



Rockwood Equestrian Centre, Flockton Moor

Phase 1 Desk Study Report

& Coal Mining Risk Assessment (CMRA)

September 2024

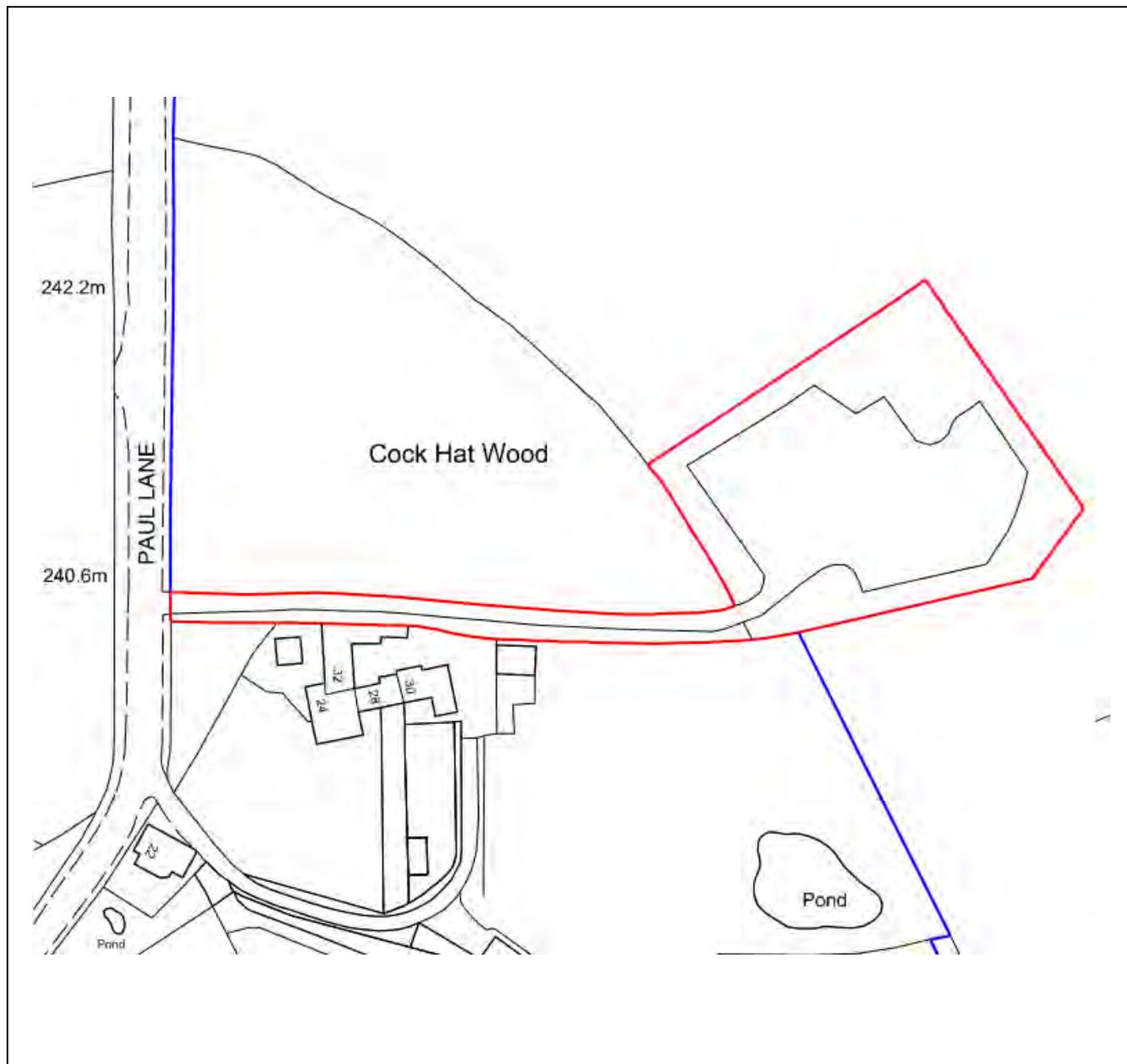
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|---|--|-------------------------------------|---|
| Report Title | Rockwood Equestrian Centre, Flockton Moor. Phase 1 Desk Study Report & Coal Mining Risk Assessment | Site Address | Rockwood Equestrian Centre, Paul Lane, Flockton Moor, Wakefield WF4 4BP. Grid Ref: (421620,414960) |
| Author | Chevin Geoviro Associates Ltd. | Contamination / Geotechnical | Contamination / Coal Mining Risk Assessment |
| Work Stage | Phase 1 Desk Study | Report Date | September 2024 |
| Brief Description of the Report Contents | Review of desktop information to develop a preliminary conceptual site model in order to identify any potential Contaminant Receptor, Pathway, Pollutant linkages and associated environmental issues. To form a desk-based Coal Mining Risk Assessment (CMRA) | | |

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1.0 INTRODUCTION

Chevin Geoenviron Associates Ltd (CGA) were commissioned by Rockwood Equestrian Centre, to carry out a Phase 1 Desk Study and Coal Mining Risk Assessment (CMRA) on Land off Paul Lane, Flockton Moor, Wakefield WF4 4BP.

The purpose of this report is to interpret information pertaining to the site obtained during a desk-based review of available data and a walkover survey of the site. The scope of the study is as follows:

- To provide general information on the site such as location and description;
- To discuss the geology, hydrogeology and hydrology at and in the vicinity of the site;
- To summarise the environmental setting of the site; e.g. landfills, permits and sensitive land uses;
- To discuss and summarise any historical development that has occurred at the site and in the surrounding area.
- To assess potential contamination issues pertaining to the site with consideration of the site's historic use.
- To develop an initial conceptual model linking sources of potential contamination with pathways and receptors;
- To provide a desk-based assessment of the historical Coal Mining legacy for the site.
- To provide a preliminary risk assessment for the current and proposed end use of the site;
- To provide recommendations for further works where necessary.

1.1 Terms and Conditions

This report has been prepared for Rockwood Equestrian Centre in support of a planning application. Much of the environmental information relates to the site in its present state and should not be used in a different context without reference to CGA.

1.2 Sources of information

A site walkover survey was carried out on the 6th September 2024. Photographs from the walkover can be found in Appendix B. Information on the site layout, potentially contaminative land uses and current land use of the site is based primarily on information collected during this walkover. Due to the short time scale

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for the production of this study, a request for information pertaining to the site from the Environment Agency and Local Authority was unable to be made.

However, an environmental database search was undertaken by others (Landmark) and is provided by CGA. The information provides supplementary environmental information for the site and surrounding area, as below. This was collated into a Landmark Envirocheck report and as such the potential for further data to exist cannot be ruled out.

The existing database on which this study is based comprises:

- Envirocheck Datasheet. Dated 5th September 2024
- Envirocheck 1:10,650 and 1:10,000 Historical Maps. Dated 5th September 2024
- Envirocheck 1:2,500 and 1:1,250 Historical Maps. Dated 5th September 2024
- Coal Authority Consultants Coal Mining Report: Dated 5th September 2024
- Site walkover photographs Dated 6th September 2024

Although every effort has been made to ensure the accuracy of the information contained herein, no checks have been carried out to ensure the accuracy of information obtained from third parties and no liability can be accepted for any errors or misinterpretation of the third-party information where it has been incorporated into this report.

2.0 SITE DETAILS

2.1 Proposed End Use

The proposed development consists of the conversion of a plot of land to an agricultural/equestrian building off Paul Lane, Flockton Moor, WF4 4BP. The completed site will include stables, a hay store, tack room, a large agricultural building with surrounding car park and a yard. The proposed layout plan is included in Appendix A.

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2.2 Site Location and Description

The site is located north east of the junction between Paul Lane (west) and Cockermouth Lane (south) in Flockton. This is approximately 8.0km southeast of Huddersfield City Centre and the same distance from Wakefield City Centre. The site is approximately 0.43ha in size and centred on National Grid Reference: 421620,414960.

The site can be accessed from Paul Lane to the west and is a near rectangle shape, orientated northwest to southeast, with a rebate into the southwest corner and a trackway leading west from this point out to Paul Lane.

A site walkover was conducted on the 6th September 2024. The site consists of a yard area which is levelled and enclosed with earth bunding around the edges. The site includes a rectangular area of concrete hardstanding, two storage containers located within the north-eastern corner and a dilapidated lorry trailer situated along the eastern boundary.

Potential sources of contamination noted on the site walkover were soils within the area of the bund that may be excavated and any in-filled historical underground structures, (reservoirs or historical earthworks), that may include buried or unearthed asbestos. Further sources may be historical tarmac materials, oil stains or localised spillage from former parked vehicles, site storage or onsite maintenance. These may potentially remain below any areas of later hardstanding.

A Site Location Plan is presented as Drawing No. C0645-01 in Appendix A.

3.0 GEOLOGY HYDROLOGY AND HYDROGEOLOGY

3.1 Data Sources

The following sources have been referenced for the identification of the geology, hydrogeology and hydrology of the site:

- Groundsure Reports (presented in Appendix C);
- Environment Agency website (www.gov.uk/government/organisations/environment-agency);
- British Geological Survey (BGS) Geindex Website (www.bgs.ac.uk/geoindex);

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- National Coal Authority Interactive Website (www.mapapps2.bgs.ac.uk/coalauthority).
- Coal Authority Consultants Coal Mining Report 5th September 2024

3.2 Geology

Information regarding the geology of the site has primarily been sourced from the Envirocheck Report and the BGS Geindex website.

3.2.1 Historical Borehole Records

The nearest available historical BGS borehole record that penetrated below 5.0m, is located at 872m northeast of site. This is beyond significant geological faulting and as such, alongside nearer shallow boreholes, is not considered to be representative of the site conditions.

3.2.2 Artificial/Made Ground

The historical mapping records several sizable former reservoir structures and associated tanks within the site area. These are likely to include unspecified backfill.

Geological mapping and the Coal Authority report, indicate that the north and east site are adjacent to Infilled Ground, which the Coal Authority considers was Unlicensed Opencast Mining. As this was unlicensed, it should be considered potentially to have penetrated the study site area. The associated historical mapping also implies mining earthworks were in fact south and west of site, with the mine shafts in these areas also recorded by the Coal Authority.

3.2.3 Superficial Geology

Geological mapping and the Groundsure report indicates no superficial deposits on site or within 1Km.

3.2.4 Solid Geology

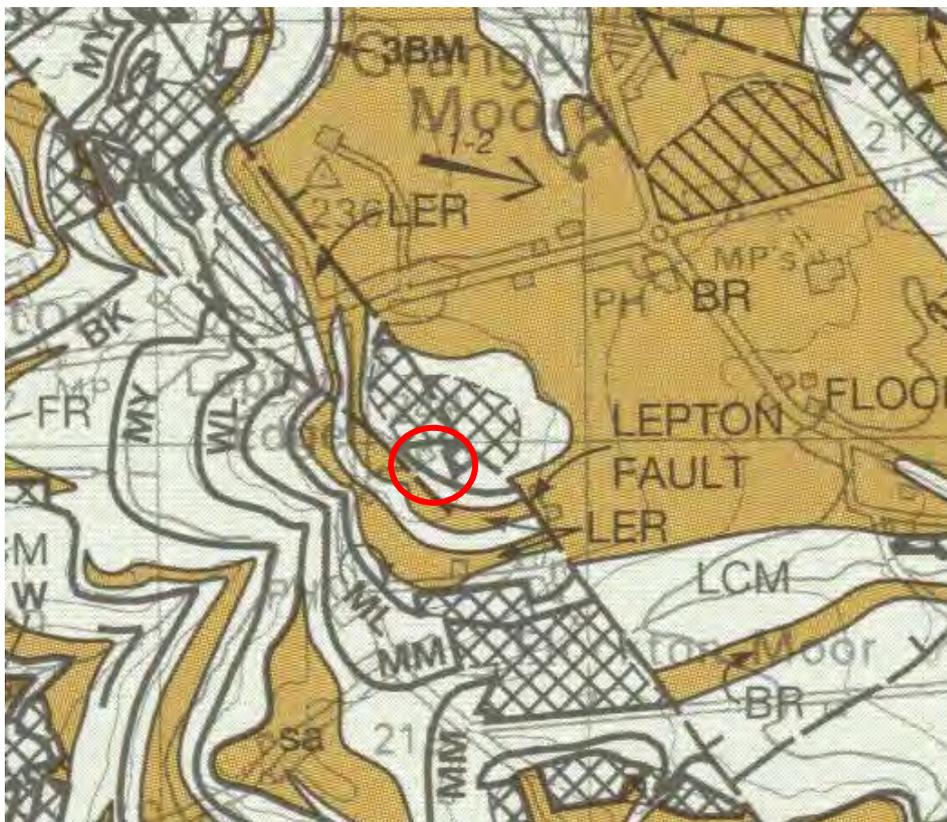
Geological mapping and the Groundsure report indicate the site is underlain to the southwest by the named Lepton Edge Rock and elsewhere by undifferentiated mudstones, all belonging to the Pennine Lower Coal Measures formation, of interbedded Mudstone, Siltstone, Sandstone and Coal Seams.

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The southwest site is encircled by out cropping coal seams with the nearest coal seam named the Middleton Little (ML), shown at a short distance from the site. Conformably deeper coals named the Middleton Main (MM), Wheatley Lime (WL) and Middleton Eleven Yard Coal (MY) progress as outcrops away from the site. The geology dips to the east potentially placing all of these seams below the study site.

The higher Birstall Rock sandstone and its associated coal seams are mapped northeast of site and the Third Brown Metal seam looks to potentially outcrop within or just north of the study site area.



BGS 1:50 000 Sheet 77 Huddersfield with area inside red circle.

The Third Brown Metal (3BM) Seam, may be within the site but is locally substituted whole or in part, by the massive Birstall Rock Sandstone. Where present this seam can be up to 0.80m thick.

The site is interpreted to cover the Middleton Little (ML) and Middleton Main (MM) Coal Seams, which are shown to outcrop southwest of the study site and are of up to 0.90m and 1.80m in thickness respectively.

Mining recorded by the Coal Authority is below 90m under the study site in the named Silkstone Coal. A respected (1950) publication by the Midland Institute of Mining, "Sections of Strata of the Coal Measures

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of Yorkshire,” records that a common name for the Silkstone Coal in West Yorkshire was the Blocking Seam, which in the geological section is recorded under the Middleton Eleven Yard Coal below the Wheatley Lime Coal and these may be up to 1.10m and 1.20m in thickness respectively.

For clarity the geological section is presented below.



BGS 1:50 000 Sheet 77 Huddersfield Geological Section.

3.2.5 Natural Hazards

The Envirocheck report records a moderate risk from compressible ground in part of the site, where other areas are attributed no hazard. Compressible ground is also considered a moderate risk beyond 1.0m north and 18.0m east and this likely relates to the potential for filled ground, ether from former areas of reservoir or mining earthworks that within the site, should be defined by ground investigation.

The Envirocheck report records a maximum very low on-site risk from collapsible ground, landslide, running sand, or shrink and swell of clays and no risk from ground dissolution. The risk of landslide rises to low beyond 150m southwest and moderate 198m southwest.

The identified risks should be considered during the foundation design for any new developments.

3.2.6 Faulting

The named Lepton Fault is mapped in near proximity to the east site and finer detail information from the Coal Authority, that will have been mapped below ground, maps faulting within the site area.

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Geological mapping also shows the termination of a second fault in near proximity to the west site. Fault structures could potentially cause soft or broken ground below the near surface and with respect to proposed foundations, these areas should similarly be defined by ground investigation.

3.3 Mining and Extraction

The National Coal Authority interactive mapping shows the site is within a coal mining reporting area and just northeast and south west of two development high risk areas. The site is also just north east of an area of probable shallow coal mine workings. The site continues to be within a Surface Coal Resources Area which confirms that coal potentially remains below the site at shallow depth.

Detailed information from the Coal Authority Consultants Coal Mining Report, records areas to the north and east as “Unlicensed Opencast Sites” and it also plots historical mine shafts for coal workings below surface level, to the south and southeast of site.

The mining report surprisingly considers that there are no Probable Unrecorded Shallow Workings, but it remains unclear how accurate the authority’s location is for the historical shafts and/or the defined boundaries of the unlicensed opencast areas. These features look to predate ordnance survey information.

CGA consider that the opencast may have progressed into the site boundaries and that mining of this age was more often at less than 100 imperial feet (30m) from the surface.

The Envirocheck report indicates the site is within an area associated with minor amounts non-coal mining mineral exploitation and it attributes a “No Hazard” classification. It records the nearest BGS Mineral Site at 39m east, for Deep Coal at Cockermonth Pits. Forty further listings to 980m distant, for Deep Coal, Sand and Sandstone, all have a ceased status.

The Envirocheck report records no manmade or natural cavities within 2000m of the study site.

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3.3.1 Coal Authority Consultants Mining Report & Interactive Mapping

A summary of the information provided within the Coal Authority Coal Mining Report and interactive mapping is presented within Table 3.1 below.

Table 3.2 Summary of Coal Authority Consultant Mining Report Information

| Mining Activities | On Site | Further Information |
|---|---------|---|
| <u>Section 1: Mining Activity and Geology</u> | | |
| Past Underground Mining | Yes | Recorded below the site in two named seams. Silkstone at 90m to 93m depth and the Whinmoor Coal at 134m to 157m. |
| Probable Unrecorded Shallow Workings | Yes | The Coal Authority believe there are no probable unrecorded shallow workings, however this does not concur with the location of known shafts near the site or the recorded workings in the area. |
| Spine Roadways at Shallow Depth | No | No spine roads are recorded at shallow depth. |
| Mine Entries | Yes | Four recorded within 100m south of site. |
| Outcrops | Yes | Outcrops are shown on geological sheets locally and potentially within the site boundary, but no outcrops are recorded by the Coal Authority information. |
| Geological Faults, fissures and break lines | Yes | One fault is mapped to cross the site from northwest to southeast and geological information implies there may be others. |
| Opencast Mines | Yes | Unlicensed opencast shown on the accompanying summary of findings map to be located beyond the north and east of the site boundaries. The accuracy of this information is unknown. |
| Coal Authority Managed Tips | No | None recorded within 500m of the enquiry boundary. |
| Remediated Sites | No | None recorded within 50m of the enquiry boundary. |
| Coal Mining Subsidence | No | The Coal Authority has not received a damage notice or claim for the subject property or within 50m of the enquiry boundary since 31/10/1994. There are no current Stop Notices delaying the start of remedial works or repairs to the property. The Coal Authority is not aware of any request having been made to carry out preventative works before coal is worked under section 33 of the coal mining Subsidence Act 1991. |
| Mine Gas | No | None recorded within 500m of the enquiry boundary. |
| Mine Water Treatment Schemes | No | None recorded within 500m of the enquiry boundary. |
| Future Underground Mining | No | None Recorded. |
| Coal Mining Licensing | No | None recorded within 200m of the enquiry boundary. |
| Court Orders | No | None Recorded. |
| Subsidence (Section 46) | No | No notices given under section 46 of the Coal Mining Subsidence Act 1991, stating that the land is at risk of subsidence. |
| Withdrawal of Support Notices | Yes | The property is in an area where a notice to withdraw support was given in 1957 and 1958. The property is not in an area where a notice has been given under section 41 of the Coal industry Act 1994, cancelling the entitlement to withdraw support. |
| Payments to owners of Former Copyholder Land | No | The property is not in an area where a relevant notice has been published under the Coal industry Act 1975 / 1994. |

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3.4 Radon

The Groundsure report states that the site is within an Lower Probability Radon Affected Area, with less than 1% homes estimated to be at or above the action level. No radon protective measures are necessary in the construction of new dwellings or extensions.

3.5 Hydrogeology

No superficial deposits cover the site and the bedrock deposits are classified as a Secondary A Aquifer. These comprise permeable layers capable of supporting water supplies at a local rather than strategic level, and in some cases forming an important source of base flow to rivers.

Site soils are reported to be of high vulnerability, however there are no source protection zones recorded within 2000m of the study site.

3.5.1 Groundwater and Surface Water Abstractions

The Envirocheck report records no surface or groundwater abstractions within 2000m of the study site.

3.6 Hydrology

The Envirocheck report records one surface water feature at 43m south. This is presented by mapping to be a pond. Twenty-nine watercourse listings are beyond 410m from the site and include Flockton Beck at 480m south, Beldon Brook at 503m southwest and Rods Beck at 789m northwest. All of the records are either catchments for the rivers Aire and Calder or the Don and Rother.

3.6.1 Water Quality

The Envirocheck report records no water quality data, chemical or biological, within 2000m of the site.

3.6.2 Site Drainage

No obvious site drainage was seen during the walkover survey.

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3.6.3 Discharge Consent

The Envirocheck report records six discharge consents beyond 500m, for trade discharges of mine water, treated sewerage effluent and process water. These are not considered to affect the study site.

No Water Industry Act Referrals are listed within 2000m.

3.6.4 Pollution Incidents to Controlled Waters, Land & Air

No Substantial Pollution Incidents are Recorded within 2000m of the study site.

One Pollution Incident to Controlled Waters was recorded at 340m south in March 1992. However, this record was a Category 3 Minor Incident and is considered to be historical.

3.6.5 Flood Risk

The Envirocheck report does not record any Zone 3 (Flooding from rivers or sea without defences) or Zone 2 (Extent of extreme flooding from rivers or sea without defences), associated with fluvial models within 250m of the site boundary.

The Risk of Flooding from Rivers and Sea (RoFRaS) flood rating for the site is recorded as Very Low, (less than 1 in 1000) chance of flooding in any given year. The site is not within 250m of any flood defences, areas benefitting from flood defences or areas of flood storage.

The BGS consider there is a limited potential for Ground Water flooding to occur.

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4.0 ENVIRONMENTAL SETTING

4.1 Source References:

The following sources have been referenced for the identification of the environmental setting of the site:

- Envirocheck Report (presented in Appendix C);
- Environment Agency website (www.gov.uk/government/organisations/environment-agency);

4.2 Waste Treatment and Disposal

4.2.1 Landfill Sites

No BGS/DoE landfill, historical landfill or local authority landfills are recorded within 800m of the site.

A historical landfill recorded at 845m southwest was for inert waste but is considered at too greater distance to affect the study site.

4.2.2 Waste Management, Transfer, Treatment or Disposal Sites

The Envirocheck report records no Integrated Pollution Control Registered Sites, Licences Waste Management Facilities, Registered Waste Transfer Sites or Registered Waste Treatment and Disposal Sites within 2000m.

4.2.3 Environment Agency Licenced Waste Sites.

There are no other records of Environment Agency licensed waste sites or landfills within 2000m of the site.

4.3 Regulatory Permits & Registers

The following section provides information on regulatory permits held on or within 500m of the site.

4.3.1 Control of Major Hazard Sites / Notification of Installations Handling Dangerous Substances

The Envirocheck report records no Control of Major Hazard (COMAH) sites or Notification of Installations Handling Dangerous Substances (NIHHS) within 500m and no Explosives Sites.

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4.3.2 Contaminated Land Registers and Entries and Notices

The Envirocheck report records no Contaminated Land Register Entries and Notices within 500m.

4.3.3 Pollution Control Licences / Permits

No Local Authority Pollution Prevention and Controls, Local Authority Pollution Prevention and Control Enforcements, Enforcement and Prohibition Notices, Local Authority Integrated Pollution Prevention and Controls, Integrated Pollution Controls or Prosecutions Related to Authorised Processes are listed within 500m of the site and no Registered Radioactive Substances.

4.3.4 Planning Hazardous Substances Consents

The Envirocheck report records no Planning Hazardous Substance Consents and no Planning Hazardous Substance Enforcements within 500m.

4.4 Current Industrial Uses

The Envirocheck report does not record any Contemporary Trade Directory Entries, Gas Pipelines or Underground Electric Cables within 500m of the study site.

4.5 Fuel Stations and Tanks

The Envirocheck report does not record any other specific petrol or fuel sites within 500m of the site.

4.6 Sensitive Land Uses

The Envirocheck report indicates the site is within an Area of Adopted and Unadopted Green Belt and also a Nitrate Vulnerable Zone. The Defra Magic website also records the site to be within a Community Forest England Area.

4.7 Archaeology and National Monuments

There are no known national monuments or areas of archaeological interest within 500m of the site.

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5.0 SITE HISTORY

5.1 Source References

Information relating to the historical development of the site and the surrounding area has been obtained from Historical Ordnance Survey Maps (1:10,000, 1:10,560 and 1:2,500). It should be noted that changes to the site boundary are likely to be attributed to map scale error when overlaying historical maps on current OS maps. For further information see Appendix D.

5.2 History of Site and Surrounding Areas

The earliest historical OS map is dated 1854 to 1855, when the site comprises part of open fields. By the late 1800s, the site has a reservoir in the west corner measuring approximately 15m x 20m.

There were no changes to the early 1930s, when a second smaller reservoir was located at the middle of the north site boundary and site was named Flockton and Whitley Upper UD Council Water Works.

A tank was placed at the centre of the study site by the 1960s and the site was now accessed by a track from Paul Lane. By the 1990s, the original reservoir was removed and by 2024 all structures had been removed from the site.

Outside the site area, there have always been numerous coal pits and shafts and these were typically annotated as "old" on the earliest sheets. Quarries including sandstone were beyond 400m and development has been reasonably slow in the local area, with depots or light industry beyond 600m from the study site appearing by the 1960s. After which time there were no significant changes.

A summary of site history can be found in Table 5.1 below.

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Table 5.1 Summary of Site History

| Date | On-Site Features | Surrounding Area |
|-----------|---|---|
| 1854-55 | The site comprises part of open fields. | 20m Southeast and 40m Southwest: Coal Pit. 60m Southwest: Buildings named "Far Cockermouth" are located south of what will become the access track. 350m South: Flockton Moor Colliery. 400m Southeast: Sandstone Quarry. 600m Northeast, East and South: Numerous Quarries and Coal Pits. |
| 1893-94 | The site has a reservoir in the west corner measuring approximately 15m x 20m. | Boundary West: Wood later named Cock Hat Wood. 20m Southeast and 40m Southwest: Earthworks surround area annotated "Old Coal Pit." 40m South: Enclosure later named "Pond" 40m Southeast: Shaft. 60m West: Buildings named Far Cockermouth. 60m Southwest: Two location marked "Shaft" and "Old Shaft". 100m West: Paul Lane, beyond which boggy ground. 135m and 240m Southwest: Old Shaft. 260m Southeast: Reservoirs. 350m Northwest: New Colliery. 500m Northwest: Reservoir beyond which sand pit. |
| 1906-08 | No significant changes. | 20m Southeast and 40m Southwest: Earthworks surrounding Old Coal Pits have changed shape. |
| 1930-33 | Second smaller reservoir located at the middle of the north site boundary and site named Flockton and Whitley Upper UD Council Water Works. | 20m Southeast and 40m Southwest: Earthworks surrounding Old Coal Pits have again changed shape. Shaft no longer annotated at 40m southeast. 750m Northwest: Pumping station. |
| 1938-55 | No significant changes. | No significant changes. |
| 1961-67 | A third square structure with a smaller adjoining square to the south, has been placed at the centre of the study site. The site is now accessed by a track from Paul Lane and one of two 1961 sheets annotate the structure as a tank. This same sheet also shows the original reservoir as removed. | 20m Southeast: Earthworks and shafts no longer shown. 60m Southwest: Buildings at Far Cockermouth have changed shape. 80m South: Chimney in location of former shaft. 600m Northeast: Depot. 600m North East: Allotment Gardens. 750m North: Poultry Houses. |
| 1980-83 | Original reservoir shown on more recent sheet. | No significant changes. |
| 1992-2000 | The original reservoir is once again shown as removed. | |
| 2024 | All structures have been removed from site. | |

5.3 Previous Investigations

There are no records of any previous site investigation on this site.

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6.0 CONCEPTUAL SITE MODEL

6.1 Introduction

The information obtained from the desktop study of the site has been collated and evaluated to develop a Conceptual Model for the site.

The site has been assessed in line with current UK guidelines, namely the Contaminated Land (England) Regulations 2000 and Part IIA of the Environmental Protection Act 1990 and follows the procedures set out in www.gov.uk/government/publications/land-contamination-risk-management-lcrm.

This guidance provides the technical framework for structured decision making about land contamination and builds on previous work in the now withdrawn Environmental Agency 'Model Procedures for the Management of Land Contamination – Contamination Land Report (CLR).11'.

The technical approach to risk assessment defines three essential elements to establishing risk:

- A contaminant source - a substance that is in, on or under land and has the potential to cause harm or to cause pollution of controlled waters.
- A receptor – in general terms, something that could be adversely affected by a contaminant, such as people, an ecological system, property or a water body.
- A pathway - route or means by which a receptor can be exposed to or affected by a contaminant.

Each of these elements can exist independently, but they create a risk only where they are linked together, so that a particular contaminant affects a particular receptor through a particular pathway. This kind of linked combination of source-pathway-receptor is described as a pollutant linkage.

This report presents a Stage 1 Conceptual Model and Tier 1 Preliminary Risk Assessments for the site, based on the proposed conservative commercial end use.

6.2 Hazard Identification

6.2.1 Sources of Contamination

The site has historically been used for reservoirs and later commercial use with parking and possible

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maintenance associated with vehicles or storage at the site. Shallow mine workings could remain below the property, or in the local surroundings. Areas of sizable earth working exist locally and may have progressed into the defined site area. It is possible that the former site structures contained asbestos.

It is possible that significant site made ground may be present. The origins of soils used to surround the site in a bund or to backfill the former areas of reservoir are unknown. The previous use of the site, local industrial use such as farming and nearby earth working, alongside the potential use of the site for repair or storage, may have led to staining.

The composition of any associated backfill or made ground is unknown. Made ground and potential shallow mine workings are also considered to be potential sources of ground gas generation.

A summary of significant potential sources of contamination identified during this study are presented in Table 6.2.

Table 6.2 Summary of Contaminant Sources & Contaminants

| Structure / Process | Contaminants Potentially Present on Site |
|---|---|
| On-site | |
| Potential Made Ground (S1) | Metals, PAH, TPH, Asbestos, Carbon Dioxide & Methane |
| Former Industrial Site Uses Including Reservoirs, Maintenance or Storage (S2) | Metals, PAH, TPH, Asbestos, Vapours |
| Potential Shallow Mining (S3) | Carbon Dioxide & Methane |
| Parked Vehicles (S4) | PAH, TPH, Hydrocarbon Vapour |
| Off-site | |
| Potential uses Surrounding the Site (farming) (S5) | PAH, TPH, Hydrocarbon Vapour Herbicides/Pesticides |
| Made Ground / Local Earth Working (S6) | Carbon Dioxide & Methane |

6.2.2 Potential Receptors

The following are considered as potential receptors in relation to the current and proposed use of the site.

- **Future Site Users** – Female worker aged 16-65 years;

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- **Utility / Construction / Demolition / Site Investigation workers** – Workers undertaking routine / non-routine work involving ground disturbance works and maintenance of below ground services (assuming workers are only wearing standard construction / utility worker PPE);
- Underlying **Secondary A Aquifer** – Pennine Lower Coal Measures;
- **Surface waters**- Pond 43m south;
- **Structures** – Ingress of ground gas.

6.2.3 Potential Contamination Pathways

The following are considered plausible contamination pathways, given the nature of the site, the potential contaminative sources identified and assuming a continued current use.

- Dermal contact and ingestions of soils;
- Inhalation of dust/fibres and vapours;
- Migration of leachable contaminants;
- Migration of gases via granular soils, made ground or historical shallow mine workings;
- Ingress of PAH into drinking water supply or aquifer.

6.2.4 Quantitative Risk Assessment

By considering the sources, pathways and receptors, an assessment of the environmental risks is made with reference to the significance and degree of the risk. This assessment is based on consideration of whether the source contamination can reach a receptor and hence whether it is of major or minor significance.

An initial conceptual model of the source-pathway-receptor linkages has been developed based on the information derived from the CGA desk study and this study. The Conceptual Site Model has been used to identify Relevant Pollutant Linkages for the current and proposed end uses which have been assessed quantitatively and qualitatively using risk terminology within CIRIA 552 guidance, as described below in Table 1.3 and Table 1.4.

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Table 1.3 Methodology for Assessing Consequence of Harm

| Consequence | Criteria |
|-------------|---|
| Severe | Short term (acute) risk to Human Health likely to result in “significant harm” as defined by the Environmental Protection Act 1990, Part IIa. Short term risk of pollution of sensitive water resource. Catastrophic damage to buildings / property |
| Moderate | Chronic damage to Human Health likely, over a long term, to result in “significant harm” as defined by the Environmental Protection Act 1990, Part IIa. Pollution of sensitive water resources |
| Mild | Health effects to Human Health that are unlikely to result in “significant harm” as defined by the Environmental Protection Act 1990, Part IIa. Pollution of non-sensitive water resources. Significant damage to crops, buildings, structures and services. Damage to sensitive buildings / structures / services or the environment |
| Negligible | Non-permanent health effects to Human Health that are unlikely to result in “significant harm” as defined by the Environmental Protection Act 1990, Part IIa. Those that are easily prevented by means such as personal protective clothing. Harm, although not necessarily significant harm, which may result in a financial loss, or expenditure to resolve |

Table 1.4 Methodology for Assessing Likelihood of Consequence Occurring

| Probability | Criteria |
|--------------------|---|
| Almost Certain | Circumstances are such that an event either appears very likely in the short term and almost inevitable over the long term or there is evidence of currently harm occurring |
| Likely | Circumstances are such that an event, whilst not inevitable, is possible in the short term and is likely to occur over the long term |
| Unlikely | Circumstances are such that it is possible an event could occur but it is by no means certain to occur even over a longer period, and it is less likely in the shorter term |
| Very Unlikely | Pollutant linkage may be present, but the circumstances under which harm would occur are improbable even in the medium to long term |
| Extremely Unlikely | Pollutant linkage may be present, but the circumstances under which harm would occur are highly improbable even in the long term |

The risk assessment table and apportioned scores presented in Table 1.5 are in general accordance with CIRIA 552. The main exception is that irreversible risks to human health are considered to have a severe consequence irrespective of whether the effects are chronic or acute in nature. The risks are scored from 0 to 48 with increasing significance with increasing scores.

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Table 1.5 Summary of Risk Scoring

| Consequence Probability | Severe (4) | Moderate (3) | Mild (2) | Negligible (1) |
|----------------------------|------------------------|-----------------------------|-----------------------------|----------------------|
| Almost Certain (12) | Very High Risk (48) | High Risk (36) | Moderate Risk (24) | Low Risk (12) |
| Likely (9) | High Risk (36) | Moderate Risk (27) | Moderate / Low Risk (18) | Low Risk (9) |
| Unlikely (6) | Moderate Risk (24) | Moderate / Low Risk (18) | Low Risk (12) | Very Low Risk (6) |
| Very Unlikely (3) | Low Risk (12) | Low Risk (9) | Very Low Risk (6) | Very Low Risk (3) |
| Extremely Unlikely (0) | Very Low Risk (0) | Very Low Risk (0) | Very Low Risk (0) | Very Low Risk (0) |

The categories of risk are defined as follows:

Very High Risk: There is a probability that severe harm is almost certain to arise to a designated receptor from an identified source, or there is evidence that severe harm to a designated receptor is currently occurring.

High Risk: There is a probability that severe harm is likely to arise to a designated receptor from an identified source, or there is a probability that moderate harm is almost certain to arise.

Low Risk: There is a possibility that harm could arise to a designated receptor from an identified source, but it is likely that this harm, if realised, would be mild at worst.

Very Low Risk: There is a very low possibility that harm could arise to the receptor, but it is likely that this harm, if realised, would be mild at worst.

In accordance with UK technical guidance, professional judgement has been employed to evaluate the risk on a qualitative basis using available information.

A summary of the pollution linkages is provided in Table 1.6.

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Table 1.6 Phase 1 Conceptual Site Model

| Area / Structure | Pollutants (Chemicals of Concern) | Critical Receptor | Pathway | Potential Consequence of Complete S-P-R Linkage | Potential Likelihood of Complete S-P-R Linkage | Risk Score and Equivalent CIRIA Risk Classification | Remedial Option(s) / Next steps | Comments |
|---|---|---------------------------------|---|---|--|---|---------------------------------|--|
| Potential Made Ground (S1) | Metals, PAH, TPH, asbestos Herbicides/ Pesticides | Future commercial workers | Direct contact / Dust inhalation | Mild | Likely | Moderate/ Low Risk (18) | Further Assessment | CGA Understand that the majority of the site will be covered by hardstanding, however any soils leaving site should be sampled and tested. Made ground soils below any landscaping or structures should be tested for their suitability. |
| Former Industrial Site Uses Including Reservoirs, Maintenance or Storage (S2) | | Current site users | | Mild | Unlikely | Low Risk (12) | No Further Assessment | Site is closed with no public thoroughfare and is largely covered by hardstanding |
| | | Ground disturbance workers | | Mild | Unlikely | Low Risk (12) | Asbestos Survey Required | Potential for groundworkers to be exposed to contaminated soil. Appropriate use of PPE would mitigate this risk. Asbestos survey should be undertaken of any unearthed foundations / deep fill. |
| Parked Vehicles (S4) | | New Potable water supply pipes | Penetration of pipes | Mild | Likely | Moderate/ Low Risk (18) | Further Assessment | Fuel leakage on site may have caused PAH/TPH contamination capable of adversary affecting potable water supplies, Site soils should be tested in proximity to intended water supply. |
| Potential Industrial uses Surrounding the Site (Farming) (S5) | | Secondary A Aquifer below site. | Leaching / dissolution from contaminated soil followed by migration | Mild | Unlikely | Low Risk (12) | No Further Assessment | Possible contamination on the site could feasibly impact the aquifer. No source protection zones or abstractions below the site or in near proximity. |
| | | Surface water (43m south) | | Mild | Very Unlikely | Very Low Risk (6) | No Further Assessment | It is very unlikely that any contamination of the soils or groundwater on site would be recorded at sufficient concentration capable of migrating beyond the site boundary. |
| Potential Shallow Mining (S3) Local Earth Working(S6) | Methane, carbon dioxide, hydrocarbon vapour. | Structure | Ingress of ground gases and vapours into structures | Moderate | Likely | Moderate/low Risk (18) | Further Assessment Required | Ground gasses possibly being produced from shallow mining below or in near proximity to the study site. The wider area has also included earth working. Shallow mining or made ground could be both a source and pathway for ground gasses or vapours to migrate and enter new structures on site. |

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6.3 Discussion of Risks

The risk assessment presented in Table 1.6 above has identified theoretical Contaminant Linkages and human health receptors under the proposed commercial land use. The potential contaminant linkages are summarised below. The assessment of the linkages is somewhat conservative/ precautionary in nature in order to reflect the absence of recent site-specific data.

6.3.1 Human Health

Proposed commercial property users

The historical development of the site, potential shallow mining below and the former industrial use of the site, including areas of fill, potential storage and parking; alongside historical earth working in the local area, may have caused contamination of the soils. No obvious olfactory or visual signs of contamination other than potential oil staining close to the container were noted during the walkover.

Whilst significant contamination is unlikely to be recorded, a watching brief and inspection of the ground beneath the proposals and sampling of any soils to be removed from site is recommend, alongside sampling in areas of landscaping, proposed services or foundations. Therefore, at this stage the level of risk to the future site users has been estimated to be **MODERATE to LOW**.

Current site users

The site is currently not in use and secured. It comprises large amounts of hardstanding and there is no thoroughfare for the public. The level of risk to current site users is therefore estimated to be **LOW**.

Utility / Construction / Demolition / Site Investigation (i.e. Ground Disturbance) Workers

Any potential asbestos-containing building materials unearthed during construction should be removed by an appropriately qualified contractor prior to any other site works.

The probability of contact with contaminated soils increases for workers involved with ground excavations (e.g. during development, site investigation or maintenance works) and there is a low probability of encountering potential contaminated made ground. However, it is possible trace contamination may be

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encountered. Therefore, the level of risk to ground workers from potential contaminated soils is estimated to be **LOW** with use of PPE and site hygiene rules likely to reduce these risks to **VERY LOW**.

6.3.2 Controlled Waters

It is possible that contamination is present on the site, which could affect the underlying Secondary A Aquifer of the Lower Coal Measures formation. Due to the lack of receptors locally, the risk to the underlying aquifer from site sources has been estimated to be **LOW**.

Due to the distance of the surface water course (43m south of site), the low likelihood of significant concentrations of contaminants originating from site, and the low development of the surrounding areas, the risk to surface water from site sources has been estimated to be **VERY LOW**.

6.3.3 Structures Ground Gases/Vapours

Ground gases are potentially being produced from historical mine workings below or in near proximity to the site. Sizable earth working has been recorded locally and ground gases may also be generated from extensive areas of fill, that may continue to exist onsite. Relic foundations or shallow mine workings could be both a source and pathway for these to enter site structures. Sources of PAH or TPH from oil staining could also produce hydrocarbon vapour.

Therefore, risks from potential ground gases and hydrocarbon vapours have been estimated to be **MODERATE to LOW** and should be reappraised by ground investigation.

6.3.4 Potable Water Supply Pipes

The presence of fuel staining on site may have caused PAH/TPH contamination capable of adversely affecting potable water supplies. The risks to new potable water pipes are therefore considered to be **MODERATE to LOW** and soils in proximity to any supply pipes should be sampled.

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7.0 COAL MINING RISK ASSESSMENT

BGS mapping indicates the site is in an area of geology associated with coal seams and shallow mining. The Coal Authority and Ordnance Survey mapping, also records the site as having been surrounded by historical coal pits and open cast mining.

Nevertheless, the Coal Authority Consultants Mining Report does not record Probable Unrecorded Shallow Workings below the study site area, which it records online at a short distance southeast of the site and the reason for this is unclear.

The Coal Authority map a ground fault to cross the site and mining is seldom undertaken in near proximity to faults, nevertheless mining is recorded below 90m under the site in two deeper seams. The associated geological section shows that these would likely be covered by higher conformably coal seams of productive thickness and these seams are therefore potentially at shallow depth below the study site area.

The Coal Authority interactive mapping indicates the site is not within a development high risk area, but it is within a surface coal resource area, confirming coal in the near surface. The Coal Authority report identifies shallow mining in the surroundings right up to the site boundaries which it describes as Unlicensed Opencast. The opencast and recorded shaft records would appear to predate any of the Ordnance Survey mapping, suggesting that they are exceptionally old and unlikely to be accurate. However, mineshafts of this age were typically shallower than their more modern contemporaries.

The geological section presented more than four coal seams that could potentially exist at shallower depth below the site. These are typically over 1.0m in thickness and there remains uncertainty if these seams have been worked in proximity to the proposed building footprint. A **Medium Risk** from ground instability due to possible shallow depth coal workings (less than 30.0mbgl), has been estimated.

8.0 CONCLUSIONS

The site has been in use for reservoirs since the 1800s and more recently for storage. Shallow mine workings may remain below the site or in the near surroundings, with records of earth working in the local area possibly progressing into the site. Possible residual fuel and contamination could remain below areas of hard standing. No obvious olfactory or visual signs of contamination were noted during the walkover. However, the site may historically have included asbestos containing materials.

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It is also possible that localised hydrocarbon contamination could be present at levels capable of affecting the underlying Secondary A aquifer, or new potable water pipes. However, if contamination in these strata is present, it is considered to be limited. The overall risk from potential contamination, ground gas and vapours has been estimated to be **MODERATE to LOW**, with further investigation considered to be necessary to assess the risks to receptors from contamination. The overall geotechnical risk from potential shallow mining below the site is considered to be **MEDIUM**.

9.0 RECOMMENDATIONS

A phase 2 site investigation is recommended in order to assess the risks from any contaminated soils and explore the potential risk from any ground gases. It is also necessary to undertake intrusive drilling to discount and/or reassess the potential for mining below the site. Investigation by trial pits or near surface drilling method should discount any locally deep areas of soft fill below the proposed footprint. These may be in former reservoir areas or neighbouring areas of earth working that have progressed into the site.

Given the undeveloped nature of this site, the two phases should be synonymous with soil sampling undertaken alongside rotary drilling below the building footprint. Ground gas monitoring should be undertaken through the drilling phase and where any mining voids or evidence of deep fill is encountered the resulting boreholes should be fitted with gas monitoring wells for a longer period of recording.

Soil sampling should be undertaken in near proximity to any proposed landscaping, water supply pipes, foundations or of any soils scheduled to leave the site.

9.1 Ground Gas Risk Assessment

Where a significant ground gas risk is established, a number of ground gas monitoring points should be installed around the proposals and into any areas of deep fill at the site. These would enable a subsequent ground gas risk assessment, as outlined in BS8485 "Code of practice for the design of protective measures for methane and carbon dioxide ground gas for new buildings".

The document recommends that the monitoring points should intercept depths of any deep areas of fill or potential sources of ground gas identified. They should ideally be situated between the potential source, and proposed development.

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The appropriate ground gas monitoring period for a project of this kind may be guided by the initial results, however regulators would typically expect a preliminary minimum of four visits over a two-month period for a commercial property.

9.2 Mining and Soft Ground Investigation

Due to the presence of local mining, potential worked coal beneath the site, and the possibility of historically unknown mine workings at shallow depth, it is recommended that a phase 2 rotary drilling investigation is carried out. Soft near surface deposits of fill or faulted ground should also be defined by use of trial pits and or shallow window sample boreholes.

With respect to any workings below the surface, CIRIA 758 Abandoned Mine Workings Manual (2019), continues to be the go to guide in these situations and builds on previous work by CIRIA 32 Construction Over Abandoned Mine Workings.

These documents suggest a thickness of solid rock through which a void can migrate is 7h to 10h above the roof of the workings, where h is the height of the workings (generally assumed to be similar to the seam thickness). The lower end of this range (7h) is generally only applicable where the overlying strata are predominantly thickly bedded sandstones, otherwise the 10h rule is likely to be adopted.

In terms of the amount of existing information in the local area, there would be no substitute for boreholes to penetrate shallow ground depth. Nevertheless, the size of the required ground investigation will be limited by the scope of the proposals.

For this reason and in consideration to the records of potential coal thicknesses, rock should be penetrated for a minimum depth of 30m. The first borehole should interpret the thicknesses of any near surface coals and/or potential mine workings, which geological information implies will be of greatest potential in the southwest. Where a significant intact coal seam is found at shallow depth, in isolation it cannot be considered representative of an unworked coal. For a site of this size it would be usual to follow an initial deep borehole with two further locations.

At least two further boreholes should then be undertaken, ideally in triangulation and one located at either end of the proposed footprint. These would be continued to a depth at which they bypass any layers of coal or evidence of shallow workings identified by the first location.

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In the unlikely event that multiple coal seams have been worked, it may be necessary to take these initial boreholes to still greater depths and to consider the cumulative effect of several voids. The proximity of this investigation to neighbouring occupied properties, will potentially not require that rock drilling to be undertaken by use of a water flush method and where agreed by the Coal Authority this presents a great cost saving.

9.3 Watching Brief

The following paragraphs are recommended to be applied to the watching brief with inspection of the ground beneath the proposals.

Any unforeseen contamination should be reported in writing immediately to the LPA. An investigation and risk assessment should then be undertaken and where remediation is necessary, a remediation scheme should be submitted to and approved in writing by the LPA.

Should unidentified areas of contaminated soils be encountered during construction works, the soils should be left in situ and be examined by a suitably qualified geo-environmental engineer. Small quantities of contaminated material could be excavated and stockpiled prior to examination provided that there is an impermeable hard cover to site the stockpile and sufficient waterproof sheeting to cover these soils.

A standalone asbestos survey may be required for any unexpected deep areas of fill or remnant foundations.

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10.0 REFERENCES

- BS 5930 (2015)+ A1: 2020 Code of Practice for Site Investigations. British Standards Institution.
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- DEFRA and Environment Agency (2002) Priority Contaminants for the Assessment of Land Contamination, R&D Publication CLR8.
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- DEFRA and The Institute for Environment and Health (2000) Guidelines for Environmental Risk Assessment and Management.
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- CIRIA C665 (2007), Assessing Risk Posed by Hazardous Ground Gasses to Buildings.
- BS8485 (2015) +A1 2019 Code of practice for the design of protective measures for methane and carbon dioxide ground gas for new buildings. British Standard Institution.
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- CIRIA 32, (1989) Construction over abandoned mine workings,
- CIRIA, C758, (2019) Abandoned Mine Workings Manual
- Sections of Strata of the Coal Measures of Yorkshire, Midland Institute of Mining (1950)

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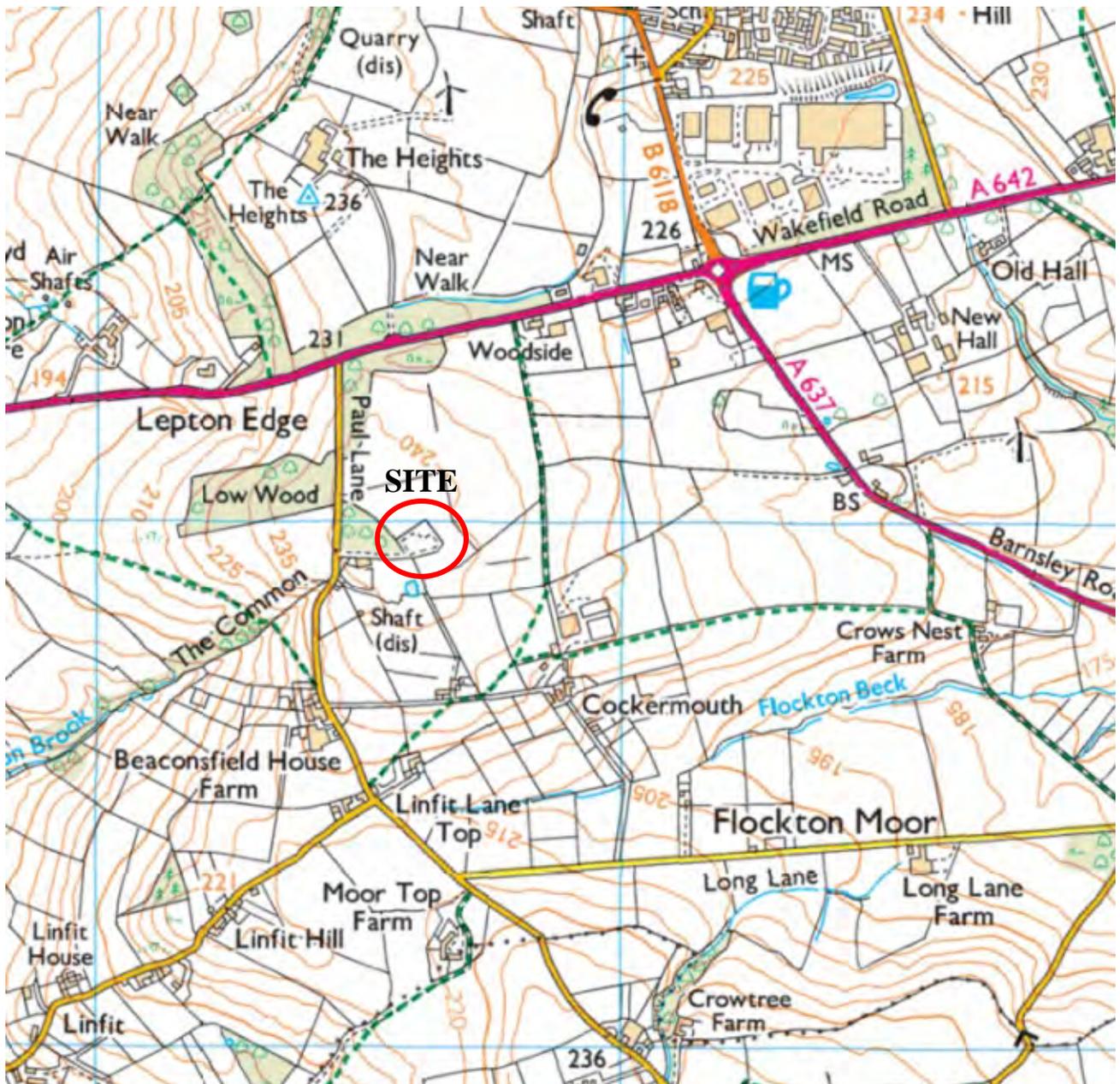
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Appendices

Rockwood Equestrian Centre, Flockton Moor.

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Appendix A – Figures and Drawings



North

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Ground Technologies & Investigation & Remediation

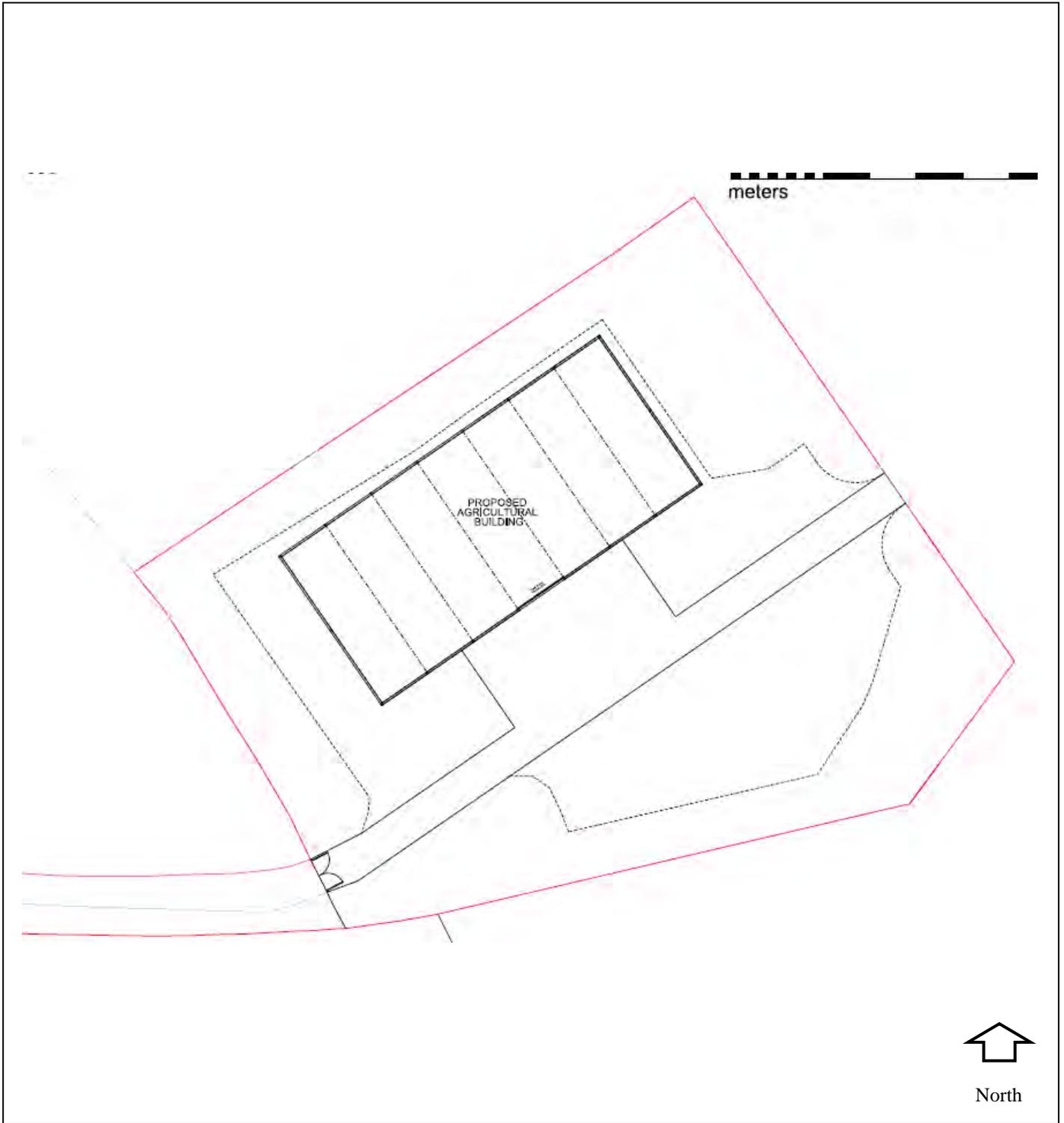
Project:

Rockwood Equestrian Centre, Flockton Moor

Client: Rockwood Equestrian Centre

Project No. C0645

Date: 10/09/2024



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| | |
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| Client: Rockwood Equestrian Centre | |
| Project No. C0645 | Date: 10/09/2024 |

Rockwood Equestrian Centre, Flockton Moor.

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Appendix B – Site Walkover Photographs



Photograph No.1: Site entrance off Paul Lane facing east.



Photograph No.2: Site access track facing west

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Rockwood Equestrian Centre, Flockton Moor

Client. Rockwood Equestrian Centre

Project No. C0645

Date: 10/09/2024



Photograph No.3: Site access to open area facing east.



Photograph No.4: western boundary (left) and open area facing north.

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Project No. C0645

Date: 10/09/2024



Photograph No.5: Southern boundary formed by bund, facing east.



Photograph No.6: Eastern boundary(right) formed by bund facing north.

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Client. Rockwood Equestrian Centre

Project No. C0645

Date: 10/09/2024



Photograph No.7: Container and possible oil staining in north east corner.



Photograph No.8: Northern boundary formed by bund (left) and concrete hard standing.

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Client. Rockwood Equestrian Centre

Project No. C0645

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Photograph No.9: Open area from north east corner facing south west.



Photograph No.10: Open area from north west corner facing south east.

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Project No. C0645

Date: 10/09/2024

Rockwood Equestrian Centre, Flockton Moor.

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Appendix C – Envirocheck Reports

Envirocheck[®] Report:

Datasheet

Order Details:

Order Number:

357424612_1_1

Customer Reference:

C0645

National Grid Reference:

421620, 414960

Slice:

A

Site Area (Ha):

0.43

Search Buffer (m):

1000

Site Details:

Rockwood Equestrian Centre, Cockermouth

Lane

Flockton

WAKEFIELD

WF4 4BS

Client Details:

Mr C Wilkinson

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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 this 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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Report Version v53.0

| Data Type | Page Number | On Site | 0 to 250m | 251 to 500m | 501 to 1000m (*up to 2000m) |
|---|-------------|---------|-----------|-------------|-----------------------------|
| Agency & Hydrological | | | | | |
| BGS Groundwater Flooding Susceptibility | pg 1 | Yes | Yes | Yes | n/a |
| Contaminated Land Register Entries and Notices | | | | | |
| Discharge Consents | pg 1 | | | 1 | 5 |
| Prosecutions Relating to Controlled Waters | | | n/a | n/a | n/a |
| 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 | | | | | |
| Local Authority Pollution Prevention and Control Enforcements | | | | | |
| Nearest Surface Water Feature | pg 2 | | Yes | | |
| Pollution Incidents to Controlled Waters | pg 3 | | | 1 | |
| Prosecutions Relating to Authorised Processes | | | | | |
| Registered Radioactive Substances | | | | | |
| River Quality | | | | | |
| River Quality Biology Sampling Points | | | | | |
| River Quality Chemistry Sampling Points | | | | | |
| Substantiated Pollution Incident Register | | | | | |
| Water Abstractions | | | | | |
| Water Industry Act Referrals | | | | | |
| Groundwater Vulnerability Map | pg 3 | Yes | n/a | n/a | n/a |
| Groundwater Vulnerability - Soluble Rock Risk | | | n/a | n/a | n/a |
| Bedrock Aquifer Designations | pg 3 | Yes | n/a | n/a | n/a |
| Superficial Aquifer Designations | | | n/a | n/a | n/a |
| Source Protection Zones | | | | | |
| Extreme Flooding from Rivers or Sea without Defences | | | | n/a | n/a |
| Flooding from Rivers or Sea without Defences | | | | n/a | n/a |
| Areas Benefiting from Flood Defences | | | | n/a | n/a |
| Flood Water Storage Areas | | | | n/a | n/a |
| Flood Defences | | | | n/a | n/a |
| OS Water Network Lines | pg 4 | | | 3 | 26 |

| Data Type | Page Number | On Site | 0 to 250m | 251 to 500m | 501 to 1000m (*up to 2000m) |
|---|-------------|---------|-----------|-------------|-----------------------------|
| Waste | | | | | |
| BGS Recorded Landfill Sites | | | | | |
| Historical Landfill Sites | pg 8 | | | | 1 |
| Integrated Pollution Control Registered Waste Sites | | | | | |
| Licensed Waste Management Facilities (Landfill Boundaries) | | | | | |
| Licensed Waste Management Facilities (Locations) | | | | | |
| Local Authority Landfill Coverage | pg 8 | 1 | n/a | n/a | n/a |
| Local Authority Recorded Landfill Sites | | | | | |
| Registered Landfill Sites | | | | | |
| 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 9 | Yes | n/a | n/a | n/a |
| BGS Recorded Mineral Sites | pg 9 | | 4 | 8 | 29 |
| CBSCB Compensation District | | | n/a | n/a | n/a |
| Coal Mining Affected Areas | pg 16 | Yes | n/a | n/a | n/a |
| Mining Instability | pg 16 | Yes | n/a | n/a | n/a |
| Man-Made Mining Cavities | | | | | |
| Natural Cavities | | | | | |
| Non Coal Mining Areas of Great Britain | | | | n/a | n/a |
| Potential for Collapsible Ground Stability Hazards | pg 16 | Yes | | n/a | n/a |
| Potential for Compressible Ground Stability Hazards | pg 16 | Yes | Yes | n/a | n/a |
| Potential for Ground Dissolution Stability Hazards | | | | n/a | n/a |
| Potential for Landslide Ground Stability Hazards | pg 16 | Yes | Yes | n/a | n/a |
| Potential for Running Sand Ground Stability Hazards | pg 16 | Yes | Yes | n/a | n/a |
| Potential for Shrinking or Swelling Clay Ground Stability Hazards | pg 17 | Yes | 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 18 | | | | 22 |
| Fuel Station Entries | pg 20 | | | | 1 |
| Gas Pipelines | | | | | |
| Underground Electrical Cables | | | | | |
| Sensitive Land Use | | | | | |
| Ancient Woodland | | | | | |
| Areas of Adopted Green Belt | pg 21 | 1 | | | |
| Areas of Unadopted Green Belt | pg 21 | 1 | | | |
| Areas of Outstanding Natural Beauty | | | | | |
| Environmentally Sensitive Areas | | | | | |
| Forest Parks | | | | | |
| Local Nature Reserves | | | | | |
| 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 | | | | | |
| World Heritage Sites | | | | | |

| Map ID | Details | Quadrant Reference (Compass Direction) | Estimated Distance From Site | Contact | NGR |
|--------|--|--|------------------------------|---------|------------------|
| | BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur | A13SE (E) | 0 | 1 | 421616 414963 |
| | BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur | A13NE (N) | 0 | 1 | 421616 415000 |
| | BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur | A13SE (E) | 0 | 1 | 421650 414963 |
| | BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur | A13NW (NW) | 40 | 1 | 421550 415000 |
| | BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur | A13SE (S) | 277 | 1 | 421616 414650 |
| | BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur | A13NW (NW) | 359 | 1 | 421350 415250 |
| | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | A8NE (SE) | 453 | 1 | 421950 414600 |
| | BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur | A8NE (SE) | 463 | 1 | 421900 414550 |
| | BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur | A8NE (SE) | 483 | 1 | 421850 414500 |
| | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding to Occur at Surface | A9NW (SE) | 488 | 1 | 422000 414600 |
| | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | A8NE (SE) | 492 | 1 | 421950 414550 |
| | BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur | A12SE (SW) | 495 | 1 | 421150 414700 |
| 1 | Discharge Consents Operator: The Coal Authority Property Type: Coal Extraction, Deep Mine Location: Denby Grange Colliery, Huddersfield Road, Lepton Edge Ps, LEPTON, West Yorkshire Authority: Environment Agency, North East Region Catchment Area: Aire And Calder Navigation Reference: C5294 Permit Version: Not Supplied Effective Date: Not Supplied Issued Date: Not Supplied Revocation Date: Not Supplied Discharge Type: Trade Effluent Discharge-Minewater Discharge: Freshwater Stream/River Environment: Receiving Water: Tributary Of Rods Beck Status: Not Supplied Positional Accuracy: Located by supplier to within 100m | A17SE (NW) | 500 | 2 | 421250 415350 |
| 2 | Discharge Consents Operator: The Old Pump House Property Type: DOMESTIC PROPERTY (SINGLE) (INCL FARM HOUSE) Location: Proposed Detached Bungalow, Adjacent To Lepton Grange, Lepton, Huddersfield Authority: Environment Agency, North East Region Catchment Area: Calder Reference: C4147 Permit Version: 2 Effective Date: 26th July 2012 Issued Date: 26th July 2012 Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Final/Treated Effluent - Not Water Company Discharge: Land/Soakaway Environment: Receiving Water: Land Adjacent To The Bungalow Status: Transferred from COPA 1974 Positional Accuracy: Located by supplier to within 100m | A12NE (NW) | 576 | 2 | 421100 415300 |

| Map ID | Details | Quadrant Reference (Compass Direction) | Estimated Distance From Site | Contact | NGR |
|--------|---|--|------------------------------|---------|------------------|
| 2 | <p>Discharge Consents</p> <p>Operator: The Old Pump House Property Type: DOMESTIC PROPERTY (SINGLE) (INCL FARM HOUSE) Location: Proposed Detached Bungalow, Adjacent To Lepton Grange, Lepton, Huddersfield Authority: Environment Agency, North East Region Catchment Area: Calder Reference: C4147 Permit Version: 1 Effective Date: 19th February 1986 Issued Date: 19th February 1986 Revocation Date: 25th July 2012 Discharge Type: Sewage Discharges - Final/Treated Effluent - Not Water Company Discharge: Land/Soakaway Environment: Receiving Water: Land Adjacent To The Bungalow Status: Transferred from COPA 1974 Positional Accuracy: Located by supplier to within 100m</p> | A12NE (NW) | 576 | 2 | 421100 415300 |
| 3 | <p>Discharge Consents</p> <p>Operator: Holgate Construction Ltd Property Type: Undefined Or Other Location: Premises On Flockton Lane, Grange Moor, Kirklees, West Yorkshire Authority: Environment Agency, North East Region Catchment Area: Don Tributaries Reference: 3513 Permit Version: 1 Effective Date: 14th January 1981 Issued Date: 14th January 1981 Revocation Date: Not Supplied Discharge Type: Trade Discharge - Process Water Discharge: Freshwater Stream/River Environment: Receiving Water: Trib Of Flockton Beck Status: Transferred from Rivers (Prevention of Pollution) Act 1951-1961 Positional Accuracy: Located by supplier to within 100m</p> | A14NW (NE) | 639 | 2 | 422200 415300 |
| 4 | <p>Discharge Consents</p> <p>Operator: Rural Homes Limited Property Type: FARMS (NOT HOUSE)/CROP + ANIMAL REARING/PLANT NURSERY Location: Properties At Moor Top Farm Moor Top Lane, Emley, Huddersfield, West Yorkshire Authority: Environment Agency, North East Region Catchment Area: Calder Reference: Wra7931 Permit Version: 1 Effective Date: 19th November 2002 Issued Date: 19th November 2002 Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Final/Treated Effluent - Not Water Company Discharge: Freshwater Stream/River Environment: Receiving Water: Trib Of Beldon Brook Status: New Consent (Water Resources Act 1991, Section 88 & Schedule 10 as amended by Environment Act 1995) Positional Accuracy: Located by supplier to within 10m</p> | A8SW (S) | 858 | 2 | 421560 414070 |
| 5 | <p>Discharge Consents</p> <p>Operator: New Hall Farm, Property Type: FARMS (NOT HOUSE)/CROP + ANIMAL REARING/PLANT NURSERY Location: New Hall Farm, Grange Moor Privat, E Stw Authority: Environment Agency, North East Region Catchment Area: Don Tributaries Reference: C3924 Permit Version: 1 Effective Date: 3rd June 1985 Issued Date: 3rd June 1985 Revocation Date: 1st October 1996 Discharge Type: Sewage Discharges - Final/Treated Effluent - Not Water Company Discharge: Unknown Environment: Receiving Water: Not Supplied Status: Lapsed (under Environment Act 1995, Schedule 23) Positional Accuracy: Located by supplier to within 100m</p> | A19SE (NE) | 949 | 2 | 422500 415400 |
| | <p>Nearest Surface Water Feature</p> | A13SW (S) | 43 | - | 421601 414884 |

| Map ID | Details | Quadrant Reference (Compass Direction) | Estimated Distance From Site | Contact | NGR |
|--------|--|--|------------------------------|---------|------------------|
| 6 | Pollution Incidents to Controlled Waters Property Type: Farm Location: Mouth/Huddersfld Colne Afl Authority: Environment Agency, North East Region Pollutant: Unknown Sewage Note: Not Supplied Incident Date: 4th March 1992 Incident Reference: 131028 Catchment Area: Not Given Receiving Water: Freshwater Stream/River Cause of Incident: Not Given Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m | A8NW (S) | 340 | 2 | 421500 414600 |
| | Groundwater Vulnerability Map Combined Classification: Secondary Bedrock Aquifer - High Vulnerability Combined Vulnerability: High Combined Aquifer: Productive Bedrock Aquifer, No Superficial Aquifer Pollutant Speed: High Bedrock Flow: Well Connected Fractures Dilution: 300-550 mm/year Baseflow Index: >70% Superficial: <90% Patchiness: <3m Superficial Thickness: No Data Superficial Recharge: | A13NE (N) | 0 | 3 | 421616 415000 |
| | Groundwater Vulnerability Map Combined Classification: Secondary Bedrock Aquifer - High Vulnerability Combined Vulnerability: High Combined Aquifer: Productive Bedrock Aquifer, No Superficial Aquifer Pollutant Speed: High Bedrock Flow: Well Connected Fractures Dilution: 300-550 mm/year Baseflow Index: >70% Superficial: <90% Patchiness: <3m Superficial Thickness: No Data Superficial Recharge: | A13SE (E) | 0 | 3 | 421616 414963 |
| | Groundwater Vulnerability - Soluble Rock Risk None | | | | |
| | Bedrock Aquifer Designations Aquifer Designation: Secondary Aquifer - A | A13SE (E) | 0 | 3 | 421616 414963 |
| | Bedrock Aquifer Designations Aquifer Designation: Secondary Aquifer - A | A13NE (N) | 0 | 3 | 421616 415000 |
| | Superficial Aquifer Designations No Data Available | | | | |
| | Extreme Flooding from Rivers or Sea without Defences None | | | | |
| | Flooding from Rivers or Sea without Defences None | | | | |
| | Areas Benefiting from Flood Defences None | | | | |
| | Flood Water Storage Areas None | | | | |
| | Flood Defences None | | | | |

| Map ID | Details | Quadrant Reference (Compass Direction) | Estimated Distance From Site | Contact | NGR |
|--------|--|--|------------------------------|---------|------------------|
| 7 | OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 378.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Aire and Calder Primacy: 1 | A18SW (N) | 410 | 4 | 421563 415410 |
| 8 | OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 522.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Don and Rother Primacy: 1 | A14NW (E) | 441 | 4 | 422075 415111 |
| 9 | OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 170.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Flockton Beck Catchment Name: Don and Rother Primacy: 1 | A8NE (S) | 480 | 4 | 421657 414452 |
| 10 | OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 514.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Beldon Brook Catchment Name: Aire and Calder Primacy: 1 | A12SE (SW) | 503 | 4 | 421148 414689 |
| 11 | OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 4.4 Watercourse Level: Underground Permanent: True Watercourse Name: Flockton Beck Catchment Name: Don and Rother Primacy: 1 | A8NE (SE) | 506 | 4 | 421825 414465 |
| 12 | OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 23.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Don and Rother Primacy: 1 | A19SW (NE) | 507 | 4 | 422013 415336 |
| 13 | OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 180.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Flockton Beck Catchment Name: Don and Rother Primacy: 1 | A8NE (SE) | 507 | 4 | 421829 414466 |
| 14 | OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 285.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Don and Rother Primacy: 1 | A14NW (NE) | 540 | 4 | 422108 415260 |
| 15 | OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 108.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Flockton Beck Catchment Name: Don and Rother Primacy: 1 | A9NW (SE) | 563 | 4 | 422004 414502 |

| Map ID | Details | Quadrant Reference (Compass Direction) | Estimated Distance From Site | Contact | NGR |
|--------|--|--|------------------------------|---------|------------------|
| 16 | OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 160.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Flockton Beck Catchment Name: Don and Rother Primacy: 1 | A9NW (SE) | 605 | 4 | 422105 414541 |
| 17 | OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 74.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Flockton Beck Catchment Name: Don and Rother Primacy: 1 | A9NW (SE) | 687 | 4 | 422247 414596 |
| 18 | OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 96.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Aire and Calder Primacy: 1 | A17SE (NW) | 706 | 4 | 420973 415345 |
| 19 | OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 69.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Flockton Beck Catchment Name: Don and Rother Primacy: 1 | A9NE (SE) | 747 | 4 | 422321 414604 |
| 20 | OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 42.1 Watercourse Level: Underground Permanent: True Watercourse Name: Flockton Beck Catchment Name: Don and Rother Primacy: 1 | A14SE (SE) | 789 | 4 | 422382 414632 |
| 21 | OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 24.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Rods Beck Catchment Name: Aire and Calder Primacy: 1 | A17SW (NW) | 789 | 4 | 420920 415415 |
| 22 | OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 11.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Aire and Calder Primacy: 1 | A17SW (NW) | 795 | 4 | 420899 415395 |
| 23 | OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 12.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Rods Beck Catchment Name: Aire and Calder Primacy: 1 | A17SW (NW) | 797 | 4 | 420903 415403 |
| 24 | OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 225.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Rods Beck Catchment Name: Aire and Calder Primacy: 1 | A17SW (NW) | 805 | 4 | 420890 415400 |

| Map ID | Details | Quadrant Reference (Compass Direction) | Estimated Distance From Site | Contact | NGR |
|--------|--|--|------------------------------|---------|------------------|
| 25 | OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 297.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Flockton Beck Catchment Name: Don and Rother Primacy: 1 | A14SE (E) | 820 | 4 | 422421 414646 |
| 26 | OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 565.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Don and Rother Primacy: 1 | A9SW (SE) | 889 | 4 | 422230 414266 |
| 27 | OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 11.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Don and Rother Primacy: 1 | A14NE (E) | 916 | 4 | 422578 414990 |
| 28 | OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 5.5 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Don and Rother Primacy: 1 | A14NE (E) | 926 | 4 | 422588 414985 |
| 29 | OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 304.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Don and Rother Primacy: 1 | A14NE (E) | 931 | 4 | 422593 414983 |
| 30 | OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 317.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Aire and Calder Primacy: 1 | A12SW (W) | 933 | 4 | 420664 414733 |
| 31 | OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 2.9 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Don and Rother Primacy: 1 | A9NE (SE) | 979 | 4 | 422389 414297 |
| 32 | OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 4.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Don and Rother Primacy: 1 | A9NE (SE) | 981 | 4 | 422392 414297 |
| 33 | OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 91.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Don and Rother Primacy: 1 | A9NE (SE) | 985 | 4 | 422396 414296 |

| Map ID | Details | Quadrant Reference (Compass Direction) | Estimated Distance From Site | Contact | NGR |
|--------|--|--|------------------------------|---------|------------------|
| 34 | OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 87.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Don and Rother Primacy: 1 | A9NE (SE) | 985 | 4 | 422396 414296 |
| 35 | OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 33.0 Watercourse Level: Underground Permanent: True Watercourse Name: Beldon Brook Catchment Name: Aire and Calder Primacy: 1 | A7NW (SW) | 995 | 4 | 420708 414465 |

| Map ID | Details | Quadrant Reference (Compass Direction) | Estimated Distance From Site | Contact | NGR |
|--------|---|--|------------------------------|---------|------------------|
| 36 | Historical Landfill Sites Licence Holder: Not Supplied Location: Linfit Lane, Huddersfield Name: Linfit Hill Operator Location: Not Supplied Boundary Accuracy: As Supplied Provider Reference: EAHLD35065 First Input Date: Not Supplied Last Input Date: Not Supplied Specified Waste: Deposited Waste included Inert Waste Type: EA Waste Ref: 0 Regis Ref: Not Supplied WRC Ref: Not Supplied BGS Ref: Not Supplied Other Ref: Not Supplied | A7SE (SW) | 845 | 2 | 421198 414179 |
| | Local Authority Landfill Coverage Name: Kirklees Metropolitan Borough Council - Has not been able to supply Landfill data | | 0 | 5 | 421616 414963 |

| Map ID | Details | Quadrant Reference (Compass Direction) | Estimated Distance From Site | Contact | NGR |
|--------|--|--|------------------------------|---------|------------------|
| | BGS 1:625,000 Solid Geology Description: Pennine Lower Coal Measures Formation And South Wales Lower Coal Measures Formation (Undifferentiated) | A13SE (E) | 0 | 1 | 421616 414963 |
| 37 | BGS Recorded Mineral Sites Site Name: Cockermouth Pits Location: Lepton Edge, Lepton, Huddersfield, West Yorkshire Source: British Geological Survey, National Geoscience Information Service Reference: 94357 Type: Underground Status: Ceased Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Carboniferous Geology: Pennine Lower Coal Measures Formation Commodity: Coal - Deep Positional Accuracy: Located by supplier to within 10m | A13SE (E) | 39 | 1 | 421700 414945 |
| 38 | BGS Recorded Mineral Sites Site Name: Cockermouth Colliery Location: Grange Moor, Fenay Bridge, Huddersfield, West Yorkshire Source: British Geological Survey, National Geoscience Information Service Reference: 13357 Type: Underground Status: Ceased Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Carboniferous Geology: Pennine Lower Coal Measures Formation Commodity: Coal - Deep Positional Accuracy: Located by supplier to within 10m | A13SW (S) | 74 | 1 | 421575 414855 |
| 39 | BGS Recorded Mineral Sites Site Name: Cockermouth Pits Location: Lepton Edge, Lepton, Huddersfield, West Yorkshire Source: British Geological Survey, National Geoscience Information Service Reference: 94358 Type: Underground Status: Ceased Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Carboniferous Geology: Pennine Lower Coal Measures Formation Commodity: Coal - Deep Positional Accuracy: Located by supplier to within 10m | A13SE (SE) | 87 | 1 | 421715 414882 |
| 40 | BGS Recorded Mineral Sites Site Name: Cockermouth Pits Location: Lepton Edge, Lepton, Huddersfield, West Yorkshire Source: British Geological Survey, National Geoscience Information Service Reference: 94362 Type: Underground Status: Ceased Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Carboniferous Geology: Pennine Lower Coal Measures Formation Commodity: Coal - Deep Positional Accuracy: Located by supplier to within 10m | A13SW (SW) | 131 | 1 | 421508 414826 |
| 41 | BGS Recorded Mineral Sites Site Name: Cockermouth Pits Location: Lepton Edge, Lepton, Huddersfield, West Yorkshire Source: British Geological Survey, National Geoscience Information Service Reference: 94363 Type: Underground Status: Ceased Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Carboniferous Geology: Pennine Lower Coal Measures Formation Commodity: Coal - Deep Positional Accuracy: Located by supplier to within 10m | A13SW (SW) | 255 | 1 | 421438 414723 |

| Map ID | Details | Quadrant Reference (Compass Direction) | Estimated Distance From Site | Contact | NGR |
|--------|--|--|------------------------------|---------|------------------|
| 42 | <p>BGS Recorded Mineral Sites</p> <p>Site Name: Flocckton Moor Pits Location: Lepton Edge, Lepton, Huddersfield, West Yorkshire Source: British Geological Survey, National Geoscience Information Service Reference: 94356 Type: Underground Status: Ceased Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Carboniferous Geology: Pennine Lower Coal Measures Formation Commodity: Coal - Deep Positional Accuracy: Located by supplier to within 10m</p> | A13SW (SW) | 293 | 1 | 421339 414777 |
| 43 | <p>BGS Recorded Mineral Sites</p> <p>Site Name: Cockermouth Pits Location: Lepton Edge, Lepton, Huddersfield, West Yorkshire Source: British Geological Survey, National Geoscience Information Service Reference: 94359 Type: Underground Status: Ceased Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Carboniferous Geology: Pennine Lower Coal Measures Formation Commodity: Coal - Deep Positional Accuracy: Located by supplier to within 10m</p> | A13SE (SE) | 345 | 1 | 421847 414656 |
| 44 | <p>BGS Recorded Mineral Sites</p> <p>Site Name: Flocckton Moor Colliery Location: Lepton Edge, Lepton, Huddersfield, West Yorkshire Source: British Geological Survey, National Geoscience Information Service Reference: 94361 Type: Underground Status: Ceased Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Carboniferous Geology: Pennine Lower Coal Measures Formation Commodity: Coal - Deep Positional Accuracy: Located by supplier to within 10m</p> | A8NW (SW) | 369 | 1 | 421424 414598 |
| 45 | <p>BGS Recorded Mineral Sites</p> <p>Site Name: Cockermouth Location: Lepton Edge, Lepton, Huddersfield, West Yorkshire Source: British Geological Survey, National Geoscience Information Service Reference: 94310 Type: Opencast Status: Ceased Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Carboniferous Geology: Birstall Rock Commodity: Sandstone Positional Accuracy: Located by supplier to within 10m</p> | A14SW (E) | 445 | 1 | 422082 414808 |
| 46 | <p>BGS Recorded Mineral Sites</p> <p>Site Name: Lepton Edge Colliery Location: Lepton, Fenay Bridge, Huddersfield, West Yorkshire Source: British Geological Survey, National Geoscience Information Service Reference: 13346 Type: Underground Status: Ceased Operator: Individual'S Name Withheld Operator Location: Not Supplied Periodic Type: Carboniferous Geology: Pennine Lower Coal Measures Formation Commodity: Coal - Deep Positional Accuracy: Located by supplier to within 10m</p> | A18SW (NW) | 458 | 1 | 421285 415325 |
| 47 | <p>BGS Recorded Mineral Sites</p> <p>Site Name: Flocckton Moor Pits Location: Lepton Edge, Lepton, Huddersfield, West Yorkshire Source: British Geological Survey, National Geoscience Information Service Reference: 94355 Type: Underground Status: Ceased Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Carboniferous Geology: Pennine Lower Coal Measures Formation Commodity: Coal - Deep Positional Accuracy: Located by supplier to within 10m</p> | A12SE (SW) | 475 | 1 | 421171 414705 |

| Map ID | Details | Quadrant Reference (Compass Direction) | Estimated Distance From Site | Contact | NGR |
|--------|---|--|------------------------------|---------|------------------|
| 48 | <p>BGS Recorded Mineral Sites</p> <p>Site Name: Flockton Moor Pits Location: Lepton Edge, Lepton, Huddersfield, West Yorkshire Source: British Geological Survey, National Geoscience Information Service Reference: 94360 Type: Underground Status: Ceased Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Carboniferous Geology: Pennine Lower Coal Measures Formation Commodity: Coal - Deep Positional Accuracy: Located by supplier to within 10m</p> | A8NE (S) | 476 | 1 | 421631 414453 |
| 49 | <p>BGS Recorded Mineral Sites</p> <p>Site Name: Cropper Gate Pits Location: Flockton, Huddersfield, West Yorkshire Source: British Geological Survey, National Geoscience Information Service Reference: 94302 Type: Underground Status: Ceased Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Carboniferous Geology: Pennine Lower Coal Measures Formation Commodity: Coal - Deep Positional Accuracy: Located by supplier to within 10m</p> | A14NW (E) | 553 | 1 | 422210 415031 |
| 50 | <p>BGS Recorded Mineral Sites</p> <p>Site Name: Lepton Edge Sand Pit Location: Lepton, Huddersfield, West Yorkshire Source: British Geological Survey, National Geoscience Information Service Reference: 94298 Type: Opencast Status: Ceased Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Carboniferous Geology: Pennine Lower Coal Measures Formation Commodity: Sand Positional Accuracy: Located by supplier to within 10m</p> | A17SE (NW) | 573 | 1 | 421242 415436 |
| 50 | <p>BGS Recorded Mineral Sites</p> <p>Site Name: Lepton Edge Level Location: Lepton, Huddersfield, West Yorkshire Source: British Geological Survey, National Geoscience Information Service Reference: 94300 Type: Underground Status: Ceased Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Carboniferous Geology: Pennine Lower Coal Measures Formation Commodity: Coal - Deep Positional Accuracy: Located by supplier to within 10m</p> | A17SE (NW) | 590 | 1 | 421209 415432 |
| 51 | <p>BGS Recorded Mineral Sites</p> <p>Site Name: Cropper Gate Quarry Location: Grange Moor, Fenay Bridge, Huddersfield, West Yorkshire Source: British Geological Survey, National Geoscience Information Service Reference: 253689 Type: Opencast Status: Ceased Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Carboniferous Geology: Birstall Rock Commodity: Sandstone Positional Accuracy: Located by supplier to within 10m</p> | A14NW (NE) | 615 | 1 | 422220 415215 |
| 52 | <p>BGS Recorded Mineral Sites</p> <p>Site Name: Flockton Moor Coal Pits Location: Flockton, Huddersfield, West Yorkshire Source: British Geological Survey, National Geoscience Information Service Reference: 94397 Type: Underground Status: Ceased Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Carboniferous Geology: Pennine Lower Coal Measures Formation Commodity: Coal - Deep Positional Accuracy: Located by supplier to within 10m</p> | A9NW (SE) | 639 | 1 | 422087 414473 |

| Map ID | Details | Quadrant Reference (Compass Direction) | Estimated Distance From Site | Contact | NGR |
|--------|---|--|------------------------------|---------|------------------|
| 53 | <p>BGS Recorded Mineral Sites</p> <p>Site Name: Lepton Edge Level Location: Lepton, Huddersfield, West Yorkshire Source: British Geological Survey, National Geoscience Information Service Reference: 94301 Type: Underground Status: Ceased Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Carboniferous Geology: Pennine Lower Coal Measures Formation Commodity: Coal - Deep Positional Accuracy: Located by supplier to within 10m</p> | A17SE (NW) | 650 | 1 | 421207 415505 |
| 54 | <p>BGS Recorded Mineral Sites</p> <p>Site Name: Flocton Moor Pits Location: Flockton, Huddersfield, West Yorkshire Source: British Geological Survey, National Geoscience Information Service Reference: 94317 Type: Underground Status: Ceased Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Carboniferous Geology: Pennine Lower Coal Measures Formation Commodity: Coal - Deep Positional Accuracy: Located by supplier to within 10m</p> | A8NE (S) | 658 | 1 | 421832 414308 |
| 55 | <p>BGS Recorded Mineral Sites</p> <p>Site Name: Flocton Moor Pits Location: Flockton, Huddersfield, West Yorkshire Source: British Geological Survey, National Geoscience Information Service Reference: 94318 Type: Underground Status: Ceased Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Carboniferous Geology: Pennine Lower Coal Measures Formation Commodity: Coal - Deep Positional Accuracy: Located by supplier to within 10m</p> | A9NW (SE) | 661 | 1 | 421997 414377 |
| 56 | <p>BGS Recorded Mineral Sites</p> <p>Site Name: Cropper Gate Quarry Location: Grange Moor, Fenay Bridge, Huddersfield, West Yorkshire Source: British Geological Survey, National Geoscience Information Service Reference: 13356 Type: Opencast Status: Ceased Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Carboniferous Geology: Birstall Rock Commodity: Sandstone Positional Accuracy: Located by supplier to within 10m</p> | A14NW (E) | 670 | 1 | 422290 415190 |
| 57 | <p>BGS Recorded Mineral Sites</p> <p>Site Name: Flockton Moor Top Coal Pits Location: Highburton, Huddersfield, West Yorkshire Source: British Geological Survey, National Geoscience Information Service Reference: 94406 Type: Underground Status: Ceased Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Carboniferous Geology: Pennine Lower Coal Measures Formation Commodity: Coal - Deep Positional Accuracy: Located by supplier to within 10m</p> | A8SW (S) | 714 | 1 | 421482 414222 |
| 58 | <p>BGS Recorded Mineral Sites</p> <p>Site Name: Linfit Hill Quarries Location: Linfit, Highburton, Huddersfield, West Yorkshire Source: British Geological Survey, National Geoscience Information Service Reference: 94416 Type: Opencast Status: Ceased Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Carboniferous Geology: Pennine Lower Coal Measures Formation Commodity: Sandstone Positional Accuracy: Located by supplier to within 10m</p> | A7SE (SW) | 727 | 1 | 421240 414290 |

| Map ID | Details | Quadrant Reference (Compass Direction) | Estimated Distance From Site | Contact | NGR |
|--------|---|--|------------------------------|---------|------------------|
| 59 | <p>BGS Recorded Mineral Sites</p> <p>Site Name: Lepton Edge Colliery Pit Location: Lepton, Huddersfield, West Yorkshire Source: British Geological Survey, National Geoscience Information Service Reference: 94299 Type: Underground Status: Ceased Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Carboniferous Geology: Pennine Lower Coal Measures Formation Commodity: Coal - Deep Positional Accuracy: Located by supplier to within 10m</p> | A17SE (NW) | 734 | 1 | 421016 415448 |
| 60 | <p>BGS Recorded Mineral Sites</p> <p>Site Name: Westfield House Pits Location: Flockton, Huddersfield, West Yorkshire Source: British Geological Survey, National Geoscience Information Service Reference: 94315 Type: Underground Status: Ceased Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Carboniferous Geology: Pennine Lower Coal Measures Formation Commodity: Coal - Deep Positional Accuracy: Located by supplier to within 10m</p> | A14SE (E) | 734 | 1 | 422349 414697 |
| 61 | <p>BGS Recorded Mineral Sites</p> <p>Site Name: Linfit Hill Coal Pits Location: Highburton, Huddersfield, West Yorkshire Source: British Geological Survey, National Geoscience Information Service Reference: 94407 Type: Underground Status: Ceased Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Carboniferous Geology: Pennine Lower Coal Measures Formation Commodity: Coal - Deep Positional Accuracy: Located by supplier to within 10m</p> | A7SE (SW) | 758 | 1 | 421274 414239 |
| 62 | <p>BGS Recorded Mineral Sites</p> <p>Site Name: Linfit Hill Quarries Location: Highburton, Huddersfield, West Yorkshire Source: British Geological Survey, National Geoscience Information Service Reference: 94404 Type: Opencast Status: Ceased Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Carboniferous Geology: Pennine Lower Coal Measures Formation Commodity: Sandstone Positional Accuracy: Located by supplier to within 10m</p> | A7SE (SW) | 778 | 1 | 421206 414251 |
| 62 | <p>BGS Recorded Mineral Sites</p> <p>Site Name: Linfit Hill Quarries Location: Highburton, Huddersfield, West Yorkshire Source: British Geological Survey, National Geoscience Information Service Reference: 94403 Type: Opencast Status: Ceased Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Carboniferous Geology: Pennine Lower Coal Measures Formation Commodity: Sandstone Positional Accuracy: Located by supplier to within 10m</p> | A7SE (SW) | 794 | 1 | 421163 414258 |
| 63 | <p>BGS Recorded Mineral Sites</p> <p>Site Name: Flockton Moor Coal Pits Location: Flockton, Huddersfield, West Yorkshire Source: British Geological Survey, National Geoscience Information Service Reference: 94396 Type: Underground Status: Ceased Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Carboniferous Geology: Pennine Lower Coal Measures Formation Commodity: Coal - Deep Positional Accuracy: Located by supplier to within 10m</p> | A9NW (SE) | 790 | 1 | 422151 414329 |

| Map ID | Details | Quadrant Reference (Compass Direction) | Estimated Distance From Site | Contact | NGR |
|--------|---|--|------------------------------|---------|------------------|
| 64 | <p>BGS Recorded Mineral Sites</p> <p>Site Name: Shuttle Eye Colliery Location: Grange Moor, Fenay Bridge, Huddersfield, West Yorkshire Source: British Geological Survey, National Geoscience Information Service Reference: 13355 Type: Underground Status: Ceased Operator: Individual'S Name Withheld Operator Location: Not Supplied Periodic Type: Carboniferous Geology: Pennine Lower Coal Measures Formation Commodity: Coal - Deep Positional Accuracy: Located by supplier to within 10m</p> | A19SW (NE) | 791 | 1 | 422210 415540 |
| 65 | <p>BGS Recorded Mineral Sites</p> <p>Site Name: Linfit Hill Location: Highburton, Huddersfield, West Yorkshire Source: British Geological Survey, National Geoscience Information Service Reference: 94402 Type: Opencast Status: Ceased Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Carboniferous Geology: Pennine Lower Coal Measures Formation Commodity: Sandstone Positional Accuracy: Located by supplier to within 10m</p> | A8SW (S) | 794 | 1 | 421314 414183 |
| 66 | <p>BGS Recorded Mineral Sites</p> <p>Site Name: Flockton Moor Top Coal Pits Location: Highburton, Huddersfield, West Yorkshire Source: British Geological Survey, National Geoscience Information Service Reference: 94405 Type: Underground Status: Ceased Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Carboniferous Geology: Pennine Lower Coal Measures Formation Commodity: Coal - Deep Positional Accuracy: Located by supplier to within 10m</p> | A8SW (S) | 807 | 1 | 421615 414121 |
| 67 | <p>BGS Recorded Mineral Sites</p> <p>Site Name: Flockton Moor Pits Location: Flockton, Huddersfield, West Yorkshire Source: British Geological Survey, National Geoscience Information Service Reference: 94319 Type: Underground Status: Ceased Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Carboniferous Geology: Pennine Lower Coal Measures Formation Commodity: Coal - Deep Positional Accuracy: Located by supplier to within 10m</p> | A9NE (SE) | 809 | 1 | 422293 414449 |
| 68 | <p>BGS Recorded Mineral Sites</p> <p>Site Name: Pischgah Colliery Location: Grange Moor, Fenay Bridge, Huddersfield, West Yorkshire Source: British Geological Survey, National Geoscience Information Service Reference: 13354 Type: Underground Status: Ceased Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Carboniferous Geology: Pennine Lower Coal Measures Formation Commodity: Coal - Deep Positional Accuracy: Located by supplier to within 10m</p> | A19NW (NE) | 874 | 1 | 421990 415800 |
| 69 | <p>BGS Recorded Mineral Sites</p> <p>Site Name: Linfit Hill Coal Pits Location: Highburton, Huddersfield, West Yorkshire Source: British Geological Survey, National Geoscience Information Service Reference: 94408 Type: Underground Status: Ceased Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Carboniferous Geology: Pennine Lower Coal Measures Formation Commodity: Coal - Deep Positional Accuracy: Located by supplier to within 10m</p> | A7SE (SW) | 895 | 1 | 421016 414241 |

| Map ID | Details | Quadrant Reference (Compass Direction) | Estimated Distance From Site | Contact | NGR |
|--------|--|--|------------------------------|---------|------------------|
| 70 | <p>BGS Recorded Mineral Sites</p> <p>Site Name: Butts Top Location: Highburton, Huddersfield, West Yorkshire Source: British Geological Survey, National Geoscience Information Service Reference: 94400 Type: Opencast Status: Ceased Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Carboniferous Geology: Pennine Lower Coal Measures Formation Commodity: Sandstone Positional Accuracy: Located by supplier to within 10m</p> | A8SW (S) | 911 | 1 | 421562 414017 |
| 71 | <p>BGS Recorded Mineral Sites</p> <p>Site Name: Flockton Moor Coal Pits Location: Flockton, Huddersfield, West Yorkshire Source: British Geological Survey, National Geoscience Information Service Reference: 94398 Type: Underground Status: Ceased Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Carboniferous Geology: Birstall Rock Commodity: Coal - Deep Positional Accuracy: Located by supplier to within 10m</p> | A9NE (SE) | 916 | 1 | 422444 414479 |
| 72 | <p>BGS Recorded Mineral Sites</p> <p>Site Name: Westfield House Pits Location: Flockton, Huddersfield, West Yorkshire Source: British Geological Survey, National Geoscience Information Service Reference: 94311 Type: Underground Status: Ceased Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Carboniferous Geology: Pennine Lower Coal Measures Formation Commodity: Coal - Deep Positional Accuracy: Located by supplier to within 10m</p> | A14SE (E) | 926 | 1 | 422582 414850 |
| 73 | <p>BGS Recorded Mineral Sites</p> <p>Site Name: Linfit Wood Coal Pit Location: Highburton, Huddersfield, West Yorkshire Source: British Geological Survey, National Geoscience Information Service Reference: 94409 Type: Underground Status: Ceased Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Carboniferous Geology: Pennine Lower Coal Measures Formation Commodity: Coal - Deep Positional Accuracy: Located by supplier to within 10m</p> | A8SW (S) | 933 | 1 | 421356 414024 |
| 74 | <p>BGS Recorded Mineral Sites</p> <p>Site Name: Cropper Gate Pits Location: Flockton, Huddersfield, West Yorkshire Source: British Geological Survey, National Geoscience Information Service Reference: 94303 Type: Underground Status: Ceased Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Carboniferous Geology: Pennine Lower Coal Measures Formation Commodity: Coal - Deep Positional Accuracy: Located by supplier to within 10m</p> | A14NE (E) | 941 | 1 | 422594 415087 |
| 75 | <p>BGS Recorded Mineral Sites</p> <p>Site Name: Leys Location: Grange Moor, Fenay Bridge, Huddersfield, West Yorkshire Source: British Geological Survey, National Geoscience Information Service Reference: 13353 Type: Opencast Status: Ceased Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Carboniferous Geology: Birstall Rock Commodity: Sandstone Positional Accuracy: Located by supplier to within 10m</p> | A23SE (N) | 980 | 1 | 421630 415985 |

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| | 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 (E) | 0 | 6 | 421616 414963 |
| | Mining Instability Mining Evidence: Inconclusive Coal Mining Source: Ove Arup & Partners Boundary Quality: As Supplied | A13SE (E) | 0 | - | 421616 414963 |
| | Non Coal Mining Areas of Great Britain No Hazard | | | | |
| | Potential for Collapsible Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service | A13SE (E) | 0 | 1 | 421616 414963 |
| | Potential for Collapsible Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service | A13NE (N) | 0 | 1 | 421616 415000 |
| | Potential for Compressible Ground Stability Hazards Hazard Potential: Moderate Source: British Geological Survey, National Geoscience Information Service | A13NE (N) | 0 | 1 | 421616 415000 |
| | Potential for Compressible Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service | A13NE (N) | 0 | 1 | 421620 415000 |
| | Potential for Compressible Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service | A13SE (E) | 0 | 1 | 421616 414963 |
| | Potential for Compressible Ground Stability Hazards Hazard Potential: Moderate Source: British Geological Survey, National Geoscience Information Service | A13NW (N) | 1 | 1 | 421610 414999 |
| | Potential for Compressible Ground Stability Hazards Hazard Potential: Moderate Source: British Geological Survey, National Geoscience Information Service | A13NE (E) | 18 | 1 | 421671 414981 |
| | Potential for Compressible Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service | A13NW (NW) | 26 | 1 | 421574 415000 |
| | Potential for Ground Dissolution Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service | A13NE (N) | 0 | 1 | 421616 415000 |
| | Potential for Ground Dissolution Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service | A13SE (E) | 0 | 1 | 421616 414963 |
| | Potential for Landslide Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service | A13NE (N) | 0 | 1 | 421616 415000 |
| | Potential for Landslide Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service | A13SE (E) | 0 | 1 | 421616 414963 |
| | Potential for Landslide Ground Stability Hazards Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service | A13SW (SW) | 150 | 1 | 421447 414876 |
| | Potential for Landslide Ground Stability Hazards Hazard Potential: Moderate Source: British Geological Survey, National Geoscience Information Service | A13SW (SW) | 198 | 1 | 421407 414849 |
| | Potential for Landslide Ground Stability Hazards Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service | A13NW (NW) | 232 | 1 | 421394 415117 |
| | Potential for Landslide Ground Stability Hazards Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service | A13NW (NW) | 245 | 1 | 421425 415164 |
| | Potential for Running Sand Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service | A13NE (N) | 0 | 1 | 421620 415000 |

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| | Potential for Running Sand Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service | A13SE (E) | 0 | 1 | 421616 414963 |
| | Potential for Running Sand Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service | A13NE (N) | 0 | 1 | 421616 415000 |
| | Potential for Running Sand Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service | A13NW (N) | 1 | 1 | 421610 414999 |
| | Potential for Running Sand Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service | A13NE (E) | 18 | 1 | 421671 414981 |
| | Potential for Running Sand Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service | A13NW (NW) | 26 | 1 | 421574 415000 |
| | Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service | A13SW (SW) | 0 | 1 | 421587 414937 |
| | Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service | A13NE (N) | 0 | 1 | 421616 415000 |
| | Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service | A13SE (E) | 0 | 1 | 421616 414963 |
| | Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service | A13SW (SW) | 27 | 1 | 421579 414903 |
| | Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service | A13NW (NW) | 53 | 1 | 421529 415000 |
| | Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service | A13NW (W) | 121 | 1 | 421453 415000 |
| | Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service | A13SW (SW) | 132 | 1 | 421460 414889 |
| | Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service | A13NW (NW) | 221 | 1 | 421403 415111 |
| | Radon Potential - Radon Affected Areas Affected Area: The property is in a Lower probability radon area (less than 1% of homes are estimated to be at or above the Action Level). Source: British Geological Survey, National Geoscience Information Service | A13NE (N) | 0 | 1 | 421616 415000 |
| | Radon Potential - Radon Affected Areas Affected Area: The property is in a Lower probability radon area (less than 1% of homes are estimated to be at or above the Action Level). Source: British Geological Survey, National Geoscience Information Service | A13SE (E) | 0 | 1 | 421616 414963 |
| | Radon Potential - Radon Protection Measures Protection Measure: No radon protective measures are necessary in the construction of new dwellings or extensions Source: British Geological Survey, National Geoscience Information Service | A13NE (N) | 0 | 1 | 421616 415000 |
| | 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 (E) | 0 | 1 | 421616 414963 |

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| 76 | <p>Contemporary Trade Directory Entries</p> <p>Name: 4 X Forty One Location: 14a, Wakefield Road, Grange Moor, Wakefield, West Yorkshire, WF4 4DS Classification: Garage Services Status: Inactive Positional Accuracy: Automatically positioned to the address</p> | A19SW (NE) | 516 | - | 421973 415389 |
| 77 | <p>Contemporary Trade Directory Entries</p> <p>Name: Grange Moor Wakefield Location: 14, Wakefield Road, Grange Moor, Wakefield, WF4 4DS Classification: Garage Services Status: Active Positional Accuracy: Automatically positioned to the address</p> | A19SW (NE) | 550 | - | 421988 415421 |
| 77 | <p>Contemporary Trade Directory Entries</p> <p>Name: Rockwood Car Center Location: Wakefield Road, Grange Moor, Wakefield, West Yorkshire, WF4 4DS Classification: Car Dealers - Used Status: Inactive Positional Accuracy: Automatically positioned in the proximity of the address</p> | A19SW (NE) | 587 | - | 422031 415431 |
| 77 | <p>Contemporary Trade Directory Entries</p> <p>Name: Rockwood Garage Ltd Location: Wakefield Road, Grange Moor, Wakefield, West Yorkshire, WF4 4DS Classification: Garage Services Status: Inactive Positional Accuracy: Automatically positioned in the proximity of the address</p> | A19SW (NE) | 587 | - | 422031 415431 |
| 77 | <p>Contemporary Trade Directory Entries</p> <p>Name: Rockwood Car Centre Location: Wakefield Road, Grange Moor, Wakefield, West Yorkshire, WF4 4DS Classification: Car Dealers Status: Inactive Positional Accuracy: Automatically positioned in the proximity of the address</p> | A19SW (NE) | 587 | - | 422031 415431 |
| 77 | <p>Contemporary Trade Directory Entries</p> <p>Name: Grane Moor Car Sales Location: Wakefield Rd, Grange Moor, Wakefield, West Yorkshire, WF4 4DS Classification: Car Dealers - Used Status: Inactive Positional Accuracy: Manually positioned to the road within the address or location</p> | A19SW (NE) | 634 | - | 422072 415458 |
| 78 | <p>Contemporary Trade Directory Entries</p> <p>Name: Pennine Autos Ltd Location: Pennine Autos Ltd, 7, Wakefield Road, Huddersfield, WF4 4DS Classification: Car Dealers - Used Status: Active Positional Accuracy: Automatically positioned to the address</p> | A19SW (NE) | 572 | - | 421954 415475 |
| 78 | <p>Contemporary Trade Directory Entries</p> <p>Name: Oaklea Location: Wakefield Road, Grange Moor, Wakefield, West Yorkshire, WF4 4DS Classification: Car Dealers Status: Inactive Positional Accuracy: Automatically positioned to the address</p> | A19SW (NE) | 577 | - | 421954 415481 |
| 79 | <p>Contemporary Trade Directory Entries</p> <p>Name: Grange Moor Coachworks Location: Huddersfield, WF4 4DR Classification: Car Body Repairs Status: Active Positional Accuracy: Automatically positioned to the address</p> | A19SW (NE) | 669 | - | 422180 415384 |
| 79 | <p>Contemporary Trade Directory Entries</p> <p>Name: B E R Truck Bodies Location: Barnsley Rd, Grange Moor, Wakefield, West Yorkshire, WF4 4DR Classification: Commercial Vehicle Bodybuilders & Repairers Status: Inactive Positional Accuracy: Manually positioned to the road within the address or location</p> | A19SW (NE) | 707 | - | 422208 415410 |
| 80 | <p>Contemporary Trade Directory Entries</p> <p>Name: Horse Source Location: Moor Top Farm, 5 Moor Top La, Flockton Moor, Wakefield, West Yorkshire, WF4 4BU Classification: Pet Foods & Animal Feeds Status: Inactive Positional Accuracy: Manually positioned within the geographical locality</p> | A8SE (S) | 741 | - | 421663 414190 |

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| 81 | <p>Contemporary Trade Directory Entries</p> <p>Name: P C Specialist Location: Unit 12, Jubilee Way, Grange Moor, Wakefield, WF4 4TD Classification: Computer Manufacturers Status: Inactive Positional Accuracy: Automatically positioned to the address</p> | A19SW (NE) | 857 | - | 422283 415558 |
| 82 | <p>Contemporary Trade Directory Entries</p> <p>Name: The Stairlift Company Location: Unit 4 Jubilee Business Park, Jubilee Way, Grange Moor, Wakefield, West Yorkshire, WF4 4TD Classification: Stairlifts - Manufacturers & Installers Status: Active Positional Accuracy: Manually positioned to the address or location</p> | A19SW (NE) | 873 | - | 422244 415624 |
| 82 | <p>Contemporary Trade Directory Entries</p> <p>Name: Prism Medical Uk Location: Unit 4, Jubilee Way, Grange Moor, Wakefield, West Yorkshire, WF4 4TD Classification: Stairlifts - Manufacturers & Installers Status: Inactive Positional Accuracy: Automatically positioned to the address</p> | A19SW (NE) | 878 | - | 422251 415624 |
| 82 | <p>Contemporary Trade Directory Entries</p> <p>Name: Prism Medical Uk Location: Unit 4 Jubilee Way, Grange Moor, Wakefield, West Yorkshire, WF4 4TD Classification: Disability Equipment - Manufacturers & Suppliers Status: Inactive Positional Accuracy: Manually positioned within the geographical locality</p> | A19SW (NE) | 878 | - | 422251 415624 |
| 82 | <p>Contemporary Trade Directory Entries</p> <p>Name: Prism Medical Uk Ltd Location: Unit 4, Jubilee Way, Grange Moor, Wakefield, West Yorkshire, WF4 4TD Classification: Medical Equipment Maintenance & Repairs Status: Inactive Positional Accuracy: Automatically positioned to the address</p> | A19SW (NE) | 878 | - | 422251 415624 |
| 83 | <p>Contemporary Trade Directory Entries</p> <p>Name: Oakwood Kitchens Ltd Location: Oakwood House, Jubilee Way, Grange Moor, Wakefield, WF4 4TD Classification: Kitchen Furniture Manufacturers Status: Inactive Positional Accuracy: Automatically positioned to the address</p> | A19NW (NE) | 909 | - | 422140 415757 |
| 83 | <p>Contemporary Trade Directory Entries</p> <p>Name: Prism Medical Uk Ltd Location: Unit 4, Jubilee Way, Grange Moor, Wakefield, WF4 4TD Classification: Medical Equipment Maintenance & Repairs Status: Inactive Positional Accuracy: Automatically positioned to the address</p> | A19NW (NE) | 909 | - | 422140 415757 |
| 83 | <p>Contemporary Trade Directory Entries</p> <p>Name: Five Star Location: Unit 14, Jubilee Way, Grange Moor, Wakefield, WF4 4TD Classification: Packaging Materials Manufacturers & Suppliers Status: Inactive Positional Accuracy: Automatically positioned to the address</p> | A19NW (NE) | 909 | - | 422140 415757 |
| 84 | <p>Contemporary Trade Directory Entries</p> <p>Name: Barentz Uk Ltd Location: Unit 11, Jubilee Way, Grange Moor, Wakefield, West Yorkshire, WF4 4TD Classification: Chemicals - Distributors & Wholesalers Status: Active Positional Accuracy: Automatically positioned to the address</p> | A19SE (NE) | 953 | - | 422356 415619 |
| 85 | <p>Contemporary Trade Directory Entries</p> <p>Name: Blinds Direct Uk Location: UNIT 2, JUBILEE WAY, GRANGE MOOR, WAKEFIELD, WF4 4TD Classification: Blinds, Awnings & Canopies Status: Active Positional Accuracy: Automatically positioned to the address</p> | A19NW (NE) | 982 | - | 422255 415760 |
| 85 | <p>Contemporary Trade Directory Entries</p> <p>Name: Interior Goods Direct Location: UNIT 2, JUBILEE PARK, JUBILEE WAY, GRANGE MOOR, HUDDERSFIELD, WF4 4TD Classification: Blinds, Awnings & Canopies Status: Active Positional Accuracy: Automatically positioned to the address</p> | A19NW (NE) | 982 | - | 422255 415760 |

| Map ID | Details | Quadrant Reference (Compass Direction) | Estimated Distance From Site | Contact | NGR |
|--------|--|--|------------------------------|---------|------------------|
| 86 | <p>Fuel Station Entries</p> <p>Name: Rockwood Garage Ltd Location: 8, Wakefield Road , Grange Moor , Huddersfield, West Yorkshire, WF4 4DS Brand: UK Premises Type: Not Applicable Status: Obsolete Positional Accuracy: Manually positioned to the road within the address or location</p> | A19SW (NE) | 549 | - | 421971 415434 |

| Map ID | Details | Quadrant Reference (Compass Direction) | Estimated Distance From Site | Contact | NGR |
|--------|---|--|------------------------------|---------|------------------|
| 87 | Areas of Adopted Green Belt Authority: Kirklees Metropolitan Borough Council Plan Name: Kirklees Unitary Development Plan Status: Adopted Plan Date: 1st March 1999 | A13SE (E) | 0 | 8 | 421616 414963 |
| 88 | Areas of Unadopted Green Belt Authority: Kirklees Metropolitan Borough Council Plan Name: Kirklees Local Plan Status: Submission Draft Plan Date: 25th April 2017 | A13SE (E) | 0 | 8 | 421616 414963 |
| 89 | Nitrate Vulnerable Zones Name: River Dearne Nvz Description: Surface Water Source: Environment Agency, Head Office | A13SE (E) | 0 | 3 | 421616 414963 |

| Agency & Hydrological | Version | Update Cycle |
|---|---|--|
| Contaminated Land Register Entries and Notices Environment Agency - Head Office Kirklees Metropolitan Borough Council - Planning Services Wakefield City Metropolitan District Council - Environmental Health | November 2023 October 2017 October 2017 | Annually Annual Rolling Update Annual Rolling Update |
| Discharge Consents Environment Agency - North East Region | July 2024 | Quarterly |
| Enforcement and Prohibition Notices Environment Agency - North East Region | March 2013 | |
| Integrated Pollution Controls Environment Agency - North East Region | January 2009 | |
| Integrated Pollution Prevention And Control Environment Agency - North East Region | July 2024 | Quarterly |
| Local Authority Integrated Pollution Prevention And Control Kirklees Metropolitan Borough Council - Environmental Health Department Wakefield City Metropolitan District Council - Environmental Health | April 2014 December 2020 | Variable Variable |
| Local Authority Pollution Prevention and Controls Kirklees Metropolitan Borough Council - Environmental Health Department Wakefield City Metropolitan District Council - Environmental Health | April 2014 December 2020 | Annual Rolling Update Annual Rolling Update |
| Local Authority Pollution Prevention and Control Enforcements Kirklees Metropolitan Borough Council - Environmental Health Department Wakefield City Metropolitan District Council - Environmental Health | April 2014 June 2014 | Variable Variable |
| Nearest Surface Water Feature Ordnance Survey | July 2024 | |
| Pollution Incidents to Controlled Waters Environment Agency - North East Region | December 1998 | |
| Prosecutions Relating to Authorised Processes Environment Agency - North East Region | July 2015 | |
| Prosecutions Relating to Controlled Waters Environment Agency - North East Region | March 2013 | |
| Registered Radioactive Substances Environment Agency - Head Office Environment Agency - North East Region | May 2023 May 2023 | |
| River Quality Environment Agency - Head Office | November 2001 | Not Applicable |
| River Quality Biology Sampling Points Environment Agency - Head Office | April 2012 | |
| River Quality Chemistry Sampling Points Environment Agency - Head Office | April 2012 | |
| Substantiated Pollution Incident Register Environment Agency - North East Region - Ridings Area Environment Agency - North East Region - Yorkshire Area | April 2024 April 2024 | Quarterly Quarterly |
| Water Abstractions Environment Agency - North East Region | July 2024 | Quarterly |
| Water Industry Act Referrals Environment Agency - North East Region | October 2017 | |
| Groundwater Vulnerability Map Environment Agency - Head Office | June 2018 | As notified |
| Bedrock Aquifer Designations Environment Agency - Head Office | January 2018 | As notified |
| Superficial Aquifer Designations Environment Agency - Head Office | January 2018 | As notified |

| Agency & Hydrological | Version | Update Cycle |
|---|--------------------------------|----------------------------------|
| Source Protection Zones Environment Agency - Head Office | September 2022 | Bi-Annually |
| Extreme Flooding from Rivers or Sea without Defences Environment Agency - Head Office | December 2023 | Quarterly |
| Flooding from Rivers or Sea without Defences Environment Agency - Head Office | December 2023 | Quarterly |
| Areas Benefiting from Flood Defences Environment Agency - Head Office | February 2023 | |
| Flood Water Storage Areas Environment Agency - Head Office | January 2024 | Quarterly |
| Flood Defences Environment Agency - Head Office | August 2022 | |
| OS Water Network Lines Ordnance Survey | July 2024 | Quarterly |
| BGS Groundwater Flooding Susceptibility British Geological Survey - National Geoscience Information Service | May 2013 | As notified |
| Waste | Version | Update Cycle |
| BGS Recorded Landfill Sites British Geological Survey - National Geoscience Information Service | November 2002 | As notified |
| Historical Landfill Sites Environment Agency - Head Office | August 2024 | Quarterly |
| Integrated Pollution Control Registered Waste Sites Environment Agency - North East Region | January 2009 | Not Applicable |
| Licensed Waste Management Facilities (Landfill Boundaries) Environment Agency - North East Region - Ridings Area Environment Agency - North East Region - Yorkshire Area | August 2024 August 2024 | Quarterly Quarterly |
| Licensed Waste Management Facilities (Locations) Environment Agency - North East Region - Ridings Area Environment Agency - North East Region - Yorkshire Area | July 2024 July 2024 | Quarterly Quarterly |
| Local Authority Landfill Coverage Kirklees Metropolitan Borough Council - Planning Services Wakefield City Metropolitan District Council - Environmental Health | February 2003 February 2003 | Not Applicable Not Applicable |
| Local Authority Recorded Landfill Sites Kirklees Metropolitan Borough Council - Planning Services Wakefield City Metropolitan District Council - Environmental Health | October 2018 October 2018 | |
| Registered Landfill Sites Environment Agency - North East Region - Ridings Area Environment Agency - North East Region - Yorkshire Area | March 2006 March 2006 | Not Applicable Not Applicable |
| Registered Waste Transfer Sites Environment Agency - North East Region - Ridings Area Environment Agency - North East Region - Yorkshire Area | April 2018 April 2018 | |
| Registered Waste Treatment or Disposal Sites Environment Agency - North East Region - Ridings Area Environment Agency - North East Region - Yorkshire Area | June 2015 June 2015 | |

| Hazardous Substances | Version | Update Cycle |
|---|------------------------------|-----------------------|
| Control of Major Accident Hazards Sites (COMAH) Health and Safety Executive | January 2024 | Bi-Annually |
| Explosive Sites Health and Safety Executive | March 2017 | |
| Notification of Installations Handling Hazardous Substances (NIHHS) Health and Safety Executive | August 2001 | |
| Planning Hazardous Substance Enforcements Kirklees Metropolitan Borough Council - Planning Services Wakefield City Metropolitan District Council | August 2015 July 2023 | Variable Variable |
| Planning Hazardous Substance Consents Kirklees Metropolitan Borough Council - Planning Services Wakefield City Metropolitan District Council | August 2015 February 2016 | Variable Variable |
| Geological | Version | Update Cycle |
| BGS 1:625,000 Solid Geology British Geological Survey - National Geoscience Information Service | January 2009 | As notified |
| BGS Recorded Mineral Sites British Geological Survey - National Geoscience Information Service | January 2024 | Bi-Annually |
| CBSCB Compensation District Cheshire Brine Subsidence Compensation Board (CBSCB) Cheshire Brine Subsidence Compensation Board (CBSCB) | August 2011 November 2020 | As notified |
| Coal Mining Affected Areas The Coal Authority - Property Searches | February 2023 | Annual Rolling Update |
| Mining Instability Ove Arup & Partners | June 1998 | Not Applicable |
| Non Coal Mining Areas of Great Britain British Geological Survey - National Geoscience Information Service | May 2015 | Not Applicable |
| Potential for Collapsible Ground Stability Hazards British Geological Survey - National Geoscience Information Service | April 2020 | As notified |
| Potential for Compressible Ground Stability Hazards British Geological Survey - National Geoscience Information Service | January 2019 | As notified |
| Potential for Ground Dissolution Stability Hazards British Geological Survey - National Geoscience Information Service | January 2019 | As notified |
| Potential for Landslide Ground Stability Hazards British Geological Survey - National Geoscience Information Service | January 2019 | As notified |
| Potential for Running Sand Ground Stability Hazards British Geological Survey - National Geoscience Information Service | January 2019 | As notified |
| Potential for Shrinking or Swelling Clay Ground Stability Hazards British Geological Survey - National Geoscience Information Service | January 2019 | As notified |
| Radon Potential - Radon Affected Areas British Geological Survey - National Geoscience Information Service | October 2023 | Annually |
| Radon Potential - Radon Protection Measures British Geological Survey - National Geoscience Information Service | October 2023 | Annually |

| Industrial Land Use | Version | Update Cycle |
|---|--------------------------|------------------------|
| Contemporary Trade Directory Entries Thomson Directories | June 2024 | Quarterly |
| Fuel Station Entries Catalist Ltd - Experian | February 2024 | Quarterly |
| Gas Pipelines National Grid | October 2021 | |
| Underground Electrical Cables National Grid | January 2024 | |
| Sensitive Land Use | Version | Update Cycle |
| Ancient Woodland Natural England | April 2024 | Bi-Annually |
| Areas of Adopted Green Belt Kirklees Metropolitan Borough Council Wakefield City Metropolitan District Council | July 2024 July 2024 | Quarterly Quarterly |
| Areas of Unadopted Green Belt Kirklees Metropolitan Borough Council Wakefield City Metropolitan District Council | July 2024 July 2024 | Quarterly Quarterly |
| Areas of Outstanding Natural Beauty Natural England | May 2024 | Bi-Annually |
| Environmentally Sensitive Areas Natural England | August 2023 | |
| Forest Parks Forestry Commission | May 2023 | Not Applicable |
| Local Nature Reserves Natural England | August 2024 | Bi-Annually |
| Marine Nature Reserves Natural England | August 2024 | Bi-Annually |
| National Nature Reserves Natural England | August 2024 | Bi-Annually |
| National Parks Natural England | February 2018 | Bi-Annually |
| Nitrate Sensitive Areas Natural England | April 2023 | Not Applicable |
| Nitrate Vulnerable Zones Department for Environment, Food and Rural Affairs (DEFRA - formerly FRCA) Environment Agency - Head Office | April 2016 April 2024 | Bi-Annually |
| Ramsar Sites Natural England | August 2024 | Bi-Annually |
| Sites of Special Scientific Interest Natural England | April 2024 | Bi-Annually |
| Special Areas of Conservation Natural England | April 2024 | Bi-Annually |
| Special Protection Areas Natural England | April 2024 | 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 |  British Geological Survey <small>NATURAL ENVIRONMENT RESEARCH COUNCIL</small> |
| Centre for Ecology and Hydrology |  Centre for Ecology & Hydrology <small>NATURAL ENVIRONMENT RESEARCH COUNCIL</small> |
| Natural Resources Wales |  |
| Scottish Natural Heritage |  |
| Natural England |  |
| Public Health England |  |
| Ove Arup |  |
| Stantec UK Ltd |  |

| Contact | Name and Address | Contact Details |
|---------|--|---|
| 1 | British Geological Survey - Enquiry Service British Geological Survey, Environmental Science Centre, Keyworth, Nottingham, Nottinghamshire, NG12 5GG | Telephone: 0115 936 3143 Fax: 0115 936 3276 Email: enquiries@bgs.ac.uk Website: www.bgs.ac.uk |
| 2 | Environment Agency - National Customer Contact Centre (NCCC) PO Box 544, Templeborough, Rotherham, S60 1BY | Telephone: 03708 506 506 Email: enquiries@environment-agency.gov.uk |
| 3 | Environment Agency - Head Office Rio House, Waterside Drive, Aztec West, Almondsbury, Bristol, Avon, BS32 4UD | Telephone: 01454 624400 Fax: 01454 624409 |
| 4 | Ordnance Survey Adanac Drive, Southampton, Hampshire, SO16 0AS | Telephone: 03456 05 05 05 Email: customerservices@ordnancesurvey.co.uk Website: www.ordnancesurvey.gov.uk |
| 5 | Kirklees Metropolitan Borough Council - Planning Services PO BOX B93, Civic Centre III, Off Market Street, Huddersfield, West Yorkshire, HD1 2JR | Telephone: 01484 221000 Fax: 01484 221613 Website: www.kirklees.gov.uk |
| 6 | The Coal Authority - Property Searches 200 Lichfield Lane, Mansfield, Nottinghamshire, NG18 4RG | Telephone: 0345 762 6848 Fax: 01623 637 338 Email: groundstability@coal.gov.uk Website: www2.groundstability.com |
| 7 | Natural England County Hall, Spetchley Road, Worcester, WR5 2NP | Telephone: 0300 060 3900 Email: enquiries@naturalengland.org.uk Website: www.naturalengland.org.uk |
| 8 | Kirklees Metropolitan Borough Council Town Hall, Civic Centre, Huddersfield, West Yorkshire, HD1 2TA | Telephone: 01484 221000 Fax: 01484 442768 Website: www.kirklees.gov.uk |
| - | 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 |
| - | 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 |

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

Rockwood Equestrian Centre, Flockton Moor.

Phase 1 Desk Study Report & CMRA

Appendix D – Historical Plans

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 |
| | Coppice | | Heath |
| | Rough Grassland | | Marsh |
| | Reeds | | Saltings |
| | Building | | Glasshouse |
| | Sloping Masonry | | Pylon |
| | Electricity Transmission Line | | Pole |
| | Cutting | | Embankment |
| | 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 Shown only when not coincident with other boundaries | | |
| | Civil Parish Shown alternately when coincidence of boundaries occurs | | |
| | BP, BS Boundary Post or Stone | | Pol Sta Police Station |
| | Ch Church | | PO Post Office |
| | CH Club House | | PC Public Convenience |
| | F E Sta Fire Engine Station | | PH Public House |
| | FB Foot Bridge | | SB Signal Box |
| | Fn Fountain | | Spr Spring |
| | GP Guide Post | | TCB Telephone Call Box |
| | MP Mile Post | | TCP Telephone Call Post |
| | MS Mile Stone | | W Well |

1:10,000 Raster Mapping

| | | | |
|--|--|--|--|
| | Gravel Pit | | Refuse tip or slag heap |
| | Rock | | Rock (scattered) |
| | Boulders | | Boulders (scattered) |
| | Shingle | | Mud |
| | Sand | | Sand Pit |
| | Slopes | | Top of cliff |
| | General detail | | Underground detail |
| | Overhead detail | | Narrow gauge railway |
| | Multi-track railway | | Single track railway |
| | County boundary (England only) | | Civil, parish or community boundary |
| | District, Unitary, Metropolitan, London Borough boundary | | Constituency boundary |
| | Area of wooded vegetation | | Non-coniferous trees |
| | Non-coniferous trees (scattered) | | Coniferous trees |
| | Coniferous trees (scattered) | | Positioned tree |
| | Orchard | | Coppice or Osiers |
| | Rough Grassland | | Heath |
| | Scrub | | Marsh, Salt Marsh or Reeds |
| | Water feature | | Flow arrows |
| | MHW(S) Mean high water (springs) | | MLW(S) Mean low water (springs) |
| | Telephone line (where shown) | | Electricity transmission line (with poles) |
| | 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 |

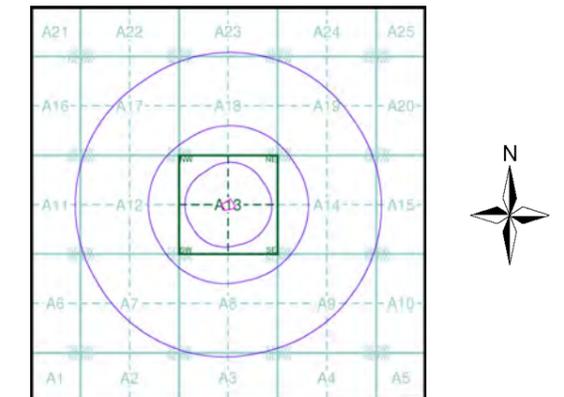
Envirocheck®

LANDMARK INFORMATION GROUP®

Historical Mapping & Photography included:

| Mapping Type | Scale | Date | Pg |
|----------------------|----------|-------------|----|
| Yorkshire | 1:10,560 | 1854 - 1855 | 2 |
| Yorkshire | 1:10,560 | 1894 | 3 |
| Yorkshire | 1:10,560 | 1907 - 1908 | 4 |
| Yorkshire | 1:10,560 | 1930 - 1931 | 5 |
| Yorkshire | 1:10,560 | 1933 | 6 |
| Yorkshire | 1:10,560 | 1938 - 1948 | 7 |
| Yorkshire | 1:10,560 | 1948 | 8 |
| Ordnance Survey Plan | 1:10,000 | 1955 | 9 |
| Ordnance Survey Plan | 1:10,000 | 1966 - 1967 | 10 |
| Ordnance Survey Plan | 1:10,000 | 1980 - 1983 | 11 |
| Ordnance Survey Plan | 1:10,000 | 1993 | 12 |
| 10K Raster Mapping | 1:10,000 | 2000 | 13 |
| Street View | Variable | | 14 |

Historical Map - Slice A



Order Details

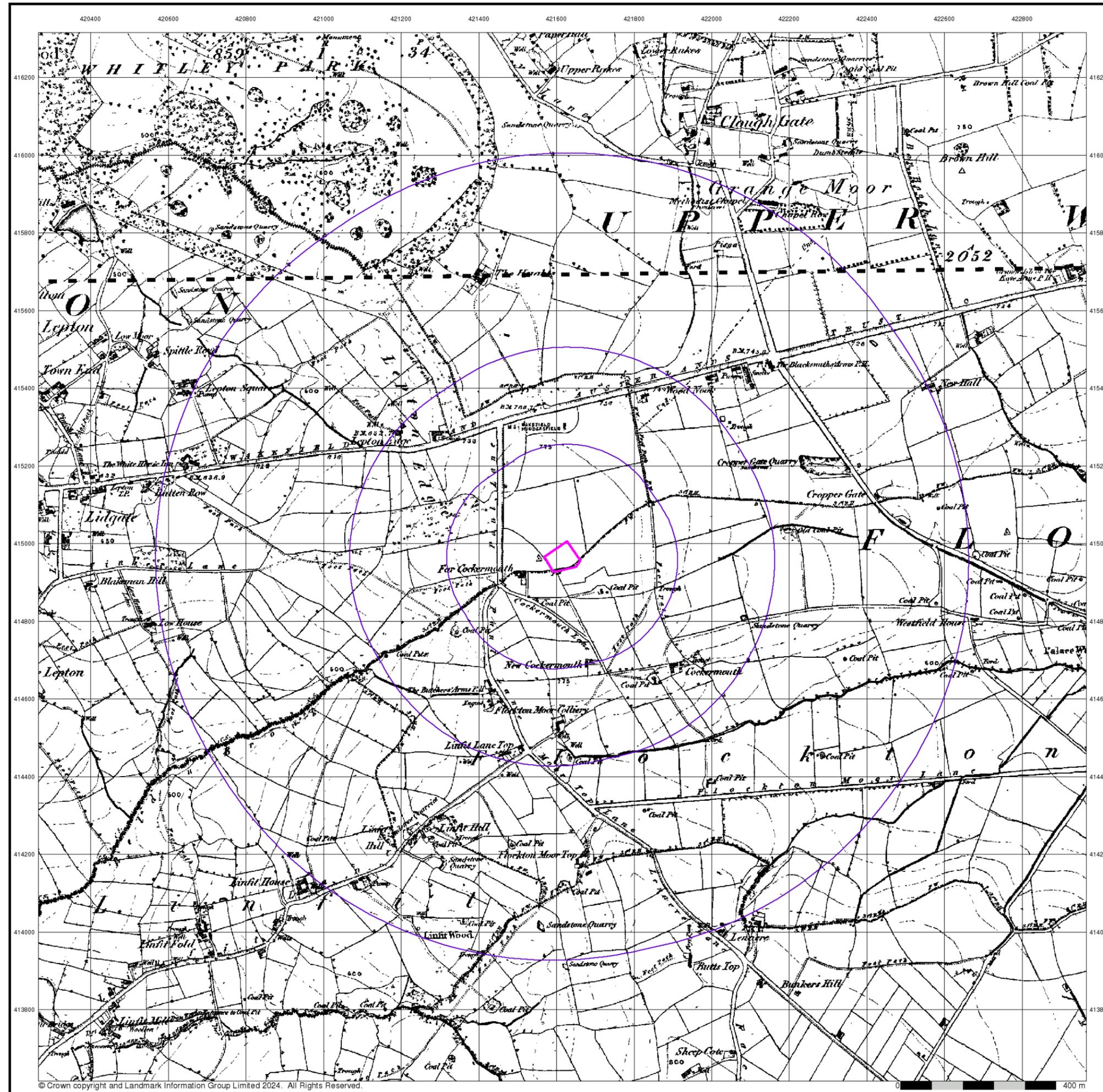
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 Customer Ref: C0645
 National Grid Reference: 421620, 414960
 Slice: A
 Site Area (Ha): 0.43
 Search Buffer (m): 1000

Site Details

Rockwood Equestrian Centre, Cockermouth Lane, Flockton, WAKEFIELD, WF4 4BS

Landmark
 INFORMATION GROUP

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



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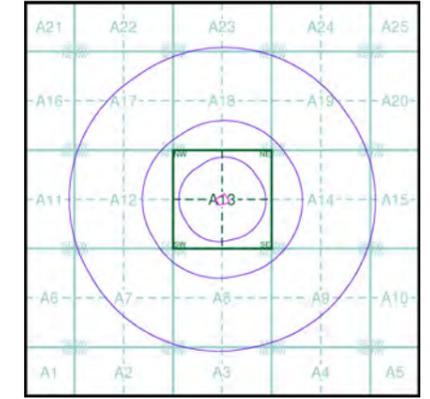
Yorkshire
Published 1854 - 1855
Source map scale - 1:10,560

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

Map Name(s) and Date(s)

| | | |
|-------|------|----------|
| 24700 | 1855 | 1:10,560 |
| 26100 | 1854 | 1:10,560 |

Historical Map - Slice A

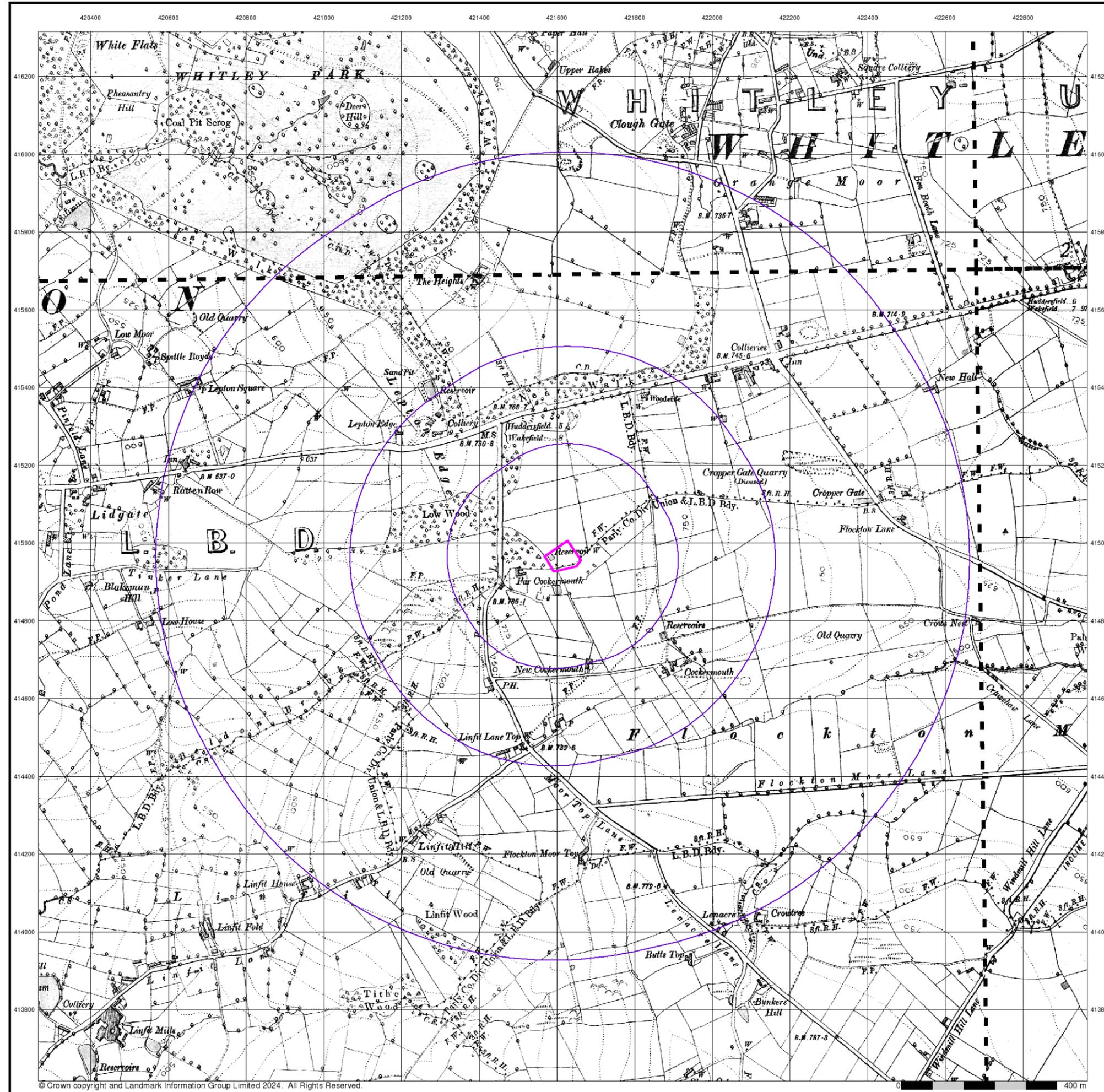


Order Details

Order Number: 357424612_1_1
 Customer Ref: C0645
 National Grid Reference: 421620, 414960
 Slice: A
 Site Area (Ha): 0.43
 Search Buffer (m): 1000

Site Details

Rockwood Equestrian Centre, Cockermouth Lane, Flockton, WAKEFIELD, WF4 4BS



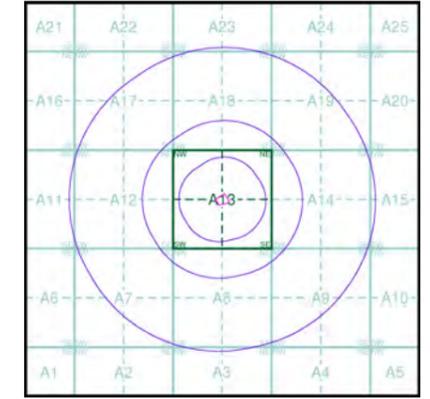
Yorkshire
Published 1894
Source map scale - 1:10,560

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

Map Name(s) and Date(s)

| | |
|---------------------------|---------------------------|
| 247SW 1894 1:10,560 | 247SE 1894 1:10,560 |
| 261NW 1894 1:10,560 | 261NE 1894 1:10,560 |

Historical Map - Slice A

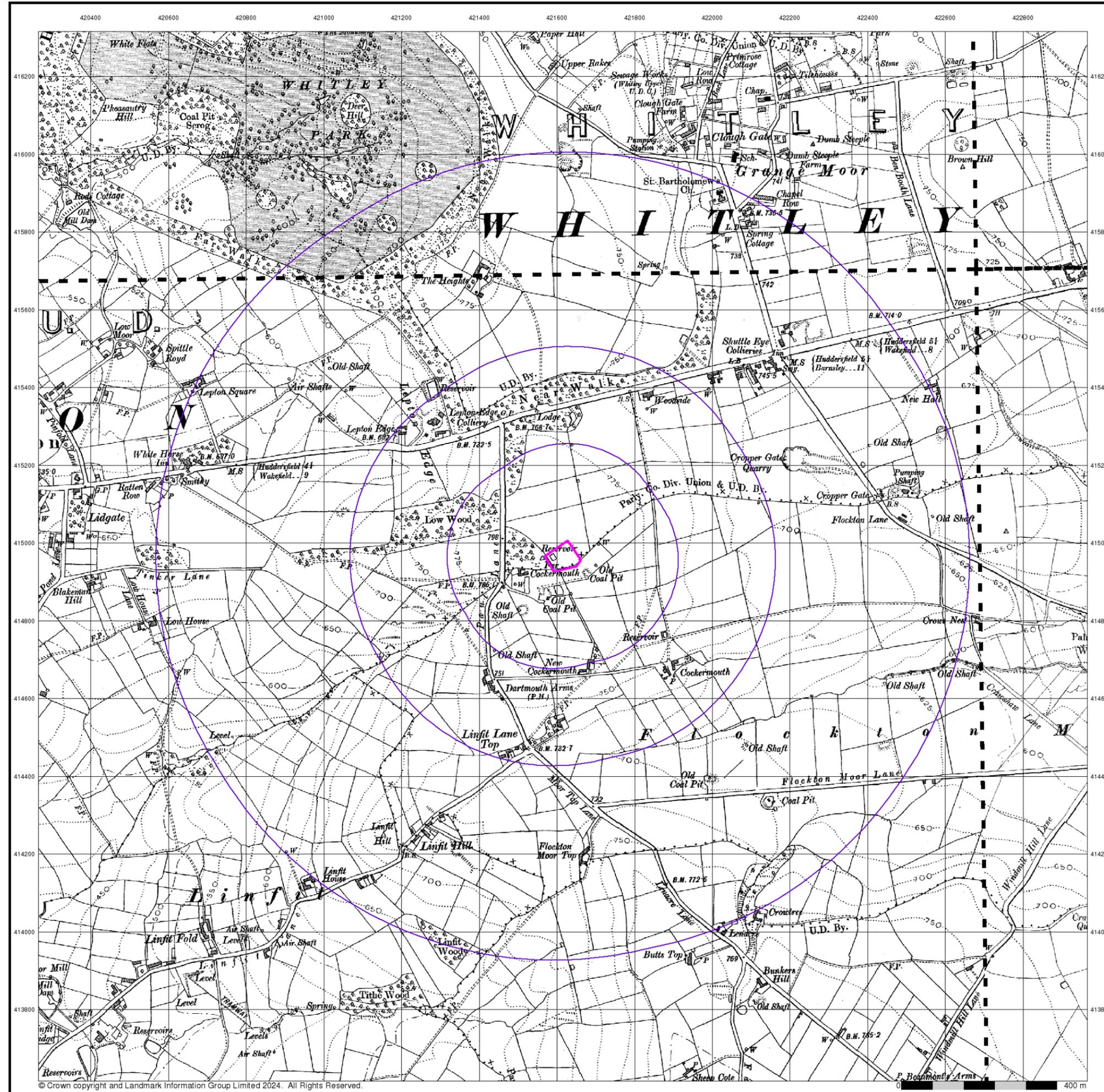


Order Details

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 National Grid Reference: 421620, 414960
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Site Details

Rockwood Equestrian Centre, Cockermouth Lane, Flockton, WAKEFIELD, WF4 4BS



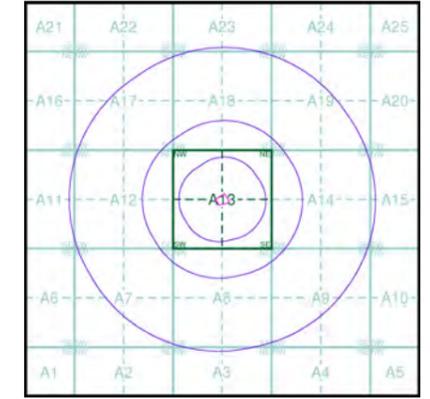
Yorkshire
Published 1907 - 1908
Source map scale - 1:10,560

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)

| | |
|---------------------------|---------------------------|
| 247SW 1908 1:10,560 | 247SE 1908 1:10,560 |
| 261NW 1908 1:10,560 | 261NE 1907 1:10,560 |

Historical Map - Slice A

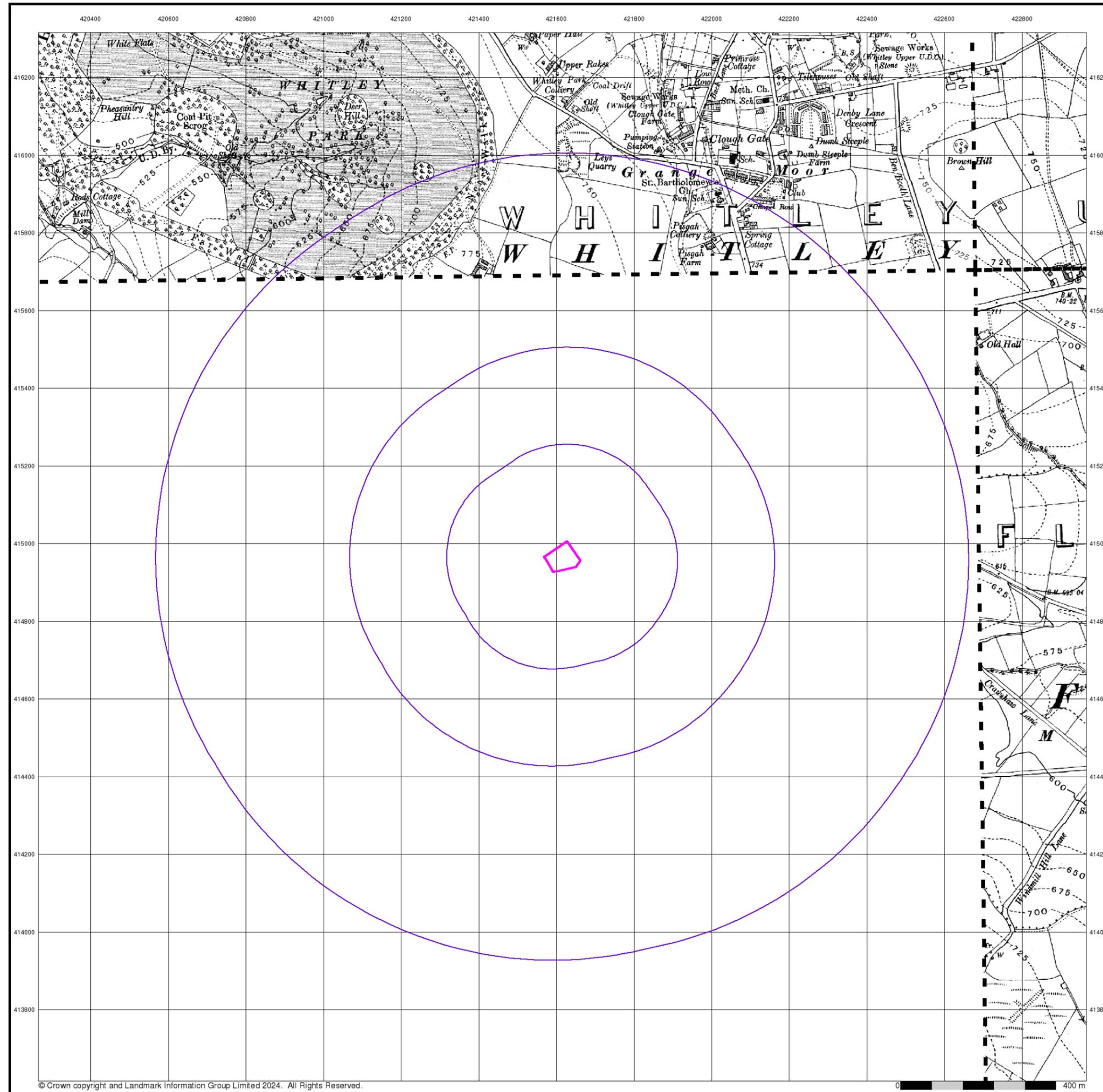


Order Details

Order Number: 357424612_1_1
 Customer Ref: C0645
 National Grid Reference: 421620, 414960
 Slice: A
 Site Area (Ha): 0.43
 Search Buffer (m): 1000

Site Details

Rockwood Equestrian Centre, Cockermouth Lane, Flockton, WAKEFIELD, WF4 4BS



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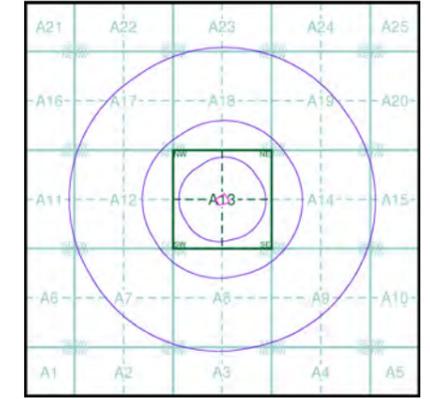
Yorkshire
Published 1930 - 1931
Source map scale - 1:10,560

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)

| | |
|---------------------------|---------------------------|
| 247SW 1930 1:10,560 | 247SE 1931 1:10,560 |
| | 261NE 1930 1:10,560 |

Historical Map - Slice A



Order Details
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 Customer Ref: C0645
 National Grid Reference: 421620, 414960
 Slice: A
 Site Area (Ha): 0.43
 Search Buffer (m): 1000

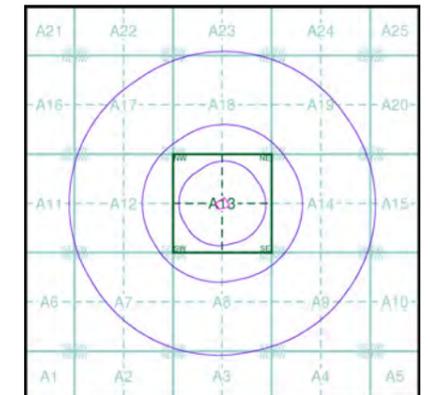
Site Details
 Rockwood Equestrian Centre, Cockermouth Lane, Flockton,
 WAKEFIELD, WF4 4BS

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

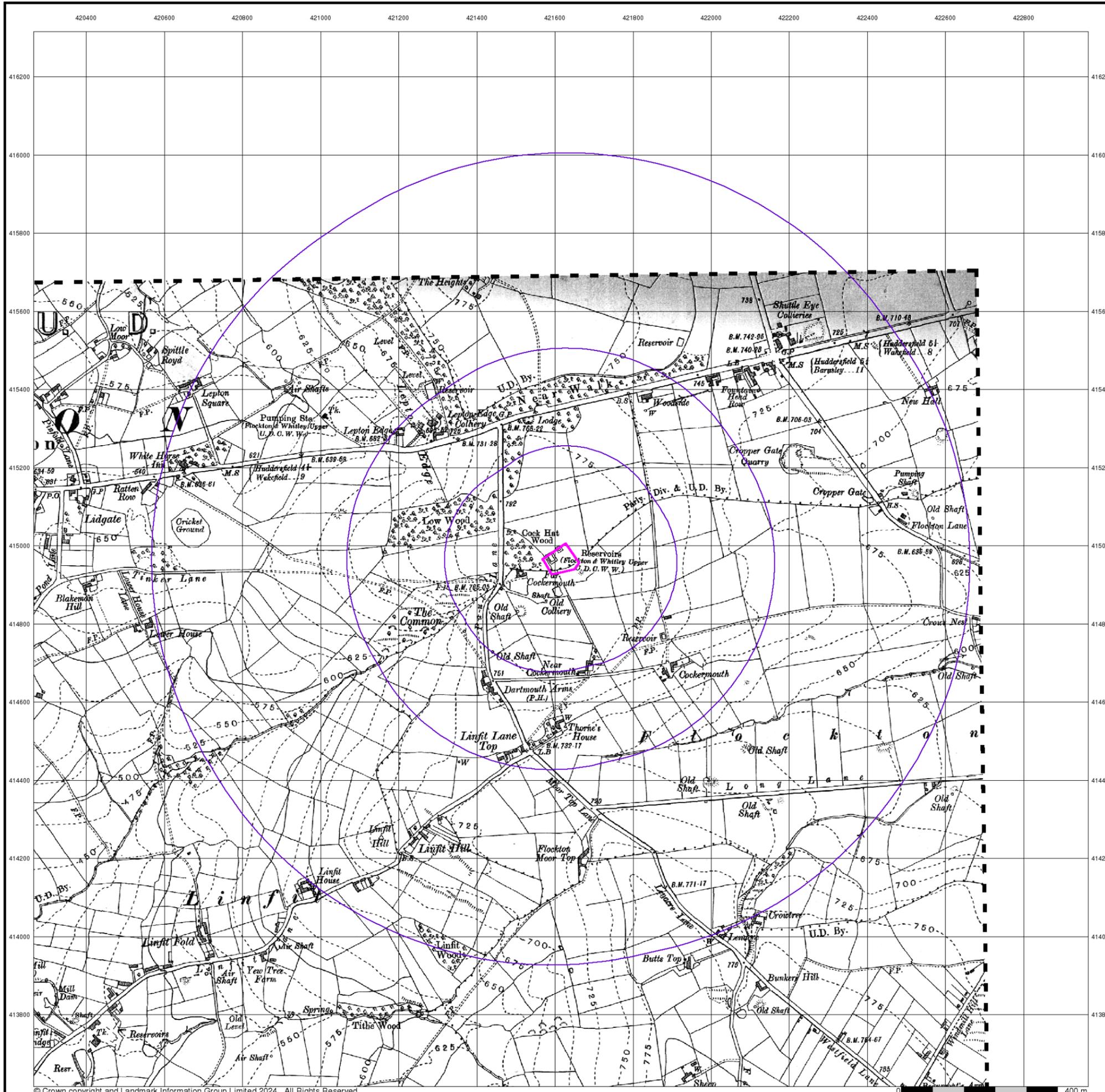


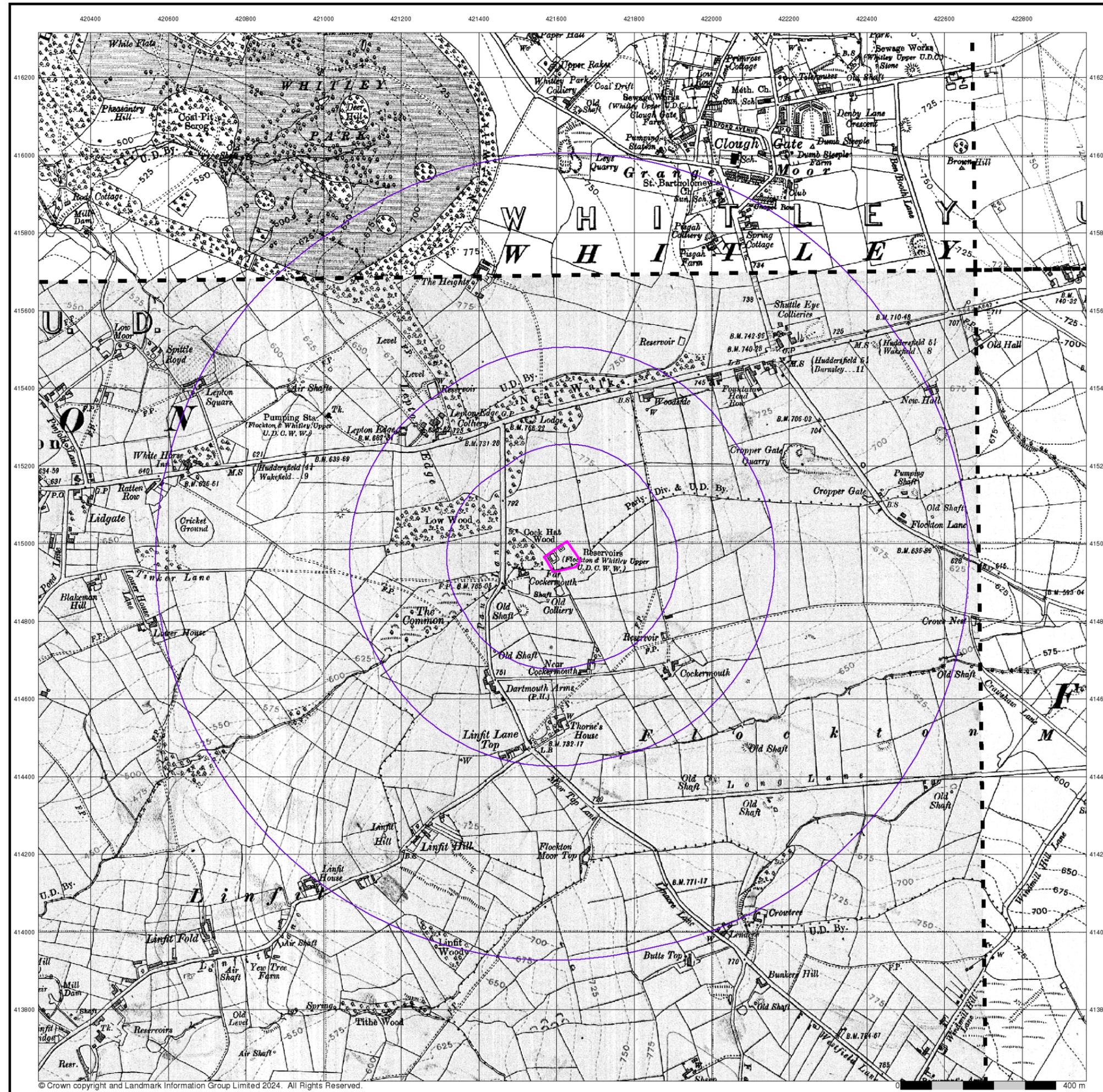
Order Details

Order Number: 357424612_1_1
 Customer Ref: C0645
 National Grid Reference: 421620, 414960
 Slice: A
 Site Area (Ha): 0.43
 Search Buffer (m): 1000

Site Details

Rockwood Equestrian Centre, Cockermouth Lane, Flockton, WAKEFIELD, WF4 4BS





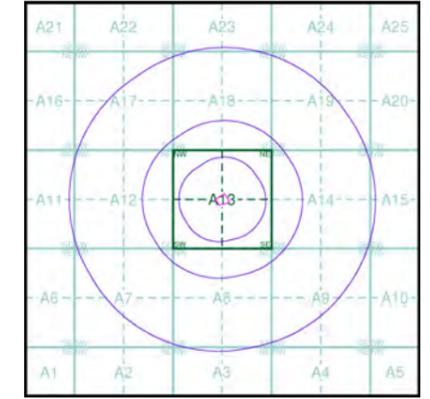
Yorkshire
Published 1938 - 1948
Source map scale - 1:10,560

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

Map Name(s) and Date(s)

| | |
|---------------------------|---------------------------|
| 247SW 1938 1:10,560 | 247SE 1938 1:10,560 |
| 261NW 1938 1:10,560 | 261NE 1948 1:10,560 |

Historical Map - Slice A



Order Details

Order Number: 357424612_1_1
 Customer Ref: C0645
 National Grid Reference: 421620, 414960
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Site Details

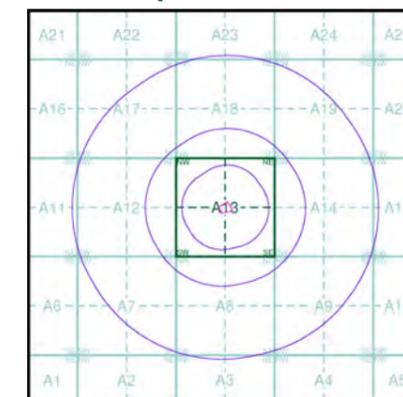
Rockwood Equestrian Centre, Cockermouth Lane, Flockton, WAKEFIELD, WF4 4BS

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)

| | |
|---------------------------|---------------------------|
| 247SW 1948 1:10,560 | 247SE 1948 1:10,560 |
| 261NW 1948 1:10,560 | |

Historical Map - Slice A

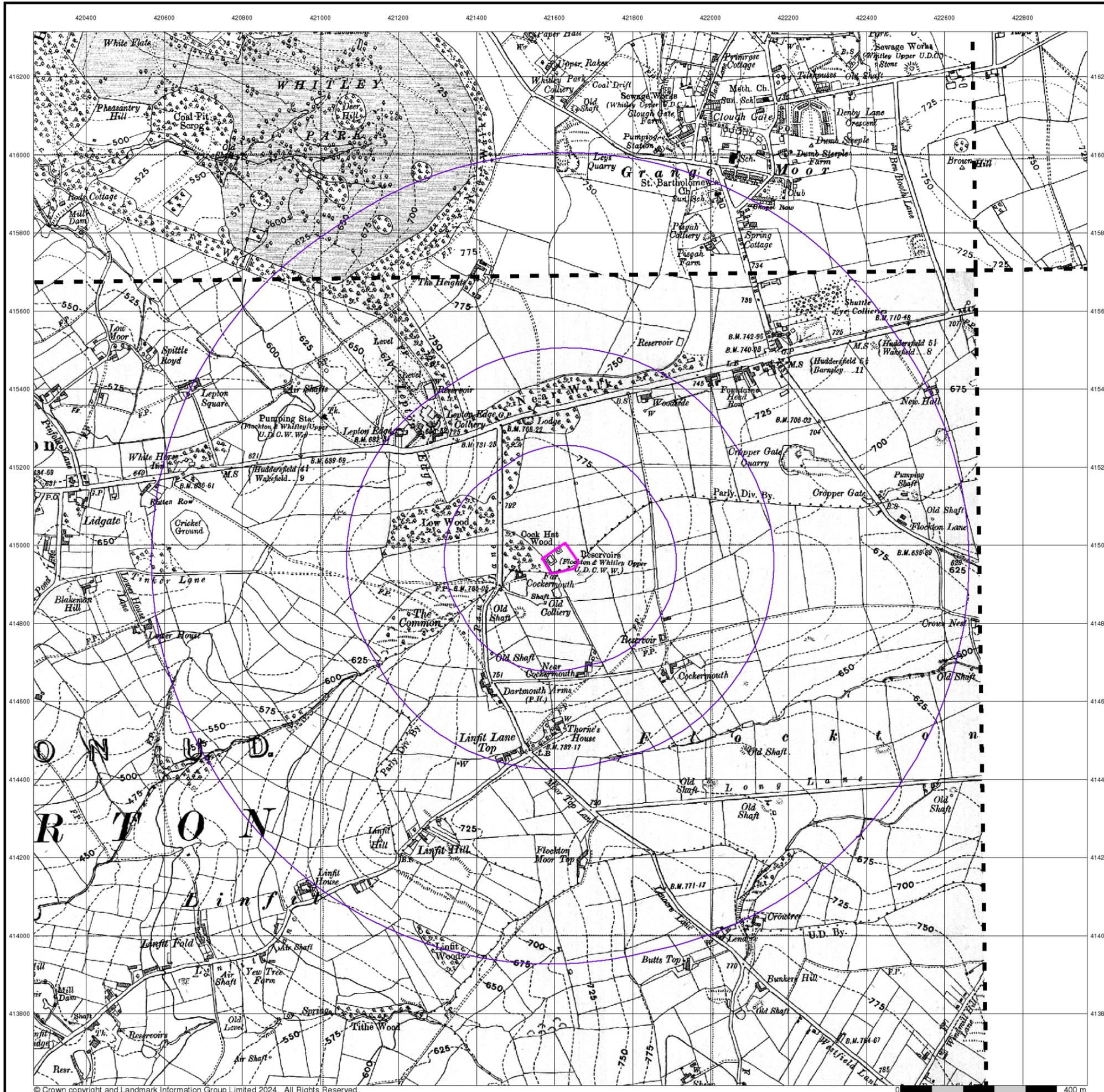


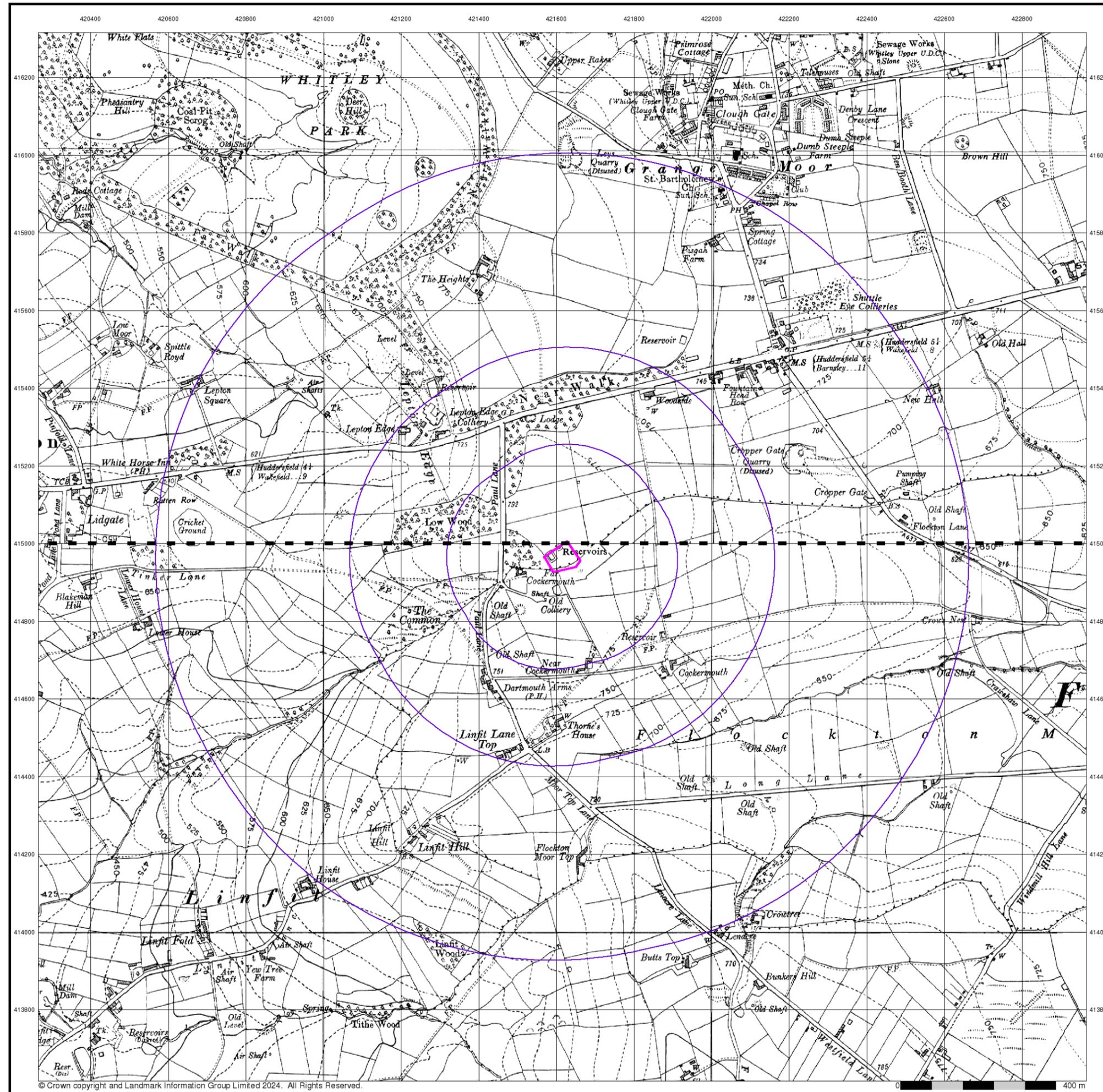
Order Details

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 Slice: A
 Site Area (Ha): 0.43
 Search Buffer (m): 1000

Site Details

Rockwood Equestrian Centre, Cockermouth Lane, Flockton, WAKEFIELD, WF4 4BS





Ordnance Survey Plan

Published 1955

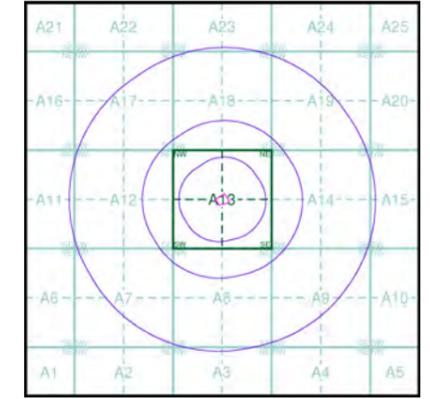
Source map scale - 1:10,000

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)

| | |
|----------|------|
| SE21NW | 1955 |
| 1:10,560 | |
| SE21SW | 1955 |
| 1:10,560 | |

Historical Map - Slice A



Order Details

Order Number: 357424612_1_1
 Customer Ref: C0645
 National Grid Reference: 421620, 414960
 Slice: A
 Site Area (Ha): 0.43
 Search Buffer (m): 1000

Site Details

Rockwood Equestrian Centre, Cockermouth Lane, Flockton, WAKEFIELD, WF4 4BS

Ordnance Survey Plan

Published 1966 - 1967

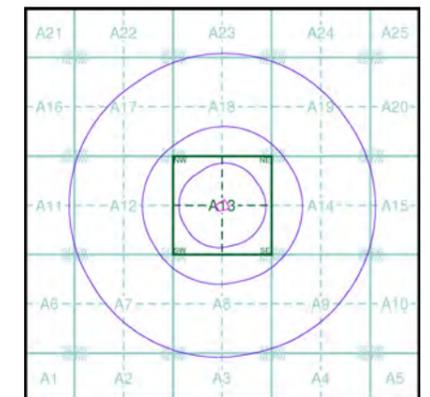
Source map scale - 1:10,000

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)

| | |
|----------|------|
| SE21NW | 1966 |
| 1:10,560 | |
| SE21SW | 1967 |
| 1:10,560 | |

Historical Map - Slice A

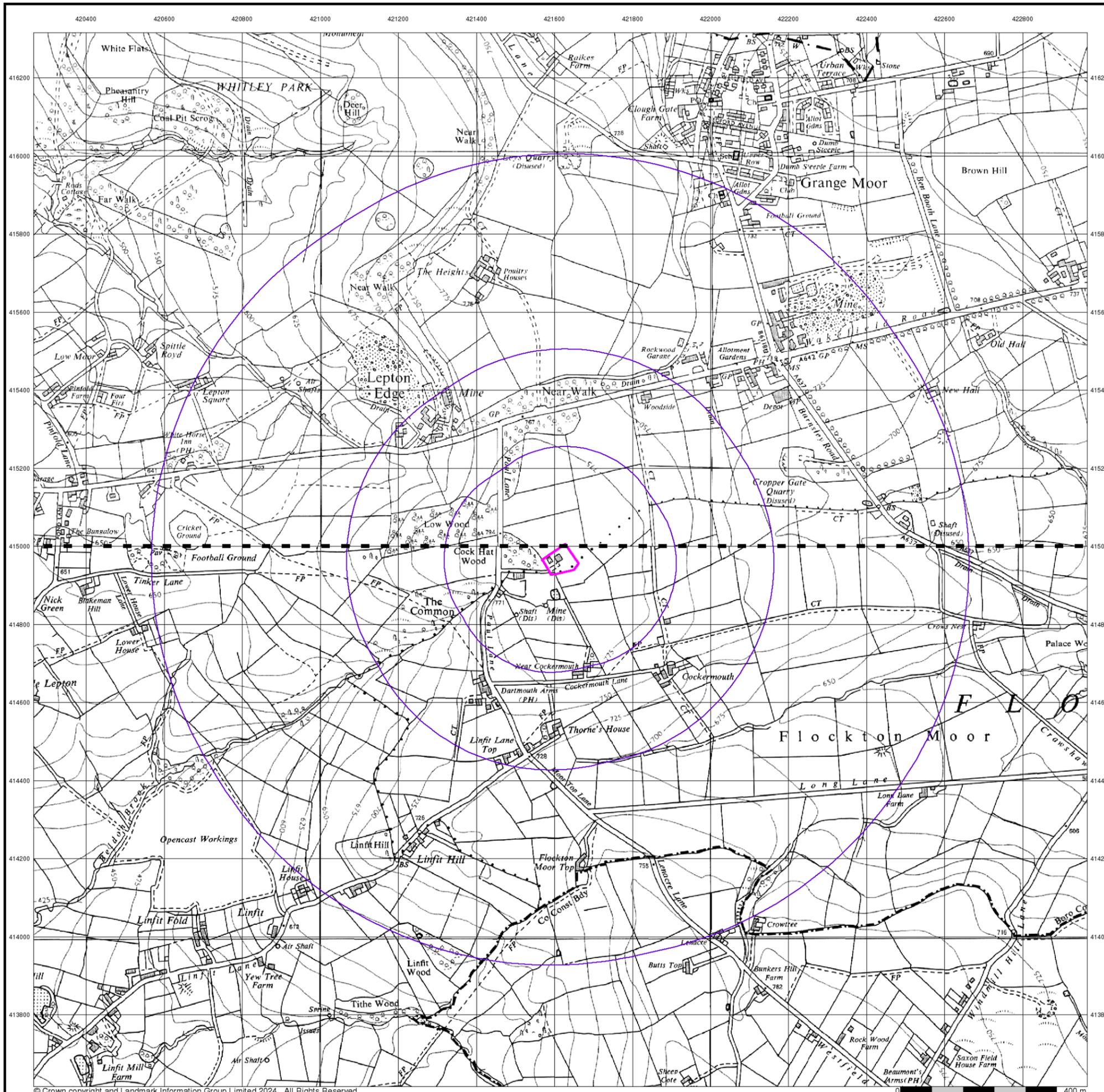


Order Details

Order Number: 357424612_1_1
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 Slice: A
 Site Area (Ha): 0.43
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Site Details

Rockwood Equestrian Centre, Cockermouth Lane, Flockton, WAKEFIELD, WF4 4BS



Ordnance Survey Plan

Published 1980 - 1983

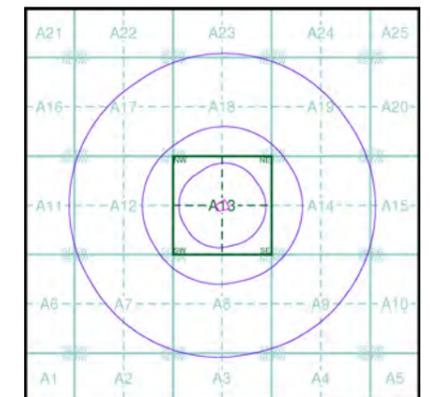
Source map scale - 1:10,000

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)

| | | |
|--------|------|----------|
| SE21NW | 1983 | 1:10,000 |
| SE21SW | 1980 | 1:10,000 |

Historical Map - Slice A

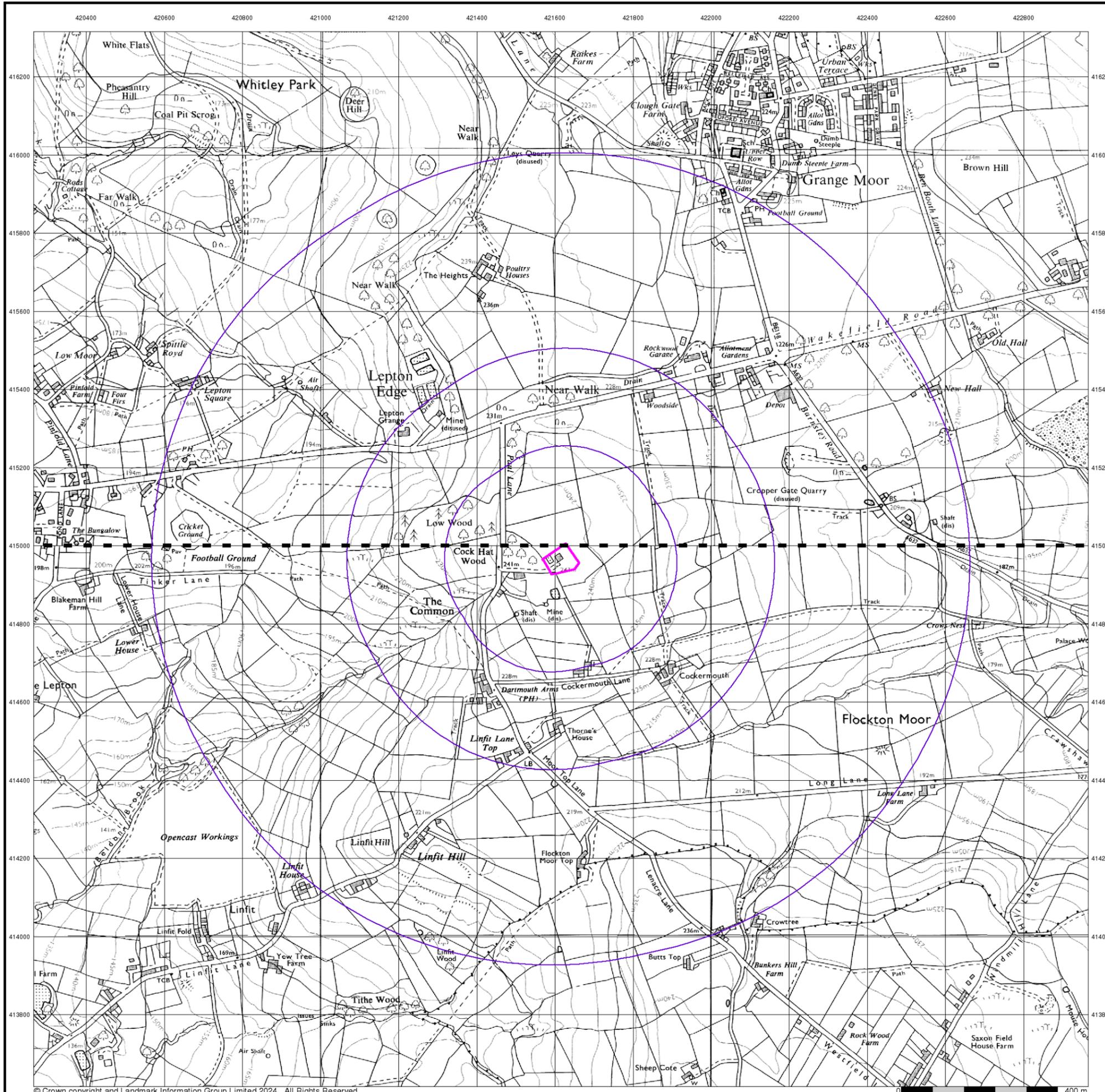


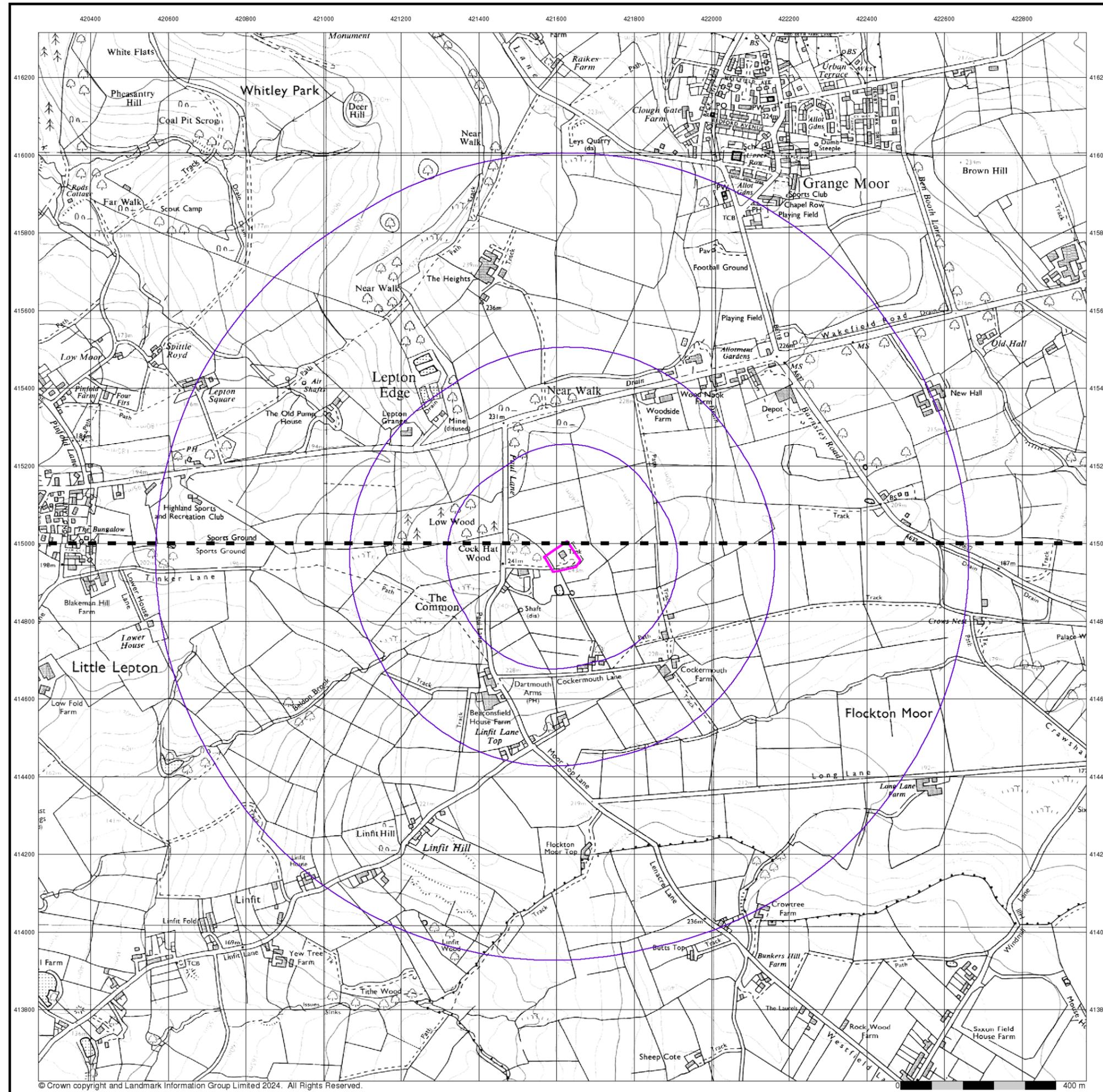
Order Details

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 Customer Ref: C0645
 National Grid Reference: 421620, 414960
 Slice: A
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Site Details

Rockwood Equestrian Centre, Cockermouth Lane, Flockton, WAKEFIELD, WF4 4BS





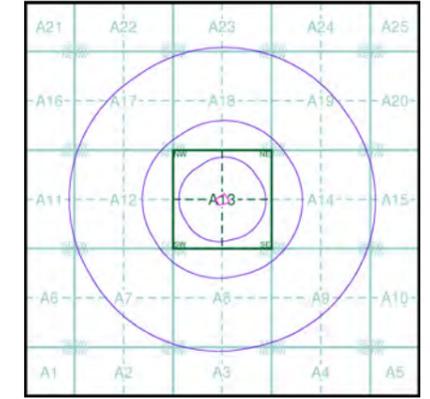
Ordnance Survey Plan Published 1993 Source map scale - 1:10,000

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

Map Name(s) and Date(s)

| | | |
|--------|------|----------|
| SE21NW | 1993 | 1:10,000 |
| SE21SW | 1993 | 1:10,000 |

Historical Map - Slice A



Order Details

Order Number: 357424612_1_1
 Customer Ref: C0645
 National Grid Reference: 421620, 414960
 Slice: A
 Site Area (Ha): 0.43
 Search Buffer (m): 1000

Site Details

Rockwood Equestrian Centre, Cockermouth Lane, Flockton, WAKEFIELD, WF4 4BS

10k Raster Mapping

Published 2000

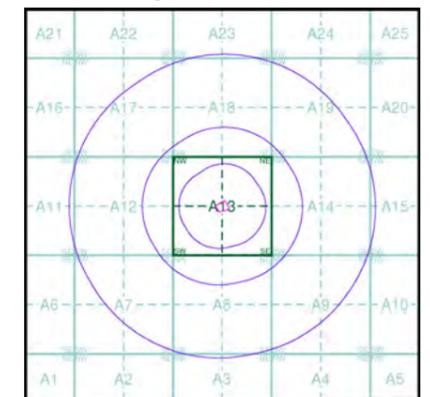
Source map scale - 1:10,000

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

Map Name(s) and Date(s)

| | | |
|--------|------|----------|
| SE21NW | 2000 | 1:10,000 |
| SE21SW | 2000 | 1:10,000 |

Historical Map - Slice A

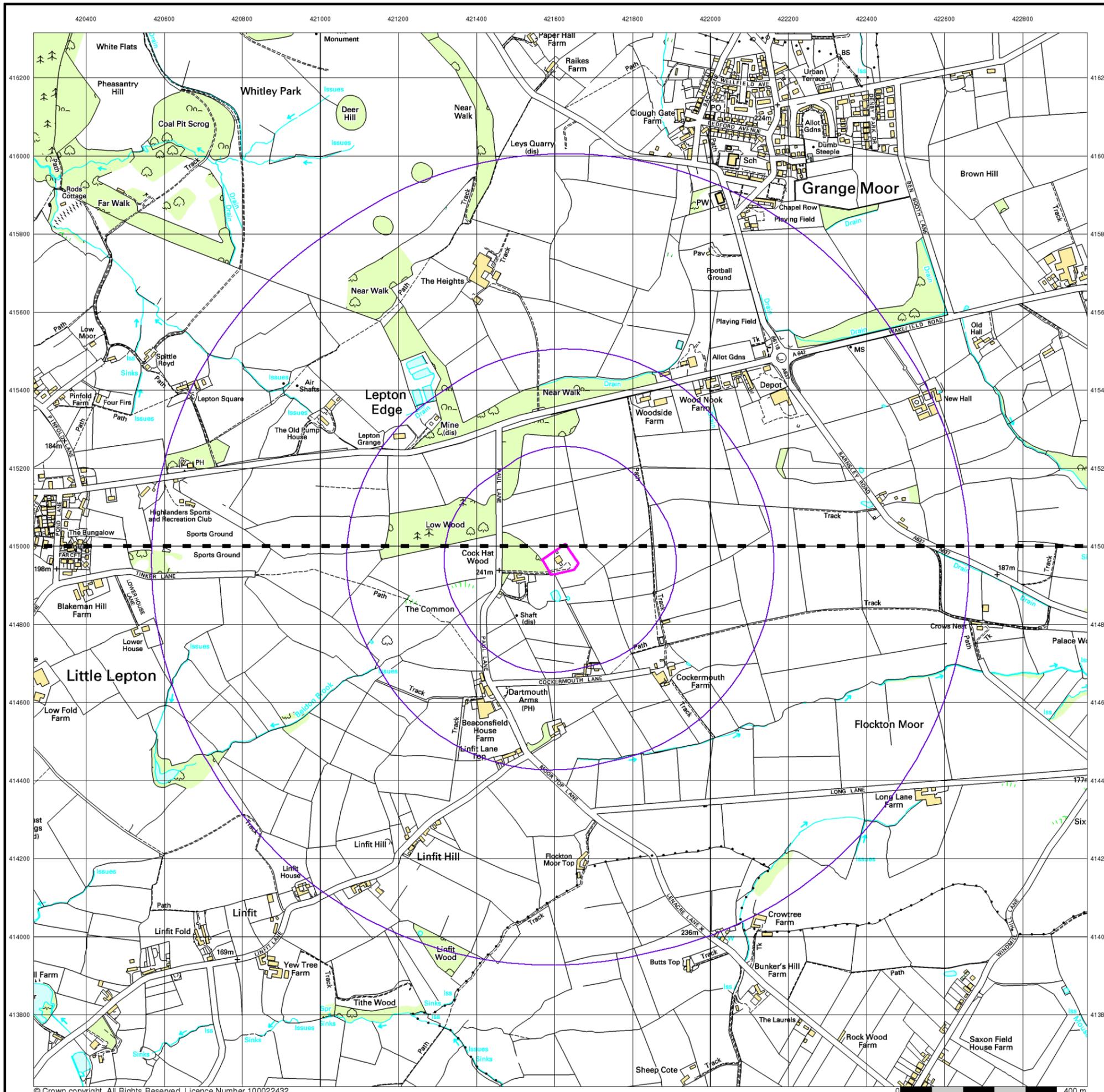


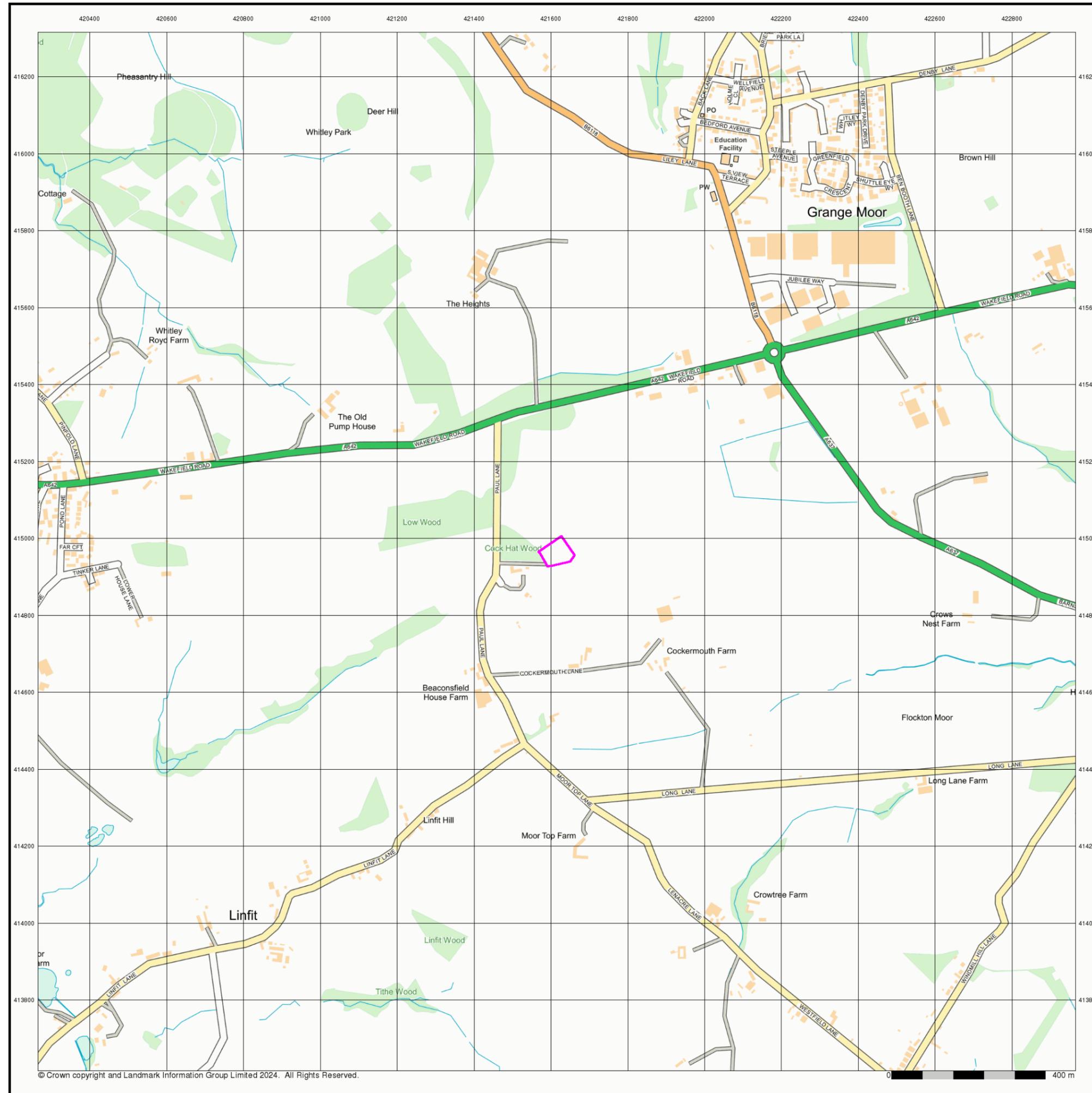
Order Details

Order Number: 357424612_1_1
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 National Grid Reference: 421620, 414960
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Site Details

Rockwood Equestrian Centre, Cockermouth Lane, Flockton, WAKEFIELD, WF4 4BS



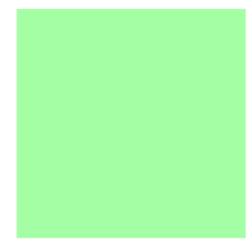


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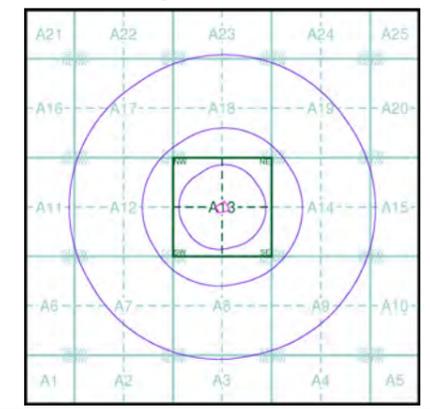
Street View
Published 2024
Source map scale - 1:10,000

Street View is a street-level map for the whole of Great Britain produced by the Ordnance Survey. These maps are provided at a nominal scale of 1:10,000

Map Name(s) and Date(s)



Street View Map - Slice A



Order Details
 Order Number: 357424612_1_1
 Customer Ref: C0645
 National Grid Reference: 421620, 414960
 Slice: A
 Site Area (Ha): 0.43
 Search Buffer (m): 1000

Site Details
 Rockwood Equestrian Centre, Cockermouth Lane, Flockton, WAKEFIELD, WF4 4BS

Historical Mapping Legends

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

Quarry **Gravel Pit** **Sand Pit**
Clay Pit **Shingle** **Refuse Heap**
Sloping Masonry **Flat Rock**
Marsh **Reeds** **Osiers**
Rough Pasture **Furze** **Wood**
Mixed Wood **Brushwood** **Orchard**
Fir **Ford** **Stepping Stones**
Ferry **Waterfall** **Lock**
Trig. Station **Altitude at Trig. Station**
B.M. 325.9 **Bench Mark** **Surface Level**
Arrow denotes flow of water **Antiquities (site of)**
Cutting **Embankment**
Railway crossing Road **Level Crossing** **Road crossing Railway**
Railway crossing River or Canal **Road over single stream** **Road over River or Canal**
County Boundary (Geographical)
County & Civil Parish Boundary
Administrative County & Civil Parish Boundary
County Borough Boundary (England)
County Burgh Boundary (Scotland)
Co. Boro. Bdy.
Co. Burgh Bdy.
BP BS Boundary Post or Stone **P.C.B** Police Call Box
B.R. Bridle Road **P** Pump
E.P Electricity Pylon **S.P** Signal Post
F.B. Foot Bridge **SL** Sluice
F.P. Foot Path **Sp.** Spring
G.P Guide Post or Board **T.C.B** Telephone Call Box
M.S Mile Stone **Tr.** Trough
M.P M.R Mooring Post or Ring **W** Well

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

Inactive Quarry, Chalk Pit or Clay Pit **Active Quarry, Chalk Pit or Clay Pit**
Rock **Boulders**
Cliff **Slopes** **Top**
Roofed Building **Glazed Roof Building**
Sloping Masonry **Archway**
Non-Coniferous Tree (surveyed) **Coniferous Tree (surveyed)**
Non-Coniferous Trees (not surveyed) **Coniferous Trees (not surveyed)**
Orchard Tree **Scrub** **Bracken**
Coppice, Osier **Reeds** **Marsh, Saltings**
Rough Grassland **Heath** **Culvert**
Direction of water flow **Bench Mark** **Antiquity (site of)**
Cave Entrance **Triangulation Station** **Electricity Pylon**
Electricity Transmission Line
County Boundary (Geographical)
County & Civil Parish Boundary
Civil Parish Boundary
Admin. County or County Bor. Boundary
London Borough Boundary
Symbol marking point where boundary mereing changes
BH Beer House **P** Pillar, Pole or Post
BP, BS Boundary Post or Stone **PO** Post Office
Cn, C Capstan, Crane **PC** Public Convenience
Chy Chimney **PH** Public House
D Fn Drinking Fountain **Pp** Pump
EI P Electricity Pillar or Post **SB, S Br** Signal Box or Bridge
FAP Fire Alarm Pillar **SP, SL** Signal Post or Light
FB Foot Bridge **Spr** Spring
GP Guide Post **Tk** Tank or Track
H Hydrant or Hydraulic **TCB** Telephone Call Box
LC Level Crossing **TCP** Telephone Call Post
MH Manhole **Tr** Trough
MP Mile Post or Mooring Post **Wr Pt, Wr T** Water Point, Water Tap
MS Mile Stone **W** Well
NTL Normal Tidal Limit **Wd Pp** Wind Pump

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

Cliff **Slopes** **Top**
Rock **Rock (scattered)**
Boulders **Boulders (scattered)**
Positioned Boulder **Scree**
Non-Coniferous Tree (surveyed) **Coniferous Tree (surveyed)**
Non-Coniferous Trees (not surveyed) **Coniferous Trees (not surveyed)**
Orchard Tree **Scrub** **Bracken**
Coppice, Osier **Reeds** **Marsh, Saltings**
Rough Grassland **Heath** **Culvert**
Direction of water flow **Triangulation Station** **Antiquity (site of)**
Electricity Transmission Line **Electricity Pylon**
B.M. 231.60m Bench Mark **Buildings with Building Seed**
Roofed Building **Glazed Roof Building**
Civil parish/community boundary
District boundary
County boundary
Boundary post/stone
Boundary mereing symbol (note: these always appear in opposed pairs or groups of three)
Bks Barracks **P** Pillar, Pole or Post
Bty Battery **PO** Post Office
Cemy Cemetery **PC** Public Convenience
Chy Chimney **Pp** Pump
Cis Cistern **Ppg Sta** Pumping Station
Dismtd Rly Dismantled Railway **PW** Place of Worship
EI Gen Sta Electricity Generating Station **Sewage Ppg Sta** Sewage Pumping Station
EI P Electricity Pole, Pillar **SB, S Br** Signal Box or Bridge
EI Sub Sta Electricity Sub Station **SP, SL** Signal Post or Light
FB Filter Bed **Spr** Spring
Fn / D Fn Fountain / Drinking Ftn. **Tk** Tank or Track
Gas Gov Gas Valve Compound **Tr** Trough
GVC Gas Governor **Wd Pp** Wind Pump
GP Guide Post **Wr Pt, Wr T** Water Point, Water Tap
MH Manhole **Wks** Works (building or area)
MP, MS Mile Post or Mile Stone **W** Well

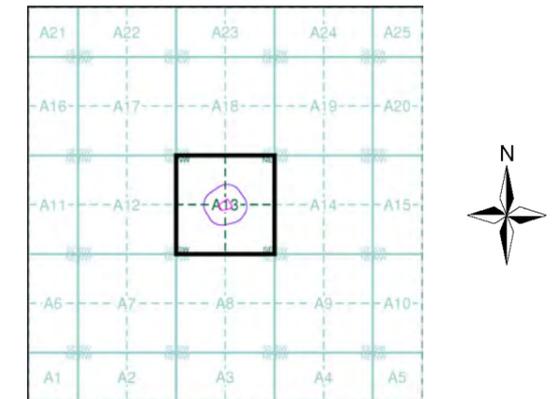
Envirocheck®

LANDMARK INFORMATION GROUP®

Historical Mapping & Photography included:

| Mapping Type | Scale | Date | Pg |
|--------------------------------|---------|-------------|----|
| Yorkshire | 1:2,500 | 1893 | 2 |
| Yorkshire | 1:2,500 | 1906 | 3 |
| Yorkshire | 1:2,500 | 1932 | 4 |
| Ordnance Survey Plan | 1:2,500 | 1961 | 5 |
| Additional SIMs | 1:2,500 | 1961 | 6 |
| Additional SIMs | 1:2,500 | 1984 | 7 |
| Ordnance Survey Plan | 1:2,500 | 1991 | 8 |
| Large-Scale National Grid Data | 1:2,500 | 1992 - 1993 | 9 |

Historical Map - Segment A13



Order Details

Order Number: 357424612_1_1
 Customer Ref: C0645
 National Grid Reference: 421620, 414960
 Slice: A
 Site Area (Ha): 0.43
 Search Buffer (m): 100

Site Details

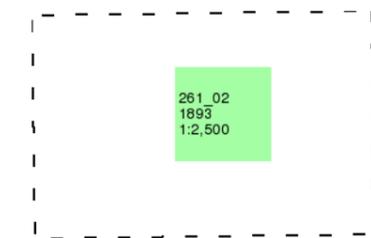
Rockwood Equestrian Centre, Cockermouth Lane, Flockton, WAKEFIELD, WF4 4BS

Landmark
INFORMATION GROUP

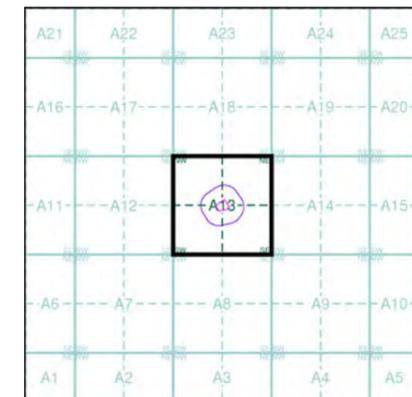
Tel: 0844 844 9952
 Fax: 0844 844 9951
 Web: www.envirocheck.co.uk

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

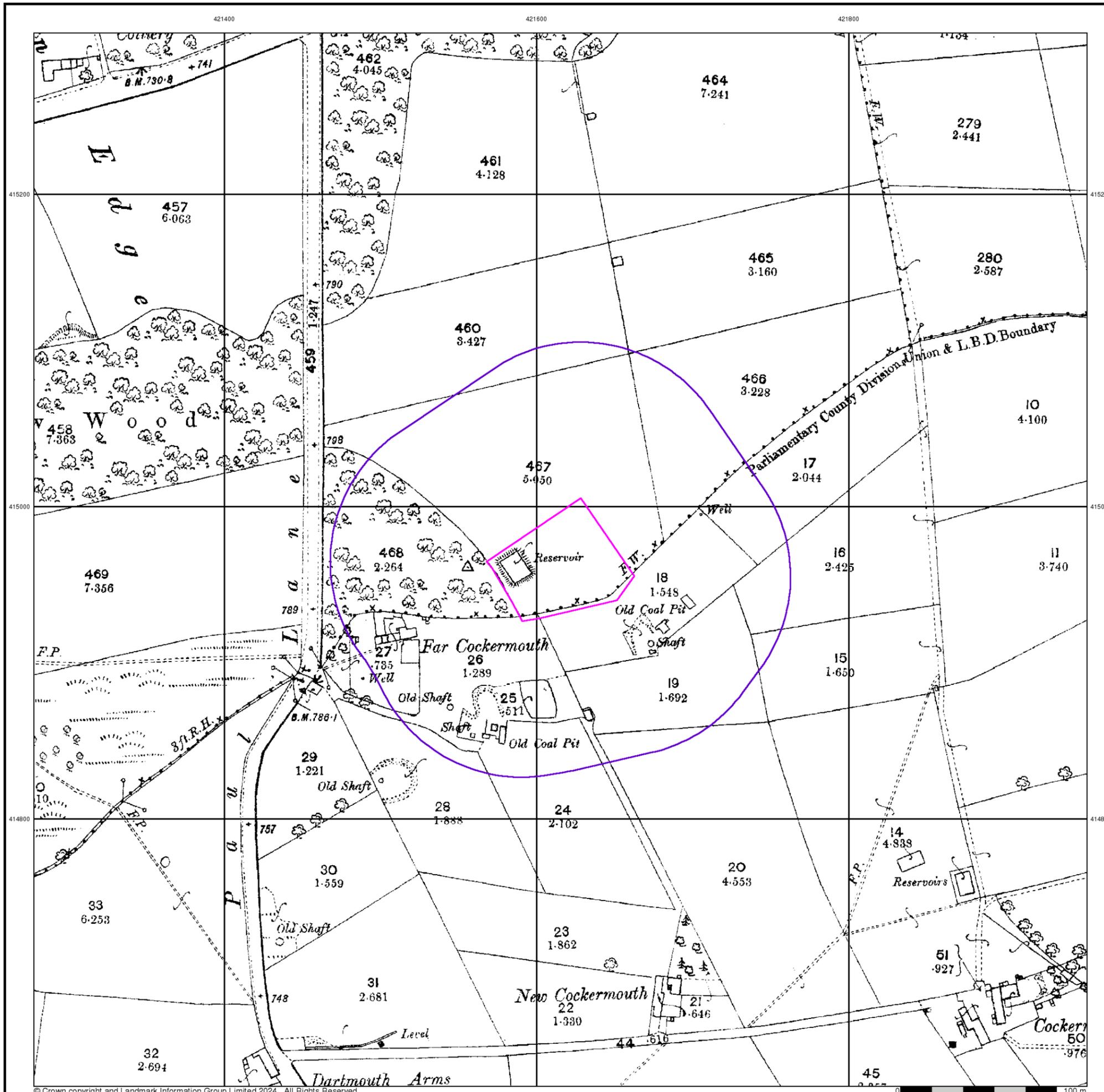


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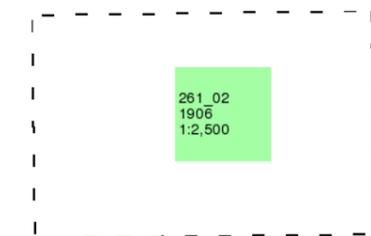
Site Details

Rockwood Equestrian Centre, Cockermouth Lane, Flockton, WAKEFIELD, WF4 4BS

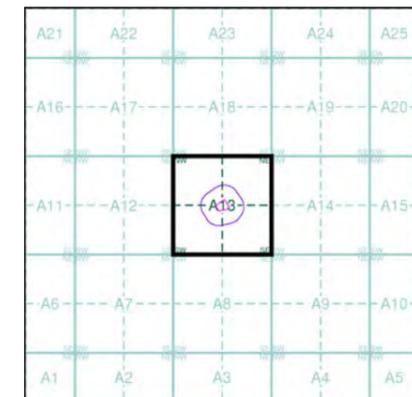


The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas and by 1896 it covered the whole of what were considered to be the cultivated parts of Great Britain.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

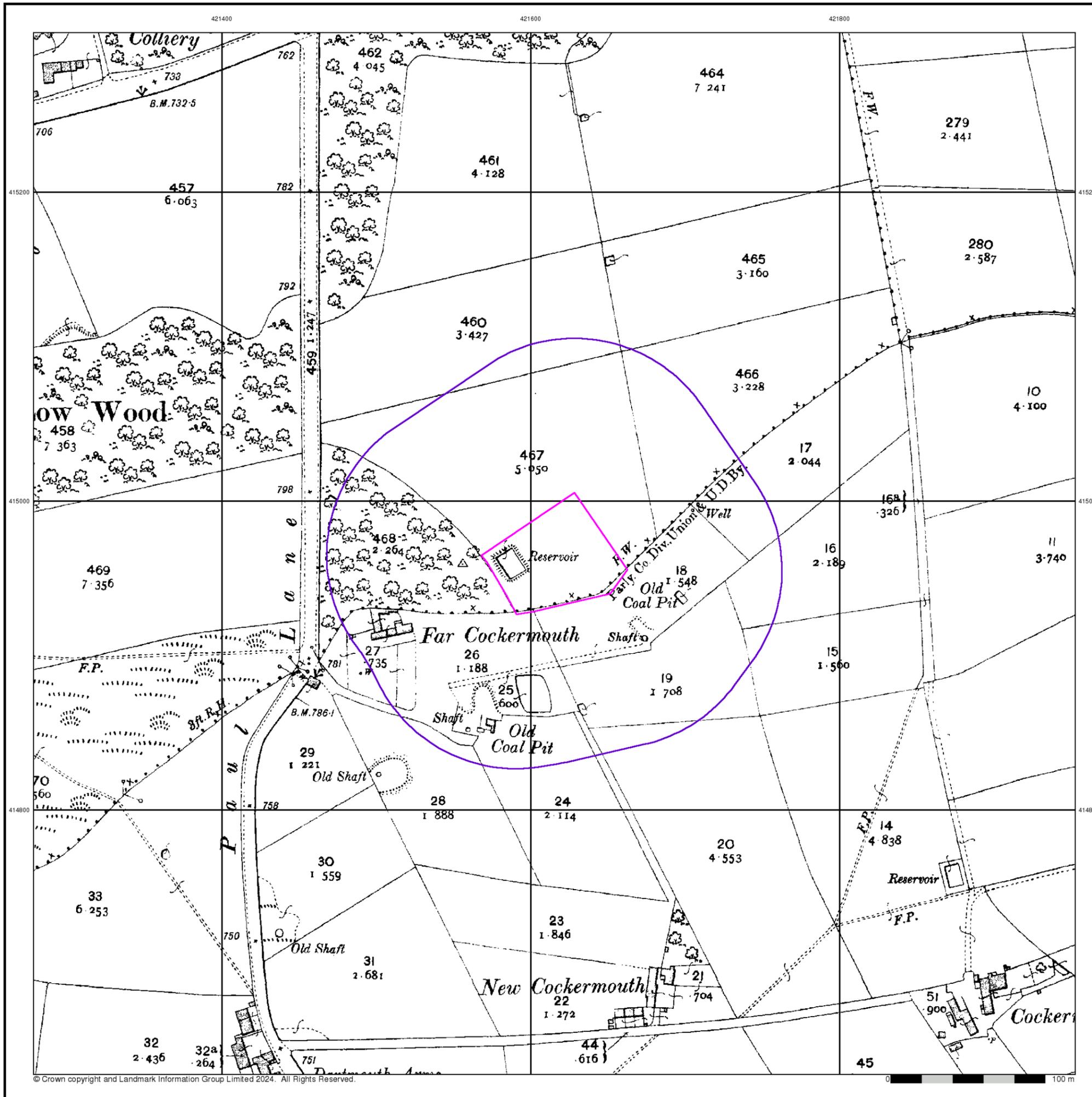


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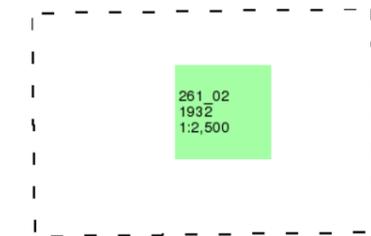
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Rockwood Equestrian Centre, Cockermouth Lane, Flockton, WAKEFIELD, WF4 4BS

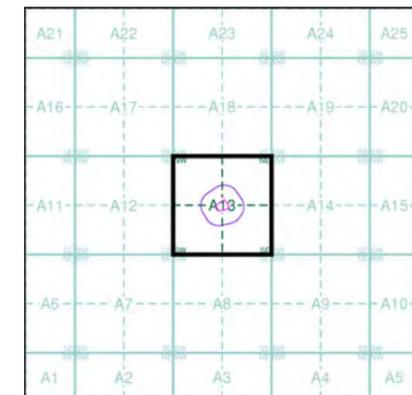


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Map Name(s) and Date(s)



Historical Map - Segment A13

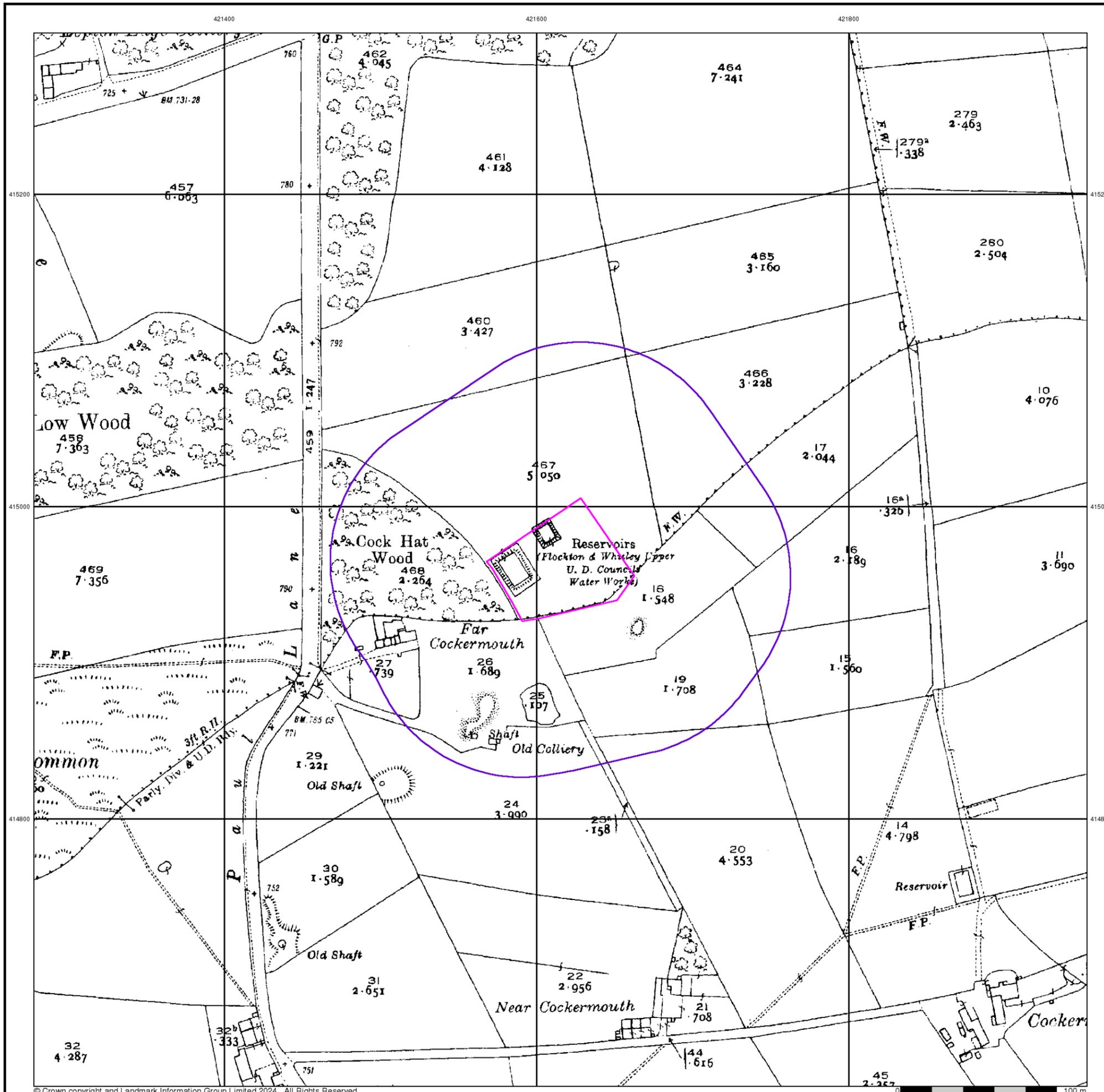


Order Details

Order Number: 357424612_1_1
 Customer Ref: C0645
 National Grid Reference: 421620, 414960
 Slice: A
 Site Area (Ha): 0.43
 Search Buffer (m): 100

Site Details

Rockwood Equestrian Centre, Cockermouth Lane, Flockton, WAKEFIELD, WF4 4BS



Ordnance Survey Plan

Published 1961

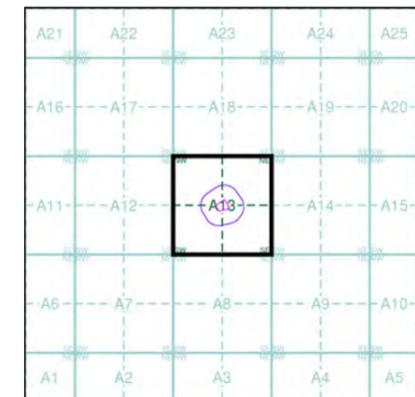
Source map scale - 1:2,500

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

Map Name(s) and Date(s)

| | | |
|--------|------|---------|
| SE2115 | 1961 | 1:2,500 |
| SE2114 | 1961 | 1:2,500 |

Historical Map - Segment A13

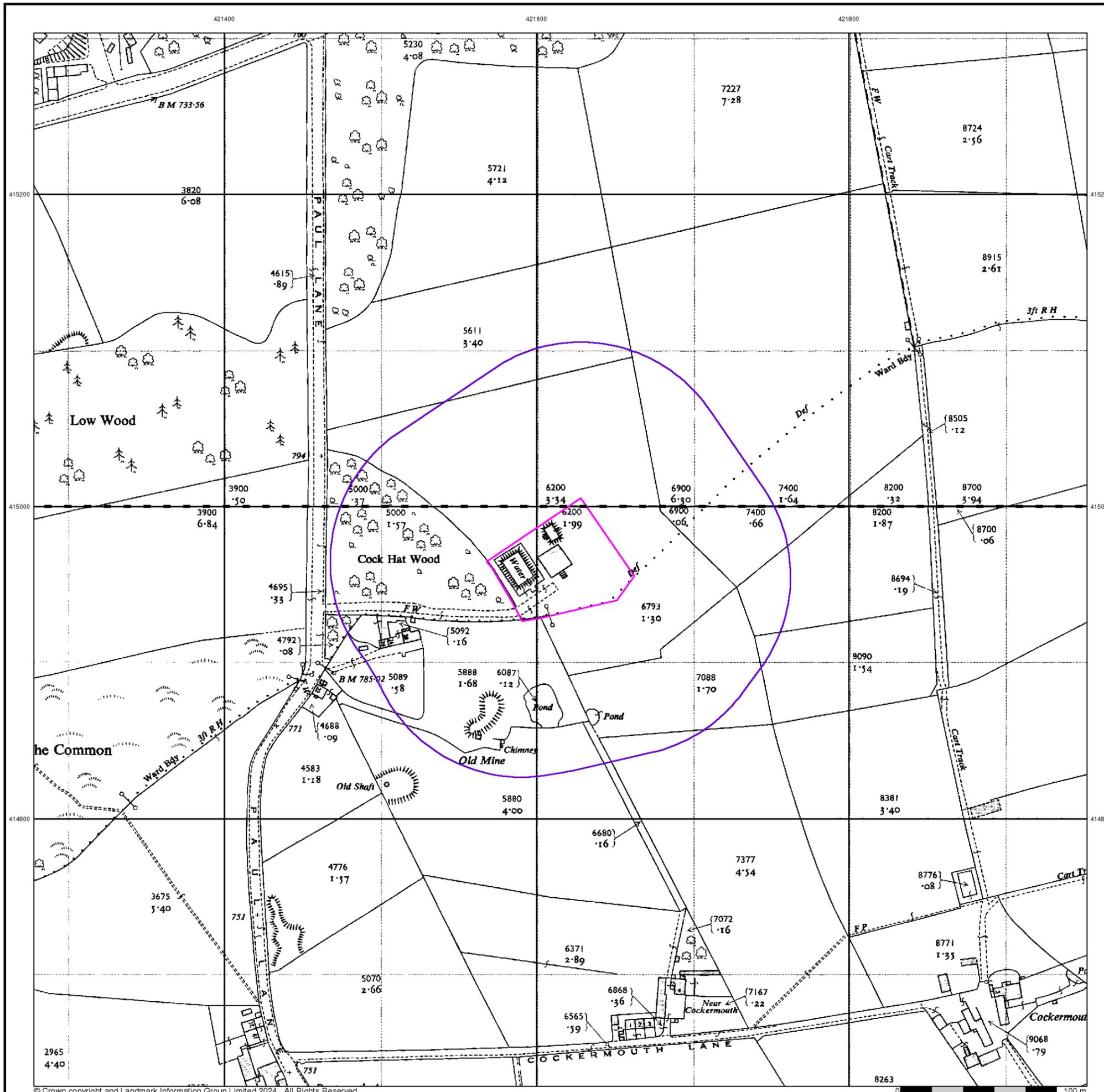


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Additional SIMs

Published 1961

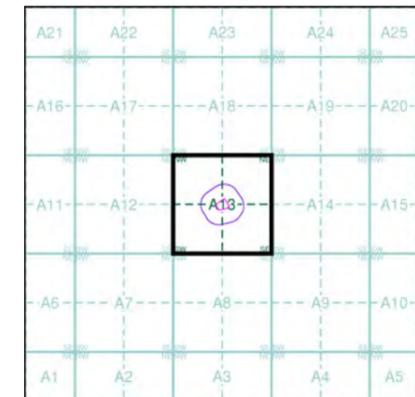
Source map scale - 1:2,500

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)

| | | |
|--------|------|---------|
| SE2115 | 1961 | 1:2,500 |
| SE2114 | 1961 | 1:2,500 |

Historical Map - Segment A13

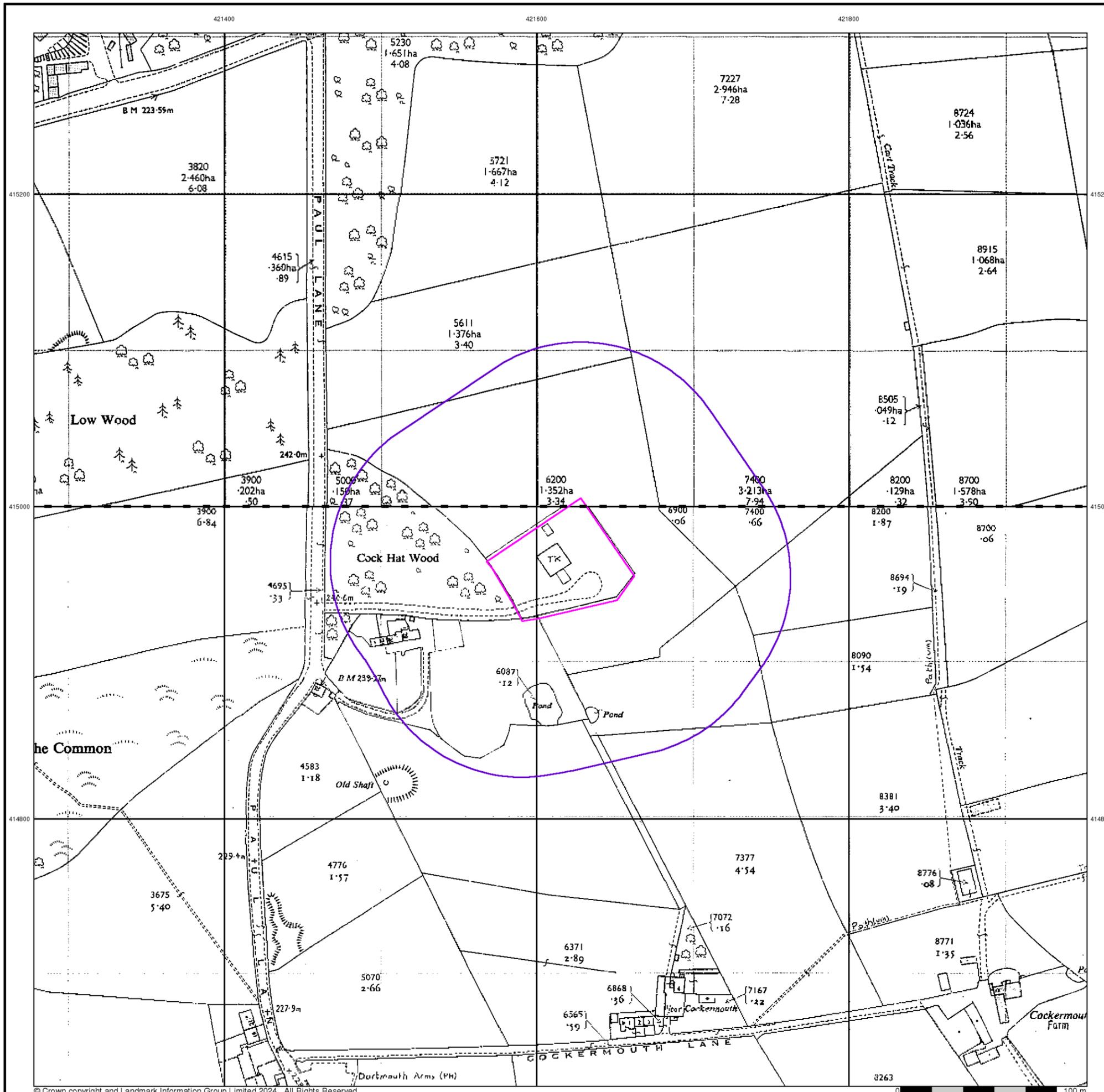


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Rockwood Equestrian Centre, Cockermouth Lane, Flockton, WAKEFIELD, WF4 4BS



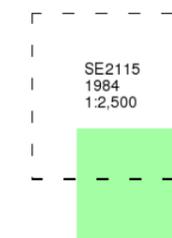
Additional SIMs

Published 1984

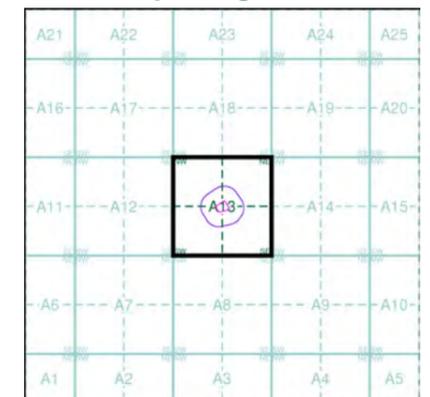
Source map scale - 1:2,500

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

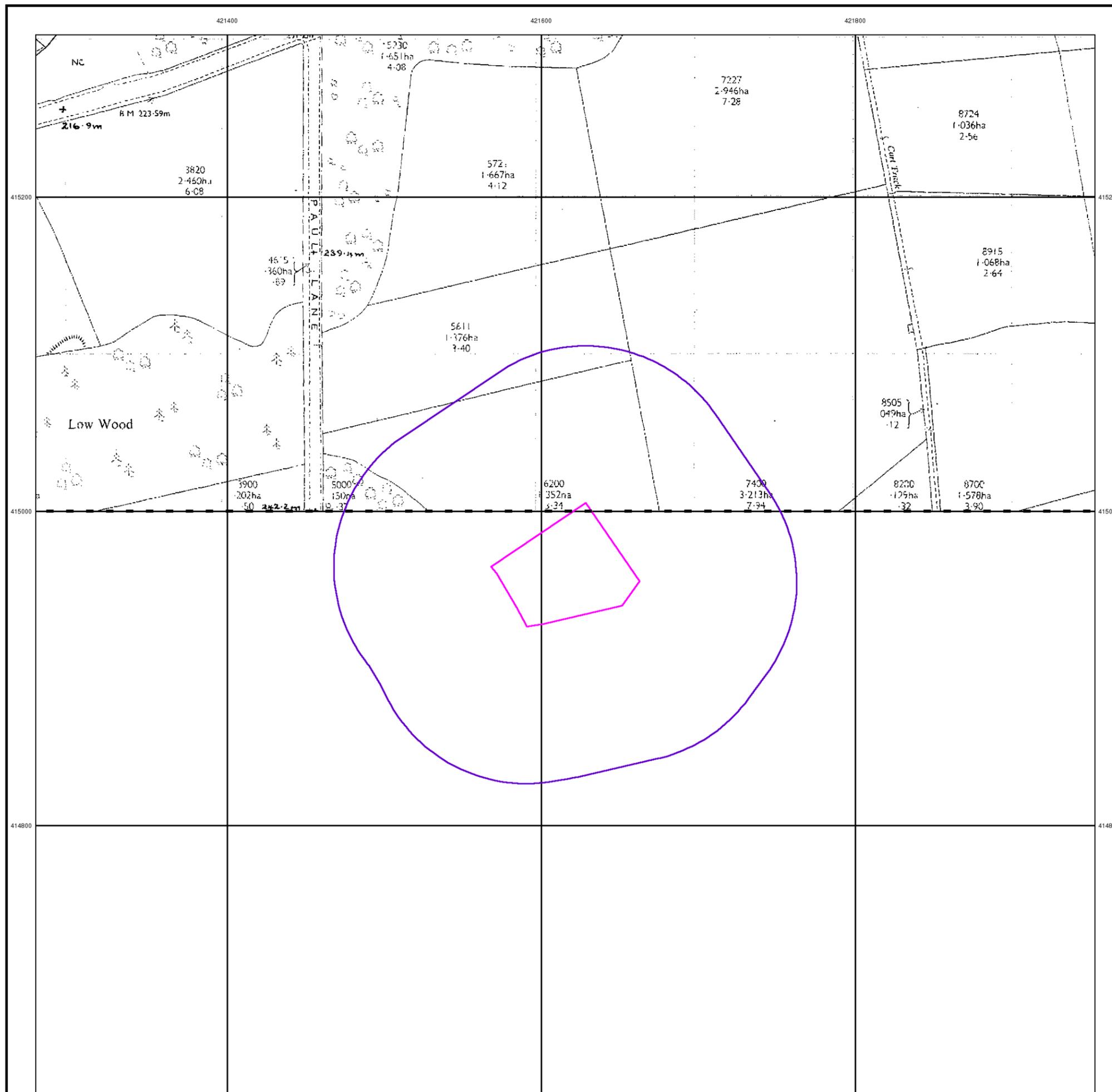


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Site Area (Ha): 0.43
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Site Details

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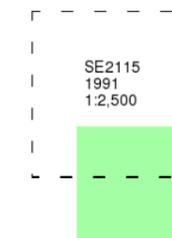
Ordnance Survey Plan

Published 1991

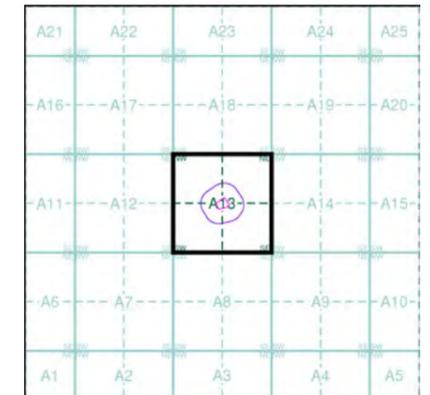
Source map scale - 1:2,500

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

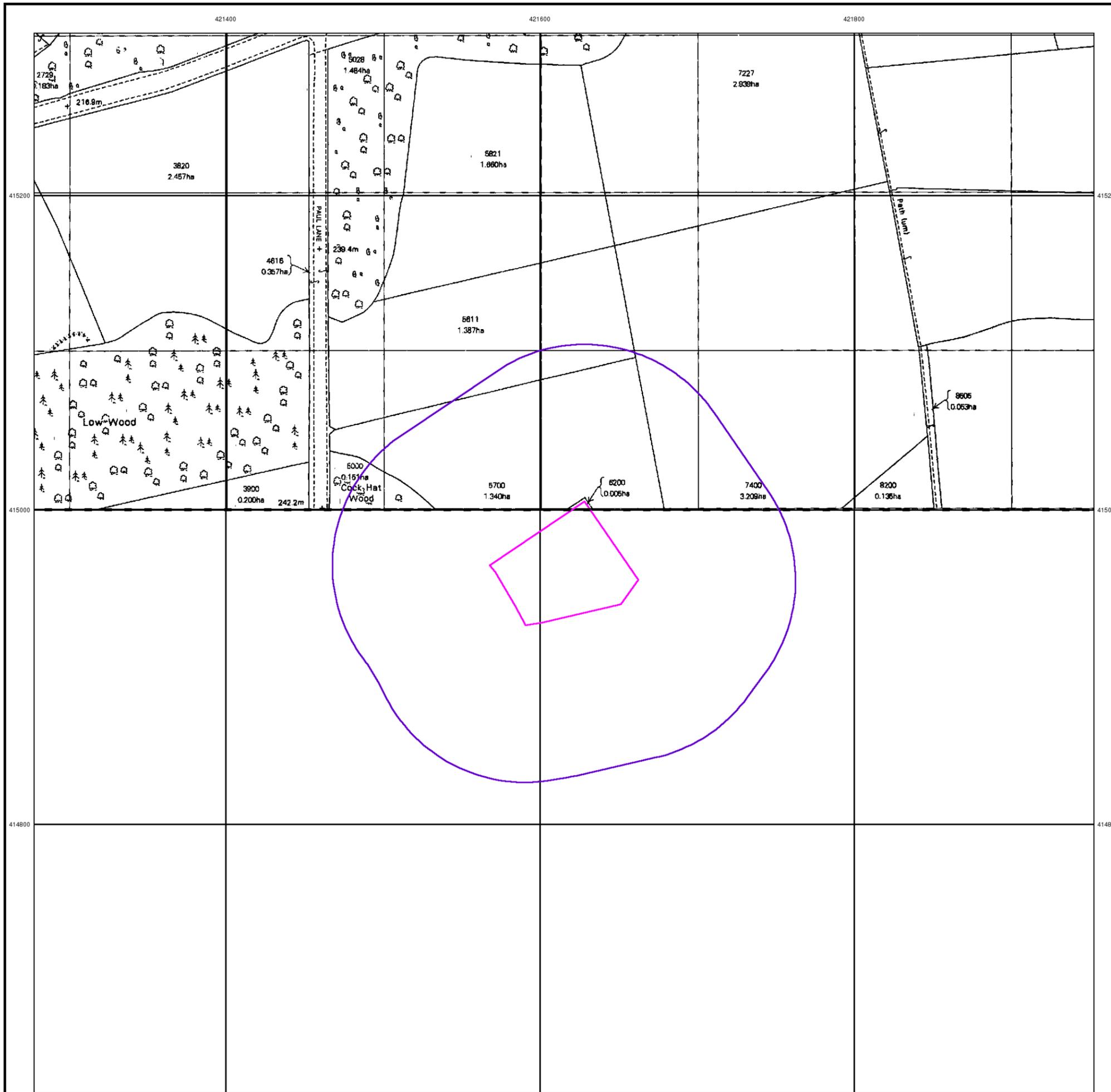


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 Search Buffer (m): 100

Site Details

Rockwood Equestrian Centre, Cockermouth Lane, Flockton, WAKEFIELD, WF4 4BS



Large-Scale National Grid Data

Published 1992 - 1993

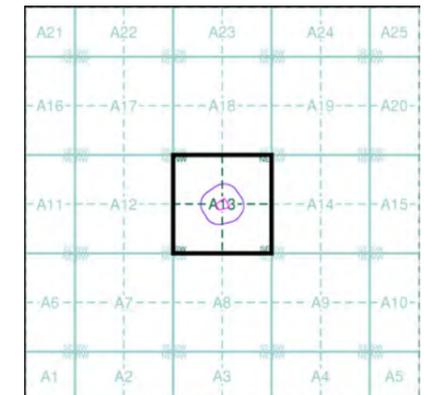
Source map scale - 1:2,500

'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)

| | | |
|--------|------|---------|
| SE2115 | 1993 | 1:2,500 |
| SE2114 | 1992 | 1:2,500 |

Historical Map - Segment A13

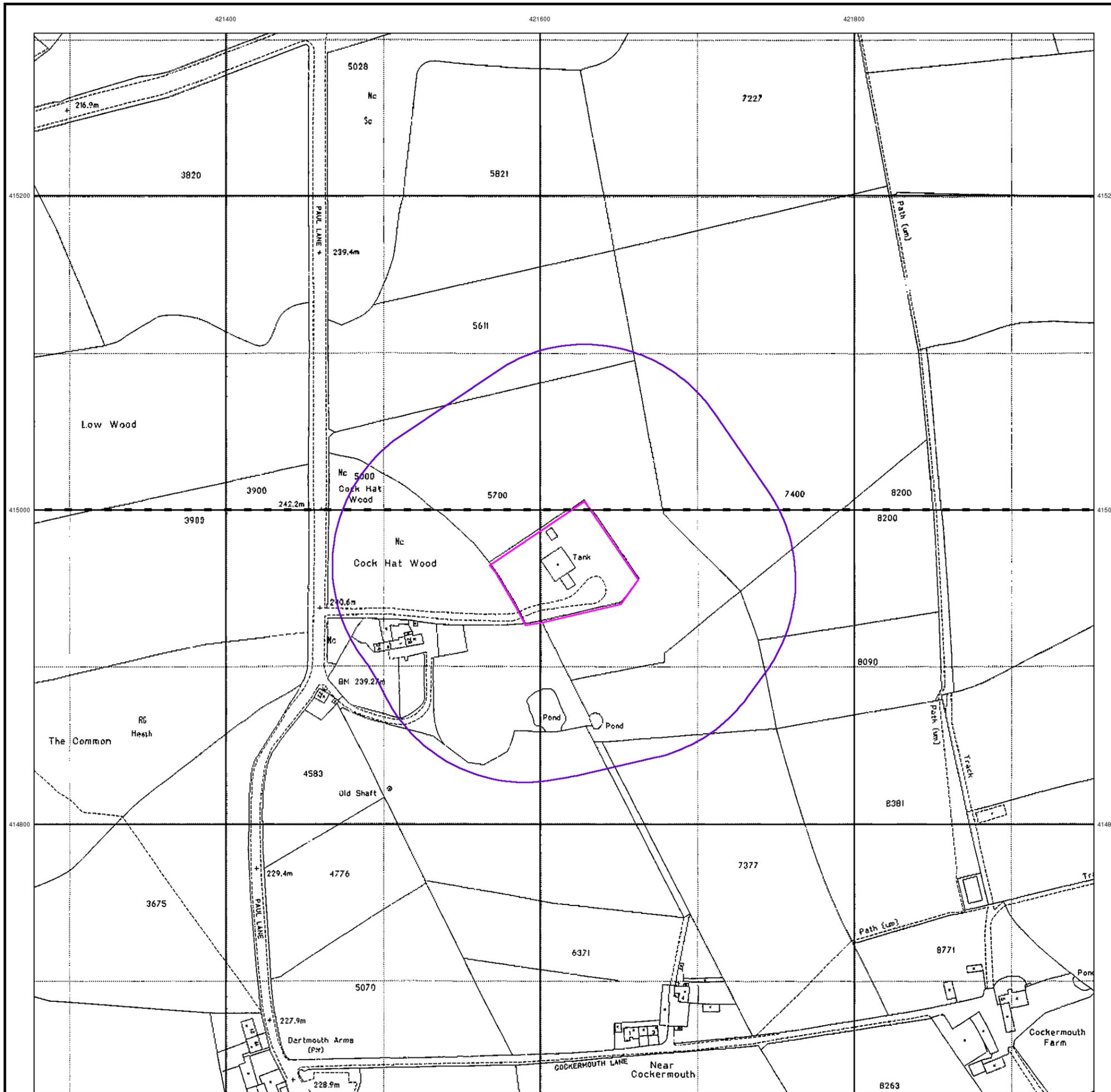


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 Slice: A
 Site Area (Ha): 0.43
 Search Buffer (m): 100

Site Details

Rockwood Equestrian Centre, Cockermouth Lane, Flockton, WAKEFIELD, WF4 4BS



Rockwood Equestrian Centre, Flockton Moor.

Phase 1 Desk Study Report & CMRA

Appendix E – Coal Authority Information



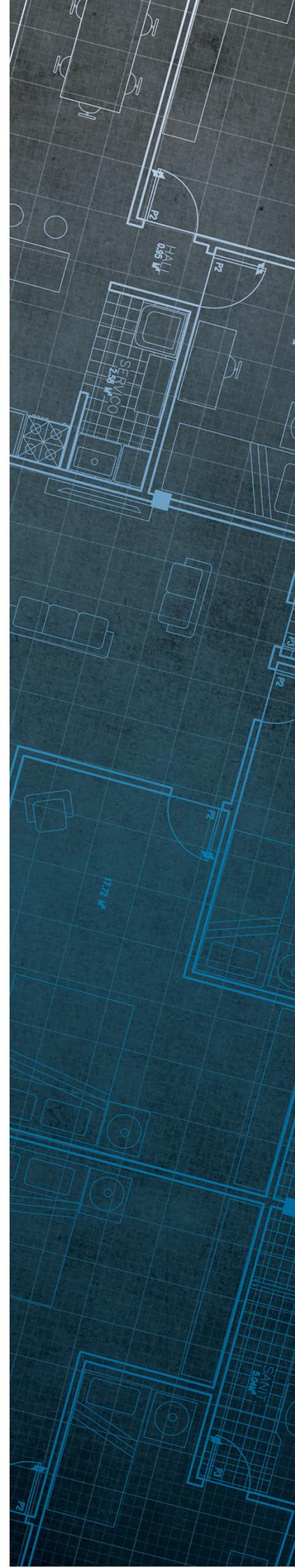
The Coal
Authority

Consultants Coal Mining Report

32 Paul Lane
Flockton
Wakefield
Kirklees
WF4 4BP

Date of enquiry: 5 September 2024
Date enquiry received: 5 September 2024
Issue date: 5 September 2024

Our reference: 51003448301001
Your reference: C0645



Consultants

Coal Mining Report

This report is based on and limited to the records held by the Coal Authority at the time the report was produced.

Client name

Christiaan Wilkinson

Enquiry address

32 Paul Lane
Flockton
Wakefield
Kirklees
WF4 4BP

How to contact us

0345 762 6848 (UK)
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200 Lichfield Lane
Mansfield
Nottinghamshire
NG18 4RG

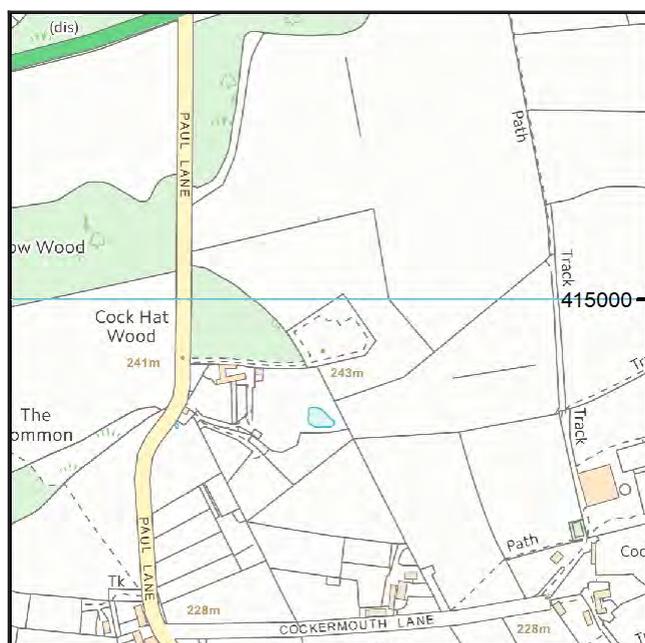
www.groundstability.com

 @coalauthority

 /company/the-coal-authority

 /thecoalauthority

 /thecoalauthority



Approximate position of property



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Section 1 – Mining activity and geology

Past underground mining

| Colliery | Seam | Mineral | Coal Authority reference | Depth (m) | Direction to working | Dipping rate of seam worked (degrees) | Dipped direction of seam worked | Extraction thickness (cm) | Year last mined |
|----------|-----------|---------|--------------------------|-----------|----------------------|---------------------------------------|---------------------------------|---------------------------|-----------------|
| unnamed | SILKSTONE | Coal | 6Z0L | 85 | South | 3.1 | North-East | 56 | 1909 |
| unnamed | SILKSTONE | Coal | 6Z0I | 87 | North-West | 3.1 | North-East | 56 | 1914 |
| unnamed | SILKSTONE | Coal | 6Z0J | 90 | Beneath Property | 3.1 | North-East | 56 | 1915 |
| unnamed | SILKSTONE | Coal | 6GBO | 93 | Beneath Property | 3.1 | North-East | 56 | 1918 |
| unnamed | WHINMOOR | Coal | 6Z0R | 134 | Beneath Property | 2.4 | East | 60 | 1917 |
| unnamed | WHINMOOR | Coal | 6GBY | 157 | Beneath Property | 3.3 | East | 71 | 1924 |

Probable unrecorded shallow workings

None.

Spine roadways at shallow depth

No spine roadway recorded at shallow depth.

Mine entries

| Entry type | Reference | Grid reference | Treatment description | Mineral | Conveyancing details |
|------------|------------|----------------|--|---------|----------------------|
| Shaft | 421414-005 | 421561 414853 | was filled to an unknown specification in May 1968. Following settlement of the fill, the shaft top was excavated and subsequently capped (0.5m thick reinforced concrete) by the Coal Authority in May 2011 | Coal | |
| Shaft | 421414-006 | 421716 414880 | | Coal | |
| Shaft | 421414-024 | 421676 414910 | | Coal | |
| Shaft | 421414-025 | 421547 414867 | | Coal | |

Abandoned mine plan catalogue numbers

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

| | | |
|------|------|-------|
| 9931 | M99 | 12066 |
| 6112 | M242 | M100 |
| M70 | M96 | NE685 |

Our records show we have more plans than those shown above which could affect the enquiry boundary.

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

Outcrops

No outcrops recorded.

Geological faults, fissures and breaklines

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

Fault under or close to the property recorded.

Opencast mines

Please refer to the "Summary of findings" map (on separate sheet) for details of any opencast areas within 500 metres of the enquiry boundary.

Coal Authority managed tips

None recorded within 500 metres of the enquiry boundary.

Section 2 – Investigative or remedial activity

Please refer to the 'Summary of findings' map (on separate sheet) for details of any activity within the area of the site boundary.

Site investigations

None recorded within 50 metres of the enquiry boundary.

Remediated sites

None recorded within 50 metres of the enquiry boundary.

Coal mining subsidence

The Coal Authority has not received a damage notice or claim for the subject property, or any property within 50 metres of the enquiry boundary, since 31 October 1994.

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

The Coal 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

None recorded within 500 metres of the enquiry boundary.

Mine water treatment schemes

None recorded within 500 metres of the enquiry boundary.

Section 3 – Licensing and future mining activity

Future underground mining

None recorded.

Coal mining licensing

None recorded within 200 metres of the enquiry boundary.

Court orders

None recorded.

Section 46 notices

No notices have been given, under section 46 of the Coal Mining Subsidence Act 1991, stating that the land is at risk of subsidence.

Withdrawal of support notices

The property is in an area where notices to withdraw support were given in 1957 and 1958.

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

Payments to owners of former copyhold land

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

Section 4 – Further information

The following potential risks have been identified and as part of your risk assessment should be investigated further.

Future development

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 specialist engineering practice required for former mining areas. No development should be undertaken that intersects, disturbs or interferes with any coal or coal mines without first obtaining the permission of the Coal Authority.

MINE GAS: Please note, if there are no recorded instances of mine gas within 500m of the enquiry boundary, this does not mean that mine gas is not present within the vicinity. The Coal Authority Mine Gas data is limited to only those sites where a Mine Gas incident has been recorded. Developers should be aware that the investigation of coal seams, mine workings or mine entries may have the potential to generate and/or displace underground gases. Associated risks both to the development site and any neighbouring land or properties should be fully considered when undertaking any ground works. The need for effective measures to prevent gases migrating onto any land or into any properties, either during investigation or remediation work, or after development must also be assessed and properly addressed. In these instances, the Coal Authority recommends that a more detailed Gas Risk Assessment is undertaken by a competent assessor.

Development advice

The site is within an area of historical coal mining activity. Should you require advice and/or support on understanding the mining legacy, its risks to your development or what next steps you need to take, please contact us.

For further information on specific site or ground investigations in relation to any issues raised in Section 4, please call us on 0345 762 6848 or email us at groundstability@coal.gov.uk.

Section 5 – Data definitions

The datasets used in this report have limitations and assumptions within their results. For more guidance on the data and the results specific to the enquiry boundary, please **call us on 0345 762 6848** or **email us at groundstability@coal.gov.uk**.

Past underground coal mining

Details of all recorded underground mining relative to the enquiry boundary. Only past underground workings where the enquiry boundary is within 0.7 times the depth of the workings (zone of likely physical influence) allowing for seam inclination, will be included.

Probable unrecorded shallow workings

Areas where the Coal Authority believes there to be unrecorded coal workings that exist at or close to the surface (less than 30 metres deep).

Spine roadways at shallow depth

Connecting roadways either, working to working, or, surface to working, both in-seam and cross measures that exist at or close to the surface (less than 30 metres deep), either within or within 10 metres of the enquiry boundary.

Mine entries

Details of any shaft or adit either within, or within 100 metres of the enquiry boundary including approximate location, brief treatment details where known, the mineral worked from the mine entry and conveyance details where the mine entry has previously been sold by the Authority or its predecessors British Coal or the National Coal Board.

Abandoned mine plan catalogue numbers

Plan numbers extracted from the abandoned mines catalogue containing details of coal and other mineral abandonment plans deposited via the Mines Inspectorate in accordance with the Coal Mines Regulation Act and Metalliferous Mines Regulation Act 1872. A maximum of 9 plan extents that intersect with the enquiry boundary will be included. This does not infer that the workings and/or mine entries shown on the abandonment plan will be relevant to the site/property boundary.

Outcrops

Details of seam outcrops will be included where the enquiry boundary intersects with a conjectured or actual seam outcrop location (derived by either the British Geological Survey or the Coal Authority) or intersects with a defined 50 metres buffer on the coal (dip) side of the outcrop. An indication of whether the Coal Authority believes the seam to be of sufficient thickness and/or quality to have been worked will also be included.

Geological faults, fissures and breaklines

Geological disturbances or fractures in the bedrock. Surface fault lines (British Geological Survey derived data) and fissures and breaklines (Coal Authority derived data) intersecting with the enquiry boundary will be included. In some circumstances faults, fissures or breaklines have been known to contribute to surface subsidence damage as a consequence of underground coal mining.

Opencast mines

Opencast coal sites from which coal has been removed in the past by opencast (surface) methods and where the enquiry boundary is within 500 metres of either the licence area, site boundary, excavation area (high wall) or coaling area.

Coal Authority managed tips

Locations of disused colliery tip sites owned and managed by the Coal Authority, located within 500 metres of the enquiry boundary.

Site investigations

Details of site investigations within 50 metres of the enquiry boundary where the Coal Authority has received information relating to coal mining risk investigation and/or remediation by third parties.

Remediated sites

Sites where the Coal Authority has undertaken remedial works either within or within 50 metres of the enquiry boundary following report of a hazard relating to coal mining under the Coal Authority's Emergency Surface Hazard Call Out procedures.

Coal mining subsidence

Details of alleged coal mining subsidence claims made since 31 October 1994 either within or within 50 metres of the enquiry boundary. Where the claim relates to the enquiry boundary confirmation of whether the claim was accepted, rejected or whether liability is still being determined will be given. Where the claim has been discharged, whether this was by repair, payment of compensation or a combination of both, the value of the claim, where known, will also be given.

Details of any current 'Stop Notice' deferring remedial works or repairs affecting the property/site, and if so the date of the notice.

Details of any request made to execute preventative works before coal is worked under section 33 of the Coal Mining Subsidence Act 1991. If yes, whether any person withheld consent or failed to comply with any request to execute preventative works.

Mine gas

Reports of alleged mine gas emissions received by the Coal Authority, either within or within 500 metres of the enquiry boundary that subsequently required investigation and action by the Coal Authority to mitigate the effects of the mine gas emission. Please note, if there are no recorded instances of mine gas reported, this does not mean that mine gas is not present within the vicinity. The Coal Authority Mine Gas data is limited to only those sites where a Mine Gas incident has been recorded.

Mine water treatment schemes

Locations where the Coal Authority has constructed or operates assets that remove pollutants from mine water prior to the treated mine water being discharged into the receiving water body.

These schemes are part of the UK's strategy to meet the requirements of the Water Framework Directive. Schemes fall into 2 basic categories: Remedial – mitigating the impact of existing pollution or Preventative – preventing a future pollution incident.

Mine water treatment schemes generally consist of one or more primary settlement lagoons and one or more reed beds for secondary treatment. A small number are more specialised process treatment plants.

Future underground mining

Details of all planned underground mining relative to the enquiry boundary. Only those future workings where the enquiry boundary is within 0.7 times the depth of the workings (zone of likely physical influence) allowing for seam inclination will be included.

Coal mining licensing

Details of all licenses issued by the Coal Authority either within or within 200 metres of the enquiry boundary in relation to the under taking of surface coal mining, underground coal mining or underground coal gasification.

Court orders

Orders in respect of the working of coal under the Mines (Working Facilities and Support) Acts of 1923 and 1966 or any statutory modification or amendment thereof.

Section 46 notices

Notice of proposals relating to underground coal mining operations that have been given under section 46 of the Coal Mining Subsidence Act 1991.

Withdrawal of support notices

Published notices of entitlement to withdraw support and the date of the notice. Details of any revocation notice withdrawing the entitlement to withdraw support given under Section 41 of the Coal Industry Act 1994.

Payment to owners of former copyhold land

Relevant notices which may affect the property and any subsequent notice of retained interests in coal and coal mines, acceptance or rejection notices and whether any compensation has been paid to a claimant.

