

PRELIMINARY CONTAMINATION RISK ASSESSMENT FOR PROPOSED RESIDENTIAL DEVELOPMENT ON LAND AT FRONT STREET, HASWELL PLOUGH, DURHAM



PROJECT NUMBER	4200			
PROJECT TITLE	Front Street, Haswell Ploug	gh, Durham		
CLIENT	ELG Planning Gateway House 55 Coniscliffe Road Darlington CO DURHAM DL3 7EH			
REPORT TITLE	Preliminary Contamination Assessment for Proposed Residential Development on Land at Front Street, Haswell Plough, Durham			
REPORT REFERENCE	4200OR01			
	•			
REVISION	Date	Checked		
Rev00	31/10/2022	СМ		

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PRELIMINARY CONTAMINATION RISK ASSESSMENT FOR PROPOSED RESIDENTIAL DEVELOPMENT ON LAND AT FRONT STREET, HASWELL PLOUGH, DURHAM

1 INTRODUCTION

FWS Consultants Ltd (FWS) carried out a Preliminary Contamination Risk Assessment for proposed residential development on land at Front Street, Haswell Plough, Durham (the 'site') for ELG Planning to provide information for the development of four residential properties with associated roadways, gardens and landscaped areas as shown in Clients Drawing GLD219 01 Indicative Site Layout Plan, Appendix 1.2. The site location is shown on Drawing 42000D01, Appendix 1.1.

This Preliminary Contamination Risk Assessment has been undertaken in accordance with the principles of current guidance including BS10175:2011+A2:2017 "Code of Practice for the Investigation of Potentially Contaminated Sites" (Ref. 1) and BS 5930:2015+A1:2020 "Code of Practice for Ground Investigations" (Ref. 2). This risk assessment forms the Preliminary Risk Assessment in accordance with Environment Agency guidance document Land Contamination: Risk Management Guidance 20210 (Ref. 3), the NHBC "Guidance of Land Quality" (2021) (Ref. 4) and DEFRA "Environmental Protection Act 1990: Part 2A, Contaminated Land Statutory Guidance" (2012) (Ref. 5).

The objectives of this desk study for the residential development were to:-

assess the historical land use, geological and hydrogeological setting;

assess the likelihood and impact of subsurface mining;

assess the potential for contamination and ground gas;

provide a qualitative contamination risk assessment and preliminary comment on mitigation measures:

provide preliminary comment on ground conditions in relation to foundation design; and, provide recommendations on further investigations.

The following sources of information were utilised in the preparation of this report:-

Historical Ordnance Survey Maps (Appendix 2)

British Geological Survey, Sheet 27, Durham, 1:50,000 Solid and Drift Edition (Ref. 6)

Envirocheck Report (Appendix 3)

Coal Authority Mining Report, dated 12 October 2022 (Appendix 4)

Site Walkover Inspection undertaken on 17 October 2022 (Photographs included in Appendix 5)

BRE 211 Radon; Guidance on Protection Measures for New Dwellings (Ref. 7)

Zetica viewer of UXO risk (Ref. 8)

2 SITE LOCATION AND DESCRIPTION

The 0.29 ha site at National Grid Reference 436970E, 542150N is situated 6 km northwest from Peterlee as shown in Drawing 42000D01, Appendix 1.1. A plan showing the current site features

1

and locations of selected photographs is presented as Drawing 42000D02, Appendix 1.1 and Appendix 5.

The site is generally flat with an elevation of approximately 134 m AOD to the north and is 136 m AOD to the south.

The site is presently a vacant two-storey public house in the south with the addition of a conservatory and cellar an asphalt and granular hardstanding car parking surrounding the building. In the northwest is a grassed area separated from the carpark by Leyland cypress trees of 5 to 10 m tall. The brick building showed no evidence of cracks on the exterior. Cellar doors and a drain were found near to the entrance of the building. There was no access into the building or cellar.

The site boundaries currently comprise timber fences lined with broken breeze blocks to the southern with agricultural field. This fence continues along the eastern boundary but is accompanied by barbed wire. On the western boundary there is a public footpath with a grassed area and Leyland Cypress trees and to the north there is an open site boundary leading onto a main road.

An above ground 2,500 L oil tank was noted in the south of the site along with a smaller water tank. The oil tank was raised on concrete slabs that showed some evidence of oily staining to the ground beneath. Fly tipped waste was found south of the site alongside the tanks. This included a fridge, bricks and various types of litter. A plastic drum containing waste lubricating oil was also noted on site.

Overhead cables were situated running from the northeast boundary over the access road and across the site to the building. There were also manholes for drainage located east of the site, two of which were open and had partially filled with fly tipped materials.

Elevated ground was located from the northeast to the northwest of the site and was approximately 50 cm risen in the northeast and gradually lowered to the southwest.

Several mature trees were noted north of the site with a small quantity of trees along the southwest to southeast boundary. There were mixed species comprising of Leyland Cypress and Cherry ranging from 10-15 m.

3 HISTORICAL DEVELOPMENT OF THE SITE

The earliest published historical map of 1857 shows the site as rough pasture with a road along the northern boundary and a track crossing within the eastern boundary of the site until. By 1897 a track forms the western boundary of the site and the track in the east of the site is no longer present.

By 1939 the site had been developed with a Public House in the central south of the site with road access from the southwest and northeast. There have been further significant changes to the site.

The surrounding land comprised agricultural land with plantations to the west and north from at least 1857 with Haswell Colliery around 400 m to the northeast of the site with associated pits, reservoir, slag heaps and railways and identified as disused from 1923. By 1861 Ludworth Colliery is identified 700 m to the southwest of the site and identified as disused by 1967. By 1897 housing

with allotment gardens was present 100 m to the east of the site but was partially demolished by 1939 with further housing developed to the north of the site.

4 ENVIRONMENTAL SETTING

4.1 Geology

4.1.1 Made Ground and Superficial Geology

Made ground is anticipated in the southern areas of the site associated with the historical building and beneath the car park area. Topsoil and subsoil are anticipated in the north of the site in the public open areas overlying the natural superficial deposits. The site is underlain by Glacial Till, the anticipated thickness is estimated to be 5 to 10 m thick.

4.1.2 Solid Geology

The site is underlain by the Ford Formation comprising limestone (dolostone) of around 100 m thick.

4.2 Mining and Quarrying

The table below provides a summary of the Coal Authority Mining Report (Appendix 4) and the principal coal mining legacy issues.

Table 1: Summary of Mining Legacy Issues

COAL MINING ISSUE	YES	NO	SUMMARY RECORDS
Underground coal mining			The property is not in the likely zone of influence of present
(recorded at shallow depth)			underground coal workings.
Underground coal mining			No unrecorded workings are anticipated beneath the site.
(probable at shallow depth)			
Mine entries (shaft or adits)			There are no reported mine entries on or within 20 m of the site
			located.
Coal mining geology (fissures)			There are no geological structures intercepting the site boundaries.
Record of past mine gas			There is no record of a mine gas emission requiring action by the Coal
emissions or potential			Authority within the boundary of the site.
Recorded coal mining surface			The Coal Authority has no records of coal mining surface hazards
hazard			relating to the site or immediate surrounding area.
Surface mining (opencast			The site is not located within the boundary of a historical opencast
workings)			site, and does not lie within 200 m of a current opencast site, or
			within 800 m of a known future opencast site.
Other potential shallow worked			There is no evidence of quarrying having been carried out on site.
minerals.			

Based on the presence of the dolostone of the Ford Formation (>100) above the coal seams, no shallow recorded workings and no likelihood of unrecorded shallow workings are present beneath the site, there is no risk of mineral instability to the proposed development.

4.3 Hydrology and Flooding

The nearest surface water body is an unnamed drainage ditch located 120 m to the southeast of the site. Sherburn Beck is located, at its closest point, 250 m to the north of the site and flows from the north to the northwest.

There are no recorded surface water abstractions within 500 m of the site. There are no discharge consents within 250 m of the site boundaries. There have been no pollution incidents to controlled waters at the site.

The site does not fall into an area of extreme flooding from rivers or sea without defences or flooding from rivers or sea without defences. The site is within an area for limited potential for groundwater flooding to occur.

4.4 Hydrogeology

It is anticipated that shallow perched groundwater will be present within the thin made ground and within granular lenses in the cohesive superficial deposits. The main water table is expected within the underlying limestone bedrock at over 10 m bgl.

The Environment Agency classify the Glacial Till as Secondary Aquifer Undifferentiated and classify the Limestone as a Principal Aquifer.

There no groundwater abstractions located within 500 m of the site. The site is located on a groundwater Source Protection Zone as a Zone III (Total Catchment).

4.5 Licenced Authorisations, Health & Safety Executive/Planning Department Information and Fuel Stations

There are no Licenced Authorisations and H&S Executive/Planning Department Information entries within 1 km that could impact the development site.

The site is located within a residential area and there was one fuel station located within 250 m of the site, however, this is now obsolete. This was located 15 m northwest of the site. There are no active trade entries within 500 m of the site.

4.6 Landfill Sites

The Envirocheck Report indicates that there is a landfill within approximately 180 m of the site. This comprises of six different named sites which are; The Bottoms No.2, Shadforth Beck, The Bottoms, The Bottoms Phase II, Unknown (Operator name: Kleenup (UK) Limited) and Unknown (Mr. N B Anderson). These operated between 1986 and 1991 and deposited wastes including inert waste, non biodegradable wastes (not construction), construction industrial waste, construction and demolition waste.

4.7 Radon

Current guidance (Ref. 7) on protective measures for new buildings indicates that the site does not fall within an area for which basic or full radon protection measures should be provided. The

property is in a lower probability radon area, as less than 1% of buildings are above the action level.

4.8 Ecological Receptors and Sensitive Landuse

The site and surrounding areas are within a Nitrate Vulnerable Zone. There are no further ecological or sensitive land uses within 1 km of the site.

4.9 Unexploded Ordnance

The Zetica website (Ref. 8) records the site is in an area at low risk from unexploded ordnance.

5 ENVIRONMENTAL ASSESSMENT AND CONCEPTUAL SITE MODEL

5.1 Conceptual Site Model

The approach to contamination risk assessment is detailed in Appendix 6. Presented below is a Preliminary Conceptual Site Model (CSM) for the proposed development, as shown on Client's Drawing 01 Indicative Site Layout Plan, Appendix 1.2, that has been prepared in accordance with current guidance (Ref. 3). A schematic CSM of the site is presented in Drawing 4200OD03, Appendix 1.1.

Development

The site is to be developed with four residential buildings with garden, car parking and access. There will also be a landscaped area in the north of the site, as shown on Client's Drawing GLD219 01 Indicative Site Layout Plan, Appendix 1.2.

Previous Land Use and Potential Contamination

The site remained undeveloped as agricultural land until 1939 when the current public house was constructed with only for modifications or additions to the structure. As such no significant contamination is anticipated on site, except for localised low levels of potentially heavy metals, hydrocarbons and sulphates in thin made ground. However, there is an old landfill that is within 250 m of the site. Potential contaminants identified by this desk study are summarised in the table below and are illustrated in the schematic conceptual site model Drawing 4200OD03, Appendix 1.1:-

Table 2: Potential Contamination Sources

Source o	of Po	tential Hazard/Pollutant	Potential Contaminants	
Onsite	H1	Thin made ground associated with construction	Heavy metals, PAHs, asbestos, pH and sulphates.	
		of car parking and any structural additions/	Soil gas (carbon dioxide and methane).	
		modifications on site.		
	H2	Hydrocarbon contamination, historical spillages	Hydrocarbons	
		from current onsite Above Ground Fuel Tank.		
	Н3	Limestone (dolostone) bedrock.	Soil gas (carbon dioxide).	
Offsite	H4	Landfill	Soil gas (elevated carbon dioxide or methane).	

Ground and Groundwater Conditions

Thin made ground is anticipated in the southern area of the site associated with the historical buildings and beneath the hardstanding car park areas. Topsoil and subsoil are anticipated in the north of the site in landscaped areas, overlying the natural Glacial Till superficial deposits of around 5 to 10 m thick..

It is anticipated that shallow perched groundwater may be locally present within granular lenses in the deeper cohesive superficial deposits. The main water table is expected at depth within the underlying limestone bedrock.

Environmental Considerations

The superficial deposits below the site are Glacial Till classed as a Secondary Undifferentiated Aquifer and the bedrock is Limestone (Dolostone) of the Ford Formation classed as a Principal Aquifer.

There are no surface abstractions within 500 m of the site. The site is located on a Groundwater Source Protection Zone as Zone III (Total Catchment).

5.2 Receptor Characterisation

The following potential receptors are anticipated for the proposed development, as illustrated in the schematic CSM Drawing 4200OD03, Appendix 1.1:-

<u>Table 3: Receptor Characterisation</u>

Part 2A Classification Group		oup	Receptor
Part 2A Receptors	R1	Human	Future site end users
		Health	Residents/Site users of adjacent properties
	R2	Property	Proposed development comprising four residential houses with associated
			gardens, car parking and access Drawing GLD219 01
			Services
	R3	Controlled	Unnamed drainage ditch located 120 m southeast of the site and Sherburn
		Waters	Beck, located 250 m to the north of the site.
	R4		Glacial Drift Till is classified as a Secondary Undifferentiated Aquifer.
			Limestone classified as a Principal Aquifer.
Non Part 2A	R5	Construction	workers
Receptors	R6	Plants and la	indscaped areas

5.3 Pathway Characterisation

This desk study has identified the following potential pathways, which are illustrated in the schematic CSM Drawing 42000D03, Appendix 1.1:-

Table 4: Pathway Characterisation

Pat	hway	Receptor
P1	Inhalation, ingestion and dermal contact	Human Health
P2	Direct contact	Plants
Р3	Soil gas or soil vapours pooling within the structures	Buildings, Property
	Contact with aggressive or acidic soils or hydrocarbon contaminated soils	and Services

Pa	thway	Receptor
P4	Leaching of contaminants from the soil migrating vertically or laterally to groundwater	Controlled Waters
	Movement of contaminants via groundwater to surface water bodies	
	Surface water runoff into surface water bodies	

6 PRELIMINARY CONTAMINATION RISK ASSESSMENT

Based on the CSM presented above and illustrated in Drawing 4200OR03, Appendix 1.1, the following potential contaminant linkages and unacceptable risks have been identified including the thin general made ground, above ground oil tank and migration of landfill gas. Therefore, further action is recommended as detailed in Section 9.

7 IDENTIFICATION AND ASSESSMENT OF SITE SPECIFIC COAL MINING RISK

7.1 Assessment of Mineral Instability

The coal mining risk assessment has been undertaken in accordance with the principles of current guidance including the Coal Authority's guidance document "Risk Based Approach to Development Management - Resources for Developers Version 4" (2017) (Ref. 9) and CIRIA "C758 Abandoned Mine Workings Manual" (2019) (Ref. 10).

No significant coal seams or the potential for recorded or unrecorded shallow workings are reported on this site. As such, it is considered that there is no mineral stability risk to the proposed development nor a risk of mine gas emissions.

8 PRELIMINARY COMMENTS ON ENGINEERING DESIGN

8.1 Foundation Design

The site is expected to be underlain by thin made ground in the northeast and southeast of the site and then Glacial Till and, therefore, normal shallow strip foundations may be suitable for lightly loaded structures. Where thin made ground is expected in the northeast and southeast of the site, foundations should be taken below this material into the underlying firm to stiff cohesive Till.

Consideration should be given to the areas of existing hedgerows/trees along the north and southwest to southeast boundaries and proposed tree planting across the proposed development. Close proximity of buildings to any areas of retained trees would require individually designed foundation depths in accordance with NHBC guidance (Ref. 4).

The site is not in an area that could be potentially affected by shallow mine workings.

8.2 Infiltration Drainage

Cohesive Glacial Till deposits, of potentially low permeability, are expected across the site. These soils are unlikely to be suitable for infiltration/sustainable drainage systems.

9 RECOMMENDATIONS FOR GROUND INVESTIGATION

From the results of the Preliminary Risk Assessment this site, which has had no significant industrial or mining land use, has no significant contamination issues. In accordance with current guidance,



NHBC Chapter 4.1 Land Quality – Managing Ground Conditions, a basic geotechnical and basic chemical investigation is required.

The following investigations are proposed to address the potentially significant risks identified in this report and also provide geotechnical information for design purposes.

- Investigate the presence, nature and thickness of made ground, in particular in the northeast and southeast area and beneath the footprint of the proposed site.
- Investigate the ground and groundwater conditions to prove the thickness of the superficial deposits across the site.
- Carry out chemical testing of the general made ground materials and superficial deposits.
- Carry out gas monitoring of the made ground for soil gas and landfill gas emissions.
- Carry out hydrocarbon chemical testing in the area of the fuel tank.
- Prove the depth to competent founding strata.



G HIRST GEOENVIRONMENTAL SCIENTIST



C MILLER DIRECTOR

10 REFERENCES

- 1 British Standards Institution, January 2001. BS 10175:2011+A2:2017, Investigation of Potentially Contaminated Sites Code of Practice.
- 2 British Standards Institution, July 2015. BS 5930:2015+A1:2020, Code of Practice for Ground Investigations.
- 3 Environment Agency, 2021. Land Contamination: Risk Management.
- 4 NHBC, 2021. NHBC Standards.
- 5 DEFRA, 2012. Environmental Protection Act 1990: Part 2A Contaminated Land Statutory Guidance
- 6 British Geological Survey, 12 October 2022. Sheet 27, Durham, 1:50,000 Solid and Drift Edition
- 7 IHS BRE Press, 2015. BRE 211: Radon: Guidance on Protective Measures for New Buildings.
- 8 ZeticaUXO Risk Map, https://zeticauxo.com/downloads-and-resources/risk-maps/
- 9 Coal Authority, 2012. Risk Based Approach to Development Management Resources for Developers
- 10 CIRIA, 2019. C758D Abandoned Mine Workings Manual.



APPENDIX 1

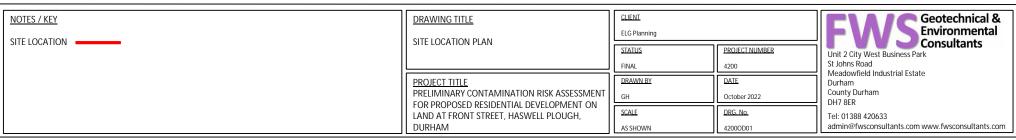
DRAWINGS

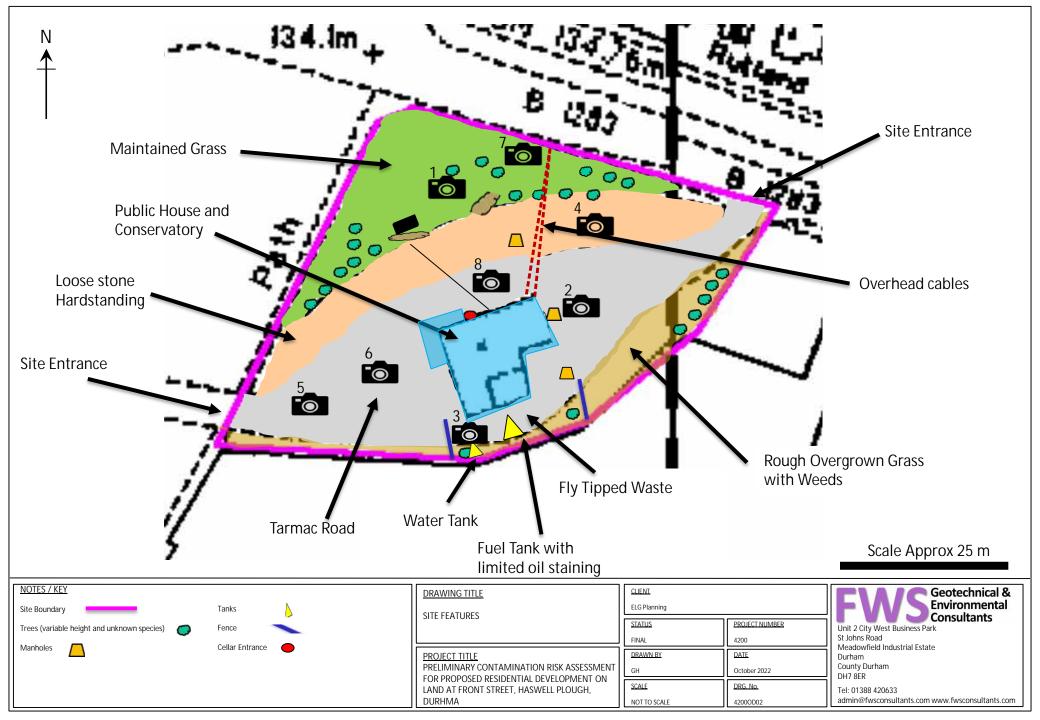


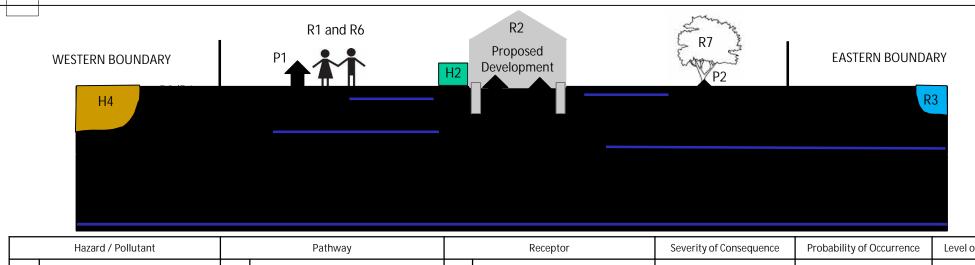
APPENDIX 1.1

FWS DRAWINGS

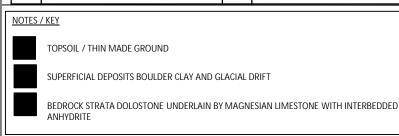








	Hazard / Pollutant Pathway			Receptor	Severity of Consequence	Probability of Occurrence	Level of Risk	
H1	Thin made ground from construction of car parking and building on site (heavy metals,	P1	Inhalation, ingestion and dermal contact	R1 R6	Future Site Users Construction Workers	Medium	Low Likelihood	Low
	hydrocarbons, asbestos, pH, sulphates)	P2	Direct contact	R7	Plants/Landscaping	Mild	Likely	Low
		P3	Soil gas pooling within the structures	R2	Property (Human Health in confined areas)	Severe	Low Likelihood	Medium
		P4	Leaching of contaminants vertically or laterally to groundwater	R3 R4 R5	Unnamed drainage ditch 120 m southeast and Sherburn Beck 250 m north to northwest. Superficial Secondary Undifferentiated Aquifer Bedrock Principal Aquifer	Medium	Low Likelihood	Low
H2	H2 Above Ground Fuel Tank, (Hydrocarbon contamination from spillages)		Inhalation, ingestion and dermal contact	R1 R6	Future Site Users Construction Workers	Severe	Low Likelihood	Medium
		P2	Direct contact	R7	Plants/Landscaping	Mild	Likely	Low
			Soil gas or soil vapours pooling within the structures	R2	Property (Human Health in confined spaces)	Severe	Unlikely	Low
		P4	Leaching of contaminants vertically or laterally to groundwater	R3 R4 R5	Unnamed drainage ditch 120 m southeast and Sherburn Beck 250 m north to northwest. Superficial Secondary Undifferentiated Aquifer Bedrock Principal Aquifer	Medium	Low Likelihood	Low
Н3	Limestone Dolomite bedrock	P3	Soil gas or soil vapours pooling within the structures	R2	Property (Human Health in confined spaces)	Severe	Low Likelihood	Medium
H4	Historical Landfill sites from 180 m to the West	Р3	Soil gas or soil vapours pooling within the structures	R2	Property (Human Health in confined spaces)	Severe	Unlikely	Low
		P4	Leaching of contaminants vertically or laterally to groundwater	R3 R4 R5	Unnamed drainage ditch 120 m southeast and Sherburn Beck 250 m north to northwest. Superficial Secondary undifferentiated Aquifer Bedrock Principal Aquifer	Medium	Low Likelihood	Low



DRAWING TITLE

CONCEPTUAL SITE MODEL AND PRELIMINARY RISK ASSESSMENT

PROJECT TITLE

PRELIMINARY CONTAMINATION RISK ASSESSMENT FOR PROPOSED RESIDENTIAL DEVELOPMENT ON LAND AT FRONT STREET, HASWELL PLOUGH, DURHAM

CLIENT ELG Planning STATUS PROJECT NUMBER 4200 FINAL DRAWN BY DATE AF/GH October 2022 SCALE DRG. No.

42000D03

NOT TO SCALE

Geotechnical & Environmental Consultants

Unit 2 City West Business Park St Johns Road Meadowfield Industrial Estate

Durham County Durham DH7 8ER

Tel: 01388 420633

admin@fwsconsultants.com www.fwsconsultants.com



APPENDIX 1.2

THIRD PARTY DRAWINGS



Indicative Site Layout Plan Scale 1:200

DISCLAIMER

This drawing is copyright and must not be reproduced without the consent of Glasper Lee Design Limited. Responsibility is not accepted for errors made by others in scaling from this drawing. All construction information should be taken from figured dimensions only. All dimensions to be checked on site by the main contractor prior to any commencement of works on site or any fabrication works off site. Any discrepancies found within the drawing must be immediately reported to Glasper Lee Design Limited. This drawing must be read in conjunction with all other project related drawings and documents; and all (if any) design team and consultants drawings and documents.

CDM REGULATIONS 2015
Works covered by the CDM Regulations 2015 shall not commence until the correct duty holders are in place and all relevant and project specific documents



Project:

63 Front Street Haswell Plough Durham DH6 2EW

Mr Gary Coote

Drawing Title:

Indicative Site Layout Plan

As Annotated December 2021 Project Ref: Drawing No: Revision:

Scale:

GLD219

Drawn By:

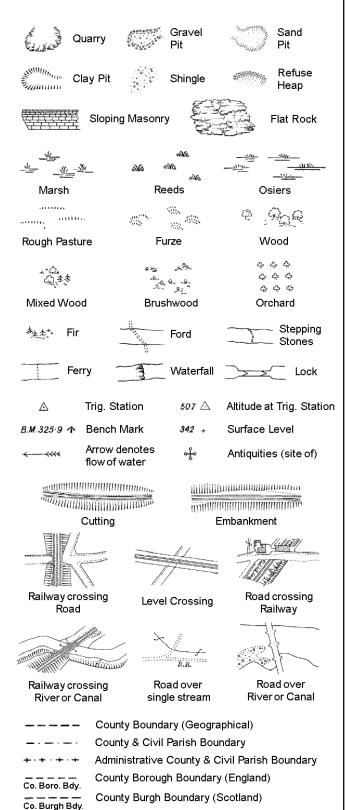


APPENDIX 2

RECENT AND HISTORICAL OS MAPS

Historical Mapping Legends

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



B.R.

EP

F.B.F.P.

G.P

Bridle Road

Foot Bridge

Foot Path

Mile Stone

M.P.M.R Mooring Post or Ring

Electricity Pylor

S.P

T.C.B

Sl

Signal Post

Telephone Call Box

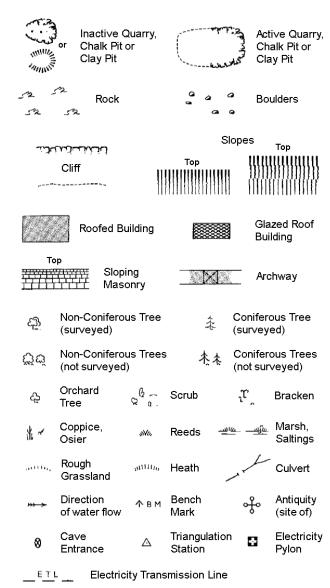
Sluice

Spring

Trough

Well

Ordnance Survey Plan, Additional SIMs and Large-Scale National Grid Data 1:2,500 and **Supply of Unpublished Survey Information** 1:2,500 and 1:1,250



***		Symbol mark mereing chai		where boundary
вн	Beer House		Р	Pillar, Pole or Post
BP, BS	Boundary Pos	st or Stone	PO	Post Office
Cn, C	Capstan, Crar	ie	PC	Public Convenience
Chy	Chimney		PH	Public House
D Fn	Drinking Four	itain	Рр	Pump
EIP	Electricity Pills	ar or Post	SB, S Br	Signal Box or Bridge
FAP	Fire Alarm Pill	ar	SP, SL	Signal Post or Light
FB	Foot Bridge		Spr	Spring
GP	Guide Post		Tk	Tank or Track
Н	Hydrant or Hy	draulic	тсв	Telephone Call Box
LC	Level Crossin	g	TCP	Telephone Call Post
MH	Manhole		Tr	Trough
MP	Mile Post or M	ooring Post	WrPt, WrT	Water Point, Water Tap
MS	Mile Stone		W	Well
NTL	Normal Tidal L	_imit	Wd Pp	Wind Pump

County Boundary (Geographical)

Admin. County or County Bor. Boundary

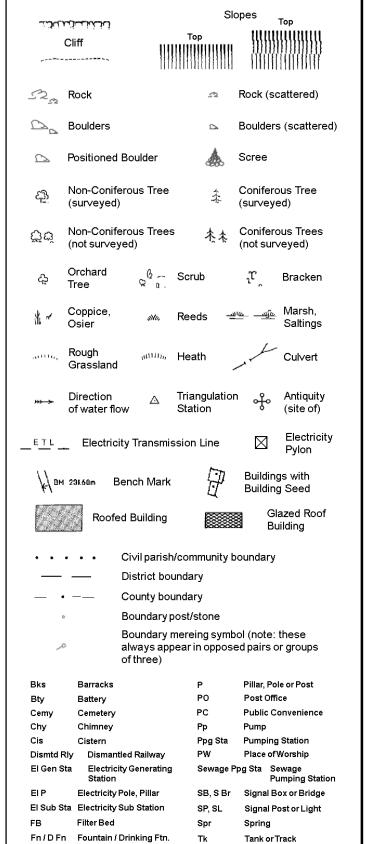
County & Civil Parish Boundary

Civil Parish Boundary

London Borough Boundary

L B Bdy

1:1,250



Gas Valve Compound

Mile Post or Mile Stone

Wd Pp

Wks

Wind Pump

WrPt, WrT Water Point, Water Tap

Works (building or area)

Gas Governer

Guide Post

Manhole

GVC

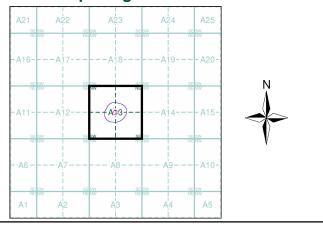
Envirocheck®

LANDMARK INFORMATION GROUP®

Historical Mapping & Photography included:

Mapping Type	Scale	Date	Pg
Durham	1:2,500	1857	2
Durham	1:2,500	1895	3
Durham	1:2,500	1897	4
Durham	1:2,500	1919	5
Durham	1:2,500	1939	6
Ordnance Survey Plan	1:2,500	1958 - 1959	7
Additional SIMs	1:2,500	1977 - 1984	8
Additional SIMs	1:2,500	1984 - 1988	9
Additional SIMs	1:2,500	1988	10
Large-Scale National Grid Data	1:2,500	1993	11

Historical Map - Segment A13



Order Details

Order Number: 302489035_1_1 Customer Ref: National Grid Reference: 436970, 542150

Slice:

Site Area (Ha): 0.29 Search Buffer (m): 100

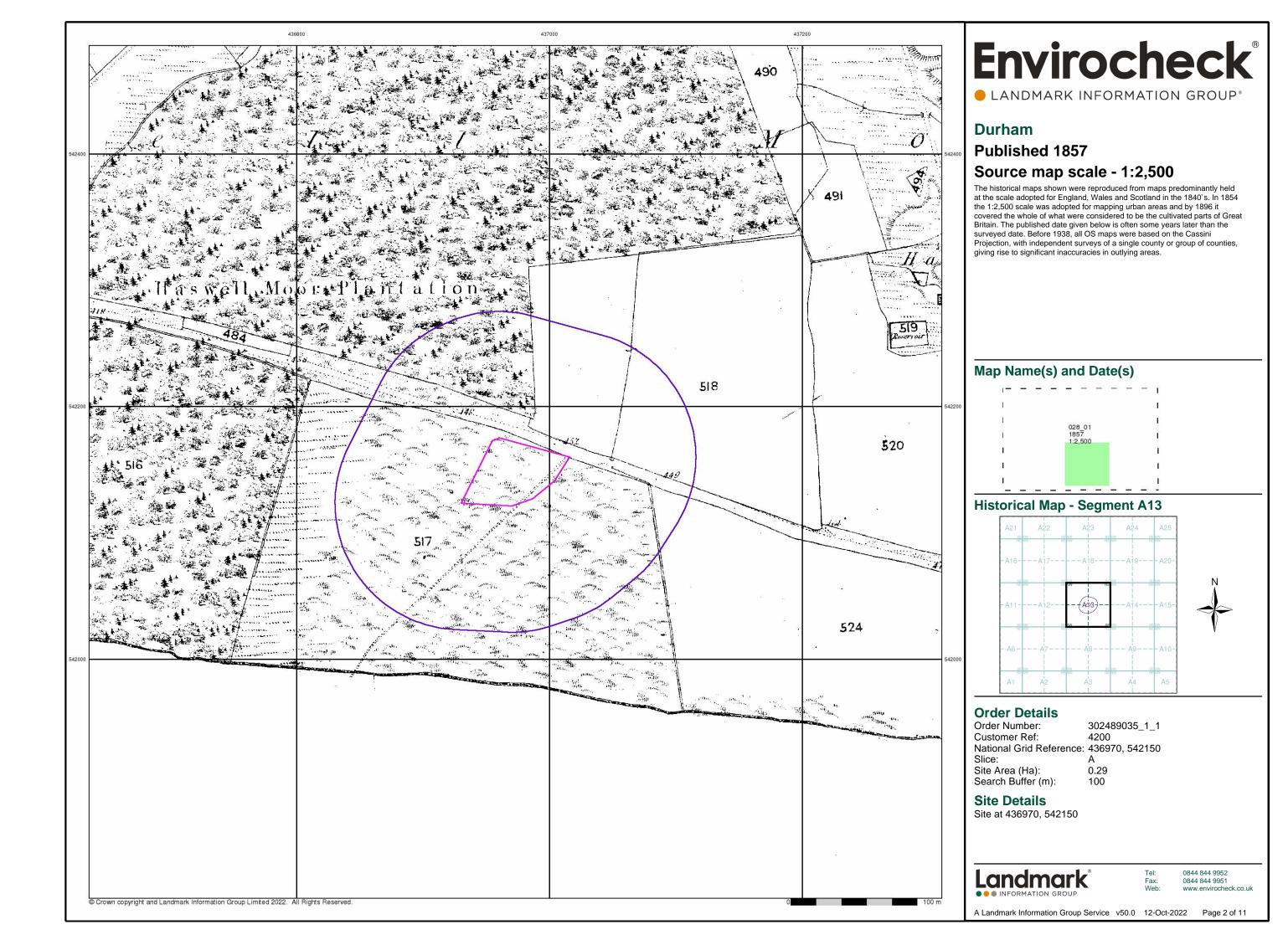
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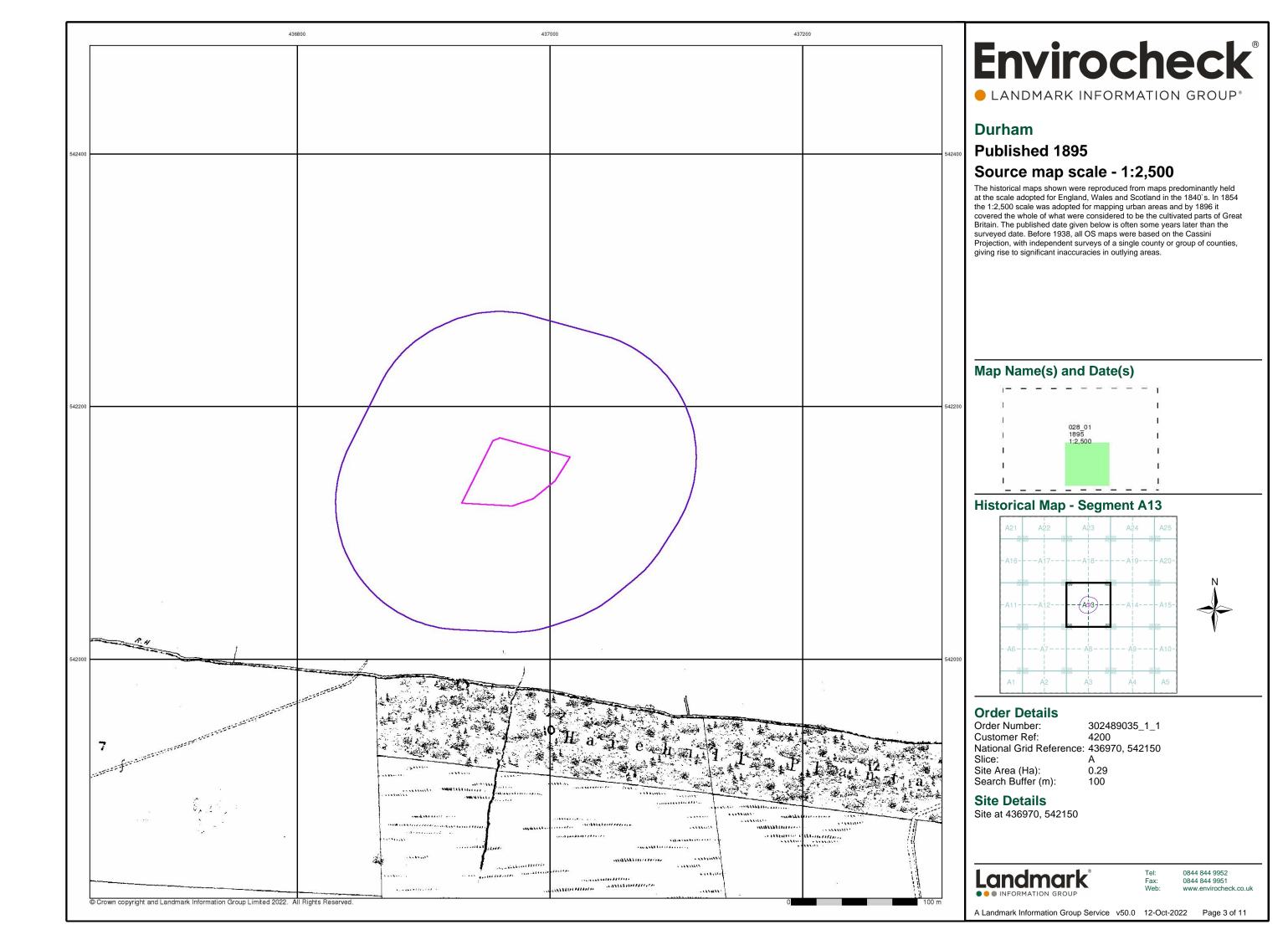
Site at 436970, 542150

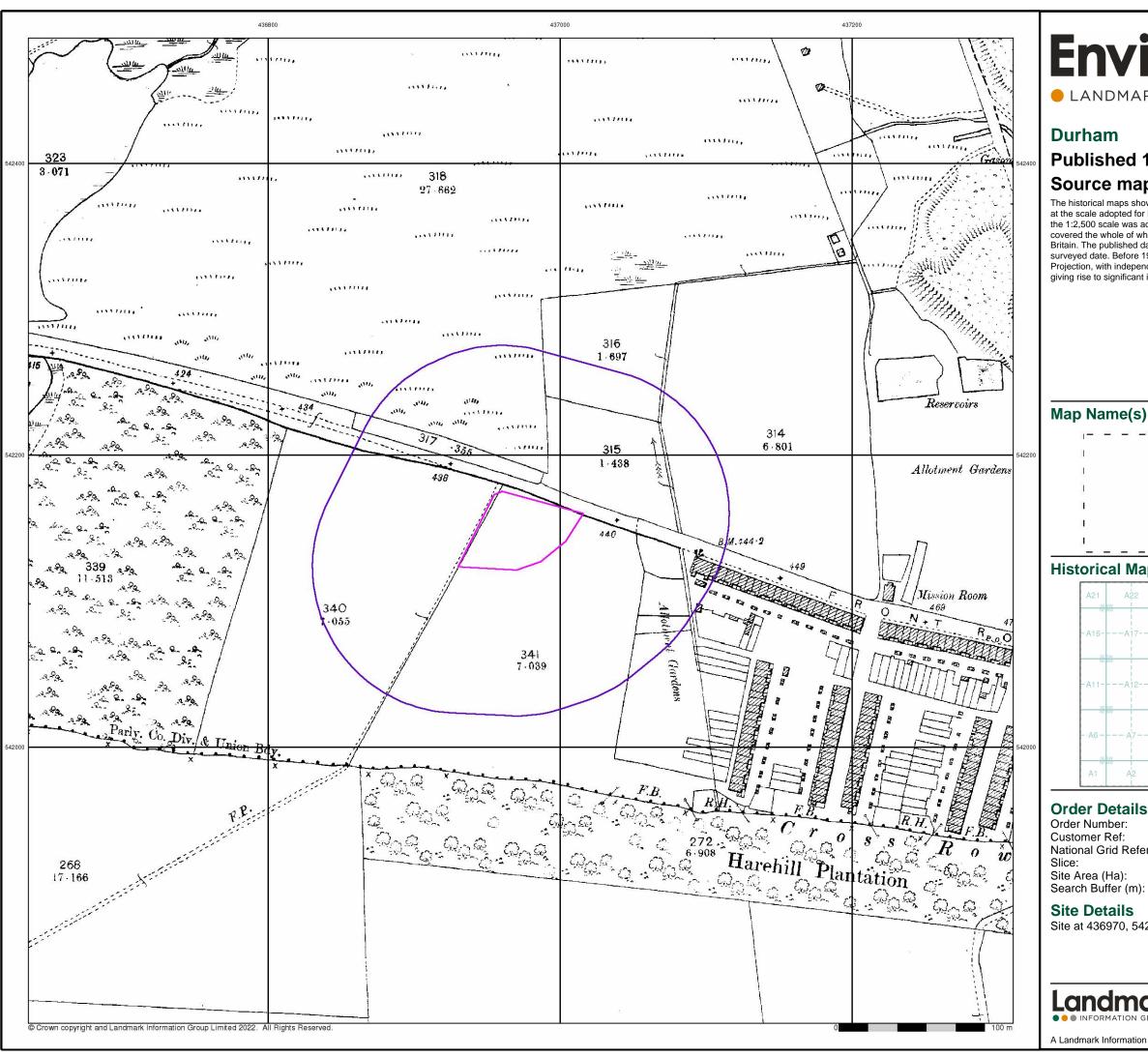


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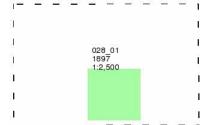


LANDMARK INFORMATION GROUP®

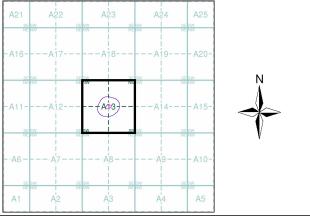
Published 1897 Source map scale - 1:2,500

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: 302489035_1_1

National Grid Reference: 436970, 542150

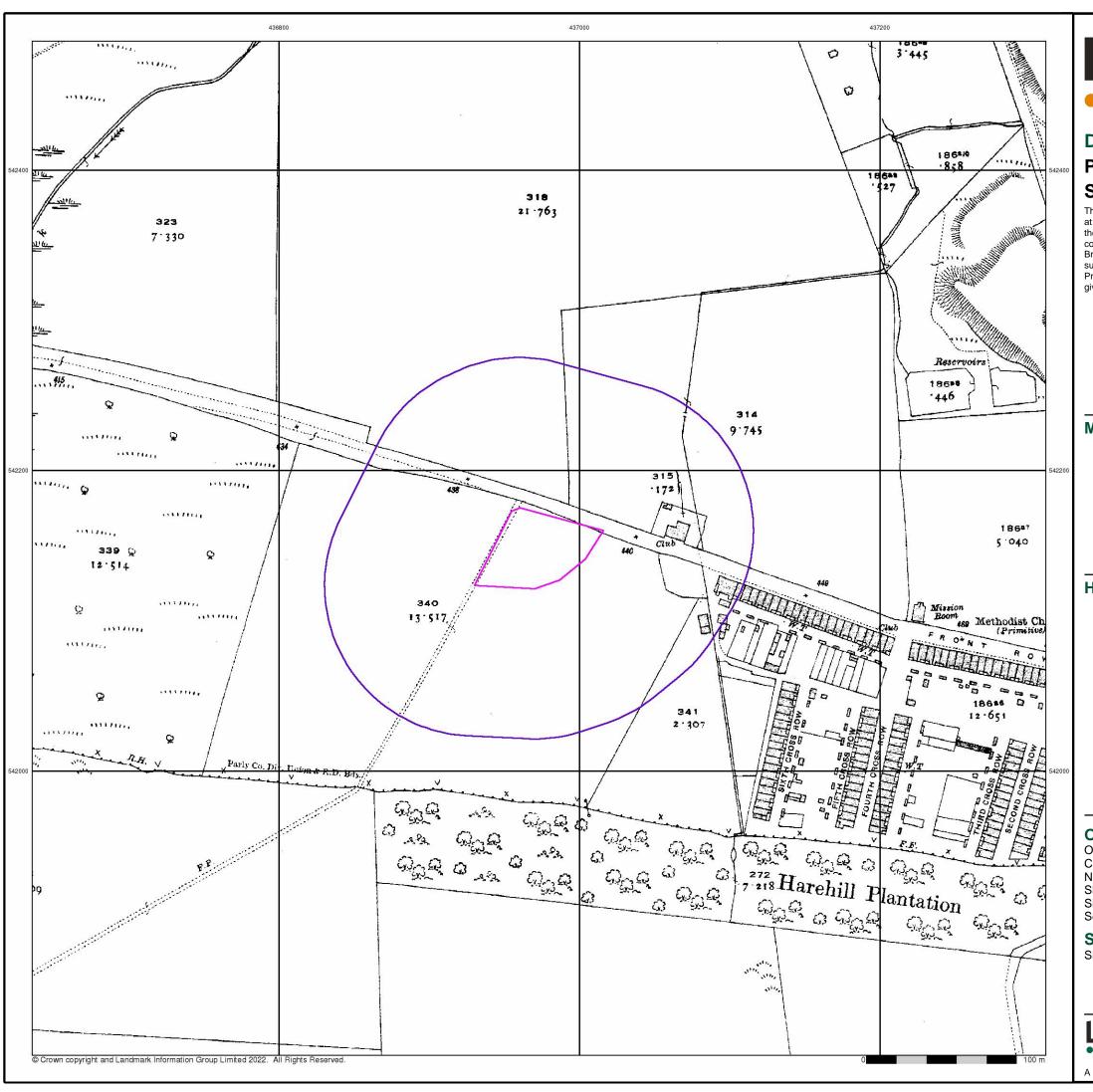
Site Area (Ha): 0.29 100

Site Details

Site at 436970, 542150

0844 844 9952

A Landmark Information Group Service v50.0 12-Oct-2022 Page 4 of 11



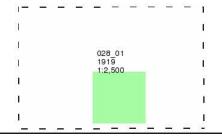
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Durham

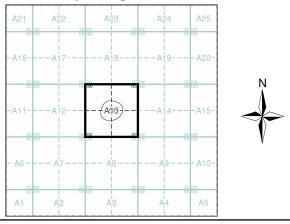
Published 1919 Source map scale - 1:2,500

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 Number: 302489035_1_1 Customer Ref: 4200

National Grid Reference: 436970, 542150

Slice: A

Site Area (Ha): 0.29 Search Buffer (m): 100

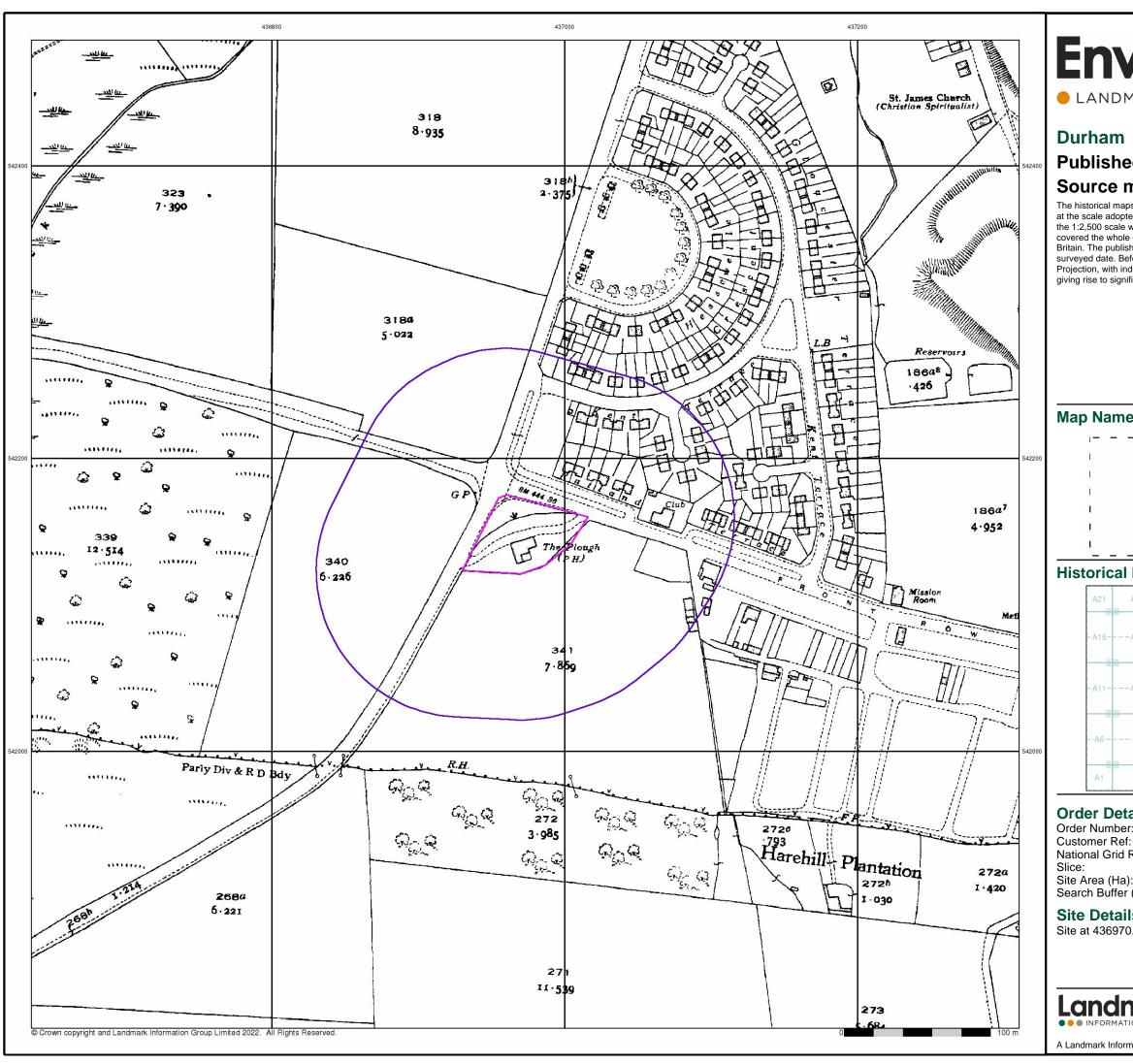
Site Details

Site at 436970, 542150

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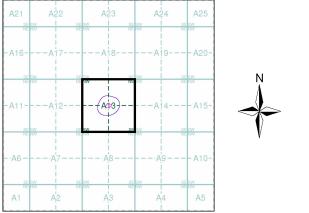
Published 1939 Source map scale - 1:2,500

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: 302489035_1_1

National Grid Reference: 436970, 542150

Site Area (Ha): Search Buffer (m): 0.29

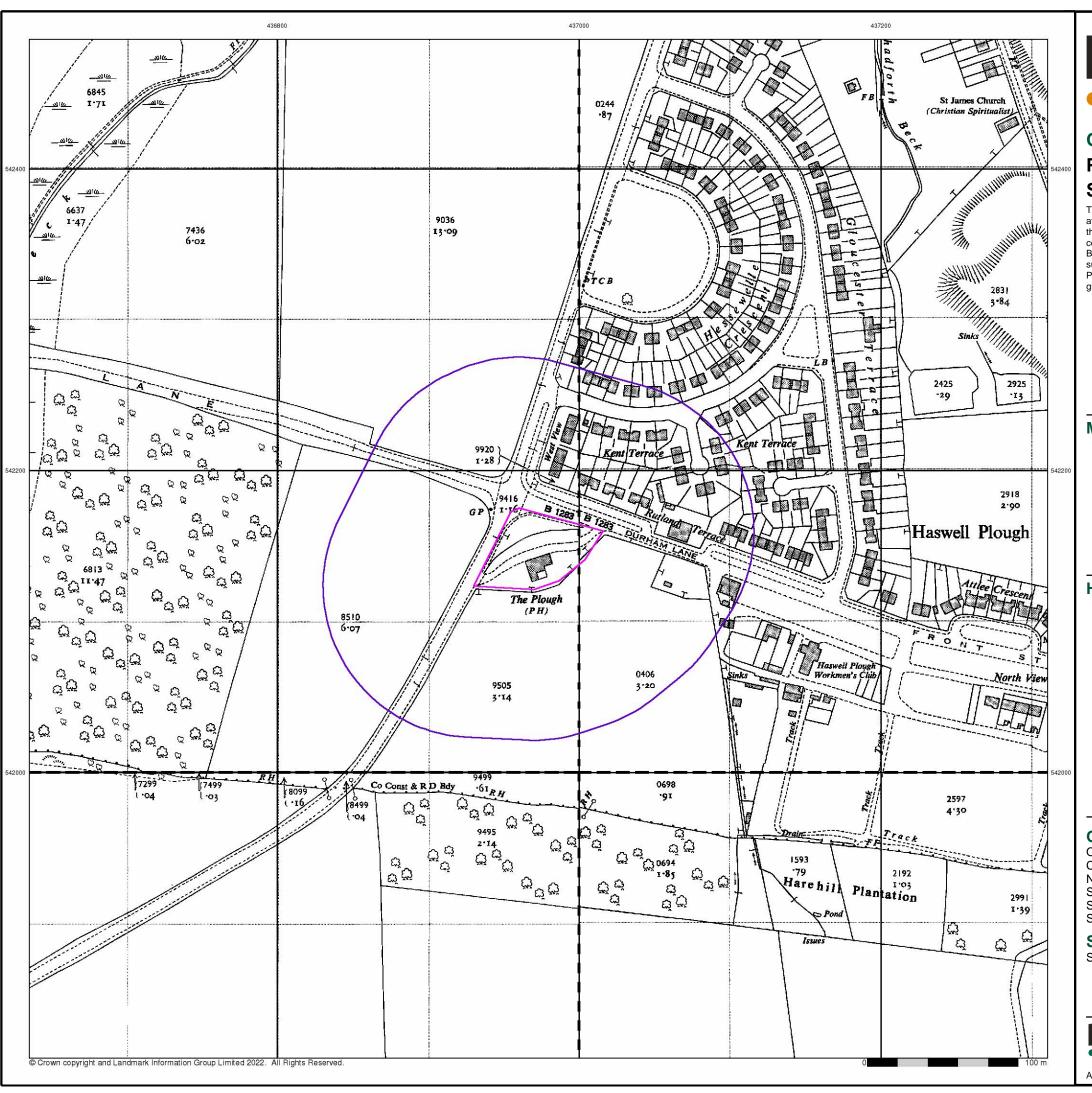
Site Details

Site at 436970, 542150

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A Landmark Information Group Service v50.0 12-Oct-2022 Page 6 of 11



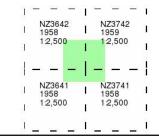
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Ordnance Survey Plan

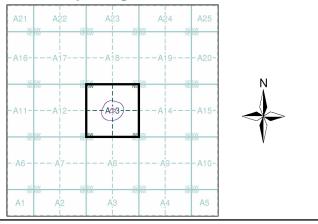
Published 1958 - 1959 Source map scale - 1:2,500

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Map Name(s) and Date(s)



Historical Map - Segment A13



Order Details

Order Number: 302489035_1_1 Customer Ref:

National Grid Reference: 436970, 542150

Site Area (Ha): Search Buffer (m):

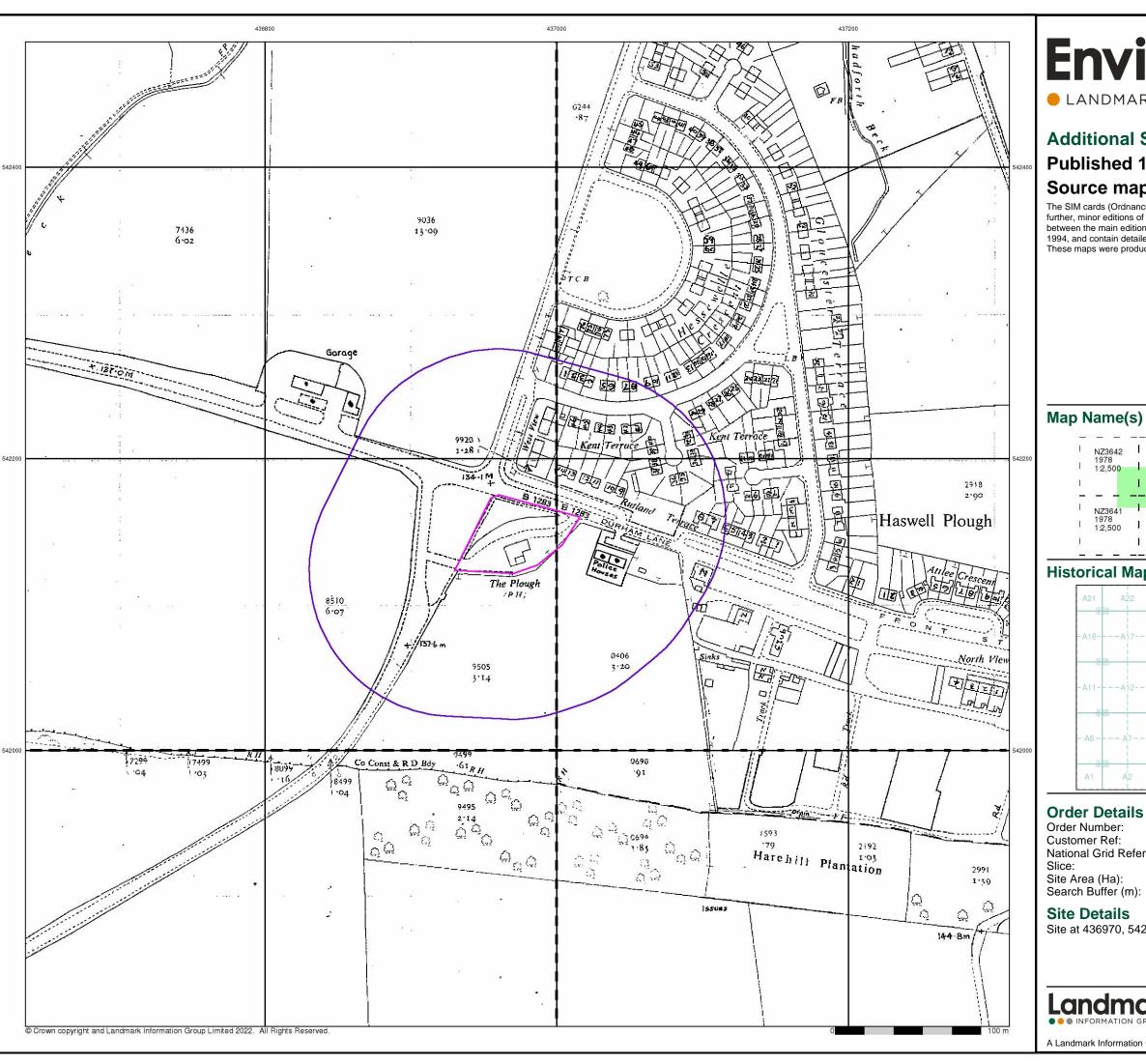
Site Details

Site at 436970, 542150



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A Landmark Information Group Service v50.0 12-Oct-2022 Page 7 of 11



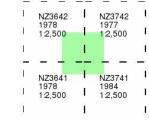
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Additional SIMs

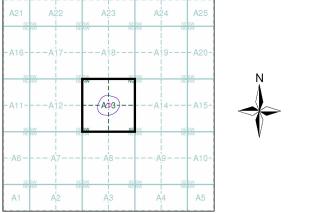
Published 1977 - 1984 Source map scale - 1:2,500

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

Map Name(s) and Date(s)



Historical Map - Segment A13



Order Details

Order Number: 302489035_1_1

National Grid Reference: 436970, 542150

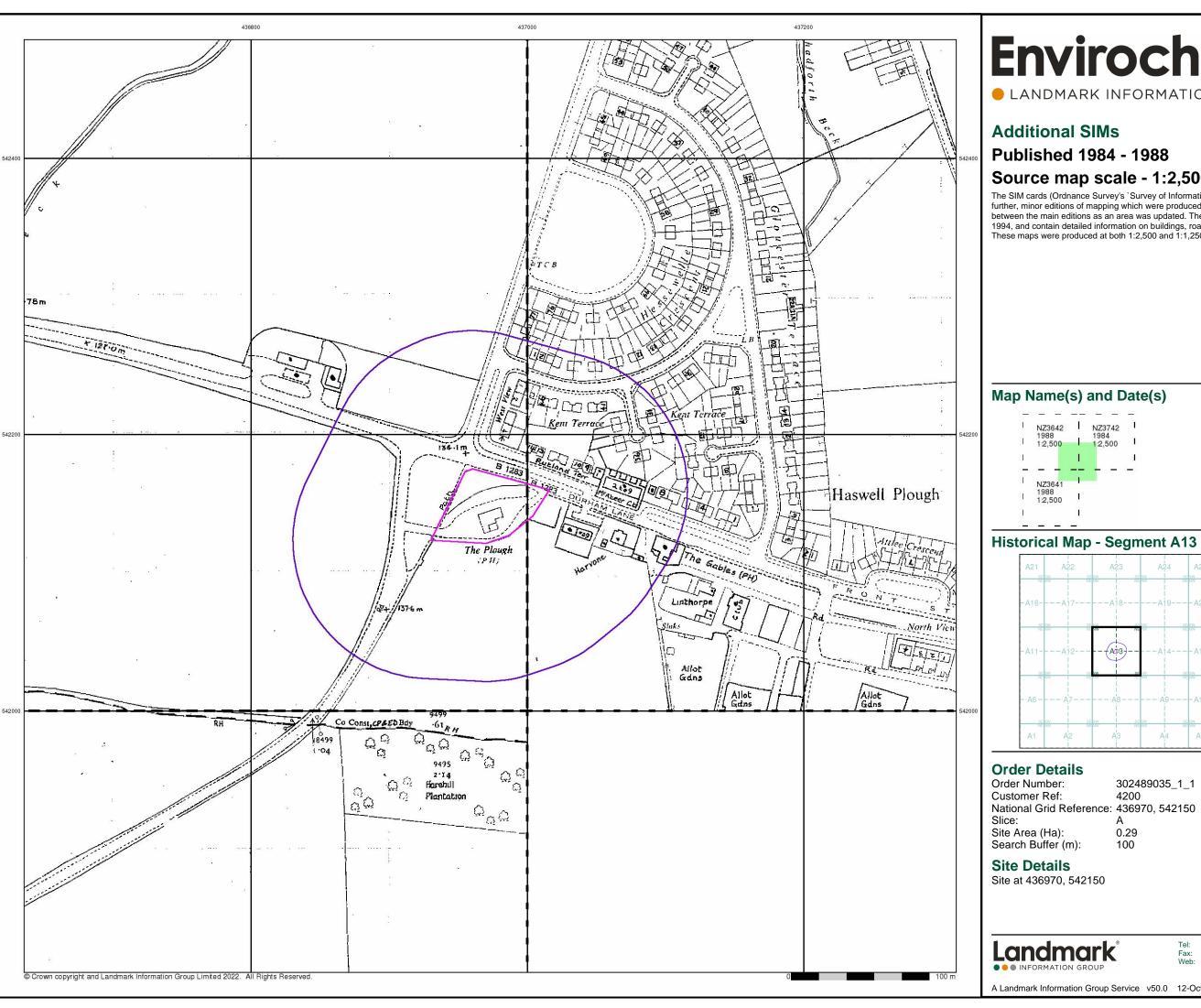
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Site at 436970, 542150

Landmark

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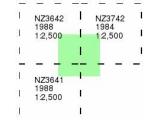
A Landmark Information Group Service v50.0 12-Oct-2022 Page 8 of 11

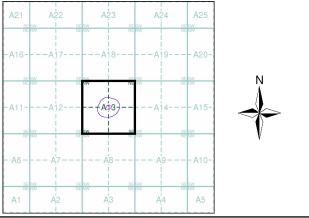


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Published 1984 - 1988 Source map scale - 1:2,500

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.



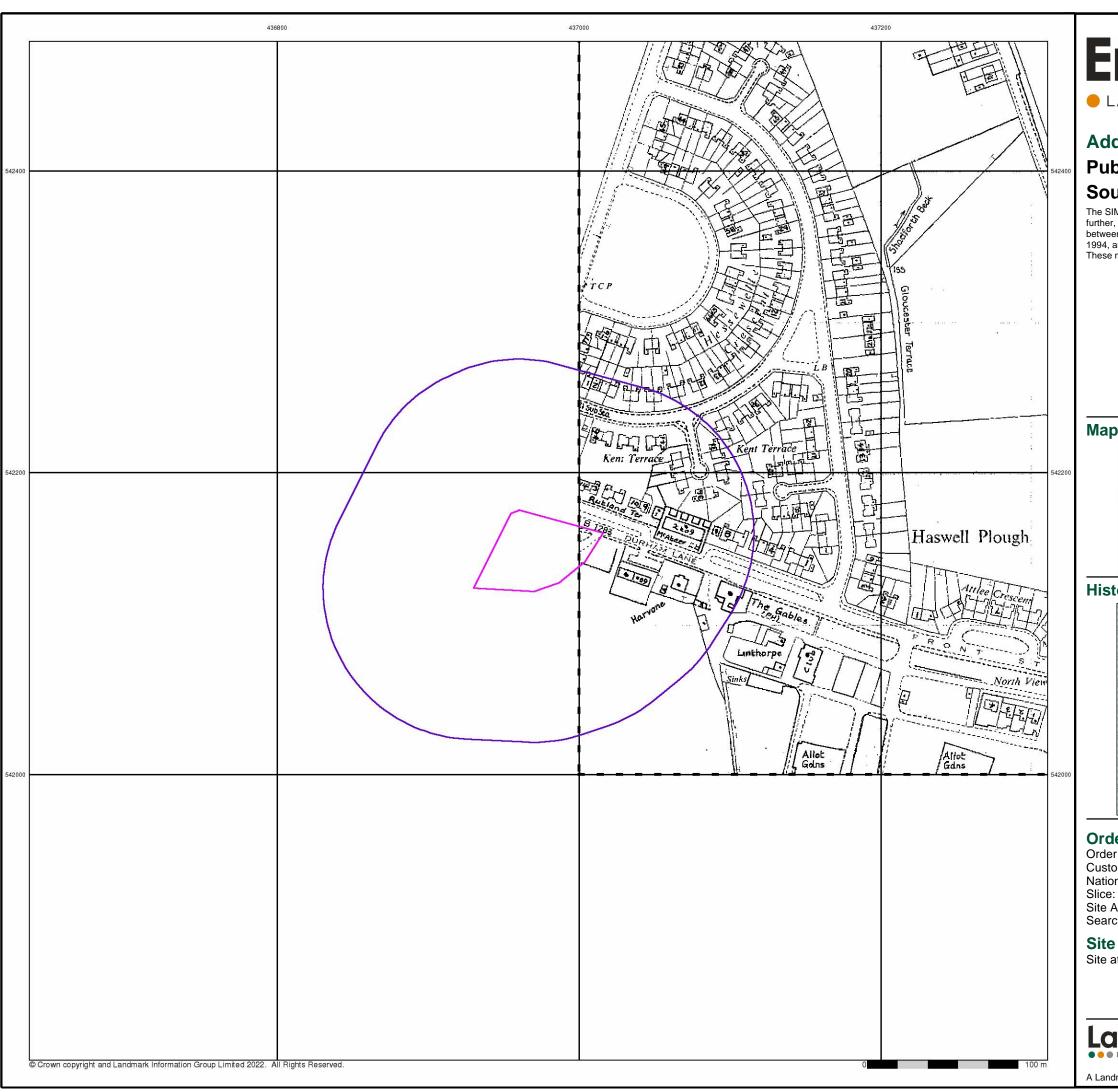


302489035_1_1

National Grid Reference: 436970, 542150

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A Landmark Information Group Service v50.0 12-Oct-2022 Page 9 of 11



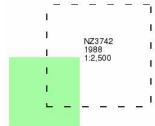
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Additional SIMs

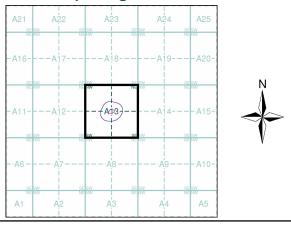
Published 1988 Source map scale - 1:2,500

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: 302489035_1_1 Customer Ref: 4200

National Grid Reference: 436970, 542150

Α ...

Site Area (Ha): 0.29 Search Buffer (m): 100

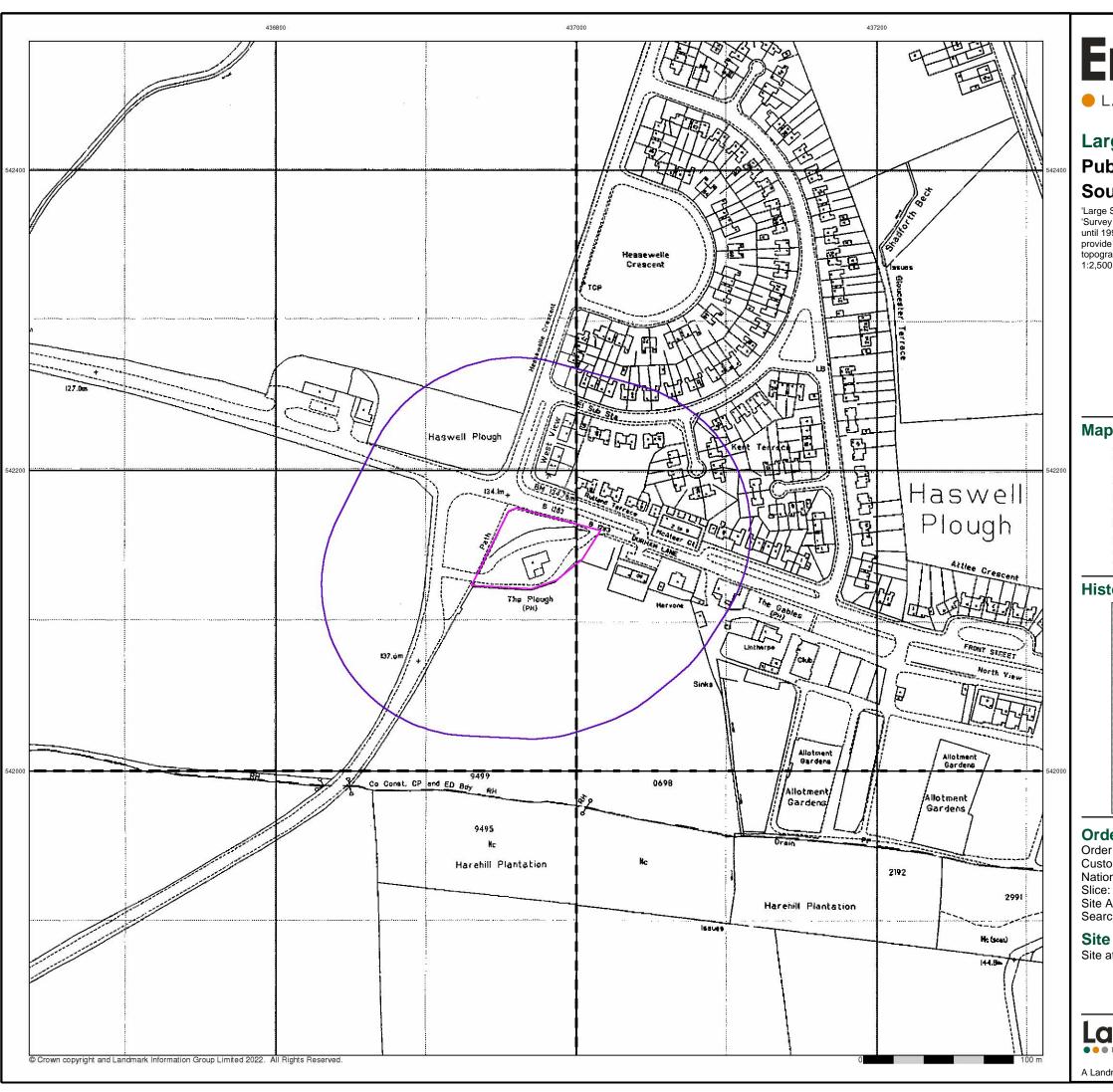
Site Details

Site at 436970, 542150

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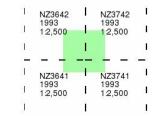
Large-Scale National Grid Data

Published 1993

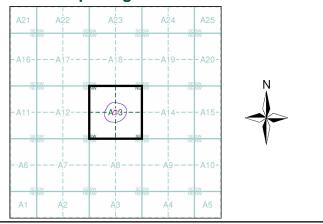
Source map scale - 1:2,500

'Large Scale National Grid Data' superseded SIM cards (Ordnance Survey's 'Survey of Information on Microfilm') in 1992, and continued to be produced until 1999. These maps were the fore-runners of digital mapping and so provide detailed information on houses and roads, but tend to show less topographic features such as vegetation. These maps were produced at both 1:2,500 and 1:1,250 scales.

Map Name(s) and Date(s)



Historical Map - Segment A13



Order Details

Order Number: 302489035_1_1 Customer Ref:

National Grid Reference: 436970, 542150

0.29

Site Area (Ha): Search Buffer (m):

Site Details

Site at 436970, 542150

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Historical Mapping Legends

Mile Stone

Gra∨el Pit Other Orchard Mixed Wood Deciduous Brushwood Furze Rough Pasture Arrow denotes Trigonometrical flow of water Site of Antiquities Bench Mark Pump, Guide Post, Well, Spring, Signal Post **Boundary Post** Surface Level Sketched Instrumental Contour Contour Fenced Main Roads Minor Roads Un-Fenced Sunken Road Raised Road Railway over Road over River Railway Railway over Level Crossing Road over Road over Stream River or Canal Road over County Boundary (Geographical) County & Civil Parish Boundary Administrative County & Civil Parish Boundary County Borough Boundary (England) Co. Boro. Bdy. County Burgh Boundary (Scotland) Co. Burgh Bdy. Rural District Boundary

Civil Parish Boundary

Ordnance Survey County Series 1:10,560

Ordnance Survey Plan 1:10,000

E CHUMAN CHUMAN	Chalk Pit, Clay Pit or Quarry	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Gravel Pit
	Sand Pit		Disused Pit or Quarry
100000	Refuse or Slag Heap) Lake, Loch or Pond
	Dunes	000	Boulders
* * *	Coniferous Trees	400	Non-Coniferous Trees
ዕ	Orchard no_	Scrub	Υ _M Coppice
ਜ ਜ ਜ	Bracken willing	Heath	, , , , , , Rough Grassland
<u> </u>	MarshV///	Reeds	그 <u>北</u> Saltings
	Direc	tion of Flow o	f Water
	Building	1/	Shingle
		<i>***</i>	
155.24	<u> </u>		Sand
	Glasshouse		
		Pylon	Electricity
готт			Transmission
	Sloping Masonry	Pole	Line
Cutting	Emboulon	a.m.t	
Cutting	************		
***	***************		" Multiple Track
	<u>.U</u>	\\	⊣⊨ Standard Gauge
Road ' '' Under	'∏''' Road // Leve Over Cross		
			Siding, Tramway
			or Mineral Line
+			→ Narrow Gauge
			, I
	Geographical Co	untv	
	Administrative Co	ounty, County	Borough
	Municipal Boroug Burgh or District	gh, Urban or F	Rural District,
	Borough, Burgh Shown only when no		
	Civil Parish Shown alternately w	hen coincidence	e of boundaries occurs
BP, BS	Boundary Post or Stone	Pol Sta	Police Station
Ch CH	Church Club House	PO PC	Post Office Public Convenience
F E Sta	Fire Engine Station	PC PH	Public Convenience Public House
FB	Foot Bridge	SB	Signal Box
Fn	Fountain	Spr	Spring
GP			
GF	Guide Post	TCB	Telephone Call Box

1:10,000 Raster Mapping

		Gravel Pit		Refuse tip or slag heap
	3 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	Rock	3 3	Rock (scattered)
		Boulders	• • •	Boulders (scattered)
		Shingle	Mud	Mud
	Sand	Sand		Sand Pit
	********	Slopes		Top of cliff
		General detail		Underground detail
-		Overhead detail		Narrow gauge railway
•	<u> </u>	Multi-track railway	-	Single track railway
	*•	County boundary (England only)	• • • • •	Civil, parish or community boundary
	<u> </u>	District, Unitary, Metropolitan, London Borough boundary		Constituency boundary
E	a	Area of wooded vegetation	مم مم	Non-coniferous trees
	۵ ۵	Non-coniferous trees (scattered)	** **	Coniferous trees
	*	Coniferous trees (scattered)	Ö	Positioned tree
	& Φ Φ Φ	Orchard	* *	Coppice or Osiers
,	aiTi,	Rough Grassland	wallin	Heath
	On_ On_	Scrub	<u>⊿\\/</u> \/L	Marsh, Salt Marsh or Reeds
0	S	Water feature	-	Flow arrows
0	MHW(S)	Mean high water (springs)	MLW(S)	Mean low water (springs)
		Telephone line (where shown)		Electricity transmission line (with poles)
	← BM 123.45 m	Bench mark (where shown)	Δ	Triangulation station
	*	Point feature (e.g. Guide Post or Mile Stone)	\boxtimes	Pylon, flare stack or lighting tower
	•‡•	Site of (antiquity)		Glasshouse
		General Building		Important Building

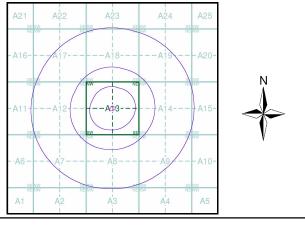
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Historical Mapping & Photography included:

Mapping Type	Scale	Date	Pg
Durham	1:10,560	1861	2
Durham	1:10,560	1898	3
Durham	1:10,560	1922 - 1923	4
Ordnance Survey Plan	1:10,000	1952	5
Ordnance Survey Plan	1:10,000	1967	6
Ordnance Survey Plan	1:10,000	1988	7
Ordnance Survey Plan	1:10,000	1991	8
10K Raster Mapping	1:10,000	2000	9
Street View	Variable		10

Historical Map - Slice A



Order Details

302489035_1_1 Order Number: Customer Ref:

National Grid Reference: 436970, 542150

Slice: Site Area (Ha):

0.29 Search Buffer (m): 1000

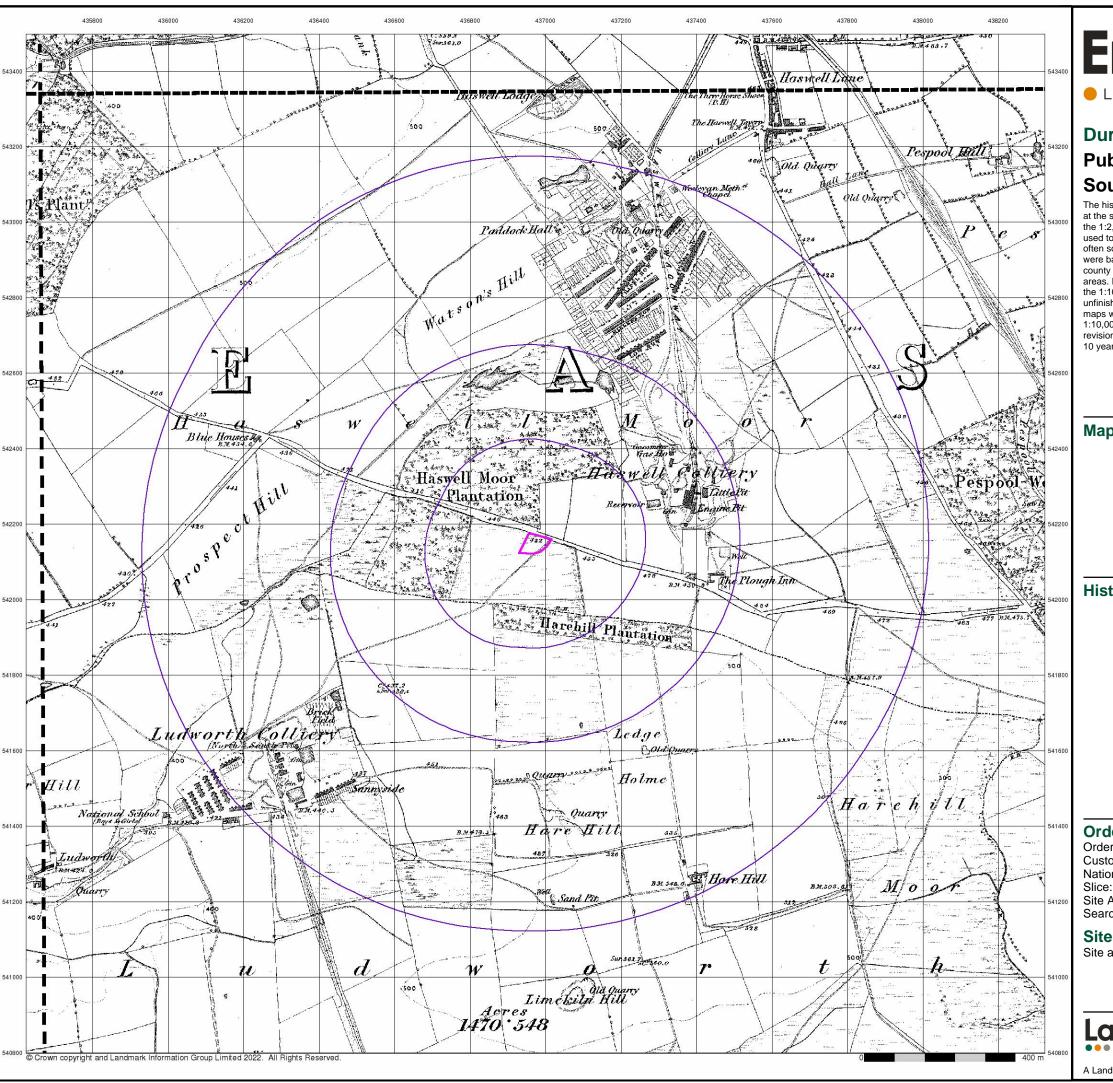
Site Details

Site at 436970, 542150



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A Landmark Information Group Service v50.0 12-Oct-2022 Page 1 of 10



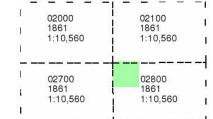
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Durham

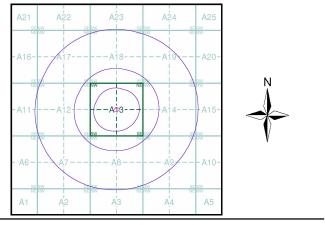
Published 1861 Source map scale - 1:10,560

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: 302489035_1_1

Customer Ref:

National Grid Reference: 436970, 542150

Site Area (Ha): Search Buffer (m): 0.29

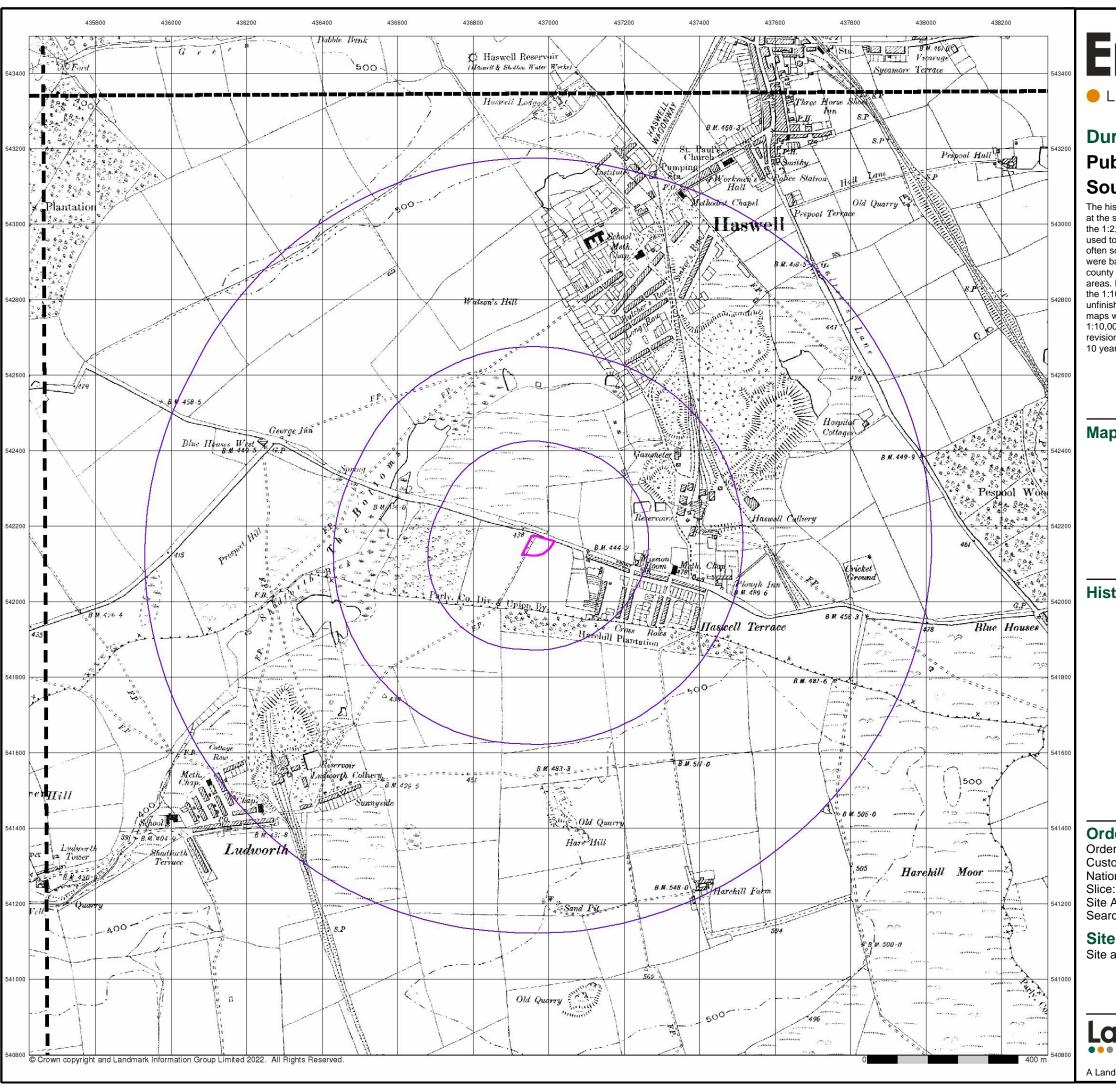
Site Details

Site at 436970, 542150

Landmark

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A Landmark Information Group Service v50.0 12-Oct-2022 Page 2 of 10



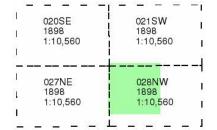
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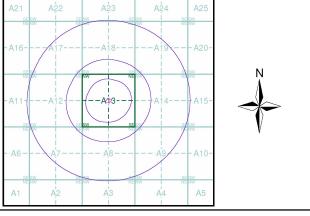
Published 1898 Source map scale - 1:10,560

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: 302489035_1_1

Customer Ref: 4200

National Grid Reference: 436970, 542150

9: Aroa (∐a):

Site Area (Ha): 0.29 Search Buffer (m): 1000

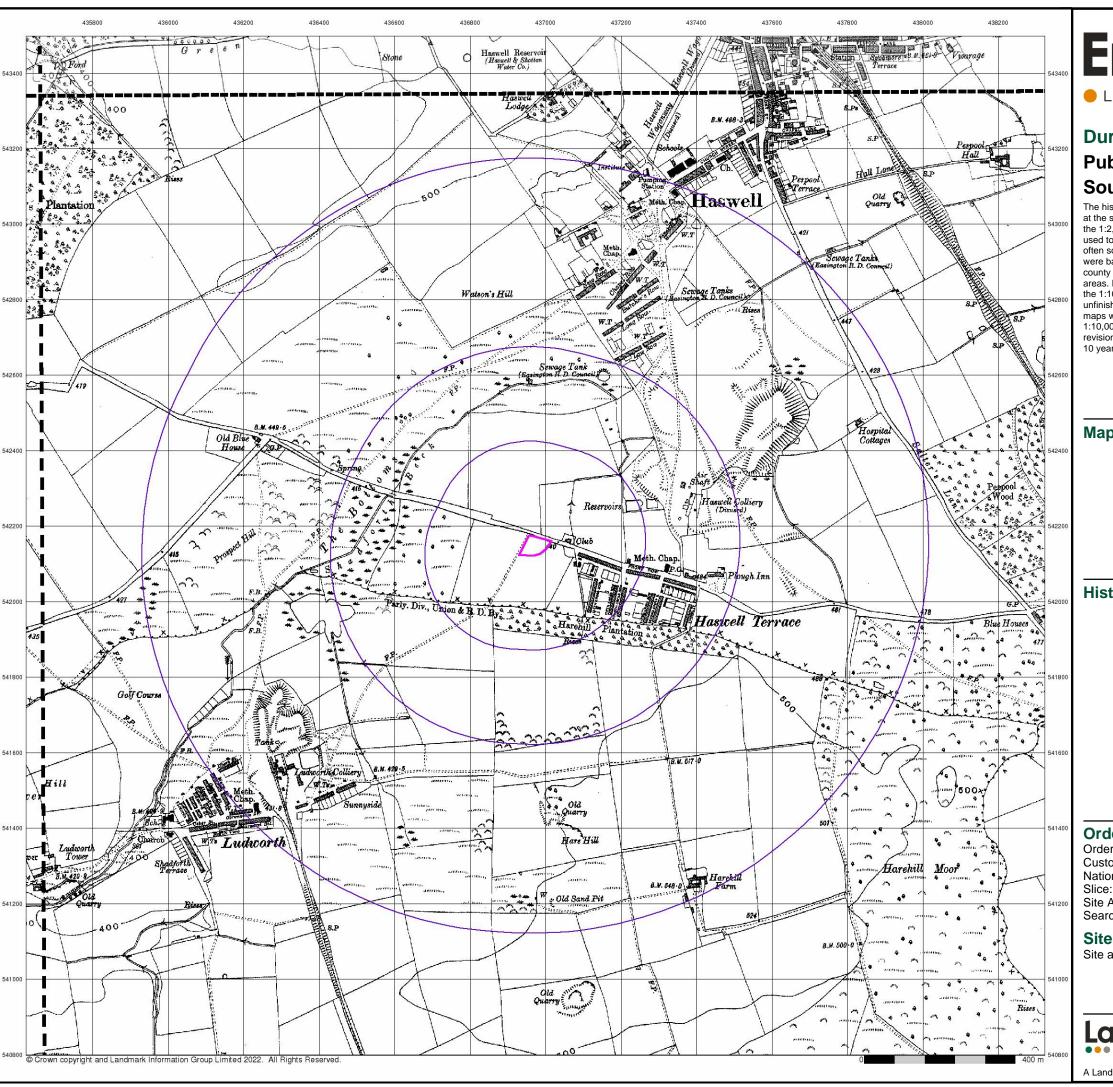
Site Details

Site at 436970, 542150

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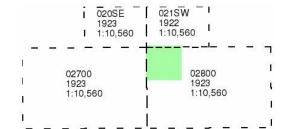
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Durham

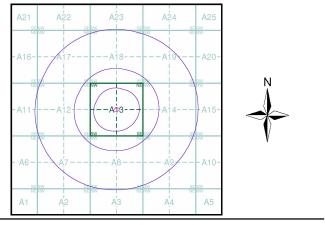
Published 1922 - 1923 Source map scale - 1:10,560

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: 302489035_1_1

Customer Ref:

National Grid Reference: 436970, 542150

Site Area (Ha): Search Buffer (m): 0.29

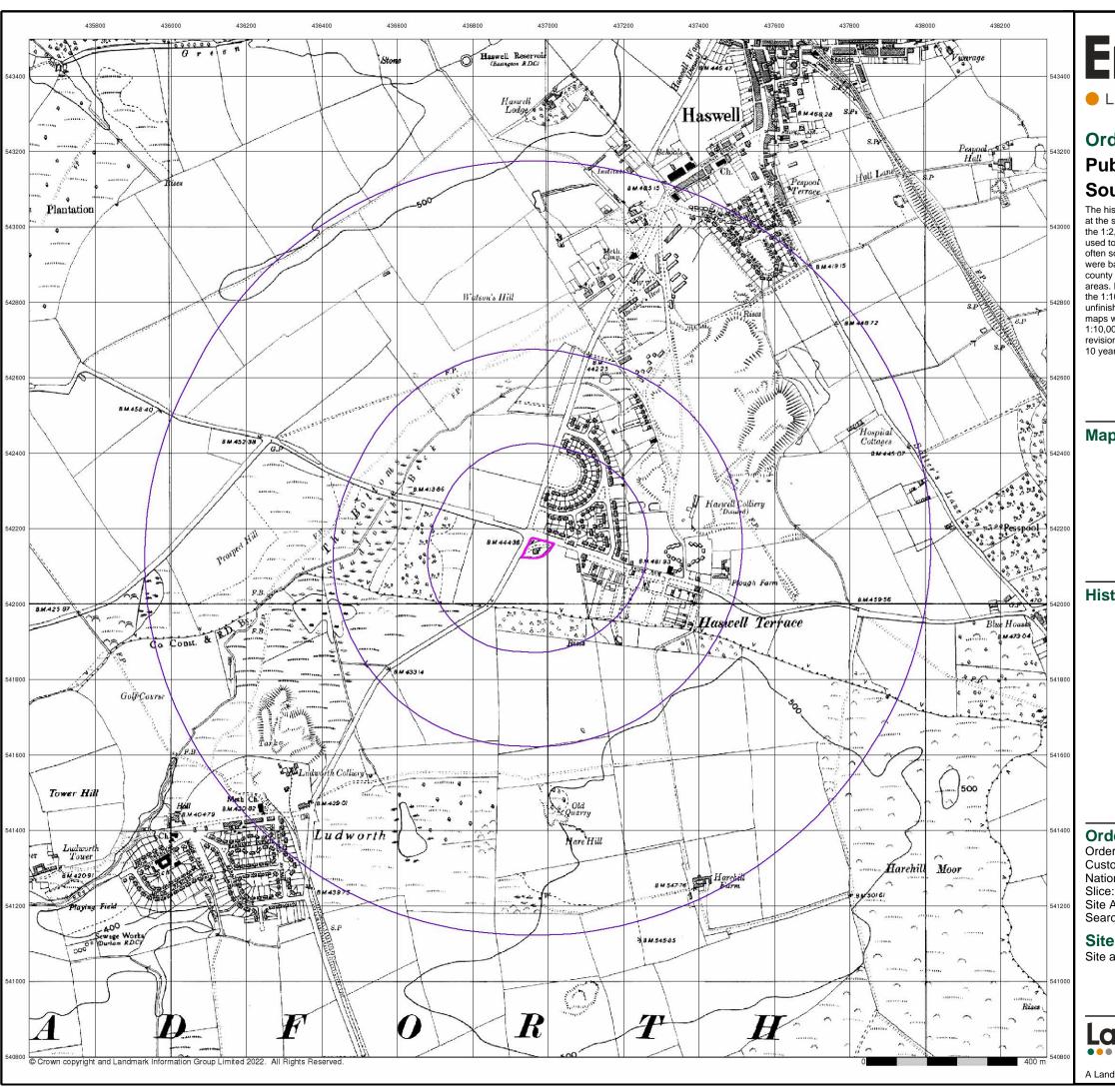
Site Details

Site at 436970, 542150

Landmark

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A Landmark Information Group Service v50.0 12-Oct-2022 Page 4 of 10



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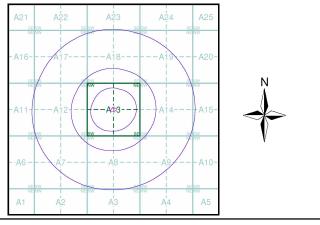
Ordnance Survey Plan Published 1952 Source map scale - 1:10,000

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Map Name(s) and Date(s)



Historical Map - Slice A



Order Details

Order Number: 302489035_1_1

Customer Ref:

National Grid Reference: 436970, 542150

Site Area (Ha): Search Buffer (m): 0.29

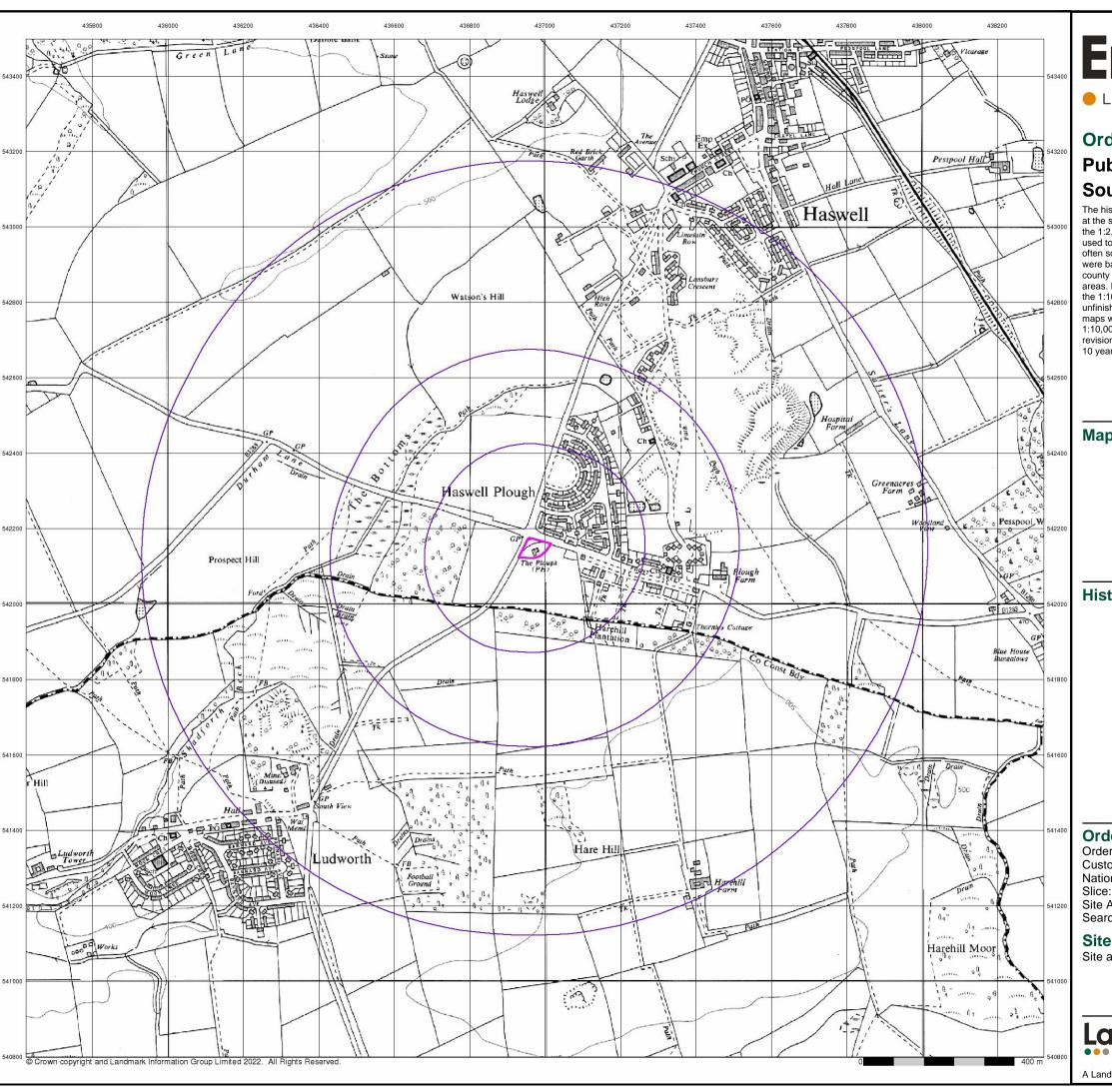
Site Details

Site at 436970, 542150

Landmark

0844 844 9952

A Landmark Information Group Service v50.0 12-Oct-2022 Page 5 of 10



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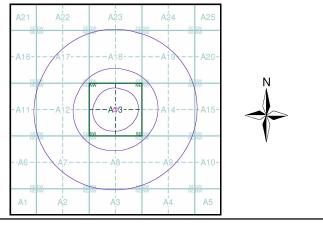
Ordnance Survey Plan Published 1967 Source map scale - 1:10,000

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Map Name(s) and Date(s)



Historical Map - Slice A



Order Details

Order Number: 302489035_1_1

Customer Ref:

National Grid Reference: 436970, 542150

Site Area (Ha): Search Buffer (m): 0.29

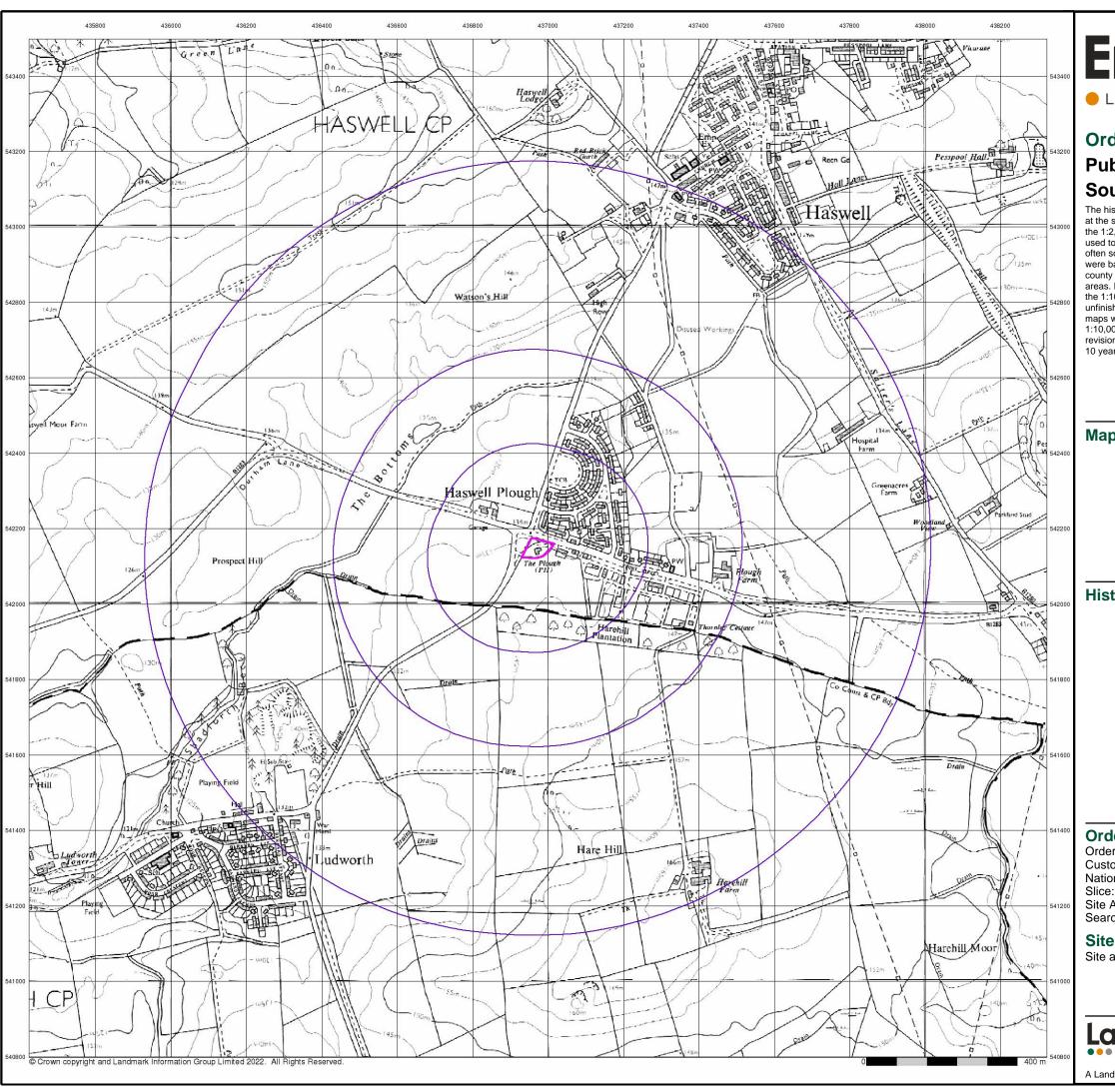
Site Details

Site at 436970, 542150

Landmark

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A Landmark Information Group Service v50.0 12-Oct-2022 Page 6 of 10



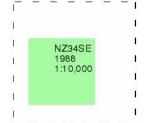
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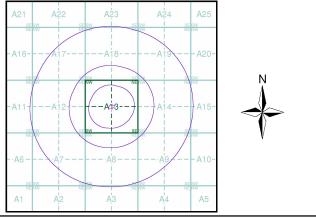
Ordnance Survey Plan Published 1988 Source map scale - 1:10,000

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: 302489035_1_1

Customer Ref:

National Grid Reference: 436970, 542150

Site Area (Ha): Search Buffer (m): 0.29

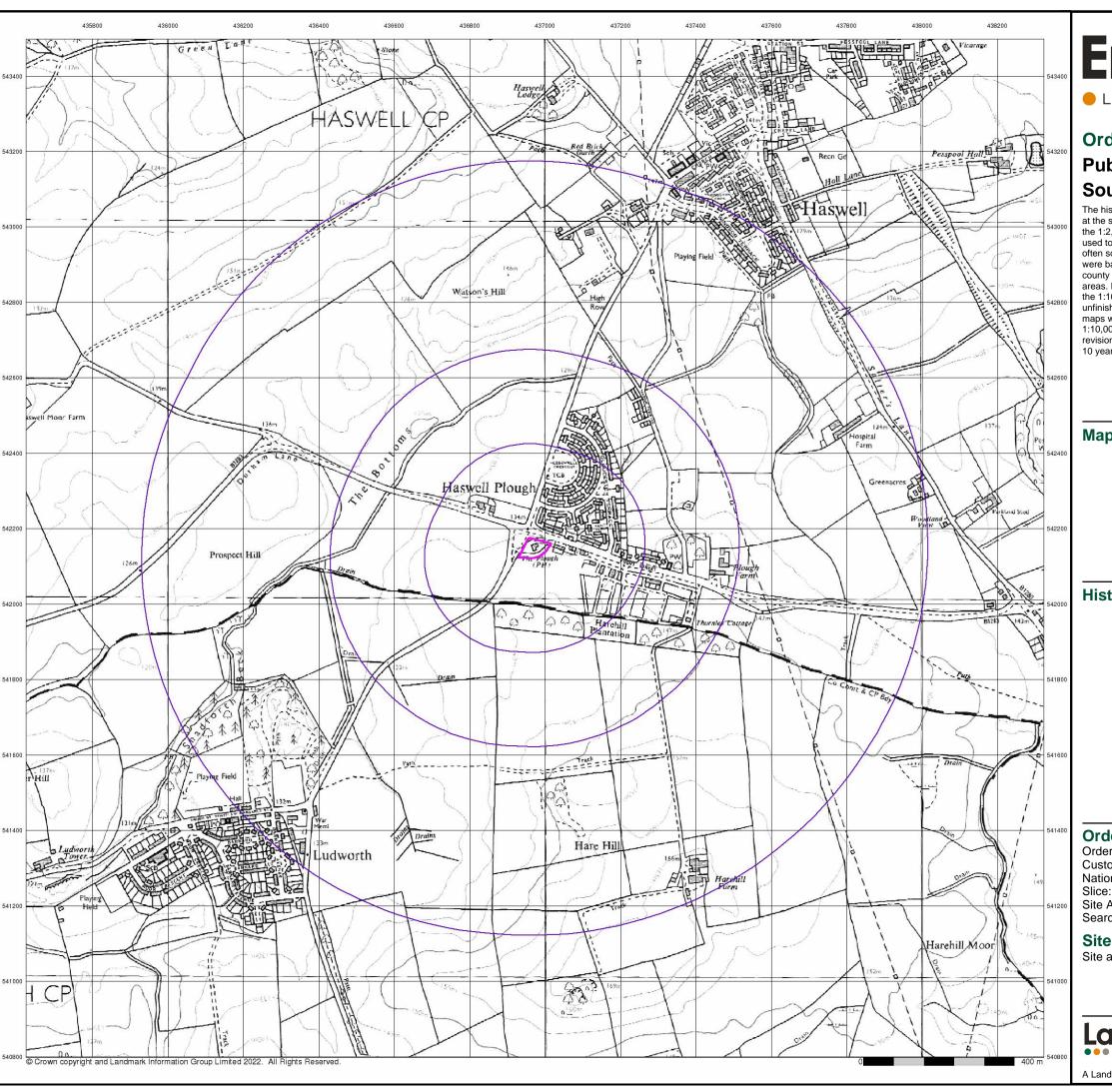
Site Details

Site at 436970, 542150

Landmark

0844 844 9952

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Envirocheck®

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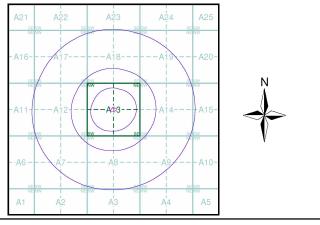
Ordnance Survey Plan Published 1991 Source map scale - 1:10,000

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

Map Name(s) and Date(s)



Historical Map - Slice A



Order Details

Order Number: 302489035_1_1

Customer Ref: 420

National Grid Reference: 436970, 542150

e:

Site Area (Ha): 0.29 Search Buffer (m): 1000

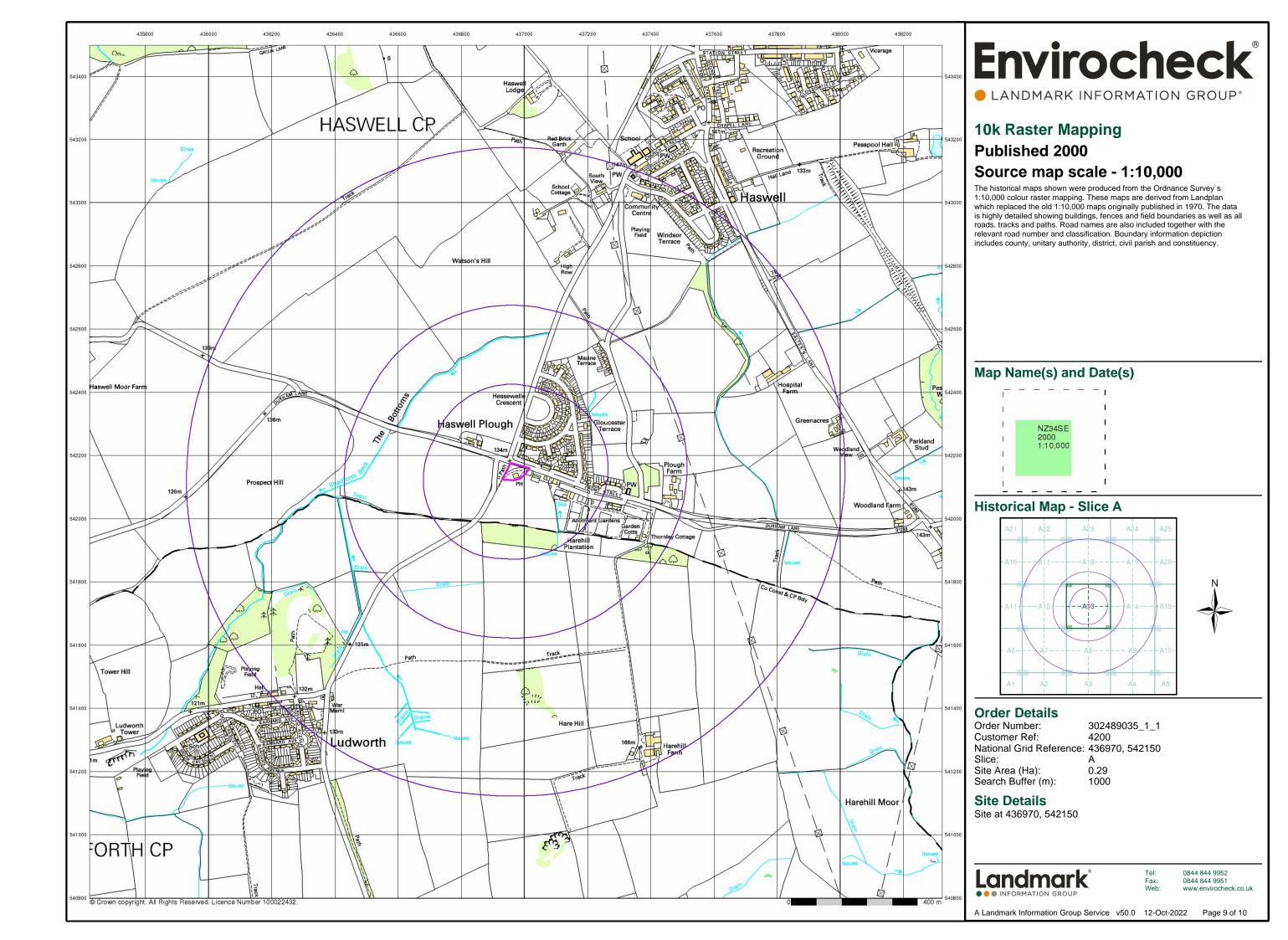
Site Details

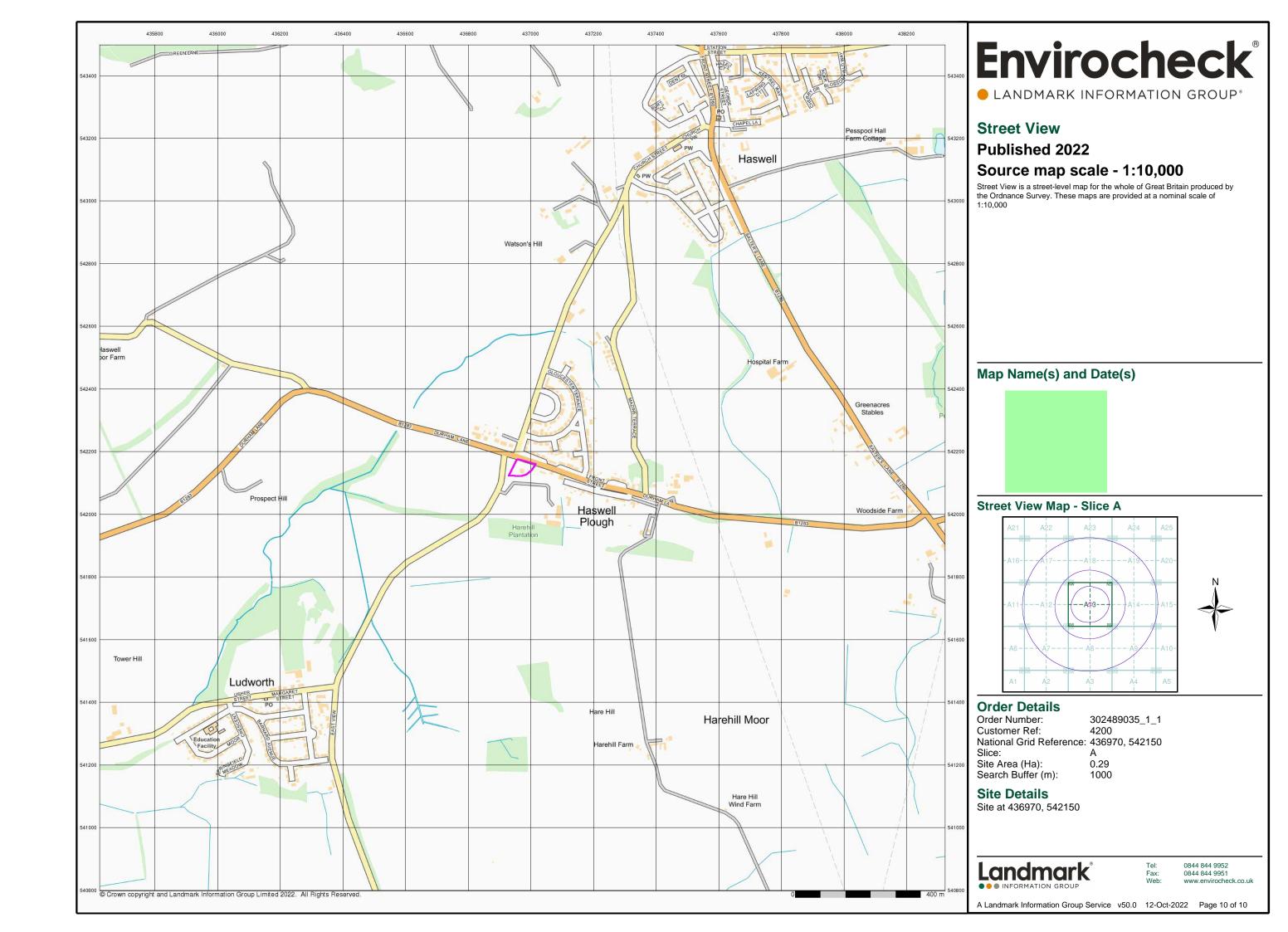
Site at 436970, 542150

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APPENDIX 3

LANDMARK ENVIROCHECK REPORT



Envirocheck® Report:

Datasheet

Order Details:

Order Number:

302489035_1_1

Customer Reference:

4200

National Grid Reference:

436970, 542150

Slice:

Α

Site Area (Ha):

0.29

Search Buffer (m):

1000

Site Details:

Site at 436970, 542150

Client Details:

Ms L Ellis FWS Consultants Ltd Unit 2 City West Business Park St Johns Road Meadowfield Industrial Estate Durham County Durham DH7 8ER







Report Section	Page Number
Summary	-
Agency & Hydrological	1
Waste	12
Hazardous Substances	-
Geological	15
Industrial Land Use	18
Sensitive Land Use	19
Data Currency	20
Data Suppliers	25
Useful Contacts	26

Introduction

The Environment Act 1995 has made site sensitivity a key issue, as the legislation pays as much attention to the pathways by which contamination could spread, and to the vulnerable targets of contamination, as it does the potential sources of contamination.

For this reason, Landmark's Site Sensitivity maps and Datasheet(s) place great emphasis on statutory data provided by the Environment Agency/Natural Resources Wales and the Scottish Environment Protection Agency; it also incorporates data from Natural England (and the Scottish and Welsh equivalents) and Local Authorities; and highlights hydrogeological features required by environmental and geotechnical consultants. It does not include any information concerning past uses of land. The datasheet is produced by querying the Landmark database to a distance defined by the client from a site boundary provided by the client. In this datasheet the National Grid References (NGRs) are rounded to the nearest 10m in accordance with Landmark's agreements with a number of Data Suppliers.

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Report Version v53.0





Data Type	Page Number	On Site	0 to 250m	251 to 500m	501 to 1000m (*up to 2000m)
Agency & Hydrological					
BGS Groundwater Flooding Susceptibility	pg 1	Yes	Yes	Yes	n/a
Contaminated Land Register Entries and Notices					
Discharge Consents	pg 1			1	9
Prosecutions Relating to Controlled Waters			n/a	n/a	n/a
Enforcement and Prohibition Notices					
Integrated Pollution Controls					
Integrated Pollution Prevention And Control					
Local Authority Integrated Pollution Prevention And Control					
Local Authority Pollution Prevention and Controls					
Local Authority Pollution Prevention and Control Enforcements					
Nearest Surface Water Feature	pg 3		Yes		
Pollution Incidents to Controlled Waters					
Prosecutions Relating to Authorised Processes					
Registered Radioactive Substances					
River Quality					
River Quality Biology Sampling Points					
River Quality Chemistry Sampling Points					
Substantiated Pollution Incident Register	pg 4			1	1
Water Abstractions	pg 4				(*1)
Water Industry Act Referrals					
Groundwater Vulnerability Map	pg 4	Yes	n/a	n/a	n/a
Groundwater Vulnerability - Soluble Rock Risk	pg 4	2	n/a	n/a	n/a
Bedrock Aquifer Designations	pg 5	Yes	n/a	n/a	n/a
Superficial Aquifer Designations	pg 5	Yes	n/a	n/a	n/a
Source Protection Zones	pg 5	1			
Extreme Flooding from Rivers or Sea without Defences				n/a	n/a
Flooding from Rivers or Sea without Defences				n/a	n/a
Areas Benefiting from Flood Defences				n/a	n/a
Flood Water Storage Areas				n/a	n/a
Flood Defences				n/a	n/a
OS Water Network Lines	pg 5		8	14	38





Data Type	Page Number	On Site	0 to 250m	251 to 500m	501 to 1000m (*up to 2000m)
Waste					
BGS Recorded Landfill Sites					
Historical Landfill Sites	pg 12		2	1	
Integrated Pollution Control Registered Waste Sites					
Licensed Waste Management Facilities (Landfill Boundaries)	pg 12		1		
Licensed Waste Management Facilities (Locations)	pg 12			1	1
Local Authority Landfill Coverage		2	n/a	n/a	n/a
Local Authority Recorded Landfill Sites	pg 13				2
Registered Landfill Sites	pg 13		1	2	
Registered Waste Transfer Sites					
Registered Waste Treatment or Disposal Sites					
Hazardous Substances					
Control of Major Accident Hazards Sites (COMAH)					
Explosive Sites					
Notification of Installations Handling Hazardous Substances (NIHHS)					
Planning Hazardous Substance Consents					
Planning Hazardous Substance Enforcements					
Geological					
BGS 1:625,000 Solid Geology	pg 15	Yes	n/a	n/a	n/a
BGS Recorded Mineral Sites	pg 15			1	7
CBSCB Compensation District			n/a	n/a	n/a
Coal Mining Affected Areas	pg 16	Yes	n/a	n/a	n/a
Mining Instability	pg 16	Yes	n/a	n/a	n/a
Man-Made Mining Cavities					
Natural Cavities					
Non Coal Mining Areas of Great Britain				n/a	n/a
Potential for Collapsible Ground Stability Hazards	pg 16	Yes		n/a	n/a
Potential for Compressible Ground Stability Hazards				n/a	n/a
Potential for Ground Dissolution Stability Hazards	pg 16	Yes		n/a	n/a
Potential for Landslide Ground Stability Hazards	pg 16	Yes		n/a	n/a
Potential for Running Sand Ground Stability Hazards	pg 16	Yes		n/a	n/a
Potential for Shrinking or Swelling Clay Ground Stability Hazards	pg 16	Yes		n/a	n/a
Radon Potential - Radon Affected Areas			n/a	n/a	n/a
Radon Potential - Radon Protection Measures			n/a	n/a	n/a



Summary

Data Type	Page Number	On Site	0 to 250m	251 to 500m	501 to 1000m (*up to 2000m)
Industrial Land Use					
Contemporary Trade Directory Entries	pg 18		7	1	2
Fuel Station Entries	pg 18		1		
Gas Pipelines					
Underground Electrical Cables					
Sensitive Land Use					
Ancient Woodland					
Areas of Adopted Green Belt					
Areas of Unadopted Green Belt					
Areas of Outstanding Natural Beauty					
Environmentally Sensitive Areas					
Forest Parks					
Local Nature Reserves					
Marine Nature Reserves					
National Nature Reserves					
National Parks					
Nitrate Sensitive Areas					
Nitrate Vulnerable Zones	pg 19	1			
Ramsar Sites					
Sites of Special Scientific Interest					
Special Areas of Conservation					
Special Protection Areas					
World Heritage Sites					



Order Number: 302489035_1_1

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Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS Groundwater Flooding Susceptibility				
	Flooding Type: Limited Potential for Groundwater Flooding to Occur	A13SW (W)	0	1	436950 542146
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A13SW (SE)	0	1	436971 542146
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A13NW (N)	225	1	436971 542400
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A13SW (S)	286	1	436850 541850
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A18SW	325	1	436950
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	(N) A12SE	332	1	542500 436600
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A13NW	345	1	542100 436750
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A12NE	375	1	542450 436600
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Gro	ound Level A13NW (NW)	377	1	542300 436700 542450
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A18SE (N)	427	1	437000
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A18SE	455	1	542600 437150
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	(N) A18SW	475	1	542600 436971
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	(N) A18SE	483	1	542650 437300
1	Discharge Consents Operator: Northumbrian Water Limited Property Type: STORM TANK/CSO ON SEWERAGE NETWORK (WATER COM Location: High Row Sso, Haswell Authority: Environment Agency, North East Region Catchment Area: Wear (Lower) Reference: 245/0980 Permit Version: 1 Effective Date: 7th July 1992 Issued Date: 7th July 1992 Revocation Date: 1st April 2016 Discharge Type: Sewage Discharges - Stw Storm Overflow/Storm Tank - Water Co Discharge Freshwater Stream/River Environment: Receiving Water: Shadforth Beck (Wear) Status: Surrendered under EPR 2010 Positional Accuracy: Located by supplier to within 100m		405	2	542550 436960 542580
2	Discharge Consents Operator: Northumbrian Water Limited Property Type: STORM TANK/CSO ON SEWERAGE NETWORK (WATER COM Location: Haswell Sso No 3, Easington District, Haswell Authority: Environment Agency, North East Region Catchment Area: Not Supplied Reference: 255/E/0643 Permit Version: 2 Effective Date: 11th April 1992 Issued Date: 26th February 1965 Revocation Date: 16th August 2000 Discharge Type: Sewage Discharges - Stw Storm Overflow/Storm Tank - Water Co Freshwater Stream/River Environment: Receiving Water: Status: Transferred from Rivers (Prevention of Pollution) Act 1951-1967 Positional Accuracy: Located by supplier to within 100m	mpany	867	2	437600 542800



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Map ID		Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
2	Discharge Consent Operator: Property Type: Location: Authority: Catchment Area: Reference: Permit Version: Effective Date: Issued Date: Revocation Date: Discharge Type: Discharge Environment: Receiving Water: Status: Positional Accuracy:	Northumbrian Water Limited STORM TANK/CSO ON SEWERAGE NETWORK (WATER COMPANY) Haswell Sso No 3, Easington District, Haswell Environment Agency, North East Region Not Supplied 255/E/0643 3 17th August 2000 26th February 1965 5th February 2001 Sewage Discharges - Stw Storm Overflow/Storm Tank - Water Company Freshwater Stream/River Coldwell Burn/Murton Dene Transferred from Rivers (Prevention of Pollution) Act 1951-1961 Located by supplier to within 100m	A19SW (NE)	867	2	437600 542800
2	Discharge Consent Operator: Property Type: Location: Authority: Catchment Area: Reference: Permit Version: Effective Date: Issued Date: Revocation Date: Discharge Type: Discharge Environment: Receiving Water: Status: Positional Accuracy:	Northumbrian Water Limited STORM TANK/CSO ON SEWERAGE NETWORK (WATER COMPANY) Haswell Sso No 3, Easington District, Haswell Environment Agency, North East Region Durham Coastal Streams 255/E/0643 1 26th February 1965 26th February 1965 10th April 1992 Sewage Discharges - Stw Storm Overflow/Storm Tank - Water Company Freshwater Stream/River Coldwell Burn/Murton Dene Transferred from Rivers (Prevention of Pollution) Act 1951-1961 Located by supplier to within 100m	A19SW (NE)	867	2	437600 542800
3	Discharge Consent Operator: Property Type: Location: Authority: Catchment Area: Reference: Permit Version: Effective Date: Issued Date: Revocation Date: Discharge Type: Discharge Type: Discharge Type: Status: Positional Accuracy:	Tudor Abbey Northern Ltd Sewage Disposal Works - Other Harehill Farm Haswell Plough, Haswell, Co. Durham, Co. Durham Environment Agency, North East Region Not Supplied 245/1291 2 26th July 2012 26th July 2012 26th July 2012 Not Supplied Sewage Discharges - Final/Treated Effluent - Not Water Company Land/Soakaway Groundwater Authorisation revoked Located by supplier to within 10m	A9SW (SE)	887	2	437330 541310
3	Discharge Consent Operator: Property Type: Location: Authority: Catchment Area: Reference: Permit Version: Effective Date: Issued Date: Revocation Date: Discharge Type: Discharge Environment: Receiving Water: Status: Positional Accuracy:	Tudor Abbey Northern Ltd WWTW (NOT WATER CO) (NOT STP AT A PRIVATE PREMISES) Harehill Farm Haswell Plough, Haswell, Co. Durham, Co. Durham Environment Agency, North East Region Not Supplied 245/1291 1 6th April 2005 6th April 2005 7th April 2009 Sewage Discharges - Final/Treated Effluent - Not Water Company Land/Soakaway Groundwater Authorisation revoked Located by supplier to within 10m	A9SW (SE)	887	2	437330 541310



Agency & Hydrological

Map ID		Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Discharge Consent	s				
4	Operator: Property Type: Location: Authority: Catchment Area: Reference: Permit Version: Effective Date: Issued Date: Revocation Date: Discharge Type: Discharge Environment: Receiving Water: Status: Positional Accuracy:	Mr Roland Anderson DOMESTIC PROPERTY (MULTIPLE) (INCL FARM HOUSES) 5 Properties At Harehill Mews Harehill Mews, Haswell Plough, Haswell, County Durham, Dh6 2ba Environment Agency, North East Region Not Supplied Eprnp3522gv 1 10th November 2011 11th November 2011 Not Supplied Sewage Discharges - Final/Treated Effluent - Not Water Company Land/Soakaway Groundwater Via Infiltration New issued under EPR 2010 Located by supplier to within 10m	A9SW (SE)	954	2	437433 541285
	Discharge Consent	s				
4		Mr William Hamilton DOMESTIC PROPERTY (MULTIPLE) (INCL FARM HOUSES) 5 Properties At Harehill Mews Harehill Mews, Haswell Plough, Haswell, County Durham, Dh6 2ba Environment Agency, North East Region Not Supplied Eprnp3522gv 1 10th November 2011 11th November 2011 Not Supplied Sewage Discharges - Final/Treated Effluent - Not Water Company Land/Soakaway Groundwater Via Infiltration New issued under EPR 2010 Located by supplier to within 10m	A9SW (SE)	954	2	437433 541285
	Discharge Consent					
4	-	Miss Gilda Butler DOMESTIC PROPERTY (MULTIPLE) (INCL FARM HOUSES) 5 Properties At Harehill Mews Harehill Mews, Haswell Plough, Haswell, County Durham, Dh6 2ba Environment Agency, North East Region Not Supplied Eprnp3522gv 1 10th November 2011 11th November 2011 Not Supplied Sewage Discharges - Final/Treated Effluent - Not Water Company Land/Soakaway Groundwater Via Infiltration New issued under EPR 2010 Located by supplier to within 10m	A9SW (SE)	954	2	437433 541285
	Discharge Consent					
4	Operator: Property Type: Location: Authority: Catchment Area: Reference: Permit Version: Effective Date: Issued Date: Revocation Date: Discharge Type: Discharge Environment: Receiving Water: Status: Positional Accuracy:	Mr Lee Wright DOMESTIC PROPERTY (MULTIPLE) (INCL FARM HOUSES) 5 Properties At Harehill Mews Harehill Mews, Haswell Plough, Haswell, County Durham, Dh6 2ba Environment Agency, North East Region Not Supplied Eprnp3522gv 1 10th November 2011 11th November 2011 Not Supplied Sewage Discharges - Final/Treated Effluent - Not Water Company Land/Soakaway Groundwater Via Infiltration New issued under EPR 2010 Located by supplier to within 10m	A9SW (SE)	954	2	437433 541285
	Nearest Surface Wa					
			A13SE	120	-	437095



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Map ID		Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
5	Authority: Incident Date: Incident Reference: Water Impact: Air Impact: Land Impact:	Environ Incident Register Environment Agency - North East Region, North East Area 16th May 2004 237088 Category 2 - Significant Incident Category 4 - No Impact Category 3 - Minor Incident Located by supplier to within 10m Agricultural Materials And Wastes: Slurry And Dilute Slurry	A12NE (W)	388	2	436569 542263
6	Authority: Incident Date: Incident Reference: Water Impact: Air Impact: Land Impact:	Environ Incident Register Environment Agency - North East Region, North East Area 17th July 2014 1257248 Category 4 - No Impact Category 3 - Minor Incident Category 2 - Significant Incident Located by supplier to within 10m Specific Waste Materials: Electrical Equipment Specific Waste Materials: Household Waste Specific Waste Materials: Metal Wastes Specific Waste Materials: Other Specific Waste Material	A18NE (N)	811	2	437141 542965
	Water Abstractions Operator: Licence Number: Permit Version: Location: Authority: Abstraction: Abstraction Type: Source: Daily Rate (m3): Yearly Rate (m3): Details: Authorised Start: Authorised End: Permit Start Date: Permit End Date: Positional Accuracy:	Mr D Oliver 1/24/05/040 100 Borehole - Magnesian Limestone - Haswell Moor Farm Environment Agency, North East Region General Farming And Domestic Water may be abstracted from a single point Groundwater 54 19902 On The Lands Of Haswell Moor Farm, Haswell, County Durham. 01 April 31 March 1st April 2008 Not Supplied Located by supplier to within 10m	A16SE (W)	1376	2	435640 542600
	Groundwater Vulner Combined Classification: Combined Vulnerability: Combined Aquifer: Pollutant Speed: Bedrock Flow: Dilution: Baseflow Index: Superficial Patchiness: Superficial Thickness: Superficial Recharge:	Productive Bedrock Aquifer, Productive Superficial Aquifer Low Productive Bedrock Aquifer, Productive Superficial Aquifer Low Well Connected Fractures 300-550 mm/year <40% >90% <3m Low	A13SW (SE)	0	3	436971 542146
	Groundwater Vulne Combined Classification: Combined Vulnerability: Combined Aquifer: Pollutant Speed: Bedrock Flow: Dilution: Baseflow Index: Superficial Patchiness: Superficial Thickness: Superficial Recharge:	Productive Bedrock Aquifer - Low Vulnerability Low Productive Bedrock Aquifer, Productive Superficial Aquifer Low Well Connected Fractures 300-550 mm/year <40% >90% <3m Low	A13SE (E)	0	3	437000 542146
	Groundwater Vulne Classification:	rability - Soluble Rock Risk Significant Risk - Problems Unlikely	A13SW (SE)	0	3	436971 542146
	Groundwater Vulne Classification:	rability - Soluble Rock Risk Significant Risk - Problems Unlikely	A13SE (E)	0	3	437000 542146



Order Number: 302489035_1_1

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Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Bedrock Aquifer Designations Aquifer Designation: Principal Aquifer	A13SW (SE)	0	3	436971 542146
	Superficial Aquifer Designations Aquifer Designation: Secondary Aquifer - Undifferentiated	A13SW (SE)	0	3	436971 542146
7	Source Protection Zones Name: Not Supplied Source: Environment Agency, Head Office Reference: Not Supplied Type: Zone III (Total Catchment): The total area needed to support the discharge from the protected groundwater source.	A13SW (SE)	0	2	436971 542146
	Extreme Flooding from Rivers or Sea without Defences None				
	Flooding from Rivers or Sea without Defences None				
	Areas Benefiting from Flood Defences None Flood Water Storage Areas				
	None Flood Defences				
	None				
8	Water Network Lines Watercourse Form: Inland river Watercourse Level: Not Supplied Permanent: True Watercourse Name: Not Supplied Catchment Name: Wear Primacy: 1	A13SE (E)	110	4	437107 542093
9	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 5.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Wear Primacy: 1	A13SE (SE)	120	4	437095 542064
10	OS Water Network Lines Watercourse Form: Lake Watercourse Length: 5.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Wear Primacy: 1	A13SE (SE)	124	4	437096 542059
11	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 96.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Wear Primacy: 1	A13SE (SE)	128	4	437097 542054
12	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 63.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Wear Primacy: 1	A13SE (SE)	206	4	437104 541958
13	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 2.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Wear Primacy: 1	A13SE (SE)	208	4	437108 541958



Order Number: 302489035_1_1

Agency & Hydrological

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Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
14	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 2.9 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Primacy: 1	A13SE (SE)	210	4	437110 541958
15	OS Water Network Lines Watercourse Forn: Inland river Watercourse Length: 47.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Wear Primacy: 1	A13SE (SE)	212	4	437112 541958
16	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 73.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Shadforth Beck Catchment Name: Wear Primacy: 1	A13NE (NE)	260	4	437204 542339
17	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 186.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Shadforth Beck Catchment Name: Wear Primacy: 1	A13NE (NE)	318	4	437218 542404
18	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 254.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Wear Primacy: 1	A8NW (S)	335	4	436870 541795
19	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 545.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Shadforth Beck Catchment Name: Wear Primacy: 1	A13NW (NW)	348	4	436765 542464
20	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 49.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Shadforth Beck Catchment Name: Wear Primacy: 1	A12NE (NW)	365	4	436620 542319
21	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 4.5 Watercourse Level: Underground Permanent: True Watercourse Name: Shadforth Beck Catchment Name: Wear Primacy: 1	A12NE (NW)	368	4	436625 542334
22	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 17.4 Watercourse Level: Underground Permanent: True Watercourse Name: Shadforth Beck Catchment Name: Wear Primacy: 1	A12NE (W)	371	4	436600 542291



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Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
23	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 14.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Shadforth Beck Catchment Name: Wear Primacy: 1	A12NE (W)	378	4	436586 542280
24	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 6.1 Watercourse Level: Underground Permanent: True Watercourse Name: Shadforth Beck Catchment Name: Wear Primacy: 1	A12NE (W)	384	4	436576 542270
25	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 295.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Shadforth Beck Catchment Name: Wear Primacy: 1	A12NE (W)	386	4	436572 542265
26	OS Water Network Lines Watercourse Form: Inland river Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Wear Primacy: 1	A12SE (W)	411	4	436529 542034
27	OS Water Network Lines Watercourse Form: Lake Watercourse Length: 41.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Shadforth Beck Catchment Name: Wear Primacy: 1	A18SE (NE)	422	4	437149 542560
28	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 38.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Shadforth Beck Catchment Name: Wear Primacy: 1	A18SE (N)	425	4	437075 542584
29	OS Water Network Lines Watercourse Form: Inland river Watercourse Level: Not Supplied Permanent: True Watercourse Name: Not Supplied Catchment Name: Wear Primacy: 1	A7NE (SW)	473	4	436616 541770
30	OS Water Network Lines Watercourse Form: Inland river Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Primacy: 1	A12SE (W)	523	4	436418 542023
31	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 49.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Wear Primacy: 1	A12SE (W)	526	4	436407 542070



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Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
32	OS Water Network Lines Watercourse Form: Inland river Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Wear Primacy: 1	A12SE (SW)	555	4	436456 541836
33	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 408.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Shadforth Beck Catchment Name: Wear Primacy: 1	A12SE (W)	573	4	436359 542082
34	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 412.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Wear Primacy: 1	A14NW (E)	614	4	437610 542313
35	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 4.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Wear Primacy: 1	A7NE (SW)	618	4	436483 541697
36	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 97.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Wear Primacy: 1	A7NE (SW)	618	4	436483 541697
37	OS Water Network Lines Watercourse Form: Inland river Watercourse Level: Not Supplied Permanent: True Watercourse Name: Not Supplied Catchment Name: Wear Primacy: 1	A7NE (SW)	620	4	436485 541693
38	OS Water Network Lines Watercourse Form: Inland river Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Wear Primacy: 1	A14NW (E)	621	4	437609 542343
39	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 1013.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Wear Primacy: 1	A14NW (E)	622	4	437609 542346
40	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 286.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Wear Primacy: 1	A7NE (SW)	637	4	436491 541663



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Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
41	OS Water Network Lines Watercourse Form: Inland river Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Wear Primacy: 1	A7NE (SW)	693	4	436340 541760
42	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 7.5 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Wear Primacy: 1	A7NE (SW)	710	4	436441 541609
43	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 92.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Wear Primacy: 1	A7NE (SW)	717	4	436437 541603
44	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 63.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Wear Primacy: 1	A7SE (SW)	766	4	436633 541418
45	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 29.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Wear Primacy: 1	A7SE (SW)	766	4	436633 541418
46	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 59.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Wear Primacy: 1	A8SW (S)	775	4	436700 541384
47	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 4.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Wear Primacy: 1	A8SW (SW)	789	4	436641 541390
48	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 53.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Wear Primacy: 1	A8SW (SW)	793	4	436642 541386
49	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 32.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Wear Primacy: 1	A8SW (SW)	793	4	436642 541386

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Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
50	OS Water Network Lines Watercourse Form: Inland river Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Wear Primacy: 1	A8SW (S)	797	4	436703 541360
51	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 50.2 Watercourse Level: Not Supplied Permanent: True Watercourse Name: Not Supplied Catchment Name: Wear Primacy: 1	A14SE (E)	803	4	437801 541995
52	OS Water Network Lines Watercourse Form: Inland river Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Wear Primacy: 1	A8SW (S)	819	4	436653 541354
53	OS Water Network Lines Watercourse Form: Inland river Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Wear Primacy: 1	A8SW (S)	820	4	436650 541354
54	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 1.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Wear Primacy: 1	A8SW (S)	820	4	436650 541354
55	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 17.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Wear Primacy: 1	A8SW (S)	820	4	436652 541353
56	OS Water Network Lines Watercourse Form: Inland river Watercourse Level: Underground Permanent: True Watercourse Name: Shadforth Beck Catchment Name: Wear Primacy: 1	A7NW (SW)	827	4	436173 541791
57	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 20.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Shadforth Beck Catchment Name: Wear Primacy: 1	A7NW (SW)	829	4	436173 541787
58	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 81.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Wear Primacy: 1	A8SW (S)	830	4	436735 541318



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Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
59	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 39.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Wear Primacy: 1	A8SW (S)	830	4	436756 541312
60	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 95.0 Watercourse Level: Not Supplied Permanent: True Watercourse Name: Not Supplied Catchment Name: Wear Primacy: 1	A8SW (S)	833	4	436773 541306
61	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 2.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Wear Primacy: 1	A8SW (S)	834	4	436656 541337
62	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 487.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Shadforth Beck Catchment Name: Wear Primacy: 1	A7NW (SW)	838	4	436172 541766
63	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 41.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Wear Primacy: 1	A8SW (S)	839	4	436935 541284
64	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 87.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Wear Primacy: 1	A8SW (S)	846	4	436904 541278
65	OS Water Network Lines Watercourse Form: Inland river Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Wear Primacy: 1	A8SW (S)	846	4	436904 541278
66	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 86.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Wear Primacy: 1	A14SE (E)	847	4	437837 541954
67	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 12.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Wear Primacy: 1	A7SE (SW)	872	4	436611 541312





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Map ID		Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Historical Landfill S	ites				
68	Licence Holder: Location: Name: Operator Location: Boundary Accuracy: Provider Reference: First Input Date: Last Input Date: Specified Waste Type: EA Waste Ref: Regis Ref: WRC Ref: BGS Ref: Other Ref:		A13NW (W)	183	2	436769 542216
	Historical Landfill S	ites				
69	Licence Holder: Location: Name: Operator Location: Boundary Accuracy: Provider Reference: First Input Date: Last Input Date: Specified Waste Type: EA Waste Ref: Regis Ref: WRC Ref: BGS Ref:	EAHLD06567 12th June 1986 31st December 1990 Deposited Waste included Inert Waste 67133 DUR/L/PEA002 1300/0151 Not Supplied	A13NW (NW)	230	2	436735 542245
	Other Ref:	DUR/157				
70	Historical Landfill S Licence Holder: Location: Name: Operator Location: Boundary Accuracy: Provider Reference: First Input Date: Last Input Date: Last Input Date: Specified Waste Type: EA Waste Ref: Regis Ref: WRC Ref: BGS Ref: Other Ref:	Mr N B Anderson Shadforth Beck, Haswell Plough, County Durham The Bottoms Not Supplied As Supplied	A12NE (W)	385	2	436581 542284
	Licensed Waste Ma	nagement Facilities (Landfill Boundaries)				
71	Boundary Accuracy:	The Bottoms Phase I I 67193 Shadforth Beck, Haswell Plough, County Durham Kleenup (U K) Ltd Environment Agency - North East Region, Northumbria Area Landfills Taking Non-biodegradeable Wastes (Not Construction) Large (Equal to or greater than 75,000 tonnes per year) Inactive 16th July 1992 Positioned by the supplier As Supplied nagement Facilities (Locations)	A13NW (W)	183	2	436769 542216
72	Licence Number:	67193	A12SE	431	2	436500
	Location: Operator Name: Operator Location: Authority: Site Category: Licence Status: Issued: Last Modified: Expires: Suspended: Revoked: Surrendered: IPPC Reference:	Shadforth Beck, Haswell Plough, County Durham Kleenup (U K) Ltd Not Supplied Environment Agency - North East Region, North East Area Landfills Taking Non-biodegradeable Wastes (Not Construction) Expired 16th July 1992 Not Supplied 20th February 2006 Not Supplied Located by supplier to within 100m	(W)			542100



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Map ID		Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
73	Licence Number: Location: Operator Name: Operator Location: Authority: Site Category: Licence Status: Issued: Last Modified: Expires: Suspended: Revoked: Surrendered: IPPC Reference:	nagement Facilities (Locations) 67156 Shadforth Beck, Haswell Plough, Durham, County Durham Mr N B Anderson Not Supplied Environment Agency - North East Region, North East Area Landfills Taking Non-biodegradeable Wastes (Not Construction) Surrendered 23rd February 1990 Not Supplied Located by supplier to within 100m	A12NE (W)	536	2	436400 542200
	Local Authority Lan Name:	ndfill Coverage Easington District Council - Has supplied landfill data		0	5	436971 542146
	Local Authority Lan Name:	ndfill Coverage Durham County Council - Has supplied landfill data		0	6	436971 542146
	Local Authority Lan Name:	ndfill Coverage Durham City Council - Has no landfill data to supply		138	7	436944 541982
74	Location: Reference: Authority: Last Reported Status: Types of Waste: Date of Closure:	Sorded Landfill Sites Shadforth Beck, Haswell Plough WD/5/4 Durham County Council, Economic Development and Planning Department Unknown Not Supplied Not Supplied Located by supplier to within 100m Not Applicable	A12SE (W)	531	6	436400 542100
75	Local Authority Rec Location: Reference: Authority: Last Reported Status: Types of Waste: Date of Closure:	The Bottoms (Ii) Shadforth Beck WD/5/11 Durham County Council, Economic Development and Planning Department Unknown Not Supplied Not Supplied Located by supplier to within 100m Not Applicable	A12NE (W)	536	6	436400 542200
76	Registered Landfill Licence Holder: Licence Reference: Site Location: Licence Easting: Licence Northing: Operator Location: Authority: Site Category: Max Input Rate: Waste Source Restrictions: Status: Dated: Preceded By Licence: Superseded By Licence:	Sites Kleenup (Uk) Ltd DUR 218C The Bottoms Phase 2, Shadforth Beck, Haswell, Durham, County Durham 436700 542150 Salcombe House, 30A Commercial Street, CORNSAY COLLIERY, County Durham, DH7 9BW Environment Agency - North East Region, Northumbria Area Landfill Very Small (Less than 10,000 tonnes per year) No known restriction on source of waste Site Closed 1st April 1993 Not Given Manually positioned to the address or location	A13NW (W)	232	2	436700 542150





Map ID		Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
77	Registered Landfill Licence Holder: Licence Reference: Site Location: Licence Easting: Licence Northing: Operator Location: Authority: Site Category: Max Input Rate: Waste Source Restrictions: Status: Dated: Preceded By Licence: Superseded By Licence: Positional Accuracy: Boundary Accuracy: Authorised Waste	G M Pearson & Sons Ltd DUR 157 Shadforth Beck, Haswell Plough, Haswell, Durham, County Durham 436550 542200 19 Front Street, Hetton Le Hole, Houghton Le Spring, Tyne And Wear Environment Agency - North East Region, Northumbria Area Landfill Large (Equal to or greater than 75,000 and less than 250,000 tonnes per year) No known restriction on source of waste Licence lapsed/cancelled/defunct/not applicable/surrenderedCancelled 11th June 1986 Not Given Manually positioned to the address or location	A12NE (W)	388	2	436550 542200
78	Registered Landfill Licence Holder: Licence Reference: Site Location: Licence Easting: Licence Northing: Operator Location: Authority: Site Category: Max Input Rate: Waste Source Restrictions: Status: Dated: Preceded By Licence: Superseded By Licence:	Liable To Cause Enviromental Hazards Poisonous, Noxious, Polluting Wastes Special Wastes Sites N B Anderson (Anderson Contractors Ltd) DUR 180 B The Bottoms, Shadforth Beck, Haswell, Durham, County Durham 436450 542200 C/O 30a Commercial Street, Cornsay Colliery, County Durham Environment Agency - North East Region, Northumbria Area Landfill Medium (Equal to or greater than 25,000 and less than 75,000 tonnes per year) No known restriction on source of waste Licence known to be surrenderedSurrendered 23rd February 1990 Not Given Manually positioned to the address or location	A12NE (W)	487	2	436450 542200





Map ID		Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS 1:625,000 Solid	· ·				
	Description:	Zechstein Group	A13SW (SE)	0	1	436971 542146
79	BGS Recorded Mine Site Name: Location: Source: Reference: Type: Status: Operator: Operator Location: Periodic Type: Geology: Commodity: Positional Accuracy:	Haswell Colliery Haswell, Durham, Co. Durham British Geological Survey, National Geoscience Information Service 107108 Underground Ceased Unknown Operator Not Supplied Carboniferous Pennine Middle Coal Measures Formation Coal - Deep Located by supplier to within 10m	A14NW (E)	380	1	437380 542267
80	BGS Recorded Mine Site Name: Location: Source: Reference: Type: Status: Operator: Operator Location: Periodic Type: Geology: Commodity: Positional Accuracy:	Hare Hill Ludworth, Thornley, Durham, Co. Durham British Geological Survey, National Geoscience Information Service 107115 Opencast Ceased Unknown Operator Not Supplied Permian Ford Formation (Middle Magnesian Limestone) Dolomite Located by supplier to within 10m	A8NE (SE)	597	1	437259 541596
81	BGS Recorded Mine Site Name: Location: Source: Reference: Type: Status: Operator: Operator Location: Periodic Type: Geology: Commodity: Positional Accuracy:	Hare Hill Ludworth, Thornley, Durham, Co. Durham British Geological Survey, National Geoscience Information Service 107112 Opencast Ceased Unknown Operator Not Supplied Permian Ford Formation (Middle Magnesian Limestone) Dolomite Located by supplier to within 10m	A8NW (S)	612	1	436971 541510
82	BGS Recorded Mine Site Name: Location: Source: Reference: Type: Status: Operator: Operator Location: Periodic Type: Geology: Commodity: Positional Accuracy:	Ludworth Brick Field Ludworth, Thornley, Durham, Co. Durham British Geological Survey, National Geoscience Information Service 107110 Opencast Ceased Unknown Operator Not Supplied Quaternary, Devensian Till, Devensian Common Clay and Shale Located by supplier to within 10m	A7NE (SW)	660	1	436413 541714
83	BGS Recorded Mine Site Name: Location: Source: Reference: Type: Status: Operator: Operator Location: Periodic Type: Geology: Commodity: Positional Accuracy:	Hare Hill Ludworth, Thornley, Durham, Co. Durham British Geological Survey, National Geoscience Information Service 107113 Opencast Ceased Unknown Operator Not Supplied Permian Ford Formation (Middle Magnesian Limestone) Dolomite Located by supplier to within 10m	A8SE (S)	733	1	437053 541394





Map ID		Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS Recorded Mine	eral Sites				
84	Site Name: Location: Source: Reference: Type: Status: Operator: Operator Location: Periodic Type: Geology: Commodity:	Ludworth Colliery Ludworth, Thornley, Durham, Co. Durham British Geological Survey, National Geoscience Information Service 107111 Underground Ceased Unknown Operator Not Supplied Carboniferous Pennine Middle Coal Measures Formation Coal - Deep Located by supplier to within 10m	A7NW (SW)	842	1	436292 541575
	BGS Recorded Mine	eral Sites				
85	Site Name: Location: Source: Reference: Type: Status: Operator: Operator Location: Periodic Type: Geology: Commodity:	Haswell Haswell, Durham, Co. Durham British Geological Survey, National Geoscience Information Service 107098 Opencast Ceased Unknown Operator Not Supplied Permian Ford Formation (Middle Magnesian Limestone) Dolomite Located by supplier to within 10m	A18NE (N)	853	1	437281 542970
	BGS Recorded Mine	eral Sites				
86	Site Name: Location: Source: Reference: Type: Status: Operator: Operator Location: Periodic Type: Geology: Commodity: Positional Accuracy:	Hare Hill Sand Pit Ludworth, Thornley, Durham, Co. Durham British Geological Survey, National Geoscience Information Service 107114 Opencast Ceased Unknown Operator Not Supplied Quaternary Glaciofluvial Deposits, Devensian Sand Located by supplier to within 10m	A8SE (S)	920	1	437021 541203
	Coal Mining Affecte Description:	In an area which may be affected by coal mining activity. It is recommended that a coal mining report is obtained from the Coal Authority. Contact details are included in the Useful Contacts section of this report.	A13SW (SE)	0	8	436971 542146
	Mining Instability Mining Evidence: Source: Boundary Quality:	Inconclusive Coal Mining Ove Arup & Partners As Supplied	A13SW (SE)	0	-	436971 542146
	Non Coal Mining Ar No Hazard	eas of Great Britain				
	Potential for Collaps Hazard Potential: Source:	sible Ground Stability Hazards Very Low British Geological Survey, National Geoscience Information Service	A13SW (SE)	0	1	436971 542146
	Potential for Compr Hazard Potential: Source:	ressible Ground Stability Hazards No Hazard British Geological Survey, National Geoscience Information Service	A13SW (SE)	0	1	436971 542146
	Potential for Ground	d Dissolution Stability Hazards				
	Hazard Potential: Source:	Very Low British Geological Survey, National Geoscience Information Service	A13SW (SE)	0	1	436971 542146
	Potential for Landsl	lide Ground Stability Hazards				
	Hazard Potential: Source:	Very Low British Geological Survey, National Geoscience Information Service	A13SW (SE)	0	1	436971 542146
	Potential for Runnir Hazard Potential: Source:	ng Sand Ground Stability Hazards Very Low British Geological Survey, National Geoscience Information Service	A13SW (SE)	0	1	436971 542146
	Potential for Shrink Hazard Potential: Source:	ing or Swelling Clay Ground Stability Hazards Very Low British Geological Survey, National Geoscience Information Service	A13SW (SE)	0	1	436971 542146
	Radon Potential - R Affected Area: Source:	adon Affected Areas The property is in a Lower probability radon area (less than 1% of homes are estimated to be at or above the Action Level). British Geological Survey, National Geoscience Information Service	A13SW (SE)	0	1	436971 542146



Geological

	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
Radon Potential - R	adon Protection Measures				
	dwellings or extensions	A13SW (SE)	0	1	436971 542146
		Radon Potential - Radon Protection Measures Protection Measure: No radon protective measures are necessary in the construction of new dwellings or extensions	Details Reference (Compass Direction) Radon Potential - Radon Protection Measures Protection Measure: No radon protective measures are necessary in the construction of new dwellings or extensions A13SW (SE)	Details Reference (Compass Direction) Radon Potential - Radon Protection Measures Protection Measure: No radon protective measures are necessary in the construction of new dwellings or extensions Reference (Compass Direction) From Site A13SW (SE) 0	Protection Measure: No radon protective measures are necessary in the construction of new dwellings or extensions Reference (Compass Direction) Reference (Compass Direction) Estimated Distance From Site Contact A13SW (SE)

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Industrial Land Use

Map ID		Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
87	Contemporary Trad Name: Location: Classification: Status: Positional Accuracy:	e Directory Entries Kyle Cars Haswell, Durham, County Durham, DH6 2BB Car Dealers - Used Inactive Manually positioned within the geographical locality	A13NW (NW)	76	-	436916 542238
88	Contemporary Trad Name: Location: Classification: Status: Positional Accuracy:	e Directory Entries Plough Motors Plough Garage, Haswell, Durham, DH6 2BB Garage Services Inactive Automatically positioned to the address	A13NW (NW)	117	-	436859 542239
88	Contemporary Trad Name: Location: Classification: Status: Positional Accuracy:	e Directory Entries Panorama Motors Haswell, Durham, DH6 2BB Car Dealers - Used Inactive Automatically positioned in the proximity of the address	A13NW (NW)	117	-	436859 542239
88	Contemporary Trad Name: Location: Classification: Status: Positional Accuracy:	e Directory Entries Selby Executive Chauffeur Hire The Bungalow, Haswell, Durham, DH6 2BB Car Dealers - Used Inactive Automatically positioned to the address	A13NW (NW)	117	-	436859 542239
88	Contemporary Trad Name: Location: Classification: Status: Positional Accuracy:	e Directory Entries Bluesky Motors Plough Garage, Haswell, Durham, DH6 2BB Mot Testing Centres Inactive Automatically positioned to the address	A13NW (NW)	154	-	436826 542257
88	Contemporary Trad Name: Location: Classification: Status: Positional Accuracy:	e Directory Entries Plough Motors Plough Garage, Haswell, Durham, DH6 2BB Mot Testing Centres Inactive Automatically positioned to the address	A13NW (NW)	154	-	436827 542257
88	Contemporary Trad Name: Location: Classification: Status: Positional Accuracy:	e Directory Entries Plough Motors Plough Garage, Haswell, Durham, DH6 2BB Garage Services Inactive Automatically positioned to the address	A13NW (NW)	154	-	436826 542257
89	Contemporary Trad Name: Location: Classification: Status: Positional Accuracy:	e Directory Entries Michael Franks 7, Attlee Crescent, Haswell, Durham, DH6 2EN Bus & Coach Operators & Stations Inactive Automatically positioned to the address	A13SE (E)	268	-	437278 542108
90	Contemporary Trad Name: Location: Classification: Status: Positional Accuracy:	e Directory Entries F K L Solid Fuels 21, Windsor Terrace, Haswell, Durham, DH6 2DY Coal & Smokeless Fuel Merchants & Distributors Inactive Automatically positioned to the address	A19NW (NE)	898	-	437563 542871
91	Contemporary Trad Name: Location: Classification: Status: Positional Accuracy:	e Directory Entries Help Domestics Ashlee, East View, Ludworth, Durham, DH6 1NZ Domestic Appliances - Servicing, Repairs & Parts Active Automatically positioned to the address	A7SE (SW)	958	-	436329 541379
92	Fuel Station Entries Name: Location: Brand: Premises Type: Status: Positional Accuracy:	Plough Motors Plough Motors Durham Lane , Haswell Plough , Durham, County Durham, DH6 2BB Uk Not Applicable Obsolete Manually positioned to the road within the address or location	A13NW (NW)	12	-	436953 542185

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Sensitive Land Use

Map ID		Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
93	Nitrate Vulnerable Name: Description: Source:	Zones Durham Groundwater Environment Agency, Head Office	A13SW (SE)	0	3	436971 542146

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Agency & Hydrological	Version	Update Cycle
Contaminated Land Register Entries and Notices		
Sedgefield Borough Council (now part of Durham County Council) - Environmental Health Department	February 2009	Not Applicable
Environment Agency - Head Office	June 2020	Annually
Durham City Council (now part of Durham County Council) - Environmental Health Department	November 2008	
Easington District Council (now part of Durham County Council) - Environmental Health Department	October 2008	
Durham County Council (Unitary) - Environmental Health Department	October 2017	Annually
Sunderland City Metropolitan Borough Council - Environmental Health Department	October 2017	Annually
Discharge Consents		
Environment Agency - North East Region	July 22	Quarterly
Enforcement and Prohibition Notices		
Environment Agency - North East Region	March 2013	
Integrated Pollution Controls		
Environment Agency - North East Region	January 2009	
Integrated Pollution Prevention And Control		
Environment Agency - North East Region	July 2022	Quarterly
Local Authority Integrated Pollution Prevention And Control	,	•
Durham County Council (Unitary) - Environmental Health Department	April 2015	Variable
Sedgefield Borough Council (now part of Durham County Council) - Environmental Health	July 2008	Not Applicable
Department Durham City Council (now part of Durham County Council) - Environmental Health	March 2009	Not Applicable
Department	Widion 2000	140t Applicable
Sunderland City Metropolitan Borough Council - Environmental Health Department	May 2016	Variable
Easington District Council (now part of Durham County Council) - Environmental Health Department	October 2008	Not Applicable
Local Authority Pollution Prevention and Controls		
Durham County Council (Unitary) - Environmental Health Department	April 2015	Annually
Sedgefield Borough Council (now part of Durham County Council) - Environmental Health Department	July 2008	Not Applicable
Durham City Council (now part of Durham County Council) - Environmental Health Department	March 2009	Not Applicable
Sunderland City Metropolitan Borough Council - Environmental Health Department	May 2016	Annual Rolling Updat
Easington District Council (now part of Durham County Council) - Environmental Health Department	October 2008	Not Applicable
Local Authority Pollution Prevention and Control Enforcements		
Durham County Council (Unitary) - Environmental Health Department	April 2015	Variable
Sedgefield Borough Council (now part of Durham County Council) - Environmental Health Department	July 2008	Not Applicable
Durham City Council (now part of Durham County Council) - Environmental Health Department	March 2009	Not Applicable
Sunderland City Metropolitan Borough Council - Environmental Health Department	May 2016	Variable
Easington District Council (now part of Durham County Council) - Environmental Health Department	October 2008	Not Applicable
Nearest Surface Water Feature		
Ordnance Survey	August 2022	
Pollution Incidents to Controlled Waters		
Environment Agency - North East Region	December 1998	
Prosecutions Relating to Authorised Processes		
Environment Agency - North East Region	July 2015	
Prosecutions Relating to Controlled Waters	· ·	†
Environment Agency - North East Region	March 2013	
Registered Radioactive Substances		
Environment Agency - North East Region	June 2016	As notified

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Agency & Hydrological	Version	Update Cycle
River Quality		
Environment Agency - Head Office	November 2001	Not Applicable
River Quality Biology Sampling Points	Amril 2040	
Environment Agency - Head Office	April 2012	
River Quality Chemistry Sampling Points Environment Agency - Head Office	April 2012	
Substantiated Pollution Incident Register Environment Agency - North East Region - Dales Area Environment Agency - North East Region - North East Area Environment Agency - North East Region - Northumbria Area	July 2022 July 2022 July 2022	Quarterly Quarterly Quarterly
Water Abstractions	,	,
Environment Agency - North East Region	July 2022	Quarterly
Water Industry Act Referrals Environment Agency - North East Region	October 2017	
Groundwater Vulnerability Map		
Environment Agency - Head Office	June 2018	As notified
Groundwater Vulnerability - Soluble Rock Risk Environment Agency - Head Office	June 2018	As notified
Bedrock Aquifer Designations		
Environment Agency - Head Office	January 2018	Annually
Superficial Aquifer Designations Environment Agency - Head Office	January 2018	Annually
Source Protection Zones	,	,
Environment Agency - Head Office	September 2022	Bi-Annually
Extreme Flooding from Rivers or Sea without Defences Environment Agency - Head Office	August 2022	Quarterly
Flooding from Rivers or Sea without Defences Environment Agency - Head Office	August 2022	Quarterly
Areas Benefiting from Flood Defences Environment Agency - Head Office	August 2022	Quarterly
Flood Water Storage Areas		,
Environment Agency - Head Office	August 2022	Quarterly
Flood Defences Environment Agency - Head Office	August 2022	Quarterly
OS Water Network Lines	<u> </u>	
Ordnance Survey	July 2022	Quarterly
BGS Groundwater Flooding Susceptibility	ı	1

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Waste	Version	Update Cycle
BGS Recorded Landfill Sites		
British Geological Survey - National Geoscience Information Service	November 2002	As notified
Historical Landfill Sites		
Environment Agency - Head Office	April 2022	Quarterly
Integrated Pollution Control Registered Waste Sites	·	,
Environment Agency - North East Region	January 2009	Not Applicable
Licensed Waste Management Facilities (Landfill Boundaries)		
Environment Agency - North East Region - Dales Area	July 2022	Quarterly
Environment Agency - North East Region - North East Area	July 2022	Quarterly
Environment Agency - North East Region - Northumbria Area	July 2022	Quarterly
Licensed Waste Management Facilities (Locations)	001) 2022	Quartony
Environment Agency - North East Region - Dales Area	July 2022	Quarterly
Environment Agency - North East Region - North East Area	July 2022 July 2022	Quarterly
Environment Agency - North East Region - Northumbria Area	July 2022 July 2022	Quarterly
, ,	July 2022	Quarterly
Local Authority Landfill Coverage	F.1	Niet Ann Packie
Durham City Council (now part of Durham County Council)	February 2003	Not Applicable
Durham County Council - Economic Development and Planning Department	February 2003	Not Applicable
Easington District Council (now part of Durham County Council) - Environmental Health Department	February 2003	Not Applicable
Sedgefield Borough Council (now part of Durham County Council) - Environmental Health Department	February 2003	Not Applicable
Sunderland City Metropolitan Borough Council - Environmental Health Department	February 2003	Not Applicable
Local Authority Recorded Landfill Sites		
Durham City Council (now part of Durham County Council)	October 2018	
Durham County Council - Economic Development and Planning Department	October 2018	
Easington District Council (now part of Durham County Council) - Environmental Health Department	October 2018	
Sedgefield Borough Council (now part of Durham County Council) - Environmental Health Department	October 2018	
Sunderland City Metropolitan Borough Council - Environmental Health Department	October 2018	
Registered Landfill Sites		
Environment Agency - North East Region - Dales Area	March 2006	Not Applicable
Environment Agency - North East Region - North East Area	March 2006	Not Applicable
Environment Agency - North East Region - Northumbria Area	March 2006	Not Applicable
Registered Waste Transfer Sites		
Environment Agency - North East Region - Dales Area	April 2018	
Environment Agency - North East Region - North East Area	April 2018	
Environment Agency - North East Region - Northumbria Area	April 2018	
Registered Waste Treatment or Disposal Sites		
Environment Agency - North East Region - Dales Area	June 2015	
Environment Agency - North East Region - North East Area	June 2015	
Environment Agency - North East Region - Northumbria Area	June 2015	

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Hazardous Substances	Version	Update Cycle
Control of Major Accident Hazards Sites (COMAH)		
Health and Safety Executive	January 2022	Bi-Annually
Explosive Sites		
Health and Safety Executive	March 2017	Annually
Notification of Installations Handling Hazardous Substances (NIHHS)		
Health and Safety Executive	August 2001	
Planning Hazardous Substance Enforcements		
Durham City Council (now part of Durham County Council)	December 2008	Not Applicable
Sedgefield Borough Council (now part of Durham County Council) - Development Control	December 2008	Not Applicable
Durham County Council (Unitary) - Planning Department	February 2016	Variable
Sunderland City Metropolitan Borough Council - Planning	February 2016	Variable
Durham County Council - Economic Development and Planning Department	July 2007	Annual Rolling Update
Easington District Council (now part of Durham County Council)	July 2008	Not Applicable
Planning Hazardous Substance Consents		
Durham City Council (now part of Durham County Council)	December 2008	Not Applicable
Sedgefield Borough Council (now part of Durham County Council) - Development Control	December 2008	Not Applicable
Durham County Council (Unitary) - Planning Department Sunderland City Metropolitan Borough Council - Planning	February 2016 February 2016	Variable Variable
Durham County Council - Economic Development and Planning	July 2007	Annual Rolling Update
Easington District Council (now part of Durham County Council)	July 2008	Not Applicable
Eduligion Biothor Godnon (now part of Burnam Godney Godnon)	04iy 2000	140t Applicable
Geological	Version	Update Cycle
BGS 1:625,000 Solid Geology		
British Geological Survey - National Geoscience Information Service	January 2009	As notified
BGS Recorded Mineral Sites		
British Geological Survey - National Geoscience Information Service	May 2022	Bi-Annually
CBSCB Compensation District		
Cheshire Brine Subsidence Compensation Board (CBSCB)	August 2011	
Cheshire Brine Subsidence Compensation Board (CBSCB)	November 2020	As notified
Coal Mining Affected Areas		
The Coal Authority - Property Searches	March 2014	Annual Rolling Update
Mining Instability		
Ove Arup & Partners	June 1998	Not Applicable
Non Coal Mining Areas of Great Britain		
British Geological Survey - National Geoscience Information Service	May 2015	Not Applicable
Potential for Collapsible Ground Stability Hazards		
British Geological Survey - National Geoscience Information Service	April 2020	As notified
Potential for Compressible Ground Stability Hazards	, , , , , , , , , , , , , , , , , , ,	
British Geological Survey - National Geoscience Information Service	January 2019	As notified
	Gariaary 2010	7 to Hotilloa
Potential for Ground Dissolution Stability Hazards British Geological Survey - National Geoscience Information Service	January 2019	As notified
<u> </u>	January 2019	As notified
Potential for Landslide Ground Stability Hazards	January 2040	A a matitised
British Geological Survey - National Geoscience Information Service	January 2019	As notified
Potential for Running Sand Ground Stability Hazards	1	A
British Geological Survey - National Geoscience Information Service	January 2019	As notified
Detected for Obele the company of the Control of Otto Utter Homes to		
Potential for Shrinking or Swelling Clay Ground Stability Hazards	January 2019	As notified
British Geological Survey - National Geoscience Information Service	Garidary 2019	
British Geological Survey - National Geoscience Information Service	Surfacily 2010	
	July 2011	Annually
British Geological Survey - National Geoscience Information Service Radon Potential - Radon Affected Areas	,	Annually

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Industrial Land Use	Version	Update Cycle
Contemporary Trade Directory Entries		
Thomson Directories	July 2022	Quarterly
Fuel Station Entries		
Catalist Ltd - Experian	August 2022	Quarterly
Gas Pipelines		
National Grid	October 2021	Bi-Annually
Underground Electrical Cables National Grid	May 2021	Pi Appuelly
Sensitive Land Use	May 2021 Version	Bi-Annually Update Cycle
Sensitive Land OSE	VEISIOII	Opuale Cycle
Ancient Woodland		
Natural England	February 2021	Bi-Annually
Areas of Adopted Green Belt		
Durham City Council (now part of Durham County Council)	July 2022	Quarterly
Durham County Council (Unitary) - Planning Department	July 2022	Quarterly
Easington District Council (now part of Durham County Council)	July 2022	Quarterly
Sedgefield Borough Council (now part of Durham County Council) - Development Control	July 2022	Quarterly
Sunderland City Metropolitan Borough Council - Planning	July 2022	Quarterly
Areas of Unadopted Green Belt		
Durham City Council (now part of Durham County Council)	July 2022	Quarterly
Durham County Council (Unitary) - Planning Department	July 2022	Quarterly
Easington District Council (now part of Durham County Council)	July 2022	Quarterly
Sedgefield Borough Council (now part of Durham County Council) - Development Control	July 2022	Quarterly
Sunderland City Metropolitan Borough Council - Planning	July 2022	Quarterly
	1,	
Areas of Outstanding Natural Beauty	August 2022	Pi Appuelly
Natural England	August 2022	Bi-Annually
Environmentally Sensitive Areas		
Natural England	January 2017	
Forest Parks		
Forestry Commission	April 1997	Not Applicable
Local Nature Reserves		
Natural England	February 2021	Bi-Annually
Marine Nature Reserves		
Natural England	July 2019	Bi-Annually
National Nature Reserves		
Natural England	January 2021	Bi-Annually
National Parks		
Natural England	February 2018	Bi-Annually
Nitrate Sensitive Areas		
Natural England	April 2016	Not Applicable
Nitrate Vulnerable Zones		
Department for Environment, Food and Rural Affairs (DEFRA - formerly FRCA)	April 2016	
Environment Agency - Head Office	June 2017	Bi-Annually
Ramsar Sites	1	†
Natural England	August 2020	Bi-Annually
•	7.tagast 2020	Di / tillidally
Sites of Special Scientific Interest	Feb	D: A
Natural England	February 2021	Bi-Annually
Special Areas of Conservation		
Natural England	July 2020	Bi-Annually
Special Protection Areas		
Natural England	February 2021	Bi-Annually

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A selection of organisations who provide data within this report

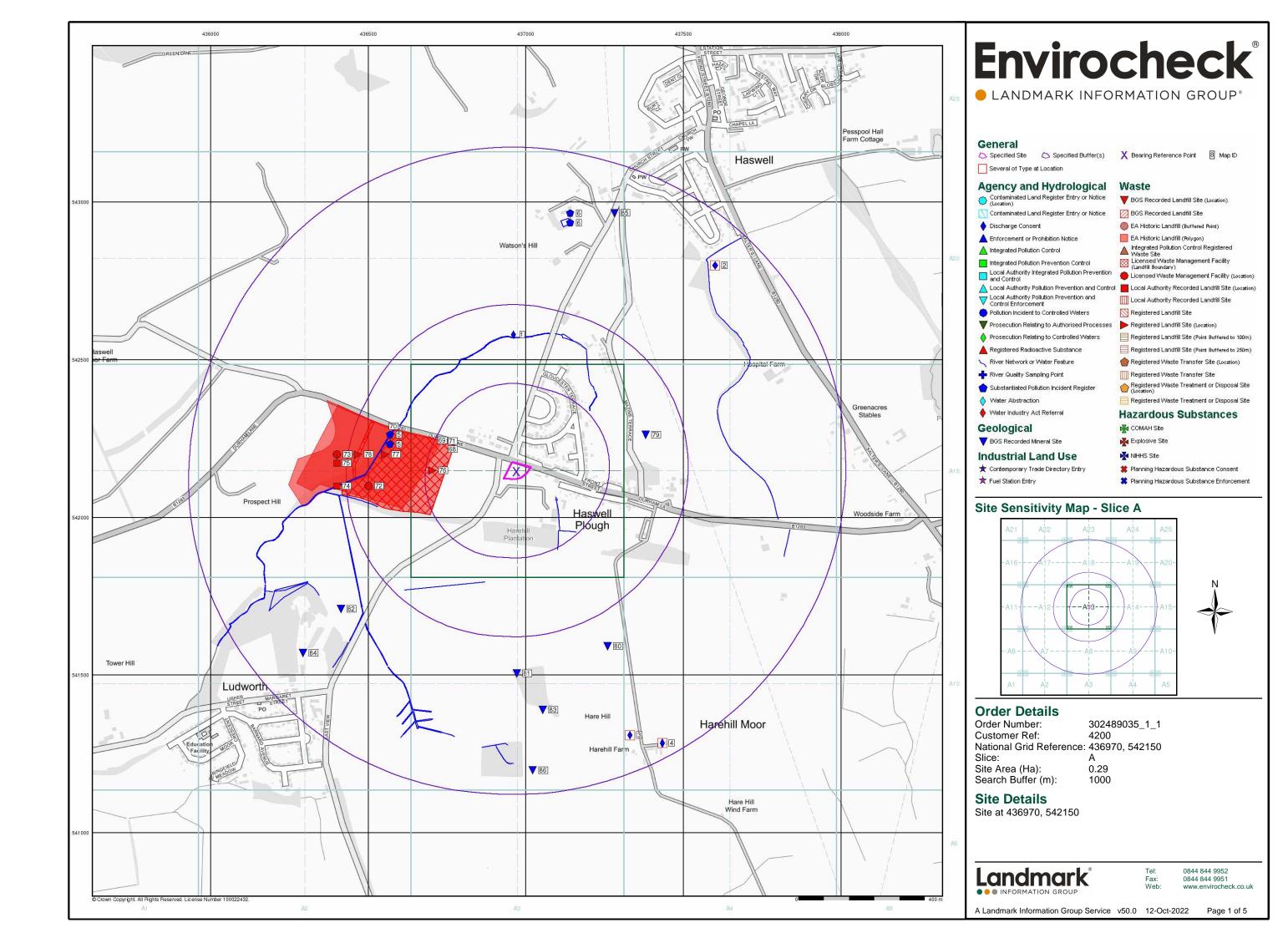
Data Supplier	Data Supplier Logo
Ordnance Survey	Map data
Environment Agency	Environment Agency
Scottish Environment Protection Agency	SEP Scottish Environment Protection Agency
The Coal Authority	The Coal Authority
British Geological Survey	British Geological Survey NATURAL ENVIRONMENT RESEARCH COUNCIL
Centre for Ecology and Hydrology	Centre for Ecology & Hydrology NATURAL ENVIRONMENT RESEARCH COUNCIL
Natural Resources Wales	Cyfoeth Naturiol Cymru Natural Resources Wales
Scottish Natural Heritage	SCOTTISH NATURAL HERITAGE
Natural England	NATURAL ENGLAND
Public Health England	Public Health England
Ove Arup	ARUP
Stantec UK Ltd	Stantec

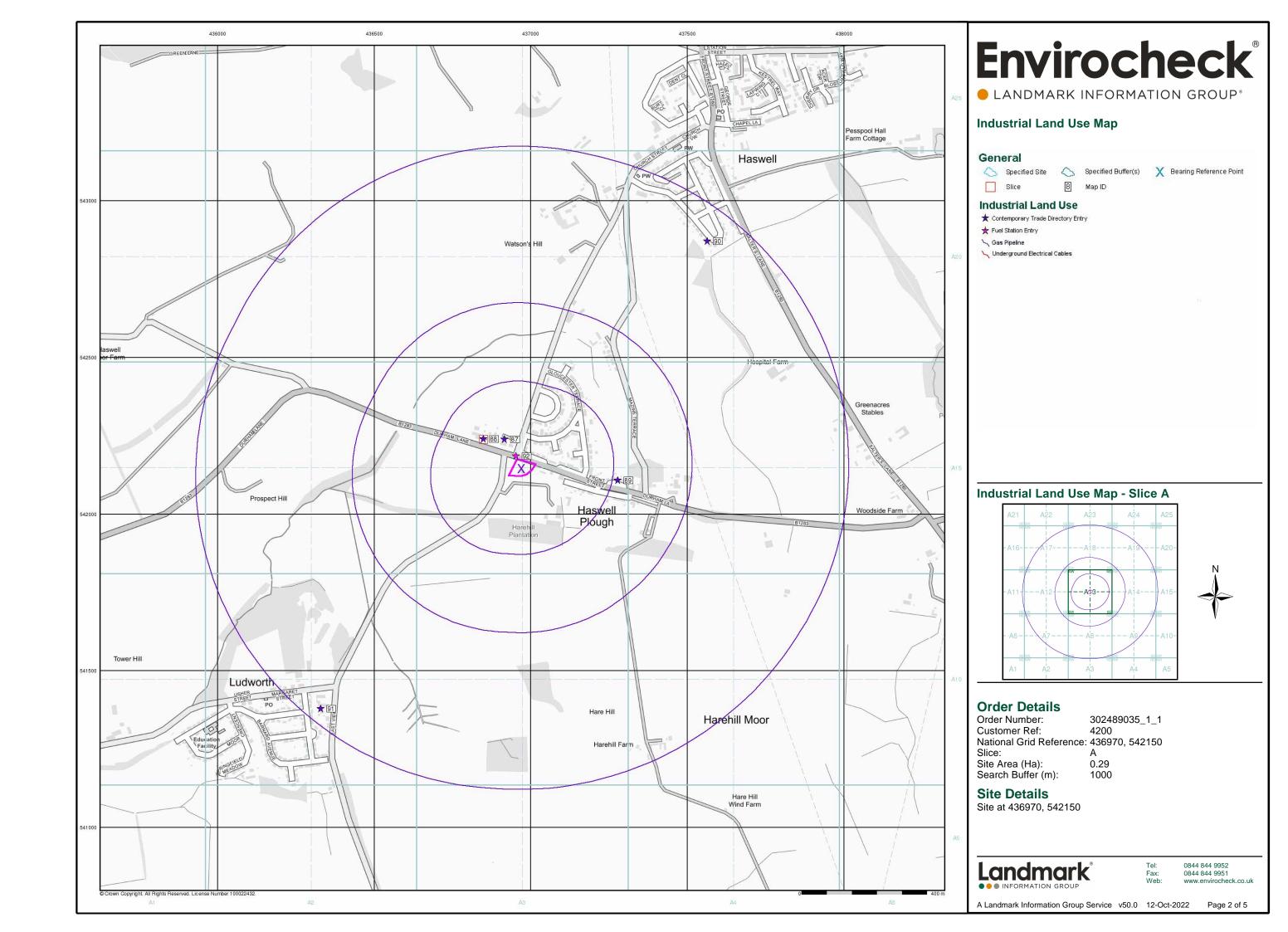


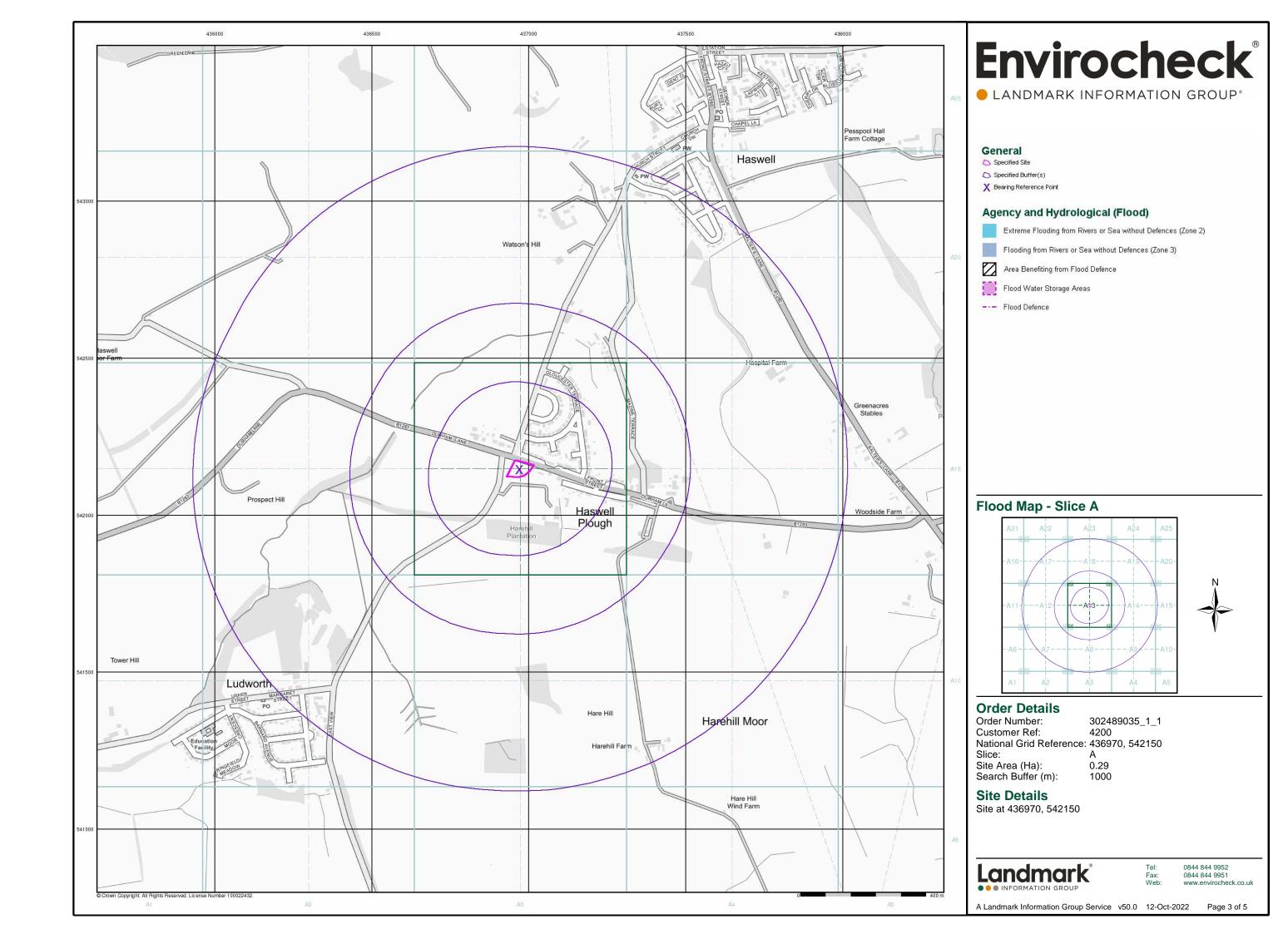
Useful Contacts

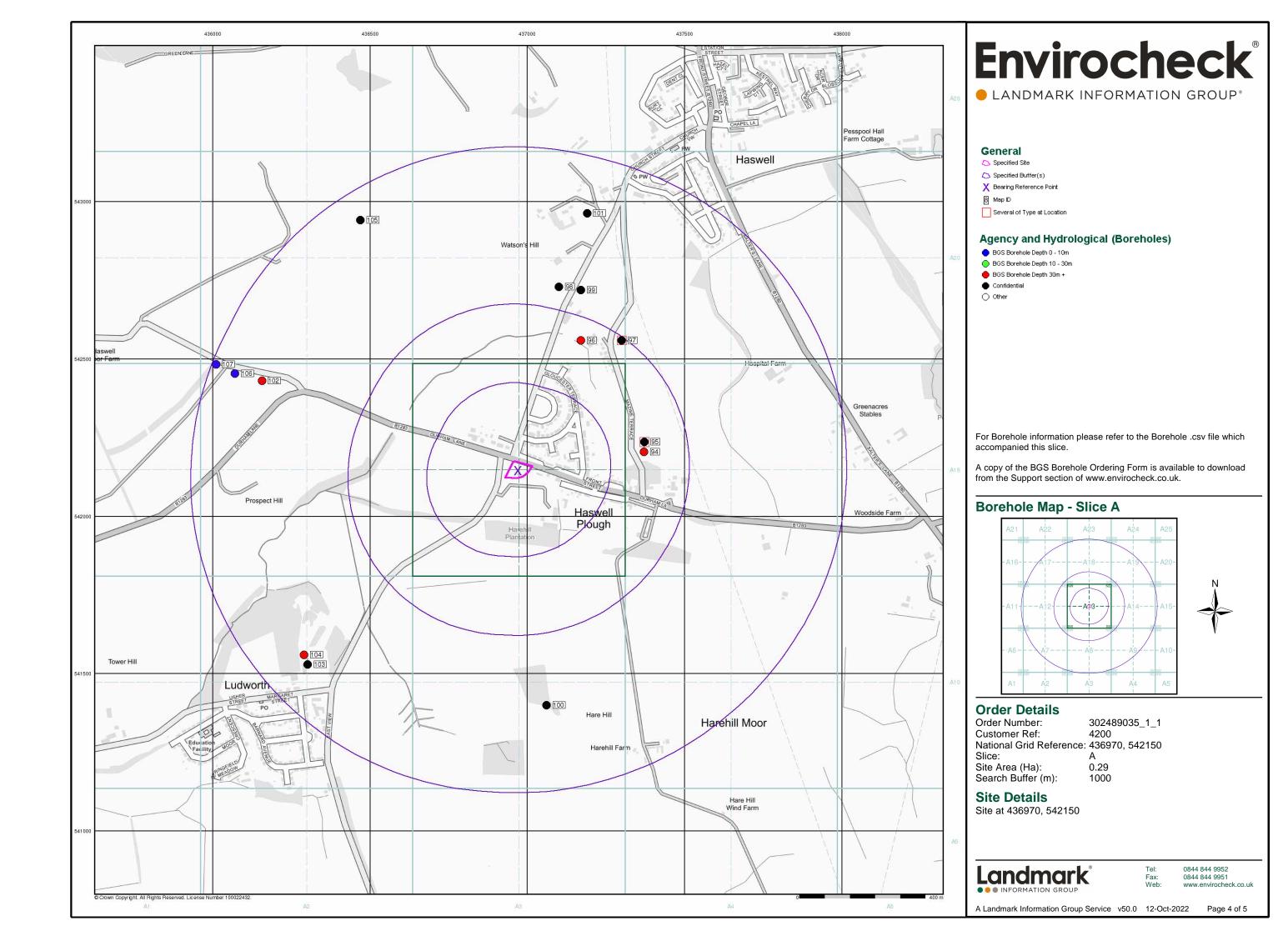
Contact	Name and Address	Contact Details
1	British Geological Survey - Enquiry Service British Geological Survey, Environmental Science Centre, Keyworth, Nottingham, Nottinghamshire, NG12 5GG	Telephone: 0115 936 3143 Fax: 0115 936 3276 Email: enquiries@bgs.ac.uk Website: www.bgs.ac.uk
2	Environment Agency - National Customer Contact Centre (NCCC) PO Box 544, Templeborough, Rotherham, S60 1BY	Telephone: 03708 506 506 Email: enquiries@environment-agency.gov.uk
3	Environment Agency - Head Office Rio House, Waterside Drive, Aztec West, Almondsbury, Bristol, Avon, BS32 4UD	Telephone: 01454 624400 Fax: 01454 624409
4	Ordnance Survey Adanac Drive, Southampton, Hampshire, SO16 0AS	Telephone: 03456 05 05 05 Email: customerservices@ordnancesurvey.co.uk Website: www.ordnancesurvey.gov.uk
5	Easington District Council (now part of Durham County Council) - Environmental Health Department County Hall, Durham, County Durham, DH1 5UL	Telephone: 03000 26 0000 Website: www.durham.gov.uk
6	Durham County Council - Economic Development and Planning Department County Hall, Durham, County Durham, DH1 5UL	Telephone: 0191 383 4751 Fax: 0191 383 3657 Website: www.durham.gov.uk
7	Durham City Council (now part of Durham County Council) County Hall, Durham, County Durham, DH1 5UL	Telephone: 03000 26 0000 Website: www.durham.gov.uk
8	The Coal Authority - Property Searches 200 Lichfield Lane, Mansfield, Nottinghamshire, NG18 4RG	Telephone: 0345 762 6848 Fax: 01623 637 338 Email: groundstability@coal.gov.uk Website: www2.groundstability.com
9	Natural England County Hall, Spetchley Road, Worcester, WR5 2NP	Telephone: 0300 060 3900 Email: enquiries@naturalengland.org.uk Website: www.naturalengland.org.uk
-	Public Health England - Radon Survey, Centre for Radiation, Chemical and Environmental Hazards Chilton, Didcot, Oxfordshire, OX11 0RQ	Telephone: 01235 822622 Fax: 01235 833891 Email: radon@phe.gov.uk Website: www.ukradon.org
-	Landmark Information Group Limited Imperium, Imperial Way, Reading, Berkshire, RG2 0TD	Telephone: 0844 844 9952 Fax: 0844 844 9951 Email: customerservices@landmarkinfo.co.uk Website: www.landmarkinfo.co.uk

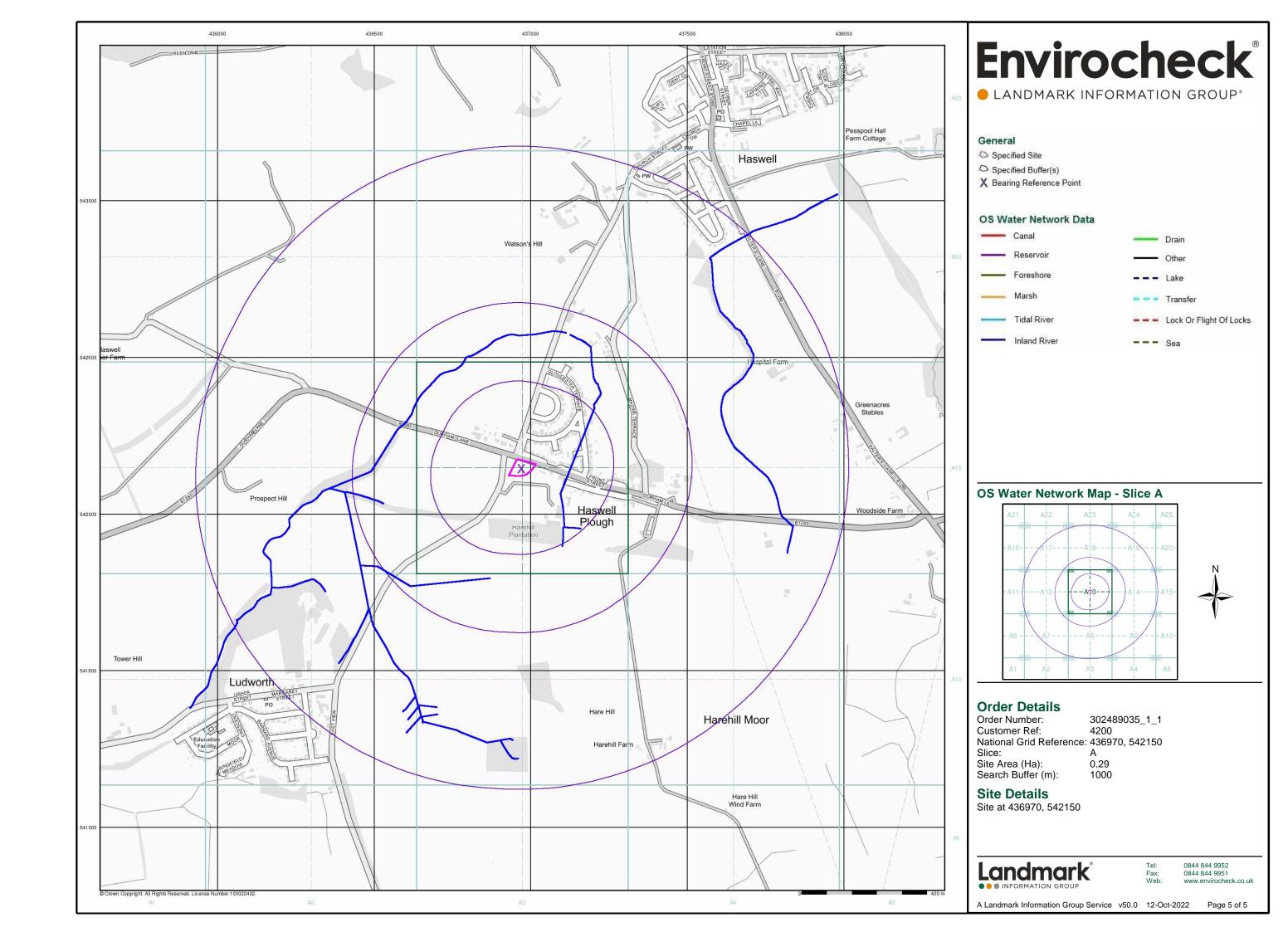
 ${\sf Please\ note\ that\ the\ Environment\ Agency\ /\ Natural\ Resources\ Wales\ /\ SEPA\ have\ a\ charging\ policy\ in\ place\ for\ enquiries.}$

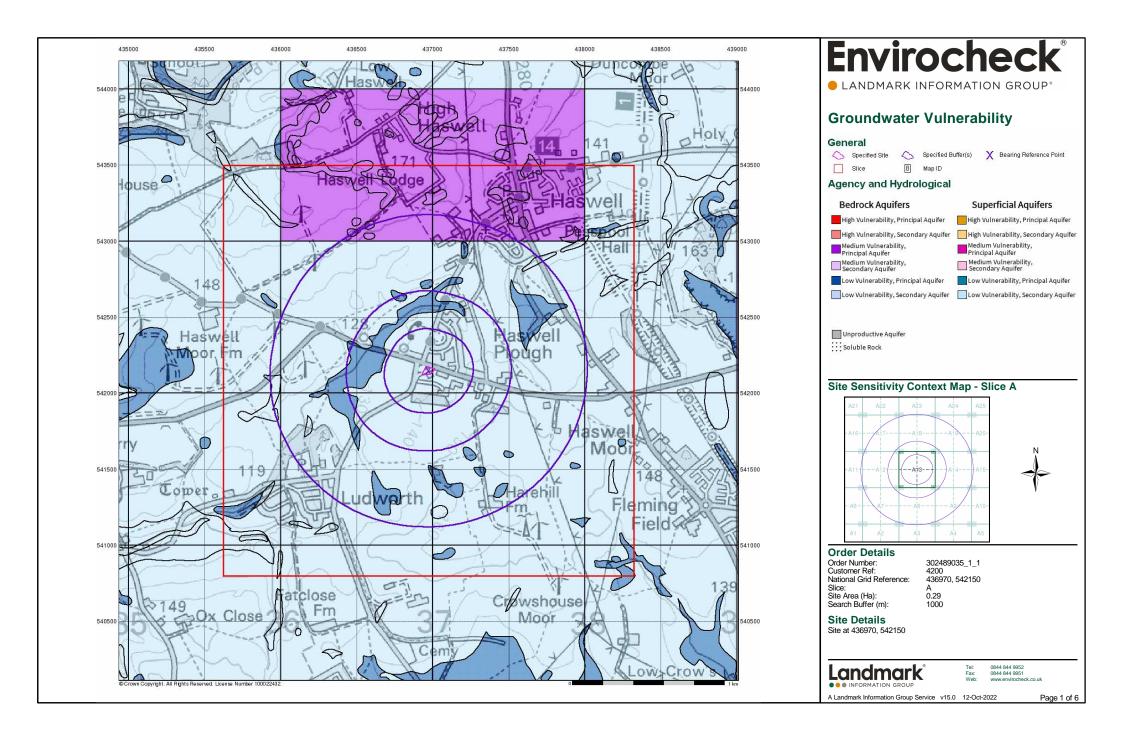


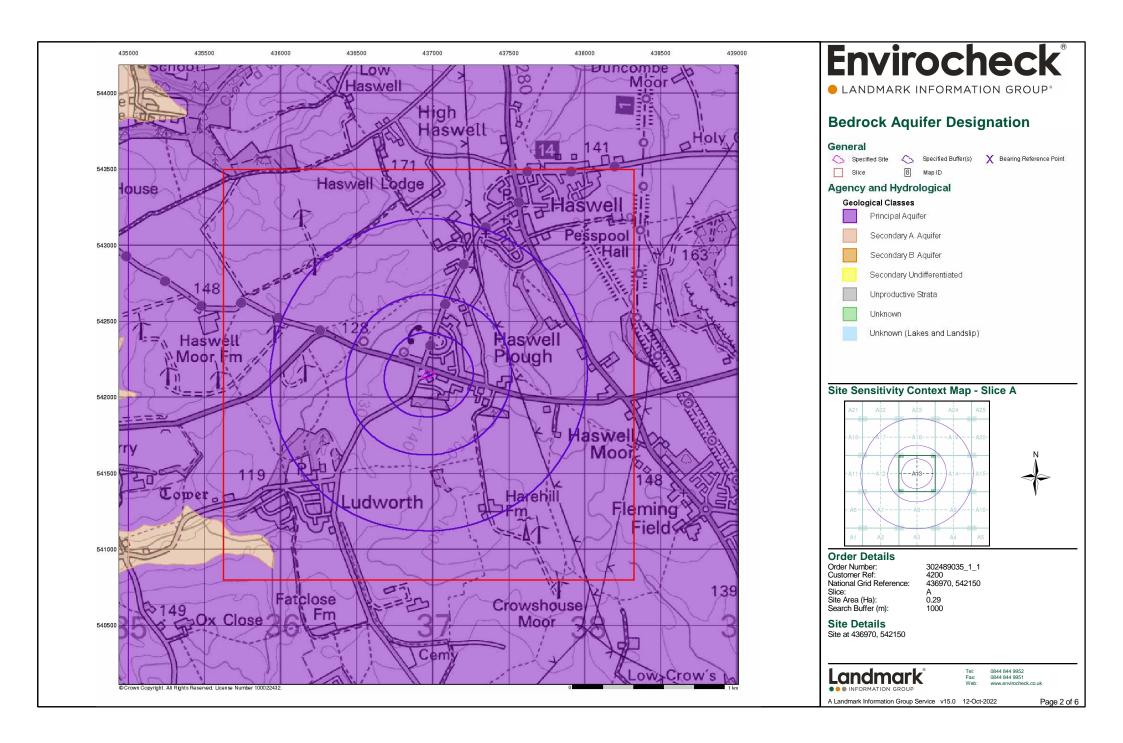


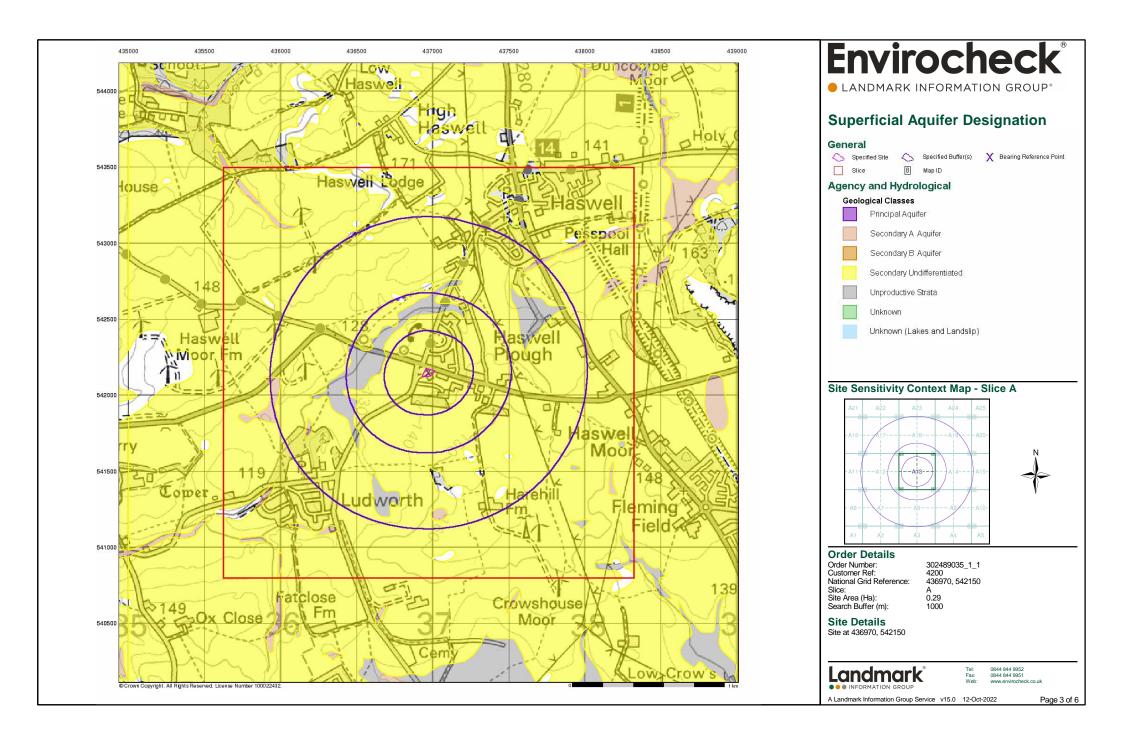


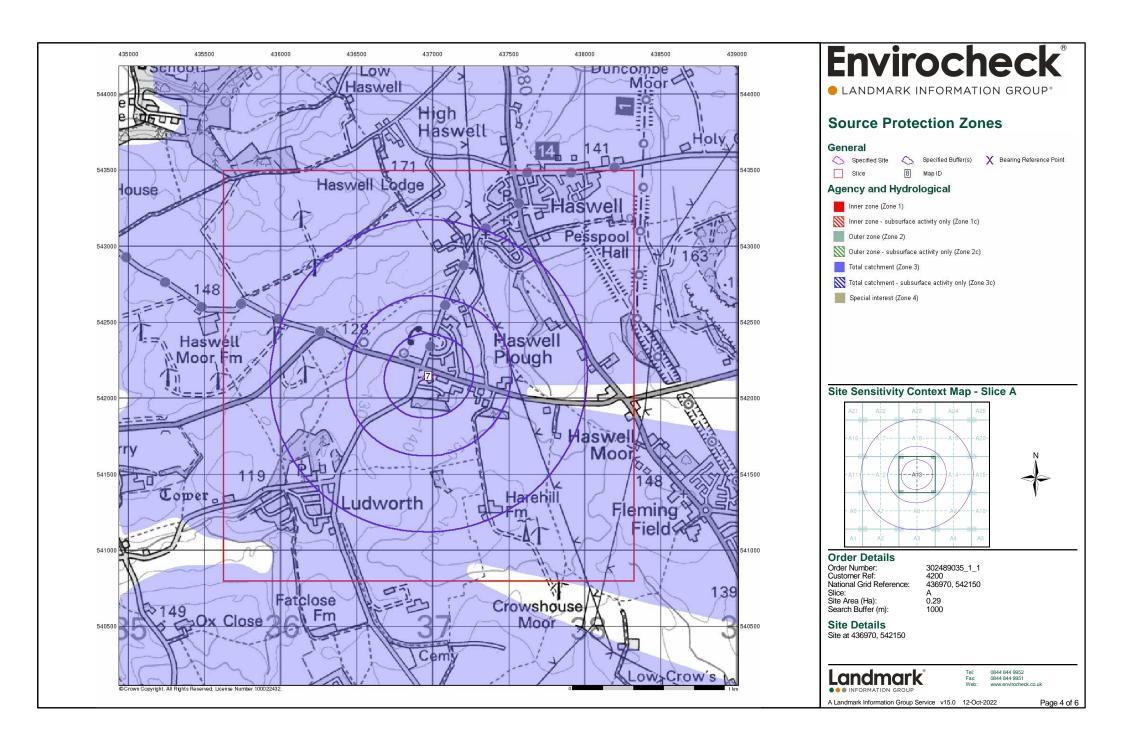


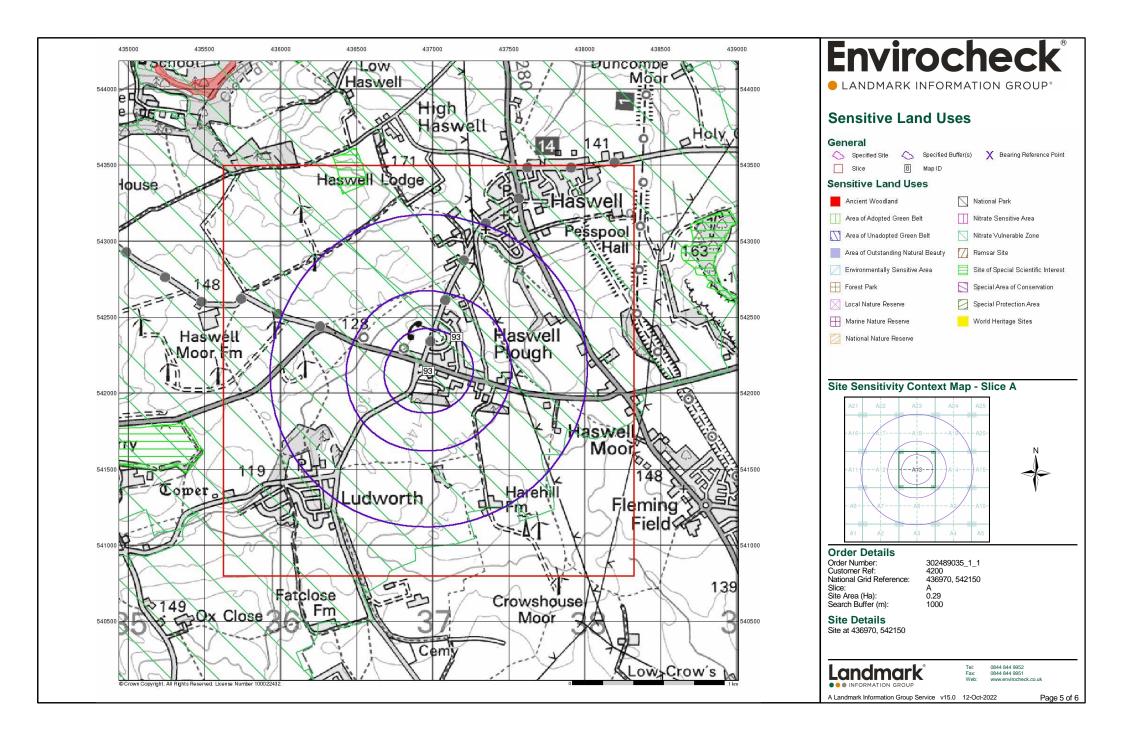


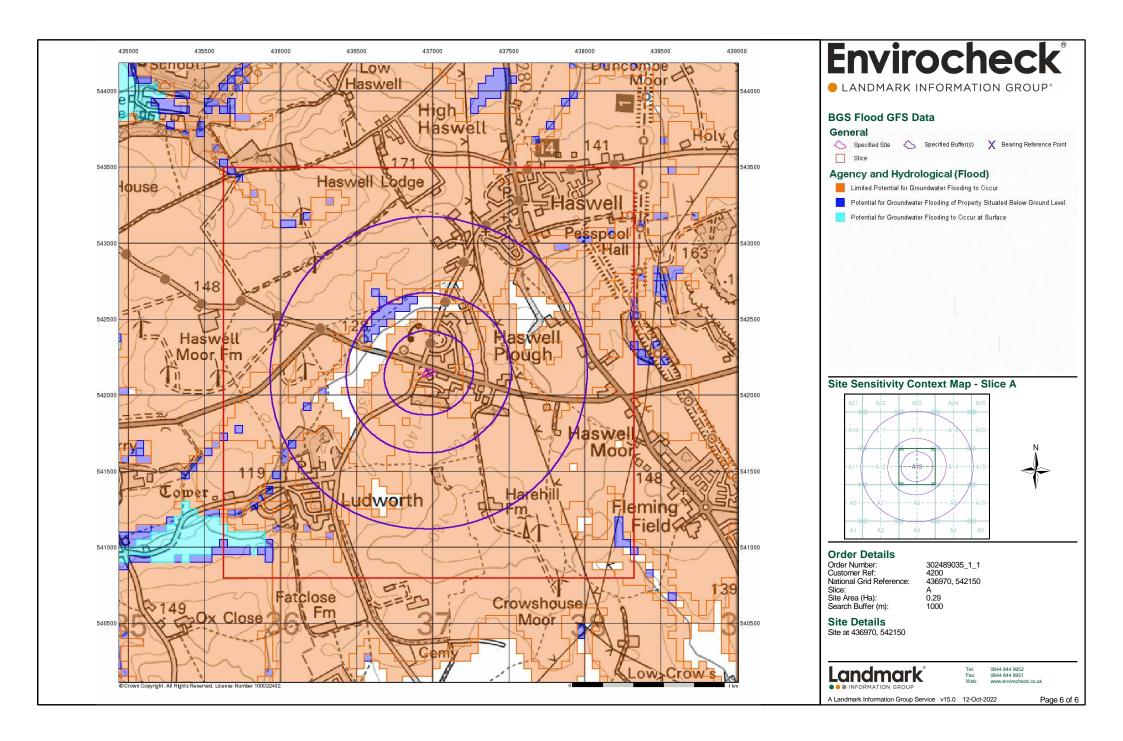














APPENDIX 4

COAL AUTHORITY REPORT



Consultants Coal Mining Report

63 Front Street Haswell Plough Durham DH6 2EW

Date of enquiry: 12 October 2022
Date enquiry received: 12 October 2022
Issue date: 12 October 2022

Our reference: 51003317628001

Your reference: 4200



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

Andy Robinson

Enquiry address

63 Front Street Haswell Plough Durham DH6 2EW

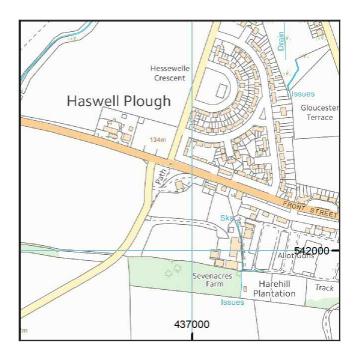
How to contact us

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

200 Lichfield Lane Mansfield Nottinghamshire NG18 4RG

www.groundstability.com





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
HASWELL	MAIN	Coal	3DLC	149	Beneath Property	1.9	East	100	1897
unnamed	MAIN	Coal	3DNQ	156	East	2.2	South-East	110	1897
unnamed	YARD	Coal	30M2	180	Beneath Property	1.9	East	90	1891
unnamed	LOW MAIN	Coal	3OT	230	Beneath Property	1.5	East	109	1890
unnamed	LOW MAIN	Coal	3OJM	233	North-East	1.5	East	109	1870
HASWELL	HUTTON	Coal	30Q7	234	Beneath Property	3.0	East	170	1896
unnamed	LOW MAIN	Coal	30JK	235	East	1.5	East	109	1890
LUNDWORTH	HUTTON	Coal	30Q0	269	South	4.2	North-East	180	1935
HASWELL	HUTTON	Coal	30Q2	273	South	1.5	North-East	170	1896

Probable unrecorded shallow workings

None.

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:

1935	D1518	R357B
D1235	D687	3574
4643	13916	D25

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

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

Outcrops

No outcrops recorded.

Geological faults, fissures and breaklines

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.

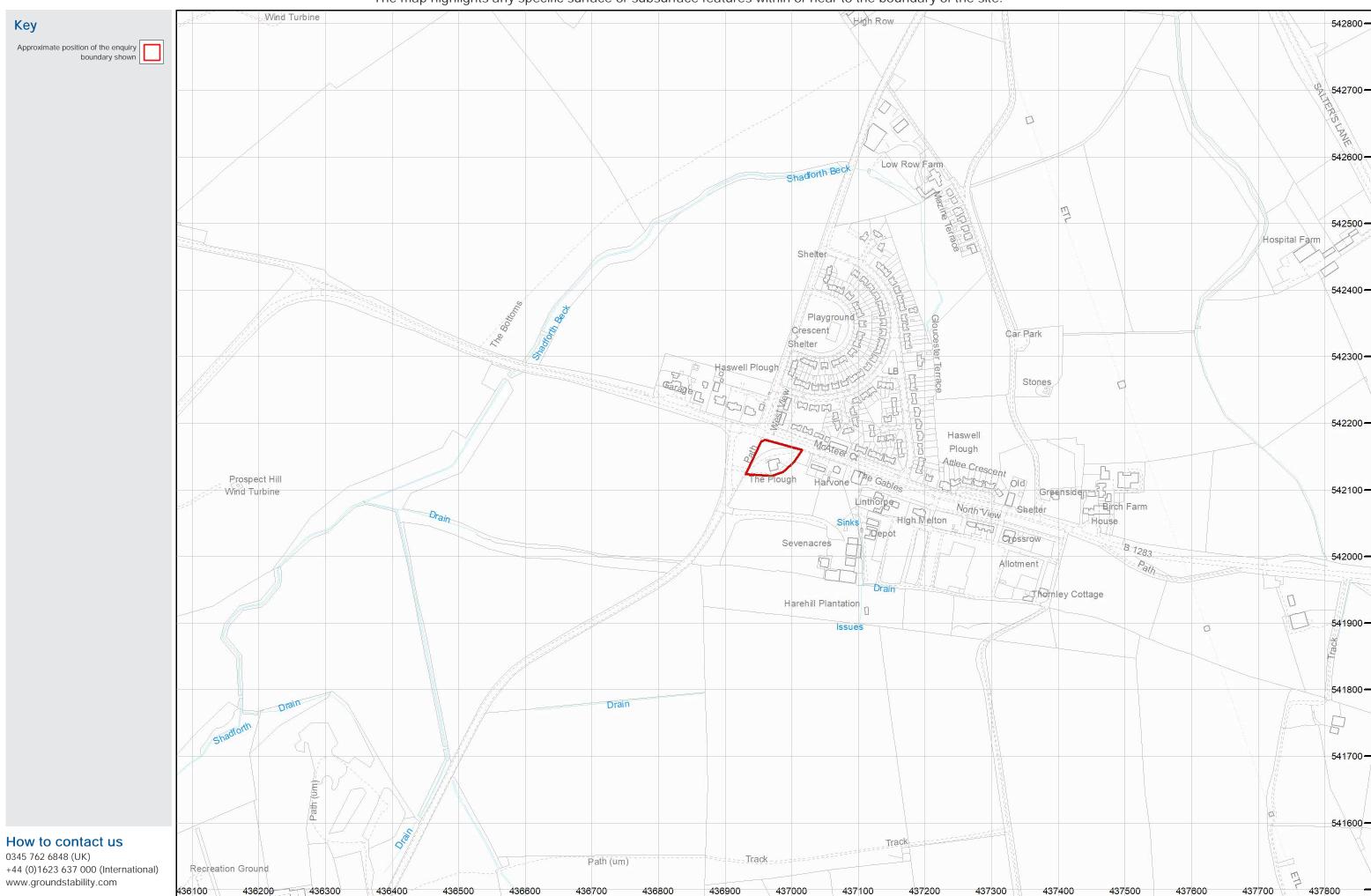
Payment to owners of former copyhold land

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.

Summary of findings

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





APPENDIX 5

SITE WALKOVER PHOTOGRAPHS



Photograph 1



Photograph 3



Photograph 2



Photograph 4

NOTES / KEY

Refer to Drawing 42000D02, Appendix 1 for location and orientation of photographs

DRAWING TITLE

PHOTOGRAPHIC RECORD

PROJECT TITLE

PRELIMINARY CONTAMINATION RISK ASSESSMENT FOR PROPOSED RESIDENTIAL DEVELOPMENT ON LAND AT FRONT STREET, HASWELL PLOUGH, DURHAM

CLIENT

ELG Planning

STATUS PROJECT NUMBER
FINAL 4200

 DRAWN BY
 DATE

 GH
 October 2022

 SCALE
 DRG. No.

 NOT TO SCALE
 4200 PLATE 1

Geotechnical & Environmental Consultants

Unit 2 City West Business Park St Johns Road Meadowfield Industrial Estate Durham County Durham DH7 8ER

Tel: 01388 420633

Tel: 01388 420633 admin@fwsconsultants.com www.fwsconsultants.com



Photograph 5



Photograph 7

NOTES / KEY

Refer to Drawing 42000D02, Appendix 1 for location and orientation of photographs



DRAWING TITLE

PHOTOGRAPHIC RECORD

PROJECT TITLE

PRELIMINARY CONTAMINATION RISK ASSESSMENT FOR PROPOSED RESIDENTIAL DEVELOPMENT ON LAND AT FRONT STREET, HASWELL PLOUGH, DURHAM



Photograph 6



Photograph 8

NOT TO SCALE

CLIENT ELG Planning		FWS Geotechnical & Environmental Consultants
<u>STATUS</u> FINAL	PROJECT NUMBER 4200	Unit 2 City West Business Park St Johns Road
DRAWN BY GH	DATE October 2022	Meadowfield Industrial Estate Durham County Durham DH7 8FR
SCALE	DRG. No.	Tel: 01388 420633

admin@fwsconsultants.com www.fwsconsultants.com

4200 PLATE 2



APPENDIX 6

PRINCIPLES OF CONTAMINATION RISK ASSESSMENT



PRINCIPLES OF CONTAMINATION RISK ASSESSMENT

The Environmental Protection Act 1990, Part II A Contaminated Land (Section 57 of the Environment Act 1995) and the Contaminated Land Regulations 1999 provide a basis on which to determine the unacceptable risks and liabilities presented by a contaminated site. Contaminated Land is defined within Section 78A(2) and in all those Sections mentioned as:-

"Any land which appears to the local authority in whose area it is situated to be in such a condition, by reason of substances in, on or under the land that-

- a) SIGNIFICANT HARM is being caused, or there is significant possibility of such harm being caused; or
- b) SIGNIFICANT POLLUTION OF CONTROLLED WATERS is being caused, or there is a significant possibility of such pollution being caused."

Section 57 of the Environment Act 1995 requires that any site identified as being "contaminated" by the Local Authority will be registered by them and remediation will be required to render the site fit for use.

The presence of contamination is not the sole factor for deciding whether a site is contaminated. Relevant parties should identify site-specific unacceptable risks and provide objective, cost-effective methods to manage the contamination in a manner which satisfies the proposed end-use.

The Environment Agency "Land contamination and Risk Management" guidance defines "risk" as the combination of:-

PROBABILITY OF RISK: or frequency, of occurrence of a defined hazard; and

MAGNITUDE/POTENTIAL SEVERITY: (including the seriousness) of the consequences.

A risk-based approach, which takes both technical and non-technical aspects into consideration when making decisions on contamination resulting from past, present or future human activities, is advocated.

The assessment of unacceptable risks generally relies on the identification of three principal elements forming a 'contaminant linkage':-

SOURCE: is a contaminant or pollutant that is in, on or under the land and that has the potential to

cause harm or pollution

RECEPTOR: something that could be adversely affected by a contaminant eg. a person, controlled

waters, an organism, an ecosystem, or Part 2A receptors such as buildings, crops or

animals

PATHWAY: a route by which a receptor is, or could be, affected by a contaminant

In the absence of any one of these elements, on any given site, there is no risk. Where all three elements are present, a risk assessment is required to determine the significance of the harm or pollution that is being or may be caused. During the risk assessment phase, 'potential contaminant linkages' are used, until they are confirmed. Once confirmed, they are referred to as 'relevant contaminant linkages'. As outlined above, the terms of the Contaminated Land regime specify that remediation need only be implemented where a site is causing, or there is a significant possibility that it will cause, significant harm, or that pollution of controlled waters is being, or is likely to be caused.

Development of contaminated land is usually addressed through the application of planning and development legislation and guidance (i.e. Planning Guidance Note PPS23 Planning and Pollution Control in England). The suitable for use approach is seen as the most appropriate basis to deal with contaminated land, taking account of



environmental, social and economic objectives. The assessment is made in the context of the proposed land use (e.g. residential, commercial, industrial and public open-space).

<u>Definition of Severity of Consequence</u>

The risk assessment has been undertaken by assessing the severity of the potential consequence, taking into account both the potential severity of the hazard and the sensitivity of the target, based on the categories given below.

Category	Definition
Severe	Acute risks to human health, catastrophic damage to buildings/property, major pollution of
	controlled waters
Medium	Chronic risk to human health, pollution of sensitive controlled waters, significant effects on
	sensitive ecosystems or species, significant damage to buildings or structures
Mild	Pollution of non-sensitive waters, minor damage to buildings or structures
Minor	Requirements for protective equipment during site works to mitigate health effects, damage to
	non-sensitive ecosystems or species

<u>Definition of Probability of Occurrence</u>

The likelihood of an event (probability) takes into account the linkage between a hazard and target and the integrity of this pathway, and has been assessed based on the categories given below.

Category	Definition			
High Likelihood	Pollutant linkage may be present, and risk is almost certain to occur in long term, or there is			
	evidence of harm to the receptor			
Likely	Pollutant linkage may be present, and it is probable that the risk will occur over the long term			
Low Likelihood	Pollutant linkage may be present, and there is a possibility of the risk occurring, although there			
	is no certainty that it will do so			
Unlikely	Pollutant linkage may be present, but the circumstances under which harm would occur are			
	improbable			

Risk Matrix

The potential severity of the consequence and the probability of the occurrence have been combined in accordance with the following matrix in order to give a level of risk for each potential hazard.

		Severity of Consequence			
		Severe	Medium	Mild	Minor
Probability of	High Likelihood	Very high	High	Moderate	Low
Occurrence	Occurrence Likely		Moderate	Low	Very Low
	Low Likelihood	Moderate	Low	Very Low	Negligible
	Unlikely	Low	Very Low	Negligible	Negligible



APPENDIX 7

NOTES ON LIMITATIONS



NOTES ON LIMITATIONS

- FWS Consultants Ltd ("FWS") has prepared this report solely for the use of the client and/or his agent (the "Client") on the basis of exchange(s) of written proposals and instructions, and FWS accepts no responsibility or liability:
 - a) for use of this report by any party other than the person for whom it was commissioned, or;
 - b) for the consequences of the report being used for any purpose other than that for which FWS was instructed to prepare it.

Should any third party wish to use or rely upon the contents of the report, written approval from FWS must be sought.

- All information supplied by the Client, the Client's staff and professional advisers, local authorities, other statutory bodies, investigation agencies and publicly accessible databases, shall be provided to FWS in writing, and is accepted as being correct unless otherwise specified in writing by the discloser of the information.
- The conclusions and recommendations in this report represent the professional opinions of FWS derived from currently accepted industry practices, and through the exercising of reasonable skill and care to be expected of a professional geosciences and environmental consultancy of similar size and experience. The assessments and judgments given in this report are directed by and limited to both the finite data on which they are based and the proposed works to which they are addressed.
- Environmental and geotechnical desk studies comprise a study of available information obtained from various identified sources, authorities and parties. The information reviewed cannot be exhaustive and has been accepted in good faith as providing representative and true data pertaining to site conditions. For clarity, no independent verification of this data is carried out by FWS and it is accepted at face value. Any identified risks in desk study reports are perceived risks based on the information available at the time. Actual risks can only be assessed after carrying out a thorough physical investigation of the site that serves to validate such identified risks.
- Data acquisition during site investigations is subject to the limitations of the methods of investigation used, site conditions and access constraints. Exploratory holes undertaken during fieldwork, particularly boreholes and/or trial pits, investigate a small volume of ground in relation to the size of the site and thus can only provide an indication of site conditions. The opinions provided and recommendations given in this report are based on the desk study information and ground conditions apparent at the site of each of the exploratory holes. There may be ground conditions elsewhere onsite that have not been disclosed by the investigation and which therefore have not been taken into account in this report. FWS will take all due care and make commentary on the adequacy of data collection and therefore the ability to highlight the presence or otherwise of exceptional conditions.
- Owing to the natural variation of the systems that are being investigated, and the anthropological impact similarly changing through time, the findings and opinions in this report are relevant to the dates of the site works and should not be relied upon to represent conditions after a reasonable passing of time. Site conditions will change over time due to natural variations and human activities. The comments made on groundwater, surface water and soil gas conditions are based on observations made at the time that the site work was carried out. It should be noted that these conditions will vary owing to seasonal, tidal and meteorological effects. Variation in the types and concentrations of contaminants and variations in their flow paths may occur due to seasonal water table fluctuations, past disposal practices, the passage of time, or subsequent developments or activities on the site or adjacent area.
- The scope of the investigation, as agreed between FWS and the Client, was undertaken based on the specific development proposals of the Client and may be inappropriate to another form of development or scheme.
- The opinions expressed in this report regarding contamination, geotechnical and/or waste assessments are based on simple statistical analysis and comparison with available guidance values. No liability can be accepted for the retrospective effects of any changes or amendments to these values.