

TEF92545 HIGH BOOTH
HOLLINGS FARM
LITTLEBOROUGH

DESK BASED COAL MINING
RISK ASSESSMENT

Job Number: LKC 22 1443
Date: September 2022
Client: Clarke Telecom



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LK Consult			
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Prepared By	Rachel Wylie Hannah Moss	Reviewed By	Ben Smith

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It should be noted this report pertains solely to potential ground stability issues relating to potential shallow mining within the proposed planning boundary only.

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1 Introduction

1.1 Background

LK Consult (LKC) has been commissioned by Clarke Telecom to provide a Desk Based Coal Mining Risk Assessment Report for TEF92545 High Booth Hollings Farm, Littleborough. The report is required in support of a planning application to develop the site for the upgrade and refurbishment of a communications mast and associated compound.

A Coal Mining Risk Assessment Report is required for a planning application within a designated 'Coal Mining Development High Risk Area'. 'Coal Mining Development High Risk Areas' are areas, based upon Coal Authority records, where the potential land instability and other safety risks associated with former coal mining activities are likely to be greatest. They include, for example, areas of known or suspected shallow coal mining, recorded mine entries and areas of former surface mining.

This assessment is based upon guidance provided by the Coal Authority¹ and comprises a review of available desk based information.

The scope of this Coal Mining Risk Assessment (as per Coal Authority guidance) is to:

- Present a desk-based review of all available information on the coal mining issues which are relevant to the application site.
- Use the above information to identify and assess the risks to the proposed development from coal mining legacy, including the cumulative impact of issues.
- Set out appropriate mitigation measures to address the coal mining legacy issues affecting the site, including any necessary remedial works and/or demonstrate how coal mining issues have influenced the proposed development.
- Demonstrate to the Local Planning Authority that the application site is, or can be made, safe and stable to meet the requirements of national planning policy with regard to development on unstable land.

1.2 Site Details

A summary of the site details is presented in Table 1-1. Figure 1 indicates the site location and boundary. Figure 2 indicates the proposed development.

Location	North of Lower Booth Farm, north of the M62 Motorway, Littleborough, OL15 0AR. Centred at approximate National Grid Reference 395130E 414250N.
Approximate Area	60m ²
Topography	263 metres Above Ordnance Datum (AOD). Slopes gently up to the east.
Current Land Use	<u>Site</u> Livestock field. <u>Surrounding Area</u> Agricultural fields with M62 motorway to the south. A farm building is present along the M62.
Proposed Development	Upgrade to communications mast and compound.

Table 1-1: Summary of the site details.

¹Risk Based Approach to Development Management. Guidance for Developers. Version 4 2017.

2 Review of Information

2.1 Information Sources

LKC have obtained and reviewed information from the following sources, which is summarised in Section 2:

- Review of Published BGS Geological Mapping including:
 - Rochdale Sheet 76, Published 2008, Scale 1:50,000.
 - Digital Geology, dated 2007, Scale 1:10,000 (Appendix A).
- Geology of the Manchester district, a brief explanation of the geological map Sheet 76 Rochdale.
- Coal Authority Consultants Coal Mining Report (Appendix B).
- Coal Authority Abandoned Mine Plan 6002B_9999999_1OF2 (Appendix C).
- Historical BGS boreholes within the site vicinity² (Appendix D).
- Historical Mapping (Appendix E).

2.2 Geological Mapping

Artificial

Worked ground (undivided) recorded in the south of site. No artificial ground recorded in the north of site.

Superficial

No superficial geology recorded on site.

Bedrock

The bedrock is mapped as the Pennine Lower Coal Measures Formation (Mudstone, Siltstone and Sandstone). No dip data is available on site, surrounding area data dips to the southwest / west between 10° and 15°.

A coal seam is shown to on BGS mapping to cross the site trending north-south. The cutting of the M62 motorway immediately to the south of the site also indicates that the coal seams are dipping down to the west to southwest.

Extracts from the geological mapping are shown on Plate 2-1. These show the differences in geological mapping between the BGS 2008 and digital 1:10,000 mapping.

² <http://mapapps2.bgs.ac.uk/geoindex/home.html>

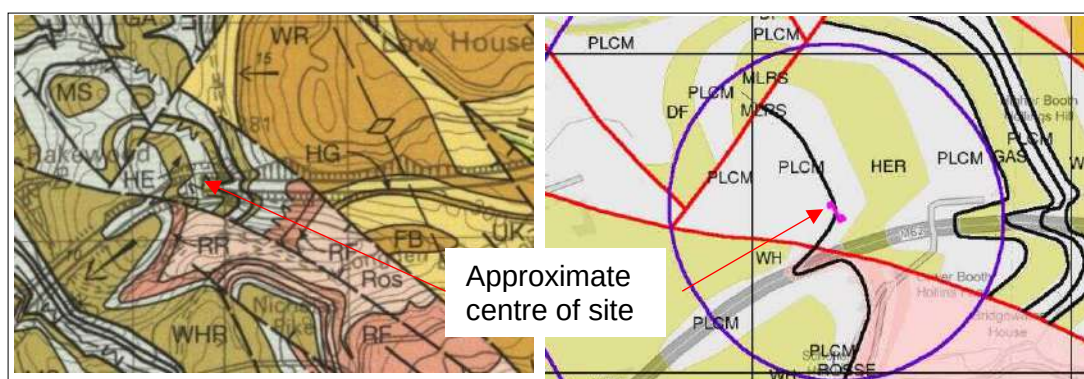


Plate 2-1: Extracts from geological mapping. Left: 2008 1:50,000 sheet mapping, right: 2010 1:10,000 digital mapping. Not to scale.

A coal seam is not present on the BGS 2008 mapping however it is present on digital mapping. Plate 2-2 shows an extract of the generalized vertical section from Sheet 76 showing the section of strata expected on and below the site. Based off the vertical section, it would appear likely that it is the Upper Mountain (Hogards) Coal seam present on or close to the site at shallow depth.

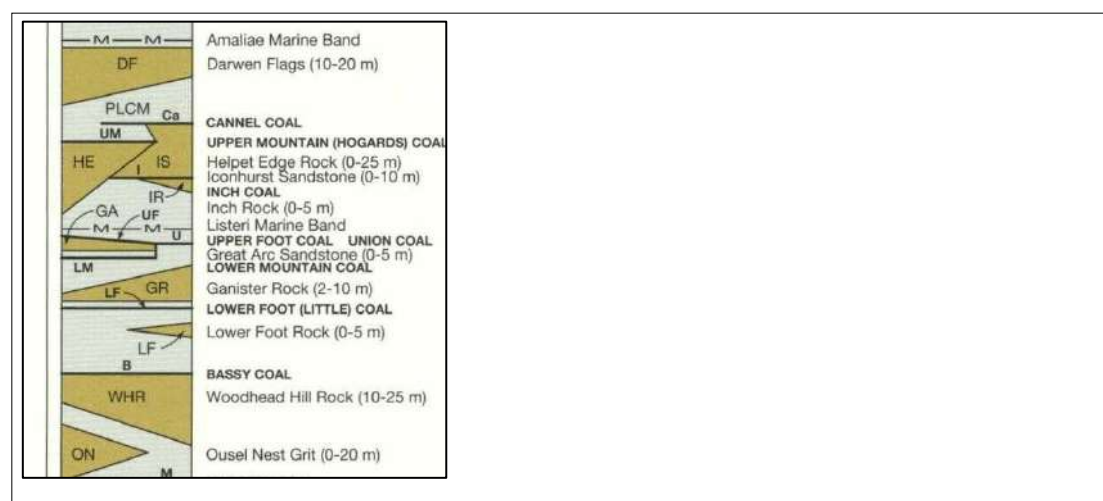


Plate 2-2 Extract of the generalized vertical section from Sheet 76 (dated 2008). Not to scale.

Sheet 76 explanatory notes provide additional information on the coal seams within the Rochdale Area and this information is summarised in Table 2-1. The table shows the anticipated shallowest coal seam below the site and the coal seams below this in age order. It should be noted that not all coal seams may be present below the site due to geological variation.

Coal Seam (alternative names)	Thickness (m)	Type of Workings
Upper Mountain	0.0-1.1	Mine, crop and opencast working
Inch (may not be present)	0.0-0.5	Mine and crop working
Upper Foot	0.0-0.7	Mine and crop working
Lower Mountain	0.0-1.3	Mine, crop and opencast working
Lower Foot	0.0-0.8	Mine and crop working

Table 2-1. Extract from the Geology of Rochdale district explanatory notes (Figure 5).

2.3 Coal Authority Consultants Coal Mining Report

The consultants coal mining report is summarised in Table 2-2.

Mining Activity and Geology	
Past underground mining	Yes: See Plate 2-3.
Probable unrecorded shallow workings	Yes.
Spine roadways at shallow depth	No spine roadway recorded at shallow depth.
Mine entries (within 100m)	None recorded within 100m of the enquiry boundary.
Abandoned mine plan catalogue numbers	6002B
Outcrops	No outcrops recorded.
Geological faults, fissures and breaklines	No faults, fissures or breaklines recorded.
Opencast mines	None recorded within 500m of the enquiry boundary.
Coal Authority managed tips	None recorded within 500m of the enquiry boundary.
Investigative or Remedial Activity	
Site investigations	None recorded within 50m of the enquiry boundary.
Remediated sites	None recorded within 50m of the enquiry boundary.
Coal mining subsidence	Not received a damage notice or claim for the subject property, or any property within 50m, since 1994. No current Stop Notice delaying remedial works or repairs to property. Not aware of any request made to carry out preventative works before coal is worked.
Mine gas	None recorded within 500m of the enquiry boundary.
Mine water treatment schemes	None recorded within 500m of the enquiry boundary.
Licensing and Future Mining Activity	
Future underground mining	None recorded.
Coal mining licensing	None recorded within 200m of the enquiry boundary.
Court Orders	None recorded.
Section 46 notices	No notices have been given, stating that the land is at risk of subsidence.
Withdrawal of support notices	Not in an area where a notice to withdraw support has been given or where a notice has been given cancelling the entitlement to withdraw support.
Payments to owners of former copyhold land	Not in an area where a relevant notice has been published.
Further Information	
The following potential risks have been identified and as part of your risk assessment should be investigated further.	
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.	

Table 2-2: Summary of Coal Authority Consultants Coal Mining Report.

Plate 2-3 shows the past underground mining. This is defined by the Coal Authority as *'details of all recorded underground mining relative to the enquiry boundary. Only 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'*.

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	LOWER MOUNTAIN	Coal	3XBB	23	Beneath Property	8.1	West	30	1904
	LOWER MOUNTAIN	Coal	AOSZ	177	North	8.1	West	55	1881
	LOWER MOUNTAIN	Coal	AOSY	191	North-West	10.0	North-West	55	1909

Plate 2-3: Extract from Coal Authority Report showing past underground mining.

Probable unrecorded shallow workings are defined as *'areas where the Coal Authority believes there to be unrecorded coal workings that exist at or close to the surface (less than 30m deep)'*.

2.4 Abandoned Mine Plans

As known shallow workings have been recorded in the Lower Mountain Seam by the Coal Authority at less than 30m below the site LKC obtained the abandoned mine plans from The Coal Authority. Relevant information is summarised below:

Plan No. 6002B:

- Shows extensive workings within the area, that when compared with the mapped development high risk area are considered to be beneath the site.
- Annotations on the plan suggests the plan shows workings (likely within the Lower Mountain seam) in 1857.

2.5 Coal Authority Interactive Mapping

Plate 2-5 shows the development high risk areas.

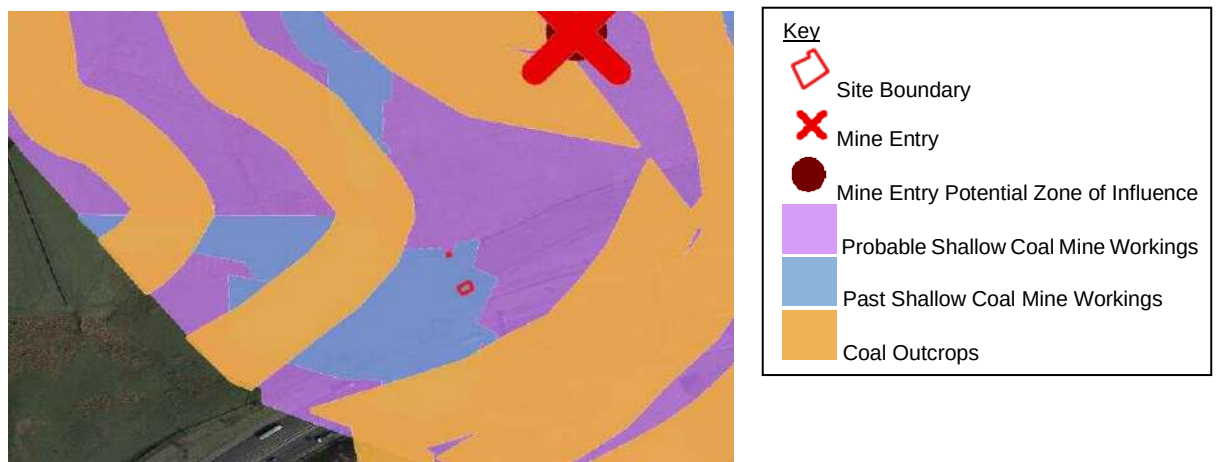


Plate 2-5: Development High Risk Area

The site is within a Development High Risk Area, with the following features identified:

- Past Shallow Coal Mine Workings
- Probable Shallow Coal Mine Workings

2.6 Combustible Coal Seams

Some coal seams have been known to suffer from occurrences of spontaneous combustion and are consequently regarded as at 'high risk' of succumbing to spontaneous combustion when being entered, worked or disturbed. The Coal Authority have produced a list of seams for different areas of the UK.

None of the coal seams listed are expected at shallow depth below the site. However, if roof coal has been left, this could also pose a risk.

2.7 Historical BGS Logs

Two rotary boreholes were drilled in 1986 on land to the southeast and southwest of the site, presumed to be associated with the development of the M62. The logs are shown below (coal deposits in bold):

Ref: SD915SE25 (BH19) ~10m west of site:

Made ground sandstone gravel cobbles and boulders to 2.20mbgl
Light grey brown SANDSTONE to 6.0mbgl

Ref: SD915SE30 (BH50) -7-m east of site:

Open drilling to 1.0mbgl
Dark grey MUDSTONE to 7.5mbgl
Black highly fissured and fractured bright COAL to 8.10mbgl
Light grey brown SILSTONE TO 9.60mbgl
Light brown SANDSTONE to 10.90mbgl
Light grey and dark grey MUDSTONE and SILSTONE to 13.10mbgl.

2.8 Historical Mapping

The following historical features have been identified associated with coal mining:

- 'Coal pits' shown 300m north east of site on 1851 mapping only.
- 'Old shaft' shown 310m north of site from 1910-1972 mapping. Some symbology present on more recent maps (1981) indicates they are still present

3 Coal Mining Risk Assessment

Table 3-1 below summarises the potential risks associated with coal mining legacy for the proposed development site.

Coal Mining Issue	Potential Risk	Risk Assessment
Underground coal mining (recorded at shallow depths)	✓	Known underground shallow workings recorded by the Coal Authority. Workings within the (Lower Mountain) coal seam (23m beneath site). Extraction thickness of 30cm last mined 1904. Investigation work required to confirm the instability risk and likely remedial measures.
Underground coal mining (probable at shallow depths)	✓	Probable underground shallow workings are recorded by the Coal Authority across the site, based on geological mapping and Coal Authority information the coal seam is likely to be the Upper Mountain Coal Seam, LKC considered there to be a potential risk of shallow underground workings. Investigation work required to confirm the instability risk and likely remedial measures.
Mine entries (shafts / adits)	?	No recorded mine entries within influencing distance of the site. However, there is also a risk of unrecorded mine entries as the site is within a coal mining area. No specific investigation work is advised. However, a watching brief should be undertaken during any intrusive investigation work and groundworks to check for any signs of unrecorded mine entries.
Coal mining geology (geological faults, fissures and breaklines)	X	Not recorded on Coal Authority data.
Record of past mine gas emissions	?	Not recorded on Coal Authority data. However, shallow potentially worked coal seams may be present below the site, which have the potential to be a source of ground gas. In addition, either precautionary gas protection measures of gas monitoring in line with CIRIA 655 ³ may be required depending on the outcome of the mining investigation.
Recorded coal mining surface hazard	X	No recorded coal mining surface hazard.
Surface mining (opencast workings)	X	No recorded surface mining (opencast workings).

Table 3-1: Potential Coal Mining Risks.

Notes:

✓ = Risk identified; X = No risk identified; ? = Possible risk identified

³ CIRIA (2007). "Assessing Risks Posed by Hazardous Ground Gases to Buildings". CIRIA C665.

4 Conclusions and Recommendations

Summary

Based upon the available information, LKC have identified potential shallow coal mining risks which are summarised in Table 4-1.

Coal Mining Issue	Potential Risk
Underground coal mining (recorded at shallow depths)	✓
Underground coal mining (probable at shallow depths)	✓
Mine entries (shafts / adits)	?
Coal mining geology (fissures)	X
Record of past mine gas emissions	X
Recorded coal mining surface hazard	X
Surface mining (opencast workings)	X

Table 4-1: Summary of coal mining potential risks.

Site Investigation Recommendations

Considering the available information and guidance given in CIRIA C758⁴, LKC consider that intrusive investigation work should be carried out to confirm the risk associated with coal mining. The intrusive investigation works should be designed by a suitably qualified mining engineer; these works are likely to include the options detailed in Table 4-2.

Coal Mining Issue	Investigation Work
Underground coal mining (recorded at shallow depths)	Rotary drilling across the site to confirm the depth to coal seams, the thickness of seams, signs of workings and evidence of treatment work.
Underground coal mining (probable at shallow depths)	Rotary drilling across the site to confirm the depth to coal seam, the thickness of seams and any signs of workings. Watching brief during groundworks to check for any signs of mining related ground instability (see below).
Mine entries (shafts / adits)	No specific investigation work required. However, watching brief during intrusive investigation work and groundworks to check for any signs of mine entries (see below).
Coal mining geology (fissures)	N/A
Record of past mine gas emissions	Gas monitoring during mining investigation (rotary drilling). Depending on findings of mining investigation, possible precautionary gas protection measures or gas monitoring in line with CIRIA 665 ⁵ .
Recorded coal mining surface hazard	N/A
Surface mining (opencast workings)	N/A

Table 4-2: Summary of investigation requirements.

Prior to carrying out investigation work, it would be advisable to consult available abandoned mine plans to aid in the design of any future works.

Investigation work should be carried out in line with CIRIA C758⁶ and Coal Authority guidance.

⁴ CIRIA (2019). "Abandoned Mine Workings Manual". CIRIA C758

⁵ CIRIA (2007). "Assessing Risks Posed by Hazardous Ground Gases to Buildings". CIRIA C665.

⁶ CIRIA (2019). "Abandoned Mine Workings Manual". CIRIA C758

A Coal Authority Permit⁷ is required for intrusive activities which will disturb or enter any coal seams, coal mine workings or coal mine entries (shafts and adits).

Watching Brief

A watching brief is recommended in all coal mining areas. This could be undertaken by experienced site staff on low risk sites or by a suitably qualified coal mining engineer or consultant on high risk sites. This site is considered to be high risk, given the recorded shallow mining below the site.

The watching brief should cover the period in which any earthworks, reduce level dig or foundation excavation works are being undertaken. Particular care should be taken to identify any potential features which may indicate the presence of shallow coal mining hazards.

Such hazards may include, but not limited to, features such as unexplained depressions or voids, outcropping coal seams, localised areas of deep made ground (which could represent backfilled areas of coal mining related ground subsidence, crown holes or mine entries), or unexpected man-made items at depth (e.g. brickwork, concrete, timber or steelwork).

Mine entries may manifest during excavation works as circular, square or rectangular areas of deep Made Ground (typically several metres in size) set against the natural strata (e.g. Glacial Till or weathered rock). Mine shafts may also be covered with a large, thick concrete cap.

If any of the above features are identified during the course of the development works then work should be stopped to allow the mining engineer / consultant to assess them and if necessary design further or additional investigation and / or remediation works.

Mitigation Measures

Depending on the findings of the mining investigation, mitigation measures may be required. Table 4-3 provides possible mitigation options.

Coal Mining Issue	Mitigation Measures
Underground coal mining (recorded at shallow depths)	Move structures to 'safe' areas of the site. Stabilisation of the ground (i.e. grouting) and suitable foundations to be implemented.
Underground coal mining (probable at shallow depths)	Move structures to 'safe' areas of the site. Stabilisation of the ground (i.e. grouting) and suitable foundations to be implemented.
Mine entries (shafts / adits)	N/A
Coal mining geology (fissures)	N/A
Record of past mine gas emissions	N/A
Recorded coal mining surface hazard	N/A
Surface mining (opencast workings)	N/A

Table 4-3: Summary of potential mitigation measures.

Conclusions and Safe Development

At this stage the possibility for shallow workings can only be ascertained from site investigation; however, LKC consider that the site could be safely developed with regards to shallow mining subject to an appropriate site investigation and, if required,

⁷ <https://www.gov.uk/get-a-permit-to-deal-with-a-coal-mine-on-your-property>

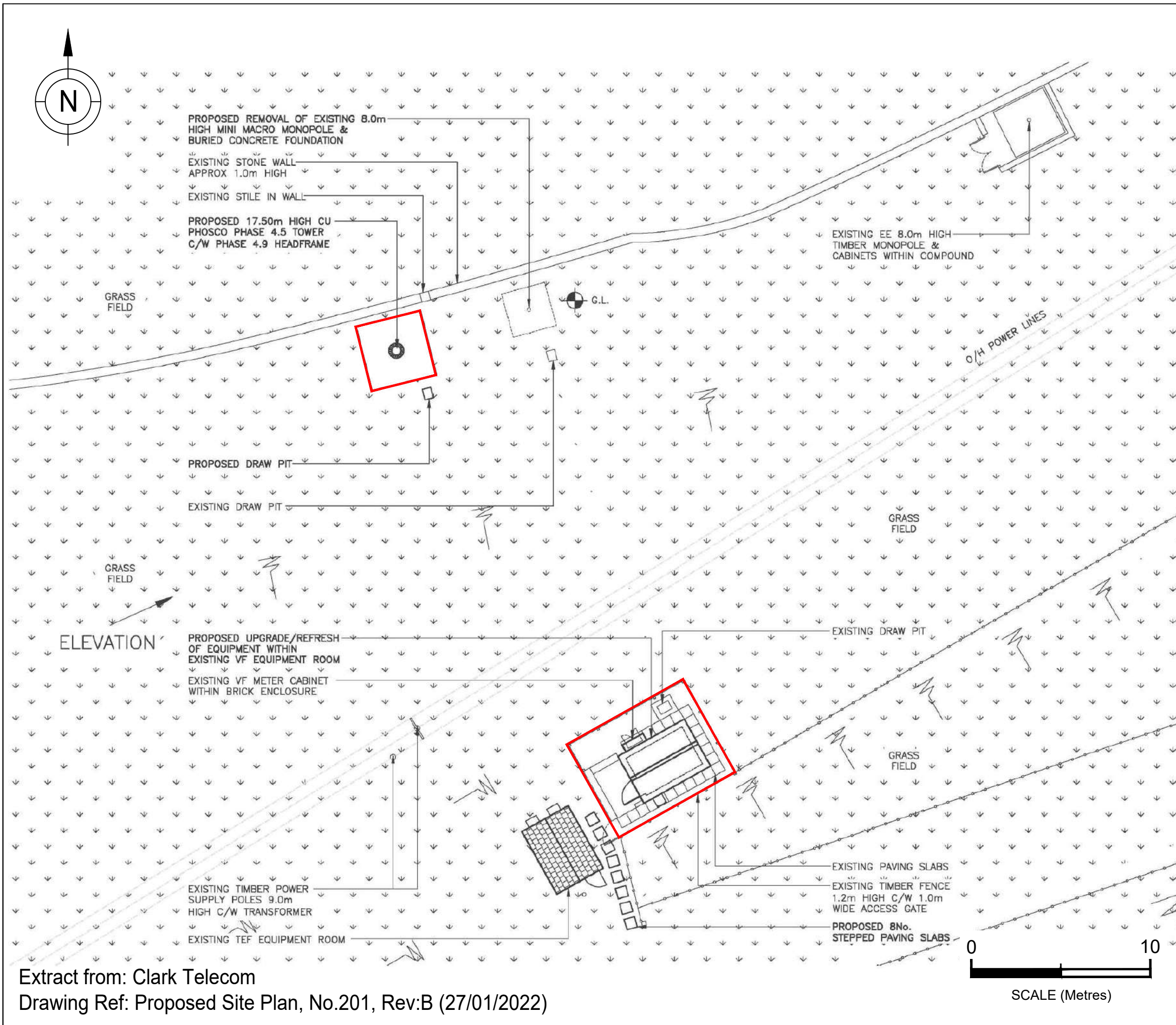
appropriate mitigation measures which may include some of those measures as detailed above.

Therefore, LKC consider the study site should be capable of being made safe and stable to meet the requirements of national planning policy with regard to development on unstable land.

Figures



Client: Clarke Telecom				Title: Site Location & Boundary Plan				
Site: TEF92545 High Booth Hollings Farm				Scale (see scale bar): 1:2,000 & 1:500 @ A4				Figure: 1
Job No.: LKC 22 1443		Drawn By: RW	Checked By: EK	Drawn: August 2022		Revision:		



KEY

Site Boundary

Sampling Locations and features annotated by LK Consult Ltd are approximate and are based upon observed measurements unless otherwise stated. Do not scale from this drawing and work from marked dimensions only. All dimensions and features should be confirmed on site by the Contractor. Where this drawing includes information provided to LK Consult Ltd by others, LK Consult Ltd gives no warranty, representation or assurance as to the accuracy of such information.



Client: Clarke Telecom

Site: High Booth Hollings Farm, Littleborough (TEF92545)

Title: Proposed Development Plan			
Job No.: LKC 22 1443	Scale (See Scale Bar): See Scale Bar	Figure: 2	Revision:
Drawn By: AC	Checked By: RW	Drawn: Sep 2022	

Appendix A

Geological Mapping

Geology 1:10,000 Maps Legends

Artificial Ground and Landslip

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

Map Colour	Lex Code	Rock Name	Rock Type	Min and Max Age
	FLMI	FLETCHER BANK GRIT AND MIDGLEY GRIT (UNDIFFERENTIATED)	Sandstone	Marsdenian - Marsdenian
	MG	Millstone Grit Group [See also Migr]	Mudstone and Siltstone	Namurian - Namurian
	Rock			
	Fault			

Superficial Geology

Map Colour	Lex Code	Rock Name	Rock Type	Min and Max Age
	ALV	Alluvium	Clay, Silt, Sand and Gravel	Flandrian - Pleistocene
	TILLD	Till, Devensian	Diamicton	Devensian - Ipswichian
	HEAD	Head	Clay, Silt, Sand and Gravel	Quaternary - Ryazanian
	HEAD	Head	Diamicton	Quaternary - Ryazanian

Bedrock and Faults

Map Colour	Lex Code	Rock Name	Rock Type	Min and Max Age
	PLCM	Pennine Lower Coal Measures Formation	Mudstone, Siltstone and Sandstone	Langsettian - Langsettian
	HER	Helpet Edge Rock	Sandstone	Langsettian - Langsettian
	WH	Woodhead Hill Rock	Sandstone	Langsettian - Langsettian
	MLRS	Milnrow Sandstone	Sandstone	Langsettian - Langsettian
	GAS	Great Arc Sandstone	Sandstone	Langsettian - Langsettian
	DF	Darwen Flags	Sandstone	Langsettian - Langsettian
	GNR	Ganister Rock	Sandstone	Langsettian - Langsettian
	RR	Rough Rock	Sandstone	Yeadonian - Yeadonian
	ROSSE	Rossendale Formation	Mudstone and Siltstone	Yeadonian - Yeadonian
	RF	Rough Rock Flags	Sandstone	Yeadonian - Yeadonian
	HDW	Huddersfield White Rock	Sandstone	Marsdenian - Marsdenian
	MARSD	Marsden Formation	Mudstone and Siltstone	Marsdenian - Marsdenian
	GSYG	Guiseley Grit	Sandstone	Marsdenian - Marsdenian
	FLB	FLETCHER BANK GRIT	Sandstone	Marsdenian - Marsdenian
	HZG	Hazel Greave Grit	Sandstone	Marsdenian - Marsdenian



Geology 1:10,000 Maps

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

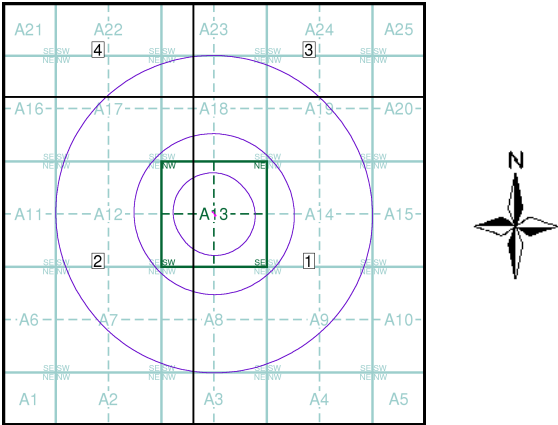
The various geological layers - artificial and landslip deposits, superficial geology and solid (bedrock) geology are displayed in separate maps, but superimposed on the final 'Combined Surface Geology' map. All map legends feature on this page.

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

Geology 1:10,000 Maps Coverage

Map ID:	3	Map ID:	4
Map Name:	SD91NE	Map Name:	SD91NW
Map Date:	2007	Map Date:	2007
Bedrock Geology:	Available	Bedrock Geology:	Available
Superficial Geology:	Available	Superficial Geology:	Available
Artificial Geology:	Available	Artificial Geology:	Available
Faults:	Available	Faults:	Available
Landslip:	Available	Landslip:	Available
Rock Segments:	Available	Rock Segments:	Available
Map ID:	1	Map ID:	2
Map Name:	SD91SE	Map Name:	SD91SW
Map Date:	2007	Map Date:	2007
Bedrock Geology:	Available	Bedrock Geology:	Available
Superficial Geology:	Available	Superficial Geology:	Available
Artificial Geology:	Available	Artificial Geology:	Available
Faults:	Available	Faults:	Available
Landslip:	Available	Landslip:	Available
Rock Segments:	Available	Rock Segments:	Available

Geology 1:10,000 Maps - Slice A

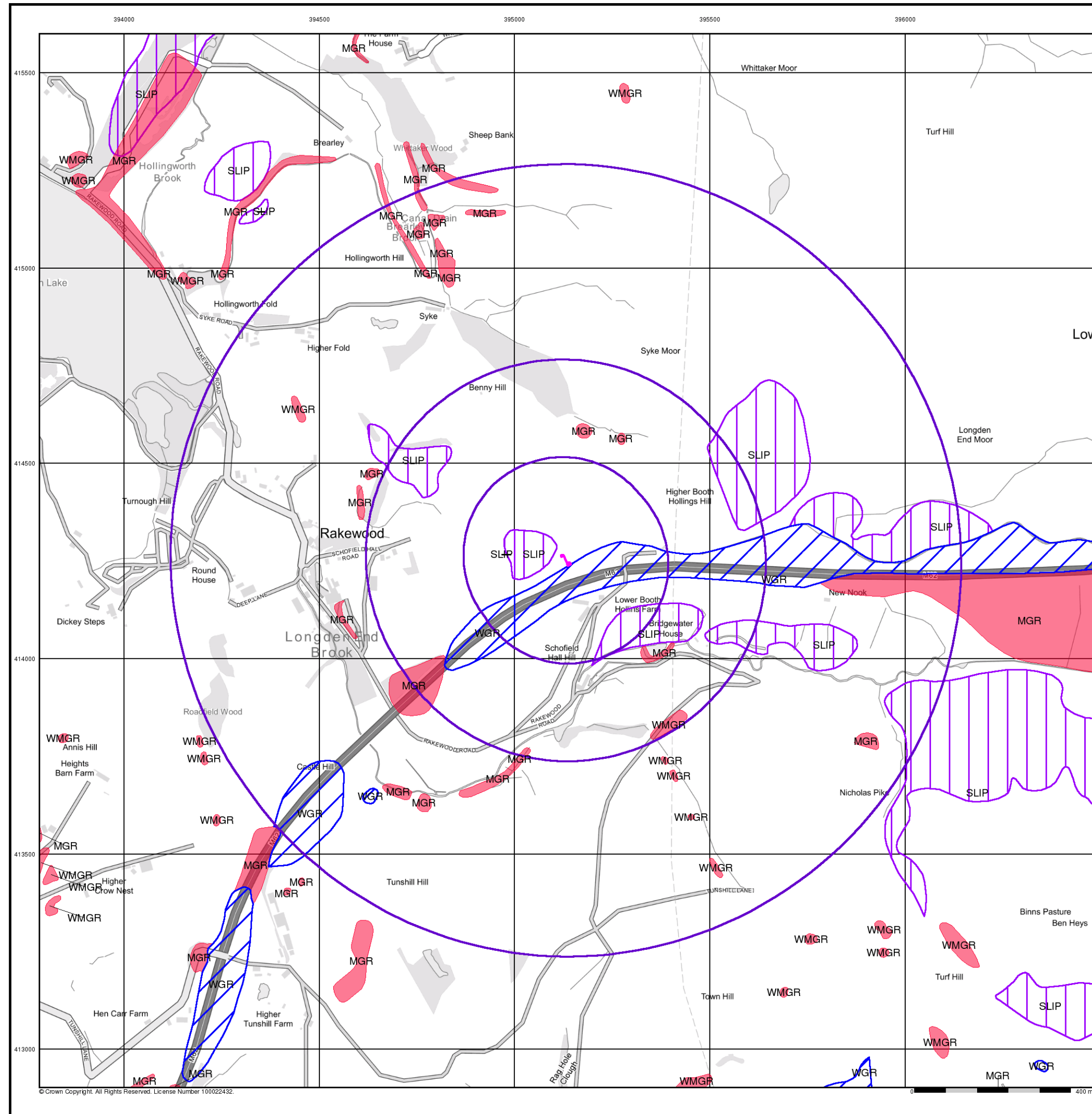


Order Details

Order Number:	300386407_1_1
Customer Ref:	LKC 22 1443
National Grid Reference:	395130, 414250
Slice:	A
Site Area (Ha):	0.01
Search Buffer (m):	1000

Site Details

Site at 395130, 414270



Artificial Ground and Landslip

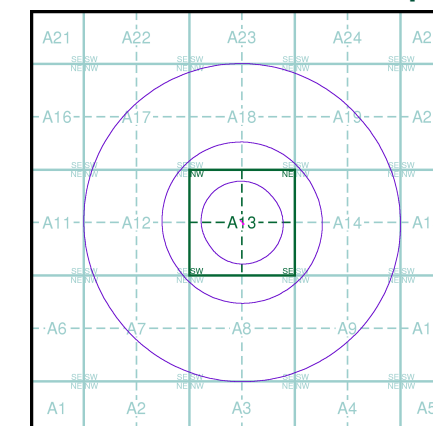
Artificial ground is a term used by BGS for those areas where the ground surface has been significantly modified by human activity. Information about previously developed ground is especially important, as it is often associated with potentially contaminated material, unpredictable engineering conditions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

Artificial ground includes:

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

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

Artificial Ground and Landslip Map - Slice A

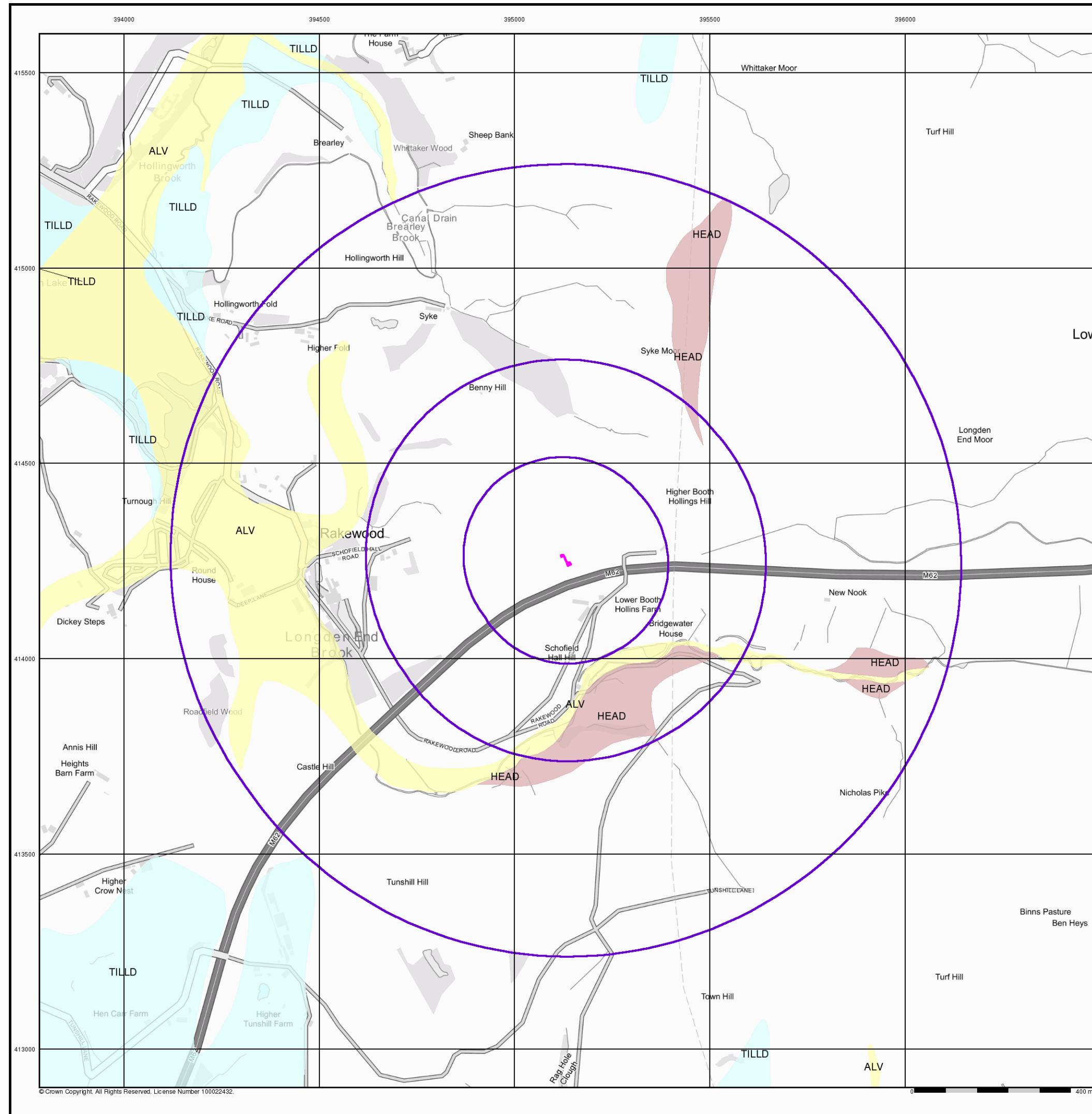


Order Details

Order Number: 300386407_1_1
Customer Ref: LKC 22 1443
National Grid Reference: 395130, 414250
Slice: A
Site Area (Ha): 0.01
Search Buffer (m): 1000

Site Details

Site at 395130, 414270



LK GROUP

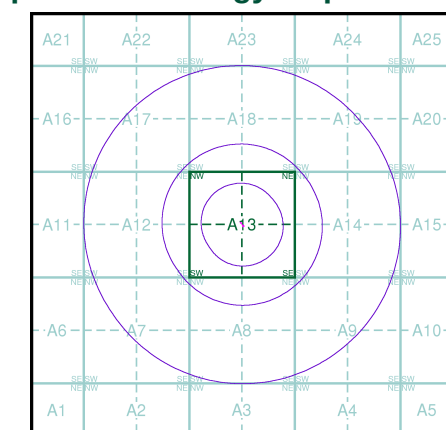
Superficial Geology

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

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

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

Superficial Geology Map - Slice A



Order Details

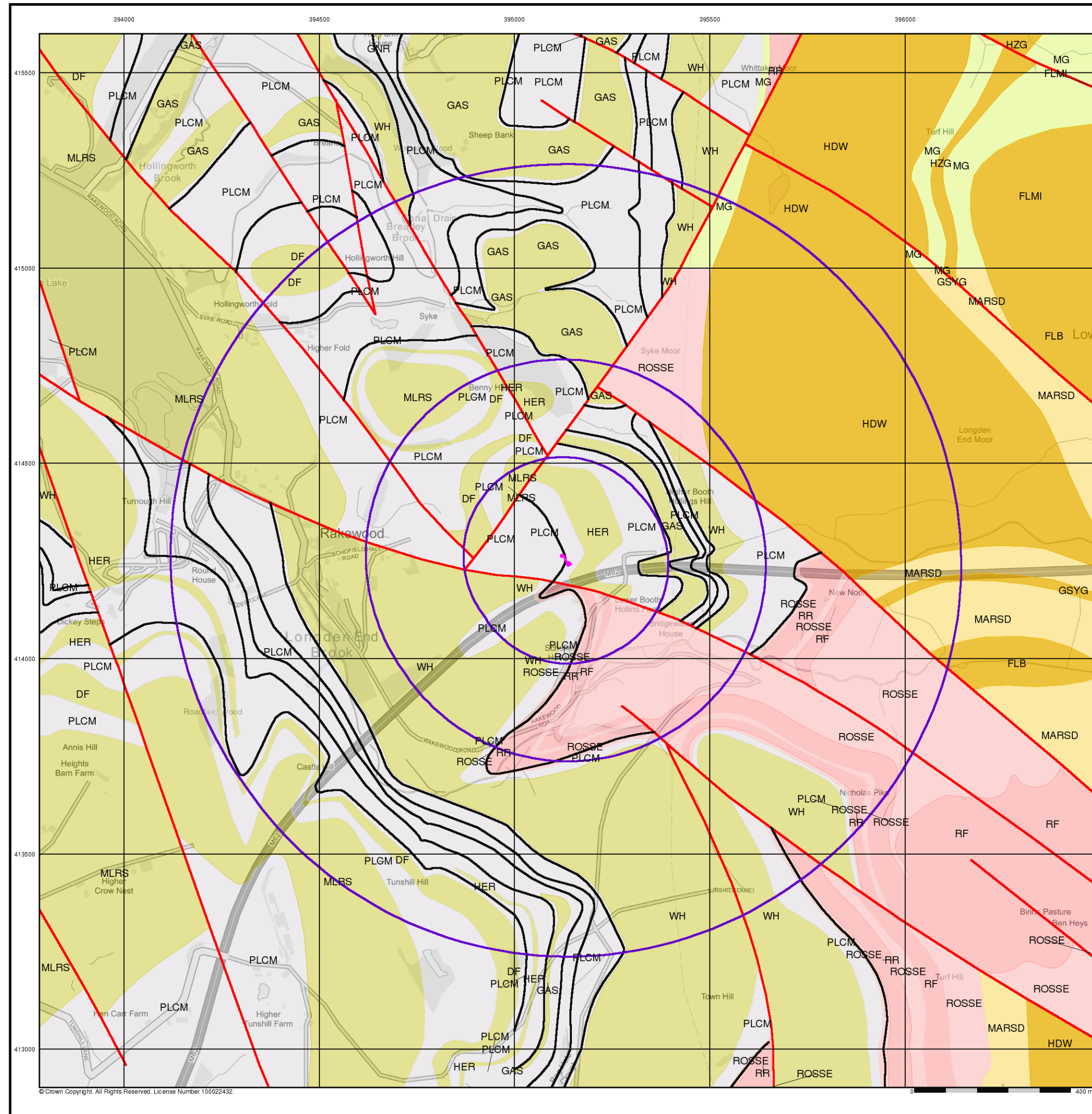
Order Number: 300386407_1_1
 Customer Ref: LKC 22 1443
 National Grid Reference: 395130, 414250
 Slice: A
 Site Area (Ha): 0.01
 Search Buffer (m): 1000

Site Details

Site at 395130, 414270

Landmark
 INFORMATION GROUP

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



LK GROUP

Bedrock and Faults

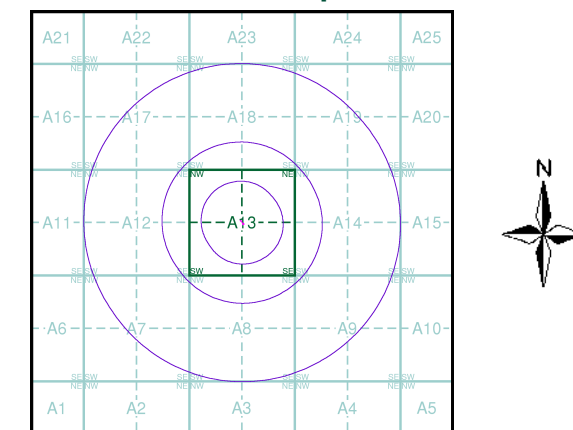
Bedrock geology is a term used for the main mass of rocks forming the Earth and are present everywhere, whether exposed at the surface in outcrops or concealed beneath superficial deposits or water.

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

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

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

Bedrock and Faults Map - Slice A



Order Details

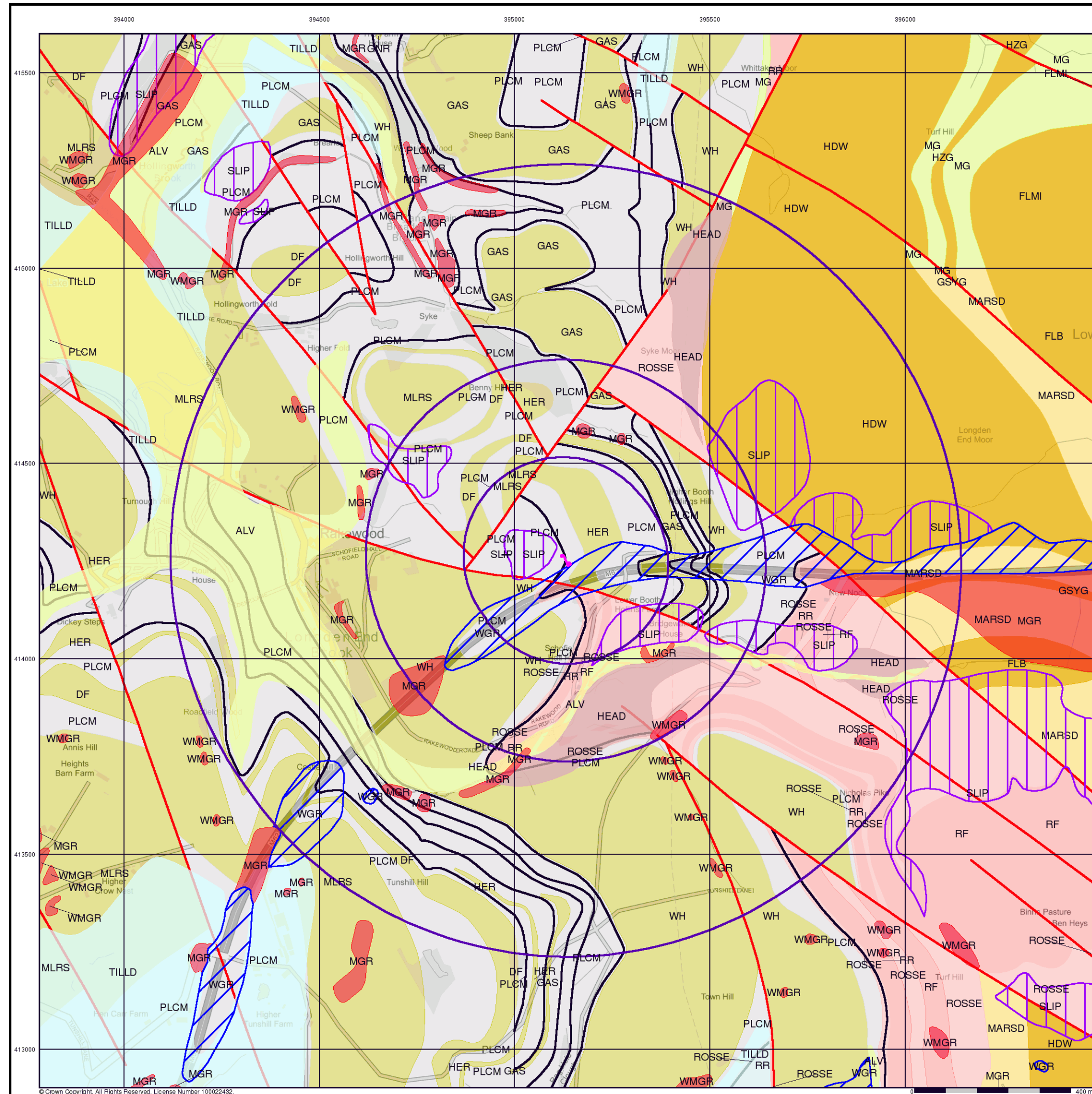
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Customer Ref: LKC 22 1443
National Grid Reference: 395130, 414250
Slice: A
Site Area (Ha): 0.01
Search Buffer (m): 1000

Site Details

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Combined Surface Geology

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

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

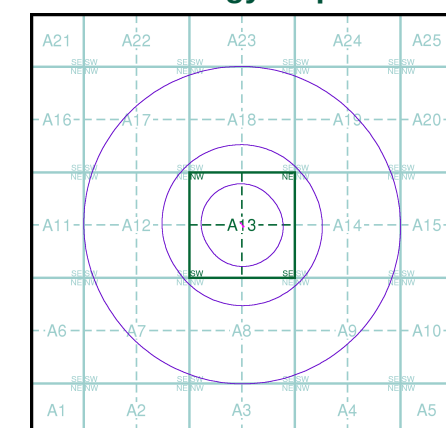
Additional Information

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

Contact

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

Combined Geology Map - Slice A



Order Details

Order Number: 300386407_1_1
Customer Ref: LKC 22 1443
National Grid Reference: 395130, 414250
Slice: A
Site Area (Ha): 0.01
Search Buffer (m): 1000

Site Details

Site at 395130, 414270



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

Appendix B

Coal Authority Consultants Coal Mining Report



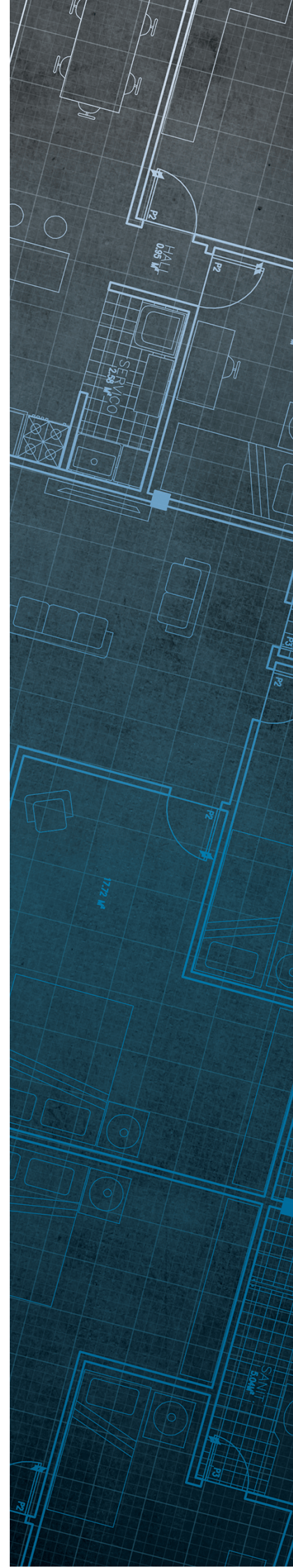
The Coal
Authority

Consultants Coal Mining Report

High Booth Hollings Farm
High Booth Hollings Farm
Rakewood
Littleborough
Greater Manchester
OL15 0AR

Date of enquiry:	25 August 2022
Date enquiry received:	25 August 2022
Issue date:	25 August 2022

Our reference:	51003307284001
Your reference:	LKC 22 1443



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

The LK Group

Enquiry address

High Booth Hollings Farm
High Booth Hollings Farm
Rakewood
Littleborough
Greater Manchester
OL15 0AR

How to contact us

0345 762 6848 (UK)
+44 (0)1623 637 000 (International)

200 Lichfield Lane
Mansfield
Nottinghamshire
NG18 4RG

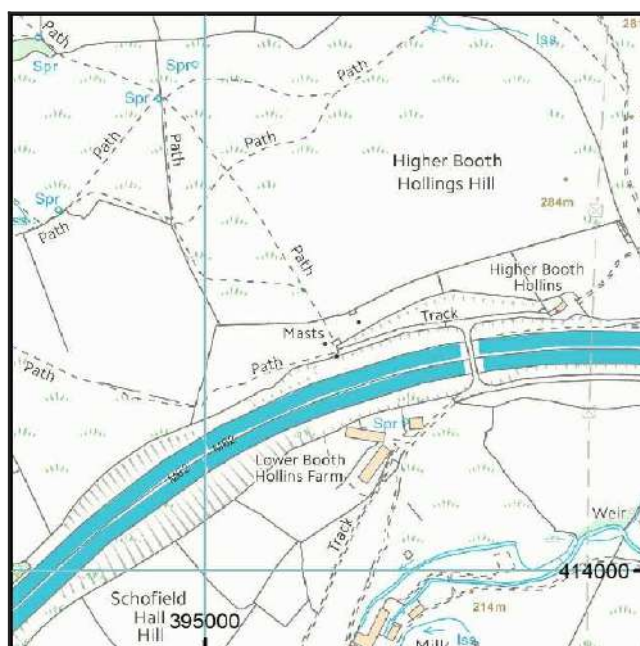
www.groundstability.com

 @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	LOWER MOUNTAIN	Coal	3XBB	23	Beneath Property	8.1	West	30	1904
	LOWER MOUNTAIN	Coal	AOSZ	177	North	8.1	West	55	1881
	LOWER MOUNTAIN	Coal	AOSY	191	North-West	10.0	North-West	55	1909

Probable unrecorded shallow workings

Yes.

Spine roadways at shallow depth

No spine roadway recorded at shallow depth.

Mine entries

None recorded within 100 metres of the enquiry boundary.

Abandoned mine plan catalogue numbers

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

6002B		
-------	--	--

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

No faults, fissures or breaklines recorded.

Opencast mines

None recorded within 500 metres of the enquiry boundary.

Coal Authority managed tips

None recorded within 500 metres of the enquiry boundary.

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 not in an area where a notice to withdraw support has been given.

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.

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.

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

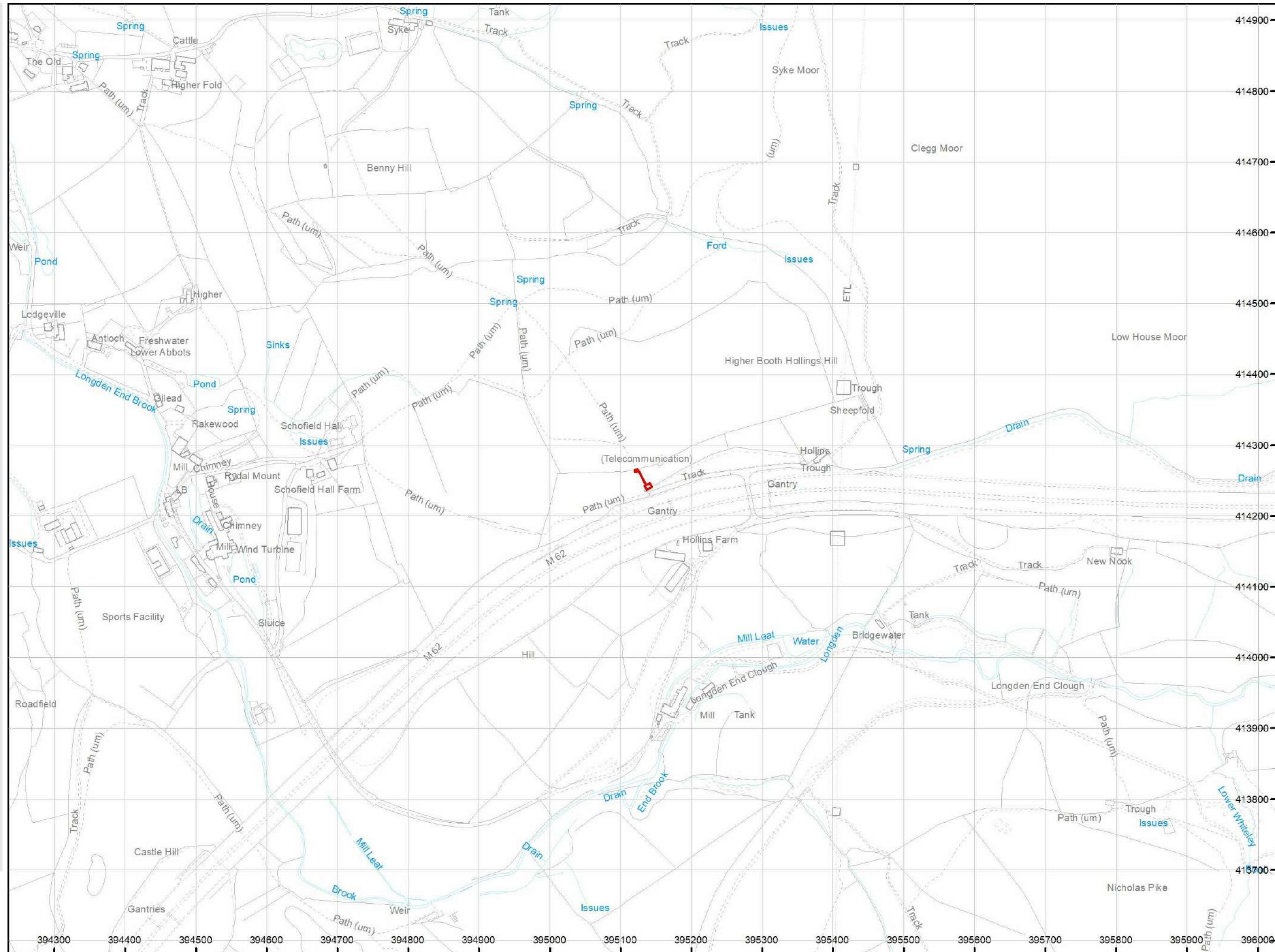
Published notices of entitlement to withdraw support and the date of the notice. Details of any revocation notice withdrawing the entitlement to withdraw support given under Section 41 of the Coal Industry Act 1994.

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.

The map highlights any specific surface or subsurface features within or near to the boundary of the site.

Key

☐

How to contact us

0345 762 6848 (UK)
+44 (0)1623 637 000 (International)
www.groundstability.com

Appendix C

Abandoned Mine Plans

PLAN OF
SCITFIELD HALL

in the Works of
Lawrence Newall Esq

REFERENCE

- Part coloured Yellow on Plan, got
- Part coloured Pink on Plan, got
- Grat got from under Mr. Rattleworth
- Pink included

Scale: 20 yds. to 1 inch

This Plan was drawn by Mr. R. D. on
15th May 1866, by Geo. Mywood, Son of
Messrs. Clayton

6002 B / 14th March 1866

Appendix D

BGS Borehole Data

Soil Mechanics

BOREHOLE No. 19

Sheet 1 of 2

Equipment & Methods

Rotary core drilling, HWAf size with air flush

Location No. 7269

SDMISE 26

Location M62 WINDY HILL WIDENING

Carried out for

Department of Transport

Ground Level

253.42m OD

Coordinates

395139.849 E

414210.485 N

Date

26.7.86

Description

Main

Detail

 Reduced Level
Legend
Depth and Thickness

Drilling records
Mechanical core log

Field Records and Test Results

Depth

W %

TCR %

SCR %

ROD %

L mm

Hand dug inspection pit to 1.50m
Sandstone gravel cobbles and boulders
(Foreman's description)
(Made Ground)

Assessed zone of core loss

253.42

0.00

0.00 - 1.50

(2.20)

251.22

2.20

1.50 - 3.00

51

0

7

NI

110

(85)

Light grey-brown medium
grained slightly weathered
SANDSTONE strong.
Joints heavily iron stained with
some clay smears and occasional
up to 5mm clay filled

Dip of bedding = 20°

 Subvertical subplanar
rough joint.

 Subvertical subplanar
rough joint.

75° planar smooth joint.

 Subvertical subplanar
rough joint.

 Subvertical planar
rough joint.

48° planar smooth joint.

 3 No. 70° to subvertical
subplanar rough joints.

Assessed zone of core loss

247.42

6.00

4.00 - 4.75

100

37

79

NI

430

(200)

4.75 - 6.00

90

48

38

NI

180

(70)

BOREHOLE COMPLETE AT 6.00m

Water Level Observations During Boring

Date	Time	Depth of Hole m	Depth of Casing m	Depth to Water m	Remarks
26.7.	—	6.00	4.00	5.00	Borehole complete

Remarks

Logged by

JL

Scale

1:50

Fig.

37

Equipment & Methods

Rotary core drilling, SWF size with air flush

Location No. 7269

SD91SE 30

Location M62 WINDY HILL WIDENING

Carried out for

Department of Transport

Ground Level

264.28m OD

Coordinates

395233.845 E

414256.694 N

Date

5.8.86

Description

Main

Detail

 Reduced Level
Legend
Depth and
Thickness

 Drilling records
Depth
W %
TCR %
SCR %
ROD %
L mm

 Mechanical core log
TCR %
SCR %
ROD %
L mm

 Field Records
and
Test Results

Rotary open hole drilling

Dark grey in parts thinly laminated slightly weathered MUDSTONE, moderately weak
Dip of bedding = 15°
With 1 set of generally very closely spaced 10° to 20° planar smooth iron stained slightly clay smeared joints
And 2 sets of subvertical planar rough iron stained joints

 Very low core recovery
core recovered non-intact

 Core recovered
non-intact

 Variable polished striated
and gypsum coated joints,
core weak to very weak

 Dark grey carbonaceous
mudstone moderately
strong

 22° shear zone with
variable polished
shear surfaces

Strong siltstone band

 Subhorizontal shear zone
with highly polished
shear surfaces

 Black highly fissured and fractured bright COAL very
sunk

 Light grey-brown slightly
weathered SILTSTONE;
weak with many plant fossils

 2 No. subvertical
irregular rough joints
with pale yellow staining

SANDSTONE (As sheet 2)

 2 No. subvertical iron
stained joints

Remarks

1. Borehole backfilled on completion

Notes:

 Materials are described in accordance with Appendices. For explanation of symbols and abbreviations see Fig. 1.
All depths and reduced levels in metres. Thicknesses given in brackets in depth column.

Logged by

JL

Scale

1:50

Fig.

41



Soil Mechanics

BOREHOLE No. 50

Sheet 2 of 2

Equipment & Methods

As sheet 1

Location No. 7269

Location

SD91SE 30
M62 WINDY HILL WIDENING

Carried out for

Department of Transport

Ground Level

Coordinates

Date

As sheet 1

Description

Main

Detail

Reduced Level

Legend

Depth and Thickness

Drilling records

Mechanical core log

Field Records and Test Results

Light brown fine grained moderately weathered micaceous silty SANDSTONE weak Dip of bedding = 17°

As sheet 1:
2 No. 25mm clay bends.
2 No. subvertical planar rough clay smeared joints.

253.38

(1.30)

8.95 - 10.35

96

7

16

Light grey and dark grey, slightly weathered inter-laminated MUDSTONE and SILTSTONE moderately strong Dip of bedding = 15°

45° planar smooth iron stained joint.
Subvertical planar rough joint.

251.18

(2.20 pen)

11.60 - 13.10

93

31

39

NI-100
(Gen NI)

BOREHOLE COMPLETE AT 13.10m

Water Level Observations During Drilling

Date	Time	Depth of Hole m	Depth of Casing m	Depth to Water m	Remarks
------	------	-----------------	-------------------	------------------	---------

6.8. 1630 13.10 2.35 Dry Borehole complete

Remarks

Logged by

JL

Scale

1:50

Fig.

41

Notes:

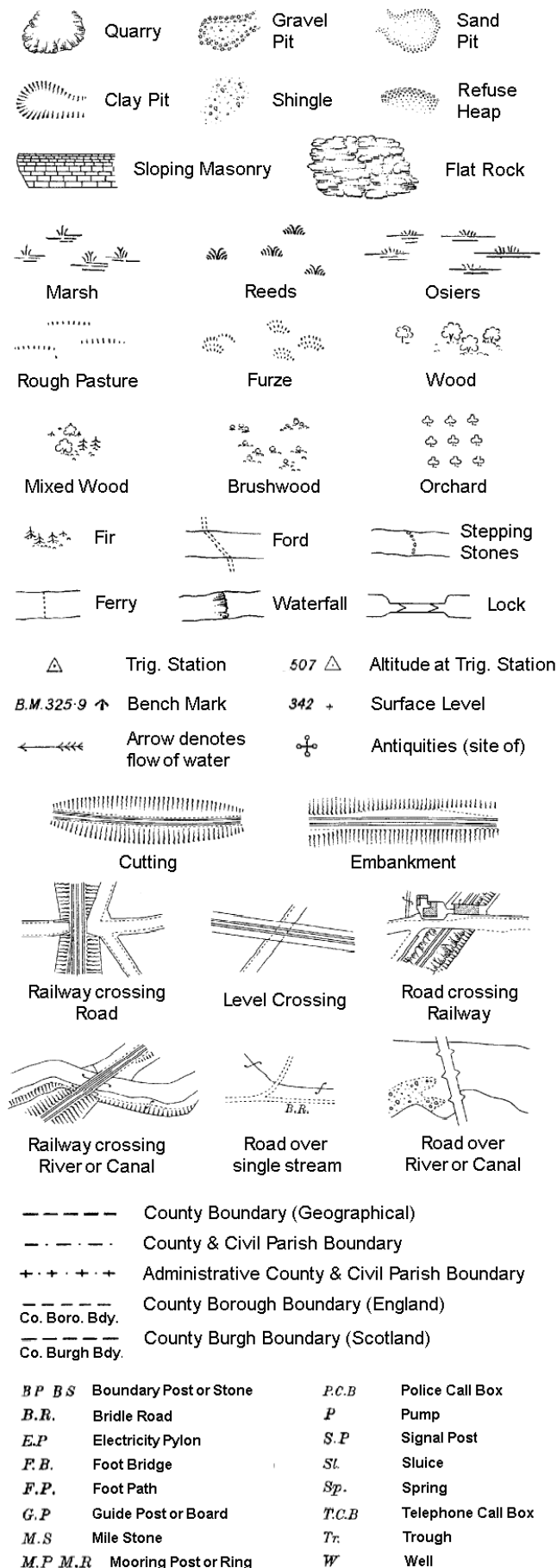
Materials are described in accordance with Appendices. For explanation of symbols and abbreviations see Fig. 1. All depths and reduced levels in metres. Thicknesses given in brackets in depth column.

Appendix E

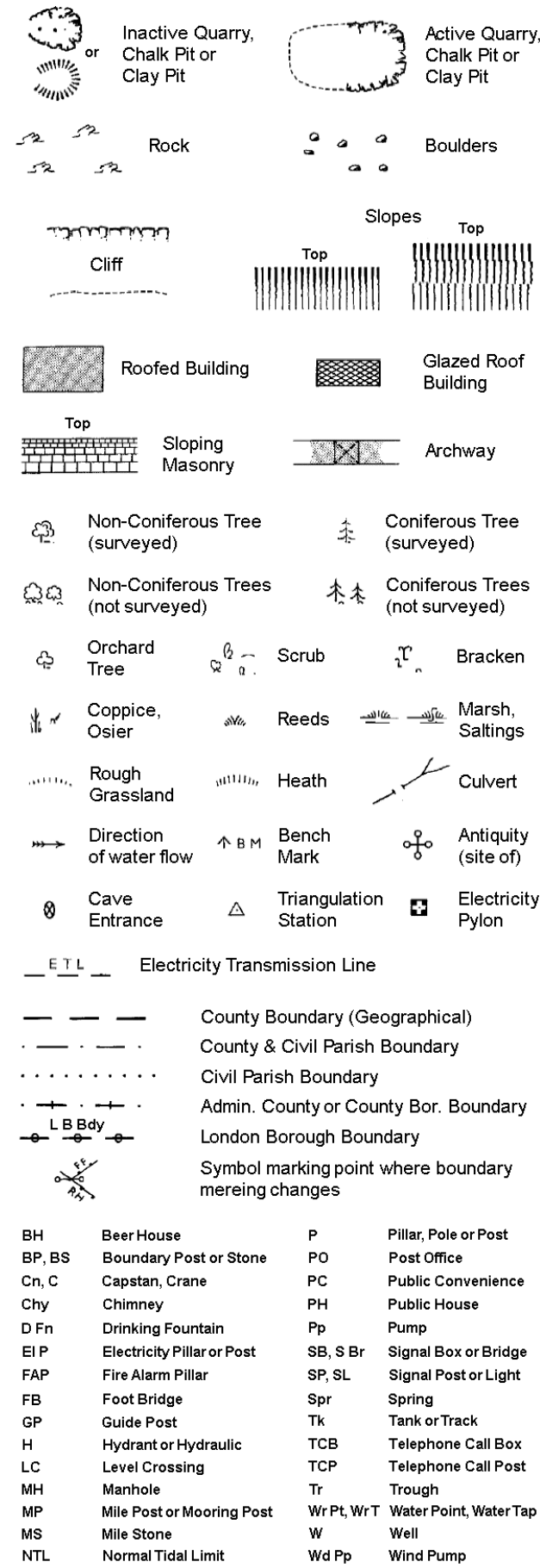
Historical Mapping

Historical Mapping Legends

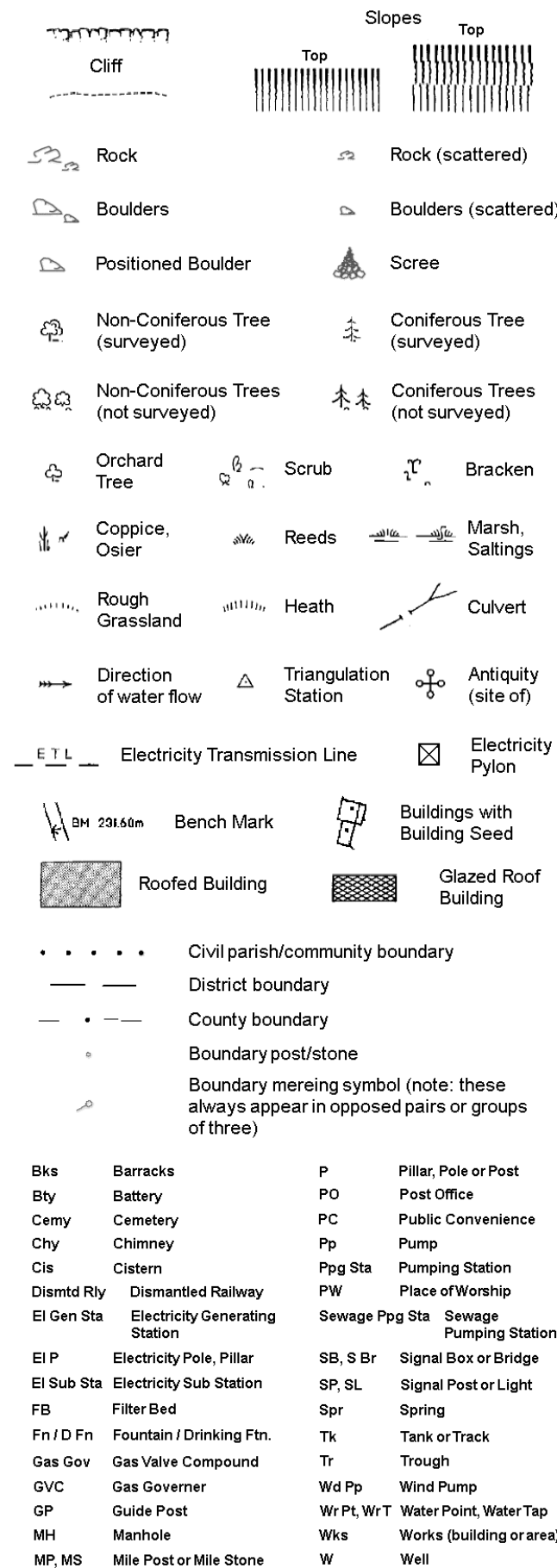
Ordnance Survey County Series and Ordnance Survey Plan 1:2,500



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



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

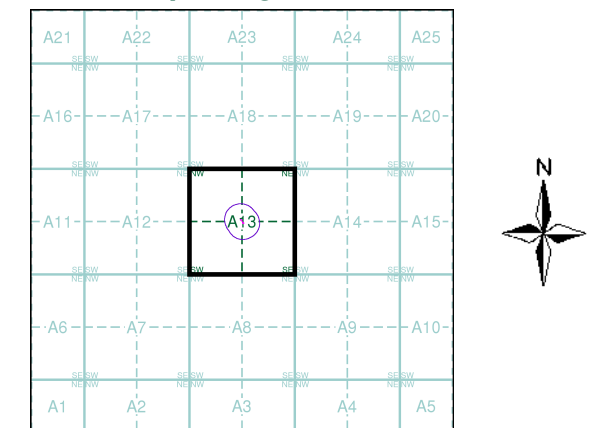


GROUP

Historical Mapping & Photography included:

Mapping Type	Scale	Date	Pg
Lancashire And Furness	1:2,500	1893	2
Lancashire And Furness	1:2,500	1910	3
Lancashire And Furness	1:2,500	1930	4
Ordnance Survey Plan	1:2,500	1963 - 1964	5
Additional SIMs	1:2,500	1978	6
Ordnance Survey Plan	1:2,500	1984	7
Large-Scale National Grid Data	1:2,500	1992	8
Historical Aerial Photography	1:2,500	2000	9

Historical Map - Segment A13



Order Details

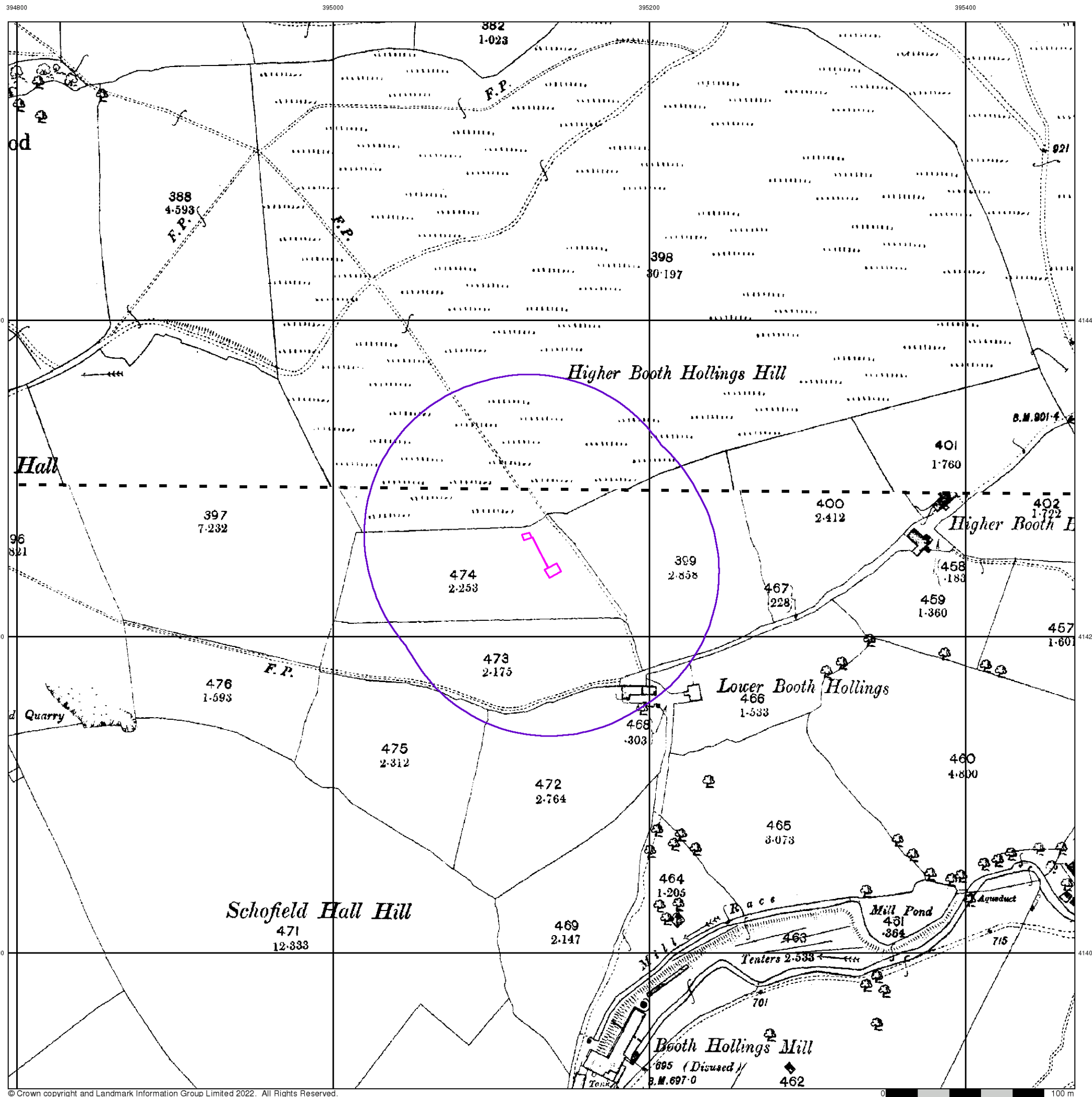
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Customer Ref: LKC 22 1443
National Grid Reference: 395130, 414250
Slice: A
Site Area (Ha): 0.01
Search Buffer (m): 100

Site Details

Site at 395130, 414270



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



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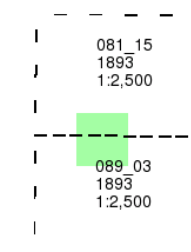
Lancashire And Furness

Published 1893

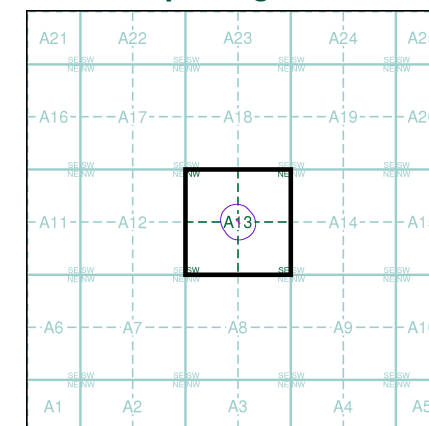
Source map scale - 1:2,500

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

Map Name(s) and Date(s)



Historical Map - Segment A13



Order Details

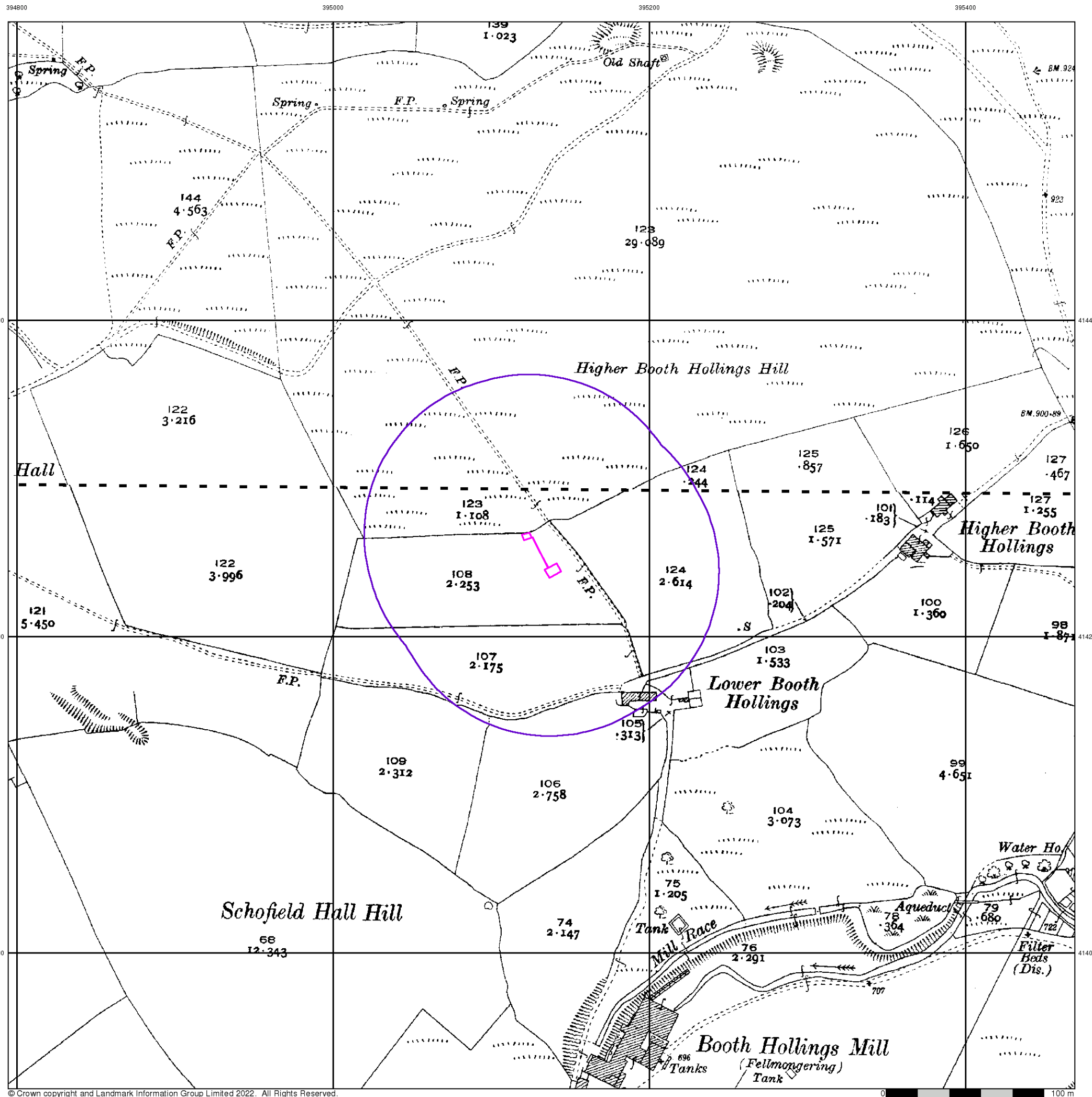
Order Number: 300386407_1_1
Customer Ref: LKC 22 1443
National Grid Reference: 395130, 414250
Slice: A
Site Area (Ha): 0.01
Search Buffer (m): 100

Site Details

Site at 395130, 414270

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



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LK GROUP

Lancashire And Furness

Published 1930

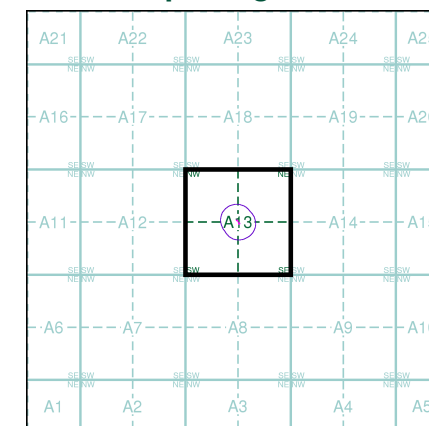
Source map scale - 1:2,500

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)

081_15
1930
1:2,500
089_03
1930
1:2,500

Historical Map - Segment A13



Order Details

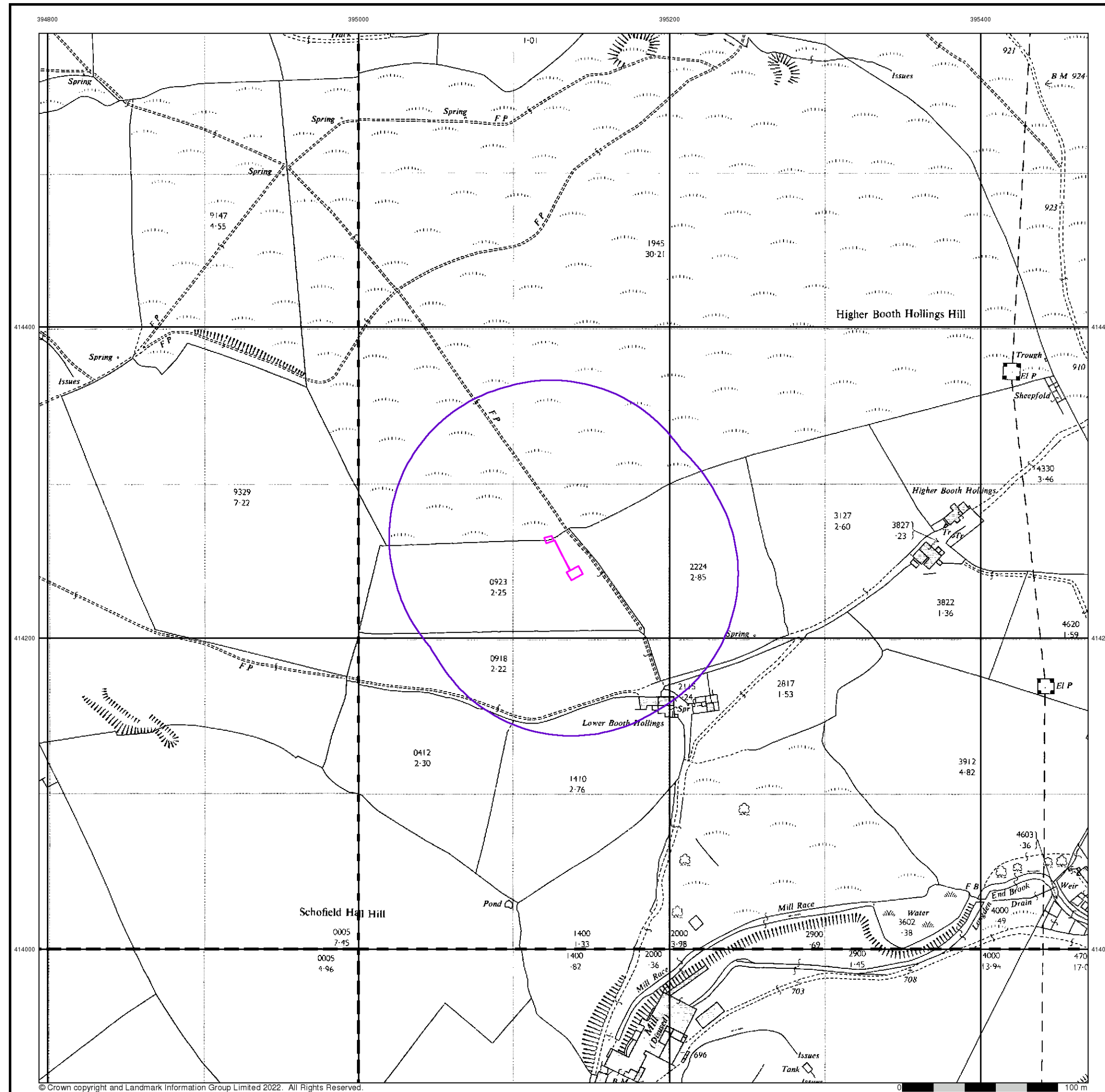
Order Number: 300386407_1_1
Customer Ref: LKC 22 1443
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Slice: A
Site Area (Ha): 0.01
Search Buffer (m): 100

Site Details

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GROUP

Ordnance Survey Plan

Published 1963 - 1964

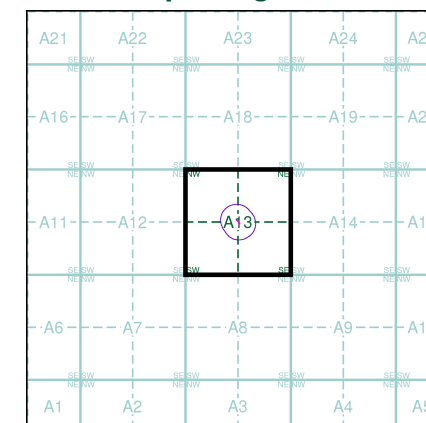
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Map Name(s) and Date(s)

SD9414 1963 12,500	SD9514 1963 12,500
SD9413 1964 12,500	SD9513 1964 12,500

Historical Map - Segment A13



Order Details

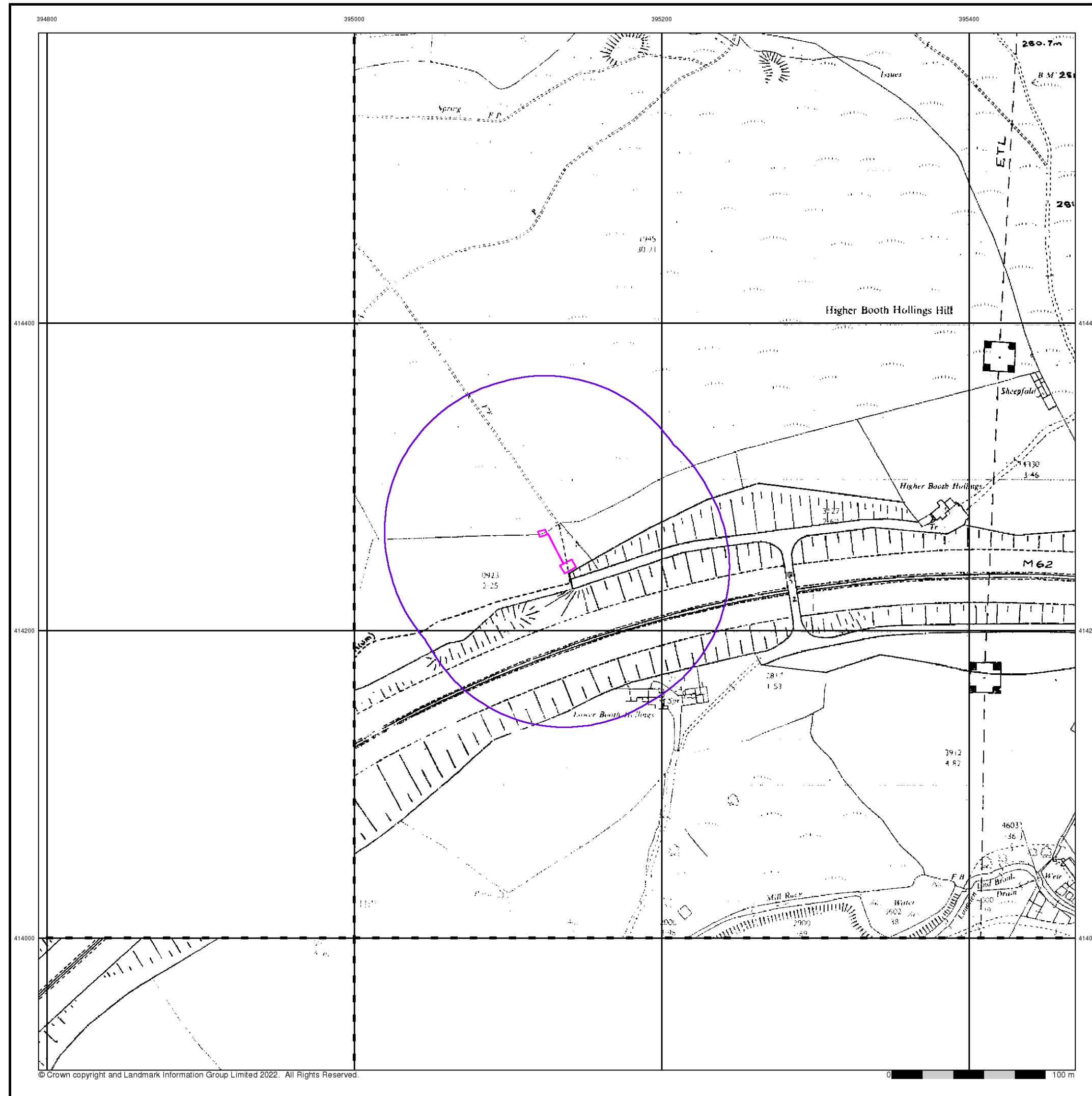
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LK GROUP

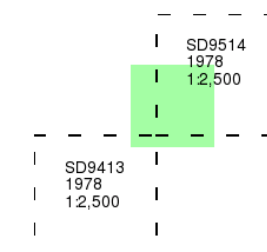
Additional SIMs

Published 1978

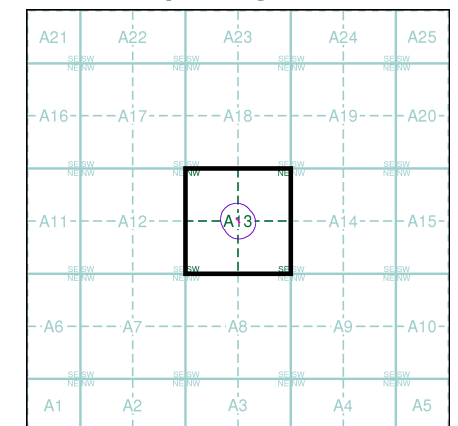
Source map scale - 1:2,500

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



Order Details

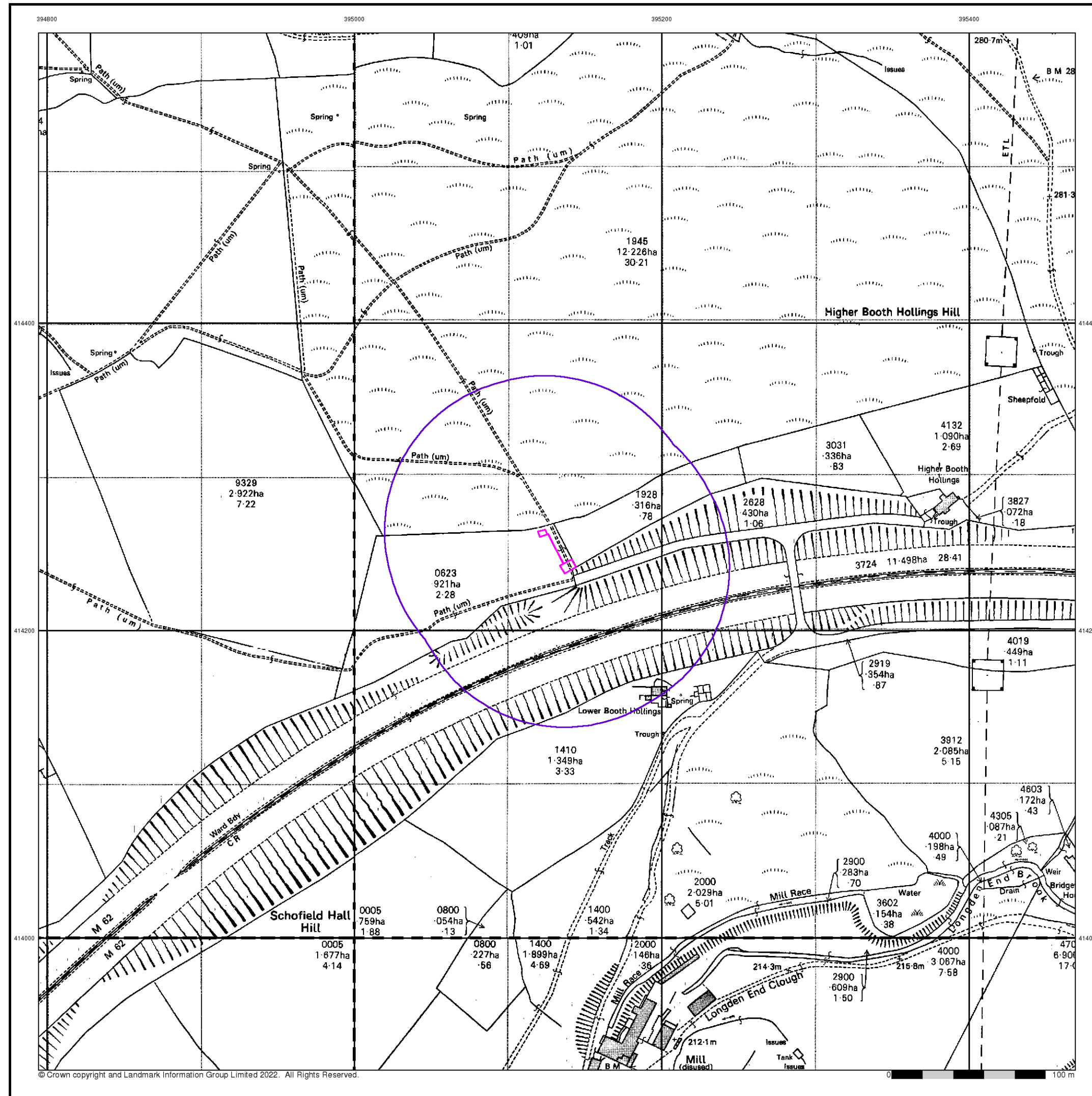
Order Number: 300386407_1_1
Customer Ref: LKC 22 1443
National Grid Reference: 395130, 414250
Slice: A
Site Area (Ha): 0.01
Search Buffer (m): 100

Site Details

Site at 395130, 414270

Landmark
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Ordnance Survey Plan

Published 1984

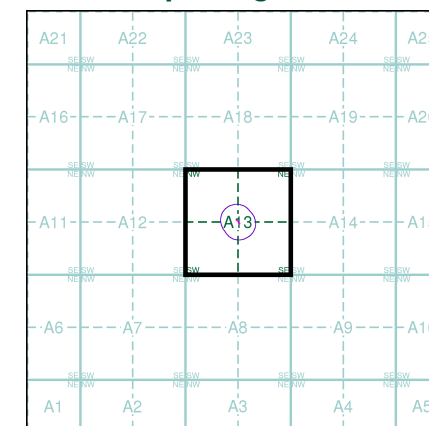
Source map scale - 1:2,500

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)

SD9414 1984 12,500	SD9514 1984 12,500
SD9413 1984 12,500	SD9513 1984 12,500

Historical Map - Segment A13



Order Details

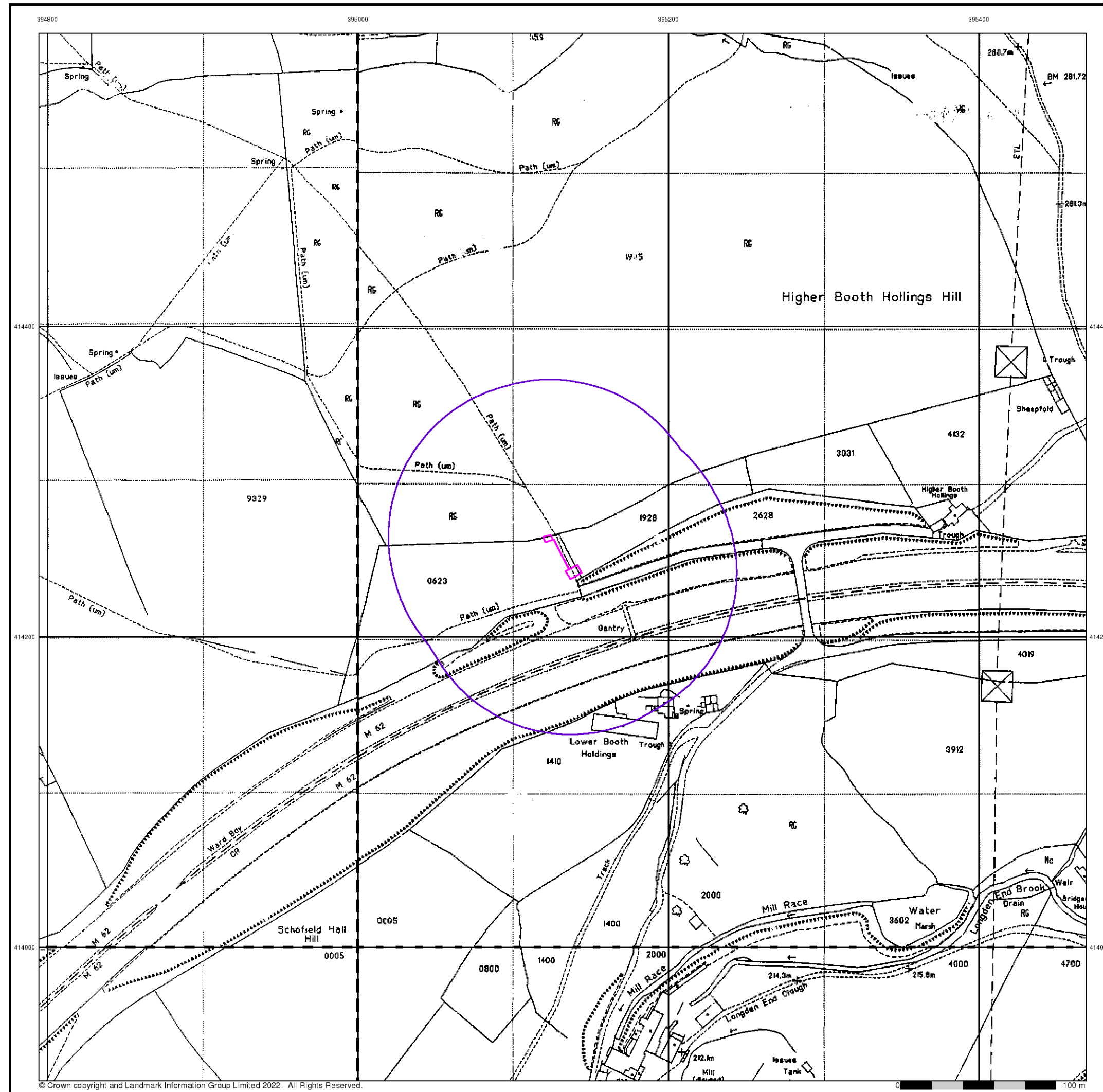
Order Number: 300386407_1_1
Customer Ref: LKC 22 1443
National Grid Reference: 395130, 414250
Slice: A
Site Area (Ha): 0.01
Search Buffer (m): 100

Site Details

Site at 395130, 414270



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Large-Scale National Grid Data

Published 1992

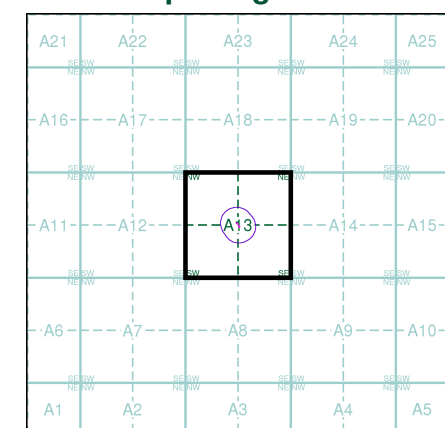
Source map scale - 1:2,500

'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)

SD9414	SD9514
1992	1992
12,500	12,500
SD9413	SD9513
1992	1992
12,500	12,500

Historical Map - Segment A13



Order Details

Order Number: 300386407_1_1
Customer Ref: LKC 22 1443
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Site Details

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394800

395000

395200

395400

LK

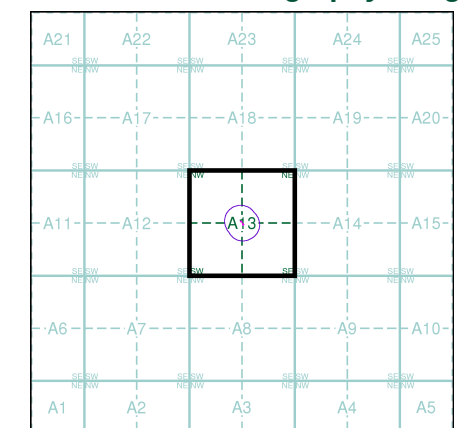
GROUP

Historical Aerial Photography

Published 2000

This aerial photography was produced by Getmapping, these vertical aerial photographs provide a seamless, full colour survey of the whole of Great Britain

Historical Aerial Photography - Segment A13



Order Details

Order Number: 300386407_1_1
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National Grid Reference: 395130, 414250
Slice: A
Site Area (Ha): 0.01
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Site Details

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Historical Mapping Legends

Ordnance Survey County Series 1:10,560

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

Ordnance Survey Plan 1:10,000

	Chalk Pit, Clay Pit or Quarry		Gravel Pit
	Sand Pit		Disused Pit or Quarry
	Refuse or Slag Heap		Lake, Loch or Pond
	Dunes		Boulders
	Coniferous Trees		Non-Coniferous Trees
	Orchard		Scrub
	Bracken		Heath
	Marsh		Reeds
	Building		Glasshouse
	Sloping Masonry		Pylon
	Cutting		Embankment
	Road Under		Road Over
	Level Crossing		Foot Bridge
	Standard Gauge Multiple Track		Standard Gauge Single Track
	Siding, Tramway or Mineral Line		Narrow Gauge
	Geographical County		Administrative County, County Borough or County of City
	Municipal Borough, Urban or Rural District, Burgh or District Council		Borough, Burgh or County Constituency
	Civil Parish		
	Boundary Post or Stone		Police Station
	Church		Post Office
	Club House		Public Convenience
	Fire Engine Station		Public House
	Foot Bridge		Signal Box
	Fountain		Spring
	Guide Post		Telephone Call Box
	Mile Post		Telephone Call Post
	Mile Stone		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
	Mean high water (springs)		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

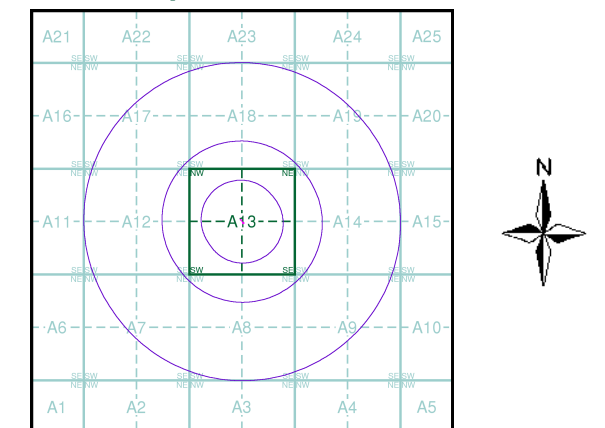


GROUP

Historical Mapping & Photography included:

Mapping Type	Scale	Date	Pg
Lancashire And Furness	1:10,560	1851	3
Yorkshire	1:10,560	1854	4
Lancashire And Furness	1:10,560	1894 - 1895	5
Yorkshire	1:10,560	1894 - 1895	6
Lancashire And Furness	1:10,560	1910 - 1911	7
Yorkshire	1:10,560	1910 - 1911	8
Yorkshire	1:10,560	1910 - 1911	9
Lancashire And Furness	1:10,560	1930 - 1932	10
Lancashire And Furness	1:10,560	1938	11
Ordnance Survey Plan	1:10,000	1956	12
Ordnance Survey Plan	1:10,000	1967 - 1968	13
Ordnance Survey Plan	1:10,000	1972 - 1979	14
Manchester	1:25,000	1975	15
Ordnance Survey Plan	1:10,000	1980 - 1981	16
Ordnance Survey Plan	1:10,000	1990	17
10K Raster Mapping	1:10,000	1999	18
10K Raster Mapping	1:10,000	2006	19
VectorMap Local	1:10,000	2021	20

Historical Map - Slice A



Order Details

Order Number: 300386407_1_1
 Customer Ref: LKC 22 1443
 National Grid Reference: 395130, 414250
 Slice: A
 Site Area (Ha): 0.01
 Search Buffer (m): 1000

Site Details

Site at 395130, 414270

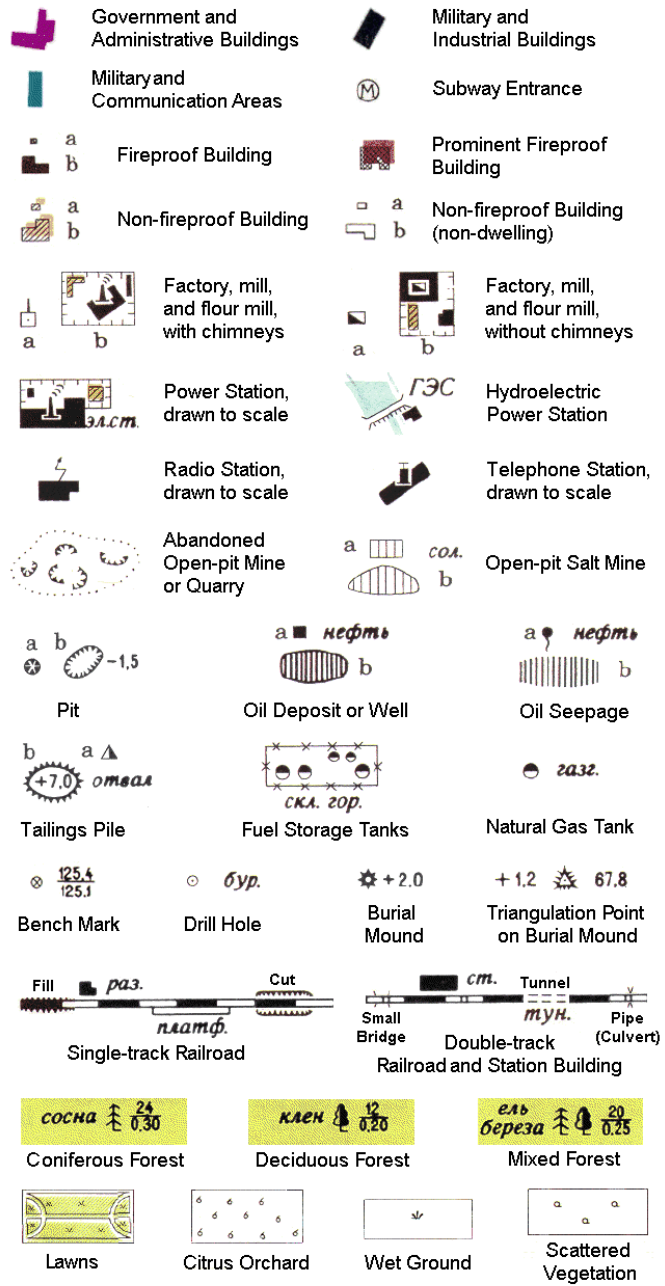


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Russian Military Mapping Legends

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

a. Not drawn to scale b. Drawn to scale



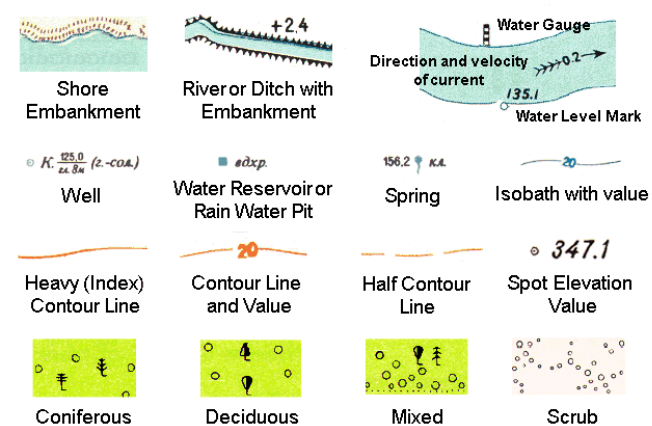
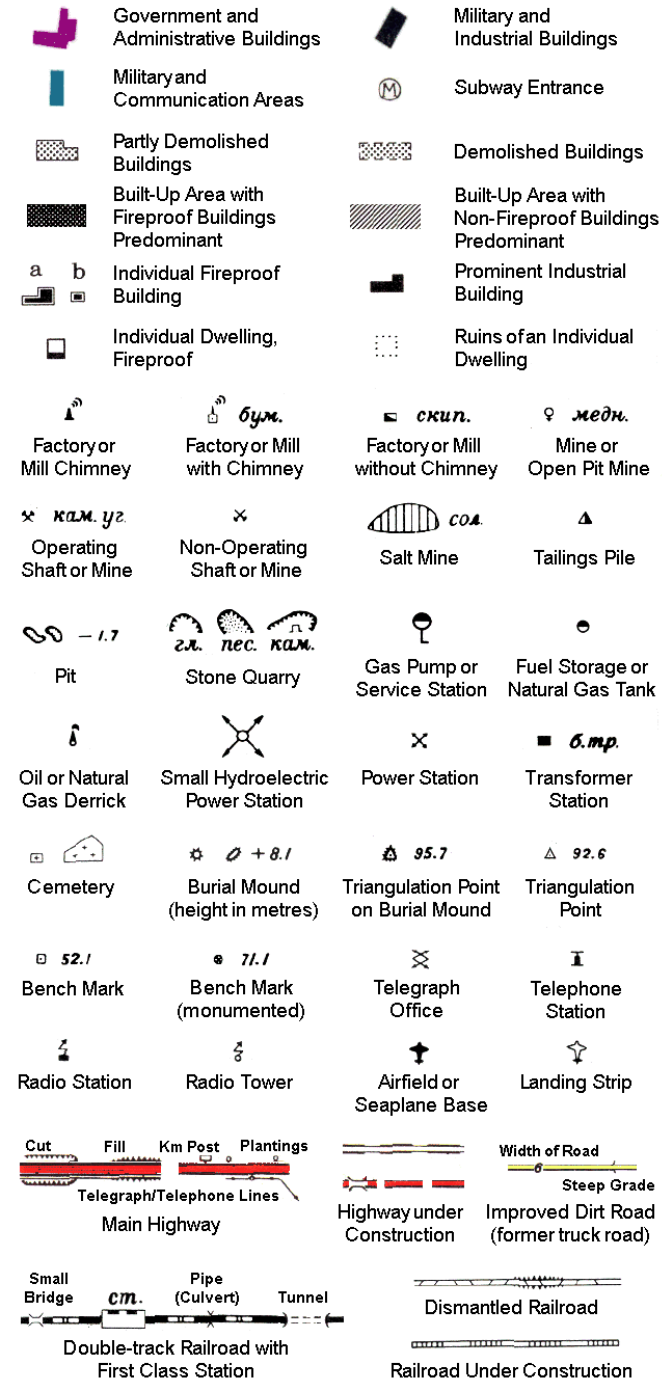
243.8	Values for prominent elevations
186.0	Numbers for spot elevations, depth soundings, contour lines, etc.
0.2	Velocity of the current, width of river bed, depth of river
$\frac{180}{12}$ $\frac{180}{12}$	Fractional terms: length and capacity of bridges; depth of fords and condition of the river bottom; height of forest and the diameter of trees

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

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

1:25,000 mapping

a. Not drawn to scale b. Drawn to scale



Key to Numbers on Mapping

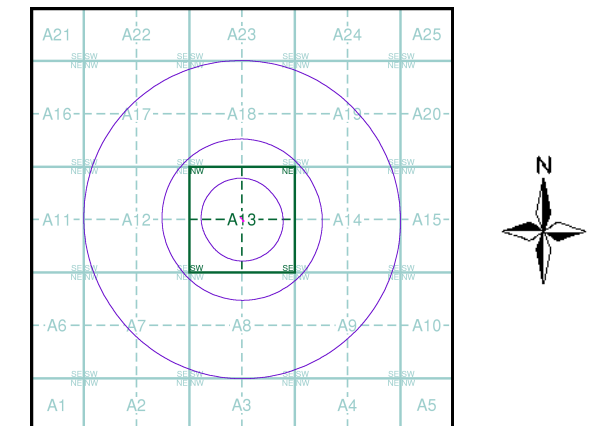


G R O U P

Historical Mapping & Photography included:

Mapping Type	Scale	Date	Pg
Lancashire And Furness	1:10,560	1851	3
Yorkshire	1:10,560	1854	4
Lancashire And Furness	1:10,560	1894 - 1895	5
Yorkshire	1:10,560	1894 - 1895	6
Lancashire And Furness	1:10,560	1910 - 1911	7
Yorkshire	1:10,560	1910 - 1911	8
Yorkshire	1:10,560	1910 - 1911	9
Lancashire And Furness	1:10,560	1930 - 1932	10
Lancashire And Furness	1:10,560	1938	11
Ordnance Survey Plan	1:10,000	1956	12
Ordnance Survey Plan	1:10,000	1967 - 1968	13
Ordnance Survey Plan	1:10,000	1972 - 1979	14
Manchester	1:25,000	1975	15
Ordnance Survey Plan	1:10,000	1980 - 1981	16
Ordnance Survey Plan	1:10,000	1990	17
10K Raster Mapping	1:10,000	1999	18
10K Raster Mapping	1:10,000	2006	19
VectorMap Local	1:10,000	2021	20

Russian Map - Slice A



Order Details

Order Number: 300386407_1_1
Customer Ref: LKC 22 1443
National Grid Reference: 395130, 414250
Slice: A
Site Area (Ha): 0.01
Search Buffer (m): 1000

Site Details

Site at 395130, 414270

Landmark[®]
INFORMATION GROUP

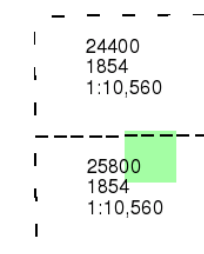
Tel: 0844 844 9952
Fax: 0844 844 9951
Web: www.envirocheck.co.uk

Published 1854

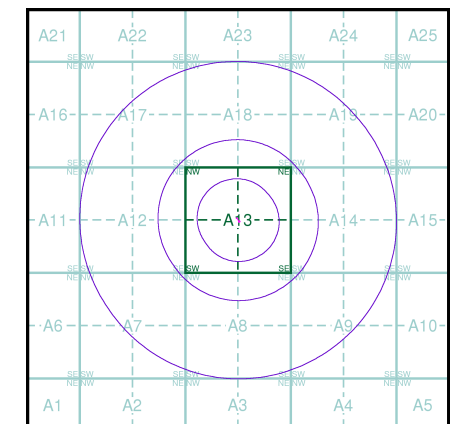
Source map scale - 1:10,560

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

Map Name(s) and Date(s)



Historical Map - Slice A

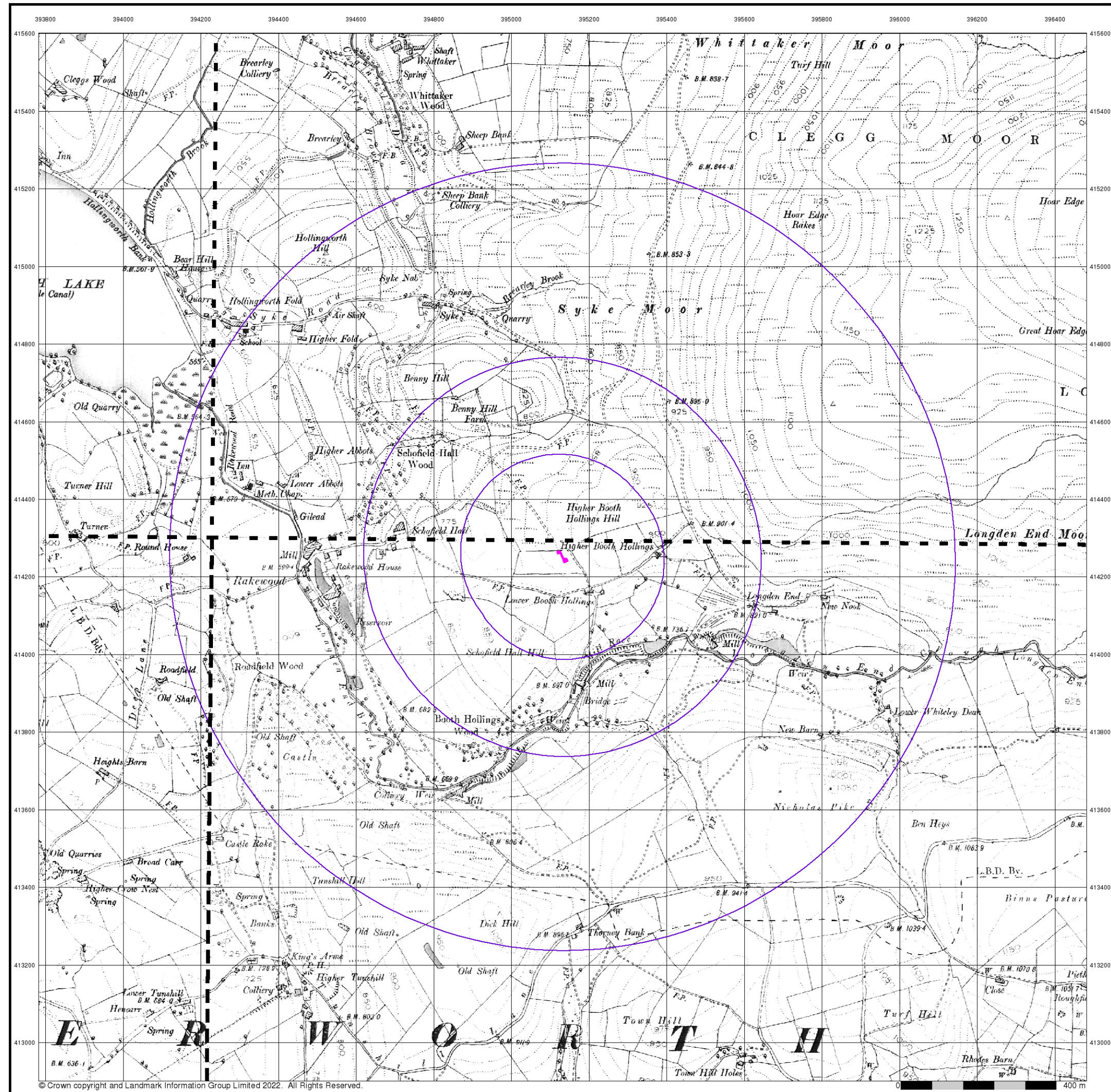


Order Details

Order Number: 300386407_1_1
Customer Ref: LKC 22 1443
National Grid Reference: 395130, 414250
Slice: A
Site Area (Ha): 0.01
Search Buffer (m): 1000

Site Details

Site at 395130, 414270



LK

GROUP

Lancashire And Furness

Published 1894 - 1895

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)

081SW 1894 1:10,560	081SE 1895 1:10,560
089NW 1894 1:10,560	089NE 1895 1:10,560

Historical Map - Slice A

Order Details

Order Number:

300386407_1_1

Customer Ref:

LKC 22 1443

National Grid Reference:

395130, 414250

Slice:

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Site Area (Ha):

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Search Buffer (m):

1000

Site at 395130, 414270

Landmark

INFORMATION GROUP

Tel:

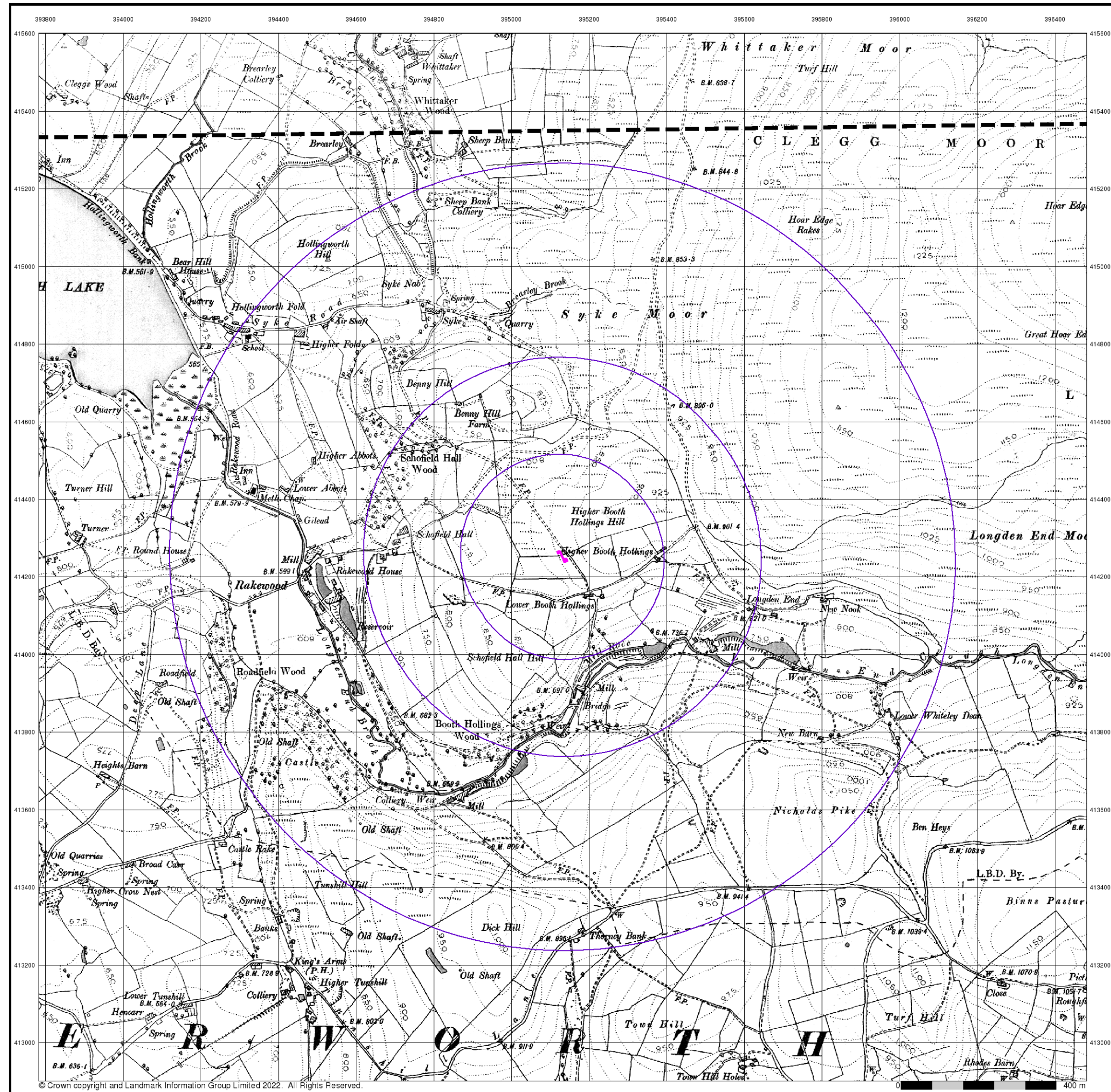
0844 844 9952

Fax:

0844 844 9951

Web:

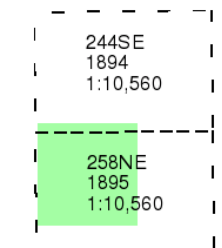
www.envirocheck.co.uk



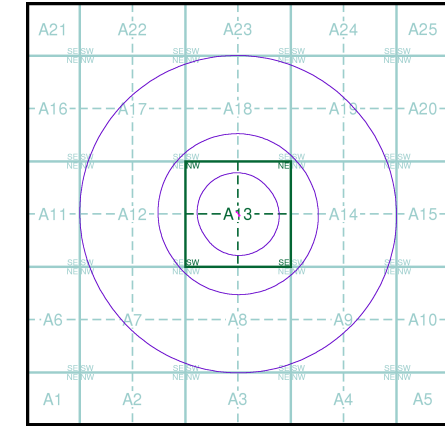
Published 1894 - 1895
Source map scale - 1:10,560

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

Map Name(s) and Date(s)



Historical Map - Slice A



Order Details

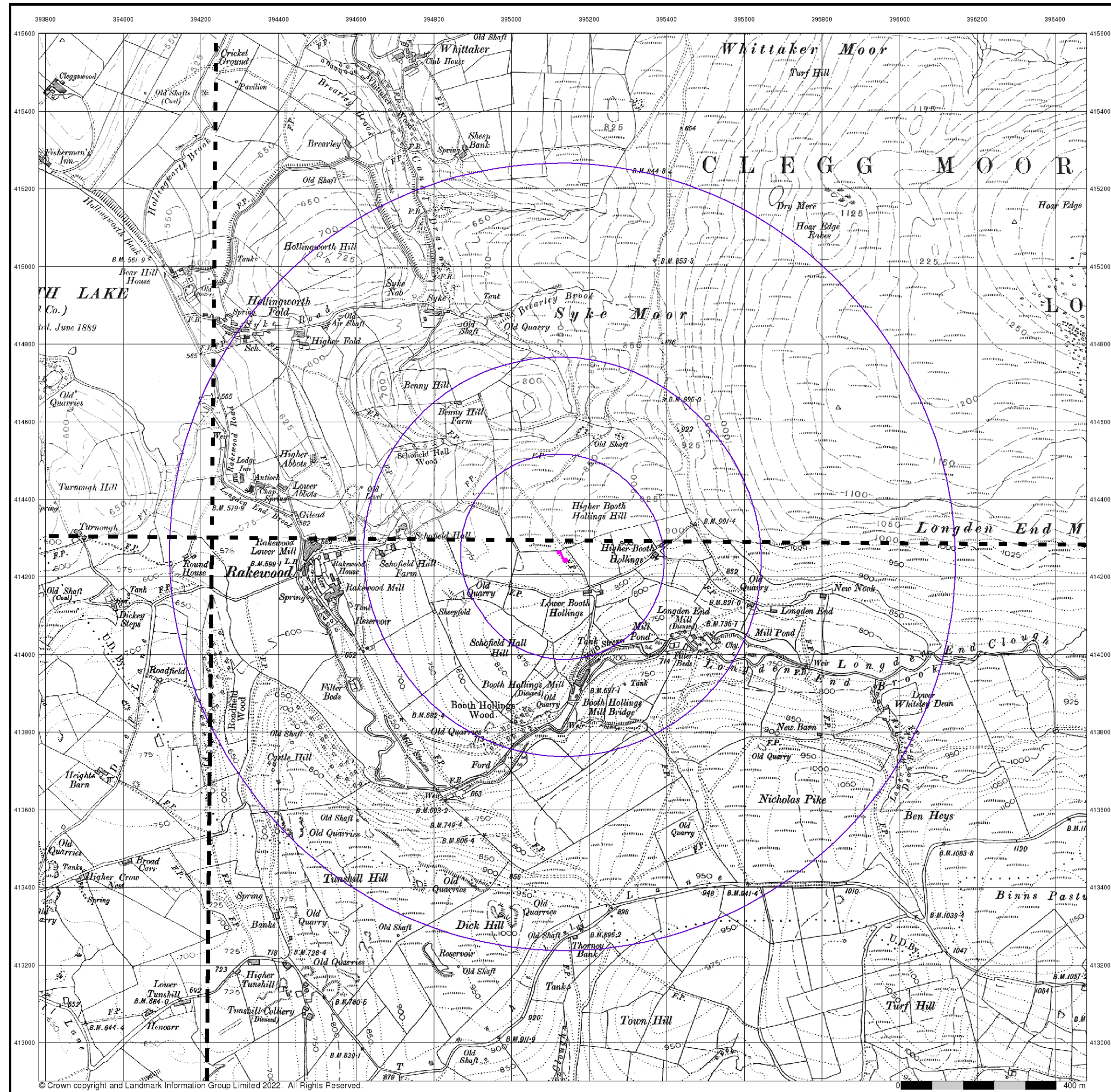
Order Number: 300386407_1_1
Customer Ref: LKC 22 1443
National Grid Reference: 395130, 414250
Slice: A
Site Area (Ha): 0.01
Search Buffer (m): 1000

Site Details

Site at 395130, 414270



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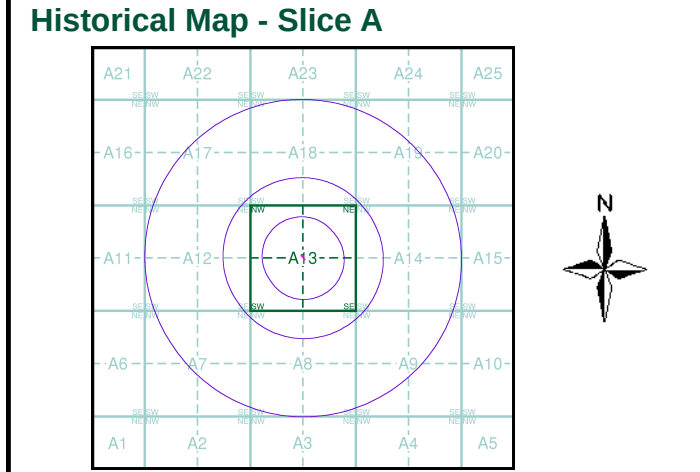


LK GROUP
Lancashire And Furness
Published 1910 - 1911
Source map scale - 1:10,560

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)

081SW 1911 1:10,560	081SE 1910 1:10,560
089NW 1910 1:10,560	089NE 1910 1:10,560



Order Details

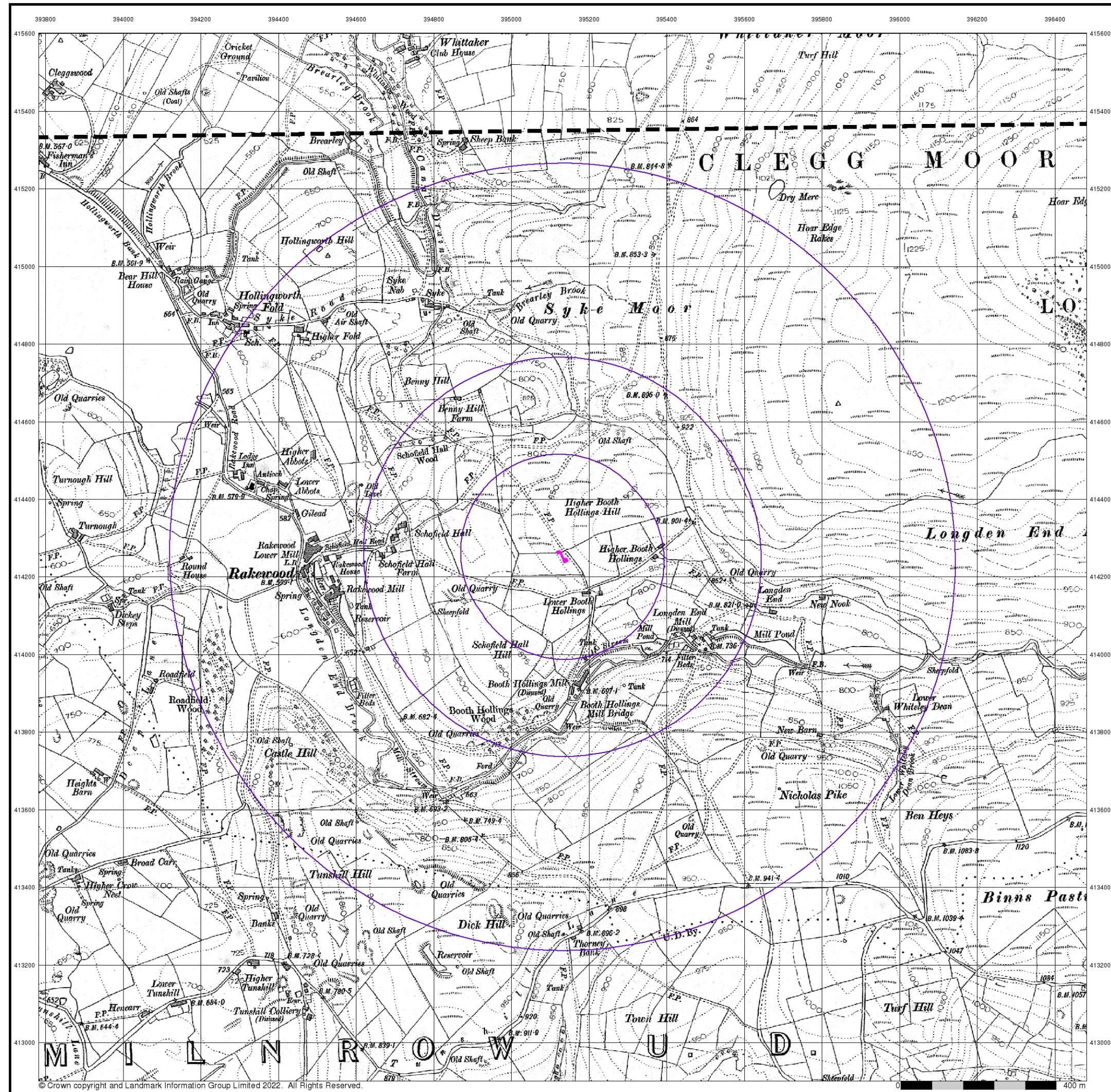
Order Number: 300386407_1_1
Customer Ref: LKC 22 1443
National Grid Reference: 395130, 414250
Slice: A
Site Area (Ha): 0.01
Search Buffer (m): 1000

Site Details

Site at 395130, 414270

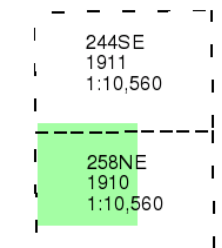
Landmark
INFORMATION GROUP

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

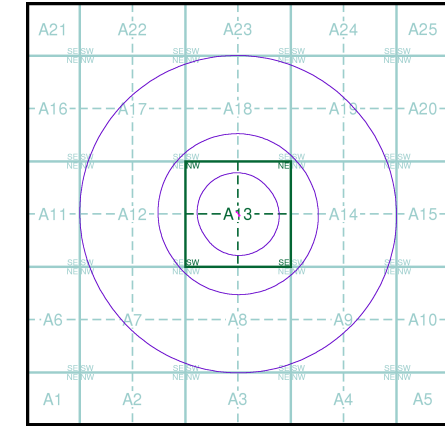


The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas; these maps were used to update the 1:10,560 maps. The published date given therefore is often some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

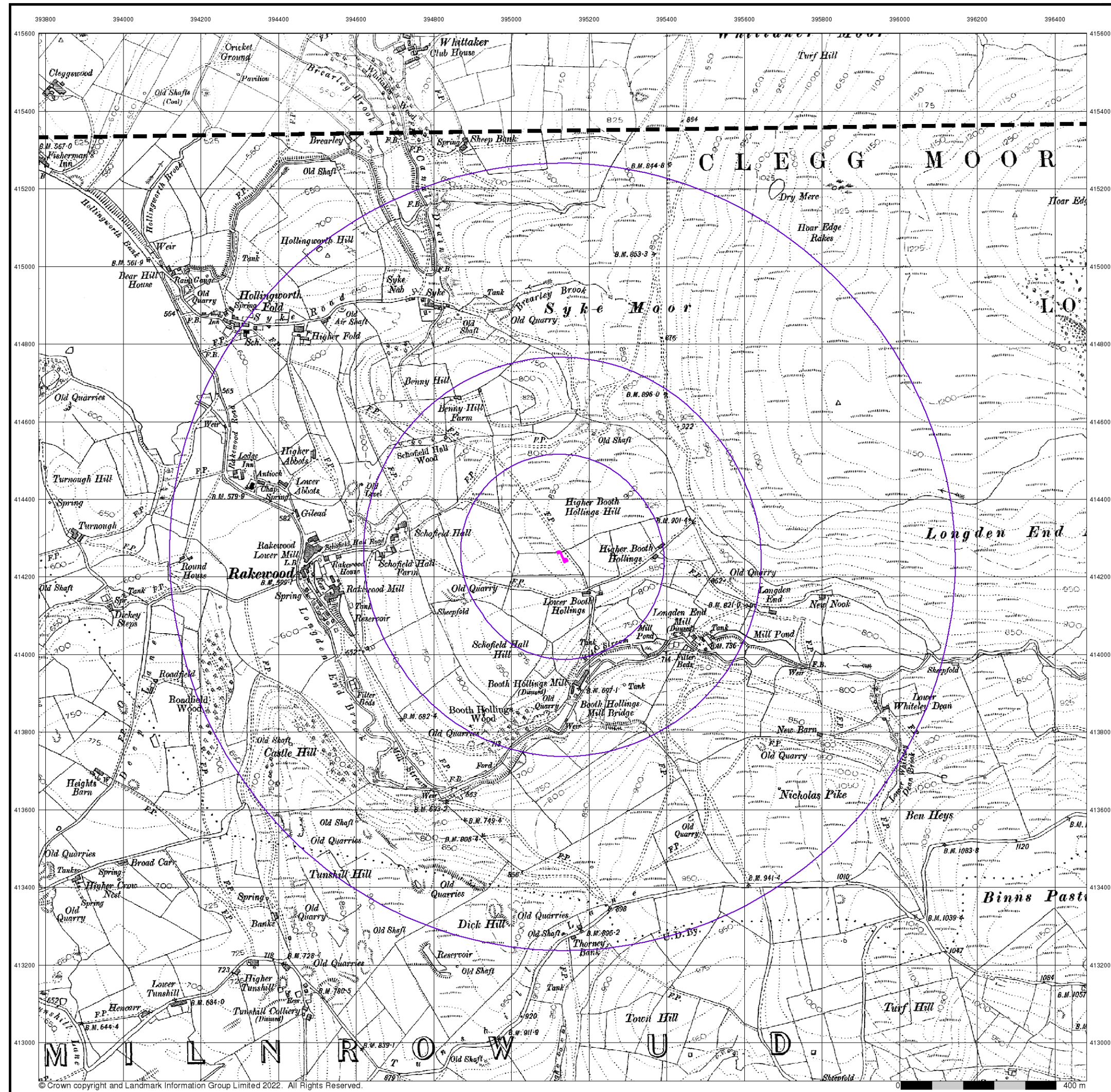


Order Details

Order Number: 300386407_1_1
Customer Ref: LKC 22 1443
National Grid Reference: 395130, 414250
Slice: A
Site Area (Ha): 0.01
Search Buffer (m): 1000

Site Details

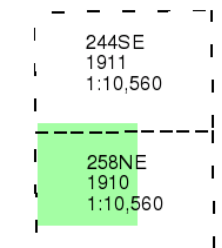
Site at 395130, 414270



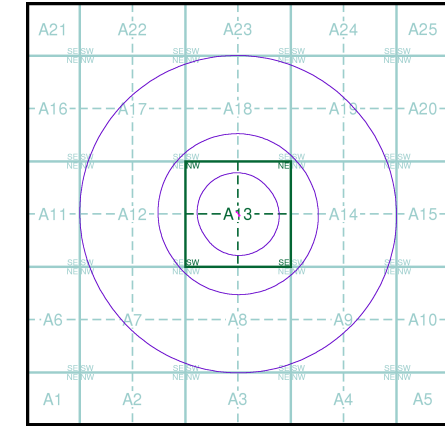
Published 1910 - 1911
Source map scale - 1:10,560

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

Map Name(s) and Date(s)



Historical Map - Slice A



Order Details

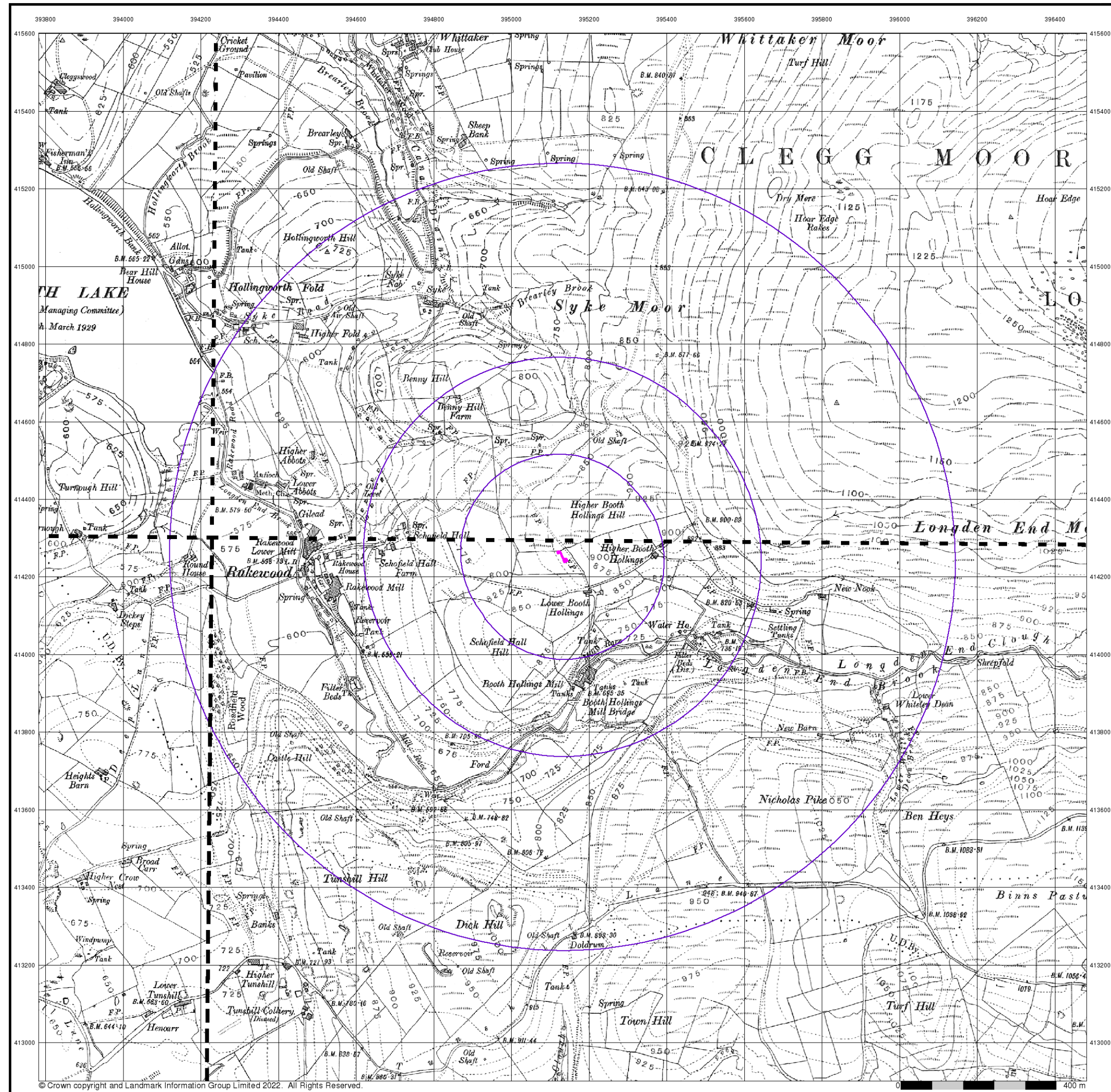
Order Number: 300386407_1_1
Customer Ref: LKC 22 1443
National Grid Reference: 395130, 414250
Slice: A
Site Area (Ha): 0.01
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Site Details

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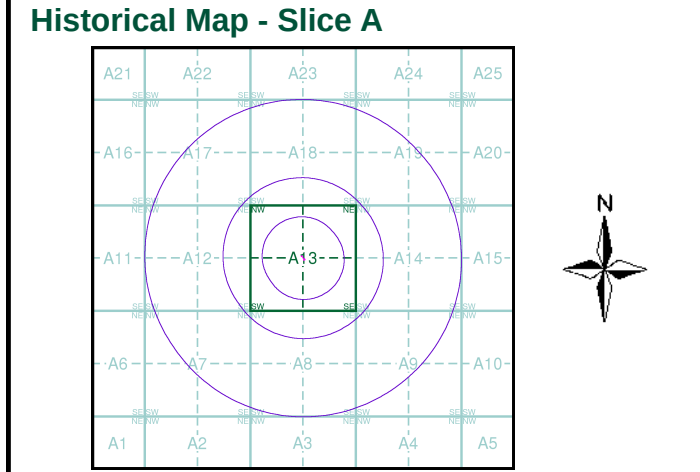
Lancashire And Furness

Published 1930 - 1932

Source map scale - 1:10,560

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

Map Name(s) and Date(s)			
081SW 1932 1:10,560	081SE 1930 1:10,560		
089NW 1931 1:10,560	089NE 1932 1:10,560		

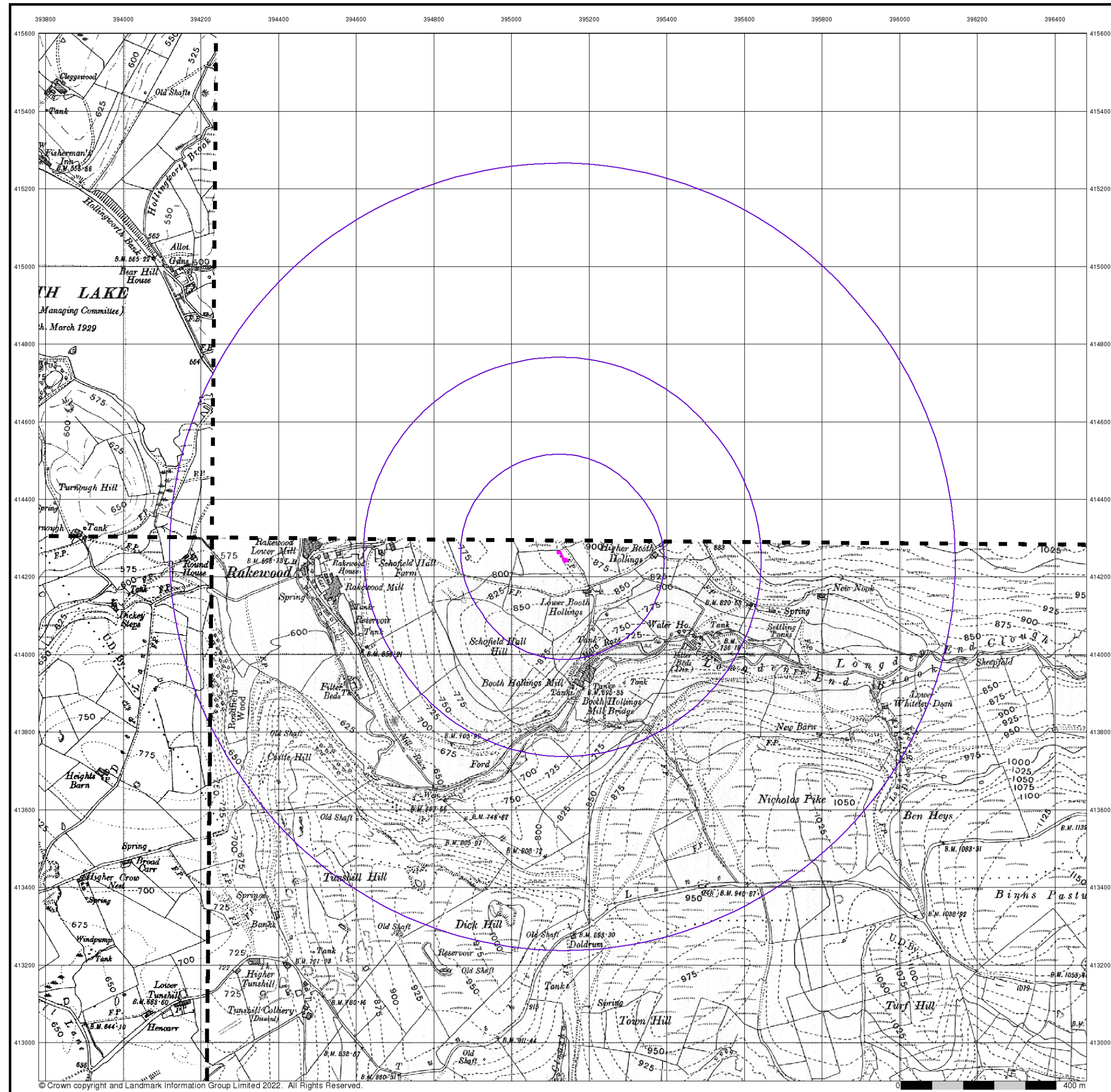


Order Details

Order Number: 300386407_1_1
Customer Ref: LKC 22 1443
National Grid Reference: 395130, 414250
Slice: A
Site Area (Ha): 0.01
Search Buffer (m): 1000

Site Details

Site at 395130, 414270



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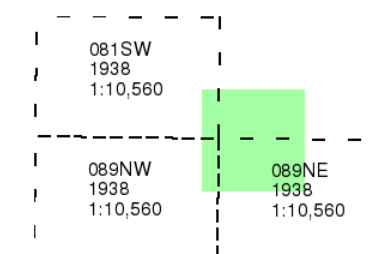
Lancashire And Furness

Published 1938

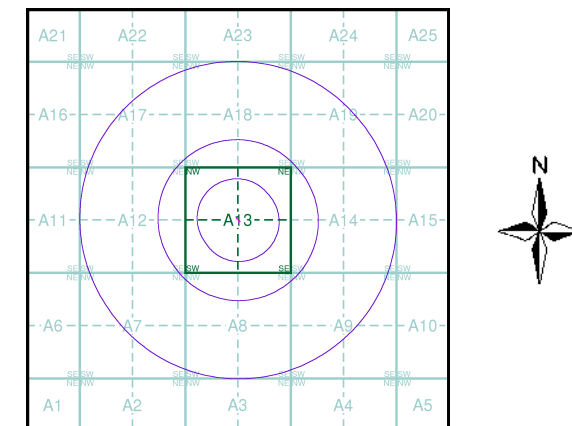
Source map scale - 1:10,560

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

Map Name(s) and Date(s)



Historical Map - Slice A



Order Details

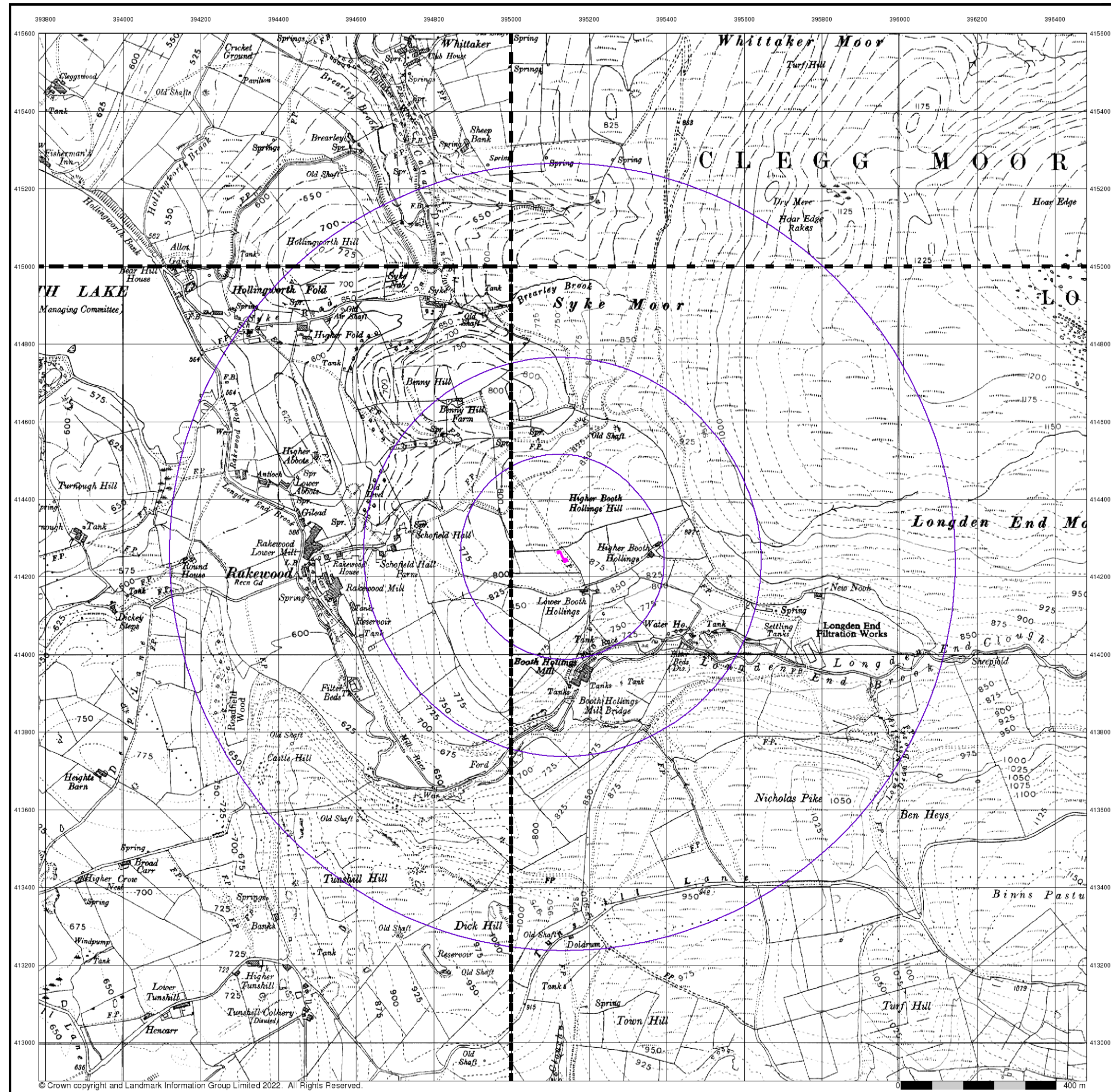
Order Number: 300386407_1_1
Customer Ref: LKC 22 1443
National Grid Reference: 395130, 414250
Slice: A
Site Area (Ha): 0.01
Search Buffer (m): 1000

Site Details

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Ordnance Survey Plan

Published 1956

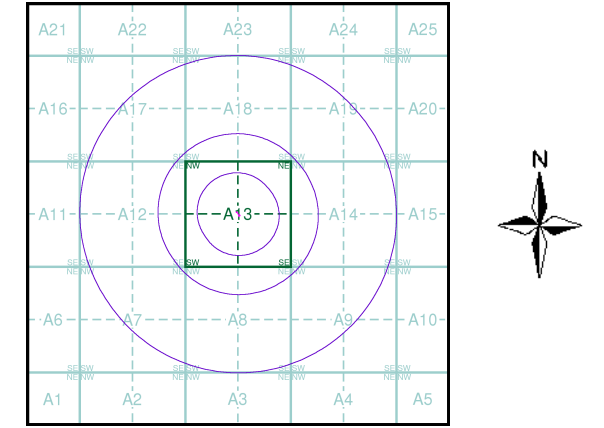
Source map scale - 1:10,000

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

Map Name(s) and Date(s)

SD91NW	SD91NE
1956	1956
1:10,560	1:10,560
SD91SW	SD91SE
1956	1956
1:10,560	1:10,560

Historical Map - Slice A



Order Details

Order Number: 300386407_1_1
Customer Ref: LKC 22 1443
National Grid Reference: 395130, 414250
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Search Buffer (m): 1000

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GROUP

Ordnance Survey Plan

Published 1967 - 1968

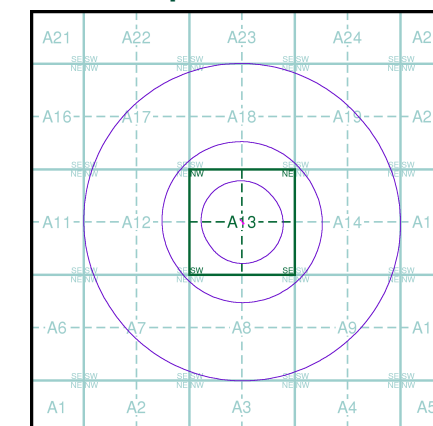
Source map scale - 1:10,000

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)

SD91NW
1968
1:10,560
SD91SW
1967
1:10,560

Historical Map - Slice A



Order Details

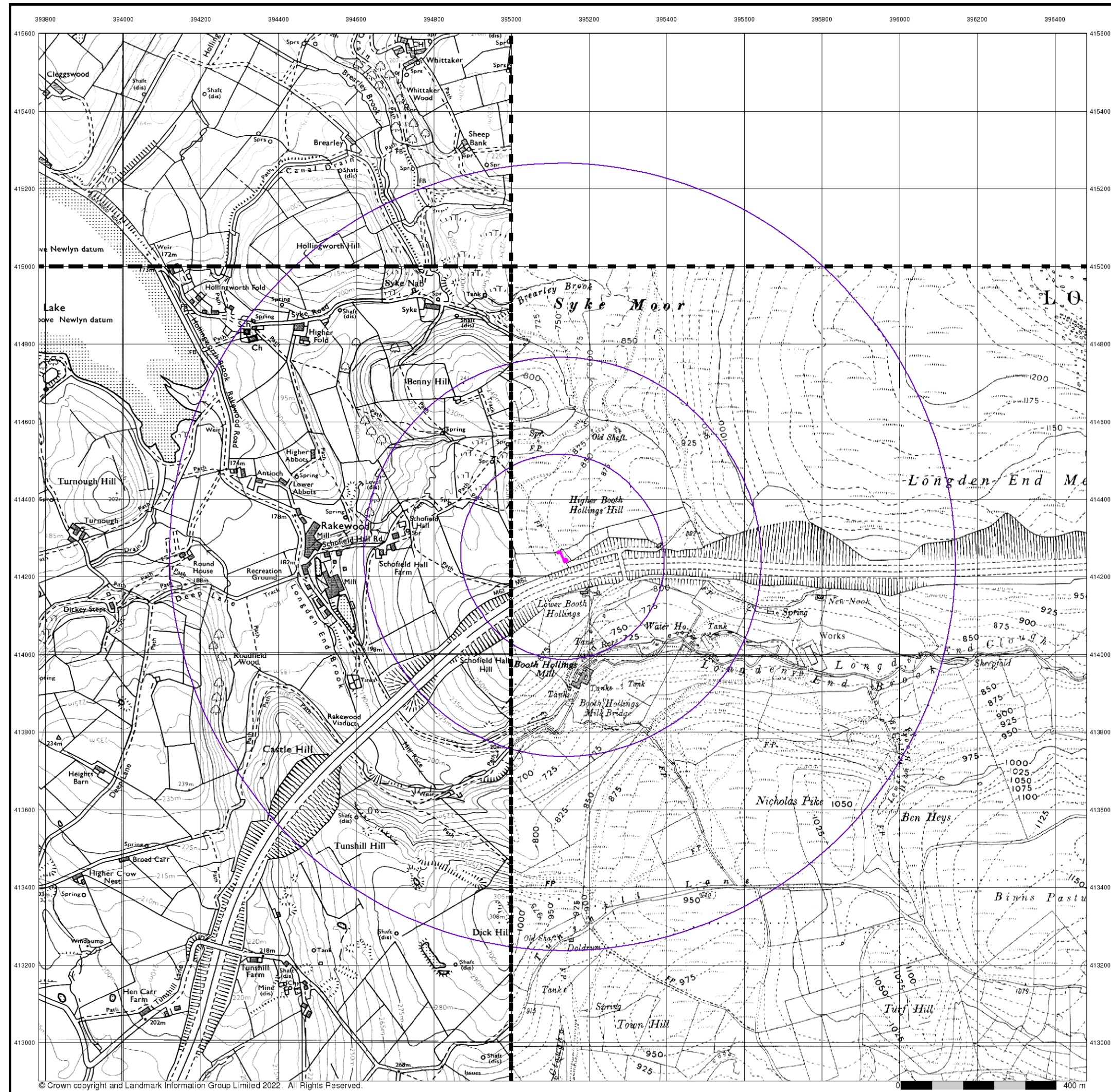
Order Number: 300386407_1_1
Customer Ref: LKC 22 1443
National Grid Reference: 395130, 414250
Slice: A
Site Area (Ha): 0.01
Search Buffer (m): 1000

Site Details

Site at 395130, 414270

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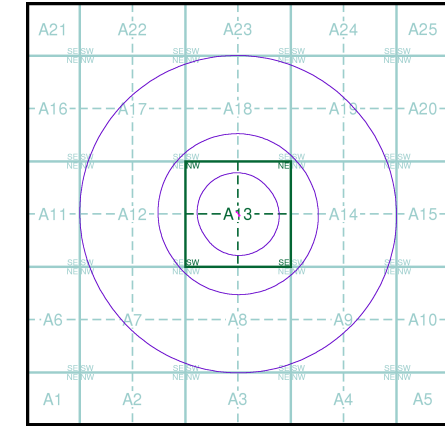
Ordnance Survey Plan
Published 1972 - 1979
Source map scale - 1:10,000

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)

SD91NW	1978	1:10,000
SD91SW	1979	1:10,000
SD91SE	1972	1:10,560

Historical Map - Slice A



Order Details

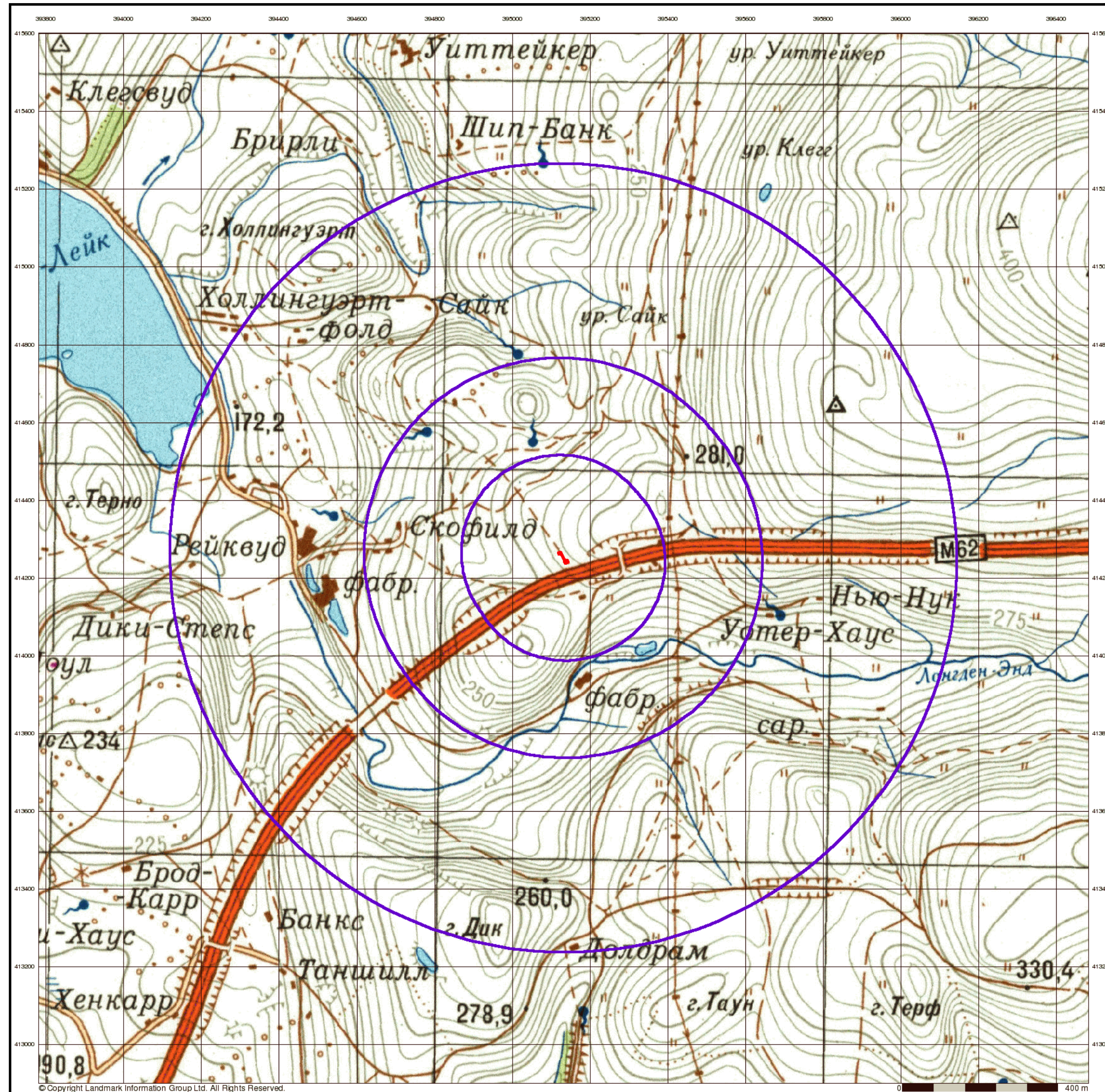
Order Number: 300386407_1_1
Customer Ref: LKC 22 1443
National Grid Reference: 395130, 414250
Slice: A
Site Area (Ha): 0.01
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Site Details

Site at 395130, 414270



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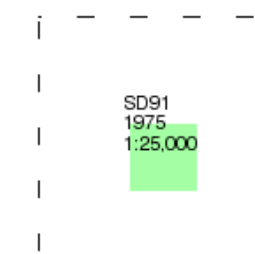
LK
GROUP
Manchester

Published 1975

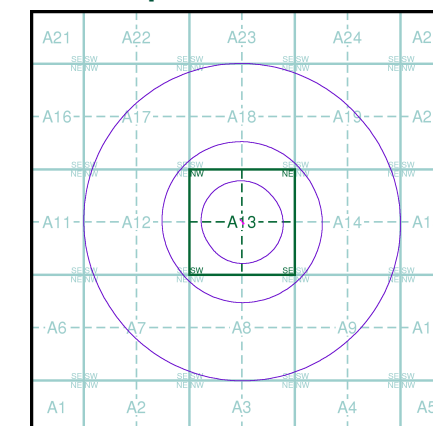
Source map scale - 1:25,000

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

Map Name(s) and Date(s)



Russian Map - Slice A



Order Details

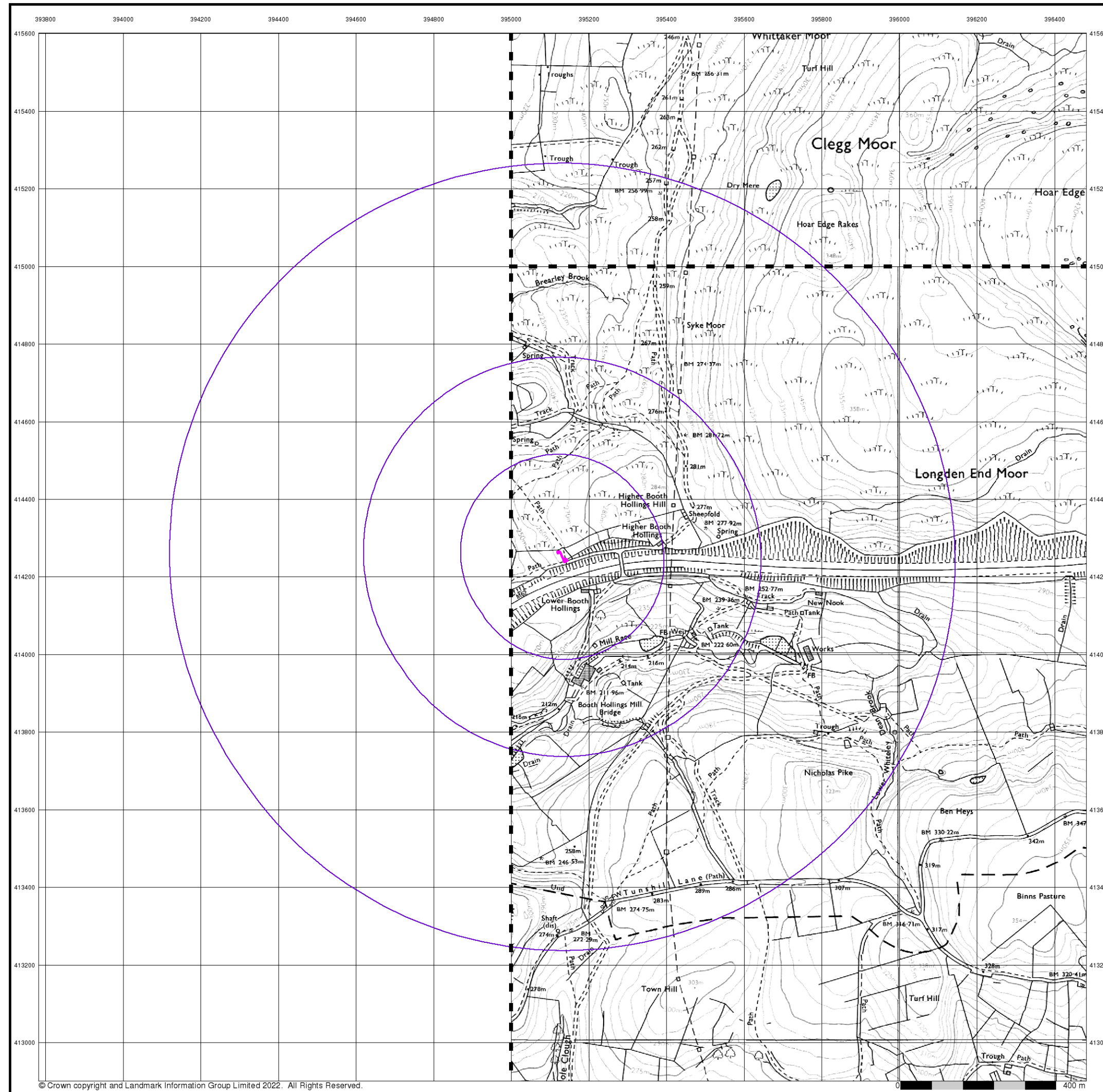
Order Number: 300386407_1_1
Customer Ref: LKC 22 1443
National Grid Reference: 395130, 414250
Slice: A
Site Area (Ha): 0.01
Search Buffer (m): 1000

Site Details

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Ordinance Survey Plan

Published 1980 - 1981

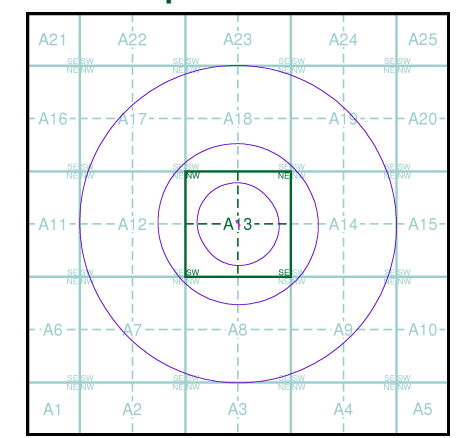
Source map scale - 1:10,000

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)

SD91NE	1980	1:10,000
SD91SE	1981	1:10,000

Historical Map - Slice A



Order Details

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Customer Ref: LKC 22 1443
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Site Details

Site at 395130, 414270



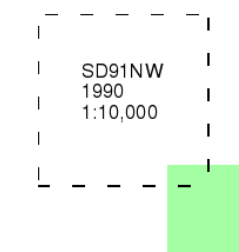
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Web: www.envirocheck.co.uk

Published 1990

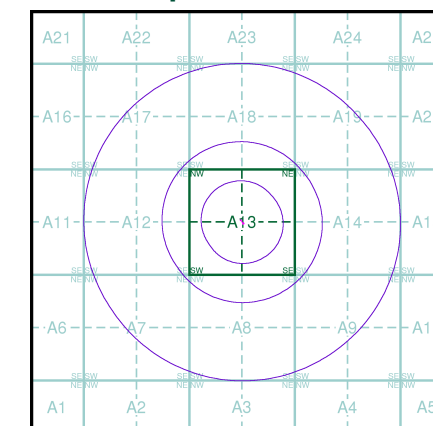
Source map scale - 1:10,000

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

Map Name(s) and Date(s)



Historical Map - Slice A

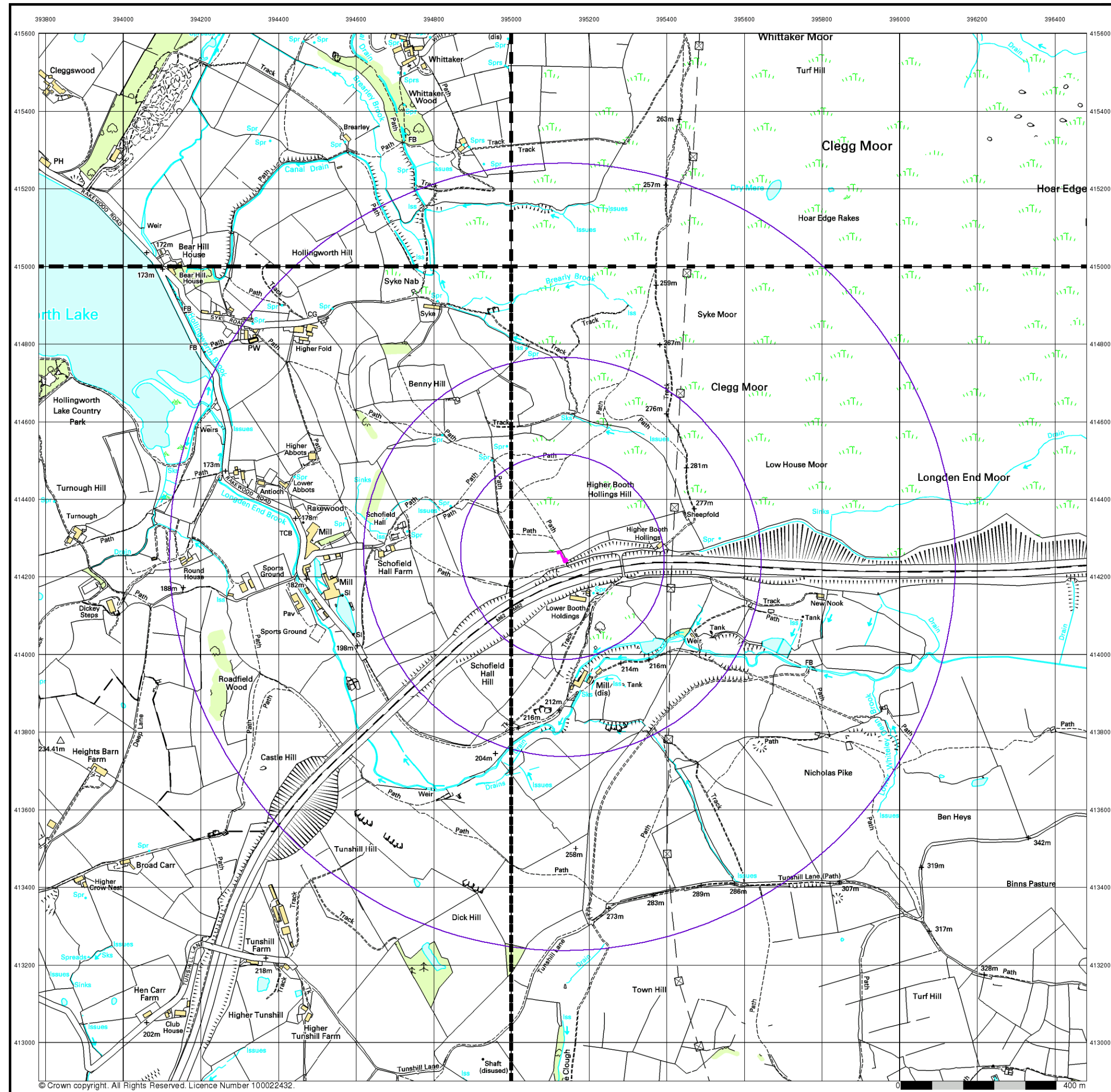


Order Details

Order Number: 300386407_1_1
Customer Ref: LKC 22 1443
National Grid Reference: 395130, 414250
Slice: A
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Site Details

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10k Raster Mapping

Published 1999

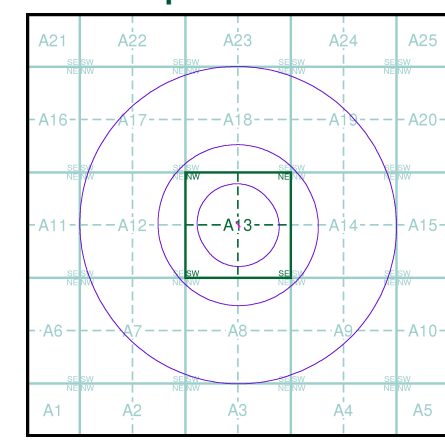
Source map scale - 1:10,000

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)

SD91NW	SD91NE
1999	1999
1:10,000	1:10,000
SD91SW	SD91SE
1999	1999
1:10,000	1:10,000

Historical Map - Slice A

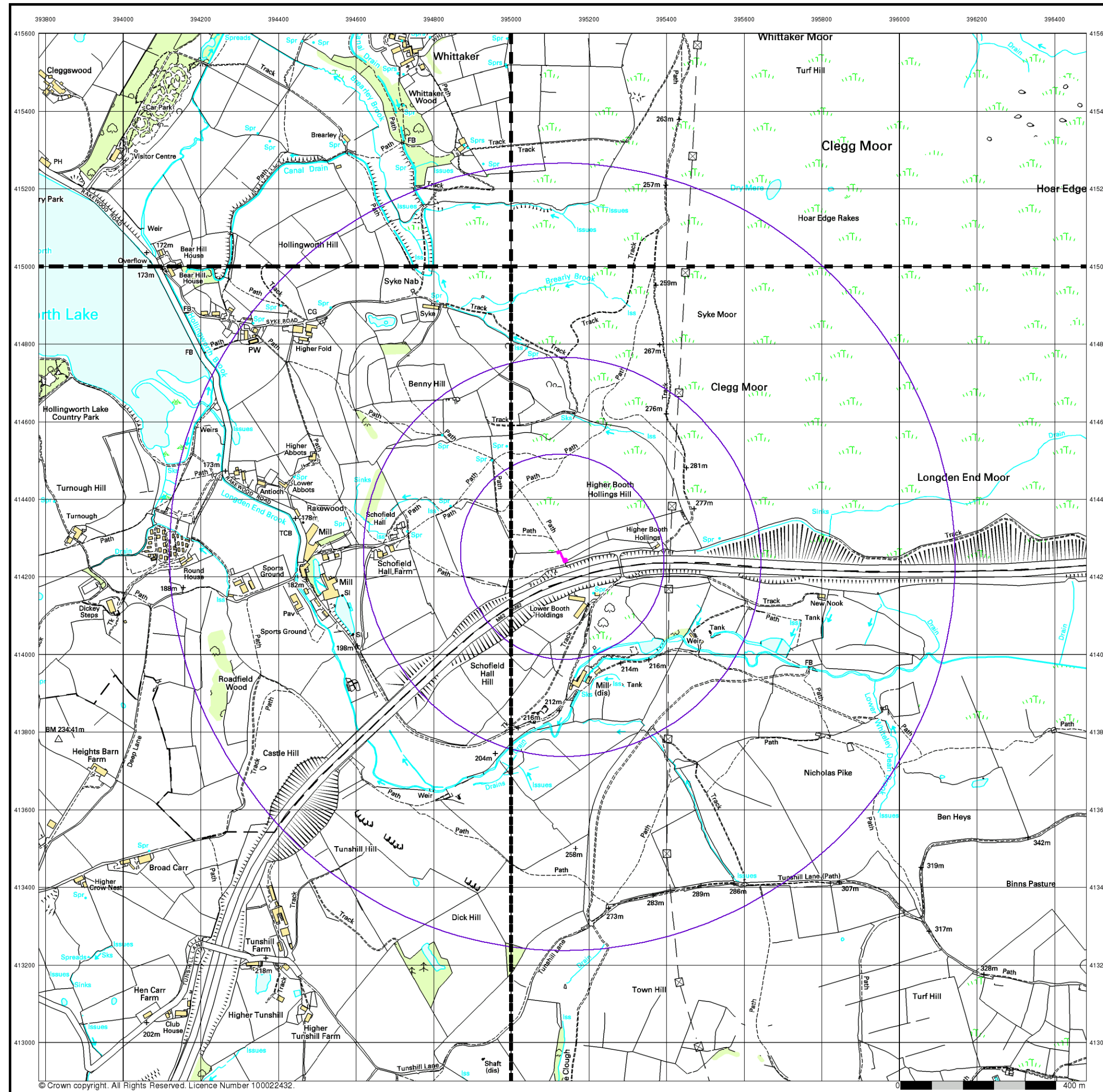


Order Details

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Customer Ref: LKC 22 1443
National Grid Reference: 395130, 414250
Slice: A
Site Area (Ha): 0.01
Search Buffer (m): 1000

Site Details

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LK GROUP

10k Raster Mapping

Published 2006

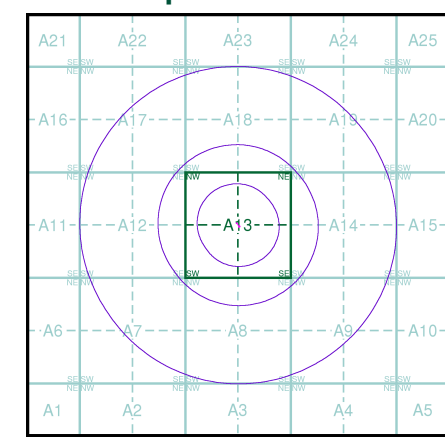
Source map scale - 1:10,000

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

Map Name(s) and Date(s)

SD91NW	SD91NE
2006	2006
1:10,000	1:10,000
SD91SW	SD91SE
2006	2006
1:10,000	1:10,000

Historical Map - Slice A

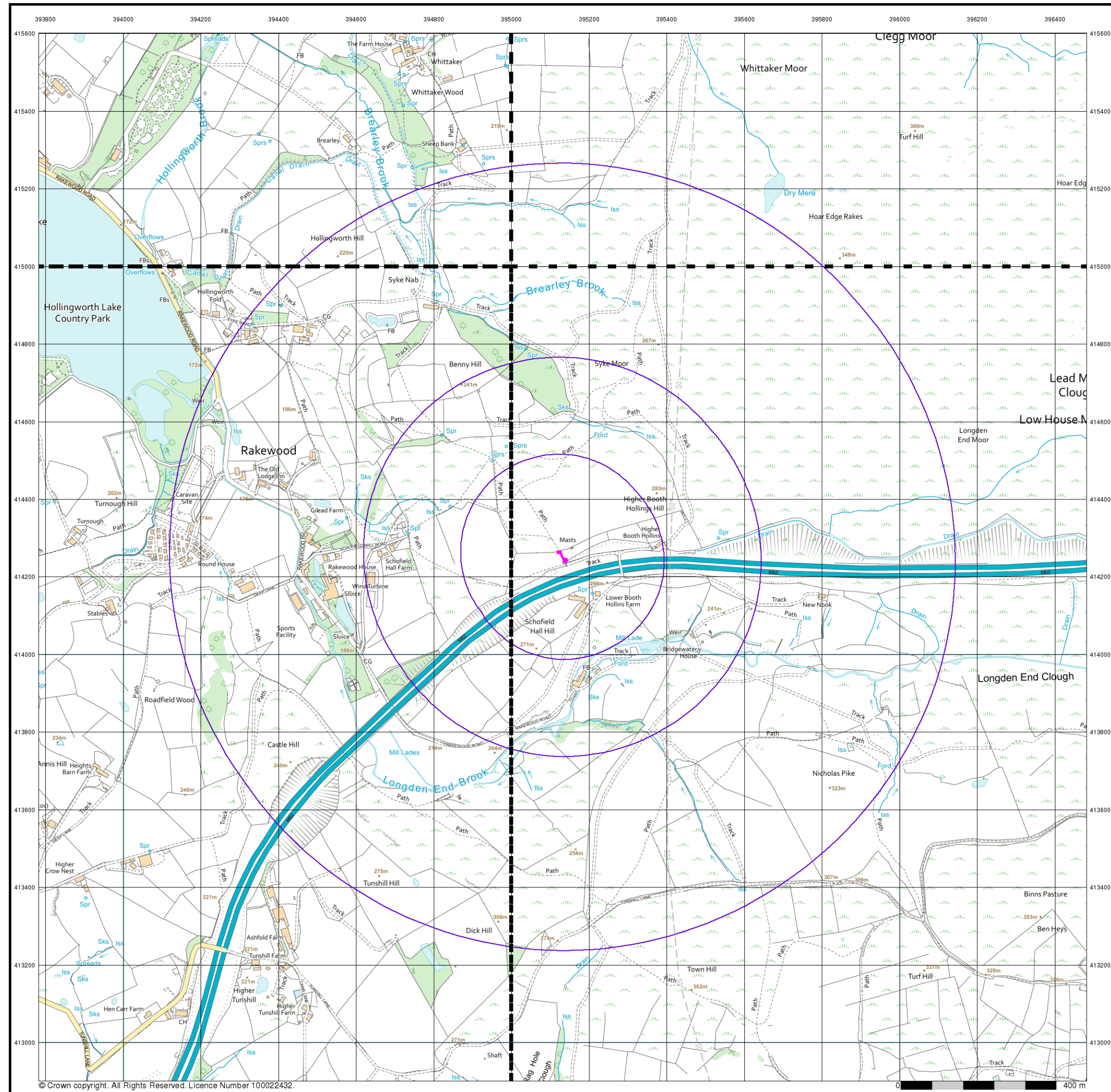


Order Details

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Site Details

Site at 395130, 414270

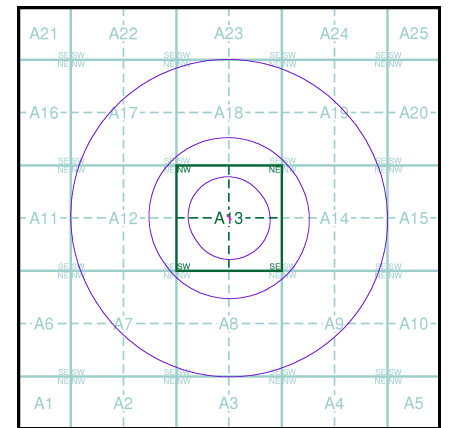


VectorMap Local (Raster) is Ordnance Survey's highest detailed 'backdrop' mapping product. These maps are produced from OS's VectorMap Local, a simple vector dataset at a nominal scale of 1:10,000, covering the whole of Great Britain, that has been designed for creating graphical mapping. OS VectorMap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

Map Name(s) and Date(s)

SD91NW 2021 Variable	SD91NE 2021 Variable
SD91SW 2021 Variable	SD91SE 2021 Variable

Historical Map - Slice A



Order Details

Order Number: 300386407_1_1
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National Grid Reference: 395130, 414250
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Based across the UK with
offices in Manchester,
London, Liverpool and Glasgow.

Manchester (Head Office)

Unit 29,
Eton Business Park
Eton Hill Rd, Radcliffe
M26 2ZS

t: 0161 763 7200
e: info@thelkgroup.com

London

Brooklands Business Park
Wellington Way
Weybridge
KT13 0TT

t: 01932 871872
e: info@thelkgroup.com

Glasgow

Wright Business Centre
1 Lonmay Road
Glasgow
G33 4EL

t: 0141 773 6269
e: info@thelkgroup.com

Liverpool

The Corn Exchange
Fenwick Street
Liverpool
L2 7QL

t: 0151 235 8716
e: info@thelkgroup.com

Swindon

39 Bowman House Business Centre
Bowman Court
Whitehill Lane
Royal Wootton Bassett
Swindon
SN4 7DB

t : 01793 987 390
e : info@thelkgroup.com



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- » Project Management
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