



Bowsall Limited

Pendle Garage, Clitheroe Road, Barrow

Preliminary risk assessment 320130169P

Project no. 321139

JULY 2012

RSK



RSK GENERAL NOTES

Project No.: 321139-1 (00)

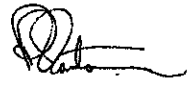
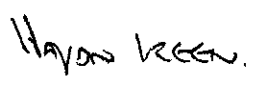
Title: Preliminary Risk Assessment: Pendle Garage, Clitheroe Road, Barrow

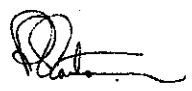
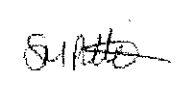
Client: Bowsall Limited, Bowsall House, 3, King Street, Salford, Manchester M3 7DG

Date: July 2012

Office: RSK, Spring Lodge, 172 Chester Rd, Helsby, Cheshire, WA6 0AR
Tel: 01928 726006, contact: Stephen Pettitt

Status: Final

Author	<u>Paul Taunton</u>	Technical reviewer	<u>Haydn Keen</u>
Signature		Signature	
Date:	<u>July 2012</u>	Date:	<u>July 2012</u>

Project manager	<u>Paul Taunton</u>	Quality reviewer	<u>Stephen Pettitt</u>
Signature		Signature	
Date:	<u>July 2012</u>	Date:	<u>July 2012</u>

RSK Environment Limited (RSK) has prepared this report for the sole use of the client, showing reasonable skill and care, for the intended purposes as stated in the agreement under which this work was completed. The report may not be relied upon by any other party without the express agreement of the client and RSK. No other warranty, expressed or implied, is made as to the professional advice included in this report.

Where any data supplied by the client or from other sources have been used, it has been assumed that the information is correct. No responsibility can be accepted by RSK for inaccuracies in the data supplied by any other party. The conclusions and recommendations in this report are based on the assumption that all relevant information has been supplied by those bodies from whom it was requested.

No part of this report may be copied or duplicated without the express permission of RSK and the party for whom it was prepared.

Where field investigations have been carried out, these have been restricted to a level of detail required to achieve the stated objectives of the work.

This work has been undertaken in accordance with the quality management system of RSK Environment Ltd.



CONTENTS

EXECUTIVE SUMMARY	1
1 INTRODUCTION	1
1.1 Objective	1
1.2 Scope	1
1.3 Existing reports	2
2 THE SITE	3
2.1 Site location	3
2.2 Proposed development	3
3 SITE WALKOVER INSPECTION	4
4 DATA DERIVED FROM DESK STUDY	6
4.1.1 Geology	6
4.1.2 Radon	6
4.1.3 Mining and quarrying	7
4.1.4 Landfills and waste	7
4.1.5 Ground gas	7
4.2 Hydrogeology	7
4.2.1 Vulnerability of groundwater resources	7
4.2.2 Licensed groundwater abstractions	8
4.3 Hydrology	8
4.3.1 Surface watercourses	8
4.3.2 Surface water abstractions	8
4.3.3 Site drainage	9
4.3.4 Preliminary flood risk assessment	9
4.4 History of site and surrounding area	9
4.5 Sensitive land uses	10
5 INITIAL CONCEPTUAL MODEL	11
5.1.1 Summary of potential contaminant sources	11
5.1.2 Sensitive receptors	12
5.1.3 Summary of plausible pathways	12
5.1.4 Data gaps and uncertainties	13
5.1.5 Potentially complete pollutant linkages	13
6 CONCLUSIONS AND RECOMMENDATIONS	17
6.1 Conclusions	17
6.2 Recommendations	17
REFERENCES	18

320130169P

TABLES

Table 1: Site setting	4
Table 2: Geology at the site	6
Table 3: Summary of historical development	10
Table 4: Potential contaminants and sources	11
Table 5: Risk estimation for potentially complete pollutant linkages	14

FIGURES

Figure 1	Site location plan
Figure 2	Existing site plan
Figure 3	Proposed site plan
Figure 4	Historical Plan 1893
Figure 5	Historical Plan 1932
Figure 6	Historical Plan 1968

APPENDICES

Appendix A	Service constraints
Appendix B	Summary of legislation and policy relating to contaminated land
Appendix C	Site photographs
Appendix D	Risk assessment methodology
Appendix E	Envirocheck environmental database report

988106102



EXECUTIVE SUMMARY

Site description and proposed development	The site is a disused petrol filling station, together with a small area of neglected farmland, in the village of Barrow, located approximately 3km south of Clitheroe, Lancashire. The site occupies an area of approximately 0.6ha. A residential development of 24 units is proposed.
Purpose of assessment	This preliminary risk assessment was undertaken to develop an initial conceptual site model and provide recommendations for further investigation, if necessary.
PRELIMINARY RISK ASSESSMENT	
Site walkover	The site comprises a petrol retail forecourt, a small garage and workshop building, an area behind the buildings where the ground level is about 1m higher and part of an adjoining field. Access to the buildings was not available. The pumps have been removed but the underground fuel storage tanks are still in place. The forecourt area slopes gently downwards to Clitheroe Road. The southern edge of the site appeared poorly drained and wet.
History of site and surrounding area	As far as can be determined from the available information the site was in agricultural use until the garage was constructed in the early 1930's. The surrounding area is largely agricultural, although there is a public house and a terrace of houses opposite the site. In the 1960's a corn mill was constructed north of the site and this has subsequently been converted to an industrial park, in multiple occupancy.
Geology, hydrogeology and hydrology	The superficial deposits comprise glacial till (boulder clay) which is likely to restrict downwards migration of contaminants to the underlying bedrock. The bedrock varies across the site, but comprises principally Lower Carboniferous mudstones and thin limestones, which are classified by the Environment Agency as a secondary "A" aquifer. The site is not in a groundwater source protection zone. There is one groundwater abstraction 1km to the northeast. A small watercourse, visible close to the site, is assumed to cross Clitheroe Road in culvert at or very close to the site boundary. The brook enters the River Calder approximately 1.5km southwest of the site. No surface water abstractions have been identified that are likely to be affected by the site.

320130169P

Potentially contaminative uses on site and in surrounding area	The site was used as a filling station from the 1930's. The made ground is of unknown origin. Other evidence of potential contamination observed included: evidence of waste materials visible within the made ground at the boundary between the garage area and the field; a small area of dark staining adjacent to the workshop; fragments of asbestos cement on the ground surface; and several piles of waste building material. The industrial park adjoining the northern site boundary houses several engineering and garage services companies.
Conceptual model	Contaminants that may have significant potential to affect the site are likely to be present: in the forecourt area, from spillages; in the area of the underground storage tanks and pipes, from leakages; in and around the workshop area, from disposal of waste oils, solvents and antifreeze; and in the made ground at the rear of the buildings, from waste materials and disposal of liquid wastes. There is also potential for contaminants to have migrated onto site from the adjoining premises immediately to the north.
CONCLUSIONS AND RECOMMENDATIONS OF PRA	
Conclusions	No potential pollutant linkages were assessed as having a high risk. The potential pollutant linkages assessed as having a moderate risk are: • direct contact of future site residents with heavy metals and hydrocarbons • inhalation of hydrocarbons and other volatile compounds by future residents • inhalation of asbestos fibres by future site residents • ground gas migration into proposed houses and explosion or asphyxiation • direct chemical attack on water supply pipes. Risks to controlled waters were assessed as low or moderate to low.
Recommendations including issues for further assessment	It is recommended that an intrusive investigation should be conducted to confirm the superficial geology indicated by the published information and to investigate whether significant contamination is actually present. The soil samples should be analysed for a suite of contaminants selected from heavy metals, pH, sulphates, TPH, PAH, VOC, PCB and screening for asbestos, as appropriate to the particular location on site. Gas/groundwater monitoring wells should be installed to allow the assumptions made in the risk assessment to be confirmed.
<i>The information given in this summary is necessarily incomplete and is provided for initial briefing purposes only. The summary must not be used as a substitute for the full text of the report.</i>	



1 INTRODUCTION

RSK Environment Limited (RSK) was commissioned by Bowsall Limited to carry out a preliminary risk assessment (PRA) of the land at Pendle Garage, Clitheroe Road, Barrow. The site is understood to be under consideration for residential redevelopment.

This report is subject to the RSK service constraints given in Appendix A.

1.1 Objective

An assessment of the environmental setting and development history of the site and the surrounding area has been completed, with the objective of preparing a detailed conceptual model of the site, that will inform subsequent site investigation works.

1.2 Scope

The scope of works for this PRA was according to an agreed brief, as set out in RSK's proposal reference 321139(H)TL01, dated 14 June 2012 and included:

- a site walkover inspection, including the identification of surrounding land use and location of any sensitive environmental receptors in the site vicinity
- a review of the geology and hydrogeology of the site to enable assessments to be made on the migration potential for any contaminants which may be present on the site or in adjacent properties
- a review of a commercially available environmental database in order to determine:

Records of past pollution or other incidents relevant to the site

Information regarding the location of recorded landfill sites within the site vicinity

Details of groundwater abstractions (location, water use, source strata)

Details of surface water quality classifications

Information relating to ground stability

- a review of historical maps included with the database report, to identify historical uses of the site and surrounding area
- preparation of this interpretative PRA report, including development of an initial conceptual site model and recommendations for further investigation, if necessary.

320130169P

1.3 Existing reports

No previous reports relating to the site were available for review.

980160.02



2 THE SITE

2.1 Site location

The site is situated to the east of Clitheroe Road, in the village of Barrow, located approximately 3km south of the centre of Clitheroe, Lancashire and can be located by Ordnance Survey⁽¹⁾ National Grid reference 373610, 437550, as shown on Figure 1. The site occupies an area of approximately 0.6 hectares (1.5 acres) and is situated at an elevation of approximately 70m above Ordnance Datum (AOD).

A site plan is presented as Figure 2.

2.2 Proposed development

The site is being considered for residential redevelopment. A draft layout for the site has been provided to RSK, and is reproduced as Figure 3. At present 24 units are proposed.

320130169P

3 SITE WALKOVER INSPECTION

A geo-environmental engineer from RSK completed a site walkover inspection on 26 June 2012. Photographs taken during the site walkover are provided in Appendix C.

Currently the area is occupied by a disused petrol filling station and a small area of neglected farmland at the rear.

The surroundings of the site are summarised in Table 1.

Table 1: Site setting

To the west	Clitheroe Road, with The Eagle public house and its large car park directly opposite the site.
To the north:	The access road and parking for Whalley Industrial Park, circa 1960's industrial buildings, divided into 16 smaller units, with a recently-constructed building containing 4 industrial units (Meadow Court) to their east.
To the east:	Undeveloped farmland.
To the south:	A disused nursery, comprising a large greenhouse and overgrown land, presently for sale, with planning permission for 4 detached houses and 2 bungalows, and undeveloped farmland.

The petrol forecourt area slopes gently downwards to the Clitheroe Road. The area around the pump islands is concrete surfaced but most of the remainder of the forecourt is surfaced with asphalt. The rest of the garage site, behind the building, is approximately 1m higher than the forecourt area and appears to be made ground. Much of the central part of this area is surfaced with asphalt, in generally poor condition, but there is a large grassed area at the rear of the buildings and grassy strips along the boundaries. The field in the rear part of the site is at a lower level and is overgrown grassland. The Meadow Court development, in what was formerly part of the same field as the westernmost part of the present site, has been constructed on a platform of recent made ground.

The garage buildings appear still to be occupied. Access into the buildings was not possible at the time of the walkover. A telescopic-handler, a contractors mobile unit (perhaps a mess or office) and a waste skip were present in the yard at the rear of the building, indicating that the site is still in use. Numerous piles of waste materials were observed in the yard, some obviously having been present for some time and others apparently quite recent. As the site is still in use, additional material could be deposited in the future.

The site was formerly used as a petrol filling station. The pumps have been removed from the forecourt but the tanks and fuel pipes are still present. Four manhole covers are present to the south of the garage building and four vent pipes remain fixed to the



wall close to the southwest corner of the garage building. Markings indicate that both diesel and unleaded petrol were stored in underground tanks.

Some dark staining was observed around an open pipe discharging onto the ground from the wall of the garage near its southeast corner.

Small fragments of broken asbestos cement sheet were observed on the ground, dispersed over much of the yard area. It was noted that similar sheeting is present in the fabric of the industrial units to the north of the site.

No oil interceptor was observed. Two manhole covers were observed close to the northern site boundary, one very close to Clitheroe Road and the other next to the industrial building to the north.

The stopcock for the site water supply was observed on Clitheroe Road.

A door is present in the industrial unit to the north, leading onto the site. The door was closed at the time of the walkover. It is not clear whether this door is used as a fire exit, or whether it is now disused.

The grassed area along the southern site boundary appeared poorly drained and damp. The vegetation here included horsetail (equisetum), a plant which is difficult to eradicate.

An existing poor field boundary hedge divides the site. There are likely to be planning restrictions on its removal, and if it were to be removed there may be implications on foundation design, depending upon the properties of the underlying clay.

There are a number of large trees within the boundary hedges, which may restrict developable area, because of tree preservation orders, or the presence of protected species such as bats. In addition, deepening of foundations may be required close to the trees, again dependent upon the underlying clay.

320130169P

4 DATA DERIVED FROM DESK STUDY

4.1.1 Geology

Published records indicate the geology of the site to be as recorded in Table 2.

Table 2: Geology at the site

Geological unit and age	Description	Estimated thickness (m)
Till (TILLD) Devensian	Diamicton (clay, silt, sand and gravel)	not known
Rad Brook Mudstone Member (RKM) Holkerian (Lower Carboniferous)	Mudstone	thin, present only in eastern part of site
Hodderense Limestone Formation (BOH) Holkerian (Lower Carboniferous)	Limestone	thin, present only in central and eastern part of site
Clitheroe Limestone Formation and Hodder Mudstone Formation, Undifferentiated (CLHOM) Holkerian - Chadrian (Lower Carboniferous)	Mudstone.	not known, but of significant thickness
Sources: BGS geology report, based on 1:50,000 digital mapping, included with Envirocheck report ⁽³⁾ and BGS Regional Memoir ⁽⁴⁾ .		

A check on the British Geological Survey (BGS) borehole catalogue showed that there are no publicly-available borehole records likely to provide further information regarding ground conditions in the vicinity of the site.

4.1.2 Radon

The environmental database report⁽³⁾ provides an assessment of radon potential provided by the British Geological Survey. This indicates that part of the site is in a lower probability radon area, as less than 1% of homes area above the action level, and part of the site is in a radon affected area, as between 1% and 3% of homes are above the action level. However, the BGS assessment concludes that no radon protection measures are necessary in the construction of new dwellings at the site.



4.1.3 Mining and quarrying

Based on the historical mapping there is very little mining or quarrying in the vicinity. The closest feature identified is a "Brick and Tile Works" identified on the 1895 map at a location approximately 700m southwest of the site. No recorded mines or quarries have been identified on the site, or within the area likely to affect the site and it is concluded that the presence of unrecorded shafts or infilled quarries on site is unlikely.

4.1.4 Landfills and waste

Evidence has been sought to identify any landfilling, land reclamation or waste operations, past and present, which have taken place in the vicinity of the site.

The environmental database records only one site, at Barrow Lake, Whalley, approximately 600m north of the site where the record states "Deposited waste included inert waste". There are no other records of landfills or waste management activities within 1km of the site.

Because of the presence of boulder clay likely to be of low water and gas permeability underlying the site, it is considered extremely unlikely that the landfill identified presents any significant risk to the development site.

4.1.5 Ground gas

Given the likely presence of made ground of unknown properties across the central part of the site, the risk associated with ground gas is expected to be low to moderate, but this will require confirmation (from intrusive investigation and subsequent monitoring).

4.2 Hydrogeology

320130169P

4.2.1 Vulnerability of groundwater resources

The superficial deposits have been classified by the Environment Agency as unproductive strata:

- 'unproductive' strata: low permeability with negligible significance for water supply or river base flow.

The bedrock has been classified by the Environment Agency as a secondary "A" aquifer:

- secondary "A" aquifer: permeable layers capable of supporting water supplies at a local rather than strategic scale, and in some cases forming an important source of base flow to rivers.

The soils beneath the site are classified as having LOW (L) leaching potential.

- L – soils where pollutants are unlikely to penetrate the soil layer either as a result of largely horizontal water movement or because the soil has the ability to attenuate diffuse pollutants. Lateral flow in these soils may contribute to groundwater recharge elsewhere in the catchment and they generally have a high clay content.

4.2.2 Licensed groundwater abstractions

The closest recorded groundwater abstraction is located approximately 1km northeast of the site, licensed to Pendle View Fisheries for general use. Six other groundwater abstractions are recorded between 1.8km and 2km of the site, predominantly to the east and southeast, but one to the west.

Information available on the EA website indicates that the site does not lie within a currently designated groundwater Source Protection Zone (SPZ).

4.3 Hydrology

4.3.1 Surface watercourses

A small stream is mapped flowing southwestwards through the adjoining Industrial Park to the north and entering a culvert approximately 10m to the north of the northwestern corner of the filling station site. There is no evidence to suggest exactly where this stream crosses the road, but it must be at a point very close to the western site boundary. The stream resurfaces in the car park of The Eagle public house, close to the southwestern corner of the filling station site. The watercourse is a sensitive receptor close to the filling station site, and provides a pathway for contaminants to reach the River Calder approximately 1.5km downstream.

The EA does not classify the quality of the water in the brook.

The recorded discharge consent closest to the site relates to discharge of surface water at The Eagle, but was revoked in 1994. There are no other consents recorded within 750m of the site and none of those more distant consents recorded discharge to the watercourse which passes close to the site.

4.3.2 Surface water abstractions

Eleven records of surface water abstractions are identified by the environmental database within a 2km radius of the site, the closest being recorded as located approximately 350m southwest (downstream of) the site, drawing from the unnamed stream which passes close to the proposed development site. The licence, number 2671309037, is held by Clitheroe Golf Club and relates to impoundment of an unnamed stream. The recorded location appears to be an error, since it is 2km from Clitheroe Golf Club and no impoundment is mapped at the recorded location. A second licence, recorded with the same number, shows a different location, approximately 950m northwest of the site, on the edge of the golf course, at a location where a stream



appears to have been impounded. It is concluded that the abstraction recorded as located downstream of the site is almost certainly an error in the database.

None of the other nine records appear to relate to abstractions that draw from the watercourse which passes close to the site.

4.3.3 Site drainage

Based on the evidence shown by the walkover, with horsetail present, site drainage is poor. This is likely to be because of the high clay content of the underlying glacial till.

Two manhole covers were observed on site but details of the drainage system are at present not known. There could be drainage connections to the brook which crosses Clitheroe Road close to the site.

4.3.4 Preliminary flood risk assessment

The indicative floodplain map for the area, published by the EA, shows that the site does not lie within an area at risk of flooding either from rivers or from the reservoirs located 750m northeast of the site.

4.4 History of site and surrounding area

The history of the land-use and development of the site and surrounding area has been assessed based on the following sources:

- historical maps within the environmental database from 1848 to date
- internet search.

A selection of the historical Ordnance Survey plans, at a scale of 1:2,500, are reproduced as Figure 3 of this report. Copies of all the available OS and County Series maps are included in the environmental database report provided electronically in Appendix D. Reference to historical maps provides invaluable information regarding the land use history of the site, but historical evidence may be incomplete for the period pre-dating the first edition and between successive maps.

The development history of the site and surrounding area from the above sources is summarised in Table 3 below.

320130169P

Table 3: Summary of historical development

Date	Land use/features on site	Land use/features in vicinity of site
1848	Poorly reproduced map. Site comprises agricultural land bounded to south by a hedge.	The area within 500m of the site is almost completely agricultural, with a only few buildings to the west of the site marked as Lamb Roe. The stream just to the north of the site is marked "Water Trough", still shown in 1893 & 1894. The only obvious industrial use is Barrow Bridge print works, 700m to the north, with reservoirs and chimney, not likely to affect site.
1895	Site comprises agricultural land divided by a hedge on the line of the present hedge between the garage and the field, and bounded to the south by a hedge.	Area remains largely agricultural. Terrace of houses costructed long west side of Clitheroe Road, north of Lamb Roe. Brick and Tile works 750m to southwest, not likely to affect site.
1912	No change.	The stream just to the north of the site is no longer marked "Water Trough", but appears the same.
1932	Garage building now shown on site.	Spring marked in field at rear of Spread Eagle public house.
1955	No change.	Four small rectangular buildings shown in field to the north of the garage.
1968	No change.	Four small buildings no longer shown. Replaced by a large building, similar in extent to the present industrial park building marked as "Corn Mill" and a house "Ashlea". Smaller pond shown at south end of former water trough.
1978	No change	Electricity substation and a circular structure (chimney or tank?) shown in ground of corn mill. Pond no longer shown.
1989	No change	No significant change
1996	No change	Former corn mill now shown as "Whalley Industrial Park". Additional building and embankment constructed to east of previous building in former farmland. Nursery, including a large greenhouse, now present south of the site.
2006	No change	No significant change

4.5 Sensitive land uses

No national or internationally designated sensitive land uses such as sites of special scientific interest (SSSI) were identified in the vicinity of the site. A comprehensive evaluation of ecological receptors is outside the scope of this report.



5 INITIAL CONCEPTUAL MODEL

The information presented in the preceding Sections has been used to compile an initial conceptual model. The identified potential sources of contamination, associated contaminants and receptors have been considered with plausible pathways that may link them. The resulting potential pollutant linkages are considered in Section 5.1.5. The risk classification has been estimated in accordance with information in Appendix E.

5.1.1 Summary of potential contaminant sources

The industry profile which relates to filling stations⁽⁶⁾ suggests potential contaminants and their likely location.

Contaminants that may have significant potential to affect the site are likely to be present: in the forecourt area, from spillages; in the area of the underground storage tanks and pipes, from leakages; in and around the workshop area, from disposal of waste oils, solvents and antifreeze; and in the made ground at the rear of the buildings, from waste materials and disposal of liquid wastes. There is also potential for contaminants to have migrated onto site from the adjoining premises immediately to the north.

These potential sources and the contaminants of concern are summarised in Table 4.

Table 4: Potential contaminants and sources

320130169P

Contaminant of concern	Potential source locations of contaminant
C1 – Heavy metals	Forecourt area (lead) Workshops (lead, chromium, zinc, copper & vanadium) Made ground (unknown origin, possible ash/clinker, so wide range of metallic contaminants possible)
C2 – Fuels, lubricating oils - petroleum hydrocarbons (TPH), methyl tertiary butyl ether (MTBE), polycyclic aromatic hydrocarbons (PAH)	Tank farm (leakages) Forecourt area (spills and pipe leakages) Workshops (spills and leaks) Made ground (material possibly contaminated before import, or unauthorised disposal of waste oils from workshops) Migration onto site from off-site source (industrial park)
C3 – Volatile organic compounds (VOC)	Solvents used in workshops for cleaning parts (spills and leaks) Made ground (material possibly contaminated before import, or unauthorised disposal of waste solvents from workshops) Migration onto site from off site source (industrial park)

Contaminant of concern	Potential source locations of contaminant
C4 – Asbestos	Surface waste materials observed. Workshops (Likely to be present in the fabric of buildings as constructed before the 1980's. Formerly used in brakes and clutches) Made ground (material possibly contaminated before import, or unauthorised on-site disposal of waste car parts and waste building materials) Migration onto site from off-site buildings (Likely to be present in the fabric of buildings of adjoining industrial park)
C5 – Acids and sulphates	Made ground (material possibly contaminated before import) Workshops (Possible acid storage, unlikely to be significant)
C6 – Polychlorinated biphenyls	Off-site substation (Unlikely to be significant as distant from site) Made ground (material possibly contaminated before import)
C7 – Soil gases including methane and carbon dioxide	Made ground (organic material possibly present)

5.1.2 Sensitive receptors

Sensitive receptors at this site include:

R1 - future site occupants

R2 - adjacent site users (future residential development immediately to south)

R3 - proposed buildings and infrastructure

R4 - water supply pipes to proposed development

R5 - surface waters (brook just west of site, leading to River Calder, 1.5km downstream)

R6 - groundwater in bedrock (a secondary "A" aquifer).

Please note that construction workers have not been identified in the conceptual model as receptors because risks are considered to be managed through health and safety procedures according to CDM regulations.

5.1.3 Summary of plausible pathways

The plausible pathways are summarised below:

P1 - direct contact (soil, dust and vegetable ingestion, dermal contact and dust inhalation)

P2 - ground gas and vapour migration

P3 - vertical and lateral migration, including leaching



P4 – direct chemical attack on buildings, infrastructure and water supply pipes.

5.1.4 Data gaps and uncertainties

RSK has contacted the petroleum licensing authority in order to obtain copies of any records that they may hold relating to the site, but the information has yet to be released.

5.1.5 Potentially complete pollutant linkages

The outline conceptual model and an estimate of the risk associated with each linkage is presented as Table 5. The risk classification has been undertaken in accordance with CIRIA C552⁽⁶⁾, a summary of which is included in Appendix D.

320130169P

Table 5: Risk estimation for potentially complete pollutant linkages

Potential contaminant and sources	Potential receptor	Possible pathway	Likelihood	Severity	Risk and justification
C1 – Heavy metals. Forecourt area, workshops and made ground	R1 - future site occupants	P1 - direct contact (soil, dust and vegetable ingestion, dermal contact and dust inhalation)	Likely	Medium	Moderate – Contact with contaminated garden soil likely.
	R2 - adjacent site users (housing on Clitheroe Road)	P1 - direct contact (dust inhalation)	Unlikely	Medium	Low – During redevelopment dust generation will be controlled. Post development unlikely that residents will generate dust likely to be significant to off-site receptors.
	R5 - surface waters (brook just west of site)	P3 - leaching and lateral migration	Low likelihood	Mild	Low – Metals unlikely to be highly mobile in predominantly clay soils.
	R6 - groundwater in bedrock (a secondary "A" aquifer)	P3 - leaching and vertical migration	Unlikely	Medium	Low – Aquifer overlain by boulder clay, significant vertical migration unlikely.
	R1 - future site occupants	P1 - direct contact (soil, dust and vegetable ingestion, dermal contact and dust inhalation) P2 - vapour migration	Likely	Medium	Moderate – Contact with contaminated garden soil likely.
	R2 - adjacent site users (housing on Clitheroe Road)	P2 - vapour migration	Unlikely	Medium	Moderate – Vapour migration into houses directly over any contaminated areas is likely, unless a barrier is provided.
C2 – Fuels, oils (TPH, MTBE, PAH) Tank farm, forecourt area, workshops, made ground and migrating onto site	R4 - water supply pipes to proposed development	P4 - direct chemical attack on water supply pipes	Highly likely	Mild	Low – Lateral migration over significant distances in predominantly clay soil unlikely.
	R5 - surface waters (brook just west of site)	P3 - vertical and lateral migration, including leaching	Likely	Mild	Moderate – Pipes could be laid in direct contact with contaminants.
	R6 - groundwater in bedrock (a secondary "A" aquifer)	P3 - vertical and lateral migration, including leaching	Low likelihood	Medium	Moderate/Low – Exact location of culverted brook is unknown but may be very close to forecourt area.
	R1 - future site occupants	P2 - ground gas and vapour migration	Likely	Medium	Moderate/Low – Aquifer overlain by boulder clay, significant vertical migration unlikely.
	R2 - adjacent site users (housing on Clitheroe Road)	P2 - ground gas and vapour migration	Unlikely	Medium	Moderate – Vapour migration into houses directly over any contaminated areas is likely, unless a barrier is provided.
	R4 - water supply pipes to proposed development	P4 - direct chemical attack on buildings, infrastructure and water supply pipes	Highly likely	Medium	Low – Lateral migration over significant distances in predominantly clay soil unlikely.
C3 – Volatile organic compounds (VOC) Workshops, made ground and migrating onto site	R5 - surface waters (brook just west of site)	P3 - vertical and lateral migration, including leaching	Likely	Mild	Moderate – Pipes could be laid in direct contact with contaminants.
	R6 - groundwater in bedrock (a secondary "A" aquifer)	P3 - vertical and lateral migration, including leaching	Low likelihood	Medium	Moderate/Low – Exact location of culverted brook is unknown but may be very close to forecourt area.
	R1 - future site occupants	P1 - direct contact (dust inhalation)	Likely	Medium	Moderate/Low – Aquifer overlain by boulder clay, significant vertical migration unlikely.
	R2 - adjacent site users (housing on Clitheroe Road)	P2 - ground gas and vapour migration	Unlikely	Medium	Moderate – Vapour migration into houses directly over any contaminated areas is likely, unless a barrier is provided.
	R4 - water supply pipes to proposed development	P4 - direct chemical attack on buildings, infrastructure and water supply pipes	Highly likely	Medium	Low – Lateral migration over significant distances in predominantly clay soil unlikely.
	R5 - surface waters (brook just west of site)	P3 - vertical and lateral migration, including leaching	Likely	Mild	Moderate – Pipes could be laid in direct contact with contaminants.
C4 – Asbestos Surface waste, in building fabric, in made ground and migrating onto site	R6 - groundwater in bedrock (a secondary "A" aquifer)	P3 - vertical and lateral migration, including leaching	Low likelihood	Medium	Moderate/Low – Exact location of culverted brook is unknown but may be very close to forecourt area.
	R1 - future site occupants	P1 - direct contact (dust inhalation)	Likely	Medium	Moderate/Low – Aquifer overlain by boulder clay, significant vertical migration unlikely.
	R2 - adjacent site users (housing on Clitheroe Road)	P2 - ground gas and vapour migration	Unlikely	Medium	Moderate – The waste asbestos cement fragments observed on site were bonded material, with limited fibre release capacity. Any asbestos in the buildings will be removed under controlled conditions before demolition. Additional asbestos materials could be present in made ground.
	R4 - water supply pipes to proposed development	P4 - direct chemical attack on buildings, infrastructure and water supply pipes	Highly likely	Medium	Moderate/Low – During redevelopment dust generation will be controlled. Post development unlikely that residents will generate dust likely to be significant to off-site receptors.

Potential contaminant and sources	Potential receptor	Possible pathway	Likelihood	Severity	Risk and justification
C5 - Acids and sulphates Made ground	R1 - future site occupants	P1 - direct contact (soil, dust and vegetable ingestion, dermal contact and dust inhalation)	Low likelihood	Mild	Low - Concentrations unlikely to be significant for human health
	R3 - proposed buildings and infrastructure	P4 - direct chemical attack on buildings and infrastructure	Likely	Mild	Moderate/Low - Concentrations in made ground unknown but may be aggressive to concrete
	R4 - water supply pipes to proposed development	P4 - direct chemical attack on water supply pipes	Likely	Mild	Moderate/Low - Concentrations in made ground unknown but may be corrosive.
	R5 - surface waters (brook just west of site)	P3 - vertical and lateral migration, including leaching	Low likelihood	Mild	Low - Unlikely to be highly mobile in predominantly clay soils
	R6 - groundwater in bedrock (a secondary 'A' aquifer)	P3 - vertical and lateral migration, including leaching	Unlikely	Medium	Low - Aquifer overlain by boulder clay, significant vertical migration unlikely
	R1 - future site occupants	P1 - direct contact (soil, dust and vegetable ingestion, dermal contact and dust inhalation)	Low likelihood	Medium	Moderate/Low - Could be present in made ground.
C6 - Polychlorinated biphenyls Made ground and migrating onto site	R2 - adjacent site users (housing on Clitheroe Road)	P1 - direct contact (dust inhalation)	Unlikely	Medium	Low - During redevelopment dust generation will be controlled. Post development unlikely that residents will generate dust likely to be significant to off-site receptors.
	R4 - water supply pipes to proposed development	P4 - direct chemical attack on buildings, infrastructure and water supply pipes	Low likelihood	Mild	Low -
	R5 - surface waters (brook just west of site)	P3 - vertical and lateral migration, including leaching	Low likelihood	Mild	Low - Unlikely to be highly mobile in predominantly clay soils
	R6 - groundwater in bedrock (a secondary 'A' aquifer)	P3 - vertical and lateral migration, including leaching	Unlikely	Medium	Low - Aquifer overlain by boulder clay, significant vertical migration unlikely
	R1 - future site occupants	P2 - ground gas migration and inhalation	Low likelihood	Severe	Moderate - Made ground appears to have been present for a long period so significant gas generation unlikely.
	R2 - adjacent site users (housing on Clitheroe Road)	P2 - ground gas migration	Unlikely	Severe	Moderate/Low - Made ground appears to have been present for a long period so significant gas generation unlikely. Lateral migration over significant distances unlikely in predominantly clay soils.
C7 - Soil gases including methane and carbon dioxide Made ground	R3 - proposed buildings and infrastructure	P2 - ground gas migration and explosion	Low likelihood	Severe	Moderate - Made ground appears to have been present for a long period so significant gas generation unlikely.

320130169P

No potential pollutant linkages were assessed as having a high risk. The potential pollutant linkages assessed as having a moderate risk are:

- direct contact of future site residents with heavy metals and hydrocarbons (*Contact with contaminated garden soil likely*)
- inhalation of hydrocarbons and other volatile compounds by future residents (*Vapour migration into houses directly over any contaminated areas is likely, unless a barrier is provided*)
- inhalation of asbestos fibres by future site residents (*The waste asbestos observed on site was bonded material, with limited fibre release capacity. Any asbestos in the buildings will be removed under controlled conditions before demolition. Additional asbestos materials could be present in made ground*)
- ground gas migration into proposed houses and explosion or asphyxiation of residents (*Made ground appears to have been present for a long period so significant gas generation unlikely, but remains a concern as severe effects*)
- direct chemical attack on water supply pipes (*Pipes could be laid in direct contact with contaminants*).

Several other linkages, including risks to surface waters and groundwater, were assessed as having a moderate to low risk and it is recommended that a comprehensive intrusive investigation is completed to confirm these assessments.

4E2-00-053



6 CONCLUSIONS AND RECOMMENDATIONS

6.1 Conclusions

There is significant potential for contamination to be present on the site, as it was used as a filling station from the 1930's, what appears to be a large area of made ground is of unknown origin and other evidence of potential contamination was observed including: fragments of asbestos cement on the ground surface; evidence of waste materials visible within the made ground at the boundary between the garage area and the field; a small area of dark staining adjacent to the workshop; and several piles of waste building material.

The industrial park adjoining the northern site boundary houses several engineering and garage services companies which could be a source of contaminants, although in the predominantly clay soils expected to be present lateral migration of contaminants is likely to be small.

The risk assessment indicates a number of potential risks to human health, including moderate risks from heavy metals, hydrocarbons, asbestos and ground gas. There is also a risk of direct chemical attack on water supply pipes.

Risks to controlled waters have been assessed as generally low to moderate, based on the indication that low-permeability boulder clay restricts vertical migration to the underlying secondary aquifer and lateral migration towards the watercourse located close to the western site boundary.

6.2 Recommendations

It is recommended that an intrusive investigation should be conducted to confirm the superficial geology indicated by the published information and to investigate whether significant contamination is actually present.

The soil samples should be analysed for a suite of contaminants selected from heavy metals, pH, sulphates, TPH, PAH, VOC, PCB and screening for asbestos, as appropriate to the particular location on site.

Gas/groundwater monitoring wells should be installed to allow the assumptions made in the risk assessment to be confirmed.

320130169P

REFERENCES

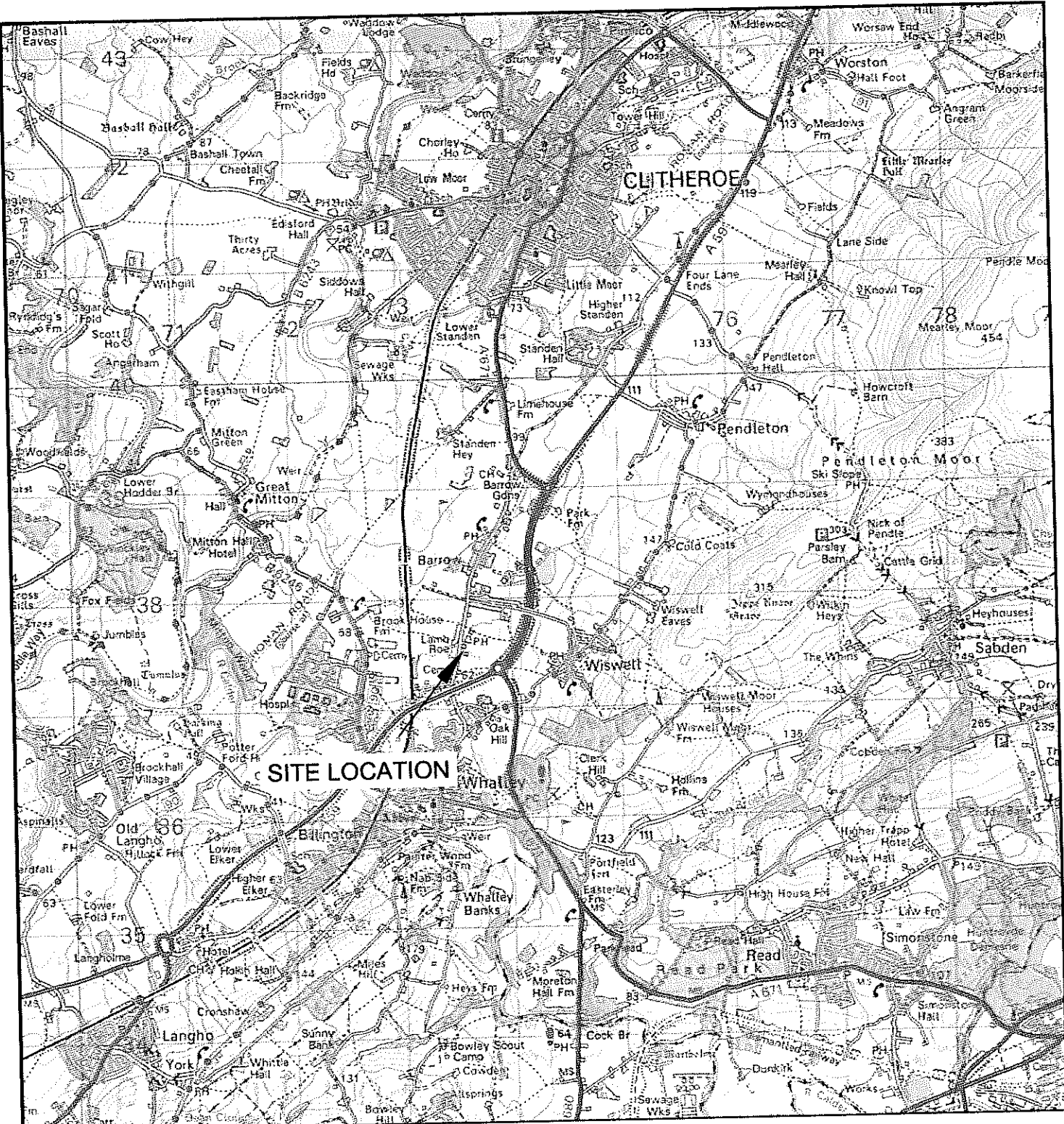
1. Ordnance Survey, Landranger Map 103, Blackburn, Burnley & surrounding area, scale 1:50,000, 1994.
2. Environment Agency interactive maps:
http://maps.environment-agency.gov.uk/wiyby/wiybyController?ep=maptopics&lang=_e.
3. Landmark Information Group, Envirocheck report 39941528_1_1, 28 June 2012.
4. British Geological Survey, The Pennines and adjacent areas, 4th edition, 2002.
5. Department of the Environment, Industry Profile, Road vehicle fuelling, service and repair – garages and filling stations, 1996.
6. Rudland et al., CIRIA C552: Contaminated Land Risk Assessment: A Guide to Good Practice, 2001.
7. Environment Agency. Model Procedures for the Management of Contaminated Land, Contaminated Land Report Number 11, (CLR11), September 2004.

988108105

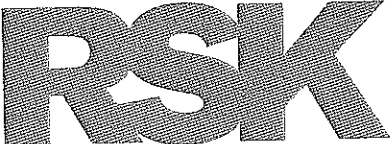


FIGURES

320130169P



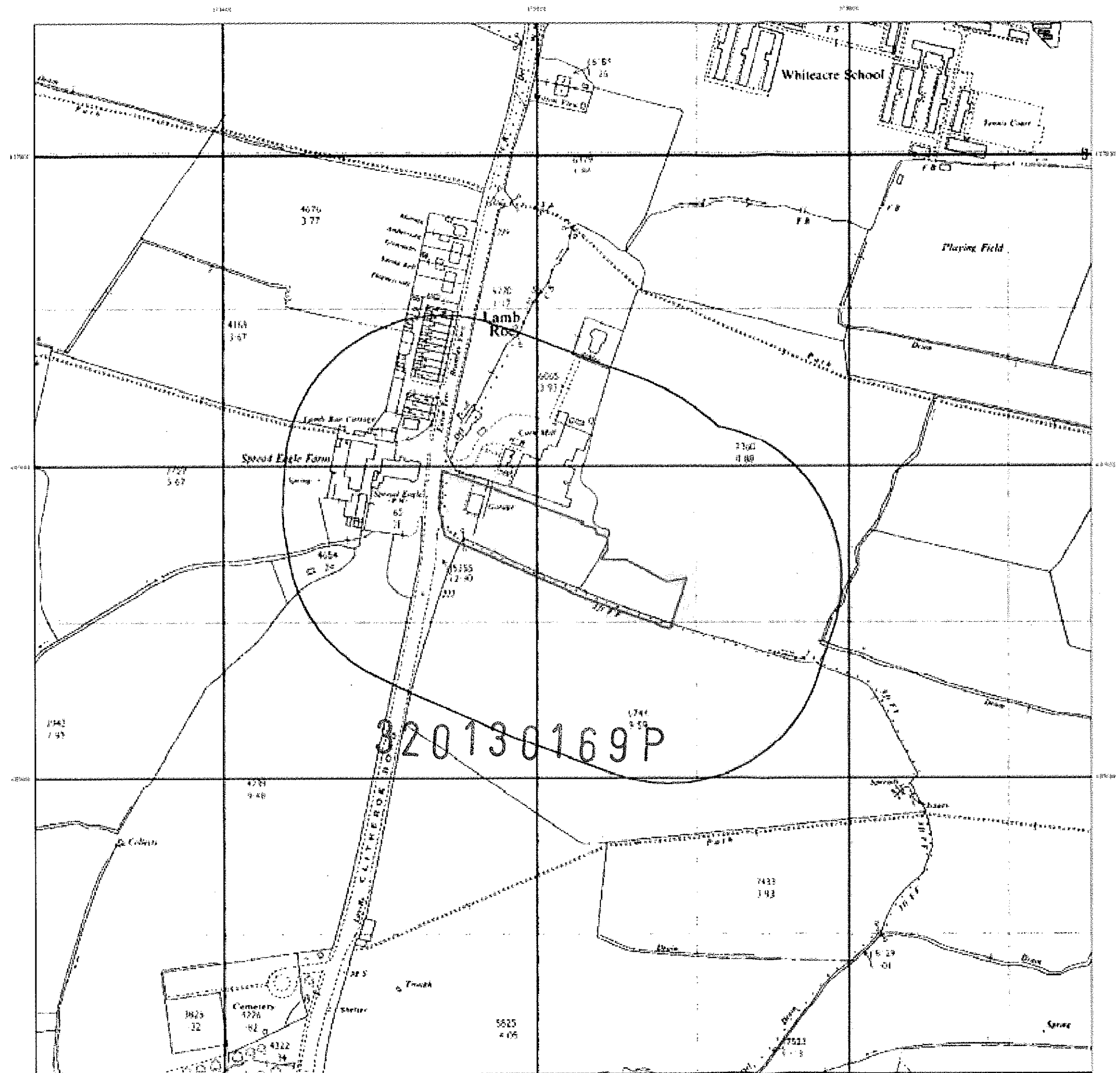
Ordnance Survey © Crown copyright 2010 of the Ordnance Survey paper map.
All rights reserved. Licence number 100014807

 Spring Lodge 172 Chester Road Helsby Cheshire WA6 0AR Tel: +44 1928 726006 Fax: +44 1928 725633 Web: www.rsk.co.uk				Client BOWSALL LIMITED			
				Project Title PENDLE GARAGE, CLITHEROE ROAD, BARROW			
				Drawing Title SITE LOCATION PLAN			
Drawn HD	Date 29.06.12	Checked P.T.	Date 29.06.12	Approved S.P.	Date 29.06.12	Project No. 321139	Drawing File 321139-R1(00)D001A
Scale NTS	Orig Size A4		Dimensions —		Drawing No. FIGURE 1		Rev. A

906106-050

APPENDIX A SERVICE CON

1. This report and the preliminary risk and carried out by RSK Environmer between RSK and the "client", data exercised by a reasonable environ Services were performed by RSK tal and the resources, including financia
2. Other than that expressly contained implied, in relation to the Services.
3. Unless otherwise agreed the Service interest of or reliance by any party o authorise, consent or condone any pr or otherwise details of the Services or party does so wholly at its own and advised to seek independent advice f
4. It is RSK's understanding that this rep a significant factor in determining the proposed use of the site change, thi circumstances by the client without R review the report after the date hereof agreed between RSK and the client.
5. The passage of time may result in conditions which could render the rep not be relied upon in the future witho report in the future shall be at the clier be entitled to additional payment at the
6. The observations and conclusions des agreement between the client and RSI set out or required by the contract bet which would require performance of se expressly referred to in the introductic electromagnetic fields, lead paint, heav
7. The Services are based upon RSK's c site together with RSK's interpretation history and usage of the site. The Se information services or laboratories u accuracy of the information, including c survey. Further RSK was not authorise documentation or materials received i performance of the Services. RSK is n required the doing of any act including the doing of any independent investig contract between the client and RSK.
8. The phase II or intrusive environmental borehole and soil vapour locations base on information gathered at the specific locations. The extent of the limited are structures and underground facilities a limited number of parameters [as stip available operational and historical infor
9. Any site drawing(s) provided in this rep relative locations of features on, and sur



APPENDIX B

SUMMARY OF LEGISLATION AND POLICY RELATING TO CONTAMINATED LAND

Part IIA of the Environmental Protection Act 1990 (EPA) and its associated Contaminated Land Regulations 2000 (SI 2000/227), which came into force in England on 1 April 2000, formed the basis for the current regulatory framework and the statutory regime for the identification and remediation of contaminated land. Part IIA of the EPA 1990 defines contaminated land 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 significant harm is being caused, or that there is significant possibility of significant harm being caused, or that pollution of controlled waters is being or is likely to be caused'. Controlled waters are considered all groundwater, inland waters and estuaries.

In August 2006, the Contaminated Land (England) Regulations 2006 (SI 2006/1380) were implemented, which extended the statutory regime to include Part IIA of the EPA as originally introduced on 1 April 2000, together with changes intended chiefly to address land that is contaminated by virtue of radioactivity. These have been replaced subsequently by the Contaminated Land (England) (Amendment) Regulations 2012, which now exclude land that is contaminated by virtue of radioactivity.

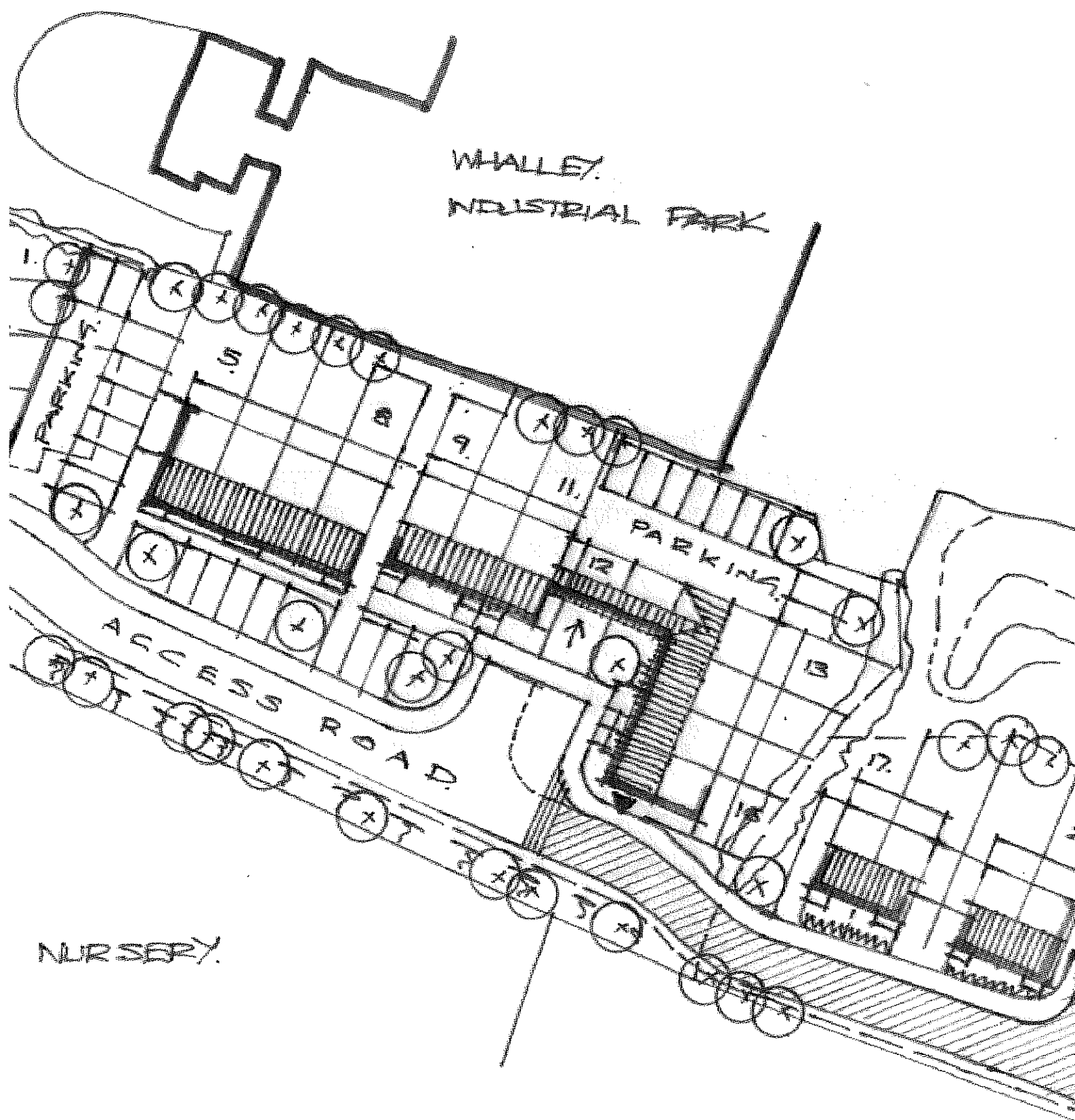
The intention of Part IIA of the EPA is to deal with contaminated land issues that are considered to cause significant harm on land that is not undergoing development (see Environmental Protection Act 1990: Part 2A Contaminated Land Statutory Guidance, April 2012). This document replaces Annex III of Defra Circular 01/2006, published in September 2006 (the remainder of this document is now obsolete).

Water Framework Directive (WFD)

The Water Framework Directive 2000/60/EC is designed to:

- enhance the status and prevent further deterioration of aquatic ecosystems and associated wetlands that depend on the aquatic ecosystems
- promote the sustainable use of water
- reduce pollution of water, especially by 'priority' and 'priority hazardous' substances
- ensure progressive reduction of groundwater pollution.

The WFD requires a management plan for each river basin be developed every six years.





Groundwater Directive (GWD)

The 1980 Groundwater Directive 80/68/EEC and the 2006 Groundwater Daughter Directive 2006/118/EC of the WFD are the main European legislation in place to protect groundwater. The 1980 Directive is due to be repealed in December 2013. The European legislation has been transposed into national legislation by regulations and directions to the Environment Agency.

Environmental Permitting Regulations (EPR)

The Environmental Permitting (England and Wales) Regulations 2010 provide a single regulatory framework that streamlines and integrates waste management licensing, pollution prevention and control, water discharge consenting, groundwater authorisations, and radioactive substances regulation. Schedule 22, paragraph 6 of EPR 2010 states: 'the regulator must, in exercising its relevant functions, take all necessary measures - (a) to prevent the input of any hazardous substance to groundwater; and (b) to limit the input of non-hazardous pollutants to groundwater so as to ensure that such inputs do not cause pollution of groundwater.'

Water Resources Act (WRA)

The Water Resources Act 1991 (Amendment) (England and Wales) Regulations 2009 updated the Water Resources Act 1991, which introduced the offence of causing or knowingly permitting pollution of controlled waters. The Act provides the Environment Agency with powers to implement remediation necessary to protect controlled waters and recover all reasonable costs of doing so.

Priority Substances Directive (PSD)

The Priority Substances Directive 2008/105/EC is a 'Daughter' Directive of the WFD, which sets out a priority list of substances posing a threat to or via the aquatic environment. The PSD establishes environmental quality standards for priority substances, which have been set at concentrations that are safe for the aquatic environment and for human health. In addition, there is a further aim of reducing (or eliminating) pollution of surface water (rivers, lakes, estuaries and coastal waters) by pollutants on the list. The WFD requires that countries establish a list of dangerous substances that are being discharged and EQS for them. In England and Wales, this list is provided in the River Basin Districts Typology, Standards and Groundwater threshold values (Water Framework Directive) (England and Wales) Directions 2010. In order to achieve the objectives of the WFD, classification schemes are used to describe where the water environment is of good quality and where it may require improvement.

Contaminated land is often dealt with through planning because of land redevelopment. This approach is documented in Planning Policy Statement: Planning and Pollution Control PPS23, which states that it remains the responsibility of the landowner and developer to identify land affected by contamination and carry out sufficient remediation to render the land suitable for use. The overall aim of the planning and pollution control policy is to promote the sustainable and beneficial use of land (in particular, encouraging reuse of previously developed land in preference

to greenfield sites). Within this aim, polluting activities that are necessary for society and the economy should be so sited and planned, and subject to such planning conditions, that their adverse effects are minimised and contained to within acceptable limits.

APPENDIX C SITE PHOTOGRAPHS

PHOTOGRAPHIC LOG	
Photo no. 1	Date: 26/6/12
Direction photo taken: Northeast	
Description: Garage forecourt and garage building (white) viewed from Clitheroe Road. Grey building in distance is Whalley Industrial Park.	
	

Photo No. 2	Date: 26/6/12
Direction photo taken: North	
Description: N edge of forecourt & entrance to Whalley Industrial Park. Houses in Clitheroe Road. Small watercourse hidden in trees behind sign (assumed to cross road).	
	

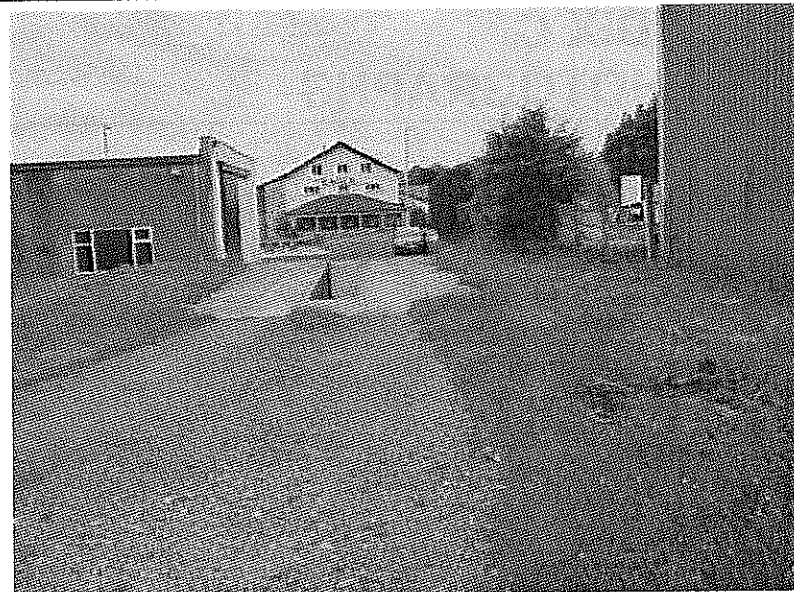
Photo No. 3	Date: 26/6/12	
Direction Photo Taken: West		
Description: Rear of garage buildings at left. Step in site level visible centre. The Eagle PH in distance. Buildings of Whalley Industrial Park right. Manhole (possible service run parallel to site boundary?)		

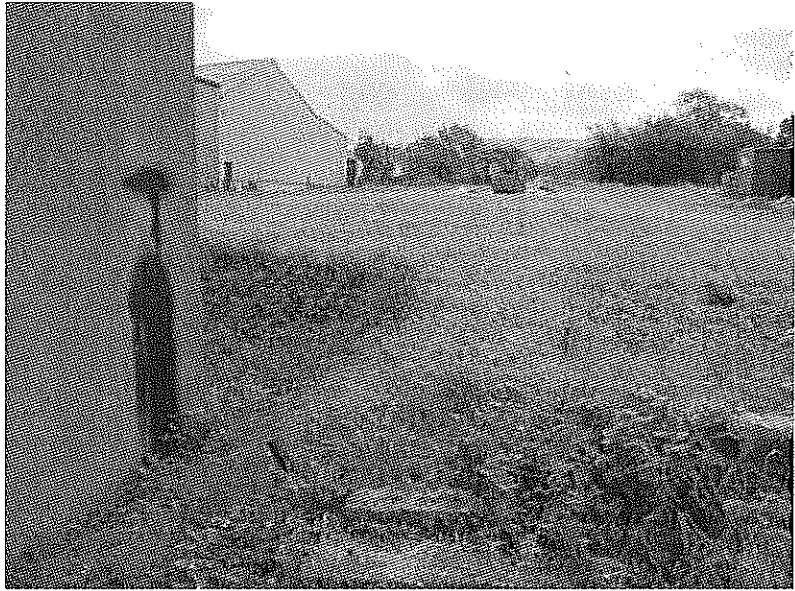
Photo No. 4	Date: 26/6/12	
Direction Photo Taken: West		
Description: Telehandler, cabin and waste skip. Waste materials dumped on site. Large trees on southern boundary and adjacent to garage building.		

Photo No. 5	Date: 26/6/12	
Direction Photo Taken: East		
Description: Overgrown field to east of garage site, within proposed development site. Level of field approx. 1m below level of garage site.		

Photo No. 6	Date: 26/6/12	
Direction Photo Taken: West		
Description: Waste visible on the bank between the garage site and the field indicate that the fill used to raise the garage site may contain waste materials.		

320130169P

Photo No. 7	Date: 26/6/12	
Direction Photo Taken: South		
Description: Horsetail (equisetum) growing in damp area close to southern site boundary.		

Photo No. 8	Date: 26/6/12	
Direction Photo Taken: East		
Description: Dark staining around and below a small pipe discharging through the wall of the rear garage building.		



320130169P

APPENDIX D

RISK ASSESSMENT METHODOLOGY

CLR11 outlines the framework to be followed for risk assessment in the UK. The framework is designed to be consistent with UK legislation and policies including planning. Under CLR11, three stages of risk assessment exist: preliminary, generic quantitative and detailed quantitative. An outline conceptual model should be formed at the preliminary risk assessment stage that collates all the existing information pertaining to a site in text, tabular or diagrammatic form. The outline conceptual model identifies potentially complete (termed possible) pollutant linkages (source–pathway–receptor) and is used as the basis for the design of the site investigation. The outline conceptual model is updated as further information becomes available, for example as a result of the site investigation.

Production of a conceptual model requires an assessment of risk to be made. Risk is a combination of the likelihood of an event occurring and the magnitude of its consequences. Therefore, both the likelihood and the consequences of an event must be taken into account when assessing risk. RSK has adopted guidance provided in CIRIA C552 for use in the production of conceptual models.

The likelihood of an event can be classified on a four-point system using the following terms and definitions based on CIRIA C552:

- highly likely: the event appears very likely in the short term and almost inevitable over the long term or there is evidence at the receptor of harm or pollution
- likely: it is probable that an event will occur or circumstances are such that the event is not inevitable, but possible in the short term and likely over the long term
- low likelihood: circumstances are possible under which an event could occur, but it is not certain even in the long term that an event would occur and it is less likely in the short term
- unlikely: circumstances are such that it is improbable the event would occur even in the long term.

The severity can be classified using a similar system also based on CIRIA C552. The terms and definitions relating to severity are:

- severe: short term (acute) risk to human health likely to result in 'significant harm' as defined by the Environment Protection Act 1990, Part IIA. Short-term risk of pollution of sensitive water resources. Catastrophic damage to buildings or property. Short-term risk to an ecosystem or organism forming part of that ecosystem (note definition of ecosystem in 'Draft Circular on Contaminated Land', DETR 2000)
- medium: chronic damage to human health ('significant harm' as defined in 'Draft Circular on Contaminated Land', DETR 2000), pollution of sensitive water resources, significant change in an ecosystem or organism forming part of that ecosystem (note definition of ecosystem in 'Draft Circular on Contaminated Land', DETR 2000)

- mild: pollution of non-sensitive water resources. Significant damage to crops, buildings, structures and services ('significant harm' as defined in 'Draft Circular on Contaminated Land', DETR 2000). Damage to sensitive buildings, structures or the environment
- minor: harm, not necessarily significant, but that could result in financial loss or expenditure to resolve. Non-permanent human health effects easily prevented by use of personal protective clothing. Easily repairable damage to buildings, structures and services.

Once the likelihood of an event occurring and its severity have been classified, a risk category can be assigned the table below.

		Consequences			
		Severe	Medium	Mild	Minor
Probability	Highly likely	Very high	High	Moderate	Moderate/low
	Likely	High	Moderate	Moderate/low	Low
	Low likelihood	Moderate	Moderate/low	Low	Very low
	Unlikely	Moderate/low	Low	Very low	Very low

Definitions of these risk categories are as follows together with an assessment of the further work that may be required:

- Very high: there is a high probability that severe harm could occur or there is evidence that severe harm is currently happening. This risk, if realised, could result in substantial liability; urgent investigation and remediation are likely to be required.
- High: harm is likely to occur. Realisation of the risk is likely to present a substantial liability. Urgent investigation is required. Remedial works may be necessary in the short term and are likely over the long term.
- Moderate: it is possible that harm could arise, but it is unlikely that the harm would be severe and it is more likely that the harm would be relatively mild. Investigation is normally required to clarify the risk and determine the liability. Some remedial works may be required in the longer term.
- Low: it is possible that harm could occur, but it is likely that if realised this harm would at worst normally be mild.
- Very low: there is a low possibility that harm could occur and if realised the harm is unlikely to be severe.



APPENDIX E ENVIROCHECK ENVIRONMENTAL DATABASE REPORT

320130169P



Envirocheck[®] Report:

Datasheet

Order Details:

Order Number:
39941528_1_1

Customer Reference:
321139

National Grid Reference:
373610, 437550

Slice:
A

Site Area (Ha):
0.62

Search Buffer (m):
1000

Site Details:
Site at 373600, 437600

Client Details:

P Taunton
RSK Environment Ltd





Contents

Report Section	Page Number
Summary	-
Agency & Hydrological	1
Waste	13
Hazardous Substances	-
Geological	14
Industrial Land Use	19
Sensitive Land Use	-
Data Currency	23
Data Suppliers	27
Useful Contacts	28

320130169P

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 and the Scottish Environment Protection Agency; it also incorporates data from Natural England (and the Scottish and Welsh equivalents) and Local Authorities; and highlights hydrogeological features required by environmental and geotechnical consultants. It does not include any information concerning past uses of land. The datasheet is produced by querying the Landmark database to a distance defined by the client from a site boundary provided by the client.

In the attached datasheet the National Grid References (NGRs) are rounded to the nearest 10m in accordance with Landmark's agreements with a number of Data Suppliers.

Copyright Notice

© Landmark Information Group Limited 2012. The Copyright on the information and data and its format as contained in this Envirocheck® Report ("Report") is the property of Landmark Information Group Limited ("Landmark") and several other Data Providers, including (but not limited to) Ordnance Survey, British Geological Survey, the Environment Agency and Natural England, and must not be reproduced in whole or in part by photocopying or any other method. The Report is supplied under Landmark's Terms and Conditions accepted by the Customer. A copy of Landmark's Terms and Conditions can be found with the Index Map for this report. Additional copies of the Report may be obtained from Landmark, subject to Landmark's charges in force from time to time. The Copyright, design rights and any other intellectual rights shall remain the exclusive property of Landmark and /or other Data providers, whose Copyright material has been included in this Report.

Natural England Copyright Notice

Site of Special Scientific Interest, National Nature Reserve, Ramsar, Special Protection Area, Special Conservation Area, Marine Nature Reserve data (derived from Ordnance Survey 1:10000 raster) is provided by, and used with the permission of, Natural England who retain the copyright and Intellectual Property Rights for the data.

Ove Arup Copyright Notice

The Data provided in this report was obtained on Licence from Ove Arup & Partners Limited (for further information, contact mining.review@arup.com). No reproduction or further use of such Data is to be made without the prior written consent of Ove Arup & Partners Limited. The information and data supplied in the product are derived from publicly available records and other third party sources and neither Ove Arup & Partners nor Landmark warrant the accuracy or completeness of such information or data.

Peter Brett Associates Copyright Notice

The cavity data presented has been extracted from the PBA enhanced version of the original DEFRA national cavity databases. PBA/DEFRA retain the copyright & intellectual property rights in the data. Whilst all reasonable efforts are made to check that the information contained in the cavity databases is accurate we do not warrant that the data is complete or error free. The information is based upon our own researches and those collated from a number of external sources and is continually being augmented and updated by PBA. In no event shall PBA/DEFRA or Landmark be liable for any loss or damage including, without limitation, indirect or consequential loss or damage arising from the use of this data.

Radon Potential dataset Copyright Notice

Information supplied from a joint dataset compiled by The British Geological Survey and the Health Protection Agency.

Report Version v47.0



Summary

Data Type	Page Number	On Site	0 to 250m	251 to 500m	501 to 1000m (*up to 2000m)
Agency & Hydrological					
Contaminated Land Register Entries and Notices					
Discharge Consents	pg 1		1		13
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 4		Yes		
Pollution Incidents to Controlled Waters	pg 4		3	2	11
Prosecutions Relating to Authorised Processes					
Prosecutions Relating to Controlled Waters					
Registered Radioactive Substances					
River Quality					
River Quality Biology Sampling Points					
River Quality Chemistry Sampling Points					
Substantiated Pollution Incident Register					
Water Abstractions	pg 7			1	6 (*11)
Water Industry Act Referrals					
Groundwater Vulnerability	pg 11	Yes	n/a	n/a	n/a
Bedrock Aquifer Designations	pg 11	Yes	n/a	n/a	n/a
Superficial Aquifer Designations	pg 11	Yes	n/a	n/a	n/a
Source Protection Zones					
Extreme Flooding from Rivers or Sea without Defences				n/a	n/a
Flooding from Rivers or Sea without Defences				n/a	n/a
Areas Benefiting from Flood Defences				n/a	n/a
Flood Water Storage Areas				n/a	n/a
Flood Defences				n/a	n/a
Waste					
BGS Recorded Landfill Sites					
Historical Landfill Sites	pg 13				1
Integrated Pollution Control Registered Waste Sites					
Licensed Waste Management Facilities (Landfill Boundaries)					
Licensed Waste Management Facilities (Locations)					
Local Authority Recorded Landfill Sites					
Registered Landfill Sites					
Registered Waste Transfer Sites					
Registered Waste Treatment or Disposal Sites					



Summary

Data Type	Page Number	On Site	0 to 250m	251 to 500m	501 to 1000m (*up to 2000m)
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 14	Yes	n/a	n/a	n/a
BGS Estimated Soil Chemistry	pg 14	Yes		Yes	Yes
BGS Recorded Mineral Sites	pg 17				1
BGS Urban Soil Chemistry					
BGS Urban Soil Chemistry Averages					
Brine Compensation Area			n/a	n/a	n/a
Coal Mining Affected Areas			n/a	n/a	n/a
Mining Instability			n/a	n/a	n/a
Man-Made Mining Cavities					
Natural Cavities					
Non Coal Mining Areas of Great Britain	pg 18	Yes		n/a	n/a
Potential for Collapsible Ground Stability Hazards	pg 18	Yes		n/a	n/a
Potential for Compressible Ground Stability Hazards				n/a	n/a
Potential for Ground Dissolution Stability Hazards	pg 18		Yes	n/a	n/a
Potential for Landslide Ground Stability Hazards	pg 18	Yes		n/a	n/a
Potential for Running Sand Ground Stability Hazards	pg 18	Yes		n/a	n/a
Potential for Shrinking or Swelling Clay Ground Stability Hazards	pg 18	Yes		n/a	n/a
Radon Potential - Radon Affected Areas	pg 18	Yes	n/a	n/a	n/a
Radon Potential - Radon Protection Measures			n/a	n/a	n/a
Industrial Land Use					
Contemporary Trade Directory Entries	pg 19		21	1	11
Fuel Station Entries	pg 22	1			1

320130169P



Summary

Data Type	Page Number	On Site	0 to 250m	251 to 500m	501 to 1000m (*up to 2000m)
Sensitive Land Use					
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					
Ramsar Sites					
Sites of Special Scientific Interest					
Special Areas of Conservation					
Special Protection Areas					

908103.082



Agency & Hydrological

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
1	Discharge Consents Operator: Whitbread Bowland Inns Property Type: Public Houses & Bars Location: Whitbread Bowland Inns, Nr Whalley, Lancashire Authority: Environment Agency, North West Region Catchment Area: Not Given Reference: 01719190201 Permit Version: 1 Effective Date: 8th September 1986 Issued Date: Not Supplied Revocation Date: 1st November 1994 Discharge Type: Discharge Of Other Matter-Surface Water Discharge: Freshwater Stream/River Environment: Receiving Water: Trib For Drainage Area 72 Status: Authorisation revokedRevoked Positional Accuracy: Located by supplier to within 100m	A13SW (W)	70	1	373500 437500
2	Discharge Consents Operator: United Utilities Water Plc Property Type: Sewage Disposal Works - Water Company Location: Barrow Stw, Barrow, Lancashire Authority: Environment Agency, North West Region Catchment Area: Not Given Reference: 017160031 Permit Version: 1 Effective Date: 19th October 1979 Issued Date: Not Supplied Revocation Date: 30th January 1985 Discharge Type: Sewage Discharges - Final/Treated Effluent - Water Company Discharge: Freshwater Stream/River Environment: Receiving Water: Barrow Brook Status: Authorisation revokedRevoked Positional Accuracy: Located by supplier to within 100m	A18NW (N)	750	1	373385 438330
2	Discharge Consents Operator: North West Water Limited Property Type: Not Given Location: Barrow Et Works Humu Authority: Environment Agency, North West Region Catchment Area: Ribble (Ex Calder) Reference: 17160031 Permit Version: Not Supplied Effective Date: Not Supplied Issued Date: 1st April 1991 Revocation Date: Not Supplied Discharge Type: Sewage Effluent Discharge-Storm Effluent Discharge: Coastal Environment: Receiving Water: Barrow Brook Status: Not Supplied Positional Accuracy: Located by supplier to within 100m	A18NW (N)	751	1	373380 438330
2	Discharge Consents Operator: United Utilities Water Plc Property Type: Sewage Disposal Works - Water Company Location: Barrow Stw, Barrow, Lancashire Authority: Environment Agency, North West Region Catchment Area: Ribble (Ex Calder) Reference: 017160031 Permit Version: 2 Effective Date: 31st January 1985 Issued Date: 31st January 1985 Revocation Date: 13th July 2006 Discharge Type: Sewage Discharges - Final/Treated Effluent - Water Company Discharge: Freshwater Stream/River Environment: Receiving Water: Barrow Brook Status: Authorisation revokedRevoked Positional Accuracy: Located by supplier to within 10m	A18NW (N)	751	1	373380 438330

320130169P



Agency & Hydrological

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
2	Discharge Consents Operator: United Utilities Water Plc Property Type: Sewage Disposal Works - Water Company Location: Barrow Stw, Barrow, Lancashire Authority: Environment Agency, North West Region Catchment Area: Not Given Reference: 017160031 Permit Version: 1 Effective Date: 19th October 1979 Issued Date: Not Supplied Revocation Date: 30th January 1985 Discharge Type: Sewage Discharges - Stw Storm Overflow/Storm Tank - Water Company Discharge: Freshwater Stream/River Environment: Receiving Water: Barrow Brook Status: Authorisation revokedRevoked Positional Accuracy: Located by supplier to within 10m	A18NW (N)	751	1	373380 438330
2	Discharge Consents Operator: United Utilities Water Plc Property Type: Sewage Disposal Works - Water Company Location: Barrow Stw, Barrow, Lancashire Authority: Environment Agency, North West Region Catchment Area: Not Given Reference: 017160031 Permit Version: 2 Effective Date: 31st January 1985 Issued Date: 31st January 1985 Revocation Date: 13th July 2006 Discharge Type: Sewage Discharges - Stw Storm Overflow/Storm Tank - Water Company Discharge: Freshwater Stream/River Environment: Receiving Water: Barrow Brook Status: Authorisation revokedRevoked Positional Accuracy: Located by supplier to within 100m	A18NW (N)	754	1	373385 438335
3	Discharge Consents Operator: Derek Hamilton Clegg Property Type: Sewage Disposal Works - Other Location: Brook House Farm, Milton Road, Whalley, Lancashire, Bb7 4jh Authority: Environment Agency, North West Region Catchment Area: Ribble Reference: 017190784 Permit Version: 1 Effective Date: 1st December 2003 Issued Date: 24th October 2003 Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Final/Treated Effluent - Not Water Company Discharge: Freshwater Stream/River Environment: Receiving Water: Barrow Brook Status: New Consent (Water Resources Act 1991, Section 88 & Schedule 10 as amended by Environment Act 1995) Positional Accuracy: Located by supplier to within 10m	A17SW (NW)	861	1	372780 438000
3	Discharge Consents Operator: Linda Ann Clegg Property Type: Sewage Disposal Works - Other Location: Brook House Farm, Milton Road, Whalley, Lancashire, Bb7 4jh Authority: Environment Agency, North West Region Catchment Area: Ribble Reference: 017190784 Permit Version: 1 Effective Date: 1st December 2003 Issued Date: 24th October 2003 Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Final/Treated Effluent - Not Water Company Discharge: Freshwater Stream/River Environment: Receiving Water: Barrow Brook Status: New Consent (Water Resources Act 1991, Section 88 & Schedule 10 as amended by Environment Act 1995) Positional Accuracy: Located by supplier to within 10m	A17SW (NW)	861	1	372780 438000



Agency & Hydrological

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
4	Discharge Consents Operator: Howard Rayner & Associates Ltd Property Type: Fish Farm Location: Whalley Trout Fishery A59 By Pass, Barrow, Blackburn, Lancashire Authority: Environment Agency, North West Region Catchment Area: Not Given Reference: 017190396 Permit Version: 1 Effective Date: 10th June 1991 Issued Date: Not Supplied Revocation Date: 31st March 1993 Discharge Type: Trade Discharge - Process Water Discharge: Freshwater Stream/River Environment: Receiving Water: Barrow Brook Status: Authorisation revokedRevoked Positional Accuracy: Located by supplier to within 100m	A19SE (NE)	904	1	374300 438200
4	Discharge Consents Operator: Howard Rayner & Associates Ltd Property Type: Fish Farm Location: Whalley Trout Fishery A59 By Pass, Barrow, Blackburn, Lancashire Authority: Environment Agency, North West Region Catchment Area: Not Given Reference: 017190396 Permit Version: 2 Effective Date: 1st April 1993 Issued Date: Not Supplied Revocation Date: 3rd August 1993 Discharge Type: Trade Discharge - Process Water Discharge: Freshwater Stream/River Environment: Receiving Water: Barrow Brook Status: Authorisation revokedRevoked Positional Accuracy: Located by supplier to within 100m	A19SE (NE)	904	1	374300 438200
5	Discharge Consents Operator: United Utilities Water Plc Property Type: Sewage Disposal Works - Water Company Location: Kingsmill Stw, Nr Whalley, Lancashire Authority: Environment Agency, North West Region Catchment Area: Not Given Reference: 017180349 Permit Version: 2 Effective Date: 25th April 1990 Issued Date: Not Supplied Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Final/Treated Effluent - Water Company Discharge: Freshwater Stream/River Environment: Receiving Water: Trib River Calder Status: Post National Rivers Authority Legislation where issue date > 31/08/1989 Positional Accuracy: Located by supplier to within 100m	A12NW (W)	905	1	372650 437760
5	Discharge Consents Operator: United Utilities Water Plc Property Type: Sewage Disposal Works - Water Company Location: Kingsmill Stw, Nr Whalley, Lancashire Authority: Environment Agency, North West Region Catchment Area: Not Supplied Reference: 017180349 Permit Version: 1 Effective Date: 12th September 1989 Issued Date: Not Supplied Revocation Date: 24th April 1990 Discharge Type: Sewage Discharges - Final/Treated Effluent - Water Company Discharge: Freshwater Stream/River Environment: Receiving Water: Trib River Calder Status: Authorisation revokedRevoked Positional Accuracy: Located by supplier to within 10m	A12NW (W)	905	1	372650 437760

320130169P



Agency & Hydrological

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
6	Discharge Consents Operator: United Utilities Water Plc Property Type: Sewerage Network - Pumping Station - Water Company Location: Ps Off Cunliffe Lane, Wiswall, Ribble Valley, Lancashire Authority: Environment Agency, North West Region Catchment Area: Calder (Ribble) Reference: 01rib0014 Permit Version: 2 Effective Date: 14th April 2009 Issued Date: 14th April 2009 Revocation Date: Not Supplied Discharge Type: Public Sewage: Storm Sewage Overflow Discharge: Freshwater Stream/River Environment: Receiving Water: Roadside Dyke Status: Varied under EPR 2010 Positional Accuracy: Located by supplier to within 10m	A14NE (E)	906	1	374590 437670
6	Discharge Consents Operator: United Utilities Water Plc Property Type: Sewerage Network - Pumping Station - Water Company Location: Ps Off Cunliffe Lane, Wiswall, Ribble Valley, Lancashire Authority: Environment Agency, North West Region Catchment Area: Calder (Ribble) Reference: 01RIB0014 Permit Version: 1 Effective Date: 1st January 1995 Issued Date: Not Supplied Revocation Date: 13th April 2009 Discharge Type: Storm /emergency overflow Discharge: Freshwater Stream/River Environment: Receiving Water: Roadside Dyke Status: Post National Rivers Authority Legislation where issue date > 31/08/1989 Positional Accuracy: Located by supplier to within 100m	A14NE (E)	906	1	374590 437670
	Nearest Surface Water Feature	A13NW (NW)	12	-	373546 437607
7	Pollution Incidents to Controlled Waters Property Type: Pollution Found Source Not Determined Location: Location Description Not Available Authority: Environment Agency, North West Region Pollutant: Miscellaneous - Unknown Note: Tributary River Calder Incident Date: 15th July 1993 Incident Reference: 93330217 Catchment Area: Calder - Lancs Receiving Water: Not Given Cause of Incident: Unknown Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A13NW (NW)	40	1	373500 437595
7	Pollution Incidents to Controlled Waters Property Type: Not Given Location: Location Description Not Available Authority: Environment Agency, North West Region Pollutant: Oils - Other Oil Note: Tributary Calder; Oil/Silt Incident Date: 12th June 1993 Incident Reference: 93330178 Catchment Area: Calder - Lancs Receiving Water: Not Given Cause of Incident: Unknown Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A13NW (NW)	40	1	373500 437600
8	Pollution Incidents to Controlled Waters Property Type: Spillage; Accident - Static Site Location: Location Description Not Available Authority: Environment Agency, North West Region Pollutant: Filter Backwash Water Note: Tributary Calder Incident Date: 14th June 1993 Incident Reference: 93330180 Catchment Area: Calder - Lancs Receiving Water: Not Given Cause of Incident: Unknown Incident Severity: Category 2 - Significant Incident Positional Accuracy: Located by supplier to within 100m	A13NW (W)	140	1	373400 437600



Agency & Hydrological

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
9	Pollution Incidents to Controlled Waters Property Type: Not Given Location: Location Description Not Available Authority: Environment Agency, North West Region Pollutant: Miscellaneous - Unknown Note: Tributary River Calder Incident Date: 7th February 1992 Incident Reference: 92330035 Catchment Area: Calder - Lancs Receiving Water: Not Given Cause of Incident: Unknown Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A8NW (SW)	383	1	373400 437200
9	Pollution Incidents to Controlled Waters Property Type: Not Given Location: Lancashire Authority: Environment Agency, North West Region Pollutant: Not Given Note: None Pollution Found Incident Date: 25th March 1992 Incident Reference: 92330085 Catchment Area: Calder - Lancs Receiving Water: Not Given Cause of Incident: Not Given Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A8NW (SW)	387	1	373400 437195
10	Pollution Incidents to Controlled Waters Property Type: Not Given Location: Location Description Not Available Authority: Environment Agency, North West Region Pollutant: Miscellaneous - Inert Suspended Solids Note: Barrow Brook Incident Date: 25th May 1995 Incident Reference: 95330124 Catchment Area: Ribble - Non-Tidal Receiving Water: Not Given Cause of Incident: Poor Operational Practice Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A18SE (NE)	512	1	373900 438000
11	Pollution Incidents to Controlled Waters Property Type: Not Given Location: Location Description Not Available Authority: Environment Agency, North West Region Pollutant: Rubble/Litter Or Solids Note: Barrow Brook Incident Date: 12th May 1993 Incident Reference: 93340033 Catchment Area: Ribble - Non-Tidal Receiving Water: Not Given Cause of Incident: Unknown Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A18SW (N)	619	1	373400 438200
12	Pollution Incidents to Controlled Waters Property Type: Not Given Location: Location Description Not Available Authority: Environment Agency, North West Region Pollutant: Rubble/Litter Or Solids Note: Barrow Brook; Waste Plastic Cont. Incident Date: 28th November 1991 Incident Reference: 91340113 Catchment Area: Ribble - Non-Tidal Receiving Water: Not Given Cause of Incident: Unknown Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A18NW (N)	704	1	373500 438300
13	Pollution Incidents to Controlled Waters Property Type: Farm Drainage Location: Location Description Not Available Authority: Environment Agency, North West Region Pollutant: Silage Liquor Note: Tributary Calder Incident Date: 30th December 1993 Incident Reference: 93330341 Catchment Area: Calder - Lancs Receiving Water: Not Given Cause of Incident: Unknown Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A14SE (E)	741	1	374400 437300

320130169P



Agency & Hydrological

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
14	Pollution Incidents to Controlled Waters Property Type: Boats/Ships Location: Lancashire Authority: Environment Agency, North West Region Pollutant: Unknown Note: None Incident Date: 27th June 1994 Incident Reference: 94340099 Catchment Area: Ribble - Non-Tidal Receiving Water: Canal Cause of Incident: Other Incident/Unknown Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A19SW (NE)	780	1	374100 438195
14	Pollution Incidents to Controlled Waters Property Type: Farm Drainage Location: Location Description Not Available Authority: Environment Agency, North West Region Pollutant: Animal Waste/Slurry Note: Barrow Brook Incident Date: 16th May 1992 Incident Reference: 92340061 Catchment Area: Ribble - Non-Tidal Receiving Water: Not Given Cause of Incident: Unknown Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A19SW (NE)	784	1	374100 438200
15	Pollution Incidents to Controlled Waters Property Type: Farm Drainage Location: Location Description Not Available Authority: Environment Agency, North West Region Pollutant: Agricultural: General Note: Tributary River Calder Incident Date: 16th January 1991 Incident Reference: 91330003 Catchment Area: Calder - Lancs Receiving Water: Not Given Cause of Incident: Unknown Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A7NW (SW)	787	1	372900 437100
16	Pollution Incidents to Controlled Waters Property Type: Spillage; Accident - Static Site Location: Location Description Not Available Authority: Environment Agency, North West Region Pollutant: Chemicals - Paints / Dyes Note: Tributary River Calder Incident Date: 22nd July 1994 Incident Reference: 94330200 Catchment Area: Calder - Lancs Receiving Water: Not Given Cause of Incident: Other Incident/Unknown Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A14SE (E)	815	1	374500 437400
17	Pollution Incidents to Controlled Waters Property Type: Not Given Location: Location Description Not Available Authority: Environment Agency, North West Region Pollutant: Rubble/Litter Or Solids Note: Barrow Brook Incident Date: 12th October 1993 Incident Reference: 93340093 Catchment Area: Ribble - Non-Tidal Receiving Water: Not Given Cause of Incident: Unknown Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A18NE (N)	819	1	373700 438400
18	Pollution Incidents to Controlled Waters Property Type: Farm Drainage Location: Location Description Not Available Authority: Environment Agency, North West Region Pollutant: Animal Waste/Slurry Note: Tributary Barrow Brook Incident Date: 3rd January 1992 Incident Reference: 92320002 Catchment Area: Ribble - Non-Tidal Receiving Water: Not Given Cause of Incident: Unknown Incident Severity: Category 2 - Significant Incident Positional Accuracy: Located by supplier to within 100m	A19SW (NE)	840	1	374200 438200



Agency & Hydrological

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
19	Pollution Incidents to Controlled Waters Property Type: Not Given Location: Location Description Not Available Authority: Environment Agency, North West Region Pollutant: Oils - Other Oil Note: Barrow Brook; Barrow Brook Incident Date: 29th December 1993 Incident Reference: 93340120 Catchment Area: Ribble - Non-Tidal Receiving Water: Not Given Cause of Incident: Unknown Incident Severity: Category 2 - Significant Incident Positional Accuracy: Located by supplier to within 100m	A19NW (NE)	922	1	374200 438300
20	Water Abstractions Operator: Clitheroe Golf Club Ltd Licence Number: 2671309037 Permit Version: Not Supplied Location: Clitheroe Golf Club, CLITHEROE Authority: Environment Agency, North West Region Abstraction: Not Supplied Abstraction Type: Not Supplied Source: Unknown Daily Rate (m3): 0 Yearly Rate (m3): 0 Details: Inpoundment Of Unnamed Stream Authorised Start: Not Supplied Authorised End: Not Supplied Permit Start Date: Not Supplied Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m	A12SE (W)	346	1	373200 437500
21	Water Abstractions Operator: Clitheroe Golf Club Ltd Licence Number: 2671309036 Permit Version: Not Supplied Location: Barrow Brook, Pendleton, CLITHEROE Authority: Environment Agency, North West Region Abstraction: Industrial & Transfer Abstraction Type: Not Supplied Source: Surface Daily Rate (m3): 11 Yearly Rate (m3): 3404 Details: Additional Purpose: Transfer of water; Licence Status: Revoked Authorised Start: Not Supplied Authorised End: Not Supplied Permit Start Date: Not Supplied Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m	A18NW (N)	717	1	373400 438300
22	Water Abstractions Operator: Pendle View Fisheries Ltd Licence Number: 2671309044 Permit Version: 102 Location: Reservoir At Barrow , Blackburn Authority: Environment Agency, North West Region Abstraction: Aquaculture: Fish Farm/Cress Pond Throughflow Abstraction Type: Water may be abstracted from a single point Source: Surface Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Land & Premises-Whalley Trout Fisher Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 26th October 2001 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m	A19SE (NE)	832	1	374300 438100

320130169P



Agency & Hydrological

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
22	Water Abstractions Operator: Howard Rayner & Associates Licence Number: 2671309044 Permit Version: 101 Location: Reservoir At Barrow , Blackburn Authority: Environment Agency, North West Region Abstraction: Aquaculture: Fish Farm/Cress Pond Throughflow Abstraction Type: Water may be abstracted from a single point Source: Surface Daily Rate (m3): 655 Yearly Rate (m3): 238938 Details: Land & Premises-Whalley Trout Fisher Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 11th October 1999 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m	A19SE (NE)	832	1	374300 438100
23	Water Abstractions Operator: Pendle View Fisheries Ltd Licence Number: 2671309052 Permit Version: 2 Location: Land At Pendle View Fisheries, Clitheroe Authority: Environment Agency, North West Region Abstraction: Other Industrial/Commercial/Public Services: General Use (Medium Loss) Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Not Supplied Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 29th June 2004 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	A19NW (NE)	953	1	374240 438310
24	Water Abstractions Operator: Clitheroe Golf Club Ltd Licence Number: 2671309037 Permit Version: Not Supplied Location: Clitheroe Golf Club, CLITHEROE Authority: Environment Agency, North West Region Abstraction: Not Supplied Abstraction Type: Not Supplied Source: Unknown Daily Rate (m3): 0 Yearly Rate (m3): 0 Details: Inpoundment Of Unnamed Stream Authorised Start: Not Supplied Authorised End: Not Supplied Permit Start Date: Not Supplied Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m	A17NE (NW)	965	1	373200 438500
25	Water Abstractions Operator: Mr T Whitewell Mrs A M Wood Licence Number: 2671336001 Permit Version: 100 Location: Spring At Sheepeate Farm,Wiswell. Authority: Environment Agency, North West Region Abstraction: General Agriculture; General Use (Medium Loss) Abstraction Type: Water may be abstracted from a single point Source: Surface Daily Rate (m3): 5 Yearly Rate (m3): 1364 Details: Wiswell Hall Farm,Wiswell,Whalley. Authorised Start: 01 October Authorised End: 30 September Permit Start Date: 11th March 1966 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m	A9NE (SE)	998	1	374600 437100



Agency & Hydrological

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Water Abstractions Operator: A F Scholfield Licence Number: 2671336006 Permit Version: 100 Location: Spring Fed Tank At Wiswell, Clitheroe Authority: Environment Agency, North West Region Abstraction: Household Water Supply: Drinking; Cooking; Sanitary; Washing; (Small Garden) Abstraction Type: Water may be abstracted from a single point Source: Surface Daily Rate (m3): 0 Yearly Rate (m3): 133 Details: Manor House Cottage, Moor Lane, Wiswell Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 1st April 1987 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m	A9NE (SE)	1042	1	374600 437000
	Water Abstractions Operator: Pendle View Fisheries Ltd Licence Number: 2671309047 Permit Version: 102 Location: Spring Fed Storage Tank At Barrow , Blackburn Authority: Environment Agency, North West Region Abstraction: Aquaculture: Fish Farm/Cress Pond Throughflow Abstraction Type: Water may be abstracted from a single point Source: Surface Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Pine Lodge Fishery,Barrow,Blackburn Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 26th October 2001 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m	A20SW (NE)	1156	1	374700 438100
	Water Abstractions Operator: Pendle View Fisheries Ltd Licence Number: 2671309047 Permit Version: 102 Location: Spring Fed Storage Tank At Barrow , Blackburn Authority: Environment Agency, North West Region Abstraction: Household Water Supply: Drinking; Cooking; Sanitary; Washing; (Small Garden) Abstraction Type: Water may be abstracted from a single point Source: Surface Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Pine Lodge Fishery,Barrow,Blackburn Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 26th October 2001 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m	A20SW (NE)	1156	1	374700 438100
	Water Abstractions Operator: Howard Rayner & Associates Licence Number: 2671309047 Permit Version: 101 Location: Spring Fed Storage Tank At Barrow , Blackburn Authority: Environment Agency, North West Region Abstraction: Aquaculture: Fish Farm/Cress Pond Throughflow Abstraction Type: Water may be abstracted from a single point Source: Surface Daily Rate (m3): 33 Yearly Rate (m3): 123451 Details: Pine Lodge Fishery,Barrow,Blackburn Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 11th October 1999 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m	A20SW (NE)	1156	1	374700 438100

320130169P



Agency & Hydrological

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Water Abstractions Operator: Howard Rayner & Associates Licence Number: 2671309047 Permit Version: 101 Location: Spring Fed Storage Tank At Barrow , Blackburn Authority: Environment Agency, North West Region Abstraction: Household Water Supply: Drinking; Cooking; Sanitary; Washing; (Small Garden) Abstraction Type: Water may be abstracted from a single point Source: Surface Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Pine Lodge Fishery,Barrow,Blackburn Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 11th October 1999 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	A20SW (NE)	1156	1	374700 438100
	Water Abstractions Operator: Colin And Vivien Middleton Licence Number: 2671310010 Permit Version: 100 Location: Borehole At Clitheroe Authority: Environment Agency, North West Region Abstraction: General Agriculture; General Use (Medium Loss) Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): 18 Yearly Rate (m3): 6570 Details: Land At Little Mitton Farm, Mitton Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 15th May 1998 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m	(W)	1842	1	371800 438200
	Water Abstractions Operator: P Riley Licence Number: 2671335020 Permit Version: 100 Location: Borehole At Wiswell Moor Farm, Sabden Authority: Environment Agency, North West Region Abstraction: General Agriculture; General Use (Medium Loss) Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): 14 Yearly Rate (m3): 4978 Details: Wiswell Moor Farm,Sabden. Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 30th June 1966 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m	(SE)	1892	1	375400 436700
	Water Abstractions Operator: Roy & Kathleen Dent Licence Number: 2671335008 Permit Version: 101 Location: Borehole At Bramley Farm, Wisnell, Whalley. Authority: Environment Agency, North West Region Abstraction: General Agriculture; General Use (Medium Loss) Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Bramley Farm,Wiswell,Whalley,Lancs. Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 28th November 2003 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m.	(E)	1945	1	375500 436800



Agency & Hydrological

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Water Abstractions Operator: Ralph Holgate Licence Number: 2671335008 Permit Version: 100 Location: Borehole At Bramley Farm, Wisnell, Whalley. Authority: Environment Agency, North West Region Abstraction: General Agriculture; General Use (Medium Loss) Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): 14 Yearly Rate (m3): 4978 Details: Bramley Farm, Wiswell, Whalley, Lancs. Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 4th April 1966 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m	(E)	1945	1	375500 436800
	Water Abstractions Operator: Mr I Heywood Licence Number: 2671335026 Permit Version: 100 Location: Borehole At Wiswell Moor Meats Authority: Environment Agency, North West Region Abstraction: Other Industrial/Commercial/Public Services: General Use (Medium Loss) Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): 27 Yearly Rate (m3): 6819 Details: Land/Premises At Wiswell Moor Meats Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 1st March 1998 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m	(E)	1977	1	375600 437000
	Water Abstractions Operator: Mr I Heywood Licence Number: 2671335026 Permit Version: 100 Location: Borehole At Wiswell Moor Meats Authority: Environment Agency, North West Region Abstraction: Household Water Supply: Drinking; Cooking; Sanitary; Washing; (Small Garden) Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Land/Premises At Wiswell Moor Meats Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 1st March 1998 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	(E)	1977	1	375600 437000
	Groundwater Vulnerability Soil Classification: Soils of Low Leaching Potential - Soils in which pollutants are unlikely to penetrate the soil layer because water movement is largely horizontal or they have large ability to attenuate diffuse pollutants. Lateral flow from these soils contribute to groundwater recharge elsewhere in the catchment Map Sheet: Sheet 10 Central Lancashire Scale: 1:100,000	A13NW (NE)	0	1	373615 437547
	Drift Deposits Drift Deposit: Low permeability drift deposits occurring at the surface and overlying Major and Minor Aquifers are head, clay-with-flints, brickearth, peat, river terrace deposits and marine and estuarine alluvium Map Sheet: Sheet 10 Central Lancashire Scale: 1:100,000	A13NW (NE)	0	1	373615 437547
	Bedrock Aquifer Designations Aquifer Designation: Secondary Aquifer - A	A13NW (NE)	0	2	373615 437547
	Superficial Aquifer Designations Aquifer Designation: Unproductive Strata	A13NW (NE)	0	2	373615 437547
	Extreme Flooding from Rivers or Sea without Defences None				
	Flooding from Rivers or Sea without Defences None				

320130169P



Agency & Hydrological

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Areas Benefiting from Flood Defences None				
	Flood Water Storage Areas None				
	Flood Defences None				

98010810SE



Waste

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
26	Historical Landfill Sites Licence Holder: Not Supplied Location: Whalley Road, Whalley, Blackburn, Lancashire Name: Barrow Lake Operator Location: Not Supplied Boundary Accuracy: As Supplied Provider Reference: EAHLD07114 First Input Date: Not Supplied Last Input Date: Not Supplied Specified Waste: Deposited Waste included Inert Waste Type: EA Waste Ref: Not Supplied Regis Ref: Not Supplied WRC Ref: 2300/0193 BGS Ref: Not Supplied Other Ref: K1/03/043	A18SE (NE)	628	1	373928 438116
	Local Authority Landfill Coverage Name: Ribble Valley Borough Council - Had landfill data but passed it to the relevant environment agency		0	8	373615 437547
	Local Authority Landfill Coverage Name: Lancashire County Council - Had landfill data but passed it to the relevant environment agency		0	7	373615 437547

320130169P

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS 1:625,000 Solid Geology Description: Tournaisian and Visean (Carboniferous Limestone Series)	A13NW (NE)	0	2	373615 437547
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic: 15 - 25 mg/kg Concentration: Cadmium: <1.8 mg/kg Concentration: Chromium: 60 - 90 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel: 15 - 30 mg/kg Concentration:	A13SE (SE)	0	3	373652 437504
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic: 15 - 25 mg/kg Concentration: Cadmium: <1.8 mg/kg Concentration: Chromium: 60 - 90 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel: 15 - 30 mg/kg Concentration:	A13NW (NE)	0	3	373615 437547
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic: 15 - 25 mg/kg Concentration: Cadmium: <1.8 mg/kg Concentration: Chromium: 60 - 90 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel: 15 - 30 mg/kg Concentration:	A13SE (SE)	0	3	373629 437531
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic: 15 - 25 mg/kg Concentration: Cadmium: <1.8 mg/kg Concentration: Chromium: 60 - 90 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel: 15 - 30 mg/kg Concentration:	A14NW (E)	305	3	374000 437547
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic: 15 - 25 mg/kg Concentration: Cadmium: <1.8 mg/kg Concentration: Chromium: 60 - 90 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel: 15 - 30 mg/kg Concentration:	A13SE (SE)	360	3	373906 437212
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic: 15 - 25 mg/kg Concentration: Cadmium: <1.8 mg/kg Concentration: Chromium: 60 - 90 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel: 15 - 30 mg/kg Concentration:	A14SW (SE)	372	3	374000 437299



Geological

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic Concentration: 15 - 25 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <150 mg/kg Nickel Concentration: 15 - 30 mg/kg	A18SW (N)	403	3	373615 438000
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic Concentration: 15 - 25 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <150 mg/kg Nickel Concentration: 15 - 30 mg/kg	A14NW (NE)	421	3	374000 437819
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic Concentration: 15 - 25 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <150 mg/kg Nickel Concentration: 15 - 30 mg/kg	A14NW (NE)	463	3	374000 437876
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic Concentration: 15 - 25 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <150 mg/kg Nickel Concentration: 15 - 30 mg/kg	A8NW (S)	497	3	373615 437000
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic Concentration: 15 - 25 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <150 mg/kg Nickel Concentration: 15 - 30 mg/kg	A8NE (S)	497	3	373665 437000
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic Concentration: 15 - 25 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <150 mg/kg Nickel Concentration: 15 - 30 mg/kg	A12NE (W)	539	3	373000 437547

320130169P



Geological

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic Concentration: 15 - 25 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <150 mg/kg Nickel Concentration: 15 - 30 mg/kg	A19SW (NE)	562	3	374000 438000
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic Concentration: 15 - 25 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <150 mg/kg Nickel Concentration: 15 - 30 mg/kg	A9NW (SE)	589	3	374000 437000
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic Concentration: 15 - 25 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <150 mg/kg Nickel Concentration: 15 - 30 mg/kg	A19SW (NE)	637	3	374123 438000
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic Concentration: 15 - 25 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <150 mg/kg Nickel Concentration: 15 - 30 mg/kg	A17SE (NW)	674	3	373000 438000
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic Concentration: 15 - 25 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <150 mg/kg Nickel Concentration: 15 - 30 mg/kg	A19SW (NE)	684	3	374190 438000
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic Concentration: 15 - 25 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <150 mg/kg Nickel Concentration: 15 - 30 mg/kg	A7NE (SW)	751	3	373037 437000



Geological

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic Concentration: 15 - 25 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <150 mg/kg Nickel Concentration: 15 - 30 mg/kg	A7NE (SW)	761	3	373000 437022
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic Concentration: 15 - 25 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <150 mg/kg Nickel Concentration: 15 - 30 mg/kg	A7NE (SW)	776	3	373000 437000
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic Concentration: <15 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <150 mg/kg Nickel Concentration: 15 - 30 mg/kg	A7NE (SW)	796	3	372973 437000
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic Concentration: <15 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <150 mg/kg Nickel Concentration: 15 - 30 mg/kg	A7NE (SW)	798	3	373000 436970
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic Concentration: 15 - 25 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <150 mg/kg Nickel Concentration: 30 - 45 mg/kg	A9SE (SE)	967	3	374298 436750
27	BGS Recorded Mineral Sites Site Name: Whalley Brick & Tile Works Location: , Whalley, Great Harwood, Lancashire Source: British Geological Survey, National Geoscience Information Service Reference: 92758 Type: Opencast Status: Ceased Operator: Unknown Operator Operator Location: Unknown Operator Periodic Type: Carboniferous Geology: Rad Brook Mudstone Member Commodity: Common Clay and Shale Positional Accuracy: Located by supplier to within 10m	A7SE (SW)	798	2	373235 436819
	BGS Measured Urban Soil Chemistry No data available				

320130169P



Geological

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS Urban Soil Chemistry Averages No data available				
	Coal Mining Affected Areas In an area that might not be affected by coal mining				
	Non Coal Mining Areas of Great Britain Risk: Highly Unlikely Source: British Geological Survey, National Geoscience Information Service	A13NW (NE)	0	2	373615 437547
	Potential for Collapsible Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13NW (NE)	0	2	373615 437547
	Potential for Compressible Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13NW (NE)	0	2	373615 437547
	Potential for Ground Dissolution Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13NW (NE)	0	2	373615 437547
	Potential for Ground Dissolution Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13SE (S)	39	2	373623 437478
	Potential for Ground Dissolution Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13NW (W)	44	2	373498 437551
	Potential for Landslide Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13NW (NE)	0	2	373615 437547
	Potential for Running Sand Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13NW (NE)	0	2	373615 437547
	Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13NW (NE)	0	2	373615 437547
	Radon Potential - Radon Protection Measures Protection Measure: No radon protective measures are necessary in the construction of new dwellings or extensions Source: British Geological Survey, National Geoscience Information Service	A13NW (NE)	0	2	373615 437547
	Radon Potential - Radon Protection Measures Protection Measure: No radon protective measures are necessary in the construction of new dwellings or extensions Source: British Geological Survey, National Geoscience Information Service	A13NW (NW)	0	2	373575 437576
	Radon Potential - Radon Affected Areas Affected Area: The property is in a radon affected area, as between 1 and 3% of homes are above the action level Source: British Geological Survey, National Geoscience Information Service	A13NW (NE)	0	2	373615 437547
	Radon Potential - Radon Affected Areas Affected Area: The property is in a lower probability radon area, as less than 1% of homes are above the action level Source: British Geological Survey, National Geoscience Information Service	A13NW (NW)	0	2	373575 437576



Industrial Land Use

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
28	Contemporary Trade Directory Entries Name: Chaigley Coach Works Ltd Location: Unit 5, Whalley Industrial Park, Clitheroe Road, Barrow, Clitheroe, Lancashire, BB7 9WP Classification: Horse Boxes & Transporting Status: Active Positional Accuracy: Automatically positioned to the address	A13NW (N)	22	-	373613 437593
28	Contemporary Trade Directory Entries Name: Carall Garments Location: Unit 1, Whalley Industrial Park, Clitheroe Road, Barrow, Clitheroe, Lancashire, BB7 9WP Classification: Clothing & Fabrics - Manufacturers Status: Inactive Positional Accuracy: Automatically positioned to the address	A13NW (N)	22	-	373613 437593
28	Contemporary Trade Directory Entries Name: British Tufting Supplies Location: Unit 4, Whalley Industrial Park, Clitheroe Road, Barrow, Clitheroe, Lancashire, BB7 9WP Classification: Carpets & Rugs - Manufacturers Status: Inactive Positional Accuracy: Automatically positioned to the address	A13NW (N)	22	-	373613 437593
28	Contemporary Trade Directory Entries Name: T D Landrovers Location: Unit 8, Whalley Industrial Park, Clitheroe Road, Barrow, Clitheroe, Lancashire, BB7 9WP Classification: Car Dealers Status: Inactive Positional Accuracy: Automatically positioned to the address	A13NW (N)	22	-	373613 437593
28	Contemporary Trade Directory Entries Name: Cherry Automation Location: Unit 7, Whalley Industrial Park, Clitheroe Road, Barrow, Clitheroe, Lancashire, BB7 9WP Classification: Electrical Engineers Status: Inactive Positional Accuracy: Automatically positioned to the address	A13NW (N)	22	-	373613 437593
28	Contemporary Trade Directory Entries Name: In Furniture Location: Unit 7, Whalley Industrial Park, Clitheroe Road, Barrow, Clitheroe, Lancashire, BB7 9WP Classification: Furniture Manufacturers - Home & Office Status: Active Positional Accuracy: Automatically positioned to the address	A13NW (N)	22	-	373613 437593
28	Contemporary Trade Directory Entries Name: Cleanchange Location: Unit 12, Whalley Industrial Park, Clitheroe Road, Barrow, Clitheroe, Lancashire, BB7 9WP Classification: Janitorial Equipment - Servicing & Repairs Status: Inactive Positional Accuracy: Automatically positioned to the address	A13NW (N)	22	-	373613 437593
28	Contemporary Trade Directory Entries Name: A & K Tyres Location: Unit 8, Whalley Industrial Park, Clitheroe Road, Barrow, Clitheroe, Lancashire, BB7 9WP Classification: Tyre Dealers Status: Inactive Positional Accuracy: Automatically positioned to the address	A13NW (N)	22	-	373613 437593
28	Contemporary Trade Directory Entries Name: Abbey Electronics Location: Unit 11, Whalley Industrial Park, Clitheroe Road, Barrow, Clitheroe, Lancashire, BB7 9WP Classification: Machinery - Industrial & Commercial Status: Inactive Positional Accuracy: Automatically positioned to the address	A13NW (N)	22	-	373613 437593
28	Contemporary Trade Directory Entries Name: S P C N C Engineering Ltd Location: Unit 4, Whalley Industrial Park, Clitheroe Road, Barrow, Clitheroe, Lancashire, BB7 9WP Classification: Precision Engineers Status: Inactive Positional Accuracy: Automatically positioned to the address	A13NW (N)	22	-	373613 437593

320130169P

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
28	Contemporary Trade Directory Entries Name: Adremit Location: Unit 2, Whalley Industrial Park, Clitheroe Road, Barrow, Clitheroe, Lancashire, BB7 9WP Classification: Air Purification Equipment Status: Inactive Positional Accuracy: Automatically positioned to the address	A13NW (N)	22	-	373613 437593
28	Contemporary Trade Directory Entries Name: Enhance Glass Solutions Location: Unit 1a, Whalley Industrial Park, Clitheroe Road, Barrow, Clitheroe, Lancashire, BB7 9WP Classification: Window Tinting Status: Inactive Positional Accuracy: Automatically positioned to the address	A13NW (N)	22	-	373613 437593
28	Contemporary Trade Directory Entries Name: Gee-Up Equine Location: Unit 2, Whalley Industrial Park, Clitheroe Road, Barrow, Clitheroe, Lancashire, BB7 9AH Classification: Laundry Equipment - Sales & Service Status: Inactive Positional Accuracy: Automatically positioned to the address	A13NW (N)	22	-	373613 437593
28	Contemporary Trade Directory Entries Name: Lancer Labels Location: Unit 5, Whalley Industrial Park, Clitheroe Road, Barrow, Clitheroe, Lancashire, BB7 9AH Classification: Printers Status: Active Positional Accuracy: Automatically positioned to the address	A13NW (N)	22	-	373613 437593
28	Contemporary Trade Directory Entries Name: Clitheroe Plastics Centre Location: Unit 12, Whalley Industrial Park, Clitheroe Road, Barrow, Clitheroe, Lancashire, BB7 9WP Classification: Window Frame Manufacturers Status: Active Positional Accuracy: Automatically positioned to the address	A13NW (N)	22	-	373613 437593
28	Contemporary Trade Directory Entries Name: Geeup Equine Laundry Location: Unit 2, Whalley Ind Pk, Clitheroe Rd, Barrow, Clitheroe, Lancashire, BB7 9WP Classification: Laundry Equipment - Sales & Service Status: Inactive Positional Accuracy: Manually positioned within the geographical locality	A13NW (N)	40	-	373606 437615
29	Contemporary Trade Directory Entries Name: J & L Auto'S Location: Unit 3, Whalley Industrial Park, Clitheroe Road, Barrow, Clitheroe, Lancashire, BB7 9WP Classification: Garage Services Status: Active Positional Accuracy: Manually positioned to the address or location	A13NE (NE)	36	-	373672 437578
29	Contemporary Trade Directory Entries Name: U K P E Location: Unit 3, Whalley Industrial Park, Clitheroe Road, Barrow, Clitheroe, Lancashire, BB7 9WP Classification: Precision Engineers Status: Active Positional Accuracy: Manually positioned to the address or location	A13NE (NE)	36	-	373672 437578
29	Contemporary Trade Directory Entries Name: Whalley Motor Location: 2, Meadow Court, Whalley Industrial Park, Clitheroe Road, Barrow, Clitheroe, Lancashire, BB7 9AE Classification: Car Body Repairs Status: Active Positional Accuracy: Automatically positioned to the address	A13NE (NE)	45	-	373675 437588
29	Contemporary Trade Directory Entries Name: Whalley Catering Equipment Location: 1, Meadow Court, Whalley Industrial Park, Clitheroe Road, Barrow, Clitheroe, Lancashire, BB7 9AE Classification: Catering Equipment Status: Active Positional Accuracy: Automatically positioned to the address	A13NE (NE)	53	-	373678 437596



Industrial Land Use

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
30	Contemporary Trade Directory Entries Name: Dick Leigh Location: Ashleigh, Clitheroe Road, Barrow, Clitheroe, Lancashire, BB7 9AQ Classification: Lawnmowers & Garden Machinery - Sales & Service Status: Active Positional Accuracy: Automatically positioned to the address	A13NE (N)	111	-	373637 437679
31	Contemporary Trade Directory Entries Name: B & H Transport Location: Clitheroe Rd, Barrow, Clitheroe, Lancashire, BB7 9AQ Classification: Road Haulage Services Status: Active Positional Accuracy: Manually positioned to the road within the address or location	A13SW (SW)	251	-	373481 437308
32	Contemporary Trade Directory Entries Name: Whittle Eastern Europe Logistics Ltd Location: The Printworks, Ribble Valley Enterprise Park, Hey Road, Barrow, Clitheroe, Lancashire, BB7 9WA Classification: Freight Forwarders Status: Active Positional Accuracy: Automatically positioned to the address	A19SW (NE)	667	-	373964 438142
33	Contemporary Trade Directory Entries Name: Walker Preservations Location: 13, Trafford Gardens, Barrow, Clitheroe, Lancashire, BB7 9AX Classification: Damp & Dry Rot Control Status: Inactive Positional Accuracy: Automatically positioned to the address	A18NE (N)	770	-	373749 438338
34	Contemporary Trade Directory Entries Name: Aesthetic Window Shades Location: 20, Hayhurst Close, Whalley, Clitheroe, Lancashire, BB7 9SQ Classification: Blinds, Awnings & Canopies Status: Inactive Positional Accuracy: Automatically positioned to the address	A8SW (S)	843	-	373424 436696
35	Contemporary Trade Directory Entries Name: Barnes & Tipping Location: Milton Road, Whalley, Clitheroe, Lancashire, BB7 9JU Classification: Road Haulage Services Status: Active Positional Accuracy: Automatically positioned to the address	A12SW (W)	845	-	372727 437334
36	Contemporary Trade Directory Entries Name: Whalley Corn Mills Ltd Location: Brookhouse Farm, Milton Road, Whalley, Clitheroe, Lancashire, BB7 9PF Classification: Pet Foods & Animal Feeds Status: Active Positional Accuracy: Automatically positioned to the address	A17SW (W)	873	-	372725 437910
37	Contemporary Trade Directory Entries Name: Hurst Green Plastics Ltd Location: Bowland House, The Sidings, Whalley, CLITHEROE, Lancashire, BB7 9SE Classification: Plastics - Vacuum Forming Status: Inactive Positional Accuracy: Automatically positioned to the address	A7SE (SW)	924	-	373074 436760
37	Contemporary Trade Directory Entries Name: Hurst Green Plastics Ltd Location: Bowland House, The Sidings, Whalley, Clitheroe, Lancashire, BB7 9SE Classification: Plastic Products - Manufacturers Status: Active Positional Accuracy: Automatically positioned to the address	A7SE (SW)	924	-	373074 436760
37	Contemporary Trade Directory Entries Name: Hurst Green Plastics Location: Bowland House, The Sidings, Whalley, Clitheroe, Lancashire, BB7 9SE Classification: Plastic Products - Manufacturers Status: Inactive Positional Accuracy: Automatically positioned to the address	A7SE (SW)	924	-	373074 436760
37	Contemporary Trade Directory Entries Name: Still Glorious Card Co Location: Marathan House, The Sidings, Whalley, Clitheroe, Lancashire, BB7 9SE Classification: Greeting Card Publishers & Wholesalers Status: Inactive Positional Accuracy: Automatically positioned to the address	A7SE (SW)	960	-	373071 436720

320130169P



Industrial Land Use

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
38	Contemporary Trade Directory Entries Name: Wiswell Garage Location: Cunliffe Lane, Wiswell, Clitheroe, Lancashire, BB7 9BT Classification: Garage Services Status: Active Positional Accuracy: Automatically positioned to the address	A15SW (E)	975	-	374670 437544
39	Contemporary Trade Directory Entries Name: Whalley Corn Mills Ltd Location: Milton Rd, Whalley, Clitheroe, Lancashire, BB7 9PF Classification: Pet Foods & Animal Feeds Status: Inactive Positional Accuracy: Manually positioned to the road within the address or location	A11NE (W)	998	-	372561 437790
40	Fuel Station Entries Name: Pendle Garage Location: Clitheroe Road, Barrow, Clitheroe, Lancashire, BB7 9AQ Brand: Gulf Premises Type: Petrol Station Status: Open Positional Accuracy: Automatically positioned to the address	A13NW (NW)	0	-	373559 437575
41	Fuel Station Entries Name: Co-Op Clitheroe Location: Ribble Valley Enterprise Park, Clitheroe, Lancashire, BB7 9HW Brand: Texaco Premises Type: Petrol Station Status: Open Positional Accuracy: Manually positioned to the address or location	A19NW (NE)	874	-	374121 438292

988106103



Data Currency

Agency & Hydrological	Version	Update Cycle
Contaminated Land Register Entries and Notices Hyndburn Borough Council - Environmental Health Department Ribble Valley Borough Council - Environmental Health Department Pendle Borough Council - Environmental Health Department	August 2011 March 2012 November 2011	Annual Rolling Update Annual Rolling Update Annual Rolling Update
Discharge Consents Environment Agency - North West Region	April 2012	Quarterly
Enforcement and Prohibition Notices Environment Agency - North West Region	June 2012	Quarterly
Integrated Pollution Controls Environment Agency - North West Region	October 2008	Not Applicable
Integrated Pollution Prevention And Control Environment Agency - North West Region	April 2012	Quarterly
Local Authority Integrated Pollution Prevention And Control Hyndburn Borough Council - Environmental Health Department Pendle Borough Council - Environmental Health Department Ribble Valley Borough Council - Environmental Health Department	January 2012 June 2011 November 2011	Annual Rolling Update Annual Rolling Update Annual Rolling Update
Local Authority Pollution Prevention and Controls Hyndburn Borough Council - Environmental Health Department Pendle Borough Council - Environmental Health Department Ribble Valley Borough Council - Environmental Health Department	January 2012 June 2011 November 2011	Annual Rolling Update Annual Rolling Update Annual Rolling Update
Local Authority Pollution Prevention and Control Enforcements Hyndburn Borough Council - Environmental Health Department Pendle Borough Council - Environmental Health Department Ribble Valley Borough Council - Environmental Health Department	January 2012 June 2012 November 2011	Annual Rolling Update Annual Rolling Update Annual Rolling Update
Nearest Surface Water Feature Ordnance Survey	December 2011	Quarterly
Pollution Incidents to Controlled Waters Environment Agency - North West Region	January 2000	Not Applicable
Prosecutions Relating to Authorised Processes Environment Agency - North West Region	June 2012	Monthly
Prosecutions Relating to Controlled Waters Environment Agency - North West Region	June 2012	Monthly
Registered Radioactive Substances Environment Agency - North West Region	April 2012	Quarterly
River Quality Environment Agency - Head Office	November 2001	Not Applicable
River Quality Biology Sampling Points Environment Agency - Head Office	January 2011	Annually
River Quality Chemistry Sampling Points Environment Agency - Head Office	January 2011	Annually
Substantiated Pollution Incident Register Environment Agency - North West Region - Central Area Environment Agency - North West Region - North Area	April 2012 April 2012	Quarterly Quarterly
Water Abstractions Environment Agency - North West Region	April 2012	Quarterly
Water Industry Act Referrals Environment Agency - North West Region	April 2012	Quarterly
Groundwater Vulnerability Environment Agency - Head Office	January 2011	Not Applicable
Drift Deposits Environment Agency - Head Office	January 1999	Not Applicable

320130169P



Data Currency

Agency & Hydrological	Version	Update Cycle
Bedrock Aquifer Designations British Geological Survey - National Geoscience Information Service	September 2011	Annually
Superficial Aquifer Designations British Geological Survey - National Geoscience Information Service	September 2011	Annually
Source Protection Zones Environment Agency - Head Office	April 2012	Quarterly
Extreme Flooding from Rivers or Sea without Defences Environment Agency - Head Office	May 2012	Quarterly
Flooding from Rivers or Sea without Defences Environment Agency - Head Office	May 2012	Quarterly
Areas Benefiting from Flood Defences Environment Agency - Head Office	May 2012	Quarterly
Flood Water Storage Areas Environment Agency - Head Office	May 2012	Quarterly
Flood Defences Environment Agency - Head Office	May 2012	Quarterly
Waste	Version	Update Cycle
BGS Recorded Landfill Sites British Geological Survey - National Geoscience Information Service	June 1996	Not Applicable
Historical Landfill Sites Environment Agency - North West Region - Central Area Environment Agency - North West Region - North Area	January 2012 January 2012	Quarterly Quarterly
Integrated Pollution Control Registered Waste Sites Environment Agency - North West Region	October 2008	Not Applicable
Licensed Waste Management Facilities (Landfill Boundaries) Environment Agency - North West Region - Central Area Environment Agency - North West Region - North Area	April 2012 April 2012	Quarterly Quarterly
Licensed Waste Management Facilities (Locations) Environment Agency - North West Region - Central Area Environment Agency - North West Region - North Area	April 2012 April 2012	Quarterly Quarterly
Local Authority Landfill Coverage Hyndburn Borough Council - Environmental Health Department Lancashire County Council - Waste Management Group Pendle Borough Council - Environmental Health Department Ribble Valley Borough Council - Environmental Health Department	May 2000 May 2000 May 2000 May 2000	Not Applicable Not Applicable Not Applicable Not Applicable
Local Authority Recorded Landfill Sites Pendle Borough Council - Environmental Health Department Hyndburn Borough Council - Environmental Health Department Lancashire County Council - Waste Management Group Ribble Valley Borough Council - Environmental Health Department	April 2003 May 2000 May 2000 May 2000	Not Applicable Not Applicable Not Applicable Not Applicable
Registered Landfill Sites Environment Agency - North West Region - Central Area Environment Agency - North West Region - North Area	March 2003 March 2003	Not Applicable Not Applicable
Registered Waste Transfer Sites Environment Agency - North West Region - Central Area Environment Agency - North West Region - North Area	March 2003 March 2003	Not Applicable Not Applicable
Registered Waste Treatment or Disposal Sites Environment Agency - North West Region - Central Area Environment Agency - North West Region - North Area	March 2003 March 2003	Not Applicable Not Applicable



Data Currency

Hazardous Substances	Version	Update Cycle
Control of Major Accident Hazards Sites (COMAH) Health and Safety Executive	May 2012	Bi-Annually
Explosive Sites Health and Safety Executive	June 2012	Bi-Annually
Notification of Installations Handling Hazardous Substances (NIHHS) Health and Safety Executive	November 2000	Not Applicable
Planning Hazardous Substance Enforcements Ribble Valley Borough Council Hyndburn Borough Council - Planning Pendle Borough Council - Planning Lancashire County Council	June 2012 March 2012 March 2012 October 2011	Annual Rolling Update Annual Rolling Update Annual Rolling Update Annual Rolling Update
Planning Hazardous Substance Consents Ribble Valley Borough Council Hyndburn Borough Council - Planning Pendle Borough Council - Planning Lancashire County Council	June 2012 March 2012 March 2012 October 2011	Annual Rolling Update Annual Rolling Update Annual Rolling Update Annual Rolling Update
Geological	Version	Update Cycle
BGS 1:625,000 Solid Geology British Geological Survey - National Geoscience Information Service	August 1996	Not Applicable
BGS Estimated Soil Chemistry British Geological Survey - National Geoscience Information Service	January 2010	Variable
BGS Recorded Mineral Sites British Geological Survey - National Geoscience Information Service	April 2012	Bi-Annually
Brine Compensation Area Cheshire Brine Subsidence Compensation Board	August 2011	Not Applicable
Coal Mining Affected Areas The Coal Authority - Mining Report Service	August 2011	As notified
Mining Instability Ove Arup & Partners	October 2000	Not Applicable
Non Coal Mining Areas of Great Britain British Geological Survey - National Geoscience Information Service	February 2011	Not Applicable
Potential for Collapsible Ground Stability Hazards British Geological Survey - National Geoscience Information Service	February 2011	Annually
Potential for Compressible Ground Stability Hazards British Geological Survey - National Geoscience Information Service	February 2011	Annually
Potential for Ground Dissolution Stability Hazards British Geological Survey - National Geoscience Information Service	February 2011	Annually
Potential for Landslide Ground Stability Hazards British Geological Survey - National Geoscience Information Service	February 2011	Annually
Potential for Running Sand Ground Stability Hazards British Geological Survey - National Geoscience Information Service	February 2011	Annually
Potential for Shrinking or Swelling Clay Ground Stability Hazards British Geological Survey - National Geoscience Information Service	February 2011	Annually
Radon Potential - Radon Affected Areas British Geological Survey - National Geoscience Information Service	July 2011	As notified
Radon Potential - Radon Protection Measures British Geological Survey - National Geoscience Information Service	July 2011	As notified

320130169P



Industrial Land Use	Version	Update Cycle
Contemporary Trade Directory Entries Thomson Directories	May 2012	Quarterly
Fuel Station Entries Catalist Ltd - Experian	February 2012	Quarterly
Sensitive Land Use	Version	Update Cycle
Areas of Adopted Green Belt Hyndburn Borough Council Pendle Borough Council Ribble Valley Borough Council	April 2012 April 2012 April 2012	As notified As notified As notified
Areas of Unadopted Green Belt Hyndburn Borough Council Pendle Borough Council Ribble Valley Borough Council	April 2012 April 2012 April 2012	As notified As notified As notified
Areas of Outstanding Natural Beauty Natural England	February 2012	Bi-Annually
Environmentally Sensitive Areas Natural England	February 2012	Annually
Forest Parks Forestry Commission	April 1997	Not Applicable
Local Nature Reserves Natural England	February 2012	Bi-Annually
Marine Nature Reserves Natural England	February 2012	Bi-Annually
National Nature Reserves Natural England	February 2012	Bi-Annually
National Parks Natural England	February 2012	Bi-Annually
Nitrate Sensitive Areas Department for Environment, Food and Rural Affairs (DEFRA - formerly FRCA)	February 2012	Not Applicable
Nitrate Vulnerable Zones Department for Environment, Food and Rural Affairs (DEFRA - formerly FRCA)	February 2012	Annually
Ramsar Sites Natural England	February 2012	Bi-Annually
Sites of Special Scientific Interest Natural England	February 2012	Bi-Annually
Special Areas of Conservation Natural England	February 2012	Bi-Annually
Special Protection Areas Natural England	February 2012	Bi-Annually

9881081058

Data Suppliers

A selection of organisations who provide data within this report

Data Supplier	Data Supplier Logo
Ordnance Survey	
Environment Agency	
Scottish Environment Protection Agency	
The Coal Authority	
British Geological Survey	
Centre for Ecology and Hydrology	
Countryside Council for Wales	
Scottish Natural Heritage	
Natural England	
Health Protection Agency	
Ove Arup	
Peter Brett Associates	

320130169P



Useful Contacts

Contact	Name and Address	Contact Details
1	Environment Agency - National Customer Contact Centre (NCCC) PO Box 544, Templeborough, Rotherham, S60 1BY	Telephone: 08708 506 506 Email: enquiries@environment-agency.gov.uk
2	British Geological Survey - Enquiry Service British Geological Survey, Kingsley Dunham Centre, Keyworth, Nottingham, Nottinghamshire, NG12 5GG	Telephone: 0115 936 3143 Fax: 0115 936 3276 Email: enquiries@bgs.ac.uk Website: www.bgs.ac.uk
3	Landmark Information Group Limited 5 - 7 Abbey Court, Eagle Way, Sowton, Exeter, Devon, EX2 7HY	Telephone: 01392 441761 Fax: 01392 441709 Email: cssupport@landmarkinfo.co.uk Website: www.landmarkinfo.co.uk
4	Ribble Valley Borough Council Council Offices, Church Walk, Clitheroe, Lancashire, BB7 2RA	Telephone: 01200 425111 Fax: 01200 414488 Website: www.ribblevalley.gov.uk
5	Hyndburn Borough Council Development Services, Eagle Street, Accrington, Lancashire, BB5 1LN	Telephone: 01254 388111 Fax: 01254 391625 Website: www.hyndburnbc.gov.uk
6	Natural England Northminster House, Northminster Road, Peterborough, Cambridgeshire, PE1 1UA	Telephone: 0845 600 3078 Fax: 01733 455103 Email: enquiries@naturalengland.org.uk Website: www.naturalengland.org.uk
7	Lancashire County Council - Waste Management Group Environment Directorate, Guild House, Cross Street, Preston, Lancashire, PR1 8RD	Website: www.lancashire.gov.uk
8	Ribble Valley Borough Council - Environmental Health Department Council Offices, Church Walk, Clitheroe, Lancashire, BB7 2RA	Telephone: 01200 425111 Fax: 01200 26339 Website: www.ribblevalley.gov.uk
-	Health Protection Agency - Radon Survey, Centre for Radiation, Chemical and Environmental Hazards Chilton, Didcot, Oxfordshire, OX11 0RQ	Telephone: 01235 822622 Fax: 01235 833891 Email: radon@hpa.org.uk Website: www.hpa.org.uk
-	Landmark Information Group Limited The Smith Centre, Henley On Thames, Oxfordshire, RG9 6AB	Telephone: 0844 844 9952 Fax: 0844 844 9951 Email: customerservices@landmarkinfo.co.uk Website: www.landmarkinfo.co.uk

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

3881001051



Index Map

For ease of identification, your site and buffer have been split into Slices, Segments and Quadrants. These are illustrated on the Index Map opposite and explained further below.

Slice

Each slice represents a 1:10,000 plot area (2.7km x 2.7km) for your site and buffer. A large site and buffer may be made up of several slices (represented by a red circle on the Index Map). Each slice is identified by a letter (A) and a number (1-25). This grid does not relate to National Grid lines but is designed to give you a better view of the site and buffer.

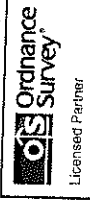
Segment

A segment represents a 1:2,500 plot area. Segments that have plot files associated with them are shown in light blue. Segments without plot files are numbered from the bottom left hand corner within each slice.

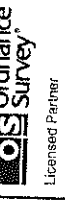
Quadrant

A quadrant is a quarter of a segment. These are labelled as NW, NE, SW, SE and are referenced in the database to allow you to search for a quarry located on plots. Therefore a feature that has a quadrant reference of NW will be in Slice A, Segment 7 and the NW Quadrant.

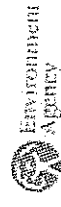
A selection of organisations who provide data within this report:



Ordnance Survey
Licensed Partner



British Geological Survey
www.bgs.ac.uk



Environment Agency
www.environment-agency.gov.uk



Envirocheck reports are compiled from 126 different sources of data.

Client Details

P Taunton, RSK Environment Ltd, Rowan Cottage,
Woolston Common, Lydney, Gloucestershire, GL15 6NY

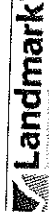
Order Details

Order Number: 38941528_1_1
Customer Ref: 321139
National Grid Reference: 373610, 437550
Site Area (Ha): 0.62
Search Buffer (m): 1000

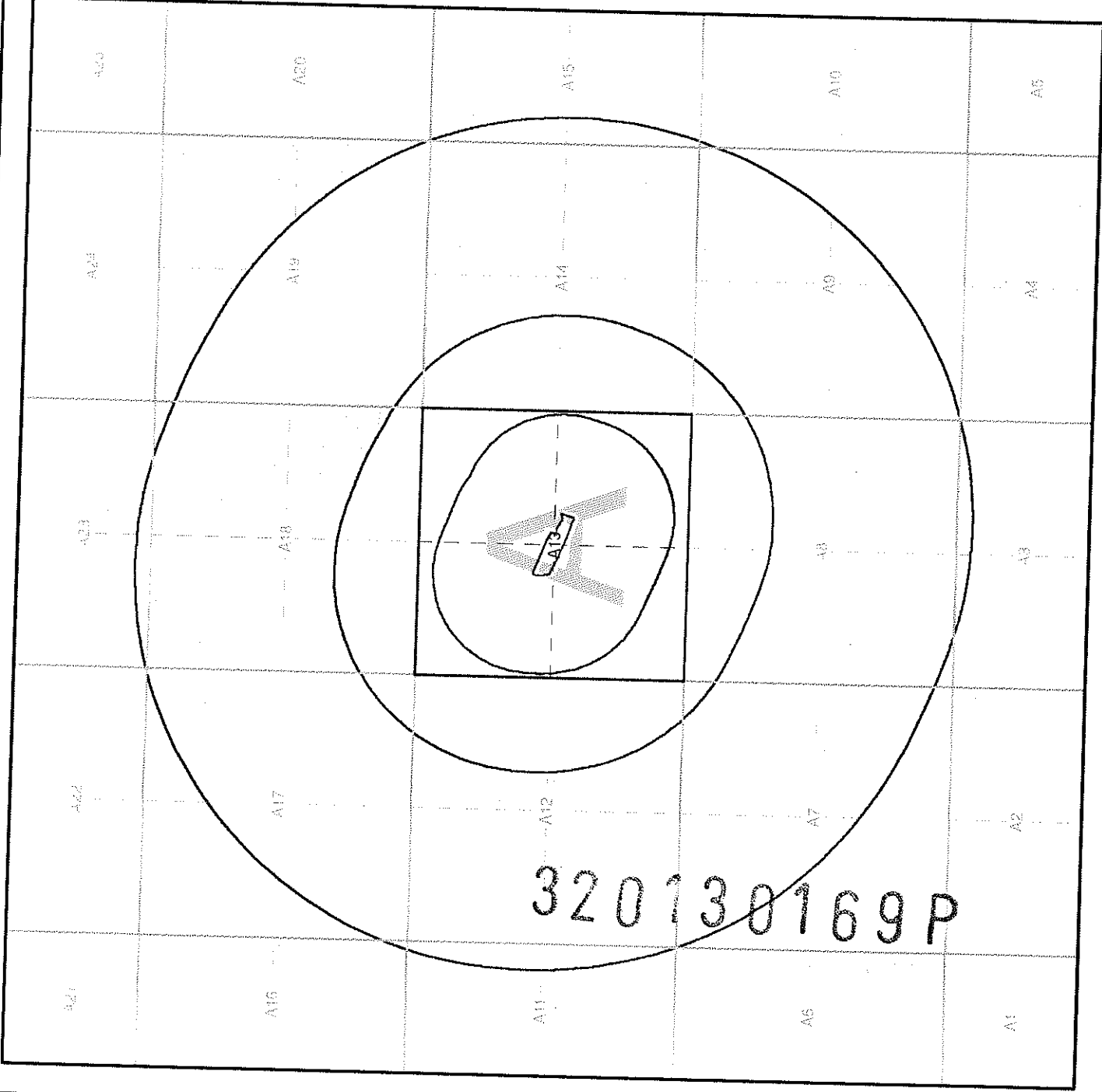
Site Details

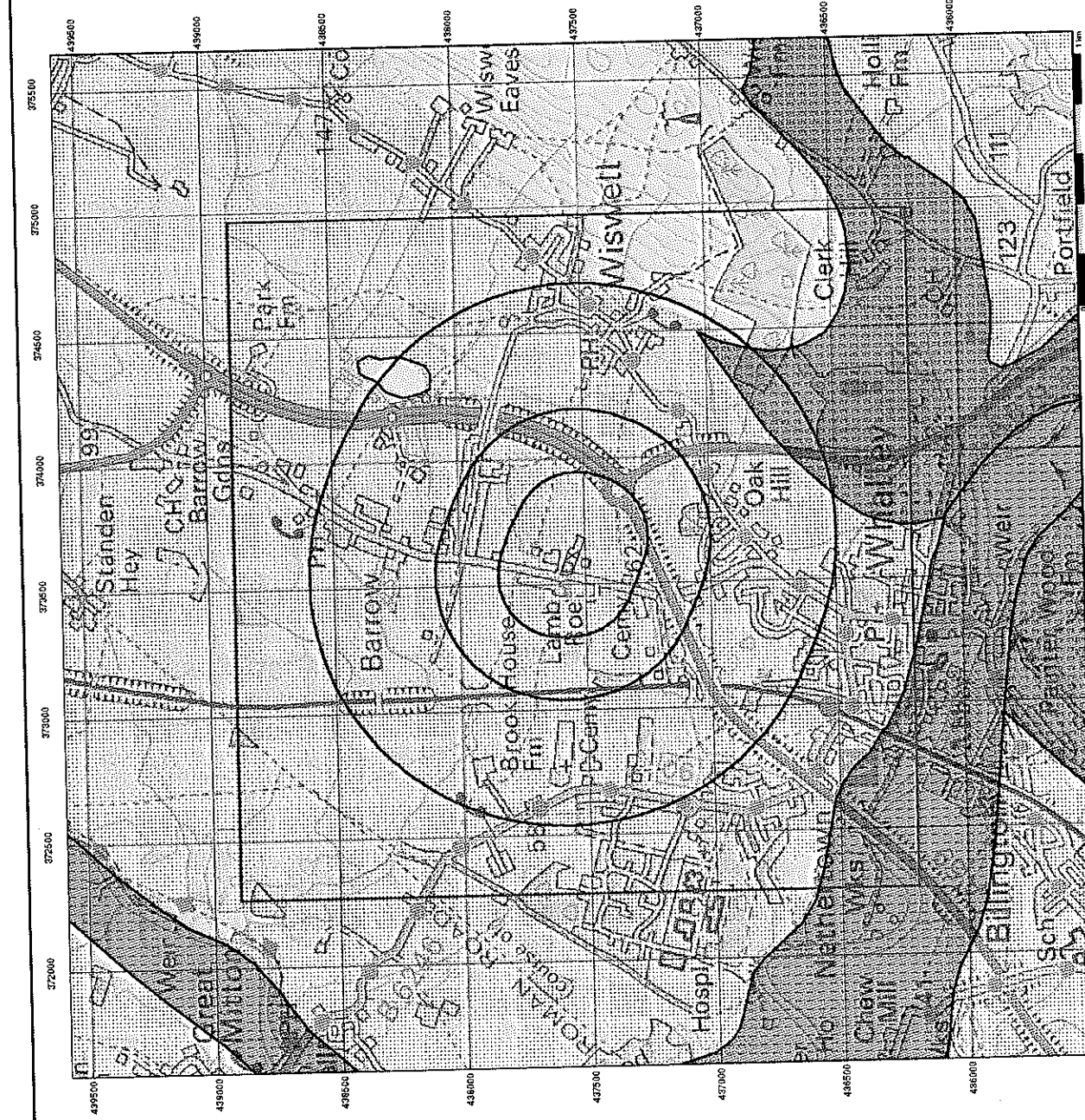
Site at 373600, 437600

Full Terms and Conditions can be found on the following link:
<http://www.landmarkinfo.co.uk/Terms/Show/430>



Tel: 0844 844 9892
Fax: 0844 844 9851
Web: www.envirocheck.co.uk





Groundwater Vulnerability

General Specified Site Specified Buffer(s) Bearing Reference Point

Site Map ID

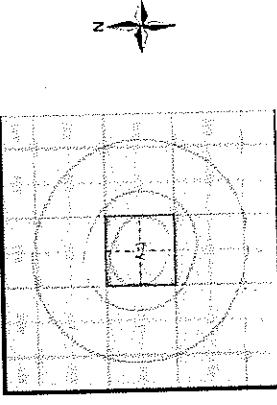
Agency and Hydrological

Geological Classes

Soil Classes

- Major Aquifer (Highly Permeable)
- Minor Aquifer (Variably Permeable)
- Non Aquifer (Negligibly Permeable)
- Water or Sea
- Drift Deposit
- High (H) 1, 2, 3, U
- Intermediate (I) 1, 2
- Low
- High (H) 1, 2, 3, U
- Intermediate (I) 1, 2
- Low

Site Sensitivity Context Map - Slice A

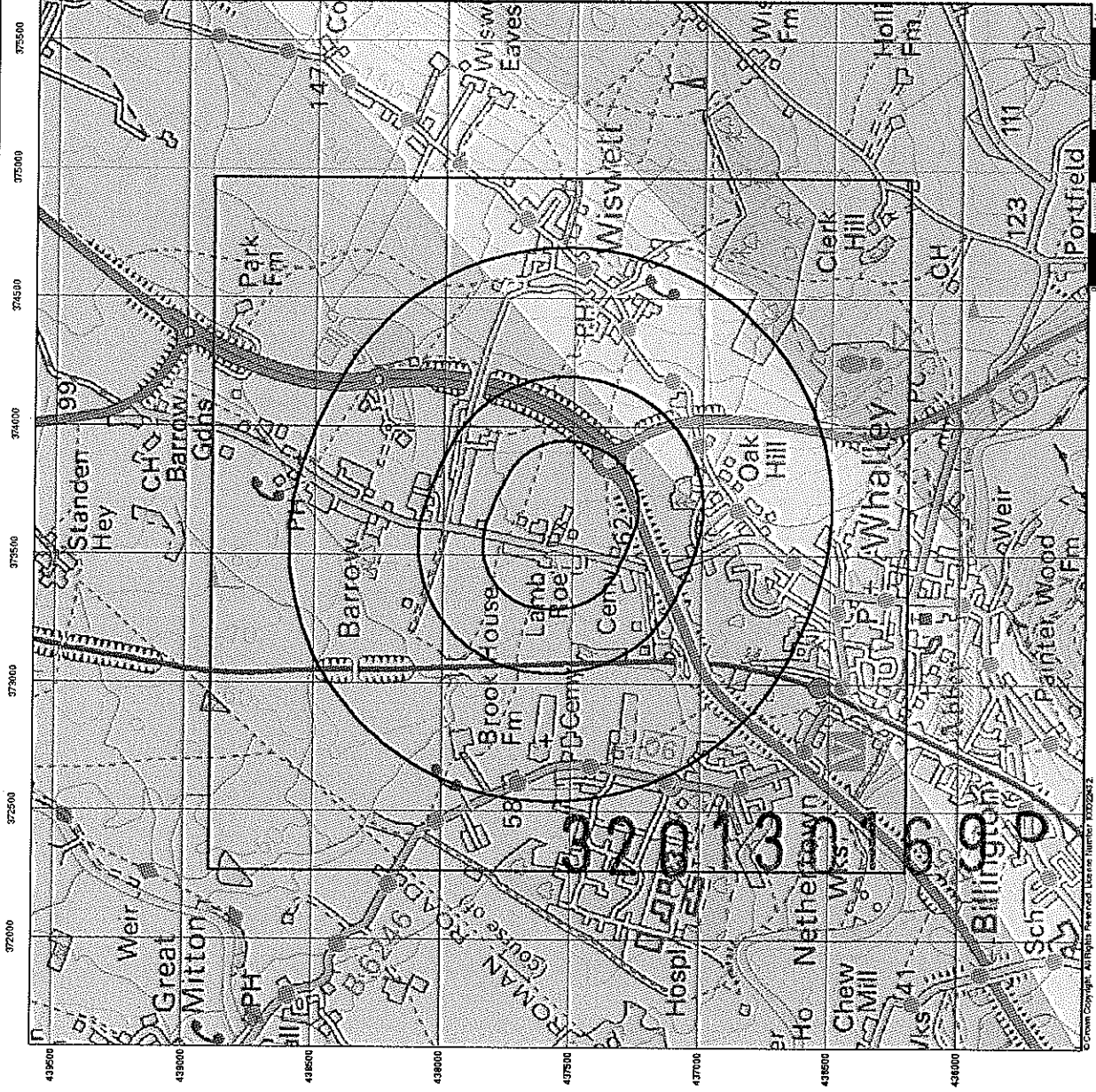


Order Details

Order Number: 39041528_1_1
Customer Ref: 321139
National Grid Reference: 373610, 437550
Site: A
Site Area (Ha): 0.62
Search Buffer (m): 1000
Site Details
Site at 373600, 437600



0844 944 9922
Tel: 0844 944 9922
Fax: 0844 944 9922
Web: www.landmark.co.uk



Bedrock Aquifer Designation

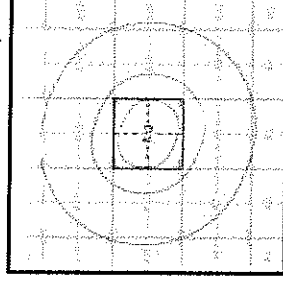
General
Selected Site
Slice
Map ID
Bearing Reference Point

Agency and Hydrological

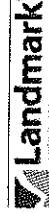
Geological Classes

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

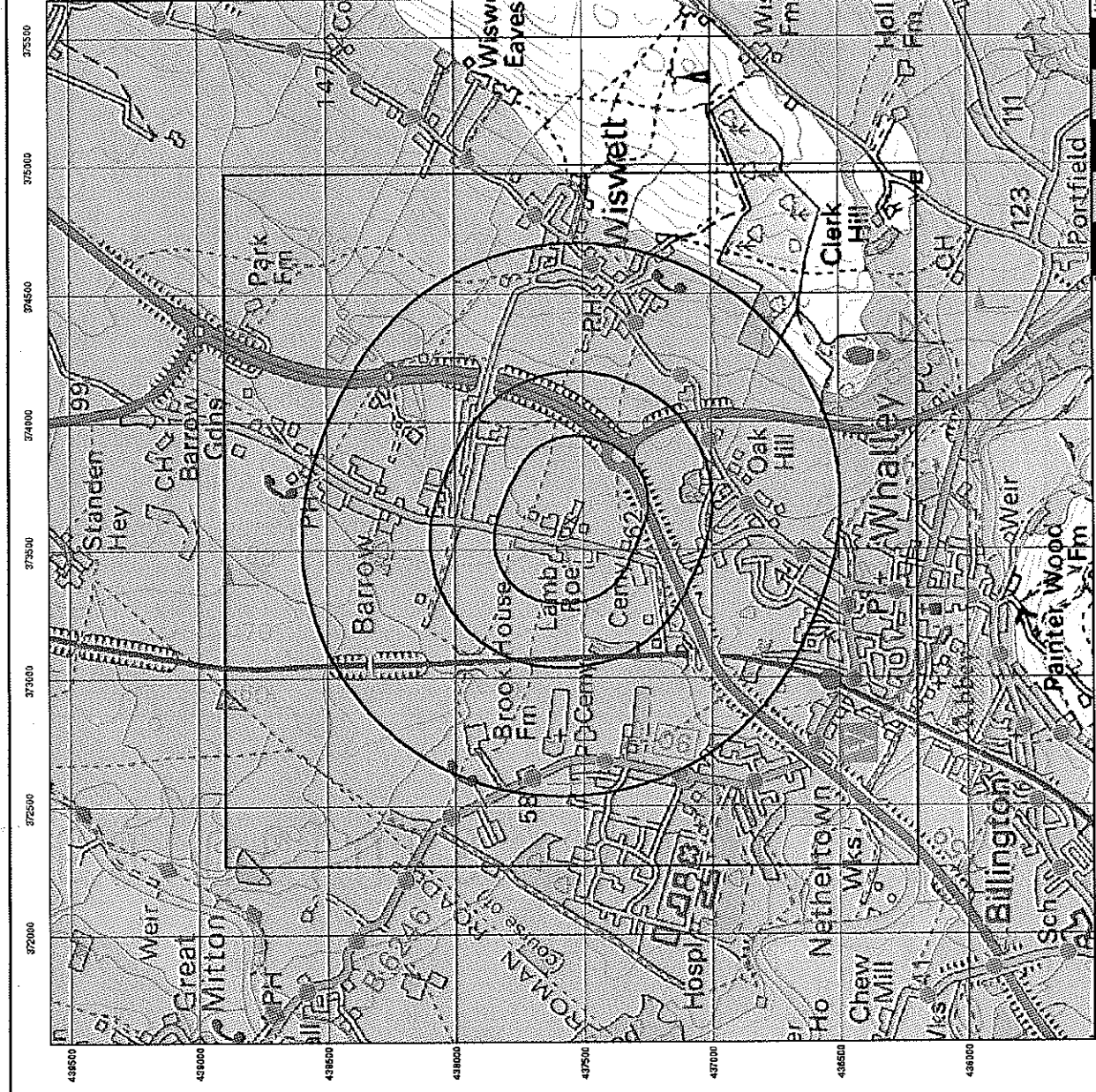
Site Sensitivity Context Map - Slice A



Order Details
Order Number: 39941528_1_1
Customer Ref: 321139
National Grid Reference: 373610, 437550
Site: A
Site Area (Ha): 0.62
Search Buffer (m): 1000
Site Details
Site at 373600, 437600



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



Superficial Aquifer Designation

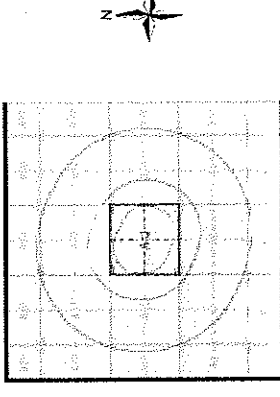
- General**
- Specified Site
 - Specified Bullard(s)
 - Map ID
 - Bearing Reference Point

Agency and Hydrological

Geological Classes

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

Site Sensitivity Context Map - Slice A



Order Details

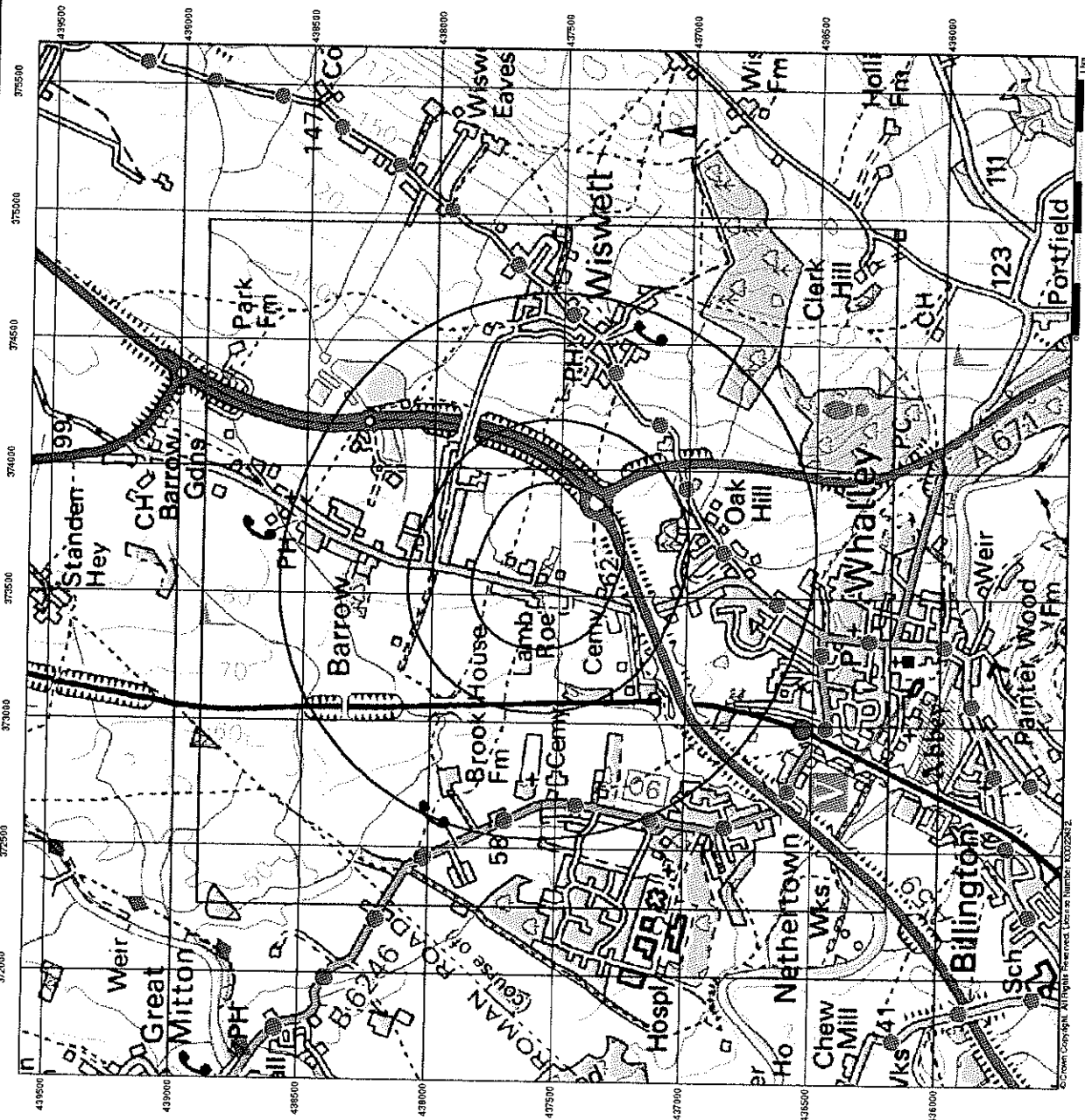
Order Number: 39941528_1_1
Customer Ref: 321139
National Grid Reference: 373610, 437550
Site: A
Site Area (Ha): 0.62
Search Buffer (m): 1000

Site Details

Site at 373600, 437600



Tel: 0844 844 9922
Fax: 0844 844 9923
Web: www.landmark.co.uk



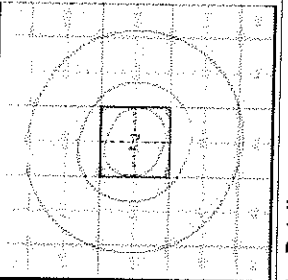
3201301692



Source Protection Zones

- General**
- Specified Site
 - Site
 - Map ID
 - Beating Reference Point
- Agency and Hydrological**
- Source Protection Zone I
 - Source Protection Zone II
 - Source Protection Zone III
 - Zone of Special Interest
 - Source Protection Zone Boundary

Site Sensitivity Context Map - Slice A

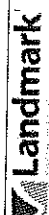


Order Details

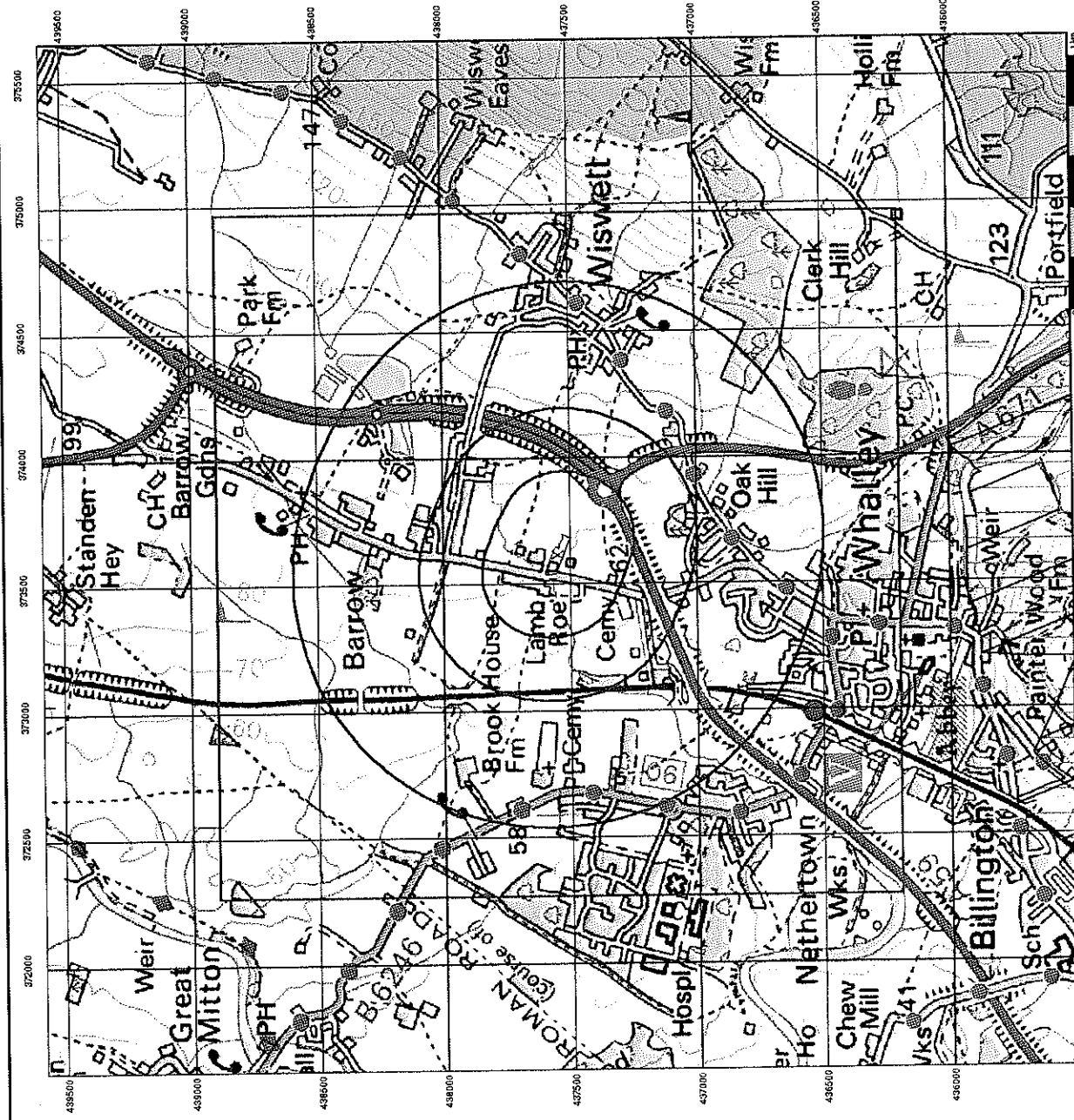
Order Number: 39941528_1_1
Customer Ref: 321139
National Grid Reference: 373610, 437550
Slice: A
Site Area (Ha): 0.62
Search Buffer (m): 1000

Site Details

Site at 373600, 437600



Landmark
Tel: 0844 844 8962
Web: www.landmark.co.uk



Sensitive Land Uses

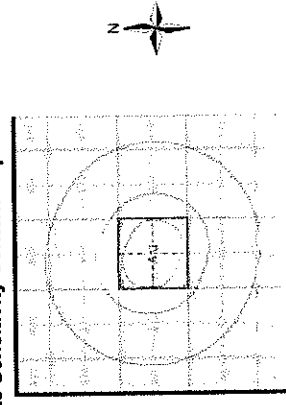
General!

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

Sensitive Land Uses

- | | | | |
|---|------------------------------------|---|-------------------------------------|
|  | Area of Admixed Green Belt |  | National Park |
|  | Area of Unadmixed Green Belt |  | Nitrile Sensitive Area |
|  | Area of Outstanding Natural Beauty |  | Nitrile Vulnerable Zone |
|  | Environmentally Sensitive Area |  | Removal Site |
|  | Forest Park |  | Site of Special Scientific Interest |
|  | Local Nature Reserve |  | Special Area of Conservation |
|  | Marine Nature Reserve |  | Special Protection Area |
|  | National Nature Reserve | | |

Site Sensitivity Context Map - Slice A



Order Details

Order Number: 39941528_1_1

Customer Ref: 321139
National Grid Reference: 373610, 437550

Slice:	A
Site Area (Ha):	0.62

Search Buffer (m): 1000

Site Details

Site at 373600, 437600

capac



ORIGINAL

Geology 1:50,000 Maps Legends

Superficial Geology

Map Colour	Lax Code	Rock Name	Rock Type	Min and Max Age
	ALV	Alluvium	Clay, Silt, Sand and Gravel	Flandrian - Flandrian
	TILLD	Till, Devensian	Diamicton	Devensian - Devensian
	GFDUD	Glaciofluvial Deposits, Devensian	Sand and Gravel	Devensian - Devensian
	RTD2	River Terrace Deposits, 2	Sand and Gravel	Quaternary - Quaternary
	RTD1	River Terrace Deposits, 1	Sand and Gravel	Quaternary - Quaternary

Map Colour	Lax Code	Rock Name	Rock Type	Min and Max Age
		Faults		

Bedrock and Faults

Map Colour	Lax Code	Rock Name	Rock Type	Min and Max Age
	PRMT	Permian Rocks and Triassic Rocks (Undifferentiated)	Sandstone and Mudstone	Triassic - Permian
	KG	Kinderscout Grit	Sandstone	Kinderscoutian - Kinderscoutian
	SDSH	Sabden Shales	Mudstone and Siltstone	Kinderscoutian - Kinderscoutian
	PG	Pendle Grit Member	Sandstone	Arnsbergian - Arnsbergian
	PG	Pendle Grit Member	Siltstone and Sandstone	Pendleian - Pendleian
	WWG	Warley Wise Grit	Sandstone and Siltstone, Interbedded	Pendleian - Pendleian
	MG	Millstone Grit Group (See also Migr)	Mudstone, Siltstone and Sandstone	Namurian - Namurian
	BSG	Bowland Shale Formation	Mudstone	Yeadonian - Asbian
	RKM	Rad Brook Mudstone Member	Mudstone	Holkerian - Holkerian
	BOH	Hodderense Limestone Formation	Limestone	Holkerian - Holkerian
	PDL	Pendleside Limestone Formation	Limestone	Asbian - Holkerian
	PDL	Pendleside Limestone Formation	Mudstone	Asbian - Holkerian
	CLHOM	Clietheroe Limestone Formation and Hodder Mudstone Formation (Undifferentiated)	Mudstone	Holkerian - Chadian
	HOM	Hodder Mudstone Formation	Mudstone	Holkerian - Chadian



Geology 1:50,000 Maps

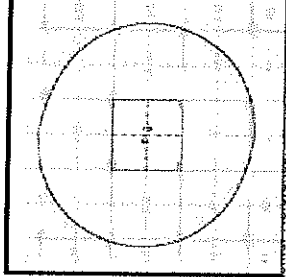
This report contains geological map extracts taken from the BGS Digital Geological map of Great Britain at 1:50,000 scale and is designed for users carrying out preliminary site assessments who require geological maps for the area around the site. This mapping may be more up to date than previously published paper maps.

The various geological layers - artificial and landslip deposits, superficial geology and solid (bedrock) geology are displayed in separate maps, but superimposed on the final 'Combined Surface Geology' map. All map legends feature on this page. Not all layers have complete nationwide coverage, so availability of data for relevant map sheets is indicated below.

Geology 1:50,000 Maps Coverage

Map ID:	1
Sheet No:	1
Map Name:	Clietheroe
Map Date:	1975
Bedrock Geology:	Available
Superficial Geology:	Available
Artificial Geology:	Available
Faults:	Available
Landslip:	Available
Rock Segments:	Available

Geology 1:50,000 Maps - Slice A

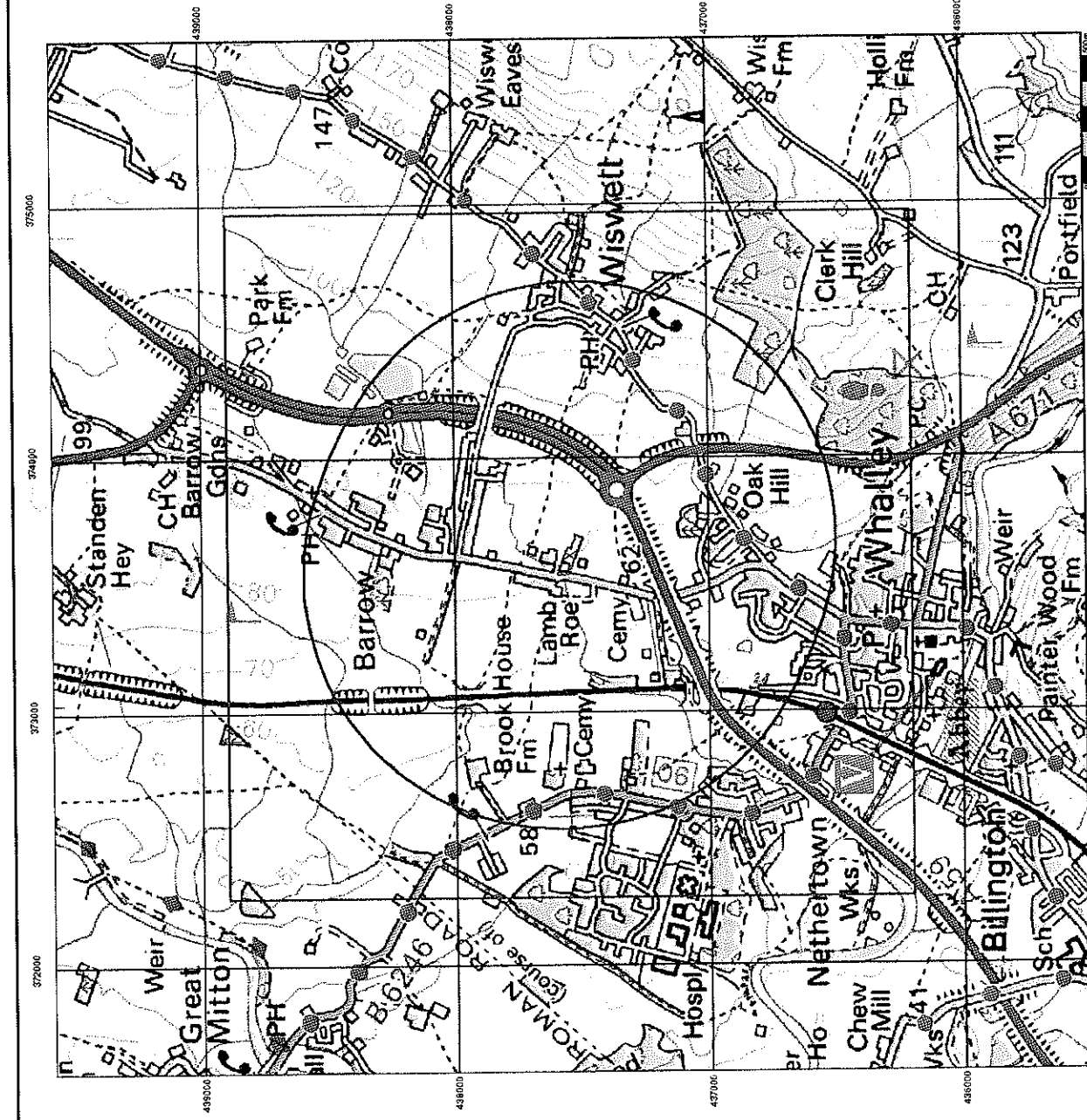


Ord
Cust
National Grid Reference: 373610, 437550
Slice: A
Site Area (Ha): 0.62
Search Buffer (m): 1000
Site Details:
Site at 373600, 437600



Tel: 0844 844 9552
Fax: 0844 844 9553
Web: www.environment.co.uk

Y15.0 28-Jun-2012



Artificial Ground and Landslip

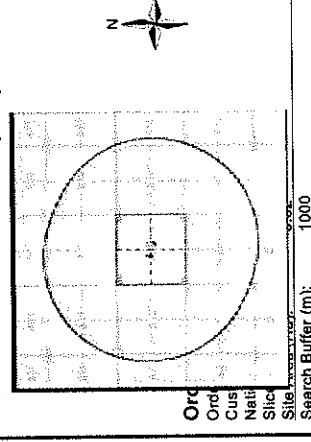
Artificial ground is a term used by BGS for those areas where the ground surface has been significantly modified by human activity. Information about previously developed ground is especially important, as it is often associated with potentially contaminated material, unpredictable engineering conditions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

Artificial ground includes:

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

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

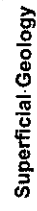
Artificial Ground and Landslip Map - Slice A



Site Details:
Site at 373600, 437600



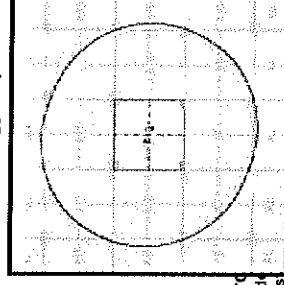
Tel: 0844 844 9932
Fax: 0844 844 9951
Web: www.ghimrodnet.co.uk



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

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

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



Slice:	A
Site Area (Ha):	0.62
Search Buffer (m):	1000

$$\{m\} = \{0.62, 1000\}$$

Site Details:

Site at 373600, 437600



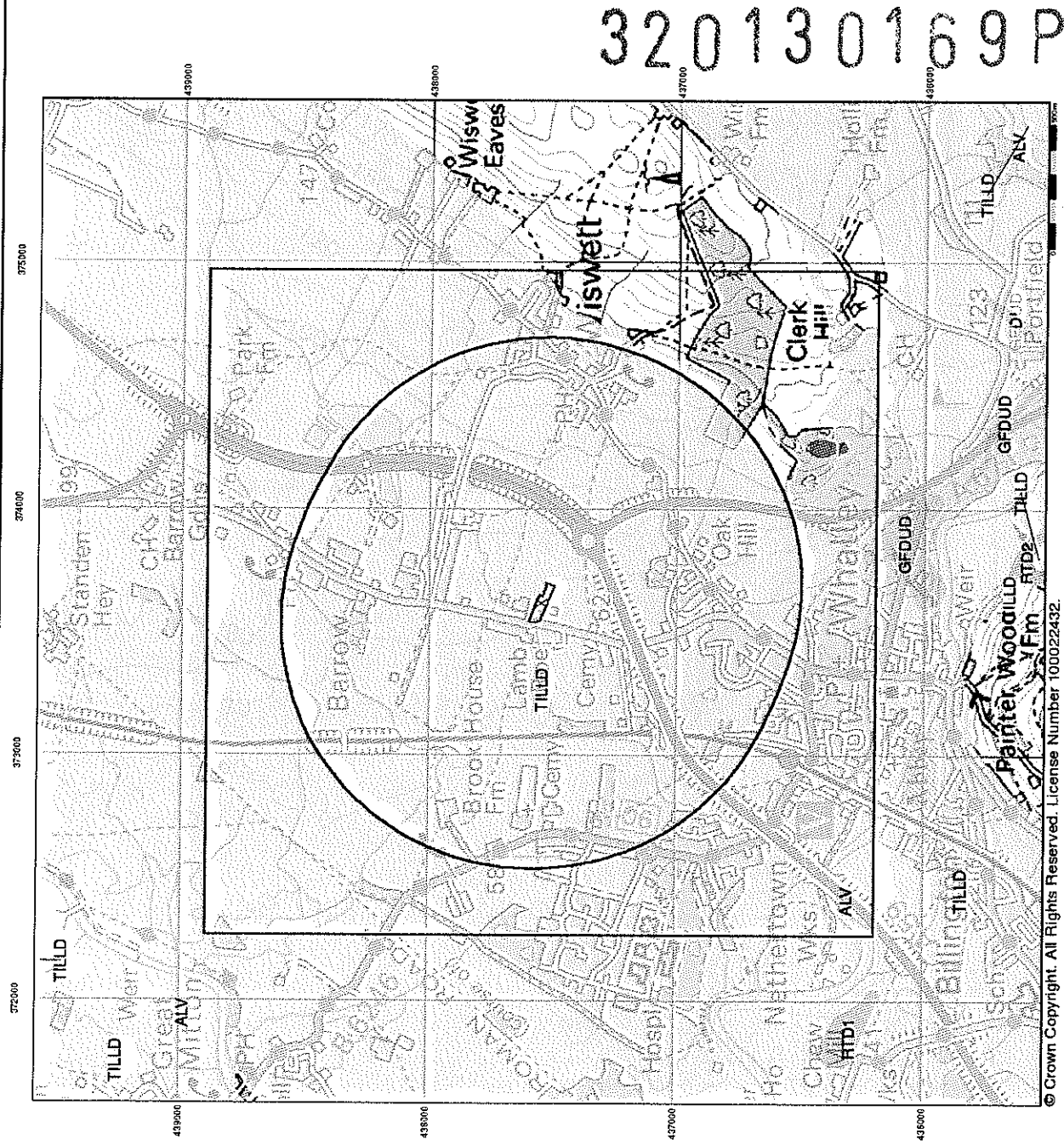
Tel: 0844 844 9952
Fax: 0844 844 9951
Web: www.envisagecheck.co.uk

0844 844 9952
0844 844 9954

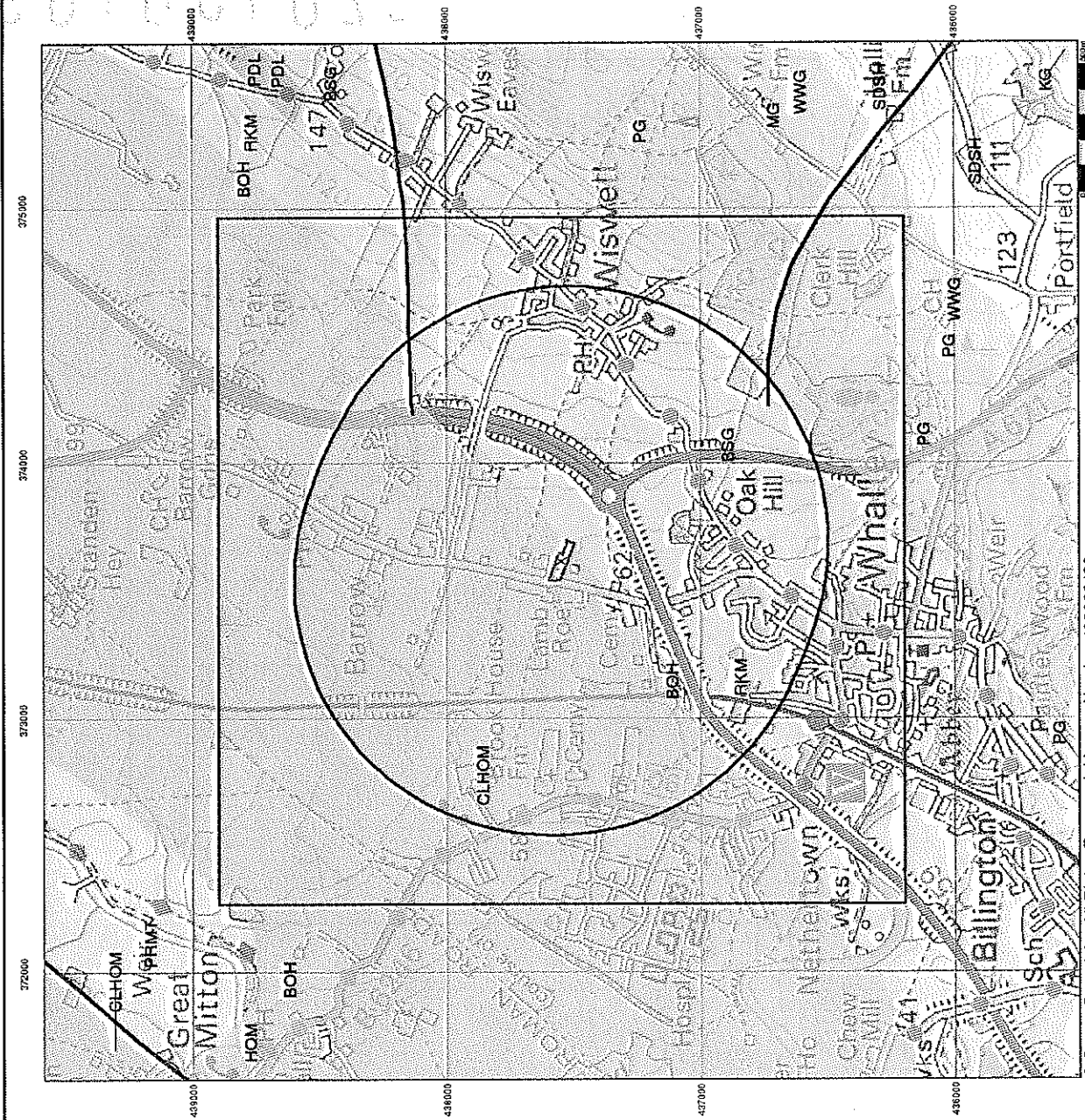
0844 844 995*

v15.0 28-Jun-2012

Page 3 of 5



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



Bedrock and Faults

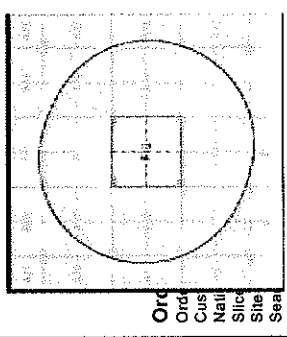
Bedrock geology is a term used for the main mass of rocks forming the Earth and are present everywhere, whether exposed at the surface in outcrops or concealed beneath superficial deposits or water.

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

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

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

Bedrock and Faults Map - Slice A

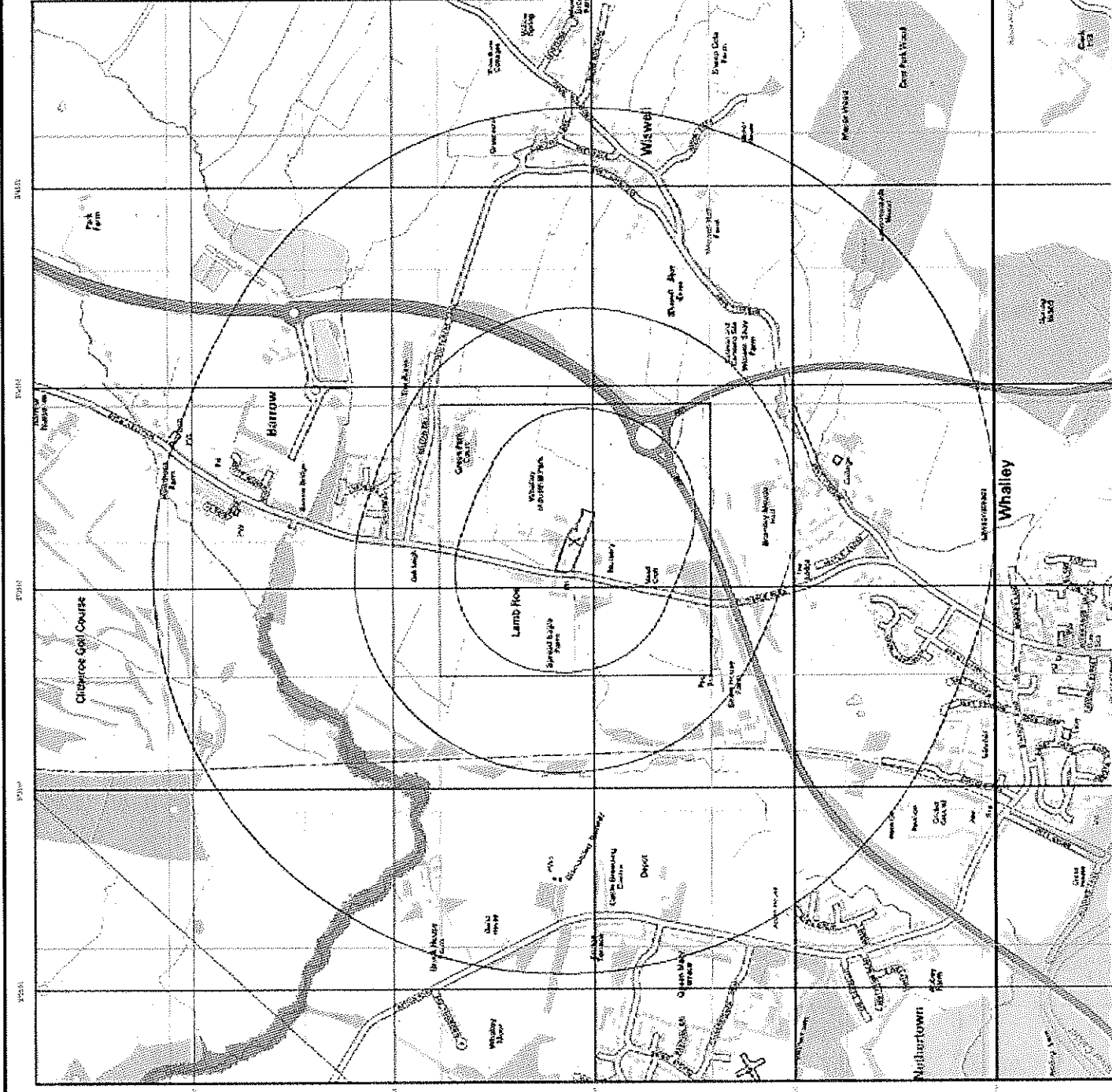


Site Details:

Site at 373600, 437600



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



General

- General**
- ☐ Specified Salt
- ☐ Specified Buffer(s)
- ☒ Binding Reference Point

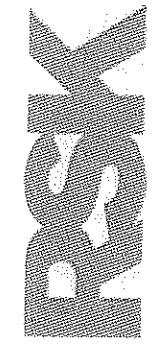
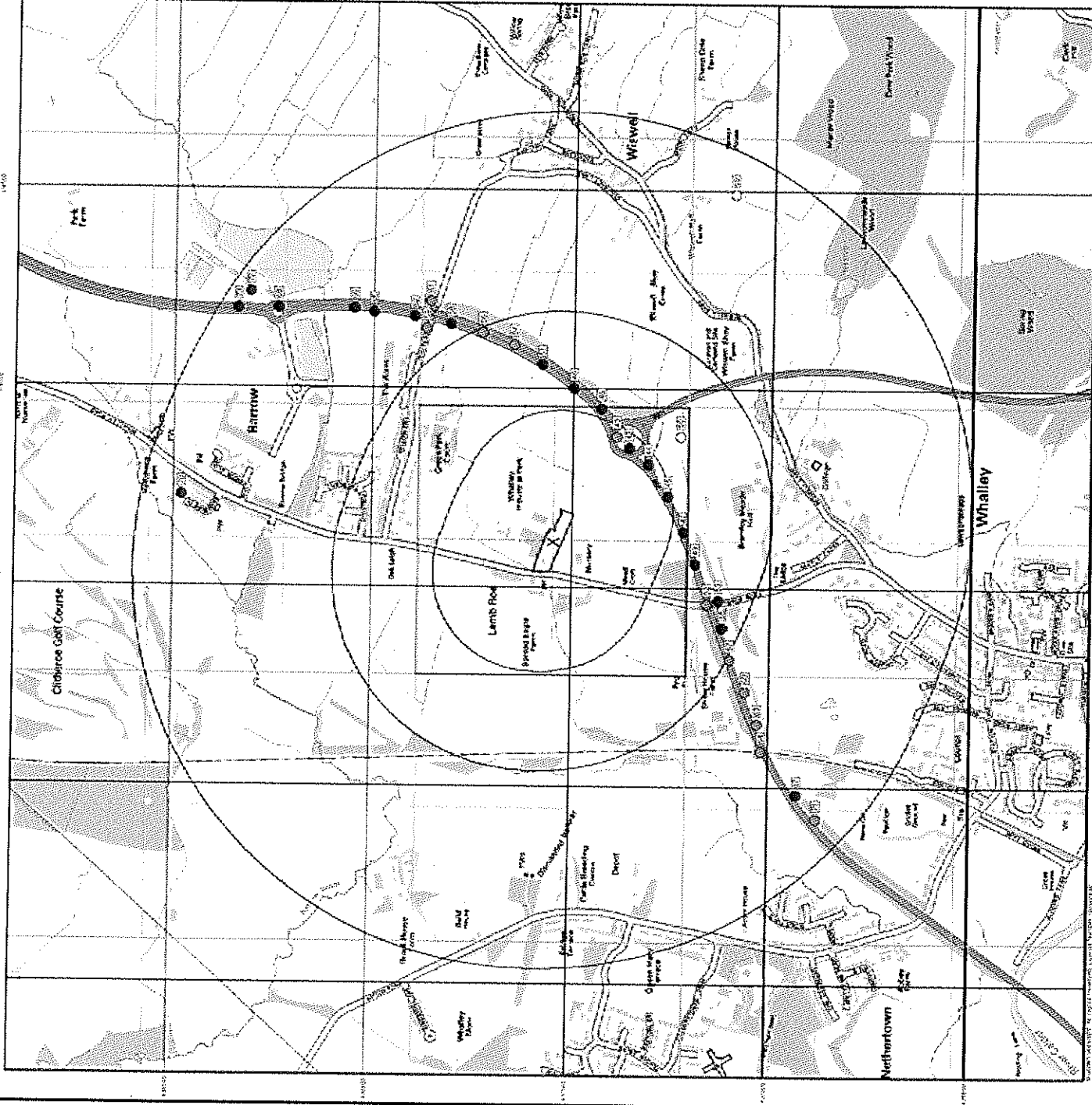
Agency and Hydrological (Flood)

-  Extreme Flooding from Rivers or Sea
 Flooding from Rivers or Sea without flood defences
 Area Benefiting from Flood Defence
 Flood Water Storage Areas
 Flood Defence

Flood Map - Slice A



Site Details

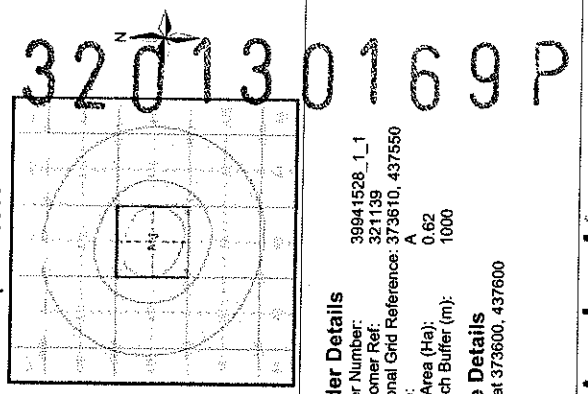


- General**
- Scheduled Site
 - Scheduled Borehole
 - ✕ Borehole Reference Point
 - Map ID
 - Section of Type & Location
- Agency and Hydrological (Boreholes)**
- BGS Borehole Depth 0 - 10m
 - BGS Borehole Depth 10 - 30m
 - BGS Borehole Depth 30m +
 - Contaminated
 - Other

For Borehole information please refer to the Borehole .csv file which accompanied this slice.

A copy of the BGS Borehole Ordering Form is available to download from the Support section of www.envirocheck.co.uk.

Borehole Map - Slice A



Order Details

Order Number: 39941528_1_1
Customer Ref: 321139
National Grid Reference: 373610, 437550
Slice: A
Site Area (Ha): 0.62
Search Buffer (m): 1000

Site Details

Site at 373600, 437600



Tel: 0844 844 8822
Fax: 0844 844 8851
Web: www.envirocheck.co.uk

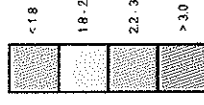


General

○ Specimen Data ○ Specimen Number ○ X Reading Reference Unit

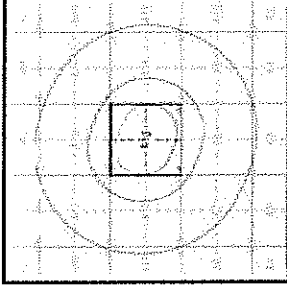
Estimated Soil Chemistry Cadmium

Cadmium Concentrations mg/kg



320130109

Estimated Soil Chemistry Cadmium - Slice A



Order Details

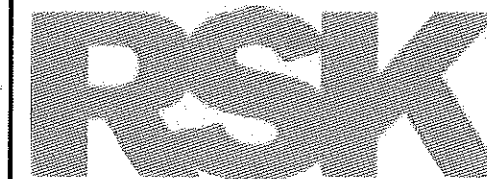
Order Details: 38941528_1_1
Customer Ref: 321139
National Grid Reference: 373610, 437550
Site: A
Life Area (Ha): 0.62
Search Buffer (m): 1000

Site Details

Site at 373600, 437600



Tel: 0844 844 8900
Fax: 0844 844 8951
Web: www.landmark.co.uk



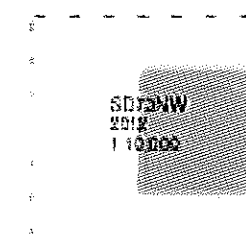
10k Raster Mapping

Published 2012

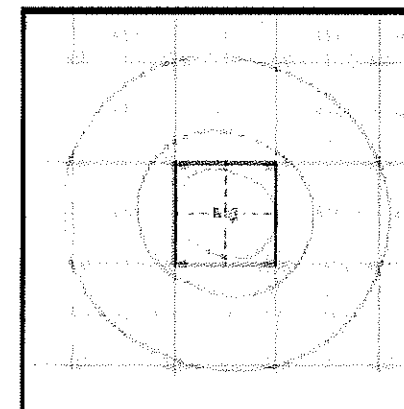
Source map scale - 1:10,000

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

Map Name(s) and Date(s)



Historical Map - Slice A



Order Details

Order Number: 39941528_1_1
Customer Ref: 321139
National Grid Reference: 373610, 437550
Slice: A
Site Area (Ha): 0.62
Search Buffer (m): 1000

Site Details

Site at 373600, 437600



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



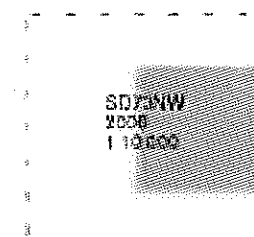
10k Raster Mapping

Published 2006

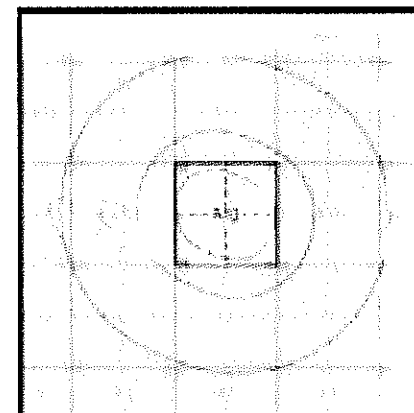
Source map scale - 1:10,000

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

Map Name(s) and Date(s)



Historical Map - Slice A



Order Details

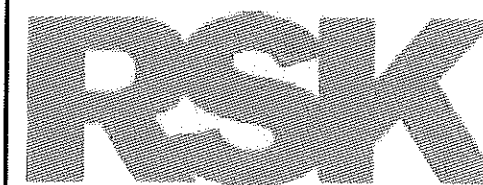
Order Number: 39941528_1_1
Customer Ref: 321139
National Grid Reference: 373610, 437550
Slice: A
Site Area (Ha): 0.62
Search Buffer (m): 1000

Site Details

Site at 373600, 437600



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

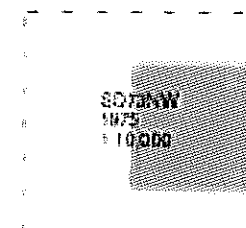


Ordnance Survey Plan Published 1975

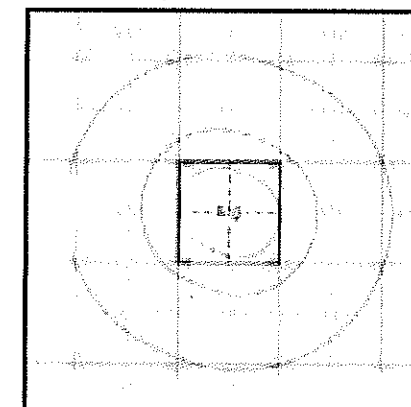
Source map scale - 1:10,000

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

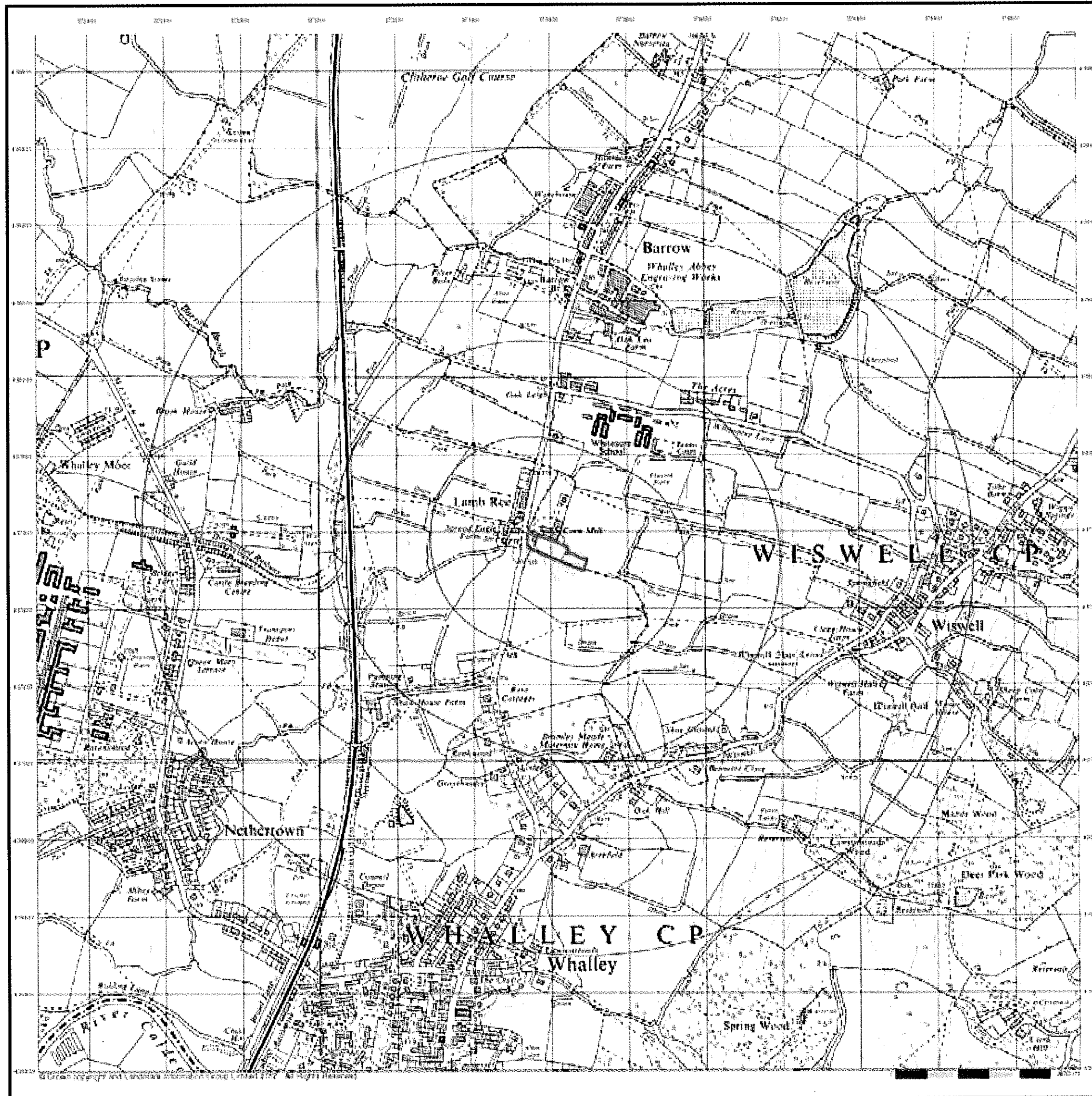
Order Number: 39941528_1_1
Customer Ref: 321139
National Grid Reference: 373610, 437550
Slice: A
Site Area (Ha): 0.62
Search Buffer (m): 1000

Site Details

Site at 373600, 437600



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



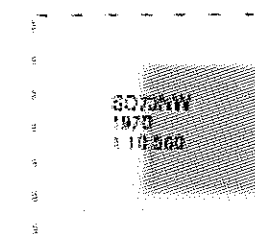
Ordnance Survey Plan

Published 1970

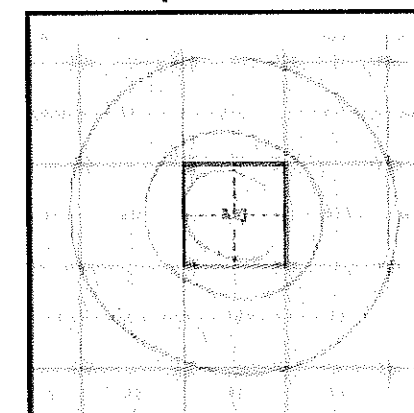
Source map scale - 1:10,000

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: 39941528_1_1
 Customer Ref: 321139
 National Grid Reference: 373610, 437550
 Slice: A
 Site Area (Ha): 0.62
 Search Buffer (m): 1000

Site Details

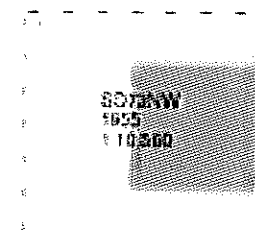
Site at 373600, 437600



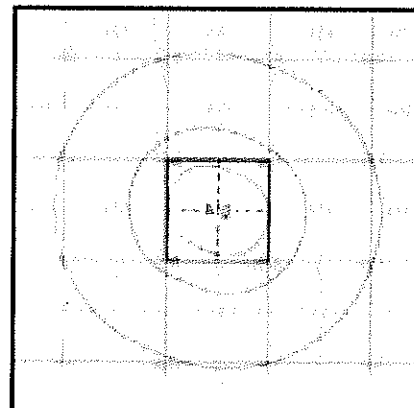
Tel: 0844 844 9952
 Fax: 0844 844 9951
 Web: www.envirocheck.co.uk



The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas; 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

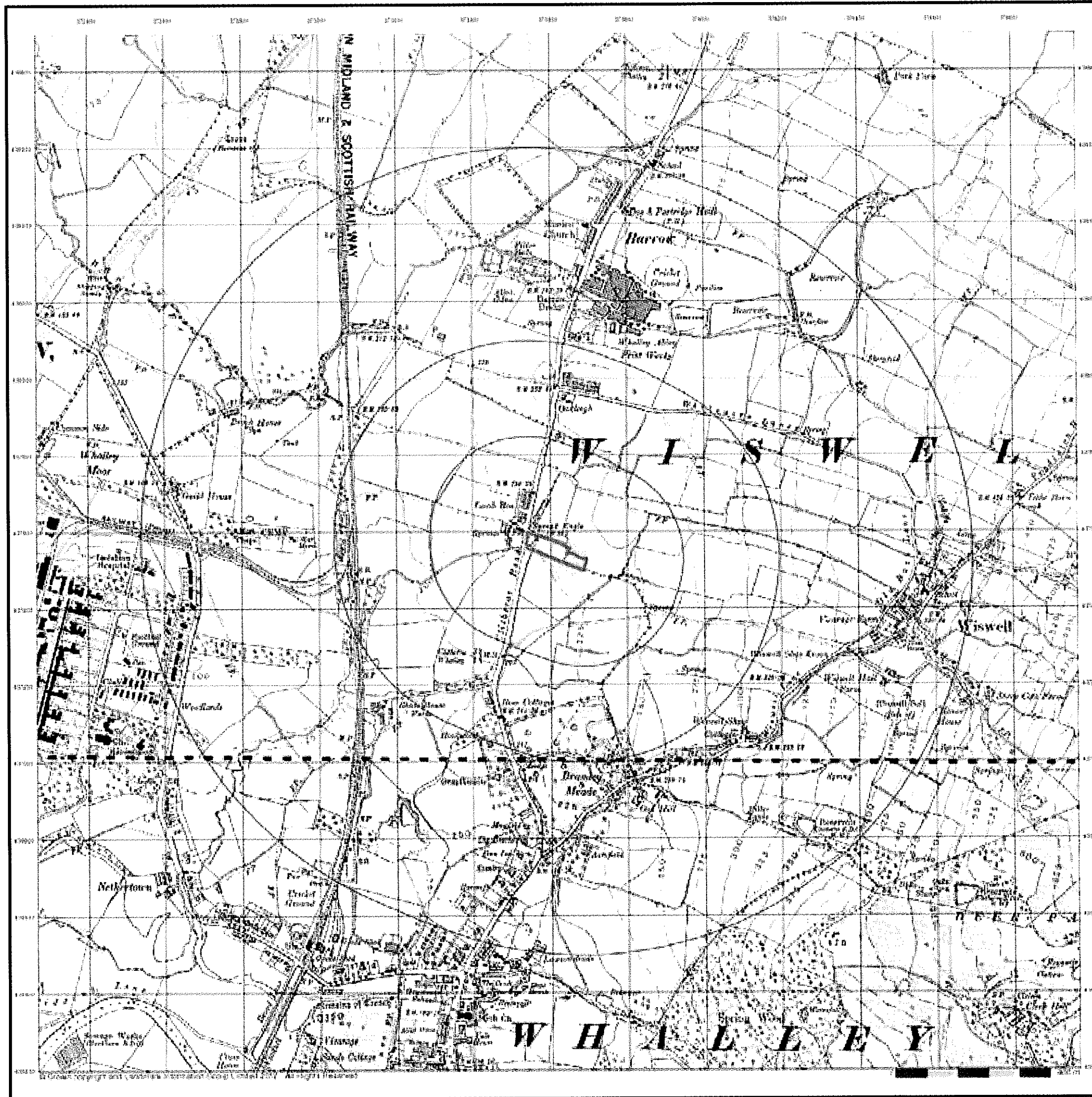
Order Number: 39941528_1_1
Customer Ref: 321139
National Grid Reference: 373610, 437550
Slice: A
Site Area (Ha): 0.62
Search Buffer (m): 1000

Site Details

Site at 373600, 437600



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



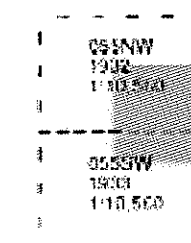
Lancashire And Furness

Published 1932 - 1933

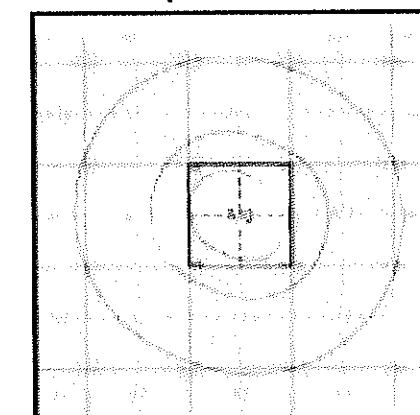
Source map scale - 1:10,560

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

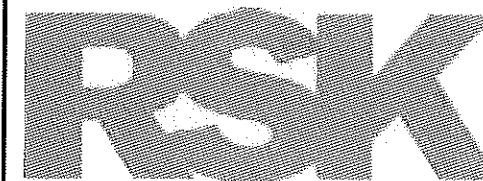
Order Number: 39941528_1_1
 Customer Ref: 321139
 National Grid Reference: 373610, 437550
 Slice: A
 Site Area (Ha): 0.62
 Search Buffer (m): 1000

Site Details

Site at 373600, 437600



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



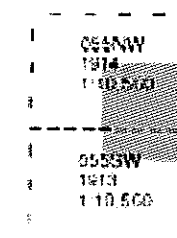
Lancashire And Furness

Published 1913 - 1914

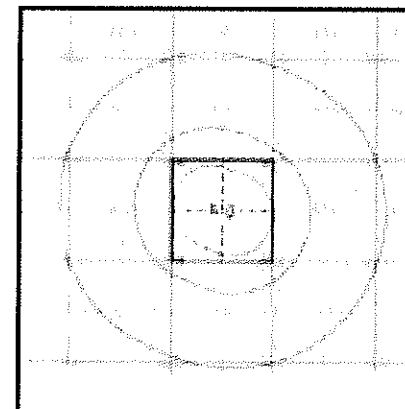
Source map scale - 1:10,560

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: 39941528_1_1
Customer Ref: 321139
National Grid Reference: 373610, 437550
Slice: A
Site Area (Ha): 0.62
Search Buffer (m): 1000

Site Details

Site at 373600, 437600



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

320130169P

AND
COLDCOATS



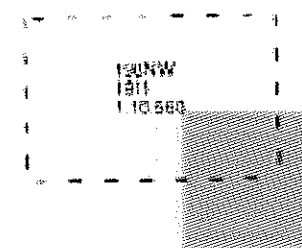
Yorkshire

Published 1911

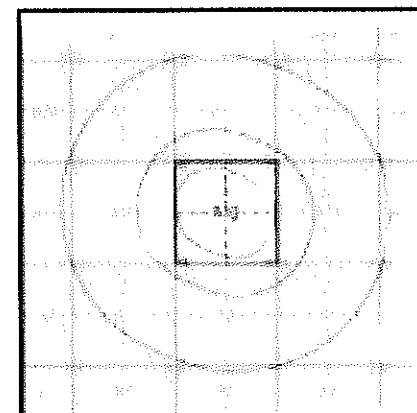
Source map scale - 1:10,560

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

Map Name(s) and Date(s)



Historical Map - Slice A



Order Details

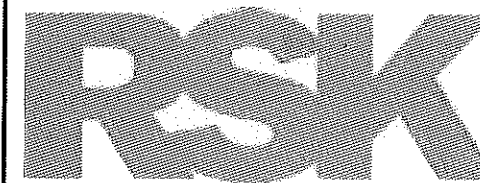
Order Number: 39941528_1_1
Customer Ref: 321139
National Grid Reference: 373610, 437550
Slice: A
Site Area (Ha): 0.62
Search Buffer (m): 1000

Site Details

Site at 373600, 437600



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



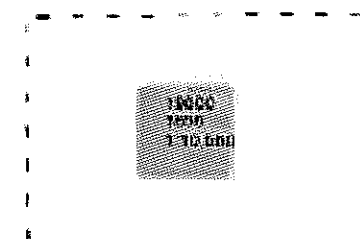
Yorkshire

Published 1896

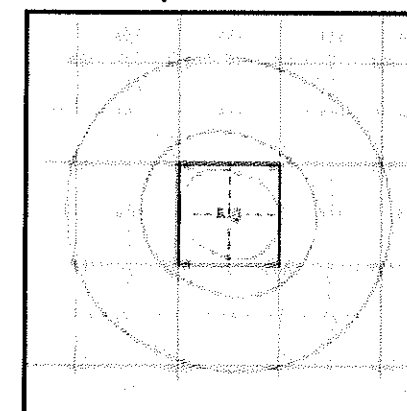
Source map scale - 1:10,560

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: 39941528_1_1
Customer Ref: 321139
National Grid Reference: 373610, 437550
Slice: A
Site Area (Ha): 0.62
Search Buffer (m): 1000

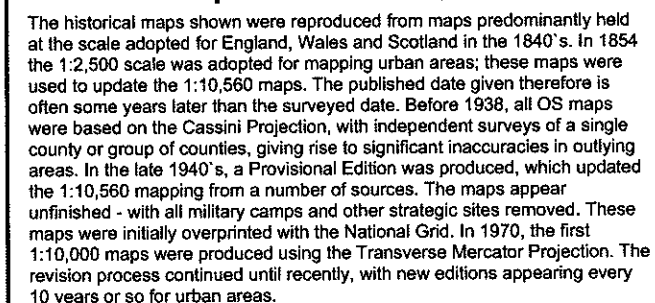
Site Details

Site at 373600, 437600



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

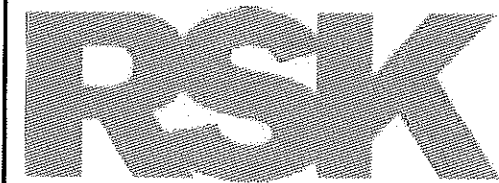
320130169P



0521W
1895
110.500

Site at 373600, 437600





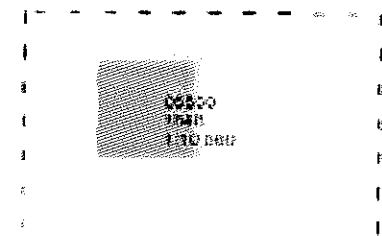
Lancashire And Furness

Published 1848

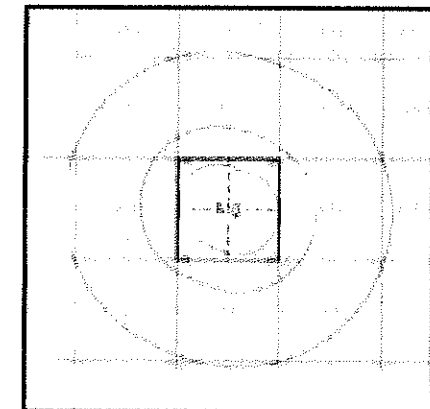
Source map scale - 1:10,560

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

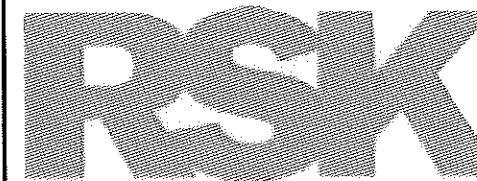
Order Number: 39941528_1_1
Customer Ref: 321139
National Grid Reference: 373610, 437550
Slice: A
Site Area (Ha): 0.62
Search Buffer (m): 1000

Site Details

Site at 373600, 437600



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



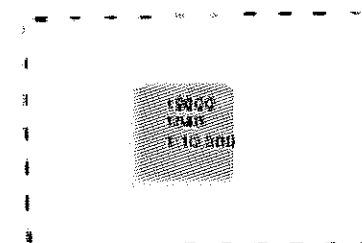
Yorkshire

Published 1848

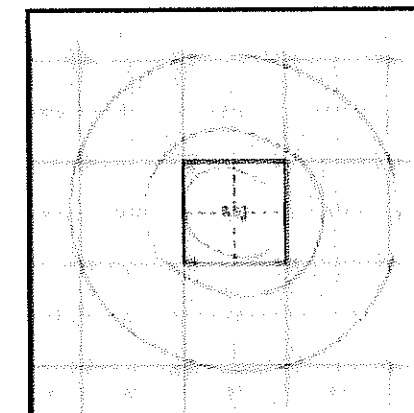
Source map scale - 1:10,560

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

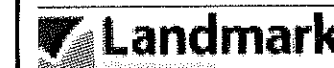


Order Details

Order Number: 39941528_1_1
Customer Ref: 321139
National Grid Reference: 373610, 437550
Slice: A
Site Area (Ha): 0.62
Search Buffer (m): 1000

Site Details

Site at 373600, 437600



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

Historical Mapping Legends

Ordnance Survey County Series 1:10,560

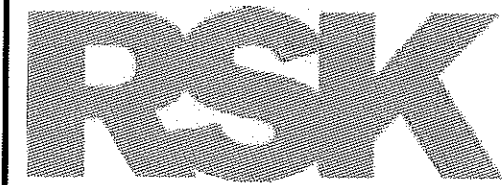
	Gravel Pit		Sand Pit		Other Pits
	Quarry		Shingle		Orchard
	Osiers		Reeds		Marsh
	Mixed Wood		Deciduous		Brushwood
	Fir		Furze		Rough Pasture
	Arrow denotes flow of water		Trigonometrical Station		
	Site of Antiquities		Bench Mark		
	Pump, Guide Post, Signal Post		Well, Spring, Boundary Post		
	-285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

Ordnance Survey Plan 1:10,000

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

1:10,000 Raster Mapping

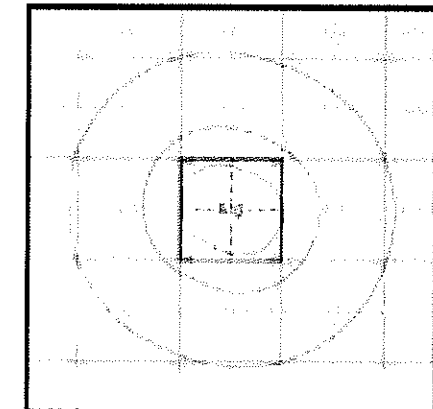
	Gravel Pit		Refuse tip or slag heap
	Rock		Rock (scattered)
	Boulders		Boulders (scattered)
	Shingle		Mud
	Sand		Sand Pit
	Slopes		Top of cliff
	General detail		Underground detail
	Overhead detail		Narrow gauge railway
	Multi-track railway		Single track railway
	County boundary (England only)		Civil, parish or community boundary
	District, Unitary, Metropolitan, London Borough boundary		Constituency boundary
	Area of wooded vegetation		Non-coniferous trees
	Non-coniferous trees (scattered)		Coniferous trees
	Coniferous trees (scattered)		Positioned tree
	Orchard		Coppice or Osiers
	Rough Grassland		Heath
	Scrub		Marsh, Salt Marsh or Reeds
	Water feature		Flow arrows
	Mean high water (springs)		Mean low water (springs)
	Telephone line (where shown)		Electricity transmission line (with poles)
	Bench mark (where shown)		Triangulation station
	Point feature (e.g. Guide Post or Mile Stone)		Pylon, flare stack or lighting tower
	Site of antiquity		Glasshouse
	General Building		Important Building



Historical Mapping & Photography included:

Mapping Type	Scale	Date	Pg
Yorkshire	1:10,560	1848	2
Lancashire And Furness	1:10,560	1848	3
Lancashire And Furness	1:10,560	1895	4
Yorkshire	1:10,560	1896	5
Yorkshire	1:10,560	1911	6
Lancashire And Furness	1:10,560	1913 - 1914	7
Lancashire And Furness	1:10,560	1932 - 1933	8
Ordnance Survey Plan	1:10,000	1955	9
Ordnance Survey Plan	1:10,000	1970	10
Ordnance Survey Plan	1:10,000	1975	11
10K Raster Mapping	1:10,000	2006	12
10K Raster Mapping	1:10,000	2012	13

Historical Map - Slice A



Order Details

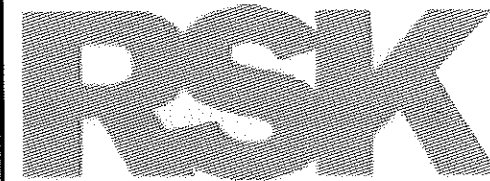
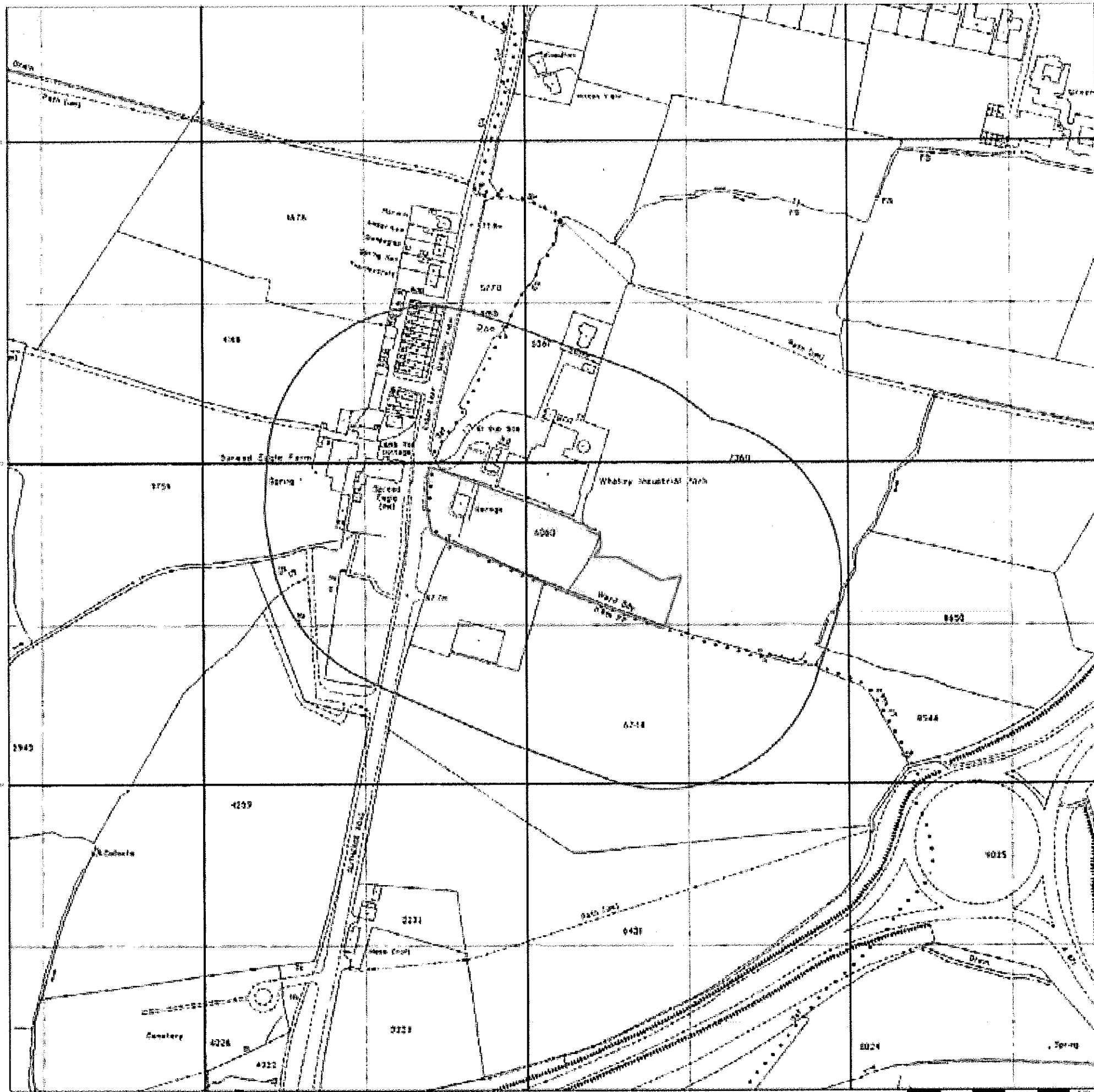
Order Number: 39941528_1_1
 Customer Ref: 321139
 National Grid Reference: 373610, 437550
 Slice: A
 Site Area (Ha): 0.62
 Search Buffer (m): 1000

Site Details

Site at 373600, 437600



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

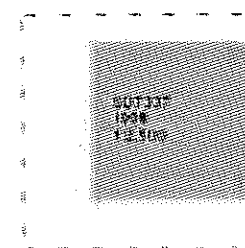


Large-Scale National Grid Data Published 1996

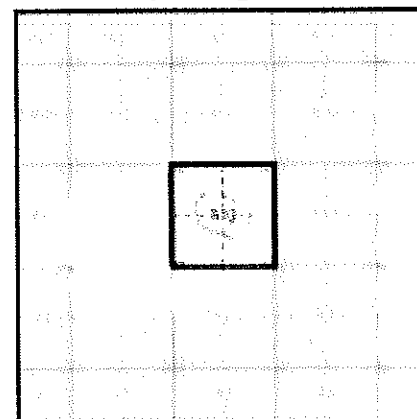
Source map scale - 1:2,500

'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

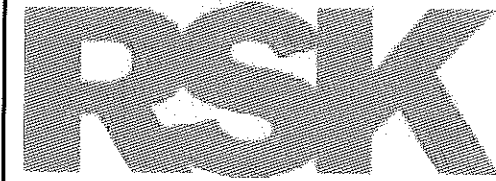
Order Number: 39941528_1_1
Customer Ref: 321139
National Grid Reference: 373610, 437550
Slice: A
Site Area (Ha): 0.62
Search Buffer (m): 100

Site Details

Site at 373600, 437600



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

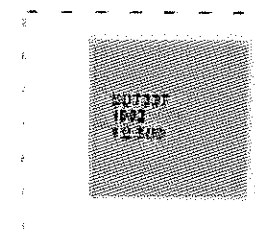


Large-Scale National Grid Data Published 1992

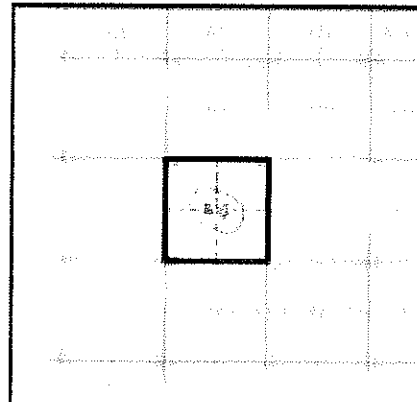
Source map scale - 1:2,500

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

Map Name(s) and Date(s)



Historical Map - Segment A13



Order Details

Order Number: 39941528_1_1
Customer Ref: 321139
National Grid Reference: 373610, 437550
Slice: A
Site Area (Ha): 0.62
Search Buffer (m): 100

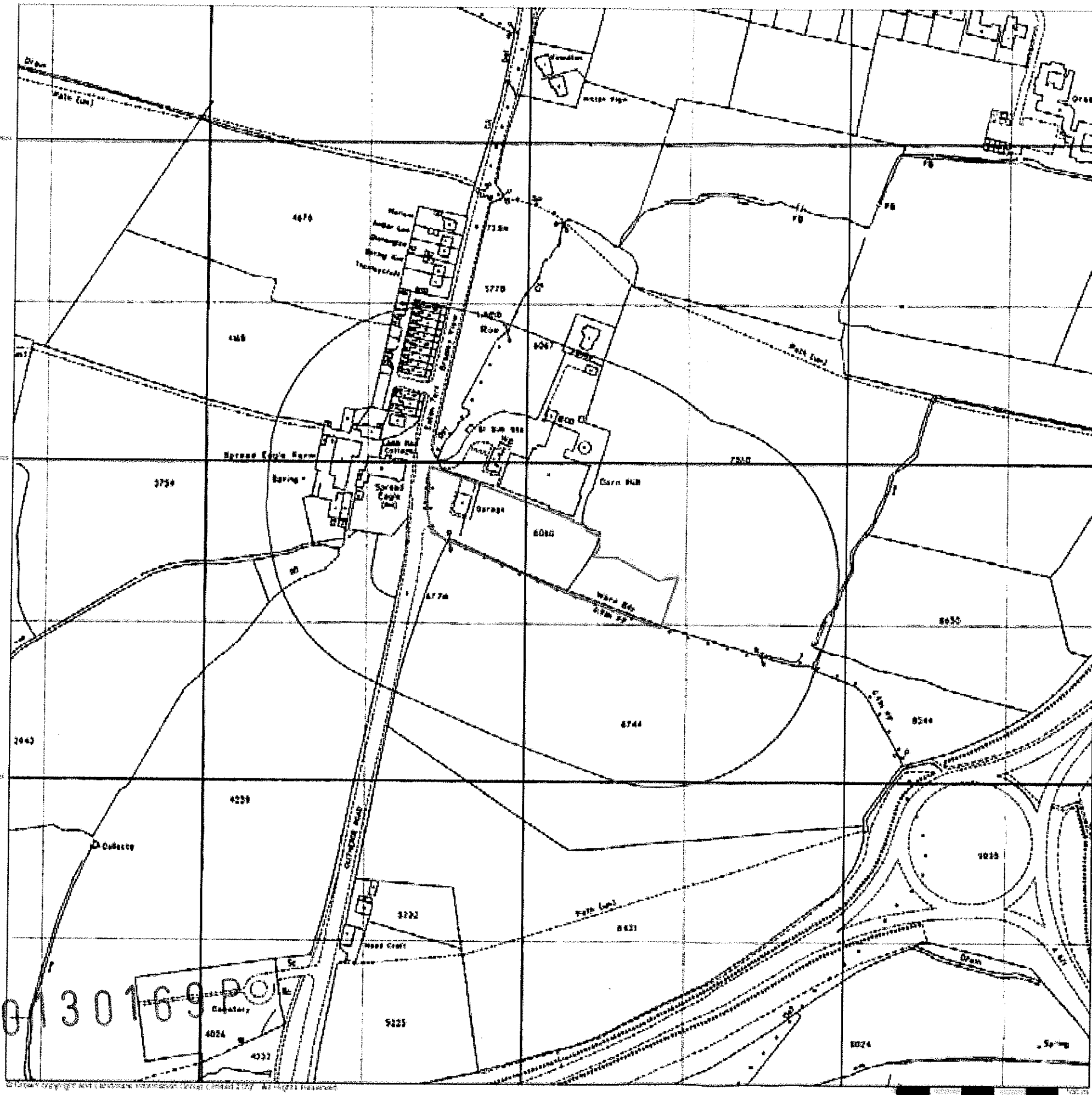
Site Details

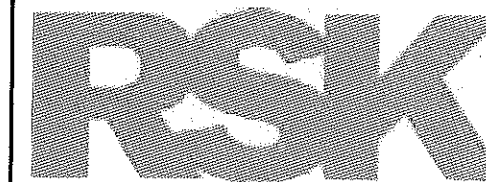
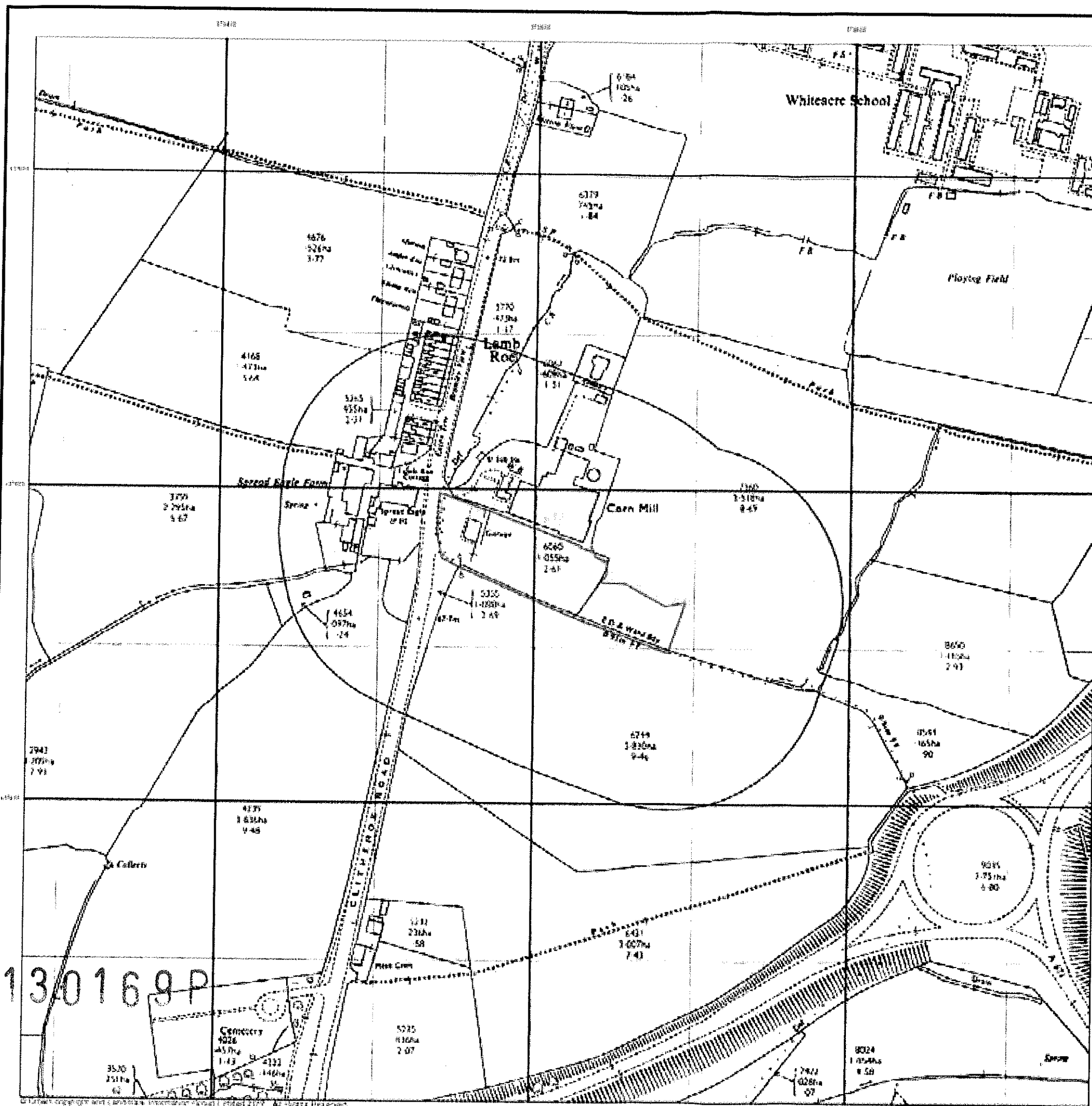
Site at 373600, 437600



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

320130169PO





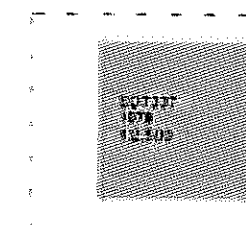
Ordnance Survey Plan

Published 1978

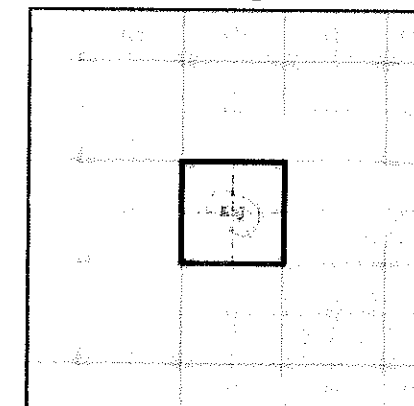
Source map scale - 1:2,500

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

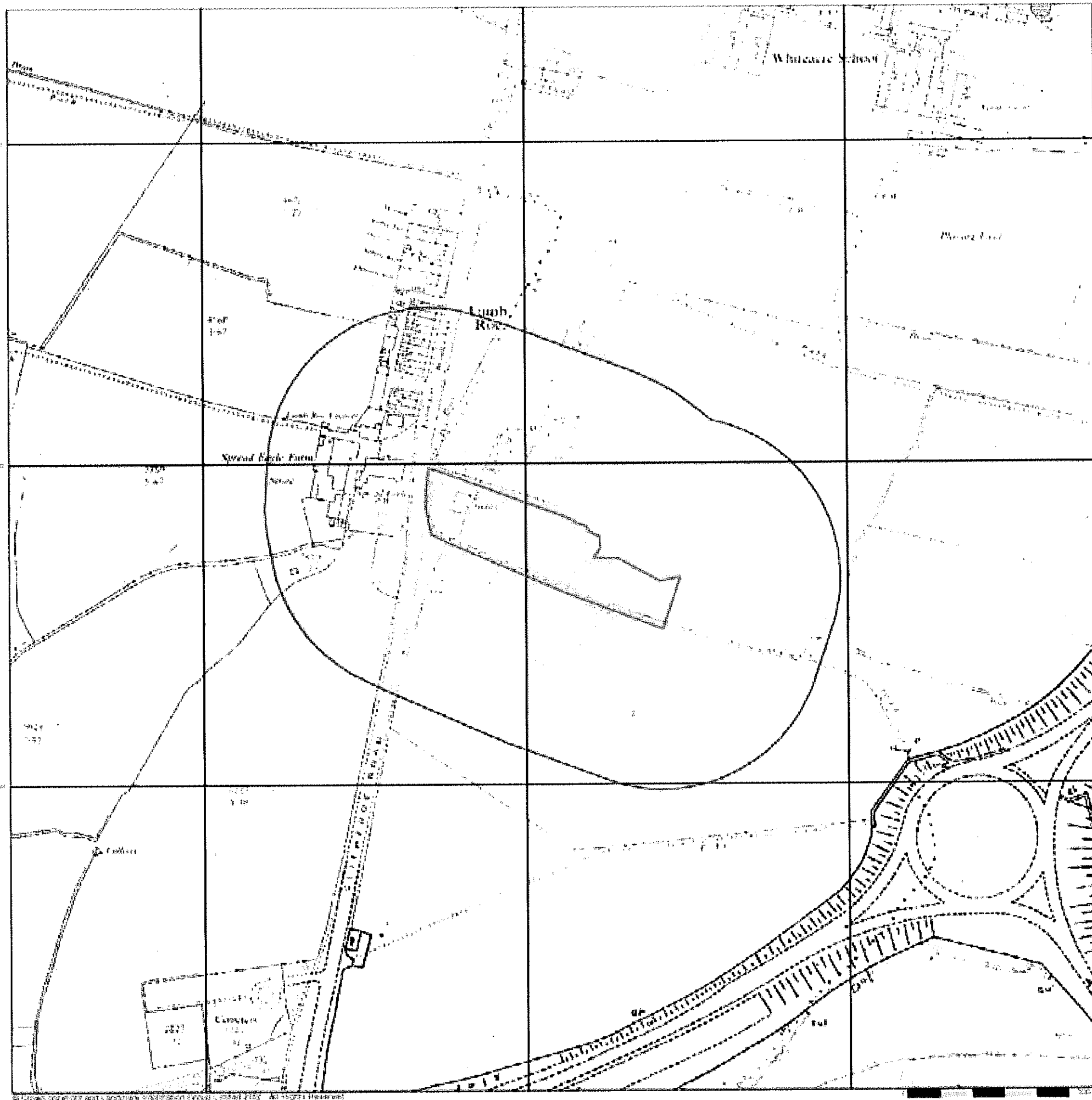
Order Number: 39941528_1_1
Customer Ref: 321139
National Grid Reference: 373610, 437550
Slice: A
Site Area (Ha): 0.62
Search Buffer (m): 100

Site Details

Site at 373600, 437600



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



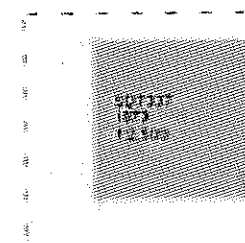
Supply of Unpublished Survey Information

Published 1973

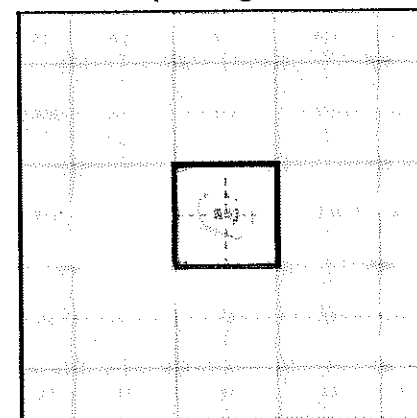
Source map scale - 1:2,500

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

Map Name(s) and Date(s)



Historical Map - Segment A13

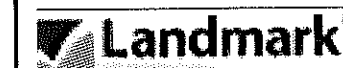


Order Details

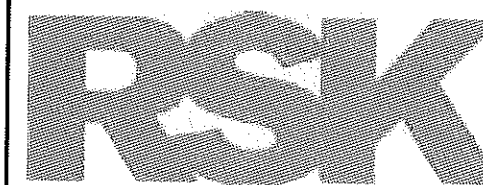
Order Number: 39941528_1_1
 Customer Ref: 321139
 National Grid Reference: 373610, 437550
 Slice: A
 Site Area (Ha): 0.62
 Search Buffer (m): 100

Site Details

Site at 373600, 437600



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

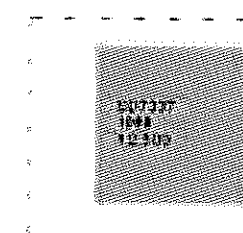


Ordnance Survey Plan Published 1968

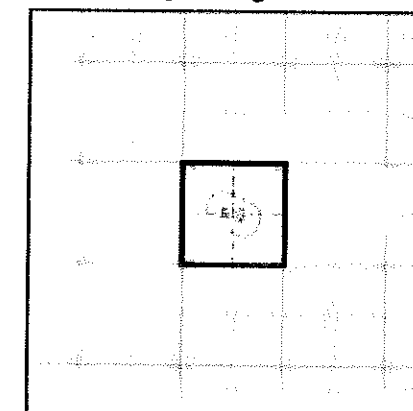
Source map scale - 1:2,500

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: 39941528_1_1
Customer Ref: 321139
National Grid Reference: 373610, 437550
Slice: A
Site Area (Ha): 0.62
Search Buffer (m): 100

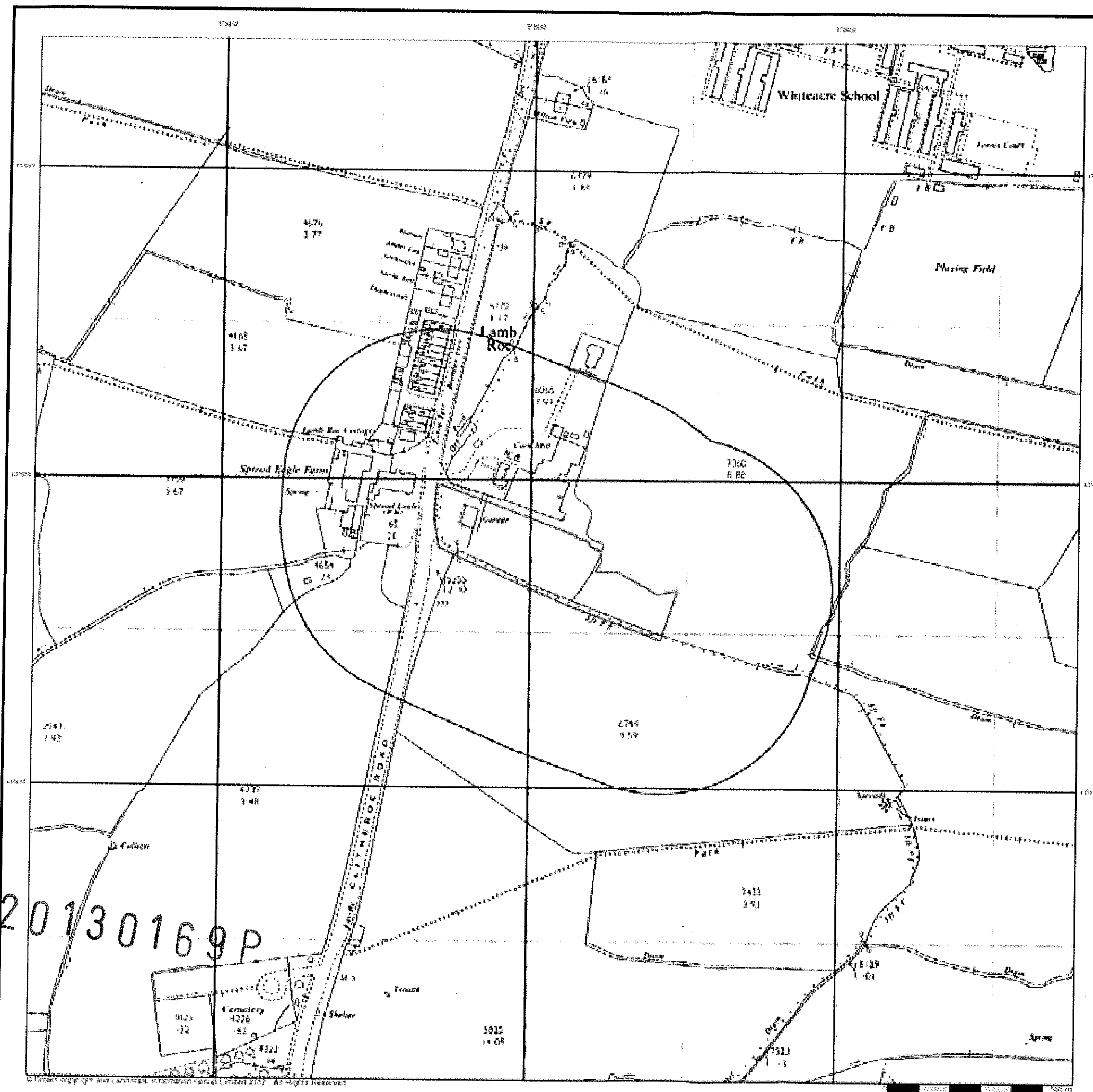
Site Details

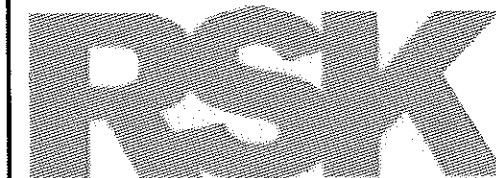
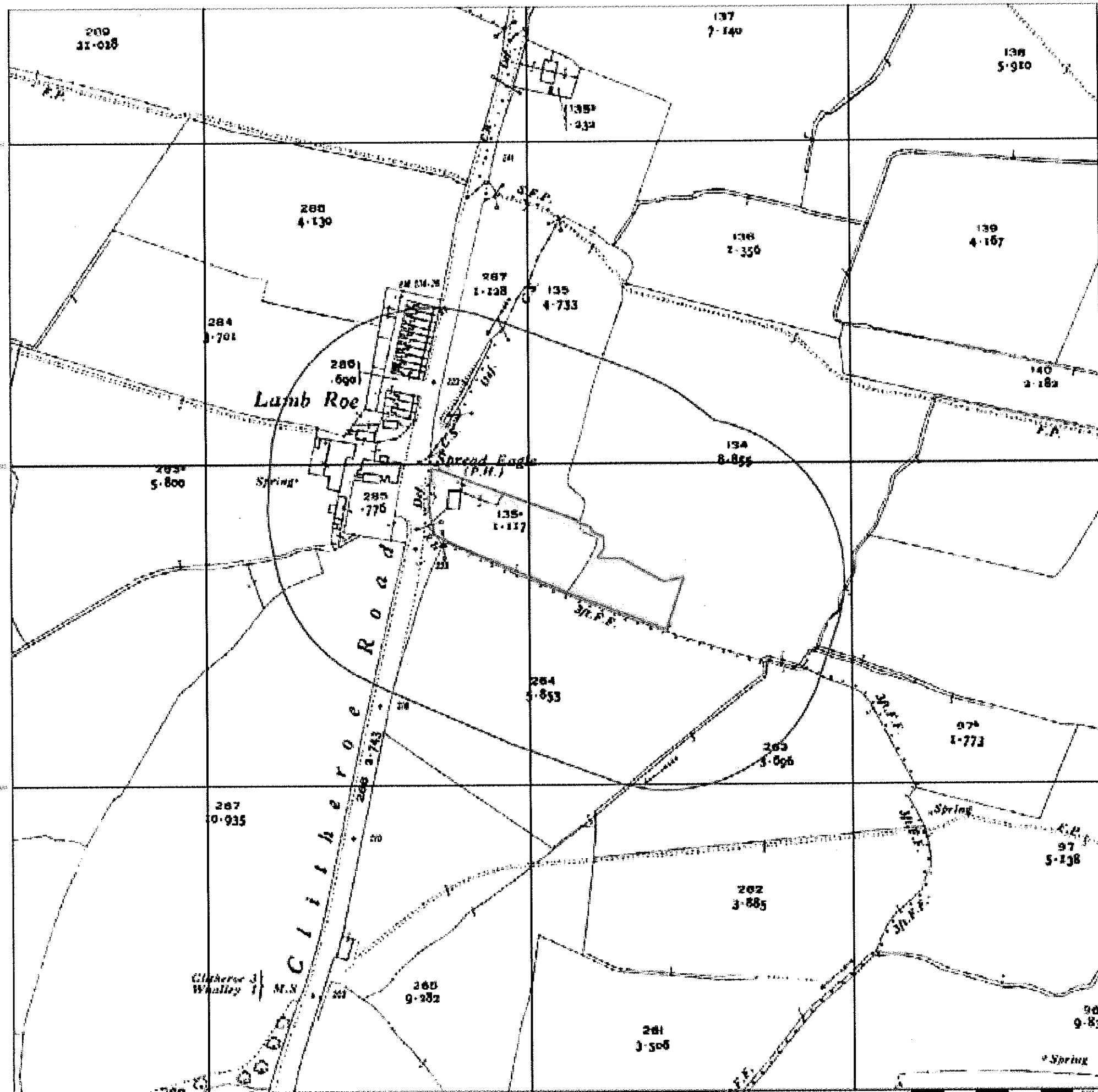
Site at 373600, 437600



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

320130169P





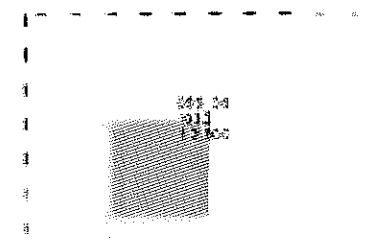
Lancashire And Furness

Published 1932

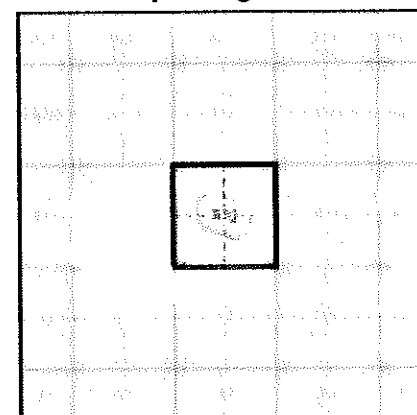
Source map scale - 1:2,500

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: 39941528_1_1
Customer Ref: 321139
National Grid Reference: 373610, 437550
Slice: A
Site Area (Ha): 0.62
Search Buffer (m): 100

Site Details

Site at 373600, 437600

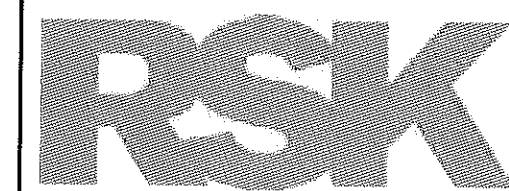


Tel: 0844 844 9952
Fax: 0844 844 9951
Web: www.envirocheck.co.uk

175400

175800

176200

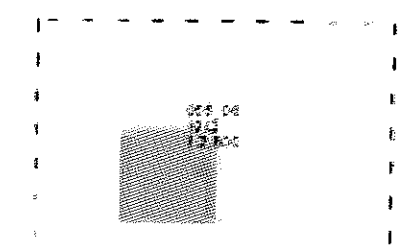


Lancashire And Furness Published 1912

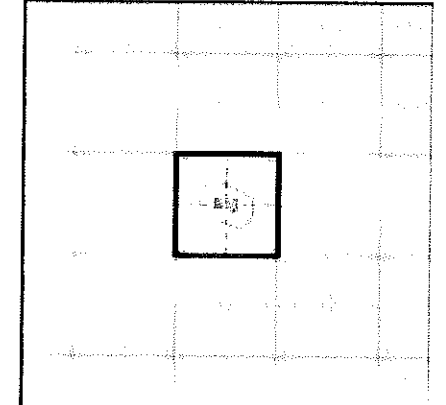
Source map scale - 1:2,500

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: 39941528_1_1
Customer Ref: 321139
National Grid Reference: 373610, 437550
Slice: A
Site Area (Ha): 0.62
Search Buffer (m): 100

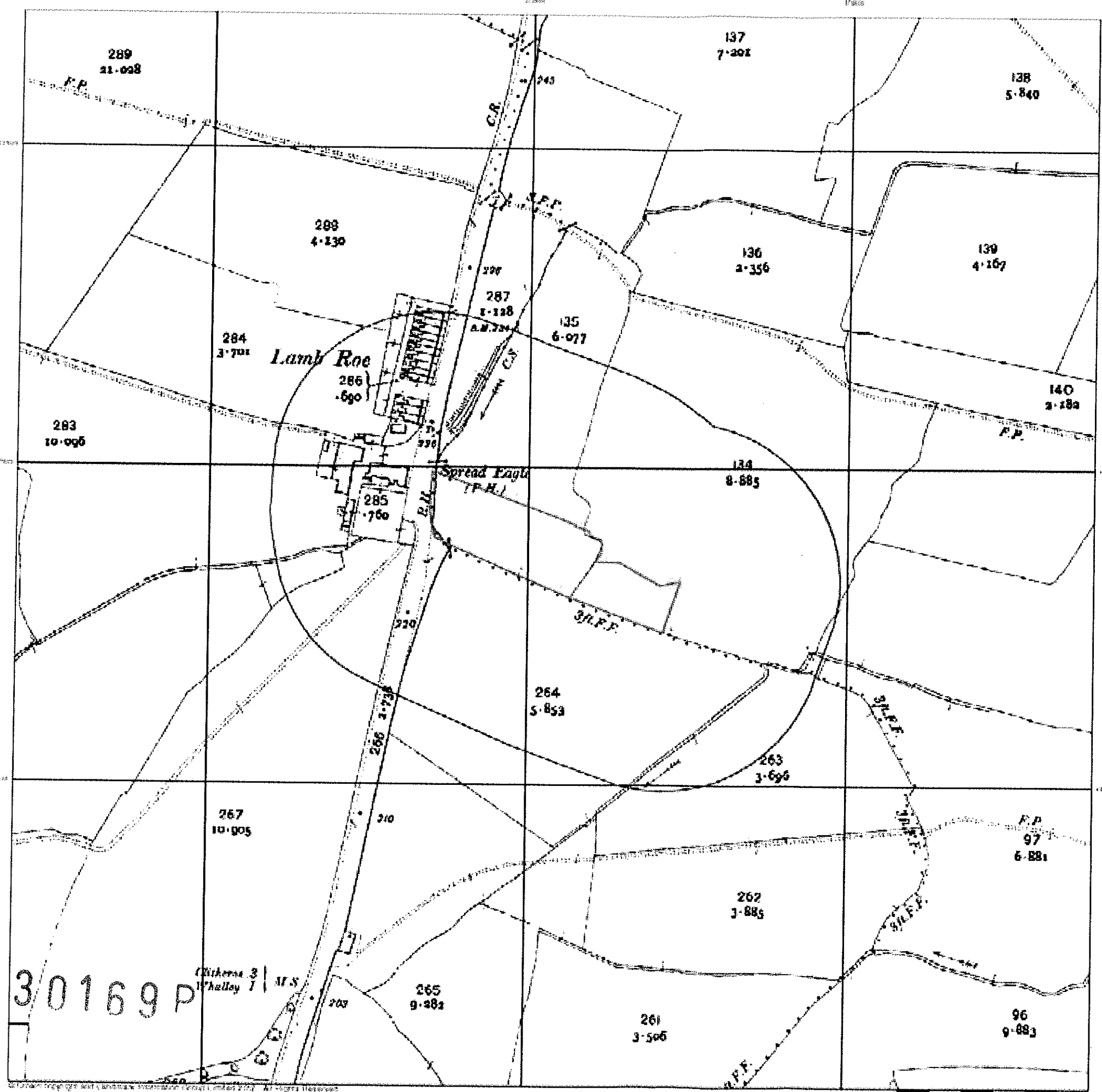
Site Details

Site at 373600, 437600



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

320130169P

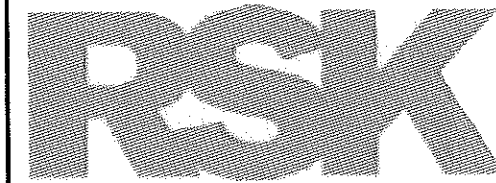


OS Ordnance Survey data reproduced by permission of Ordnance Survey. All Rights Reserved.

175400

175600

176000



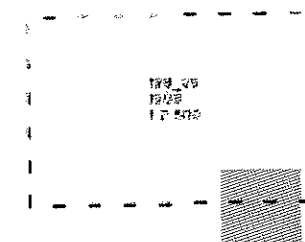
Yorkshire

Published 1908

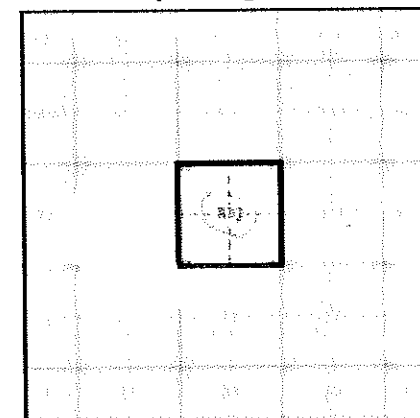
Source map scale - 1:2,500

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

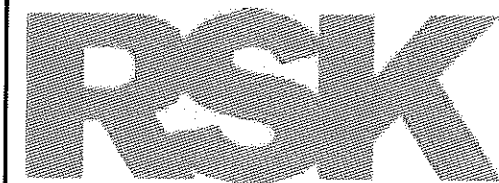
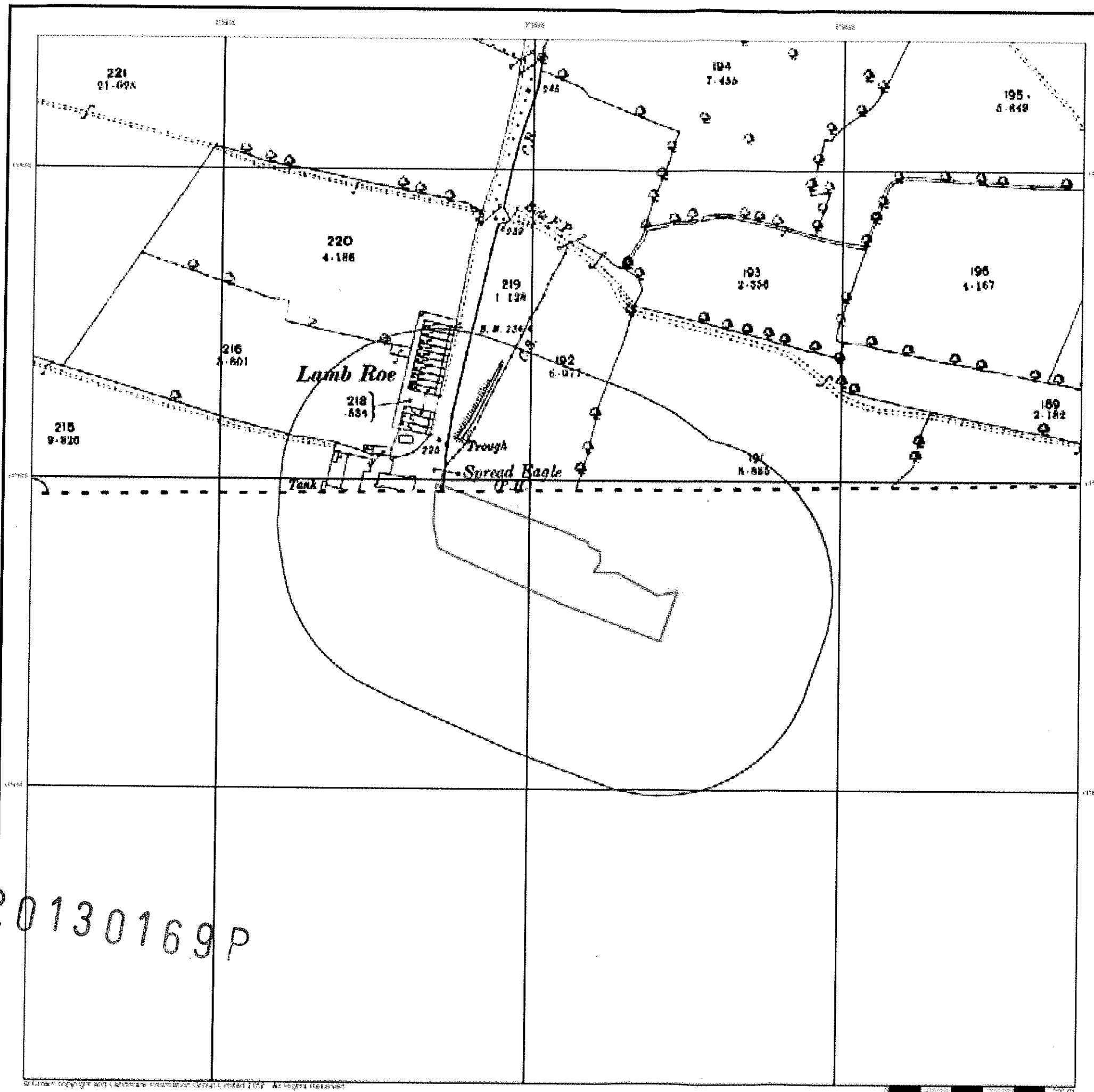
Order Number: 39941528_1_1
Customer Ref: 321139
National Grid Reference: 373610, 437550
Slice: A
Site Area (Ha): 0.62
Search Buffer (m): 100

Site Details

Site at 373600, 437600



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



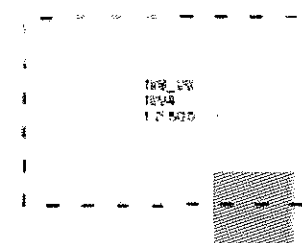
Yorkshire

Published 1894

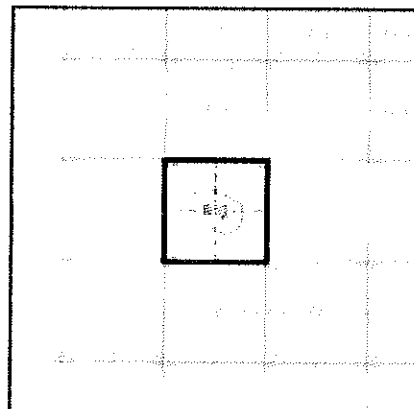
Source map scale - 1:2,500

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

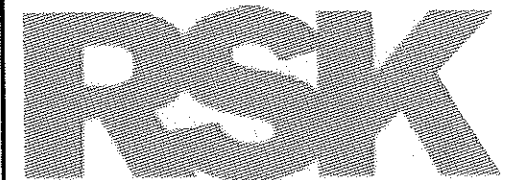
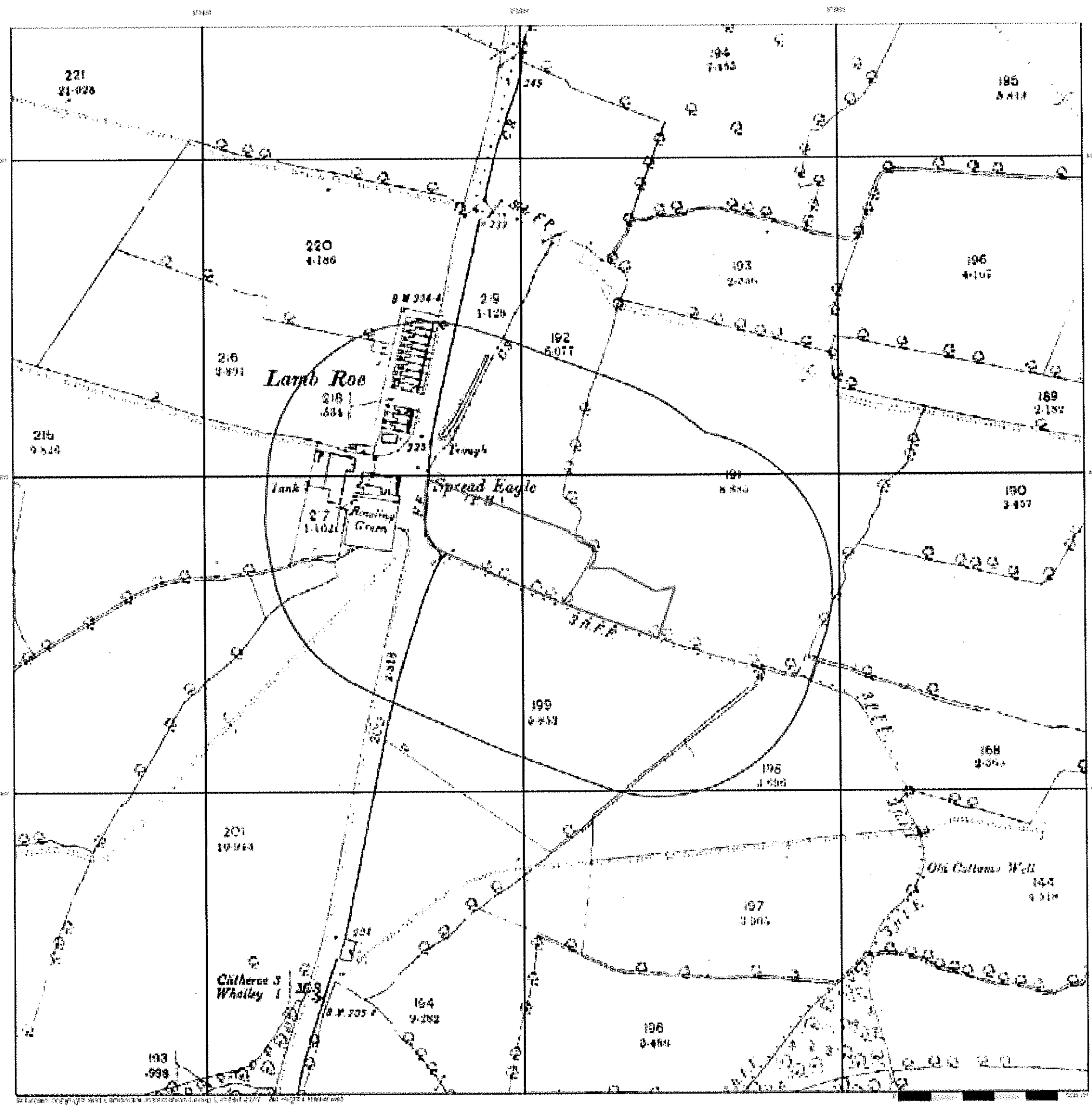
Order Number: 39941528_1_1
Customer Ref: 321139
National Grid Reference: 373610, 437550
Slice: A
Site Area (Ha): 0.62
Search Buffer (m): 100

Site Details

Site at 373600, 437600



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



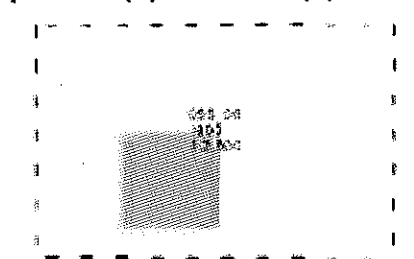
Lancashire And Furness

Published 1893

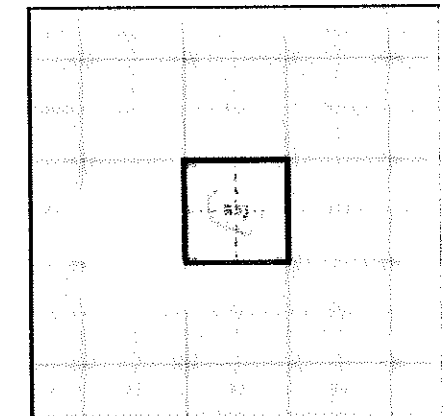
Source map scale - 1:2,500

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

Map Name(s) and Date(s)



Historical Map - Segment A13



Order Details

Order Number: 39941528_1_1
 Customer Ref: 321139
 National Grid Reference: 373610, 437550
 Slice: A
 Site Area (Ha): 0.62
 Search Buffer (m): 100

Site Details

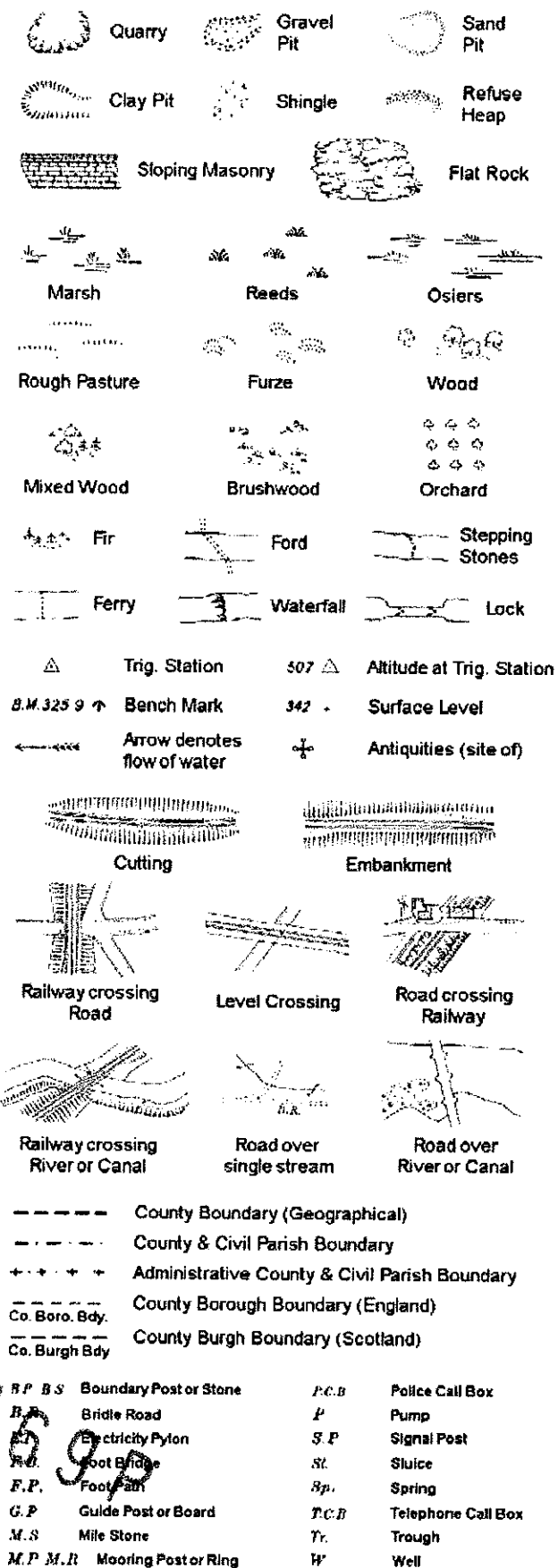
Site at 373600, 437600



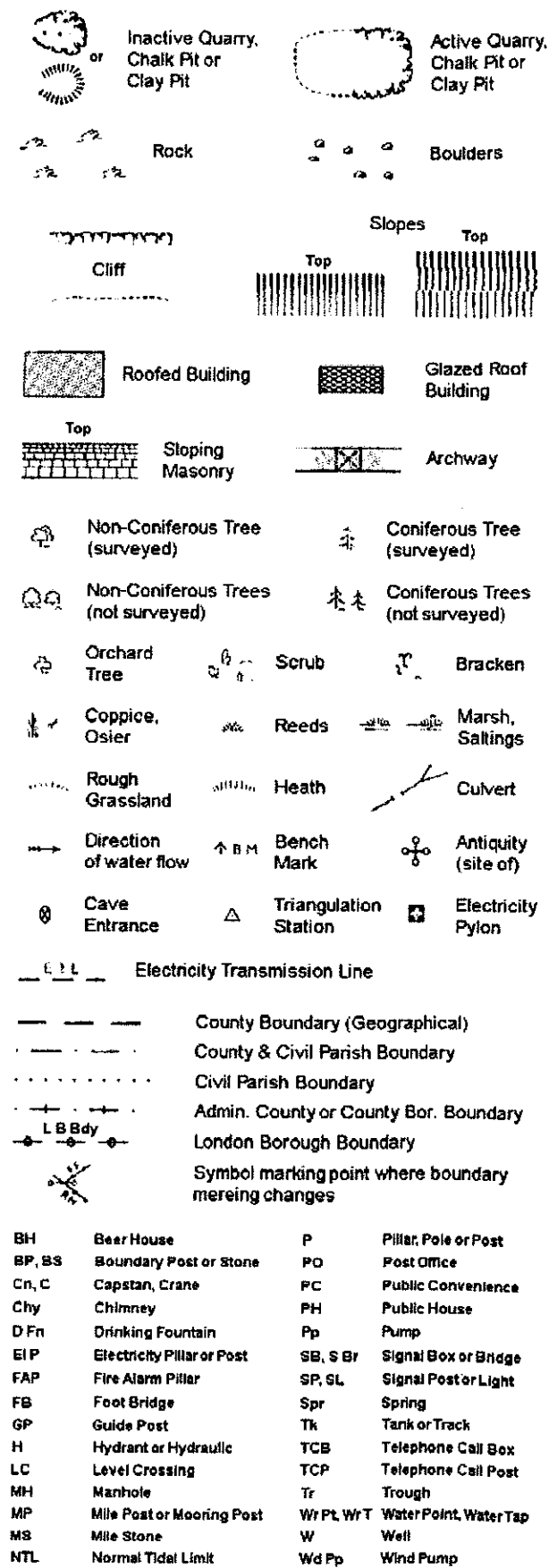
Tel: 0844 844 9952
 Fax: 0844 844 9951
 Web: www.envirocheck.co.uk

Historical Mapping Legends

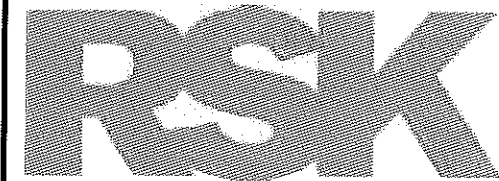
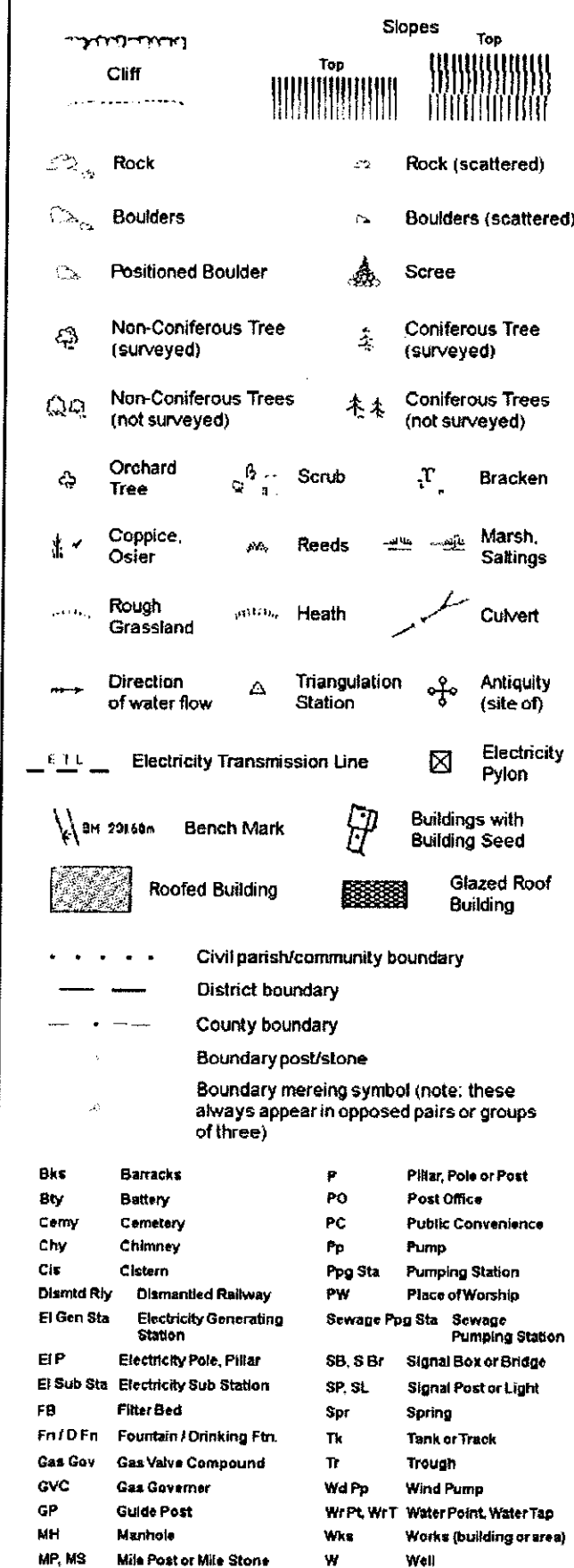
Ordnance Survey County Series and Ordnance Survey Plan 1:2,500



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



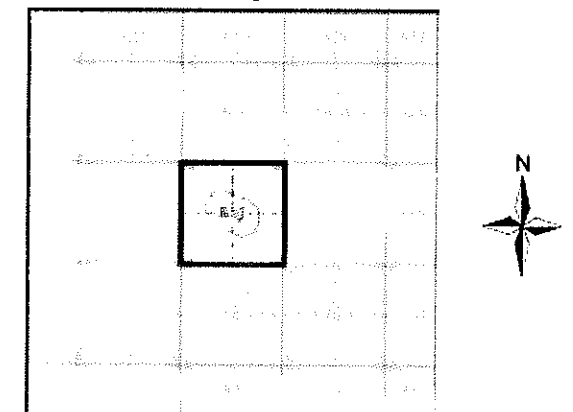
Large-Scale National Grid Data 1:2,500 and 1:1,250



Historical Mapping & Photography included:

Mapping Type	Scale	Date	Pg
Lancashire And Furness	1:2,500	1893	2
Yorkshire	1:2,500	1894	3
Yorkshire	1:2,500	1908	4
Lancashire And Furness	1:2,500	1912	5
Lancashire And Furness	1:2,500	1932	6
Ordnance Survey Plan	1:2,500	1968	7
Supply of Unpublished Survey Information	1:2,500	1973	8
Ordnance Survey Plan	1:2,500	1978	9
Additional SIMs	1:2,500	1989	10
Large-Scale National Grid Data	1:2,500	1992	11
Large-Scale National Grid Data	1:2,500	1996	12

Historical Map - Segment A13



Order Details

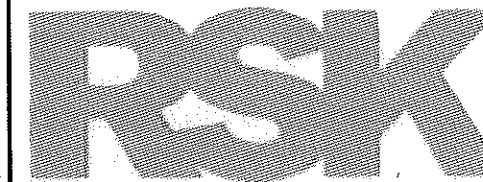
Order Number: 39941528_1_1
Customer Ref: 321139
National Grid Reference: 373610, 437550
Slice: A
Site Area (Ha): 0.62
Search Buffer (m): 100

Site Details

Site at 373600, 437600



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

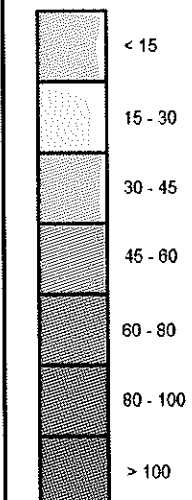


General

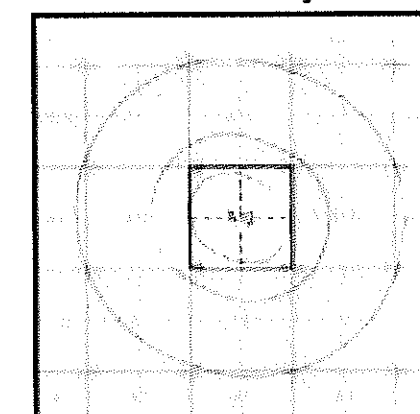
△ Specified Site ○ Specified Buffer(s) X Bearing Reference Point

Estimated Soil Chemistry Nickel

Nickel Concentrations mg/kg



Estimated Soil Chemistry Nickel - Slice A



Order Details

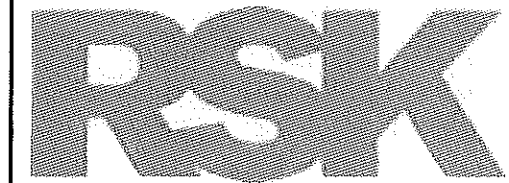
Order Details: 39941528_1_1
 Customer Ref: 321139
 National Grid Reference: 373610, 437550
 Slice: A
 Site Area (Ha): 0.62
 Search Buffer (m): 1000

Site Details

Site at 373600, 437600



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

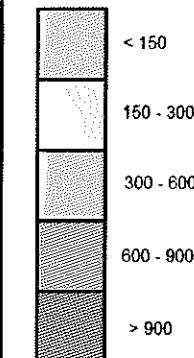


General

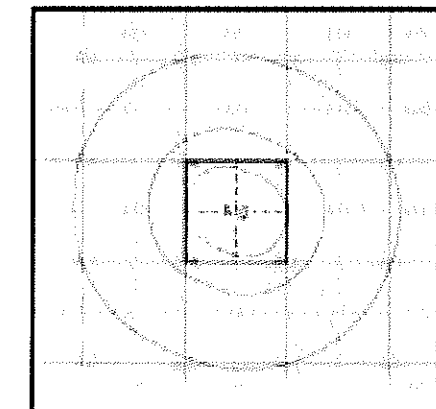
○ Specified Site □ Specified Buffer(s) X Bearing Reference Point

Estimated Soil Chemistry Lead

Lead Concentrations mg/kg



Estimated Soil Chemistry Lead - Slice A



Order Details

Order Details: 39941528_1_1
Customer Ref: 321139
National Grid Reference: 373610, 437550
Slice: A
Site Area (Ha): 0.62
Search Buffer (m): 1000

Site Details

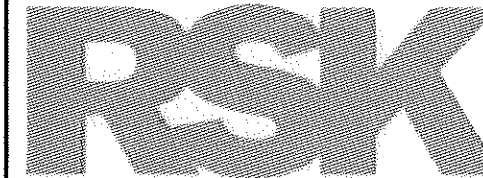
Site at 373600, 437600



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



320130169P

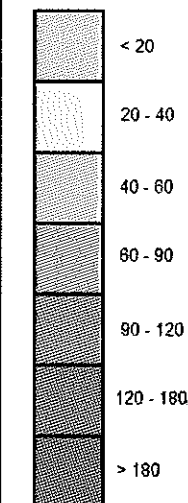


General

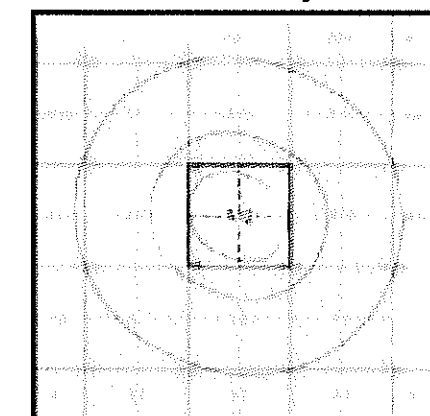
○ Specified Site ○ Specified Buffer(s) X Bearing Reference Point

Estimated Soil Chemistry Chromium

Chromium Concentrations mg/kg



Estimated Soil Chemistry Chromium - Slice A



Order Details

Order Details: 39941528_1_1
 Customer Ref: 321139
 National Grid Reference: 373610, 437550
 Slice: A
 Site Area (Ha): 0.62
 Search Buffer (m): 1000

Site Details

Site at 373600, 437600



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