pwa

Geo-Environmental Ltd

Consulting Geo-Environmental Engineers

PHASE I REPORT

Residential Development Ward Green Primary School, High Ridge, Ward Green Barnsley

Calls Wharf
2 The Calls
Leeds
West Yorkshire
LS2 7JU
T.0113 2372929
F.0113 2372701

site@pwageo.co.uk
www.pwageo.co.uk

ISO 9001
FS 560612

Report No. 10225/G/1
December 2010

PDF created with pdfFactory Pro trial version www.pdffactory.com

Client Details

Harron Homes

Carlton House

Temple Point, Bullerthorpe Lane

Swillington

LEEDS

LS15 9JL

Documents Revision Status

REVISION	DATE	COMMENTS
–	December 2010	

PDF created with pdfFactory Pro trial version www.pdffactory.com

Executive Summary

Background

Harron Homes are considering the re-development of Ward Green Primary School in Barnsley as the site of a proposed residential development.

PWA Geo-Environmental Brief and Objective

Harron Homes appointed PWAG to undertake an environmental review of the site to support a planning application and to inform their decision to acquire the land. The overall objective of the review was to determine the presence and likely extent of any potential environmental liabilities associated with the current and past uses of the site. This Phase 1 report is primarily a review of existing data and preliminary environmental risk assessment with proposals for intrusive investigation works.

Site History

The site was historically occupied by a farm from the 19th Century until the 1960's. A school was constructed at the site during the early 1970's and was in use until November 2010. The site is currently occupied by the former school buildings with hardstanding and landscaped areas.

Preliminary Risk Assessment

Existing documentary data was sourced and compiled to establish the likely ground conditions, site history and the site's environmental sensitivity. Public domain information was obtained regarding records of regulatory intervention. Potential sources of contamination associated with the land use were identified, as well as potential environmental receptors. The data was evaluated in the context of a new development with residential end use.

Conclusions and Recommendations

The preliminary risk assessment identified potential soil and groundwater contamination associated with the historical use of the site and the surrounding area. No information has been provided to indicate whether or not remedial works have been carried out on site.

On the basis of the information reviewed it is considered likely that contaminants are present within the site that could impact the proposed development. Therefore, in order to fulfil the objective it will be necessary to carry out more detailed risk analysis based on site specific data.

In addition, the site is indicated to be underlain by a coal seam at shallow depth which may have been worked.

This brief summary should not be assumed to represent a complete account of all the potential geo-environmental issues that may exist at the site. As such it is strongly recommended that the report be read in its entirety.

PDF created with pdfFactory Pro trial version www.pdffactory.com

It is therefore recommended that Harron Homes proceed with completion of a Phase 2 intrusive investigation designed to:

- Adequately characterise the nature, degree and extent of potential contamination;
- Confirm whether potential pollutant linkages are actually present;
- Determine the severity of the impact of identified pollutant linkages on future redevelopment;
- Investigate the potential presence of shallow abandoned mineworkings; and
- Evaluate the engineering properties of the underlying soils.

The Phase 2 data will then be used as the basis of an environmental risk assessment in accordance with current good practice as described in CLR11 and identify the need for, and scope of, any further investigations/ monitoring and / or remediation to allow redevelopment to proceed.

A summary of geoenvironmental issues is provided in the table below.

Issue	Remarks
Former uses	Farm from 19th Century to the 1960's. Site occupied by Primary School from 1970's to the present.
Potential Contamination	Metals, hydrocarbon, asbestos, PCBs and pesticides associated with made ground relating to site history as well as historical presence of tank, boiler house and sub-station on site. Migration of organic and inorganic contaminants from off-site sources including former garage to north of the site and landfill site to the west. Contamination of groundwater in underlying minor aquifer. Potential hazardous gas associated with made ground on site and migration of hazardous gas from area of former landfilling to west of site.
Anticipated Ground Conditions	Made ground across the site associated with school and former farm buildings. Geological plans indicate that superficial drift deposits are absent beneath the site. Solid geology beneath the site comprises Pennine Middle Coal Measures. The Lower Beamshaw coal seam is shown to subcrop on the north eastern site boundary dipping to the north east. Also, the Kents Thin coal seam may lie at shallow depth beneath the site.
Mining & Quarrying	The site is in the zone of likely influence from workings in five seams of coal at depths ranging from 100m to 460m, last worked in 1970.
Flooding & Drainage	The site is not at risk from flooding.
Preparatory Works	Demolition of existing buildings and possible regrading of site levels.
Anticipated	Reinforced strip footings or piles, depending on the depth of made ground conditions

This brief summary should not be assumed to represent a complete account of all the potential geo-environmental issues that may exist at the site. As such it is strongly recommended that the report be read in its entirety.

PDF created with pdfFactory Pro trial version www.pdffactory.com

Foundation Solutions	encountered. If shallow mine workings are encountered, a raft foundation solution may be required.
Recommendations for Ground Investigation	Trial pits to ascertain the nature, stability and depth of the made ground and to retrieve samples for chemical testing. Trial pits to determine existence of below ground structures. Boreholes to retrieve geotechnical data from depth and install gas/groundwater monitoring wells. Rotary open hole drilling specifically to assess shallow mining issues in the vicinity of the site.

This brief summary should not be assumed to represent a complete account of all the potential geo-environmental issues that may exist at the site. As such it is strongly recommended that the report be read in its entirety.

PDF created with pdfFactory Pro trial version www.pdffactory.com

Table of Contents

1. INTRODUCTION 1
1.1. Phase 1 Methodology 2
2. SITE PROFILE 3
2.1 Site Location 3
2.2 Site Reconnaissance 3
2.3 Site Regulatory and Environmental Data 3
2.4 Site History 4
2.5 Potential Contamination Sources 6
3. ENVIRONMENTAL SETTING 7
3.1 Geology 7
3.2 Hydrogeology 7
3.3 Hydrology 7
3.4 Ecology 8
3.5 Mining and Quarrying 8
3.6 Summary of Site Sensitivity 8
4. RISK ASSESSMENT 9
4.1 Introduction 9
4.2 Conceptual Model 9
4.3 Qualitative Risk Assessment 11
5. CONCLUSIONS AND RECOMMENDATIONS 14
5.1 Environmental Risk Assessment 14
5.2 Foundations 14
5.3 Potential Development Constraints 15
5.4 Recommendations 15
5.5 Phase 2 Scope 16
6. REFERENCES 18

PDF created with pdfFactory Pro trial version www.pdffactory.com

APPENDICES

Appendix A – Legal Framework

Appendix B - General Notes

01	Environmental Setting

Appendix C – Drawings

Drawing No.	Title
10225/G/150	Site Location and Site Layout Plan
10225/G/151	Preliminary Conceptual Site Model
10225/G/152	Proposed Phase 2 Investigation Layout

Appendix D- Site Reconnaissance Photographs

Appendix E - Search Responses & Other Correspondence

From	To	Date	Content
Landmark Group	PWA Geo Environmental	25/11/2010	EnviroCheck Report
Coal Authority Report	PWA Geo Environmental	29/11/2010	Coal Authority Report

Appendix F - Historical OS Plans

PDF created with pdfFactory Pro trial version www.pdffactory.com

FOREWORD (Geo-environmental Investigation Report)

This report has been prepared for the sole use and reliance of the Client named above and cannot be relied upon by any other parties without the express written authorisation of PWA Geo-Environmental Ltd Consulting Limited (PWA Geo-Environmental Ltd). Any unauthorized third party relies on this report at their own risk and the authors owe them no duty of care.

The report presents observations and factual data obtained during our site investigation, and provides an assessment of geoenvironmental issues with respect to information provided by the Client regarding the proposed development. Further advice should be sought from PWA Geo-Environmental Ltd prior to significant revision of the development proposals.

The report should be read in its entirety, including all associated drawings and appendices. PWA Geo-Environmental Ltd cannot be held responsible for any misinterpretations arising from the use of extracts that are taken out of context.

The findings and opinions conveyed in any Desk Study section of the report (including review of any third party reports) are based on information obtained from the sources listed, which PWA Geo-Environmental Ltd understands are reliable. All reasonable skill, care and diligence has been applied in examining the information obtained. However, PWA Geo-Environmental Ltd accept no responsibility for inaccuracies in the data supplied or for opinions based on any such inaccurate data.

Where the report refers to the potential presence of invasive weeds such as Japanese Knotweed, or the presence of asbestos containing materials, it should be noted that the observations are for information only and should be verified by a suitably qualified expert.

PWA Geo-Environmental Ltd reserve the right to amend their conclusions and recommendations in the light of further information that may become available.

PDF created with pdfFactory Pro trial version www.pdffactory.com

1. INTRODUCTION

PWA Geo-Environmental Ltd (PWAG), were commissioned by Harron Homes to carry out a Phase 1 preliminary investigation of land at Ward Green Primary School, Barnsley. The study comprises:

- an assessment of the land use history
- determination of the site's environmental setting
- assessment of anticipated ground conditions, including potential contaminants
- assessment of anticipated foundation and engineering issues associated with redevelopment
- provision of recommendations for an appropriate Phase 2 investigation.

It is understood that consideration is being given to redevelopment of the site for residential end use, comprising two and three storey houses with associated gardens and car parking.

The preliminary investigation will inform Harron Homes in their decision to acquire the land, and also support a planning application. This Phase 1 report primarily reviews existing data to support a preliminary environmental risk assessment with proposals for intrusive investigation works.

Our overall objectives of this environmental review and subsequent targeted investigation are to:

- Carry out an environmental risk assessment in accordance with current good practice as described in CLR11 (Ref. 1) and EA / NHBC (Ref.2);
- Identify the need for, and scope of, any further investigations/ monitoring and / or remediation to allow redevelopment to proceed.

General notes and limitations relevant to all PWA Geo-Environmental Ltd preliminary investigations are described in the Foreword and in Appendix A. These should be read in conjunction with this report. The text of the report draws specific attention to any modification to these procedures and to any other special techniques employed.

Standard definitions, procedures and guidance are contained within Appendix B, which includes background, generic information on assessment of the site's environmental setting.

PDF created with pdfFactory Pro trial version www.pdffactory.com

1.1. Phase 1 Methodology

The Phase 1 review comprised a desk-based study in conjunction with a site reconnaissance. The key aspects are summarised as follows:

- Review of current activities and the current condition of the site based on information made available by the client, regulatory data relating to the site and the results of the site walkover survey;
- Review of the history of the site and surrounding area from historical Ordnance Survey maps and any anecdotal information available;
- Assessment of the environmental setting of the site from a review of published geological, hydrogeological and hydrological information, and regulatory data;
- Development of a conceptual model for the site identifying potential contamination sources, pathways and receptors and the inter-relationship between them, followed by completion of a qualitative risk assessment to identify potential pollutant linkages; and
- Assessment of possible environmental liabilities associated with the site and the need for any further investigations.

This review relied on published information and information provided by the client and other parties, including anecdotal information, during the given time period. Regulatory data from the public register and historical OS maps were obtained from an Envirocheck report prepared by Landmark Information Group Limited.

PDF created with pdfFactory Pro trial version www.pdffactory.com

2. SITE PROFILE

2.1 Site Location

2.1.1 The site location is shown on Drawing Number 10225/G/150 presented in Appendix C to this report. Site details are summarised in Table 1 below.

Detail	Remarks
Location	Approximately 1.5km south of Barnsley town centre
NGR	NGR SE 34780 04330
Area	0.71 Ha
Known services	Underground sewer, overhead telecoms (underground electricity, gas and water also likely)

2.2 Site Reconnaissance

2.2.1 The site was until recently used as a primary school with associated car parking, yard and landscaped areas. A caretaker's single storey property is also located in the southern part of the site. A site reconnaissance was undertaken on Monday 29th November 2010 and observations are summarised in Table 2 below. In addition, site photographs are provided in Appendix D.

Table 2 – Site Reconnaissance Findings

Feature	Remarks
Current Access	Off High Ridge, Barnsley.
Topography	Generally sloping from west to east with earth embankments on the northern, western and southern boundaries. The school building itself is built on elevated ground in the northern part of the site.
Approximate areas	Buildings – 1500m^2 Landscape- 4700m^2 Hardstandings- 1500m^2
Nature of boundaries	North – Retaining wall. South – Wooden panel fencing and concrete walls. West – Hedgerow. East – Wooden fencing and gated entrance.
Surrounding land uses	North – Furniture shop (former garage). South – Residential properties. West – Community Park. East – Church and High Ridge road.

2.3 Site Regulatory and Environmental Data

Information regarding potential hazards associated with environmental regulatory controls is summarised in Table 3. This information is taken from the data provided by Landmark, a copy of which is provided in Appendix E.

PDF created with pdfFactory Pro trial version www.pdffactory.com

Table 3

Data Source	On/off site?	Details	Potential for Impact on-site?
Landfill Sites, Waste Management Facilities & Waste Transfer Sites	Off site	Historical and registered landfill sites located approximately 100m to the south west of the site. Operational between 1981 and 1989. Licensed to accept inert, industrial and commercial waste including demolition, horticultural and landscape industrial waste.	Migration of hazardous gases and contaminants from landfill site to soils beneath the site.
IPC authorisations and IPPC permits	None within 1km of site	N/A	N/A
Trade directory entries	Off site	Nearest trade directory entries are for a printers and a blinds company 160m and 270m respectively to the south of the site.	Considered too far away from the site to have any potential environmental impact.
LAPPC	Off site	One entry relating to petrol filling station 870m to the south of the site.	Considered too far away from the site to have any potential environmental impact.
Discharge consents	Off site	Relating to sewage discharges 120m north west and 210m west of the site.	Unlikely to impact site.
Recorded pollution incidents to controlled waters	Off site	Two Category 2 (significant) incidents within 100m of the site. One relating to sewage spillage into freshwater stream 20m to north of site in 1989 and another incident relating to soil spillage into freshwater stream 100m to north east of site in 1994.	Unlikely to impact site
Radon	N/A	The property is in a radon affected area, as between 1% and 3% of homes are above the action level.	Although in a radon affected area, no radon protective measures are necessary.
IPC = Integrated Pollution Control; IPPC = Integrated Pollution Prevention & Control; LAPPC = Local Authority Pollution Prevention & Controls; APC = Air Pollution Control			

2.4 Site History

The site history has been determined from a review of OS historical maps. The text below describes significant historical activities on the site and surrounding area. The on-site history focuses on the 1:2,500 scale maps, with the off-site history concentrating on the 1:10,560 scale maps. Both scale maps have been used in some instances to describe relevant features. Table 4 summarises salient points relating to site history, and Table 5 indicates potential contaminative uses of the site and surrounding land. The maps are included in Appendix F.

2.4.1 The site was historically occupied by a farm from the 1850s until the 1960s when the farm was apparently demolished. A pump, well and tank are shown on the historic plans relating to the farm development. A building of unknown use is shown in the south of the site during the early 1960s. By the 1970s the site had been redeveloped with a school constructed on the site. The site has remained unchanged until the present day.

PDF created with pdfFactory Pro trial version www.pdffactory.com

Table 4 Site History Summary

Date(s)	On -Site	Surrounding Land
1855	A **farm** is shown on the site with the farm buildings concentrated in the southern part of the site. A **pump** is shown in the central part of the site.	The surrounding land is shown as mostly undeveloped agricultural land with a small hamlet 100m to the north of the site.
1892-1894	The farm is named as Ward Green Farm. An unmarked building has been constructed in the west of the site.	Two **wells** are shown 100m to the north east of the site. A **colliery** is shown 800m to the north east of the site and **sandstone quarries** are shown 900m and 1km to the north and north east.
1906-1907	A **well** is shown in the centre of the site and a **tank** is shown in the south east of the site.	A **reservoir** is shown 300m to the south west of the site. **Air shafts** and old **shafts** are indicated to be present 600m to the east, 900m to the south east and 600m to the west.
1931	The well is no longer shown.	A residential estate has been constructed to the north of the site.
1948	No significant changes.	An unmarked building has been constructed to the east of the site. More residential properties have been constructed to the south east of the site.
1958	No significant changes.	An unmarked building has been constructed immediately to the north east of the site.
1960-1966	The farm buildings are no longer shown and an unmarked building has been constructed in the central southern part of the site.	A school and allotments are shown to the east of the site with further residential properties constructed to the south. A community park is shown to the west of the site with slopes shown indicating significant level changes. A **garage** has been constructed immediately to the north of the site and a church to the east. A stream is shown 115m to the north east of the site. The reservoir to the south west of the site is no longer shown.
1973-1978	The building in the south of the site is no longer shown. A **school** has been constructed on the site.	More residential properties are shown to the south of the site.
1993	The school is shown as Wordsborough Manor Infant's school.	No significant changes.
2000	No significant changes.	An air shaft is shown 250m to the south west of the site.

PDF created with pdfFactory Pro trial version www.pdffactory.com

2.5 Potential Contamination Sources

Based on our review of information and our understanding of site activities the following potential contamination sources have been identified.

Table 5 Potential Contamination Sources within the Site

Area	Historic / Current	Potential Contamination Sources	Comments
South East	Historic	Tank shown on site in early 1900's	Potential for hydrocarbon contamination in the vicinity of the former tank.
North	Current	Boiler house	Potential for hydrocarbon contamination associated with fuel spillages.
North	Current	Sub-station	Potential PCB contamination associated with transformers.
Whole site	Current and historic	Made Ground	Potential for contamination by metals, hydrocarbons and asbestos associated with Made Ground beneath the site. Also potential generation of hazardous ground gases associated with Made Ground deposits.

In addition to the above, potential off site sources of contamination include:

- Historical landfilling 100m to the west of the site is a potential source of off-site migration of mobile inorganic and organic contaminants as well as a potential source for hazardous ground gases (carbon dioxide and methane).

- A garage was until recently located directly to the north of the site (up-gradient). Underground storage tanks (USTs) and above ground storage tanks (ASTs) historically associated with the garage may have leaked hydrocarbon contaminants into the soils beneath the site. These may have migrated down gradient and contaminated the soils beneath the study area.

PDF created with pdfFactory Pro trial version www.pdffactory.com

3. ENVIRONMENTAL SETTING

3.1 Geology

Inspection of the 1:625,000 and 1:10,000 scale geological plans of the area indicate that superficial drift deposits are shown to be absent beneath the site. However, made ground is shown to be present beneath the north of the site.

The solid geology beneath the site comprises the Pennine Middle Coal Measures formation comprising mudstone, siltstone, coal and sandstone. The Lower Beamshaw coal seam (0.46m to 0.61m thick) is shown to subcrop on the north eastern site boundary striking in a north west/south east direction, dipping to the north east. In addition to this, the Kents Thin coal seam (0.62m to 1.52m thick) may lie at shallow depth beneath the site.

Two geological faults are located 100m to the north and 300m to the south west of the site. However, these are not considered to pose a risk to the study area.

3.2 Hydrogeology

According to the Groundwater Vulnerability Map (Sheet 11: South Pennines), the solid strata beneath the site are indicated to be a minor aquifer. Although not producing large quantities of water for abstraction, minor aquifers are important for local supplies and for supplying base flow to rivers.

The soils beneath the site are of high leaching potential.

The site is not indicated to be in a source protection zone.

There are no groundwater abstractions within 1km of the site.

3.3 Hydrology

The nearest indicated surface water course to the site is a stream (Snape Ske) located 115m to the north east of the site.

Two Category 2 (significant) incidents within 100m of the site. One relating to sewage spillage into a freshwater stream 20m to north of site in 1989 and another incident relating to soil spillage into freshwater stream 100m to north east of site in 1994.

The nearest surface water abstraction to the site is located 980m to the south of the site from Worsborough Reservoir and is used for municipal purposes.

Two Discharge Consents relating to sewage discharges are located 120m north west and 210m west of the site (the latter revoked in 2003).

The site is not in an area where flood defences are required.

PDF created with pdfFactory Pro trial version www.pdffactory.com

3.4 Ecology

Worsborough Country Park Nature Reserve and reservoir is located 700m to the south of the site.

3.5 Mining and Quarrying

According to records obtained from the Coal Authority the site is in the zone of likely influence from workings in five seams of coal at depths ranging from 100m to 460m, last worked in 1970. Any ground movement from these coal workings should have ceased by now.

The site is also in an area where coal is at or close to the surface and this coal may have been worked in the past.

The site is not in the zone of likely influence of any present underground coal workings or in an area for which the Coal Authority is determining whether to grant a licence for future underground mining.

There are no known coal mine entries within, or within 20m of, the boundary of the site.

There are no records of opencast coal mining at, or within 200m of the site.

Several BGS recorded mineral sites are recorded within 1km of the site, the closest being a former sandstone quarry located 400m to the north of the site.

3.6 Summary of Site Sensitivity

The sensitivity of each of the identified receptors in the vicinity of the site to contamination along with pathways from the site are summarised in Table 6.

Table 6 Sensitivity of Environmental Receptors in the Vicinity of the Site

Receptor Type	Receptor(s)	Sensitivity	Reasoning
Groundwater	Minor Aquifer	Moderate	Potential contamination of groundwater by mobile inorganic and organic contaminants associated with current and historical use of site (school and farm) and surrounding area (garage). Lack of superficial drift beneath site to act as natural barrier to minor aquifer. Also presence of historical well on site may create pathway for contamination from shallow soils to deeper groundwater in minor aquifer.
Surface water	Stream 115m to east of site	Low	Potential leaching of mobile organic and inorganic contaminants from soils beneath site into stream. Considered low risk due to distance from site.

PDF created with pdfFactory Pro trial version www.pdffactory.com

4. RISK ASSESSMENT

4.1 Introduction

Environmental Risk has been addressed by adopting a site-specific qualitative approach to identify the risk of environmental harm. The guiding principle of this approach is an attempt to establish connecting links between a hazardous source, via an exposure pathway to a potential receptor. This is in accordance with the Department of Environment, Transport and Regions (DETR) Statutory Guidance on Contaminated Land (Ref.3) and the Construction Industry Research and Information Association (Ref. 4).

By considering where a viable pathway exists, which connects a source with a receptor, this assessment will identify where pollutant linkages may exist. A pollutant linkage is the term used by the DETR in their standard procedure on risk assessment. If there is no pollutant linkage, then there is no risk. Our risk assessment is based on the redevelopment of the site with a residential end-use.

4.2 Conceptual Model

Contaminated land risk assessment is based on development of a conceptual model for the site. This is representation of the relationship between contaminant sources, pathways and receptors developed on the basis of hazard identification.

4.2.1 Identified Sources

The following sources of contamination have been identified from historic and current uses of the site and surrounding area. Reference has been made to relevant DoE Industry Profiles (Ref.5) and CLR 8 (Ref.6) with regard to the range of potential contaminants that may be present. These are summarised below:

On Site Sources

Potential sources of contamination associated with the historical activities on the site include:

- Made Ground associated with construction of school and former farm buildings. Potential source of metals, organic contamination and asbestos as well as potential source for hazardous ground gas.

- Current site use as school – boiler house in north of site potential source of hydrocarbons and fuels. Sub-station in north of site potential source of hydrocarbon and PCB contamination.

PDF created with pdfFactory Pro trial version www.pdffactory.com

- Site history as farm including storage tank in south of the site. Fuel and lubricants potentially historically stored on site.

Off Site Sources

Potential sources of contamination in the immediate site surroundings include:

- The historical presence of a garage immediately to the north of the site. Potential leakage of former above and below ground storage tanks and fuel spillages into soils beneath the garage and the migration of mobile contaminants to soils beneath the study area.
- The historical presence of an area of landfilling 100m to the west of the site is a potential source of mobile organic and inorganic contaminants as well as the source of hazardous migratory ground gases (carbon dioxide and methane) to the site.

4.2.2 Receptors

The following receptors have been identified:

- Future site users;
- Construction workers during redevelopment works;
- Controlled waters -Groundwater (minor aquifer beneath the site);
- Controlled waters - Surface water course (Snape Ske stream 115m to the east);
- Buildings/services.
- Plant life.

The following pathways link the potential contaminants with the sensitive receptors:

- Direct contact, ingestion and inhalation of contaminants by humans;
- Infiltration/leaching of contaminants through permeable strata to underlying groundwater associated with the minor aquifer.
- Lateral migration of leachable contaminants in soils and contaminated perched groundwater to surface water (Snape Ske stream);
- Direct contact of underground services (particularly potable water supply pipes) with contaminated soils.

PDF created with pdfFactory Pro trial version www.pdffactory.com

The Site Conceptual Model is shown on Drawing No. 10225/G/151 presented in Appendix C.

4.3 Qualitative Risk Assessment

A qualitative risk assessment has been undertaken for these potential source-pathway-receptor linkages. This is based on consideration of both:

- The likelihood of an event (probability – takes into account both the presence of the hazard and receptor and the integrity of the pathway);
- The severity of the potential consequence (takes into account both the potential severity of the hazard and the sensitivity of the receptor).

The risk assessment has been based on redevelopment of the site with a proposed residential end use (Table 7).

PDF created with pdfFactory Pro trial version www.pdffactory.com

Table 7 Environmental Risk Assessment – Proposed Residential End Use

Source	Pollutant / Hazard	Receptors	Pathways to Receptor	Associated Hazard [Potential severity]	Likelihood of Occurrence	Potential Risk
Made ground (on-site)	Metals, TPH, PAH, asbestos, pesticides	Future Site Users	Direct contact, ingestion, inhalation	Effect on human health [high]	Likely to be some contamination associated with site history. Likely contamination from garage up-gradient of site. Migration of contaminants from nearby landfill site possible due to distance from site.	Moderate /high
Boiler house, sub-station associated with school buildings	TPH, PAH, PCBs	Construction Workers	Direct contact, ingestion, inhalation	Effect on human health [moderate]	May to come into contact with some contaminants. However, exposure will be short term.	Low
Historic tank on site	TPH, PAH	Controlled Waters (minor aquifer)	Downwards migration of contaminants via leaching into shallow groundwater	Pollution of groundwater [moderate]	Considered likely due to history of site and surrounding area. Absence of superficial drift to act as natural barrier between potential contaminants and minor aquifer. Presence of former well on site may act as pathway for contaminants into minor aquifer.	High
Made ground associated with landfill site (off-site)	Leachable metals, TPH, PAH	Controlled Waters (surface water Snape Ske stream 115m to NE of site)	Lateral migration of leachable contaminants in soils and contaminants in shallow groundwater	Pollution of surface water [Low]	Considered unlikely due to distance of stream from site. However, stream is down-gradient from the site so cannot be discounted.	Low
Former garage located adjacent to site (off-site)	TPH, PAH	Future Buildings and services	Direct contact	Contamination of potable water supply pipes [moderate]	Possible depending on severity and extent of any contamination.	Low

PDF created with pdfFactory Pro trial version www.pdffactory.com

Source	Pollutant / Hazard	Receptors	Pathways to Receptor	Associated Hazard [Potential severity]	Likelihood of Occurrence	Potential Risk
Made Ground [On Site]	Elevated methane, carbon dioxide	Future Site Users Construction Workers	Migration through permeable strata and inhalation of toxic and asphyxiating gases in confined spaces and sub-floor voids	Effect on human health [moderate]	Possible given presence of made ground on site. Likely to affect future site users, however, construction workers will only be exposed to any ground gases for a short duration of time.	Moderate
Landfills – current /historic within 150m of site [Off Site]	Elevated methane, carbon dioxide	Future Site Users Construction Workers	Migration through permeable strata and inhalation of toxic and asphyxiating gases in confined spaces and sub-floor voids	Effect on human health [moderate]	Considered unlikely due to distance of landfill site to study area.	Low
Coal Workings (On Site)	Elevated methane, carbon dioxide	Future Site Users Construction Workers	Migration through permeable strata and inhalation of toxic and asphyxiating gases in confined spaces and sub-floor voids	Effect on human health [moderate]	Possible given presence of shallow coal seams and absence of drift cover.	Moderate/high

PDF created with pdfFactory Pro trial version www.pdffactory.com

5. CONCLUSIONS AND RECOMMENDATIONS

5.1 Environmental Risk Assessment

The preliminary risk assessment undertaken for the site based on existing desk study data has identified:

- The site has historically been occupied by a farm from the mid 19th century until the 1960s. A primary school was constructed at the site in the 1970s and the site remains unchanged to the present day. The surrounding land has historically been occupied by a garage and a landfill site which may be sources for the migration of off-site contaminants to the site.
- No site investigation data has been provided and the presence and extent of any contamination is currently unknown;
- No information has been provided to indicate whether or not remedial works have been carried out on site.

On the basis of the information reviewed it is considered likely that contaminants are present within the site that could impact the proposed development.

5.2 Foundations

At present, no geotechnical ground investigation data is available and consequently it is only possible to estimate the ground conditions. Before firm foundation recommendations can be given, it will be necessary to undertake an appropriate ground investigation. However, tentative recommendations are provided below.

The published geological data suggests that superficial drift deposits are absent beneath the site. Made Ground is shown to be present in the north of the site. The underlying solid strata comprise sandstone, siltsone, mudstone and coal of the Pennine Middle Measures formation. The Lower Beamshaw coal seam is shown to subcrop on the north eastern site boundary dipping to the north east. In addition to this, the Kents Thin coal seam (0.62m to 1.52m thick) may lie at shallow depth beneath the site.

According to records obtained from the Coal Authority the site is in the zone of likely influence from workings in five seams of coal at depths ranging from 100m to 460m, last worked in 1970.

Made ground is expected to be present underlying the site to an unknown depth. Made ground is not generally considered a suitable founding material and foundations should be taken through it, into underlying natural in-situ strata of adequate bearing capacity.

PDF created with pdfFactory Pro trial version www.pdffactory.com

Weathered Coal Measures should provide sufficient bearing capacity to enable the adoption of reinforced strip footings for two storey housing. Reinforcement is considered necessary to allow for variation in the rock weathering profile.

Alternatively if made ground if proved to be too deep for strip footings or deep trench fill then it is likely a piled solution will be required. This could either be driven or cast in-situ. Vibro piling may also be a feasible solution depending on the nature of the made ground.

If shallow mine workings (<30m) are encountered during the investigation, provision should be made for drilling and grouting treatment to stabilise any mine workings. If this is the case, a rafted foundation solution may be required.

All concrete slabs and service ducts will require breaking out during the demolition of existing buildings. Foundations of plots that conflict with relict foundations should be taken to greater depth than the relict foundations and into natural ground of adequate bearing capacity.

Where service trenches cross the site, foundations should be placed below a line drawn up at 45º from the base of any service excavations.

5.3 Potential Development Constraints

The site lies within an area believed to have been exploited for shallow coal seams in the past. This will require further investigation and liaison with the Coal Authority, this may constrain the foundation design or require subsequent treatment.

5.4 Recommendations

With respect to historic land contamination, Planning Policy Guidance: Planning and Pollution Control (PPS 23) (Ref.7) states that ground contamination is a material planning consideration. Local planning authorities must take account of such issues in determining applications for planning permission. In addition, building work is regulated under the Building Regulations 1991. Schedule 1 (Ref. 8) requires 'precautions shall be taken to avoid danger to health and safety caused by substances found on, or in the ground covered by the building'.

In this context, the significance of the conditions identified and the likelihood that risk and liability will be realised cannot be determined from the findings of the Phase I environmental review alone, and uncertainty remains with respect to determination of actual risks presented.

Therefore, it will be necessary to carry out more detailed analysis of environmental risk and associated liabilities based on site specific data.

It is therefore recommended that Harron proceed with completion of a Phase 2 intrusive investigation designed to:

PDF created with pdfFactory Pro trial version www.pdffactory.com

- Adequately characterise the nature, degree and extent of potential contamination;
- Confirm whether potential pollutant linkages are actually present;
- Determine the severity of the impact of identified pollutant linkages on future redevelopment; and
- Evaluate the engineering properties of the underlying soils, and;
- Investigate the presence of shallow abandoned mineworkings.

5.5 Phase 2 Scope

We propose to investigate the land as detailed below, in line with good practice guidance in BS:10175 (Ref.9) and published by EA (Ref.10). Drawing 10225/G/152 in Appendix C shows the principal former site features and the potential contamination sources detailed in Table 5. Drawing 10225/G/152 also shows the indicative site investigation layout in relation to them. The approach will be to target the features detailed in Table 5 and to examine the wider site area on a random grid basis. Potential migration pathways on and off-site will also be considered. The proposed scope of works comprises:

Exploratory holes	Purpose
Trial Pits	To determine the general nature of soils underlying the site, including the nature, distribution and thickness of made ground nature, degree and extent of any contamination proportion of undesirable elements eg biodegradable matter, foundations etc & suitability of the ground for founding new structures.
Window Sample Boreholes	Recovery of shallow soil samples for chemical and geotechnical testing purposes. The purpose of the testing would be to provide information on contamination levels and also to allow for geotechnical testing and classification purposes. All soil samples will be examined for visual and olfactory evidence of contamination and logged with descriptions conforming to Eurocode 7.
	In order to characterise groundwater on the site and assess the potential for off-site migration, three rounds of groundwater monitoring will undertaken. To determine the potential for hazardous gas generation from Made Ground and shallow mine workings, all boreholes will be monitored over six rounds in line with recently revised CIRIA guidance on risks arising from ground gases
Rotary Boreholes	To check for the presence of voids or broken ground associated with possible unrecorded shallow mine workings.

PDF created with pdfFactory Pro trial version www.pdffactory.com

All data will be assessed in relation to published guidelines and an environmental risk assessment carried out in accordance with current best practice as described in CLR11. The nature and extent of contamination will be determined based on the findings of these works and the risks to site users and the wider environment will be assessed. The need for, and scope of, any further investigations/ monitoring and / or remediation to allow redevelopment to proceed will be identified in the report

PDF created with pdfFactory Pro trial version www.pdffactory.com

6. REFERENCES

1. Department of the Environment, Transport and the Regions and Environment Agency, Model Procedures for the Management of Land Contamination. Contaminated Land Report 11.

2. EA and NHBC 2000. Guidance for the Safe Development of Housing on Land Affected by Contamination, R&D Publication 66.

3. Department of the Environment, Transport and the Regions, Environment Agency and Institute of Environmental Health. Guidelines for Environmental Risk Assessment and Management. HMSO July 2000.

4. Construction Industry Research and Information Association (CIRIA). Contaminated Land Risk Assessment. A Guide to Good Practice. CIRIA C552 2001.

5. DoE, 1995 Industry Profiles.

6. DEFRA/EA, 2002 Potential Contaminants for the Assessment of Land, CLR 8.

7. OPDM Planning Policy Statement 23: Planning and Pollution Control. Annex 2 Development on Land Affected by Contamination.

8. Approved Document C – Site Preparation and Resistance to Contaminants and Moisture (Relating to Building Regulations 2000 (SI 2000/2531).

9. BSI, 2001 Investigation of Potentially Contaminated Sites, Code of Practice, BS:10175.

10. EA, 2001 Secondary Model Procedure for the Development of Appropriate Soil Sampling Strategies for Land Contamination.

PDF created with pdfFactory Pro trial version www.pdffactory.com

APPENDIX A

Legal Framework

PDF created with pdfFactory Pro trial version www.pdffactory.com

Legislative Background

Environmental liabilities and risks have been evaluated in terms of a source – pathway - target relationship in accordance with the approach set out in the 1995 Environment Act, The Contaminated Land (England) Regulations 2000 and the DETR circular 02/2000 Environmental Protection Act 1990: Part IIA Contaminated Land. Contaminated land is defined within the legislative framework as land which is in such condition by reason of substance in, on or under the land that:

a) significant harm is being caused or there is a significant possibility of such harm being caused;
b) significant pollution of controlled waters is being or is likely to be caused.

The potential for harm is based on the presence of three factors:

- Source: Substances that are potential contaminants or pollutants that may cause harm:
- Pathway: A potential route by which contaminants can move from the source to the receptor; and
- Receptor or target: A receptor that may be harmed, for example the waters environment, humans, water, flora and fauna.

Where a source, pathways and target are all present a pollutant linkage exists and there is potential for harm to be caused. Therefore, the presence of measurable concentrations of contaminants within the ground and subsurface environment does not automatically imply that a contamination problem exists, since contamination must be defined in terms of pollutant linkages and unacceptable risk of harm.

The nature and importance of both pathways and receptors, which are relevant to a particular site, will vary according to the intended use of the site, its characteristics and its surroundings.

The key principle which underpins this approach is the "suitable for use" criterion. This requires remedial action only where contamination is considered to pose unacceptable actual or potential risks to health or the environment and appropriate and cost effective remediation techniques exist, taking into account the actual or intended use of the site.

PDF created with pdfFactory Pro trial version www.pdffactory.com

Guidance

PWA Geo-Environmental Ltd (PWAG) is part of a registered Engineering Practice which is a member of the Association of Consulting Engineers (ACE).

This report has been prepared in accordance with:

- CLR11 – Model Procedures
- Contamination and Environmental Matters – Their implications for Property Professionals (2nd Edition RICS Nov 2003)
- Brownfields – Managing the development of previously developed land – A client's guide, CIRIA 2002
- DEFRA and Environment Agency (EA) publications CLR7 – 10, (subsequently withdrawn) supported by the TOX guides and SGV guides, dated March 2002
- DETR Circular 02/2000, Contaminated Land: Implementation of Part IIA of the Environmental Protection Act 1990
- Environment Agency technical advice to third parties on Pollution of Controlled Waters for Part IIA of the EPA1990, May 2002

And any other protocols advised by DEFRA and the EA and guidance's prepared by BSI, CERTA, BURA, and other industry advisory bodies including BS5930 and BS10175.

Judicial Precedents and Legislation

The following non-exhaustive list of the legislative framework documents has been considered in the compliance of this document.

- The Environment Act (1995)
- The Environment Protection Act (1990)
- The Water Resources Act (1991)
- The Radioactive Substances Act (1993)
- The Pollution Prevention and Control (England and Wales) Regulations (2000)
- The Contaminated Land (England) Act (2000)
- The Environment Act 1995 (Commencement No.16 and Saving Provision) (England) Order (2000)
- The Contaminated Land (England) (Amendment) Regulations (2001)
- The Landfill Regulations (England and Wales) Regulations (2002)
- The Landfill (England and Wales) (Amendment) Regulations (2004)
- Rylands v Fletcher – Private Nuisance, Escape
- Health and Safety at Work Act
- The Building Regulations 1991, Part C of Schedule 1
- The Controlled Waste Regulations 1992
- Special Waste Regulations 1996

PDF created with pdfFactory Pro trial version www.pdffactory.com

Neither the list of guidance nor the list of judicial precedents and legislation should be considered exclusive or comprehensive. There are approximately 85 individual items of legislation regulating contaminated land work. PWAG makes every effort to ensure that all are adhered to in the preparation and presentation of this report.

Technical Competence

PWAG is a leading specialist multi-disciplinary engineering practice working in the contaminated land market. Most of the workload undertaken by PWAG is within the property development market dealing with brownfield re-development and associated environmental and geotechnical issues.

Established in 2009 PWAG is at the forefront of environmental asset management providing expertise in environmental risk assessments, environmental site investigations, geotechnical site investigations and remediation strategies.

PWAG's staff come from a wide variety of backgrounds within the geotechnical and environmental sectors and are all degree qualified. Specialists include geotechnical engineers, geologists, chartered environmentalists and chartered engineers.

PWAG's technical protocols are described in our reports and are strictly adhered to by quality control checks in the field and in the laboratory. PWAG only uses UKAS and MCERTS accredited laboratories for all methods used to derive determinant concentrations.

PWAG is working towards a quality assurance process under ISO9001:2000 which facilitates rigorous in-house administrative and technical protocols. PWAG also initiates a robust health and safety program for each site and ensures the regular training of staff in new guidance's and techniques.

PDF created with pdfFactory Pro trial version www.pdffactory.com

APPENDIX B

General Notes

PDF created with pdfFactory Pro trial version www.pdffactory.com

Generic Notes – PWAG Geoenvironmental Investigations

1. Environmental Setting

General

Third party information obtained from the British Geological Survey (BGS), the Coal Authority, the Local Authority etc is presented in the Correspondence Appendix of this Geoenvironmental Report.

Geology, Mining & Quarrying

In order to establish the geological setting of a site, PWAG refer to BGS maps for the area, and the relevant geological memoir.

A coal mining report is obtained from the Coal Authority. Further information is sourced from the Local Authority and by reference to current and historical OS plans.

Landfills

PWAG obtain data from the Landmark Information Group, the Environment Agency and the Local Authority with respect to known areas of landfilling within 250m of the proposed development site. Reference is also made to historical OS plans, which are inspected for evidence of backfilled quarries, railway cuttings, colliery spoil tips etc.

Radon

Radon is a colourless, odourless gas, which is radioactive. It is formed in strata that contain uranium and radium (most notably granite), and can move though fissures eventually discharging to atmosphere, or the spaces under and within buildings. Where radon occurs in high concentrations, it can pose a risk to health.

In order to assess potential risks associated with radon gas, PWAG refer to BRE Report BR211, 1999: "*Radon: guidance on protective measures for new dwellings*".

BR211 provides a preliminary indication of the measures required for a particular site, but it is also often necessary to request a Stage 2 Protective Measures Site Report from the BGS.

The level of protection needed is site-specific and is determined by reference to the radon potential map for the area followed by a geological assessment of the site. This information is contained in the Annexes of BR211.

Annex A – derived from statistical analysis of radon measurements in existing houses carried out by the NRPB and grouped on a 5km grid.

Annex B - based on an assessment of the same radon measurements grouped by geological units. The maps show the 5km grid squares underlain completely or in part, by geological units which potentially exceed the action levels for radon protective measures. The grid squares are coded according to the highest potential within the square. In many cases the actual geological radon potential varies considerably within a grid square.

PDF created with pdfFactory Pro trial version www.pdffactory.com

PWAG adopt the following procedure when assessing risk associated with radon.

Firstly, Annex A maps are reviewed to see whether the site requires full, basic or no measures. If the site is in a dark brown square, full radon protection measures are required. If the site is in a light brown square, reference should be made to Annex B.

Secondly, Annex B maps are reviewed to see whether a further geological assessment is required which may result in upgrading the result from Annex A. If a site lies within a shaded square, it may require radon protection, and PWAG request a Stage 2 Protective Measures Site Report from the BGS.

If the site is in a square that is not coloured or shaded in either set of maps then no radon protection is needed and therefore a BGS Report is not normally necessary.

The BGS geological assessment involves checking whether the site is on or close to a geological unit that has statistically been found to have elevated radon potential. The geological assessment is based on either 1:50,000 or the 1:250,000 scale data. The search area specified as part of the request is increased by 50m in areas where 1:50,000 data is available and by 500m in areas with 1:250,000 scale data to allow for potential inaccuracies in the position of boundaries. The BGS report indicates the highest level of protection required within the search area and its buffer zone.

When requesting a BGS report, PWAG select the search radius carefully, since too large a search radius may result in the inclusion of areas underlain by geological units of a higher radon potential, thereby giving rise to recommending too high a level of protection.

The report also includes (where available), a list of the geological units included in the assessment. PWAG check that these actually underlie the site, rather than the buffer zone only.

On the basis of radon measurements in dwellings and on their geological interpretation, the BGS report stipulates the level of protective measures required for the proposed development site, and this could be:

1. no measures,
2. basic measures, or
3. full measures.

Details of these measures are provided in the Hazardous Gas section of this Geoenvironmental Report.

Hydrogeology

PWAG obtain information from the Environment Agency (EA) and the Landmark Information Group with respect to:

- groundwater quality
- recorded pollution incidents
- licensed groundwater abstractions

Reference is also made to the EA document *"Policy and Practice for the Protection of Groundwater"* (1998) and the relevant Groundwater Vulnerability Map.

PDF created with pdfFactory Pro trial version www.pdffactory.com

Bedrock and any overlying granular Drift deposits are classified by the EA:-

- **Major aquifers:** *"Highly permeable formations, usually with a known or probable presence of significant fracturing. They may be highly productive and able to support large abstractions for public water supply and other purposes".*

- **Minor aquifers**: *"Fractured or potentially fractured rocks which do not have a high primary permeability, or other formations of variable permeability. Although these aquifers will seldom produce large quantities of water for abstractions, they are important both for local supplies and in supplying base flow to rivers".*

- **Non-aquifers**: *"Formations which are generally regarded as containing insignificant quantities of groundwater. However groundwater flow through such rocks, although imperceptible, does take place and needs to be considered in assessing the risk associated with persistent pollutants. Some non-aquifers can yield water in sufficient quantities for domestic use".*

Groundwater vulnerability is determined by 4 variables:

1. The presence and nature of overlying soil (the weathered zone affected by living organisms; soil in the UK can extend up to 2m in depth). Physical properties of the soil affect the downward passage of water and it's ability to attenuate pollutants. The EA make reference to a three-fold classification of soil types:-

   - Soils of **low** leaching potential are defined as *"soils in which the pollutants are unlikely to penetrate the soil layer because either water movement is largely horizontal, or they have the ability to attenuate diffuse pollutants".*
   - Soils of **intermediate** leaching potential are defined as *"soils which have a moderate ability to attenuate diffuse source pollutants or in which it is possible that some non-adsorbed diffuse source pollutants and liquid discharges could penetrate the soil layer".*
   - Soils of **high** leaching potential are defined as *"soils with little ability to attenuate diffuse source pollutants and in which non-adsorbed diffuse source pollutants and liquid discharges have the potential to move rapidly to underlying strata or to shallow groundwater".*

   In urban areas and restored mineral workings the soil information is based on fewer observations than elsewhere. A worst-case vulnerability (H) is therefore assumed for these areas and for current mineral workings by the EA. All are given a designation of **HU** unless proved otherwise.

2. The presence and nature of Drift, which often overlies bedrock. Where Drift is of substantial thickness and low permeability, it can provide an effective barrier to surface pollutant migration. Permeable Drift is classified as a Minor Aquifer except where it is in probable hydraulic continuity with a Major Aquifer, where it is regarded as part of the Major Aquifer unless proven otherwise by site investigation.

3. The nature of the geological strata (bedrock). Rocks that contain groundwater in exploitable quantities are called aquifers.

4. The depth of the unsaturated zone; ie that part of the aquifer which lies above the water table

PDF created with pdfFactory Pro trial version www.pdffactory.com

The EA have also designated Source Protection Zones, which are based on proximity to a groundwater source (springs, wells and abstraction boreholes). The size of a Source Protection Zone is a function of the aquifer, volume of groundwater abstracted and the effective rainfall, and may vary from tens to several thousand hectares.

Hydrology

PWAG obtain information from the Environment Agency and the Landmark Information Group with respect to:

- surface water quality
- recorded pollution incidents
- licensed abstractions (groundwater & surface waters)
- licensed discharge consents
- site susceptibility to flooding

The EA have set **water quality** targets for all rivers. These targets are known as River Quality Objectives (RQOs). The water quality classification scheme used to set RQO planning targets is known as the River Ecosystem scheme. The scheme comprises five classes (RE1 to RE5) which reflect the chemical quality requirements of communities of plants and animals occurring in our rivers.

General Quality Assessment (GQA) grades reflect actual water quality. They are based on the most recent analytical testing undertaken by the EA. There are six GQA grades (denoted A to F) defined by the concentrations of biochemical oxygen demand, total ammonia and dissolved oxygen.

The susceptibility of a site to **flooding** is assessed by reference to a Flood Map on the Environment Agency's website. These maps provide show natural floodplains - areas potentially at risk of flooding if a river rises above its banks, or high tides and stormy seas cause flooding in coastal areas.

There are two different kinds of area shown on the Flood Map:

1. Dark blue areas could be flooded by the sea by a flood that has a 0.5% (1 in 200) or greater chance of happening each year, or by a river by a flood that has a 1% (1 in 100) or greater chance of happening each year

2. Light blue areas show the additional extent of an extreme flood from rivers or the sea. These outlying areas are likely to be affected by a major flood, with up to a 0.1% (1 in 1000) chance of occurring each year.

These two colours show the extent of the natural floodplain if there were no flood defences or certain other manmade structures and channel improvements

The maps also show all flood defences built in the last five years to protect against river floods with a 1% (1 in 100) chance of happening each year, or floods from the sea with a 0.5% (1 in 200) chance of happening each year, together with some, but not all, older defences and defences which protect against smaller floods.

The Agency's assessment of the likelihood of flooding from rivers and the sea at any location is based on the presence and effect of all flood defences, predicted flood levels, and ground levels.

It should also be noted that as the floodplain shown is the 1 in 100 year (or 1 in 200 year as appropriate), areas outside this may be flooded by more extreme floods (e.g. the 1 in 1000 year flood). Also, parts of the areas

PDF created with pdfFactory Pro trial version www.pdffactory.com

shown at risk of flooding will be flooded by lesser floods (e.g. the 1 in 5 year flood). In some places due to the shape of the river valley, the smaller floods will flood a very similar extent to larger floods but to a lesser depth.

If a site falls within a floodplain, it is recommended that a flood survey be undertaken by a specialist consultant who can advise on appropriate mitigating measures; ie raising slab levels, provision of storage etc.

COMAH & Explosive Sites

PWAG obtain information from the Landmark Information Group with respect to COMAH or explosive sites within 1km of the proposed development site. PWAG's report refers to any that are present, and recommends that the Client seeks further advice from the HSE.

Areas around COMAH sites (chemical plants etc) are zoned with respect to the implementation of emergency plans. The HSE are a statutory consultee to the local planning authority for all COMAH sites. The COMAH site may have to revise it's emergency action plan if development occurs. This might be quite straightforward or could entail significant expenditure. Consequently, the COMAH site may object to a proposed development (although it is the Local Authority who have final say, and they are likely to place more weight on advice from the HSE).

Preliminary Conceptual Ground Model

The site's environmental setting (and proposed end use) is used by PWAG to assess the significance of any contamination encountered during the subsequent ground investigation

Assessment of contaminated land is based on an evaluation of pollutant linkages (source-pathway-receptor). Contaminants within the near surface strata represent a potential source of pollution. The environment (most notably groundwater), site workers and end users are potential targets.

Potential pollutant linkages are shown on a preliminary conceptual site model, presented as a Drawing in an Appendix to this Geoenvironmental Report. The preliminary model is revised in light of data arising from the subsequent ground investigation.

PDF created with pdfFactory Pro trial version www.pdffactory.com

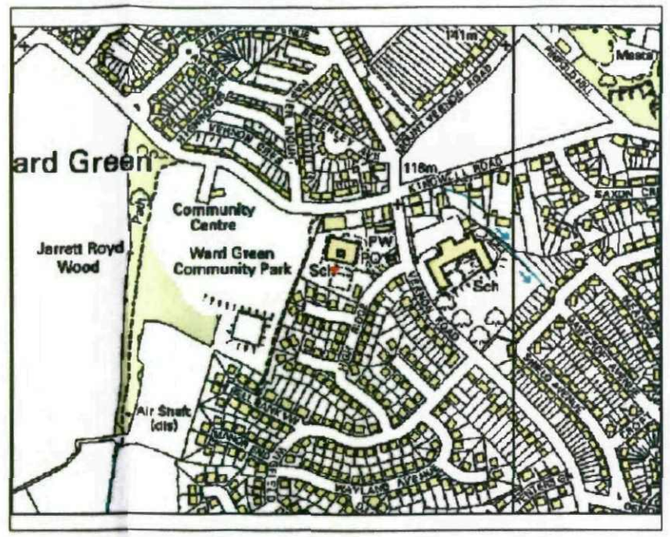
APPENDIX C

Drawings

PDF created with pdfFactory Pro trial version www.pdffactory.com



SITE PLAN (1:250)



LOCATION PLAN (NTS)

NOTES:

1. COPYRIGHT IN THIS DOCUMENT BELONGS TO PWA GEO-ENVIRONMENTAL LIMITED & ALL RIGHTS IN IT ARE RESERVED BY THE OWNER.
2. NO PART OF THIS DRAWING MAY BE COPIED, TRANSFERRED, OR MADE AVAILABLE TO USERS OTHER THAN THE ORIGINAL RECIPIENT, INCLUDING ELECTRONICALLY, WITHOUT PRIOR PERMISSION FROM PWA GEO-ENVIRONMENTAL LIMITED.
3. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL RELEVANT ARCHITECTS & ENGINEERS DRAWINGS & SPECIFICATIONS.
4. ALL DIMENSIONS ARE SHOWN IN MILLIMETRES.
5. NO DIMENSIONS TO BE SCALED FROM THIS DRAWING.

Please note this is not the most up to date Layout Plan

Rev	Remarks	Date	By	Check

pwa Geo Environmental

Summit House, Wyvern Way, The Crossings, Oxenhope, Keighley, BD22 9RW
T - 01535 643359
F - 01535 643060

Cello Wharf, 2 The Calls, Leeds, LS2 7JU
T - 0113 237 2999
F - 0113 237 2701

E-Mail: info@pwaltd.co.uk
Web Site: www.pwaltd.co.uk

Client	HARRON HOMES
Job	RESIDENTIAL DEVELOPMENT WARD GREEN BARNSLEY
Drawing	SITE LOCATION AND LAYOUT PLAN

Rev	Drawn By	Checked By	Drawing Number	Rev
??/??/??	LUKE D	PW	10225-G-150	/
Status: PRELIMINARY	Scale: 1:???	Size: A1		



SITE PLAN (1:250)

NOTES:

1. COPYRIGHT IN THIS DOCUMENT BELONGS TO PWA GEO-ENVIRONMENTAL LIMITED & ALL RIGHTS IN IT ARE RESERVED BY THE OWNER.
2. NO PART OF THIS DRAWING MAY BE COPIED, TRANSFERRED, OR MADE AVAILABLE TO USERS OTHER THAN THE ORIGINAL RECIPIENT, INCLUDING ELECTRONICALLY, WITHOUT PRIOR PERMISSION FROM PWA GEO-ENVIRONMENTAL LIMITED.
3. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL RELEVANT ARCHITECTS & ENGINEERS DRAWINGS & SPECIFICATIONS.
4. ALL DIMENSIONS ARE SHOWN IN MILLIMETRES.
5. NO DIMENSIONS TO BE SCALED FROM THIS DRAWING.

KEY

- TP = TRIAL PIT LOCATION
- RBH = ROTARY BOREHOLE LOCATION
- WS = WINDOW SAMPLE LOCATION
- = APPROX. EXTENT OF FORMER FARM BUILDINGS

Rev	Remarks	Date	By	Check

pwa Geo Environmental

Summit House, Wyvern Way, The Crossings, Crossflats, Bingley, BD20 7BW
T - 01535 653050
F - 01535 653052

Cells West, 2 The Calls, Leeds, LS2 7JU
T - 0113 227 2600
F - 0113 227 2701

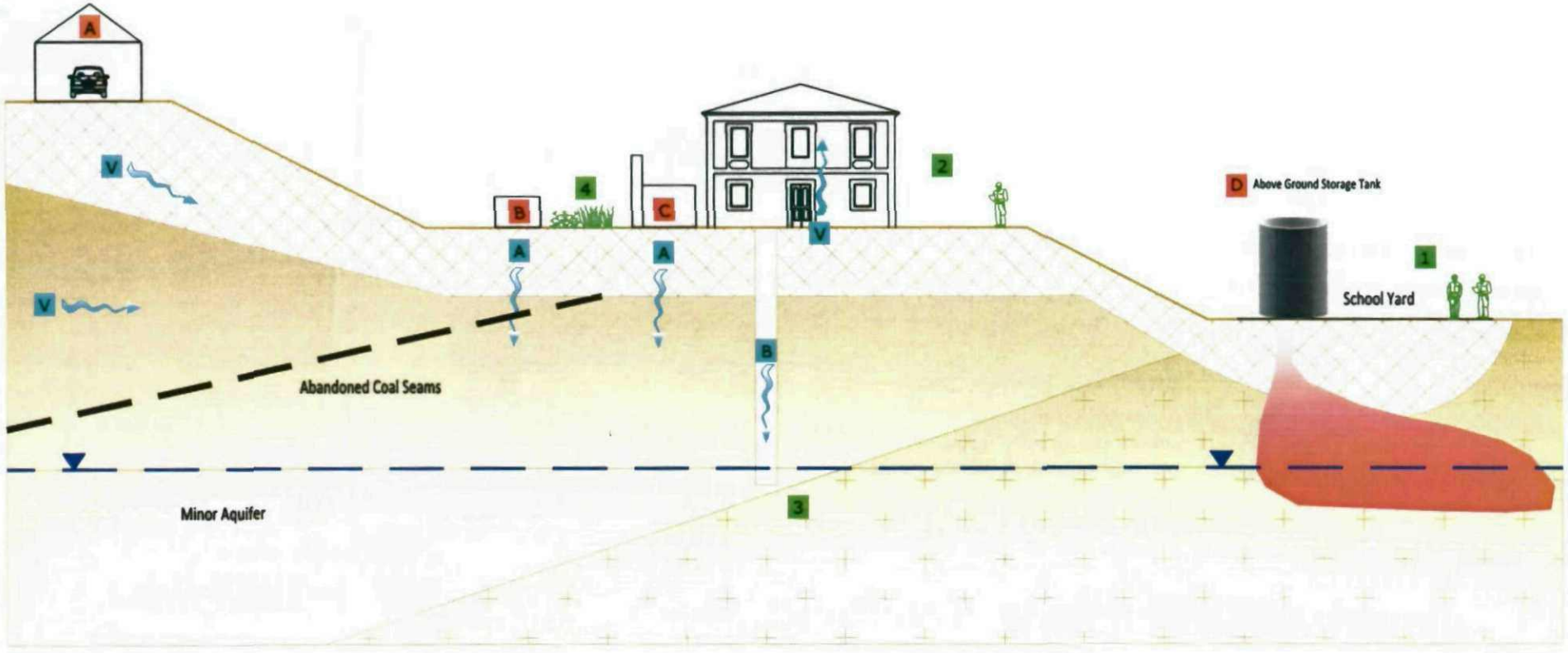
E-Mail: info@pwaltd.co.uk
Web Site: www.pwaltd.co.uk

Client: HARRON HOMES LTD

Site: RESIDENTIAL DEVELOPMENT
WARD GREEN
BARNSLEY

Drawing: PROPOSED PHASE 2 INVESTIGATION LAYOUT

Date	Drawn By	Checked By	Drawing Number	Rev
10/12/10	LUKE D	PM	10225-G-152	/
Status: PRELIMINARY	Scale: 1:250	Size: A1		



KEY

- Made ground
- Coal Measures strata
- Kent's Rock Sandstone
- Groundwater

SOURCES

- A Contam from Garage
- B Sub Station (PCB's / Hydrocarbons)
- C Boiler House (Hydrocarbons)
- D Former tank (Organic Contamination)

PATHWAYS

- V Lateral and vertical gas migration
- A Lateral and vertical gas migration
- B Infiltration to aquifers

RECEPTORS

- 1 Human Health: Residents/End Users
- 2 Human Health: Construction Workers
- 3 Controlled Waters: Minor Aquifer
- 4 Vegetation

Rev	Remarks	Date	By	Check

Paul Waite Associates

Consulting Civil, Structural & Geo-Environmental Engineers

Summit House, Skyvalon Way, The Crossings, Cleckheaton, Kirklees, BD19 7BW
T - 01535 633350
F - 01535 633352

Cobb Wharf, 2 The Calls Leeds, LS2 7JU
T - 0113 237 2609
F - 0113 237 2701

Client: HARRON HOMES LTD

Job: RESIDENTIAL DEVELOPMENT
WARD GREEN
BARNSLEY

Drawing: PRELIMINARY
CONCEPTUAL SITE MODEL

Date	Drawn By	Checked By	Drawing Number	Rev
09/12/10	PMD	PJW	10225-G-151	/
Status: PRELIMINARY	Scale: NTS	Size: A3		

APPENDIX D

Site Reconnaissance Photographs

PDF created with pdfFactory Pro trial version www.pdffactory.com



Plate 1: Looking west at site entrance with school buildings in background.



Plate 2: Caretakers residence in south east of site.

PDF created with pdfFactory Pro trial version www.pdffactory.com



Plate 3: Looking west at playground.



Plate 4: Looking north east towards school with playground in foreground.

PDF created with pdfFactory Pro trial version www.pdffactory.com



Plate 5: View of school from western site boundary.



Plate 6: View of boiler house and sub-station in north of site.

PDF created with pdfFactory Pro trial version www.pdffactory.com

APPENDIX E

Search Responses & Other Correspondence

PDF created with pdfFactory Pro trial version www.pdffactory.com

Geology 1:10,000 Maps Legends

Artificial Ground and Landslip

Map Colour	Lex Code	Rock Name	Rock Type	Min and Max Age
	MGR	Made Ground (Undivided)	Artificial Deposit	Present Day - Present Day
	WMGR	Infilled Ground	Artificial Deposit	Present Day - Present Day
	WGR	Worked Ground (Undivided)	Void	Present Day - Present Day
	SLIP	Landslide Deposit	Unknown/Unclassified Entry	Quaternary - Quaternary

Superficial Geology

Map Colour	Lex Code	Rock Name	Rock Type	Min and Max Age
	ALV	Alluvium	Clay and Silt	Flandrian - Flandrian
	HEAD	Head	Diamicton	Quaternary - Quaternary

Bedrock and Faults

Map Colour	Lex Code	Rock Name	Rock Type	Min and Max Age
	PMCM	Pennine Middle Coal Measures Formation	Mudstone, Siltstone and Sandstone	Bolsovian (Westphalian C) - Duckmantian (Westphalian B)
	PMCM	Pennine Middle Coal Measures Formation	Sandstone	Bolsovian (Westphalian C) - Duckmantian (Westphalian B)
	WE	Woolley Edge Rock	Sandstone	Duckmantian (Westphalian B) - Duckmantian (Westphalian B)
	KNR	Kent's Rock	Sandstone	Duckmantian (Westphalian B) - Duckmantian (Westphalian B)
	OR	Oaks Rock	Sandstone	Duckmantian (Westphalian B) - Duckmantian (Westphalian B)
	BNR	Barnsley Rock	Sandstone	Duckmantian (Westphalian B) - Duckmantian (Westphalian B)
	ABR	Abdy Rock	Sandstone	Duckmantian (Westphalian B) - Duckmantian (Westphalian B)
	Rock			
	Fault			

Paul Waite Associates

Geology 1:10,000 Maps

This report contains geological map extracts taken from the BGS Digital Geological map of Great Britain at 1:10,000 scale and is designed for users carrying out preliminary site assessments who require geological maps for the area around a site. This mapping may be more up to date than previously published paper maps.

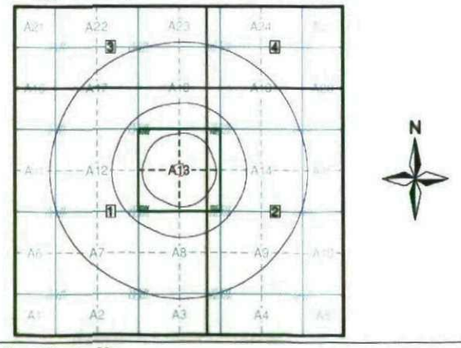
The various geological layers - artificial and landslip deposits, superficial geology and solid (bedrock) geology are displayed in separate maps, but superimposed on the final 'Combined Surface Geology' map. All map legends feature on this page.

Please Note: Not all of the layers have complete nationwide coverage, so availability of data for relevant map sheets is indicated below.

Geology 1:10,000 Maps Coverage

Map ID:	4	**Map ID:**	3
Map Name:	SE30NE	**Map Name:**	SE30NW
Map Date:	2005	**Map Date:**	2005
Bedrock Geology:	Available	**Bedrock Geology:**	Available
Superficial Geology:	Available	**Superficial Geology:**	Available
Artificial Geology:	Available	**Artificial Geology:**	Available
Faults:	Available	**Faults:**	Available
Landslip:	Not Available	**Landslip:**	Available
Rock Segments:	Available	**Rock Segments:**	Available
Map ID:	2	**Map ID:**	1
Map Name:	SE30SE	**Map Name:**	SE30SW
Map Date:	2005	**Map Date:**	2005
Bedrock Geology:	Available	**Bedrock Geology:**	Available
Superficial Geology:	Available	**Superficial Geology:**	Available
Artificial Geology:	Available	**Artificial Geology:**	Available
Faults:	Available	**Faults:**	Available
Landslip:	Available	**Landslip:**	Available
Rock Segments:	Available	**Rock Segments:**	Available

Geology 1:10,000 Maps - Slice A



Order Details

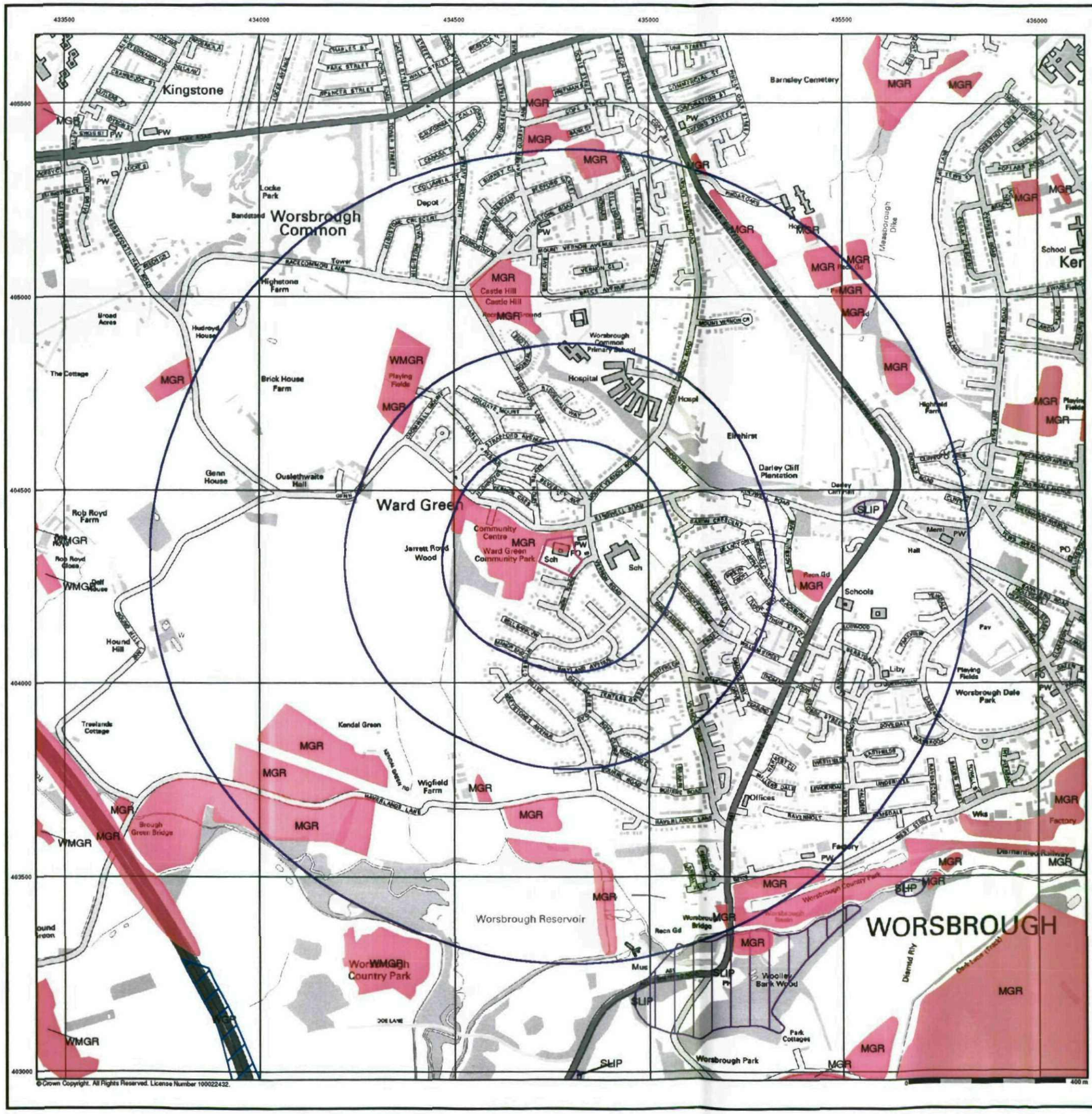
Order Number:	33238200_1_1
Customer Ref:	10225 Ward Green Primary
National Grid Reference:	434780, 404330
Slice:	A
Site Area (Ha):	0.71
Search Buffer (m):	1000

Site Details

Ward Green Primary School, Worsbrough, BARNSLEY, South Yorkshire

Landmark Information Group

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



Paul Waite Associates

Artificial Ground and Landslip

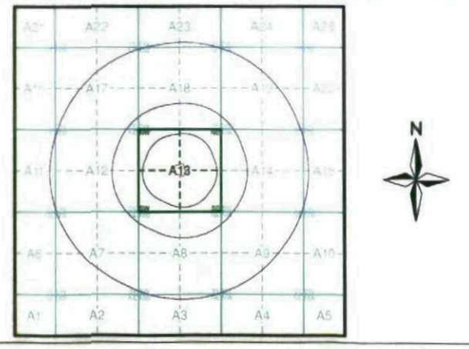
Artificial ground is a term used by BGS for those areas where the ground surface has been significantly modified by human activity. Information about previously developed ground is especially important, as it is often associated with potentially contaminated material, unpredictable engineering conditions and unstable ground.

Artificial ground includes:

- Made ground - man-made deposits such as embankments and spoil heaps on the natural ground surface.
- Worked ground - areas where the ground has been cut away such as quarries and road cuttings.
- Infilled ground - areas where the ground has been cut away then wholly or partially backfilled.
- Landscaped ground - areas where the surface has been reshaped.
- Disturbed ground - areas of ill-defined shallow or near surface mineral workings where it is impracticable to map made and worked ground separately.

Mass movement (landslip) deposits on BGS geological maps are primarily superficial deposits that have moved down slope under gravity to form landslips. These affect bedrock, other superficial deposits and artificial ground. The dataset also includes foundered strata, where the ground has collapsed due to subsidence.

Artificial Ground and Landslip Map - Slice A

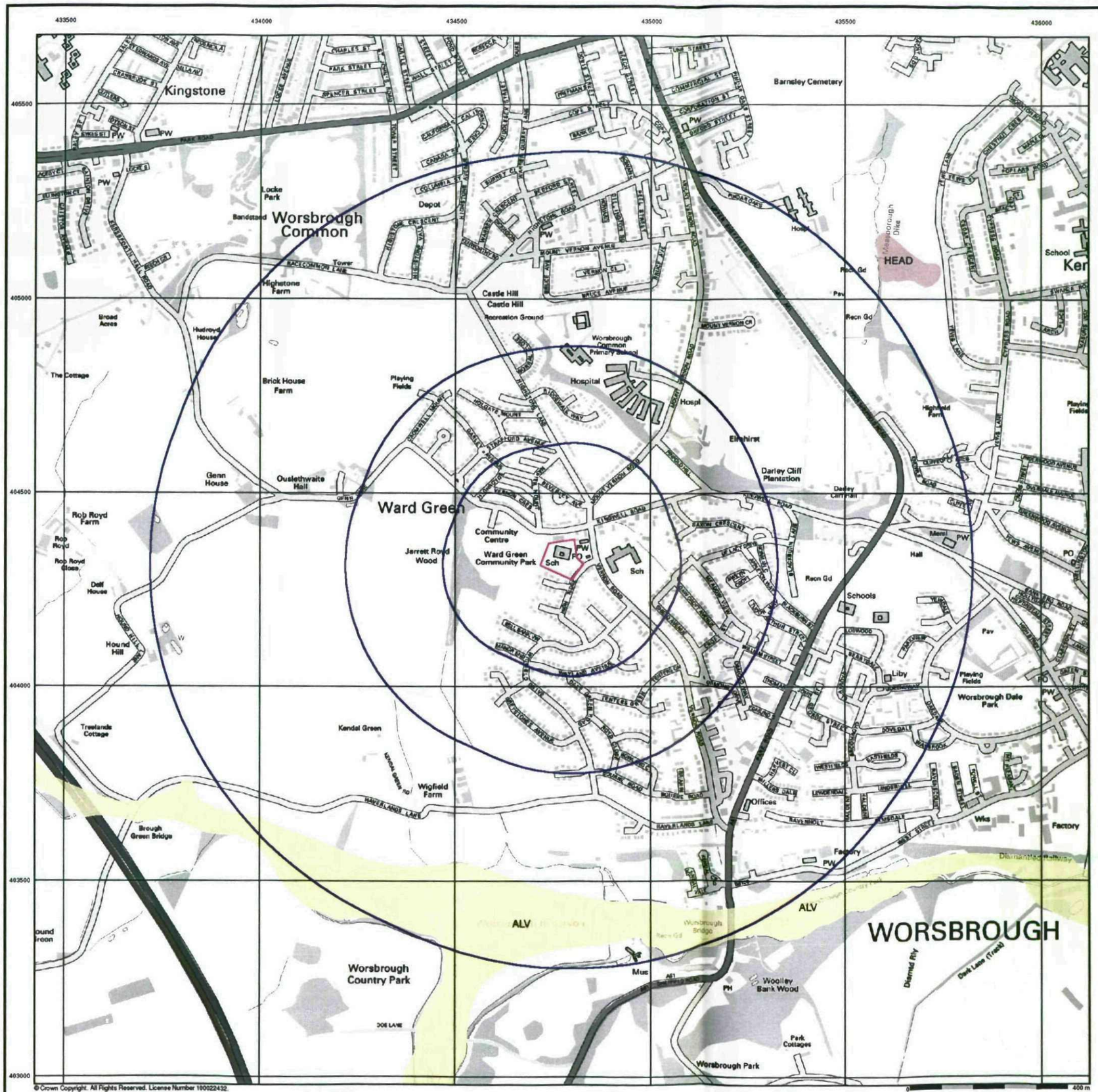


Order Details

Order Number:	33238200_1_1
Customer Ref:	10225 Ward Green Primary
National Grid Reference:	434780, 404330
Slice:	A
Site Area (Ha):	0.71
Search Buffer (m):	1000

Site Details

Ward Green Primary School, Worsbrough, BARNSLEY, South Yorkshire



© Crown Copyright. All Rights Reserved. License Number 100022432.

Paul Waite Associates

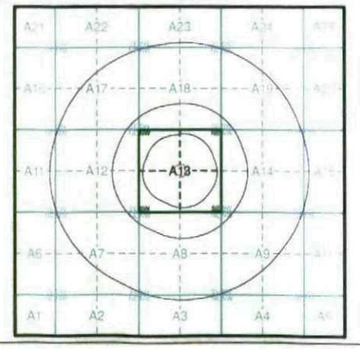
Superficial Geology

BGS 1:10,000 Superficial Deposits are the youngest geological deposits formed during the most recent period of geological time, which extends back about 1.8 million years from the present.

They rest on older deposits or rocks referred to as Bedrock. This dataset contains Superficial deposits that are of natural origin and 'in place'. Other superficial strata may be held in the Mass Movement dataset where they have been moved, or in the Artificial Ground dataset where they are of man-made origin.

Most of these Superficial deposits are unconsolidated sediments such as gravel, sand, silt and clay, and onshore they form relatively thin, often discontinuous patches or larger spreads.

Superficial Geology Map - Slice A



Order Details

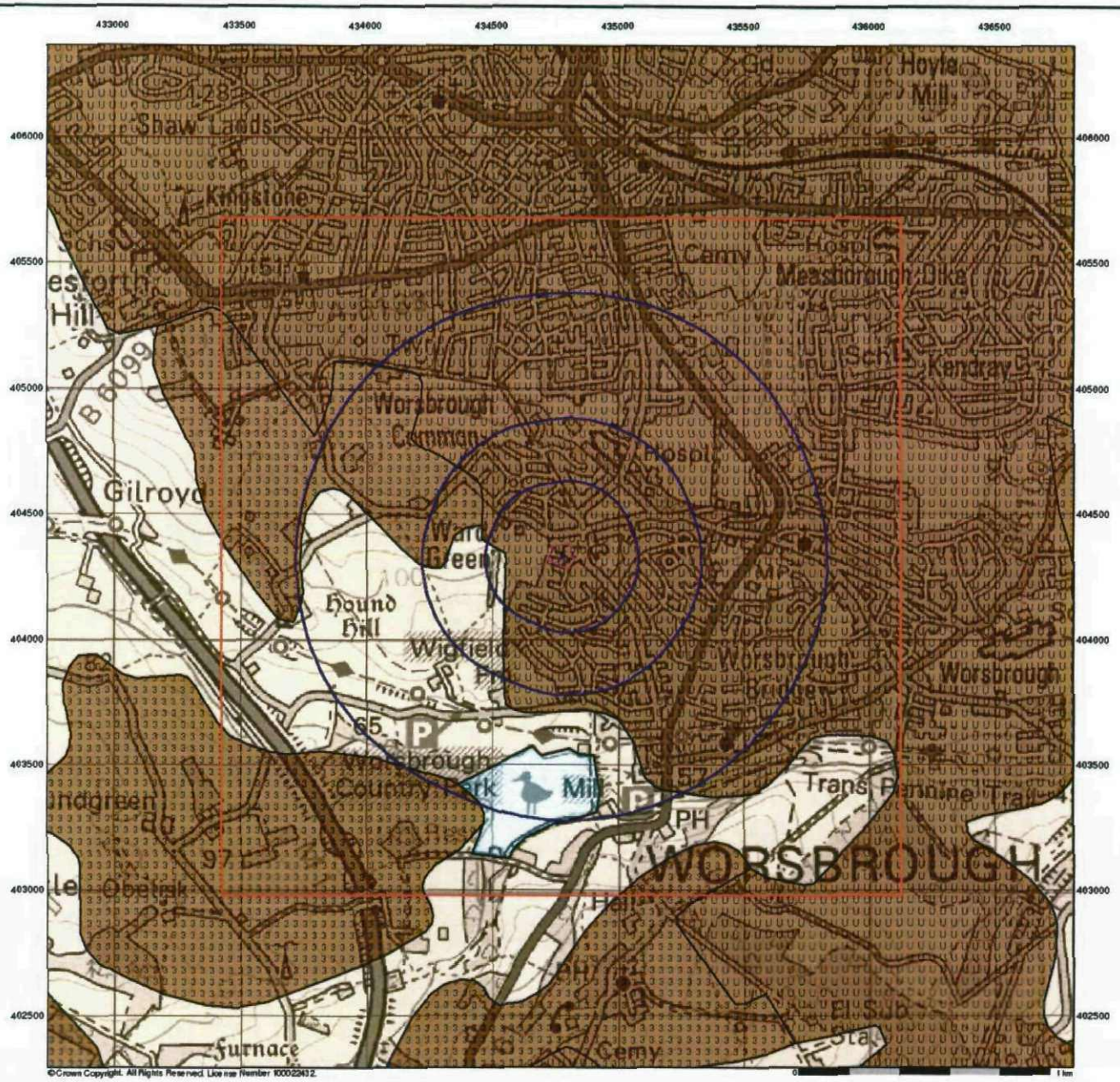
Order Number:	33238200_1_1
Customer Ref:	10225 Ward Green Primary
National Grid Reference:	434780, 404330
Slice:	A
Site Area (Ha):	0.71
Search Buffer (m):	1000

Site Details

Ward Green Primary School, Worsbrough, BARNSLEY, South Yorkshire

Landmark Information Group

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



Paul Waite Associates

Groundwater Vulnerability

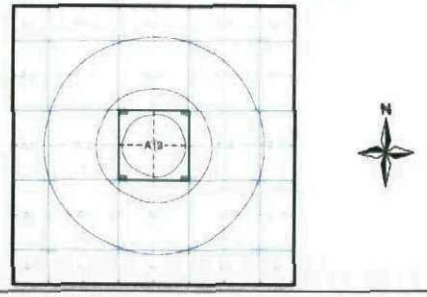
General

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

Agency and Hydrological

Geological Classes	Soil Classes
Major Aquifer (Highly Permeable)	High (H) 1, 2, 3, U
	Intermediate (I) 1, 2
	Low
Minor Aquifer (Variably Permeable)	High (H) 1, 2, 3, U
	Intermediate (I) 1, 2
	Low
Non Aquifer (Negligibly Permeable)	
Water or Sea	
Drift Deposit	

Site Sensitivity Context Map - Slice A



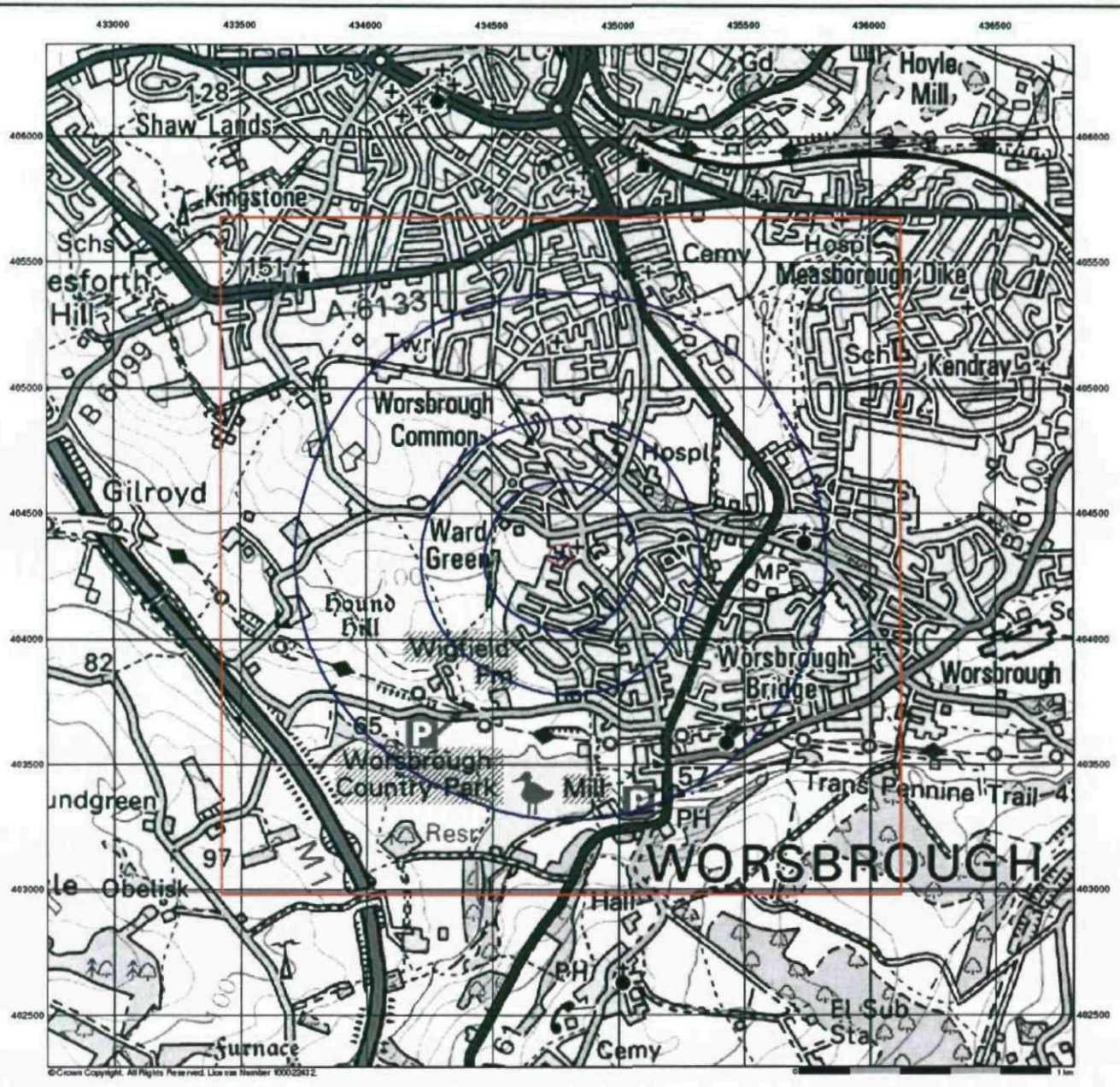
Order Details

Order Number:	33238200_1_1
Customer Ref:	10225 Ward Green Primary
National Grid Reference:	434780, 404330
Slice:	A
Site Area (Ha):	0.71
Search Buffer (m):	1000

Site Details

Ward Green Primary School, Worsbrough, BARNSLEY, South Yorkshire

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



Paul Waite Associates

Source Protection Zones

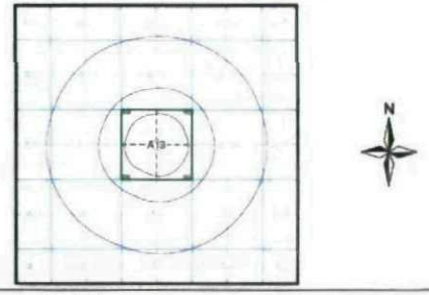
General

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



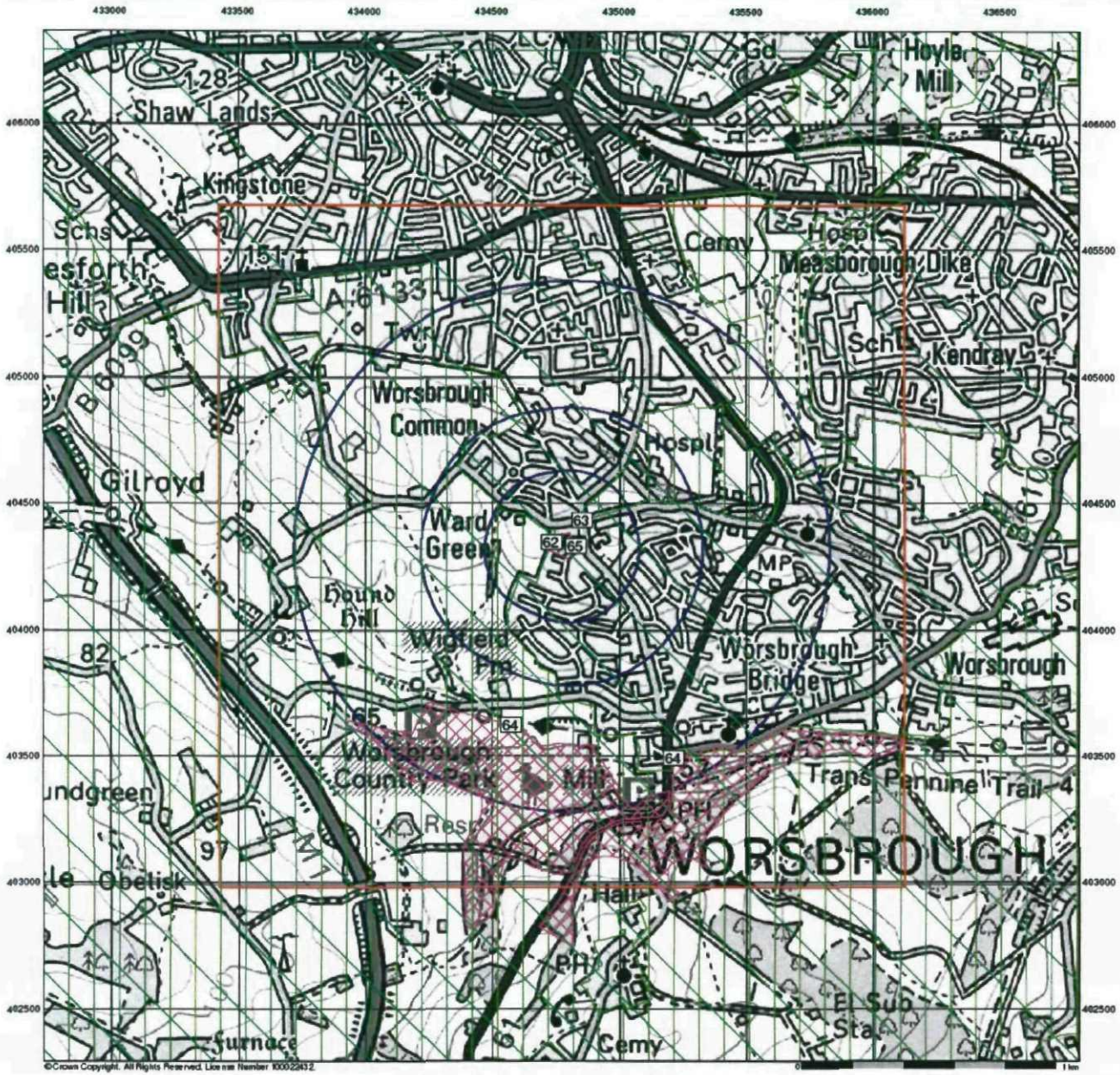
Order Details

Order Number:	33238200_1_1
Customer Ref:	10225 Ward Green Primary
National Grid Reference:	434780, 404330
Slice:	A
Site Area (Ha):	0.71
Search Buffer (m):	1000

Site Details

Ward Green Primary School, Worsbrough, BARNSLEY, South Yorkshire

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



Paul Waite Associates

Sensitive Land Uses

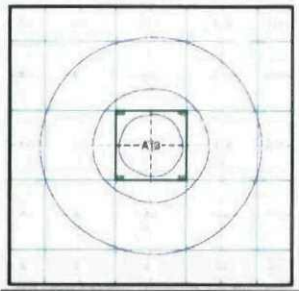
General

Specified Site | Specified Buffer(s) | Bearing Reference Point | Slice | 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

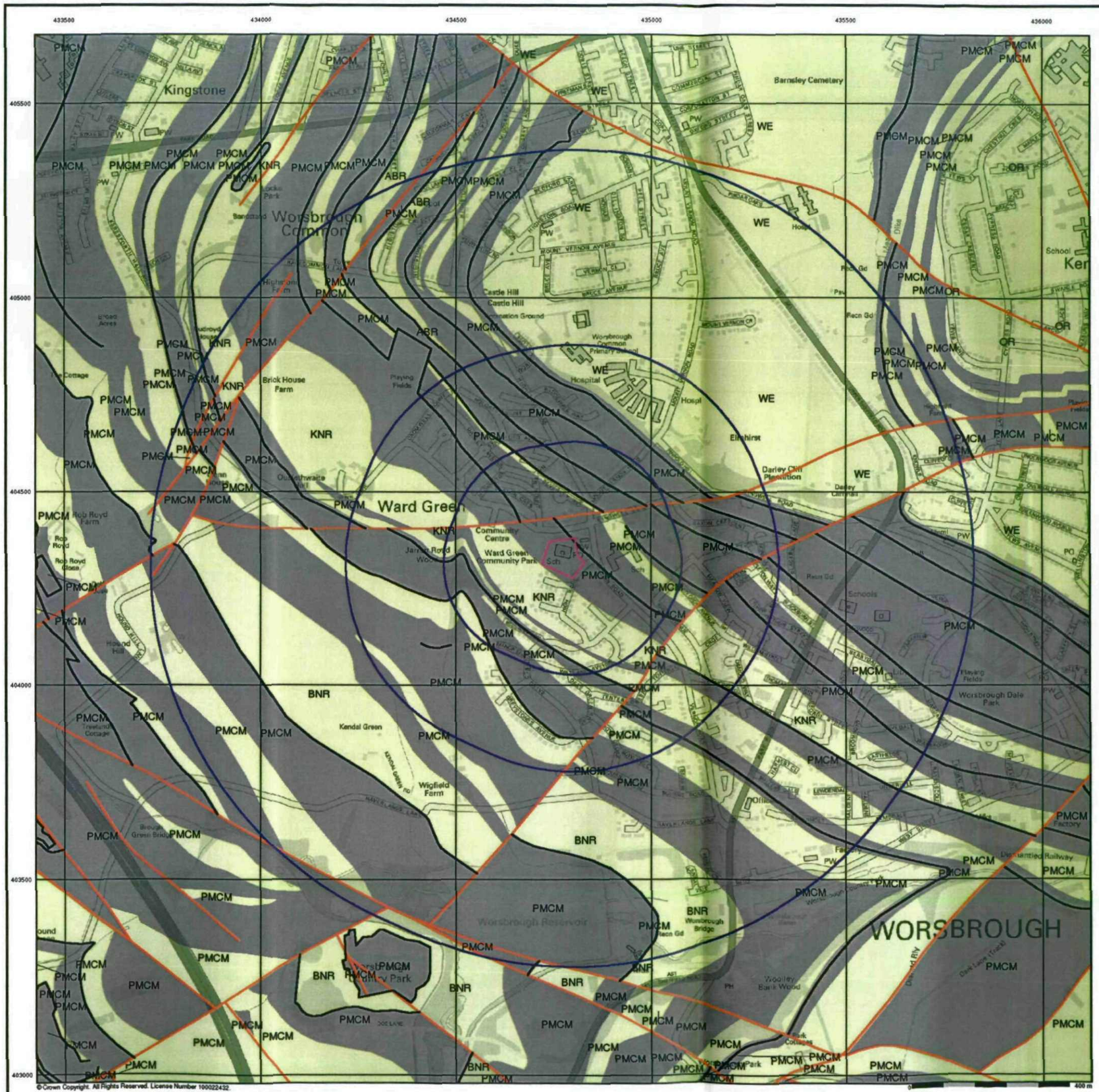


Order Details

Order Number:	33238200_1_1
Customer Ref:	10225 Ward Green Primary
National Grid Reference:	434780, 404330
Slice:	A
Site Area (Ha):	0.71
Search Buffer (m):	1000

Site Details

Ward Green Primary School, Worsbrough, BARNSLEY, South Yorkshire



Paul Waite Associates

Bedrock and Faults

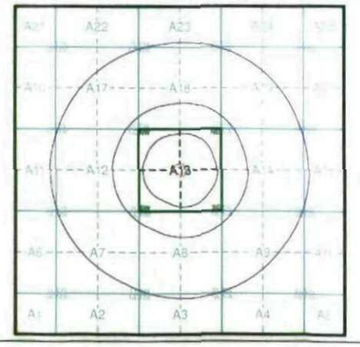
Bedrock geology is a term used for the main mass of rocks forming the Earth and are present everywhere, whether exposed at the surface in outcrops or concealed beneath superficial deposits or water.

The bedrock has formed over vast lengths of geological time ranging from ancient and highly altered rocks of the Proterozoic, some 2500 million years ago, or older, up to the relatively young Pliocene, 1.8 million years ago.

The bedrock geology includes many lithologies, often classified into three types based on origin: igneous, metamorphic and sedimentary.

The BGS Faults and Rock Segments dataset includes geological faults and thin beds mapped as lines such as coal seams and mineral veins. These are not restricted by age and could relate to features of any of the 1:10,000 geology datasets.

Bedrock and Faults Map - Slice A



Order Details

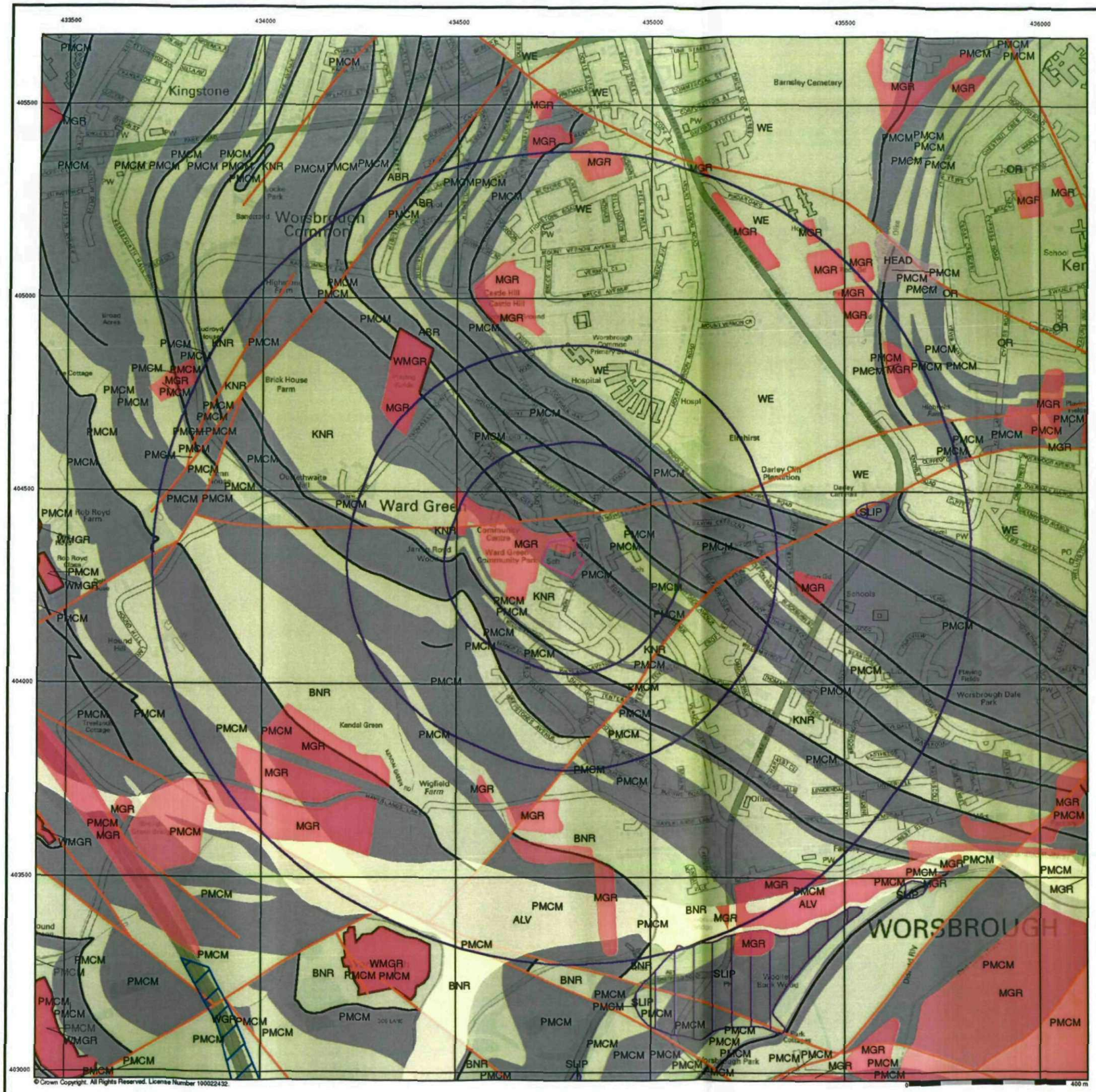
Order Number:	33238200_1_1
Customer Ref:	10225 Ward Green Primary
National Grid Reference:	434780, 404330
Slice:	A
Site Area (Ha):	0.71
Search Buffer (m):	1000

Site Details

Ward Green Primary School, Worsbrough, BARNSLEY, South Yorkshire

Landmark Information Group

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



Paul Waite Associates

Combined Surface Geology

The Combined Surface Geology map combines all the previous maps into one combined geological overview of your site.

Please consult the legends to the previous maps to interpret the Combined "Surface Geology" map.

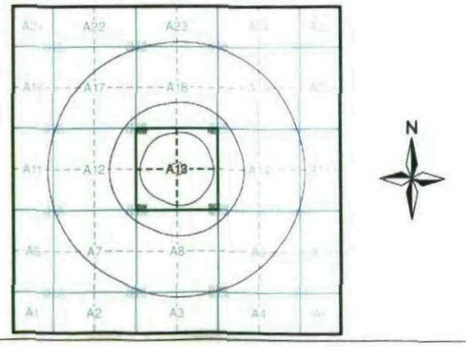
Additional Information

More information on 1:10,000 Geological mapping and explanations of rock classifications can be found on the BGS website. Using the LEX Codes in this report, further descriptions of rock types can be obtained by interrogating the 'BGS Lexicon of Named Rock Units'. This database can be accessed by following the 'Information and Data' link on the BGS website.

Contact

British Geological Survey
Kingsley Dunham Centre
Keyworth
Nottingham
NG12 5GG
Telephone: 0115 936 3143
Fax: 0115 936 3276
email: enquiries@bgs.ac.uk
website: www.bgs.ac.uk

Combined Geology Map - Slice A



Order Details

Order Number:	33238200_1_1
Customer Ref:	10225 Ward Green Primary
National Grid Reference:	434780, 404330
Slice:	A
Site Area (Ha):	0.71
Search Buffer (m):	1000

Site Details

Ward Green Primary School, Worsbrough, BARNSLEY, South Yorkshire

Envirocheck® Report:

Datasheet

Order Details:

Order Number:
33238200_1_1

Customer Reference:
10225 Ward Green Primary

National Grid Reference:
434780, 404330

Slice:
A

Site Area (Ha):
0.71

Search Buffer (m):
1000

Site Details:

Ward Green Primary School
Worsbrough
BARNSLEY
South Yorkshire

Client Details:

Mr P Waine
Paul Waite Associates Ltd
Summit House
Riparian Way
The Crossings, Cross Hills
Keighley
West Yorkshire
BD20 7BW

Paul Waite Associates

Contents

Report Section	Page Number
Summary	-
Agency & Hydrological	1
Waste	14
Hazardous Substances	-
Geological	16
Industrial Land Use	20
Sensitive Land Use	23
Data Currency	24
Data Suppliers	28
Useful Contacts	29

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 2010. 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

Paul Waite Associates

Summary

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		12
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 4				2
Local Authority Pollution Prevention and Control Enforcements					
Nearest Surface Water Feature	pg 4		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
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 14		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 14		1		1
Registered Landfill Sites	pg 15		1		1
Registered Waste Transfer Sites					
Registered Waste Treatment or Disposal Sites					

Paul Waite Associates

Summary

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 16			2	6
BGS 1:625,000 Solid Geology	pg 17	Yes	n/a	n/a	n/a
Brine Compensation Area			n/a	n/a	n/a
Coal Mining Affected Areas	pg 17	Yes	n/a	n/a	n/a
Mining Instability	pg 17	Yes	n/a	n/a	n/a
Man-Made Mining Cavities					
Natural Cavities					
Non Coal Mining Areas of Great Britain	pg 17	Yes		n/a	n/a
Potential for Collapsible Ground Stability Hazards				n/a	n/a
Potential for Compressible Ground Stability Hazards	pg 17	Yes		n/a	n/a
Potential for Ground Dissolution Stability Hazards				n/a	n/a
Potential for Landslide Ground Stability Hazards	pg 17	Yes	Yes	n/a	n/a
Potential for Running Sand Ground Stability Hazards	pg 18	Yes	Yes	n/a	n/a
Potential for Shrinking or Swelling Clay Ground Stability Hazards	pg 18	Yes	Yes	n/a	n/a
Radon Potential - Radon Affected Areas	pg 19	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 20		1	7	17
Fuel Station Entries	pg 22				2

Paul Waite Associates

Summary

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 23	1	1		
Areas of Unadopted Green Belt					
Areas of Outstanding Natural Beauty					
Environmentally Sensitive Areas					
Forest Parks					
Local Nature Reserves	pg 23				1
Marine Nature Reserves					
National Nature Reserves					
National Parks					
Nitrate Sensitive Areas					
Nitrate Vulnerable Zones	pg 23	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 Environment: Freshwater Stream/River 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 (NW)	118	1	434630 404410
2	**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 Environment: Freshwater Stream/River 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
2	**Discharge Consents** Operator: Yorkshire Water Services Ltd Property Type: Not Given Location: Genn Lane, Ward Green, BARNSLEY, South Yorkshire Authority: Environment Agency, North East Region Catchment Area: Dearne 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 Environment: Freshwater Stream/River Receiving Water: Unnamed Tributary Of River Dove **Status: Not Supplied** Positional Accuracy: Located by supplier to within 100m	A13NW (W)	217	1	434520 404400
3	**Discharge Consents** Operator: Head Libaries And Cultural Services Property Type: Mixed Farming Location: Barnsley 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 Environment: Freshwater Stream/River 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
4	**Discharge Consents** Operator: Yorkshire Water Services Ltd Property Type: Sewerage Network - Sewers - Water Company Location: Westfields Cso (Rear Of No 13), Worsborough, Barnsley, South Yorkshire Authority: Environment Agency, North East Region Catchment Area: Don Tributaries Reference: Wra7982 Permit Version: 1 Effective Date: 31st March 2004 Issued Date: 3rd February 2004 Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Stw Storm Overflow/Storm Tank - Water Company Discharge Environment: Freshwater Stream/River Receiving Water: Snape Dike **Status: Revised by Application, granted by Secretary of State (Section 35)** Positional Accuracy: Located by supplier to within 10m	A9NW (SE)	793	1	435440 403810
4	**Discharge Consents** Operator: Yorkshire Water Services Ltd Property Type: Sewerage Network - Sewers Location: Westfields, WORSBROUGH BRIDGE Authority: Environment Agency, North East Region Catchment Area: Dearne Reference: S/UD/13 Permit Version: Not Supplied Effective Date: Not Supplied Issued Date: 30th June 1993 Revocation Date: Not Supplied Discharge Type: Sewage Effluent Discharge-Storm Effluent Discharge Environment: Unknown Receiving Water: Not Supplied **Status: Not Supplied** Positional Accuracy: Located by supplier to within 100m	A9NE (SE)	801	1	435450 403810
4	**Discharge Consents** Operator: Yorkshire Water Services Ltd Property Type: Sewerage Network - Sewers Location: Westfields, WORSBROUGH BRIDGE Authority: Environment Agency, North East Region Catchment Area: Dearne Reference: S/UD/13 Permit Version: Not Supplied Effective Date: Not Supplied Issued Date: 9th January 1963 Revocation Date: Not Supplied Discharge Type: Sewage Effluent Discharge-Storm Effluent Discharge Environment: Unknown Receiving Water: Not Supplied **Status: Not Supplied** Positional Accuracy: Located by supplier to within 100m	A9NE (SE)	804	1	435450 403805
5	**Discharge Consents** Operator: Yorkshire Water Services Ltd Property Type: Sewerage Network - Sewers Location: Mount Vernon Avenue, South Yorkshire Authority: Environment Agency, North East Region Catchment Area: Dearne Reference: S/CB/8 Permit Version: Not Supplied Effective Date: Not Supplied Issued Date: 30th June 1993 Revocation Date: Not Supplied Discharge Type: Sewage Effluent Discharge-Storm Effluent Discharge Environment: Unknown Receiving Water: Not Supplied **Status: Not Supplied** Positional Accuracy: Located by supplier to within 100m	A18NE (N)	794	1	435050 405135

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
5	**Discharge Consents** Operator: Yorkshire Water Services Ltd Property Type: Sewerage Network - Sewers Location: Mount Vernon Avenue, South Yorkshire Authority: Environment Agency, North East Region Catchment Area: Dearne Reference: S/CB/8 Permit Version: Not Supplied Effective Date: Not Supplied Issued Date: 29th May 1963 Revocation Date: Not Supplied Discharge Type: Sewage Effluent Discharge-Storm Effluent Discharge Environment: Unknown Receiving Water: Not Supplied **Status: Not Supplied** Positional Accuracy: Located by supplier to within 100m	A18NE (N)	799	1	435050 405140
5	**Discharge Consents** Operator: Yorkshire Water Services Ltd Property Type: Sewerage Network - Pumping Station - Water Company Location: Lower Poppleton Lane Sps, Millfield Trading Estate, Nether Poppleton, York, North Yorkshire, Yo26 6pb Authority: Environment Agency, North East Region Catchment Area: Don Tributaries Reference: S/Cb/8 Permit Version: 1 Effective Date: 29th May 1963 Issued Date: 29th May 1963 Revocation Date: 31st March 2005 Discharge Type: Sewage Discharges - Stw Storm Overflow/Storm Tank - Water Company Discharge Environment: Freshwater Stream/River Receiving Water: Varies With Outlet **Status: Transferred from Rivers (Prevention of Pollution) Act 1951-1961** Positional Accuracy: Located by supplier to within 10m	A18NE (N)	807	1	435057 405146
6	**Discharge Consents** Operator: Mr & Mrs P Booker Property Type: Sewerage Network - Pumping Station - Water Company Location: Keresforth Hall Sewage Pumping Stn, Keresforth Hall Road, Barnsley Authority: Environment Agency, North East Region Catchment Area: Don Tributaries Reference: 3572 Permit Version: 1 Effective Date: 16th October 1981 Issued Date: 16th October 1981 Revocation Date: 29th September 2010 Discharge Type: Sewage Discharges - Pumping Station - Not Water Company Discharge Environment: Freshwater Stream/River Receiving Water: Trib Of Dodworth Dyke **Status: Revoked under EPR 2010** Positional Accuracy: Located by supplier to within 100m	A12NW (W)	868	1	433900 404600
6	**Discharge Consents** Operator: Ms Davidson Property Type: Undefined Or Other Location: Keresforth Hall Sewage Pumping Stn, Keresforth Hall Road, Barnsley Authority: Environment Agency, North East Region Catchment Area: Don Tributaries Reference: 3572 Permit Version: 1 Effective Date: 16th October 1981 Issued Date: 16th October 1981 Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Pumping Station - Not Water Company Discharge Environment: Freshwater Stream/River Receiving Water: Trib Of Dodworth Dyke **Status: Transferred from Rivers (Prevention of Pollution) Act 1951-1961** Positional Accuracy: Located by supplier to within 100m	A12NW (W)	868	1	433900 404600

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
7	***Discharge Consents*** Operator: Worsborough Mill Museum Property Type: Undefined Or Other Location: Barnsley Metropolitan Borough Counc, Il Worsbrough Mill Museum Off Pa, Rk Road Worsbrough Authority: Environment Agency, North East Region Catchment Area: Don Tributaries Reference: 3666 Permit Version: 1 Effective Date: 7th January 1983 Issued Date: 7th January 1983 Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Final/Treated Effluent - Not Water Company Discharge Environment: Freshwater Stream/River Receiving Water: River Dove **Status: Transferred from Rivers (Prevention of Pollution) Act 1951-1961** Positional Accuracy: Located by supplier to within 100m	A8SE (S)	910	1	434950 403380
8	**Discharge Consents** Operator: Yorkshire Water Services Ltd Property Type: Sewerage Network - Sewers Location: Highstone Road, South Yorkshire Authority: Environment Agency, North East Region Catchment Area: Dearne Reference: S/CB/8 Permit Version: Not Supplied Effective Date: Not Supplied Issued Date: 30th June 1993 Revocation Date: Not Supplied Discharge Type: Sewage Effluent Discharge-Storm Effluent Discharge Environment: Unknown Receiving Water: Not Supplied **Status: Not Supplied** Positional Accuracy: Located by supplier to within 100m	A18NE (N)	984	1	435040 405335
8	**Discharge Consents** Operator: Yorkshire Water Services Ltd Property Type: Sewerage Network - Sewers Location: Highstone Road, South Yorkshire Authority: Environment Agency, North East Region Catchment Area: Dearne Reference: S/CB/8 Permit Version: Not Supplied Effective Date: Not Supplied Issued Date: 29th May 1963 Revocation Date: Not Supplied Discharge Type: Sewage Effluent Discharge-Storm Effluent Discharge Environment: Unknown Receiving Water: Not Supplied **Status: Not Supplied** Positional Accuracy: Located by supplier to within 100m	A18NE (N)	989	1	435040 405340
9	**Local Authority Pollution Prevention and Controls** 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
9	**Local Authority Pollution Prevention and Controls** Name: Save Retail Limited Location: Upper Sheffield Road, BARNSLEY, 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)	115	-	434909 404427

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
10	**Pollution Incidents to Controlled Waters** Property Type: Water Company Sewage: Foul Sewer Location: Markers Bridge B6273, /Darfld 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
11	**Pollution Incidents to Controlled Waters** 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)	98	1	434900 404400
12	**Pollution Incidents to Controlled Waters** 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
12	**Pollution Incidents to Controlled Waters** 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: Dearne 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
12	**Pollution Incidents to Controlled Waters** Property Type: Water Company Sewage: Sewage Treatment Works Location: Dodworth Stw Authority: Environment Agency, North East Region Pollutant: Sewage - Treated Effluent Note: Pollution Found; No Fish Killed Incident Date: 25th June 1996 Incident Reference: SH960304 Catchment Area: Dearne Receiving Water: Freshwater Stream/River Cause of Incident: Unknown Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A8NW (S)	615	1	434600 403695
13	**Pollution Incidents to Controlled Waters** Property Type: Highway/Car Park Location: Road Bridge A628, /Old Mill Bridge A61 Dearne 15 Authority: Environment Agency, North East Region Pollutant: Oils - Unknown Note: Not Supplied Incident Date: 7th August 1994 Incident Reference: 152841 Catchment Area: Not Given Receiving Water: No Pollution Cause of Incident: Not Given Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A18SE (N)	621	1	434801 405001

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
14	**Pollution Incidents to Controlled Waters** Property Type: Not Given Location: Worsbrough Reservoir Authority: Environment Agency, North East Region Pollutant: Oils - Waste Oil Note: Pollution Found; No Fish Killed Incident Date: 30th April 1996 Incident Reference: SH960236 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	A8SW (S)	706	1	434600 403600
14	**Pollution Incidents to Controlled Waters** Property Type: Other General Premises Location: Worsbrough Reservoir Authority: Environment Agency, North East Region Pollutant: Oils - Waste Oil Note: No Fish Killed Incident Date: 30th April 1996 Incident Reference: SH960236 Catchment Area: Dearne 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	A8SW (S)	711	1	434600 403595
15	**Pollution Incidents to Controlled Waters** Property Type: Miscellaneous Premises: Unknown Location: Darfield/Source Dove(S) Afu Authority: Environment Agency, North East Region Pollutant: Unknown Note: Not Supplied Incident Date: 12th March 1993 Incident Reference: 141357 Catchment Area: Not Given Receiving Water: No Pollution Cause of Incident: Not Given Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A8SE (S)	777	1	434800 403500
16	**Pollution Incidents to Controlled Waters** Property Type: Miscellaneous Premises: Unknown Location: Penistone/Source Don Afu Authority: Environment Agency, North East Region Pollutant: Oils - Diesel (Including Agricultural) Note: Not Supplied Incident Date: 13th September 1994 Incident Reference: 153237 Catchment Area: Not Given Receiving Water: Freshwater Stream/River Cause of Incident: Not Given Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A8SE (S)	784	1	434900 403500
17	**Pollution Incidents to Controlled Waters** Property Type: Highway/Car Park Location: Darfield/Source Dove(S) Afu Authority: Environment Agency, North East Region Pollutant: Oils - Diesel (Including Agricultural) Note: Not Supplied Incident Date: 26th July 1994 Incident Reference: 152709 Catchment Area: Not Given Receiving Water: Freshwater Stream/River Cause of Incident: Not Given Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A9SW (SE)	787	1	435200 403600
18	**Pollution Incidents to Controlled Waters** Property Type: Other General Premises Location: Darfield/Source Dove(S) Afu Authority: Environment Agency, North East Region Pollutant: Low Dissolved Oxygen Note: Not Supplied Incident Date: 16th July 1994 Incident Reference: 153213 Catchment Area: Not Given Receiving Water: Freshwater Stream/River Cause of Incident: Not Given Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A8SW (S)	833	1	434500 403500

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
18	**Pollution Incidents to Controlled Waters** Property Type: Other General Premises Location: Darfield/Source Dove(S) Afu Authority: Environment Agency, North East Region Pollutant: Unknown Note: Not Supplied Incident Date: 16th July 1994 Incident Reference: 152700 Catchment Area: Not Given Receiving Water: Freshwater Stream/River Cause of Incident: Not Given Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A8SW (S)	838	1	434500 403495
19	**Pollution Incidents to Controlled Waters** Property Type: Miscellaneous Premises: Unknown Location: Markers Bridge B6273, /Darfld A635 Dearne 08 Authority: Environment Agency, North East Region Pollutant: Oils - Unknown Note: Not Supplied Incident Date: 11th December 1989 Incident Reference: 106115 Catchment Area: Not Given Receiving Water: No Pollution Cause of Incident: Not Given Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A7SE (SW)	873	1	434400 403500
20	**Pollution Incidents to Controlled Waters** Property Type: Miscellaneous Premises: Unknown Location: Darfield/Source Dove(S) Afu Authority: Environment Agency, North East Region Pollutant: Miscellaneous - No Visible Pollution/Nothing Found Note: Not Supplied Incident Date: 14th June 1994 Incident Reference: 152302 Catchment Area: Not Given Receiving Water: No Pollution Cause of Incident: Not Given Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A8SW (S)	883	1	434700 403400
21	**Pollution Incidents to Controlled Waters** Property Type: Surface Water Sewers Location: Darfield/Source Dove(S) Afu Authority: Environment Agency, North East Region Pollutant: Oils - Unknown Note: Not Supplied Incident Date: 11th September 1994 Incident Reference: 153112 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	A7SE (SW)	916	1	434300 403500
22	***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)	965	1	434200 403500
23	**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

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	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
24	**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)	977	1	434800 403300
24	**Water Abstractions** Operator: Barnsley Metropolitan Borough Council Licence Number: 2/27/08/118 Permit Version: 102 Location: Worsborough Reservoir Authority: Environment Agency, North East Region Abstraction: Holiday Sites, Camp Sites & Tourist Attractions: Make-Up or Top Up Water 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: 1st August 2002 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m	A3NE (S)	977	1	434800 403300
24	**Water Abstractions** Operator: Barnsley Metropolitan Borough Council Licence Number: 2/27/08/118 Permit Version: 101 Location: Worsborough Reservoir Authority: Environment Agency, North East Region Abstraction: Holiday sites, Camp Sites & Tourist Attractions: Lake & Pond Throughflow 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: 24th November 2000 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m	A3NE (S)	977	1	434800 403300

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
24	**Water Abstractions** Operator: Barnsley Metropolitan Borough Council Licence Number: 2/27/08/118 Permit Version: 100 Location: Worsborough Reservoir Authority: Environment Agency, North East Region Abstraction: Production Of Energy: Mechanical Non Electrical: Milling & Water Power Other Than Electricity Generation 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: 4th July 1997 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	A3NE (S)	977	1	434800 403300
25	**Water Abstractions** Operator: Barnsley Metropolitan Borough Council Licence Number: 2/27/08/143 Permit Version: 1 Location: Worsborough Mill Pond Authority: Environment Agency, North East Region Abstraction: Production Of Energy: Mechanical Non Electrical: Milling & Water Power Other Than Electricity Generation 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)	982	1	434900 403300
25	**Water Abstractions** Operator: Barnsley Metropolitan Borough Council Licence Number: 2/27/08/118 Permit Version: 102 Location: Worsborough Mill Pond Authority: Environment Agency, North East Region Abstraction: Production Of Energy: Mechanical Non Electrical: Milling & Water Power Other Than Electricity Generation 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: 1st August 2002 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m	A3NE (S)	982	1	434900 403300
25	**Water Abstractions** Operator: Barnsley Metropolitan Borough Council Licence Number: 2/27/08/118 Permit Version: 101 Location: Worsborough Mill Pond Authority: Environment Agency, North East Region Abstraction: Production Of Energy: Mechanical Non Electrical: Milling & Water Power Other Than Electricity Generation 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: 24th November 2000 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m	A3NE (S)	982	1	434900 403300

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
25	**Water Abstractions** Operator: Barnsley Metropolitan Borough Council Licence Number: 2/27/08/118 Permit Version: 100 Location: Worsborough Mill Pond Authority: Environment Agency, North East Region Abstraction: Production Of Energy: Mechanical Non Electrical: Milling & Water Power Other Than Electricity Generation Abstraction Type: Water may be abstracted from a single point Source: Surface Daily Rate (m3): 0 Yearly Rate (m3): 0 Details: Worsborough Mill, Worsborough, Barnsley Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 4th July 1997 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m	A3NE (S)	982	1	434900 403300
26	**Water Abstractions** Operator: Worsbrough Bridge Sports & Development Association Licence Number: 2/27/08/129 Permit Version: 1 Location: Inland Water - River Dove Authority: Environment Agency, North East Region Abstraction: General Agriculture: Spray Irrigation - Direct Abstraction Type: Water may be abstracted from a river or stream reach, or a row of wellpoints Source: Surface Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Worsbrough Bridge Sports, Park Road, Worsbrough Bridge, Barnsley Authorised Start: 01 April Authorised End: 30 September Permit Start Date: 4th September 2002 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m	A3NE (S)	998	1	435000 403300
	Water Abstractions Operator: National Coal Board Licence Number: 2/27/08/066 Permit Version: Not Supplied Location: Location Description Not Available Authority: Environment Agency, North East Region Abstraction: General Industrial Abstraction Type: Not Supplied Source: Surface Daily Rate (m3): 1136 Yearly Rate (m3): 272760 Details: Licence Revoked Authorised Start: Not Supplied Authorised End: Not Supplied Permit Start Date: Not Supplied Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m	A9SW (SE)	1013	1	435270 403380
	Water Abstractions Operator: Barnsley District Council Licence Number: 2/27/08/060 Permit Version: Not Supplied Location: Location Description Not Available Authority: Environment Agency, North East Region Abstraction: Glasshouse Irrigation Abstraction Type: Not Supplied Source: Groundwater Daily Rate (m3): 23 Yearly Rate (m3): 3410 Details: Licence Revoked Authorised Start: Not Supplied Authorised End: Not Supplied Permit Start Date: Not Supplied Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m	A17NW (NW)	1323	1	433800 405300

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Water Abstractions Operator: Barnsley Metropolitan Borough Council Licence Number: 2/27/08/143 Permit Version: 1 Location: Rockley Dike 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	A2SE (S)	1530	1	434400 402800
	Water Abstractions Operator: Barnsley Metropolitan Borough Council Licence Number: 2/27/08/118 Permit Version: 102 Location: Rockley Dike Authority: Environment Agency, North East Region Abstraction: Holiday Sites, Camp Sites & Tourist Attractions: Make-Up or Top Up Water 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: 1st August 2002 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m	A2SE (S)	1530	1	434400 402800
	Water Abstractions Operator: Barnsley Metropolitan Borough Council Licence Number: 2/27/08/118 Permit Version: 101 Location: Rockley Dike Authority: Environment Agency, North East Region Abstraction: Holiday sites, Camp Sites & Tourist Attractions: Lake & Pond Throughflow 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: 24th November 2000 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m	A2SE (S)	1530	1	434400 402800
	Water Abstractions Operator: Mr H Brown Licence Number: 2/27/08/040 Permit Version: 100 Location: Well - Coal Measures - Worsborough Authority: Environment Agency, North East Region Abstraction: General Farming And Domestic Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): 1 Yearly Rate (m3): 303 Details: 3 Acres Farmland, Brownfield, Worsborough Village, Barnsley Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 27th January 1966 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	(S)	1677	1	434800 402600

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Water Abstractions Operator: Mr & Mrs D & J Nuttall Licence Number: 2/27/08/128 Permit Version: 1 Location: Inland Water - River Dove Authority: Environment Agency, North East Region Abstraction: Private Non-Industrial Amenity: Make-Up Or Top Up Water Abstraction Type: Water may be abstracted from a river or stream reach, or a row of wellpoints Source: Surface Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Neather Lewden, Station Road, Worsbrough Dale, Barnsley Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 13th September 2002 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	(SE)	1928	1	436550 403450
	Water Abstractions Operator: Mr & Mrs D & J Nuttall Licence Number: 2/27/08/128 Permit Version: 1 Location: Inland Water - River Dove Authority: Environment Agency, North East Region Abstraction: Private Non-Industrial Amenity: Make-Up Or Top Up Water Abstraction Type: Water may be abstracted from a river or stream reach, or a row of wellpoints Source: Surface Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Neather Lewden, Station Road, Worsbrough Dale, Barnsley Authorised Start: 01 November Authorised End: 31 March Permit Start Date: 13th September 2002 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	(SE)	1928	1	436550 403450
	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

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	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)	1985	1	433700 406060
	Groundwater Vulnerability Geological Classification: Minor Aquifer (Variably permeable) - These can be fractured or potentially fractured rocks, which do not have a high primary permeability, or other formations of variable permeability including unconsolidated deposits. Although not producing large quantities of water for abstraction, they are important for local supplies and in supplying base flow to rivers 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 (NW)	0	1	434776 404330
	Drift Deposits None				
	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				
	Flood Defences None				

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
27	**Historical Landfill Sites** Licence Holder: Public Services Dept, Barnsley Metropolitan Borough Council Location: Communtiy 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: EAHLD04319 First Input Date: 31st July 1981 Last Input Date: 31st December 1989 Specified Waste Type: Deposited Waste included Inert, Industrial and Commercial Waste 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)	59	1	434687 404264
28	**Historical Landfill Sites** 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: EAHLD04403 First Input Date: 31st January 1981 Last Input Date: 31st December 1983 Specified Waste Type: Deposited Waste included Inert Waste 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)	862	1	435600 404711
	Local Authority Landfill Coverage Name: Barnsley Metropolitan Borough Council - Has supplied landfill data		0	2	434776 404330
29	**Local Authority Recorded Landfill Sites** Location: Not Supplied Reference: 11 Authority: Barnsley Metropolitan Borough Council, Environmental Health and Trading Standards **Last Reported Status:** **Unknown** Types of Waste: Not Supplied Date of Closure: Not Supplied Positional Accuracy: Positioned by the supplier Boundary Quality: Moderate	A13SW (W)	93	2	434635 404275
30	**Local Authority Recorded Landfill Sites** Location: Not Supplied Reference: 78 Authority: Barnsley Metropolitan Borough Council, Environmental Health and Trading Standards **Last Reported Status:** **Unknown** 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
31	**Registered Landfill Sites** Licence Holder: Barnsley M.B.C. Licence Reference: WD20 B 327 Site Location: Ward Green Community Park, Hoyland Nether, Hoyland, Barnsley, South Yorkshire Licence Easting: 434550 Licence Northing: 404350 Operator Location: Cleansing Div. Smithies La.Depot, Barnsley, 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 Restrictions: No known restriction on source of waste Status: Licence lapsed/cancelled/defunct/not applicable/surrenderedCancelled Dated: 1st July 1981 Preceded By Licence: Not Given Superseded By Licence: Not Given 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
32	**Registered Landfill Sites** Licence Holder: R J Norman Licence Reference: WD20 B 311 Site Location: Highfield Farm, Knowle Road, Barnsley, 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 Restrictions: No known restriction on source of waste Status: Licence lapsed/cancelled/defunct/not applicable/surrenderedCancelled Dated: 1st January 1981 Preceded By Licence: Not Given Superseded By Licence: Not Given 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
33	**BGS Recorded Mineral Sites** 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
34	**BGS Recorded Mineral Sites** 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
35	**BGS Recorded Mineral Sites** 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)	529	3	435249 403997
36	**BGS Recorded Mineral Sites** 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)	656	3	434629 405016
37	**BGS Recorded Mineral Sites** 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)	716	3	434126 403914
38	**BGS Recorded Mineral Sites** 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
39	**BGS Recorded Mineral Sites** 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)	937	3	435758 404427
40	**BGS Recorded Mineral Sites** 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)	984	3	433947 404951
	BGS 1:625,000 Solid Geology Description: Lower Westphalian (mainly Productive Coal Measures)	A13NE (NW)	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 (NW)	0	4	434776 404330
	Mining Instability Mining Evidence: Inconclusive Coal Mining Source: Ove Arup & Partners Boundary Quality: As Supplied	A13NE (NW)	0	-	434776 404330
	Non Coal Mining Areas of Great Britain Risk: Occasional Source: British Geological Survey, National Geoscience Information Service	A13NE (NW)	0	3	434776 404330
	Potential for Collapsible Ground Stability Hazards No Hazard				
	Potential for Compressible Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13NE (NW)	0	3	434776 404330
	Potential for Compressible Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13SE (S)	0	3	434776 404325
	Potential for Compressible Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13NE (E)	172	3	435000 404330
	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 (NW)	0	3	434776 404330
	Potential for Landslide Ground Stability Hazards Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service	A13NE (NE)	83	3	434850 404450
	Potential for Landslide Ground Stability Hazards Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service	A13SW (SW)	130	3	434650 404200
	Potential for Landslide Ground Stability Hazards Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service	A13SW (SW)	145	3	434675 404175
	Potential for Landslide Ground Stability Hazards Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service	A13SW (SW)	157	3	434700 404150

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Potential for Landslide Ground Stability Hazards Hazard Potential: Moderate Source: British Geological Survey, National Geoscience Information Service	A13SW (W)	158	3	434575 404250
	Potential for Landslide Ground Stability Hazards Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service	A13SW (S)	169	3	434725 404125
	Potential for Landslide Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13NE (E)	172	3	435000 404330
	Potential for Landslide Ground Stability Hazards Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service	A13SE (S)	179	3	434775 404100
	Potential for Landslide Ground Stability Hazards Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service	A13NE (E)	182	3	435000 404375
	Potential for Landslide Ground Stability Hazards Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service	A13SW (SW)	213	3	434675 404100
	Potential for Landslide Ground Stability Hazards Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service	A13SW (SW)	239	3	434525 404175
	Potential for Landslide Ground Stability Hazards Hazard Potential: Moderate Source: British Geological Survey, National Geoscience Information Service	A13NE (NE)	243	3	434950 404575
	Potential for Running Sand Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13NE (NW)	0	3	434776 404330
	Potential for Running Sand Ground Stability Hazards Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service	A13SW (SW)	0	3	434750 404300
	Potential for Running Sand Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13SE (S)	0	3	434776 404325
	Potential for Running Sand Ground Stability Hazards Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service	A13SW (W)	102	3	434625 404275
	Potential for Running Sand Ground Stability Hazards Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service	A13SW (SW)	113	3	434650 404225
	Potential for Running Sand Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13SW (SW)	130	3	434650 404200
	Potential for Running Sand Ground Stability Hazards Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service	A13NW (W)	145	3	434575 404330
	Potential for Running Sand Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13NE (E)	172	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	434750 404300
	Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13NE (NW)	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)	73	3	434875 404400
	Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13SW (SW)	130	3	434650 404200
	Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13SW (SW)	145	3	434675 404175

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 Source: British Geological Survey, National Geoscience Information Service	A13SW (SW)	155	3	434650 404175
	Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13SW (SW)	157	3	434700 404150
	Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13SW (S)	169	3	434725 404125
	Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13SE (E)	172	3	435000 404325
	Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13NE (E)	172	3	435000 404330
	Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13SE (S)	179	3	434775 404100
	Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13SE (E)	185	3	435000 404250
	Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13SW (SW)	204	3	434550 404200
	Radon Potential - Radon Affected Areas Affected Area: The property is not in a radon affected area, as less than 1% of homes are above the action level Source: British Geological Survey, National Geoscience Information Service	A13NE (NE)	0	3	434800 404350
	Radon Potential - Radon Affected Areas Affected Area: The property is in a radon affected area, as between 1 and 3% of homes are above the action level Source: British Geological Survey, National Geoscience Information Service	A13NE (NW)	0	3	434776 404330
	Radon Potential - Radon Protection Measures Protection Measure: No radon protective measures are necessary in the construction of new dwellings or extensions Source: British Geological Survey, National Geoscience Information Service	A13NE (NE)	0	3	434800 404350
	Radon Potential - Radon Protection Measures Protection Measure: No radon protective measures are necessary in the construction of new dwellings or extensions Source: British Geological Survey, National Geoscience Information Service	A13NE (NW)	0	3	434776 404330

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
41	**Contemporary Trade Directory Entries** Name: Terence Jolley & Associates Location: 18, Wigfield Drive, Worsbrough, Barnsley, South Yorkshire, S70 5HR Classification: Printers **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A13SW (S)	159	-	434770 404121
42	**Contemporary Trade Directory Entries** Name: Premier Blinds Location: 1, Dale Green Road, Worsbrough, Barnsley, South Yorkshire, S70 5JX Classification: Blinds, Awnings & Canopies **Status: Active** Positional Accuracy: Automatically positioned to the address	A13SE (S)	272	-	434785 404005
43	**Contemporary Trade Directory Entries** Name: R J E Window Films Location: 15, Tenters Green, Worsbrough, Barnsley, South Yorkshire, S70 5HG Classification: Window Tinting **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A8NE (SE)	366	-	434992 403967
44	**Contemporary Trade Directory Entries** Name: Mount Vernon Hospital Location: Mount Vernon Road, Barnsley, South Yorkshire, S70 4DP Classification: Hospitals **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A18SE (NE)	415	-	434959 404765
44	**Contemporary Trade Directory Entries** Name: Mount Vernon Hospital Location: Mount Vernon Road, Barnsley, South Yorkshire, S70 4DP Classification: Hospitals **Status: Active** Positional Accuracy: Automatically positioned to the address	A18SE (NE)	415	-	434959 404765
45	**Contemporary Trade Directory Entries** Name: Ovencare Location: 101, Genn Lane, Worsbrough, Barnsley, South Yorkshire, S70 6SY Classification: Oven cleaning **Status: Active** Positional Accuracy: Automatically positioned to the address	A12NE (NW)	430	-	434407 404641
46	**Contemporary Trade Directory Entries** Name: Barnsley Primary Care Trust Location: Mount Vernon Rd, Barnsley, South Yorkshire, S70 4DP Classification: Hospitals **Status: Inactive** Positional Accuracy: Manually positioned to the road within the address or location	A18SE (NE)	456	-	435063 404756
47	**Contemporary Trade Directory Entries** Name: Milton Gough Location: 22, Cromwell Mount, Worsbrough, Barnsley, South Yorkshire, S70 6TA Classification: Scrap Metal Merchants **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A18SW (NW)	484	-	434459 404763
48	**Contemporary Trade Directory Entries** Name: Hilltop Service Station Location: 13, De Lacy Drive, Worsbrough, Barnsley, South Yorkshire, S70 5QD Classification: Petrol Filling Stations - 24 Hour **Status: Active** Positional Accuracy: Automatically positioned to the address	A14NW (E)	509	-	435331 404395
49	**Contemporary Trade Directory Entries** Name: Steve Hopkinson Location: Edmund St, Worsbrough, Barnsley, South Yorkshire, S70 5AZ Classification: Car Body Repairs **Status: Active** Positional Accuracy: Manually positioned to the road within the address or location	A9NW (SE)	583	-	435274 403940
49	**Contemporary Trade Directory Entries** Name: Steve Hopkinson Location: Edmund Street, Worsbrough, Barnsley, South Yorkshire, S70 5AZ Classification: Car Body Repairs **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A9NW (SE)	594	-	435271 403917
49	**Contemporary Trade Directory Entries** Name: Adept Auto Services Location: Edmund Street, Worsbrough, Barnsley, South Yorkshire, S70 5AZ Classification: Garage Services **Status: Active** Positional Accuracy: Automatically positioned to the address	A9NW (SE)	594	-	435271 403917

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
50	**Contemporary Trade Directory Entries** Name: W K Stubbings Location: Old Church of England School, Park Road, Worsbrough, Barnsley, South Yorkshire, S70 5AT Classification: Printers **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A14SW (SE)	630	-	435387 404029
50	**Contemporary Trade Directory Entries** Name: Instyle Print Location: Old Church of England School, Park Road, Worsbrough, Barnsley, South Yorkshire, S70 5AT Classification: Printers **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A14SW (SE)	630	-	435387 404029
51	**Contemporary Trade Directory Entries** Name: Pete'S Tool Shed Location: 65, Park Road, Worsbrough, Barnsley, South Yorkshire, S70 5AD Classification: Tool Sharpening, Repairing & Servicing **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A9NW (SE)	655	-	435324 403885
52	**Contemporary Trade Directory Entries** Name: D T Autos Location: 119, Highstone Road, Barnsley, South Yorkshire, S70 4ET Classification: Garage Services **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A18NW (N)	709	-	434539 405050
53	**Contemporary Trade Directory Entries** Name: Roadrunner Location: 86, Upper Sheffield Road, Barnsley, South Yorkshire, S70 4PW Classification: Road Haulage Services **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A19NW (NE)	816	-	435282 405042
54	**Contemporary Trade Directory Entries** Name: Brads Location: 14, Lobwood Lane, Worsbrough, Barnsley, South Yorkshire, S70 4AB Classification: Road Haulage Services **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A14SE (E)	880	-	435698 404187
55	**Contemporary Trade Directory Entries** Name: Mast Mowers Location: 38-40, Upper Sheffield Road, Barnsley, South Yorkshire, S70 4PN Classification: Lawnmowers & Garden Machinery - Sales & Service **Status: Inactive** Positional Accuracy: Automatically positioned in the proximity of the address	A19NW (NE)	886	-	435174 405185
56	**Contemporary Trade Directory Entries** Name: Yorkshire Traction Co Ltd Location: Upper Sheffield Road, BARNSLEY, South Yorkshire, S70 4PP Classification: Bus & Coach Operators & Stations **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A19NW (NE)	920	-	435279 405169
57	**Contemporary Trade Directory Entries** Name: Yorkshire Gas Location: Park Rd, Worsbrough, Barnsley, South Yorkshire, S70 5LJ Classification: Gas Companies **Status: Active** Positional Accuracy: Manually positioned within the geographical locality	A9SW (SE)	926	-	435178 403432
57	**Contemporary Trade Directory Entries** Name: G L S Car Sales Ltd Location: Old Mill Garage,Park Road, Worsbrough Bridge, Barnsley, S Yorkshire, S70 5LJ Classification: Car Body Repairs **Status: Inactive** Positional Accuracy: Manually positioned to the road within the address or location	A9SW (SE)	937	-	435203 403432
57	**Contemporary Trade Directory Entries** Name: A L Auto Repairs Location: Old Mill Garage, Park Road, Worsbrough, BARNSLEY, South Yorkshire, S70 5LJ Classification: Car Painters & Sprayers **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A9SW (SE)	964	-	435226 403414

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
58	**Contemporary Trade Directory Entries** Name: Keresford Solid Fuels Location: 12, Bismarck Street, Barnsley, South Yorkshire, S70 4NA Classification: Coal & Smokeless Fuel Merchants & Distributors **Status:** **Inactive** Positional Accuracy: Automatically positioned to the address	A18NW (N)	960	-	434739 405337
59	**Contemporary Trade Directory Entries** Name: Waste Recycling Group Location: West St, Worsbrough, Barnsley, South Yorkshire, S70 5DJ Classification: Waste Disposal Services **Status:** **Active** Positional Accuracy: Manually positioned to the road within the address or location	A9SE (SE)	999	-	435457 403526
60	**Fuel Station Entries** Name: Jet Intake 2 Service Station Location: Upper Sheffield Road, BARNSLEY, South Yorkshire, S70 4PN Brand: Obsolete Premises Type: Not Applicable **Status:** **Obsolete** Positional Accuracy: Approximate location provided by supplier	A19SW (NE)	672	-	435290 404844
61	**Fuel Station Entries** Name: The Old Mill Service Station Location: Park Road, Worsbrough, BARNSLEY, South Yorkshire, S70 5LJ Brand: OBSOLETE Premises Type: Not Applicable **Status:** **Obsolete** Positional Accuracy: Manually positioned to the address or location	A9SW (SE)	968	-	435226 403409

Sensitive Land Use

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
62	**Areas of Adopted Green Belt** Authority: Barnsley Metropolitan Borough Council, Planning Department Plan Name: Barnsley Unitary Development Plan **Status: Adopted** Plan Date: 31st December 2000	A13NW (W)	0	5	434732 404346
63	**Areas of Adopted Green Belt** Authority: Barnsley Metropolitan Borough Council, Planning Department Plan Name: Barnsley Unitary Development Plan **Status: Adopted** Plan Date: 31st December 2000	A13NE (NE)	71	5	434853 404432
64	**Local Nature Reserves** Name: Worsborough Country Park Multiple Area: Y Area (m2): 628283.77 Source: Natural England Designation Date: Not Supplied	A8SW (S)	695	6	434575 403620
65	**Nitrate Vulnerable Zones** Name: Not Supplied Description: Surface Water - Designated 2006 Source: Department for Environment, Food and Rural Affairs (DEFRA - formerly FRCA)	A13NE (NW)	0	7	434776 404330

Agency & Hydrological	Version	Update Cycle
Contaminated Land Register Entries and Notices		
Barnsley Metropolitan Borough Council - Environmental Health and Trading Standards	August 2010	Annual Rolling Update
Sheffield City Council - Environmental Protection Service	March 2010	Annual Rolling Update
Wakefield City Metropolitan District Council - Environmental Health	September 2010	Annual Rolling Update
Discharge Consents		
Environment Agency - North East Region	October 2010	Quarterly
Enforcement and Prohibition Notices		
Environment Agency - North East Region	August 2010	Quarterly
Integrated Pollution Controls		
Environment Agency - North East Region	October 2008	Not Applicable
Integrated Pollution Prevention And Control		
Environment Agency - North East Region	July 2010	Quarterly
Local Authority Integrated Pollution Prevention And Control		
Wakefield City Metropolitan District Council - Environmental Health	August 2010	Annual Rolling Update
Sheffield City Council - Environmental Protection Service	February 2010	Annual Rolling Update
Barnsley Metropolitan Borough Council - Environmental Health and Trading Standards	January 2010	Annual Rolling Update
Local Authority Pollution Prevention and Controls		
Wakefield City Metropolitan District Council - Environmental Health	August 2010	Annual Rolling Update
Sheffield City Council - Environmental Protection Service	February 2010	Annual Rolling Update
Barnsley Metropolitan Borough Council - Environmental Health and Trading Standards	January 2010	Annual Rolling Update
Local Authority Pollution Prevention and Control Enforcements		
Wakefield City Metropolitan District Council - Environmental Health	August 2010	Annual Rolling Update
Sheffield City Council - Environmental Protection Service	February 2010	Annual Rolling Update
Barnsley Metropolitan Borough Council - Environmental Health and Trading Standards	January 2010	Annual Rolling Update
Nearest Surface Water Feature		
Ordnance Survey	April 2010	Quarterly
Pollution Incidents to Controlled Waters		
Environment Agency - North East Region	December 1998	Not Applicable
Prosecutions Relating to Authorised Processes		
Environment Agency - North East Region	October 2010	Monthly
Prosecutions Relating to Controlled Waters		
Environment Agency - North East Region	October 2010	Monthly
Registered Radioactive Substances		
Environment Agency - North East Region	October 2010	Quarterly
River Quality		
Environment Agency - Head Office	November 2001	Not Applicable
River Quality Biology Sampling Points		
Environment Agency - Head Office	January 2010	Annually
River Quality Chemistry Sampling Points		
Environment Agency - Head Office	January 2010	Annually
Substantiated Pollution Incident Register		
Environment Agency - North East Region - Ridings Area	October 2010	Quarterly
Environment Agency - North East Region - Yorkshire Area	October 2010	Quarterly
Water Abstractions		
Environment Agency - North East Region	July 2010	Quarterly
Water Industry Act Referrals		
Environment Agency - North East Region	January 2010	Quarterly
Groundwater Vulnerability		
Environment Agency - Head Office	January 1999	Not Applicable
Drift Deposits		
Environment Agency - Head Office	January 1999	Not Applicable

Agency & Hydrological	Version	Update Cycle
Source Protection Zones		
Environment Agency - Head Office	June 2010	Quarterly
Extreme Flooding from Rivers or Sea without Defences		
Environment Agency - Head Office	November 2010	Quarterly
Flooding from Rivers or Sea without Defences		
Environment Agency - Head Office	November 2010	Quarterly
Areas Benefiting from Flood Defences		
Environment Agency - Head Office	November 2010	Quarterly
Flood Water Storage Areas		
Environment Agency - Head Office	November 2010	Quarterly
Flood Defences		
Environment Agency - Head Office	November 2010	Quarterly
Waste	**Version**	**Update Cycle**
BGS Recorded Landfill Sites		
British Geological Survey - National Geoscience Information Service	June 1996	Not Applicable
Historical Landfill Sites		
Environment Agency - North East Region - Ridings Area	October 2010	Quarterly
Environment Agency - North East Region - Yorkshire Area	October 2010	Quarterly
Integrated Pollution Control Registered Waste Sites		
Environment Agency - North East Region	October 2008	Not Applicable
Licensed Waste Management Facilities (Landfill Boundaries)		
Environment Agency - North East Region - Ridings Area	October 2010	Quarterly
Environment Agency - North East Region - Yorkshire Area	October 2010	Quarterly
Licensed Waste Management Facilities (Locations)		
Environment Agency - North East Region - Ridings Area	July 2010	Quarterly
Environment Agency - North East Region - Yorkshire Area	July 2010	Quarterly
Local Authority Landfill Coverage		
Barnsley Metropolitan Borough Council - Environmental Health and Trading Standards	May 2000	Not Applicable
Sheffield City Council - Environmental Protection Service	May 2000	Not Applicable
Wakefield City Metropolitan District Council - Environmental Health	May 2000	Not Applicable
Local Authority Recorded Landfill Sites		
Barnsley Metropolitan Borough Council - Environmental Health and Trading Standards	May 2000	Not Applicable
Sheffield City Council - Environmental Protection Service	May 2000	Not Applicable
Wakefield City Metropolitan District Council - Environmental Health	May 2000	Not Applicable
Registered Landfill Sites		
Environment Agency - North East Region - Ridings Area	March 2003	Not Applicable
Registered Waste Transfer Sites		
Environment Agency - North East Region - Ridings Area	March 2003	Not Applicable
Registered Waste Treatment or Disposal Sites		
Environment Agency - North East Region - Ridings Area	March 2003	Not Applicable

Paul Waite Associates

Data Currency

Hazardous Substances	Version	Update Cycle
Control of Major Accident Hazards Sites (COMAH)		
Health and Safety Executive	May 2010	Bi-Annually
Explosive Sites		
Health and Safety Executive	January 2009	Bi-Annually
Notification of Installations Handling Hazardous Substances (NIHHS)		
Health and Safety Executive	November 2000	Not Applicable
Planning Hazardous Substance Enforcements		
Wakefield City Metropolitan District Council	April 2010	Annual Rolling Update
Sheffield City Council	February 2010	Annual Rolling Update
Barnsley Metropolitan Borough Council - Planning Department	November 2010	Annual Rolling Update
Planning Hazardous Substance Consents		
Wakefield City Metropolitan District Council	April 2010	Annual Rolling Update
Sheffield City Council	February 2010	Annual Rolling Update
Barnsley Metropolitan Borough Council - Planning Department	November 2010	Annual Rolling Update
Geological	**Version**	**Update Cycle**
BGS Recorded Mineral Sites		
British Geological Survey - National Geoscience Information Service	October 2010	Bi-Annually
BGS 1:625,000 Solid Geology		
British Geological Survey - National Geoscience Information Service	August 1996	Not Applicable
Brine Compensation Area		
Cheshire Brine Subsidence Compensation Board	November 2002	Not Applicable
Coal Mining Affected Areas		
The Coal Authority - Mining Report Service	January 2006	As notified
Mining Instability		
Ove Arup & Partners	October 2000	Not Applicable
Non Coal Mining Areas of Great Britain		
British Geological Survey - National Geoscience Information Service	February 2009	Not Applicable
Potential for Collapsible Ground Stability Hazards		
British Geological Survey - National Geoscience Information Service	January 2010	Annually
Potential for Compressible Ground Stability Hazards		
British Geological Survey - National Geoscience Information Service	January 2010	Annually
Potential for Ground Dissolution Stability Hazards		
British Geological Survey - National Geoscience Information Service	January 2010	Annually
Potential for Landslide Ground Stability Hazards		
British Geological Survey - National Geoscience Information Service	January 2010	Annually
Potential for Running Sand Ground Stability Hazards		
British Geological Survey - National Geoscience Information Service	January 2010	Annually
Potential for Shrinking or Swelling Clay Ground Stability Hazards		
British Geological Survey - National Geoscience Information Service	January 2010	Annually
Radon Potential - Radon Affected Areas		
British Geological Survey - National Geoscience Information Service	May 2007	As notified
Radon Potential - Radon Protection Measures		
British Geological Survey - National Geoscience Information Service	May 2007	As notified
Industrial Land Use	**Version**	**Update Cycle**
Contemporary Trade Directory Entries		
Thomson Directories	August 2010	Quarterly
Fuel Station Entries		
Catalist Ltd - Experian Catalist	April 2010	Quarterly

Data Currency

Sensitive Land Use	Version	Update Cycle
Areas of Adopted Green Belt		
Barnsley Metropolitan Borough Council - Planning Department	March 2010	As notified
Sheffield City Council	March 2010	As notified
Wakefield City Metropolitan District Council	March 2010	As notified
Areas of Unadopted Green Belt		
Barnsley Metropolitan Borough Council - Planning Department	March 2010	As notified
Sheffield City Council	March 2010	As notified
Wakefield City Metropolitan District Council	March 2010	As notified
Areas of Outstanding Natural Beauty		
Natural England	July 2010	Bi-Annually
Environmentally Sensitive Areas		
Natural England	July 2010	Annually
Forest Parks		
Forestry Commission	April 1997	Not Applicable
Local Nature Reserves		
Natural England	October 2010	Bi-Annually
Marine Nature Reserves		
Natural England	September 2010	Bi-Annually
National Nature Reserves		
Natural England	October 2010	Bi-Annually
National Parks		
Natural England	August 2010	Bi-Annually
Nitrate Sensitive Areas		
Department for Environment, Food and Rural Affairs (DEFRA - formerly FRCA)	December 2009	Not Applicable
Nitrate Vulnerable Zones		
Department for Environment, Food and Rural Affairs (DEFRA - formerly FRCA)	February 2009	Annually
Ramsar Sites		
Natural England	August 2010	Bi-Annually
Sites of Special Scientific Interest		
Natural England	August 2010	Bi-Annually
Special Areas of Conservation		
Natural England	October 2010	Bi-Annually
Special Protection Areas		
Natural England	August 2010	Bi-Annually

Data Suppliers

A selection of organisations who provide data within this report

Data Supplier	Data Supplier Logo
Ordnance Survey	
Environment Agency	
Scottish Environment Protection Agency	
The Coal Authority	
British Geological Survey	
Centre for Ecology and Hydrology	
Countryside Council for Wales	
Scottish Natural Heritage	
Natural England	
Health Protection Agency	
Ove Arup	
Peter Brett Associates	

Paul Waite Associates

Useful Contacts

Contact	Name and Address	Contact Details
1	**Environment Agency - National Customer Contact Centre (NCCC)** PO Box 544, Templeborough, Rotherham, S60 1BY	Telephone: 08708 506 506 Email: enquiries@environment-agency.gov.uk
2	**Barnsley Metropolitan Borough Council - Environmental Health and Trading Standards** Central Offices, Kendray Street, Barnsley, South Yorkshire, S70 2TN	Telephone: 01226 770770 Fax: 01226 772599 Website: www.barnsley.gov.uk
3	**British Geological Survey - Enquiry Service** British Geological Survey, Kingsley Dunham Centre, Keyworth, Nottingham, Nottinghamshire, NG12 5GG	Telephone: 0115 936 3143 Fax: 0115 936 3276 Email: enquiries@bgs.ac.uk Website: www.bgs.ac.uk
4	**The Coal Authority - Mining Report Service** 200 Lichfield Lane, Mansfield, Nottinghamshire, NG18 4RG	Telephone: 0845 7626848 Email: thecoalauthority@coal.gov.uk
5	**Barnsley Metropolitan Borough Council - Planning Department** Central Offices, Kendray Street, Barnsley, South Yorkshire, S70 2TN	Telephone: 01226 770770 Fax: 01226 772599 Website: www.barnsley.gov.uk
6	**Natural England** Northminster House, Northminster Road, Peterborough, Cambridgeshire, PE1 1UA	Telephone: 0845 600 3078 Fax: 01733 455103 Email: enquiries@naturalengland.org.uk Website: www.naturalengland.org.uk
7	**Department for Environment, Food and Rural Affairs (DEFRA - formerly FRCA)** Government Buildings, Otley Road, Lawnswood, Leeds, West Yorkshire, LS16 5QT	Telephone: 0113 2613333 Fax: 0113 230 0879
-	**Health Protection Agency - Radon Survey, Centre for Radiation, Chemical and Environmental Hazards** Chilton, Didcot, Oxfordshire, OX11 0RQ	Telephone: 01235 822622 Fax: 01235 833891 Email: radon@hpa.org.uk Website: www.hpa.org.uk
-	**Landmark Information Group Limited** The Smith Centre, Henley On Thames, Oxfordshire, RG9 6AB	Telephone: 0844 844 9952 Fax: 0844 844 9951 Email: customerservices@landmarkinfo.co.uk Website: www.landmarkinfo.co.uk

Please note that the Environment Agency / SEPA have a charging policy in place for enquiries.

Geology 1:50,000 Maps Legends

Artificial Ground and Landslip

Map Colour	Lex Code	Rock Name	Rock Type	Min and Max Age
	MGR	Made Ground (Undivided)	Artificial Deposit	Present Day - Present Day
	WMGR	Infilled Ground	Artificial Deposit	Present Day - Present Day
	WGR	Worked Ground (Undivided)	Void	Present Day - Present Day
	SLIP	Landslide Deposit	Unknown/Unclassified Entry	Quaternary - Quaternary

Superficial Geology

Map Colour	Lex Code	Rock Name	Rock Type	Min and Max Age
	ALV	Alluvium	Clay and Silt	Flandrian - Flandrian
	TILMP	Till, Mid Pleistocene	Diamicton	Ipswichian - Cromerian
	HEAD	Head	Diamicton	Quaternary - Quaternary

Bedrock and Faults

Map Colour	Lex Code	Rock Name	Rock Type	Min and Max Age
	PMCM	Pennine Middle Coal Measures Formation	Mudstone, Siltstone and Sandstone	Bolsovian (Westphalian C) - Duckmantian (Westphalian B)
	KNR	Kent's Rock	Sandstone	Duckmantian (Westphalian B) - Duckmantian (Westphalian B)
	PMCM	Pennine Middle Coal Measures Formation	Sandstone	Bolsovian (Westphalian C) - Duckmantian (Westphalian B)
	WE	Woolley Edge Rock	Sandstone	Duckmantian (Westphalian B) - Duckmantian (Westphalian B)
	BNR	Barnsley Rock	Sandstone	Duckmantian (Westphalian B) - Duckmantian (Westphalian B)
	OR	Oaks Rock	Sandstone	Duckmantian (Westphalian B) - Duckmantian (Westphalian B)
	HMR	Haigh Moor Rock	Sandstone	Duckmantian (Westphalian B) - Duckmantian (Westphalian B)
	ABR	Abdy Rock	Sandstone	Duckmantian (Westphalian B) - Duckmantian (Westphalian B)
		Rock Segments		
		Faults		

Paul Waite Associates

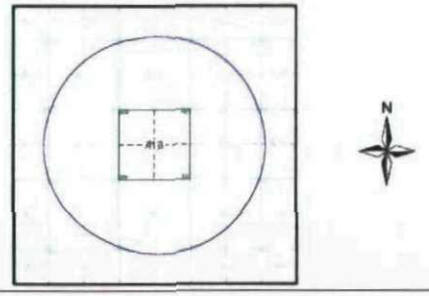
Geology 1:50,000 Maps

This report contains geological map extracts taken from the BGS Digital Geological map of Great Britain at 1:50,000 scale and is designed for users carrying out preliminary site assessments who require geological maps for the area around the site. This mapping may be more up to date than previously published paper maps.
The various geological layers - artificial and landslip deposits, superficial geology and solid (bedrock) geology are displayed in separate maps, but superimposed on the final 'Combined Surface Geology' map. All map legends feature on this page. Not all layers have complete nationwide coverage, so availability of data for relevant map sheets is indicated below.

Geology 1:50,000 Maps Coverage

Map ID:	1
Map Sheet No:	087
Map Name:	Barnsley
Map Date:	2000
Bedrock Geology:	Available
Superficial Geology:	Available
Artificial Geology:	Not Available
Faults:	Available
Landslip:	Available
Rock Segments:	Available

Geology 1:50,000 Maps - Slice A



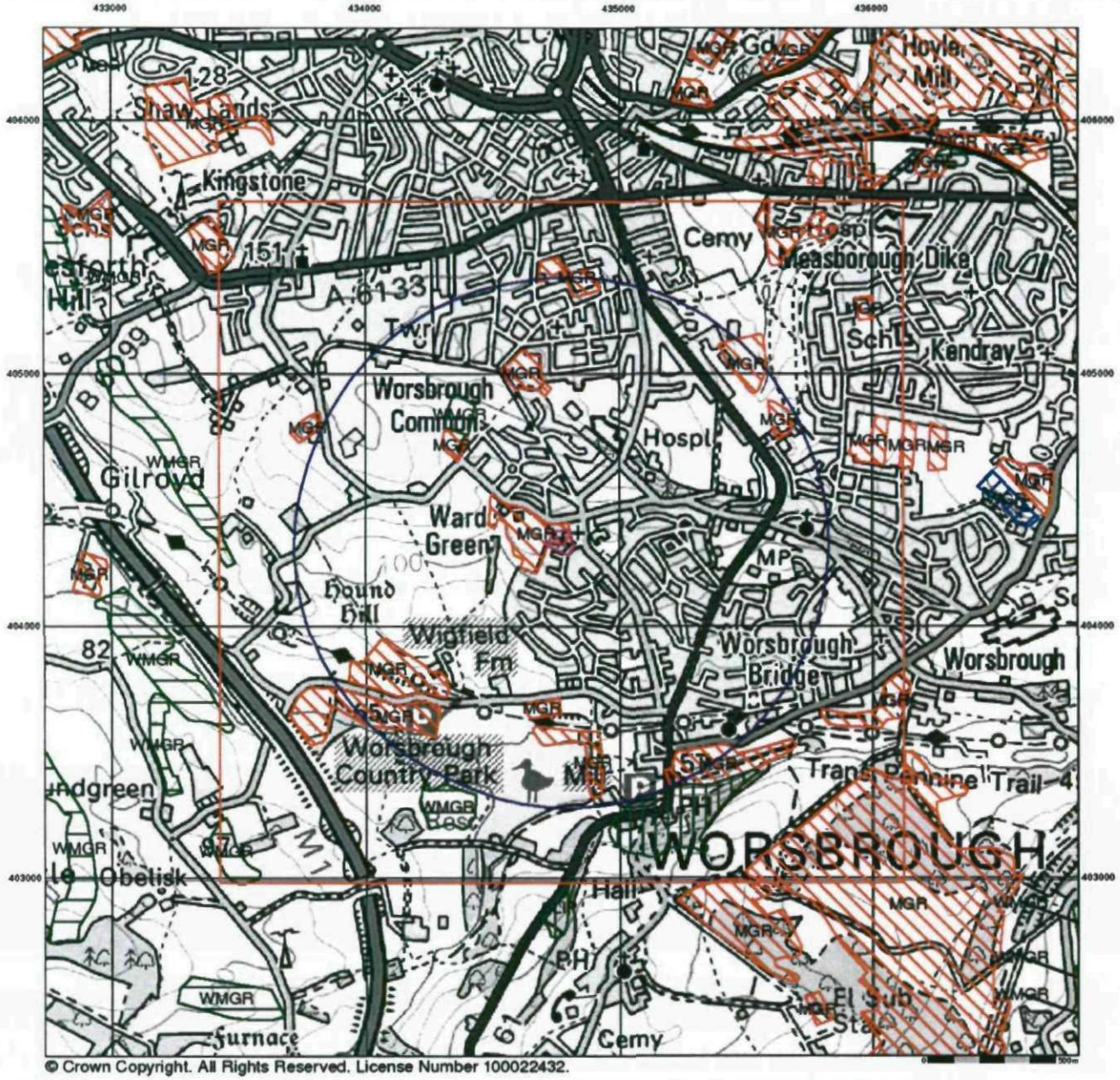
Order Details:

Order Number:	33236200_1_1
Customer Reference:	10225 Ward Green Primary
National Grid Reference:	434780, 404330
Slice:	A
Site Area (Ha):	0.71
Search Buffer (m):	1000

Site Details:

Ward Green Primary School, Worsbrough, BARNSLEY, South Yorkshire

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



© Crown Copyright. All Rights Reserved. License Number 100022432.

Paul Waite Associates

Artificial Ground and Landslip

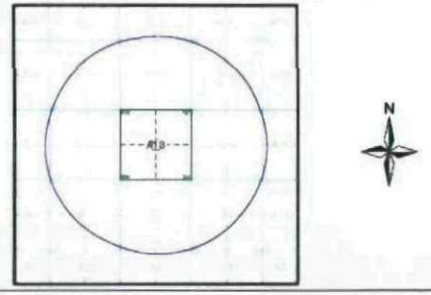
Artificial ground is a term used by BGS for those areas where the ground surface has been significantly modified by human activity. Information about previously developed ground is especially important, as it is often associated with potentially contaminated material, unpredictable engineering conditions and unstable ground.

Artificial ground includes:

- Made ground - man-made deposits such as embankments and spoil heaps on the natural ground surface.
- Worked ground - areas where the ground has been cut away such as quarries and road cuttings.
- Infilled ground - areas where the ground has been cut away then wholly or partially backfilled.
- Landscaped ground - areas where the surface has been reshaped.
- Disturbed ground - areas of ill-defined shallow or near surface mineral workings where it is impracticable to map made and worked ground separately.

Mass movement (landslip) deposits on BGS geological maps are primarily superficial deposits that have moved down slope under gravity to form landslips. These affect bedrock, other superficial deposits and artificial ground. The dataset also includes foundered strata, where the ground has collapsed due to subsidence.

Artificial Ground and Landslip Map - Slice A



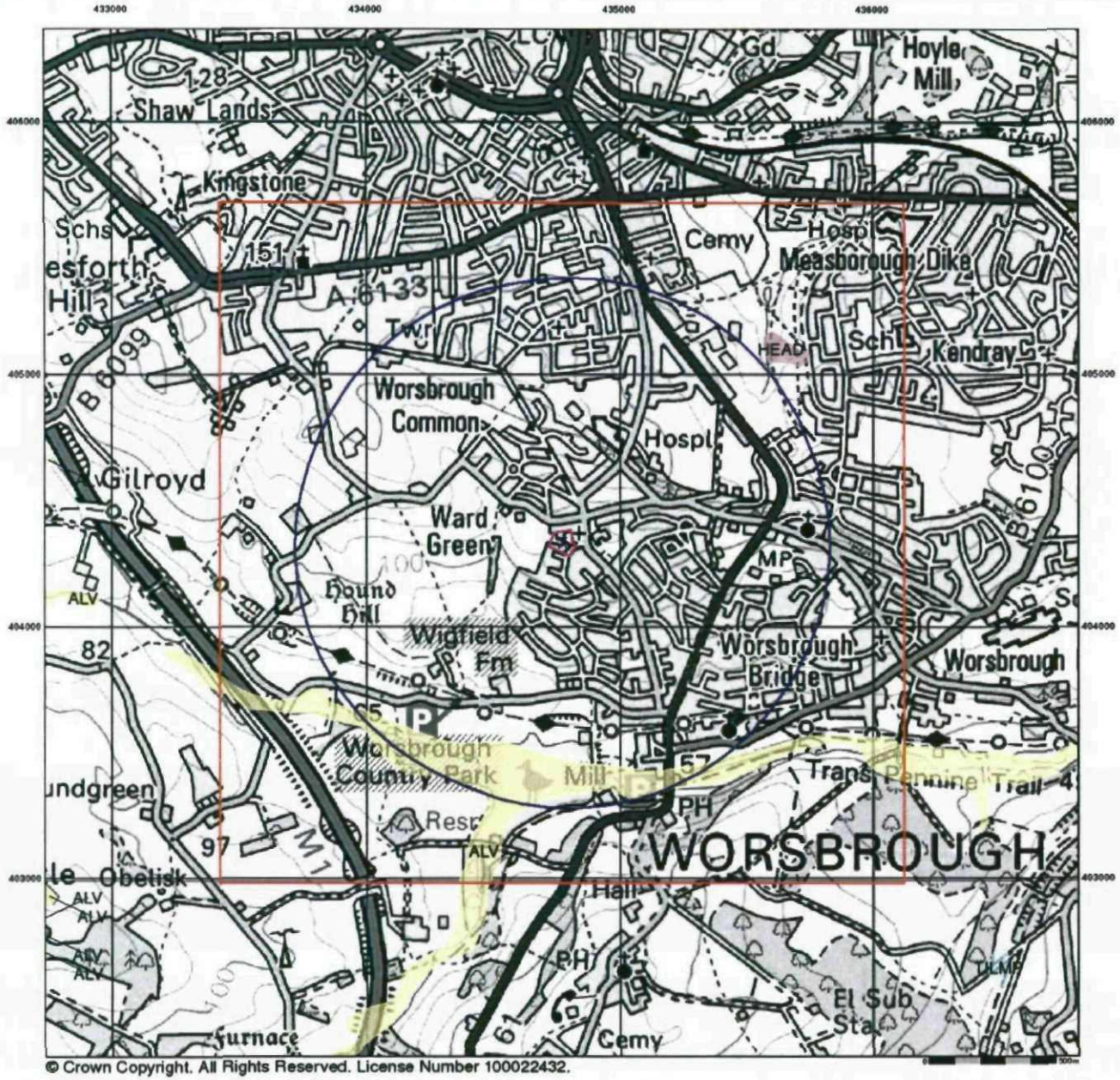
Order Details:

Order Number:	33238200_1_1
Customer Reference:	10225 Ward Green Primary
National Grid Reference:	434780, 404330
Slice:	A
Site Area (Ha):	0.71
Search Buffer (m):	1000

Site Details:

Ward Green Primary School, Worsbrough, BARNSLEY, South Yorkshire

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



Paul Waite Associates

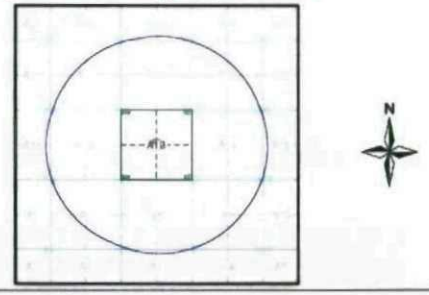
Superficial Geology

Superficial Deposits are the youngest geological deposits formed during the most recent period of geological time, the Quaternary, which extends back about 1.8 million years from the present.

They rest on older deposits or rocks referred to as Bedrock. This dataset contains Superficial deposits that are of natural origin and 'in place'. Other superficial strata may be held in the Mass Movement dataset where they have been moved, or in the Artificial Ground dataset where they are of man-made origin.

Most of these Superficial deposits are unconsolidated sediments such as gravel, sand, silt and clay, and onshore they form relatively thin, often discontinuous patches or larger spreads.

Superficial Geology Map - Slice A



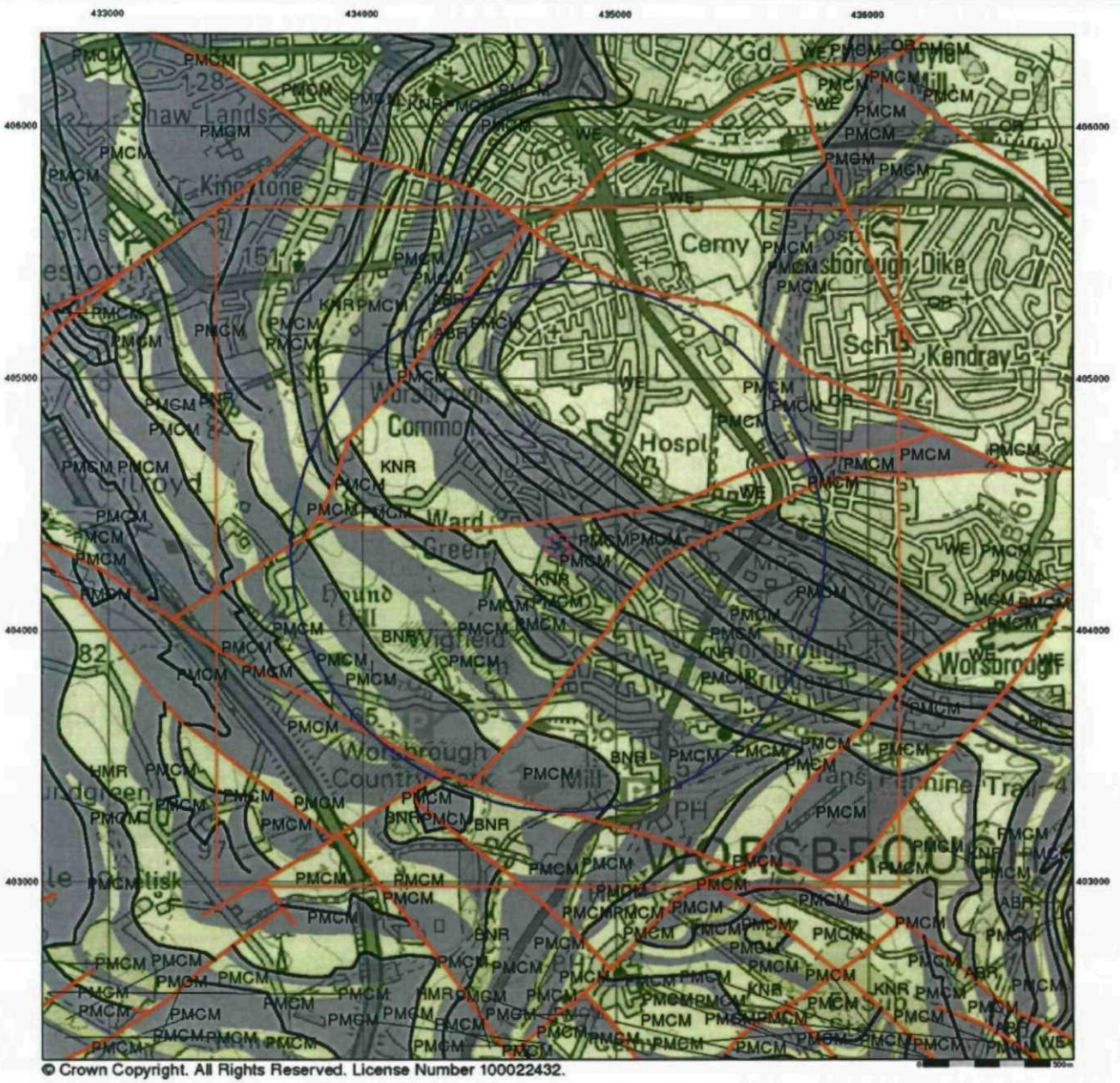
Order Details:

Order Number:	33236200_1_1
Customer Reference:	10225 Ward Green Primary
National Grid Reference:	434780, 404330
Slice:	A
Site Area (Ha):	0.71
Search Buffer (m):	1000

Site Details:

Ward Green Primary School, Worsbrough, BARNSLEY, South Yorkshire

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



© Crown Copyright. All Rights Reserved. License Number 100022432.

Paul Waite Associates

Bedrock and Faults

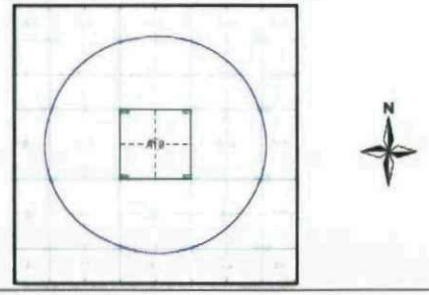
Bedrock geology is a term used for the main mass of rocks forming the Earth and are present everywhere, whether exposed at the surface in outcrops or concealed beneath superficial deposits or water.

The bedrock has formed over vast lengths of geological time ranging from ancient and highly altered rocks of the Proterozoic, some 2500 million years ago, or older, up to the relatively young Pliocene, 1.8 million years ago.

The bedrock geology includes many lithologies, often classified into three types based on origin: igneous, metamorphic and sedimentary.

The BGS Faults and Rock Segments dataset includes geological faults (e.g. normal, thrust), and thin beds mapped as lines (e.g. coal seam, gypsum bed). Some of these are linked to other particular 1:50,000 Geology datasets, for example, coal seams are part of the bedrock sequence, most faults and mineral veins primarily affect the bedrock but cut across the strata and post date its deposition.

Bedrock and Faults Map - Slice A



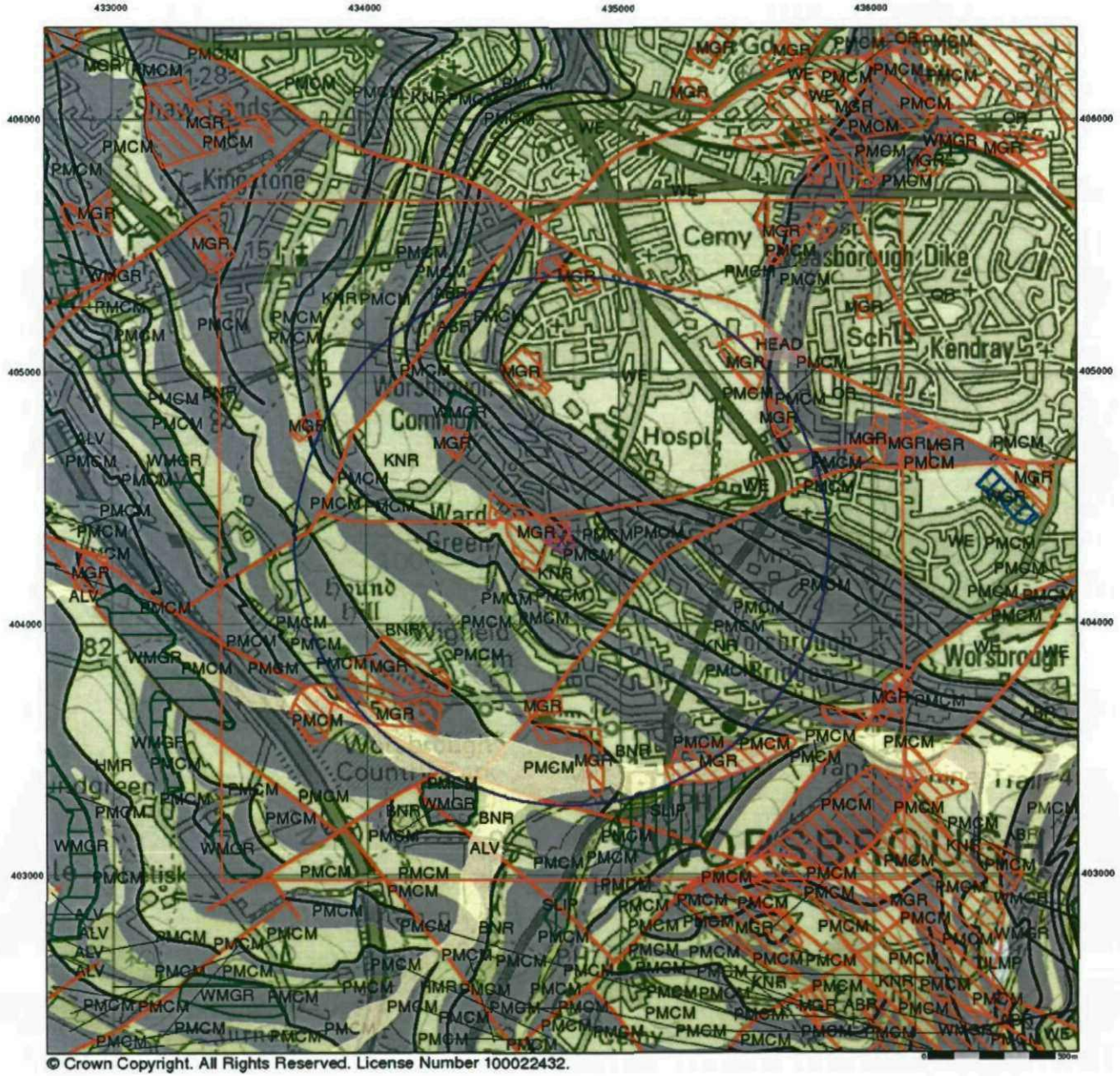
Order Details:

Order Number:	33238200_1_1
Customer Reference:	10225 Ward Green Primary
National Grid Reference:	434780, 404330
Slice:	A
Site Area (Ha):	0.71
Search Buffer (m):	1000

Site Details:

Ward Green Primary School, Worsbrough, BARNSLEY, South Yorkshire

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



© Crown Copyright. All Rights Reserved. License Number 100022432.

Paul Waite Associates

Combined Surface Geology

The Combined Surface Geology map combines all the previous maps into one combined geological overview of your site.

Please consult the legends to the previous maps to interpret the Combined "Surface Geology" map.

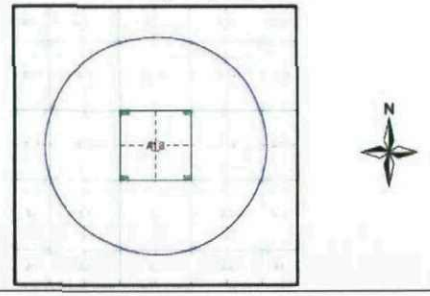
Additional Information

More information on 1:50,000 Geological mapping and explanations of rock classifications can be found on the BGS website. Using the LEX Codes in this report, further descriptions of rock types can be obtained by interrogating the 'BGS Lexicon of Named Rock Units'. This database can be accessed by following the 'Information and Data' link on the BGS website.

Contact

British Geological Survey
Kingsley Dunham Centre
Keyworth
Nottingham
NG12 5GG
Telephone: 0115 936 3143
Fax: 0115 936 3276
email: enquiries@bgs.ac.uk
website: www.bgs.ac.uk

Combined Geology Map - Slice A

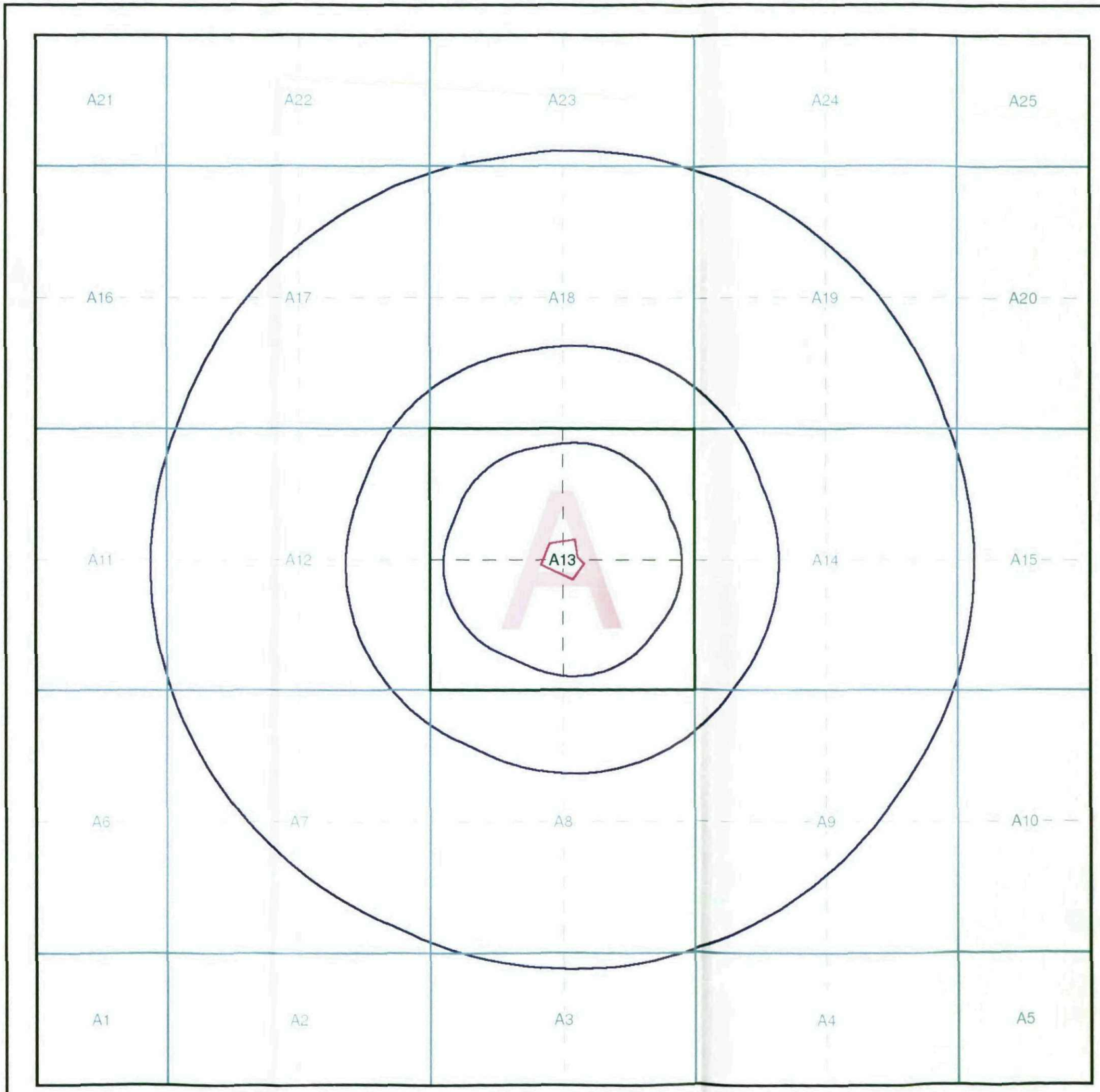


Order Details:

Order Number:	33238200_1_1
Customer Reference:	10225 Ward Green Primary
National Grid Reference:	434780, 404330
Slice:	A
Site Area (Ha):	0.71
Search Buffer (m):	1000

Site Details:

Ward Green Primary School, Worsbrough, BARNSLEY, South Yorkshire



Paul Waite Associates

Index Map

For ease of identification, your site and buffer have been split into Slices, Segments and Quadrants. These are illustrated on the Index Map opposite and explained further below.

Slice
Each slice represents a 1:10,000 plot area (2.7km x 2.7km) for your site and buffer. A large site and buffer may be made up of several slices (represented by a red outline), that are referenced by letters of the alphabet, starting from the bottom left corner of the slice "grid". This grid does not relate to National Grid lines but is designed to give best fit over the site and buffer.

Segment
A segment represents a 1:2,500 plot area. Segments that have plot files associated with them are shown in dark green, others in light blue. These are numbered from the bottom left hand corner within each slice.

Quadrant
A quadrant is a quarter of a segment. These are labelled as NW, NE, SW, SE and are referenced in the datasheet to allow features to be quickly located on plots. Therefore a feature that has a quadrant reference of A7NW will be in Slice A, Segment 7 and the NW Quadrant.

A selection of organisations who provide data within this report:

Ordnance Survey® Licensed Partner

British Geological Survey
NATURAL ENVIRONMENT RESEARCH COUNCIL

Environment Agency

NATURAL ENGLAND

Envirocheck reports are compiled from 136 different sources of data.

Client Details
Mr P Waine, Paul Waite Associates Ltd, Summit House, Riparian Way, The Crossings, Cross Hills, Keighley, West Yorkshire, BD20 7BW

Order Details
Order Number: 33238200_1_1
Customer Ref: 10225 Ward Green Primary
National Grid Reference: 434770, 404330
Site Area (Ha): 0.71
Search Buffer (m): 1000

Site Details
Ward Green Primary School, Worsbrough, BARNSLEY, South Yorkshire

LANDMARK TERMS AND CONDITIONS

Definitions

"Authorised Reseller" means an agent or reseller of Landmark whom Landmark has duly appointed to resell its Reports and Services.

"Content" means any data, computing and information services and software, and other content and documentation or support materials and updates included in and/or supplied by or through the Websites, in Reports or Services or in any other way by Landmark and shall include Landmark developed and Third Party Content.

"First Purchaser" means the first person, or legal entity to purchase the Property Site following provision of a Report.

"First Purchaser's Lender" means the funding provider for the First Purchaser

"Information Pack" means a pack compiled by or on behalf of the owner or prospective buyer of the Property Site, designed to aid the marketing or purchase of the Property Site and containing information provided by or on behalf of the owner or prospective buyer of the Property Site.

"Intellectual Property Rights" means copyright, patent, design right (registered or unregistered), service or trade mark (registered or unregistered), database right or other data right, moral right or know how or any other intellectual property right.

"Order" means the request for Services from Landmark by You.

"Property Site" means a land site on which Landmark provides a Service.

References to **"We"**, **"Us"** and **"Our"** are references to Landmark Information Group Limited ("Landmark"), whose registered office is 7 Abbey Court, Eagle Way, Exeter, EX2 7HY. Where You are not ordering the Services directly from Landmark, but from an Authorised Reseller, references to "Landmark" or "We", "Us" and "Our" shall be construed so as to mean either Landmark and/or the Authorised Reseller as the context shall indicate.

References to **"You/Your/Yourself"** refer to the contracting party who accesses the Website or places an Order with Landmark.

"Report" includes any information that Landmark supplies to You including all reports, services, datasets, software or information contained in them.

"Services" means the provision of any service by Landmark pursuant to these Terms, including without limitation, any Report.

"Landmark Fees" means any charges levied by Landmark for Services provided to You.

"Suppliers" means any organisation who provides data or information of any form to Landmark.

"Terms" means these Terms & Conditions.

"Third Party Content" means the services, software, information and other content or functionality provided by third parties and linked to or contained in the Services.

"Websites" means websites hosted by Landmark and includes the Content and any report, service, document, data-set, software or information contained therein, derived there from or thereby.

1. Terms & Conditions

a. These Terms govern the relationship between You and Landmark whether You are an unregistered visitor to the Website or are purchasing Services. Where these Terms are not expressly accepted by You they will be deemed to *have been accepted by You, and* You agree to be bound by these Terms when You place any Order, or pay for any Services provided

b. If the person communicating with Landmark is an Authorised Reseller, they must ensure that You agree to these Terms.

c. The headings in these Terms are for convenience only and shall not affect the meaning or interpretation of any part of these Terms.

d. Landmark may modify these Terms, and may discontinue or revise any or all *other aspects of the Services at our* sole discretion, with immediate effect and without prior notice, including without limitation changing the Services available at any given time. Any amendment or variation to these Terms shall be posted on our Websites. Continued use of the Services by You shall be deemed an acceptance by You to be bound by any such amendments to the Terms.

e. These Terms, together with the prices and delivery details set out on our Websites, Landmark's Privacy Policy and Your Order comprise the whole agreement relating to the supply of Services to You by Landmark. No prior stipulation, agreement, promotional material or statement whether written or oral made by any sales or other person or representative on our behalf should be understood as a variation of these Terms. Save for fraud or misrepresentation, Landmark shall have no liability for any such representation being untrue or misleading.

f. These Terms shall prevail at all times to the exclusion of all *other terms and conditions including any terms* and conditions which You may purport to apply even if such other provisions are submitted in a later document or purport to exclude or override these Terms and neither the course of conduct between parties nor trade practice shall act to modify these Terms.

2. Services

a. Landmark will use reasonable care and skill in providing the Services to You, however, the Services are provided on the express basis that the information and data supplied in the Services are derived from third party sources and Landmark does not warrant the accuracy or completeness of such information or data. Such information is derived solely from those sources specifically cited in the Services and Landmark does not claim that these sources represent an exhaustive or comprehensive list of all sources that might be consulted.

3. *Intellectual Property*

a. You acknowledge that all Intellectual Property Rights in the Services are and shall remain owned by either Landmark or our Suppliers and nothing in these Terms purports to transfer, assign or grant any rights to You in respect of the Intellectual Property Rights.

b. Subject always to these Terms You may, without further charge, make the Services available to;
   i. the owner of the Property at the date of the Report,
   ii. any person who purchases the whole of the Property Site,
   iii. any person who provides funding secured on the whole of the Property Site,
   iv. any person for whom You act in a professional or commercial capacity,
   v. any person who acts for You in a professional or commercial capacity; and
   vi. prospective buyers of the Property Site as part of an Information Pack but for the avoidance of doubt, Landmark shall have no liability to such prospective buyer unless the prospective buyer subsequently purchases the Property Site, and the prospective (or actual) buyer shall not be entitled to make the Service available to any other third party.
   Accordingly Landmark shall have the same duties and obligations to those persons in respect of the Services as it has to You.

c. Each of those persons referred to in clause 3.b. shall have the benefit and the burden of Your rights and obligations *under these Terms. The limitations of Landmark's liability* as set out in clause 6 shall apply to all users of the Service in question in aggregate and Landmark shall not be liable to any other person.

d. All parties given access to the Services agree that they will treat as strictly private and confidential the Services and all information which they obtain from the Services and shall restrict any disclosure to employees or professional advisors to enable the relevant party to conduct its internal business. The requirement in this clause to treat the Services as confidential *shall include a requirement to* maintain adequate security measures to safeguard the Services from unauthorised access, use or copying.

e. Each recipient of the Services agrees (and agrees it will cause its employees, agents or contractors who may from time to time have access to the Services to agree) it will not, except as permitted herein or by separate agreement with Landmark:-
   i. effect or attempt to effect any modification, merger or change to the Service, nor permit any other person to do so; or
   ii. copy, use, market, re-sell, distribute, merge, alter, add to or carry on any redistribution, reproduction, translation, publication, reduction to any electronic medium or machine readable form or commercially exploit or in any other way deal with or utilise or (except as expressly permitted by applicable law) reverse engineer, decompile or disassemble the Services, Content or Website; or
   iii. remove, alter or in any way change any trademark or proprietary marking in any element of the Services and You shall acknowledge the ownership of the Content, where such Content is incorporated or used into Your own documents, reports, systems or services whether or not these are supplied to any third party.
   iv. create any product which is derived directly or indirectly from the data contained in the Services

f. The mapping contained in any Services is protected by Crown Copyright and must not be used for any purpose *outside the context of the Services or as specifically* provided by these Terms.

g. You are permitted to make five copies of any Report, but are not authorised to re-sell the Report, any part thereof or any copy thereof unless you are an Authorised Reseller. Further copies may not be made in whole or in part without the prior written permission of Landmark who shall be entitled to make a charge for each additional copy.

4. Charges

a. VAT at the prevailing rate shall be payable in addition to the Landmark Fees. You shall pay any other applicable indirect taxes related to Your use of the Services.

b. An individual or a monthly invoice showing all Orders created by You will be generated subject to these Terms. You will pay the Landmark Fees at the rates set out in Landmark's or its Authorised Reseller's invoice. The Landmark Fees are payable in full within 30 days without deduction, counterclaim or set off. You acknowledge that time is of the essence with respect to the payment of such *invoices*. Landmark reserve the right to amend the Landmark Fees from time to time and the Services will be charged at the Landmark Fee applicable at the date on which the Service is ordered.

c. We may charge interest on late payment at a rate equal to 3% per annum above the base lending rate of National Westminster Bank plc.

d. Landmark or its Authorised Reseller shall not be obliged to invoice any party other than You for the provision of Services, but where Landmark or its Authorised Reseller does so *invoice any third party at Your request, and such* invoice is not accepted or remains unpaid, Landmark or its Authorised Reseller shall have the option at any time to cancel such invoice and invoice You direct for such Services. Where Your order comprises a number of Services or severable elements within any one or more Services, any failure by Landmark or its Authorised Reseller to provide an element or elements of the Services shall not prejudice Landmark's or its Authorised Reseller's ability to require payment in respect of the Services delivered to You.

5. Termination

a. Landmark may suspend or terminate Your rights under these Terms without any liability to You with immediate effect if at any time:-
   i. You fail to make any payment due in accordance with clause 4;
   ii. *You repeatedly breach or commit or cause to be* committed any material breach of these Terms; or
   iii. You commit a breach and You fail to remedy the breach within 7 days of receipt of a written notice to do so; additionally, without prejudice to the foregoing, Landmark may remedy the breach and recover the costs thereof from You.

b. If Your rights are terminated under this clause and You have made an advance payment We will refund You a reasonable proportion of the balance as determined by Us in relation to the value of Services previously purchased.

c. Landmark reserves the right to refuse to supply any or all Services to You without notice or reason.

6. Liability

a. We provide warranties and accept liability only to the extent stated in this clause 6 and clause 7.

b. Nothing in these Terms excludes either party's liability for death or personal injury caused by that party's negligence or wilful default, and the remainder of this clause 6 is subject to this provision and Your statutory rights.

c. As most of the information contained in the Services is provided to Landmark by others, Landmark cannot control its accuracy or completeness, nor is it within the scope of Landmark's Services to check the information on the ground. Accordingly, Landmark will only be liable to You for any loss or damage caused by its negligence or wilful default and subject to clause 6.o below neither Landmark nor any person providing information contained in any Services shall in any circumstances be liable for any *inaccuracies, faults or omissions in the Services, nor* shall Landmark have any liability if the Services are used otherwise than in accordance with these Terms.

d. Save as precluded by law, Landmark shall not be liable for any indirect or consequential loss, damage or expenses (including loss of profits, loss of contracts, business or goodwill) howsoever arising out of any problem, event, action or default by Landmark.

e. In any event, and notwithstanding anything contained in these Terms, Landmark's liability in contract, tort (including negligence or breach of statutory duty) or otherwise howsoever arising by reason or in connection with this Contract (except in relation to death or personal injury) shall be limited to an aggregate amount not exceeding £1 million if the complaint is in relation to a Report on residential property and an aggregate amount not exceeding £10 million in respect of any other Report or Service purchased from Landmark.

f. Landmark will not be liable for any defect, failure or omission relating to Services that is not notified to Landmark within six months of the date of the issue becoming apparent and in any event, within twelve years of the date of the Service.

g. You acknowledge that:-
   i. Subject to clause 6.o below You shall have no claim or recourse against any Third Party Content supplier nor any of our other Suppliers. You will not in any way hold us responsible for any selection or retention of, or the acts of omissions of Third Party Content suppliers or other Suppliers (including those with whom We have contracted to operate various aspects or parts of the Service) in connection with the Services (for the avoidance of doubt Landmark is not a Third Party Content supplier). Landmark does not promise that the supply of the Services will be uninterrupted or error free or provide any particular facilities or functions, or that the Content will always be complete, accurate, precise, free from defects of any other kind, computer viruses, software locks or other similar code although *Landmark will use reasonable efforts to correct any* inaccuracies within a reasonable period of them becoming known to us;
   ii. Landmark's only obligation is to exercise reasonable skill and care in providing environmental property risk information to persons acting in a professional or commercial capacity who are skilled in the use of property and environmental information and You hereby acknowledge that You are such a person;
   iii. no physical inspection of the Property Site reported on is carried out as part of any Services offered by Landmark and Landmark do not warrant that all land uses or features whether past or current will be identified in the Services. The Services do not include any information relating to the actual state or condition of any Property Site nor should they be used or taken to indicate or exclude actual fitness or unfitness of a Property Site for any particular purpose nor should it be relied upon for determining saleability or value or *used as a substitute for any physical investigation or* inspection. Landmark recommends that You inspect and take other advice in relation to the Property Site and not rely exclusively on the Services.
   iv. Subject to clause 6.o below, Landmark shall not be responsible for error or corruption in the Services resulting from inaccuracy or omission in primary or secondary information and data, inaccurate processing of information and data by third parties, computer malfunction or corruption of data whilst in the course of conversion, geo-coding, processing by computer or electronic means, or in the course of transmission by telephone or other communication link, or printing.
   v. Landmark will not be held liable in any way if a Report on residential property is used for commercial property or more than the one residential property for which it was ordered.
   vi. the Services have not been prepared to meet Your or anyone else's individual requirements; that You assume the entire risk as to the suitability of the Services and waive any claim of detrimental reliance upon the same; and You confirm You are solely responsible for the selection or omission of any specific part of the Content;
   vii. Landmark offer no warranty for the performance of any linked internet service not operated by Landmark;
   viii. You will on using the Services make a reasonable *inspection of any results to satisfy Yourself that there* are no defects or failures. In the event that there is a material defect You will notify us in writing of such defect within seven days of its discovery;
   ix. Any support or assistance provided to You in connection with these Terms is at Your risk;

h. All liability for any insurance products purchased by You rests solely with the insurer. Landmark does not endorse any particular product or insurer and no information contained within the Services should be deemed to imply otherwise. You acknowledge that if You Order any such insurance Landmark will deem such as Your consent to forward a copy of the Report to the insurers. Where such policy is purchased, all liability remains with the insurers and You are entirely responsible for ensuring that the insurance policy offered is suitable for Your needs and should seek independent advice. Landmark does not guarantee that an insurance policy will be available on a Property Site. All decisions with regard to the offer of insurance policies for any premises will be made solely at the discretion of the insurers and Landmark accepts no liability in this regard. The provision of a Report does not constitute any indication by Landmark that insurance will be available on the property.

i. Professional opinions contained in Reports are provided to Landmark by third parties, and such third parties are solely liable for the opinion provided. For the avoidance of doubt, those parties providing assessments or professional opinions on Landmark products include RPS Plc & *Wilbourn Associates Limited, and any issues with regard to* the provision of such opinion should be taken up with the relevant third party.
   If Landmark provides You with any additional service obtained from a third party, including but not limited to any interpretation or conclusion, risk assessment or environmental report or search carried out in relation to a Report on Your Property Site, subject to clause 6.o below Landmark will not be liable in any way for any information contained therein or any issues arising out of the provision of those additional services to You. *Landmark will be* deemed to have acted as an agent in these circumstances and the supply of these additional services will be governed by the terms and conditions of those Third Parties.

j. In any event no person may rely on a Service more than 12 months after its original date.

k. If You wish to vary any limitation of liability as set out in these Terms, You must request such variation prior to ordering the Service. Landmark shall use its reasonable endeavours to agree such variation but shall not be obliged to do so.

l. Time shall not be of the essence with respect to the provision of the Services.

m. Ordnance Survey have undertaken a positional accuracy improvement programme which may result in discrepancies between the positioning of features used in datasets in the Services and the updated Ordnance Survey mapping. Subject to clause 6.o below, Landmark and its Suppliers *exclude all and any liability incurred as a result of the* implementation of such positional accuracy improvement programme.

n. Where Landmark provides its own risk assessment in connection with any Report, Landmark shall carry out such assessment with all reasonable skill and care but shall have no liability for any such risk assessment conclusion which is provided for information only, save where Landmark conducted the same negligently, in which case the provisions of clause 6 shall apply. Notwithstanding the provision of any such risk assessment *conclusion you* should carefully examine the remainder of the Report and should not take or refrain from taking any action based solely on the basis of the risk assessment. For the avoidance of doubt, the provisions of this clause 6n apply solely to risk assessments conducted by Landmark, and the provision of any other risk assessment by a third party shall be governed by such third party's terms in accordance with the provisions of clause 6i above.

o. Landmark obtains much of the information contained in its Report from third parties. Landmark will not accept any liability to You for any negligent or incorrect entry, or error or corruption in the Third Party Content supplied to Landmark, but Landmark's Suppliers may be liable for such negligent or incorrect entries, or errors or corruptions, subject to the terms and conditions on which they supply the Third Party Content to Landmark.

7. Contribution

a. Save where expressly provided, this clause 7 shall apply solely to Envirosearch Residential Reports (regardless of the result of such Report). Nothing in this clause 7 shall operate to override or vary the provisions of clause 6.

b. Landmark are prepared to offer, at their sole discretion, and without any admission or inference of liability a contribution towards the costs of any remediation works required under a Notice (as defined below) on the terms of this clause 7 ("the Contribution")

c. In the event that a Remediation Notice is served on the First Purchaser or First Purchaser's Lender of a Property Site under Part II(A) of the Environmental Protection Act 1990 ("the Notice") Landmark will contribute to the cost of such works as either the First Purchaser or First Purchaser's Lender (but not both) are required to carry out under the Notice subject to the provisions of this clause 7 and on the following terms:
   i. the Contribution shall only apply to contamination or a *pollution incident present* or having occurred prior to the date of the Report;
   ii. the Contribution shall only apply where the Property Site is a single residential dwelling house or a single residential flat within a block of flats. For the avoidance of doubt, this obligation does not apply to any commercial property, nor to any Property Site being developed or redeveloped whether for residential purposes or otherwise;
   iii. the Contribution is strictly limited to the cost of works at the Property Site and *at no other site.*
   iv. the Contribution will not be paid in respect of any of the following:
   Radioactive contamination of whatsoever nature, directly or indirectly caused by or contributed to or arising from ionising radiations or contamination by radioactivity from any nuclear fuel or from any nuclear waste from the combustion of nuclear fuel or the radioactive toxic explosive or other hazardous properties of any explosive nuclear assembly or nuclear component thereof.
   Asbestos arising out of or related in any way to asbestos or asbestos-containing materials on or in structures or services serving the structures.
   Naturally occurring materials arising from the presence or required removal of naturally occurring materials except in circumstances where such materials are present in concentrations which are in excess of their natural concentration.
   Intentional non-compliance arising from the intentional disregard of or knowing wilful or deliberate non-compliance by any owner or occupier of the Property Site with any statute, regulation, administrative complaint, notice of violation, or notice letter of any Regulatory Authority.
   Any condition which is known or ought reasonably to have been known to the First Purchaser or the First Purchaser's Lender prior to the purchase of the Report.
   Any condition which is caused by acts of War or an Act of Terrorism.
   Any property belonging to or in the custody or control of the First Purchaser which does not form a fixed part of the Property Site or the structure.
   Any fines liquidated damages punitive or exemplary damages.
   Any bodily injury including without limitation, death, illness or disease, mental injury, anguish or nervous shock.
   Any financial loss in respect *of any loss of any rental,* profit, revenue, savings or business or any consequential indirect or economic loss damage or expense including the cost of rent of temporary premises or business interruption.
   Any losses incurred following a material change in use of, alteration or development of the Property Site.

d. The maximum sum that shall be contributed by Landmark in respect of any Contribution shall be limited to £60,000. In the event that more than one Report is purchased on the Property Site the Contribution will only be payable under the first Report purchased by or on behalf of any First Purchaser or First Purchaser's Lender and no Contribution will be made in respect of subsequent Reports purchased by or on behalf of such First Purchaser, First Purchaser's Lender or any person connected to them.

e. Landmark shall only pay a Contribution where the Notice is served within 36 months of the date of the Report.

f. Any rights to a Contribution under this Clause 7 are not *assignable in the event of a sale of the* Property Site and Landmark will not make any Contribution after the date of completion of such sale.

g. In the event the First Purchaser or First Purchaser's Lender wishes to claim any Contribution, it shall notify Landmark in writing within 3 months of the date of the Notice. The First Purchaser or First Purchaser's Lender (as applicable) shall comply with all reasonable requirements of Landmark with regard to the commission and conduct of the remediation works to be carried out under the Notice, and in the event the *First Purchaser or* First Purchaser's Lender (as applicable) does not do so, including without limitation, obtaining Landmark's prior written consent to any estimates for such works or complying with any other reasonable request by Landmark, Landmark shall not be required to pay any Contribution. Notwithstanding the payment of the Contribution by *Landmark the First Purchaser or* First Purchaser's Lender as applicable shall take all reasonable steps to mitigate any costs incurred in connection with the conduct of works required under the terms of any Notice.

h. In the event that the First Purchaser or First Purchaser's Lender receives any communication from a statutory authority to the effect that there is an intent to serve a notice received under PartII(A) of the Environmental Protection Act 1990 they will advise Landmark within a maximum period of two months from receipt of such communication. This clause 7h *and the service of any* notice under it shall not affect the provisions of clauses 7 e and g, and any such communications, even if advised to Landmark will not operate as notice under clause 7e.

i. Landmark reserve the right at any time prior to a claim for Contribution being made in accordance with clause 7 g) above, to withdraw the offer of payment of Contributions without further notice.

8. Events Beyond Our Control

a. You acknowledge that Landmark shall not be liable for any delay, interruption or failure in the provision of the Services which are caused or contributed to by any circumstance which is outside our reasonable control including but not limited to, lack of power, telecommunications failure or overload, computer malfunction, inaccurate processing of data, or delays in receiving, loading or checking data, corruption of data whilst in the course of conversion, geo-coding, processing by computer in the course of electronic communication, or printing.

9. *Severability*

a. If any provision of these Terms are found by either a court or other competent authority to be void, invalid, illegal or unenforceable, that provision shall be deemed to be deleted from these Terms and never to have formed part of these Terms and the remaining provisions shall continue in full force and effect.

10. Governing Law

a. These terms shall be governed by and construed in accordance with English law and each party agrees *irrevocably submit to the exclusive jurisdiction of the* English courts If any dispute arises out of or in connection with this agreement (a "Dispute") the parties undertake that, prior to the commencement of Court proceedings, they will seek to have the Dispute resolved amicably by use of an alternative dispute resolution procedure acceptable to both parties with the assistance of the Centre for Dispute Resolution (CEDR) if required, by written notice initiating that procedure. If the Dispute has not been resolved to the satisfaction of either party within 60 days of initiation of the procedure or if either party fails or refuses to participate in or withdraws from participating in the procedure then either party may refer the Dispute to the Court.

11. General; Complaints

a. Landmark may assign its rights and obligations under these Terms without prior notice or any limitation.

b. Landmark may authorise or allow our contractors and other third parties to provide to Landmark and/or to You services necessary or related to the Services and to perform Landmark's obligations and exercise Landmark's rights under these Terms, which may include collecting payment on Landmark's behalf.

c. No waiver on Landmark's part to exercise, and no delay in exercising, any right, power or provision hereunder shall operate as a waiver thereof, nor shall any single or partial exercise of any right, power or provision hereunder preclude the exercise of that or any other right, power or provision.

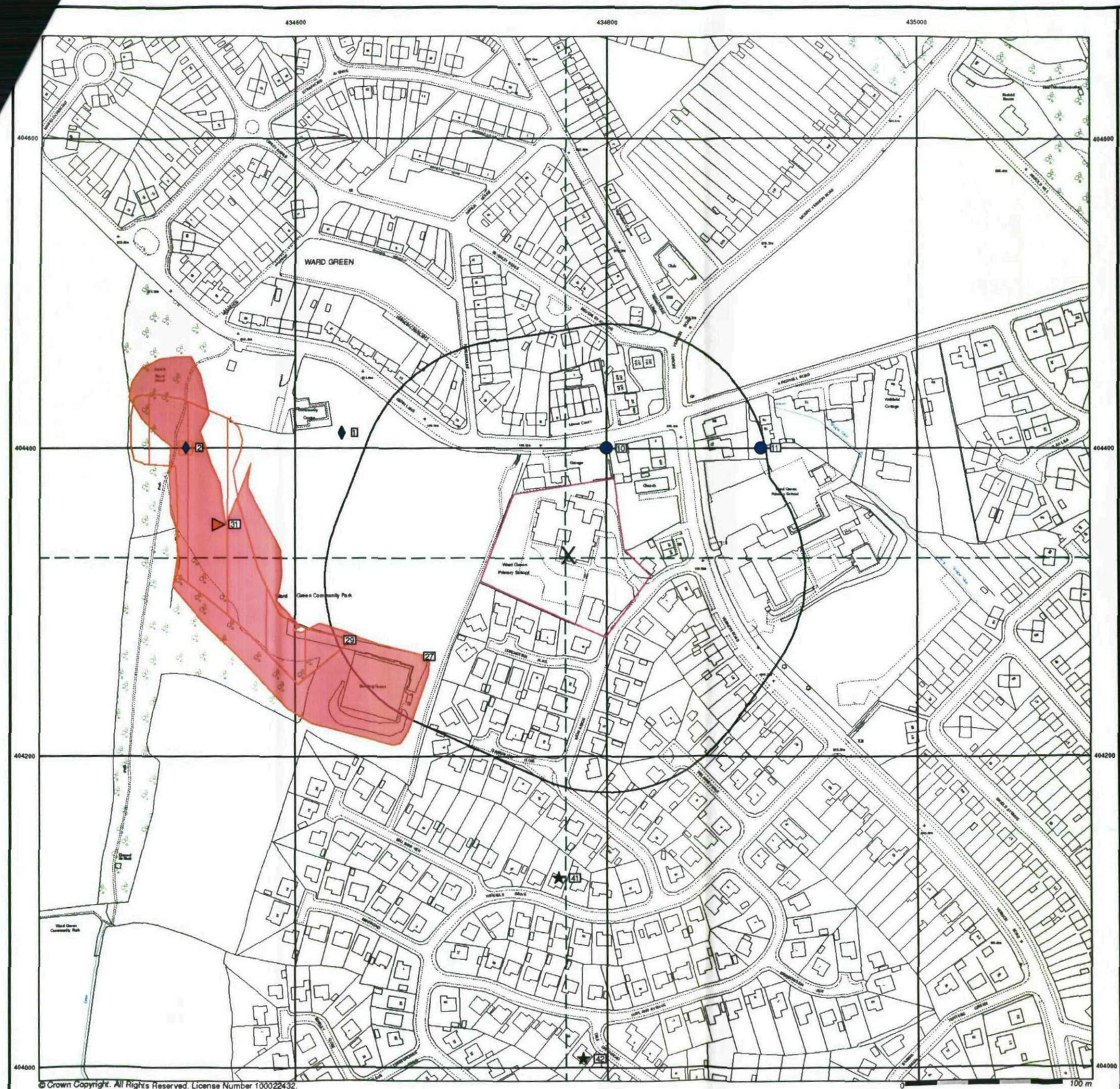
d. *Unless otherwise stated in these Terms, all notices from* You to Landmark must be in writing and sent to the Landmark registered office (or in the case of an Authorised Reseller, to its registered office address) and subject to paragraph e below all notices from Landmark to You will be displayed on our Websites from time to time.

e. Any complaints in relation to the Services should, in the first instance, be in writing addressed to the Customer Service Support Manager at the Landmark registered office. Landmark or its agents will respond to any such complaints in writing as soon as practicably possible.

f. A person who is not a party to any contract made pursuant to these Terms shall have no right under the Contract (Right of Third Parties) Act 1999 to enforce any terms of such contract and Landmark shall not be liable to any such third party in respect of any Services supplied.

g. Landmark's Privacy Policy as displayed on the Website governs the use made of any information You supply to Landmark.

© Landmark Information Group Limited



© Crown Copyright. All Rights Reserved. License Number 100022432.

Paul Waite Associates

General

- Specified Site
- Specified Buffer(s)
- Bearing Reference Point
- Map ID
- Several of Type at Location
- Pylon
- Overhead Transmission Line

Agency and Hydrological

- Contaminated Land Register Entry or Notice (Location)
- Contaminated Land Register Entry or Notice
- Discharge Consent
- Enforcement or Prohibition Notice
- Integrated Pollution Control
- Integrated Pollution Prevention Control
- Local Authority Integrated Pollution Prevention and Control
- Local Authority Pollution Prevention and Control
- Local Authority Pollution Prevention and Control Enforcement
- Pollution Incident to Controlled Waters
- Prosecution Relating to Authorised Processes
- Prosecution Relating to Controlled Waters
- Registered Radioactive Substance
- River Network or Water Feature
- River Quality Sampling Point
- Substantiated Pollution Incident Register
- Water Abstraction
- Water Industry Act Referral

Geological

- BGS Recorded Mineral Site

Industrial Land Use

- Contemporary Trade Directory Entry
- Fuel Station Entry

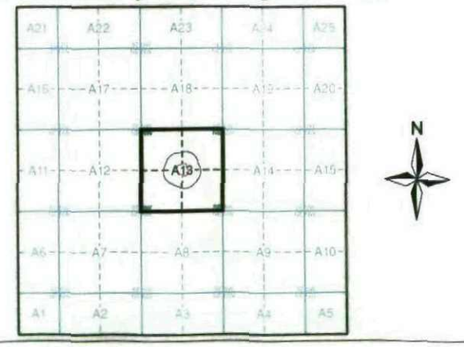
Waste

- BGS Recorded Landfill Site (Location)
- BGS Recorded Landfill Site
- EA Historic Landfill (Buffered Point)
- EA Historic Landfill (Polygon)
- Integrated Pollution Control Registered Waste Site
- Licensed Waste Management Facility (Landfill Boundary)
- Licensed Waste Management Facility (Location)
- Local Authority Recorded Landfill Site (Location)
- Local Authority Recorded Landfill Site
- Registered Landfill Site
- Registered Landfill Site (Location)
- Registered Landfill Site (Point Buffered to 100m)
- Registered Landfill Site (Point Buffered to 250m)
- Registered Waste Transfer Site (Location)
- Registered Waste Transfer Site
- Registered Waste Treatment or Disposal Site (Location)
- Registered Waste Treatment or Disposal Site

Hazardous Substances

- COMAH Site
- Explosive Site
- NIHHS Site
- Planning Hazardous Substance Consent
- Planning Hazardous Substance Enforcement

Site Sensitivity Map - Segment A13



Order Details

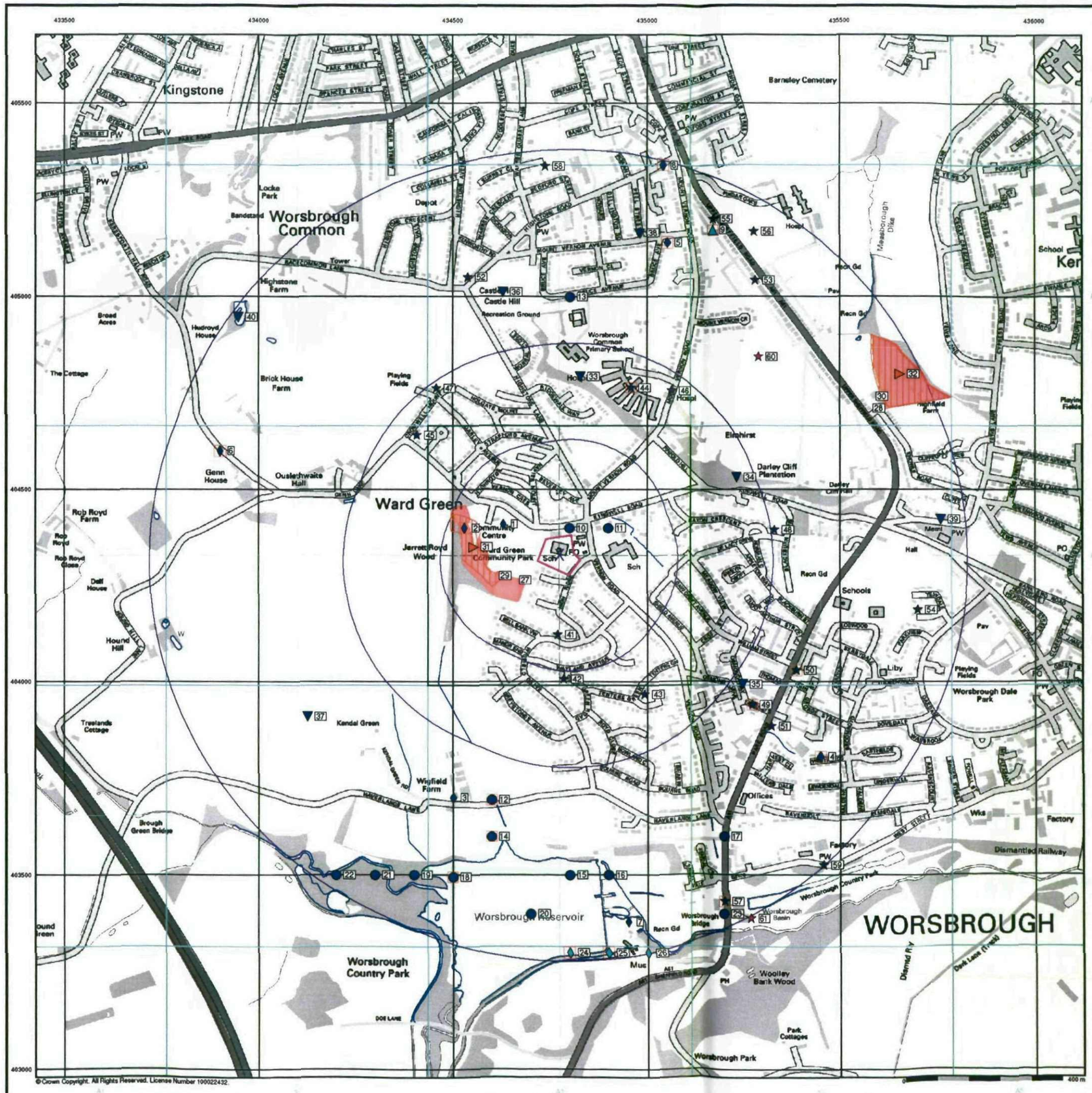
Order Number:	33238200_1_1
Customer Ref:	10225 Ward Green Primary
National Grid Reference:	434780, 404330
Slice:	A
Site Area (Ha):	0.71
Plot Buffer (m):	100

Site Details

Ward Green Primary School, Worsbrough, BARNSLEY, South Yorkshire

Landmark Information Group

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



Paul Waite Associates

General

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

Several of Type at Location

Agency and Hydrological

- Contaminated Land Register Entry or Notice (Location)
- Contaminated Land Register Entry or Notice
- Discharge Consent
- Enforcement or Prohibition Notice
- Integrated Pollution Control
- Integrated Pollution Prevention Control
- Local Authority Integrated Pollution Prevention and Control
- Local Authority Pollution Prevention and Control
- Local Authority Pollution Prevention and Control Enforcement
- Pollution Incident to Controlled Waters
- Prosecution Relating to Authorised Processes
- Prosecution Relating to Controlled Waters
- Registered Radioactive Substance
- River Network or Water Feature
- River Quality Sampling Point
- Substantiated Pollution Incident Register
- Water Abstraction
- Water Industry Act Referral

Geological

- BGS Recorded Mineral Site

Industrial Land Use

- Contemporary Trade Directory Entry
- Fuel Station Entry

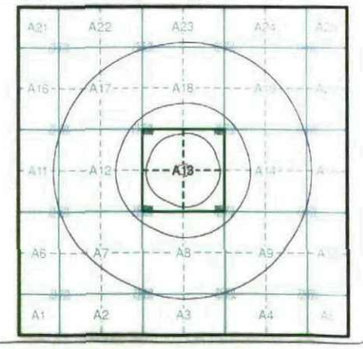
Waste

- BGS Recorded Landfill Site (Location)
- BGS Recorded Landfill Site
- EA Historic Landfill (Buffered Point)
- EA Historic Landfill (Polygon)
- Integrated Pollution Control Registered Waste Site
- Licensed Waste Management Facility (Landfill Boundary)
- Licensed Waste Management Facility (Location)
- Local Authority Recorded Landfill Site (Location)
- Local Authority Recorded Landfill Site
- Registered Landfill Site
- Registered Landfill Site (Location)
- Registered Landfill Site (Point Buffered to 100m)
- Registered Landfill Site (Point Buffered to 250m)
- Registered Waste Transfer Site (Location)
- Registered Waste Transfer Site
- Registered Waste Treatment or Disposal Site (Location)
- Registered Waste Treatment or Disposal Site

Hazardous Substances

- COMAH Site
- Explosive Site
- NIHHS Site
- Planning Hazardous Substance Consent
- Planning Hazardous Substance Enforcement

Site Sensitivity Map - Slice A



Order Details

Order Number:	33238200_1_1
Customer Ref:	10225 Ward Green Primary
National Grid Reference:	434780, 404330
Slice:	A
Site Area (Ha):	0.71
Search Buffer (m):	1000

Site Details

Ward Green Primary School, Worsbrough, BARNSLEY, South Yorkshire

Landmark Information Group

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



Paul Waite Associates

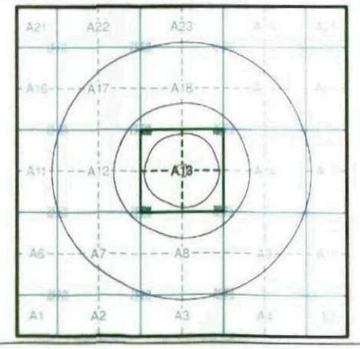
General

- 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

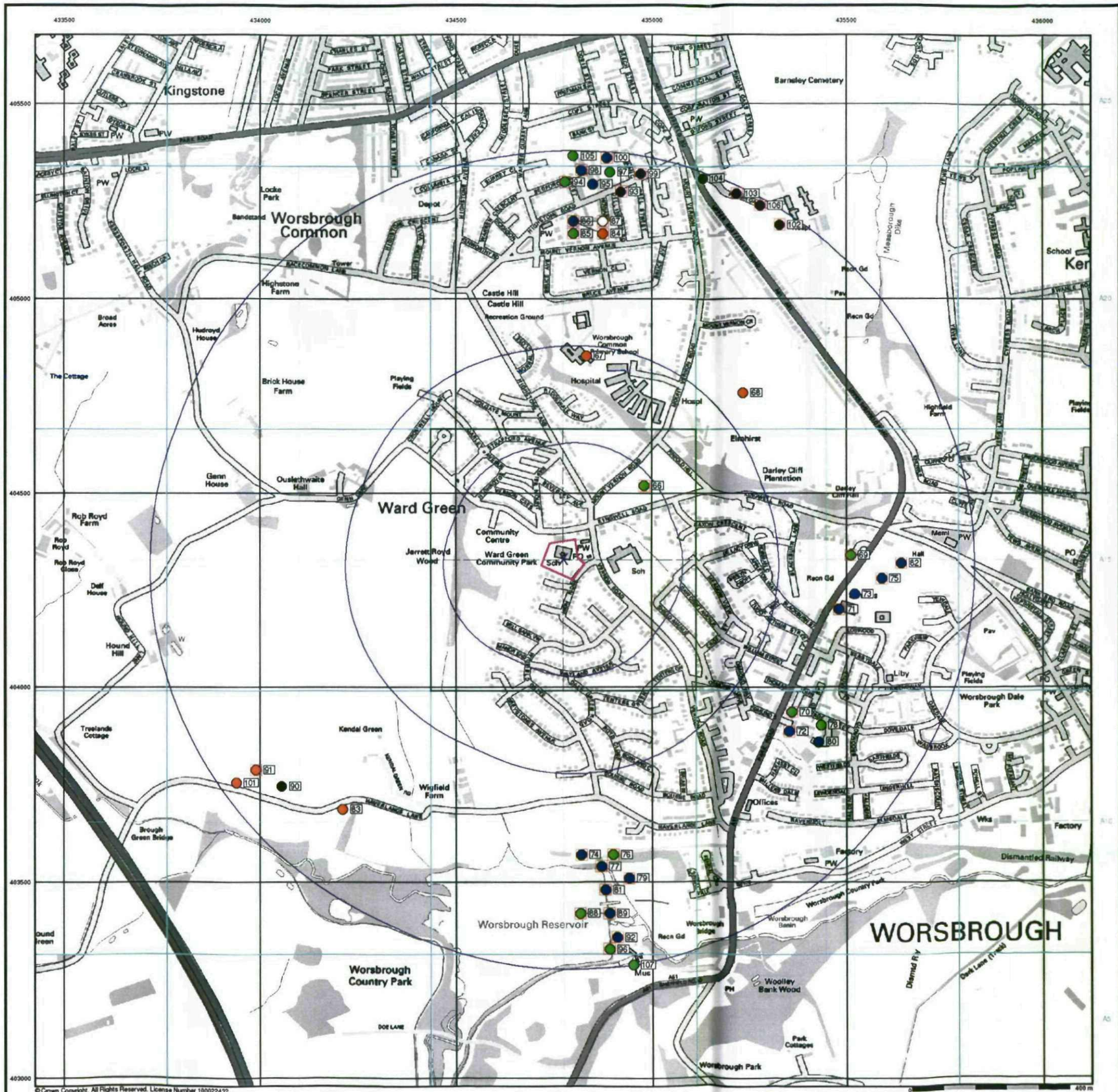
Order Number:	33238200_1_1
Customer Ref:	10225 Ward Green Primary
National Grid Reference:	434780, 404330
Slice:	A
Site Area (Ha):	0.71
Search Buffer (m):	1000

Site Details

Ward Green Primary School, Worsbrough, BARNSLEY, South Yorkshire

Landmark Information Group

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



Paul Waite Associates

General

- Specified Site
- Specified Buffer(s)
- Bearing Reference Point
- Map ID
- Several of Type at Location

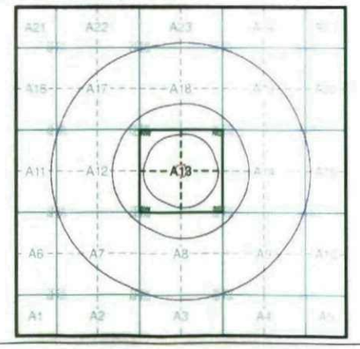
Agency and Hydrological (Boreholes)

- BGS Borehole Depth 0 - 10m
- BGS Borehole Depth 10 - 30m
- BGS Borehole Depth 30m +
- Confidential
- 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:	33238200_1_1
Customer Ref:	10225 Ward Green Primary
National Grid Reference:	434780, 404330
Slice:	A
Site Area (Ha):	0.71
Search Buffer (m):	1000

Site Details

Ward Green Primary School, Worsbrough, BARNSLEY, South Yorkshire

The Coal Authority

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,
ABBEY COURT UNIT 5/7,
EAGLE WAY,
SOWTON INDUSTRIAL ESTATE,
EXETER,
DEVON,
EX2 7HY

Person dealing with this matter:	**Darren Moody**
Our reference:	**00052924-10**
Your reference:	33238200
Electronic Ref:	EME_00015009930003_005
RRUID:	005.00015009930003
Date of your enquiry:	**26 November 2010**
Date we received your enquiry:	**26 November 2010**
Date of issue:	**29 November 2010**

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

Non-Residential Coal and Brine Report

Site At, Ward Green Primary School, 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 460m 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.

All rights reserved. You must not reproduce, store or transmit any part of this document unless you have our written permission.

© The Coal Authority

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 1 January 1984. 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 Coal Authority

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.

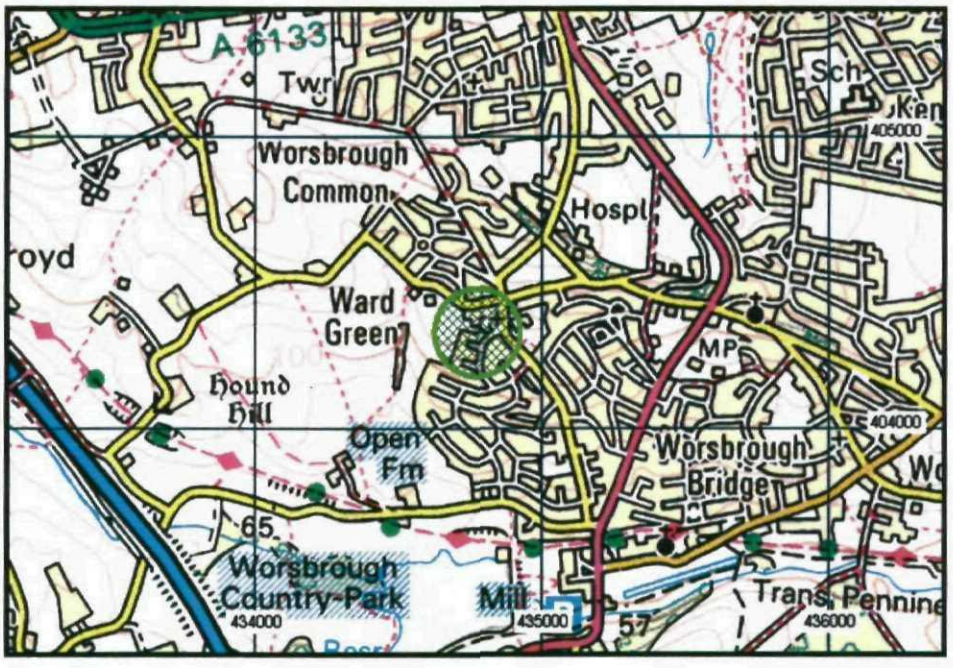
Additional remarks

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.

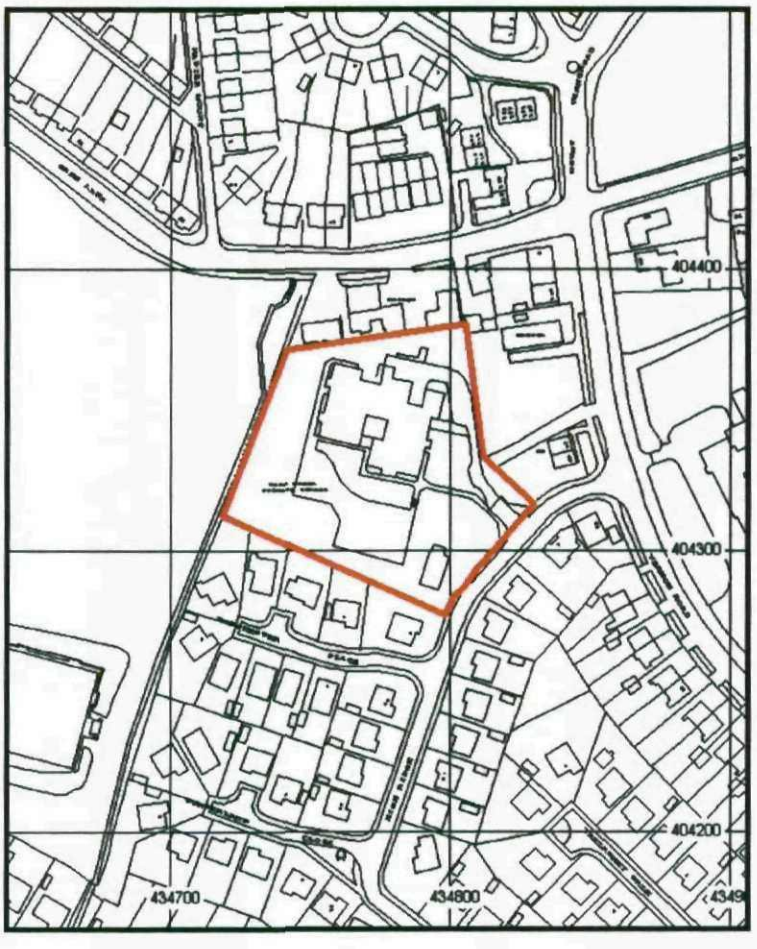
Location map

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

Mapping sourced from Ordnance Survey

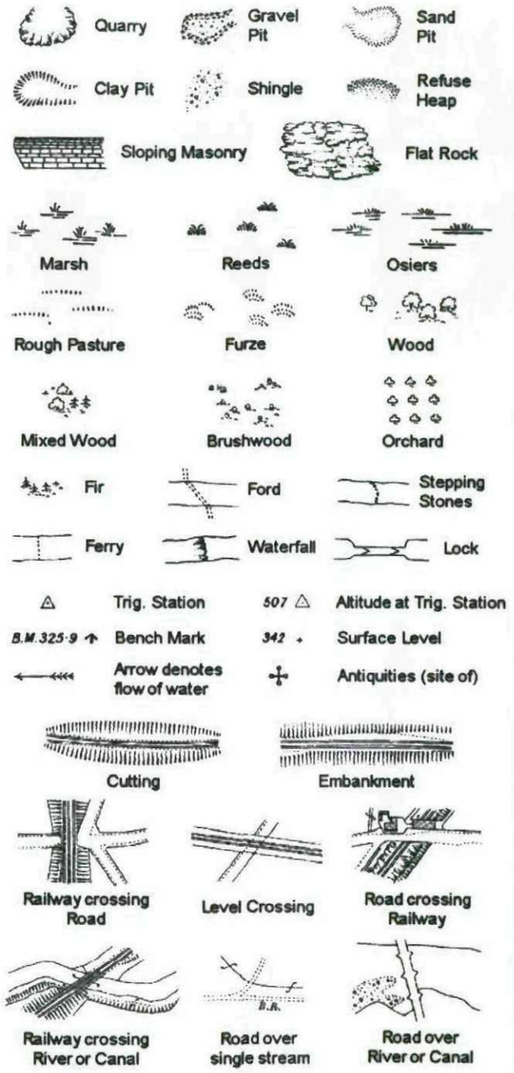
APPENDIX F

Historical OS Plan

PDF created with pdfFactory Pro trial version www.pdffactory.com

Historical Mapping Legends

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



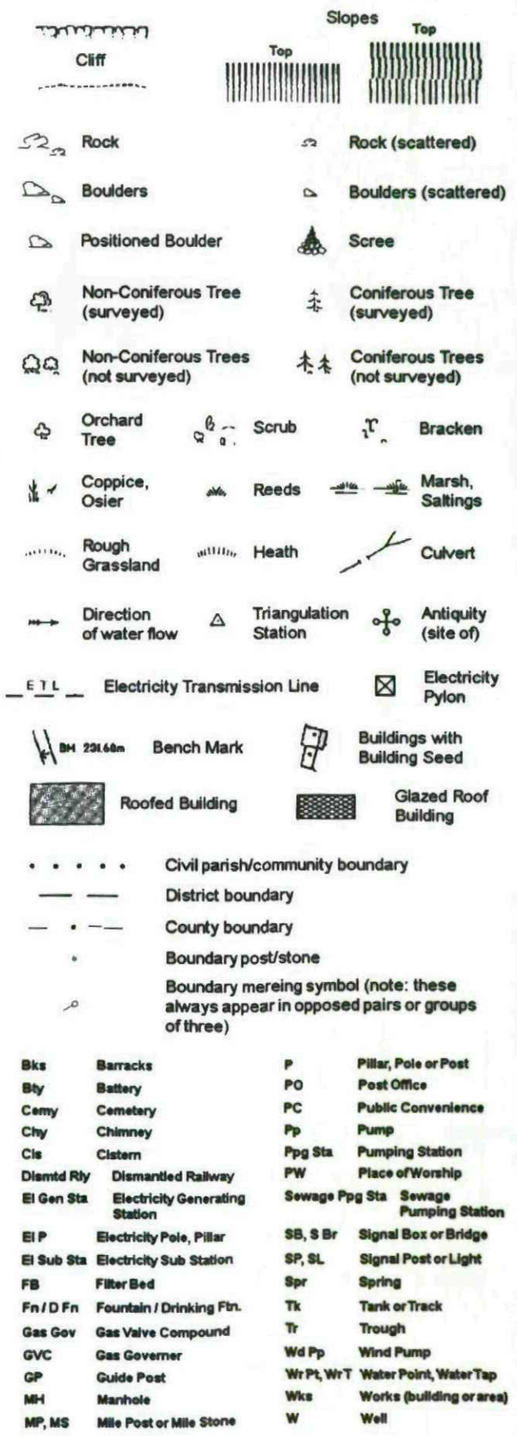
B P B S	Boundary Post or Stone	P.C.B	Police Call Box
B.R.	Bridle Road	P	Pump
E.P	Electricity Pylon	S.P	Signal Post
F.B.	Foot Bridge	Sl.	Sluice
F.P.	Foot Path	Sp.	Spring
G.P	Guide Post or Board	T.C.B	Telephone Call Box
M.S	Mile Stone	Tr.	Trough
M.P M.R	Mooring Post or Ring	W	Well

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



BH	Beer House	P	Pillar, Pole or Post
BP, BS	Boundary Post or Stone	PO	Post Office
Cn, C	Capstan, Crane	PC	Public Convenience
Chy	Chimney	PH	Public House
D Fn	Drinking Fountain	Pp	Pump
El P	Electricity Pillar or Post	SB, S Br	Signal Box or Bridge
FAP	Fire Alarm Pillar	SP, SL	Signal Post or Light
FB	Foot Bridge	Spr	Spring
GP	Guide Post	Tk	Tank or Track
H	Hydrant or Hydraulic	TCB	Telephone Call Box
LC	Level Crossing	TCP	Telephone Call Post
MH	Manhole	Tr	Trough
MP	Mile Post or Mooring Post	Wr Pt, Wr T	Water Point, Water Tap
MS	Mile Stone	W	Well
NTL	Normal Tidal Limit	Wd Pp	Wind Pump

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



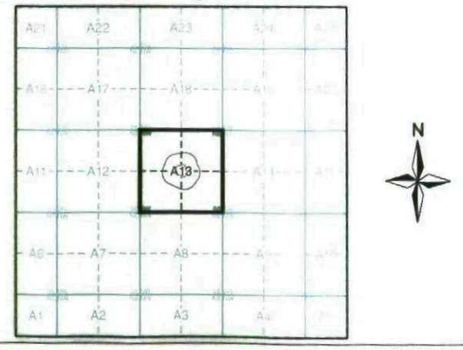
Bks	Barracks	P	Pillar, Pole or Post
Bty	Battery	PO	Post Office
Cemy	Cemetery	PC	Public Convenience
Chy	Chimney	Pp	Pump
Cis	Cistern	Ppg Sta	Pumping Station
Dismtd Rly	Dismantled Railway	PW	Place of Worship
El Gen Sta	Electricity Generating Station	Sewage Ppg Sta	Sewage Pumping Station
El P	Electricity Pole, Pillar	SB, S Br	Signal Box or Bridge
El Sub Sta	Electricity Sub Station	SP, SL	Signal Post or Light
FB	Filter Bed	Spr	Spring
Fn / D Fn	Fountain / Drinking Ftn.	Tk	Tank or Track
Gas Gov	Gas Valve Compound	Tr	Trough
GVC	Gas Governer	Wd Pp	Wind Pump
GP	Guide Post	Wr Pt, Wr T	Water Point, Water Tap
MH	Manhole	Wks	Works (building or area)
MP, MS	Mile Post or Mile Stone	W	Well

Paul Waite Associates

Historical Mapping & Photography included:

Mapping Type	Scale	Date	Pg
Yorkshire	1:2,500	1892 - 1893	2
Yorkshire	1:2,500	1906	3
Yorkshire	1:2,500	1931	4
Ordnance Survey Plan	1:1,250	1960 - 1966	5
Additional SIMs	1:1,250	1960 - 1981	6
Ordnance Survey Plan	1:2,500	1961	7
Ordnance Survey Plan	1:1,250	1966 - 1972	8
Ordnance Survey Plan	1:1,250	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



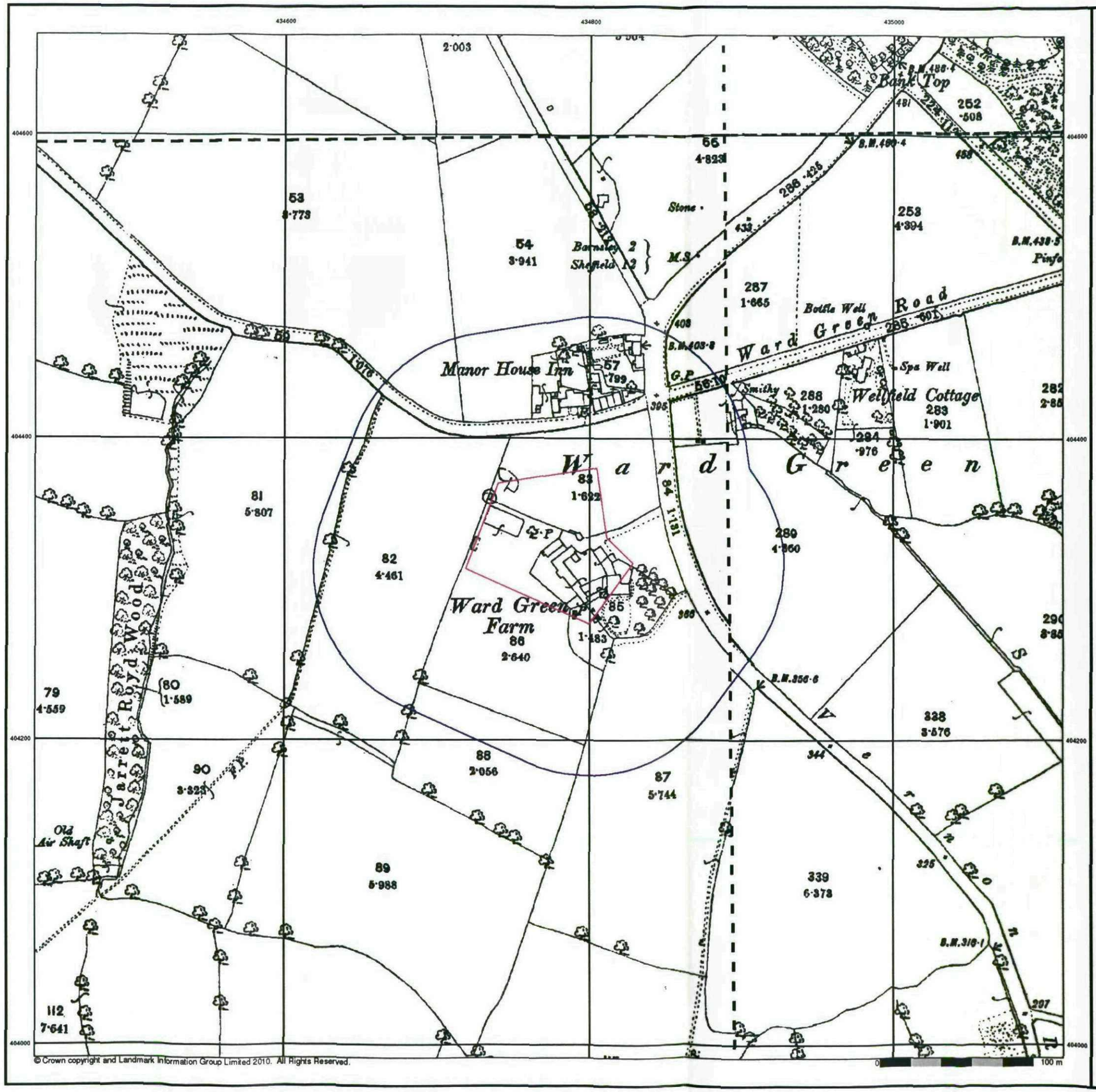
Order Details

Order Number: 33238200_1_1
Customer Ref: 10225 Ward Green Primary
National Grid Reference: 434780, 404330
Slice: A
Site Area (Ha): 0.71
Search Buffer (m): 100

Site Details

Ward Green Primary School, Worsbrough, BARNSLEY, South Yorkshire

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



Paul Waite Associates

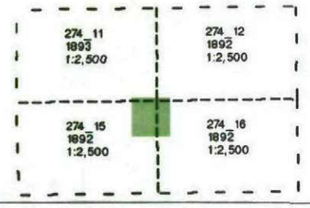
Yorkshire

Published 1892 - 1893

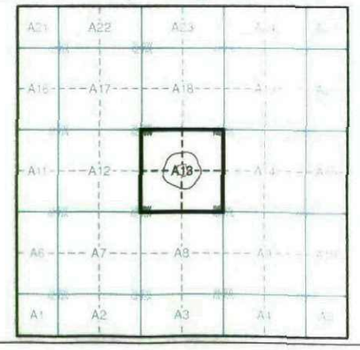
Source map scale - 1:2,500

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 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)



Historical Map - Segment A13



Order Details

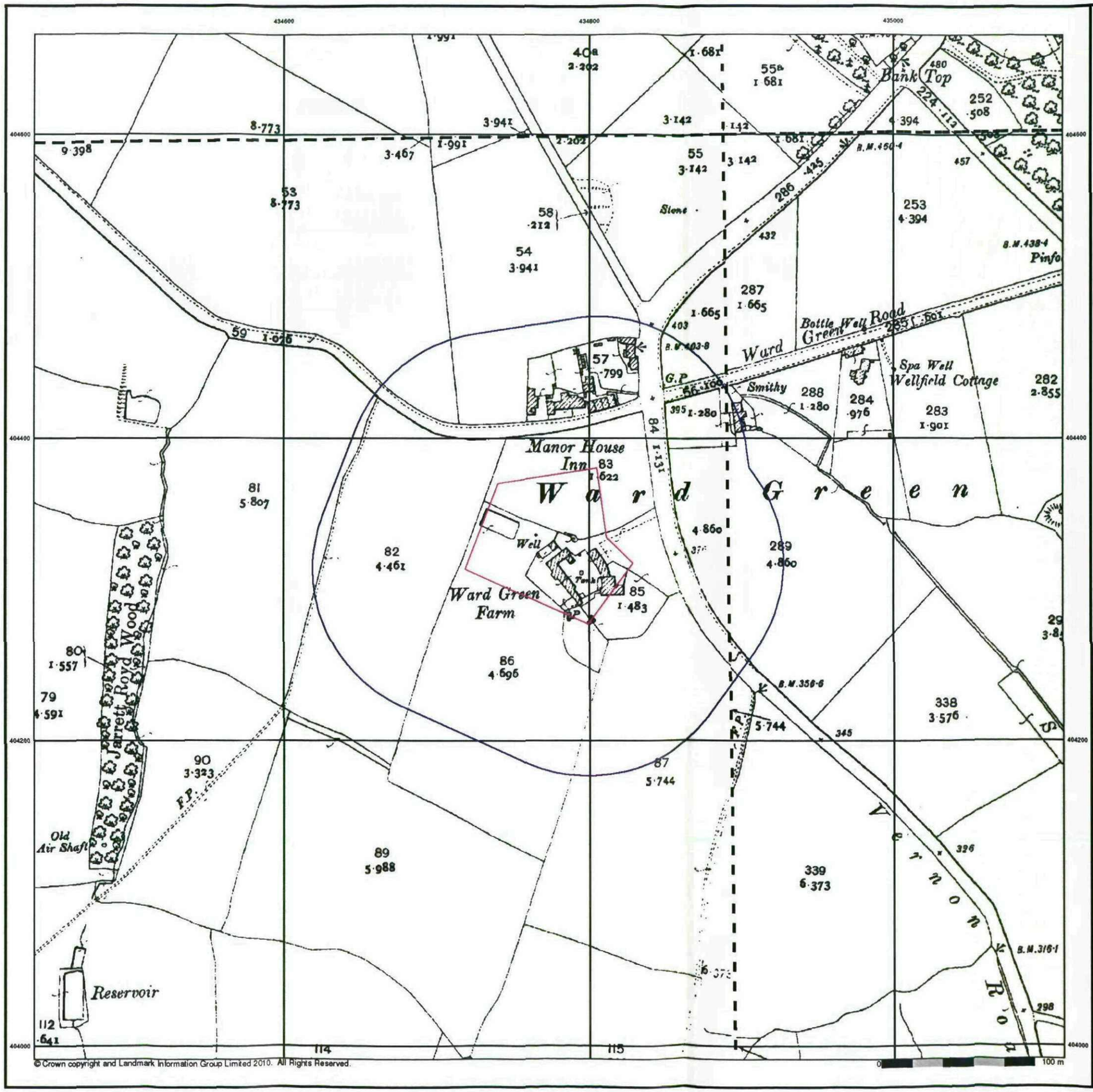
Order Number:	33238200_1_1
Customer Ref:	10225 Ward Green Primary
National Grid Reference:	434780, 404330
Slice:	A
Site Area (Ha):	0.71
Search Buffer (m):	100

Site Details

Ward Green Primary School, Worsbrough, BARNSLEY, South Yorkshire

Landmark Information Group

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



© Crown copyright and Landmark Information Group Limited 2010. All Rights Reserved.

Paul Waite Associates

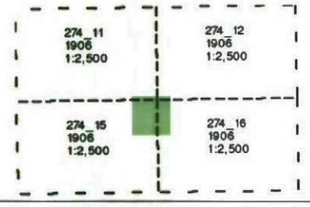
Yorkshire

Published 1906

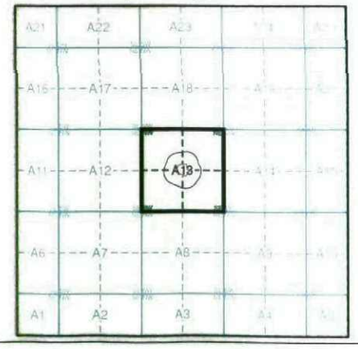
Source map scale - 1:2,500

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 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)



Historical Map - Segment A13



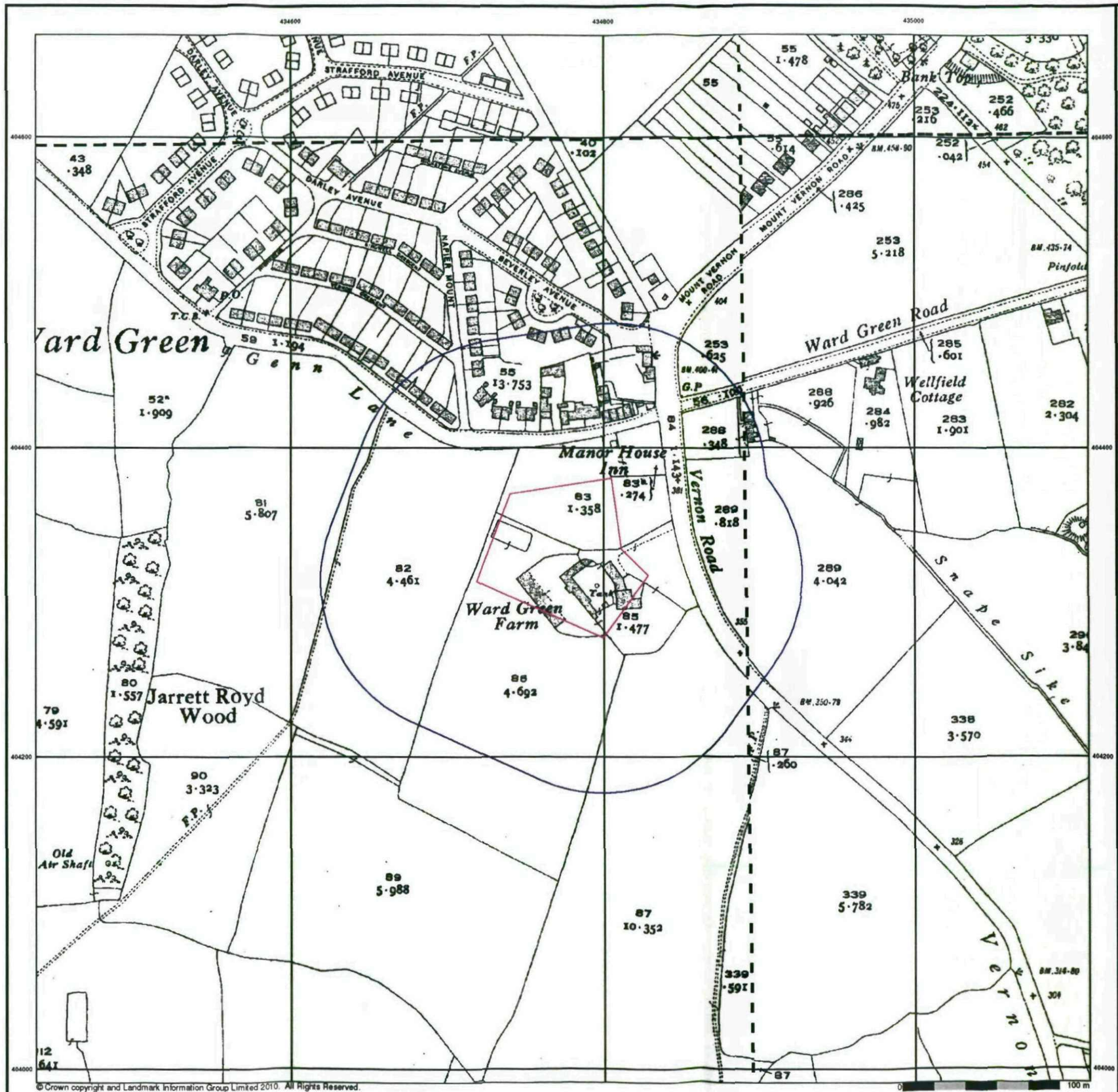
Order Details

Order Number:	33238200_1_1
Customer Ref:	10225 Ward Green Primary
National Grid Reference:	434780, 404330
Slice:	A
Site Area (Ha):	0.71
Search Buffer (m):	100

Site Details

Ward Green Primary School, Worsbrough, BARNSLEY, South Yorkshire

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



© Crown copyright and Landmark Information Group Limited 2010. All Rights Reserved.

Paul Waite Associates

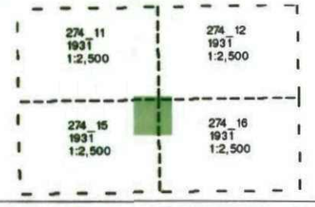
Yorkshire

Published 1931

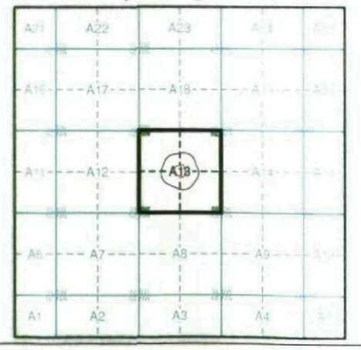
Source map scale - 1:2,500

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 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)



Historical Map - Segment A13



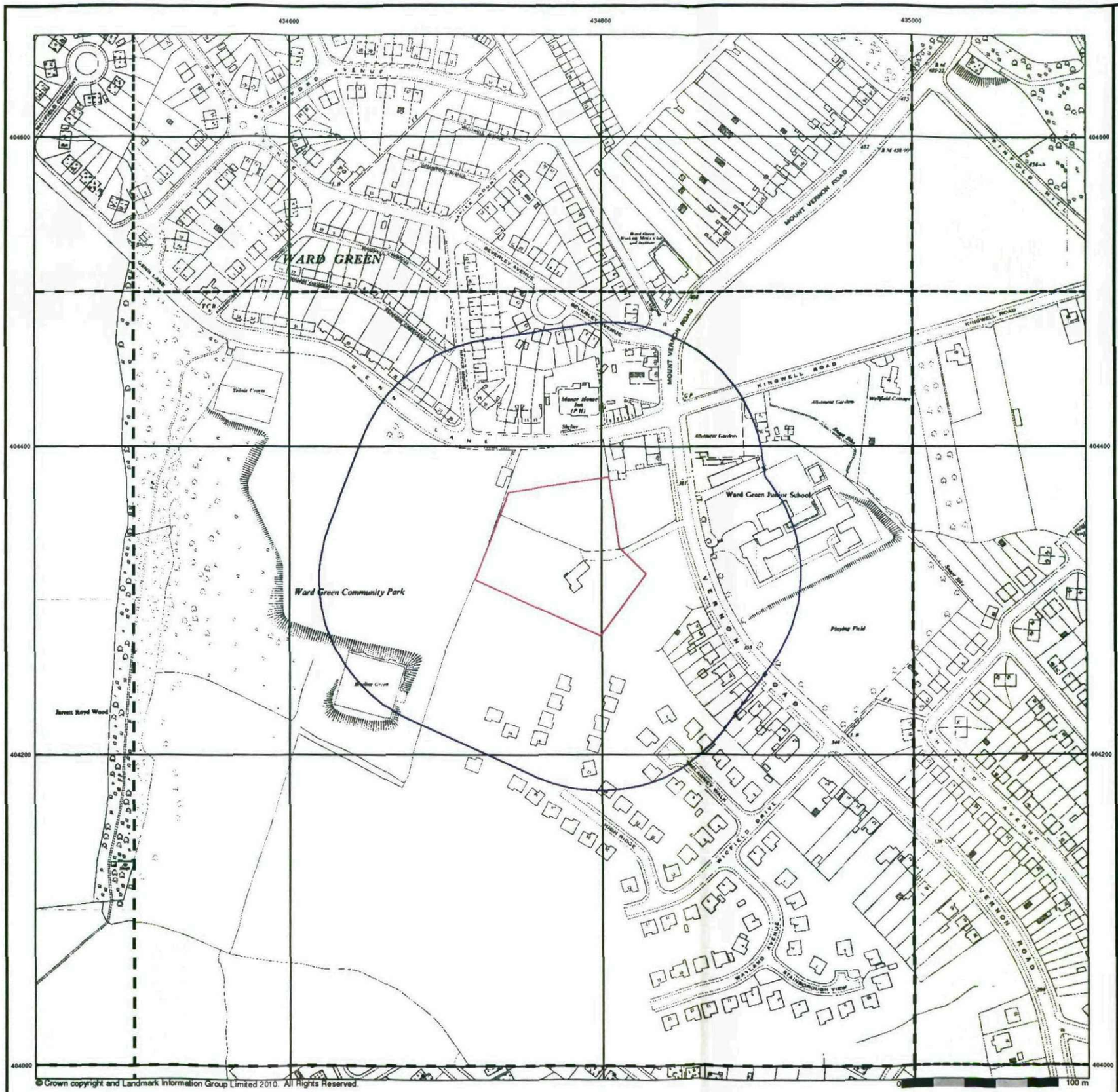
Order Details

Order Number:	33238200_1_1
Customer Ref:	10225 Ward Green Primary
National Grid Reference:	434780, 404330
Slice:	A
Site Area (Ha):	0.71
Search Buffer (m):	100

Site Details

Ward Green Primary School, Worsbrough, BARNSLEY, South Yorkshire

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



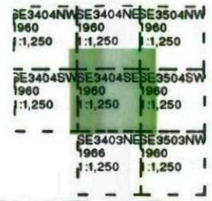
© Crown copyright and Landmark Information Group Limited 2010. All Rights Reserved.

Paul Waite Associates

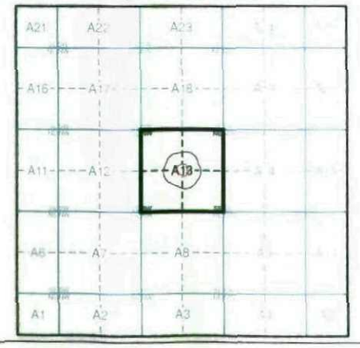
Ordnance Survey Plan
Published 1960 - 1966
Source map scale - 1:1,250

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 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 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)



Historical Map - Segment A13

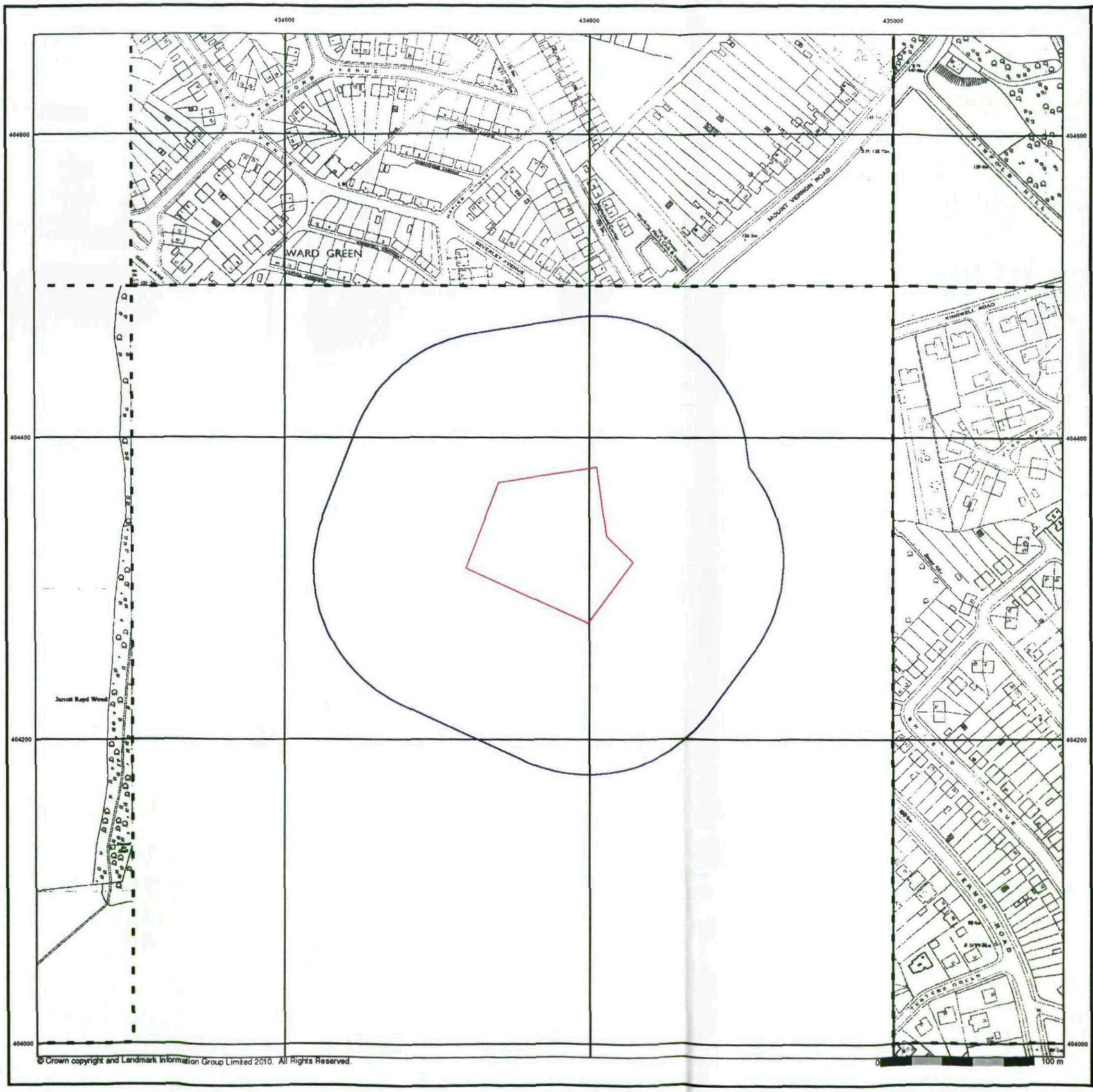


Order Details

Order Number:	33238200_1_1
Customer Ref:	10225 Ward Green Primary
National Grid Reference:	434780, 404330
Slice:	A
Site Area (Ha):	0.71
Search Buffer (m):	100

Site Details

Ward Green Primary School, Worsbrough, BARNSLEY, South Yorkshire



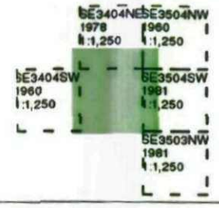
© Crown copyright and Landmark Information Group Limited 2010. All Rights Reserved.

Paul Waite Associates

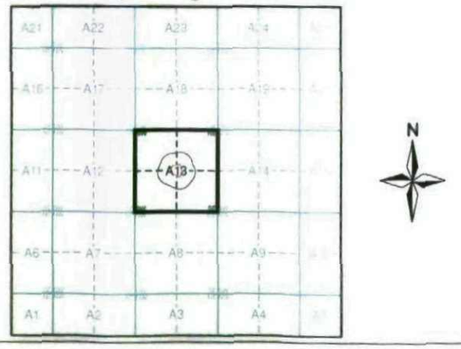
Additional SIMs
Published 1960 - 1981
Source map scale - 1:1,250

The SIM cards (Ordnance Survey's 'Survey of Information on Microfilm') are further, minor editions of mapping which were produced and published in between the main editions as an area was updated. They date from 1947 to 1994, and contain detailed information on buildings, roads and land-use. These maps were produced at both 1:2,500 and 1:1,250 scales.

Map Name(s) and Date(s)



Historical Map - Segment A13



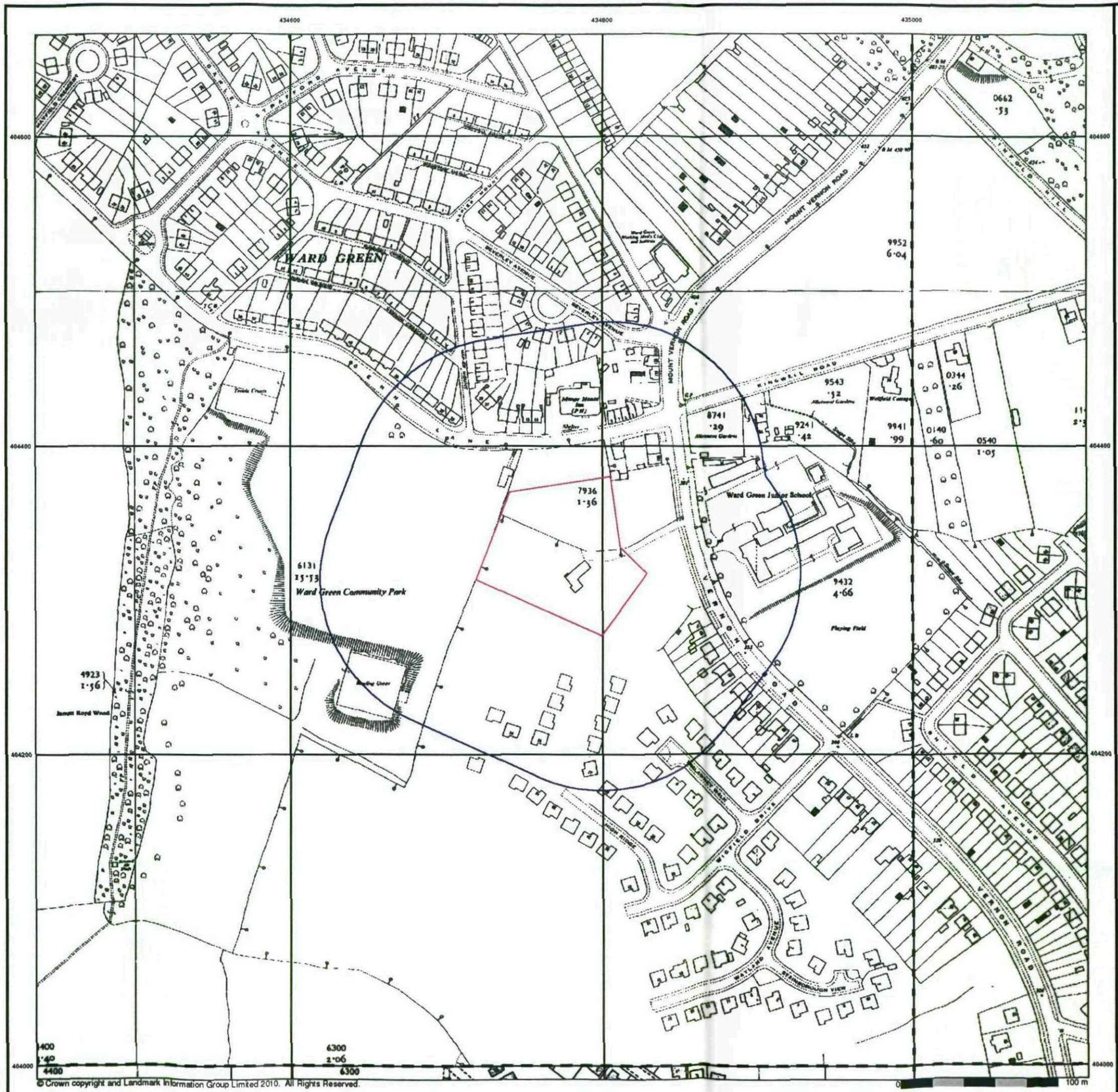
Order Details

Order Number:	33238200_1_1
Customer Ref:	10225 Ward Green Primary
National Grid Reference:	434780, 404330
Slice:	A
Site Area (Ha):	0.71
Search Buffer (m):	100

Site Details

Ward Green Primary School, Worsbrough, BARNSLEY, South Yorkshire

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



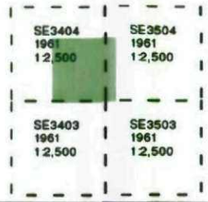
© Crown copyright and Landmark Information Group Limited 2010. All Rights Reserved.

Paul Waite Associates

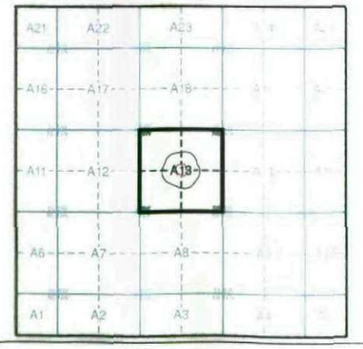
Ordnance Survey Plan
Published 1961
Source map scale - 1:2,500

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 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)



Historical Map - Segment A13



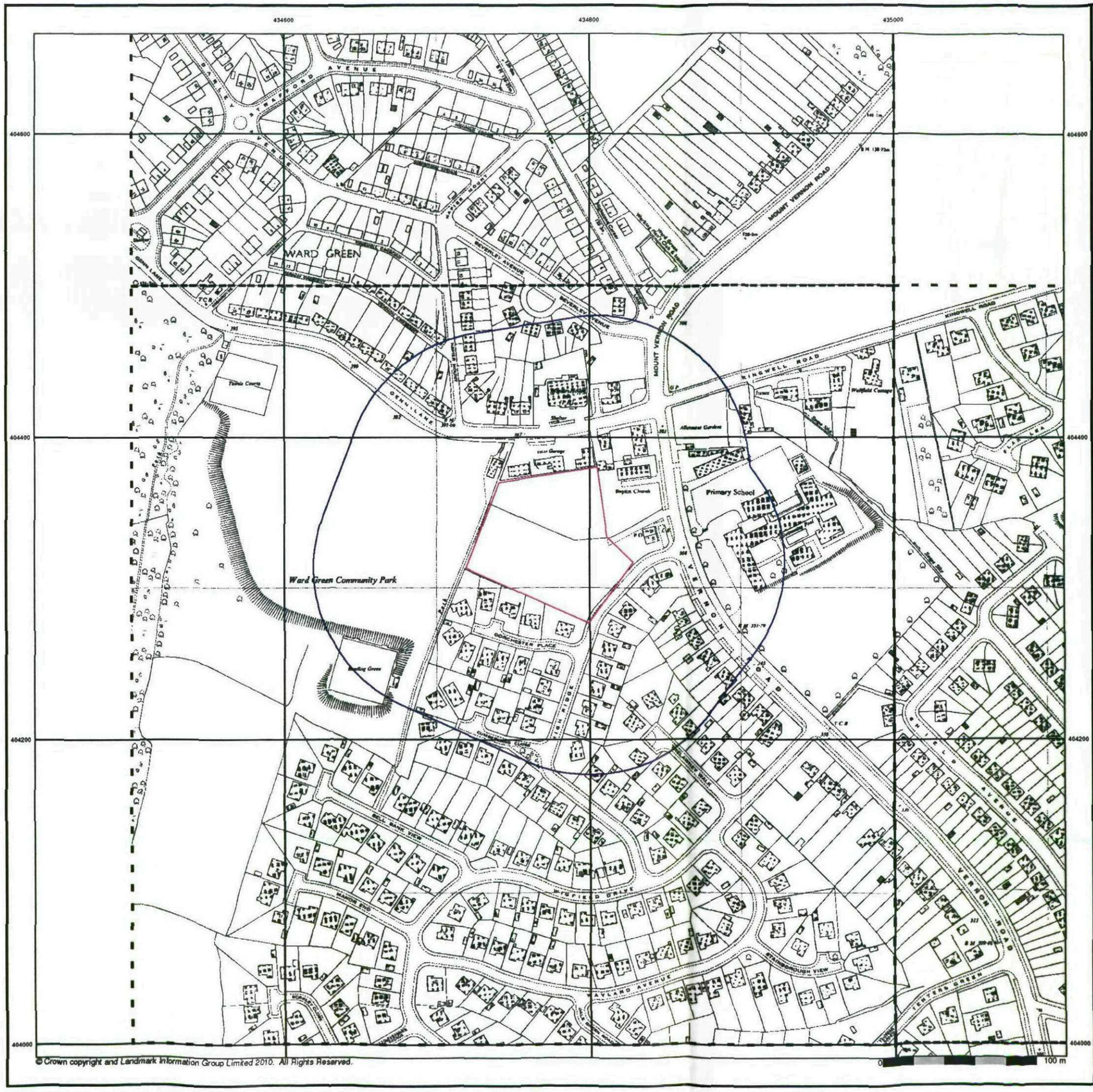
Order Details

Order Number:	33238200_1_1
Customer Ref:	10225 Ward Green Primary
National Grid Reference:	434780, 404330
Slice:	A
Site Area (Ha):	0.71
Search Buffer (m):	100

Site Details

Ward Green Primary School, Worsbrough, BARNSLEY, South Yorkshire

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



© Crown copyright and Landmark Information Group Limited 2010. All Rights Reserved.

Paul Waite Associates

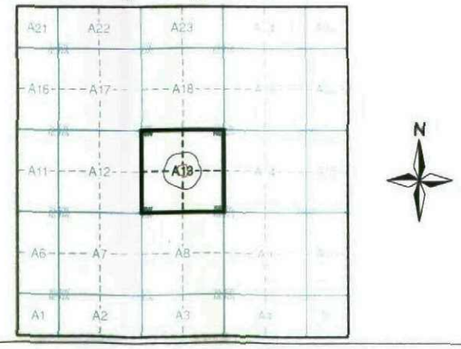
Ordnance Survey Plan
Published 1966 - 1972
Source map scale - 1:1,250

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 1:2,500 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 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)



Historical Map - Segment A13



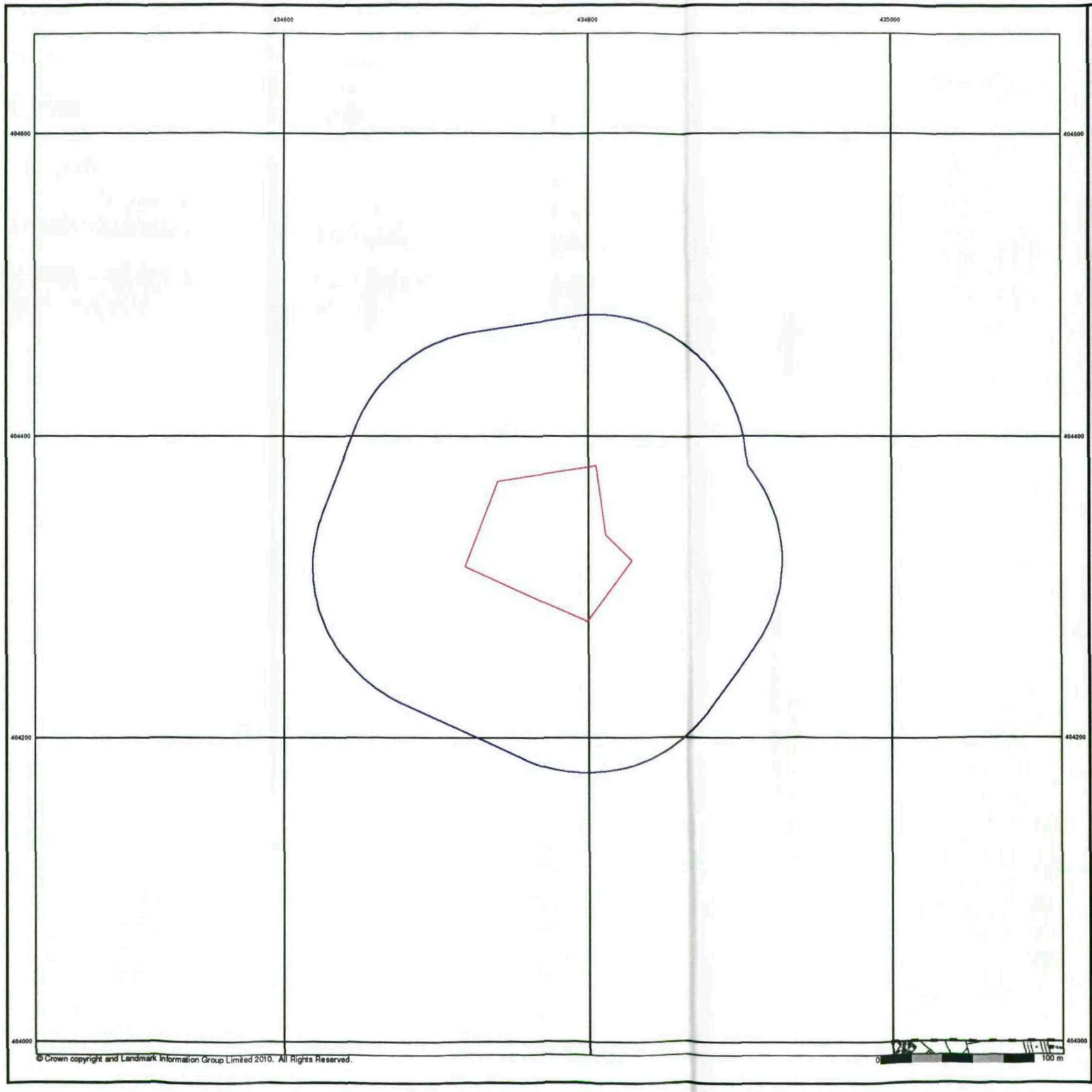
Order Details

Order Number:	33238200_1_1
Customer Ref:	10225 Ward Green Primary
National Grid Reference:	434780, 404330
Slice:	A
Site Area (Ha):	0.71
Search Buffer (m):	100

Site Details

Ward Green Primary School, Worsbrough, BARNSLEY, South Yorkshire

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



© Crown copyright and Landmark Information Group Limited 2010. All Rights Reserved.

Paul Waite Associates

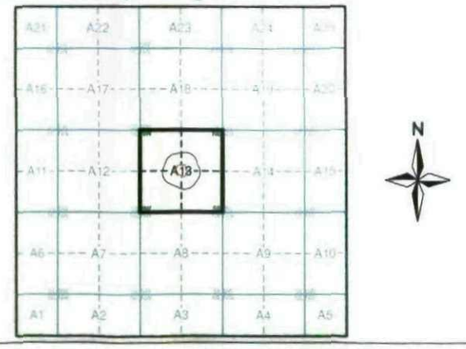
Ordnance Survey Plan
Published 1974
Source map scale - 1:1,250

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 1:2,500 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 date given below is often some years later than the surveyed date. Before 1936, 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)

SE3503NW
1974
1:1,250

Historical Map - Segment A13



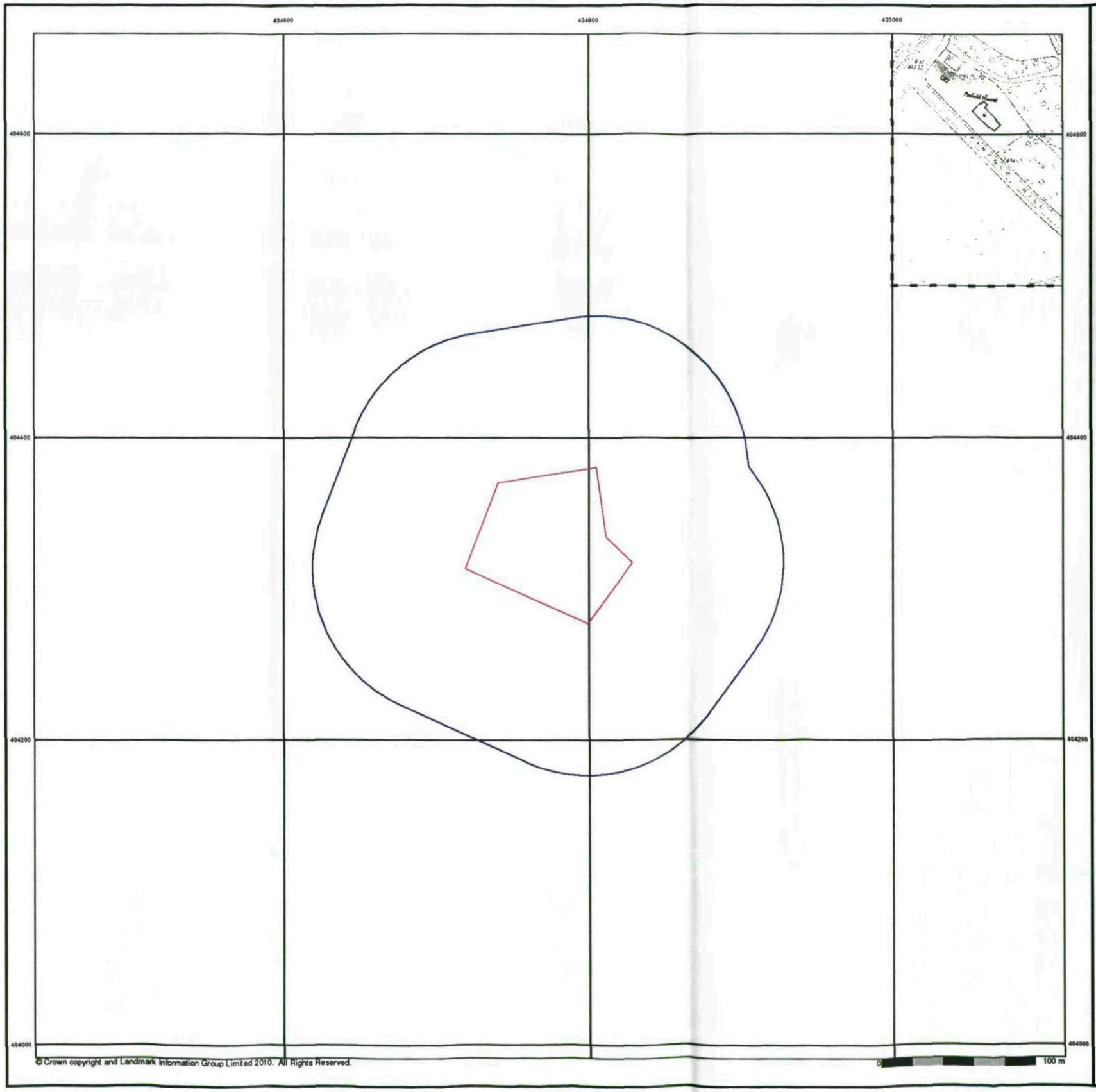
Order Details

Order Number:	33238200_1_1
Customer Ref:	10225 Ward Green Primary
National Grid Reference:	434780, 404330
Slice:	A
Site Area (Ha):	0.71
Search Buffer (m):	100

Site Details

Ward Green Primary School, Worsbrough, BARNSLEY, South Yorkshire

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



© Crown copyright and Landmark Information Group Limited 2010. All Rights Reserved.

Paul Waite Associates

Supply of Unpublished Survey Information

Published 1976

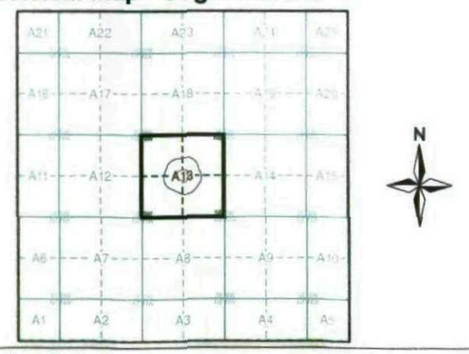
Source map scale - 1:1,250

SUSI maps (Supply of Unpublished Survey Information) were produced between 1972 and 1977, mainly for internal use at Ordnance Survey. These were more of a 'work-in-progress' plan as they showed updates of individual areas on a map. These maps were unpublished, and they do not represent a single moment in time. They were produced at both 1:2,500 and 1:1,250 scales.

Map Name(s) and Date(s)



Historical Map - Segment A13



Order Details

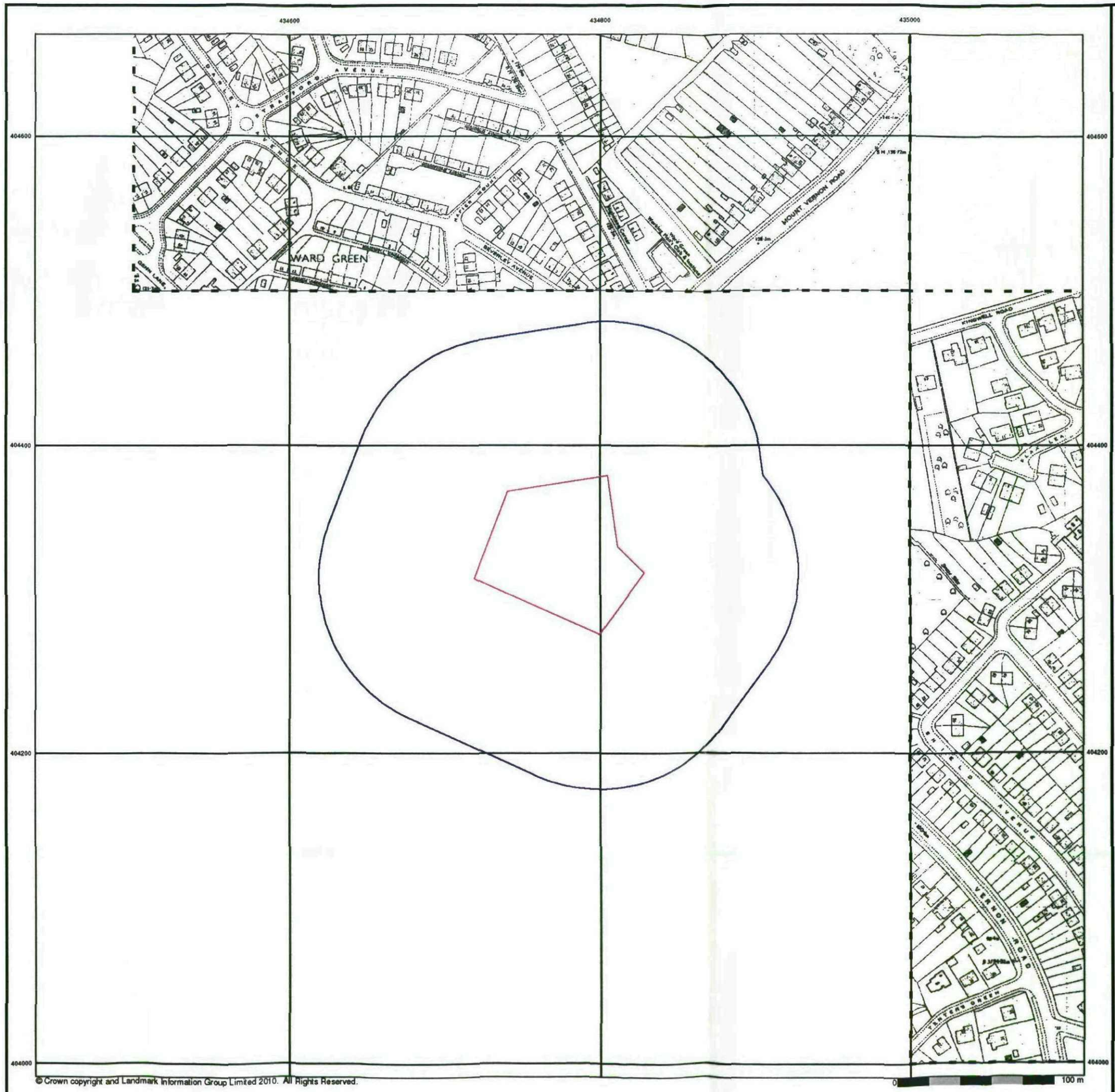
Order Number:	33238200_1_1
Customer Ref:	10225 Ward Green Primary
National Grid Reference:	434780, 404330
Slice:	A
Site Area (Ha):	0.71
Search Buffer (m):	100

Site Details

Ward Green Primary School, Worsbrough, BARNSLEY, South Yorkshire

Landmark Information Group

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



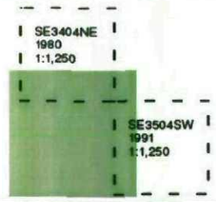
© Crown copyright and Landmark Information Group Limited 2010. All Rights Reserved.

Paul Waite Associates

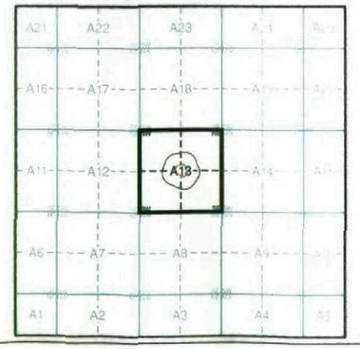
Additional SIMs
Published 1980 - 1991
Source map scale - 1:1,250

The SIM cards (Ordnance Survey's 'Survey of Information on Microfilm') are further, minor editions of mapping which were produced and published in between the main editions as an area was updated. They date from 1947 to 1994, and contain detailed information on buildings, roads and land-use. These maps were produced at both 1:2,500 and 1:1,250 scales.

Map Name(s) and Date(s)



Historical Map - Segment A13

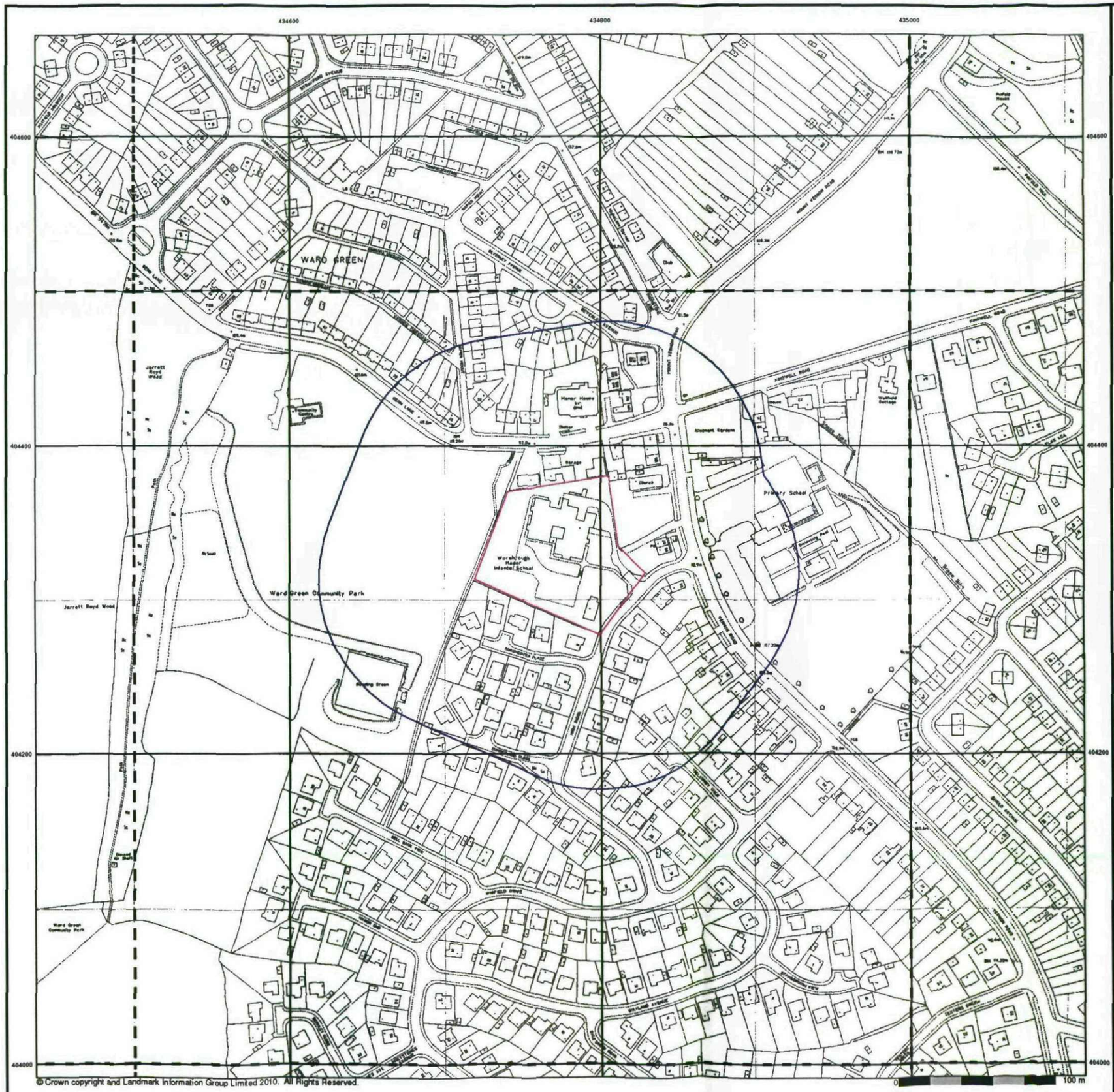


Order Details

Order Number:	33238200_1_1
Customer Ref:	10225 Ward Green Primary
National Grid Reference:	434780, 404330
Slice:	A
Site Area (Ha):	0.71
Search Buffer (m):	100

Site Details

Ward Green Primary School, Worsbrough, BARNSLEY, South Yorkshire



© Crown copyright and Landmark Information Group Limited 2010. All Rights Reserved.

Paul Waite Associates

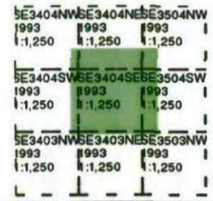
Large-Scale National Grid Data

Published 1993

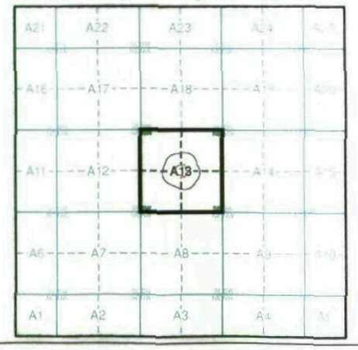
Source map scale - 1:1,250

'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 fore-runners of digital mapping and so 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)



Historical Map - Segment A13

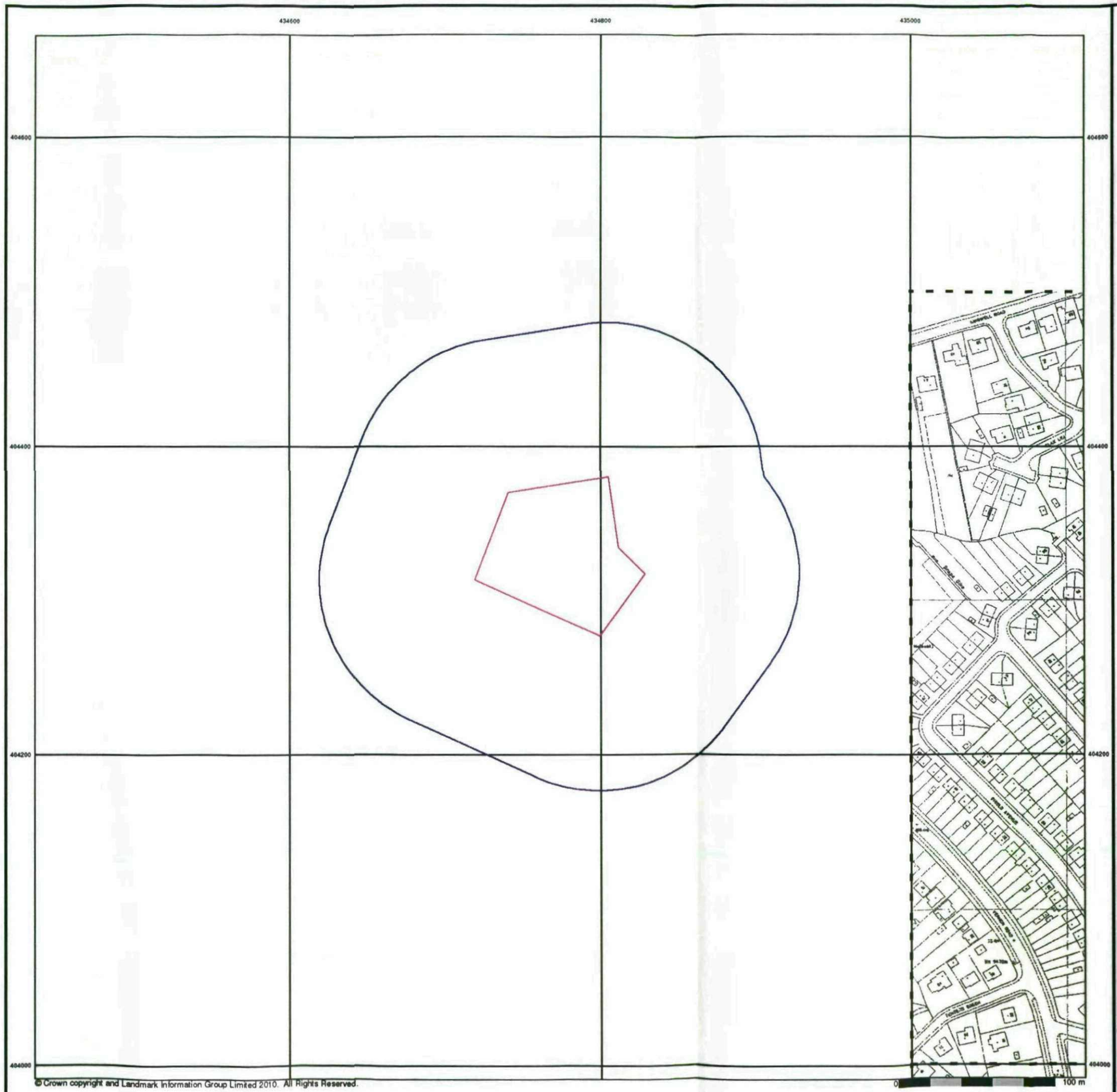


Order Details

Order Number:	33238200_1_1
Customer Ref:	10225 Ward Green Primary
National Grid Reference:	434780, 404330
Slice:	A
Site Area (Ha):	0.71
Search Buffer (m):	100

Site Details

Ward Green Primary School, Worsbrough, BARNSLEY, South Yorkshire



© Crown copyright and Landmark Information Group Limited 2010. All Rights Reserved.

Paul Waite Associates

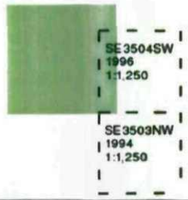
Large-Scale National Grid Data

Published 1994 - 1996

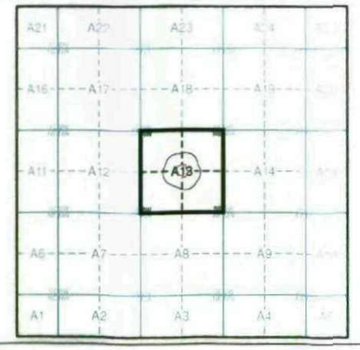
Source map scale - 1:1,250

'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 fore-runners of digital mapping and so 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)



Historical Map - Segment A13



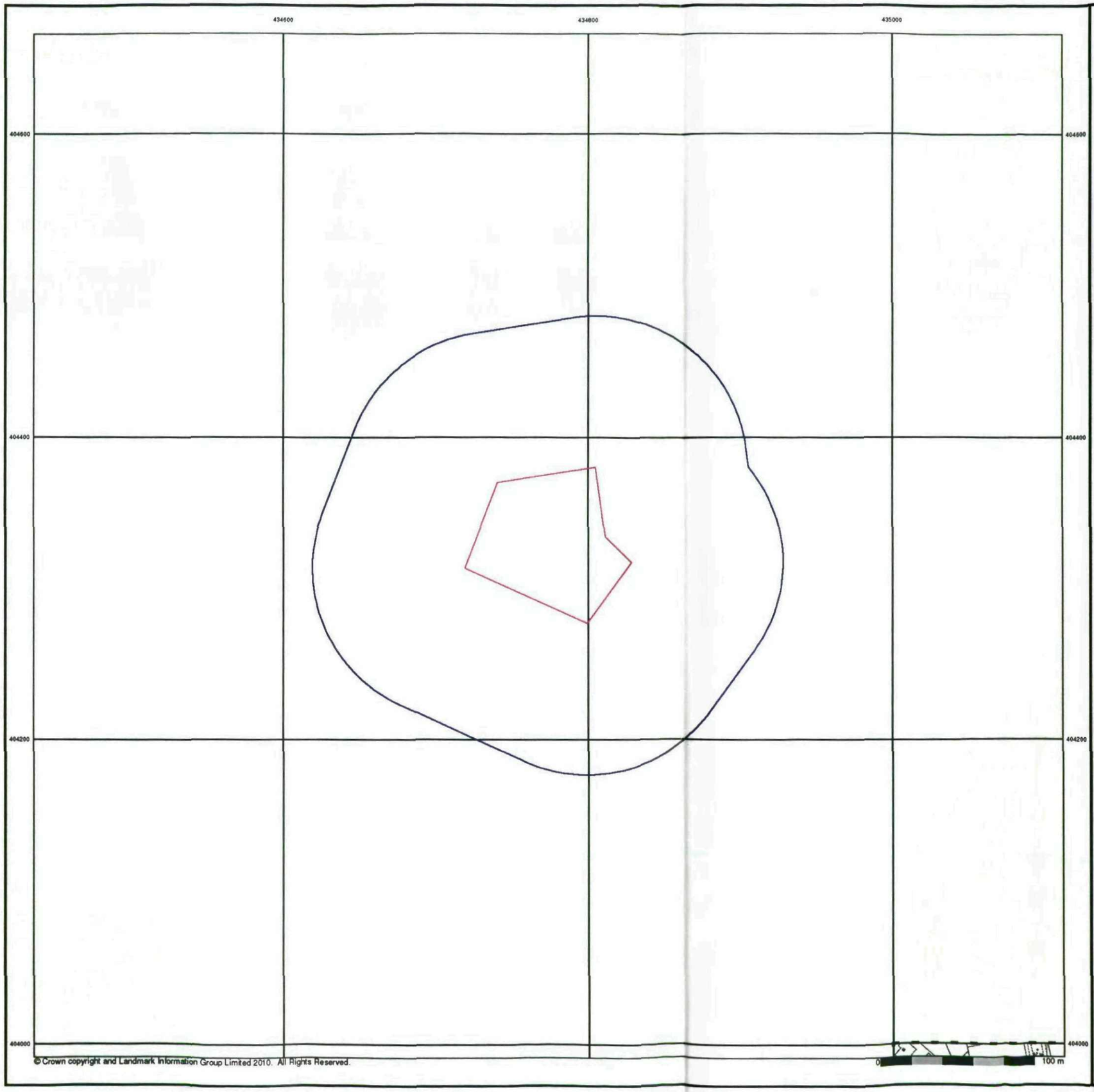
Order Details

Order Number:	33238200_1_1
Customer Ref:	10225 Ward Green Primary
National Grid Reference:	434780, 404330
Slice:	A
Site Area (Ha):	0.71
Search Buffer (m):	100

Site Details

Ward Green Primary School, Worsbrough, BARNSLEY, South Yorkshire

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



© Crown copyright and Landmark Information Group Limited 2010. All Rights Reserved.

Paul Waite Associates

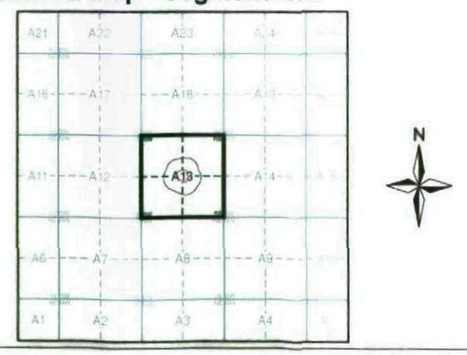
Large-Scale National Grid Data
Published 1994
Source map scale - 1:1,250

'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 fore-runners of digital mapping and so 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)



Historical Map - Segment A13



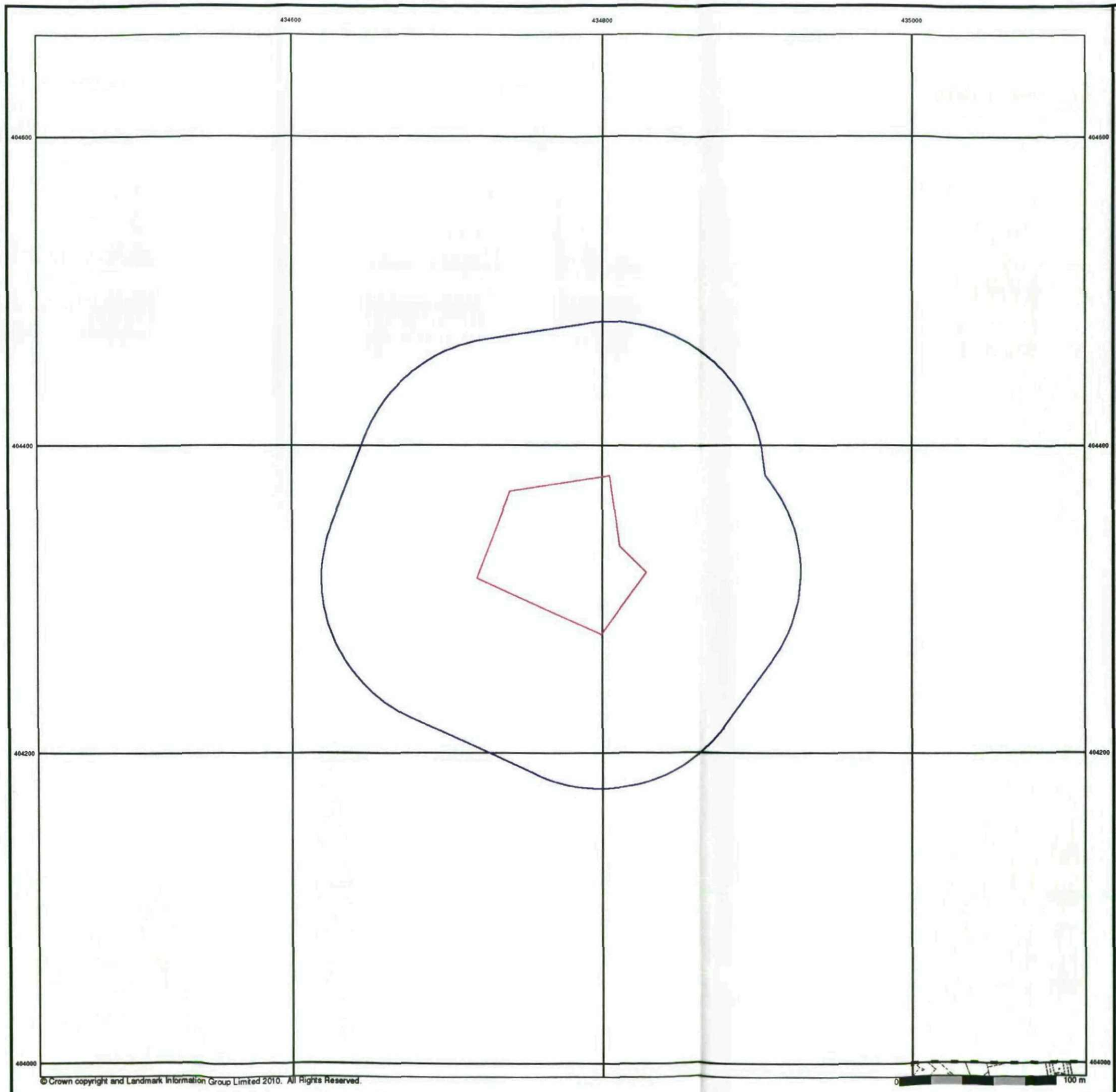
Order Details

Order Number:	33238200_1_1
Customer Ref:	10225 Ward Green Primary
National Grid Reference:	434780, 404330
Slice:	A
Site Area (Ha):	0.71
Search Buffer (m):	100

Site Details

Ward Green Primary School, Worsbrough, BARNSLEY, South Yorkshire

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



© Crown copyright and Landmark Information Group Limited 2010. All Rights Reserved.

Paul Waite Associates

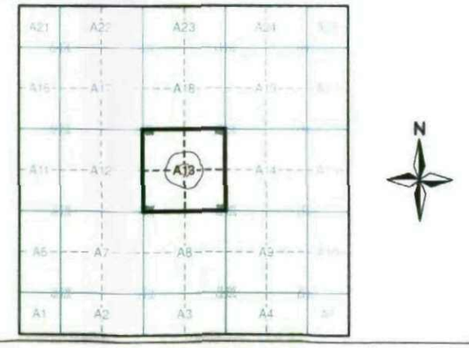
Large-Scale National Grid Data
Published 1995
Source map scale - 1:1,250

'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 fore-runners of digital mapping and so 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)



Historical Map - Segment A13



Order Details

Order Number:	33238200_1_1
Customer Ref:	10225 Ward Green Primary
National Grid Reference:	434780, 404330
Slice:	A
Site Area (Ha):	0.71
Search Buffer (m):	100

Site Details

Ward Green Primary School, Worsbrough, BARNSLEY, South Yorkshire

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

Historical Mapping Legends

Ordnance Survey County Series 1:10,560

Gravel Pit
Sand Pit
Other Pits
Quarry
Shingle
Orchard
Osiers
Reeds
Marsh
Mixed Wood
Deciduous
Brushwood
Fir
Furze
Rough Pasture
Arrow denotes flow of water
Trigonometrical Station
Site of Antiquities
Bench Mark
Pump, Guide Post, Signal Post
Well, Spring, Boundary Post
·285 Surface Level
Sketched Contour
Instrumental Contour
Main Roads
Fenced
Un-Fenced
Minor Roads
Fenced
Un-Fenced
Sunken Road
Raised Road
Road over Railway
Railway over River
Railway over Road
Level Crossing
Road over River or Canal
Road over Stream
Road over Stream
County Boundary (Geographical)
County & Civil Parish Boundary
Administrative County & Civil Parish Boundary
Co. Boro. Bdy. County Borough Boundary (England)
Co. Burgh Bdy. County Burgh Boundary (Scotland)
R.D. Bdy. Rural District Boundary
Civil Parish Boundary

Ordnance Survey Plan 1:10,000

Chalk Pit, Clay Pit or Quarry
Gravel Pit
Sand Pit
Disused Pit or Quarry
Refuse or Slag Heap
Lake, Loch or Pond
Dunes
Boulders
Coniferous Trees
Non-Coniferous Trees
Orchard
Scrub
Coppice
Bracken
Heath
Rough Grassland
Marsh
Reeds
Saltings
Building
Direction of Flow of Water
Shingle
Sand
Glasshouse
Pylon
Sloping Masonry
Electricity Transmission Line
Pole
Cutting
Embankment
Standard Gauge Multiple Track
Road Under
Road Over
Level Crossing
Foot Bridge
Standard Gauge Single Track
Siding, Tramway or Mineral Line
Narrow Gauge
Geographical County
Administrative County, County Borough or County of City
Municipal Borough, Urban or Rural District, Burgh or District Council
Borough, Burgh or County Constituency
Shown only when not coincident with other boundaries
Civil Parish
Shown alternately when coincidence of boundaries occurs

BP, BS	Boundary Post or Stone	Pol Sta	Police Station
Ch	Church	PO	Post Office
CH	Club House	PC	Public Convenience
F E Sta	Fire Engine Station	PH	Public House
FB	Foot Bridge	SB	Signal Box
Fn	Fountain	Spr	Spring
GP	Guide Post	TCB	Telephone Call Box
MP	Mile Post	TCP	Telephone Call Post
MS	Mile Stone	W	Well

1:10,000 Raster Mapping

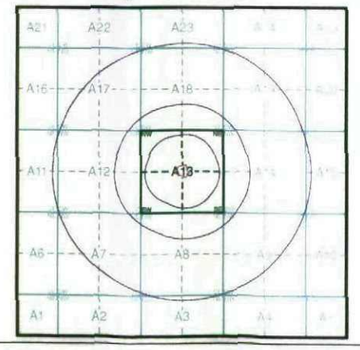
Gravel Pit
Refuse tip or slag heap
Rock
Rock (scattered)
Boulders
Boulders (scattered)
Shingle
Mud
Sand
Sand Pit
Slopes
Top of cliff
General detail
Underground detail
Overhead detail
Narrow gauge railway
Multi-track railway
Single track railway
County boundary (England only)
Civil, parish or community boundary
District, Unitary, Metropolitan, London Borough boundary
Constituency boundary
Area of wooded vegetation
Non-coniferous trees
Non-coniferous trees (scattered)
Coniferous trees
Coniferous trees (scattered)
Positioned tree
Orchard
Coppice or Osiers
Rough Grassland
Heath
Scrub
Marsh, Salt Marsh or Reeds
Water feature
Flow arrows
MHW(S) Mean high water (springs)
MLW(S) Mean low water (springs)
Telephone line (where shown)
Electricity transmission line (with poles)
BM 123.45 m Bench mark (where shown)
Triangulation station
Point feature (e.g. Guide Post or Mile Stone)
Pylon, flare stack or lighting tower
Site of (antiquity)
Glasshouse
General Building
Important Building

Paul Waite Associates

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
Yorkshire	1:10,560	1948	7
Ordnance Survey Plan	1:10,000	1955 - 1956	8
Ordnance Survey Plan	1:10,000	1965 - 1966	9
Ordnance Survey Plan	1:10,000	1973 - 1978	10
Ordnance Survey Plan	1:10,000	1980 - 1984	11
Ordnance Survey Plan	1:10,000	1989	12
Ordnance Survey Plan	1:10,000	1993	13
10K Raster Mapping	1:10,000	2000	14
10K Raster Mapping	1:10,000	2006	15
10K Raster Mapping	1:10,000	2010	16

Historical Map - Slice A



Order Details

Order Number: 33238200_1_1
Customer Ref: 10225 Ward Green Primary
National Grid Reference: 434780, 404330
Slice: A
Site Area (Ha): 0.71
Search Buffer (m): 1000

Site Details

Ward Green Primary School, Worsbrough, BARNSLEY, South Yorkshire

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



© Crown copyright and Landmark Information Group Limited 2010. All Rights Reserved.

Paul Waite Associates

Yorkshire

Published 1855

Source map scale - 1:10,560

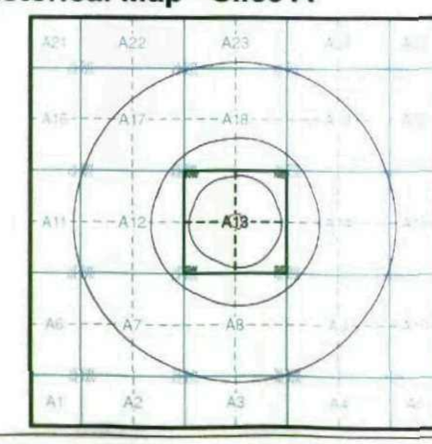
The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas; these maps were used to update the 1:10,560 maps. The published date given therefore is often some 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 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 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



N

Order Details

Order Number: 33238200_1_1
Customer Ref: 10225 Ward Green Primary
National Grid Reference: 434780, 404330
Slice: A
Site Area (Ha): 0.71
Search Buffer (m): 1000

Site Details

Ward Green Primary School, Worsbrough, BARNSLEY, South Yorkshire

Landmark Information Group

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



© Crown copyright and Landmark Information Group Limited 2010. All Rights Reserved.

Paul Waite Associates

Yorkshire

Published 1893 - 1894

Source map scale - 1:10,560

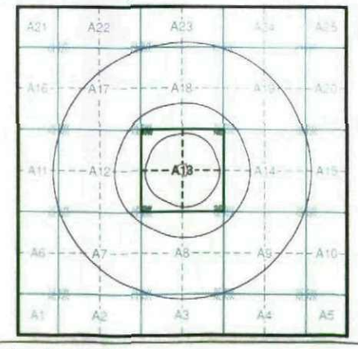
The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas; these maps were used to update the 1:10,560 maps. The published date given therefore is often some years later than the surveyed date. Before 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 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)

274SE
1894
1:10,560

282NE
1893
1:10,560

Historical Map - Slice A



Order Details

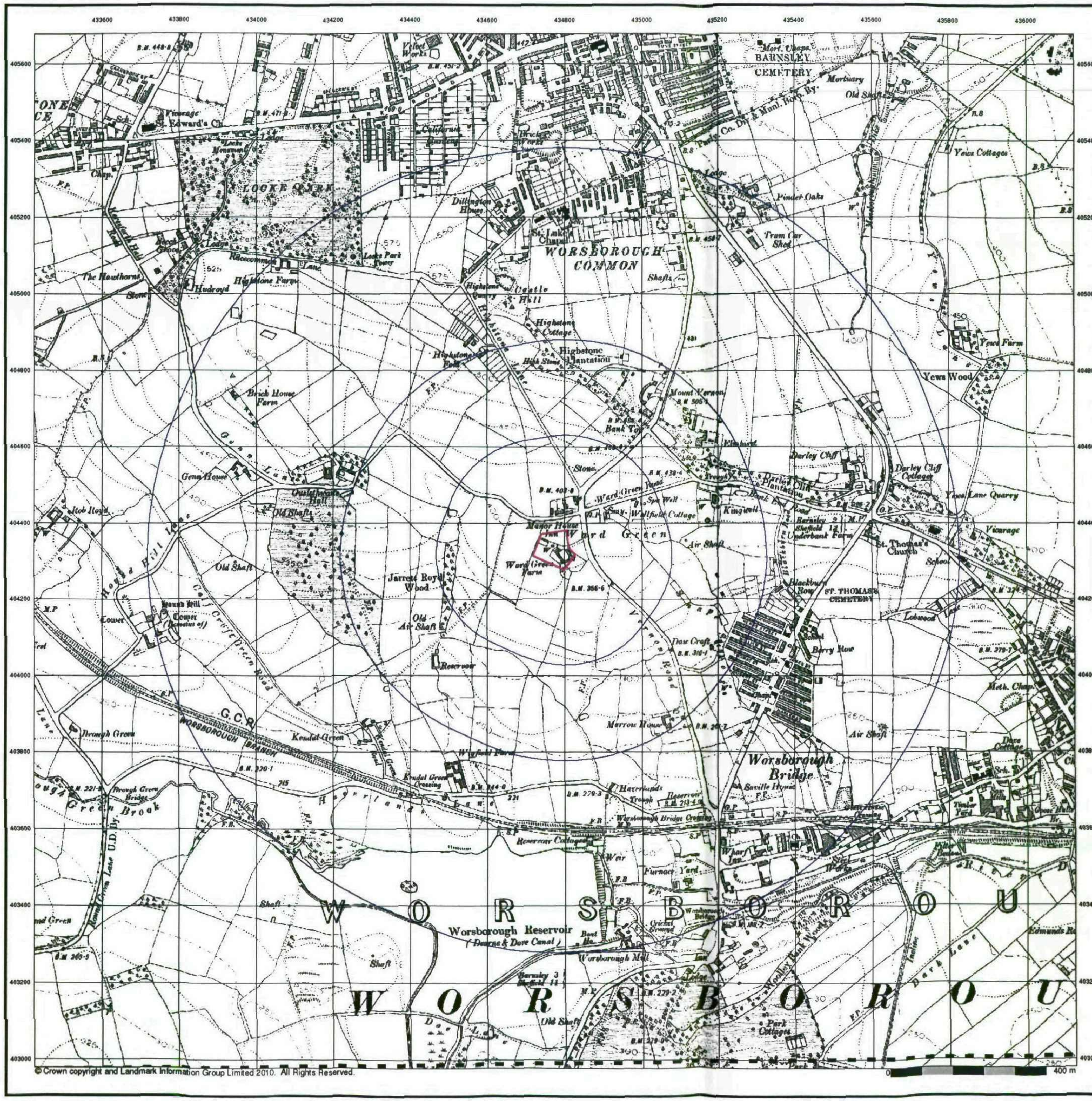
Order Number:	33238200_1_1
Customer Ref:	10225 Ward Green Primary
National Grid Reference:	434780, 404330
Slice:	A
Site Area (Ha):	0.71
Search Buffer (m):	1000

Site Details

Ward Green Primary School, Worsbrough, BARNSLEY, South Yorkshire

Landmark Information Group

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



© Crown copyright and Landmark Information Group Limited 2010. All Rights Reserved.

Paul Waite Associates

Yorkshire

Published 1907

Source map scale - 1:10,560

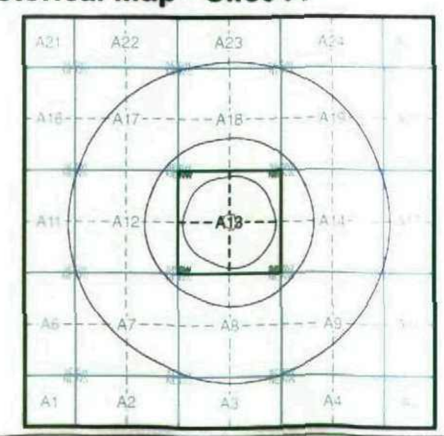
The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas; these maps were used to update the 1:10,560 maps. The published date given therefore is often some years later than the surveyed date. Before 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 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)

274SE
1907
1:10,560

282NE
1907
1:10,560

Historical Map - Slice A



Order Details

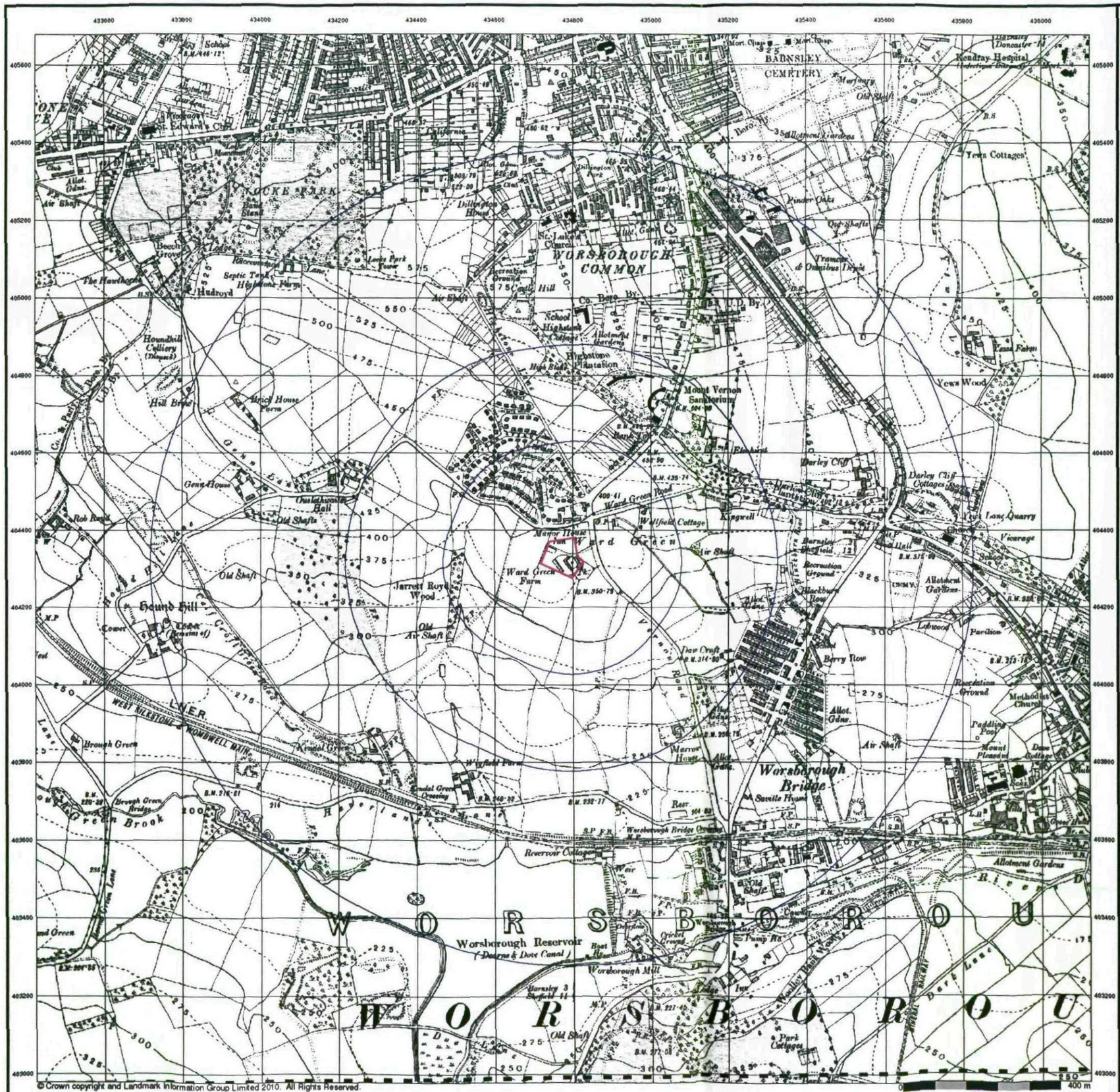
Order Number: 33238200_1_1
Customer Ref: 10225 Ward Green Primary
National Grid Reference: 434780, 404330
Slice: A
Site Area (Ha): 0.71
Search Buffer (m): 1000

Site Details

Ward Green Primary School, Worsbrough, BARNSLEY, South Yorkshire

Landmark Information Group

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



© Crown copyright and Landmark Information Group Limited 2010. All Rights Reserved.

Paul Waite Associates

Yorkshire

Published 1932

Source map scale - 1:10,560

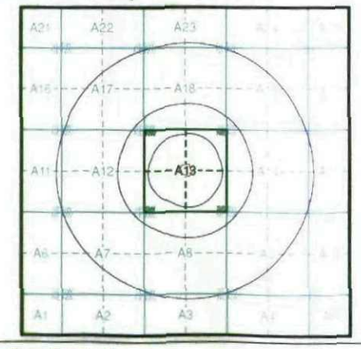
The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas; these maps were used to update the 1:10,560 maps. The published date given therefore is often some years later than the surveyed date. Before 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 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)

274SE
1932
1:10,560

282NE
1932
1:10,560

Historical Map - Slice A



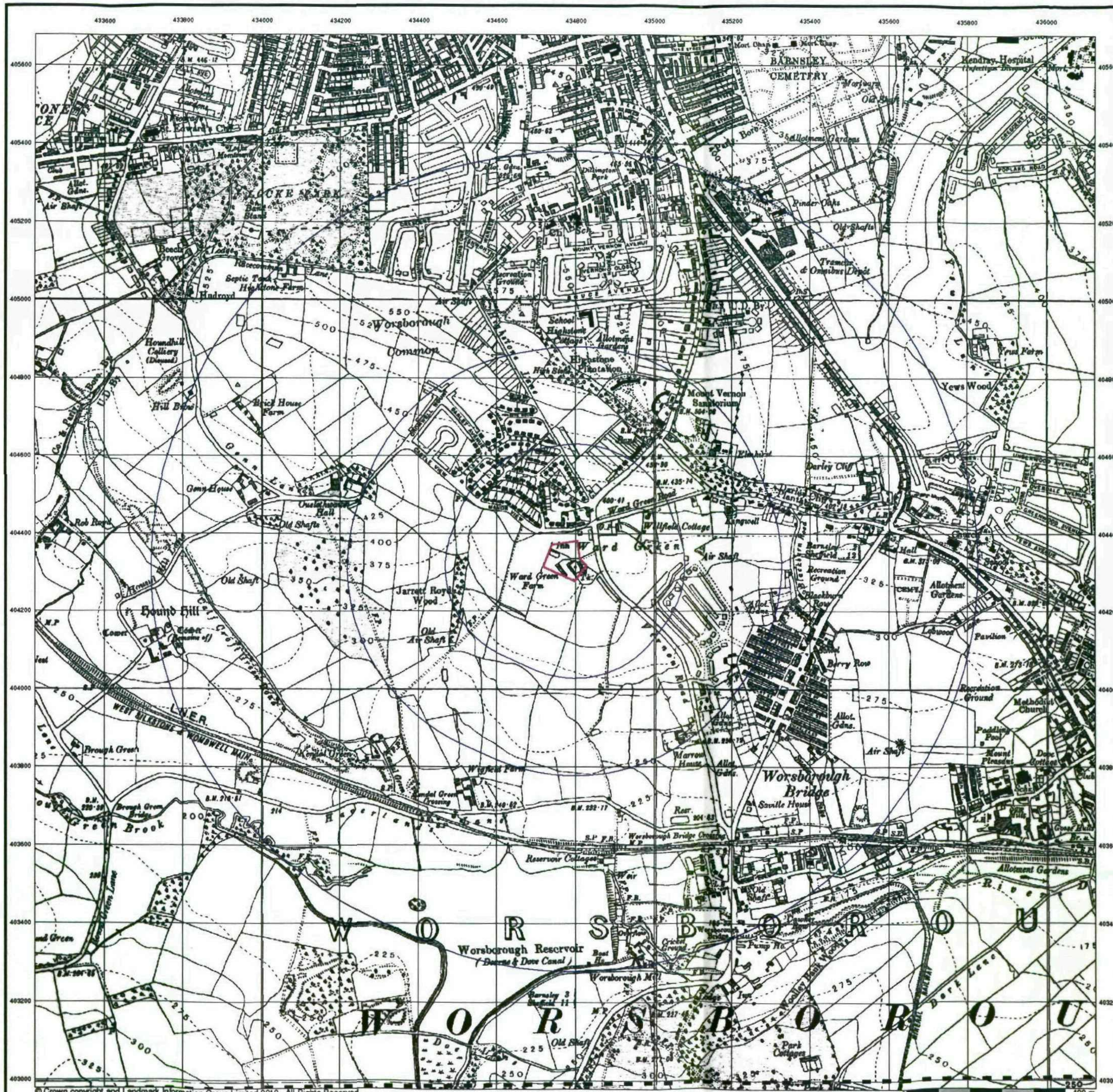
Order Details

Order Number:	33238200_1_1
Customer Ref:	10225 Ward Green Primary
National Grid Reference:	434780, 404330
Slice:	A
Site Area (Ha):	0.71
Search Buffer (m):	1000

Site Details

Ward Green Primary School, Worsbrough, BARNSLEY, South Yorkshire

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



© Crown copyright and Landmark Information Group Limited 2010. All Rights Reserved.

Paul Waite Associates

Yorkshire

Published 1938

Source map scale - 1:10,560

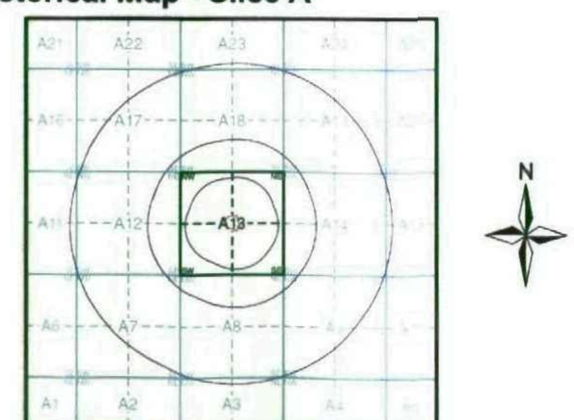
The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas; these maps were used to update the 1:10,560 maps. The published date given therefore is often some 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 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 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)

274SE
1938
1:10,560

282NE
1938
1:10,560

Historical Map - Slice A



Order Details

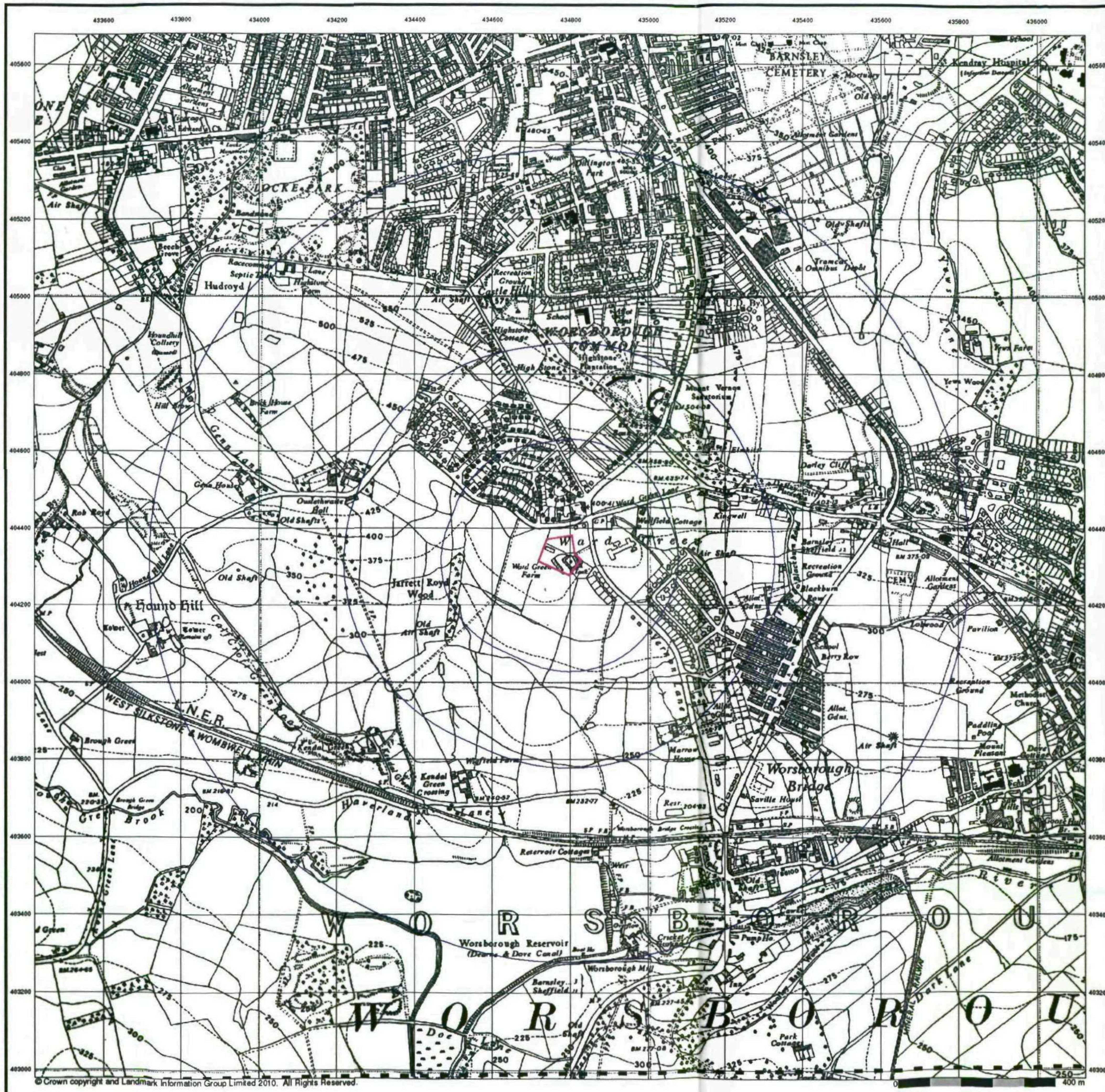
Order Number:	33238200_1_1
Customer Ref:	10225 Ward Green Primary
National Grid Reference:	434780, 404330
Slice:	A
Site Area (Ha):	0.71
Search Buffer (m):	1000

Site Details

Ward Green Primary School, Worsbrough, BARNSLEY, South Yorkshire

Landmark Information Group

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



© Crown copyright and Landmark Information Group Limited 2010. All Rights Reserved.

Paul Waite Associates

Yorkshire

Published 1948

Source map scale - 1:10,560

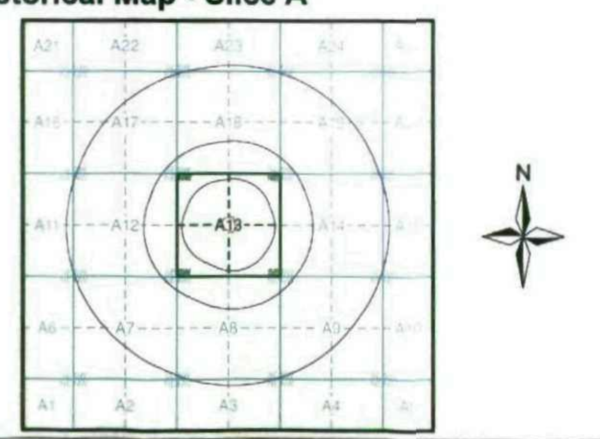
The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas; these maps were used to update the 1:10,560 maps. The published date given therefore is often some years later than the surveyed date. Before 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 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)

274SE
1948
1:10,560

282NE
1948
1:10,560

Historical Map - Slice A



Order Details

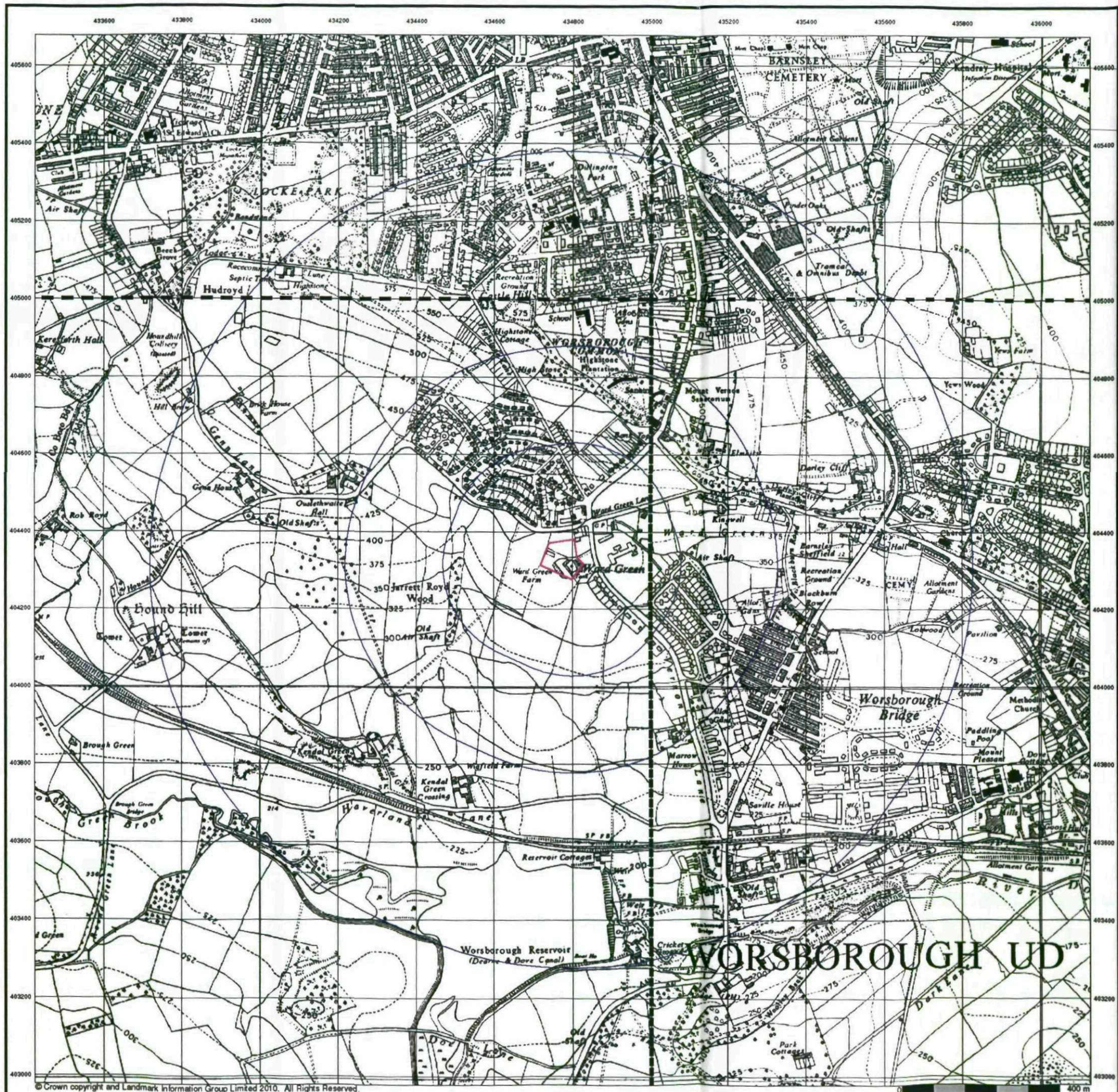
Order Number: 33238200_1_1
Customer Ref: 10225 Ward Green Primary
National Grid Reference: 434780, 404330
Slice: A
Site Area (Ha): 0.71
Search Buffer (m): 1000

Site Details

Ward Green Primary School, Worsbrough, BARNSLEY, South Yorkshire

Landmark Information Group

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



© Crown copyright and Landmark Information Group Limited 2010. All Rights Reserved.

Paul Waite Associates

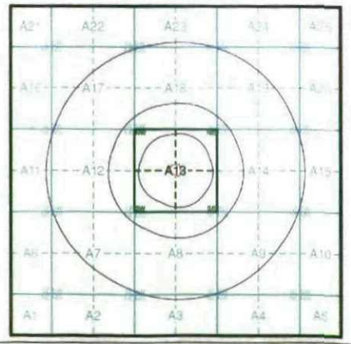
Ordnance Survey Plan
Published 1955 - 1956
Source map scale - 1:10,000

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 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 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 1956 1:10,560	SE30NE 1955 1:10,560
SE30SW 1956 1:10,560	SE30SE 1956 1:10,560

Historical Map - Slice A



N

Order Details

Order Number:	33238200_1_1
Customer Ref:	10225 Ward Green Primary
National Grid Reference:	434780, 404330
Slice:	A
Site Area (Ha):	0.71
Search Buffer (m):	1000

Site Details

Ward Green Primary School, Worsbrough, BARNSLEY, South Yorkshire

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



© Crown copyright and Landmark Information Group Limited 2010. All Rights Reserved.

Paul Waite Associates

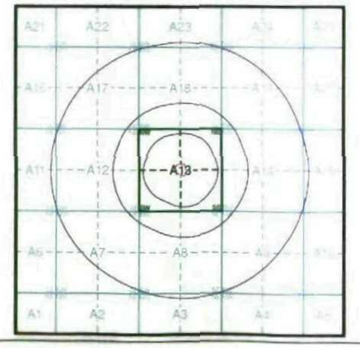
Ordnance Survey Plan
Published 1965 - 1966
Source map scale - 1:10,000

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

Historical Map - Slice A



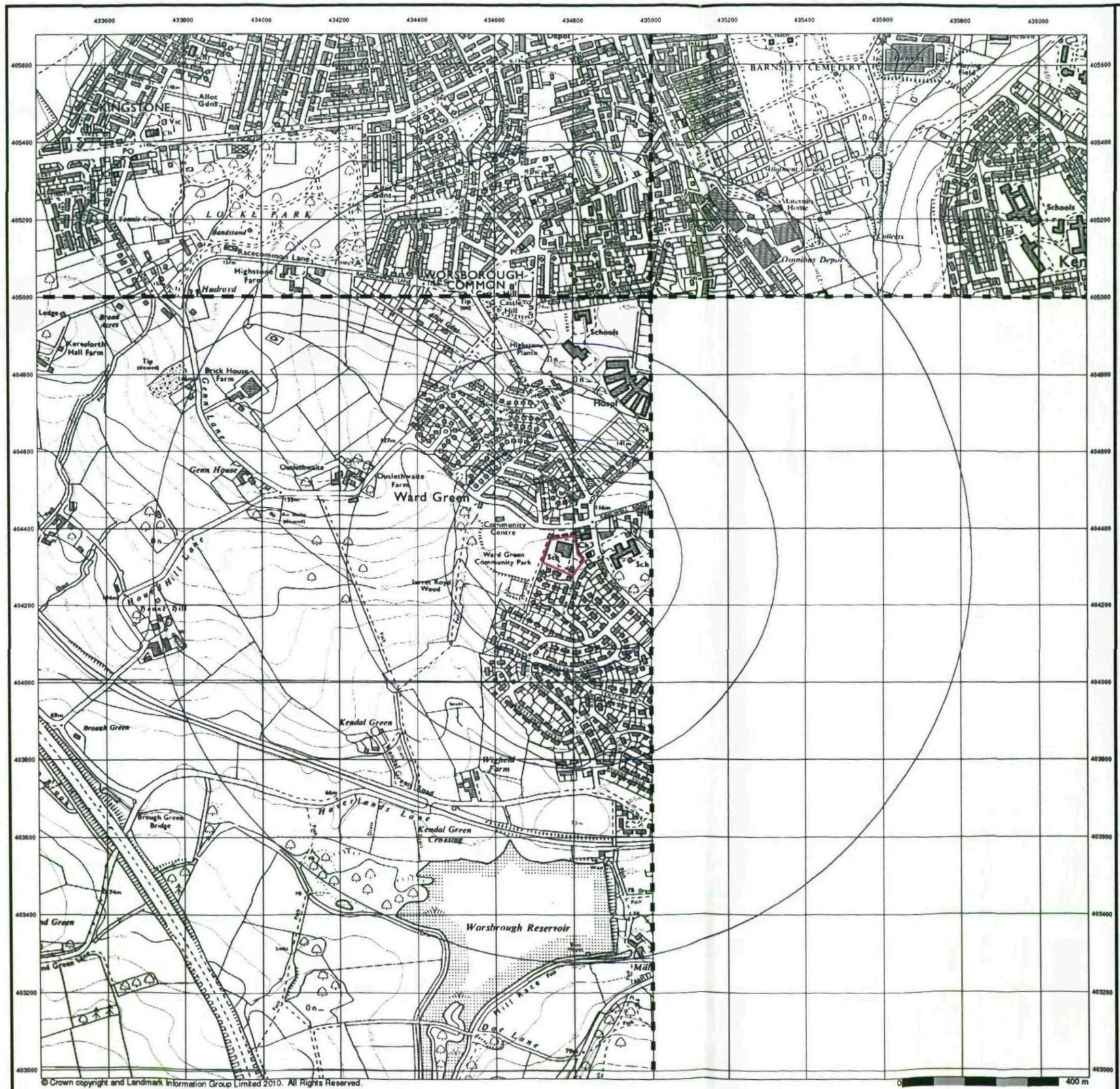
Order Details

Order Number:	33238200_1_1
Customer Ref:	10225 Ward Green Primary
National Grid Reference:	434780, 404330
Slice:	A
Site Area (Ha):	0.71
Search Buffer (m):	1000

Site Details

Ward Green Primary School, Worsbrough, BARNSLEY, South Yorkshire

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



Paul Waite Associates

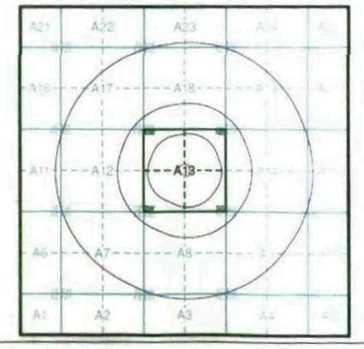
Ordnance Survey Plan
Published 1973 - 1978
Source map scale - 1:10,000

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 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 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 1973 1:10,000
SE30NE 1974 1:10,000
SE30SW 1978 1:10,000

Historical Map - Slice A



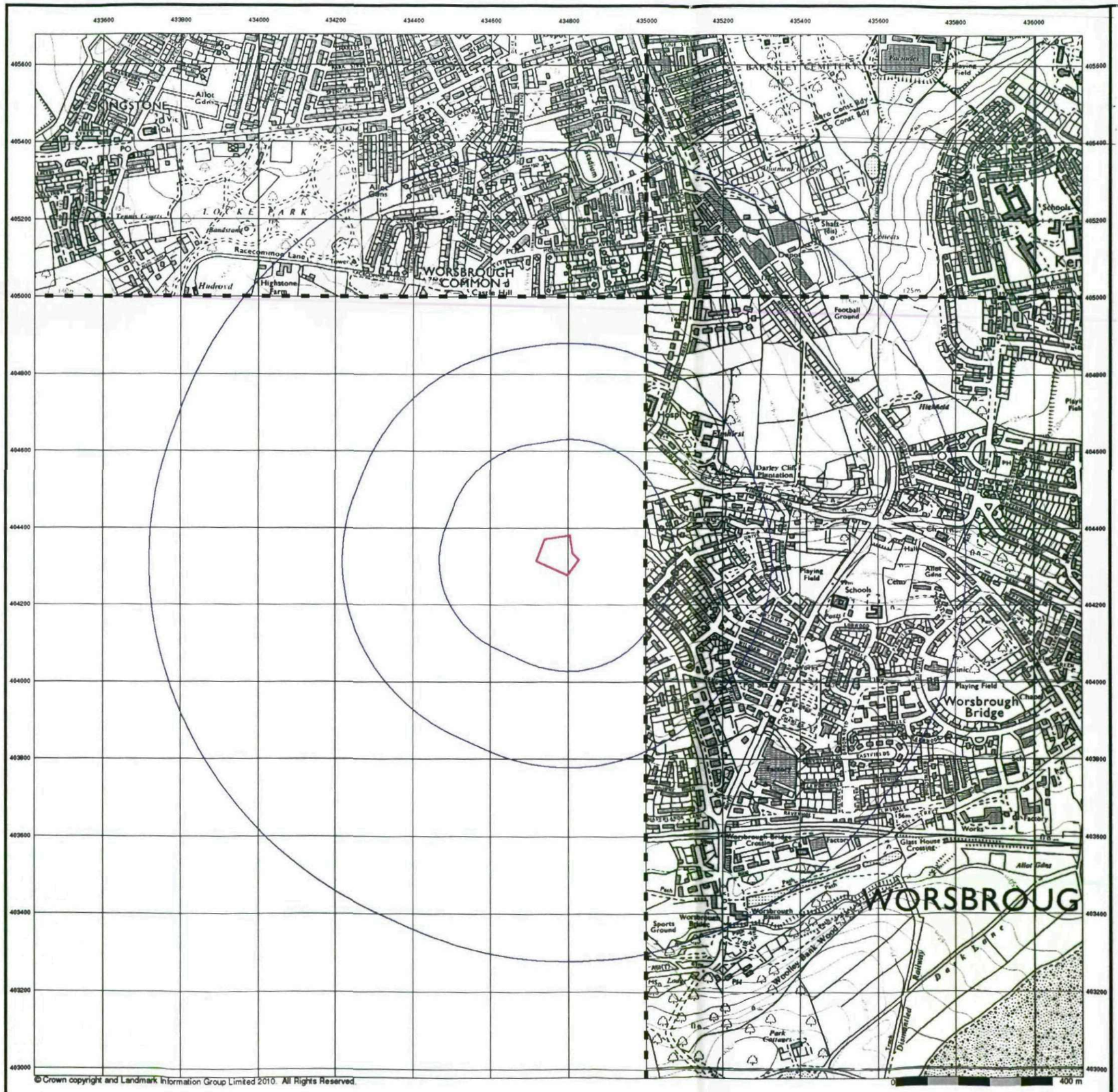
Order Details

Order Number:	33238200_1_1
Customer Ref:	10225 Ward Green Primary
National Grid Reference:	434780, 404330
Slice:	A
Site Area (Ha):	0.71
Search Buffer (m):	1000

Site Details

Ward Green Primary School, Worsbrough, BARNSLEY, South Yorkshire

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



© Crown copyright and Landmark Information Group Limited 2010. All Rights Reserved.

Paul Waite Associates

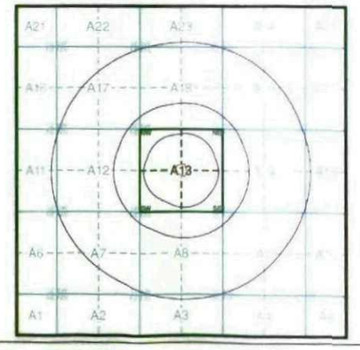
Ordnance Survey Plan
Published 1980 - 1984
Source map scale - 1:10,000

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 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 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)



Historical Map - Slice A



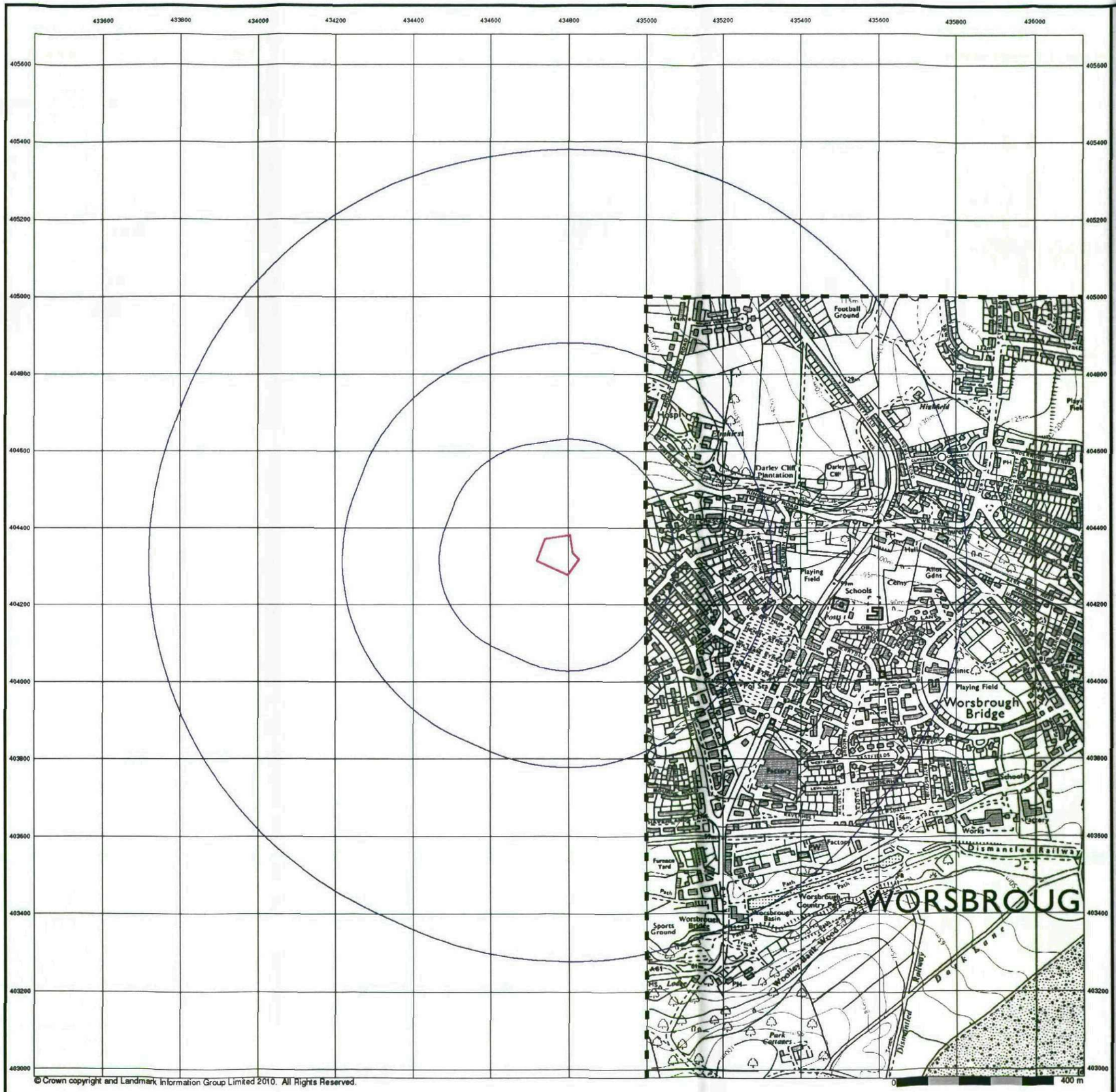
Order Details

Order Number:	33238200_1_1
Customer Ref:	10225 Ward Green Primary
National Grid Reference:	434780, 404330
Slice:	A
Site Area (Ha):	0.71
Search Buffer (m):	1000

Site Details

Ward Green Primary School, Worsbrough, BARNSLEY, South Yorkshire

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



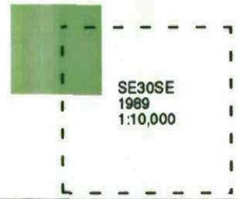
© Crown copyright and Landmark Information Group Limited 2010. All Rights Reserved.

Paul Waite Associates

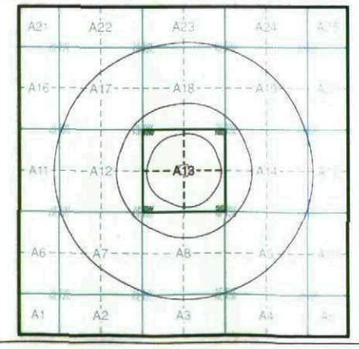
Ordnance Survey Plan
Published 1989
Source map scale - 1:10,000

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 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 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)



Historical Map - Slice A



Order Details

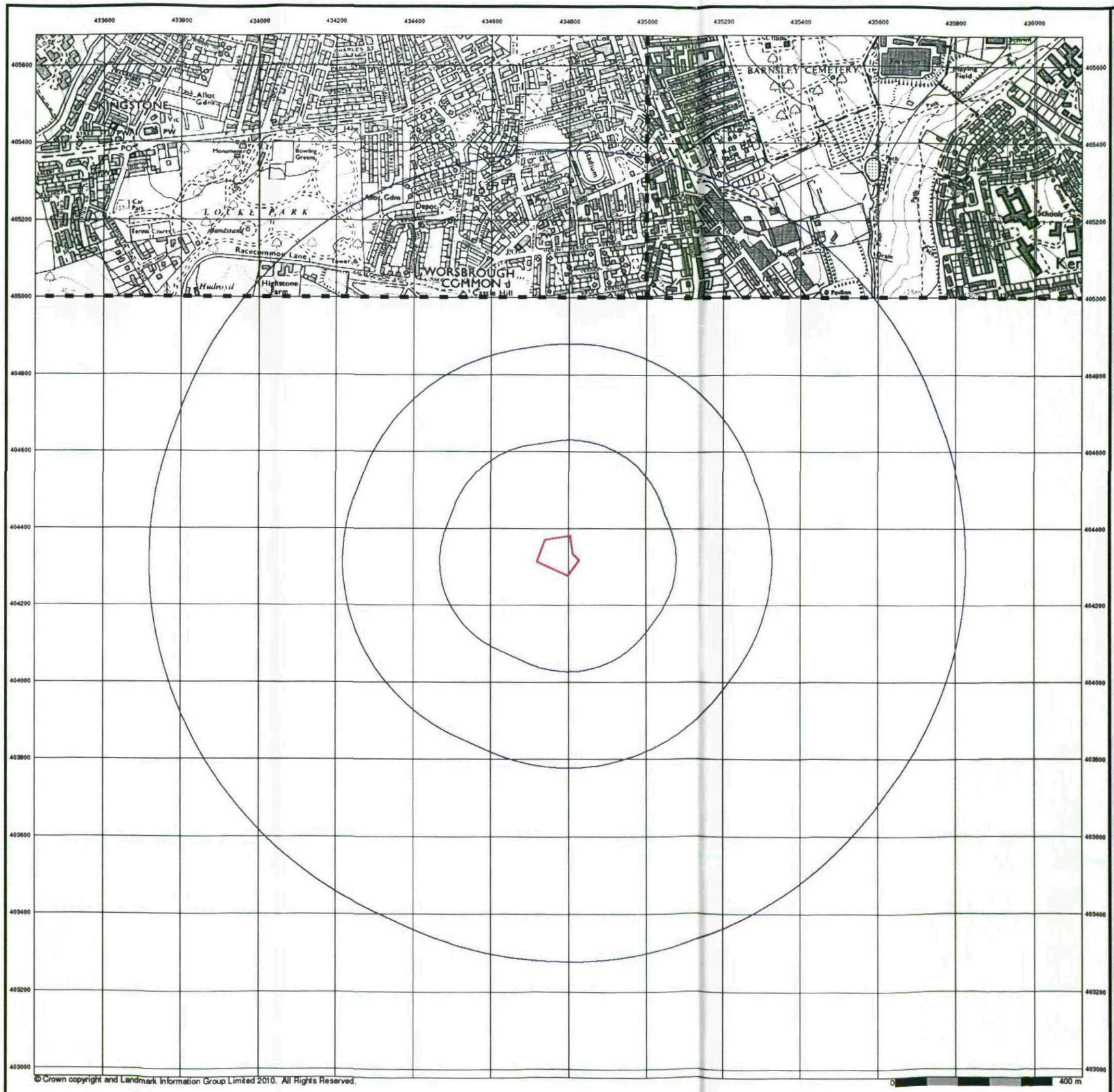
Order Number:	33238200_1_1
Customer Ref:	10225 Ward Green Primary
National Grid Reference:	434780, 404330
Slice:	A
Site Area (Ha):	0.71
Search Buffer (m):	1000

Site Details

Ward Green Primary School, Worsbrough, BARNSLEY, South Yorkshire

Landmark Information Group

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



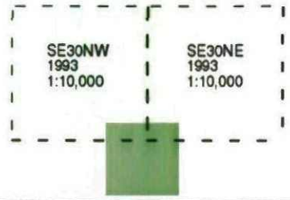
© Crown copyright and Landmark Information Group Limited 2010. All Rights Reserved.

Paul Waite Associates

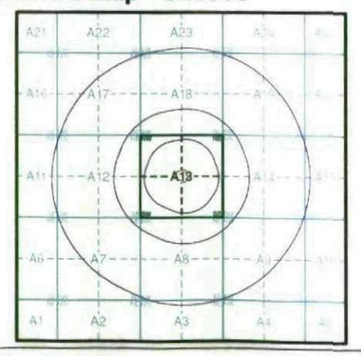
Ordnance Survey Plan
Published 1993
Source map scale - 1:10,000

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 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 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)



Historical Map - Slice A



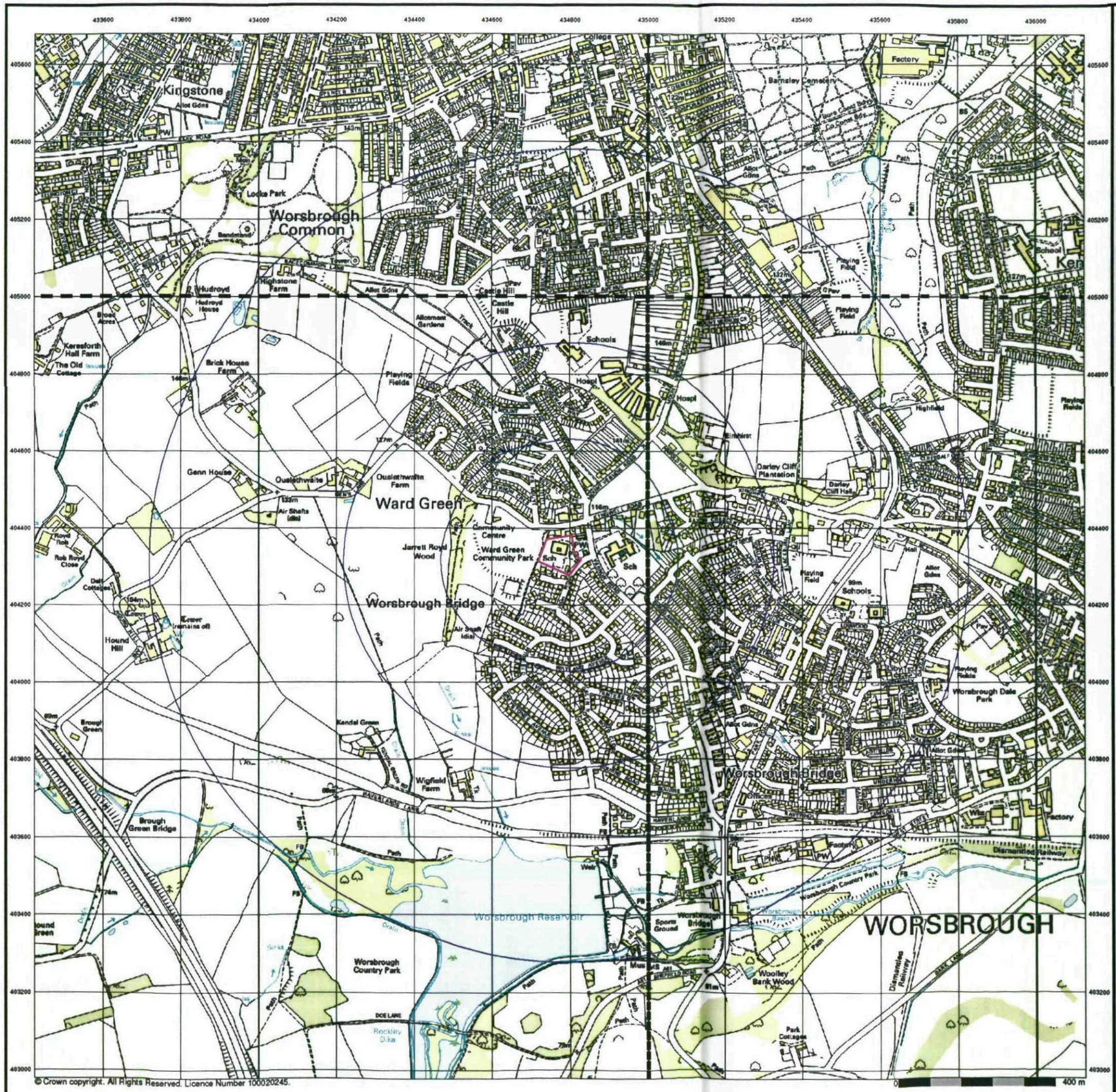
Order Details

Order Number:	33238200_1_1
Customer Ref:	10225 Ward Green Primary
National Grid Reference:	434780, 404330
Slice:	A
Site Area (Ha):	0.71
Search Buffer (m):	1000

Site Details

Ward Green Primary School, Worsbrough, BARNSLEY, South Yorkshire

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



Paul Waite Associates

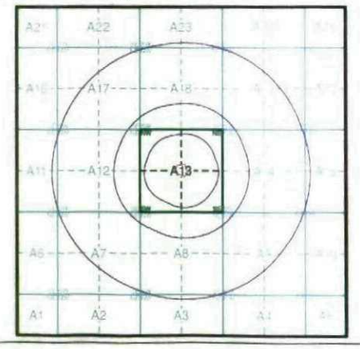
10k Raster Mapping
Published 2000
Source map scale - 1:10,000

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	SE30NE 2000 1:10,000
SE30SW 2000 1:10,000	SE30SE 2000 1:10,000

Historical Map - Slice A



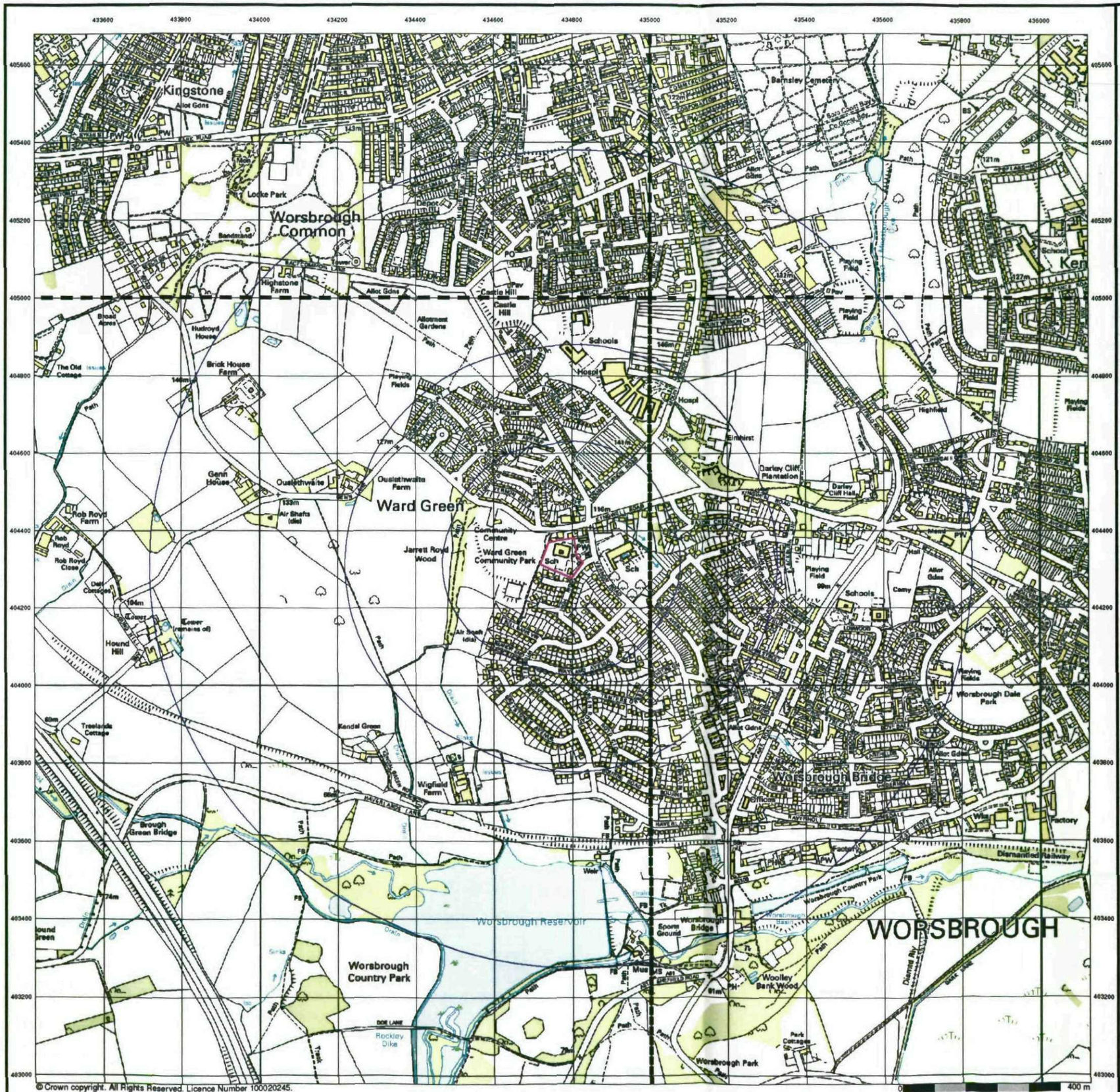
Order Details

Order Number:	33238200_1_1
Customer Ref:	10225 Ward Green Primary
National Grid Reference:	434780, 404330
Slice:	A
Site Area (Ha):	0.71
Search Buffer (m):	1000

Site Details

Ward Green Primary School, Worsbrough, BARNSLEY, South Yorkshire

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



© Crown copyright. All Rights Reserved. Licence Number 100020245.

Paul Waite Associates

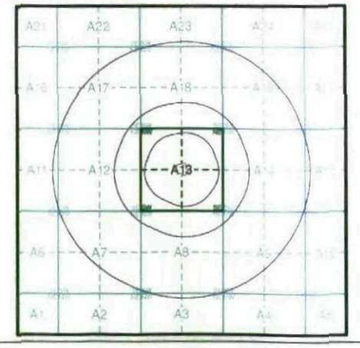
10k Raster Mapping
Published 2006
Source map scale - 1:10,000

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

Historical Map - Slice A



Order Details

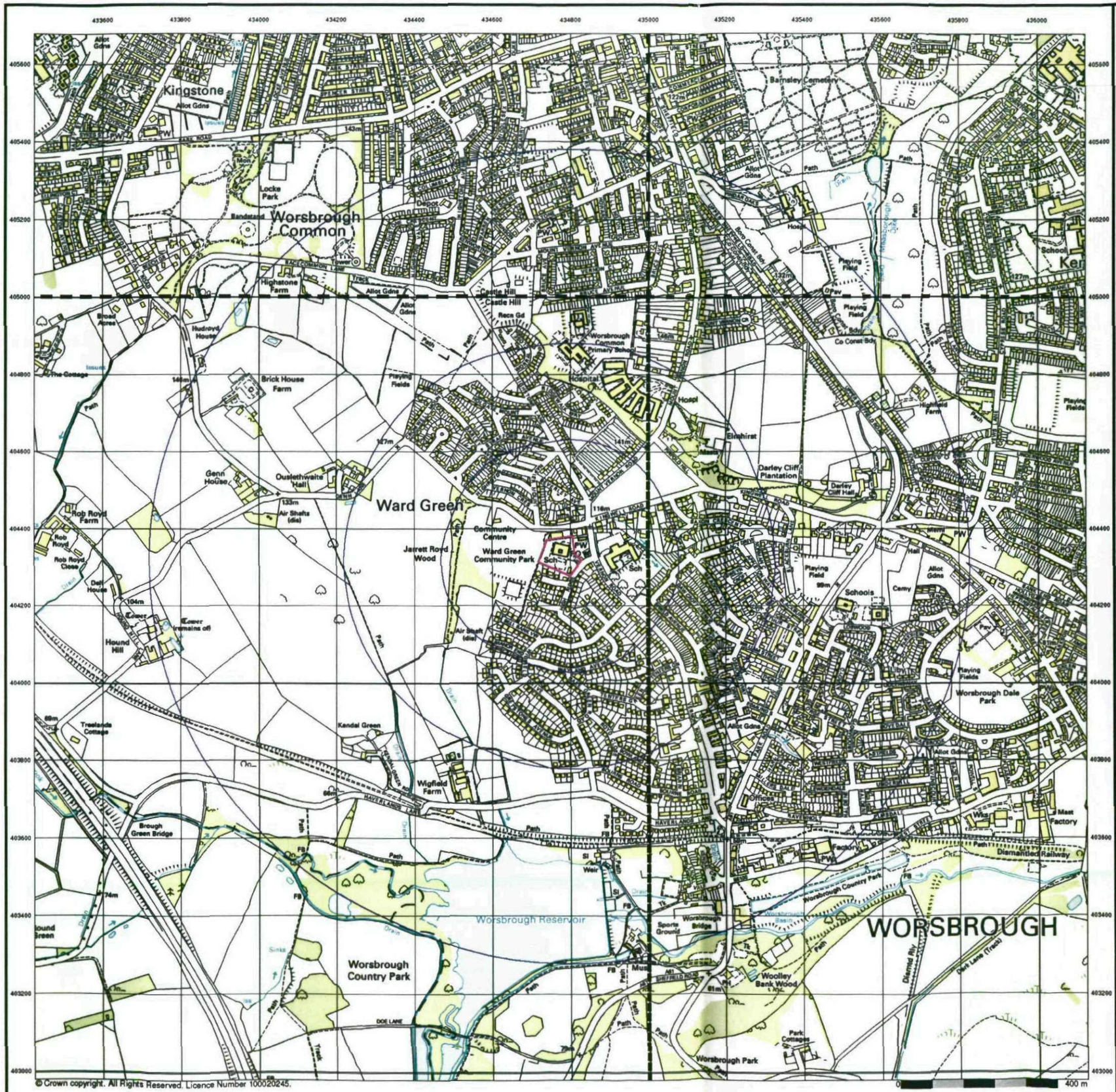
Order Number:	33238200_1_1
Customer Ref:	10225 Ward Green Primary
National Grid Reference:	434780, 404330
Slice:	A
Site Area (Ha):	0.71
Search Buffer (m):	1000

Site Details

Ward Green Primary School, Worsbrough, BARNSLEY, South Yorkshire

Landmark Information Group

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



Paul Waite Associates

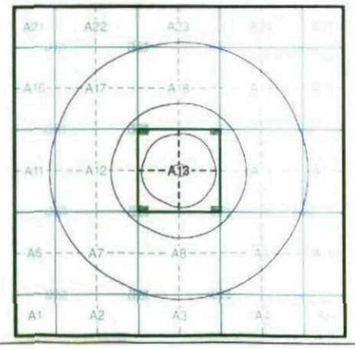
10k Raster Mapping
Published 2010
Source map scale - 1:10,000

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 2010 1:10,000	SE30NE 2010 1:10,000
SE30SW 2010 1:10,000	SE30SE 2010 1:10,000

Historical Map - Slice A



Order Details

Order Number:	33238200_1_1
Customer Ref:	10225 Ward Green Primary
National Grid Reference:	434780, 404330
Slice:	A
Site Area (Ha):	0.71
Search Buffer (m):	1000

Site Details

Ward Green Primary School, Worsbrough, BARNSLEY, South Yorkshire

Landmark Information Group

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