Large-Scale National Grid Data	1:1,250	1993	12
Large-Scale National Grid Data	1:1,250	1994 - 1996	13
Large-Scale National Grid Data	1:1,250	1994	14
Large-Scale National Grid Data	1:1,250	1995	15

Historical Map - Segment A13



Order Details
 Order Number: 35976698_1_1
 Customer Ref: 552008
 National Grid Reference: 434780, 404330
 Slice: A
 Site Area (Ha): 0.71
 Search Buffer (m): 250

Site Details
 Land Off Vernon Road, Worsbrough, BARNESLEY, South
 Yorkshire, S70 5HJ

Yorkshire Published 1855

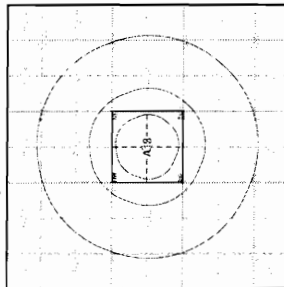
Source map scale - 1:10,560

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2500 scale was adopted for mapping urban areas; these maps were used to update the 1:10,560 maps. The published date given therefore is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent inaccuracies in surveying country or groups of counties, giving rise to significant inaccuracies in surveying a group of counties. A Transverse Mercator projection was produced, which updated the 1:10,560 mapping from a number of sources. These maps appeared unfinished, with all military camps and other strategic sites. These maps were initially overprinted with the National Grid in 1970, the first 1:10,000 maps were produced using the Transverse Mercator Projection. The revision process continued until recently, with new editions appearing every 10 years or so for urban areas.

Map Name(s) and Date(s)

27400	1855
1:10,560	
28200	1855
1:10,560	

Historical Map - Slice A

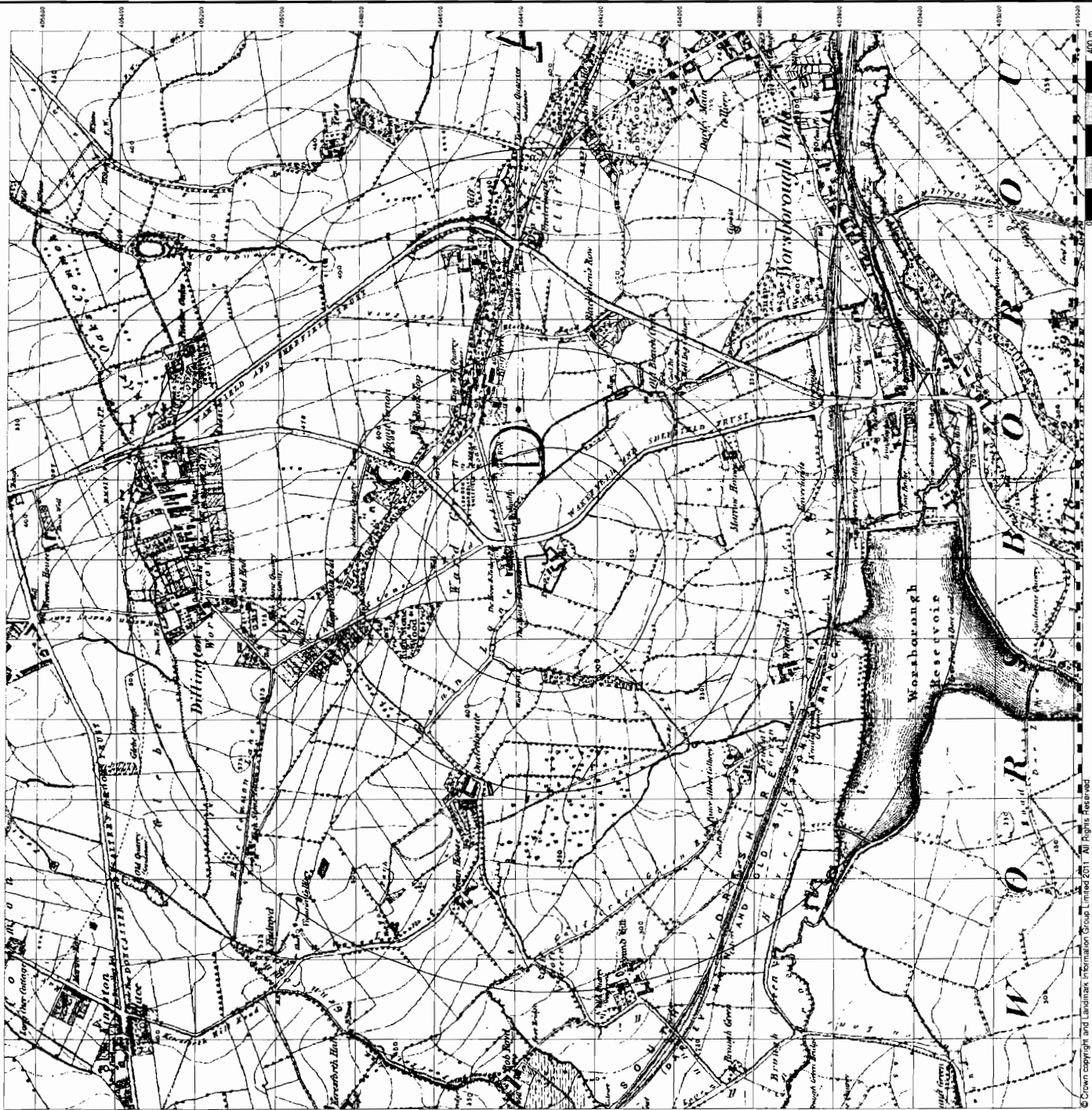


Order Details

Order Number: 35976698_1_1
Customer Ref: 552008
National Grid Reference: 434780, 404330
Slice: A
Site Area (Ha): 0.71
Search Buffer (m): 1000

Site Details

Land Off Vernon Road, Worsbrough, BARNESLEY, South
Yorkshire, S70 5HJ



Yorkshire

Published 1892 - 1893

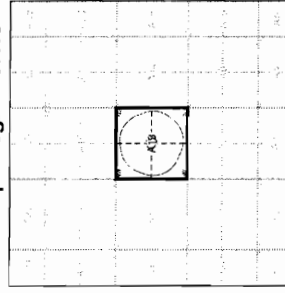
Source map scale - 1:2,500

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas and by 1896 it covered the whole of what was considered to be the cultivated parts of Great Britain. The published date given below is often some years later than the surveyed date. Before 1930, all OS maps were based on the Cassini projection and independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas.

Map Name(s) and Date(s)

281 11	284 12
12 500	12 500
281 15	284 16
12 500	12 500

Historical Map - Segment A13

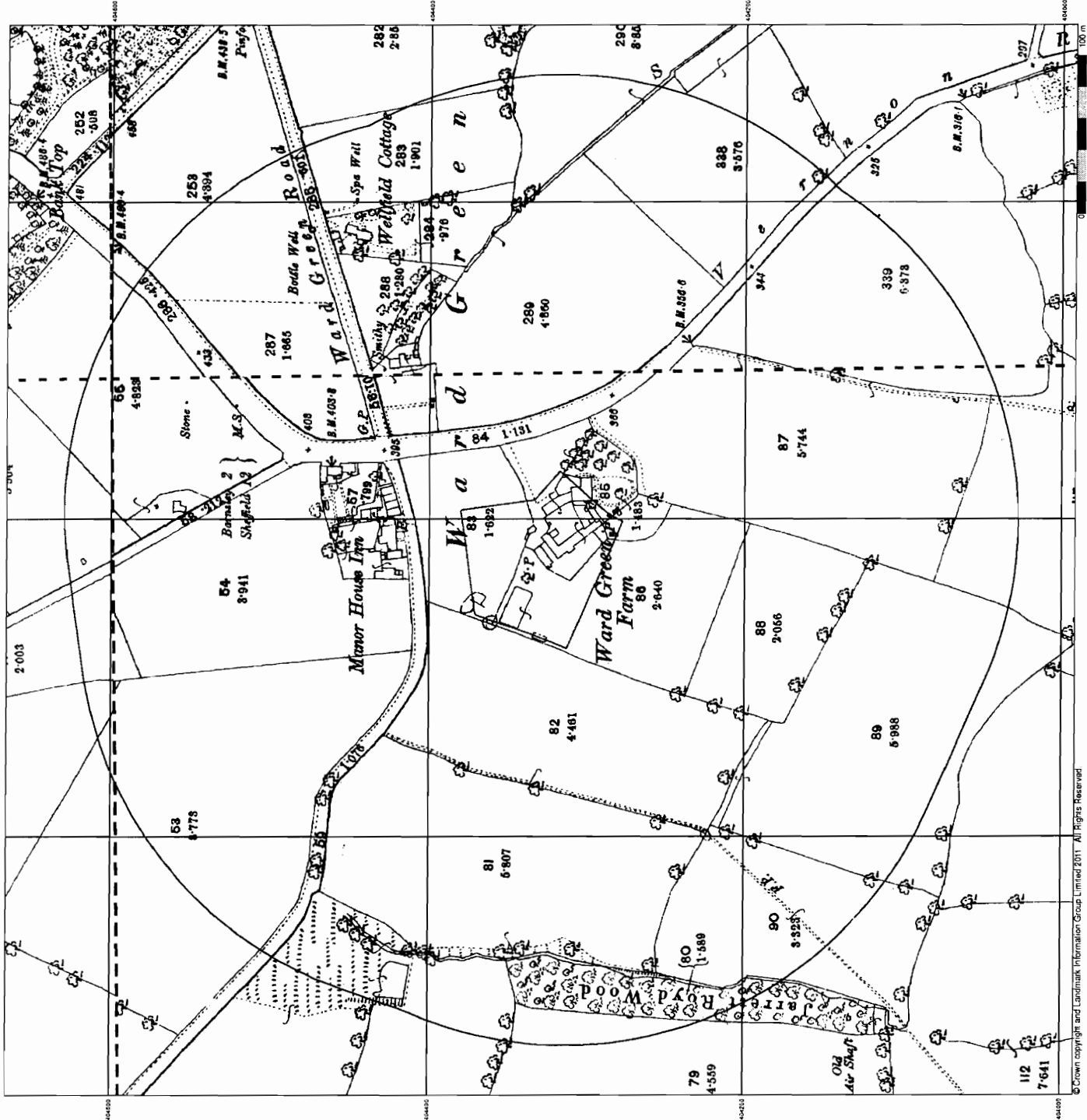


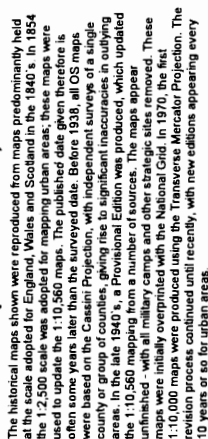
Order Details

Order Number: 35976698_1_1
Customer Ref: 552008
National Grid Reference: 434780, 404330
Slice: A
Site Area (Ha): 0.71
Search Buffer (m): 250

Site Details

Land Off Vernon Road, Worsbrough, BARNSELY, South
Yorkshire, S70 5HJ





274SE 1894 1:10.560	282NE 1893 1:10.560
---------------------------	---------------------------

Land Off Vernon Road, Worsbrough, BARNSELY, South
Yorkshire, S70 5HJ

Tel: 0844 844 9952
Fax: 0844 844 9951
Web: www.envirotech.co.uk

Yorkshire Published 1906

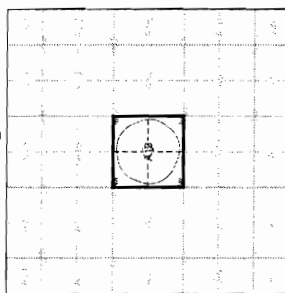
Source map scale - 1:2,500

The historical maps shown were reproduced from maps predominantly held at the Ordnance Survey archives. The maps were adopted for mapping urban areas and by 1896 it was decided that the maps should be the calibrated parts of Great Britain. The published date given below refers to the year in which the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas.

Map Name(s) and Date(s)

274, 11 1906 1:2,500	274, 12 1906 1:2,500
274, 15 1906 1:2,500	274, 16 1906 1:2,500

Historical Map - Segment A13

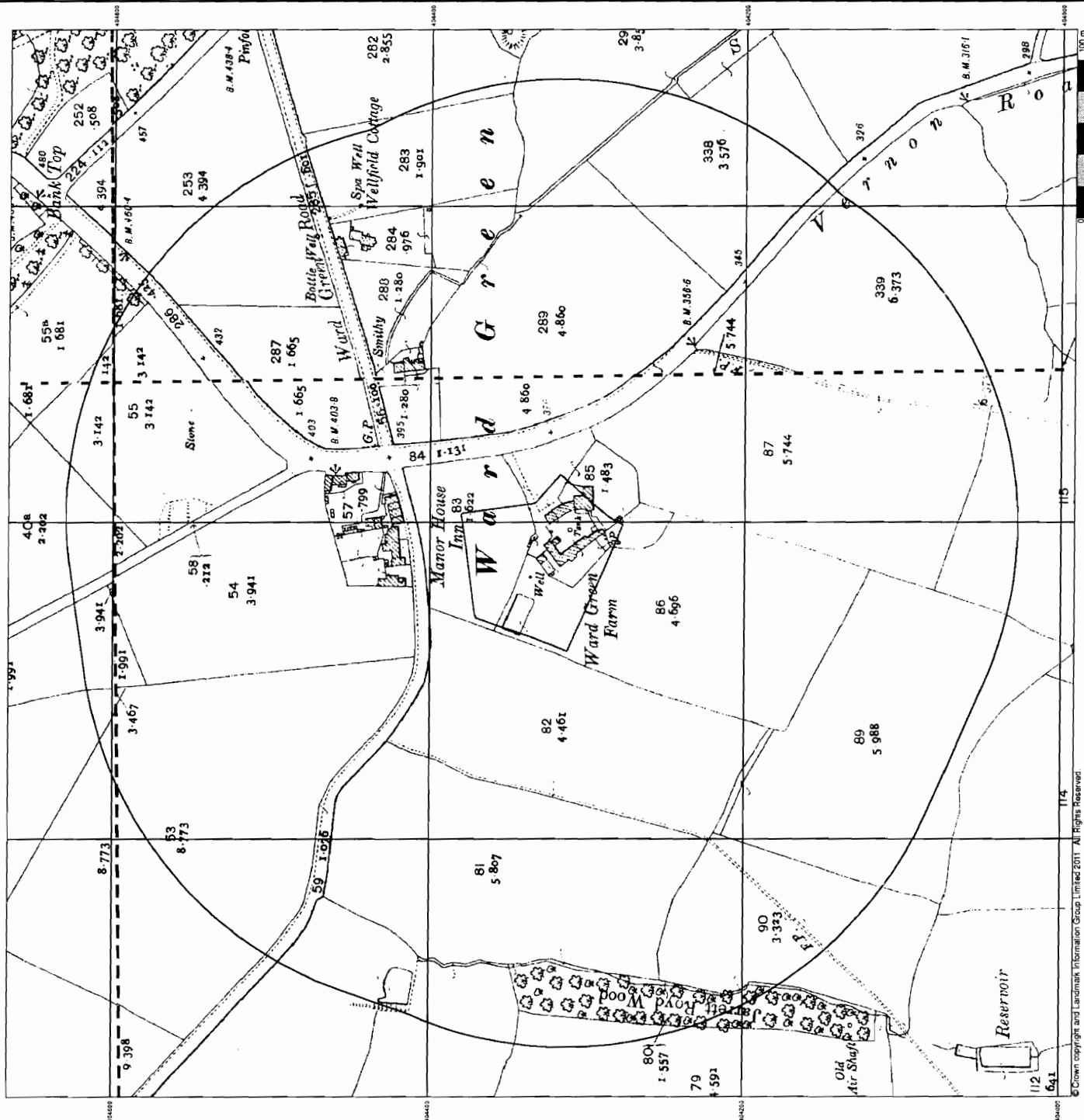


Order Details

Order Number: 35976698_1_1
Customer Ref: 552008
National Grid Reference: 434780, 404330
Slice: A
Site Area (Ha): 0.71
Search Buffer (m): 250

Site Details

Land Off Vernon Road, Worsbrough, BARNESLEY, South
Yorkshire, S70 5HU



Yorkshire

Published 1907

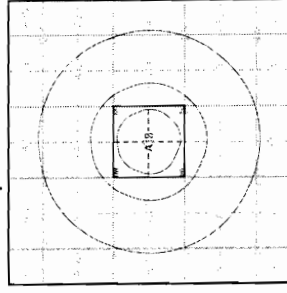
Source map scale - 1:10,560

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas; these maps were used to update the 1:10,560 maps. The published date given therefore is often some years later than the surveyed date. Before 1939, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas. In the late 1940's, a Provisional Edition was produced, which updated the 1:10,560 mapping from a number of sources. The maps appear unaltered - with all military camps and other strategic sites removed. These maps were overlaid with the Ordnance Survey grid and the 1:10,000 scale was introduced using the Transverse Mercator Projection. The revision process continued until recently, with new editions appearing every 10 years or so for urban areas.

Map Name(s) and Date(s)

27/ASE	1907
1:10,560	
292N/E	1907
1:10,560	

Historical Map - Slice A

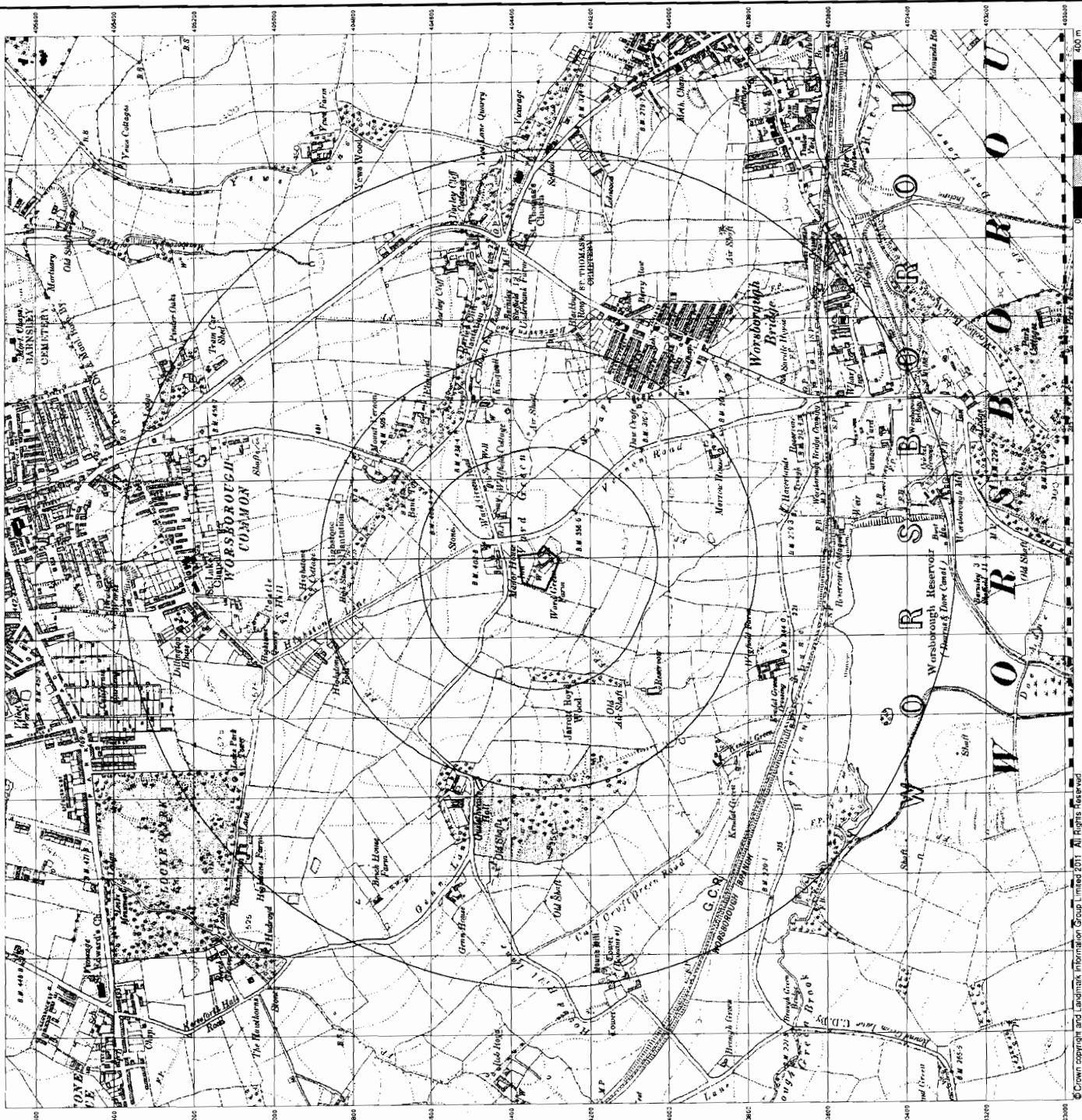


Order Details

Order Number: 35976698_1_1
 Customer Ref: 552008
 National Grid Reference: 434780, 404330
 Slice: A
 Site Area (Ha): 0.71
 Search Buffer (m): 1000

Site Details

Land Off Vernon Road, Worsbrough, BARNESLEY, South
 Yorkshire, S70 5HJ



Yorkshire Published 1931

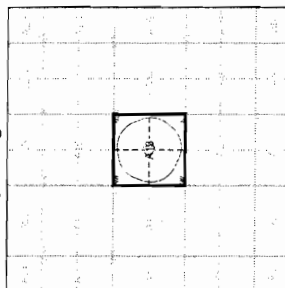
Source map scale - 1:2,500

The historical maps shown were reproduced from maps predominantly held at the time adopted for England, Wales and Scotland in the 1840s. In 1854 a 2.5 inch scale map was adopted for mapping urban areas and by 1896 it covered the whole of the country. The maps were produced by the Ordnance Survey of Great Britain. The published date given below the map name is the date of the surveyed data. Before 1938, all OS maps were based on the Cassin's Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas.

Map Name(s) and Date(s)

274, 11	274, 12	274, 13
1931	1931	1931
12,500	12,500	12,500
274, 15	274, 16	274, 17
1931	1931	1931
12,500	12,500	12,500

Historical Map - Segment A13

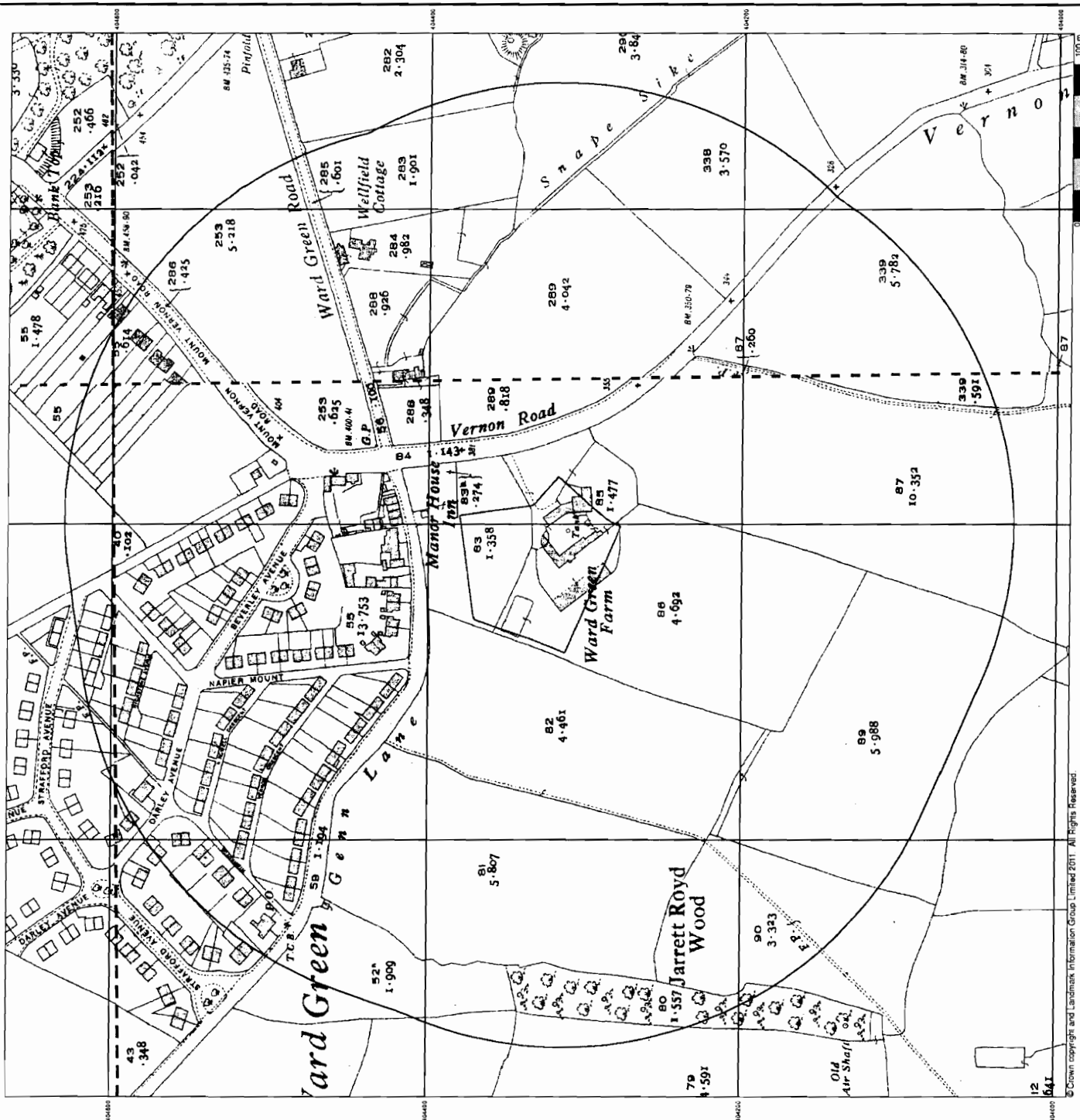


Order Details

Order Number: 35976698_1_1
Customer Ref: 552008
National Grid Reference: 434780, 404330
Site: A
Site Area (Ha): 0.71
Search Buffer (m): 250

Site Details

Land Off Vernon Road, Worsbrough, BARNESLEY, South
Yorkshire, S70 5HU





Yorkshire

Published 1938

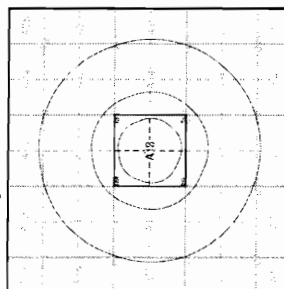
Source map scale - 1:10,560

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas; these maps were often to update the 1:10,560 maps. The published date given therefore is often to update the 1:10,560 maps. The maps were surveyed by a single county or group of counties, giving rise to significant variations in the 1:10,560 mapping from a number of sources. The maps appear unfinished - with all military camps and other strategic sites removed. These maps were initially overlaid with the National Grid. In 1970, the first 1:10,000 maps were produced using the Transverse Mercator Projection. The revision process continued until recently, with new editions appearing every 10 years or so for urban areas.

Map Name(s) and Date(s)

274SE	1938
1:10 560	
282NE	1938
1:10 560	

Historical Map - Slice A



Order Details

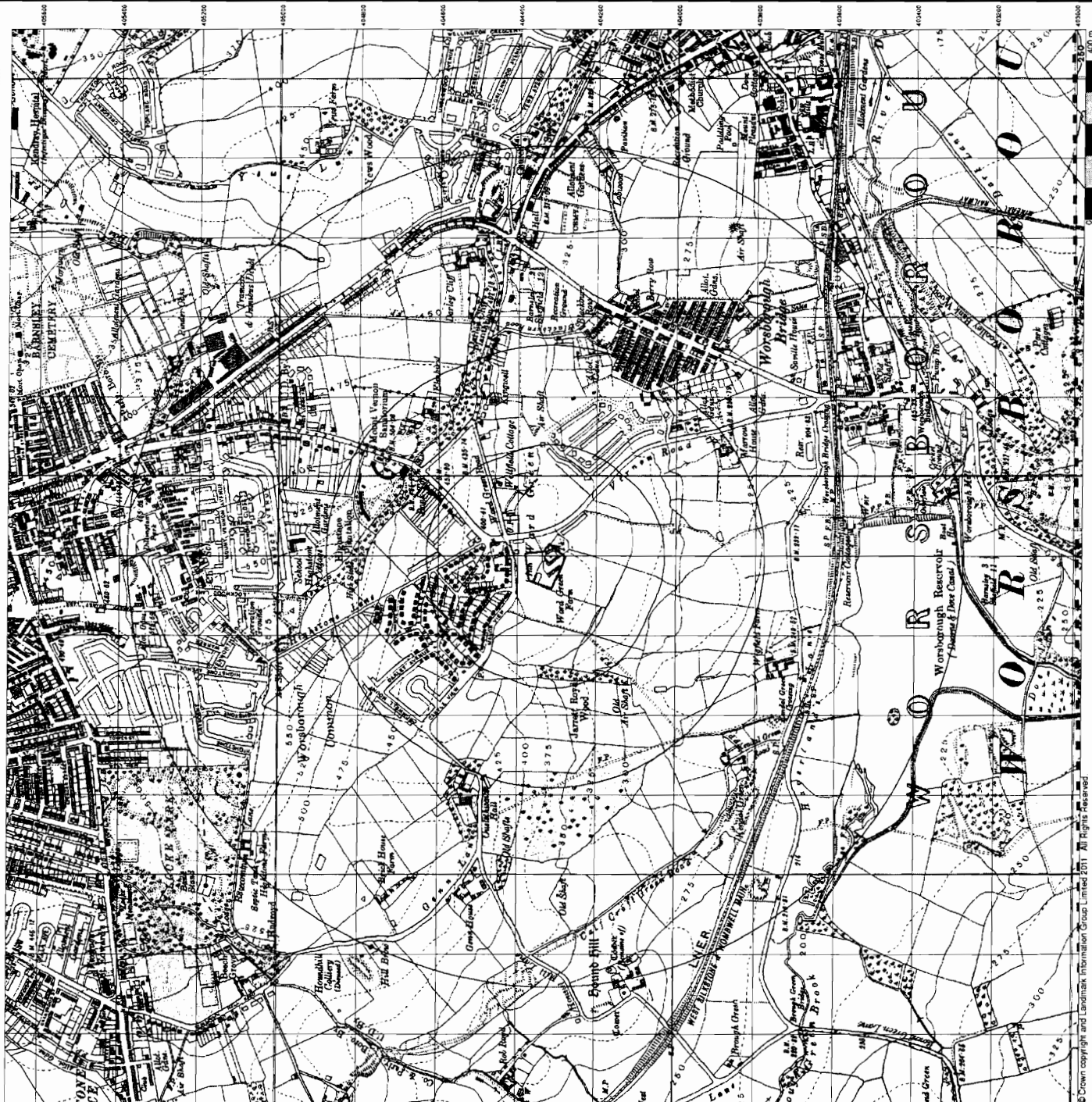
Order Number: 35976698_1_1
Customer Ref: 552008
National Grid Reference: 434780, 404330
Slice: A
Site Area (Ha): 0.71
Search Buffer (m): 1000

Site Details

Land Off Vernon Road, Worsbrough, BARNESLEY, South
Yorkshire, S70 5HJ



Tel: 0844 844 9852
Fax: 0844 844 9851
Web: www.envirocheck.co.uk



Yorkshire

Published 1948

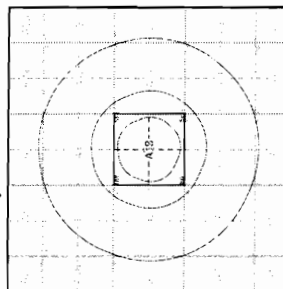
Source map scale - 1:10,560

The historical maps shown were reproduced from maps predominantly held at the Ordnance Survey, which were produced in the 1840s. In 1854 the 1:10,560 scale maps were produced for the first time. These maps were used to update the 1:10,560 maps. The maps shown here are often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas. In the late 1940s, a Provisional Edition was produced, which updated the 1:10,560 mapping from a number of sources. The maps appear unfinished - with all military camps and other strategic sites removed. These maps were initially overlaid with the National Grid. In 1970, the first 1:10,000 maps were produced using the Transverse Mercator Projection. The revision process continued until recently, with new editions appearing every 10 years or so for urban areas.

Map Name(s) and Date(s)

274SE	1948
1:10,560	
282NE	1948
1:10,560	

Historical Map - Slice A

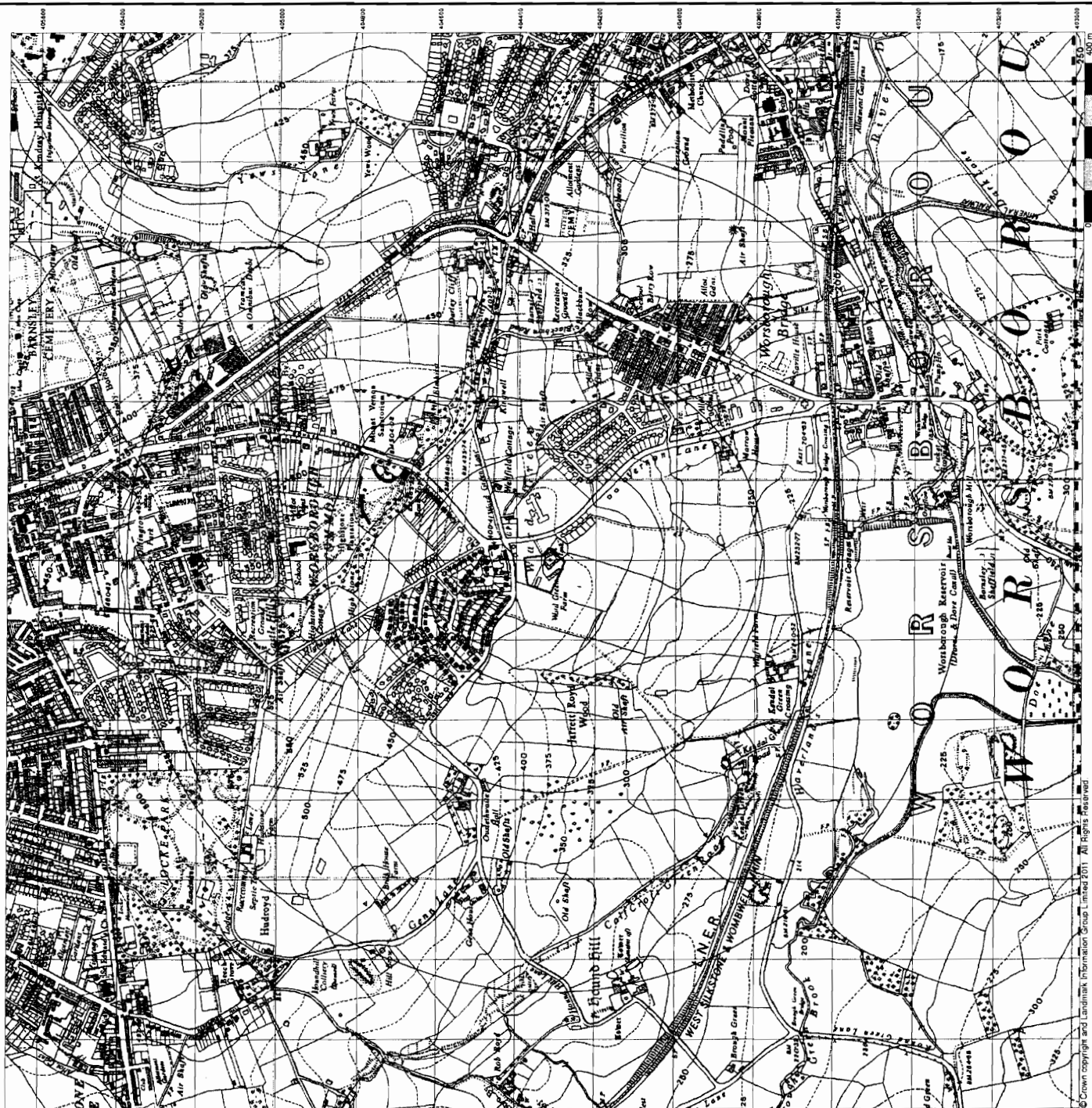


Order Details

Order Number: 35976698_1-1
 Customer Ref: 552008
 National Grid Reference: 434780, 404330
 Slice: A
 Site Area (Ha): 0.71
 Search Buffer (m): 1000

Site Details

Land Off Vernon Road, Worsbrough, BARNESLEY, South
 Yorkshire, S70 5HU



Ordnance Survey Plan

Published 1955 - 1956

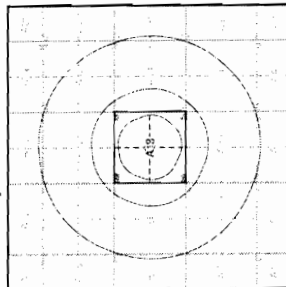
Source map scale - 1:10,000

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas; these maps were used to update the 1:10,560 maps. The published date given therefore is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in adjoining areas. In 1940, the Ordnance Survey introduced the Transverse Mercator Projection, with all military camps and other strategic sites removed. These maps were initially overlaid with the National Grid. In 1970, the first 1:10,000 maps were produced using the Transverse Mercator Projection. The revision process continued until recently, with new editions appearing every 10 years or so for urban areas.

Map Name(s) and Date(s)

SE30NW	SE30NE
1955	1955
1:10,560	1:10,560
SE30SW	SE30SE
1955	1955
1:10,560	1:10,560

Historical Map - Slice A



Order Details

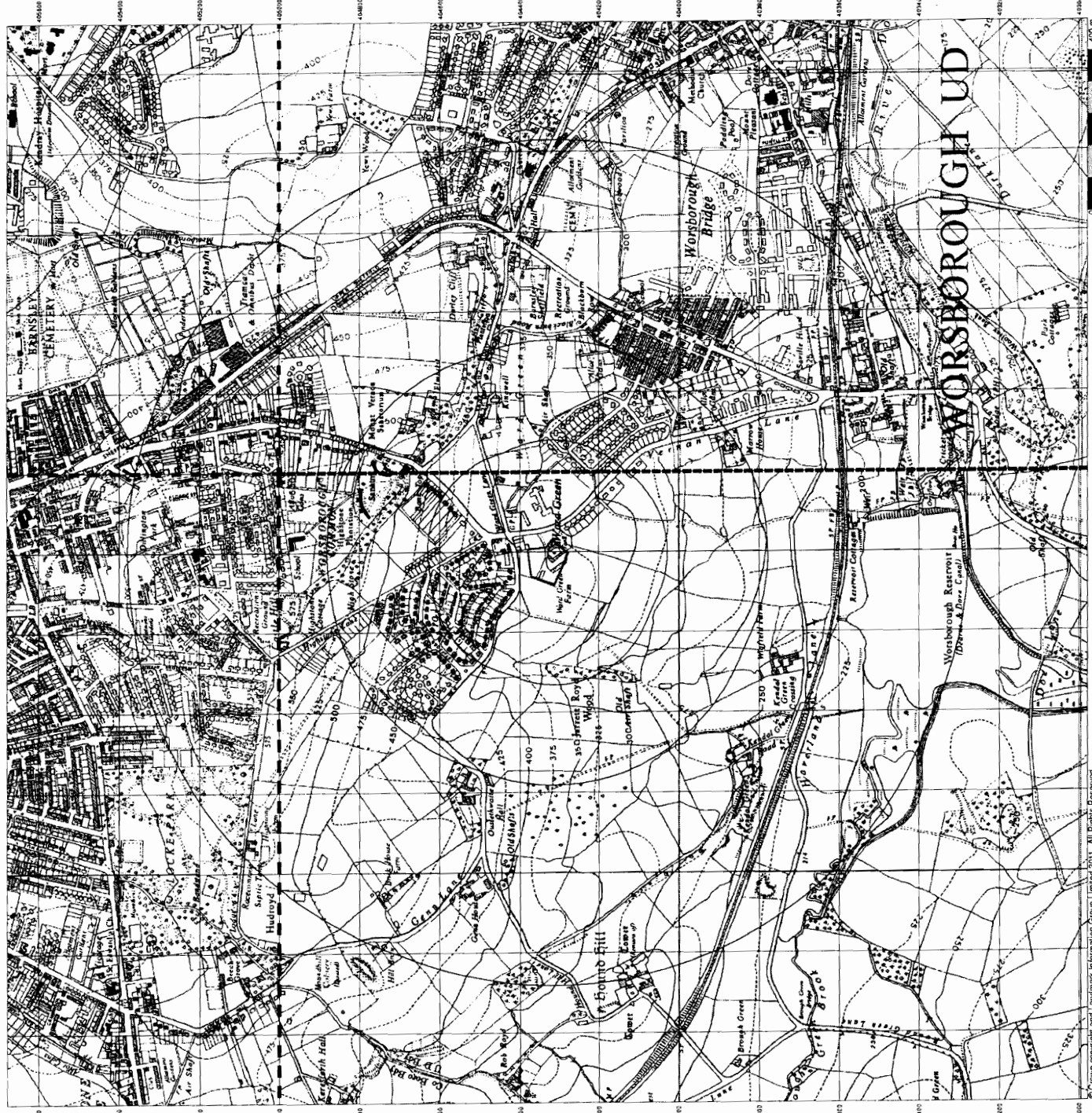
Order Number: 35976698_1_1
 Customer Ref: 552008
 National Grid Reference: 434780, 404330
 Slice: A
 Site Area (Ha): 0.71
 Search Buffer (m): 1000

Site Details

Land Off Vernon Road, Worsbrough, BARNSELY, South
 Yorkshire, S70 5HU



Tel: 0844 844 9652
 Fax: 0844 844 9651
 Web: www.envirocheck.co.uk





Ordinance Survey Plan Published 1960 - 1966

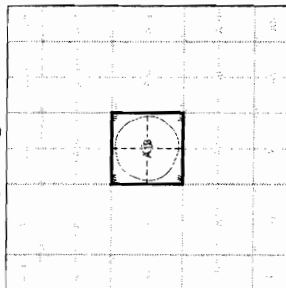
Source map scale - 1:1,250

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840s. In 1854 the 1:2,500 scale was adopted for mapping urban areas and by 1856 it covered the whole of what was considered to be the cultivated parts of Great Britain. The published date given below is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas.

Map Name(s) and Date(s)

HE 2404WSE 3404NNE 3504NW
1960 1960 1960
1:1,250 1:1,250 1:1,250
SE 2704SWSE 3404SE 3504SW
1960 1960 1960
1:1,250 1:1,250 1:1,250
SE 2403NNE 3503NW
1960 1960 1960
1:1,250 1:1,250 1:1,250

Historical Map - Segment A13



Order Details

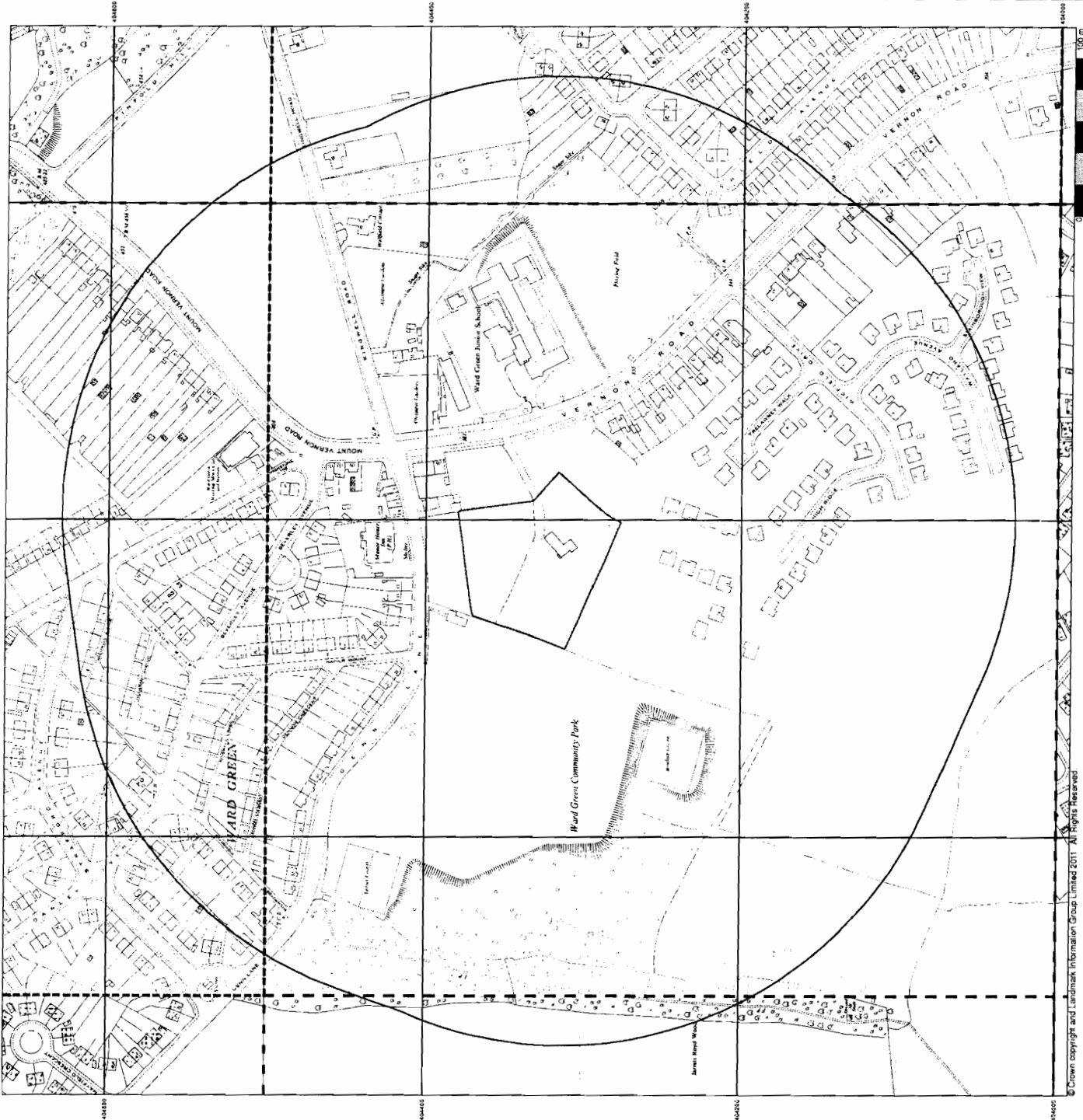
Order Number: 35976698 1_1
Customer Ref: 552008
National Grid Reference: 434780, 404330
Slice: A
Site Area (Ha): 0.71
Search Buffer (m): 250

Site Details

Land Off Vernon Road, Worsbrough, BARNESLEY, South
Yorkshire, S70 5HU



Tel: 0844 844 5652
Fax: 0844 844 5651
Web: www.envirocheck.co.uk



Ordnance Survey Plan Published 1961

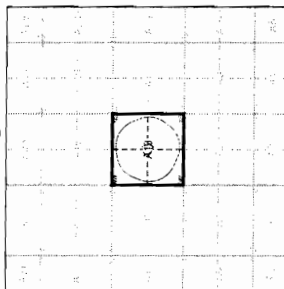
Source map scale - 1:2,500

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas and by 1896 it covered the whole of what were considered to be the cultivated parts of Great Britain. The published data given below is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas.

Map Name(s) and Date(s)

SE 3404	1981	1:2,500
SE 3403	1981	1:2,500

Historical Map - Segment A13

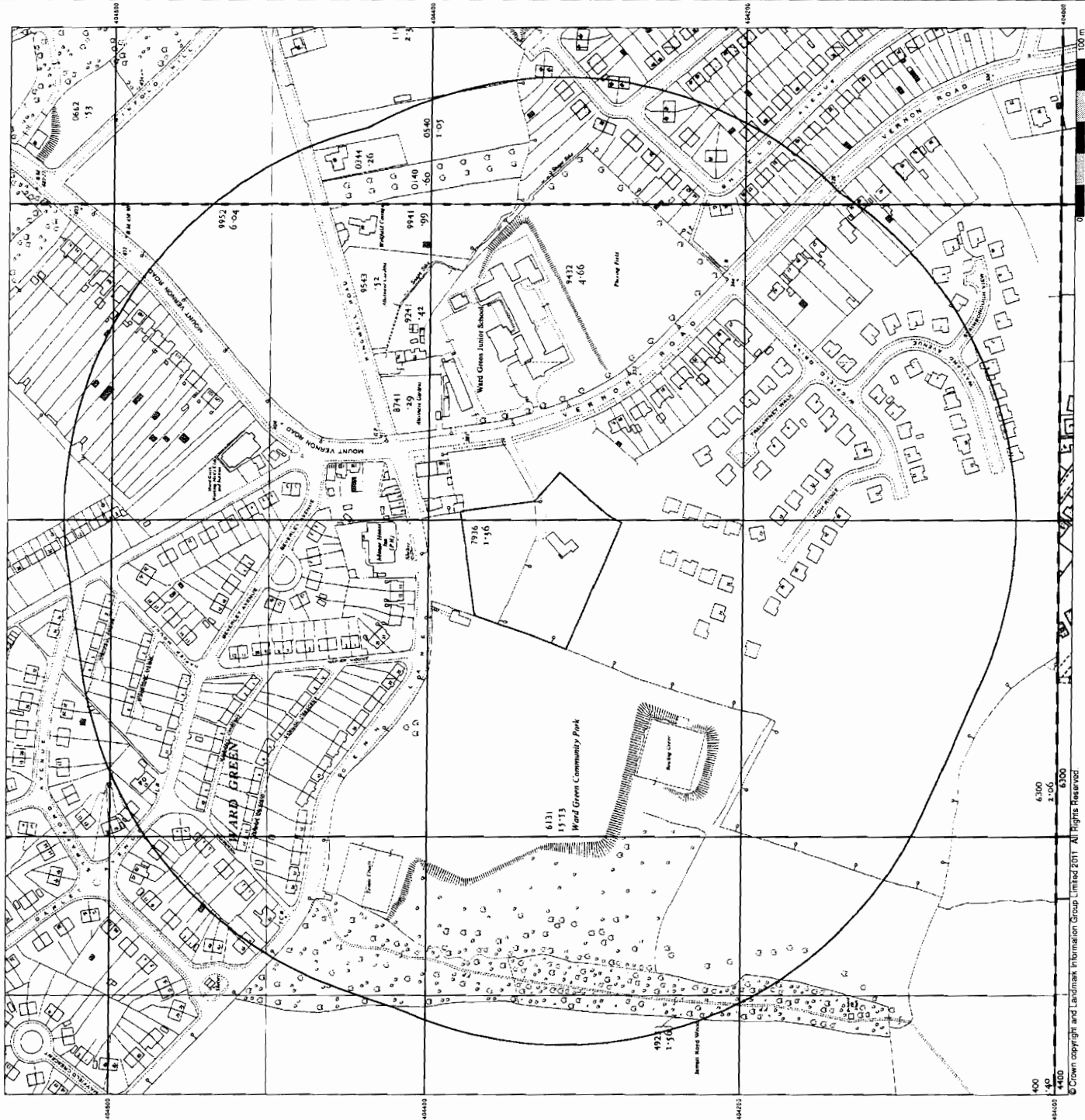


Order Details

Order Number: 35976698_1_1
Customer Ref: 552008
National Grid Reference: 434780, 404330
Slice: A
Site Area (Ha): 0.71
Search Buffer (m): 250

Site Details

Land Off Vernon Road, Worsbrough, BARNESLEY, South
Yorkshire, S70 5HJ



Ordnance Survey Plan Published 1965 - 1966

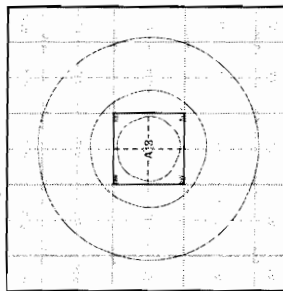
Source map scale - 1:10,000

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas; these maps were used to update the 1:10,560 maps. The published data given therefore is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas. In the late 1940's, a Provisional Edition was produced, which updated the 1:10,560 mapping from a number of sources. The maps appear unfinished - with all military camps and other strategic sites removed. These unfinished maps were initially overprinted with the National Grid. In 1970, the first 1:10,000 maps were produced using the Transverse Mercator Projection. The revision process continued until recently, with new editions appearing every 10 years or so for urban areas.

Map Name(s) and Date(s)

SE30NW	1965	1:10,560
SE30NE	1966	1:10,560
SE30SW	1965	1:10,560
SE30SE	1966	1:10,560

Historical Map - Slice A

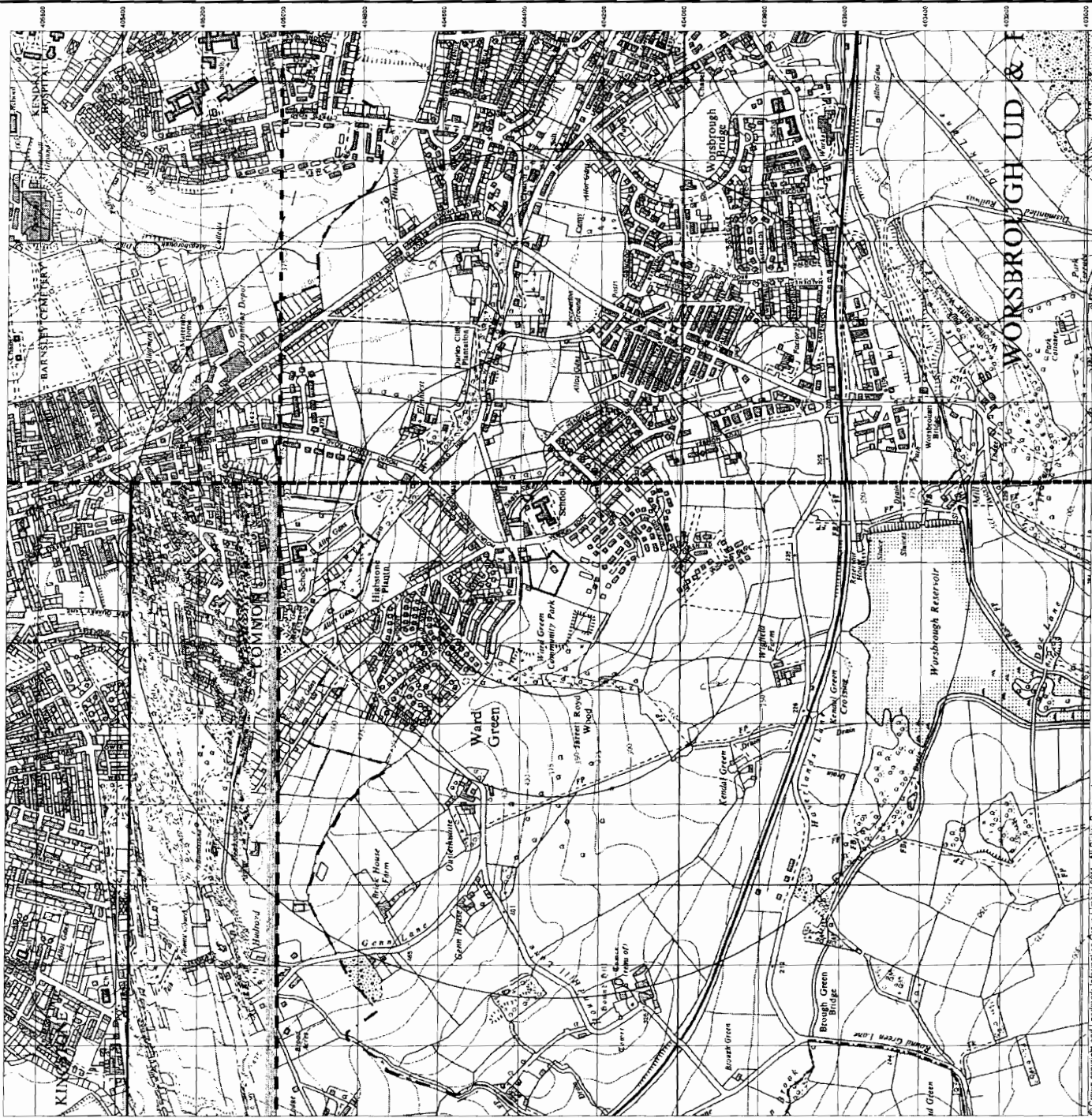


Order Details

Order Number: 35976698 1.1
Customer Ref: 552008
National Grid Reference: 434780, 404330
Slice: A
Site Area (Ha): 0.71
Search Buffer (m): 1000

Site Details

Land Off Vernon Road, Worsbrough, BARNESLEY, South
Yorkshire, S70 5HJ





Published 1966 - 1972

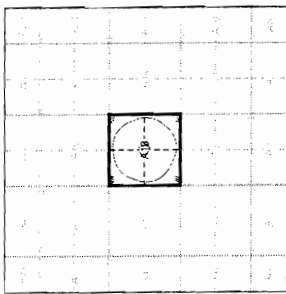
Source map scale - 1:1,250

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:50,000 scale was adopted for mapping urban areas and by 1896 it was considered the whole of what were considered to be the cultivated parts of Great Britain. The published date given below is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas.

Map Name(s) and Date(s)

SE3404NE	SE3503NW
1972	1966
1:1,250	1:1,250
SE3404SE	SE3504SW
1966	1969
1:1,250	1:1,250

Historical Map - Segment A13



Order Details

Order Number: 35976698_1_1

Customer Ref: 552008
National Grid Reference: 421780 404220

National Grid Reference: 434780, 404330
A
Slice:

Slice: A
Site Area (Ha): 0.71

Site Area (Ha): 0.71
Search Buffer (m): 250

Site Details

Land Off Vernon Road, Worsbrough, BARNSELEY, South
Yorkshire, S70 5HJ

Tel. 0844 844 9952
Fax 0844 844 0069

Fax: 0844 844 9951
Web: www.envirotec.co.uk

www.eliminet.com

Ordnance Survey Plan Published 1973 - 1978

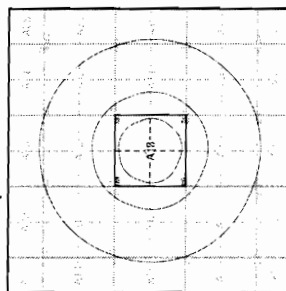
Source map scale - 1:10,000

The historical maps shown were reproduced from maps predominantly held in the Ordnance Survey archive. The maps were produced for the 1:10,000 scale and were used to update the 1:10,000 maps. The maps are often some years later than the surveyed data. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas. In the late 1940's, a Provisional Edition was produced, which updated the 1:10,000 mapping from a number of sources. The maps appear unfinished - with all military camps and other strategic sites removed. These maps were initially overprinted with the National Grid. In 1970, the first 1:10,000 maps were produced using the Transverse Mercator Projection. The revision process continued until recently, with new editions appearing every 10 years or so for urban areas.

Map Name(s) and Date(s)

SE04NW	SE03NE
1973	1973
1:10,000	1:10,000
SE04SW	SE03SW
1973	1973
1:10,000	1:10,000

Historical Map - Slice A

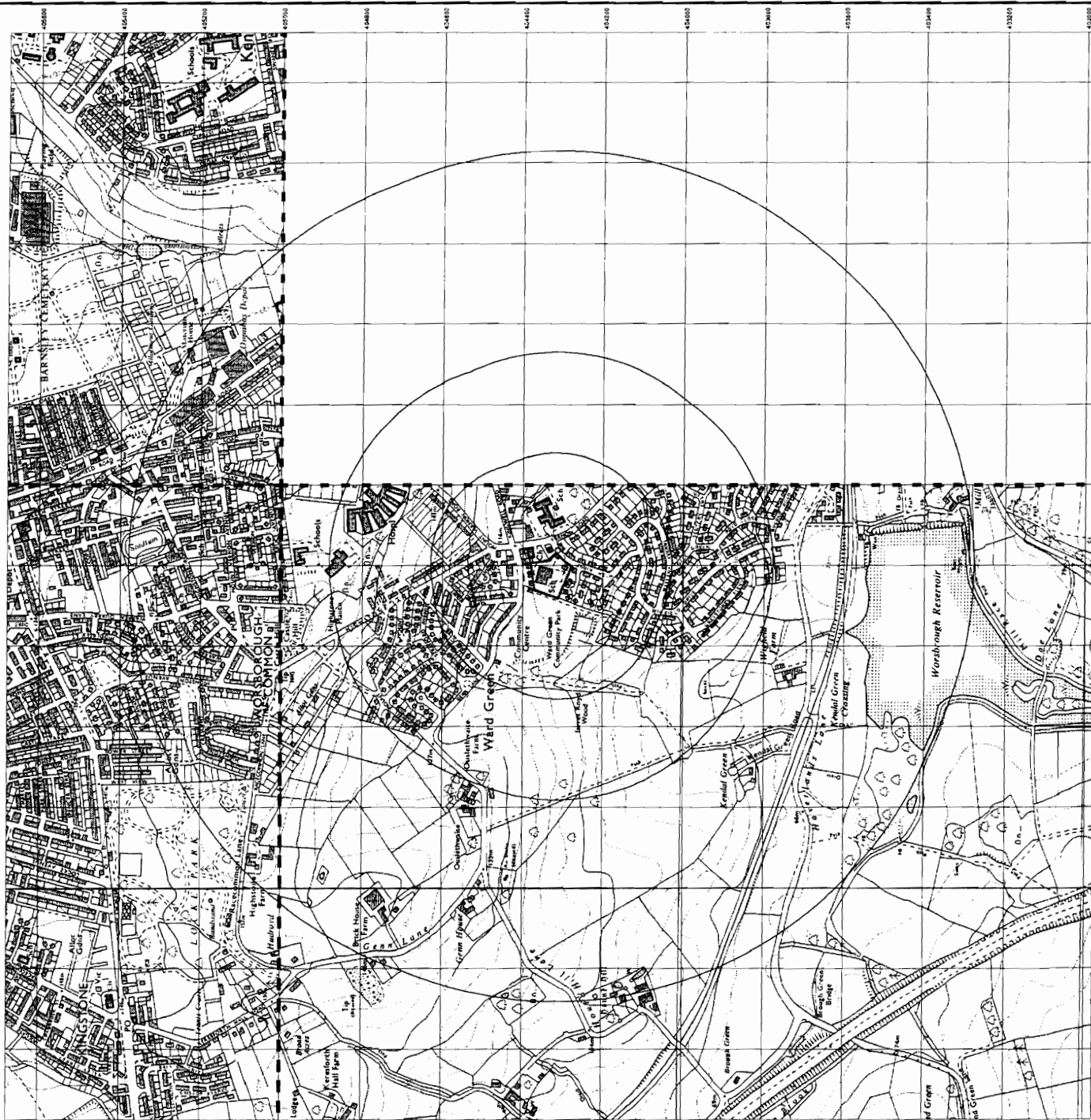


Order Details

Order Number: 35976698_1_1
Customer Ref: 552008
National Grid Reference: 434780, 404330
Slice: A
Site Area (Ha): 0.71
Search Buffer (m): 1000

Site Details

Land Off Vernon Road, Worsbrough, BARNESLEY, South
Yorkshire, S70 5HJ





Large-Scale National Grid Data Published 1993

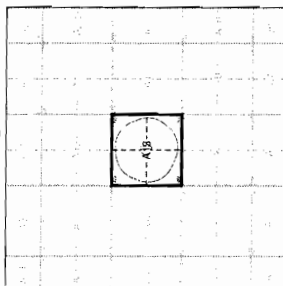
Source map scale - 1:1,250

'Large Scale National Grid Data' superseded SIM cards (Ordnance Survey's 'Survey of Information on Microfilm') in 1992, and continued to be produced until 1999. These maps were the forerunners of digital mapping and as provide detailed information on houses and roads, but tend to show less topographic features such as vegetation. These maps were produced at both 1:2,500 and 1:1,250 scales.

Map Name(s) and Date(s)

NE3403NWE3403NEE3403NW	1993	1:250
NE3403NWE3403NEE3403NW	1993	1:250
NE3403NWE3403NEE3403NW	1993	1:250
NE3403NWE3403NEE3403NW	1993	1:250
NE3403NWE3403NEE3403NW	1993	1:250
NE3403NWE3403NEE3403NW	1993	1:250
NE3403NWE3403NEE3403NW	1993	1:250
NE3403NWE3403NEE3403NW	1993	1:250
NE3403NWE3403NEE3403NW	1993	1:250
NE3403NWE3403NEE3403NW	1993	1:250

Historical Map - Segment A13



Order Details

Order Number: 35976698 1 1
Customer Ref: 552008
National Grid Reference: 434780, 404330

Site: A
Site Area (Ha): 0.71
Search Buffer (m): 250

Site Details

Land Off Vernon Road, Worsbrough, BARNESLEY, South
Yorkshire, S70 5HJ



Tel: 0844 844 9562
Fax: 0844 844 9561
Web: www.envirocheck.co.uk

10k Raster Mapping Published 2000

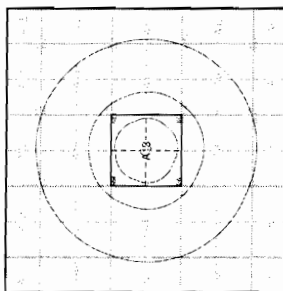
Source map scale - 1:10,000

The historical maps shown were produced from the Ordnance Survey's 1:10,000 colour raster mapping. These maps are derived from Landplan which replaced the old 1:10,000 maps originally published in 1970. The data is highly detailed showing buildings, fences and field boundaries as well as all roads, tracks and paths. Road names are also included together with the relevant road number and classification. Boundary information depiction includes county, unitary authority, district, civil parish and constituency.

Map Name(s) and Date(s)

SE30NW	2000	1:10,000
SE30SW	2000	1:10,000
SE30SE	2000	1:10,000

Historical Map - Slice A

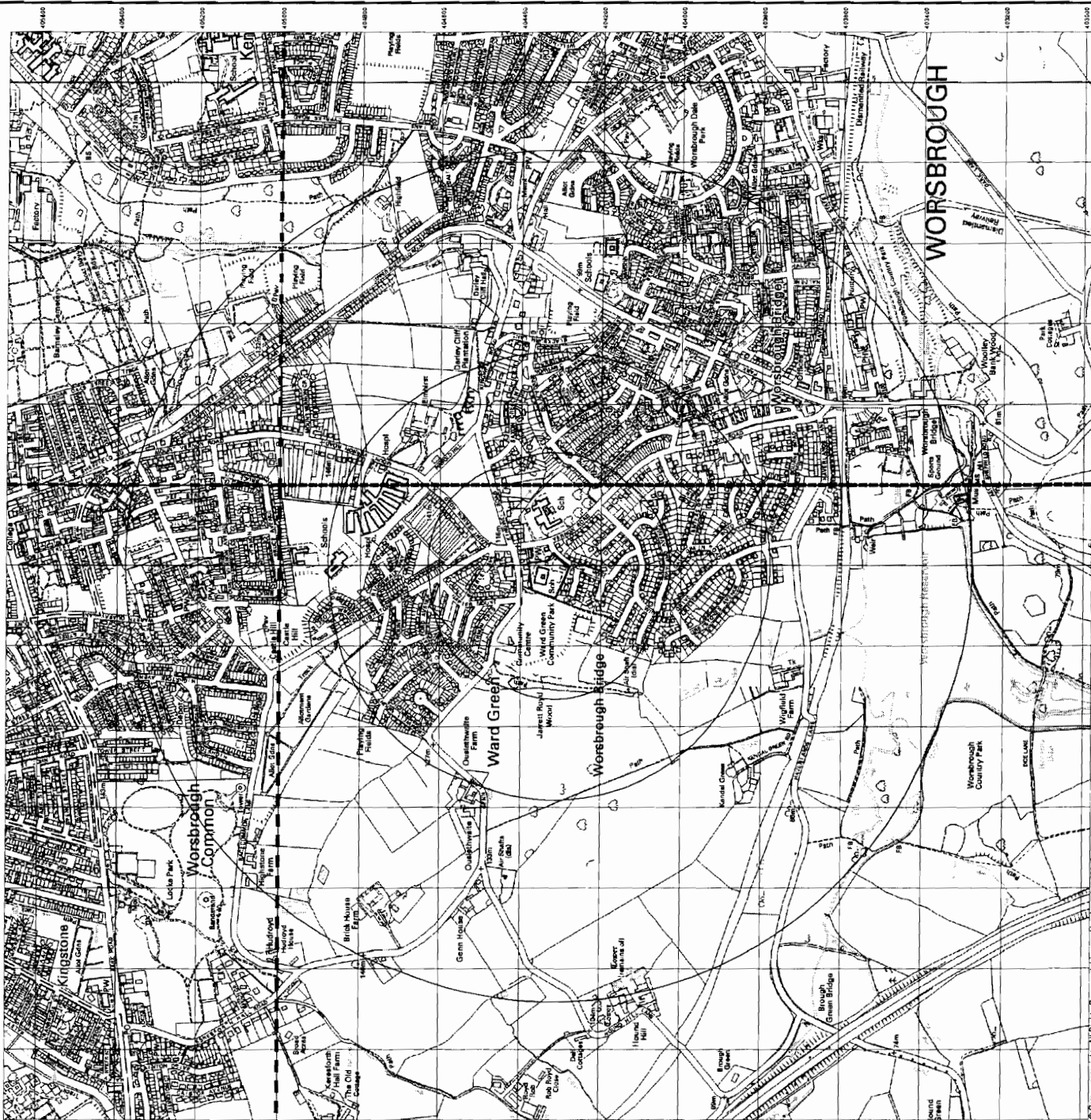


Order Details

Order Number: 35976698_1_1
Customer Ref: 552008
National Grid Reference: 434780, 404330
Slice: A
Site Area (Ha): 0.71
Search Buffer (m): 1000

Site Details

Land Off Vernon Road, Worsbrough, BARNESLEY, South
Yorkshire, S70 5HJ



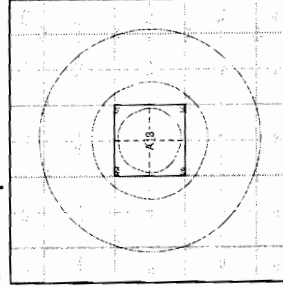
10k Raster Mapping Published 2006 Source map scale - 1:10,000

The historical maps shown were produced from the Ordnance Survey's 1:10,000 colour raster mapping. These maps are derived from Landplan which replaced the old 1:10,000 maps originally published in 1970. The data is highly detailed showing buildings, fences and field boundaries as well as all roads, tracks and paths. Road names are also included together with the relevant road number and classification. Boundary information depiction includes county, unitary authority, district, civil parish and constituency.

Map Name(s) and Date(s)

SE30NW	SE30NE
2006	2006
1:10 000	1:10 000
SE30SW	SE30SE
2006	2006
1:10 000	1:10 000

Historical Map - Slice A

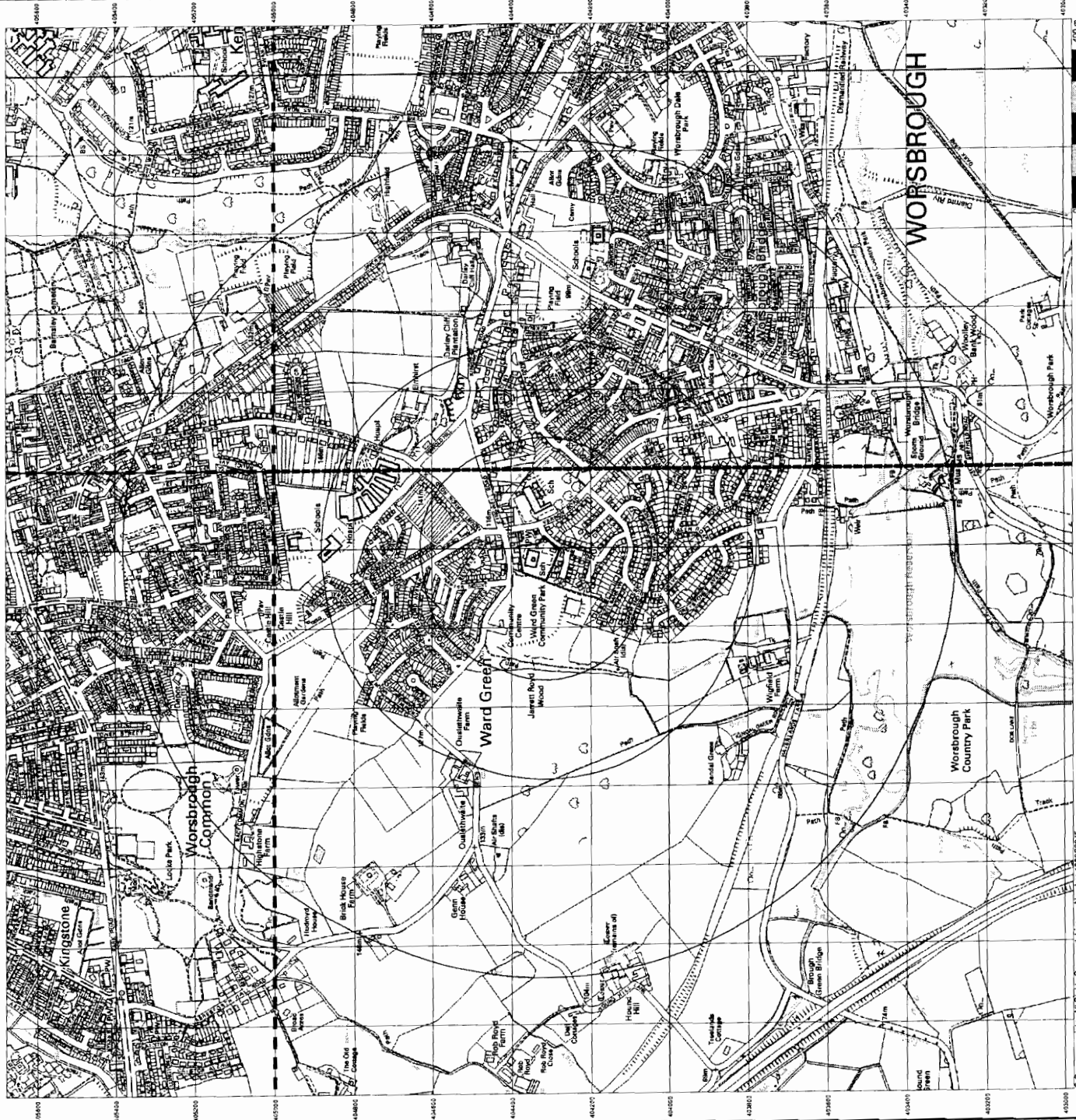


Order Details

Order Number: 35976698_1_1
Customer Ref: 552008
National Grid Reference: 434780, 404330
Slice: A
Site Area (Ha): 0.71
Search Buffer (m): 1000

Site Details

Land Off Vernon Road, Worsbrough, BARNESLEY, South
Yorkshire, S70 5HJ



10k Raster Mapping Published 2011

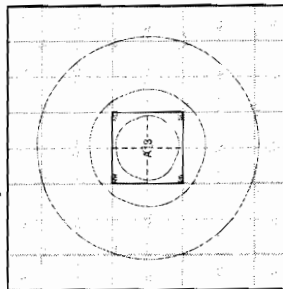
Source map scale - 1:10,000

The historical maps shown were produced from the Ordnance Survey's 1:10,000 colour raster mapping. These maps are derived from Landplan which replaced the old 1:10,000 maps originally published in 1970. The data is highly detailed showing buildings, fences and field boundaries as well as roads, tracks and paths. Road names are also included together with the relevant road number and classification. Boundary information depiction includes county, unitary authority, district, civil parish and constituency.

Map Name(s) and Date(s)

SE30NW	SE30NE
2011	2011
1:10,000	1:10,000
SE30SW	SE30SE
2011	2011
1:10,000	1:10,000

Historical Map - Slice A

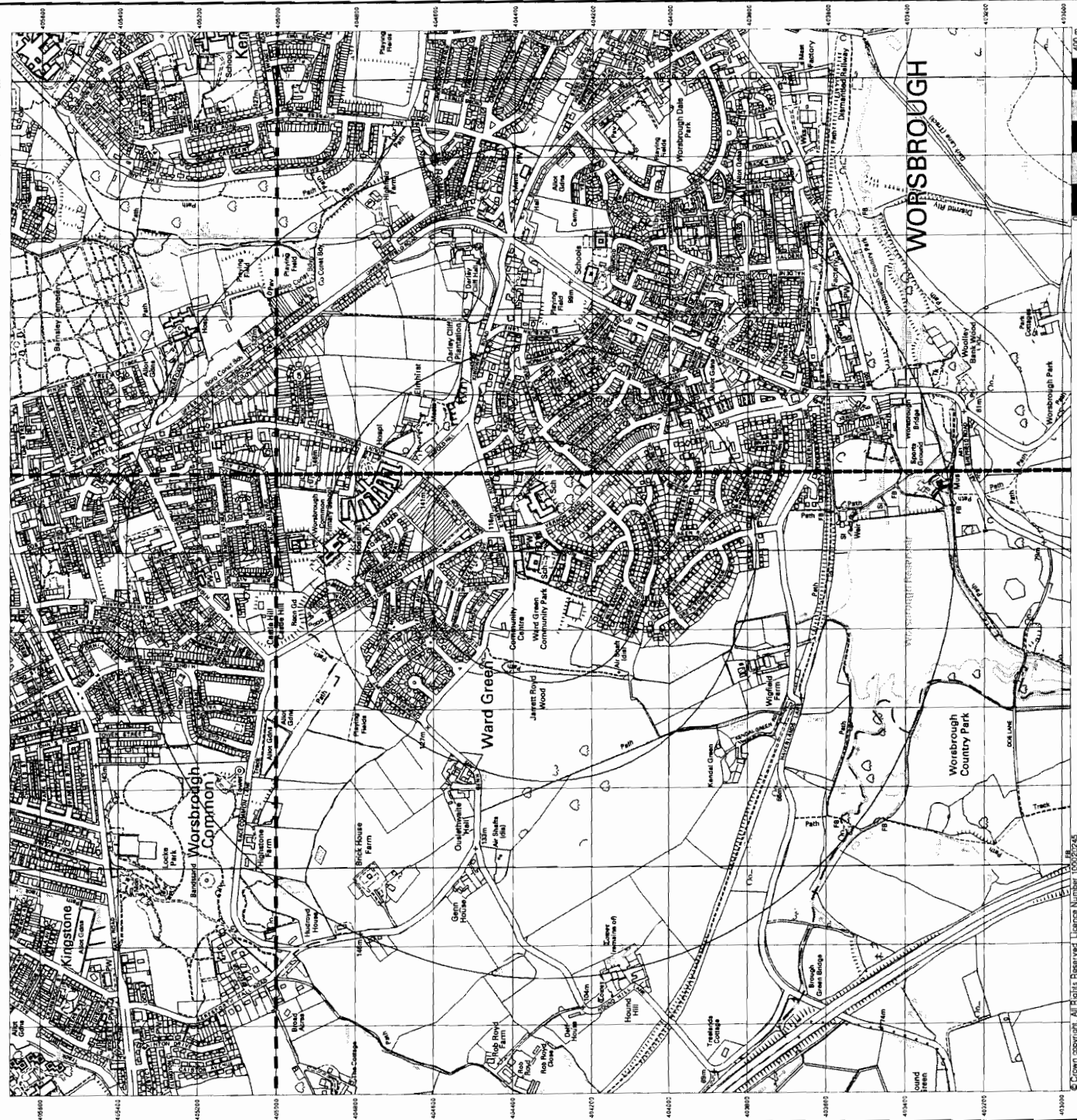


Order Details

Order Number: 35976698_1_1
 Customer Ref: 552008
 National Grid Reference: 434780, 404330
 Slice: A
 Site Area (Ha): 0.71
 Search Buffer (m): 1000

Site Details

Land Off Vernon Road, Worsbrough, BARNESLEY, South
 Yorkshire, S70 5HJ



APPENDIX A - CONTAMINATION RISK ASSESSMENT

Appendix A

DESK STUDY ASSESSMENT OF POTENTIAL CONTAMINATION RISK

Land Use Risk Assessment

An assessment has been carried out for a number of common past land uses, indicating the severity risk rating that should be used. Where little is known about a site the higher land uses found and rating range figures should be used. Also given are the recommended chemical tests associated with a site investigation, however the exact tests will be determined on a site by site basis.

Potential Risk		Land Use	Risk Rating Range - See APP B	Contamination testing					Comment
Description	SI Colour Rating			EA Screen	Leachate	TPH	PAH 16	BTEX PCBs	
Very High 5	Red	Radioactive site	5	Specialist assessment required					
		Petrol/Chemical Plant	5	x	x	x	x	x	
		Metal Works	5	x	x	x	x		Toxic metals
		Landfill Site	3 - 5	x	x				Dependent on infill
		Dye Works	3 - 5	x	x	x	x	x	
		Coke Works	4 - 5	x	x	x	x	x	
		Gas Works	4 - 5	x	x	x	x	x	
		Tannery	4 - 5	x	x				
		Petrol Station	3 - 5	x	x	x	x		
		Oil Depot	3 - 5	x	x	x	x		
High 4	Yellow	Infilled ground	3 - 5	x	x				Dependent on infill
		Heavy Industry	4	x	x		x	x	
		Soap Works	4	x	x			x	
		Power Station	4	x	x				
		Garage	4	x	x	x	x		
		Timber Yard	4	x	x				
		Highway	3 - 4	x	x	x	x		
		Abattoir	3 - 4	x	x				
		Colliery	3 - 4	x	x				
		Fabric Mill	3 - 5	x	x			x	5 if dye on site
Moderate 3	Yellow	Foundry	3 - 4	x	x				
		Hospital	3 - 4	x	x				
		Food Factory	3	x	x				
		Sewage Works	3	x	x		x	x	
		Brewery	3	x	x				
		Coal Yard	3	x	x				
		Airfield	3	x	x				
		Light Industry	3	x	x				
		Colliery Spoil	2 - 3	x	x				
Low 2	Green	Offices/Commercial	2	x	x				
		Storage/Warehouse	2	x	x				
		Residential	2	x	x				
		Quarry	2	x	x				Unfilled
		Gardens/Parkland	1 - 2	x	x				
Negligible		Farm/Wood/Moors	1 - 2	x	x				

Abbeydale BEC Ltd

Assessment of Potential Contamination Risk

Site Contamination Risk Assessment

In assessing overall contamination risk, the following categorisation has been developed:

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

APPENDIX B - CONCEPTUAL MODEL RISK MATRIX

APPENDIX B

Risk matrix to be used when assessing risk for conceptual site model

		Severe	Medium	Mild	Minor	>12 = Very High 12 = High 8 to 9 = Moderate 4 to 6 = Moderate / low 3 = Low 1 to 2 = Very Low
	Risk	4	3	2	1	
High Likelihood	4			8	4	
Likely	3		9	6	3	
Low Likelihood	2	8	6	4	2	
Unlikely	1	4	3	2	1	

Risk	Risk Rating
Very High	5
High	4
Moderate	3
Moderate / Low	2 to 3
Low	2
Very Low	1

APPENDIX C - FURTHER REPORTING

None requested at this stage (September 2011).