beamconsulting

Mr D Hirst

COAL MINING RISK ASSESSMENT
FOR
PROPOSED RESIDENTIAL UNIT (3No.)
1 LOW GATE
KIRKBURTON
HD8 0SE

Beam Consulting Engineers Ltd
14 Bond Street
Wakefield
WF1 2QP

Ref: 186-31-DOC-01

Date: 1st February 2019

beamconsulting

REVISION RECORD

Rev	Description	Date
0	Report first issue	1st February 2019

CONTENTS

EXECUTIVE SUMMARY 1
1.0 Intruduction 2
2.0 Geology 4
3.0 Mining 5
4.0 Coal Mining Risk Assessment 7
5.0 Mitigation Measures 8

APPENDIX 1: SITE LOCATION PLAN .....
APPENDIX 2: COAL MINING REPORTS .....
APPENDIX 3: HISTORIC MAPS .....
APPENDIX 4: 1:50,000 GEOLOGY MAPS .....

EXECUTIVE SUMMARY

This Coal Mining Risk Assessment has been prepared in relation to the proposed development of land for a three residential units on land adjacent to 1 Low Gate, Kirkburton, HD8 0SE.

The existing land has been developed partly in the past with properties indicated at the east side of the site until 1948. The historic maps of 1893 to 2019 indicate historic coal mining feature some of which for example, sinks, remain. In addition significant residential development local to the site has taken place with the last 50 years.

Whilst it cannot be stated that there is no risk of the presence of unrecorded mineworkings on this site, based on evaluation and study of record information available to date the risk to the development of this site from collapse of such workings, is moderate which requires physical investigation.

It is therefore recommended that physical investigations are undertaken prior to development comprising a series of 30m rotary water flush boreholes to confirm that the superficial geology is as anticipated in the coal mining risk assessment and to establish whether or not the coal seams below have or have not been worked thus enabling remedial measures to be design if proved to be necessary.

1.0 INTRODUCTION

This Coal Mining Risk Assessment has been prepared in relation to the proposed development of land for a three residential units at 1 Low Gate, Kirkburton, HD8 0SE.

It is understood that the existing land has been developed partly in the past with properties indicated at the east side of the site until 1948. The historic maps of 1893 to 2019 indicate historic coal mining feature some of which for example, sinks, remain. In addition significant residential development local to the site has taken place with the last 50 years.

This Coal Mining Risk Assessment is based on the following information:

i. Site location
ii. Landmark historic maps
iii. Site Geology
iv. The Coal Authority CON29M Non-Residential Mining Report.
v. The Coal Authority Consultants Coal Mining Report
vi. Current proposal by L'Arche Developments.

All comments and opinions contained in this Report, including any conclusions are based on information available to Beam Consulting Engineers during investigations prior to completion of the Report. Conclusions drawn by Beam Consulting Engineers may differ if the available information is subsequently found to be inaccurate, incomplete or misleading. Beam Consulting Engineers accept no responsibility should this prove to be the case, nor if additional information exists or becomes available in relation to this site. This also applies to recommendations made by Beam Consulting Engineers.

Except as otherwise requested by the Client, Beam Consulting Engineers are not obliged and disclaim any obligation to update the report for events outside Beam Consulting Engineers' direct control taking place after:

i. The date on which the appraisal was undertaken, and
ii. The date on which the Report is issued.

Beam Consulting Engineers make no representation whatsoever in relation to the legal significance of findings reported or any legal matters referred to in the following report.

This document is a Coal Mining Risk Assessment in relation to development of a three residential units at 1 Low Gate, Kirkburton, HD8 0SE for Mr D Hirst. The information presented and mitigation measures/recommendations stated are based on a desk study only, of available information.

This Coal Mining Risk Assessment deals with the initial concerns raised by the planning authority to the development proposal.

This Coal Mining Risk Assessment document is the copyright of Beam Consulting Engineers Ltd. It cannot be used or reproduced without the express written authority of Beam Consulting Engineers Ltd and payment thereof.

1.1 Objectives

The site has been identified as being in an area with coal mining legacy, specifically historic unrecorded underground coal mining at shallow depth that could have potential risks to development. The aim of the assessment is to review the mining position with respect to the proposed end use of the site, the objectives being:

- to review relevant coal mining data
- to consider how this data affects the proposed development
- to assess any mitigation measures if any, which may be required

1.2 Site Location

The site is located on land adjacent to 1 Low Gate, Kirkburton, HD8 0SE. A site location plan is included as Appendix 1.

1.3 Site Description

The proposed site development is for three residential units. The existing land has been developed partly in the past with properties indicated at the east side of the site until 1948. Since this date the site has not been developed. Historic maps are included in Appendix 3.

2.0 GEOLOGY

2.1 Superficial Geology

The superficial deposits in the area comprise alluvium (clays, sands and gravels) as indicated on the 1:50,000 scale Geology Maps included in Appendix 4. There are a borehole records available of the BGS Boreholes website form past ground investigations and typically it can be expected that the thickness of these deposits in this area to be of the order 3m to 4m.

2.2 Solid Geology

The site is underlain by the Pennine Lower Coal Measures (PLCM) strata of Langsettian age, dipping locally in a south easterly direction and comprising a sequence of sandtones, mudstones, siltstones, and associated coal seams. The Black Bed coal seam is known to outcrop just to the north of this site and is indicated as PLCM on the Geology Maps in Appendix 4. The outcrop will be present as sub-cropping (below likely surface alluvium deposits).

3.0 MINING

3.1 Coal Authority Mining Report (CON29M Report)

A Coal Authority Mining Report has been obtained for the site. This is included as Appendix 2. The Report is summarised below.

3.1.1 Mine Entries

The Coal Authority has confirmed that it does not have any records of any mine entries within the site or within 20 metres of the site boundary.

3.1.2 Underground Mining

The site is not within a surface area where past coal mine workings have been recorded. There is no present working of coal beneath or within the influencing distance of the site and the site is not within an area where a licence has been granted to remove coal by underground methods.

3.1.3 Opencast

The site is not within the boundary of an opencast site from which coal has been removed by opencast methods, nor does it lie within 200 metres of such a site. There are no proposals received by the Coal Authority for future extraction of coal by opencast methods within a distance of 800 metres of the site.

3.1.4 Subsidence/Damage

The Coal Authority is not aware of any evidence of damage arising due to geological faults or other signs of weakness that have been affected by coal mining. In addition the Coal Authority has not received a damage notice or claim for the property since 31 October 1994 under the Coal Mining Subsidence Act 1991. The property has not been subject to remedial measures by or on behalf of the Coal Authority under its' emergency call out procedures.

3.1.5 Mine Gas

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

3.2 Discussion of The Coal Authority Report Findings

3.2.1 The Report Findings

The Coal Mining Report highlights that the property could not be affected by recorded underground coal mining. The Report highlights that there is however coal at or close to the surface, ie at shallow depth, and that this coal may have been worked in the past but this is unrecorded. The concern is that historic unrecorded shallow workings may exist. Where such workings are present they can be a risk to surface and future development of the site. The

main cause of risk is through collapse of roof strata above the workings migrating upwards, resulting in the formation of a crown hole type collapse or depression at the surface.

3.2.2 Historic Maps

The historic maps of 1893 to 2019 indicate historic coal mining features, for example sinks 100m to the North West, an old shaft 200m to the East and Box Ings Colliery 300m to the South. The existing land has been developed partly in the past with properties indicated at the east side of the site until 1948. Since this date the site has not been developed. Historic maps are included in Appendix 3.

3.2.3 Review of British Geological Survey (BGS) Borehole Records

BGS Borehole records are available from past investigation on the site of the former Kirkburton Mental Home approx. 100m north west of the site. The boreholes are up to 4m deep and indicate the previously described superficial deposits.

3.2.5 Local Urban Development

There has been significant urban development in the area immediately local to the site. It is likely that much of this development has adopted shallow foundations without any ground treatment in relation to shallow coal mineworkings but this has not been verified.

3.3 Coal Authority Consultants Coal Mining Report

3.3.1 This Report supplements and confirms the content of the CON29M Coal Mining Report. In addition this Report indicates the location of nearby recorded mine entries and confirms that they are not within 20m of the development site. A summary of findings plan is also provided by The Coal Authority which is included in Appendix 2.

3.3.2 The Report notes that the site is in an area where mine abandoned records may exist.

3.3.3 This Report therefore confirms that the discussion on the CON29M Report at 3.2.1 remains valid and that there remains concern that shallow historic coal mining works could exist.

4.0 COAL MINING RISK ASSESSMENT

4.1.1 Risk of Presence of Deep Mineworkings

Deep coal mineworkings have not been recorded.

4.1.2 Risk of Presence of Shallow Mineworkings

The Coal Authority Interactive Map indicates a number of coal mining features such as possible adits. In addition the historic maps of 1893 to 2019 indicate historic features, for example sinks 100m to the North West, an old shaft 200m to the East and Box Ings Colliery 300m to the South. The Black Bed Coal seam is also noted as being close to the site as noted at in the BGS records at 3.2.3 above. In addition The Coal Authority Consultants Coal Mining Report includes records of mine entries locally over 20m distant from the site.

On balance the risk of presence of unrecorded shallow mineworkings on this site is a moderate risk and additional investigation is necessary.

4.2.3 Risk of Surface Instability

The risk of surface instability is a potential concern considered to be a moderate risk due to potential unrecorded deep and shallow coal workings collapse and therefore to avoid any detrimental effect on property on or close to this site it is recommended that further physical investigation is undertaken.

4.2.4 Coal Mining Risk Assessment

There is a potential risk of this site being unsafe, unstable or otherwise unacceptable for development of residential properties. Further investigation of unrecorded coal mine workings is required.

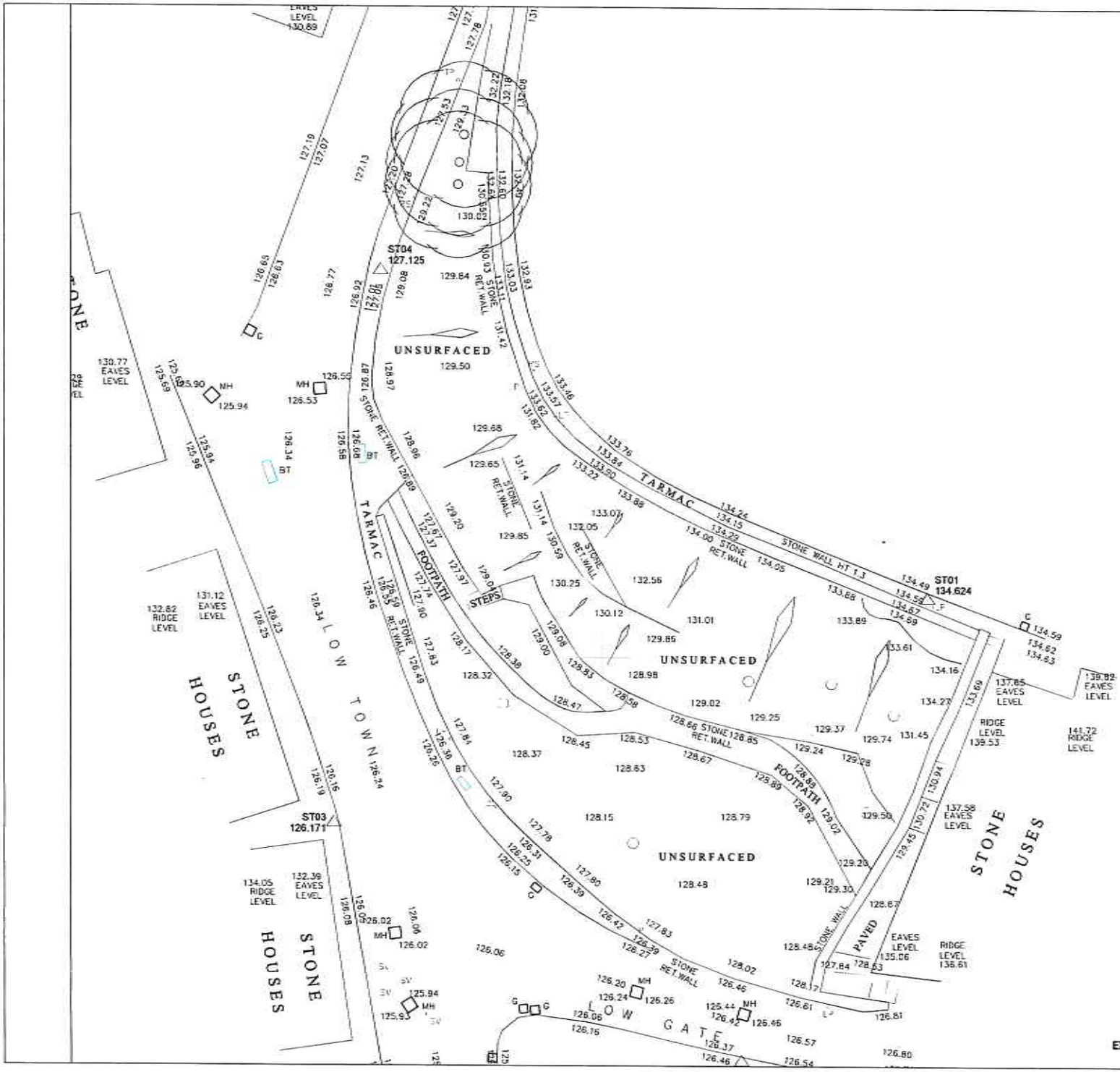
5.0 Mitigation Measures

It cannot be stated that there is no potential risk of the presence of unrecorded coal mineworkings on this site, based on evaluation and study of record information the risk to the development of this site from collapse of such workings, is unknown and further information is necessary to reduce this risk. The potential risk is considered to be moderate.

Given the scale of the development and the impact the workings could have it is recommended that further investigation is undertaken to include physical investigation and to seek abandonment records from The Coal Authority prior to undertaking physical investigations.

It is therefore recommended that physical investigations are undertaken prior to development comprising a series of 30m rotary water flush boreholes to confirm that the superficial geology is as anticipated in the coal mining risk assessment and to establish whether or not the coal seams below have or have not been worked thus enabling remedial measures to be design if proved to be necessary.

APPENDIX 1: SITE LOCATION PLAN



EXISTING SITE PLAN 1:100

NOTE: ALL DIMENSIONS SHOWN ARE PROVISIONAL DIMENSIONS ONLY & SHOULD NOT BE READ AS EXACT MEASUREMENTS.
THESE MAY NEED TO BE ALTERED DUE TO SITE CONSTRAINTS/ INSPECTION
THE DRAWINGS AND DESIGN ARE THE COPYRIGHT OF L'ARCHE DEVELOPMENTS YORKSHIRE LTD & SHOULD NOT BE RE-PRODUCED WITHOUT PRIOR PERMISSION



SITE LOCATION PLAN 1:1250

DRAWING DESCRIPTION
PLANS AS EXISTING

JOB TITLE
SITE OFF LOW GATE, EXELBURTON ADJ TO 1 LOWGATE KIRKBURTON

CLIENT
MR D, HIRST

DRAWN BY	SCALE 1:50/100 @ A1	
DATE DEC 2018	DRAWING NO. 1051/100-01	REVISION -
CHECKED		

L'ARCHE DEVELOPMENTS

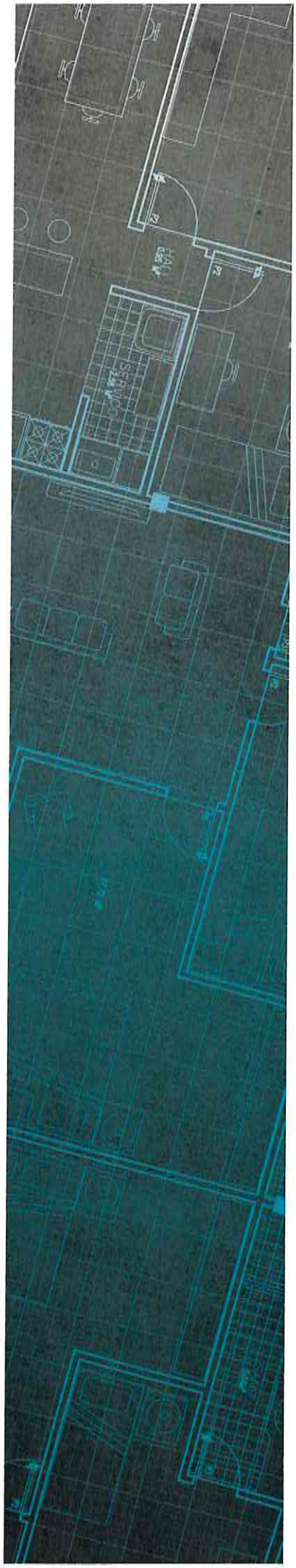
APPENDIX 2: COAL MINING REPORTS

The Coal Authority

Consultants

Coal Mining Report

1 Low Gate
Kirkburton
Huddersfield
Kirklees
HD8 0SE



Date of enquiry:	1 February 2019
Date enquiry received:	1 February 2019
Issue date:	1 February 2019
Our reference:	51002023540001
Your reference:	

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

Dale Hirst

Enquiry address

1 Low Gate
Kirkburton
Huddersfield
Kirklees
HD8 0SE



Approximate position of property

Map data

Reproduced by permission of Ordnance Survey on behalf of HMSO. © Crown copyright and database right 2018. All rights reserved.

Ordnance Survey Licence number: 100020315

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

Section 1 – Mining activity and geology

Past underground mining
No past mining recorded.

Probable unrecorded shallow workings
Yes.

Spine roadways at shallow depth
No spine roadway recorded at shallow depth.

Mine entries

Entry type	Reference	Grid reference	Treatment description	Mineral	Conveyancing details
Adit	419412-004	419679 412636		Coal	
Adit	419412-005	419695 412596		Coal	

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

4499		

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.

Copyright © 2019 The Coal Authority

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.

Copyright © 2019 The Coal Authority

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.

Copyright © 2019 The Coal Authority

Section 4 – Further information

Based on the responses in this report, no further information has been highlighted.

Copyright © 2019 The Coal Authority

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.

Copyright © 2019 The Coal Authority

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.

Copyright © 2019 The Coal Authority

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.

Copyright © 2019 The Coal Authority

This page left intentionally blank

Copyright © 2019 The Coal Authority

VAT receipt

Issued by	The Coal Authority 200 Lichfield Lane Mansfield Nottinghamshire NG18 4RG
Tax point date	01 February 2019
Issued to	DALE HIRST 1 LOW GATE KIRKBURTON HUDDERSFIELD KIRKLEES HD8 0SE
Property search for	1 LOW GATE KIRKBURTON HUDDERSFIELD KIRKLEES HD8 0SE
Reference number	51002023540001
Date of issue	01 February 2019
Cost	£106.79
VAT @ 20%	£21.36
Total received	£128.15
VAT registration	598 5850 68

Copyright © 2019 The Coal Authority

The Coal Authority

Summary of findings

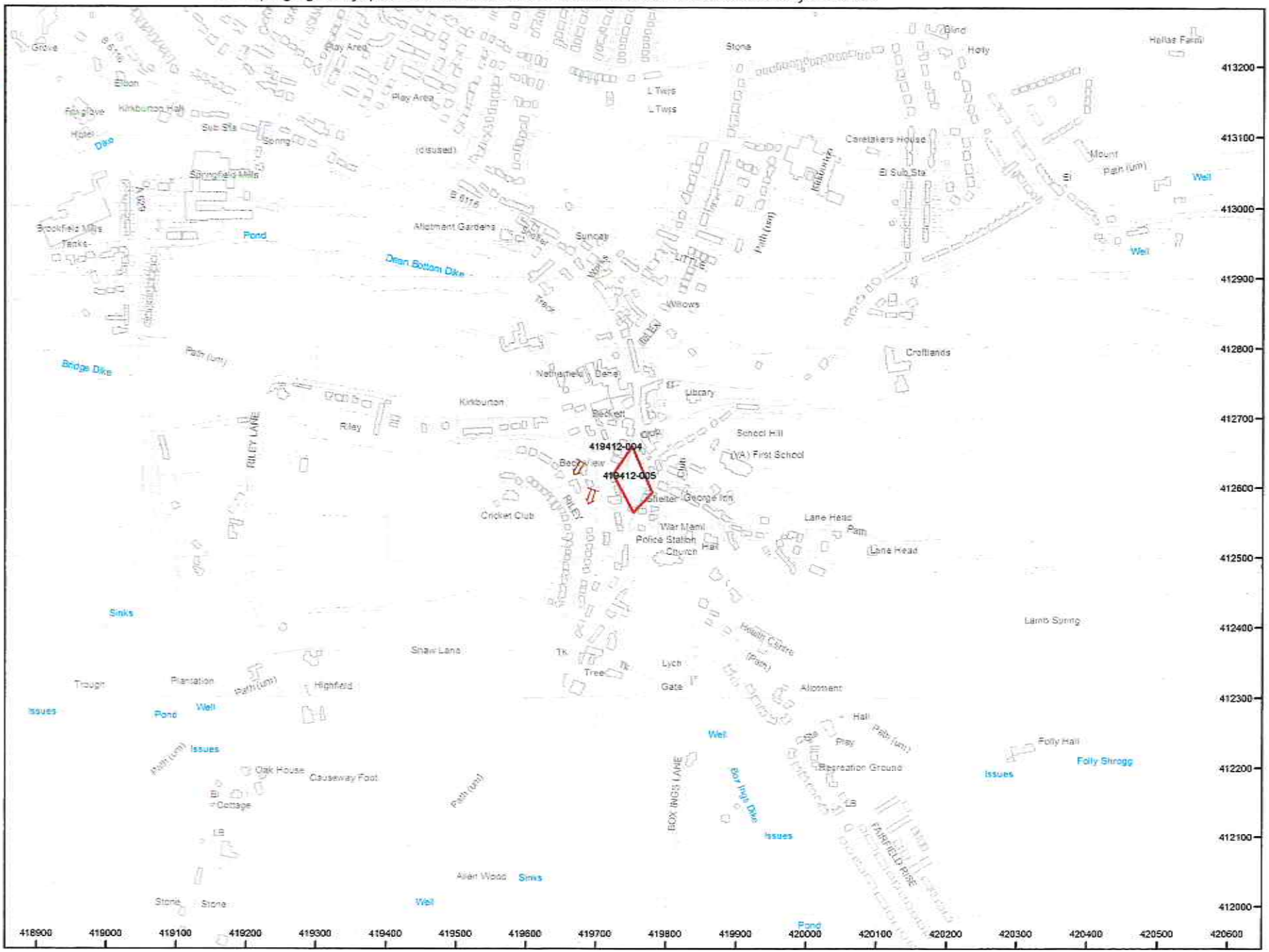
Reproduced by permission of Ordnance Survey on behalf of HMSO
© Crown copyright and database right 2016. All rights reserved.
Ordnance Survey Licence number 100020315

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

Key

Approximate position of the enquiry boundary shown

Disused adit



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

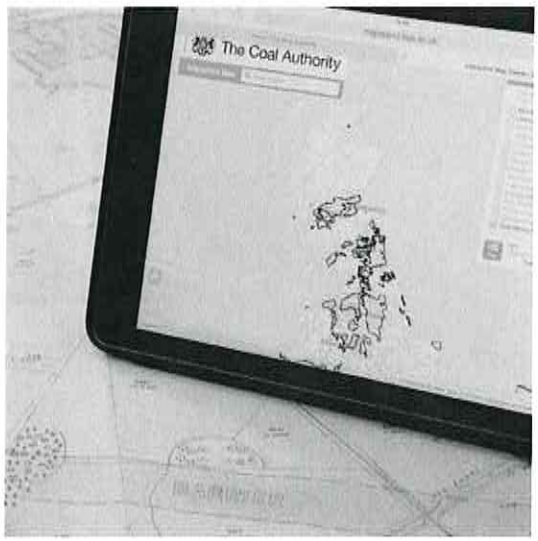
The Coal Authority

CON29M Non-Residential Mining Report



1 LOW GATE
KIRKBURTON
HUDDERSFIELD
KIRKLEES
HD8 0SE





Date of enquiry:	28 January 2019
Date enquiry received:	28 January 2019
Issue date:	28 January 2019
Our reference:	51002012931001
Your reference:	land adj 1 lowgate

CON29M Non-Residential Mining Report

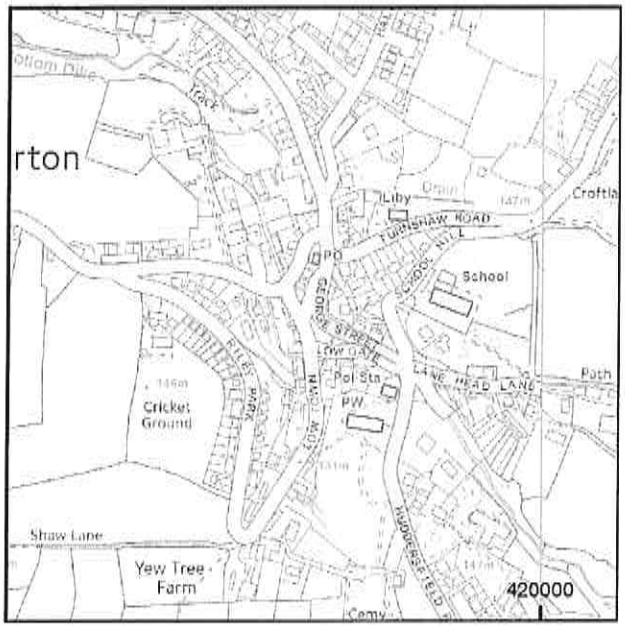
This report is based on, and limited to, the records held by the Coal Authority, at the time we answer the search.

Client name

Dale Hirst

Enquiry address

1 LOW GATE
KIRKBURTON
HUDDERSFIELD
KIRKLEES
HD8 0SE



Approximate position of property

Map data

© Crown copyright and database rights 2018.

Ordnance Survey Licence number: 100020315.

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

Summary

Has the search report highlighted evidence or potential of		
1	Past underground coal mining	Yes
2	Present underground coal mining	No
3	Future underground coal mining	Yes
4	Mine entries	Yes
5	Coal mining geology	No
6	Past opencast coal mining	No
7	Present opencast coal mining	No
8	Future opencast coal mining	No
9	Coal mining subsidence	No
10	Mine gas	No
11	Hazards related to coal mining	No
12	Withdrawal of support	No
13	Working facilities order	No
14	Payments to owners of former copyhold land	No

For detailed findings, please go to page 4.

Copyright © 2019 The Coal Authority

Detailed findings

1. Past underground coal mining

The property is not within a surface area that could be affected by any past recorded underground coal mining.

However the property is in an area where the Coal Authority believes there is coal at or close to the surface. This coal may have been worked at some time in the past. The potential presence of coal workings at or close to the surface should be considered, particularly prior to any site works or future development activity, as ground movement could still be a risk. Your attention is drawn to the Comments on the Coal Authority information section of the report.

2. Present underground coal mining

The property is not within a surface area that could be affected by present underground mining.

3. Future underground coal mining

The property is not in an area where the Coal Authority has received an application for, and is currently considering whether to grant a licence to remove or work coal by underground methods.

The property is not in an area where a licence has been granted to remove or otherwise work coal using underground methods.

The property is not in an area likely to be affected from any planned future underground coal mining.

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

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

4. Mine entries

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

There may however be mine entries/additional mine entries in the local area which the Coal Authority has no knowledge of.

5. Coal mining geology

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

6. Past opencast coal mining

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

7. Present opencast coal mining

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

8. Future opencast coal mining

There are no licence requests outstanding to remove coal by opencast methods within 800 metres of the boundary.

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

9. 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.

10. Mine gas

The Coal Authority has no record of a mine gas emission requiring action.

11. Hazards related to coal mining

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

12. Withdrawal of support

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.

13. Working facilities order

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

14. 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.

Comments on the Coal Authority information

The Coal Authority own the copyright in this report and the information used is protected by our database right.

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

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

Additional remarks

Information provided by the Coal Authority in this report is compiled in response to the Law Society's CON29M Coal Mining enquiries. The said enquiries are protected by copyright owned by the Law Society of 113 Chancery Lane, London WC2A 1PL. This report is prepared in accordance with the Law Society's Guidance Notes 2018, the User Guide 2018 and the Coal Authority's Terms and Conditions applicable at the time the report was produced.

Disclaimer

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

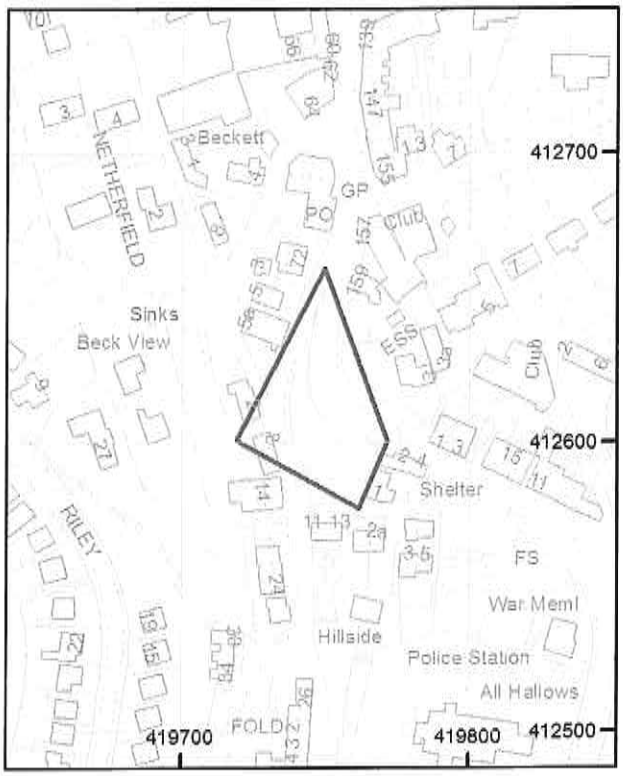
Alternative formats

If you would like this information in an alternative format, please contact our communications team on 0345 762 6848 or email communications@coal.gov.uk.

Enquiry boundary

Key

Approximate position of enquiry boundary shown



Map data

© Crown copyright and database rights 2018.
Ordnance Survey Licence number: 100020315.

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

APPENDIX 3: HISTORIC MAPS

Historical Mapping Legends

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

Quarry
Gravel Pit
Sand Pit
Clay Pit
Shingle
Refuse Heap
Sloping Masonry
Flat Rock
Marsh
Reeds
Osiers
Rough Pasture
Furze
Wood
Mixed Wood
Brushwood
Orchard
Fir
Ford
Stepping Stones
Ferry
Waterfall
Lock
Trig. Station
Altitude at Trig. Station
B.M 325.9 Bench Mark
Surface Level
Arrow denotes flow of water
Antiquities (site of)
Cutting
Embankment
Railway crossing Road
Level Crossing
Road crossing Railway
Railway crossing River or Canal
Road over single stream
Road over River or Canal
County Boundary (Geographical)
County & Civil Parish Boundary
Administrative County & Civil Parish Boundary
Co. Boro. Bdy. County Borough Boundary (England)
Co. Burgh Bdy. County Burgh Boundary (Scotland)

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

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

Inactive Quarry, Chalk Pit or Clay Pit
Active Quarry, Chalk Pit or Clay Pit
Rock
Boulders
Cliff
Slopes
Top
Roofed Building
Glazed Roof Building
Sloping Masonry
Archway
Non-Coniferous Tree (surveyed)
Coniferous Tree (surveyed)
Non-Coniferous Trees (not surveyed)
Coniferous Trees (not surveyed)
Orchard Tree
Scrub
Bracken
Coppice, Osier
Reeds
Marsh, Saltings
Rough Grassland
Heath
Culvert
Direction of water flow
Bench Mark
Antiquity (site of)
Cave Entrance
Triangulation Station
Electricity Pylon
E T L Electricity Transmission Line
County Boundary (Geographical)
County & Civil Parish Boundary
Civil Parish Boundary
Admin. County or County Bor. Boundary
L B Bdy London Borough Boundary
Symbol marking point where boundary mereing changes

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

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

Cliff
Slopes
Top
Rock
Rock (scattered)
Boulders
Boulders (scattered)
Positioned Boulder
Scree
Non-Coniferous Tree (surveyed)
Coniferous Tree (surveyed)
Non-Coniferous Trees (not surveyed)
Coniferous Trees (not surveyed)
Orchard Tree
Scrub
Bracken
Coppice, Osier
Reeds
Marsh, Saltings
Rough Grassland
Heath
Culvert
Direction of water flow
Triangulation Station
Antiquity (site of)
E T L Electricity Transmission Line
Electricity Pylon
BM 231.58m Bench Mark
Buildings with Building Seed
Roofed Building
Glazed Roof Building
Civil parish/community boundary
District boundary
County boundary
Boundary post/stone
Boundary mereing symbol (note: these always appear in opposed pairs or groups of three)

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

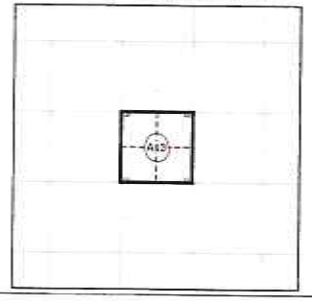
Envirocheck®

LANDMARK INFORMATION GROUP

Historical Mapping & Photography included:

Mapping Type	Scale	Date	Pg
Yorkshire	1:2,500	1893	2
Yorkshire	1:2,500	1906	3
Yorkshire	1:2,500	1916 - 1917	4
Ordnance Survey Plan	1:2,500	1960 - 1961	5
Supply of Unpublished Survey Information	1:2,500	1976	6
Ordnance Survey Plan	1:2,500	1978	7
Additional SIMs	1:2,500	1984 - 1990	8
Additional SIMs	1:2,500	1990	9
Large-Scale National Grid Data	1:2,500	1992	10
Large-Scale National Grid Data	1:2,500	1994 - 1995	11
Historical Aerial Photography	1:2,500	1999	12

Historical Map - Segment A13



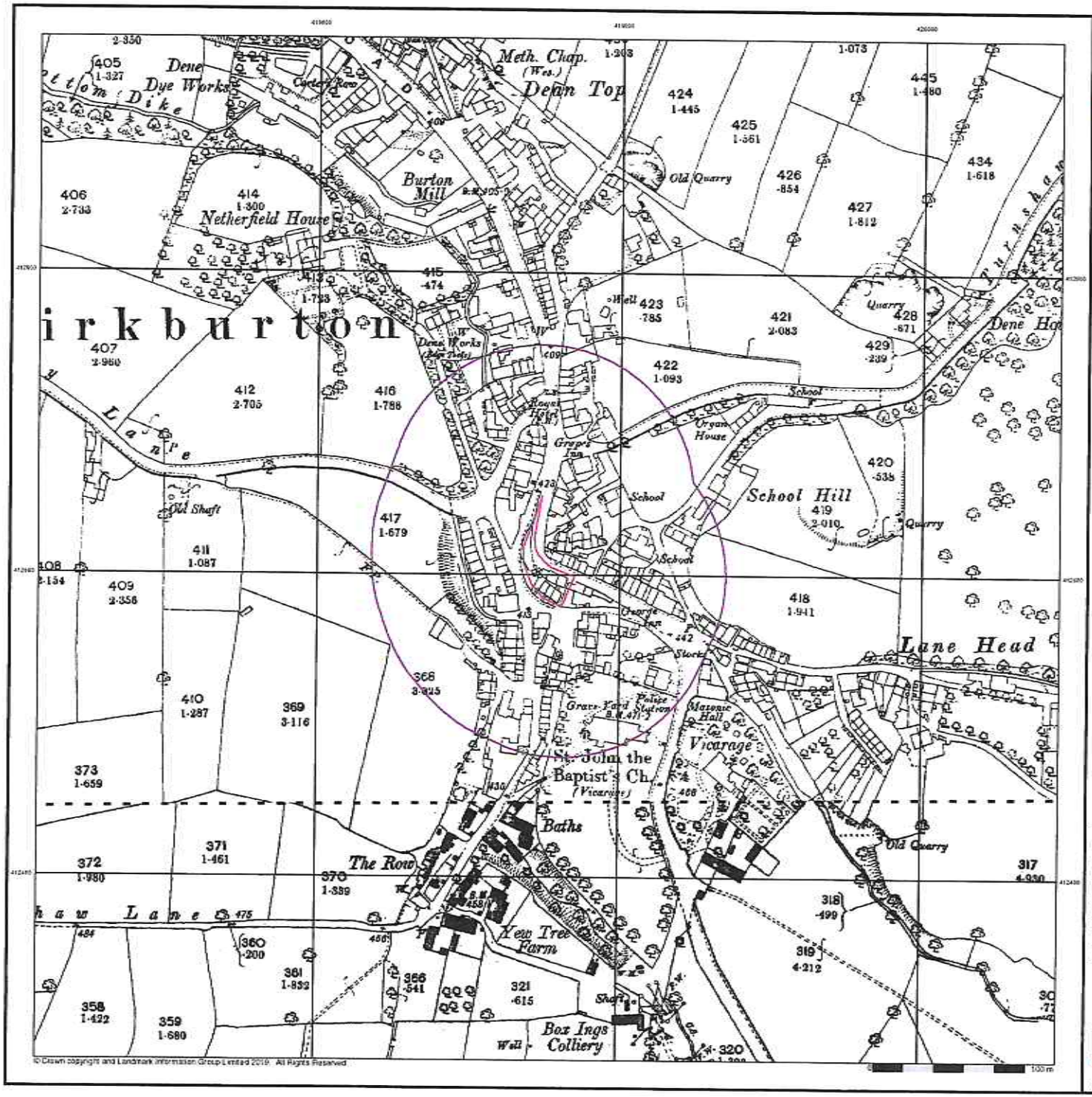
Order Details

Order Number: 192632750_1_1
Customer Ref: 186-31
National Grid Reference: 419750, 412610
Slice: A
Site Area (Ha): 0.08
Search Buffer (m): 100

Site Details

1, Low Gate, Kirkburton, HUDDERSFIELD, HD8 0SE

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



Envirocheck®

LANDMARK INFORMATION GROUP®

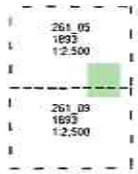
Yorkshire

Published 1893

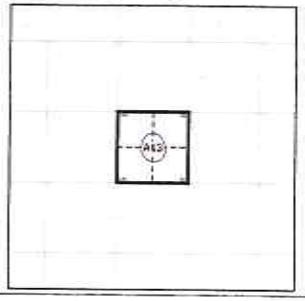
Source map scale - 1:2,500

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 1895 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

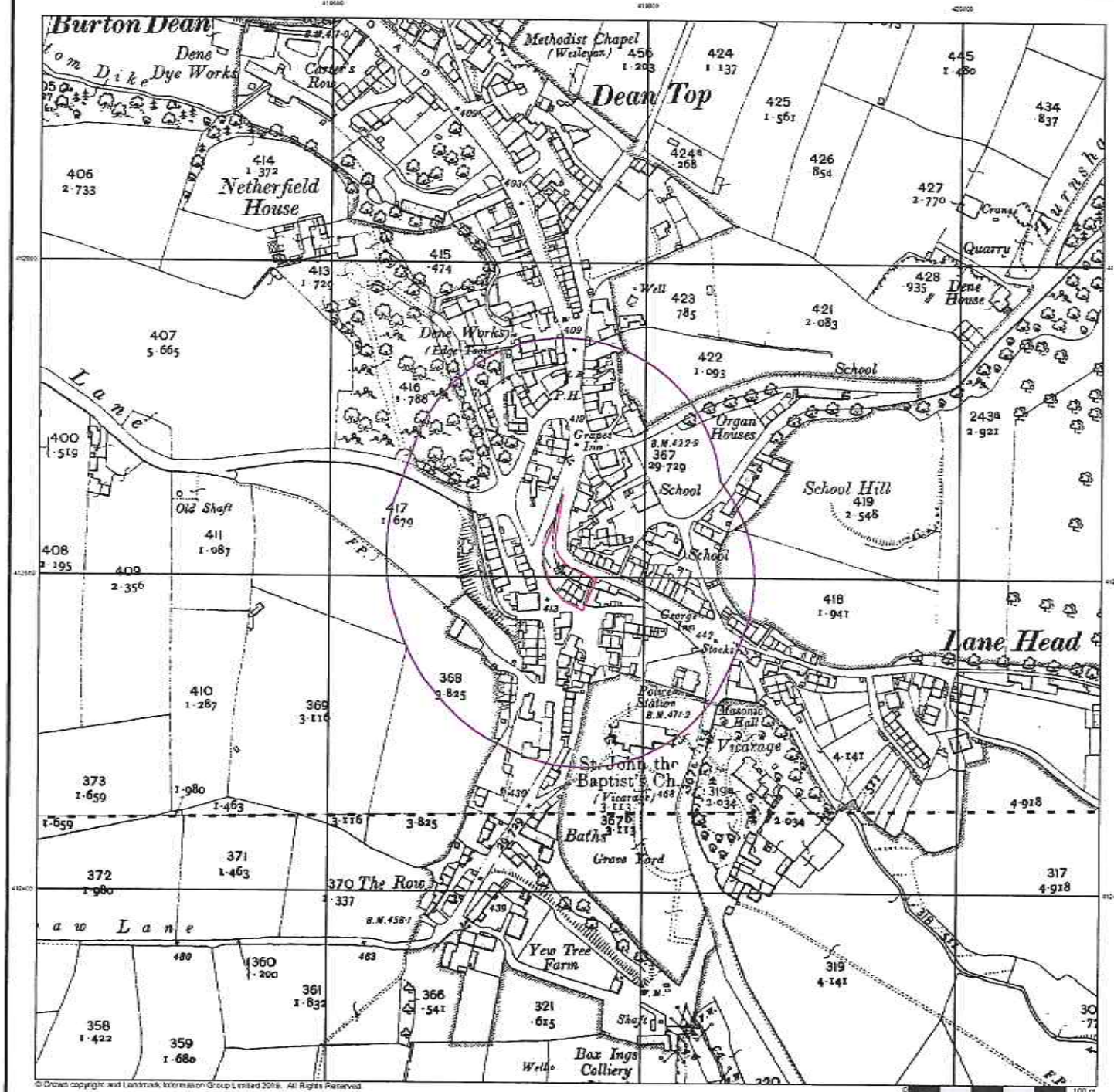
Order Number:	192632750_1_1
Customer Ref:	166-31
National Grid Reference:	419750, 412610
Slice:	A
Site Area (Ha):	0.08
Search Buffer (m):	100

Site Details

1, Low Gate, Kirkburton, HUDDERSFIELD, HD8 0SE

Landmark INFORMATION GROUP

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



© Crown copyright and Landmark Information Group Limited 2018. All Rights Reserved

Envirocheck®

LANDMARK INFORMATION GROUP

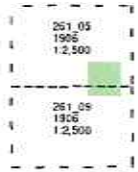
Yorkshire

Published 1906

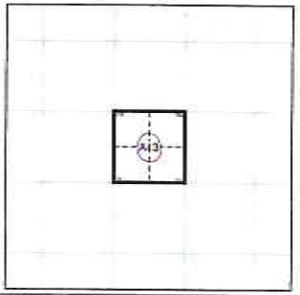
Source map scale - 1:2,500

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

Map Name(s) and Date(s)



Historical Map - Segment A13

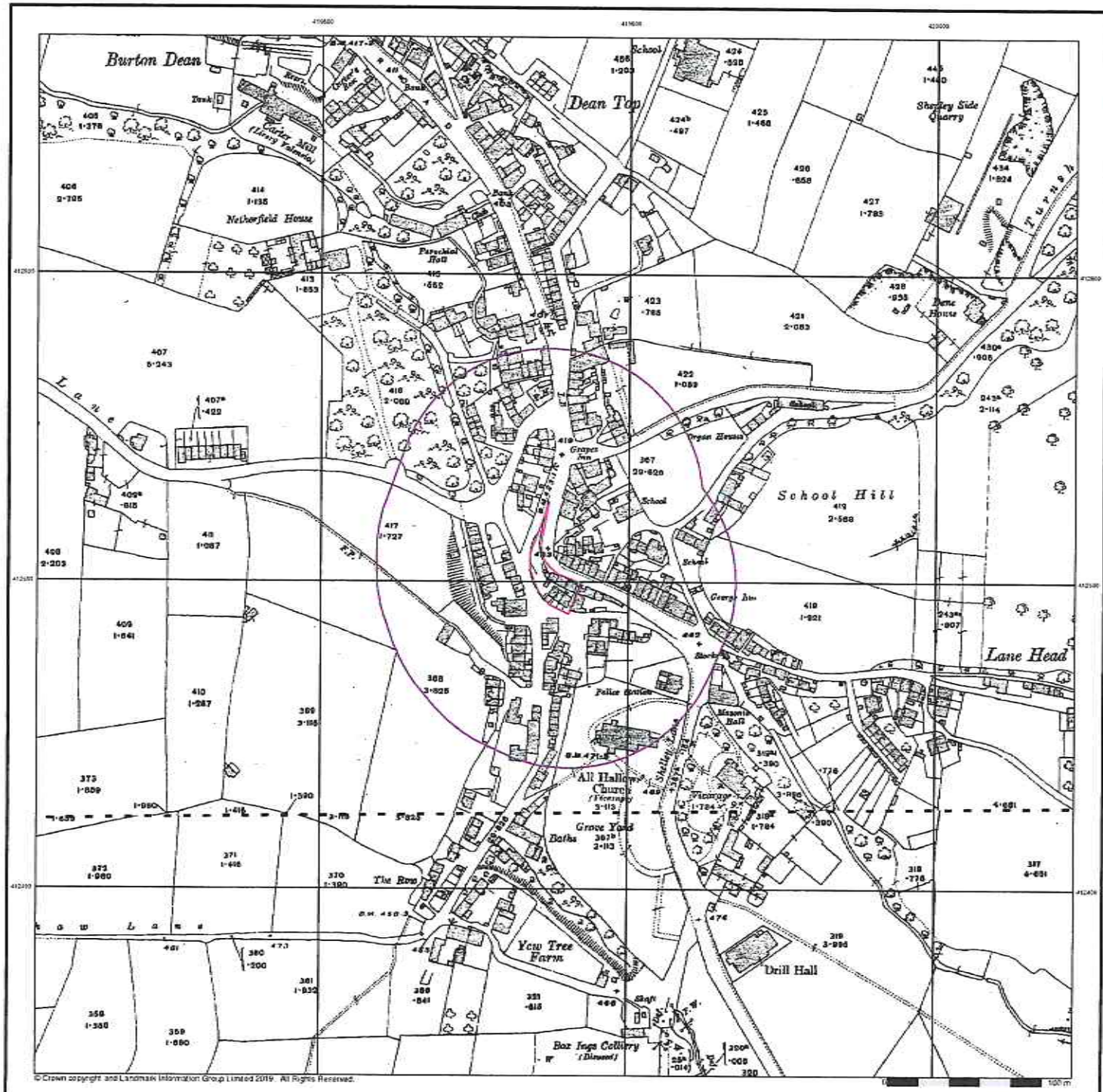


Order Details

Order Number:	192632750_1_1
Customer Ref:	186-31
National Grid Reference:	419750, 412610
Slice:	A
Site Area (Ha):	0.08
Search Buffer (m):	100

Site Details

1, Low Gate, Kirkburton, HUDDERSFIELD, HD8 0SE



© Crown copyright and Landmark Information Group Limited 2019. All Rights Reserved.

Envirocheck®

LANDMARK INFORMATION GROUP®

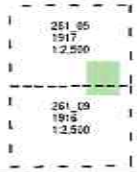
Yorkshire

Published 1916 - 1917

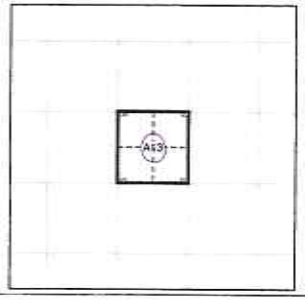
Source map scale - 1:2,500

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 1936, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas.

Map Name(s) and Date(s)



Historical Map - Segment A13

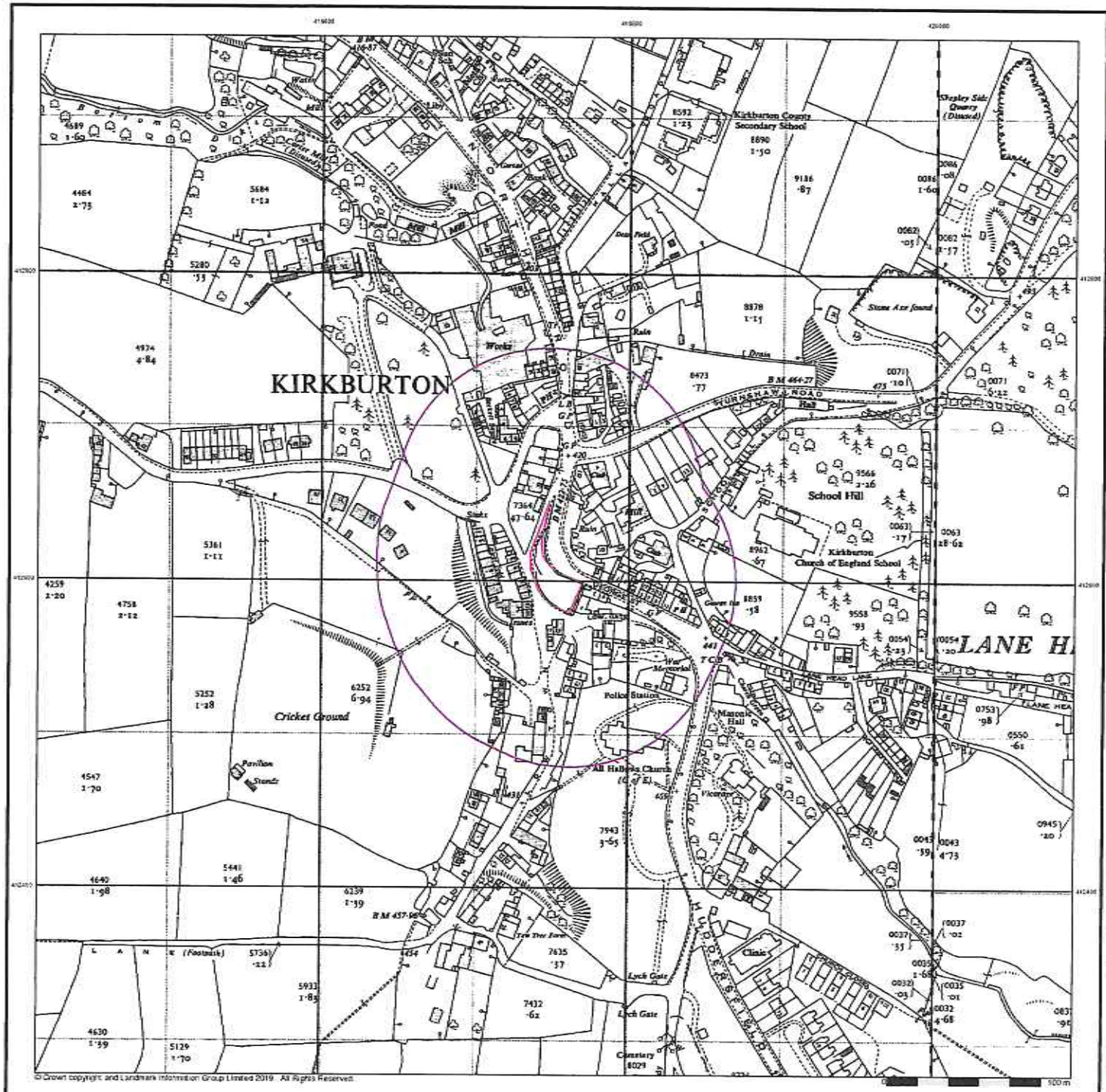


Order Details

Order Number:	192632750_1_1
Customer Ref:	186-31
National Grid Reference:	419750, 412610
Slice:	A
Site Area (Ha):	0.08
Search Buffer (m):	100

Site Details

1, Low Gate, Kirkburton, HUDDERSFIELD, HD8 0SE



© Crown copyright and Landmark Information Group Limited 2019. All rights reserved.

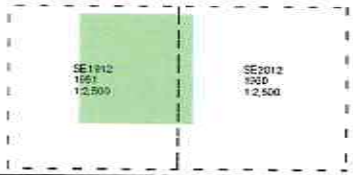
Envirocheck®

LANDMARK INFORMATION GROUP®

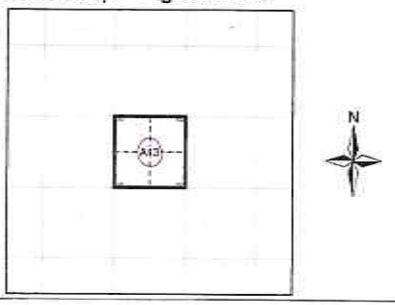
Ordnance Survey Plan
Published 1960 - 1961
Source map scale - 1:2,500

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

Map Name(s) and Date(s)



Historical Map - Segment A13

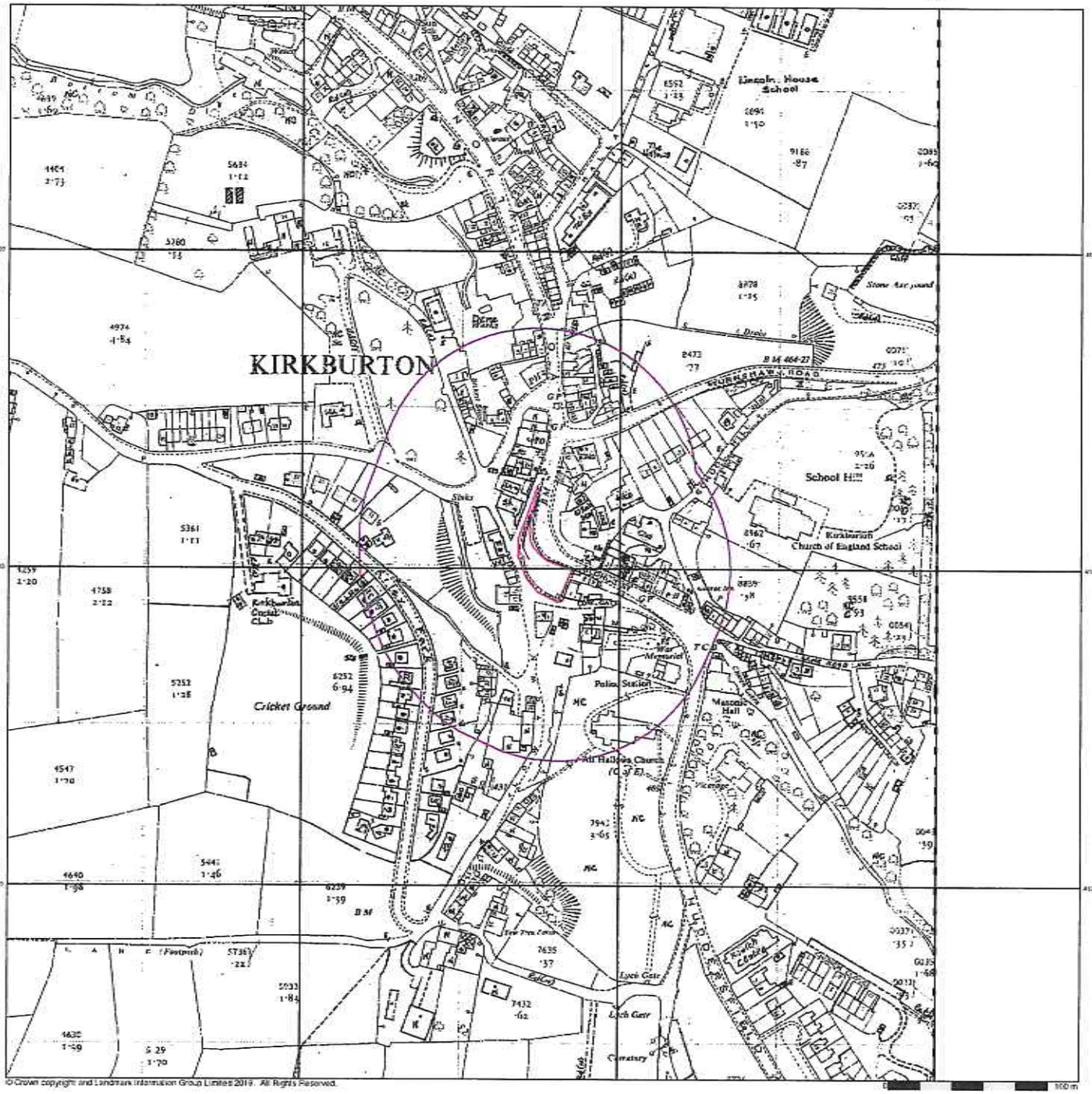


Order Details

Order Number:	192632750_1_1
Customer Ref:	186-31
National Grid Reference:	419750, 412610
Slice:	A
Site Area (Ha):	0.08
Search Buffer (m):	100

Site Details

1, Low Gate, Kirkburton, HUDDERSFIELD, HD8 0SE



© Crown copyright and Landmark Information Group Limited 2019. All Rights Reserved.

Envirocheck®

LANDMARK INFORMATION GROUP®

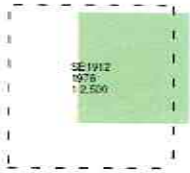
Supply of Unpublished Survey Information

Published 1976

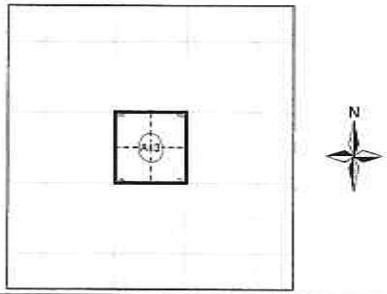
Source map scale - 1:2,500

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

Map Name(s) and Date(s)



Historical Map - Segment A13



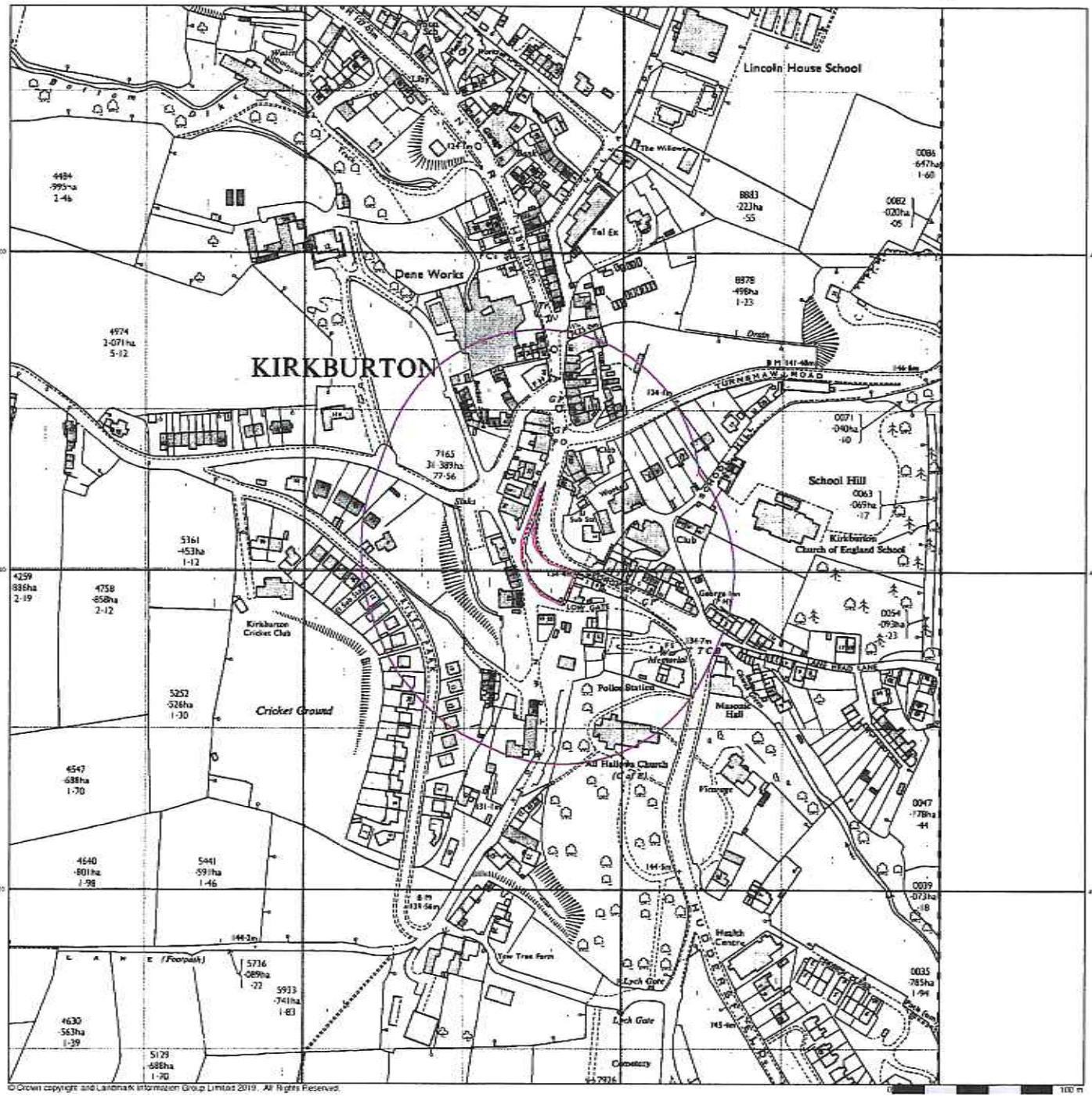
Order Details

Order Number:	192632750_1_1
Customer Ref:	186-31
National Grid Reference:	419750, 412610
Slice:	A
Site Area (Ha):	0.08
Search Buffer (m):	100

Site Details

1, Low Gate, Kirkburton, HUDDERSFIELD, HD8 0SE

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



© Crown copyright and Landmark Information Group Limited 2019. All rights reserved.

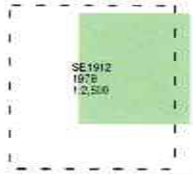
Envirocheck®

LANDMARK INFORMATION GROUP

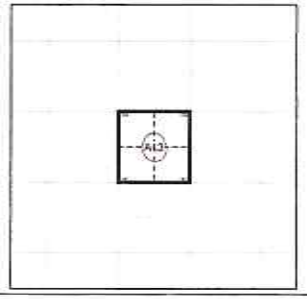
Ordnance Survey Plan
Published 1978
Source map scale - 1:2,500

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 1936, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas.

Map Name(s) and Date(s)



Historical Map - Segment A13



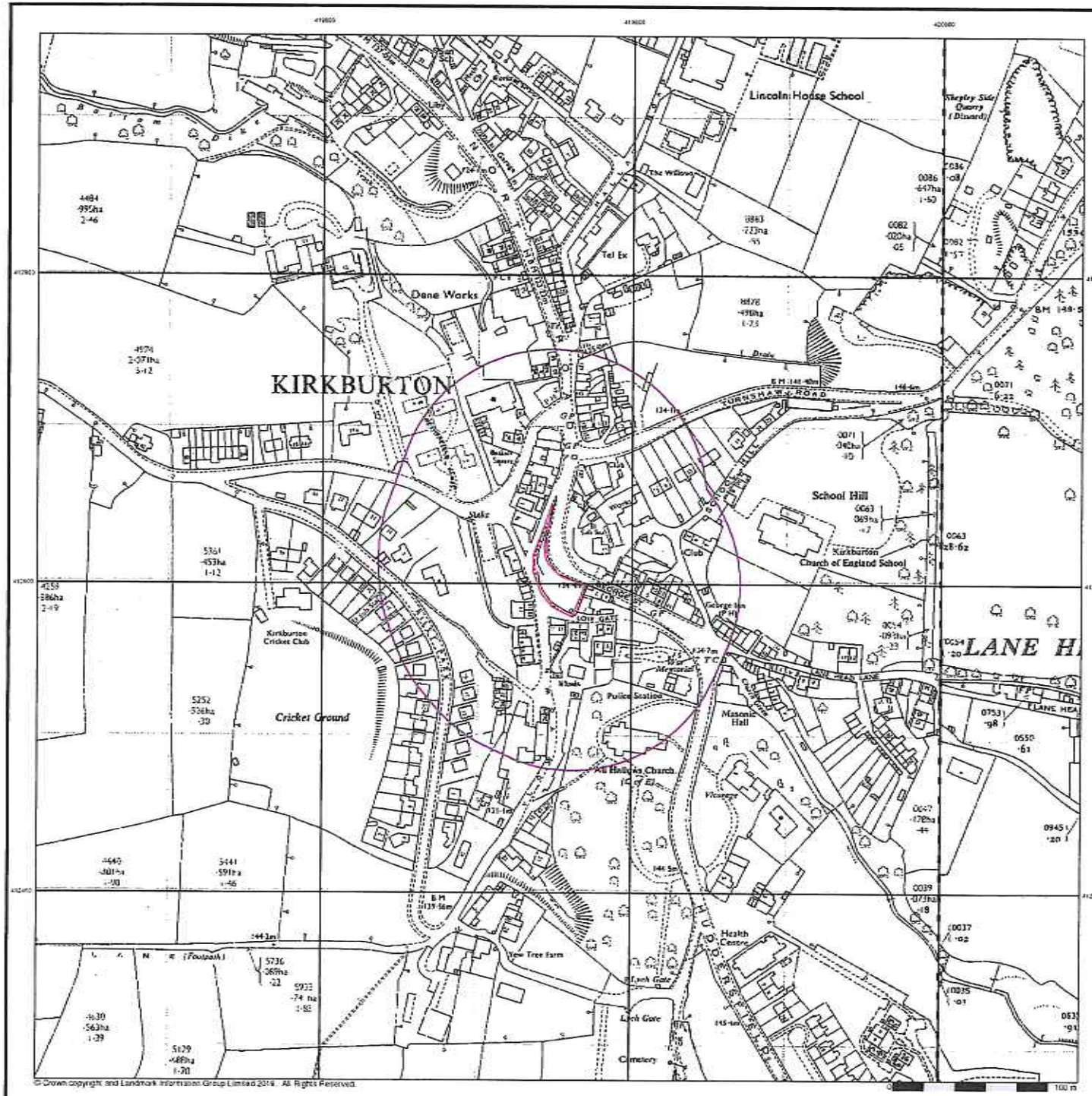
Order Details

Order Number:	192632750_1_1
Customer Ref:	186-31
National Grid Reference:	419750, 412610
Slice:	A
Site Area (Ha):	0.08
Search Buffer (m):	100

Site Details

1, Low Gate, Kirkburton, HUDDERSFIELD, HD8 0SE

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



© Crown copyright and Landmark Information Group Limited 2019. All rights reserved.

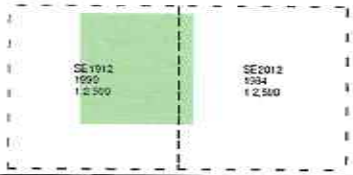
Envirocheck®

LANDMARK INFORMATION GROUP®

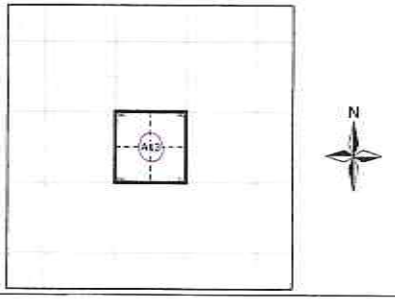
Additional SIMs
Published 1984 - 1990
Source map scale - 1:2,500

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



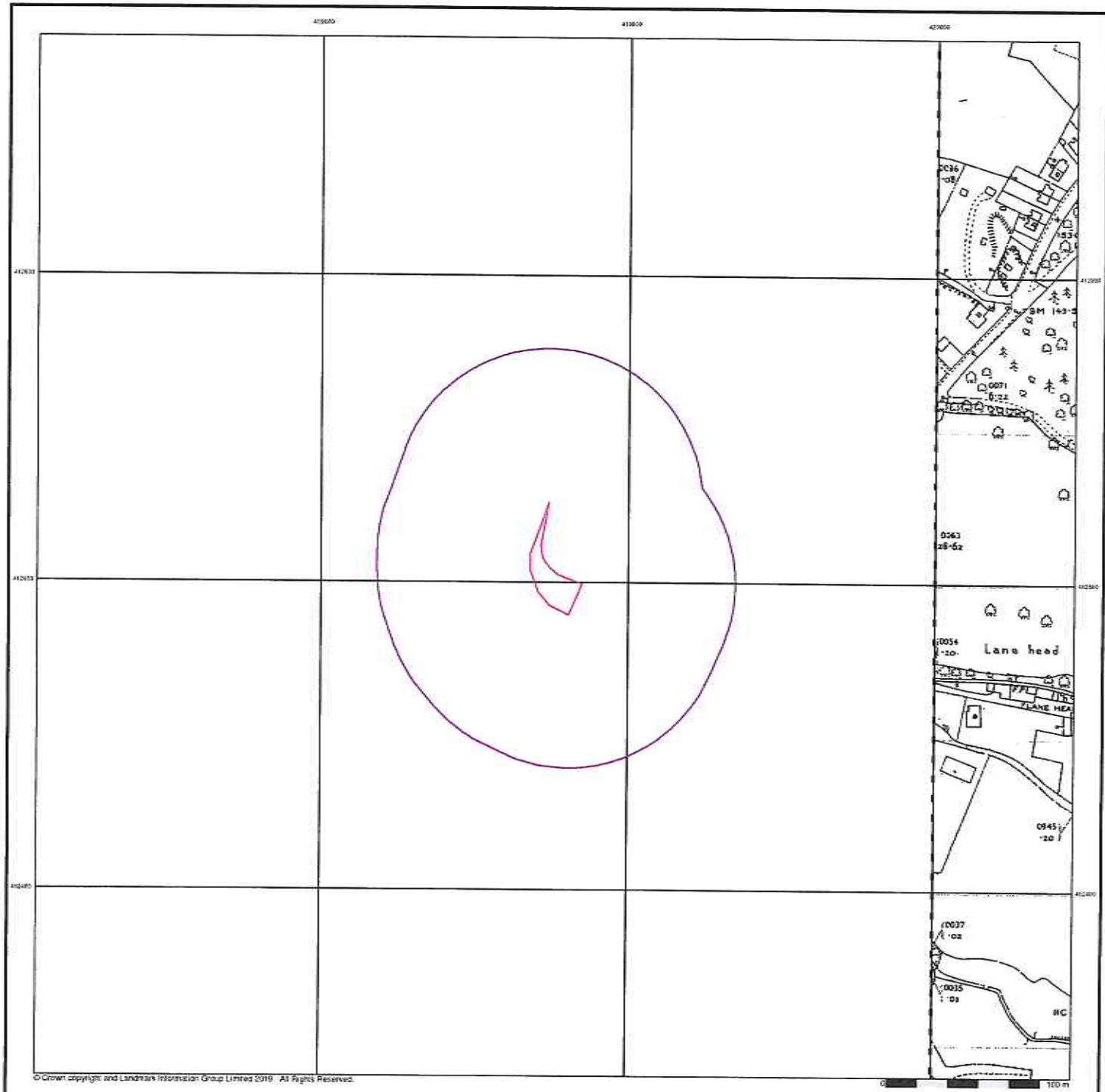
Order Details

Order Number:	192632750_1_1
Customer Ref:	186-31
National Grid Reference:	419750, 412610
Slice:	A
Site Area (Ha):	0.08
Search Buffer (m):	100

Site Details

1, Low Gate, Kirkburton, HUDDERSFIELD, HD8 0SE

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



© Crown copyright and Landmark Information Group Limited 2019. All Rights Reserved.

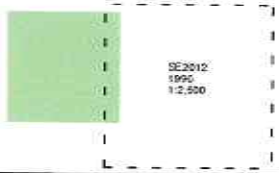
Envirocheck®

LANDMARK INFORMATION GROUP

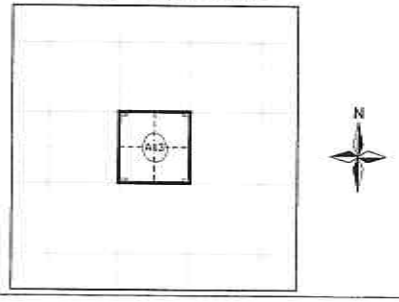
Additional SIMs
Published 1990
Source map scale - 1:2,500

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



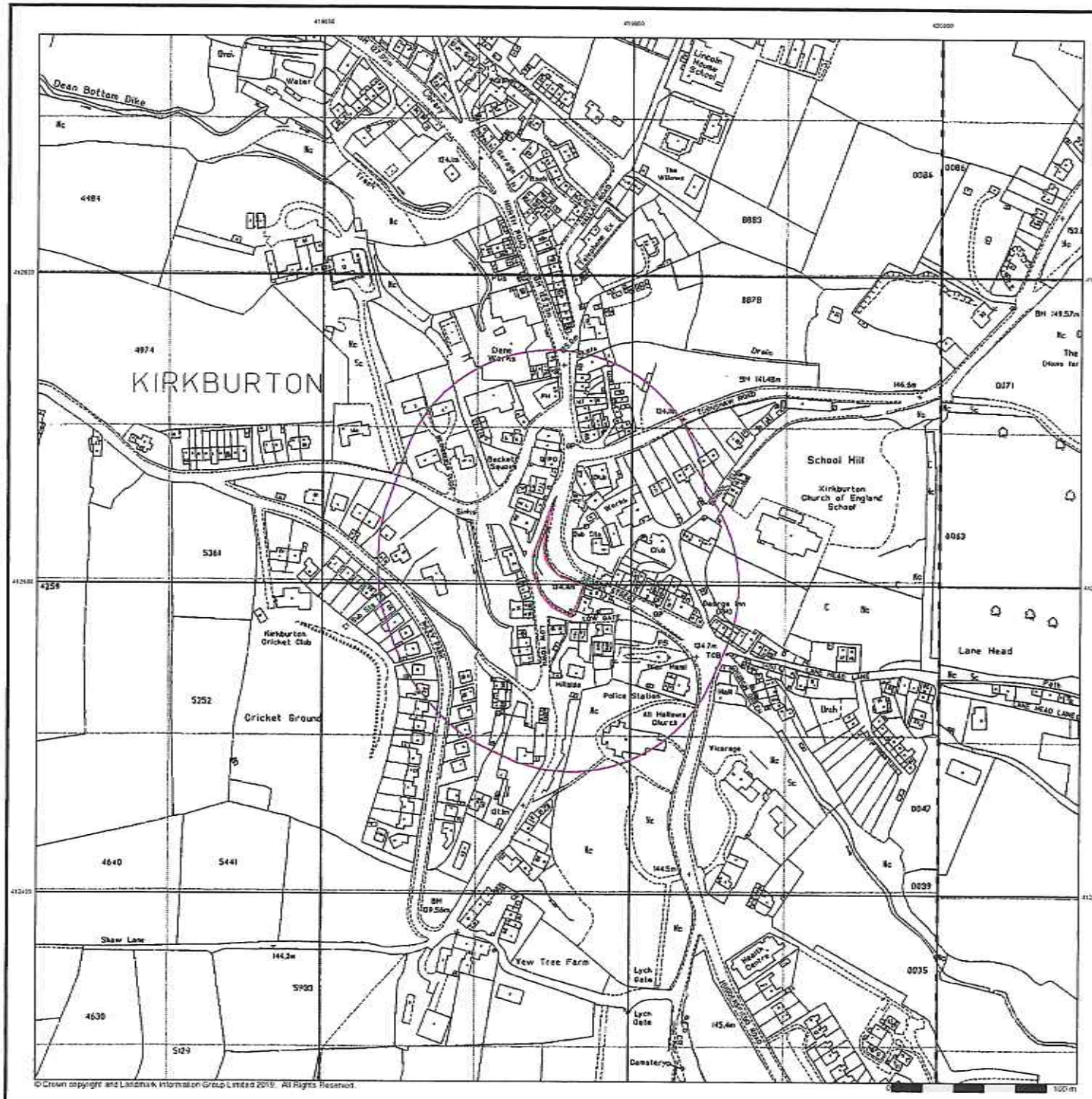
Order Details

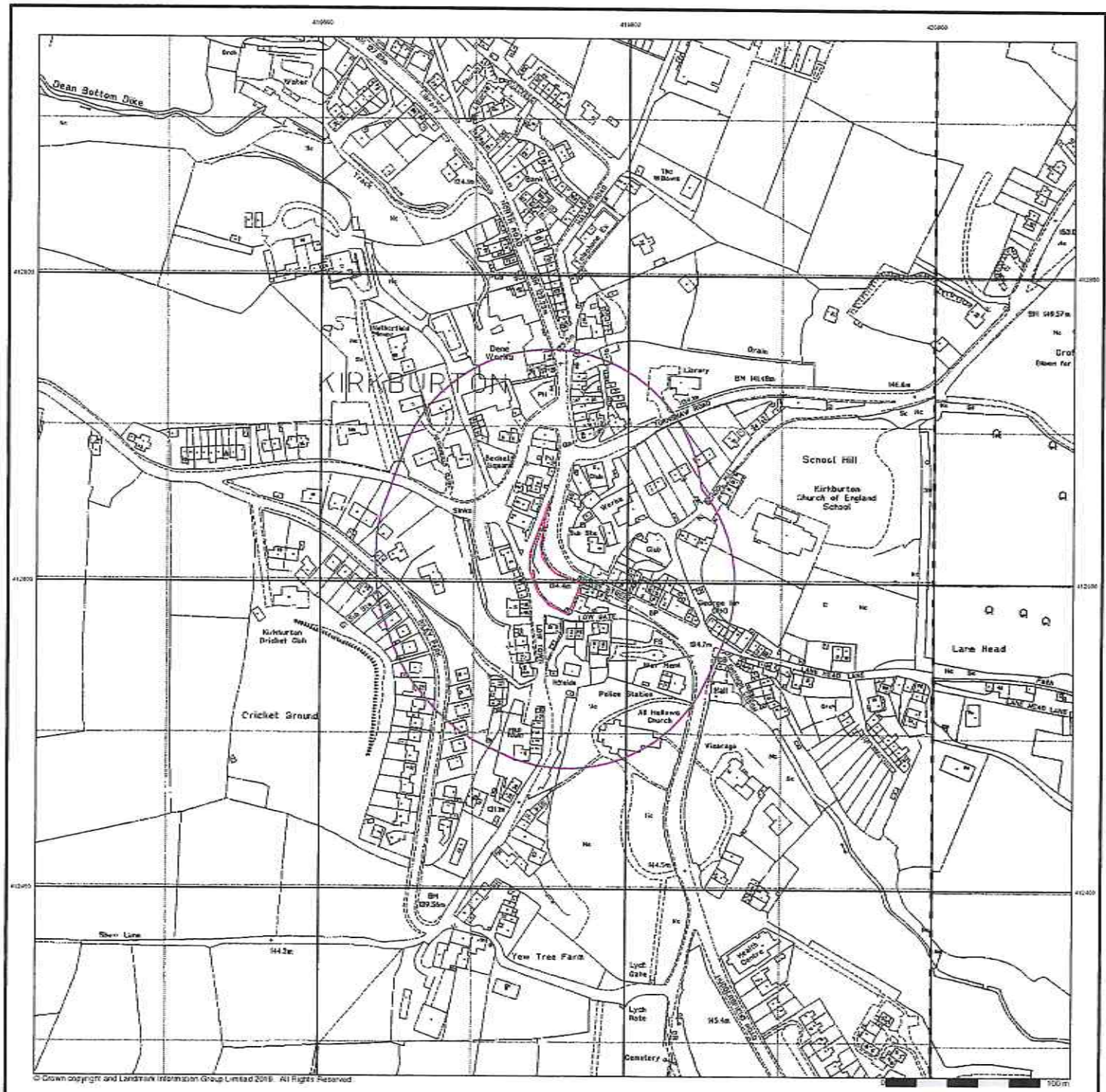
Order Number:	192632750_1_1
Customer Ref:	186-31
National Grid Reference:	419750, 412610
Slice:	A
Site Area (Ha):	0.08
Search Buffer (m):	100

Site Details

1, Low Gate, Kirkburton, HUDDERSFIELD, HD8 0SE

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


KIRKBURTON
Dean Bottom Dike
Lincoln House School
The Willows
Dam Works
Becket's Grave
School Hill
Kirkburton Church of England School
Kirkburton Cricket Club
Cricket Ground
Police Station
All Hallows Church
Vicarage
Lane Head
George Inn
Yew Tree Farm
Lych Gate
Cemetery
Shaw Lane
Low Gate
Kirkburton Middle School
Drain
Water
Works
Club
Garages
Bank
Telephone Ex.
Sch
Ch
Vicarage
Hall
Hillside
Lane Head Lane
Shaw Lane
Low Gate
Kirkburton Middle School
Lych Gate
Cemetery
Yew Tree Farm
Police Station
All Hallows Church
Kirkburton Cricket Club
Cricket Ground
George Inn
Lane Head
School Hill
Kirkburton Church of England School
Dam Works
Becket's Grave
The Willows
Lincoln House School
Dean Bottom Dike
Water
Drain


Dean Bottom Duke
KIRKBURTON
Dene Works
Library
Drain
School Hill
Kirkburton Church of England School
Lane Head
Kirkburton Cricket Club
Cricket Ground
Police Station
All Hallows Church
Vicarage
Yew Tree Farm
Lych Gate
Lych Gate
Cemetery
Sheep Line
Lane Head Lane
Footpath
Club
Hall
Works
Drain
Sc
Ste
Pit
Path
Cricket Sc
Sch
Sta
Ch
Vic
Cem
FB
Gate
Lych
Gate
Lych
Gate
Lych

APPENDIX 4: 1:50,000 GEOLOGY MAPS

Geology 1:50,000 Maps Legends

Artificial Ground and Landslip

Map Colour	Lex Code	Rock Name	Rock Type	Min and Max Age
	MGR	Made Ground (Undivided)	Artificial Deposit	Not Supplied - Holocene
	WMGR	Infilled Ground	Artificial Deposit	Not Supplied - Holocene

Superficial Geology

Map Colour	Lex Code	Rock Name	Rock Type	Min and Max Age
	ALV	Alluvium	Clay, Sand and Gravel	Not Supplied - Holocene
	ALV	Alluvium	Clay, Silt, Sand and Gravel	Not Supplied - Holocene

Bedrock and Faults

Map Colour	Lex Code	Rock Name	Rock Type	Min and Max Age
	KKBS	Kirkburton Sandstone	Sandstone	Not Supplied - Westphalian
	PLCM	Pennine Lower Coal Measures Formation	Mudstone, Siltstone and Sandstone	Not Supplied - Westphalian
	PLCM	Pennine Lower Coal Measures Formation	Sandstone	Not Supplied - Westphalian
	GR	Grenoside Sandstone	Sandstone	Not Supplied - Westphalian
	CLRK	Clifton Rock	Sandstone	Not Supplied - Westphalian
	GM	Greenmoor Rock	Sandstone	Not Supplied - Westphalian
	PF	Penistone Flags	Sandstone	Not Supplied - Westphalian
	TKS	Thick Stone	Sandstone	Not Supplied - Westphalian
	FHR	Falhouse Rock	Sandstone	Not Supplied - Westphalian
	LPE	Lepton Edge Rock	Sandstone	Not Supplied - Westphalian
		Rock Segments		
		Faults		

Envirocheck®

LANDMARK INFORMATION GROUP

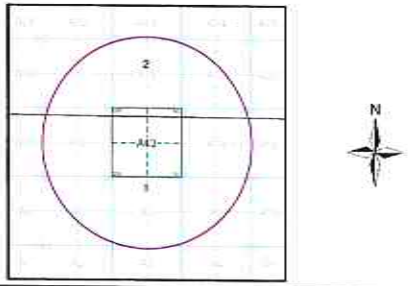
Geology 1:50,000 Maps

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

Geology 1:50,000 Maps Coverage

Map ID:	2	Map ID:	1
Map Sheet No:	077	Map Sheet No:	086
Map Name:	Huddersfield	Map Name:	Glossop
Map Date:	2003	Map Date:	2012
Bedrock Geology:	Available	Bedrock Geology:	Available
Superficial Geology:	Available	Superficial Geology:	Available
Artificial Geology:	Available	Artificial Geology:	Available
Faults:	Not Supplied	Faults:	Not Supplied
Landslip:	Available	Landslip:	Available
Rock Segments:	Not Supplied	Rock Segments:	Not Supplied

Geology 1:50,000 Maps - Slice A

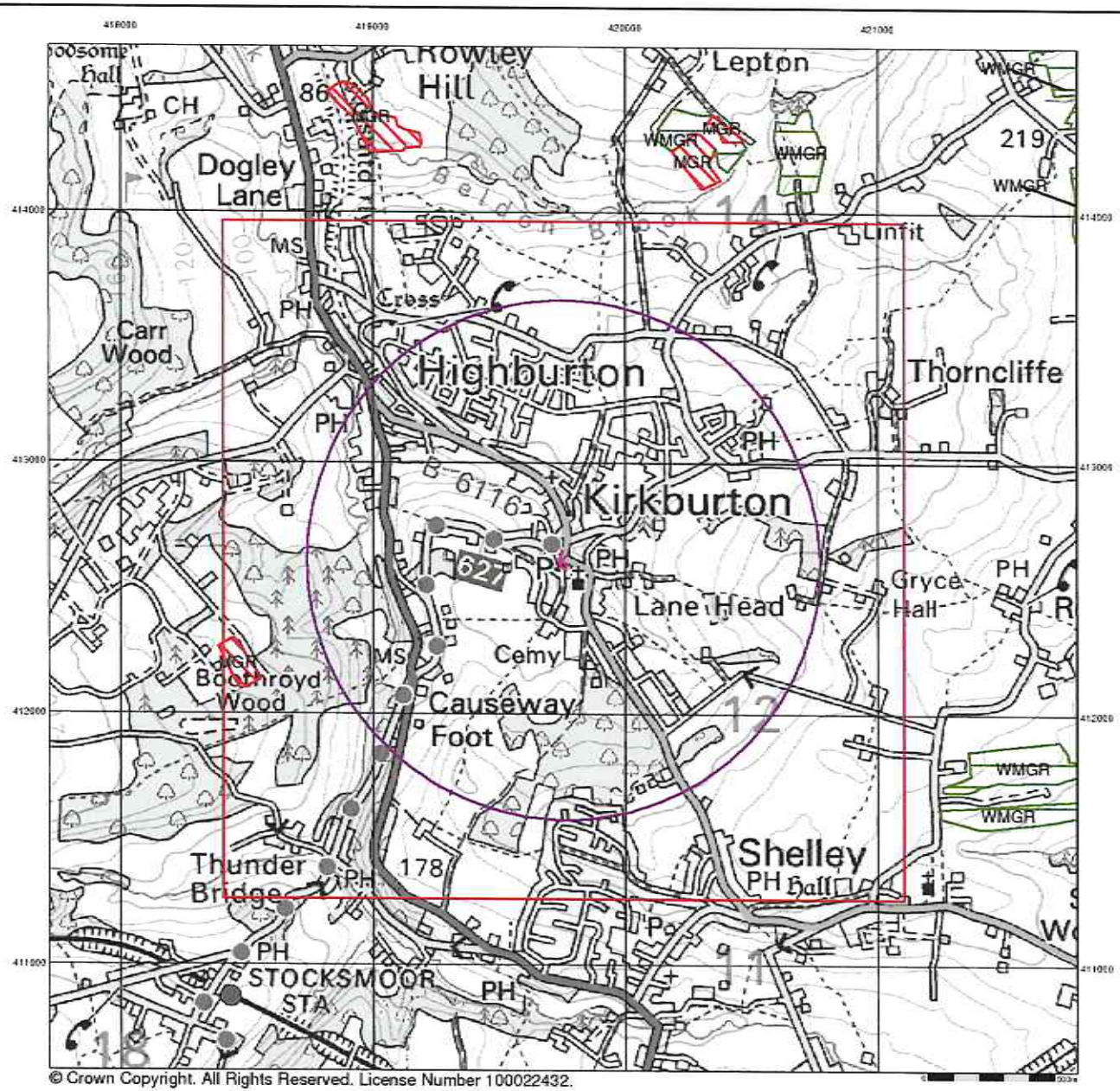


Order Details:

Order Number:	192632750_1_1
Customer Reference:	186-31
National Grid Reference:	419750, 412610
Slice:	A
Site Area (Ha):	0.08
Search Buffer (m):	1000

Site Details:

1, Low Gate, Kirkburton, HUDDERSFIELD, HD8 0SE



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

Envirocheck®

LANDMARK INFORMATION GROUP®

Artificial Ground and Landslip

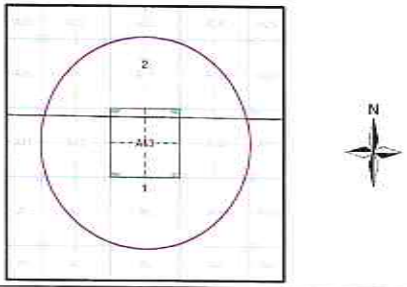
Artificial ground is a term used by BGS for those areas where the ground surface has been significantly modified by human activity. Information about previously developed ground is especially important, as it is often associated with potentially contaminated material, unpredictable engineering conditions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

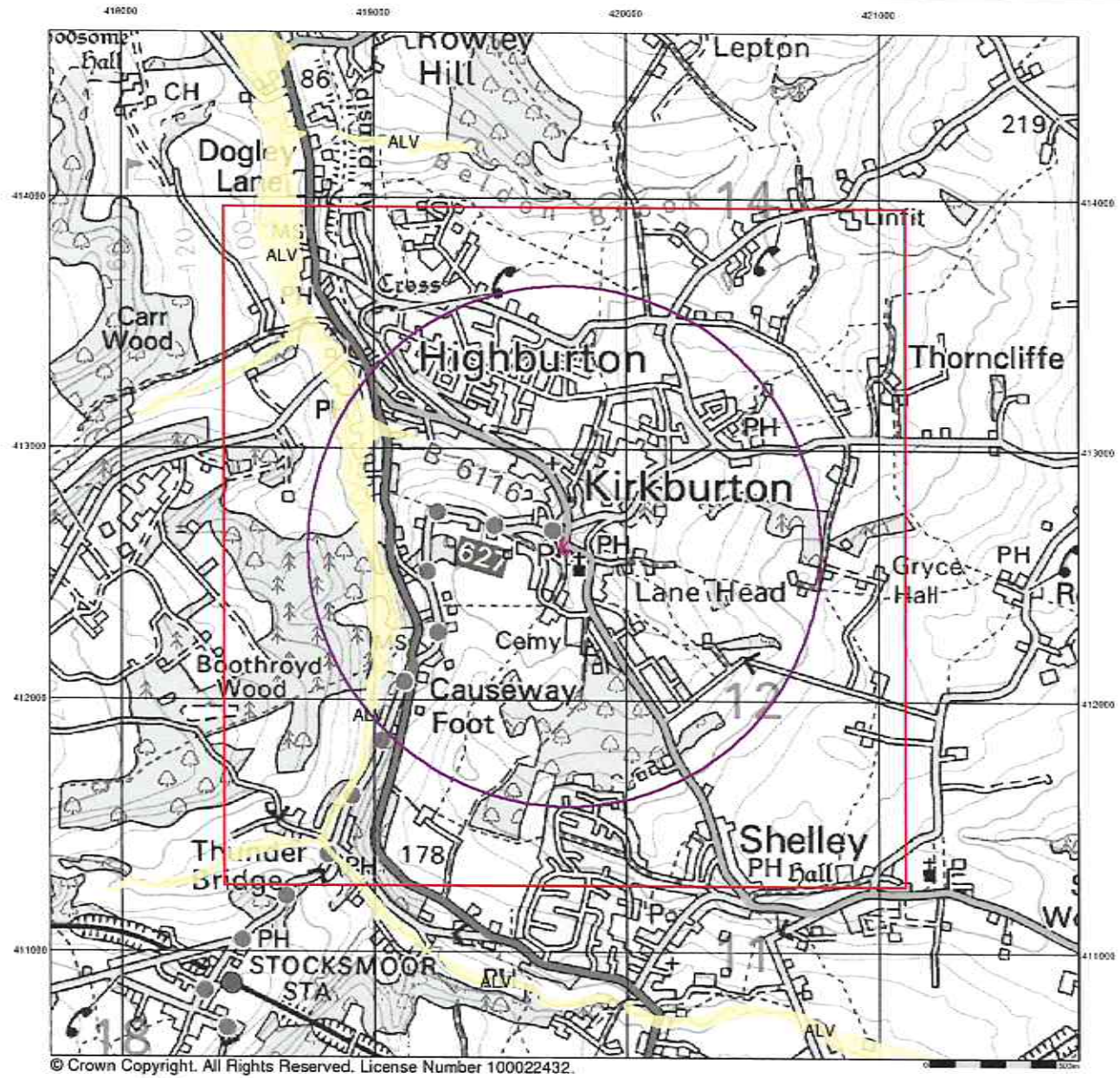


Order Details:

Order Number:	192632750_1_1
Customer Reference:	186-31
National Grid Reference:	419750, 412610
Slice:	A
Site Area (Ha):	0.08
Search Buffer (m):	1000

Site Details:

1, Low Gate, Kirkburton, HUDDERSFIELD, HD8 0SE



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

Envirocheck®

LANDMARK INFORMATION GROUP

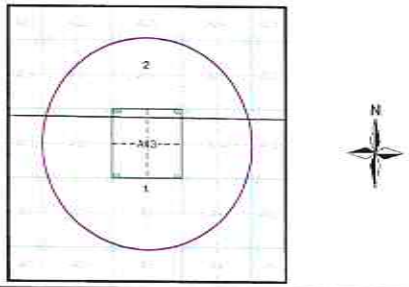
Superficial Geology

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

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

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

Superficial Geology Map - Slice A

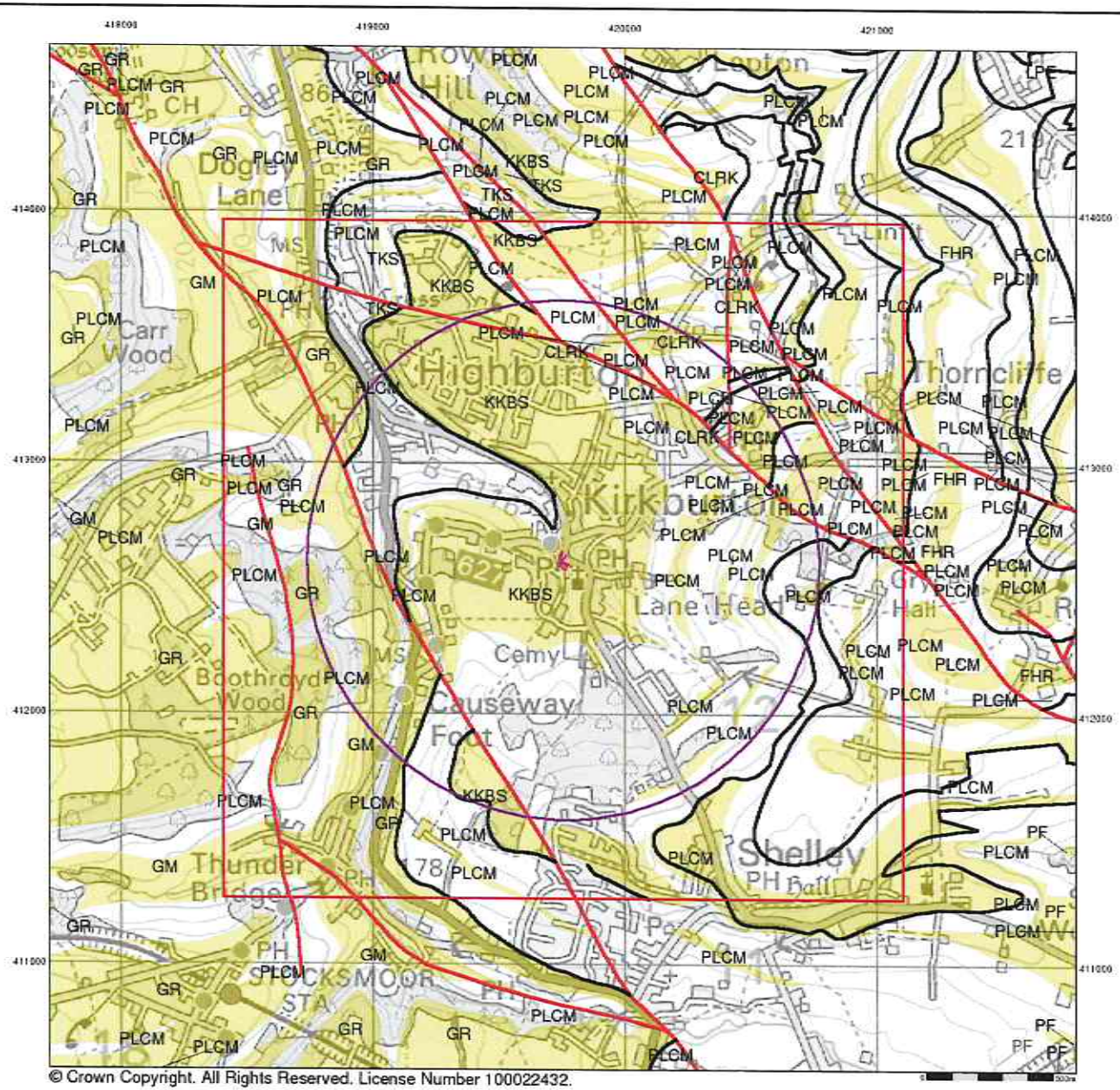


Order Details:

Order Number:	192632750_1_1
Customer Reference:	186-31
National Grid Reference:	419750, 412610
Slice:	A
Site Area (Ha):	0.08
Search Buffer (m):	1000

Site Details:

1, Low Gate, Kirkburton, HUDDERSFIELD, HD6 0SE



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

Envirocheck®

LANDMARK INFORMATION GROUP®

Bedrock and Faults

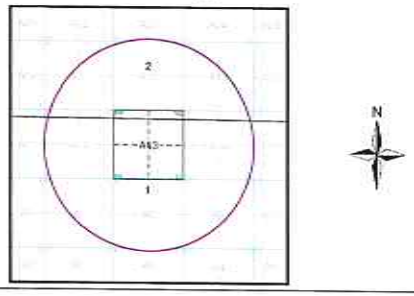
Bedrock geology is a term used for the main mass of rocks forming the Earth and are present everywhere, whether exposed at the surface in outcrops or concealed beneath superficial deposits or water.

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

Bedrock and Faults Map - Slice A

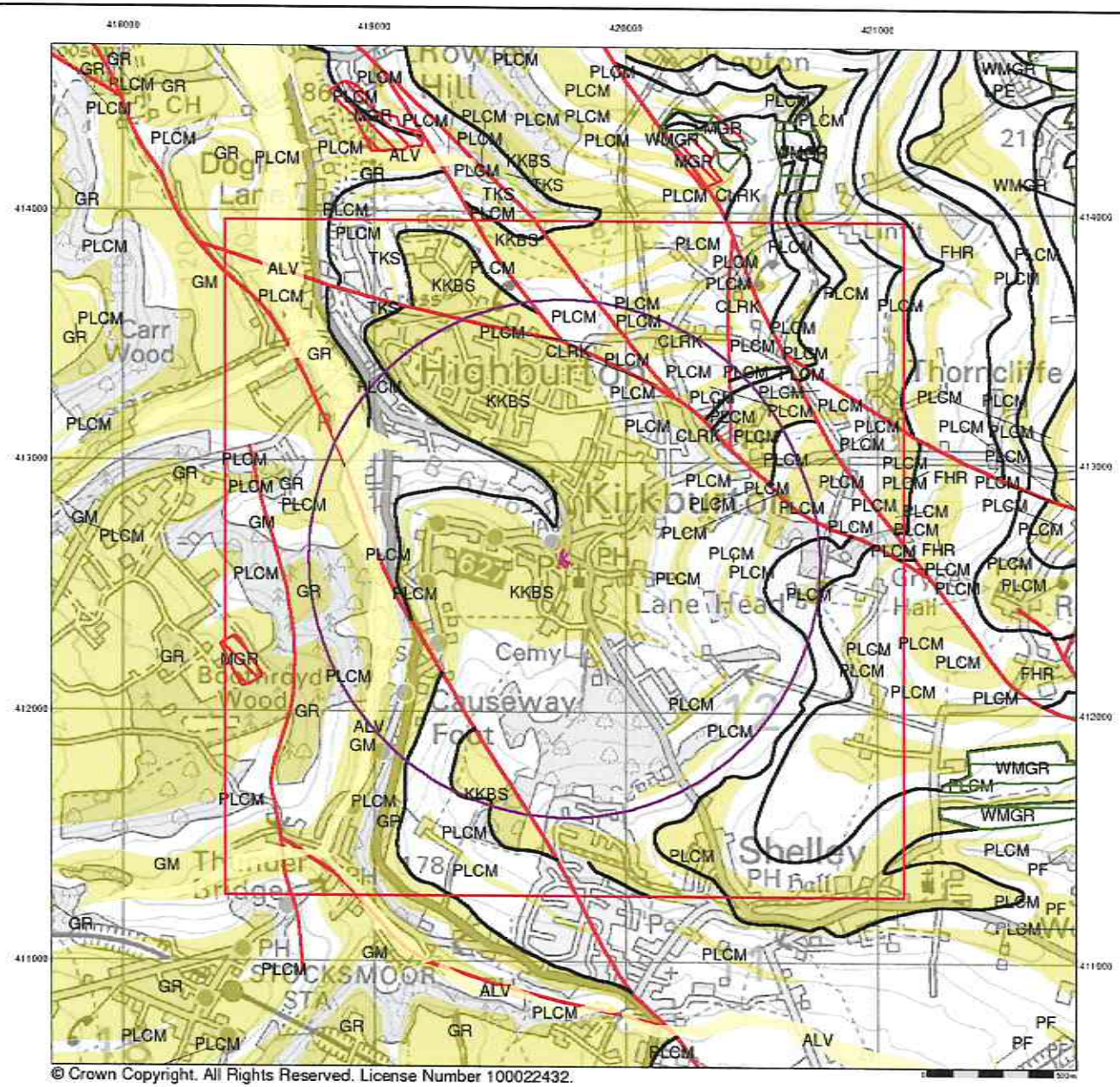


Order Details:

Order Number:	192632750_1_1
Customer Reference:	186-31
National Grid Reference:	419750, 412610
Slice:	A
Site Area (Ha):	0.08
Search Buffer (m):	1000

Site Details:

1, Low Gate, Kirkburton, HUDDERSFIELD, HD8 0SE



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

Envirocheck®

LANDMARK INFORMATION GROUP®

Combined Surface Geology

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

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

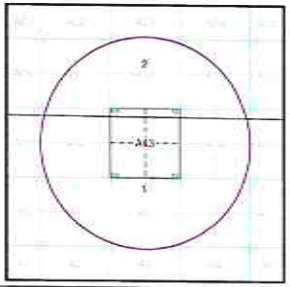
Additional Information

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

Contact

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

Combined Geology Map - Slice A



Order Details:

Order Number:	192632750_1_1
Customer Reference:	166-31
National Grid Reference:	419750, 412610
Slice:	A
Site Area (Ha):	0.08
Search Buffer (m):	1000

Site Details:

1, Low Gate, Kirkburton, HUDDERSFIELD, HD8 0SE