



Walsall Council

Geo-Environmental Desk Study Report

Former Allens Centre, Hilton Road, Willenhall

February 2016




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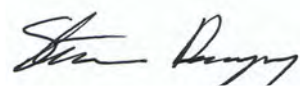
February 2016

Prepared By



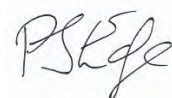
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Appendices

Appendix A	Site Photographs
Appendix B	Historical Maps
Appendix C	Walsall Council Memorandum
Appendix D	Coal Authority Report
Appendix E	Environmental Database Report

1 Introduction

1.1 Instruction

- 1.1.1 Opus International Consultants (Opus) were instructed by Walsall Council (The Client) to carry out a Geo-Environmental Desk Study Report of the former Allens Centre site at Hilton Road, Willenhall.
- 1.1.2 It is understood that the Client proposes to sell the site for residential development however no outline plans are currently available.

1.2 Objectives

- 1.2.1 The objectives of this Geo-Environmental Desk Study Report are as follows:
- to identify any potentially significant constraints to future proposed developments associated with the likely ground conditions prevalent beneath the site and the surrounding area;
 - to identify any potential areas of environmental liability associated with the site.

1.3 Limitations

- 1.3.1 This report has been prepared by Opus with all reasonable skill, care and attention within the terms of the Contract with the Client, Walsall Council, and taking account of the information made available by the Client, as well as the manpower and resources devoted to it by agreement with the Client. Opus disclaims any responsibility to the Client and others in respect of any matters outside the scope of the above Contract.
- 1.3.2 This report has been produced on behalf of the Client and no responsibility is accepted to any Third Party for all or any part. This report should not be relied upon or transferred to any other parties without the express written authorisation of Opus. If any unauthorised Third Party comes into possession of this report, they rely on it at their own risk and the authors owe them no duty of care or skill.
- 1.3.3 The desk study information has been obtained from a variety of sources, which Opus believes are reliable. Nevertheless, Opus cannot and does not guarantee the authenticity or reliability of the information it has relied upon from these sources.
- 1.3.4 Any site plans appended to this report should not be used for scaling purposes.

2 The Site

2.1 Location and Access

- 2.1.1 The site is located to the north of Hilton Road, Willenhall, and is shown on the appended **Site Location Plan (Drawing No. J-B0984.00/G001-A)** and centred on National Grid Reference 397380, 302190.
- 2.1.2 Access to the site can be gained from Hilton Road along the south eastern site boundary.

2.2 Site Description

- 2.2.1 The following section describes the site at the time of Opus' site visit in December 2015. Site photographs are included in **Appendix 'A'**.
- 2.2.2 The site can be accessed from Hilton Road to the south-east via a steel gate.
- 2.2.3 The site is approximately 1.35 hectares in area and is surrounded by approximately 2m high steel palisade fencing. It currently comprises flat ground of crushed material within the former footprint of the Allens Centre. A small two-storey building known as the 'Assessment House', remains in the eastern corner of the site along with front and rear gardens and is separated from the larger site by a continuation of the palisade fencing.
- 2.2.4 Tarmacadam hardstanding remains within the car parking areas to the east and south of the former building. The access road leading from Hilton Road, is located between the former building and the assessment house and runs north from Hilton Road to the rear (north) of the site.
- 2.2.5 Large grassed areas are found to the west and south-west and within the north-eastern corner of the site. Numerous semi-mature and mature trees and bushes are found along the boundaries and also within the site.
- 2.2.6 The site is relatively flat and levels appear to be in keeping with the surrounding area. Numerous underground services have been noted in the vicinity of the former building footprint.
- 2.2.7 The site is located within a predominantly residential area and is surrounded by houses and their associated gardens to the north, east and west. Adjacent to the southern boundary of the site is a raised wooded area, known as 'Allen's Rough' which stands approximately 8m above the site. It is understood that the mound is a remnant of a former colliery which once occupied the area.

3 Desk Study

3.1 Introduction

3.1.1 The following sources of information have been consulted as part of the desk study:

- (a) Opus Archives
- (b) Landmark Information Group Ltd 'Envirocheck' database report
- (c) Coal Authority Report
- (d) Selected County Series and Ordnance Survey plans
- (e) British Geological Survey 1:50,000 Map, Lichfield (Sheet 154) and BGS online Lexicon
- (f) British Geological Survey 1:10,000 Map, Lichfield (Sheet SJ 90 SE)
- (g) Environment Agency Website
- (h) BR 211 Radon; Guidance on Protective Measures for New Dwellings, 2007 Edition
- (i) The Coal Authority Interactive Map Viewer

3.2 Site History

- 3.2.1 A review of the site history has been undertaken in order to identify any previous potentially significant contaminative activities, located either on-site or off-site. This is summarised in Table 3.1.
- 3.2.2 Potential on-site contamination sources may present a risk to future site users and underlying and/or adjacent 'controlled waters'.
- 3.2.3 Neighbouring potential off-site contamination sources may also present a risk to soils and, if present, groundwater underlying the site through cross boundary migration or deposition of waste materials.
- 3.2.4 The history of the site is recorded over selected periods by inspected maps, copies of which are presented in **Appendix 'B'**. The account presented in this report is restricted by specific time periods represented by these maps only.

Table 3.1 Site History

Map Edition	Key Features	
	On Site	Off Site
1883 (1:10,560) 1884 (1:2,500)	The site comprised open farmland with sparse trees throughout.	The site is surrounded predominantly by open fields with the exception of a wooded area to the west of the site inferred as Allen's Rough. A series of small unnamed buildings presumed to be of agricultural use are shown, 150m south-west. A series of coal shafts were identified between 250-550m south-west. Sneyd Reservoir was shown 500m east.
1902 (1:2,500) 1902-03 (1:10,560)	No significant changes shown.	The unnamed buildings to the south-west were shown to as 'Allen's Rough Farm'.

Map Edition	Key Features	
	On Site	Off Site
1919 (1:2,500) 1921 (1:10,560)	No significant changes shown.	Allen's Rough Colliery was shown adjacent to the south western corner of the site, with associated open quarrying and two pits: No.1 and No.2. A supply tramway was shown originating at the colliery and heading north-west connecting to pits No.3 and No.4 of the Allen's Rough Colliery, 150m north-west.
1938 (1:2,500) 1938 (1:10,560)	A pond had formed within the north-east of the site.	Allen's Rough Colliery had become 'disused'. Allotment Gardens were shown 200m north-west. The former quarried area had begun to be infilled.
1950 (10,560) <i>Aerial photography</i>	No significant detail shown – poor scan quality.	No significant detail shown – poor scan quality.
1955 (1:10,000) 1956 (1:2,500)	Additional ponds had formed, one in the north of the site, and the other in the south-east corner associated with the large off-site pond adjacent to now raised bank. All of the pond areas were now mapped within an area of marshland.	The quarry had become completely infilled and had become a spoil heap with a flat plateau. This raised area had led to the ponding of the topographically lower surrounding areas including the south-east and south-western site boundary. Residential development had begun to the north and to the south of the site.
1969 (1:2,500)	No significant changes shown.	No significant changes shown.
1972 (1:1,2500) 1973 (1:10,000)	The two northern most ponds were no longer shown and are presumed to have been infilled.	The area to the west was no longer shown as marshland. The bank and raised area to the south has become wooded. A Shaft was shown 45m south, seemingly related to the historical No.2 Pit. A Scrap Metal Yard was shown 150m west of site, directly north of Allen's Rough Farm.
1977 (1:25,000) <i>Russian Map</i>	No significant details shown.	No significant details shown.
1981 (1:2,500) <i>Partial Coverage</i> 1982 (1:10,000)	The site was shown to be clear of all ponds. Allen's Rough Primary School was shown to occupy the site with an access road/cul-de-sac connecting it to Hilton Road to the south.	Significant residential development had occurred, with properties entirely surrounding the site, with the exception of the vegetated Allen's Rough mound to the south. The Scrap Metal Yard was no longer shown, instead occupied by residential buildings.
1989 (1:1,250)	The school structure was shown to have been extended to the west and a new separate structure appeared in the east.	The north of Allen's Rough was labelled as 'Play Area'.
1991 (1:10,000) 1992 (1:1,250)	No significant changes shown.	No significant changes shown.
2006 (1:10,000)	No significant changes shown.	No significant changes shown.
2015 (1:10,000) <i>Pre-demolition</i>	No significant changes shown.	No significant changes shown.

3.3 Geology, Hydrogeology and Hydrology

Geology

- 3.3.1 The superficial and bedrock geology of the area is shown on the British Geological Survey 1:50,000 Sheet 154 for Lichfield and is summarised in Table 3.2.

Table 3.2 Geology

Age	Stratigraphic Name	Location	Description
Devensian Age (QD)	Devensian Till	Beneath the site	Devensian Till is listed as the superficial deposit across the site and comprises <i>“boulder clay; unstratified gravelly clays.”</i>
Devensian Age (QD)	Glaciofluvial deposits	Approx 200m North-east	Glaciofluvial deposits are listed approximately 450m north of the site and comprise <i>“stratified sands and gravels.”</i> These could underlie the site at thicknesses of <2.0m.
Duckmantian (CB) to Bolsovian (CC)	Pennine Middle Coal Measures	Beneath the site	The Middle Coal Measures is listed as bedrock geology across the site and comprises <i>“Interbedded grey mudstone, siltstone, pale grey sandstone and commonly coal seams, with a bed of fossiliferous mudstone at the base and fossiliferous mudstone beds in the upper half of the unit.”</i>

- 3.3.3 A Memorandum from Walsall Council in reference to the site, presented as **Appendix ‘C’**, reports that Made Ground may be present on site to depths of 4-5m.
- 3.3.4 The Wyrley Bottom Coal is recorded at outcrop approximately 50m east and south-east of the site, oriented NE-SW and gently dipping to the north-west, it is therefore anticipated this coal seam will be encountered at a shallow depth beneath the site.
- 3.3.5 Extensive faulting pervades the area but of significant note is a NE-SW facing fault at surface, approximately 100m south of the site, with a throw of 8.20m towards the south-east against which the Wyrley Bottom Coal appears to terminate. Additionally, a NW-SE facing underground fault is present, encroaching onto the north of the site with a throw of 4.90m towards the south-west.

BGS Recorded Exploratory Holes

- 3.3.6 There are two relevant and accessible BGS recorded exploratory holes within 260m of the site boundary. Drilling dates were not shown. Results are summarised as follows:

Table 3.3 BGS Recorded Exploratory Holes

Reference	Distance & Direction from Site	Summary
SJ90SE407	130m North-west	Ground Level – 5.70m: Brown stiff gravelly CLAY with cobble content. 5.70m – 9.30m: Grey-black SHALE 9.30m – 9.60m: COAL 9.60m – 10.00m: Pale brown SHALE 10.00m – 11.90m: COAL 11.90m – 12.90m: Pale grey SHALE
SJ90SE408	120m West	Ground Level – 0.20m: FILL (coal and shale) 0.20m – 6.65m: Stiff brown sandy silty CLAY with cobbles and boulders 6.65m – 8.50m: Dark grey SHALE 8.50m – 9.20m: COAL 9.20m – 10.20m: Grey SHALE 10.20m – 10.60m: COAL 10.60m – 10.80m: Hard grey SHALE and SANDSTONE 10.80m – 11.20m: COAL 11.20m – 12.55m: Pale grey SEATEARTH and SHALE

BGS Estimated Soil Chemistry

3.3.7 The Envirocheck report provides a summary of the estimated soil chemistry for the site and surrounding area with background concentration ranges for Arsenic, Cadmium, Chromium, Lead and Nickel. The estimated ranges are summarised as follows:

- Arsenic = <15mg/kg
- Cadmium = <1.8mg/kg
- Chromium = 60-90mg/kg
- Lead = <150mg/kg
- Nickel = 15-30mg/kg

Hydrogeology

3.3.8 The Environment Agency classifies the bedrock geology underlying the site as a Secondary A Aquifer. This is defined as permeable layers capable of supporting water supplies at a local rather than strategic scale, and in some cases forming an important source of base flow to rivers. These are generally aquifers formerly classified as minor aquifers.

3.3.9 The Environment Agency classifies the superficial deposits underlying the site as an Unproductive Strata. This is defined as drift deposits with low permeability that have negligible significance for water supply or river base flow.

3.3.10 The site is not recorded as being within a Groundwater Source Protection Zone.

3.3.11 There are no groundwater abstractions recorded within 500m of the site.

Hydrology

- 3.3.12 The nearest surface water feature is an unnamed pond feature recorded 309m to the north of the site.
- 3.3.13 There are no surface water abstractions recorded within 1km of the site.
- 3.3.14 The Environment Agency indicates that the site is not at risk of flooding from rivers or sea.

3.4 Mineral Workings

- 3.4.1 According to The Coal Authority Interactive Map Viewer, Law Society's Guidance Notes and Directory of Coal Mining Searches, Willenhall is listed in the as a location that requires a Coal Mining Report which is included in **Appendix 'D'**. The report has identified the following key issues:
- The property is in the likely zone of influence from workings in 4 seams of coal at 30m to 100m depth, and last worked in 1933.
 - The property is not in the likely zone of influence of any present underground coal workings.
 - 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 or where a licence has been granted.
 - Reserves of coal exist in the local area which could be worked at some time in the future.
 - Within, or within 20 metres of, the boundary of the property there are no known coal mine entries. However, records may be incomplete and consequently, coal mine entries may exist in the local area, mine entries of which the Coal Authority has no knowledge.
 - The property is not within the boundary of an opencast site from which coal has been or is planned to be removed by opencast methods.
- 3.4.2 Nine BGS recorded Mineral Sites are shown within 1km of the site. The nearest is located 82m south-west of the site at Allen's Rough Colliery (No.1 and No.2 Pits) where deep coal was mined using underground techniques. The activity has now ceased.
- 3.4.3 According to the Walsall Council Memorandum, no known mine entry points occur on site. The closest is shown approximately 60m south of site.

3.5 Environmental Considerations

- 3.5.1 The 'Envirocheck' database report comprises a summary of statutory data held on public registers which can be used to identify potential sources of contamination on the site and within a search radius of 1km. In addition, the report data which can be used to identify potential receptors of contamination on the site and within 1km.
- 3.5.2 Specific details relating to the environmental setting of the site are included within the Environmental Database Report presented as **Appendix 'E'**. The salient issues which relate to the site are summarised in the following sections.

Substantiated Pollution Incident Register

- 3.5.3 There is one recorded Substantiated Pollution Incidents within 1km of the site, with details as follows:

Table 3.4 Substantiated Pollution Incident Register

Name	Distance & Direction from Site	Pollutant	Category
Environment Agency - Midlands Region, Central Area	693m North-east	Specific Waste Materials: Household Waste	Category 2 - Significant Incident to land Category 4 - No Impact to water and air

BGS Recorded Landfill Sites

3.5.4 There is one recorded Historical Landfill Site within 1km of the site, with details as follows:

Table 3.5 BGS Recorded Landfill Sites

Site Name	Location	Distance & Direction from Site	Specified Waste Type
Bunsnips Road Tip	Essington, Staffs	805m North	Not Supplied

Historical Landfill Sites

3.5.5 There are four recorded Historical Landfill Site within 1km of the site, with details as follows:

Table 3.6 Historical Landfill Sites

Licence Holder	Distance & Direction from Site	Input Dates	Specified Waste Type
Not Supplied	126m South-west	Last Input Date: 7/06/1977	Deposited Waste included Industrial Waste and Liquid Sludge
Wolverhampton Metropolitan Borough Council	704m North-west	Not Supplied	Deposited Waste included Commercial and Household Waste
Not Supplied	805m North	First Input Date: 1/07/1971	Deposited Waste included Commercial Waste
Not Supplied	868m North-east	Not Supplied	Deposited Waste included Commercial and Household Waste

Local Authority Recorded Landfill Sites

3.5.6 There are three recorded Local Authority Recorded Landfill Site within 1km of the site, with details as follows:

Table 3.7 Local Authority Recorded Landfill Sites

Location	Distance & Direction from Site	Status	Key Dates	Specified Waste Type
Kitchen Lane	790m North-west	Unknown	Not Supplied	Not Supplied
Bursnip Road, Essington	801m North	Unknown	Not Supplied	Not Supplied
Mossley Tip	873m North-east	Closed	Not Supplied	Not Supplied

Registered Landfill Sites

3.5.7 There is one recorded Registered Landfill Site within 1km of the site, with details as follows:

Table 3.8 Registered Landfill Sites

Licence Holder	Distance & Direction from Site	Input Dates	Specified Waste Type
C Boydon	932m North	Site Closed: 22/06/1992	Inert Soils & Subsoils

Contemporary Trade Directory Entries

3.5.8 There are twentythree inactive and fourteen active Contemporary Trade Directory Entries within 1km of the site. Activities include the following:

Table 3.9 Contemporary Trade Directory Entries

Classification	Number Active	Number Inactive
Agricultural Engineers		1
Air Compressors		1
Brake & Clutch Service Centres		1
Car Body Repairs		1
Carpet, Curtain & Upholstery Cleaners		1
Coal & Smokeless Fuel Merchants & Distributors		1
Cleaning Materials & Equipment	1	
Cleaning Services - Domestic		2
Commercial Cleaning Services	1	1
Crane Hire, Sales & Service	1	
Engineering Services	1	
Fascias and Soffits		1
Gas Appliances - Sales & Service		1
Gate Manufacturers	1	
Garage Services	1	2
Industrial Engineers		1
Lawnmowers & Garden Machinery - Sales & Service	1	
Lock Suppliers and Manufacturers		1
Mechanical Engineers		1
Pest & Vermin Control	1	
Petrol Filling Stations	1	
Petrol Filling Stations - 24 Hour		1
Powder Coatings		1
Printers	1	
Safes & Vaults - Suppliers & Installers		1
Salvage Dealers	1	
Steam Cleaning Services		1
Tyre Dealers	1	1
Washing Machines - Servicing & Repairs	1	
Waste Disposal Services		1
Wheelie Bin Cleaning	1	
Wrought Ironwork		1

Other Items

3.5.9 There are other categories that the Envirocheck Report indicates not being present within 500m of the site. These include:

- Integrated Pollution Controls and Integrated Pollution Prevention And Control
- Local Authority Pollution Prevention and Controls
- Local Authority Pollution and Control Enforcements
- Pollution Incidents to Controlled Waters
- Prosecutions Relating to Authorised Processes / Controlled Waters
- Registered Radioactive Substances
- Substantiated Pollution Incident Register
- Licensed Waste Management Facilities
- Registered Waste Treatment or Disposal Sites
- Fuel Station Entries
- Control of Major Accident Hazards Sites (COMAH)
- Notification of Installations Handling Hazardous Substances (NIHHS)

3.6 Radon

3.6.1 Reference to the 'Envirocheck' database report and BR211: 2015 indicates that the site is in a lower probability radon area where less than 1% of homes are above the radon action level, and as such no radon protective measures are necessary in the construction of new buildings.

4 Preliminary Conceptual Site Model

4.1 Background

- 4.1.1 The Contaminated Land (England) Regulations provide a risk based approach to contaminated land in England. The government has adopted a 'suitable for use' criteria under the Regulations. This means that remediation is only required to the standard which is acceptable for the use of a site.
- 4.1.2 Land is only defined as 'contaminated' under the Regulations where it appears to the regulatory authority that:
- Significant environmental harm is being caused, or is likely to be caused; or
 - Significant pollution of controlled waters is being caused, or is likely to be caused.
- 4.1.3 Risk is defined as the combination of:
- The probability, or frequency, of occurrence of a defined hazard; and
 - The magnitude (including the seriousness) of the consequences.
- 4.1.4 For a risk of environmental harm or pollution to occur as a result of contaminated land, all of the following elements must be present:
- A **Source**, i.e. a contaminant which could cause harm to health and/or the environment. Sources include current and historical uses, activities and events either on the site or in the surrounding area;
 - A **Receptor**, i.e. a target which could be harmed by the contaminant. Receptors include both human and non-human organisms, 'controlled waters' (groundwater and surface water) and building materials (concrete and plastic); and
 - A **Pathway**, i.e. a route by which contaminants could move from a source to a receptor.
- 4.1.5 A **Pollutant Linkage** occurs when a contaminant is able to move from a source, via a pathway to a receptor. Each element may exist in isolation and pose no environmental risk. It is only when all three elements are linked to each other that a pollution linkage exists, and poses an environmental risk. If all three elements are present, then the magnitude of the risk is a function of the mobility of the source, the sensitivity of the receptor and the nature of the pathway.
- 4.1.6 Environmental risks associated with pollutant linkages at a site are assessed on the basis of information obtained from the desk study, site observations and laboratory testing results and are ranked into the following categories:
- **High:** A pollutant linkage is present and this poses a significant risk to the identified receptors(s). Action must be taken to remove the pollutant linkage and/or reduce the risk.
 - **Medium:** A pollutant linkage is present and there is sufficient evidence to suggest that this is likely to pose a significant risk to the identified receptors(s). Further investigation and assessment should be undertaken to confirm this.

- **Low:** A pollutant linkage is present and there is sufficient evidence to suggest that this is unlikely to pose a significant risk to the identified receptors(s). Further investigation and assessment may be undertaken to confirm this.
- **Negligible:** A pollutant linkage may be present but this poses no significant risk to the identified receptors(s).

4.2 Potential Sources of Contamination

4.2.1 The following potential **on-site** sources of contamination have been identified:

- Potential metal, phenol, PAH, TPH and asbestos contamination within Made Ground, including the infilling of the former ponds on the site;
- Potential ground gas generation from organic materials within Made Ground;
- Potential for elevated water-soluble sulphate concentrations;

4.2.2 The following potential **off-site** sources of contamination have been identified:

- Potential migration of ground gases from organic materials within Made Ground off site.

4.3 Potential Migration Pathways

4.3.1 The following potential migration pathways have been identified:

- **Inhalation:** Breathing dust and vapours from contaminated soil in outdoor air. Vapours can also migrate into buildings resulting in inhalation by the occupants.
- **Ingestion:** Eating and swallowing of contaminated soil either by deliberate consumption, indirectly by eating or smoking with dirty hands or by ingestion of fugitive dust.
- **Dermal Contact:** Direct contact with contaminated soil and groundwater, causing skin conditions such as dermatitis etc. Certain contaminants can be absorbed into the body through the skin or enter directly through open cuts or abrasions.
- **Leaching:** Infiltration of water through soil can leach out soluble contaminants resulting in groundwater pollution.
- **Migration of Hydrocarbons:** Mobile contaminants such as hydrocarbons can migrate through near surface materials and impact adjoining land.
- **Migration of Contaminated Water:** Contaminated water can migrate laterally or vertically dependent on permeability, preferential pathways, man-made voids etc.
- **Migration of Ground Gas/Vapours:** Ground gases/vapours can migrate laterally or vertically through permeable or voided ground and accumulate within unprotected buildings.
- **Aggressive Attack:** Building materials can be damaged by direct contact with aggressive ground conditions, for example sulphate attack on concrete.

4.4 Potential Receptors of Contamination

4.4.1 The following potential human health and environmental receptors have been identified:

- Future Site Users (e.g. retail workers, student residents)
- Construction and Maintenance Workers
- Groundwater in underlying Secondary A Aquifer
- Buried concrete and plastics (e.g. concrete foundations and water supply pipes)

4.5 Pollutant Linkages and Environmental Risks

4.5.1 The preliminary **Source-Pathway-Receptor** relationships identified for the site bearing in mind the proposed redevelopment of the site are summarised as follows:

Table 4.1 Preliminary Source-Pathway-Receptor Relationships

Source Material/Activity	Potential Contaminant	Pathways	Receptor	Risk
Made Ground on site	Metals; Phenol; PAH; TPH.	Inhalation; Ingestion; Dermal contact.	Future site occupiers; Construction workers; Maintenance workers.	Medium
Made Ground on site	Asbestos containing materials	Inhalation.	Future site occupiers; Construction workers; Maintenance workers.	Medium
Made Ground on site	Methane; Carbon Dioxide; Carbon Monoxide; Hydrogen Sulphide	Migration through permeable strata and accumulation inside buildings	Future site occupiers; Construction workers; Maintenance workers.	Medium
Made Ground and natural coal Measures	Water-soluble Sulphate.	Aggressive attack	Buried concrete	Medium
Made Ground on site and on adjacent sites	Metals; Phenol; PAH; TPH.	Migration of mobile contaminants through permeable strata	Secondary A Aquifer	Low
Made Ground on adjacent sites	Methane; Carbon Dioxide; Carbon Monoxide; Hydrogen Sulphide	Migration through permeable strata and accumulation inside buildings	Future site occupiers; Construction workers; Maintenance workers.	Low

5 Conclusions and Recommendations

5.1 Proposals

- 5.1.1 It is proposed that the site is to be redeveloped with residential properties, however no specific site plan has been established at this point.

5.2 Environmental Issues

- 5.2.1 Prior to the construction of the Allens Centre (former Allen's Rough Primary School) the site was undeveloped. A colliery was adjacent to the site boundary and a spoil heap of material was deposited to the south-west of the site, after the colliery was decommissioned. The topographic troughs adjacent to the spoil heap including areas on site became areas of ponding. These ponds were infilled prior to site development. Hence, there is potential for a significant layer of Made Ground to be present across the site.
- 5.2.2 The site is underlain by an Unproductive superficial strata and a Secondary A solid geology aquifer. There are no recorded abstraction licenses within 500m of the site. Hence the site is considered to be in an area of low sensitivity in respect of controlled waters.
- 5.2.3 Potential risks have been identified at the site relating to both human health and controlled waters. It is recommended that these potential risks are assessed further through an appropriate intrusive investigation which should be sufficient to enable development of a remedial strategy for the site.

5.3 Geotechnical Issues

- 5.3.1 The site is likely to be underlain by significant thicknesses of Made Ground overlying potentially soft and low strength superficial clays. It is likely therefore that an appropriate foundation solution may require vibro ground improvement or trench fill foundations in order to fully penetrate the Made Ground and unsuitable shallow natural strata and found on deeper, competent strata.
- 5.3.2 The influence of worked coal seams beneath the site must also be taken into consideration and should seams be proven then a programme of proof drilling and grouting may be required.

5.4 Proposed Investigation

- 5.4.1 The site should be subjected to a tailored ground investigation to assess both the environmental and geotechnical issues identified within this report. Given that the site is disused, it is recommended that the investigation should comprise a combination of window sampling and trial pitting within the shallow strata to assess potential contamination levels and trench stability and rotary boreholes to determine the presence of worked or intact coal seams beneath the site. The investigation should include the installation of monitoring wells and subsequent groundwater/gas monitoring.
- 5.4.2 The investigation should enable appropriate testing to clarify the environmental and human health risks identified within this report and to enable formulation of an appropriate

remediation strategy as well as geotechnical analysis to assist in foundation, floor slab and pavement design.

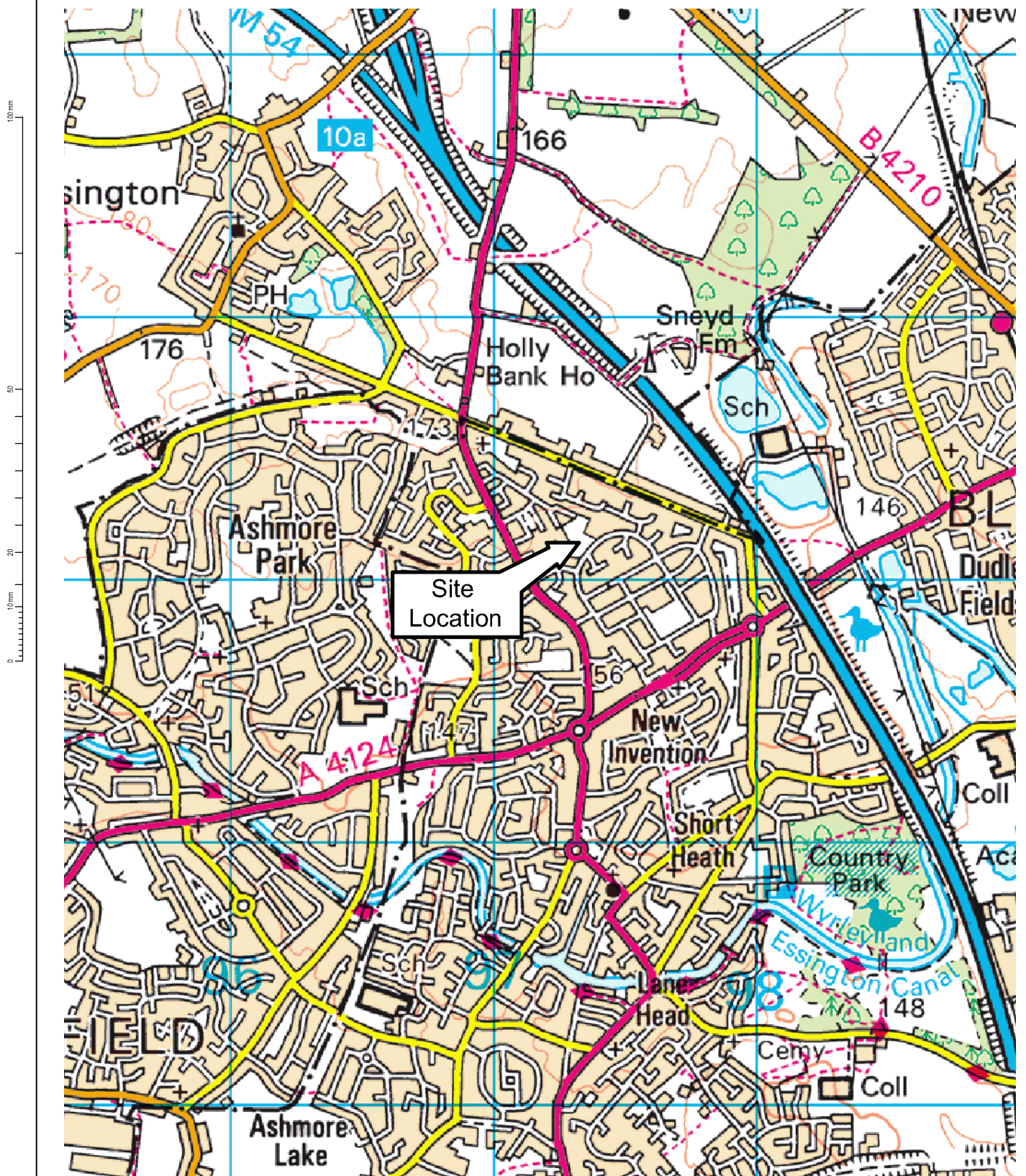
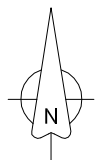


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DRAWINGS



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Birmingham B37 7YG

Designed	Approved	Approved Date
CC	SMD	Dec 2015
Drawn	Scale	
CC	Not to Scale	

Project
Hilton Road,
Willenhall

Sheet
Site Location Plan

Project Drawing No.
J-B0984.00

Sheet No.	Revision
G001	A

APPENDIX A

Site Photographs



The site entrance in the far east of site, taken from Hilton Road facing north-west



The site entrance in the far east of site, taken from the east of site facing south-east



The Assessment House in the far east of site, taken from Hilton Road facing north



The second site entrance in the south-east, taken from the centre of site facing south-east



A road through the site, taken from the north of site, facing south-east



Crushed material over demolished Allens Centre building footprint, taken from the north facing south



Car parking area in the west, taken from the centre of site facing west



Mixed hard and soft surfacing, taken from the east of site facing south-west



Mixed hard and soft surfacing, taken from the west of site facing east



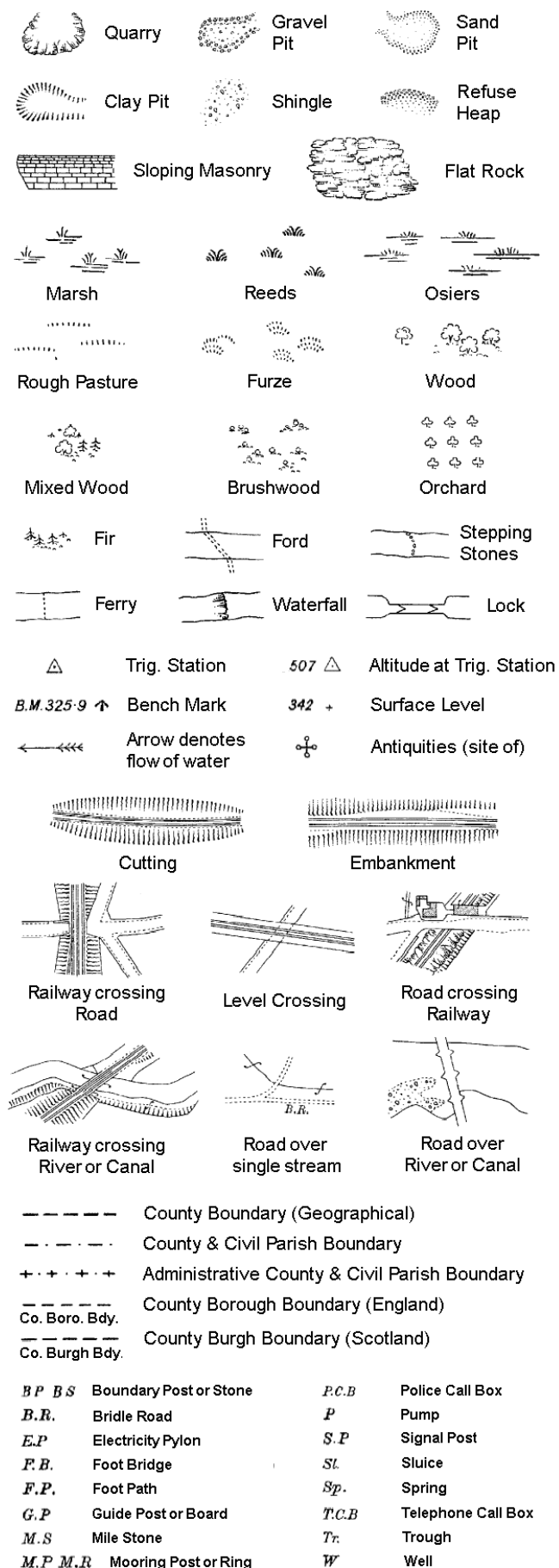
Grassed area in the west of site, taken from the centre of site facing west

APPENDIX B

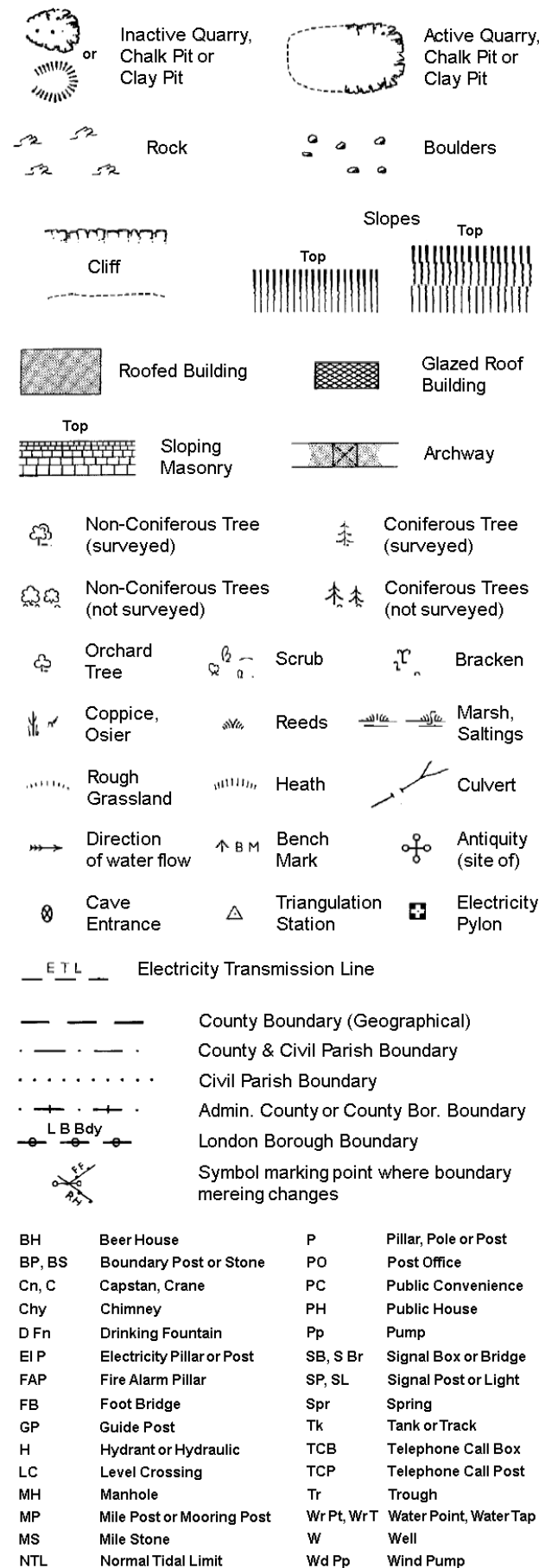
Historical Maps

Historical Mapping Legends

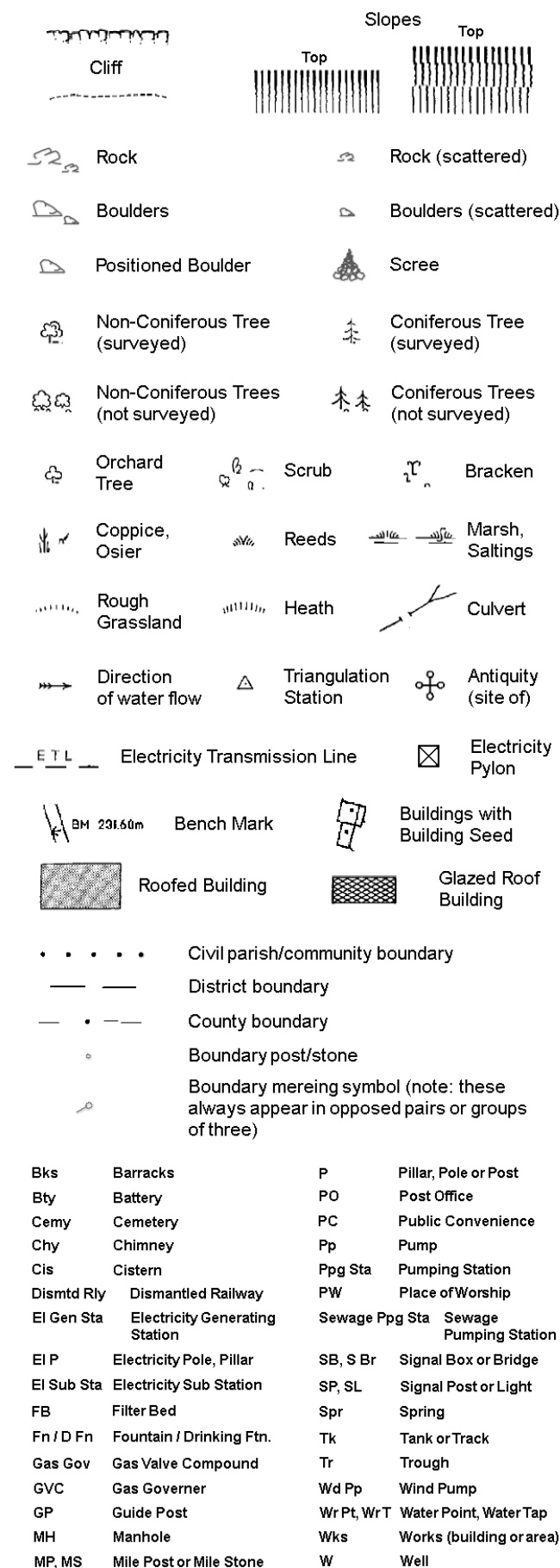
Ordnance Survey County Series and Ordnance Survey Plan 1:2,500



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



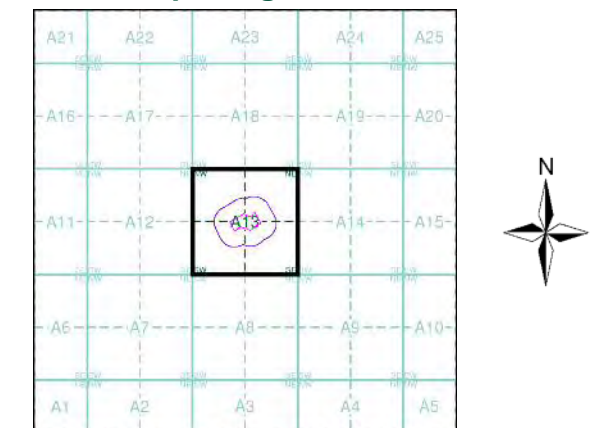
Large-Scale National Grid Data 1:2,500 and 1:1,250



Historical Mapping & Photography included:

Mapping Type	Scale	Date	Pg
Staffordshire	1:2,500	1884 - 1886	2
Staffordshire	1:2,500	1902	3
Staffordshire	1:2,500	1914 - 1919	4
Staffordshire	1:2,500	1938	5
Ordnance Survey Plan	1:2,500	1956 - 1957	6
Ordnance Survey Plan	1:1,250	1956 - 1957	7
Ordnance Survey Plan	1:1,250	1966 - 1972	8
Ordnance Survey Plan	1:2,500	1969	9
Ordnance Survey Plan	1:1,250	1975 - 1989	10
Additional SIMs	1:1,250	1978 - 1989	11
Additional SIMs	1:1,250	1982 - 1991	12
Large-Scale National Grid Data	1:1,250	1992	13

Historical Map - Segment A13



Order Details

Order Number: 76524890_1_1
Customer Ref: J-B0984.00
National Grid Reference: 397380, 302190
Slice: A
Site Area (Ha): 1.35
Search Buffer (m): 100

Site Details

Allens Centre, Hilton Road, Willenhall, WV12 5XB



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Fax: 0844 844 9951
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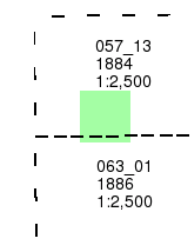
Staffordshire

Published 1884 - 1886

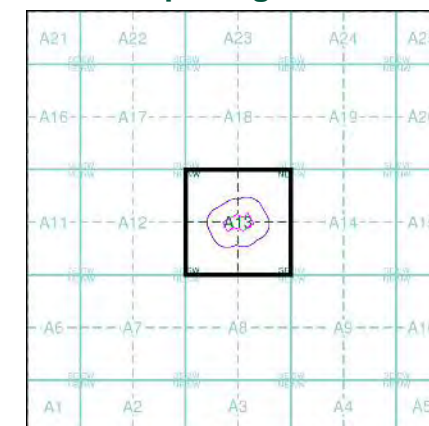
Source map scale - 1:2,500

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

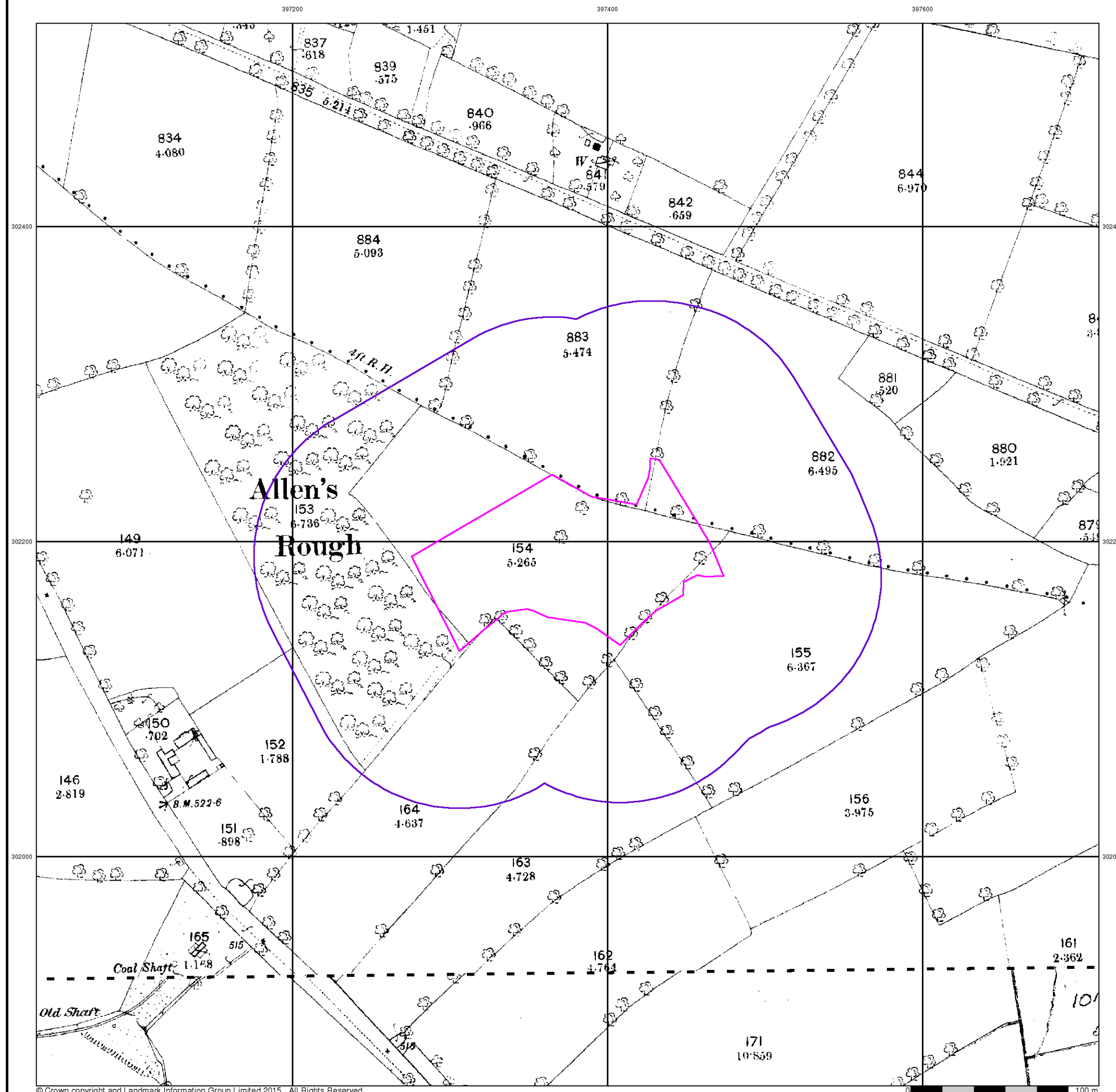
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National Grid Reference: 397380, 302190
Slice: A
Site Area (Ha): 1.35
Search Buffer (m): 100

Site Details

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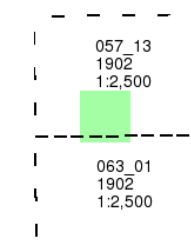
Staffordshire

Published 1902

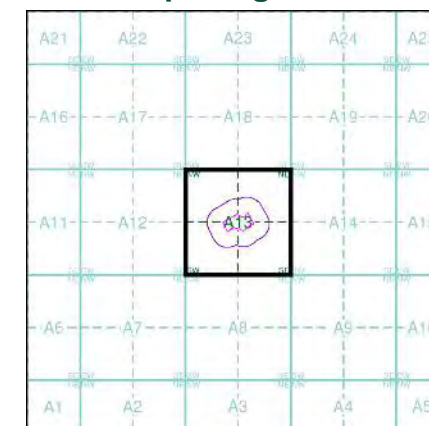
Source map scale - 1:2,500

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

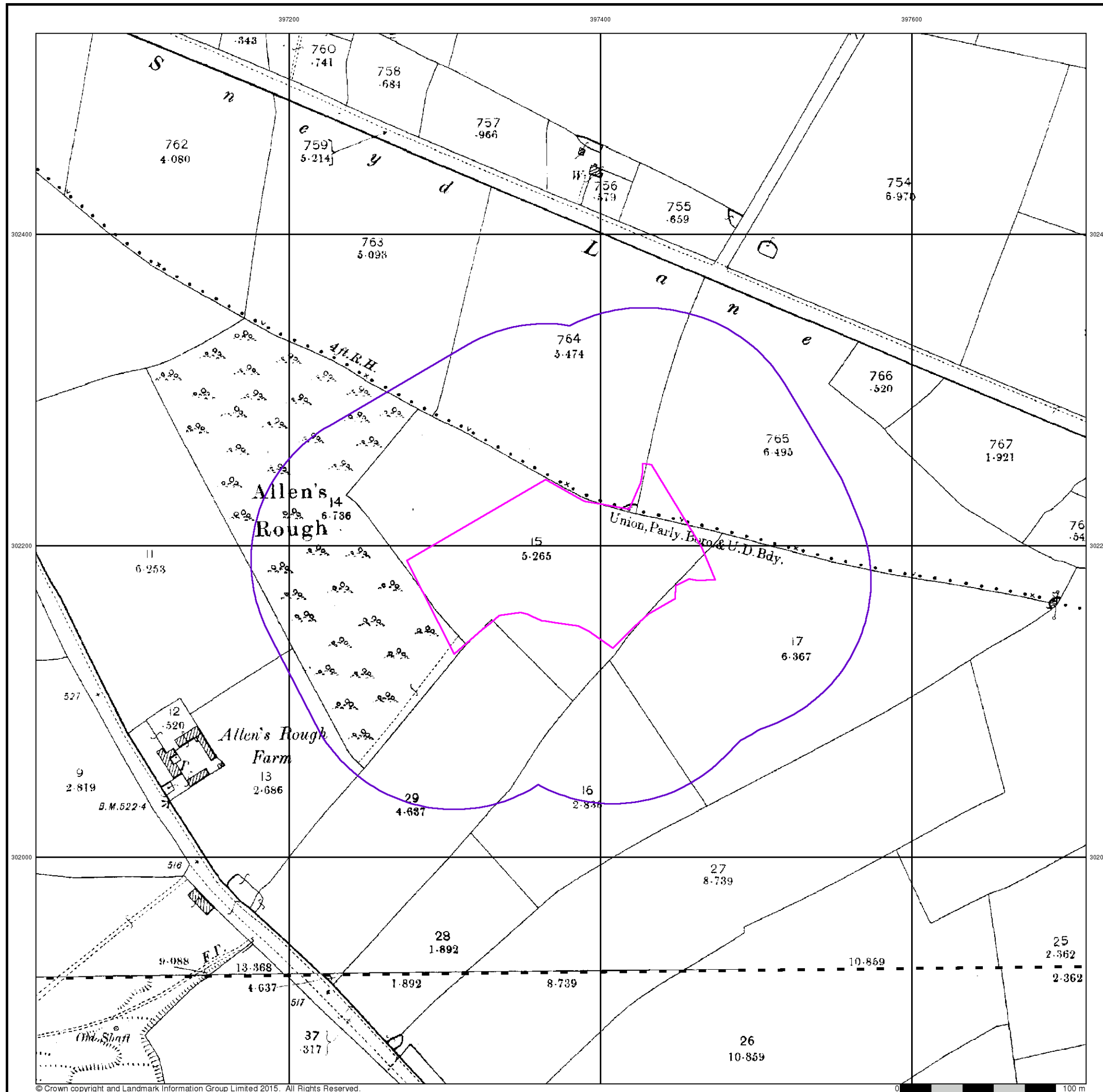
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Customer Ref: J-B0984.00
National Grid Reference: 397380, 302190
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Site Area (Ha): 1.35
Search Buffer (m): 100

Site Details

Allens Centre, Hilton Road, Willenhall, WV12 5XB



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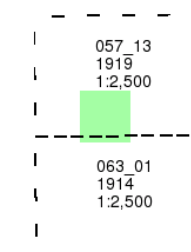
Staffordshire

Published 1914 - 1919

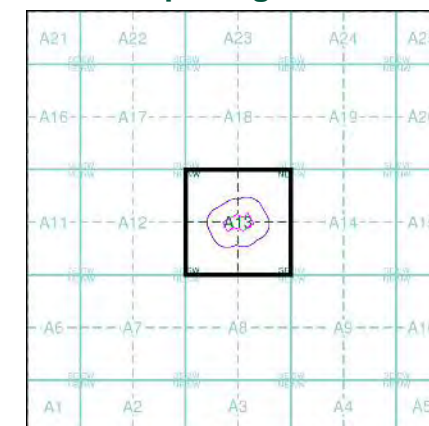
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The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas and by 1896 it covered the whole of what were considered 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

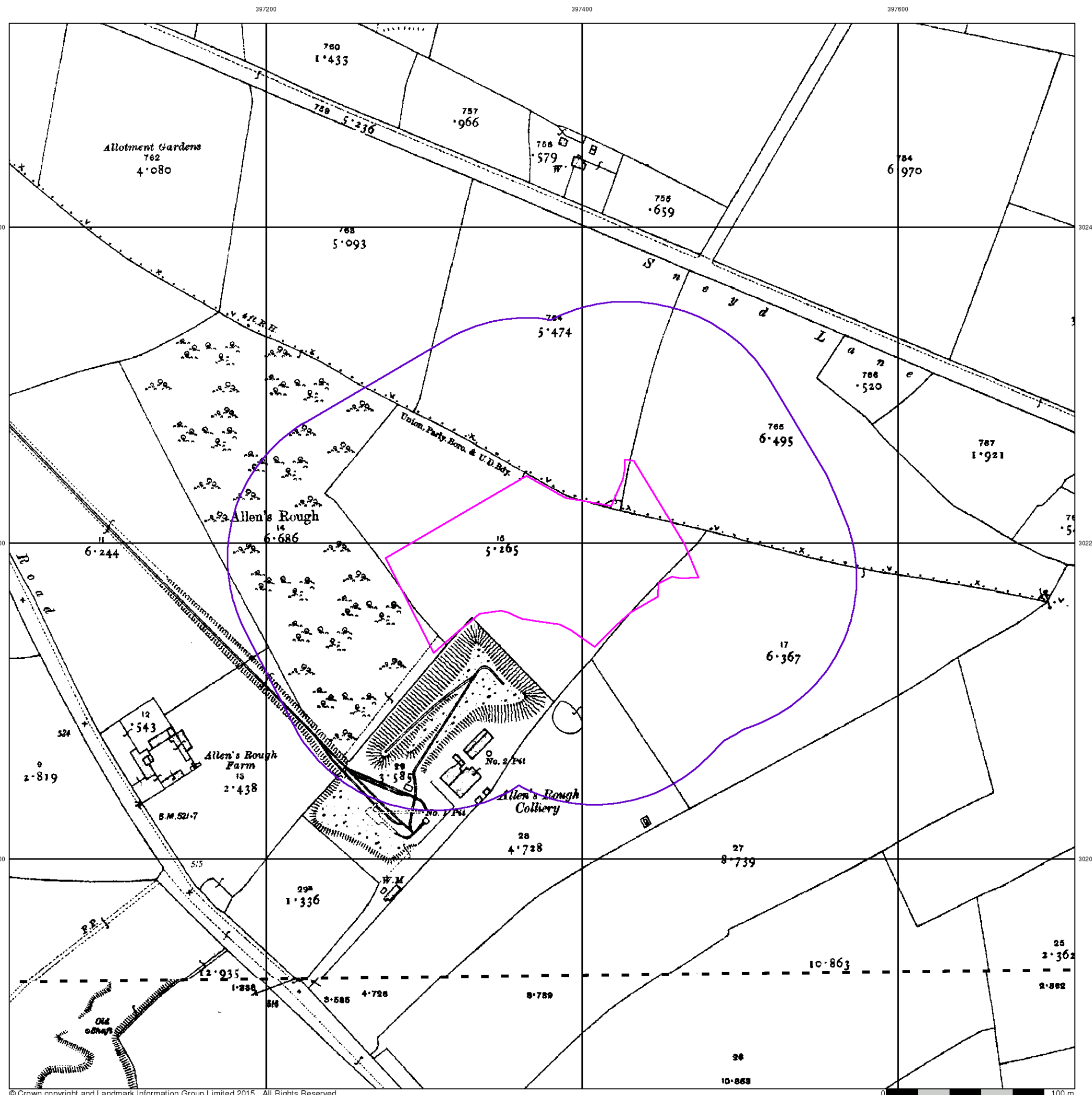
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Slice: A
Site Area (Ha): 1.35
Search Buffer (m): 100

Site Details

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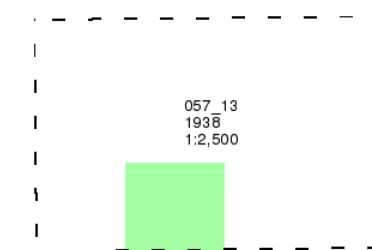
Staffordshire

Published 1938

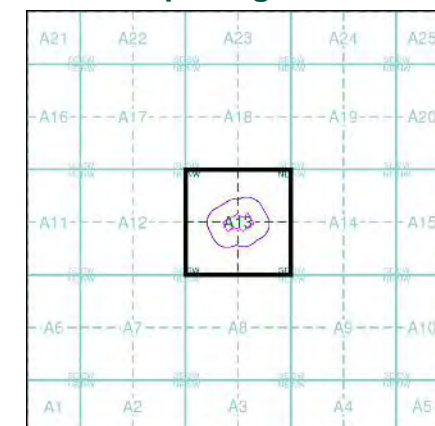
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Map Name(s) and Date(s)



Historical Map - Segment A13



Order Details

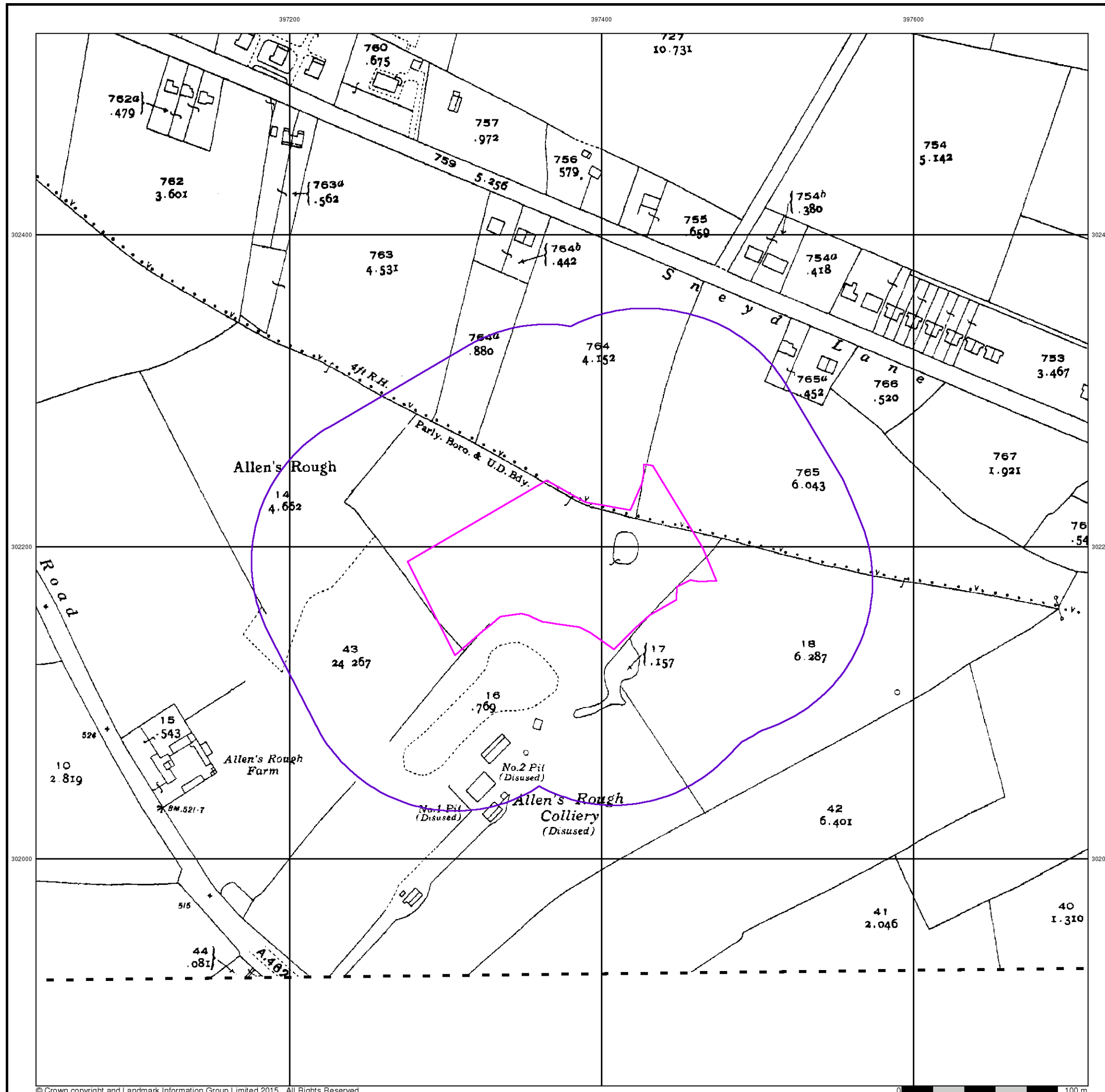
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National Grid Reference: 397380, 302190
Slice: A
Site Area (Ha): 1.35
Search Buffer (m): 100

Site Details

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Ordnance Survey Plan

Published 1956 - 1957

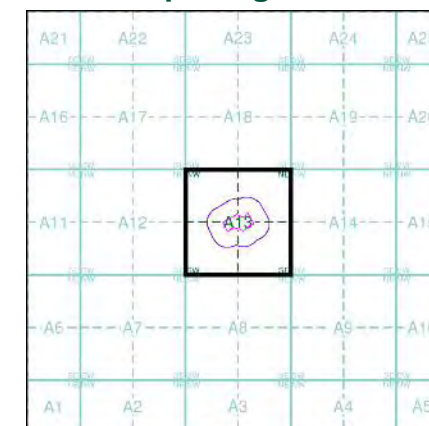
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The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas and by 1896 it covered the whole of what were considered 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)

SJ9702
1956
1:2,500
SJ9701
1957
1:2,500

Historical Map - Segment A13



Order Details

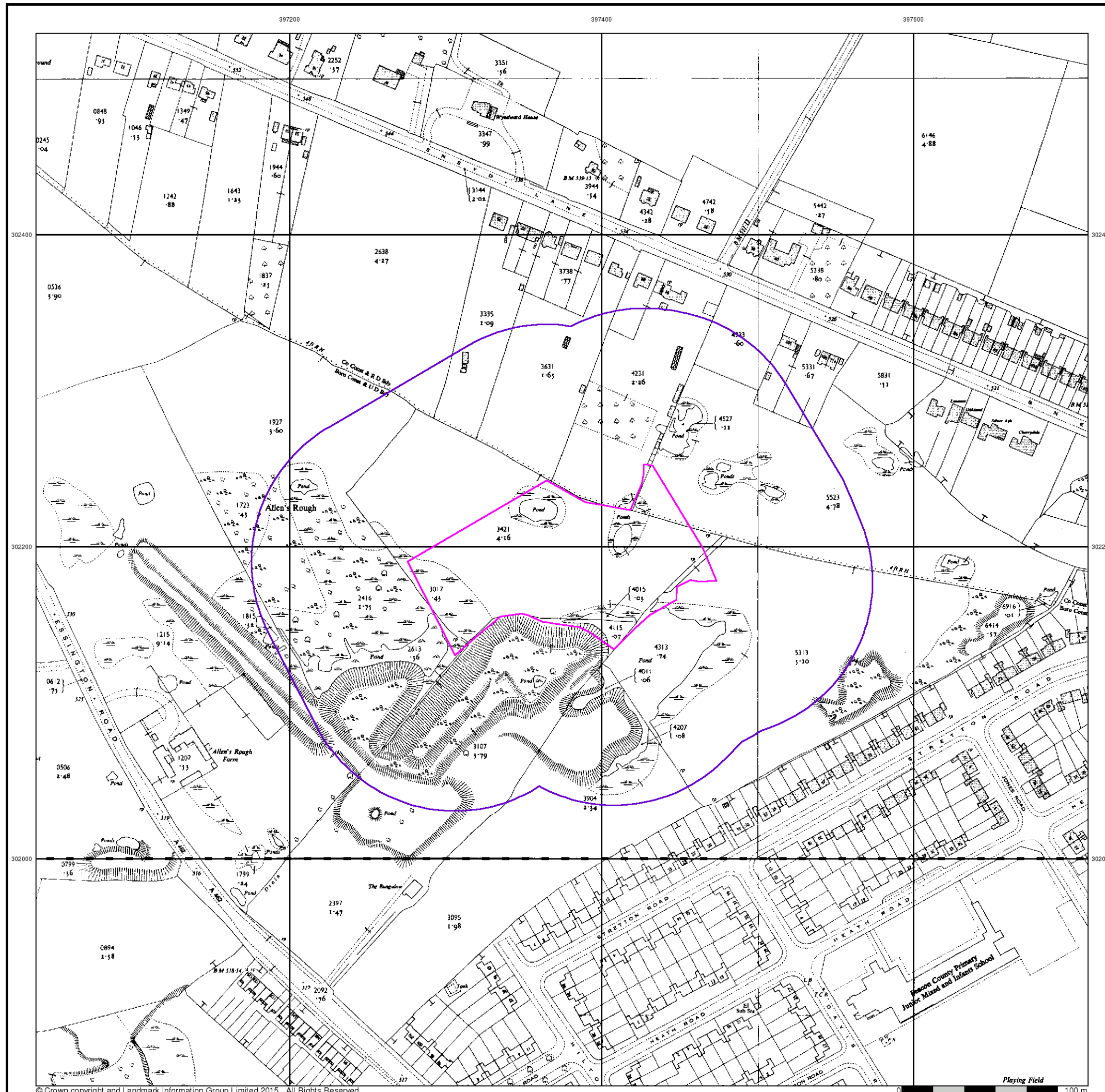
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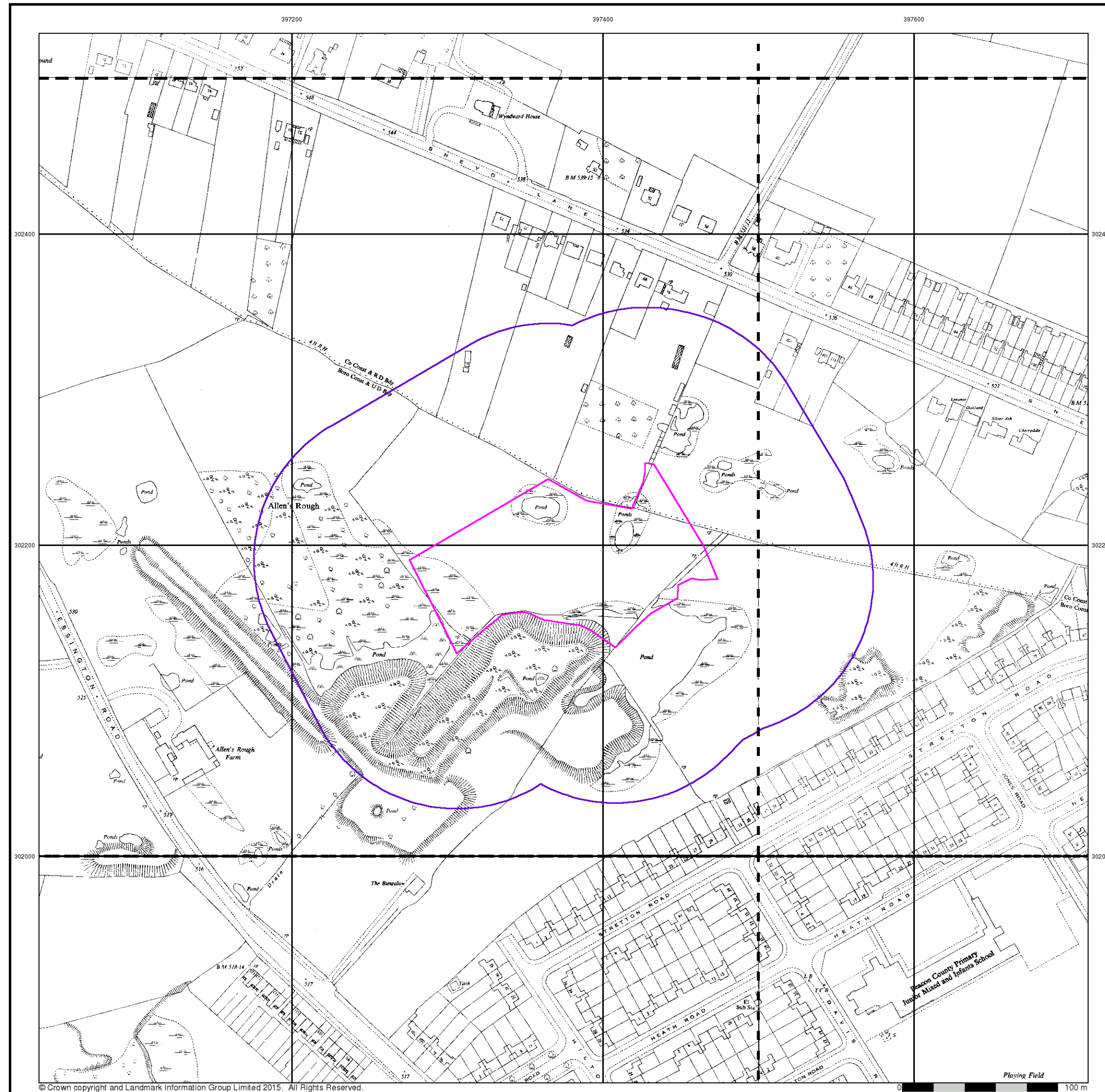
Site Details

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Ordnance Survey Plan

Published 1956 - 1957

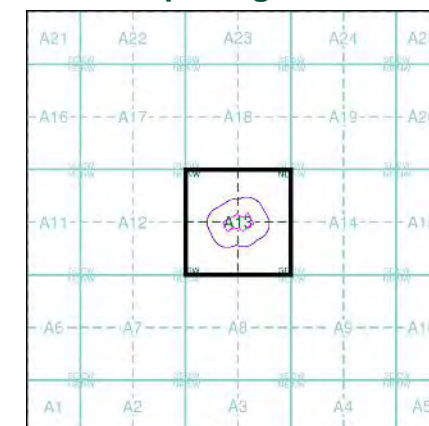
Source map scale - 1:1,250

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)

SJ9702NW	SJ9702NE
1956	1956
1:1,250	1:1,250
SJ9702SW	SJ9702SE
1956	1956
1:1,250	1:1,250
SJ9701NW	SJ9701NE
1957	1957
1:1,250	1:1,250

Historical Map - Segment A13



Order Details

Order Number: 76524890_1_1
Customer Ref: J-B0984.00
National Grid Reference: 397380, 302190
Slice: A
Site Area (Ha): 1.35
Search Buffer (m): 100

Site Details

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Ordnance Survey Plan

Published 1966 - 1972

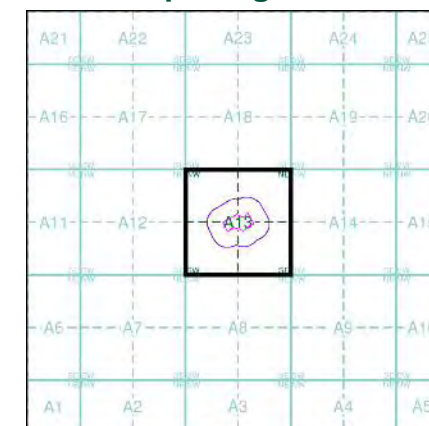
Source map scale - 1:1,250

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)

J9702NW	J9702NE
1967	1967
1:1,250	1:1,250
J9702SW	J9702SE
1972	1967
1:1,250	1:1,250
J9701NW	J9701NE
1969	1966
1:1,250	1:1,250

Historical Map - Segment A13



Order Details

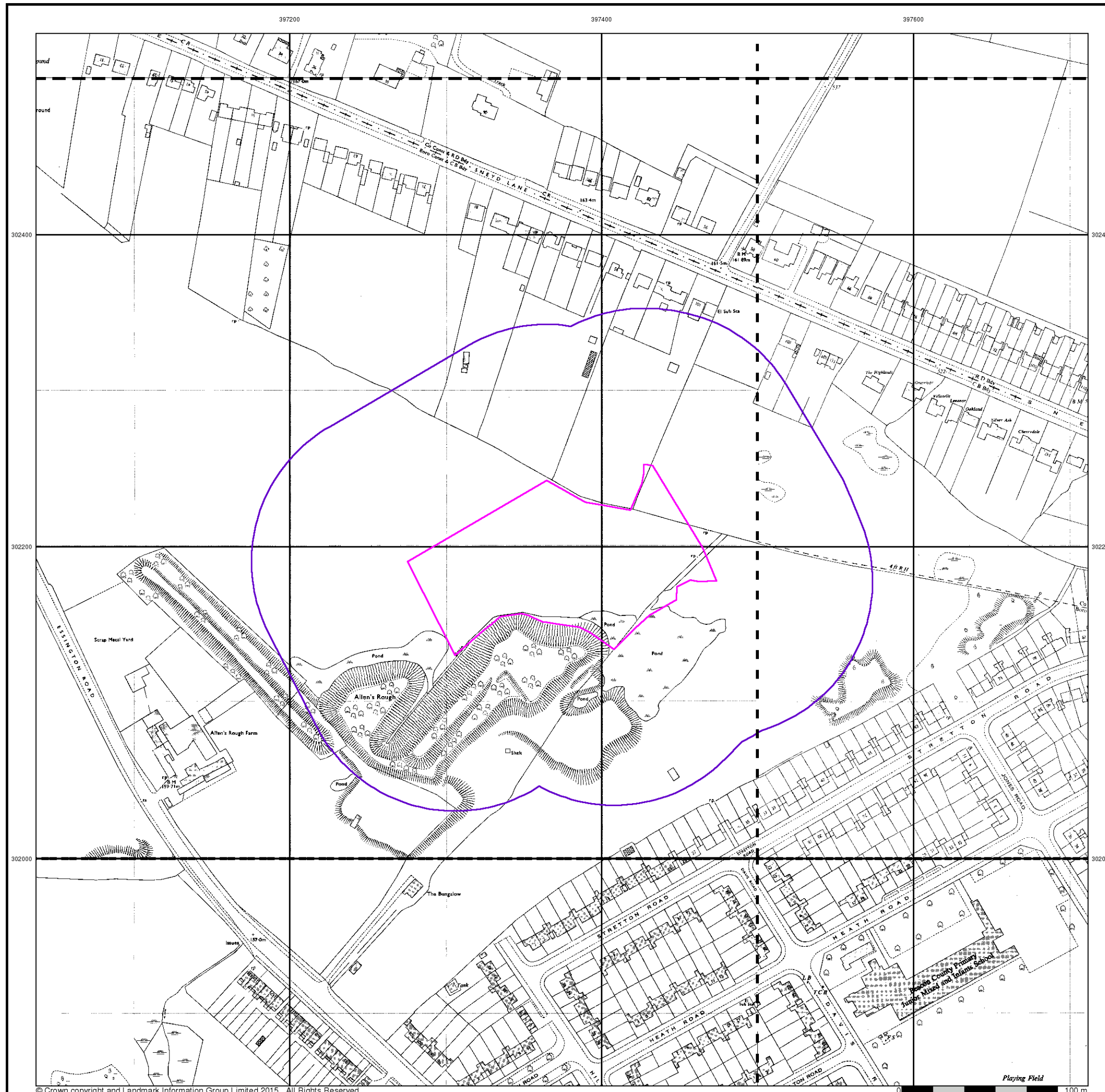
Order Number: 76524890_1_1
Customer Ref: J-B0984.00
National Grid Reference: 397380, 302190
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Site Area (Ha): 1.35
Search Buffer (m): 100

Site Details

Allens Centre, Hilton Road, Willenhall, WV12 5XB



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





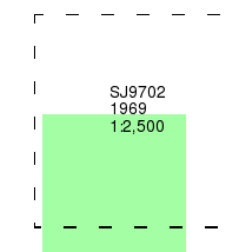
Ordnance Survey Plan

Published 1969

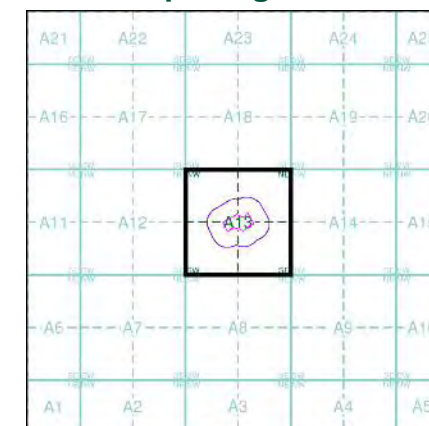
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Map Name(s) and Date(s)



Historical Map - Segment A13



Order Details

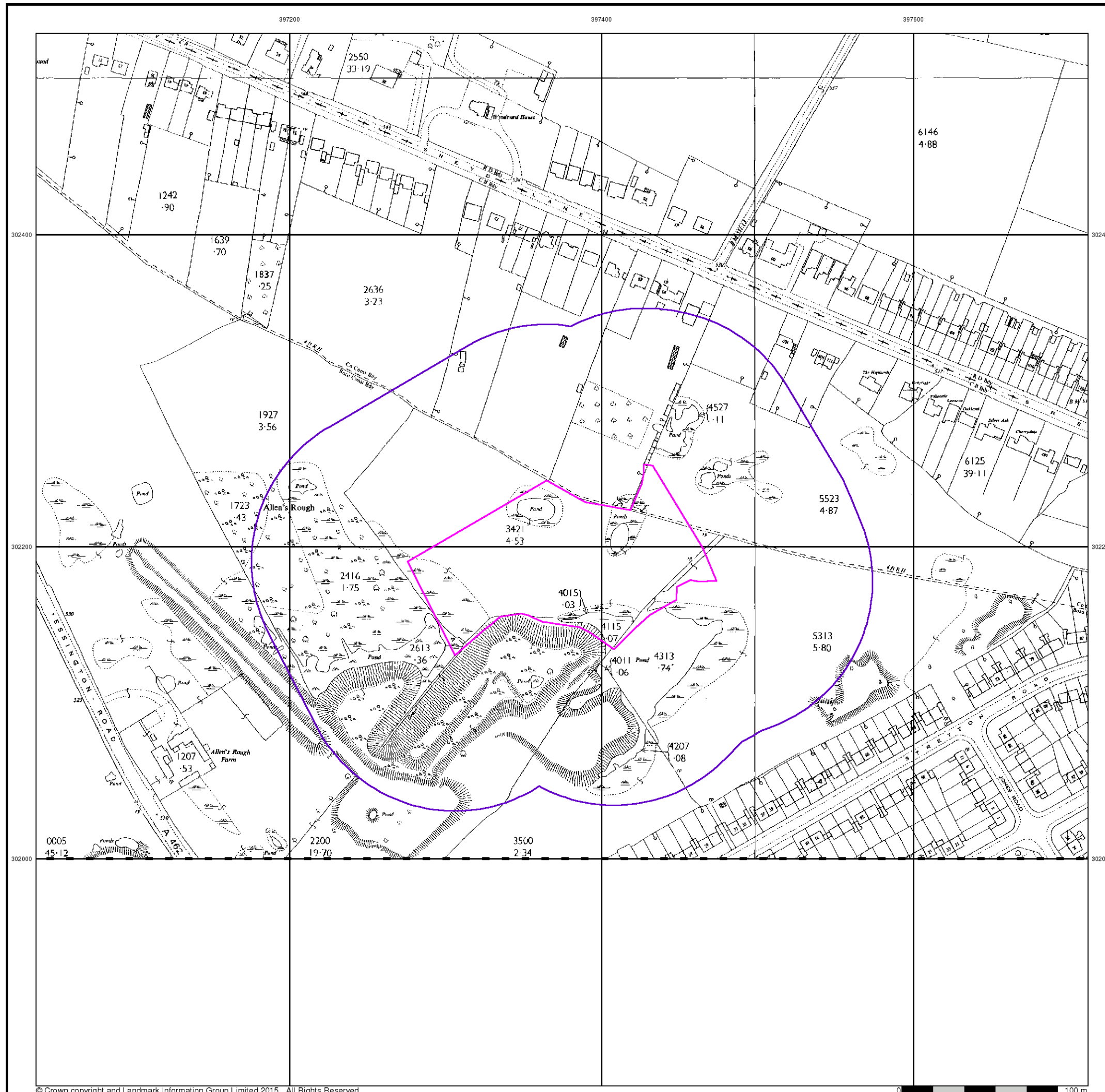
Order Number: 76524890_1_1
Customer Ref: J-B0984.00
National Grid Reference: 397380, 302190
Slice: A
Site Area (Ha): 1.35
Search Buffer (m): 100

Site Details

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Ordnance Survey Plan

Published 1975 - 1989

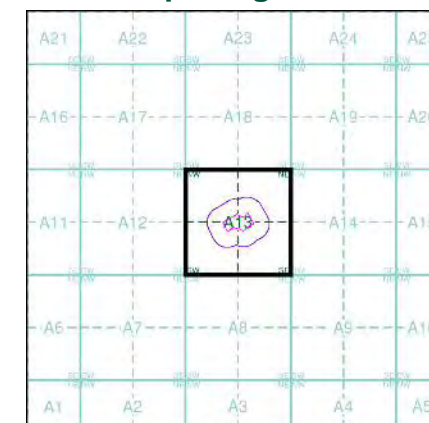
Source map scale - 1:1,250

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)

SJ9702SW 1981 1:1,250	
SJ9701NW 1989 1:1,250	SJ9701NE 1975 1:1,250

Historical Map - Segment A13



Order Details

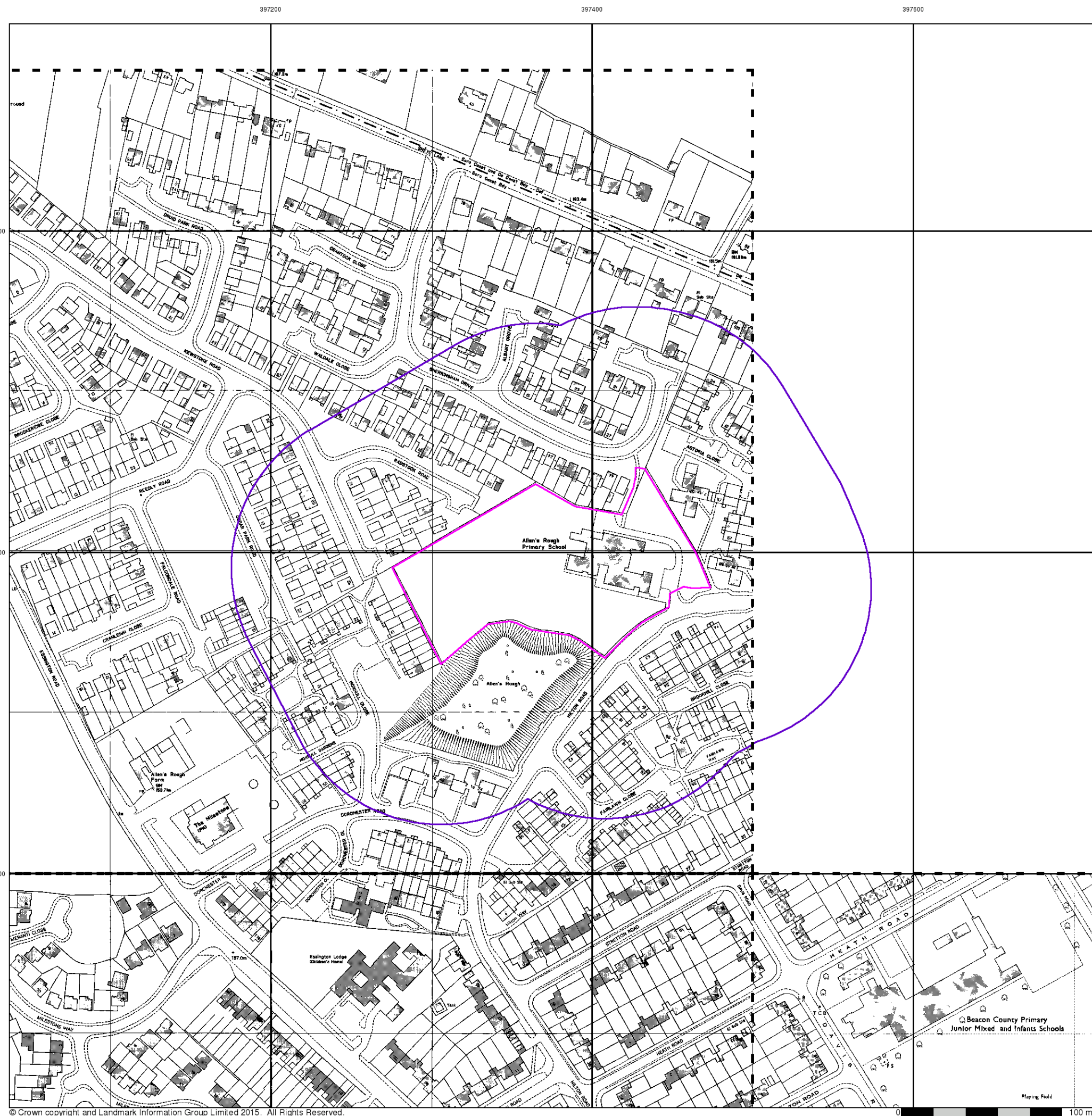
Order Number: 76524890_1_1
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National Grid Reference: 397380, 302190
Slice: A
Site Area (Ha): 1.35
Search Buffer (m): 100

Site Details

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Additional SIMs

Published 1978 - 1989

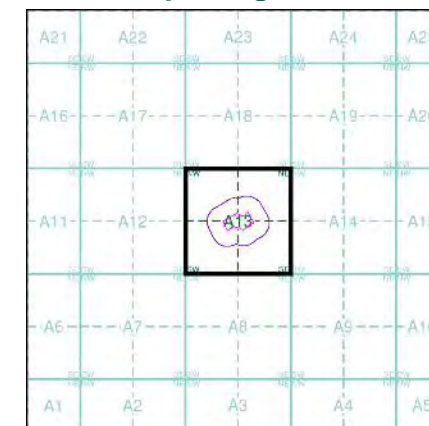
Source map scale - 1:1,250

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)

SJ9702NW	SJ9702NE
1989	1989
1:1,250	1:1,250
SJ9702SW	SJ9702SE
1989	1979
1:1,250	1:1,250
SJ9701NW	SJ9701NE
1978	1989
1:1,250	1:1,250

Historical Map - Segment A13



Order Details

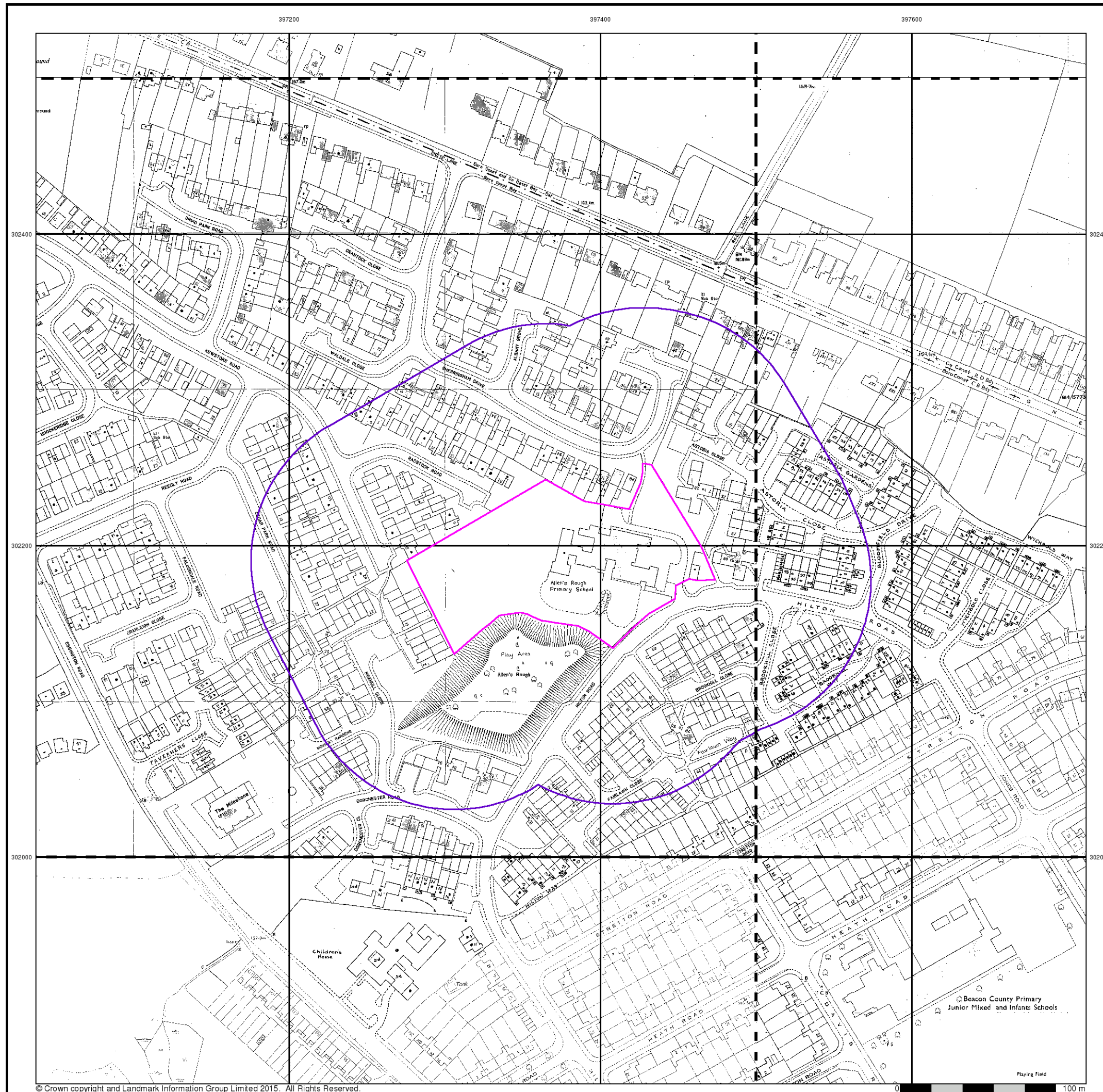
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Search Buffer (m): 100

Site Details

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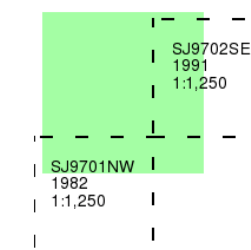
Additional SIMs

Published 1982 - 1991

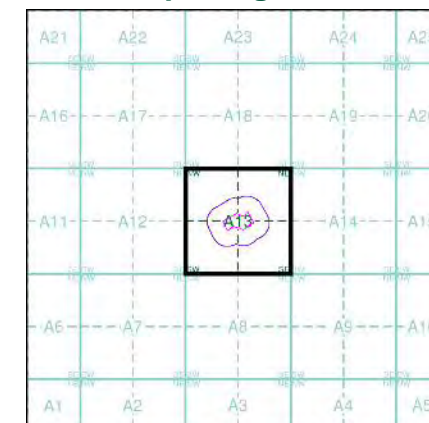
Source map scale - 1:1,250

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

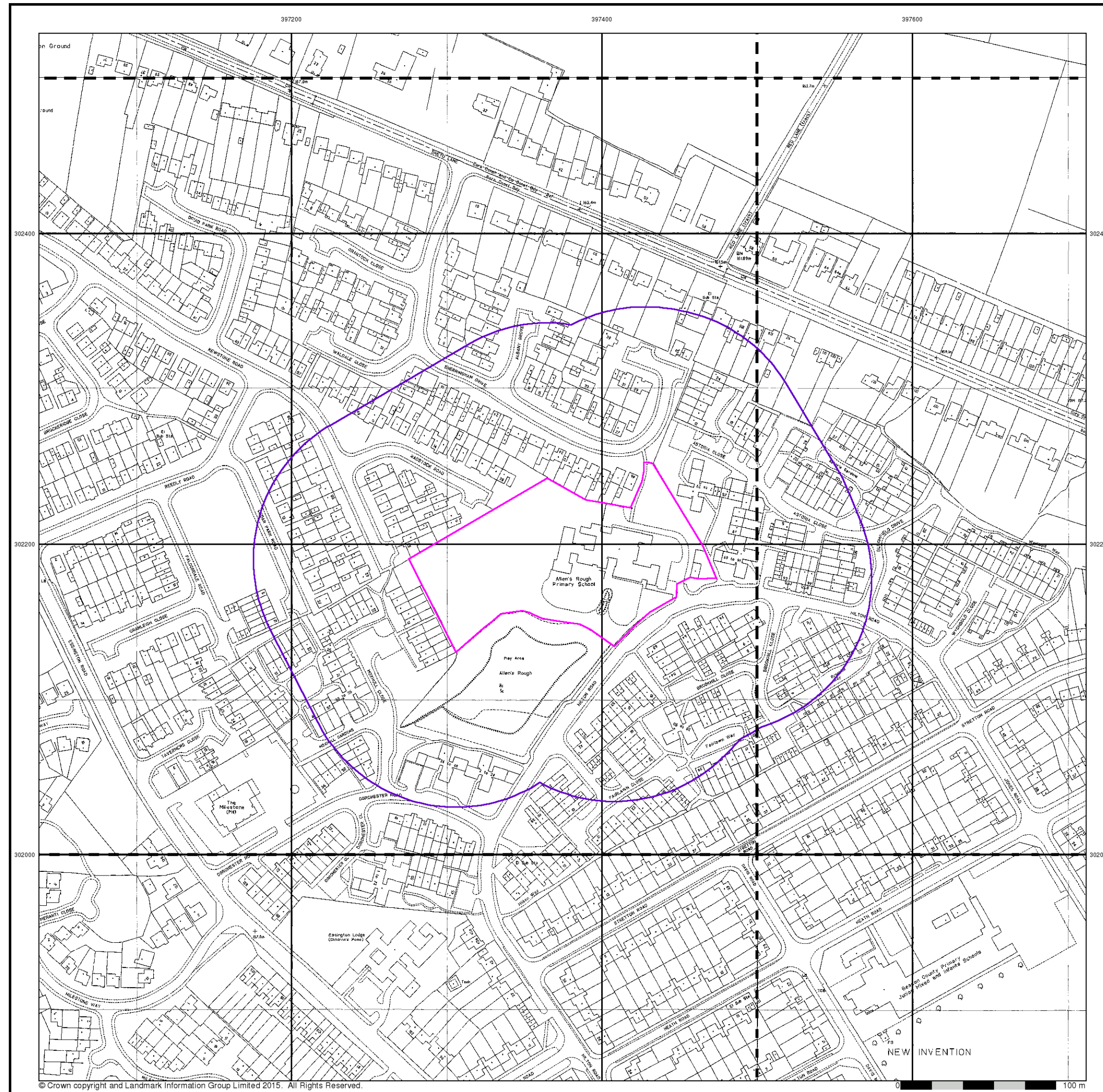
Order Number: 76524890_1_1
Customer Ref: J-B0984.00
National Grid Reference: 397380, 302190
Slice: A
Site Area (Ha): 1.35
Search Buffer (m): 100

Site Details

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Large-Scale National Grid Data

Published 1992

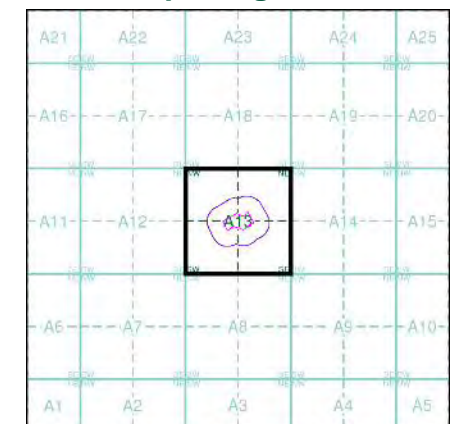
Source map scale - 1:1,250

'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)

BJ9702NW	BJ9702NE
1992	1992
1:1,250	1:1,250
BJ9702SW	BJ9702SE
1992	1992
1:1,250	1:1,250
BJ9701NW	BJ9701NE
1992	1992
1:1,250	1:1,250

Historical Map - Segment A13



Order Details

Order Number: 76524890_1_1
Customer Ref: J-B0984.00
National Grid Reference: 397380, 302190
Slice: A
Site Area (Ha): 1.35
Search Buffer (m): 100

Site Details

Allens Centre, Hilton Road, Willenhall, WV12 5XB



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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		Minor Roads		
	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				
	County Borough Boundary (England)				
	County Burgh Boundary (Scotland)				
	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
	Bracken		Heath
	Marsh		Reeds
	Building		Glasshouse
	Sloping Masonry		Pylon
			Pole
	Cutting		Embankment
	Road Under		Road Over
	Level Crossing		Foot Bridge
	Standard Gauge Multiple Track		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		
	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

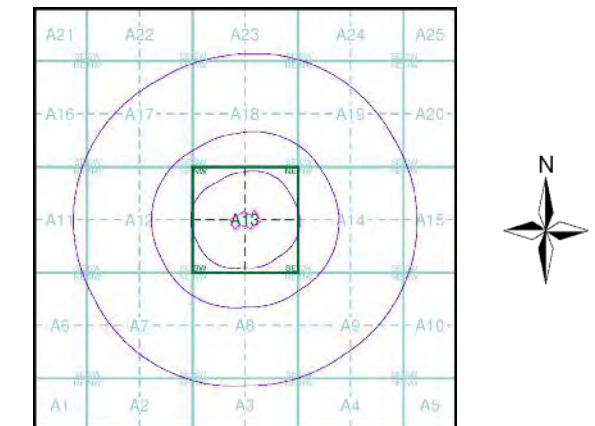
	Gravel Pit		Refuse tip or slag heap
	Rock		Rock (scattered)
	Boulders		Boulders (scattered)
	Shingle		Mud
	Sand		Sand Pit
	Slopes		Top of cliff
	General detail		Underground detail
	Overhead detail		Narrow gauge railway
	Multi-track railway		Single track railway
	County boundary (England only)		Civil, 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)
	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



Historical Mapping & Photography included:

Mapping Type	Scale	Date	Pg
Staffordshire	1:10,560	1883 - 1886	3
Staffordshire	1:10,560	1902 - 1903	4
Staffordshire	1:10,560	1920 - 1924	5
Staffordshire	1:10,560	1920 - 1924	6
Staffordshire	1:10,560	1938	7
Staffordshire	1:10,560	1938	8
Historical Aerial Photography	1:10,560	1950	9
Wolverhampton	1:10,000	1950	10
Ordnance Survey Plan	1:10,000	1955	11
Ordnance Survey Plan	1:10,000	1966	12
Ordnance Survey Plan	1:10,000	1973	13
Birmingham	1:25,000	1977	14
Ordnance Survey Plan	1:10,000	1982	15
Ordnance Survey Plan	1:10,000	1991	16
10K Raster Mapping	1:10,000	2006	17
VectorMap Local	1:10,000	2015	18

Historical Map - Slice A



Order Details

Order Number: 76524890_1_1
Customer Ref: J-B0984.00
National Grid Reference: 397380, 302190
Slice: A
Site Area (Ha): 1.35
Search Buffer (m): 1000

Site Details

Allens Centre, Hilton Road, Willenhall, WV12 5XB

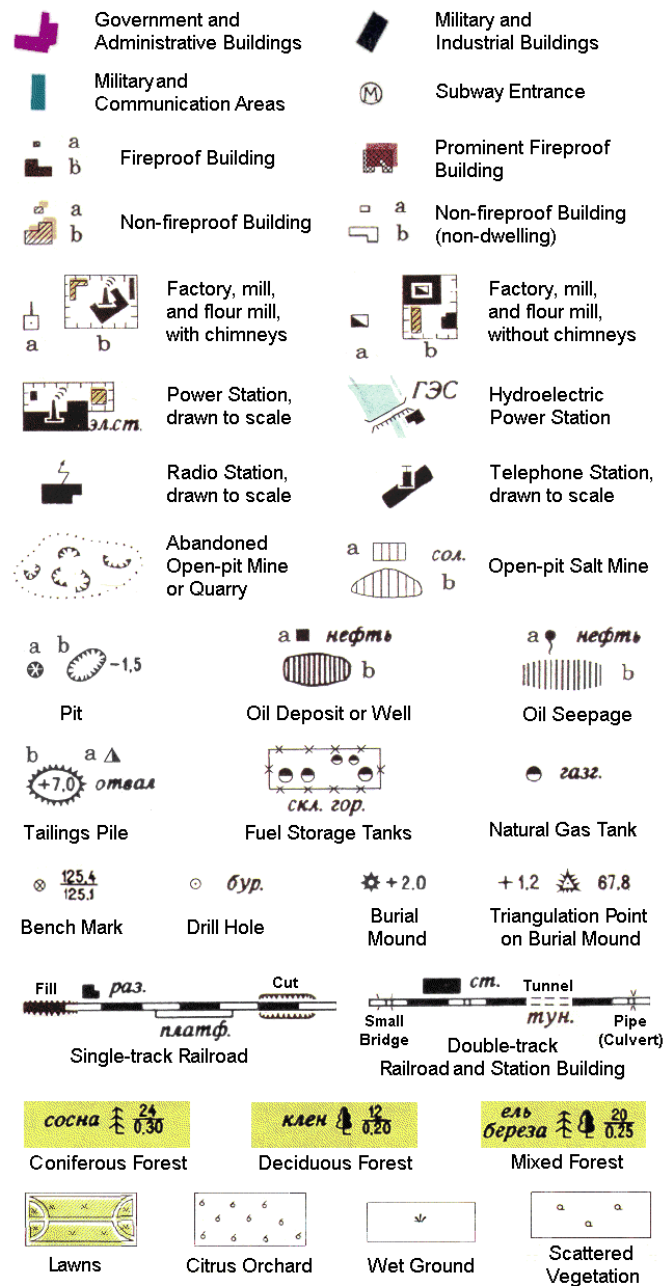


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Russian Military Mapping Legends

1:5,000 and 1:10,000 mapping

a. Not drawn to scale b. Drawn to scale



243.8 Values for prominent elevations

186.0 Numbers for spot elevations, depth soundings, contour lines, etc.

0.2 Velocity of the current, width of river bed, depth of river

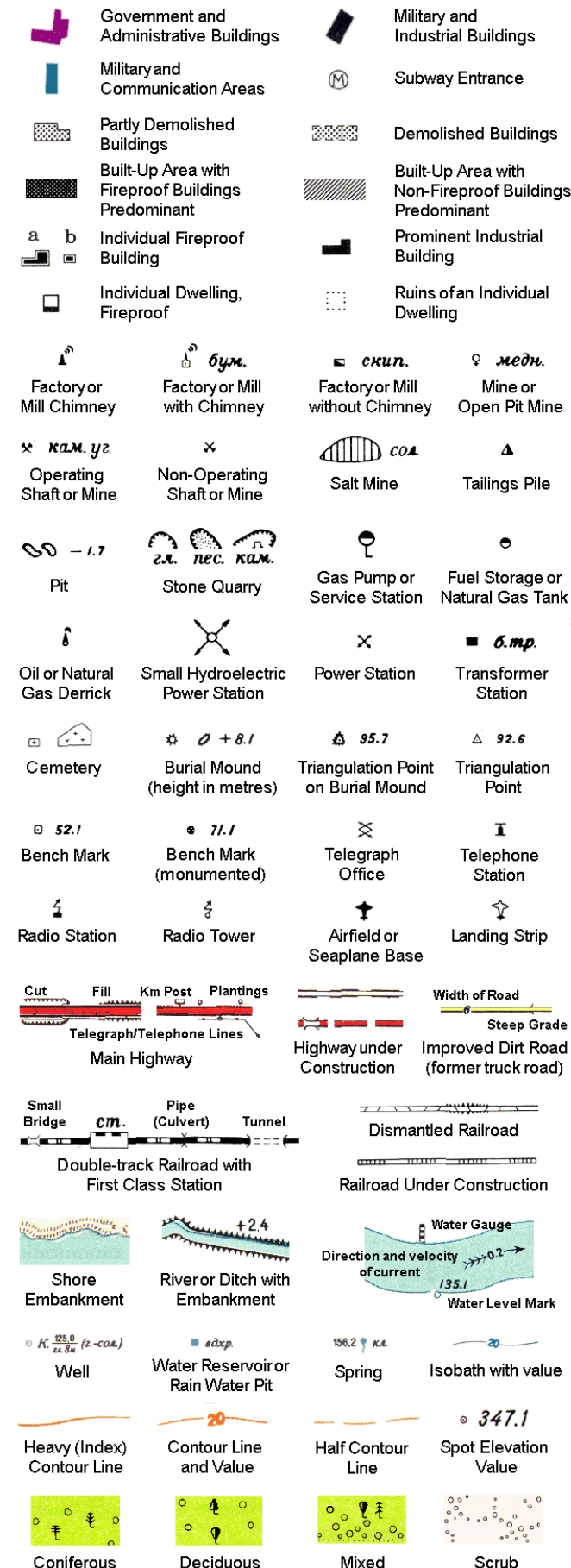
180/12 Fractional terms: length and capacity of bridges; depth of fords and condition of the river bottom; height of forest and the diameter of trees

Russian Alphabet (For reference and phonetic interpretation of map text)

А а (A)	З з (Z)	П п (P)	Ч ч (CH)
Б б (B)	И и (I)	Р р (R)	Ш ш (SH)
В в (V)	Й й (Y)	С с (S)	Щ щ (SHCH)
Г г (G)	К к (K)	Т т (T)	Ъ (-)
Д д (D)	Л л (L)	У у (U)	Ы (Y)
Е е (E)	М м (M)	Ф ф (F)	Ь (')
Ё ё (YO)	Н н (N)	Х х (KH)	Э э (E)
Ж ж (ZH)	О о (O)	Ц ц (TS)	Ю ю (YU or IU)
			Я я (YA or IA)

1:25,000 mapping

a. Not drawn to scale b. Drawn to scale



Key to Numbers on Mapping

SJ90_Birmingham

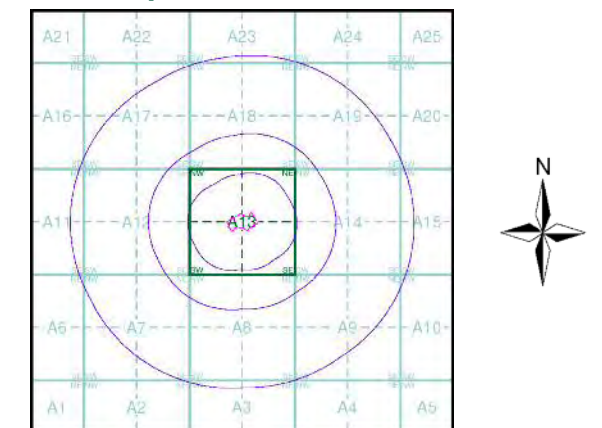
No.	Description
110	Factory (Ammunition)
240	Post Office
346	Sewage Works



Historical Mapping & Photography included:

Mapping Type	Scale	Date	Pg
Staffordshire	1:10,560	1883 - 1886	3
Staffordshire	1:10,560	1902 - 1903	4
Staffordshire	1:10,560	1920 - 1924	5
Staffordshire	1:10,560	1920 - 1924	6
Staffordshire	1:10,560	1938	7
Staffordshire	1:10,560	1938	8
Historical Aerial Photography	1:10,560	1950	9
Wolverhampton	1:10,000	1950	10
Ordnance Survey Plan	1:10,000	1955	11
Ordnance Survey Plan	1:10,000	1966	12
Ordnance Survey Plan	1:10,000	1973	13
Birmingham	1:25,000	1977	14
Ordnance Survey Plan	1:10,000	1982	15
Ordnance Survey Plan	1:10,000	1991	16
10K Raster Mapping	1:10,000	2006	17
VectorMap Local	1:10,000	2015	18

Russian Map - Slice A



Order Details

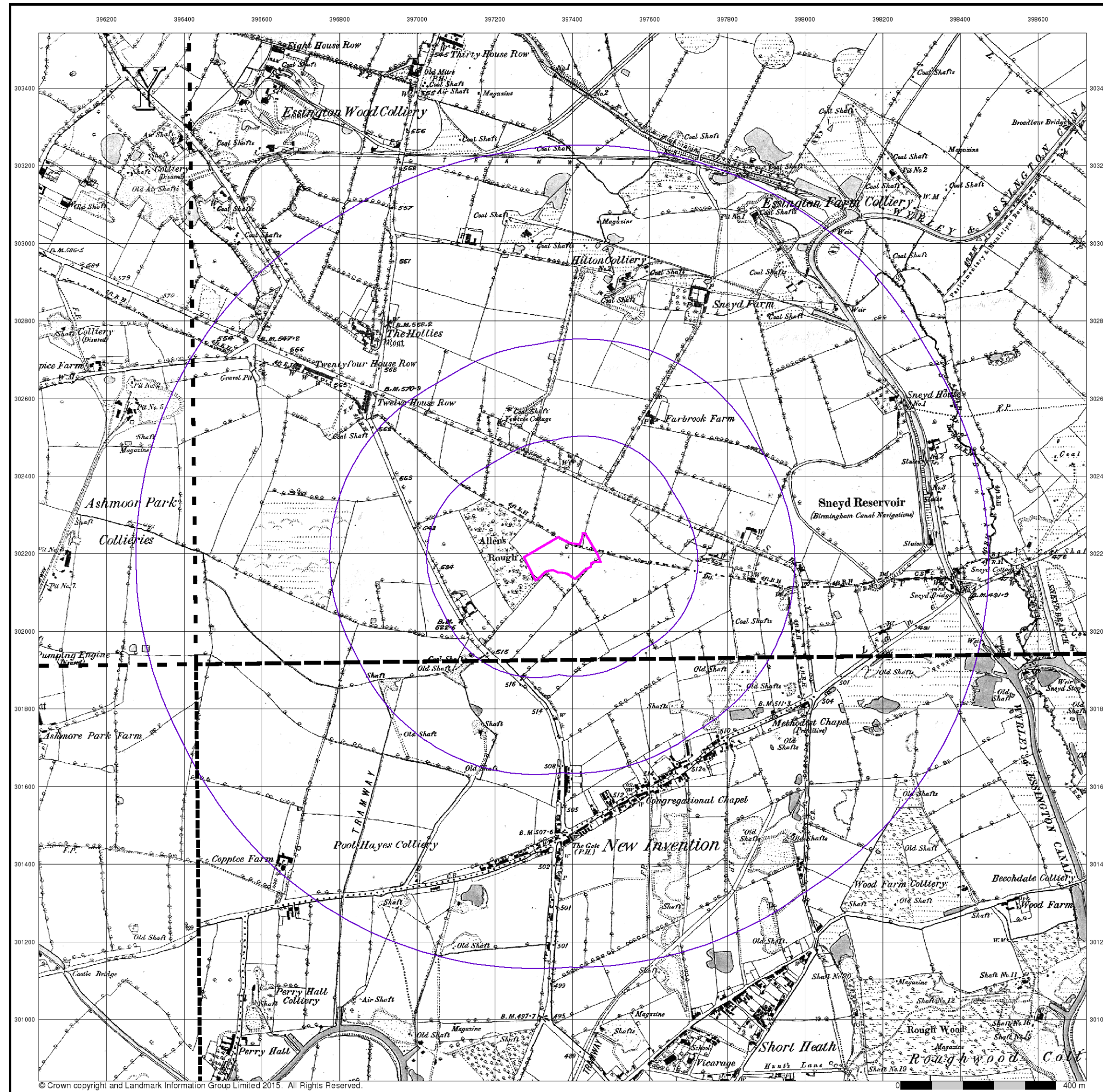
Order Number: 76524890_1_1
Customer Ref: J-B0984.00
National Grid Reference: 397380, 302190
Slice: A
Site Area (Ha): 1.35
Search Buffer (m): 1000

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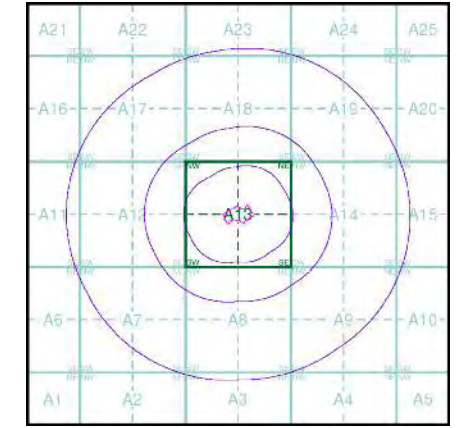
Staffordshire
Published 1883 - 1886
Source map scale - 1:10,560

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)

056SE 1886 1:10,560	057SW 1883 1:10,560
062NE 1886 1:10,560	063NW 1885 1:10,560

Historical Map - Slice A



Order Details

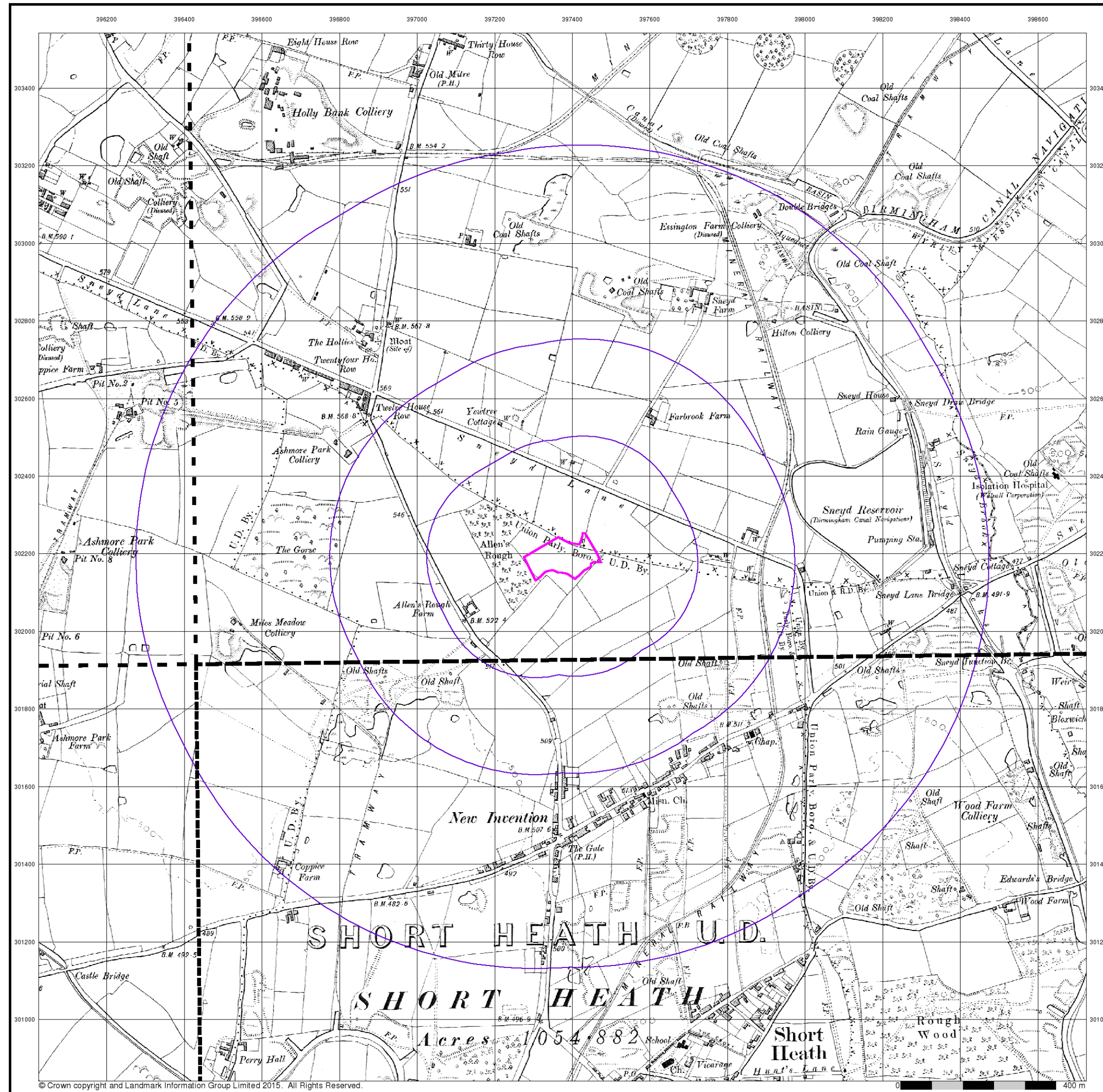
Order Number: 76524890_1_1
Customer Ref: J-B0984.00
National Grid Reference: 397380, 302190
Slice: A
Site Area (Ha): 1.35
Search Buffer (m): 1000

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Staffordshire

Published 1902 - 1903

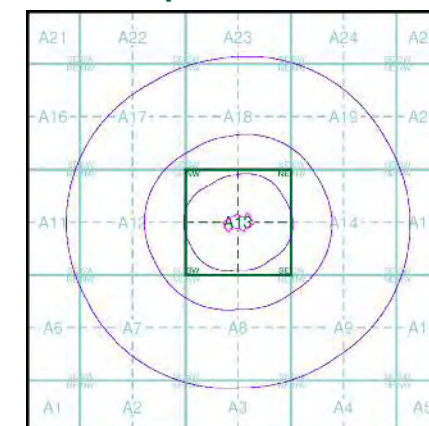
Source map scale - 1:10,560

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)

056SE 1902 1:10,560	057SW 1903 1:10,560
062NE 1903 1:10,560	063NW 1903 1:10,560

Historical Map - Slice A



Order Details

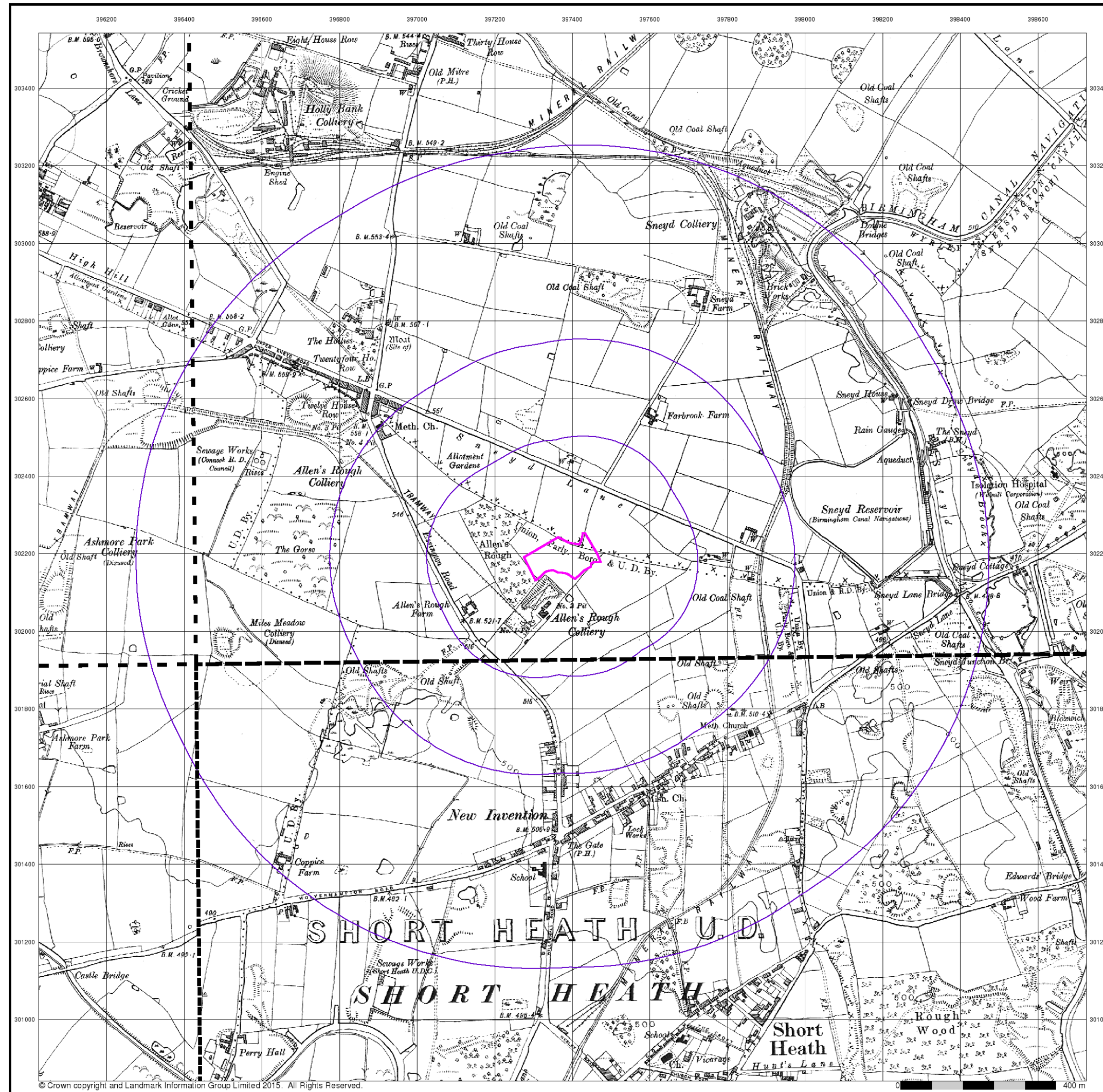
Order Number: 76524890_1_1
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National Grid Reference: 397380, 302190
Slice: A
Site Area (Ha): 1.35
Search Buffer (m): 1000

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Staffordshire

Published 1920 - 1924

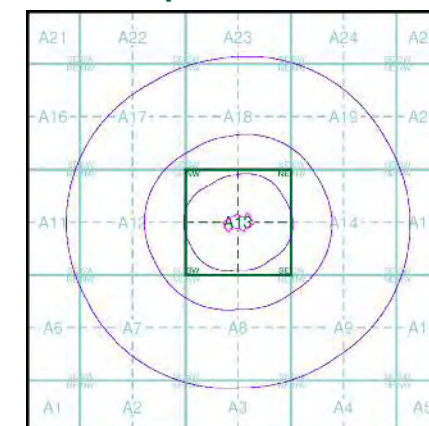
Source map scale - 1:10,560

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)

056SE 1924 1:10,560	057SW 1921 1:10,560
062NE 1920 1:10,560	063NW 1920 1:10,560

Historical Map - Slice A



Order Details

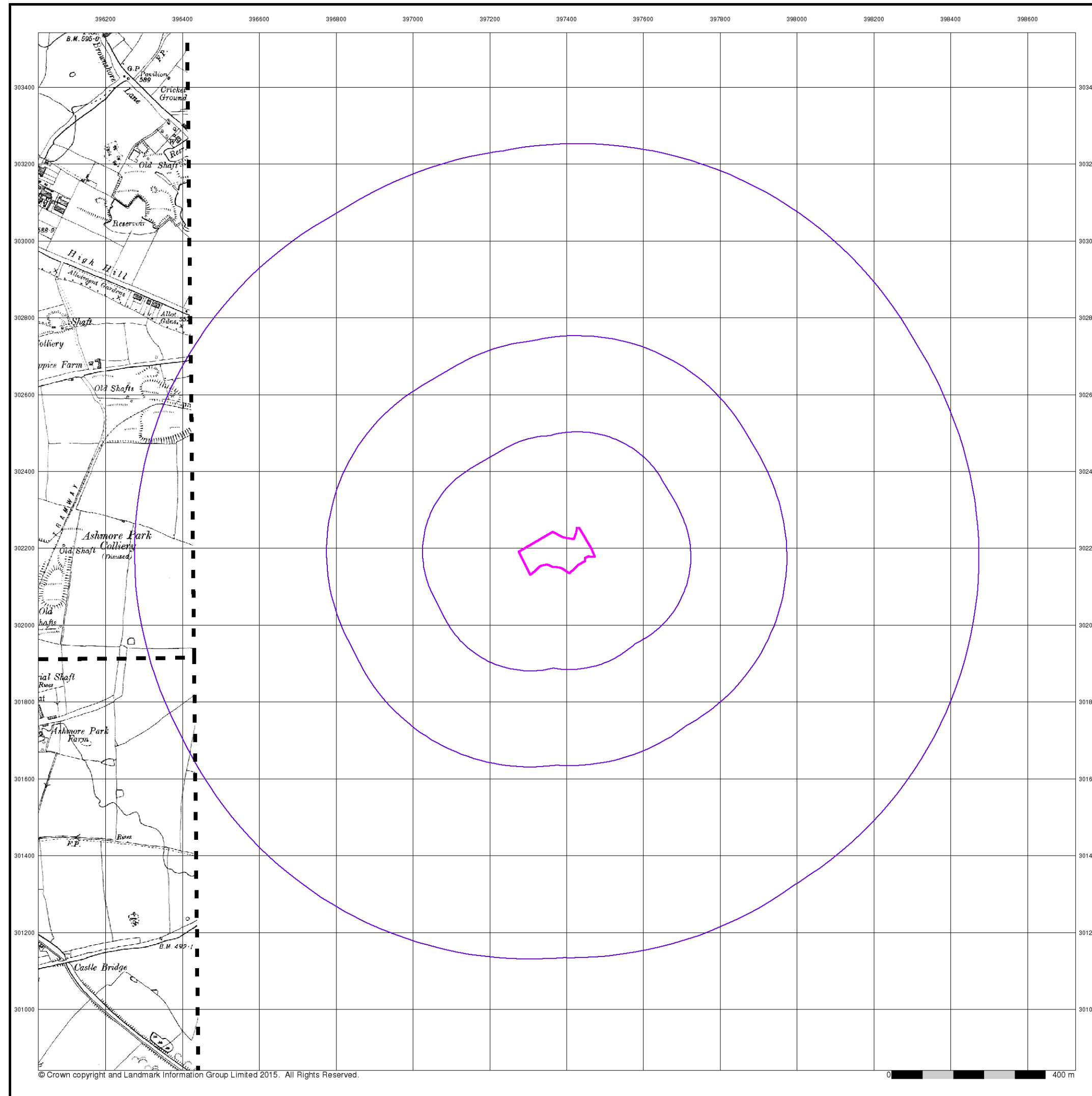
Order Number: 76524890_1_1
Customer Ref: J-B0984.00
National Grid Reference: 397380, 302190
Slice: A
Site Area (Ha): 1.35
Search Buffer (m): 1000

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Staffordshire

Published 1920 - 1924

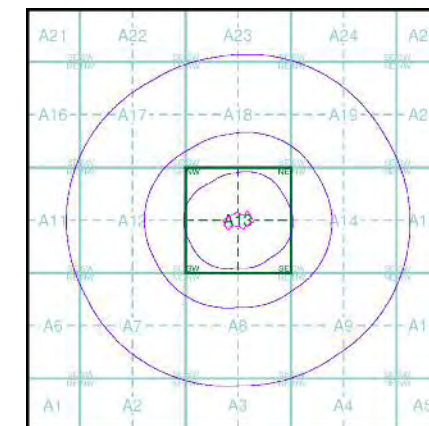
Source map scale - 1:10,560

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)

056SE	1924	1:10,560
062NE	1920	1:10,560

Historical Map - Slice A



Order Details

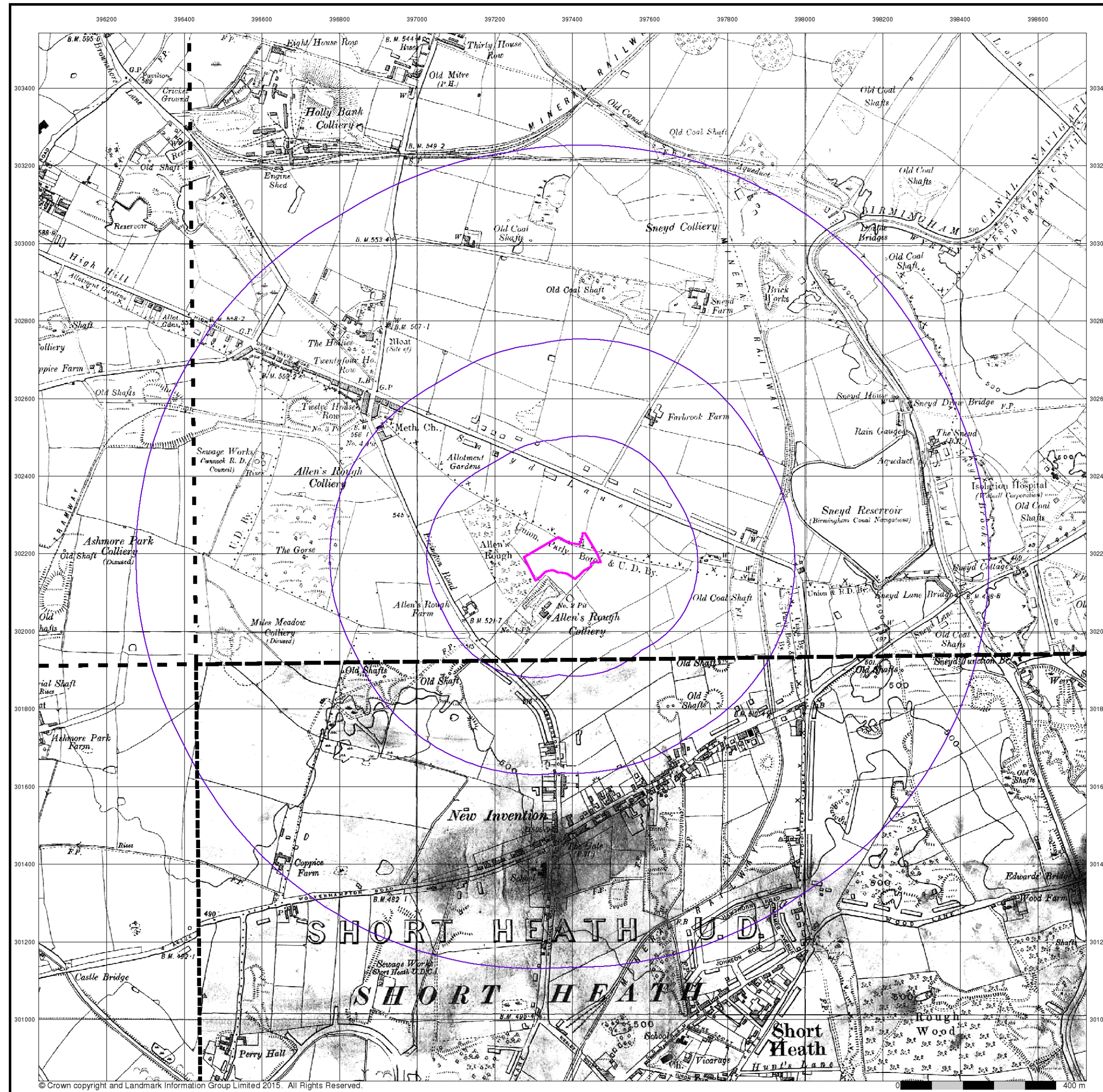
Order Number: 76524890_1_1
Customer Ref: J-B0984.00
National Grid Reference: 397380, 302190
Slice: A
Site Area (Ha): 1.35
Search Buffer (m): 1000

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Staffordshire

Published 1938

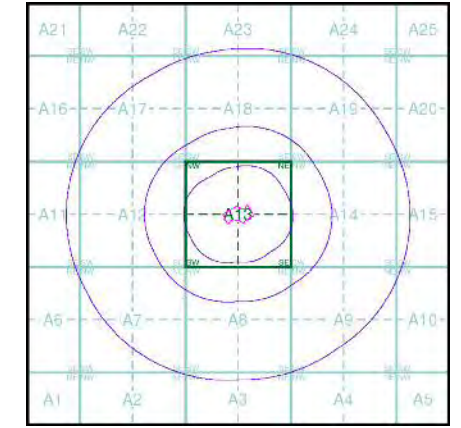
Source map scale - 1:10,560

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)

056SE 1938 1:10,560	057SW 1938 1:10,560
062NE 1938 1:10,560	063NW 1938 1:10,560

Historical Map - Slice A



Order Details

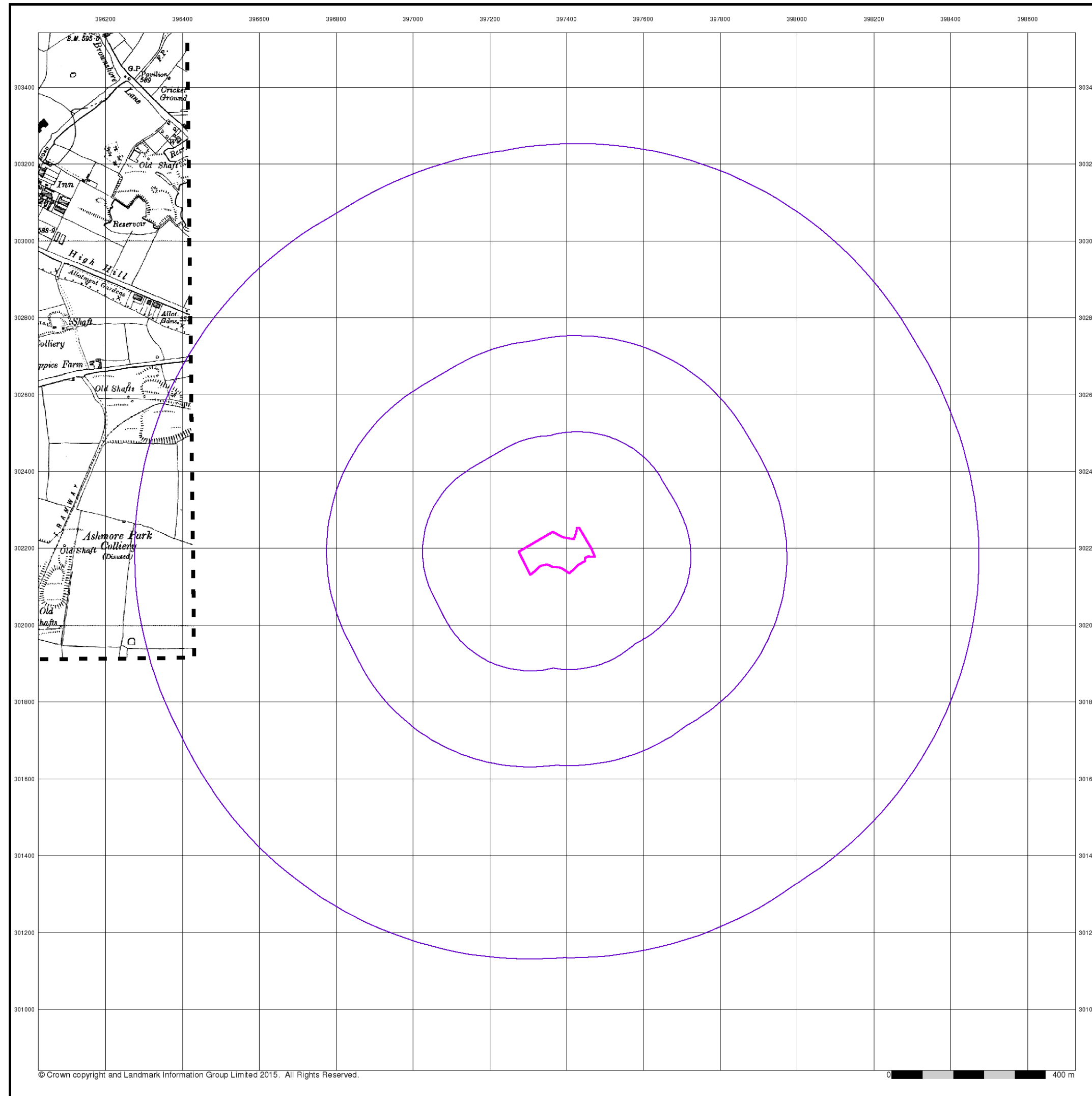
Order Number: 76524890_1_1
Customer Ref: J-B0984.00
National Grid Reference: 397380, 302190
Slice: A
Site Area (Ha): 1.35
Search Buffer (m): 1000

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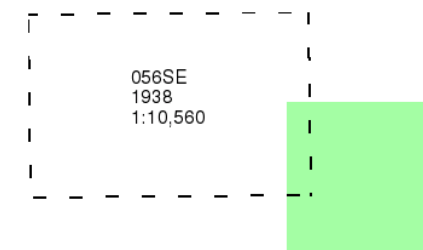
Staffordshire

Published 1938

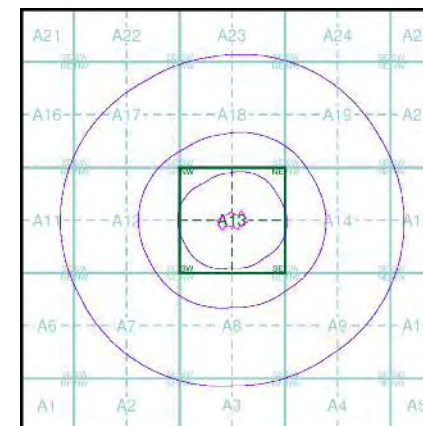
Source map scale - 1:10,560

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)



Historical Map - Slice A



Order Details

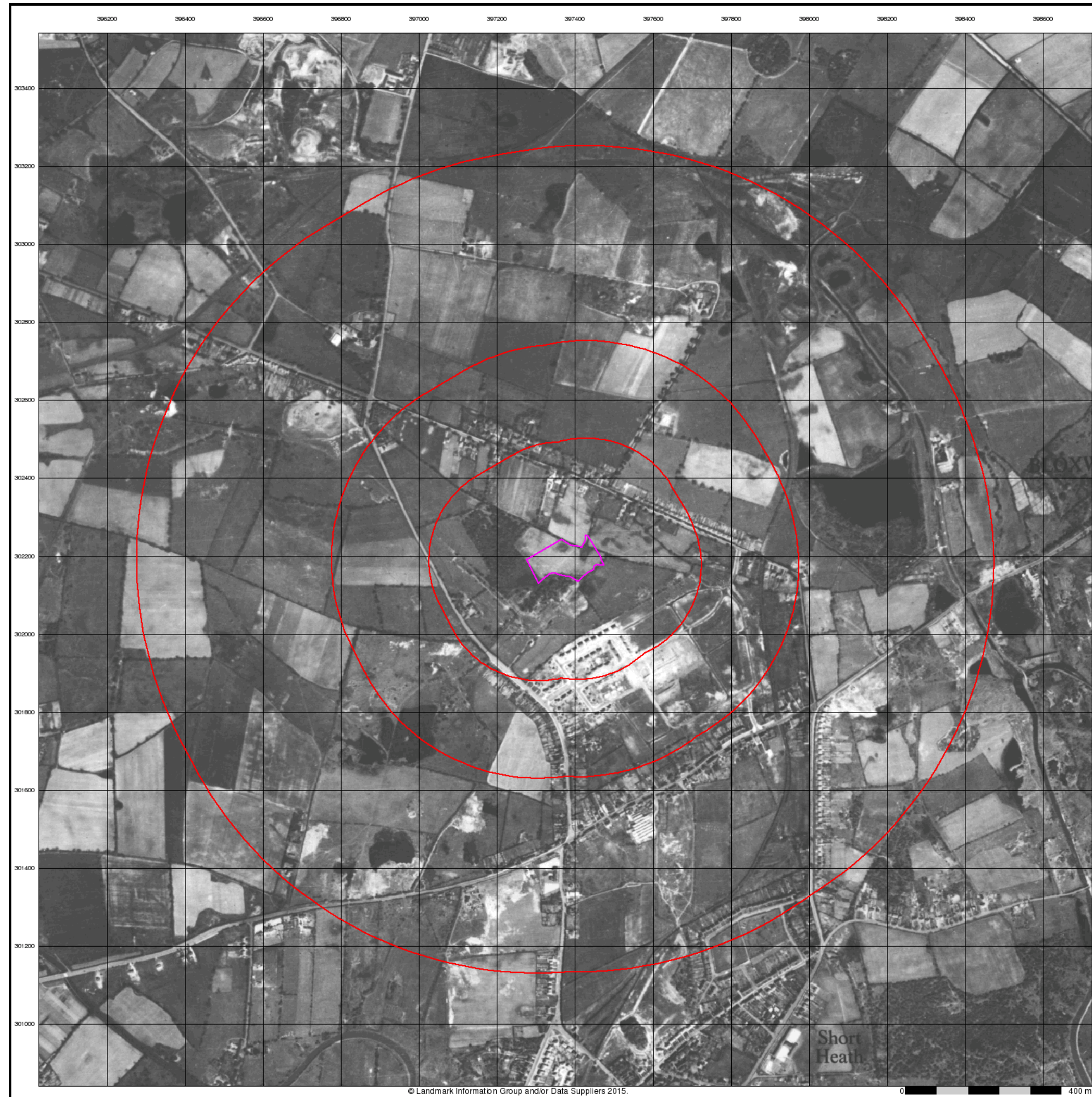
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Customer Ref: J-B0984.00
National Grid Reference: 397380, 302190
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Site Area (Ha): 1.35
Search Buffer (m): 1000

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Historical Aerial Photography

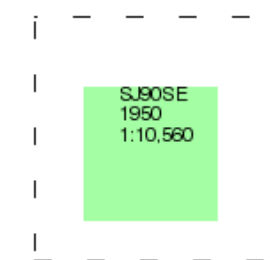
Published 1950

Source map scale - 1:10,560

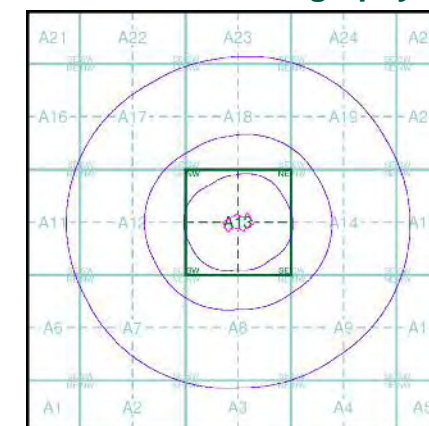
The Historical Aerial Photos were produced by the Ordnance Survey at a scale of 1:1,250 and 1:10,560 from Air Force photography. They were produced between 1944 and 1951 as an interim measure, pending preparation of conventional mapping, due to post war resource shortages. New security measures in the 1950's meant that every photograph was re-checked for potentially unsafe information with security sites replaced by fake fields or clouds. The original editions were withdrawn and only later made available after a period of fifty years although due to the accuracy of the editing, without viewing both revisions it is not easy to spot the edits. Where available Landmark have included both revisions.

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Map Name(s) and Date(s)



Historical Aerial Photography - Slice A



Order Details

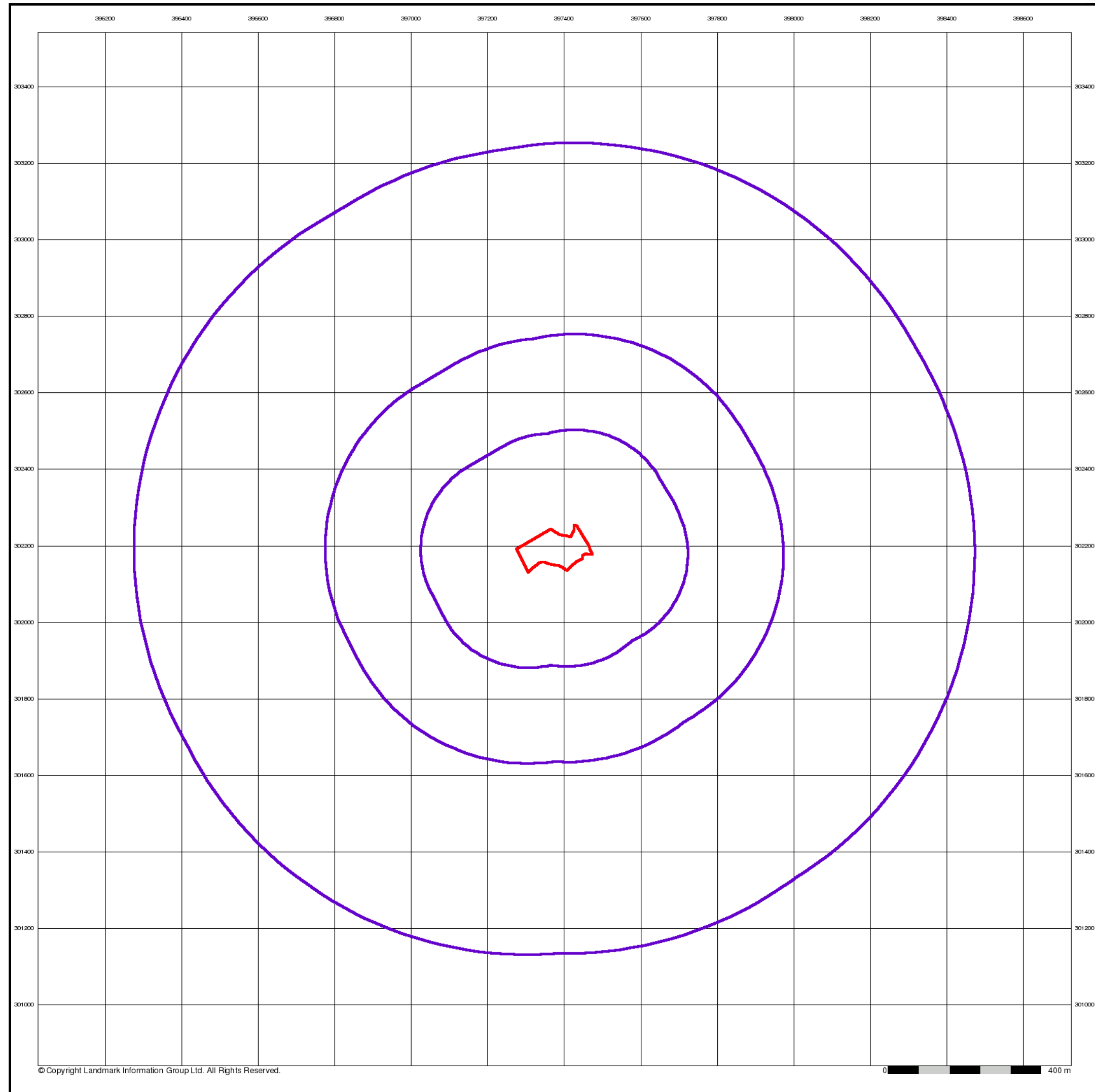
Order Number: 76524890_1_1
Customer Ref: J-B0984.00
National Grid Reference: 397380, 302190
Slice: A
Site Area (Ha): 1.35
Search Buffer (m): 1000

Site Details

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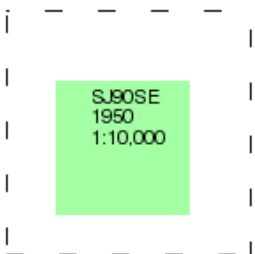
Wolverhampton

Published 1950

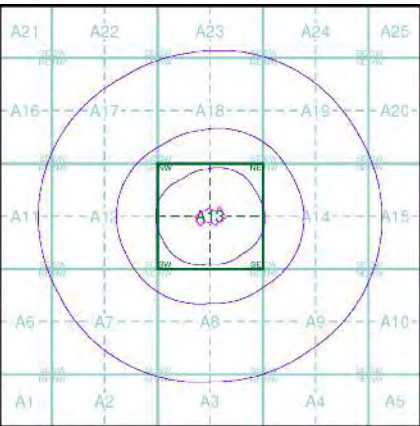
Source map scale - 1:10,000

These maps were produced by the Russian military during the Cold War between 1950 and 1997, and cover 103 towns and cities throughout the U.K. The maps are produced at 1:25,000, 1:10,000 and 1:5,000 scale, and show detailed land use, with colour-coded areas for development, green areas, and non-developed areas. Buildings are coloured black and important building uses (such as hospitals, post offices, factories etc.) are numbered, with a numbered key describing their use. They were produced by the Russians for the benefit of navigation, as well as strategic military sites and transport hubs, for use if they were to have invaded the U.K. The detailed information provided indicates that the areas were surveyed using land-based personnel, on the ground, in the cities that are mapped.

Map Name(s) and Date(s)



Russian Map - Slice A



Order Details

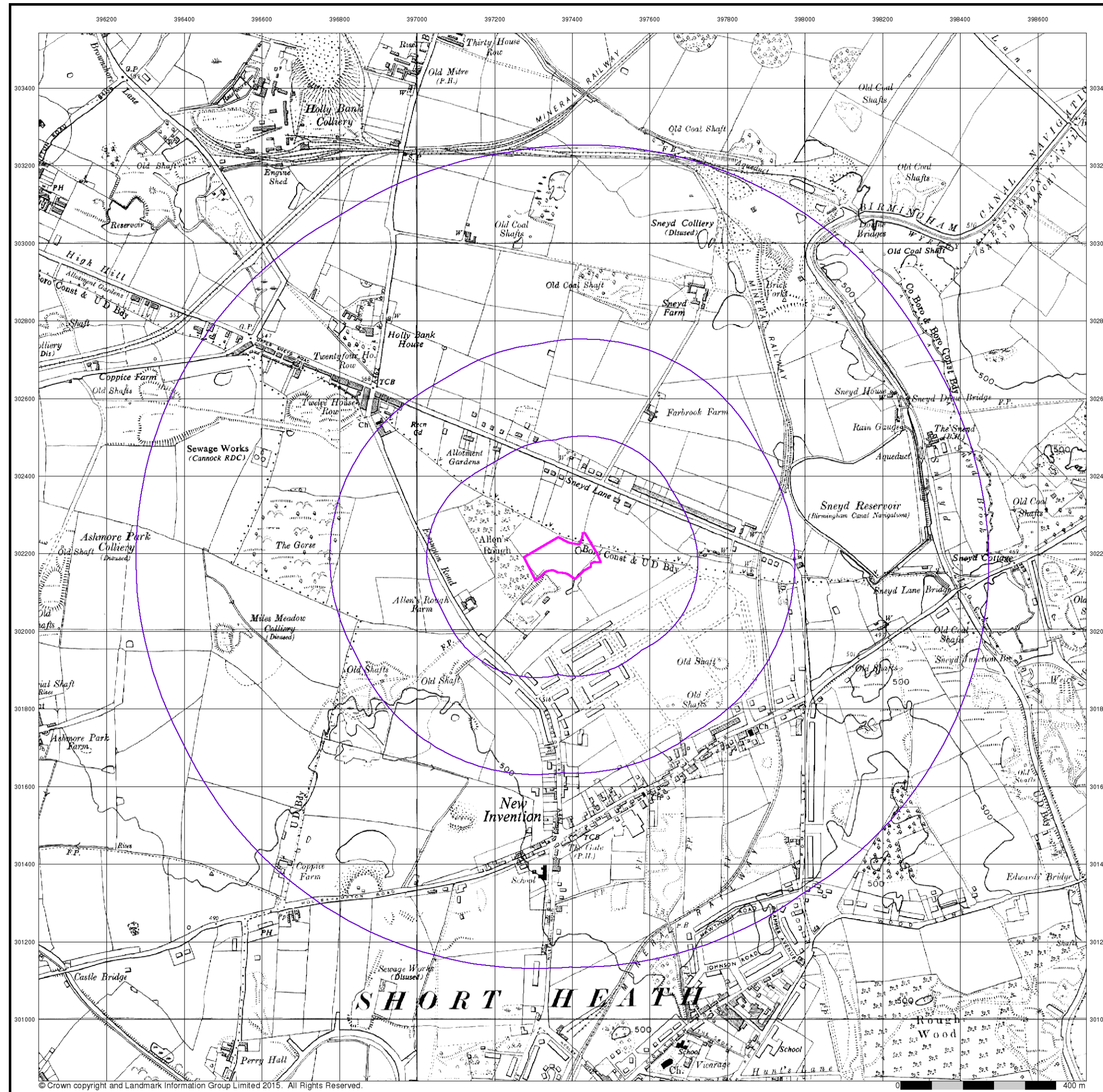
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National Grid Reference: 397380, 302190
Slice: A
Site Area (Ha): 1.35
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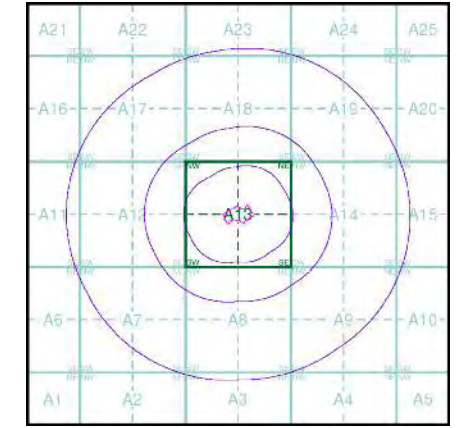
Ordnance Survey Plan
Published 1955
Source map scale - 1:10,000

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)

SJ90SE
1955
1:10,560

Historical Map - Slice A



Order Details

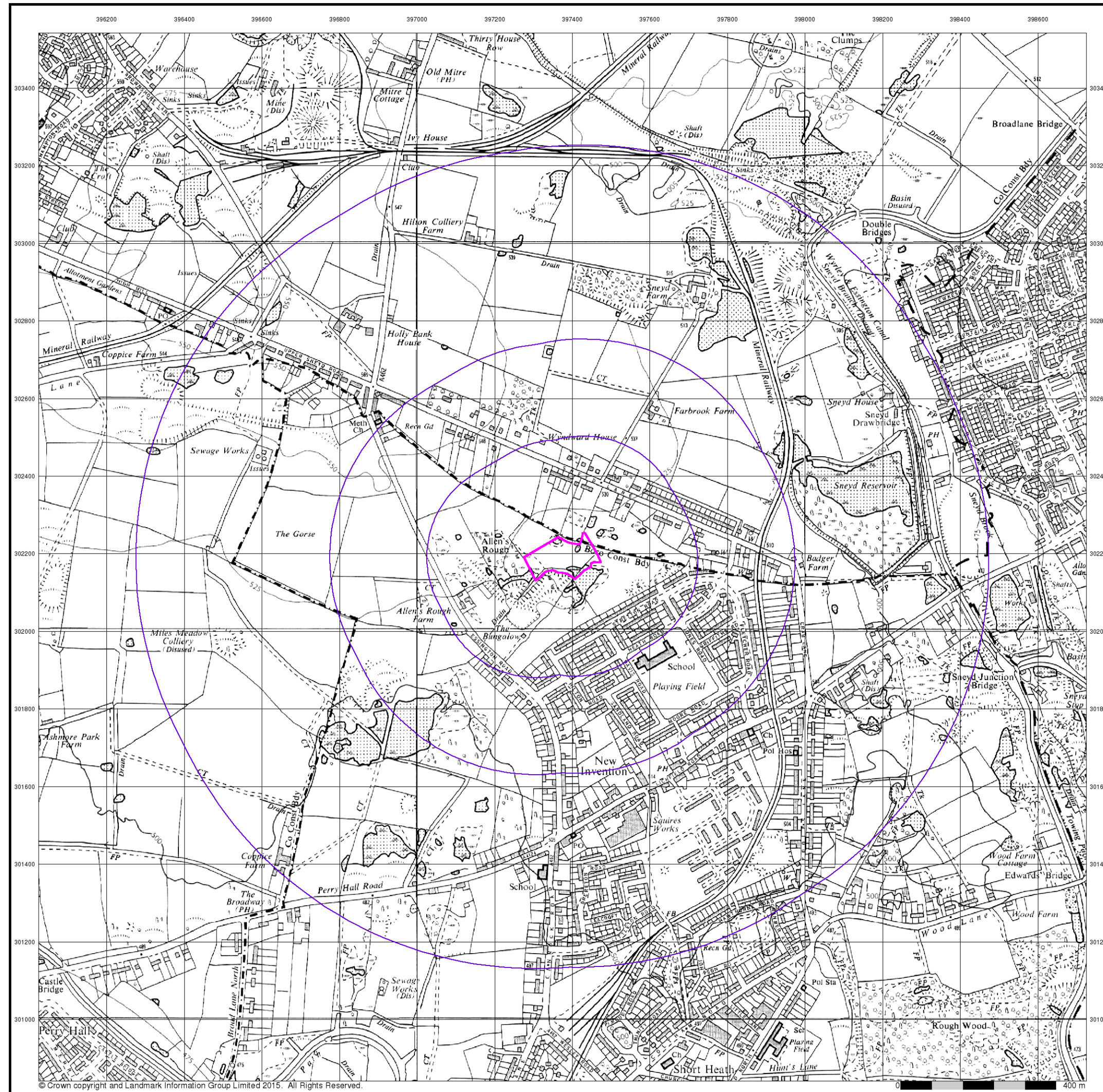
Order Number: 76524890_1_1
Customer Ref: J-B0984.00
National Grid Reference: 397380, 302190
Slice: A
Site Area (Ha): 1.35
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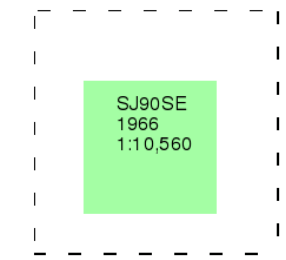
Ordnance Survey Plan

Published 1966

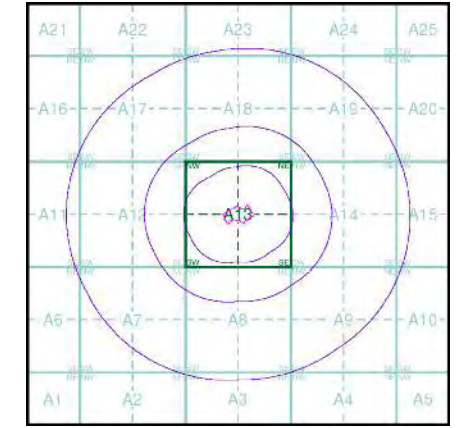
Source map scale - 1:10,000

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)



Historical Map - Slice A



Order Details

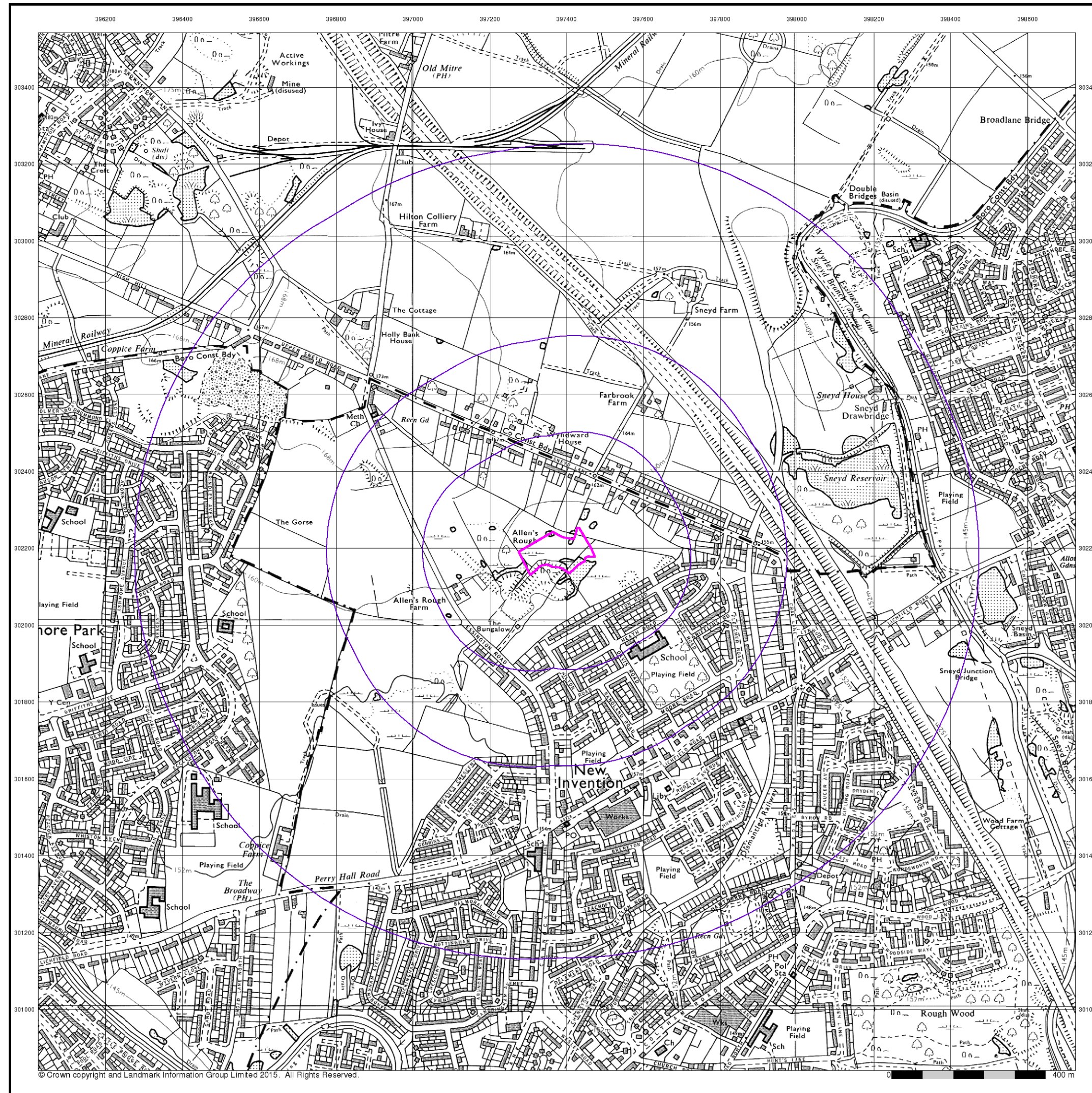
Order Number: 76524890_1_1
Customer Ref: J-B0984.00
National Grid Reference: 397380, 302190
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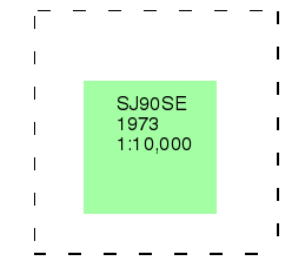
Ordnance Survey Plan

Published 1973

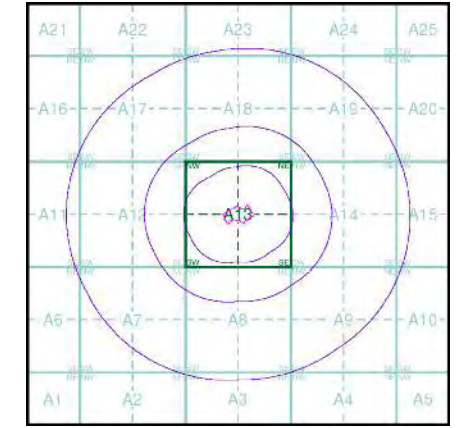
Source map scale - 1:10,000

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: 76524890_1_1
Customer Ref: J-B0984.00
National Grid Reference: 397380, 302190
Slice: A
Site Area (Ha): 1.35
Search Buffer (m): 1000

Site Details

Allens Centre, Hilton Road, Willenhall, WV12 5XB



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



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Ordnance Survey Plan

Published 1982

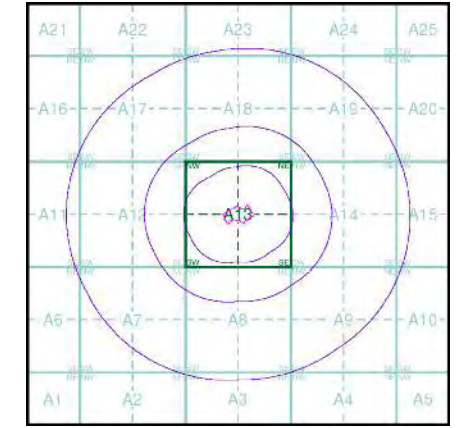
Source map scale - 1:10,000

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)

SJ90SE
1982
1:10,000

Historical Map - Slice A



Order Details

Order Number: 76524890_1_1
Customer Ref: J-B0984.00
National Grid Reference: 397380, 302190
Slice: A
Site Area (Ha): 1.35
Search Buffer (m): 1000

Site Details

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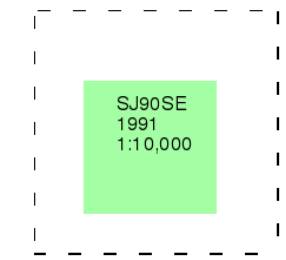
Ordnance Survey Plan

Published 1991

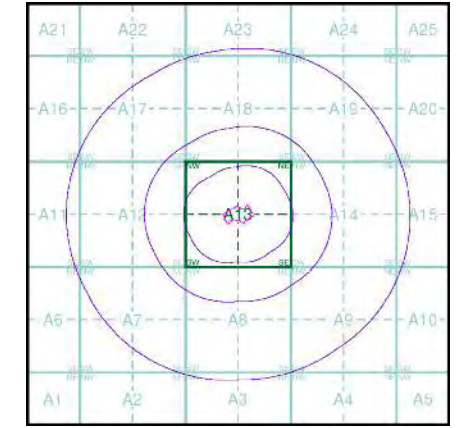
Source map scale - 1:10,000

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

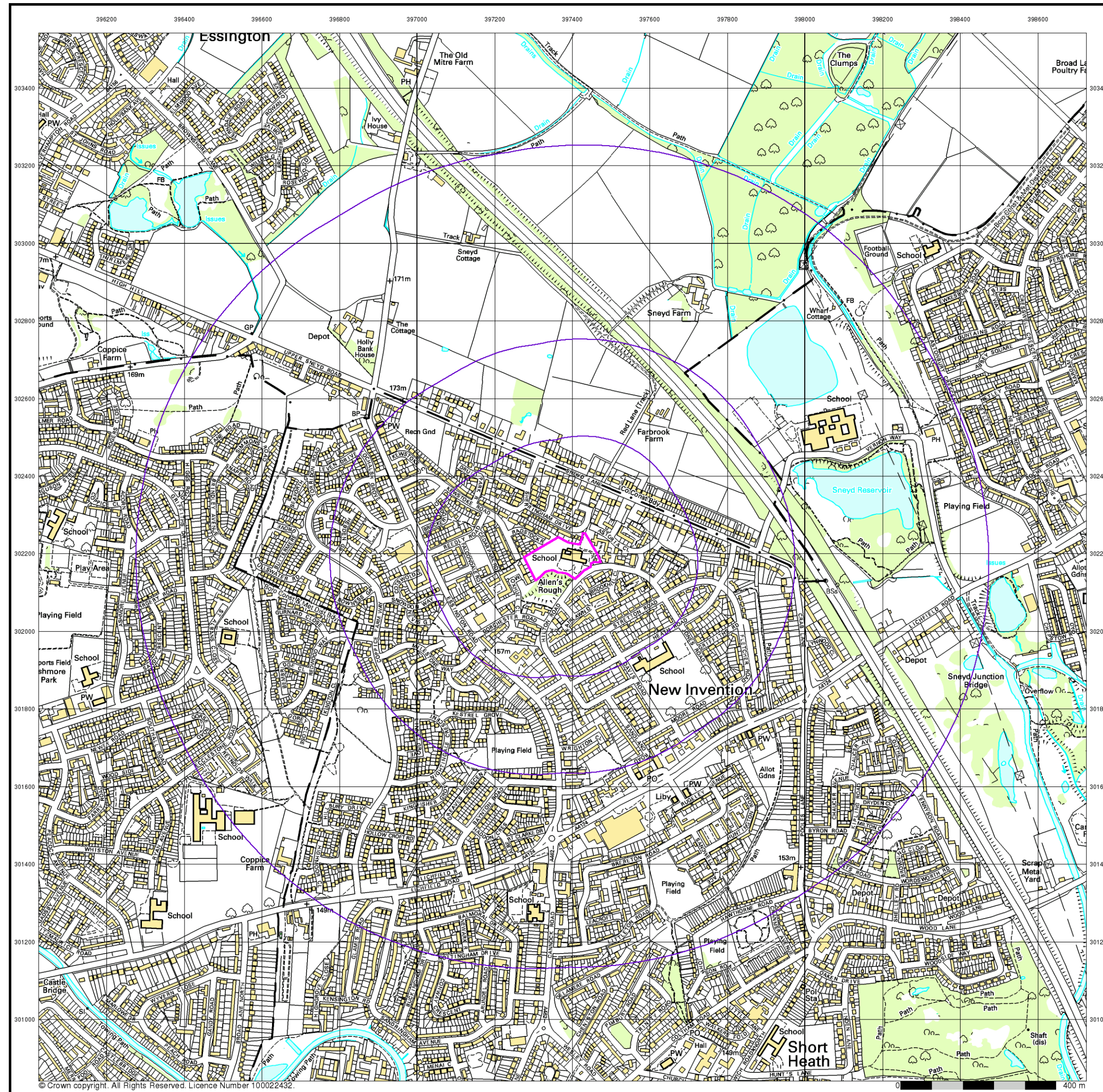
Order Number: 76524890_1_1
Customer Ref: J-B0984.00
National Grid Reference: 397380, 302190
Slice: A
Site Area (Ha): 1.35
Search Buffer (m): 1000

Site Details

Allens Centre, Hilton Road, Willenhall, WV12 5XB



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



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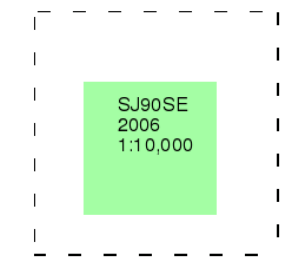
10k Raster Mapping

Published 2006

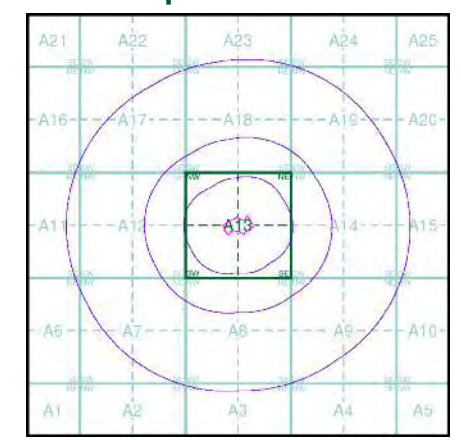
Source map scale - 1:10,000

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)



Historical Map - Slice A



Order Details

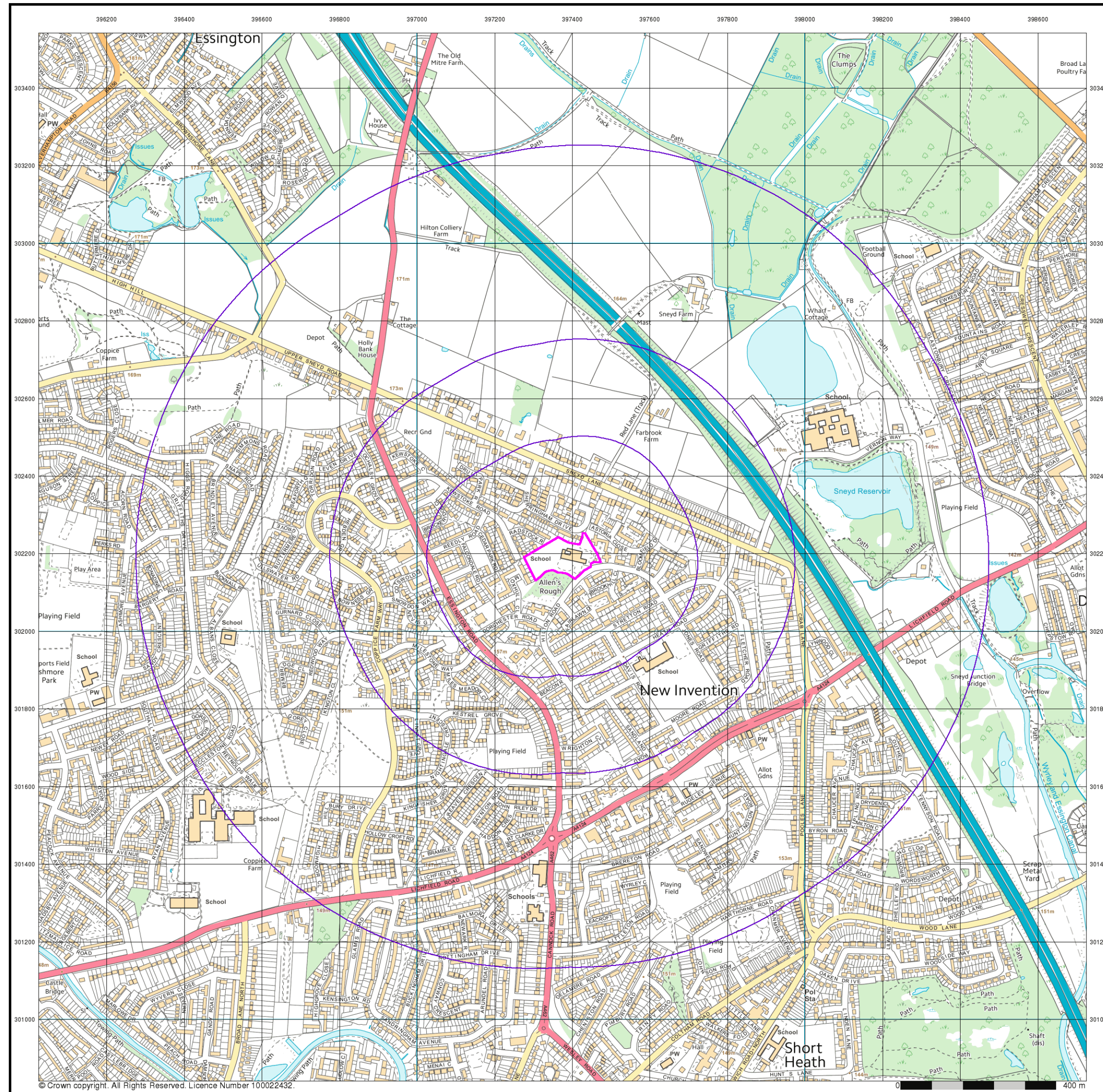
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Customer Ref: J-B0984.00
National Grid Reference: 397380, 302190
Slice: A
Site Area (Ha): 1.35
Search Buffer (m): 1000

Site Details

Allens Centre, Hilton Road, Willenhall, WV12 5XB



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



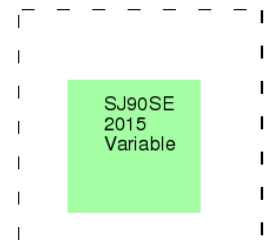
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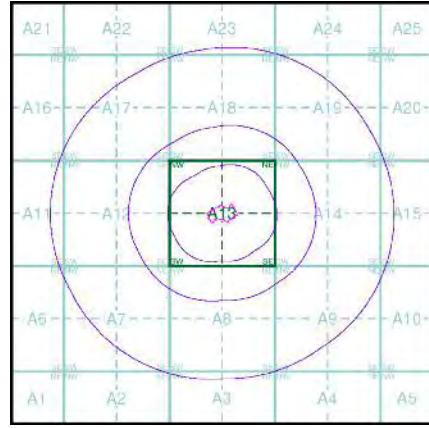
VectorMap Local
Published 2015
Source map scale - 1:10,000

VectorMap Local (Raster) is Ordnance Survey's highest detailed 'backdrop' mapping product. These maps are produced from OS's VectorMap Local, a simple vector dataset at a nominal scale of 1:10,000, covering the whole of Great Britain, that has been designed for creating graphical mapping. OS VectorMap Local is derived from large-scale information surveyed at 1:1250 scale (covering major towns and cities), 1:2500 scale (smaller towns, villages and developed rural areas), and 1:10 000 scale (mountain, moorland and river estuary areas).

Map Name(s) and Date(s)



Historical Map - Slice A



Order Details

Order Number: 76524890_1_1
Customer Ref: J-B0984.00
National Grid Reference: 397380, 302190
Slice: A
Site Area (Ha): 1.35
Search Buffer (m): 1000

Site Details

Allens Centre, Hilton Road, Willenhall, WV12 5XB



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

APPENDIX C

Walsall Council Memorandum



To Nick Ford Asset Management	From Stephanie Bird Assistant Pollution Control Officer Pollution Control
Your Ref	My Ref SMB/Allens Centre

Date: 22 nd September 2014	Ext: 4388	Please ask for: Stephanie Bird
---------------------------------------	-----------	--------------------------------

Allen's Centre, Hilton Road, Willenhall

Pollution Control has reviewed our records and GIS system and can offer the following advice. Reference to historical mapping and land use data indicates that the land that forms the Allens Centre previously had a number of ponds located on it; these may have been infilled to create a level area for development.

The Allen's Centre is also situated adjacent to an area previously subjected to coal and minerals mining "Allen's Rough Colliery". This may have resulted in the creation of spoil heaps and the filling or levelling of surface voids. Copies of our historical maps for this area have been enclosed so you can see the relative proximities of this use to the enquiry address.

Discussion with Geotechnics and Structures has identified a number of mineshafts to the south of the enquiry site, however they have advised that the Coal Authority may hold additional information and enquiries should be made to determine if any additional shafts are located on the enquiry site. They are also aware that there is 4-5 metres of made ground on the site.

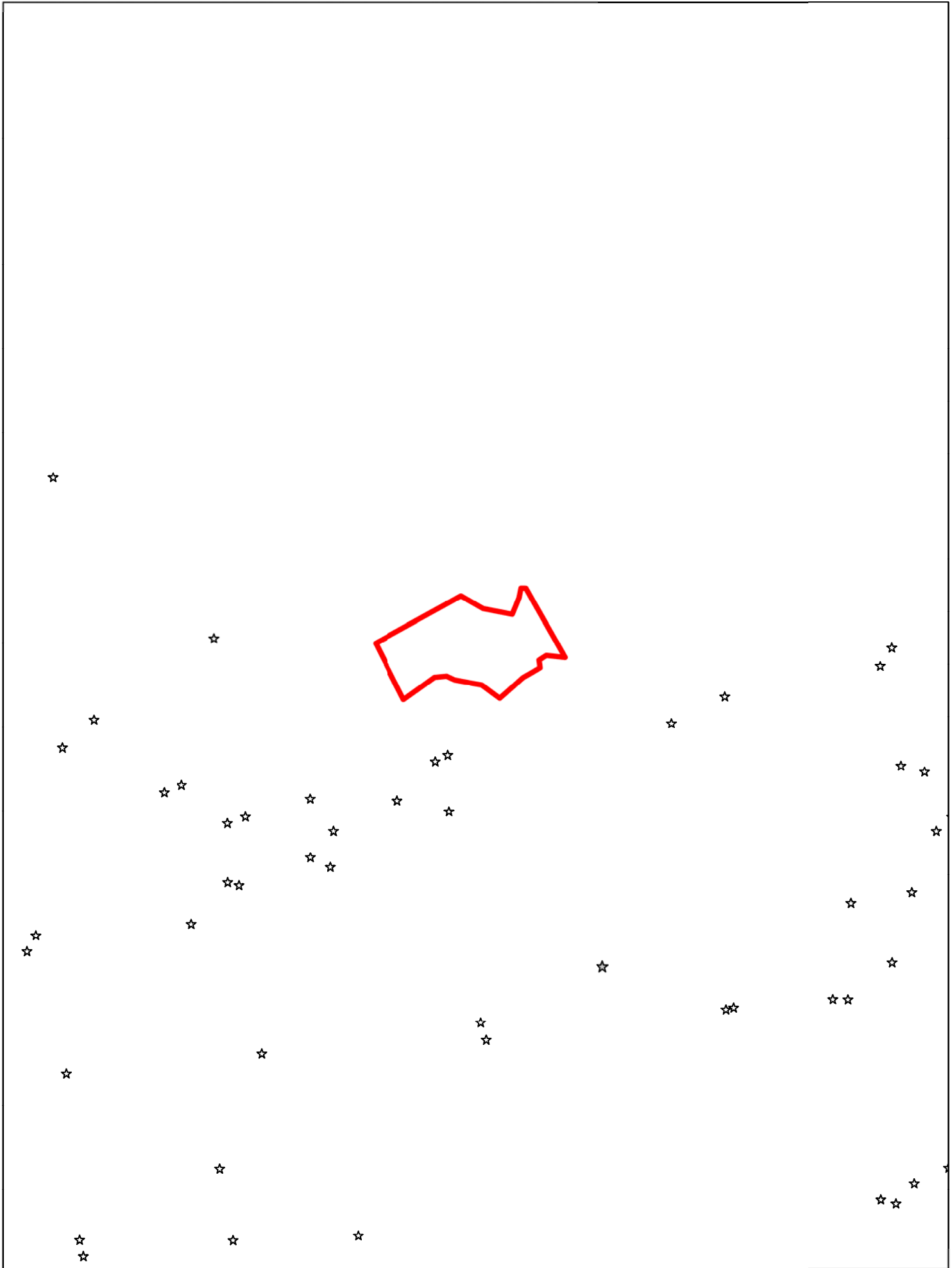
We have also reviewed GIS information supplied by the Environment Agency which shows the area classification (proportion of each 1km square that is susceptible to groundwater flood emergence) as $\geq 25\%$ $< 50\%$.

A review of planning permission for the Allen's Centre (Allen's Rough Community Primary School) does not reveal any conditions requiring a site investigation or remediation at the site which would be able to aid in any investigations.

Having reviewed this information site investigations should be carried out for potential ground contamination as well as geotechnical considerations.

Assistant Pollution Control Officer

Allens Centre, Willenhall Mine Entry Points



APPENDIX D

Coal Authority Report

Issued by:

The Coal Authority, Property Search Services, 200 Lichfield Lane, Berry Hill, Mansfield, Nottinghamshire, NG18 4RG
Website: www.groundstability.com Phone: 0345 762 6848 DX 716176 MANSFIELD 5

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

Our reference: **51001053258003**
Your reference: **76524890_2|**
Date of your enquiry: **07 December 2015**
Date we received your enquiry: **07 December 2015**
Date of issue: **07 December 2015**

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

Non-Residential Coal Authority Mining Report

SITE AT ALLENS CENTRE, HILTON ROAD, WILLENHALL, WEST MIDLANDS,

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	See comments below
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 4 seams of coal at 30m to 100m depth, and last worked in 1933.

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. The potential presence of coal workings at or close to the surface should be considered prior to any site works or future development activity. Your attention is drawn to the Comments on Coal Authority Information section of the report.

Present

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

Future

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

The property is not in an area for which a licence has been granted to remove or otherwise work 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 subject property, or any property within 50 metres, since 31st October 1994.

There is no current Stop Notice delaying the start of remedial works or repairs to the property.

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

Mine gas

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

Hazards related to coal mining

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

Withdrawal of support

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

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

Working facilities orders

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

Payments to owners of former copyhold land

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

Comments on Coal Authority information

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

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

Information from the Cheshire Brine Subsidence Compensation Board

The property lies outside the Cheshire Brine Compensation District.

Additional Remarks

Information provided by the Coal Authority in this report is compiled in response to the Law Society's Con29M Coal Mining and Brine Subsidence Claim enquiries. The said enquiries are protected by copyright owned by the Law Society of 113 Chancery Lane, London WC2A 1PL. Please note that Brine Subsidence Claim enquiries are only relevant for England and Wales. 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 applicable at the time the report was produced.

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Location map



Approximate position of property

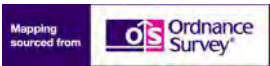


Enquiry boundary

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Key

Approximate position of enquiry boundary shown



APPENDIX E

Environmental Database Report

Envirocheck[®] Report:

Datasheet

Order Details:

Order Number:

76524890_1_1

Customer Reference:

J-B0984.00

National Grid Reference:

397380, 302190

Slice:

A

Site Area (Ha):

1.35

Search Buffer (m):

1000

Site Details:

Allens Centre, Hilton Road

Willenhall

WV12 5XB

Client Details:

Mr N Office User

Opus International Consultants (UK) Ltd

Suite 3, 3800 Park Side

Birmingham Business Park

Solihull

Birmingham

West Midlands

B37 7YG

Report Section	Page Number
Summary	-
Agency & Hydrological	1
Waste	5
Hazardous Substances	-
Geological	8
Industrial Land Use	17
Sensitive Land Use	21
Data Currency	22
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/Natural Resources Wales 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.

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Radon Potential dataset Copyright Notice

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Report Version v50.0

Data Type	Page Number	On Site	0 to 250m	251 to 500m	501 to 1000m (*up to 2000m)
Agency & Hydrological					
Contaminated Land Register Entries and Notices					
Discharge Consents	pg 1				3
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 1				3
Local Authority Pollution Prevention and Control Enforcements	pg 2				1
Nearest Surface Water Feature	pg 2			Yes	
Pollution Incidents to Controlled Waters	pg 2				7
Prosecutions Relating to Authorised Processes					
Prosecutions Relating to Controlled Waters					
Registered Radioactive Substances					
River Quality					
River Quality Biology Sampling Points					
River Quality Chemistry Sampling Points					
Substantiated Pollution Incident Register	pg 3				1
Water Abstractions	pg 3				1
Water Industry Act Referrals					
Groundwater Vulnerability	pg 3	Yes	n/a	n/a	n/a
Bedrock Aquifer Designations	pg 4	Yes	n/a	n/a	n/a
Superficial Aquifer Designations	pg 4	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
Detailed River Network Lines					n/a
Detailed River Network Offline Drainage					n/a

Data Type	Page Number	On Site	0 to 250m	251 to 500m	501 to 1000m (*up to 2000m)
Waste					
BGS Recorded Landfill Sites	pg 5				1
Historical Landfill Sites	pg 5		1		3
Integrated Pollution Control Registered Waste Sites					
Licensed Waste Management Facilities (Landfill Boundaries)	pg 6				1
Licensed Waste Management Facilities (Locations)					
Local Authority Recorded Landfill Sites	pg 6				3
Registered Landfill Sites	pg 7				1
Registered Waste Transfer Sites					
Registered Waste Treatment or Disposal Sites					
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 1:625,000 Solid Geology	pg 8	Yes	n/a	n/a	n/a
BGS Estimated Soil Chemistry	pg 8	Yes	Yes	Yes	Yes
BGS Recorded Mineral Sites	pg 13		1		8
BGS Urban Soil Chemistry	pg 14				Yes
BGS Urban Soil Chemistry Averages	pg 15	Yes			
Brine Compensation Area			n/a	n/a	n/a
Coal Mining Affected Areas	pg 15	Yes	n/a	n/a	n/a
Mining Instability	pg 15	Yes	n/a	n/a	n/a
Man-Made Mining Cavities					
Natural Cavities					
Non Coal Mining Areas of Great Britain	pg 15	Yes		n/a	n/a
Potential for Collapsible Ground Stability Hazards	pg 15	Yes		n/a	n/a
Potential for Compressible Ground Stability Hazards				n/a	n/a
Potential for Ground Dissolution Stability Hazards				n/a	n/a
Potential for Landslide Ground Stability Hazards	pg 15	Yes		n/a	n/a
Potential for Running Sand Ground Stability Hazards	pg 16	Yes		n/a	n/a
Potential for Shrinking or Swelling Clay Ground Stability Hazards	pg 16	Yes		n/a	n/a
Radon Potential - Radon Affected Areas			n/a	n/a	n/a
Radon Potential - Radon Protection Measures			n/a	n/a	n/a

Data Type	Page Number	On Site	0 to 250m	251 to 500m	501 to 1000m (*up to 2000m)
Industrial Land Use					
Contemporary Trade Directory Entries	pg 17		5	4	28
Fuel Station Entries	pg 20				2
Sensitive Land Use					
Areas of Adopted Green Belt	pg 21		1	1	1
Areas of Unadopted Green Belt					
Areas of Outstanding Natural Beauty					
Environmentally Sensitive Areas					
Forest Parks					
Local Nature Reserves	pg 21				1
Marine Nature Reserves					
National Nature Reserves					
National Parks					
Nitrate Sensitive Areas					
Nitrate Vulnerable Zones	pg 21	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: Murphy Bross Ltd Property Type: Undefined Or Other Location: Trade Premises, Bursnips Road, Broad Lane Occs, Essington Authority: Environment Agency, Midlands Region Catchment Area: Upper Tame Catchment To Confluence With Rea Reference: Wq/7/1679 Permit Version: 1 Effective Date: 12th August 1981 Issued Date: 12th August 1981 Revocation Date: Not Supplied Discharge Type: Trade Effluent Discharge-Site Drainage Discharge: Canal Environment: Receiving Water: Sneyd Arm Wyr/ Ess Canal Status: Pre National Rivers Authority Legislation where issue date < 01/09/1989 Positional Accuracy: Located by supplier to within 100m	A18NE (N)	738	3	397400 302990
2	Discharge Consents Operator: Murphy Bross Ltd Property Type: Undefined Or Other Location: Trade Premises, Bursnips Road, Broad Lane Occs, Essington Authority: Environment Agency, Midlands Region Catchment Area: Upper Tame Catchment To Confluence With Rea Reference: Wq/7/1679 Permit Version: 1 Effective Date: 12th August 1981 Issued Date: 12th August 1981 Revocation Date: Not Supplied Discharge Type: Trade Effluent Discharge-Site Drainage Discharge: Canal Environment: Receiving Water: Sneyd Arm Wyr/ Ess Canal Status: Pre National Rivers Authority Legislation where issue date < 01/09/1989 Positional Accuracy: Located by supplier to within 100m	A19SW (NE)	778	3	397930 302850
3	Discharge Consents Operator: B G Jones Property Type: Not Given Location: The Croft, Engine Meadow, Bursnips Road, ESSINGTON , West Midlands Authority: Environment Agency, Midlands Region Catchment Area: Not Given Reference: WQ/72/2703/1 Permit Version: Not Supplied Effective Date: Not Supplied Issued Date: 17th October 1979 Revocation Date: Not Supplied Discharge Type: Sewage Effluent Discharge: Groundwater Environment: Receiving Water: Not Supplied Status: Not Supplied Positional Accuracy: Located by supplier to within 100m	A18NE (N)	892	3	397520 303140
4	Local Authority Pollution Prevention and Controls Name: New Invention Service Station Location: 274-276 Lichfield Road, Willenhall, Walsall, West Midlands, Wv12 5bt Authority: Walsall Metropolitan Borough Council, Environmental Health Department Permit Reference: PV47 Dated: 11th July 2011 Process Type: Local Authority Pollution Prevention and Control Description: PG1/14 Petrol filling station Status: Permitted Positional Accuracy: Manually positioned to the address or location	A9NE (SE)	698	4	398083 301838
4	Local Authority Pollution Prevention and Controls Name: Acorn Motor Co Ltd Location: Lichfield Road, WILLENHALL, West Midlands, WV12 5BT Authority: Walsall Metropolitan Borough Council, Environmental Health Department Permit Reference: Pv36 Dated: 14th December 1998 Process Type: Local Authority Pollution Prevention and Control Description: PG1/14 Petrol filling station Status: Authorisation revokedRevoked Positional Accuracy: Automatically positioned to the address	A9NE (SE)	698	4	398083 301838

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
5	Local Authority Pollution Prevention and Controls Name: Tesco Stores Ltd Location: Lichfield Road, Wednesfield, WOLVERHAMPTON, West Midlands, WV12 5VL Authority: Walsall Metropolitan Borough Council, Environmental Health Department Permit Reference: Pv8 Dated: 18th November 1998 Process Type: Local Authority Pollution Prevention and Control Description: PG1/14 Petrol filling station Status: Authorised Positional Accuracy: Manually positioned to the address or location	A8SW (S)	830	4	397121 301322
6	Local Authority Pollution Prevention and Control Enforcements Location: Lichfield Road, New Invention, Willenhall, Wv12 5bt Type: Air Pollution Control Enforcement Notice Reference: PV36 Date Issued: 28th April 2000 Enforcement Date: 28th April 2000 Details: Not Supplied Positional Accuracy: Manually positioned to the address or location	A9NE (SE)	685	4	398074 301848
	Nearest Surface Water Feature	A18SW (N)	309	-	397269 302536
7	Pollution Incidents to Controlled Waters Property Type: Fire Water Location: Tristand Limited, Unit 4 , Coxstalls Road , BLOXWICH Authority: Environment Agency, Midlands Region Pollutant: Miscellaneous - Other Note: Sneyd Brook; Car Fire Foam Used By Fire Service; No Adverse Effects Incident Date: 10th May 1997 Incident Reference: 2001886 Catchment Area: Trent Catchment : Upper Tame To Confluence With Rea Receiving Water: Watercourse Cause of Incident: Fire Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A14SW (E)	556	3	398000 302000
8	Pollution Incidents to Controlled Waters Property Type: Private Sewage (Non-PLC): Other Location: Cannock Road, WILLENHALL Authority: Environment Agency, Midlands Region Pollutant: Crude Sewage Note: Illegal Dumping Chemical Toilets To Drains; Other Adverse Effects Incident Date: 17th April 1996 Incident Reference: 2700670 Catchment Area: Trent Catchment : Upper Tame To Confluence With Rea Receiving Water: Not Given Cause of Incident: Deliberate Disposal To Drain Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A8SW (S)	671	3	397320 301460
9	Pollution Incidents to Controlled Waters Property Type: Engineering Location: Willenhall-Clift Close, Holly Bank Basin Authority: Environment Agency, Midlands Region Pollutant: Miscellaneous - Colour Note: Amenity Affected; Sandy Brown Colouration On Watercourse Incident Date: 21st March 1997 Incident Reference: 2702101 Catchment Area: Trent Catchment : Upper Tame To Confluence With Rea Receiving Water: Canal Cause of Incident: Deliberate Disposal To Drain Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A8SE (SE)	699	3	397700 301500
9	Pollution Incidents to Controlled Waters Property Type: Metal industry Location: Electrolytic Plating, 138 Wednesbury Road, WALSALL, West Midlands, WS1 Authority: Environment Agency, Midlands Region Pollutant: Chemicals - Other Organic Note: Unknown Watercourse; 10 Pumps Attending Fire Chemicals & Asbestos Roof; Other Adverse Effects; Incident Date: 15th July 1999 Incident Reference: 2003666 Catchment Area: Trent Catchment : River Cole Receiving Water: Watercourse Cause of Incident: Fire Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 10m	A8SE (SE)	703	3	397700 301495

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
10	Pollution Incidents to Controlled Waters Property Type: Water Company Sewage: Surface Water Outfall Location: Sneyd Branch Canal Junction , Lichfield Canal Authority: Environment Agency, Midlands Region Pollutant: Other Sewage Note: Wyrley & Essington Canal; Wrong Connections; Amenity Effected Incident Date: 18th February 1998 Incident Reference: 2703701 Catchment Area: Trent Catchment : Upper Tame To Confluence With Rea Receiving Water: Canal Cause of Incident: Wrong Connection Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A14SE (E)	880	3	398350 302100
11	Pollution Incidents to Controlled Waters Property Type: Road (Road Traffic Accident) Location: Allmans Transport , Lichfield Road, NEW INVENTION Authority: Environment Agency, Midlands Region Pollutant: Oils - Unknown Note: Wyrley & Essington Canal; Waste Oil Contamination To Ditch; Amenity Effected Incident Date: 9th February 1998 Incident Reference: 2702825 Catchment Area: Trent Catchment : Upper Tame To Confluence With Rea Receiving Water: Canal Cause of Incident: Poor Operational Practice Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A14SE (E)	906	3	398350 301950
12	Pollution Incidents to Controlled Waters Property Type: No Premises Identified Location: River Tame, Greater Manchester Authority: Environment Agency, North West Region Pollutant: No Pollutant Note: Not Supplied Incident Date: 18th June 1999 Incident Reference: 28666 Catchment Area: Tame Receiving Water: River Stretch (Freshwater) Cause of Incident: Other Cause Incident Severity: Category 3 - Minor Incident Positional Accuracy: Approximate location provided by supplier	A8SE (S)	935	3	397400 301200
13	Substantiated Pollution Incident Register Authority: Environment Agency - Midlands Region, Central Area Incident Date: 18th July 2011 Incident Reference: 905263 Water Impact: Category 4 - No Impact Air Impact: Category 4 - No Impact Land Impact: Category 2 - Significant Incident Positional Accuracy: Located by supplier to within 10m Pollutant: Specific Waste Materials: Household Waste	A19NW (NE)	693	3	397723 302881
14	Water Abstractions Operator: H Squire & Sons Licence Number: 03/28/08/0094 Permit Version: 100 Location: New Invention, Willenhall - Borehole Authority: Environment Agency, Midlands Region Abstraction: Metal: Process Water Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: New Invention Authorised Start: 01 April Authorised End: 31 March Permit Start Date: 1st April 1979 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	A8SE (S)	740	3	397500 301400
	Groundwater Vulnerability Soil Classification: Soils of High Leaching Potential (U) - Soil information for restored mineral workings and urban areas is based on fewer observations than elsewhere. A worst case vulnerability classification (H) assumed, until proved otherwise Map Sheet: Sheet 22 South Staffordshire & East Shropshire Scale: 1:100,000	A13SE (SW)	0	3	397375 302187
	Drift Deposits Drift Deposit: Low permeability drift deposits occurring at the surface and overlying Major and Minor Aquifers are head, clay-with-flints, brickearth, peat, river terrace deposits and marine and estuarine alluvium Map Sheet: Sheet 22 South Staffordshire & East Shropshire Scale: 1:100,000	A13SE (SW)	0	3	397375 302187

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Bedrock Aquifer Designations Aquifer Designation: Secondary Aquifer - A	A13SE (SW)	0	2	397375 302187
	Superficial Aquifer Designations Aquifer Designation: Unproductive Strata	A13SE (SW)	0	2	397375 302187
	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				
	Detailed River Network Lines None				
	Detailed River Network Offline Drainage None				

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
15	BGS Recorded Landfill Sites Site Name: Bunsnips Road Tip Location: ESSINGTON, Staffs Authority: British Geological Survey, National Geoscience Information Service Ground Water: Information not available Surface Water: Information not available Geology: N/A Positional Accuracy: Positioned by the supplier Boundary Accuracy: Good	A18NW (N)	805	-	397111 303006
16	Historical Landfill Sites Licence Holder: Not Supplied Location: Essington Road, Off Hilton Road, New Invention, Willenhall, West Midlands Name: Allens Rough Farm Phase II Contract Operator Location: Linden Road, Brownhills, Walsall Boundary Accuracy: As Supplied Provider Reference: EAHLD18262 First Input Date: Not Supplied Last Input Date: 7th June 1977 Specified Waste Type: Deposited Waste included Industrial Waste and Liquid Sludge EA Waste Ref: 0 Regis Ref: Not Supplied WRC Ref: Not Supplied BGS Ref: Not Supplied Other Ref: 644/410, AWR, 4600/9217	A13SW (SW)	126	3	397257 302015
17	Historical Landfill Sites Licence Holder: Wolverhampton Metropolitan Borough Council Location: Kitchen Lane, Ashmore Park, Wolverhampton, West Midlands Name: Kitchen Lane Operator Location: Not Supplied Boundary Accuracy: As Supplied Provider Reference: EAHLD24150 First Input Date: Not Supplied Last Input Date: Not Supplied Specified Waste Type: Deposited Waste included Commercial and Household Waste EA Waste Ref: 0 Regis Ref: Not Supplied WRC Ref: 4600/0292 BGS Ref: Not Supplied Other Ref: LF/3, 644/344	A12NW (NW)	704	3	396659 302529
18	Historical Landfill Sites Licence Holder: Not Supplied Location: Essington, Staffordshire Name: Bursnips Road Tip Operator Location: Not Supplied Boundary Accuracy: As Supplied Provider Reference: EAHLD31542 First Input Date: 1st July 1971 Last Input Date: Not Supplied Specified Waste Type: Deposited Waste included Commercial Waste EA Waste Ref: 0 Regis Ref: Not Supplied WRC Ref: Not Supplied BGS Ref: 829 Other Ref: SOUTH STAFFORDSHIRE 56	A18NW (N)	805	3	397111 303006
19	Historical Landfill Sites Licence Holder: Not Supplied Location: Land North Of Sneyd Lane, Sneyd Lane, Bloxwich, Walsall, West Midlands Name: Mossley Landfill Site Operator Location: Not Supplied Boundary Accuracy: As Supplied Provider Reference: EAHLD18265 First Input Date: Not Supplied Last Input Date: Not Supplied Specified Waste Type: Deposited Waste included Commercial and Household Waste EA Waste Ref: 0 Regis Ref: Not Supplied WRC Ref: 4600/0471 BGS Ref: Not Supplied Other Ref: WALSL1, 644/1925	A19SE (NE)	868	3	398169 302711

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
20	Licensed Waste Management Facilities (Landfill Boundaries) Name: Boydon - The Old Mineral Line Licence Number: 42240 Location: Gate House, Bursnips Road, Essington, Staffordshire, WV11 2RE Licence Holder: Boydon Mr C Authority: Environment Agency - Midlands Region, Central Area Site Category: Landfills Taking Non-biodegradable Wastes (Not Construction) Max Input Rate: Not Supplied Licence Status: Closure Issued: Not Supplied Positional Accuracy: Positioned by the supplier Boundary Accuracy: As Supplied	A18NW (N)	803	3	397112 303004
	Local Authority Landfill Coverage Name: Walsall Metropolitan Borough Council - Has supplied landfill data		0	4	397375 302187
	Local Authority Landfill Coverage Name: Staffordshire County Council - Has supplied landfill data		131	6	397459 302383
	Local Authority Landfill Coverage Name: South Staffordshire District Council - Has no landfill data to supply		131	8	397459 302383
	Local Authority Landfill Coverage Name: Wolverhampton City Council - Has supplied landfill data		461	5	396846 302024
21	Local Authority Recorded Landfill Sites Location: Kitchen Lane Reference: 3 Authority: Wolverhampton City Council Last Reported Status: Unknown Types of Waste: Not Supplied Date of Closure: Not Supplied Positional Accuracy: Located by supplier to within 10m Boundary Quality: Not Applicable	A17SW (NW)	790	5	396600 302600
22	Local Authority Recorded Landfill Sites Location: Bursnip Road, Essington Reference: 56 Authority: Staffordshire County Council, Waste Management Last Reported Status: Unknown Types of Waste: Not Supplied Date of Closure: Not Supplied Positional Accuracy: Positioned by the supplier Boundary Quality: Moderate	A18NW (N)	801	6	397114 303003
23	Local Authority Recorded Landfill Sites Location: Mossley Tip Reference: Not Supplied Authority: Walsall Metropolitan Borough Council, Environmental Health Department Last Reported Status: Closed Types of Waste: Not Supplied Date of Closure: Not Supplied Positional Accuracy: Positioned by the supplier Boundary Quality: Good	A19SE (NE)	873	4	398186 302693

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
24	Registered Landfill Sites Licence Holder: C Boydon Licence Reference: 6/A/92/0439 (B60) Site Location: Old Mineral Line; Gate House, Bursnips Road, Essington, Wolverhampton, West Midlands Licence Easting: 397000 Licence Northing: 303100 Operator Location: 90 Brownshoe Lane, ESSINGTON, Staffordshire, WV11 2AG Authority: Environment Agency - Midlands Region, Upper Trent 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: Some restriction on source of waste Restrictions: Status: Site Closed Dated: 22nd June 1992 Preceded By: Not Given Licence: Superseded By: Not Given Licence: Positional Accuracy: Manually positioned to the address or location Boundary Accuracy: Not Applicable Authorised Waste: Inert Soils & Subsoils Prohibited Waste: Bulky Items Likely To Cause Voids Drums, Full Or Empty Liquid/Sludge Wastes Notifiable Wastes Other Degradable Mat'S Paper/Cardboard Waste Plasterboard Plastics Spec.Waste (Epa'90:S62/1996 Regs) Timber, Timber Prods	A17NE (N)	932	3	397000 303100

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS 1:625,000 Solid Geology Description: Pennine Middle Coal Measures Formation And South Wales Middle Coal Measures Formation (Undifferentiated)	A13SE (SW)	0	2	397375 302187
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic <15 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel 15 - 30 mg/kg Concentration:	A13SE (SW)	0	2	397375 302187
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic <15 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel 15 - 30 mg/kg Concentration:	A13SE (SE)	64	2	397432 302076
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic <15 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel 15 - 30 mg/kg Concentration:	A13SW (S)	131	2	397317 302000
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic <15 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel 15 - 30 mg/kg Concentration:	A13SE (S)	131	2	397375 302000
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic <15 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel 15 - 30 mg/kg Concentration:	A13NE (NE)	166	2	397529 302387
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic <15 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel 15 - 30 mg/kg Concentration:	A12SE (W)	276	2	397000 302187

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic <15 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel 15 - 30 mg/kg Concentration:	A13NW (NW)	306	2	397196 302498
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic <15 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel 15 - 30 mg/kg Concentration:	A12SE (SW)	332	2	397000 302000
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic <15 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel 15 - 30 mg/kg Concentration:	A18SW (N)	357	2	397240 302577
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic <15 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel 15 - 30 mg/kg Concentration:	A12NE (NW)	394	2	397000 302471
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic <15 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel 15 - 30 mg/kg Concentration:	A12NE (NW)	394	2	397000 302471
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic <15 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel 15 - 30 mg/kg Concentration:	A8NE (S)	408	2	397431 301727

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic <15 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel 15 - 30 mg/kg Concentration:	A18SW (N)	428	2	397293 302664
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic <15 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel 15 - 30 mg/kg Concentration:	A14SW (E)	527	2	398000 302187
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic <15 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel 15 - 30 mg/kg Concentration:	A14NW (E)	532	2	398000 302251
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic <15 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel 15 - 30 mg/kg Concentration:	A12NE (W)	541	2	396776 302396
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic <15 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel 15 - 30 mg/kg Concentration:	A14SW (E)	556	2	398000 302000
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic <15 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel 15 - 30 mg/kg Concentration:	A7NE (SW)	560	2	397000 301662

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic <15 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel 15 - 30 mg/kg Concentration:	A14SW (E)	561	2	398000 301985
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic <15 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel 15 - 30 mg/kg Concentration:	A7NE (SW)	709	2	396804 301631
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic <15 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel 15 - 30 mg/kg Concentration:	A18NE (N)	748	2	397375 303000
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic <15 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel 15 - 30 mg/kg Concentration:	A18NE (N)	754	2	397524 303000
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic <15 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel 15 - 30 mg/kg Concentration:	A18NW (N)	778	2	397187 303000
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic <15 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel 15 - 30 mg/kg Concentration:	A7NE (SW)	816	2	396705 301580

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic <15 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel 15 - 30 mg/kg Concentration:	A17NE (NW)	841	2	397000 303000
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic <15 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel 15 - 30 mg/kg Concentration:	A7NW (SW)	903	2	396624 301540
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic <15 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel 15 - 30 mg/kg Concentration:	A9NE (SE)	913	2	398201 301627
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic <15 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 40 - 60 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel 15 - 30 mg/kg Concentration:	A15NW (E)	921	2	398392 302240
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic <15 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel 15 - 30 mg/kg Concentration:	A19NW (NE)	939	2	398000 303000
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic <15 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 40 - 60 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel 15 - 30 mg/kg Concentration:	A14NE (E)	969	2	398380 302521

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic: 15 - 25 mg/kg Concentration: Cadmium: <1.8 mg/kg Concentration: Chromium: 60 - 90 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel: 15 - 30 mg/kg Concentration:	A7SE (SW)	996	2	396898 301223
25	BGS Recorded Mineral Sites Site Name: Allen'S Rough Colliery, Nos 1, 2 Pits Location: , Essington, Staffordshire Source: British Geological Survey, National Geoscience Information Service Reference: 20820 Type: Underground Status: Ceased Operator: Unknown Operator Operator Location: Unknown Operator Periodic Type: Carboniferous Geology: Pennine Middle Coal Measures Formation Commodity: Coal - Deep Positional Accuracy: Located by supplier to within 10m	A13SW (SW)	82	2	397295 302050
26	BGS Recorded Mineral Sites Site Name: Allen'S Rough Colliery No 4 Location: , Ashmore Park, Wolverhampton, Staffordshire Source: British Geological Survey, National Geoscience Information Service Reference: 65485 Type: Underground Status: Ceased Operator: Unknown Operator Operator Location: Unknown Operator Periodic Type: Carboniferous Geology: Pennine Coal Measures Group Commodity: Coal - Deep Positional Accuracy: Located by supplier to within 10m	A12NE (NW)	543	2	396811 302470
27	BGS Recorded Mineral Sites Site Name: Hilton Colliery Location: , Essington, Wolverhampton, Staffordshire Source: British Geological Survey, National Geoscience Information Service Reference: 65497 Type: Underground Status: Ceased Operator: Unknown Operator Operator Location: Unknown Operator Periodic Type: Carboniferous Geology: Pennine Coal Measures Group Commodity: Coal - Deep Positional Accuracy: Located by supplier to within 10m	A18SE (N)	615	2	397467 302866
28	BGS Recorded Mineral Sites Site Name: Allen'S Rough Colliery No 3 Location: , Ashmore Park, Wolverhampton, Staffordshire Source: British Geological Survey, National Geoscience Information Service Reference: 65484 Type: Underground Status: Ceased Operator: Unknown Operator Operator Location: Unknown Operator Periodic Type: Carboniferous Geology: Pennine Coal Measures Group Commodity: Coal - Deep Positional Accuracy: Located by supplier to within 10m	A17SE (NW)	621	2	396759 302535
29	BGS Recorded Mineral Sites Site Name: Miles Meadow Colliery Location: , Ashmore Park, Wolverhampton, West Midlands Source: British Geological Survey, National Geoscience Information Service Reference: 20821 Type: Underground Status: Ceased Operator: Unknown Operator Operator Location: Unknown Operator Periodic Type: Carboniferous Geology: Pennine Middle Coal Measures Formation Commodity: Coal - Deep Positional Accuracy: Located by supplier to within 10m	A12SW (W)	764	2	396530 302025

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
30	BGS Recorded Mineral Sites Site Name: Hilton Colliery Brick Works Location: , Essington, Wolverhampton, West Midlands Source: British Geological Survey, National Geoscience Information Service Reference: 65494 Type: Opencast Status: Ceased Operator: Unknown Operator Operator Location: Unknown Operator Periodic Type: Carboniferous Geology: Pennine Middle Coal Measures Formation Commodity: Common Clay and Shale Positional Accuracy: Located by supplier to within 10m	A19SW (NE)	811	2	397977 302853
31	BGS Recorded Mineral Sites Site Name: The Hollies Location: , Ashmore Park, Wolverhampton, Staffordshire Source: British Geological Survey, National Geoscience Information Service Reference: 65495 Type: Opencast Status: Ceased Operator: Unknown Operator Operator Location: Unknown Operator Periodic Type: Quaternary Geology: Till, Devensian Commodity: Sand and Gravel Positional Accuracy: Located by supplier to within 10m	A17SW (NW)	831	2	396590 302659
32	BGS Recorded Mineral Sites Site Name: Pool Hayes Colliery Location: , Willenhall, Walsall, Staffordshire Source: British Geological Survey, National Geoscience Information Service Reference: 65724 Type: Underground Status: Ceased Operator: Unknown Operator Operator Location: Unknown Operator Periodic Type: Carboniferous Geology: Pennine Coal Measures Group Commodity: Coal - Deep Positional Accuracy: Located by supplier to within 10m	A7SE (SW)	896	2	396975 301298
33	BGS Recorded Mineral Sites Site Name: Essington Farm Colliery Location: , Essington, Wolverhampton, Staffordshire Source: British Geological Survey, National Geoscience Information Service Reference: 65499 Type: Underground Status: Ceased Operator: Unknown Operator Operator Location: Unknown Operator Periodic Type: Carboniferous Geology: Pennine Coal Measures Group Commodity: Coal - Deep Positional Accuracy: Located by supplier to within 10m	A19NW (NE)	951	2	397871 303095
	BGS Measured Urban Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Grid: 396750, 302250 Soil Sample Type: Topsoil Sample Area: Wolverhampton Arsenic Measured 10.00 mg/kg Concentration: Cadmium Measured 1.00 mg/kg Concentration: Chromium Measured 64.00 mg/kg Concentration: Lead Measured 84.00 mg/kg Concentration: Nickel Measured 13.00 mg/kg Concentration:	A12NE (W)	529	2	396750 302250

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS Measured Urban Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Grid: 396770, 301740 Soil Sample Type: Topsoil Sample Area: Wolverhampton Arsenic Measured Concentration: 20.00 mg/kg Cadmium Measured Concentration: 2.00 mg/kg Chromium Measured Concentration: 91.00 mg/kg Lead Measured Concentration: 114.00 mg/kg Nickel Measured Concentration: 48.00 mg/kg	A7NE (SW)	664	2	396770 301740
	BGS Urban Soil Chemistry Averages Source: British Geological Survey, National Geoscience Information Service Sample Area: Wolverhampton Count Id: 284 Arsenic Minimum Concentration: 4.00 mg/kg Arsenic Average Concentration: 20.00 mg/kg Arsenic Maximum Concentration: 158.00 mg/kg Cadmium Minimum Concentration: 0.10 mg/kg Cadmium Average Concentration: 1.90 mg/kg Cadmium Maximum Concentration: 70.00 mg/kg Chromium Minimum Concentration: 38.00 mg/kg Chromium Average Concentration: 99.00 mg/kg Chromium Maximum Concentration: 1312.00 mg/kg Lead Minimum Concentration: 27.00 mg/kg Lead Average Concentration: 243.00 mg/kg Lead Maximum Concentration: 2779.00 mg/kg Nickel Minimum Concentration: 12.00 mg/kg Nickel Average Concentration: 39.00 mg/kg Nickel Maximum Concentration: 234.00 mg/kg	A13SW (W)	0	2	397300 302187
	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.	A13SE (SW)	0	7	397375 302187
	Mining Instability Mining Evidence: Inconclusive Coal Mining Source: Ove Arup & Partners Boundary Quality: As Supplied	A13SE (SW)	0	-	397375 302187
	Non Coal Mining Areas of Great Britain Risk: Highly Unlikely Source: British Geological Survey, National Geoscience Information Service	A13SE (SW)	0	2	397375 302187
	Potential for Collapsible Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13SE (SW)	0	2	397375 302187
	Potential for Compressible Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13SE (SW)	0	2	397375 302187
	Potential for Ground Dissolution Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13SE (SW)	0	2	397375 302187
	Potential for Landslide Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13SE (SW)	0	2	397375 302187

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Potential for Running Sand Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13SE (SW)	0	2	397375 302187
	Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13SE (SW)	0	2	397375 302187
	Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13NE (NE)	166	2	397529 302387
	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	A13SE (SW)	0	2	397375 302187
	Radon Potential - Radon Affected Areas Affected Area: The property is in a lower probability radon area, as less than 1% of homes are above the action level Source: British Geological Survey, National Geoscience Information Service	A13SE (SW)	0	2	397375 302187

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
34	Contemporary Trade Directory Entries Name: Chemex Location: 52, Kewstoke Road, Willenhall, West Midlands, WV12 5DL Classification: Cleaning Materials & Equipment Status: Active Positional Accuracy: Automatically positioned to the address	A13NW (W)	55	-	397228 302217
35	Contemporary Trade Directory Entries Name: Meadows Location: 17, Stretton Road, Willenhall, West Midlands, WV12 5EJ Classification: Cleaning Services - Domestic Status: Inactive Positional Accuracy: Automatically positioned to the address	A13SE (S)	150	-	397418 301985
36	Contemporary Trade Directory Entries Name: A B A Cranes Ltd Location: 52, Sneyd Lane, Essington, WOLVERHAMPTON, WV11 2DU Classification: Crane Hire, Sales & Service Status: Active Positional Accuracy: Automatically positioned to the address	A13NE (N)	173	-	397431 302426
37	Contemporary Trade Directory Entries Name: Finishing Plant Services & Maintenance Location: 23, Heath Road, Willenhall, West Midlands, WV12 5EZ Classification: Powder Coatings Status: Inactive Positional Accuracy: Automatically positioned to the address	A13SE (SE)	216	-	397580 301990
38	Contemporary Trade Directory Entries Name: Safe Homes Location: 90, Sneyd Lane, Essington, Wolverhampton, WV11 2DX Classification: Safes & Vaults - Suppliers & Installers Status: Inactive Positional Accuracy: Automatically positioned to the address	A13NE (NE)	225	-	397648 302331
39	Contemporary Trade Directory Entries Name: Hickman Leisure Services Ltd Location: 27, Kewstoke Road, Willenhall, West Midlands, WV12 5DY Classification: Engineering Services Status: Active Positional Accuracy: Automatically positioned to the address	A13NW (NW)	262	-	397095 302380
40	Contemporary Trade Directory Entries Name: Miracle Man Location: 23, Kestrel Grove, Willenhall, West Midlands, WV12 5HQ Classification: Car Body Repairs Status: Inactive Positional Accuracy: Automatically positioned to the address	A8NW (SW)	351	-	397186 301802
41	Contemporary Trade Directory Entries Name: Ron Smith Design Services Ltd Location: 24, Wrighton Close, Willenhall, West Midlands, WV12 5DR Classification: Mechanical Engineers Status: Inactive Positional Accuracy: Automatically positioned to the address	A8NE (S)	412	-	397487 301731
42	Contemporary Trade Directory Entries Name: Tee-Jay Engineering Location: 35, Essington Road, Willenhall, West Midlands, WV12 5DW Classification: Industrial Engineers Status: Inactive Positional Accuracy: Automatically positioned to the address	A8NW (S)	478	-	397341 301654
43	Contemporary Trade Directory Entries Name: B W Industries Ltd Location: 8, Torridon Road, Willenhall, West Midlands, WV12 5FE Classification: Agricultural Engineers Status: Inactive Positional Accuracy: Automatically positioned to the address	A12NE (W)	567	-	396744 302388
44	Contemporary Trade Directory Entries Name: Peerless Chem-Dry Location: 46, Gurnard Close, Willenhall, West Midlands, WV12 5YR Classification: Carpet, Curtain & Upholstery Cleaners Status: Inactive Positional Accuracy: Automatically positioned to the address	A12SW (W)	630	-	396654 302094
45	Contemporary Trade Directory Entries Name: Henry Squire & Sons Ltd Location: Lichfield Road, Willenhall, West Midlands, WV12 5BD Classification: Lock Suppliers and Manufacturers Status: Inactive Positional Accuracy: Automatically positioned to the address	A8SE (S)	636	-	397543 301513

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
46	Contemporary Trade Directory Entries Name: Extreme Cleaning Midlands Location: Extremecleaning, Walsall, West Midlands, WV12 5Lb Classification: Commercial Cleaning Services Status: Active Positional Accuracy: Manually positioned within the geographical locality	A9NW (SE)	656	-	397758 301580
47	Contemporary Trade Directory Entries Name: A Better Repair With Washcare Location: 61, Nightingale Crescent, Willenhall, West Midlands, WV12 5HE Classification: Washing Machines - Servicing & Repairs Status: Active Positional Accuracy: Automatically positioned to the address	A7NE (SW)	656	-	396936 301590
48	Contemporary Trade Directory Entries Name: J J D Power Washers Location: 20, Upper Sneyd Road, Essington, Wolverhampton, West Midlands, WV11 2DS Classification: Steam Cleaning Services Status: Inactive Positional Accuracy: Automatically positioned to the address	A17SE (NW)	671	-	396789 302651
49	Contemporary Trade Directory Entries Name: Lynwood Transmission Services Location: 29, Lynwood Close, Willenhall, West Midlands, WV12 5BW Classification: Brake & Clutch Service Centres Status: Inactive Positional Accuracy: Automatically positioned to the address	A14SE (E)	674	-	398099 301927
50	Contemporary Trade Directory Entries Name: Pips Tyres Location: 272-276, Lichfield Road, Willenhall, West Midlands, WV12 5BT Classification: Tyre Dealers Status: Active Positional Accuracy: Automatically positioned to the address	A9NE (SE)	698	-	398083 301838
50	Contemporary Trade Directory Entries Name: Texaco Location: 272-276, Lichfield Road, Willenhall, West Midlands, WV12 5BT Classification: Petrol Filling Stations Status: Active Positional Accuracy: Automatically positioned to the address	A9NE (SE)	698	-	398083 301838
50	Contemporary Trade Directory Entries Name: Acorn Daihatsu Location: 272-276, Lichfield Road, Willenhall, West Midlands, WV12 5BT Classification: Petrol Filling Stations - 24 Hour Status: Inactive Positional Accuracy: Automatically positioned to the address	A9NE (SE)	698	-	398083 301838
50	Contemporary Trade Directory Entries Name: Quality Motor Services Location: 272-276, Lichfield Road, Willenhall, West Midlands, WV12 5BT Classification: Garage Services Status: Active Positional Accuracy: Manually positioned to the address or location	A9NE (SE)	698	-	398083 301838
50	Contemporary Trade Directory Entries Name: Pips Tyres Location: 272-276, Lichfield Road, Willenhall, West Midlands, WV12 5BT Classification: Tyre Dealers Status: Inactive Positional Accuracy: Automatically positioned to the address	A9NE (SE)	698	-	398083 301838
51	Contemporary Trade Directory Entries Name: Associated Property Services Location: 98, Pooles Lane, Willenhall, West Midlands, WV12 5HW Classification: Fascias and Soffits Status: Inactive Positional Accuracy: Automatically positioned to the address	A9NW (SE)	740	-	398020 301679
52	Contemporary Trade Directory Entries Name: Pool Hayes Service Station Location: 315, Lichfield Road, Willenhall, West Midlands, WV12 5DE Classification: Garage Services Status: Inactive Positional Accuracy: Automatically positioned to the address	A14SE (E)	749	-	398202 302005

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
53	Contemporary Trade Directory Entries Name: T S Russell Motor Salvage Location: Central Garage, Brownshore Lane, Essington, Wolverhampton, WV11 2AF Classification: Salvage Dealers Status: Active Positional Accuracy: Automatically positioned to the address	A17SE (NW)	761	-	396804 302787
53	Contemporary Trade Directory Entries Name: E A Lee (Essington) Ltd Location: Central Garage, Brownshore Lane, Essington, Wolverhampton, WV11 2AF Classification: Garage Services Status: Inactive Positional Accuracy: Automatically positioned to the address	A17SE (NW)	761	-	396804 302787
54	Contemporary Trade Directory Entries Name: Gt Compressed Air Services Location: 2, Meadow Grange Drive, Willenhall, West Midlands, WV12 5YT Classification: Air Compressors Status: Inactive Positional Accuracy: Automatically positioned to the address	A7SE (SW)	771	-	396925 301461
55	Contemporary Trade Directory Entries Name: Combined Services Location: 93, Lichfield Road, Willenhall, West Midlands, WV12 5AQ Classification: Gas Appliances - Sales & Service Status: Inactive Positional Accuracy: Automatically positioned to the address	A8SW (S)	786	-	397051 301388
56	Contemporary Trade Directory Entries Name: Tardis Environmental (Uk) Location: 74, Cannock Road, Willenhall, West Midlands, WV12 5RZ Classification: Waste Disposal Services Status: Inactive Positional Accuracy: Automatically positioned to the address	A8SE (S)	806	-	397375 301328
57	Contemporary Trade Directory Entries Name: Feminine Touch Location: 12, Higgs Road, Wolverhampton, WV11 2PD Classification: Cleaning Services - Domestic Status: Inactive Positional Accuracy: Automatically positioned to the address	A12NW (W)	870	-	396424 302368
58	Contemporary Trade Directory Entries Name: B C Pest Control Location: 302e, Lichfield Road, Willenhall, West Midlands, WV12 5BX Classification: Pest & Vermin Control Status: Active Positional Accuracy: Automatically positioned to the address	A14SE (E)	891	-	398350 302021
59	Contemporary Trade Directory Entries Name: Ms Metal Fabrication Location: 5, Newark Road, Willenhall, West Midlands, WV12 5TS Classification: Wrought Ironwork Status: Inactive Positional Accuracy: Automatically positioned to the address	A8SW (S)	911	-	397136 301236
59	Contemporary Trade Directory Entries Name: Printall Uk Limited Location: 11a, Newark Road, Willenhall, West Midlands, WV12 5TS Classification: Printers Status: Active Positional Accuracy: Automatically positioned to the address	A8SW (S)	937	-	397139 301209
60	Contemporary Trade Directory Entries Name: Mower Service Location: 2, Sandringham Avenue, Willenhall, West Midlands, WV12 5SX Classification: Lawnmowers & Garden Machinery - Sales & Service Status: Active Positional Accuracy: Automatically positioned to the address	A7SE (SW)	960	-	396919 301252
61	Contemporary Trade Directory Entries Name: Griffiths Gates Location: 84, Ashmore Avenue, Wolverhampton, WV11 2NE Classification: Gate Manufacturers Status: Active Positional Accuracy: Automatically positioned to the address	A11NE (W)	978	-	396298 302205
62	Contemporary Trade Directory Entries Name: K D A Location: 69, Ecclestone Road, Wolverhampton, WV11 2QA Classification: Wheelie Bin Cleaning Status: Active Positional Accuracy: Automatically positioned to the address	A7NW (SW)	993	-	396427 301669

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
63	Contemporary Trade Directory Entries Name: Cosmic Clean Location: 14, Nottingham Drive, Willenhall, West Midlands, WV12 5TL Classification: Commercial Cleaning Services Status: Inactive Positional Accuracy: Automatically positioned to the address	A3NW (S)	997	-	397138 301149
64	Contemporary Trade Directory Entries Name: Ken Pemberton Location: 21, High Hill, Essington, Wolverhampton, WV11 2DP Classification: Coal & Smokeless Fuel Merchants & Distributors Status: Inactive Positional Accuracy: Automatically positioned to the address	A17SW (NW)	1000	-	396468 302780
65	Fuel Station Entries Name: New Invention Service Station Location: 272-276, Lichfield Road, Lichfield Road, Willenhall, Wolverhampton, West Midlands, WV12 5BT Brand: Texaco Premises Type: Petrol Station Status: Open Positional Accuracy: Manually positioned to the address or location	A9NE (SE)	698	-	398083 301838
66	Fuel Station Entries Name: Willenhall Birmingham Express Location: 68, Lichfield Road, Willenhall, West Midlands, WV12 5UL Brand: Esso Premises Type: Petrol Station Status: Open Positional Accuracy: Manually positioned to the address or location	A8SW (S)	826	-	397104 301330

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
67	Areas of Adopted Green Belt Authority: South Staffordshire District Council Plan Name: Core Strategy Status: Adopted Plan Date: 11th December 2012	A13NE (N)	183	8	397449 302434
68	Areas of Adopted Green Belt Authority: Walsall Metropolitan Borough Council Plan Name: Walsall Unitary Development Plan 2005 Status: Adopted Plan Date: 7th March 2005	A19SW (NE)	467	9	397767 302578
69	Areas of Adopted Green Belt Authority: Wolverhampton City Council Plan Name: Wolverhampton Unitary Development Plan Status: Adopted Plan Date: 28th June 2006	A12NW (NW)	695	5	396665 302525
70	Local Nature Reserves Name: Rough Wood Chase Multiple Area: Y Area (m2): 981997.52 Source: Natural England Designation Date: 28th March 2012	A14NW (E)	515	10	397949 302375
71	Nitrate Vulnerable Zones Name: Not Supplied Description: Surface Water Source: Department for Environment, Food and Rural Affairs (DEFRA - formerly FRCA)	A13SE (SW)	0	11	397375 302187

Agency & Hydrological	Version	Update Cycle
Contaminated Land Register Entries and Notices Cannock Chase District Council - Environmental Health Department Wolverhampton City Council - Environmental Health (Public Protection) Sandwell Metropolitan Borough Council - Environmental Health Department South Staffordshire District Council - Environmental Health Department Walsall Metropolitan Borough Council - Pollution Control Division	December 2014 February 2014 March 2013 September 2013 September 2014	Annual Rolling Update Annually Annual Rolling Update Annual Rolling Update Annual Rolling Update
Discharge Consents Environment Agency - Midlands Region	November 2015	Quarterly
Enforcement and Prohibition Notices Environment Agency - Midlands Region	March 2013	As notified
Integrated Pollution Controls Environment Agency - Midlands Region	October 2008	Not Applicable
Integrated Pollution Prevention And Control Environment Agency - Midlands Region	October 2015	Quarterly
Local Authority Integrated Pollution Prevention And Control Cannock Chase District Council - Environmental Health Department Sandwell Metropolitan Borough Council - Environmental Health Department Wolverhampton City Council - Environmental Health (Public Protection) South Staffordshire District Council - Environmental Health Department Walsall Metropolitan Borough Council - Environmental Health Department	January 2015 July 2015 March 2014 March 2015 May 2014	Annual Rolling Update Annual Rolling Update Annual Rolling Update Annual Rolling Update Annual Rolling Update
Local Authority Pollution Prevention and Controls Cannock Chase District Council - Environmental Health Department Sandwell Metropolitan Borough Council - Environmental Health Department Wolverhampton City Council - Environmental Health (Public Protection) South Staffordshire District Council - Environmental Health Department Walsall Metropolitan Borough Council - Environmental Health Department	January 2015 July 2015 March 2014 March 2015 May 2014	Annual Rolling Update Annually Annual Rolling Update Annual Rolling Update Annual Rolling Update
Local Authority Pollution Prevention and Control Enforcements Cannock Chase District Council - Environmental Health Department Sandwell Metropolitan Borough Council - Environmental Health Department Wolverhampton City Council - Environmental Health (Public Protection) South Staffordshire District Council - Environmental Health Department Walsall Metropolitan Borough Council - Environmental Health Department	January 2015 July 2015 March 2014 March 2015 May 2014	Annual Rolling Update Annual Rolling Update Annual Rolling Update Annual Rolling Update Annual Rolling Update
Nearest Surface Water Feature Ordnance Survey	July 2012	Quarterly
Pollution Incidents to Controlled Waters Environment Agency - Midlands Region Environment Agency - North West Region	December 1999 January 2000	Not Applicable Not Applicable
Prosecutions Relating to Authorised Processes Environment Agency - Midlands Region	March 2013	As notified
Prosecutions Relating to Controlled Waters Environment Agency - Midlands Region	March 2013	As notified
River Quality Environment Agency - Head Office	November 2001	Not Applicable
River Quality Biology Sampling Points Environment Agency - Head Office	July 2012	Annually
River Quality Chemistry Sampling Points Environment Agency - Head Office	July 2012	Annually
Substantiated Pollution Incident Register Environment Agency - Midlands Region - Central Area Environment Agency - Midlands Region - Upper Trent Area	October 2015 October 2015	Quarterly Quarterly
Water Abstractions Environment Agency - Midlands Region	July 2015	Quarterly

Agency & Hydrological	Version	Update Cycle
Water Industry Act Referrals Environment Agency - Midlands Region	October 2015	Quarterly
Groundwater Vulnerability Environment Agency - Head Office	April 2015	Not Applicable
Drift Deposits Environment Agency - Head Office	January 1999	Not Applicable
Bedrock Aquifer Designations British Geological Survey - National Geoscience Information Service	October 2012	As notified
Superficial Aquifer Designations British Geological Survey - National Geoscience Information Service	January 2015	As notified
Source Protection Zones Environment Agency - Head Office	October 2015	Quarterly
Extreme Flooding from Rivers or Sea without Defences Environment Agency - Head Office	August 2015	Quarterly
Flooding from Rivers or Sea without Defences Environment Agency - Head Office	August 2015	Quarterly
Areas Benefiting from Flood Defences Environment Agency - Head Office	August 2015	Quarterly
Flood Water Storage Areas Environment Agency - Head Office	August 2015	Quarterly
Flood Defences Environment Agency - Head Office	August 2015	Quarterly
Detailed River Network Lines Environment Agency - Head Office	March 2012	Annually
Detailed River Network Offline Drainage Environment Agency - Head Office	March 2012	Annually
Surface Water 1 in 30 year Flood Extent Environment Agency - Head Office	October 2013	As notified
Surface Water 1 in 100 year Flood Extent Environment Agency - Head Office	October 2013	As notified
Surface Water 1 in 1000 year Flood Extent Environment Agency - Head Office	October 2013	As notified
Surface Water Suitability Environment Agency - Head Office	October 2013	As notified

Waste	Version	Update Cycle
BGS Recorded Landfill Sites British Geological Survey - National Geoscience Information Service	June 1996	Not Applicable
Historical Landfill Sites Environment Agency - Head Office	November 2015	Quarterly
Integrated Pollution Control Registered Waste Sites Environment Agency - Midlands Region	October 2008	Not Applicable
Licensed Waste Management Facilities (Landfill Boundaries) Environment Agency - Midlands Region - Central Area Environment Agency - Midlands Region - Upper Trent Area	August 2014 August 2014	Quarterly Quarterly
Licensed Waste Management Facilities (Locations) Environment Agency - Midlands Region - Central Area Environment Agency - Midlands Region - Upper Trent Area	October 2015 October 2015	Quarterly Quarterly
Local Authority Landfill Coverage Cannock Chase District Council - Environmental Health Department Sandwell Metropolitan Borough Council - Environmental Health Department South Staffordshire District Council Staffordshire County Council - Waste Management Walsall Metropolitan Borough Council - Environmental Health Department Wolverhampton City Council	May 2000 May 2000 May 2000 May 2000 May 2000 May 2000	Not Applicable Not Applicable Not Applicable Not Applicable Not Applicable Not Applicable
Local Authority Recorded Landfill Sites Sandwell Metropolitan Borough Council - Environmental Health Department Cannock Chase District Council - Environmental Health Department South Staffordshire District Council Staffordshire County Council - Waste Management Walsall Metropolitan Borough Council - Environmental Health Department Wolverhampton City Council	February 2003 May 2000 May 2000 May 2000 May 2000 May 2000	Not Applicable Not Applicable Not Applicable Not Applicable Not Applicable Not Applicable
Registered Landfill Sites Environment Agency - Midlands Region - Upper Trent Area	March 2003	Not Applicable
Registered Waste Transfer Sites Environment Agency - Midlands Region - Upper Trent Area	March 2003	Not Applicable
Registered Waste Treatment or Disposal Sites Environment Agency - Midlands Region - Upper Trent Area	March 2003	Not Applicable

Hazardous Substances	Version	Update Cycle
Control of Major Accident Hazards Sites (COMAH) Health and Safety Executive	June 2015	Bi-Annually
Explosive Sites Health and Safety Executive	June 2015	Bi-Annually
Notification of Installations Handling Hazardous Substances (NIHHS) Health and Safety Executive	November 2000	Not Applicable
Planning Hazardous Substance Enforcements Cannock Chase District Council - Planning Department Wolverhampton City Council - Planning Department Walsall Metropolitan Borough Council - Planning Department Sandwell Metropolitan Borough Council - Planning Department South Staffordshire District Council Staffordshire County Council	December 2014 December 2014 January 2013 November 2014 November 2014 September 2014	Annual Rolling Update Annual Rolling Update Annual Rolling Update Annual Rolling Update Annual Rolling Update Annual Rolling Update
Planning Hazardous Substance Consents Cannock Chase District Council - Planning Department Wolverhampton City Council - Planning Department Walsall Metropolitan Borough Council - Planning Department Sandwell Metropolitan Borough Council - Planning Department South Staffordshire District Council Staffordshire County Council	December 2014 December 2014 January 2013 November 2014 November 2014 September 2014	Annual Rolling Update Annual Rolling Update Annual Rolling Update Annual Rolling Update Annual Rolling Update Annual Rolling Update

Geological	Version	Update Cycle
BGS 1:625,000 Solid Geology British Geological Survey - National Geoscience Information Service	January 2009	Not Applicable
BGS Estimated Soil Chemistry British Geological Survey - National Geoscience Information Service	January 2010	Annually
BGS Recorded Mineral Sites British Geological Survey - National Geoscience Information Service	November 2015	Bi-Annually
BGS Urban Soil Chemistry British Geological Survey - National Geoscience Information Service	June 2011	Annually
BGS Urban Soil Chemistry Averages British Geological Survey - National Geoscience Information Service	June 2011	Annually
Brine Compensation Area Cheshire Brine Subsidence Compensation Board	August 2011	Not Applicable
Coal Mining Affected Areas The Coal Authority - Mining Report Service	March 2014	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	July 2014	Not Applicable
Potential for Collapsible Ground Stability Hazards British Geological Survey - National Geoscience Information Service	June 2015	Annually
Potential for Compressible Ground Stability Hazards British Geological Survey - National Geoscience Information Service	June 2015	Annually
Potential for Ground Dissolution Stability Hazards British Geological Survey - National Geoscience Information Service	June 2015	Annually
Potential for Landslide Ground Stability Hazards British Geological Survey - National Geoscience Information Service	June 2015	Annually
Potential for Running Sand Ground Stability Hazards British Geological Survey - National Geoscience Information Service	June 2015	Annually
Potential for Shrinking or Swelling Clay Ground Stability Hazards British Geological Survey - National Geoscience Information Service	June 2015	Annually
Radon Potential - Radon Affected Areas British Geological Survey - National Geoscience Information Service	July 2011	As notified
Radon Potential - Radon Protection Measures British Geological Survey - National Geoscience Information Service	July 2011	As notified
Industrial Land Use	Version	Update Cycle
Contemporary Trade Directory Entries Thomson Directories	August 2015	Quarterly
Fuel Station Entries Catalist Ltd - Experian	August 2015	Quarterly

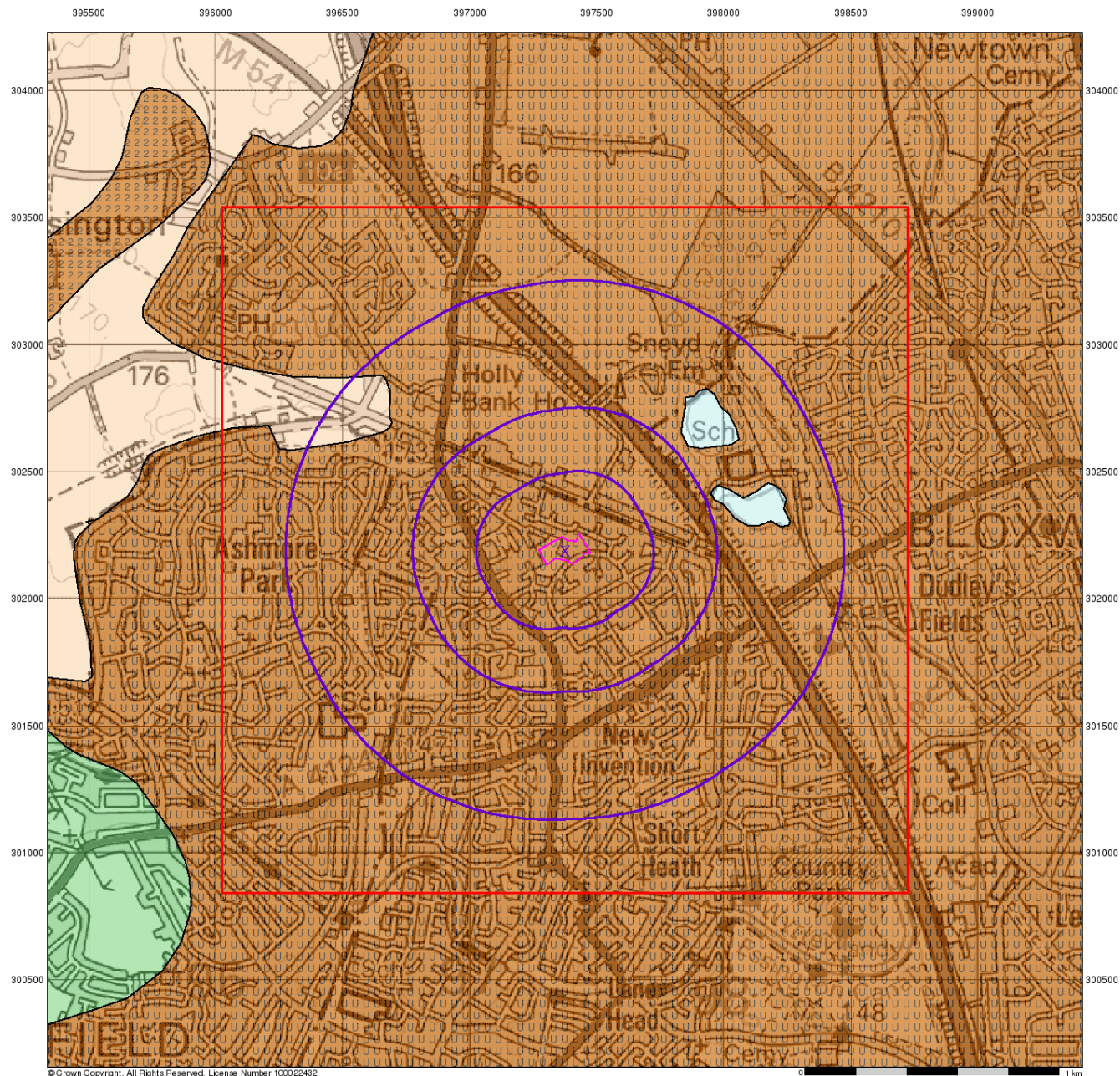
Sensitive Land Use	Version	Update Cycle
Areas of Adopted Green Belt Cannock Chase District Council - Planning Department Sandwell Metropolitan Borough Council - Planning Department South Staffordshire District Council Walsall Metropolitan Borough Council Wolverhampton City Council	November 201 November 201 November 201 November 201 November 201	As notified As notified As notified As notified As notified
Areas of Unadopted Green Belt Cannock Chase District Council - Planning Department Sandwell Metropolitan Borough Council - Planning Department South Staffordshire District Council Walsall Metropolitan Borough Council Wolverhampton City Council	November 201 November 201 November 201 November 201 November 201	As notified As notified As notified As notified As notified
Areas of Outstanding Natural Beauty Natural England	October 2015	Bi-Annually
Environmentally Sensitive Areas Natural England	October 2015	Annually
Forest Parks Forestry Commission	April 1997	Not Applicable
Local Nature Reserves Natural England	October 2015	Bi-Annually
Marine Nature Reserves Natural England	October 2015	Bi-Annually
National Nature Reserves Natural England	October 2015	Bi-Annually
National Parks Natural England	August 2015	Bi-Annually
Nitrate Sensitive Areas Department for Environment, Food and Rural Affairs (DEFRA - formerly FRCA)	October 2015	Not Applicable
Nitrate Vulnerable Zones Department for Environment, Food and Rural Affairs (DEFRA - formerly FRCA)	October 2015	Annually
Ramsar Sites Natural England	October 2015	Bi-Annually
Sites of Special Scientific Interest Natural England	October 2015	Bi-Annually
Special Areas of Conservation Natural England	October 2015	Bi-Annually
Special Protection Areas Natural England	October 2015	Bi-Annually

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	
Natural Resources Wales	
Scottish Natural Heritage	
Natural England	
Public Health England	
Ove Arup	
Peter Brett Associates	

Contact	Name and Address	Contact Details
2	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
3	Environment Agency - National Customer Contact Centre (NCCC) PO Box 544, Templeborough, Rotherham, S60 1BY	Telephone: 03708 506 506 Email: enquiries@environment-agency.gov.uk
4	Walsall Metropolitan Borough Council - Environmental Health Department The Civic Centre, Walsall, West Midlands, WS1 1TP	Telephone: 01922 650000 Website: www.walsall.gov.uk
5	Wolverhampton City Council Civic Centre, St Peters Square, Wolverhampton, West Midlands, WV1 1SH	Telephone: 01902 551155 Website: www.wolverhampton.gov.uk
6	Landmark Information Group Limited Imperium, Imperial Way, Reading, Berkshire, RG2 0TD	Telephone: 0844 844 9952 Fax: 0844 844 9951 Email: customerservices@landmarkinfo.co.uk Website: www.landmarkinfo.co.uk
7	The Coal Authority - Mining Report Service 200 Lichfield Lane, Mansfield, Nottinghamshire, NG18 4RG	Telephone: 0845 7626848 Email: thecoalauthority@coal.gov.uk
8	South Staffordshire District Council Council Offices, Wolverhampton Road, Codsall, Wolverhampton, West Midlands, WV8 1PX	Telephone: 01902 696000 Fax: 01902 696403 Website: www.sstaffs.gov.uk
9	Walsall Metropolitan Borough Council Civic Centre, Darwall Street, Walsall, West Midlands, WS1 1TP	Telephone: 01922 650000 Website: www.walsall.gov.uk
10	Natural England Suite D, Unex House, Bourges Boulevard, Peterborough, Cambridgeshire, PE1 1NG	Telephone: 0845 600 3078 Email: enquiries@naturalengland.org.uk Website: www.naturalengland.org.uk
11	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
12	Environment Agency - Head Office Rio House, Waterside Drive, Aztec West, Almondsbury, Bristol, Avon, BS32 4UD	Telephone: 01454 624400 Fax: 01454 624409
-	Public Health England - Radon Survey, Centre for Radiation, Chemical and Environmental Hazards Chilton, Didcot, Oxfordshire, OX11 0RQ	Telephone: 01235 822622 Fax: 01235 833891 Email: radon@phe.gov.uk Website: www.ukradon.org

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



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0 1 km



Groundwater Vulnerability

General

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

Agency and Hydrological

Geological Classes

Major Aquifer (Highly Permeable)

Minor Aquifer (Variably Permeable)

Non Aquifer (Negligibly Permeable)

Water or Sea

Drift Deposit

Soil Classes

High (H) 1, 2, 3, U

Intermediate (I) 1, 2

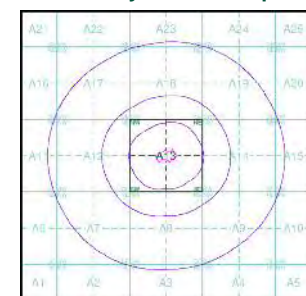
Low

High (H) 1, 2, 3, U

Intermediate (I) 1, 2

Low

Site Sensitivity Context Map - Slice A



Order Details

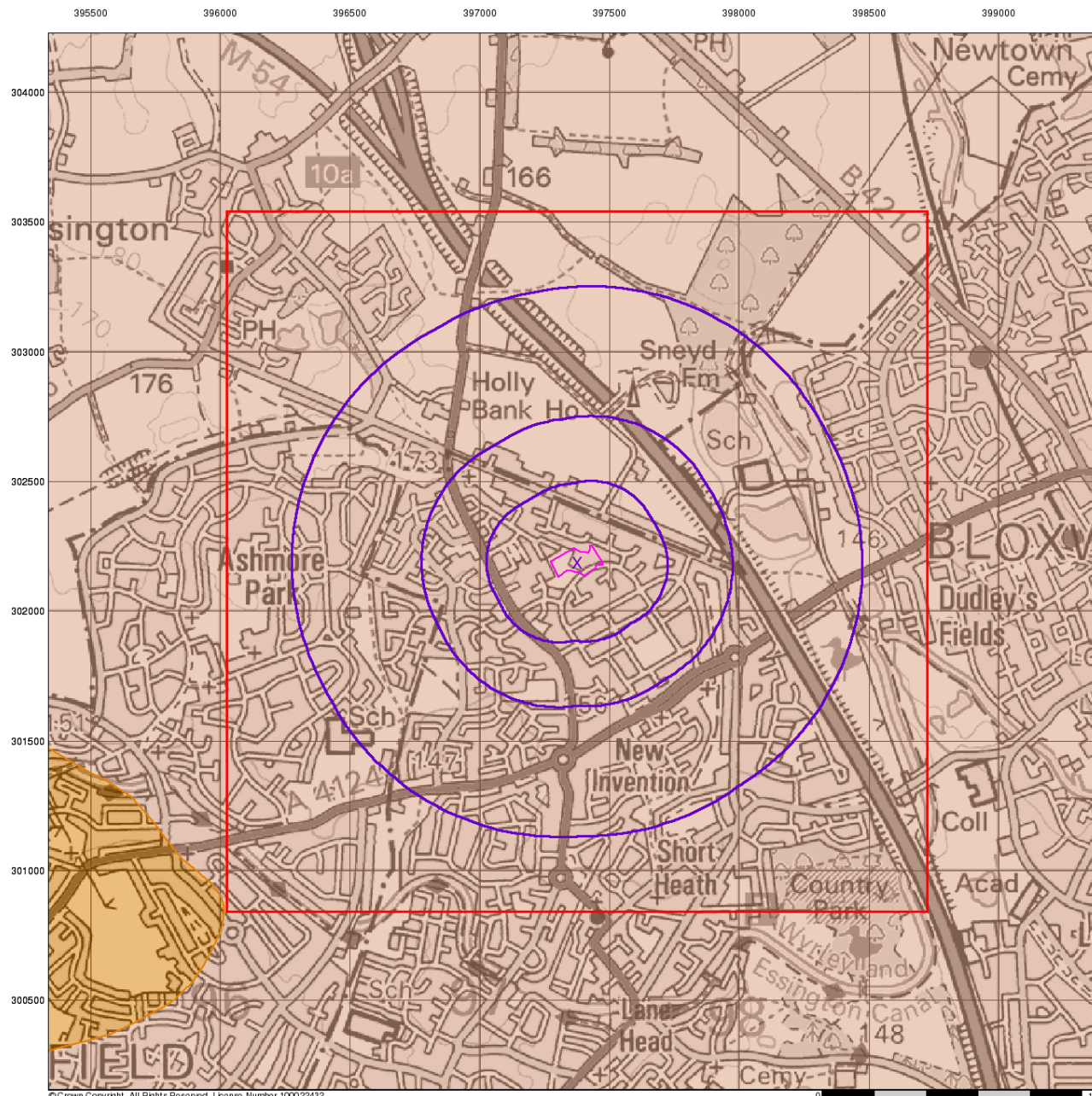
Order Number: 76524890_1.1
 Customer Ref: J-B0984.00
 National Grid Reference: 397380, 302190
 Slice: A
 Site Area (Ha): 1.35
 Search Buffer (m): 1000

Site Details

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Bedrock Aquifer Designation

General

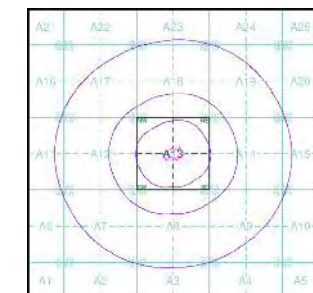
- Specified Site
- Specified Buffer(s)
- Bearing Reference Point
- Slice
- Map ID

Agency and Hydrological

Geological Classes

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

Site Sensitivity Context Map - Slice A



Order Details

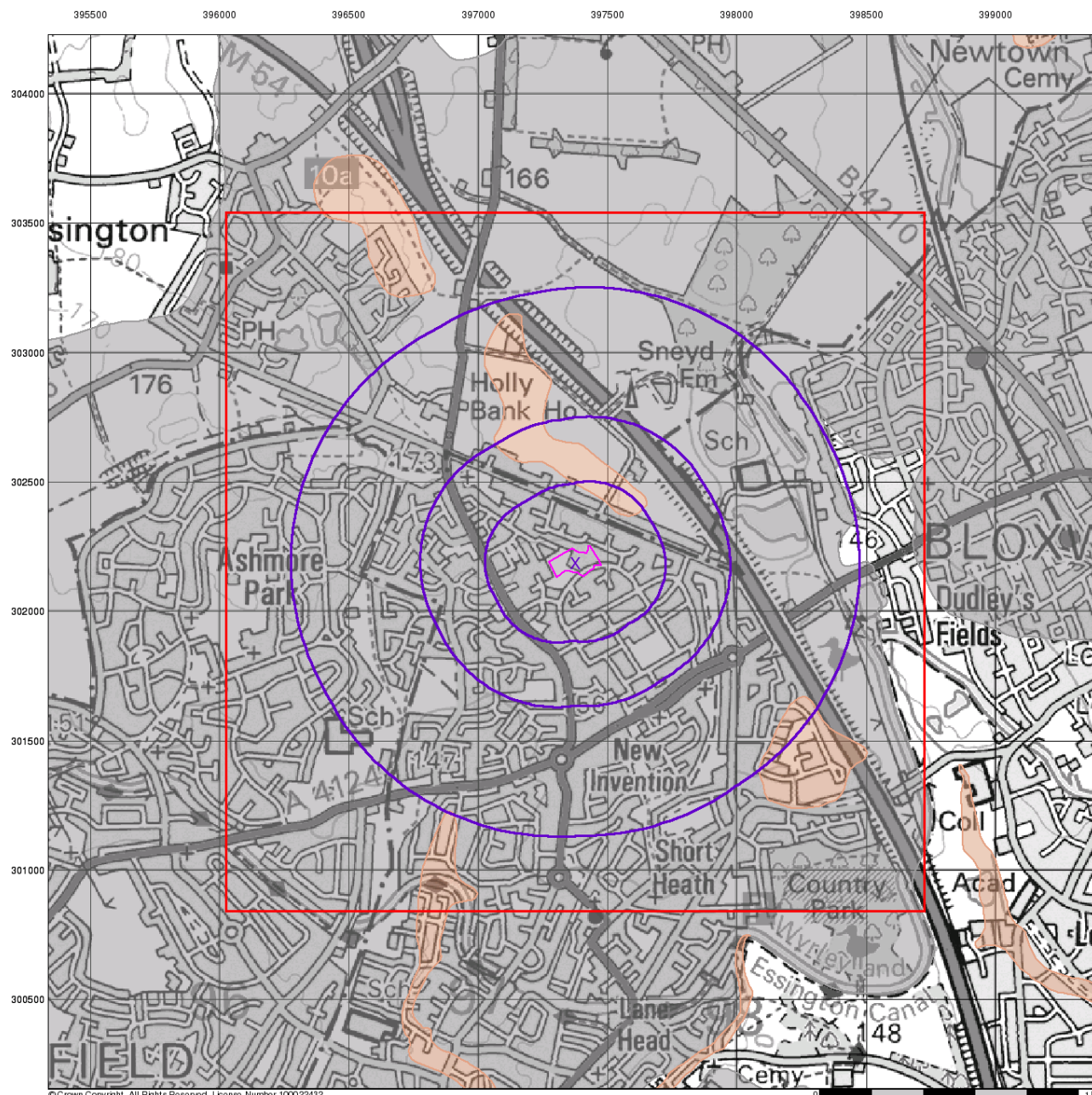
Order Number: 76524890_1.1
 Customer Ref: J-B0984.00
 National Grid Reference: 397380, 302190
 Slice: A
 Site Area (Ha): 1.35
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Superficial Aquifer Designation

General

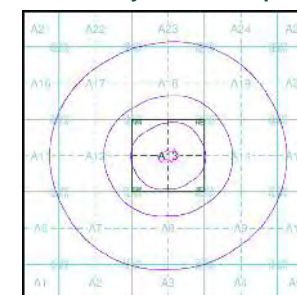
- Specified Site
- Specified Buffer(s)
- X Bearing Reference Point
- Slice
- B Map ID

Agency and Hydrological

Geological Classes

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

Site Sensitivity Context Map - Slice A



Order Details

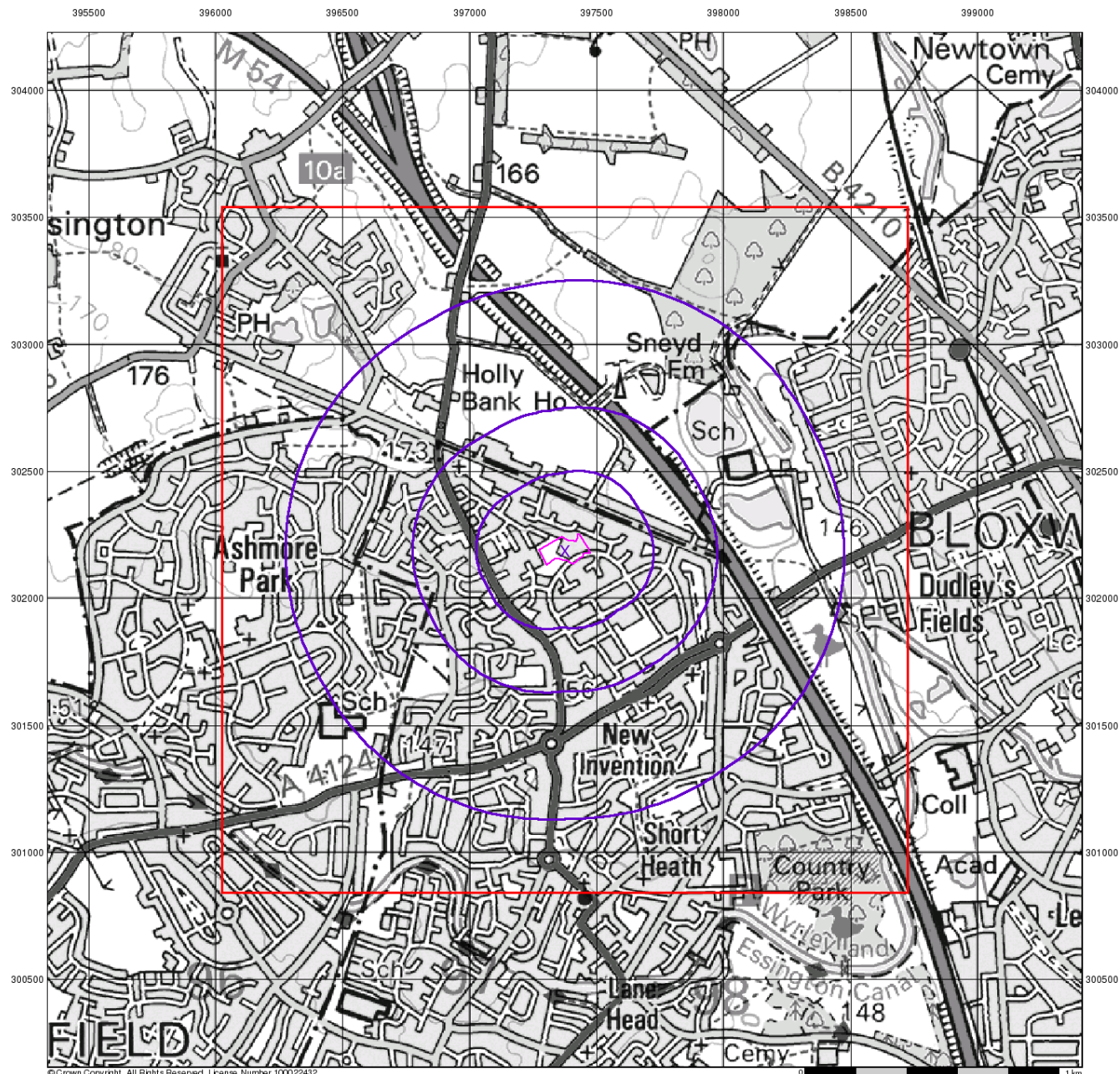
Order Number: 76524890_1.1
 Customer Ref: J-B0984.00
 National Grid Reference: 397380, 302190
 Slice: A
 Site Area (Ha): 1.35
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Source Protection Zones

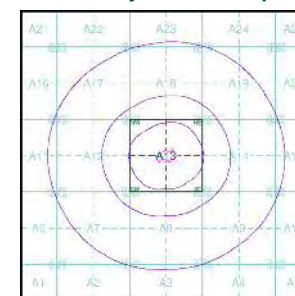
General

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

Agency and Hydrological

- Inner zone (Zone 1)
- Inner zone - subsurface activity only (Zone 1c)
- Outer zone (Zone 2)
- Outer zone - subsurface activity only (Zone 2c)
- Total catchment (Zone 3)
- Total catchment - subsurface activity only (Zone 3c)
- Special interest (Zone 4)
- Source Protection Zone Borehole

Site Sensitivity Context Map - Slice A



Order Details

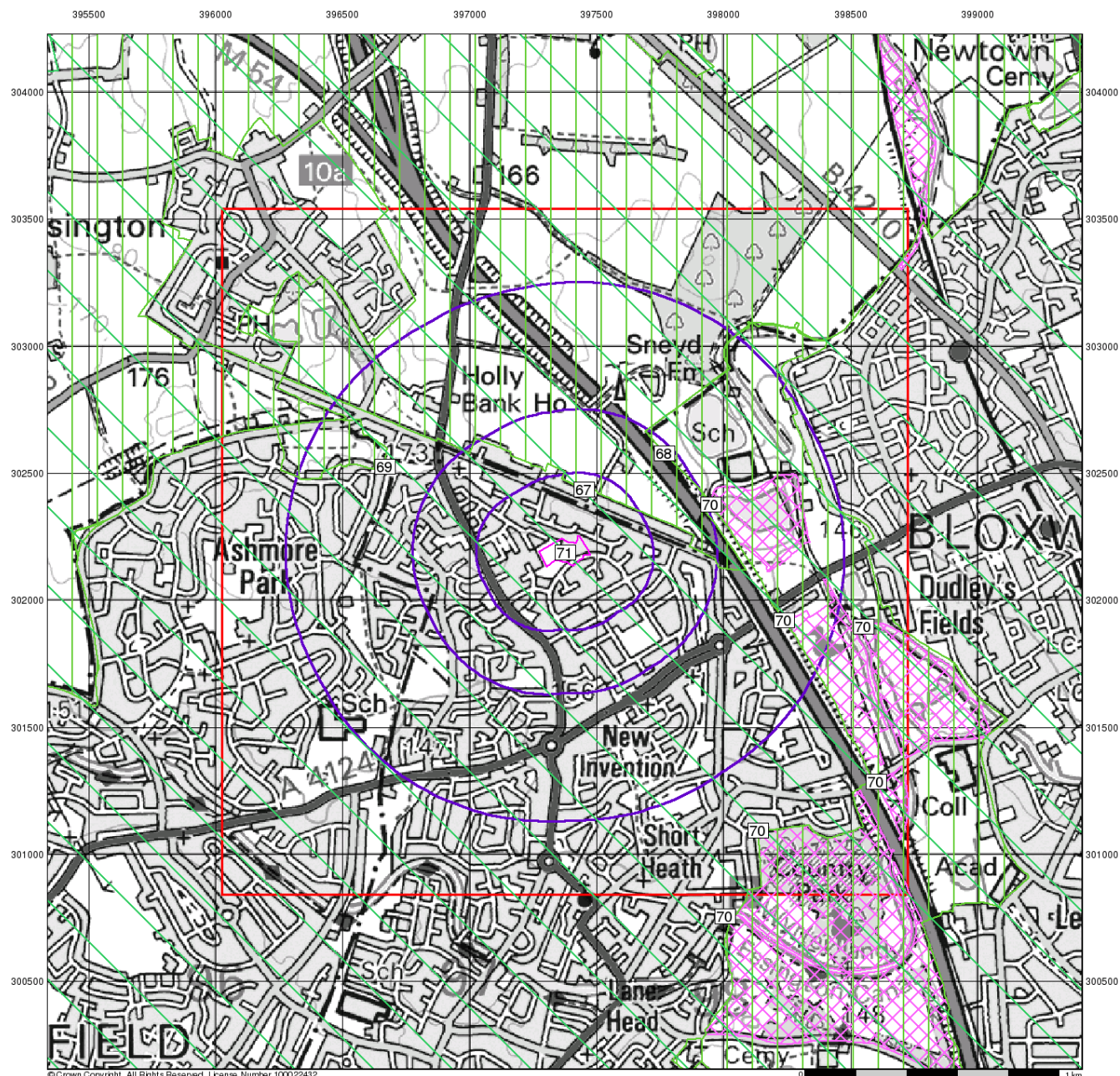
Order Number: 76524890_1_1
 Customer Ref: J-B0984.00
 National Grid Reference: 397380, 302190
 Slice: A
 Site Area (Ha): 1.35
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Sensitive Land Uses

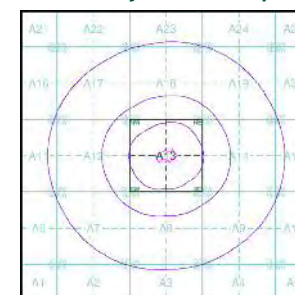
General

- 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: 76524890_1.1
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Geology 1:50,000 Maps Legends











Artificial Ground and Landslip

Map Colour	Lex Code	Rock Name	Rock Type	Min and Max Age
	WMGR	Infilled Ground	Artificial Deposit	Cenozoic - Cenozoic

Superficial Geology

Map Colour	Lex Code	Rock Name	Rock Type	Min and Max Age
	ALV	Alluvium	Clay, Silt, Sand and Gravel	Flandrian - Flandrian
	TILLD	Till, Devensian	Diamicton	Devensian - Devensian
	GFDUD	Glaciofluvial Deposits, Devensian	Sand and Gravel	Devensian - Devensian

Bedrock and Faults

Map Colour	Lex Code	Rock Name	Rock Type	Min and Max Age
	CLEB	Clent Formation and Enville Formation (Undifferentiated)	Mudstone and Sandstone	Cisuralian - Westphalian D
	CLEB	Clent Formation and Enville Formation (Undifferentiated)	Sandstone and Mudstone	Cisuralian - Westphalian D
	ALY	Alveley Member	Mudstone and Sandstone	Westphalian D - Westphalian D
	PMCM	Pennine Middle Coal Measures Formation	Mudstone, Siltstone and Sandstone	Bolsopian - Duckmantian
	PLMC	Pennine Lower Coal Measures Formation and Pennine Middle Coal Measures Formation (Undifferentiated)	Mudstone, Siltstone and Sandstone	Bolsopian - Langsettian
	PLCM	Pennine Lower Coal Measures Formation	Mudstone, Siltstone and Sandstone	Langsettian - Langsettian
	ETM	Etruria Formation	Mudstone, Sandstone and Conglomerate	Westphalian - Westphalian
	UICW	Unnamed Igneous Intrusion, Westphalian	Microgabbro	Westphalian - Westphalian
		Rock Segments		
		Faults		



Geology 1:50,000 Maps

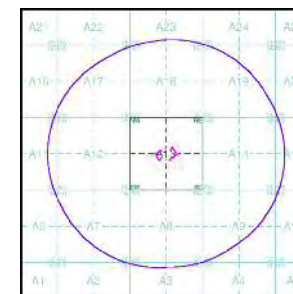
This report contains geological map extracts taken from the BGS Digital Geological map of Great Britain at 1:50,000 scale and is designed for users carrying out preliminary site assessments who require geological maps for the area around the site. This mapping may be more up to date than previously published 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:	154
Map Name:	Lichfield
Map Date:	1970
Bedrock Geology:	Available
Superficial Geology:	Available
Artificial Geology:	Available
Faults:	Not Supplied
Landslip:	Not Available
Rock Segments:	Not Supplied

Geology 1:50,000 Maps - Slice A



Order Details:

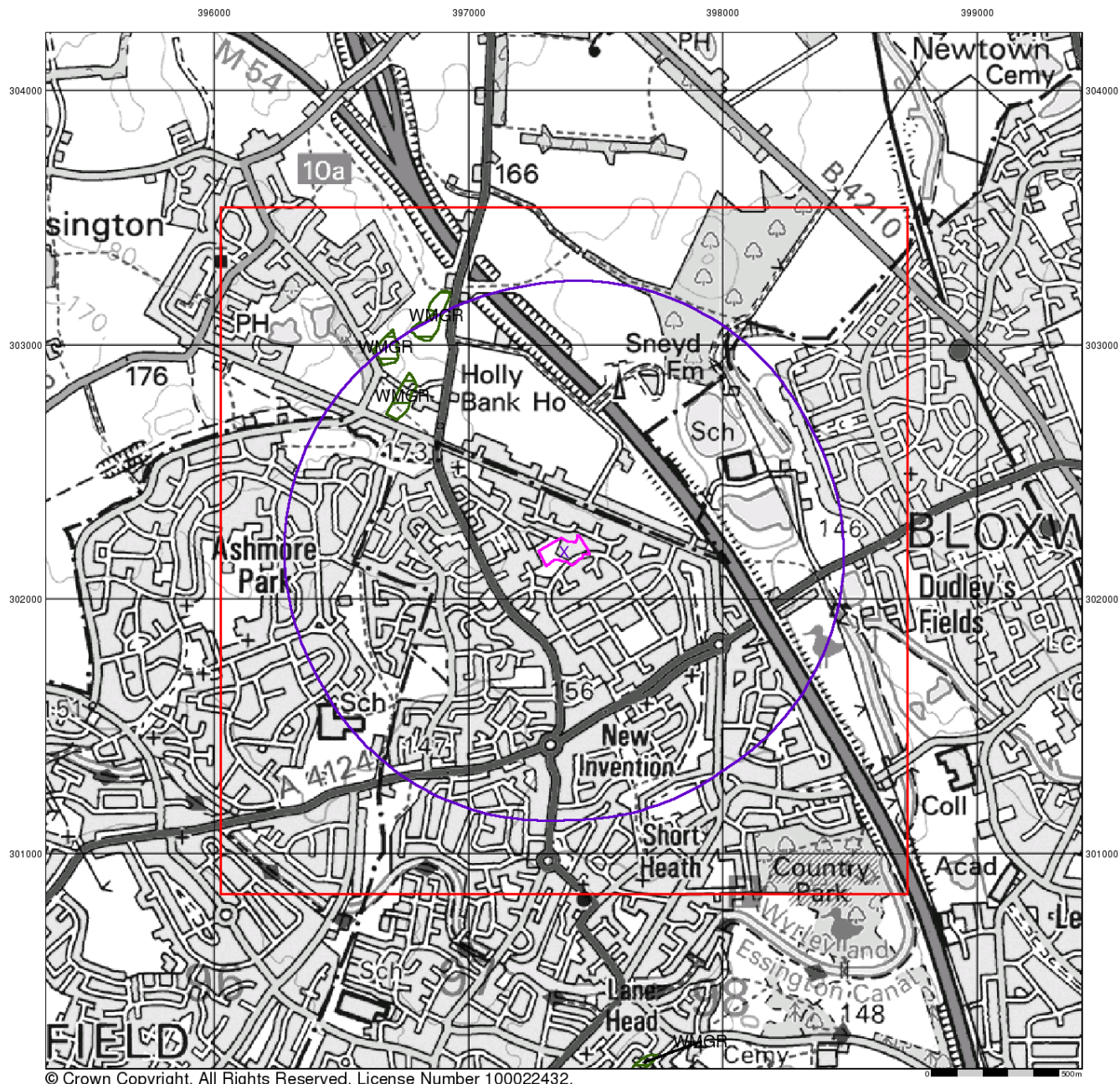
Order Number:	76524890_1_1
Customer Reference:	J-B0984.00
National Grid Reference:	397380, 302190
Slice:	A
Site Area (Ha):	1.35
Search Buffer (m):	1000

Site Details:

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Artificial Ground and Landslip

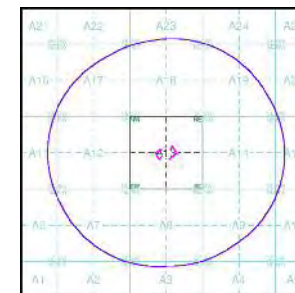
Artificial ground is a term used by BGS for those areas where the ground surface has been significantly modified by human activity. Information about previously developed ground is especially important, as it is often associated with potentially contaminated material, unpredictable engineering conditions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

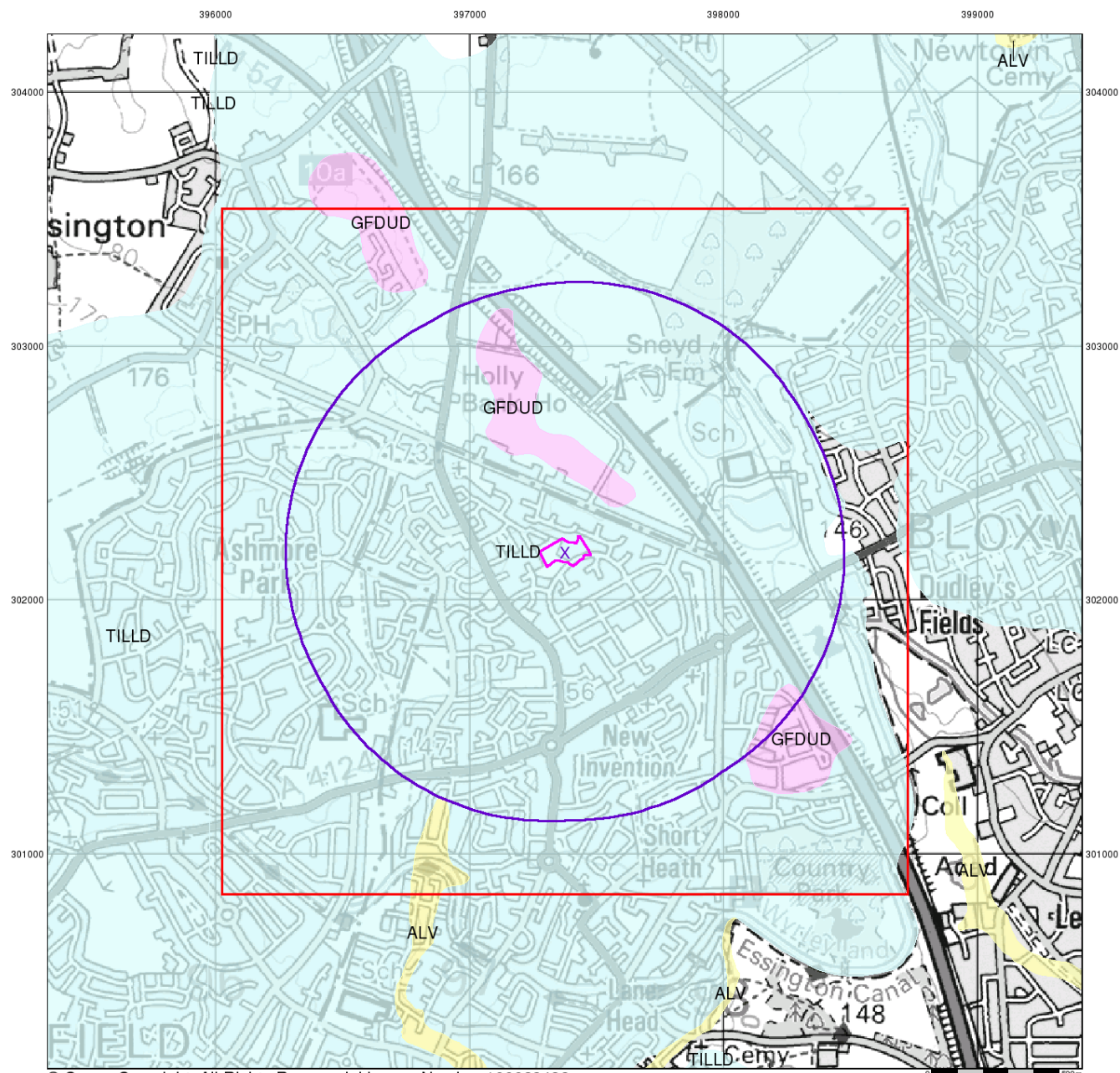
Order Number: 76524890_1.1
 Customer Reference: J-B0984.00
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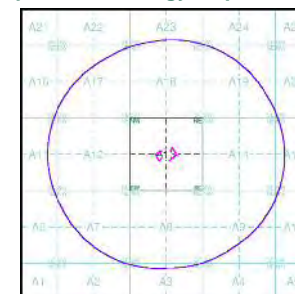
Superficial Geology

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:

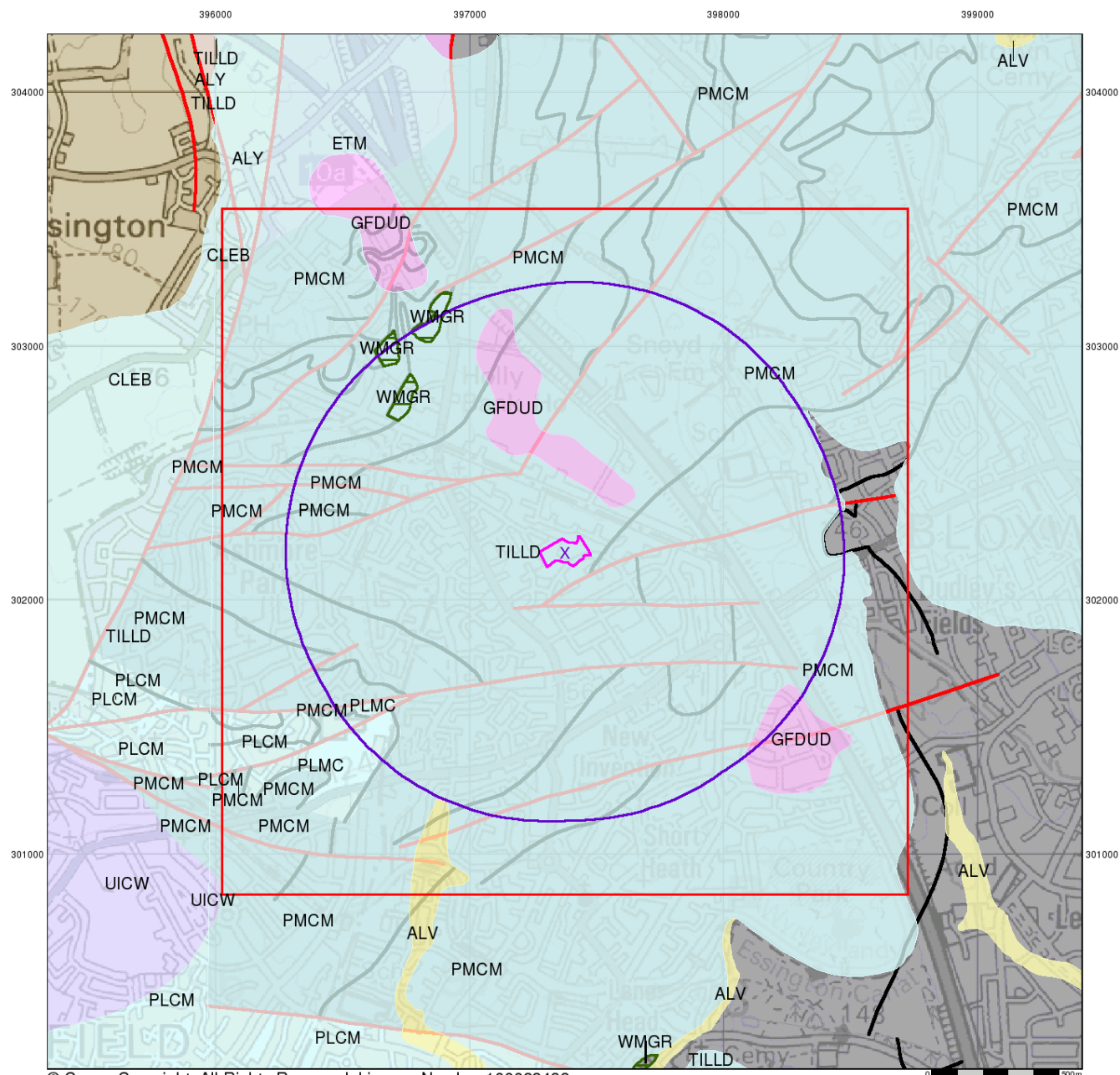
Order Number: 76524890_1_1
 Customer Reference: J-B0984.00
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Combined Surface Geology

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.

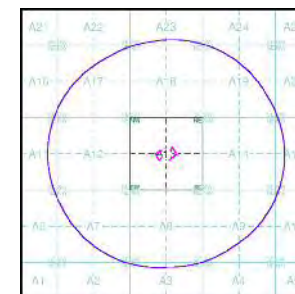
Additional Information

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:

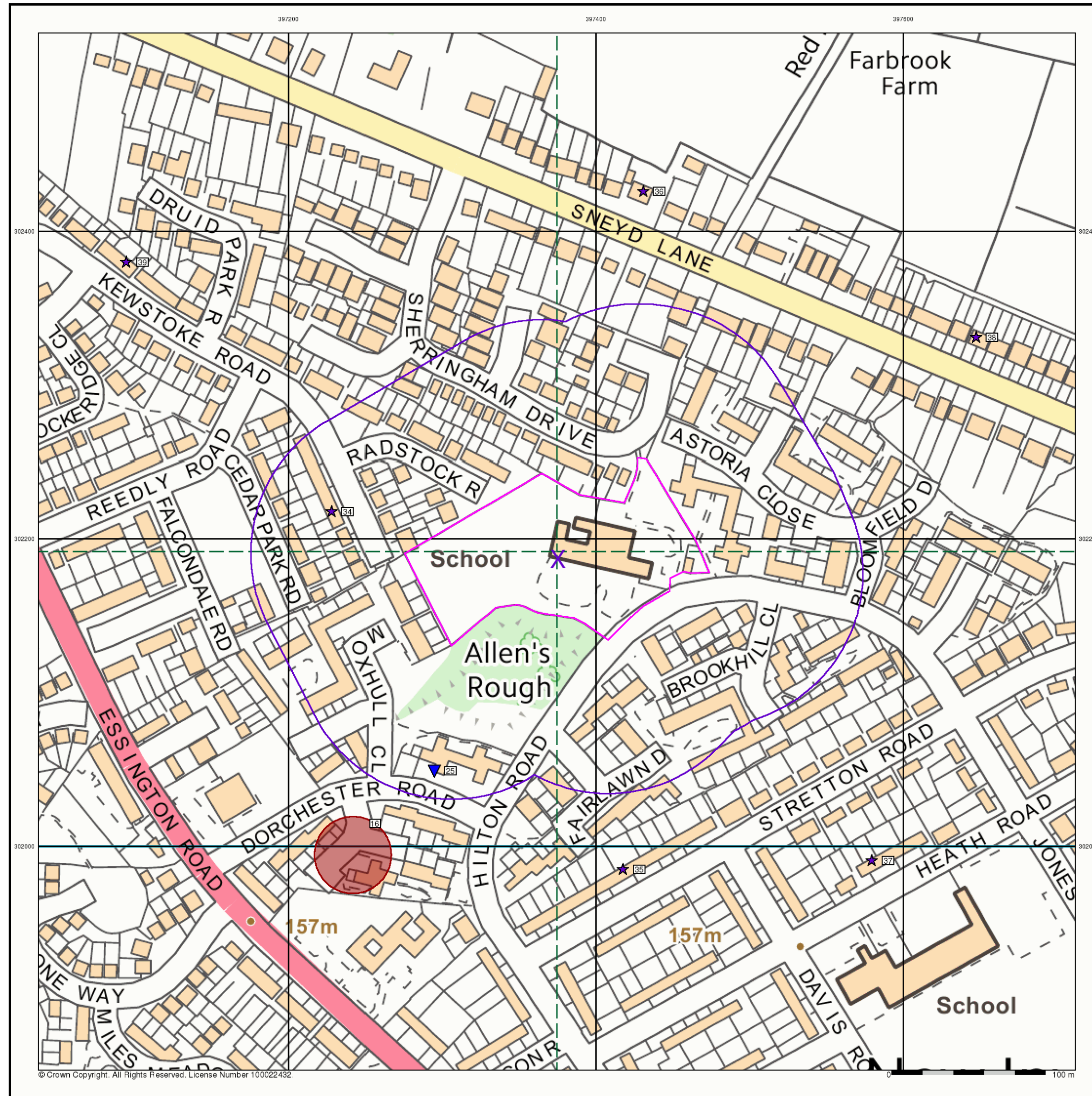
Order Number: 76524890_1.1
Customer Reference: J-B0984.00
National Grid Reference: 397380, 302190
Slice: A
Site Area (Ha): 1.35
Search Buffer (m): 1000

Site Details:

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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 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

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

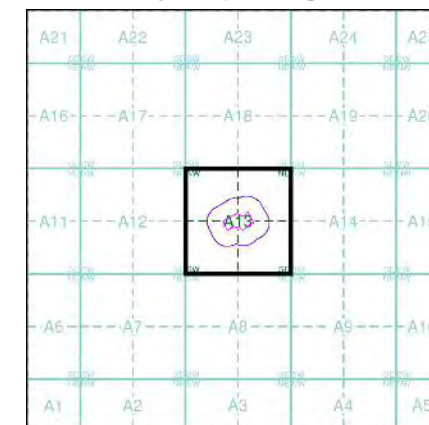
Geological

- BGS Recorded Mineral Site

Industrial Land Use

- Contemporary Trade Directory Entry
- Fuel Station Entry

Site Sensitivity Map - Segment A13



Order Details

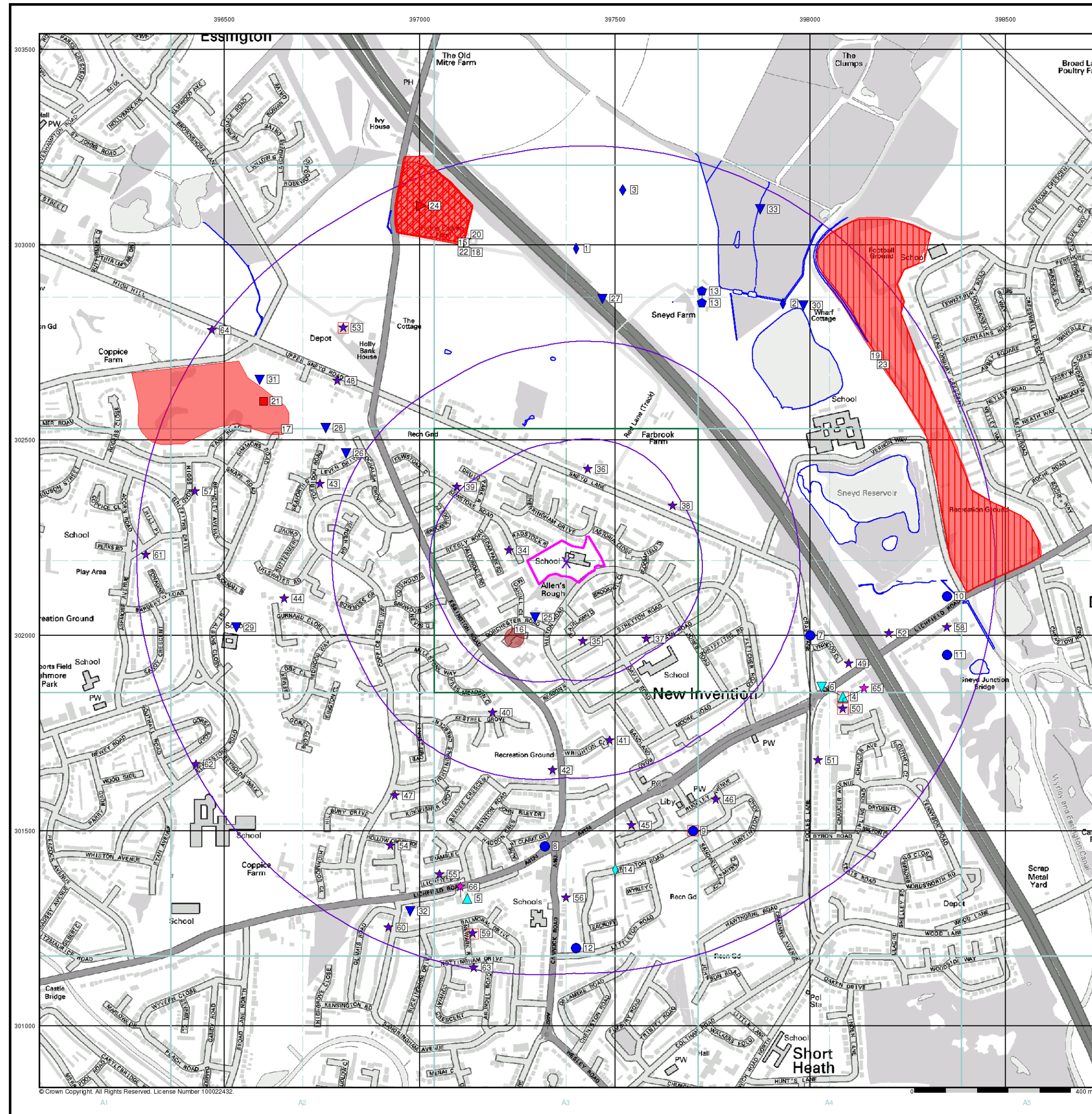
Order Number: 76524890_1_1
Customer Ref: J-B0984.00
National Grid Reference: 397380, 302190
Slice: A
Site Area (Ha): 1.35

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General

- Specified Site
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- 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
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- Integrated Pollution Prevention Control
- Local Authority Integrated 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

Waste

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- 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)
- Registered Landfill Site
- Prosecution Relating to Authorised Processes
- 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

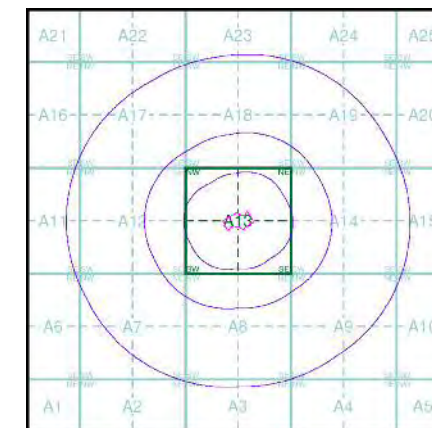
Geological

- BGS Recorded Mineral Site

Industrial Land Use

- Contemporary Trade Directory Entry
- Fuel Station Entry

Site Sensitivity Map - Slice A



Order Details

Order Number: 76524890_1_1
Customer Ref: J-B0984.00
National Grid Reference: 397380, 302190
Slice: A
Site Area (Ha): 1.35
Search Buffer (m): 1000

Site Details

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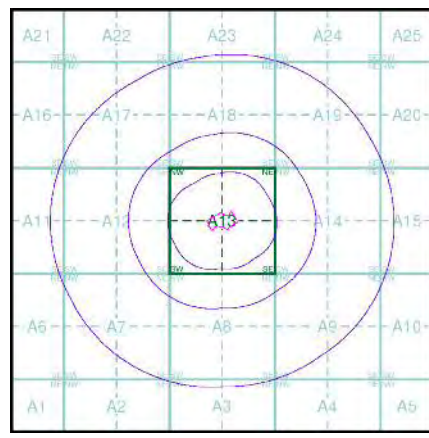
General

- Specified Site
- Specified Buffer(s)
- 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

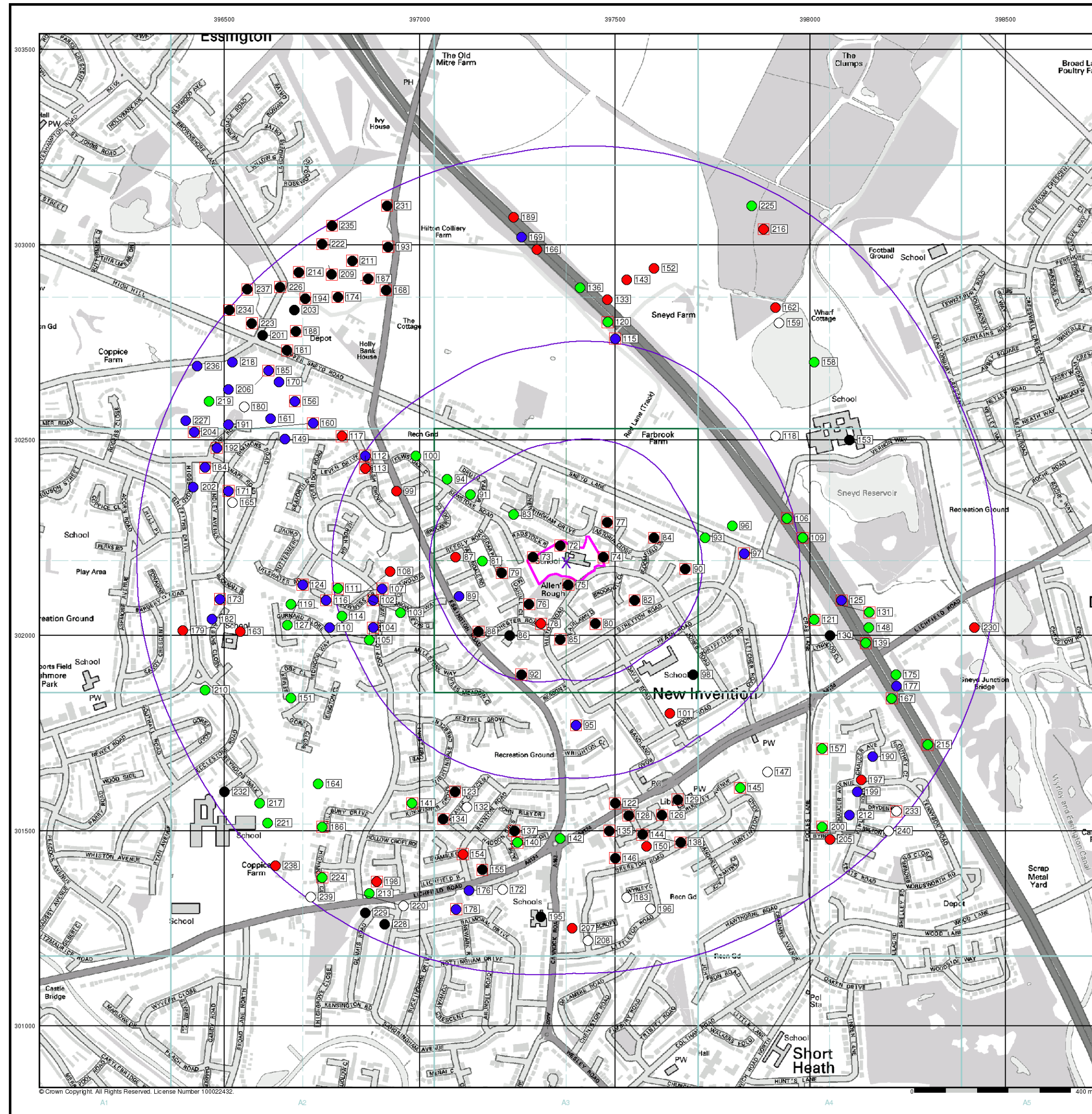
Order Number: 76524890_1_1
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Site Area (Ha): 1.35
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- Bearing Reference Point
- Map ID
- Several of Type at Location

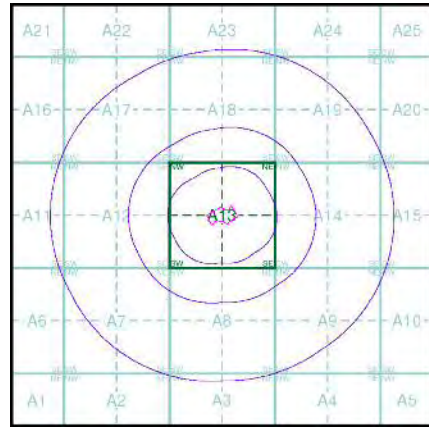
Agency and Hydrological (Boreholes)

- 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

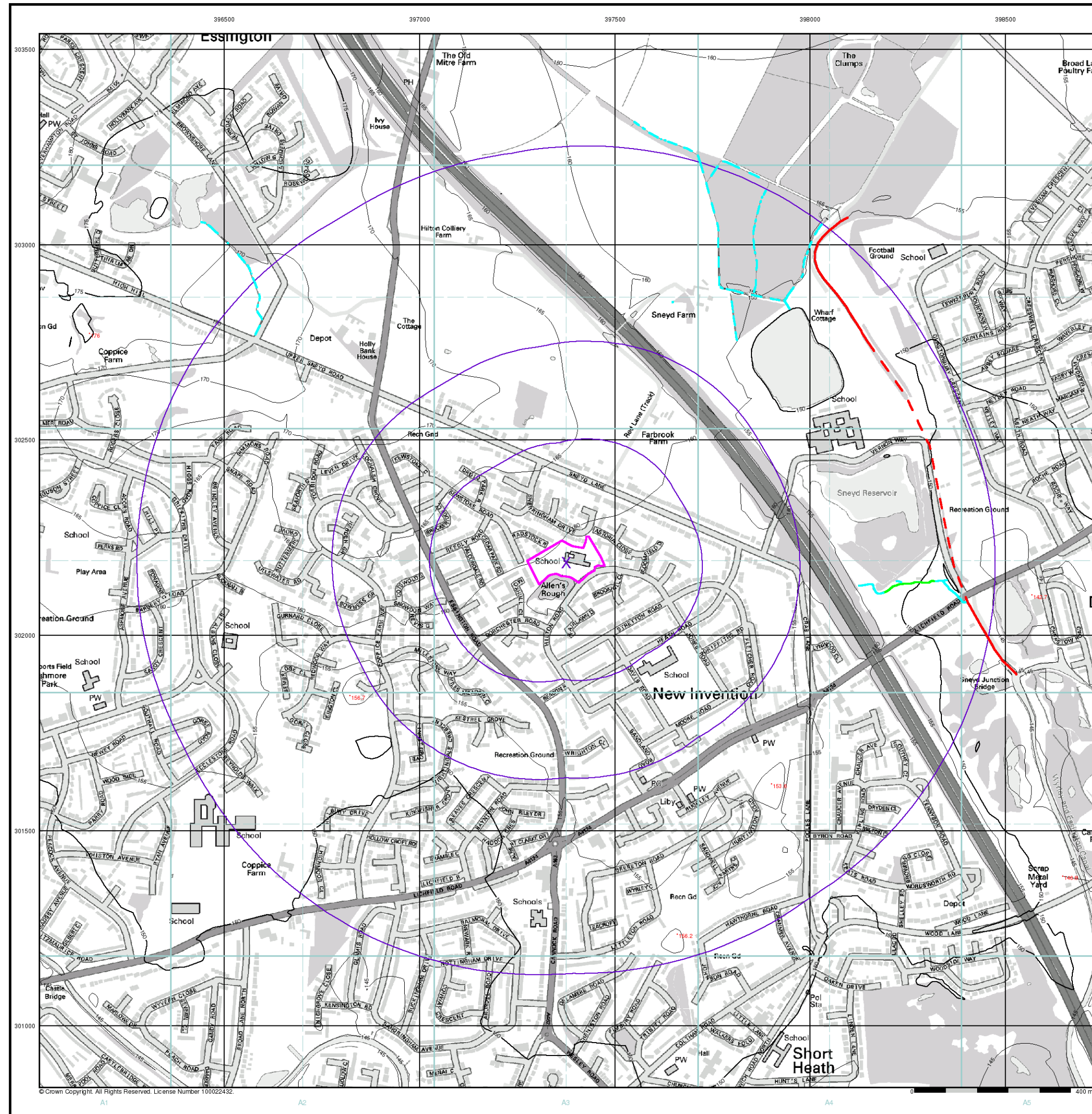
Order Number: 76524890_1_1
Customer Ref: J-B0984.00
National Grid Reference: 397380, 302190
Slice: A
Site Area (Ha): 1.35
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General

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

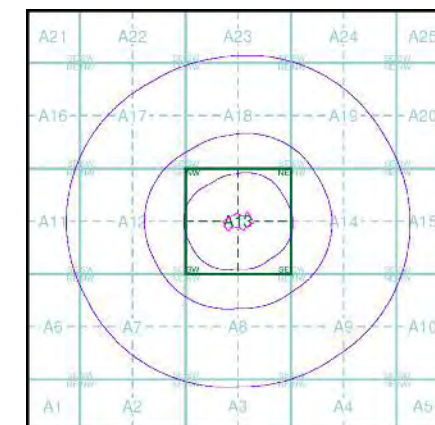
Detailed River Network Data

- | | |
|--------------------------|-------------------------------------|
| Primary River | Extended Culvert (greater than 50m) |
| Secondary River | Underground River (inferred) |
| Tertiary River | Underground River (local knowledge) |
| Canal | Downstream of High Water Mark |
| Canal Tunnel | Downstream of Seaward Extension |
| Undefined River | Not assigned River feature |
| Lake/Reservoir | |
| Offline Drainage Feature | |

Contours (height in metres)

- Standard Contour: 105, 100, 95
- Master Contour: 105, 100, 95
- Spot Height: 167.3
- MLW: Mean Low Water
- MHW: Mean High Water

EANRW Detailed River Network Map - Slice A



Order Details

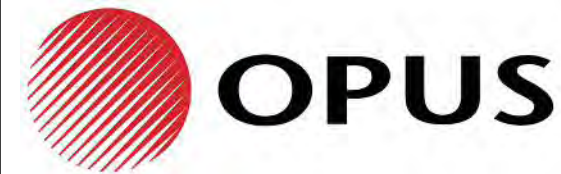
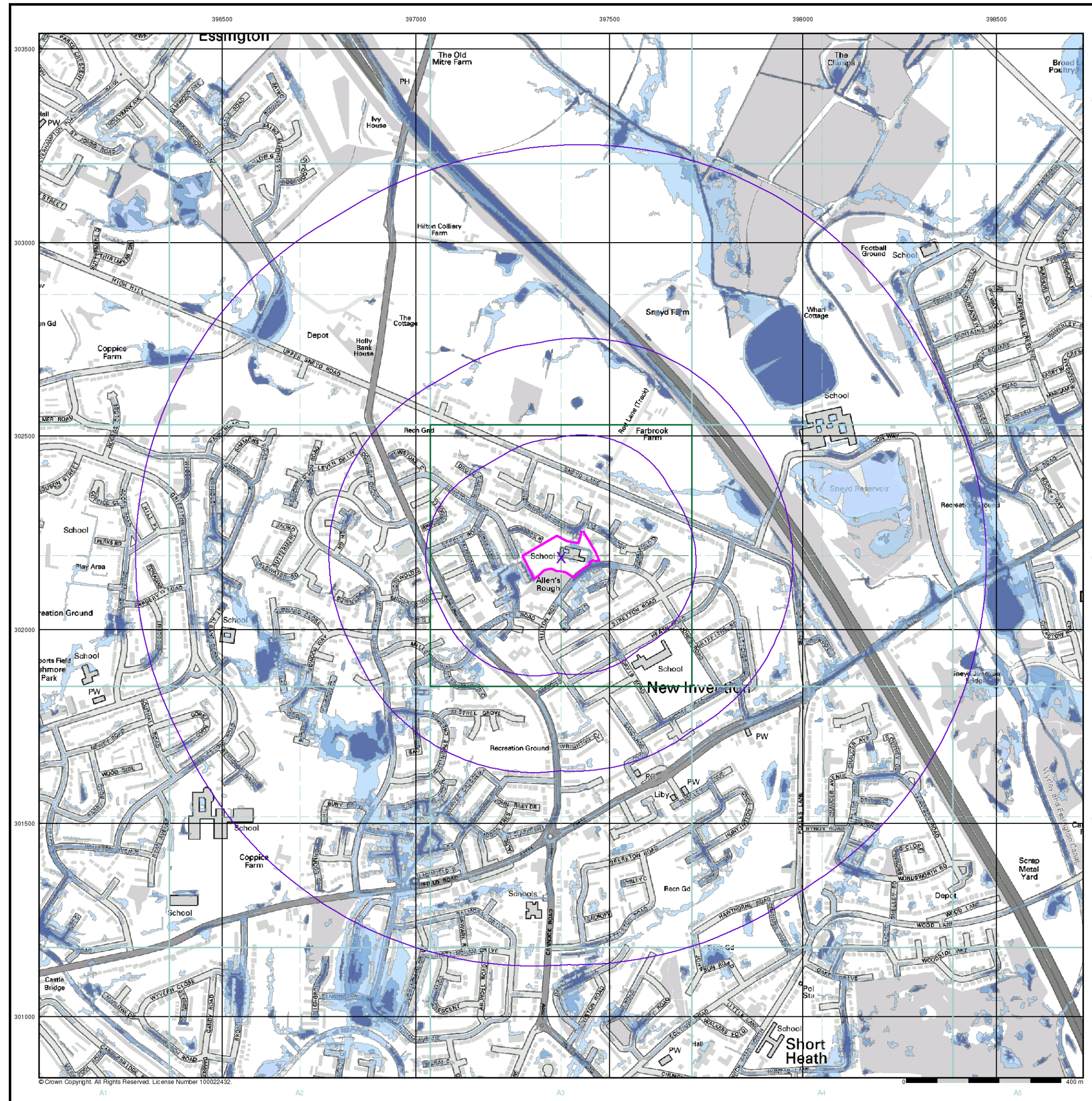
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General

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

Risk of Flooding from Surface Water

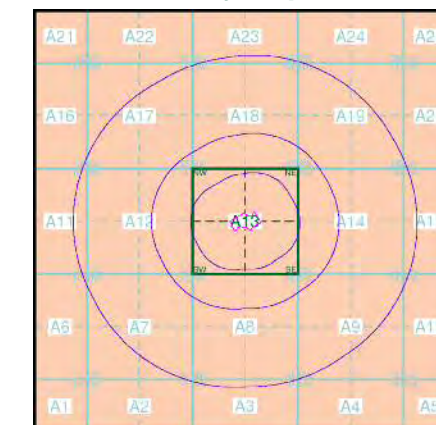
- High - 30 Year Return
- Medium - 100 Year Return
- Low - 1000 Year Return

Suitability

See the suitability map below

- National to county
- County to town
- Town to street
- Street to parcels of land
- Property

EANRW Suitability Map - Slice A



Order Details

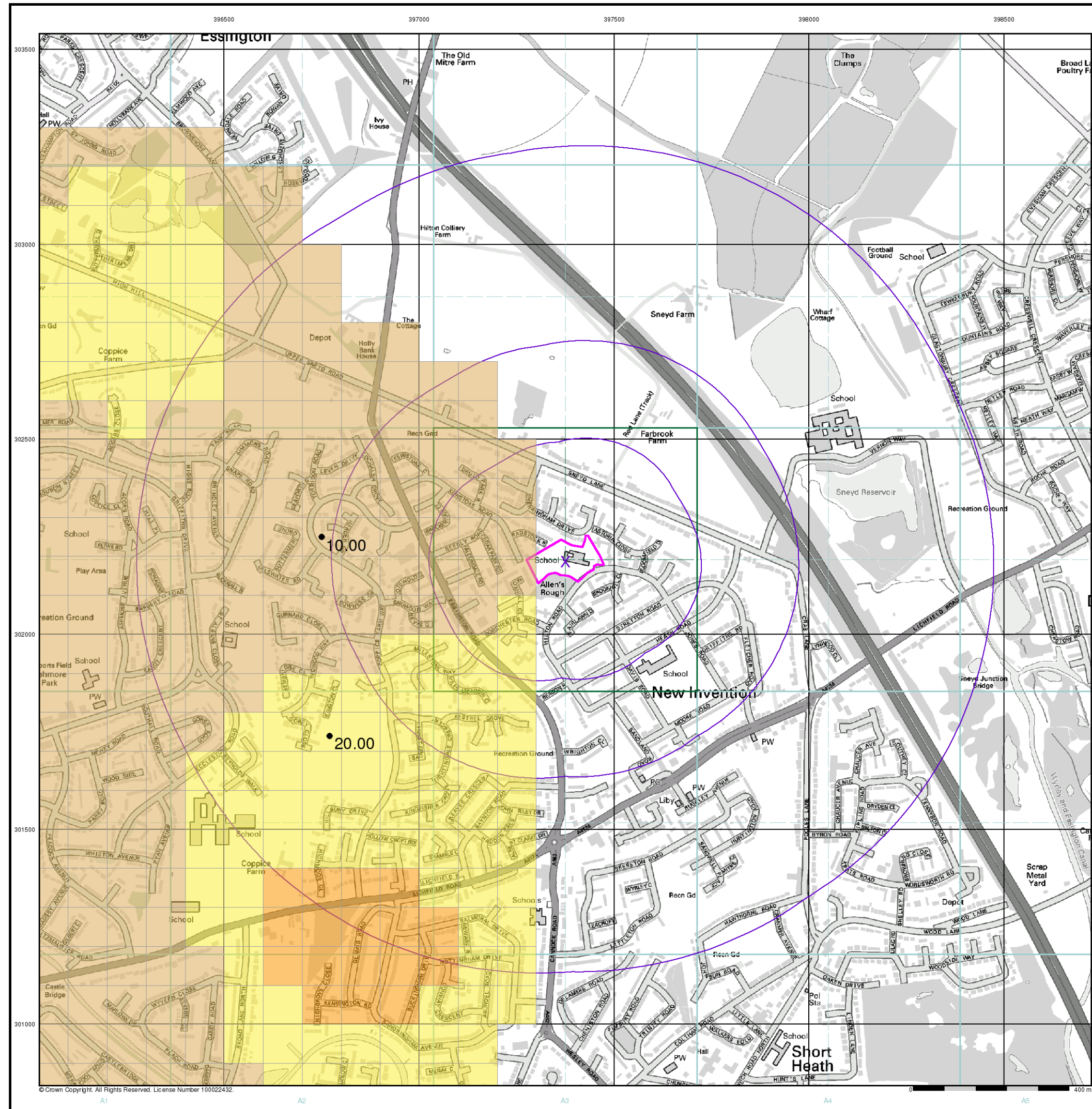
Order Number: 76524890_1_1
Customer Ref: J-B0984.00
National Grid Reference: 397380, 302190
Slice: A
Site Area (Ha): 1.35
Search Buffer (m): 1000

Site Details

Allens Centre, Hilton Road, Willenhall, WV12 5XB



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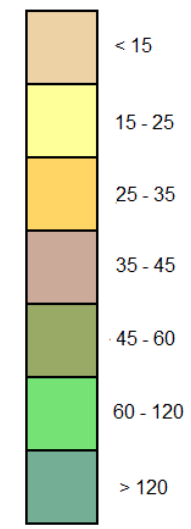
General

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

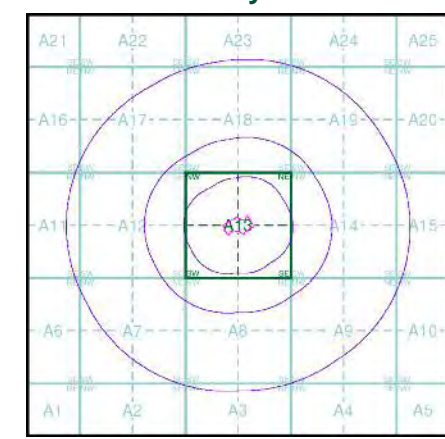
Urban Soil Chemistry Arsenic

● BGS Urban Soil Chemistry Measured Concentration Values (mg/kg)

Arsenic Concentrations mg/kg



Urban Soil Chemistry Arsenic - Slice A



Order Details

Order Details: 76524890_1_1
Customer Ref: J-B0984.00
National Grid Reference: 397380, 302190
Slice: A
Site Area (Ha): 1.35
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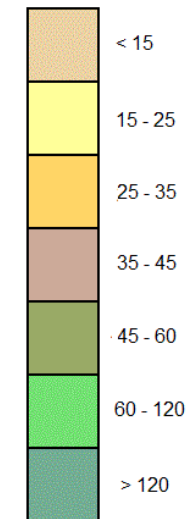


General

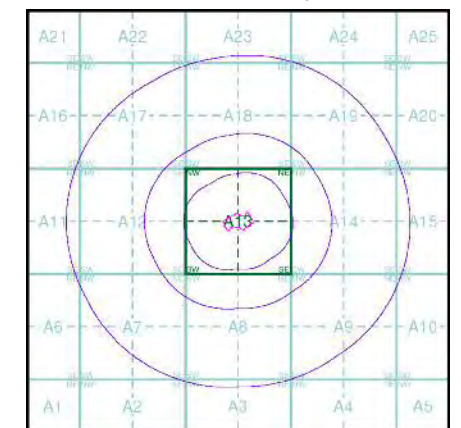
Specified Site Specified Buffer(s) Bearing Reference Point

Estimated Soil Chemistry Arsenic

Arsenic Concentrations mg/kg



Estimated Soil Chemistry Arsenic - Slice A



Order Details

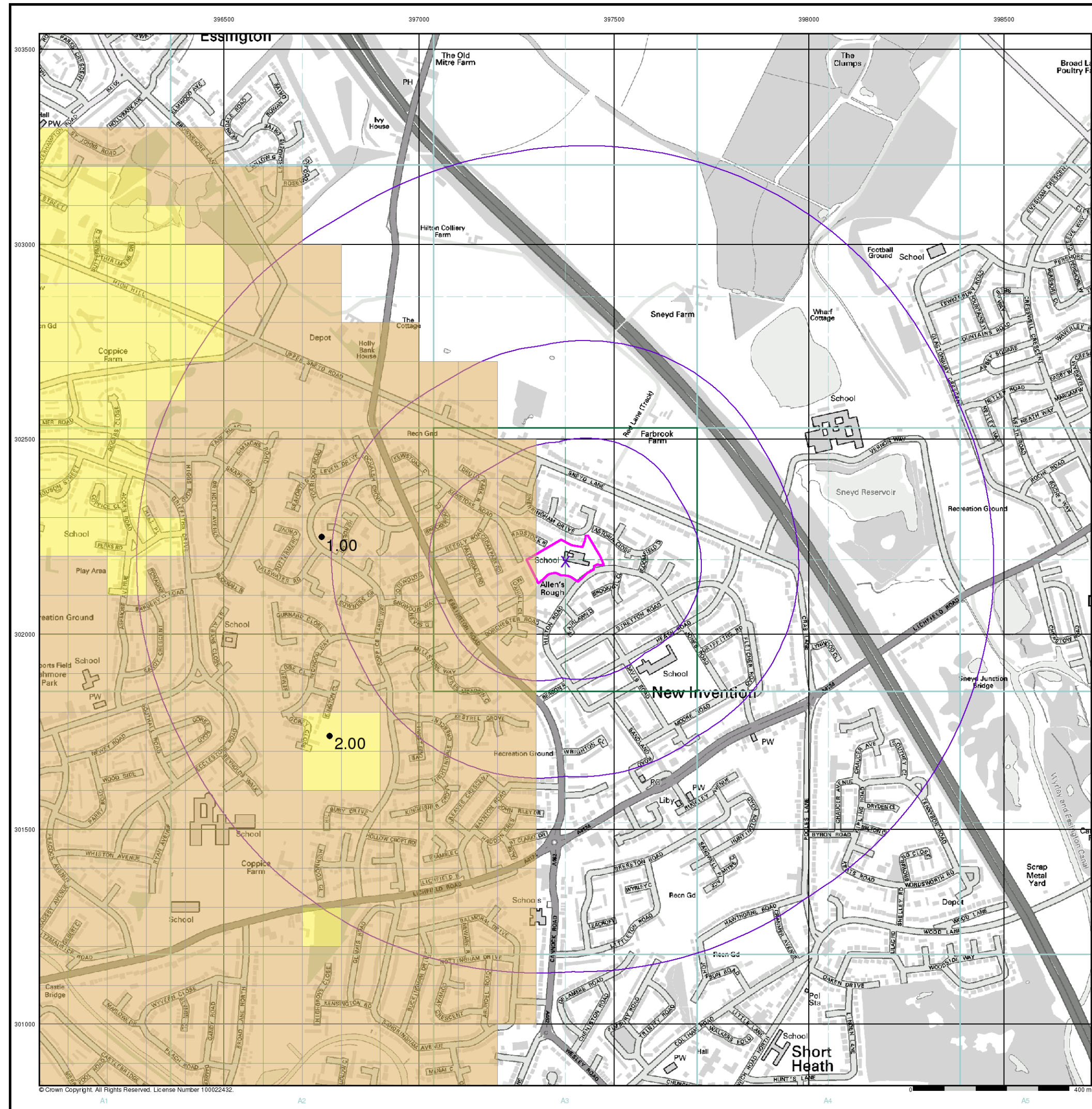
Order Details: 76524890_1_1
Customer Ref: J-B0984.00
National Grid Reference: 397380, 302190
Slice: A
Site Area (Ha): 1.35
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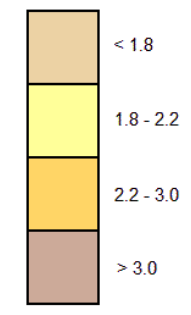
General

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

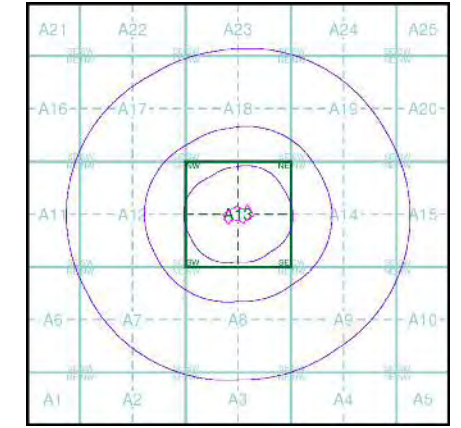
Urban Soil Chemistry Cadmium

BGS Urban Soil Chemistry Measured Concentration Values (mg/kg)

Cadmium Concentrations mg/kg



Urban Soil Chemistry Cadmium - Slice A



Order Details

Order Details: 76524890_1_1
Customer Ref: J-B0984.00
National Grid Reference: 397380, 302190
Slice: A
Site Area (Ha): 1.35
Search buffer (m): 1000

Site Details

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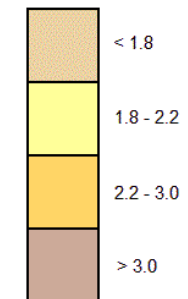


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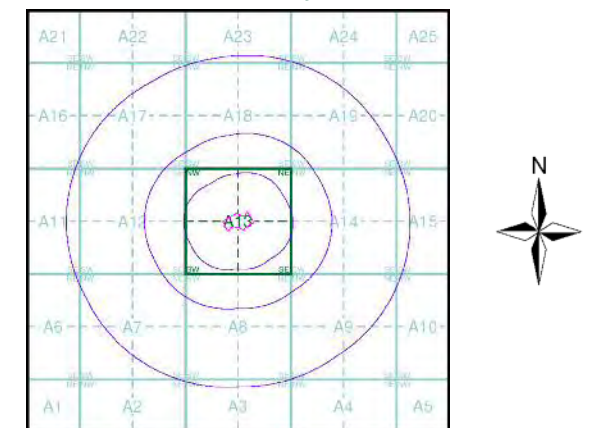
Specified Site Specified Buffer(s) Bearing Reference Point

Estimated Soil Chemistry Cadmium

Cadmium Concentrations mg/kg



Estimated Soil Chemistry Cadmium - Slice A



Order Details

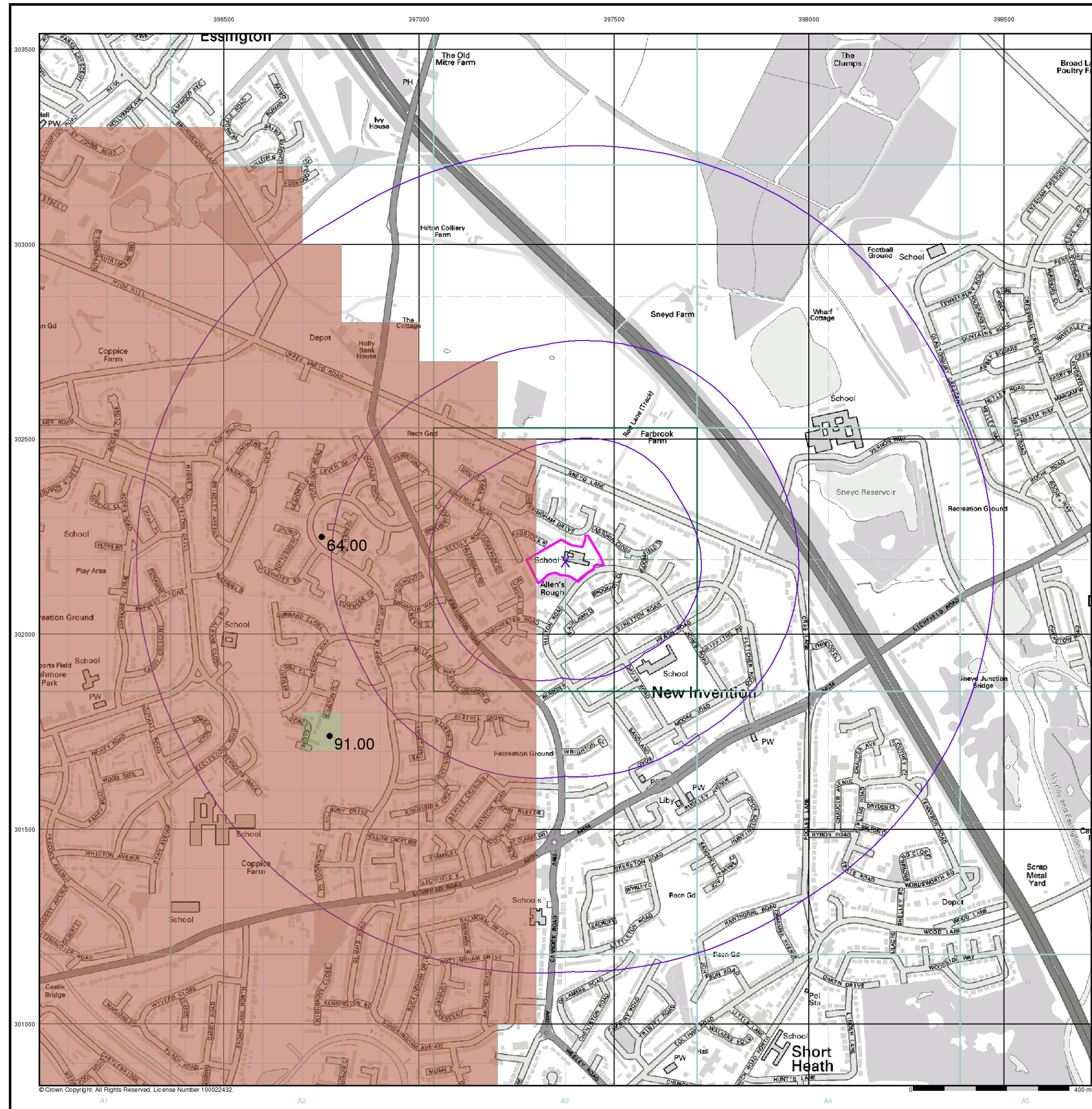
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Customer Ref: J-B0984.00
National Grid Reference: 397380, 302190
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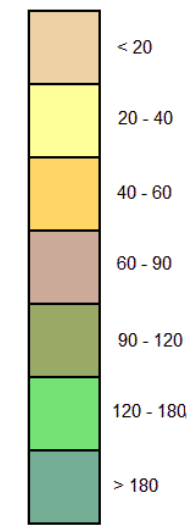
General

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

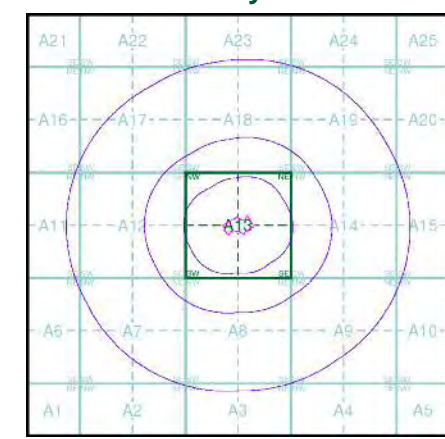
Urban Soil Chemistry Chromium

BGS Urban Soil Chemistry Measured Concentration Values (mg/kg)

Chromium Concentrations mg/kg



Urban Soil Chemistry Chromium - Slice A



Order Details

Order Details: 76524890_1_1
Customer Ref: J-B0984.00
National Grid Reference: 397380, 302190
Slice: A
Site Area (Ha): 1.35
Search buffer (m): 1000

Site Details

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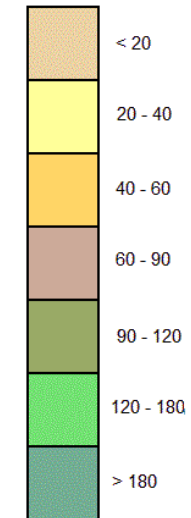


General

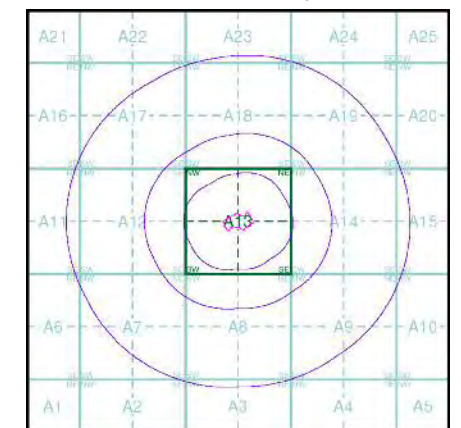
Specified Site Specified Buffer(s) Bearing Reference Point

Estimated Soil Chemistry Chromium

Chromium Concentrations mg/kg



Estimated Soil Chemistry Chromium - Slice A



Order Details

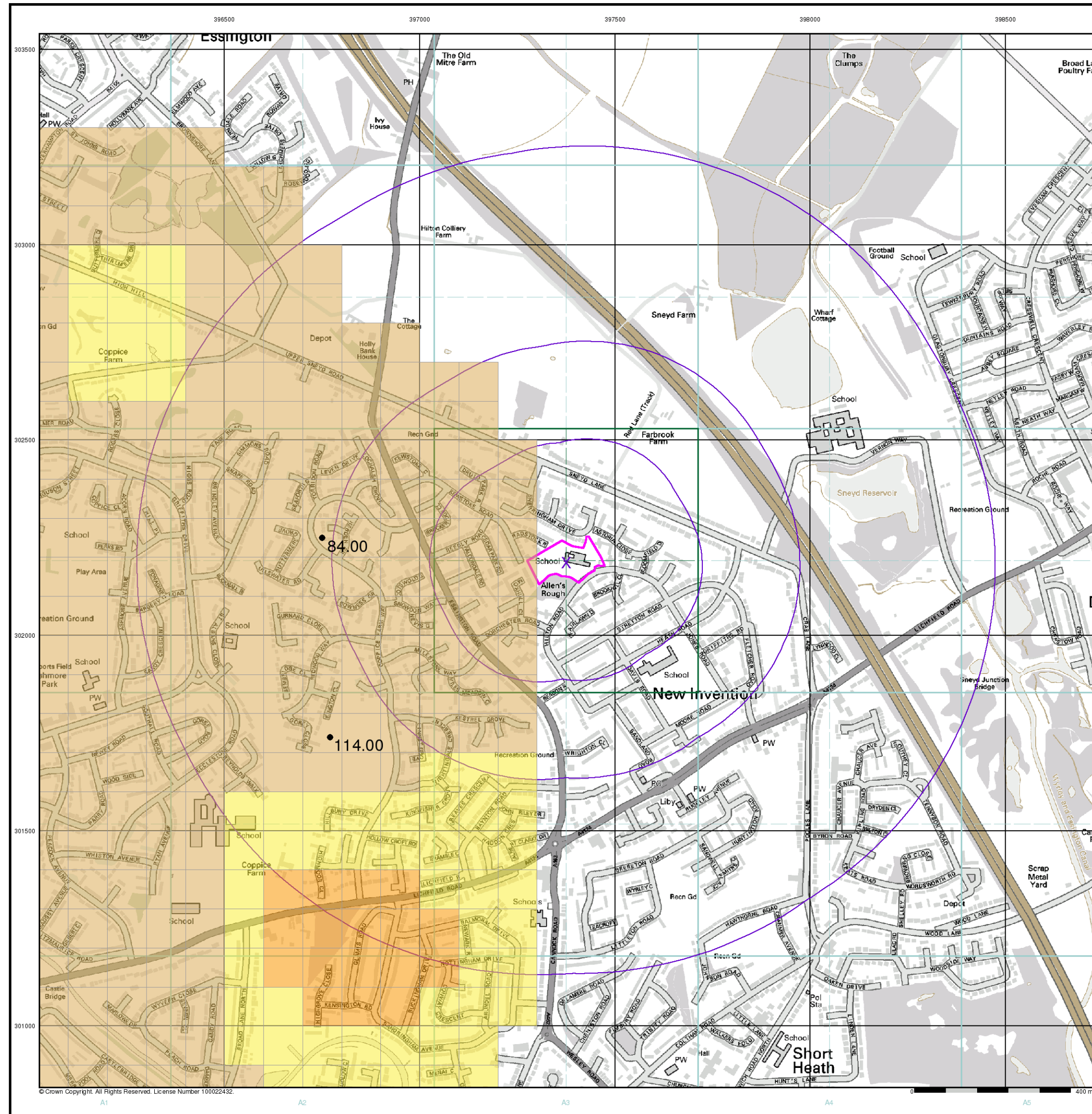
Order Details: 76524890_1_1
Customer Ref: J-B0984.00
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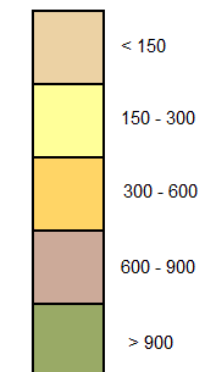
General

Specified Site Specified Buffer(s) Bearing Reference Point

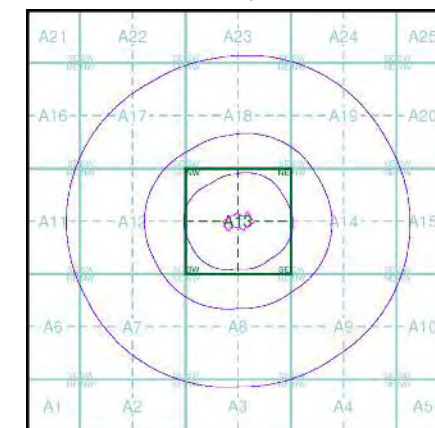
Urban Soil Chemistry Lead

BGS Urban Soil Chemistry Measured Concentration Values (mg/kg)

Lead Concentrations mg/kg



Urban Soil Chemistry Lead - Slice A



Order Details

Order Details: 76524890_1_1
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Slice: A
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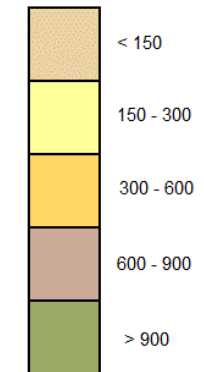


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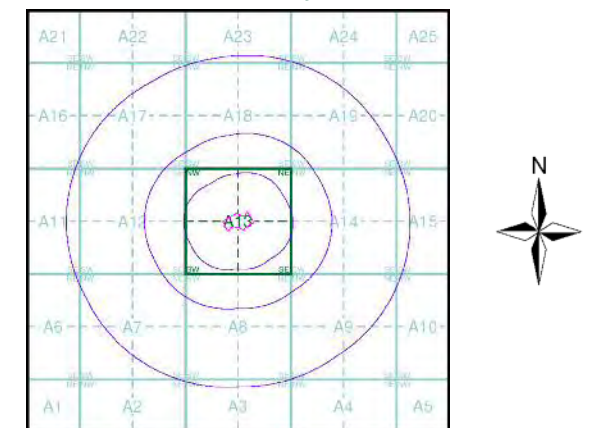
Specified Site Specified Buffer(s) Bearing Reference Point

Estimated Soil Chemistry Lead

Lead Concentrations mg/kg



Estimated Soil Chemistry Lead - Slice A



Order Details

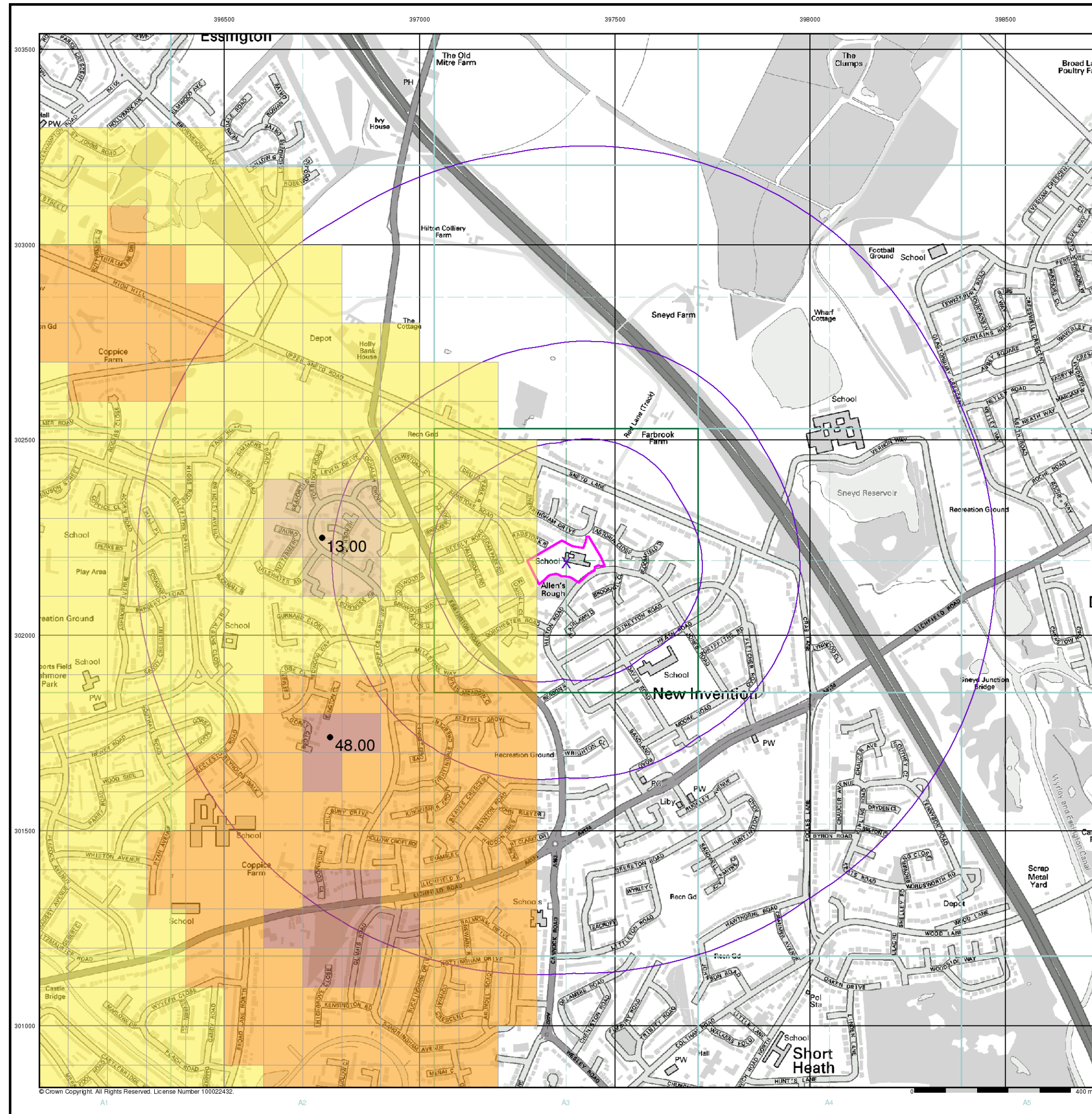
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Customer Ref: J-B0984.00
National Grid Reference: 397380, 302190
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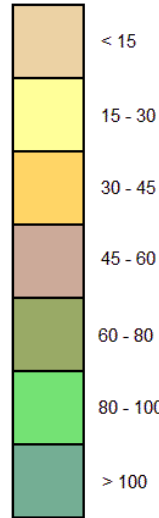
General

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

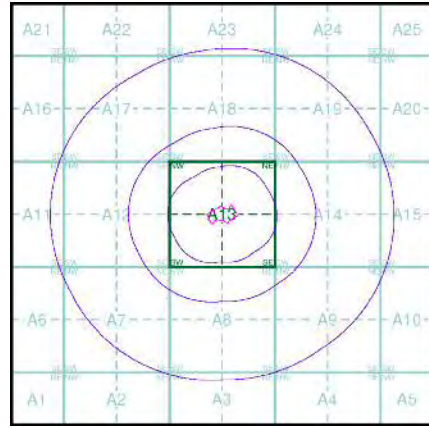
Urban Soil Chemistry Nickel

● BGS Urban Soil Chemistry Measured Concentration Values (mg/kg)

Nickel Concentrations mg/kg



Urban Soil Chemistry Nickel - Slice A



Order Details

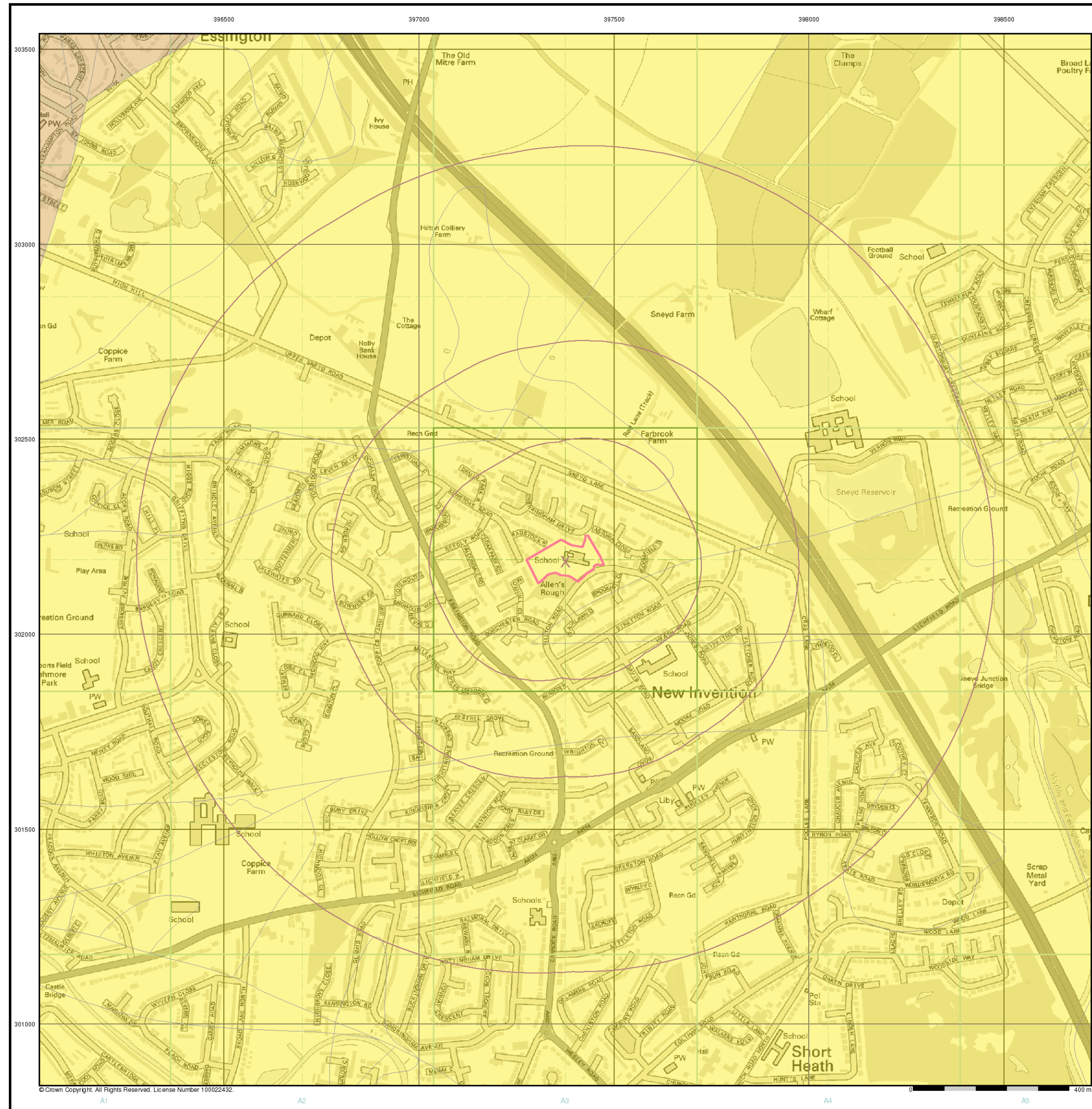
Order Details: 76524890_1_1
Customer Ref: J-B0984.00
National Grid Reference: 397380, 302190
Slice: A
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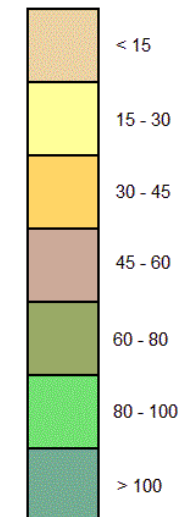


General

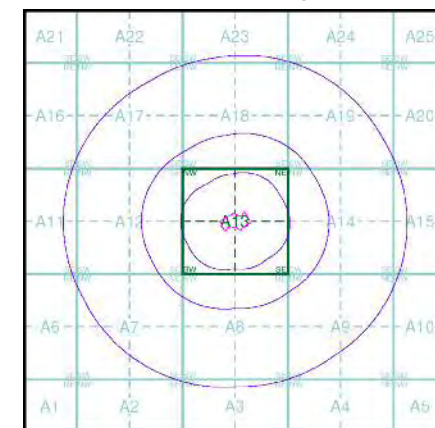
Specified Site Specified Buffer(s) Bearing Reference Point

Estimated Soil Chemistry Nickel

Nickel Concentrations mg/kg



Estimated Soil Chemistry Nickel - Slice A



Order Details

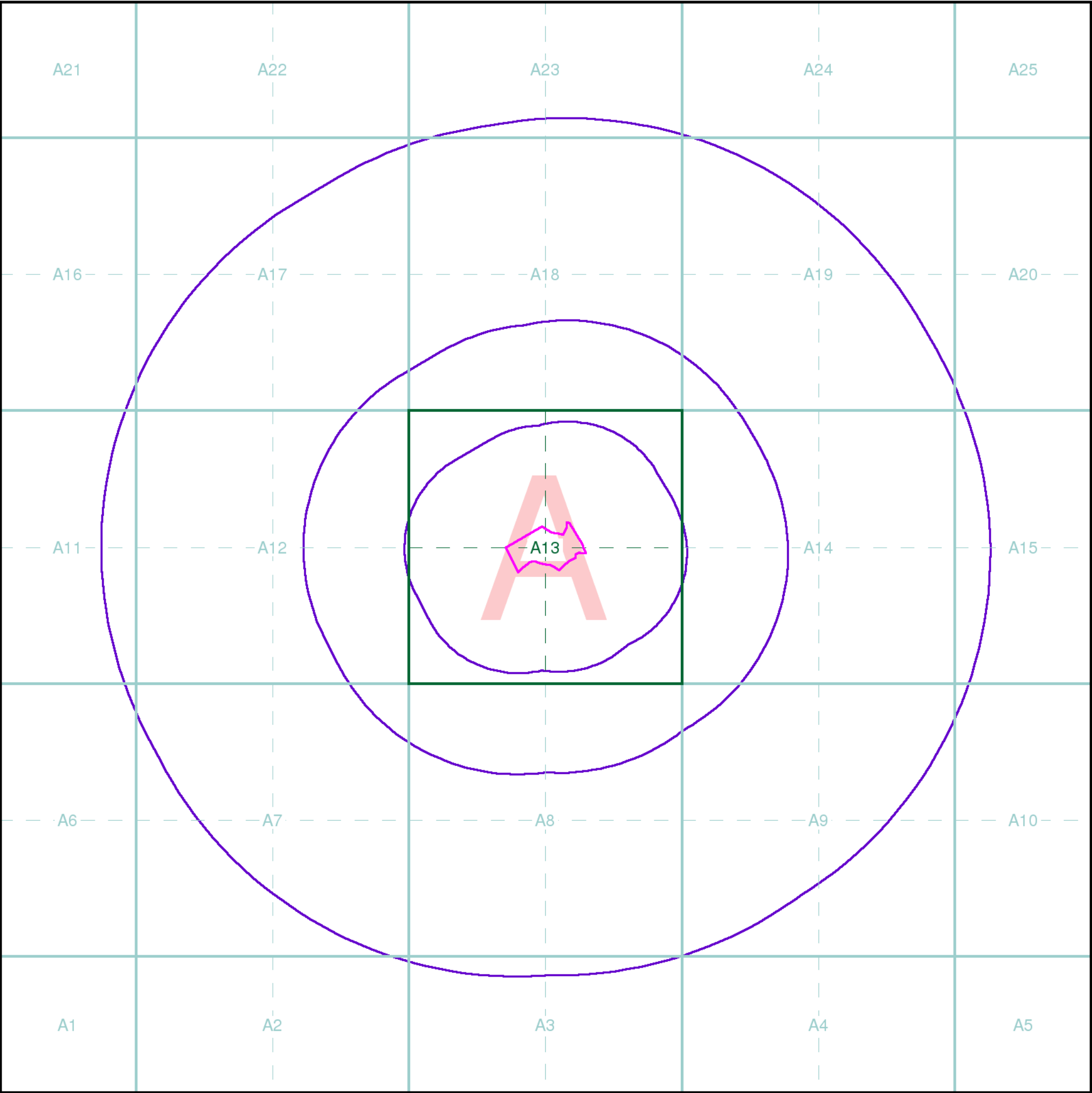
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Index Map

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:



Envirocheck reports are compiled from 136 different sources of data.

Client Details

Mr N Office User, Opus International Consultants (UK) Ltd,
Suite 3, 3800 Park Side, Birmingham Business Park,
Solihull, Birmingham, West Midlands, B37 7YG

Order Details

Order Number: 76524890_1_1
Customer Ref: J-B0984.00
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