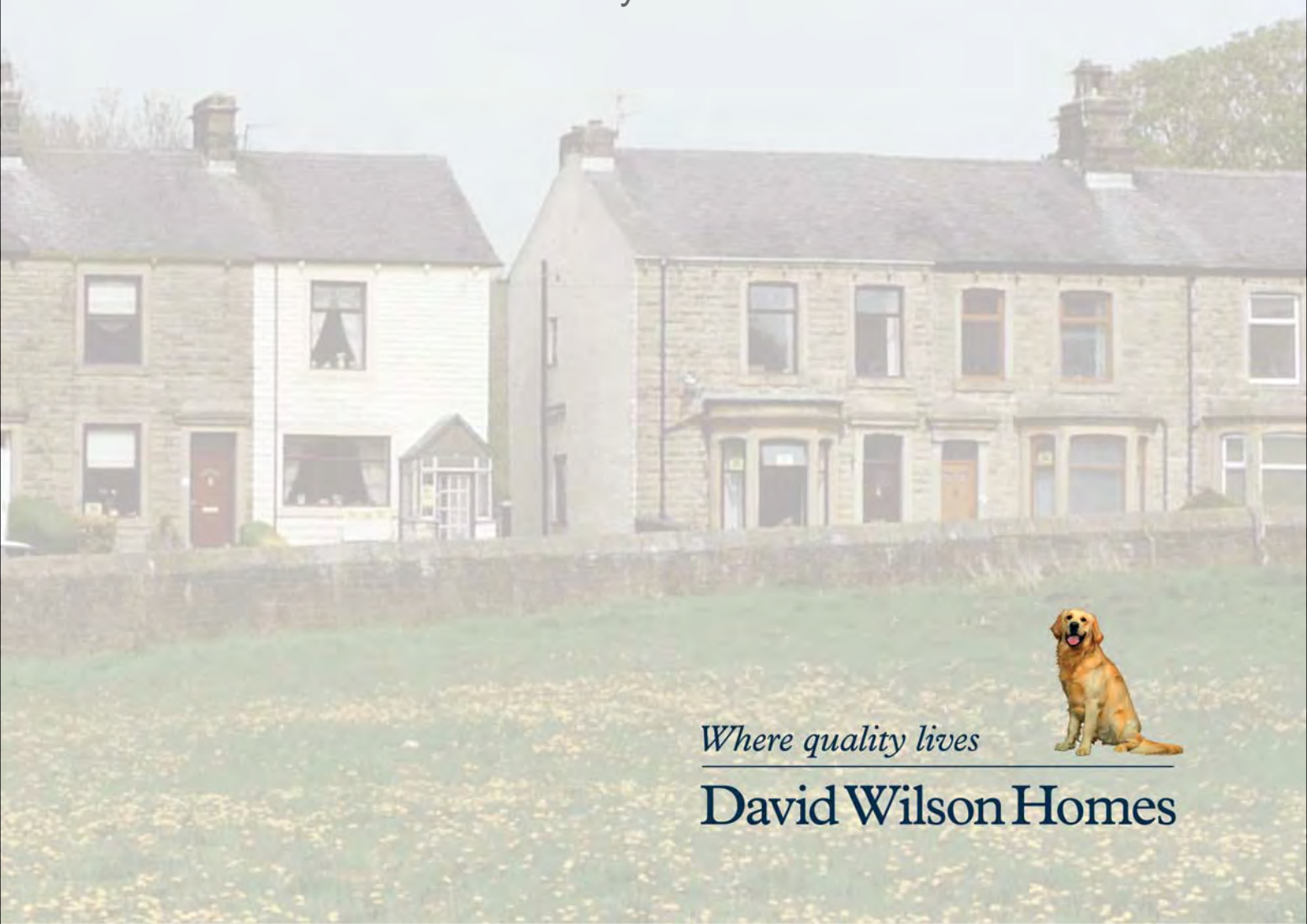


Application for Residential Development at  
Mitton Road, Whalley

# Geo-Environmental Site Assessment

July 2012



*Where quality lives*

**David Wilson Homes**



# RSK GENERAL NOTES

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**Project No.:** 17134-R1 (00)

**Title:** Geo-Environmental Site Assessment, Mitton Road, Whalley, Lancashire

**Client:** David Wilson Homes Northwest

**Date:** April 2012

**Office:** Helsby

**Status:** Final

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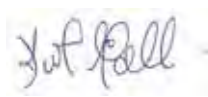
Signature   
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Date: April 2012

Signature   
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Date: April 2012

**Project manager** Karl Hall

Signature   
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Date: April 2012

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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.

# CONTENTS

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<b>1</b>	<b>INTRODUCTION</b> .....	<b>1</b>
1.1	Objective .....	1
1.2	Scope of works .....	1
1.3	Limitations .....	2
<b>2</b>	<b>SITE DETAILS</b> .....	<b>3</b>
2.1	Site location and description .....	3
2.2	Proposed redevelopment .....	3
<b>3</b>	<b>PRELIMINARY RISK ASSESSMENT</b> .....	<b>4</b>
3.1	Geology .....	4
3.2	Hydrogeology .....	4
3.2.1	Groundwater abstractions .....	4
3.2.2	Groundwater vulnerability .....	4
3.3	Hydrology .....	5
3.3.1	Surface water abstractions .....	5
3.3.2	Flooding .....	5
3.4	Sensitive land uses .....	5
3.5	Landfills, waste and licences .....	5
3.5.1	Historical and non-operational landfills .....	5
3.6	Site history review .....	6
3.6.1	Historic maps .....	6
3.6.2	Database and regulatory information .....	7
3.7	Site walkover .....	8
<b>4</b>	<b>INITIAL CONCEPTUAL MODEL</b> .....	<b>9</b>
4.1	Potential contaminant sources .....	9
4.1.1	Potential on-site sources .....	9
4.1.2	Potential off-site sources .....	9
4.2	Sensitive receptors .....	9
4.3	Summary of plausible pathways .....	10
4.4	Potentially complete pollutant linkages .....	10
4.5	Preliminary risk assessment conclusions and recommendations .....	14
<b>5</b>	<b>SITE INVESTIGATION</b> .....	<b>15</b>
5.1	Investigation methodology .....	15
5.2	Health and safety considerations .....	15
5.3	Soil sampling and testing .....	16
5.4	Standpipe installations .....	16
5.5	Ground gas monitoring .....	16
5.6	Groundwater sampling .....	17
<b>6</b>	<b>RESULTS</b> .....	<b>18</b>
6.1	Ground conditions .....	18
6.1.1	Topsoil .....	18
6.1.2	Made ground .....	18

6.1.3	Superficial deposits .....	18
6.1.4	Groundwater .....	19
6.1.5	Observed contamination .....	19
6.2	Chemical laboratory analysis .....	19
6.3	Geotechnical laboratory testing.....	20
6.4	Groundwater gauging.....	20
6.5	Ground gas monitoring results .....	20
<b>7</b>	<b>QUANTITATIVE RISK ASSESSMENT .....</b>	<b>22</b>
7.1	Conceptual model .....	22
7.2	Human health .....	23
7.2.1	Soil - pollutant linkage (1).....	23
7.2.2	Groundwater pollutant linkage (1) .....	23
7.2.3	Water supply pipes – pollutant linkage (5) .....	23
7.2.4	Ground gas - pollutant linkage (6 & 7) .....	23
7.3	Controlled waters .....	24
7.3.1	Pollutant linkage (2) (3) & (4) .....	24
7.4	Refined conceptual model.....	25
7.5	Waste assessment .....	25
<b>8</b>	<b>GEOTECHNICAL ASSESSMENT.....</b>	<b>26</b>
8.1	Engineering considerations .....	26
8.2	Ground conditions .....	26
8.3	Geotechnical hazards.....	26
8.4	Foundations.....	27
8.4.1	General suitability .....	27
8.4.2	Roads, hardstanding and drainage .....	28
8.4.3	Chemical attack on buried concrete .....	28
<b>9</b>	<b>CONCLUSIONS AND RECOMMENDATIONS .....</b>	<b>30</b>
<b>10</b>	<b>REFERENCES .....</b>	<b>32</b>

[i2]

## TABLES

Table 1:	Historical map review.....	6
Table 2:	Risk estimation for potential pollutant linkages in conceptual site model .....	11
Table 3:	Groundwater gauging data .....	20
Table 4:	Ground gas monitoring round one - 23/03/12.....	20
Table 5:	Ground gas monitoring round two – 13/04/2012 .....	21
Table 6:	Summary of calculated gas screening values (GSVs).....	24
Table 7:	Summary of main potential geotechnical hazards that may affect site.....	26

## FIGURES

Figure 1	Site location plan
Figure 2	Site features plan
Figure 3	Proposed planning layout

## **APPENDICES**

Appendix A	Service constraints
Appendix B	Envirocheck report
Appendix C	Photographic account of site walkover
Appendix D	Risk assessment methodology
Appendix E	Exploratory hole logs
Appendix F	Ground gas monitoring data
Appendix G	Low-flow groundwater sampling records
Appendix H	Laboratory certificates for soils and groundwater analysis – chemical
Appendix I	Laboratory certificates for soils analysis – geotechnical
Appendix J	Generic assessment criteria for human health – residential with private gardens end-use scenario
Appendix K	Controlled waters GAC
Appendix L	Haswaste waste classification

# 1 INTRODUCTION

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RSK Environment Limited (RSK) was commissioned by David Wilson Homes Northwest to carry out a geo-environmental assessment of land off Mitton Road, Whalley, Lancashire. It is considered the site is to be developed with low rise residential properties.

## 1.1 Objective

The objectives of this assessment are as follows:

- to enable sufficient information regarding ground conditions to be obtained from which risks to end users and the environment can be assessed
- to obtain sufficient information pertaining to ground conditions at the site to assist in the design of foundations and infrastructure.

## 1.2 Scope of works

The scope of the investigation and layout of this report has been designed with consideration of CLR 11<sup>(1)</sup> (Environment Agency, 2004a), BS 10175<sup>(2)</sup> (BSI, 2011) and PPS23<sup>(3)</sup> (ODPM, 2004), plus guidance on land contamination reports issued by the EA<sup>(4)</sup>. The scope of works for the assessment included:

- a preliminary risk assessment (PRA) review of an environmental database Envirocheck report<sup>(5)</sup><sup>1</sup> (Appendix B) containing geological, hydrological and hydro-geological information together with historical plans and information regarding land use and environmental sensitivity of the area. This information is used to construct an initial conceptual model (CSM) relevant to the proposed site end use and inform the design of the intrusive investigation
- evaluation of possible pollutant linkages by undertaking a targeted intrusive investigation with post-site monitoring works including laboratory analysis of soil samples, groundwater monitoring and sampling and completion of a ground gas monitoring programme
- development of a generic quantitative risk assessment (GQRA) to assess possible pollutant linkages identified in the PRA and enable the initial conceptual model to be refined
- provide recommendations for further works to be incorporated into the redevelopment and waste disposal.

The scope of works for the geotechnical assessment includes:

- review of published geological data including a commercially available database with information pertaining to ground stability

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<sup>1</sup> Please note that the site boundary presented within the Envirocheck report represents a larger site area within which the subject site is contained.

- review of utility location information and site walkover
- intrusive investigation and laboratory analysis to enable soil parameters for geotechnical purposes to be ascertained
- interpretation of ground conditions and geotechnical data to provide recommendations with respect to foundation, floor slabs and infrastructure design.

### **1.3 Limitations**

The comments given in this report and the opinions expressed are based on ground conditions encountered during site works and on the results of tests made in the field and in the laboratory. However, there may be conditions pertaining to the site that have not been disclosed by the investigation and therefore could not be taken into account.

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

## **2 SITE DETAILS**

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### **2.1 Site location and description**

The site is situated off Mitton Road, Whalley, Lancashire and can be located at National Grid reference 372730, 436370. The site lies approximately 200m to the west of Whalley village centre and is situated in a mixed commercial and residential area. A site location plan is presented as Figure 1.

The site is approximately 8.56ha in area and is predominantly undeveloped agricultural farmland. A tributary of the River Calder is present in the western part of the site and various species of mature and semi-mature trees are located across the site.

The site is bounded by residential properties to the north. Ridding Lane bounds the site to the south, beyond which is the River Calder. A small residential dwelling is present adjacent to the southeast site boundary. Broad Lane is situated to the east and the A56 to the west. A site features plan is included as Figure 2.

### **2.2 Proposed redevelopment**

The proposed development includes the construction of a number of residential units with private gardens and associated infrastructure. A proposed planning layout including red-line boundary is presented as Figure 3.

## 3 PRELIMINARY RISK ASSESSMENT

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### 3.1 Geology

Published records for the area<sup>(6)</sup> indicates the superficial geology to comprise alluvial deposits of clay, silt, sand and gravel and Devensian till. Bedrock geology is described as Rad Brook Mudstone member of the Carboniferous period.

### 3.2 Hydrogeology

Information contained within the Envirocheck report<sup>(5)</sup> indicates the superficial deposits beneath the southern part of the site are classified as a Secondary A aquifer, described as 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. Bedrock geology is also classified as a Secondary A aquifer.

The underlying bedrock in a small area within the southern part of the site is reported as being secondary undifferentiated, this may be due to the variable characteristics of the rock type.

The overlying glacial till in the northern part of site is reported as being an unproductive strata.

Shallow groundwater underlying the site is likely to be within the alluvial sand and gravel and is likely to flow towards the south and west in the direction of River Calder.

#### 3.2.1 Groundwater abstractions

The EA has defined source protection zones (SPZ) for nearly 2,000 groundwater sources used for public drinking water supply. The SPZ provides an indication of the potential sensitivity of the aquifer to pollution. Three zones of SPZ are defined - Inner, Outer and Total catchment. The site is not located within 500m of an SPZ.

There are no groundwater abstractions reported within 1000m of the site.

#### 3.2.2 Groundwater vulnerability

The 1:25,000 Groundwater Vulnerability Map within the Envirocheck report<sup>(5)</sup> classifies the soil underlying majority of the site as soils of high leaching potential (undifferentiated). The soils underlying a small area in the northern part of the site is classified as soils of low leaching potential. However, soil information for urban areas is based on fewer observations than elsewhere and so a worst-case vulnerability classification (H) is assumed, until proven otherwise.

### **3.3 Hydrology**

An unnamed tributary of the River Calder flows through the central part of the site. The River Calder, which is highly canalised in this area, is located approximately 10m to the south of the site at its closest point.

#### **3.3.1 Surface water abstractions**

There is no reported surface water abstraction licence present within 1000m of the site.

#### **3.3.2 Flooding**

Flood zones for England have been defined by the government's Planning Policy Guidance 25 (PPG25)<sup>(7)</sup>. This zoning classification illustrates the probability of flooding across England for planning consultation using available data held by the EA and ignoring flood defences.

The Envirocheck report<sup>(5)</sup> indicates a small area in the southern and western parts of the site to be within a Zone 3, which is a designation for risk from flooding from rivers or sea without flood defence; a 1% (1 in 100) chance or greater of flooding from a river is assigned to this zone.

The southern part of the site is within Zone 2 for extreme flooding, generally this means that the chance of flooding each year from rivers (or the sea) is 0.1% (1 in 1,000) or less. The southeast corner of the site is not within an area designated to be at risk from flooding.

### **3.4 Sensitive land uses**

No records of environmentally sensitive sites exist within 500m of the site.

### **3.5 Landfills, waste and licences**

#### **3.5.1 Historical and non-operational landfills**

EA data presented within the Envirocheck report<sup>(5)</sup> records two historical landfill sites and one non operational waste treatment or disposal sites within 1000m of the site, recorded as follows:

- 220m west of the site at Whalley Sewage Works, Ridding Lane, Whalley, recorded as accepting commercial and household waste, the reported last input date is 31 December 1973
- 940m north of the site at Calderstones Hospital, Off Mitton Road, Whalley Moor recorded as accepting inert, commercial, and household waste, the reported last input date is 31 December 1974
- 760m northwest of the site at Calderstones Hospital, Off Mitton Road, Whalley Moor, recorded as accepting commercial waste, which includes ash, and clinical waste.

## 3.6 Site history review

A review of the site history has been carried out through review of Ordnance Survey maps dating from the late 1800s until the present day and information contained within the Envirocheck report<sup>(5)</sup>. The review is designed to identify any land uses with the potential to act as sources of contamination that may have impacted groundwater or soil quality beneath the site.

### 3.6.1 Historic maps

A review of historic maps for the site and surrounding area was undertaken between 1848 and 2011 for every year that a map is available and is summarised in the table below.

**Table 1: Historical map review**

Date	Scale	Site Activity	Surrounding Area
1848 to 1893	1:2,500 and 1:10,560	Site occupied by agricultural land. The meander of an unnamed tributary of the River Calder enters the site in the northwest and exits the site along its southwest boundary.	Ridding Lane is shown adjacent to the southern boundary of the site. Whalley Station is shown adjacent to northeast site boundary. The Whalley viaduct and a railway line marked as 'Blackburn' is located approximately 10m east of the site. A cotton mill and associated gasometer and chimney is shown approximately 100m south of the site. To the south, the meander of River Calder passes within roughly 10m of the site at its closest point
1895 to 1914	1:2,500 and 1:10,560	No significant change	A building marked as 'Cross House' is adjacent to the southeast corner of site. A network of railway sidings and buildings marked as 'goods sheds' are now present to the northeast where Whalley Station is situated. The railway line to the east is now marked as 'Bolton, Blackburn, & Hellifield Line'. Abbey Mill and associated gasometer is shown approximately 500m southeast of the site. Sewage works and associated settling tanks are present approximately 250m southwest of the site. Minor residential development and schools are shown 20m north of the site
1932 to 1933	1:1,250 and 1:10,560	No significant change	Several additional sewage works are now present roughly 200m to the southeast and 550m to the

Date	Scale	Site Activity	Surrounding Area
			west of the site. Further residential development is shown north of the site. The area between 500m and 1km to the northwest has undergone much development and a medical institution is now present
1937 to 1955	1:1,250 and 1:10,560	No significant change	No significant changes noted
1968	1:2,500	No significant change.	An area marked 'earthworks' is shown to the south of Ridding Lane adjacent to the southeast of the site. The 'earthworks' contain a pit and mound feature. Development of residential area in the eastern parts of the surrounding areas. A second feature marked as 'earthworks' is marked between Broad Lane and the Whalley viaduct to the east. This feature is indicated to be a narrow rectangular cutting running parallel to a large portion of the site's east boundary. A third 'earthworks' feature, indicated as a mound, is marked adjacent to the east of Whalley viaduct. Abbey farm is shown 100m northwest of the site
1970 to 1975	1:2,500 and 1:10,560	No significant change	Development of a major road embankment is now marked immediately west of the site. An unnamed works is shown approximately 200m southeast of the site. A building marked council depot is now present roughly 300m to the northeast.
1992 to 2001	1:2,500 and 1:10,000	The north section of the on-site tributary appears to have been culverted	Further development of the residential area to the east of the site
2006 -2011	1:10,000	No significant change	No significant change

### 3.6.2 Database and regulatory information

#### Discharge Contents

There are 4 licensed discharge consents within 500m of the site, the closest of which is located 190m west of the site at Whalley Relief Sewer sanitary sewer overflows, Whalley. The consent relates to the discharge of sewage and miscellaneous waste into the River Calder.

### Pollution Incidents

There are 9 recorded pollution incidents within 500m of the site, the closest of which is located 12m south of the site. The general pollutants recorded include oils, rubble/litter, crude sewage, chemicals, detergents and organic waste. The EA, North West Region, has designated the pollution incidents as a Category 3 incident.

### Industrial Permits and Licences

There is one Local Authority Pollution Prevention and Control within 500m to the site. This is located 430m east of the site at Abbey Cleaners on 71 King Street, Whalley for dry cleaning waste. The status permit is now shown as revoked.

### Industrial Sites

There are 12 active trade direction entries within 500m of the site; the closest of which is located 85m south of the site at Judge Walmsley Mill for general engineering processes.

## **3.7 Site walkover**

A site inspection was carried out on 16 March 2012 by an RSK Engineer. A photographic account of the site walkover is presented in Appendix C. The walkover, the following activities and features were noted within the site boundary:

- two culverts in the eastern part of the site along an unnamed tributary of the River Calder. The tributary was noted to be 'dry' at the time of the site inspection
- site is largely undeveloped and mainly comprised cultivated agricultural land
- rows of semi mature trees are present in the eastern area of the site. The trees were noted to be lined along an unnamed tributary of the River Calder
- site slope north to south with level difference up to 2m
- vegetation across the site is generally short grass, the site is generally bounded by semi mature to mature trees with height ranging between 1m and 10m.

The site is situated within a developed area with residential properties to the north of the site and a residential dwelling adjacent to the southeastern corner of the site (believed to be Cross House). Ridding Lane is located to the south with a mounded feature noted in the land beyond this. Whalley railway station is located to the north of the site across Mitton Road, to the east of the site across Broad Lane, there is the Whalley Viaduct, and this is a 48-span railway bridge crossing the River Calder. To the west of the site, there is an embankment approximately 6m to 7m high with the A59 road situated within the crest of these embankments. The embankment is covered with grass and the material used in the construction of this embankment is unknown. The River Calder flows east to west approximately 10m south of the site.

## 4 INITIAL CONCEPTUAL MODEL

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Information from Sections 2 and 3 have been used to create an initial CSM. The identified contaminants and receptors have been identified together with potential pathways that may link them.

The CSM is based on a residential end-use with private gardens. The risk classification presented within Table 2 has been estimated in accordance with information provided in CIRIA C552<sup>(8)</sup>.

### 4.1 Potential contaminant sources

#### 4.1.1 Potential on-site sources

- landspreading of fertilizer treatments such as sewage sludge containing elevated concentrations of heavy metals
- information for the site indicates that the site has remained largely undeveloped. However, the areas directly adjacent to the north, east, west and southeast site boundaries have all undergone development and the potential exists that surplus and/or imported materials associated with the development of these areas may be present on site.

#### 4.1.2 Potential off-site sources

- contamination associated with railway land to the east of the of the site
- made ground associated with the development of the residential properties immediately north of the site, Cross House to the southwest and potentially used to raise levels in the road embankment to the west
- contamination associated surrounding commercial and light industrial uses including cotton mill to the south, goods sheds to the northeast and various sewage works to the west
- ground gasses associated with fill materials in the 'earthworks' features located in close proximity to the east and southern boundaries of the site.

### 4.2 Sensitive receptors

- future site users (residents)
- neighbouring residents to the north and southeast
- neighbouring properties
- unnamed tributary of the River Calder in west of the site
- River Calder located 10m south of the site
- groundwater in the underlying superficial and bedrock Secondary A aquifers

- proposed on site infrastructure, including foundation materials and water supply pipes.

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 including CDM regulations.

### **4.3 Summary of plausible pathways**

- direct contact with contaminated soils including dermal contact, soil ingestion, and inhalation of dust
- migration of ground gasses and vapours into indoor areas with subsequent risk of inhalation/ asphyxiation/ explosion
- leaching and vertical migration of groundwater to underlying aquifers
- lateral migration of groundwater and surface run-off
- permeation of plastic water supply pipes
- concrete degradation via direct contact with aggressive soils and/ or groundwater.

### **4.4 Potentially complete pollutant linkages**

An estimate of the risk associated with each linkage is summarised in Table 2. The risk classification has been undertaken in accordance with CIRIA C552<sup>(8)</sup>, a summary of which is included in Appendix D.

**Table 2: Risk estimation for potential pollutant linkages in conceptual site model**

Potential source	Potential receptor	Possible pathway	Likelihood	Severity	Risk and justification
Organic and inorganic contamination within soil or groundwater due to potential deposition on site of fill materials during development of adjacent areas or application of sludges during landspreading (agricultural activities)	Future site users	Direct contact including ingestion, dermal contact and/or inhalation of dust	Low likelihood [k3]	Medium	<b>Moderate / Low</b> – potential for future site users to come into contact with potentially contaminated soils within private gardens. Site has predominantly been used for agricultural purposes and therefore may have been treated with fertilizers such as sewage sludge. Although no evidence exists that the site has previously been developed the potential exists that contaminated materials may have been deposited on site during development of adjacent areas
	Neighbouring residents to north and southeast	Vapour inhalation	Unlikely	Medium	<b>Low</b> - A review of historical maps and the site inspection does not indicate previous contaminative uses of the areas adjacent to the site with the potential to generate vapours
		Direct contact including ingestion, dermal contact and/or inhalation of dust	Unlikely	Medium	<b>Low</b> – potential for neighbouring users to come into contact with dust from the site during redevelopment. However, implementation of dust control measures during the development phase can be used to mitigate risks if contaminated soils identified on site
		Lateral migration of groundwater			<b>Low</b> - Off-site residential dwellings are assumed to be located hydraulically up-gradient of the site. Therefore the potential for off-site migration of potentially contaminated waters is consider unlikely
	On-site surface water receptor (tributary of river Calder)	Lateral Migration and/or surface runoff	Low likelihood	Mild	<b>Low</b> - Potential for contamination in surficial soils to migrate via surface run off to tributary of River Calder



Potential source	Potential receptor	Possible pathway	Likelihood	Severity	Risk and justification	
	Shallow groundwater in Alluvial Sand and Gravel Secondary A Aquifer	Leaching and vertical migration	Low likelihood	Medium	<b>Moderate / Low</b> – areas of soft scaping in new development will permit infiltration and leaching of any contamination present to shallow groundwater in underlying Secondary A Aquifer. Subsequent vertical migration into the underlying Bedrock Secondary A Aquifer may occur in the event that a significant thickness of low permeability cohesive deposits is absent	
	Deep groundwater in the Bedrock Secondary A Aquifer		Low likelihood	Medium		
	Potable water supply	Permeation of plastic pipes	Low likelihood	Medium	<b>Moderate/ Low</b> – if pipes laid in potentially contaminated materials then organic contamination may potentially impact potable water supply	
	Plant uptake (phytotoxic effects)	Plant uptake from contaminated soil	Likely	Minor	<b>Low</b> – Site is undeveloped agricultural land. If phytotoxic contaminants are present on site then uptake by plants is likely to occur.	
	Infrastructure	Degradation of concrete foundations by aggressive ground	Likely	Mild	<b>Moderate / Low</b> – Geological maps indicate the site to be underlain by alluvial sands and gravels and Devensian till. These deposits may give rise to chemically aggressive ground conditions	
	Off-site surface watercourses (River Calder located 10m to the south)	Lateral Migration and/or surface runoff	Likely	Medium	<b>Moderate / Low</b> – presence of soft scaping and site topography may permit infiltration and subsequent lateral migration to nearby surface water receptors. River is located 10m to the south and in a lower lying area so surface run-off along gullies during periods of heavy rainfall is likely to reach receptor	
	Hazardous ground gases/vapours associated with materials underlying the site	Future site users	Ground gas migration in permeable soils	Low likelihood	Severe	<b>Moderate</b> - Although there is no evidence to suspect the presence of significant putrescible or organic deposits on-site, the potential risk to human



Potential source	Potential receptor	Possible pathway	Likelihood	Severity	Risk and justification
materials underlying the site (e.g. natural organic soils, degradable material in any deposited anthropogenic materials and possible made ground on site)	Adjacent site users (residential properties to north and southeast)	permeable soils and along service entries	likelihood		organic deposits on-site, the potential risk to human health and/or building infrastructure associated with ground gas issues is potentially severe
	Building infrastructure & services				
Hazardous ground gases/vapours associated with potential fill materials used in embankment immediately west of the site and potential fill and infill materials in 'earthworks' features to the east and south of the site	Future site users	Ground gas migration in permeable soils and along service entries	Low likelihood	Severe	<b>Moderate</b> – Although there is no evidence to suspect the presence of materials capable of generating significant quantities of ground gases in the embankment and earthworks features, given their close proximity and the likely permeable nature of the underlying natural soils, the potential risk to human health (e.g. by CO2 asphyxiation) and the risk to infrastructure (e.g. explosion from methane build-up) is potentially severe
	Building infrastructure				
Organic and inorganic contamination associated with off-site sources including: potential made ground materials underlying nearby residential properties to north and southeast, railway land to the east, goods shed to the northeast, cotton mill to the south and sewage works to the west.	Future site users	Lateral migration of contaminated groundwater on to site	Low likelihood	Medium	<b>Moderate / Low</b> – Potential for contaminated groundwater to migrate onto site from contamination sources located hydraulically up-gradient of the site (railway land and goods shed). The River Calder provides a hydraulic break between the site and the cotton mill located to the south so migration onto site from this source is considered unlikely. Similarly, groundwater flowing from beneath the sewage works located to the west is almost certain to migrate towards the southwest towards the River Calder and not in the general direction of the site.



Potential source	Potential receptor	Possible pathway	Likelihood	Severity	Risk and justification
		Vapours and ground gases	Low likelihood	Severe	<b>Moderate</b> - Potential for off-site gases/vapours to migrate onto site. Site investigation including a ground gas monitoring programme will further investigate the potential risks

#### 4.5 Preliminary risk assessment conclusions and recommendations

A review of the available information and development of an initial CSM has highlighted a number of potentially complete pollutant linkages with a risk classification of **moderate/low or above** based on the proposed site end use.

Given the sensitive nature of the proposed end use (residential with gardens), the unnamed onsite tributary of River Calder, the close proximity of River Calder to the site, together with the underlying Secondary A aquifer, within both superficial deposits and bedrock it is recommended that an intrusive investigation be undertaken to confirm the conditions beneath the site and assess the potential pollutant linkages.

## 5 SITE INVESTIGATION

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Intrusive works were undertaken at the site between 15 and 16 March 2012 with a subsequent groundwater and ground gas sampling visit undertaken on 23 March 2012 and ground gas monitoring visit on 13 April.

### 5.1 Investigation methodology

The investigation works comprised the following:

- scanning for services using a cable avoidance tool at all intrusive locations to check for the presence of buried utilities
- the drilling of five probeholes (WS1-WS5) using window sample techniques to a maximum depth of 5.0m below ground level (bgl) at locations spread across the site, as shown on Figure 2
- the excavation of 9 trial pits (TP1-TP9) using a JCB 3CX excavator to a maximum depth of 3.0m bgl at locations spread across the site, as shown on Figure 2
- the collection of soil samples for chemical and geotechnical testing
- the installation of combined groundwater and ground gas monitoring wells within three of the probeholes
- *in situ* geotechnical testing comprising standard penetration tests (SPTs) in the probeholes
- a single round of groundwater monitoring and sampling using low flow sampling methods
- two rounds of ground gas monitoring undertaken, this was carried out on 23 March and 13 April 2012. A further four rounds will be undertaken before the end of May 2012 to allow the ground gas monitoring programme to be in accordance with current guidance. The results of this will be reported in an addendum report
- chemical analysis of soil and groundwater samples for a suite of organic and inorganic contaminants
- geotechnical laboratory testing including moisture content determination, Atterberg limits and particle size distribution (PSD)
- preparation of an interpretative report containing all factual information pertaining to the site obtained during the site investigation, subsequent monitoring and laboratory analysis, a GQRA for human health and controlled waters and recommendations for foundation design and waste disposal.

### 5.2 Health and safety considerations

RSK produced a site-specific health and safety plan prior to the commencement of the site works programme. The plan for the proposed work was communicated to all

subcontractors and site visitors during a site induction. The plan included information such as the location of the nearest hospital and all method statements and risk assessments for the works being undertaken.

Site utility plans were acquired from a 3rd party utility search provider before commencement of intrusive works. To minimise the likelihood of damage to underground utilities and risks to site staff, the plans were reviewed and all intrusive investigation locations were scanned using a cable avoidance tool (CAT). As a further precaution hand excavated inspection pits to 1.2m bgl were undertaken prior to commencement of drilling works. A permit to dig for each hole was issued to record the utilities clearance process.

### **5.3 Soil sampling and testing**

Representative disturbed soil samples were taken throughout the full depth of the trial pit excavations and probeholes. The samples were stored in accordance with RSK quality procedures and sent to the laboratory for analysis under chain of custody documentation. Generally, at least one small soil sample was obtained from each stratum encountered within each exploratory hole as shown on the exploratory records in Appendix E.

SPT's were carried out within the probeholes to assess the relative density, consistency or hardness of the strata encountered. The values of penetration resistance (N values) are given on the exploratory hole records presented in Appendix E.

### **5.4 Standpipe installations**

Standpipes were installed in three of the probeholes (WS2, WS3 and WS5) to permit subsequent monitoring of ground gas and sampling of groundwater. The installations comprised a response zone of perforated pipe (50mm diameter) surrounded by washed gravel filter. Above the response zone, plain pipe was surrounded and sealed near the surface with bentonite. Gas monitoring valves (rubber bungs with gas taps) were inserted in the top of the installations. The monitoring installations were protected with a raised metal cover set in concrete to allow their positions to be easily identified. Details of the installations are given on the probehole records in Appendix E.

### **5.5 Ground gas monitoring**

To characterise the ground gas regime, six ground gas monitoring rounds will be completed over a period of approximately three months targeting a range of atmospheric pressure conditions. To date, two monitoring rounds have been undertaken (23 March and 13 April 2012). The results of the four additional monitoring rounds will be reported by RSK with a separate addendum report.

The monitoring events utilised an infra-red gas analyser, with the following parameters measured:

- flow rates (l/hr)
- methane concentrations (% by volume in air (%v/v))

- carbon dioxide concentrations (%v/v)
- oxygen concentrations (%v/v)
- lower explosive limit (LEL) readings (%)
- atmospheric pressure readings (mb).

Upon completion of the gas monitoring the depth to groundwater and free phase product, if present was measured using an electronic interface probe. The ground gas monitoring data collected from the site is presented in Appendix F.

## 5.6 Groundwater sampling

Groundwater sampling was undertaken on 23 March 2012. Groundwater samples were retrieved as using the low-flow sampling method.

The groundwater samples were retrieved using a United States Environment Protection Agency (USEPA) approved low-flow purging and sampling methodology. The low-flow method relies on moving groundwater through the well screen at approximately the same rate as it flows through the geological formation. This results in a significant reduction in the volume of water extracted before sampling and significantly reduces the amount of disturbance of the water in the monitoring well during purging and sampling. Drawdown levels in the monitoring well and water quality indicator parameters (pH, temperature, electrical conductivity, redox potential and dissolved oxygen) are monitored during low-flow purging and sampling, with stabilisation indicating that purging is complete and sampling can begin. As the flow rate used for purging, in most cases, is the same or only slightly higher than the flow rate used for sampling, and because purging and sampling are conducted as one continuous operation in the field, the process is referred to as low-flow purging and sampling.

Copies of the low flow monitoring records are presented as Appendix G.

Samples were placed in appropriate containers provided by the laboratory, placed in cool boxes with ice packs and transported to the Envirolab laboratory, Hyde for chemical analysis.

## 6 RESULTS

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The results of the site investigation works, ground conditions, laboratory analyses and ground gas monitoring are discussed in more detail below.

### 6.1 Ground conditions

The ground conditions encountered beneath the site were variable and are briefly summarised below:

#### 6.1.1 Topsoil

Topsoil was encountered at the surface at all exploratory hole locations. The topsoil was encountered in thin layers typically 0.2m.

#### 6.1.2 Made ground

Made ground deposits were not encountered within any of the exploratory hole locations.

#### 6.1.3 Superficial deposits

Published geological records for the area <sup>(6)</sup> indicate the site to be underlain by natural superficial deposits of alluvial clay, silts, sand and gravel and Devensian till. The ground investigation confirmed the geology beneath the site. The alluvial soils, sand and gravel deposits were encountered at all exploratory hole locations and Devensian till was encountered at majority of the locations. The material encountered was generally consistent across the site and can be summarised as follows:

##### *Alluvial soils*

The alluvial soils typically comprising clay, silt, sand and gravel were encountered at all exploratory hole locations. The maximum thickness was recorded in WS1 where it was encountered at a thickness of 5m.

##### *Devensian Till*

Devensian till typically comprising soft to firm clay was encountered in WS2, WS5, TP4, TP7, TP8 and TP9, underlying the alluvial soils. The maximum thickness of this material was recorded in TP7 where it was encountered at a thickness of 1.80m. The till encountered at these locations generally ranged from very soft to firm, although a stiff layer was encountered in WS2, the layer encountered was thin (approximately 0.40m in thickness) at a depth of approximately 4.60m. The Devensian till was generally overlain or underlain by alluvial clay, silts, sand and gravel.

The depth to the base of the superficial deposits (and therefore top of the underlying bedrock) was not proven at any of the exploratory hole locations.

Detailed descriptions of the strata encountered together with the SPT N values are presented on the borehole logs in Appendix E. The thickness of the Devensian till strata encountered was not significant, and SPT values were obtained for these strata. Majority of the trial pit excavations collapsed during or immediately after excavation.

#### **6.1.4 Groundwater**

Rapid groundwater seepages were noted predominantly within the alluvial soil strata at majority of locations during excavation of the trial pits, and groundwater strike was recorded at all locations during drilling of the probeholes. Groundwater strike and seepages were recorded generally at depths up to 2.60m bgl.

#### **6.1.5 Observed contamination**

No other visual or olfactory evidence of contamination was noted within the exploratory holes and trial pits.

### **6.2 Chemical laboratory analysis**

On 16 March 2012 all of the collected soil samples were submitted to an accredited testing laboratory (Envirolab) under controlled conditions for UKAS and MCERT laboratory chemical analysis, where applicable.

Selected soil samples were scheduled for testing for a selection of the following determinants:

- TPH (total petroleum hydrocarbons), split into aliphatic and aromatic hydrocarbon bands
- BTEX (benzene, toluene, ethyl benzene and xylenes)
- PAH (polycyclic aromatic hydrocarbons)
- metals, including arsenic, cadmium, copper, chromium, lead, mercury, nickel, selenium and zinc
- pH
- TOC (total organic carbon)
- sulphate.

Three groundwater samples were also submitted on 23 March 2012 to the accredited testing laboratory (Envirolab) under controlled conditions for UKAS and MCERT laboratory chemical analysis, where applicable. Groundwater samples were analysed for the following:

- heavy metals (suite of 9) including pH
- speciated TPH
- total alkalinity.

Details of the analytical methods and limits of analysis for soil and groundwater samples are provided on the certificates of analyses, which are presented in Appendix H.

### 6.3 Geotechnical laboratory testing

Six samples from the natural strata were analysed for moisture content, four point liquid and plastic limits and PSD analysis. The results are included in Appendix I.

### 6.4 Groundwater gauging

Groundwater levels within the monitoring wells were recorded during the ground gas monitoring visits. The results of the groundwater gauging are summarised in the table below.

**Table 3: Groundwater gauging data**

Borehole	Water Level (m btoc)	
	23/03/2012	13/04/2012
WS2	3.20	3.10
WS3	2.50	2.50
WS5	2.89	2.60

Groundwater has been detected in all of the three monitoring wells during the monitoring programme at the site, the difference in groundwater level in WS2 and WS5 indicates that groundwater is likely to flow towards the south and west in the direction of River Calder.

### 6.5 Ground gas monitoring results

Two of the schedule six-ground gas monitoring rounds have been undertaken to date. The results of each monitoring round including are summarised in the tables below. The prevailing atmospheric conditions during the monitoring events are also presented in the tables, below.

Full copies of the ground gas monitoring records are presented on the as Appendix F.

**Table 4: Ground gas monitoring round one - 23/03/12**

Borehole	Methane maximum (%v/v)	Carbon dioxide maximum (%v/v)	Gas flow rate maximum (l/hr)
WS2	<0.1	0.3	-0.2
WS3	<0.1	4.7	-0.4
WS5	<0.1	0.8	-0.5

**Table 5: Ground gas monitoring round two – 13/04/2012**

Borehole	Methane maximum (%v/v)	Carbon dioxide maximum (%v/v)	Gas flow rate maximum (l/hr)
WS2	<0.1	0.1	-0.1
WS3	<0.1	4.5	0.1
WS5	<0.1	1.1	0.1

## 7 QUANTITATIVE RISK ASSESSMENT

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In line with CLR11 (Environment Agency, 2004a) <sup>(1)</sup>, there are two stages of quantitative risk assessment, generic and detailed. The GQRA comprises the comparison of soil, groundwater, soil gas and ground gas results with generic assessment criteria (GAC) that is appropriate to the linkage being assessed. This comparison can be undertaken directly against the laboratory results or following statistical analysis depending upon the sampling procedure that was adopted.

The GAC used in this assessment are included in Appendix J for human health (together with details of their derivation) and in Appendix K for the assessment of phytotoxic effects and risks to building materials and controlled waters.

Following the intrusive investigation made ground materials were not encountered at any of the exploratory hole locations. Therefore, pollutant linkages concerning risks to receptors arising from the potential presence of contaminants in surplus/imported materials (potentially deposited on the site during development of the adjacent areas) are not considered viable.

### 7.1 Conceptual model

The PRA identified the following potentially complete pollutant linkages to require further assessment by quantitative risk assessment methods:

- Pollutant linkage (1): potential risks to human health via direct contact (including ingestion, dermal contact and/or inhalation of dust) and inhalation of vapours by future site users arising from potential contamination associated with potentially treated soils and contaminated groundwater migrating onto site from off-site sources
- Pollutant linkage (2): potential risks to groundwater in the underlying superficial and bedrock Secondary A aquifers, on-site surface watercourse and nearby river Calder through leaching of potential contamination from potentially treated soil to groundwater followed by vertical and/or lateral migration
- Pollutant linkage (3): potential risks to groundwater in the underlying superficial Secondary A aquifer due migration on to site of contaminants from off-site sources
- Pollutant linkage (4): Surface run-off of contaminants to on-site surface watercourse and River Calder to the south
- Pollutant linkage (5): potential risks to human health through permeation of plastic water supply pipes by potential contaminants within potentially treated soils reducing quality of portable water supply
- Pollutant linkage (6): potential risks to human health through migration and inhalation of ground gasses
- Pollutant linkage (7): potential risks to future building infrastructure through migration and build up of explosive ground gasses site with subsequent explosion

- Pollutant linkage (8): potential degradation risks to concrete foundations by chemically aggressive ground (this will be assessed in Section 8).

## 7.2 Human health

In line with CLR 11<sup>(1)</sup>, the chemical soil and groundwater data were compared the RSK GAC derived for the protection of human health in residential with private gardens end use scenario. The derived GAC for a residential with private gardens end use are presented in Appendix J.

### 7.2.1 Soil - pollutant linkage (1)

The laboratory chemical testing results for soil were compared against the relevant human health GACs for a residential with private gardens end use. This provides a means to evaluate potential risks associated with direct contact and vapour inhalation pathways.

Comparison of the laboratory results with the available GAC revealed no exceedences.

### 7.2.2 Groundwater pollutant linkage (1)

The laboratory chemical testing results for the groundwater samples were compared against Human Health GACs for a residential with private gardens end use. This provided a means to evaluate potential risks associated with vapour inhalation pathways.

No exceedences of the GACs were recorded within the tested samples.

### 7.2.3 Water supply pipes – pollutant linkage (5)

Potential risks posed to the water supply on site from contamination detected have been initially assessed through comparison of the soil analytical testing results with threshold levels for certain toxic contaminants, which could affect the selection of pipe materials, contained within relevant guidance<sup>(9)</sup>.

The concentrations of organic contaminants within the tested soil samples have been initially assessed against threshold values presented within the guidance. The assessment indicates that the concentrations of organic contaminants on site are not at levels that are likely to preclude the use polyethylene (PE) or polyvinyl chloride (PVC) based water supply pipe material.

### 7.2.4 Ground gas - pollutant linkage (6 & 7)

The results of two gas monitoring visits undertaken at the site between 23 March 2011 and 13 April 2012 are summarised in Table 4 and 5, presented earlier in this report.

In order to assess the significance of potential risks posed by ground gases at the site (and thus the likely requirement of mitigation measures to be incorporated into the new development), measured concentrations and flow rates obtained during the monitoring programme have been used to generate gas-screening values (GSVs). The GSVs

have been assessed using the using the NHBC Traffic Light classification system <sup>(10)</sup> since low-rise residential properties are proposed. This classification system assumes an open ventilated under floor void of at least 150mm and is considered suitable to assess risks to both human health and building infrastructure.

A table of the maximum values recorded during the monitoring programme is presented below together with the corresponding GSVs.

**Table 6. Summary of calculated gas screening values (GSVs)**

Borehole	Methane maximum (%v/v)	Carbon dioxide maximum (%v/v)	Peak Gas Flow Rate (L/hr)	GSV – CO <sub>2</sub> (L/hr)	GSV – CH <sub>4</sub> (L/hr)
WS2	<0.1	0.1	-0.1	<0.01	<0.01
WS3	<0.1	4.7	0.1	<0.01	<0.01
WS5	<0.1	1.1	0.1	0.05	<0.01
OVERALL	<0.1	4.7	0.1	<0.01	<0.01

GSV were not calculated above <0.01 l/hr for any of the monitoring locations or for the overall site area when the maximum flow rates and gas concentrations for each location are considered.. Based on the calculated GSVs the conditions are therefore classified as a ‘green’ classification meaning gas mitigation measures are unlikely to be required to be incorporated into the development. Confirmation of the classification of the ground gas regime and ground gas recommendations at the site will be further assessed following completion of the four remaining monitoring rounds and will be issued separately in an addendum report.

## 7.3 Controlled waters

### 7.3.1 Pollutant linkage (2) (3) & (4)

Pollutant linkage (2) relates to the potential leaching of elevated soil contaminants from the unsaturated zone into underlying shallow groundwater, with subsequent migration to controlled waters receptors. Pollutant linkage (3) relates to the lateral migration onto site of potentially contaminated groundwater from off-site sources.

For completeness, pollutant linkage (2) has been assessed using the same methodology as pollutant linkage (3) in that the chemical quality of shallow groundwater has been considered directly in comparison with freshwater Environmental Quality Standards (EQS), where available. The selection of EQS values for the assessment is considered appropriate owing to the Secondary A aquifers (alluvial deposits) underlying the site, the on-site surface water course and the River Calder located roughly 10m to the south of the site. Certain of the metal determinants have a range of EQS values corresponding to hardness. A total alkalinity (CaCO<sub>3</sub>) concentration of 295mg/l was recorded in the groundwater sample taken from WS2 and thus the most appropriate EQS values relative to this concentration have been used. The EQS are presented in Appendix K.

Comparison of the results with the EQS disclosed no exceedances of the assessment criteria and therefore the assessed pollutant linkages are considered incomplete.

Pollutant linkage (4) relates to surface run-off of contaminants to the on-site unnamed tributary of the River Calder and to the River Calder, located roughly 10m south of the site. As noted during the site walkover, the on-site surface watercourse was 'dry' upon inspection and therefore collection of a water sample for chemical quality testing was not possible. However, given that chemical concentrations in the superficial and near surface soil samples were negligible, it is considered unlikely that surface run-off of contaminants to on- and off-site surface watercourses will occur. Therefore the assessed pollutant linkage is considered incomplete.

## 7.4 Refined conceptual model

The GQRA has **not** identified any potentially complete pollutant linkages requiring further assessment.

## 7.5 Waste assessment

RSK has developed a waste soils characterisation assessment tool, Hazwaste V4. In the event that soils excavated from the site are to be classified as waste, RSK have reviewed the analytical results for potential off-site disposal. The analytical results indicate that a classification of non-hazardous waste would apply to excavated soils. Please note that the receiving landfill may require further testing be undertaken prior to acceptance in order to confirm classification. RSK would also note that, given the extensive presence of natural soils underlying the site, it may be prudent to undertake full waste acceptance criteria testing because any excavated natural soils may be suitable for disposal as inert waste at an appropriately licensed receiving facility.

A copy of the waste assessment output is presented in Appendix L.

RSK also undertook chemical testing on a sample of topsoil material (TP-2 at 0.2m) to assess the potential for re-use of site topsoil as part of the proposed development. The chemical test results were assessed against the Human Health GAC for a residential end-use in Appendix G. The assessment indicates that deposits of topsoil material currently contained at the site are likely to be chemically suitable for re-use. However, if the material is to be re-used, then further confirmatory chemical testing will be required at frequency of 1 sample per 125m<sup>3</sup> of material and a subsequent declaration submitted that the material is acceptable for use as multipurpose topsoil in accordance with the provisions of BS3882: 2007<sup>(11)</sup>.

## 8 GEOTECHNICAL ASSESSMENT

### 8.1 Engineering considerations

It is understood that the proposed development includes the construction of a number of low-rise residential units with gardens and associated infrastructure. At the time of reporting, no indicative loadings for the proposed structure were available.

### 8.2 Ground conditions

The ground investigation indicates that the entire site is underlain by thick alluvial deposits of soft clay and silt and loose sand and gravel. Stiff to very stiff clay of the Devensian Till was encountered in WS2 at a depth of 4.6m below the existing ground level.

The SPT N results recorded during ground investigation generally range from 1-9, which broadly equates to undrained shear strength between 20 - 40kPa.

The depth to the base of the superficial deposits and the underlying bedrock was not proven at any of the exploratory hole locations.

### 8.3 Geotechnical hazards

A summary of commonly occurring geotechnical hazards is given in Table 7 together with an assessment of whether the site may be affected by each of the stated hazards.

**Table 7: Summary of main potential geotechnical hazards that may affect site**

Hazard category (excluding contamination issues)	Hazard status based on investigation findings and proposed development			Engineering considerations if hazard affects site
	Found to be present on site	Could be present but not found	Unlikely to be present and/or affect site	
Sudden lateral changes in ground conditions	√	Lateral and vertical variability of the alluvial deposits		Likely to affect ground engineering and foundation design and construction
Shrinkable clay soils	√	Low volume change potential based on ground investigation result.		Design to NHBC Standards Chapter 4 or similar

Hazard category (excluding contamination issues)	Hazard status based on investigation findings and proposed development			Engineering considerations if hazard affects site
	Found to be present on site	Could be present but not found	Unlikely to be present and/or affect site	
Highly compressible and low bearing capacity soils, (including peat and soft clay)	√	Soft/loose alluvial deposits		Likely to affect ground engineering and foundation design and construction
Silt-rich soils susceptible to loss of strength in wet conditions	√	Alluvial deposits with high silt content		Likely to affect ground engineering and foundation design and construction
Running sand at and below water table			√	Likely to affect ground engineering and foundation design and construction
High groundwater table (including waterlogged ground)	√	Based upon subsequent groundwater monitoring		May affect temporary and permanent works
Existing sub-structures (e.g. tunnels, foundations, basements, and adjacent sub-structures)	√	Culverted sections of unnamed tributary of the River Calder		Likely to affect ground engineering and foundation design and construction
Filled and made ground (including embankments, infilled ponds and quarries)		√		Likely to affect ground engineering and foundation design and construction
Adverse ground chemistry (including expansive slags and weathering of sulphides to sulphates)			√ <b>See section 6.5</b>	May affect ground engineering and foundation design and construction
Note: Seismicity is not included in the above table as this is not normally a design consideration in the UK.				

## 8.4 Foundations

### 8.4.1 General suitability

Given the significant depth of the soft and loose alluvial deposits encountered across the site, it is considered that shallow foundations are unlikely to be suitable for the development. Ground improvement such as vibro-replacement or vibro compaction may be considered as possible foundation solution, however due to the settlement issues related to this option, its adoption will require a prior consultation with NHBC. If such

ground improvement is not considered appropriate then piled foundations taken into the underlying competent strata are recommended.

The scope of the ground investigation is not sufficient to provide information for recommendations for the design and construction of piled foundations, as all the probeholes and trial pits were completed within incompetent (alluvial) strata. The alluvial sequence is also highly variable laterally as well as vertically hence additional site coverage is recommended.

Prior to any foundation design or construction on the site, it would be necessary to undertake additional intrusive investigation to delineate the thickness and distribution of the soft and loose materials and to assess the depth of the competent strata underlying these materials.

#### **8.4.2 Roads, hardstanding and drainage**

The exploratory holes have revealed a soil profile comprising a layer of soft to firm clay at shallow depth.

In pavement design terms, the groundwater conditions are anticipated to comprise a low water table, i.e. at least 1.0m below the pavement formation level.

For preliminary purposes, it is therefore recommended that sub-grade CBR value for any pavements be designed assuming a CBR value of 2%. However, it is recommended in-situ CBR determination is carried out at formation levels targeting areas of hardstanding, prior the construction works, to confirm these values.

Any pockets of soft or loose material, and hard spots or buried foundation at formation level should be removed and replaced with well-compacted, suitable granular material. All formations should be compacted to make good any disturbance caused by excavation. It is recommended that the formation not be exposed for any period of time during inclement weather.

#### **8.4.3 Chemical attack on buried concrete**

This assessment of the potential for chemical attack on buried concrete is based on current BRE guidance. For the purposes of this assessment of the aggressive chemical environment, the site may be considered as a brownfield development. An extended suite of chemical analyses appropriate to this site classification was carried on five soil samples to a maximum depth of 2.0m bgl. The results of these analyses are given in Appendix H.

In accordance with Section C5.1.1(a) of the BRE guidance <sup>(12)</sup>, and given that five soils samples have been analysed for 2:1 water/soil sulphate, the mean of the highest two of the sulphate results has been taken as the characteristic value for design. This equates to 25mg/l, rounded to 30mg/l in accordance with the guidance.

As the maximum water-soluble sulphate content in soil is below the limiting value of 3000mg/l, consideration of magnesium is not required. Groundwater was not sampled during the investigation; therefore, there is no Design Sulphate Class based on groundwater considerations.



Based on Table C2 in the BRE guidance, for Design Sulphate Class for the site is **DS-1**. It has been assumed that groundwater conditions are mobile and the mean of lowest two of the pH results calculated at 6.725, the aggressive chemical environment for concrete (ACEC) classification is therefore indicated as being **AC-1<sup>d</sup>**.

## 9 CONCLUSIONS AND RECOMMENDATIONS

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The intrusive investigation undertaken by RSK found ground conditions beneath the site to comprise topsoil to a maximum depth of 0.2m bgl underlain by alluvial deposits. The alluvial deposits were variable in nature across the site, but predominantly comprised soft clay, silt, and loose sands and gravels. The depth to the base of the superficial deposits, and competent ground, was not proven in the investigation. Dependent on the preferred foundation solution, it may be necessary to undertake further intrusive investigation to determine the depth of competent strata.

Laboratory soil contamination testing and the subsequent GQRA revealed no exceedences of the respective soil GAC for the proposed site end-use. Thus, the concentrations of contaminants present in soils were not considered to present a risk to human health. Based on this, the requirement for further assessment is considered unlikely unless areas of visual and/or olfactory contamination are disclosed during the development.

Groundwater was encountered in two monitoring wells installed on site at depths ranging between 2.50m and 3.20m bgl. The GQRA did not identify groundwater chemical concentrations in the tested samples in excess of the respective EQS. Based on this, RSK does not consider the requirement for further assessment of potential risks to controlled waters necessary.

Ground gas monitoring recorded maximum methane concentrations below the limit of detection (<0.1%v/v) and a maximum carbon dioxide concentration of 4.7%v/v. A peak flow rate of 0.1l/hr was also recorded at WS3 and WS5. This equates to a 'green' classification using the NHBC Traffic Light classification system <sup>(10)</sup> and means that gas mitigation measures are unlikely to be required to be incorporated into the proposed redevelopment. However, characterisation of the ground gas regime underlying the site and recommendations on the level of ground gas protection measures required will be issued in an addendum report upon completion of the ground gas monitoring programme.

The waste classification, using the RSK Haswaste classification tool, indicates that the soils tested beneath the site are classified as non-hazardous. However, given the extensive presence of natural soils underlying the site, it may be prudent to undertake full waste acceptance criteria testing on any excavated natural soils during development because these soils may be suitable for disposal at an inert waste receiving facility. Please note that further confirmation may be required from the selected waste disposal site to confirm that they are satisfied with the classification of the material.

Chemical analysis on a single sample of topsoil indicates that the material may potentially be chemically suitable for re-use. Should the material be required for re-use then further confirmatory chemical testing will be required at frequency of 1 sample per 125m<sup>3</sup> of material and a subsequent declaration submitted that the material is acceptable for use as multipurpose topsoil in accordance with the provisions of BS3882: 2007<sup>(11)</sup>.

The geotechnical assessment reveals that the significant depth of the soft and loose alluvial deposits encountered across the site indicates shallow foundations are unlikely to be suitable for the development however, the depth of the ground investigation is not sufficient to provide information for recommendations for the design and construction of piled foundations, as all the boreholes and trial pits were completed within incompetent (alluvial) strata. The alluvial sequence is also highly variable laterally as well as vertically hence additional site coverage is recommended.

Therefore, prior to any foundation design or construction on the site, it would be necessary to undertake additional intrusive investigation to delineate the thickness and distribution of the soft and loose materials and to assess the depth of the competent strata underlying these materials.

A day of Cone Penetration Testing (CPT) coupled with 3 No boreholes completed to a depth of circa 10-15m bgl using cable percussive drilling techniques should be sufficient to obtain the additional geotechnical information and design parameters to enable the design of appropriate foundations for the proposed development.

Based on Table C2 in the BRE guidance, for Design Sulphate Class for the site is **DS-1**. It has been assumed that groundwater conditions are mobile and the mean of lowest two of the pH results calculated at 6.725, the aggressive chemical environment for concrete (ACEC) classification is therefore indicated as being **AC-1<sup>d</sup>**.

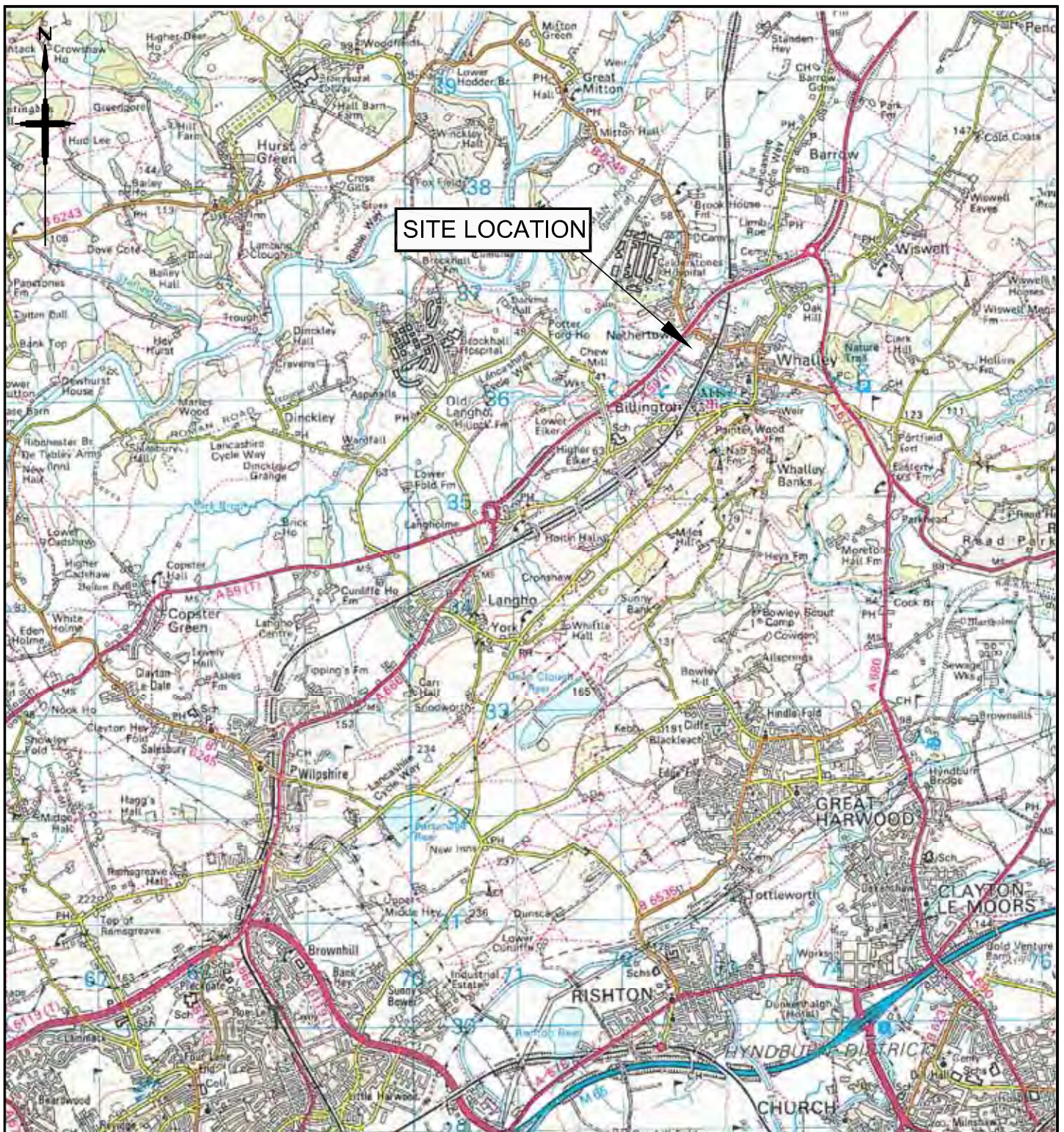
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# FIGURES

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Client	<b>DAVID WILSON HOMES NORTHWEST</b>
Project Title	<b>MITTON ROAD, WHALLEY, LANCASHIRE</b>
Drawing Title	<b>SITE LOCATION PLAN</b>


Drawn AMC	Date 26.03.12	Checked MY	Date 26.03.12	Approved MY	Date 26.03.12	Project No. 17134-R01(00)	Drawing File 17134-R01(00)D001A.dwg
Scale NTS	Orig Size A4	Dimensions —	Drawing No. <b>FIGURE 1</b>		Rev. <b>A</b>		



	Low Density Housing
	High Density Housing
	Existing Trees & Hedges
	Proposed new trees
	Proposed new path/cycle links
	Existing path routes
	Key Feature Buildings
	Line Of Sewer Easement



Amendments



Unit 1A  
Interlink Way West  
Bardon Hill  
Leeds  
LE67 1GG

telephone 01530 813900  
fax 01530 612366

Project  
**Whalley**  
Mitton Road

Drawing Title  
**Sketch Master Plan**

Scale\*  
1:1250 @ A2

Date  
10-01-12

Drawn  
PJLivesley

Drawing Ref  
**NW-09-01**



\*This drawing is a preliminary sketch and is not intended for construction. It is for information only and is subject to change without notice. It is not to be used for any other purpose without the written consent of the author. It is not to be used for any other purpose without the written consent of the author. It is not to be used for any other purpose without the written consent of the author. You can use the scale bar or grid to check the printed drawing.



# APPENDIX A

## SERVICE CONSTRAINTS

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### RSK ENVIRONMENT LIMITED SERVICE CONSTRAINTS

1. This report and the site investigation carried out in connection with the report (together the "Services") were compiled and carried out by RSK Environment Limited (RSK) for Persimmon Homes Northwest (the "client"). The Services were performed by RSK with the skill and care ordinarily exercised by a reasonable environmental consultant at the time the Services were performed. Further, and in particular, the Services were performed by RSK taking into account the limits of the scope of works required by the client, the time scale involved and the resources, including financial and manpower resources, agreed between RSK and the client.
2. Other than that expressly contained in paragraph 1 above, RSK provides no other representation or warranty whether express or implied, in relation to the Services.
3. Unless otherwise agreed the Services were performed by RSK exclusively for the purposes of the client. RSK is not aware of any interest of or reliance by any party other than the client in or on the Services. Unless expressly provided in writing, RSK does not authorise, consent or condone any party other than the client relying upon the Services. Should this report or any part of this report, or otherwise details of the Services or any part of the Services be made known to any such party, and such party relies thereon that party does so wholly at its own and sole risk and RSK disclaims any liability to such parties. **Any such party would be well advised to seek independent advice from a competent environmental consultant and/or lawyer.**
4. It is RSK's understanding that this report is to be used for the purpose described in the introduction to the report. That purpose was a significant factor in determining the scope and level of the Services. Should the purpose for which the report is used, or the proposed use of the site change, this report may no longer be valid and any further use of or reliance upon the report in those circumstances by the client without RSK's review and advice shall be at the client's sole and own risk. Should RSK be requested to review the report after the date hereof, RSK shall be entitled to additional payment at the then existing rates or such other terms as agreed between RSK and the client.
5. The passage of time may result in changes in site conditions, regulatory or other legal provisions, technology or economic conditions which could render the report inaccurate or unreliable. The information and conclusions contained in this report should not be relied upon in the future without the written advice of RSK. In the absence of such written advice of RSK, reliance on the report in the future shall be at the client's own and sole risk. Should RSK be requested to review the report in the future, RSK shall be entitled to additional payment at the then existing rate or such other terms as may be agreed between RSK and the client.
6. The observations and conclusions described in this report are based solely upon the Services which were provided pursuant to the agreement between the client and RSK. RSK has not performed any observations, investigations, studies or testing not specifically set out or required by the contract between the client and RSK. RSK is not liable for the existence of any condition, the discovery of which would require performance of services not otherwise contained in the Services. For the avoidance of doubt, unless otherwise expressly referred to in the introduction to this report, RSK did not seek to evaluate the presence on or off the site of asbestos, electromagnetic fields, lead paint, heavy metals, radon gas or other radioactive or hazardous materials.
7. The Services are based upon RSK's observations of existing physical conditions at the Site gained from a walk-over survey of the site together with RSK's interpretation of information including documentation, obtained from third parties and from the client on the history and usage of the site. The Services are also based on information and/or analysis provided by independent testing and information services or laboratories upon which RSK was reasonably entitled to rely. The Services clearly are limited by the accuracy of the information, including documentation, reviewed by RSK and the observations possible at the time of the walk-over survey. Further RSK was not authorised and did not attempt to independently verify the accuracy or completeness of information, documentation or materials received from the client or third parties, including laboratories and information services, during the performance of the Services. RSK is not liable for any inaccurate information or conclusions, the discovery of which inaccuracies required the doing of any act including the gathering of any information which was not reasonably available to RSK and including the doing of any independent investigation of the information provided to RSK save as otherwise provided in the terms of the contract between the client and RSK.
8. The phase II or intrusive environmental site investigation aspects of the Services is a limited sampling of the site at pre-determined borehole and soil gas locations based on the operational configuration of the site. The conclusions given in this report are based on information gathered at the specific test locations and can only be extrapolated to an undefined limited area around those locations. The extent of the limited area depends on the soil and groundwater conditions, together with the position of any current structures and underground facilities and natural and other activities on site. In addition chemical analysis was carried out for a limited number of parameters [as stipulated in the contract between the client and RSK] [based on an understanding of the available operational and historical information,] and it should not be inferred that other chemical species are not present.
9. Any site drawing(s) provided in this report is (are) not meant to be an accurate base plan, but is (are) used to present the general relative locations of features on, and surrounding, the site.



# APPENDIX B ENVIROCHECK REPORT

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## Envirocheck<sup>®</sup> Report:

### Datasheet

#### Order Details:

**Order Number:**

37954280\_1\_1

**Customer Reference:**

17134

**National Grid Reference:**

372730, 436370

**Slice:**

A

**Site Area (Ha):**

8.56

**Search Buffer (m):**

1000

#### Site Details:

Site at 372750, 436420

#### Client Details:

Miss L Thomas  
RSK Environment Ltd  
Four Ways House  
57 Hilton Street  
Manchester  
M1 2EJ

Report Section	Page Number
Summary	-
Agency & Hydrological	1
Waste	20
Hazardous Substances	-
Geological	21
Industrial Land Use	23
Sensitive Land Use	27
Data Currency	28
Data Suppliers	33
Useful Contacts	34

## 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.

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## 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

Data Type	Page Number	On Site	0 to 250m	251 to 500m	501 to 1000m (*up to 2000m)
<b>Agency &amp; Hydrological</b>					
Contaminated Land Register Entries and Notices					
Discharge Consents	pg 1		4	4	24
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	pg 8			1	1
Local Authority Pollution Prevention and Control Enforcements					
Nearest Surface Water Feature		Yes			
Pollution Incidents to Controlled Waters	pg 9		5	4	31
Prosecutions Relating to Authorised Processes					
Prosecutions Relating to Controlled Waters	pg 15				1
Registered Radioactive Substances					
River Quality	pg 16	1	1		
River Quality Biology Sampling Points					
River Quality Chemistry Sampling Points	pg 16		1		
Substantiated Pollution Incident Register	pg 17			1	1
Water Abstractions	pg 17				(*8)
Water Industry Act Referrals					
Groundwater Vulnerability	pg 19	Yes	n/a	n/a	n/a
Bedrock Aquifer Designations	pg 19	Yes	n/a	n/a	n/a
Superficial Aquifer Designations	pg 19	Yes	n/a	n/a	n/a
Source Protection Zones					
Extreme Flooding from Rivers or Sea without Defences	pg 19	Yes		n/a	n/a
Flooding from Rivers or Sea without Defences	pg 19	Yes	Yes	n/a	n/a
Areas Benefiting from Flood Defences				n/a	n/a
Flood Water Storage Areas				n/a	n/a
Flood Defences	pg 19		Yes	n/a	n/a
<b>Waste</b>					
BGS Recorded Landfill Sites					
Historical Landfill Sites	pg 20		1		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	pg 20				1

Data Type	Page Number	On Site	0 to 250m	251 to 500m	501 to 1000m (*up to 2000m)
<b>Hazardous Substances</b>					
Control of Major Accident Hazards Sites (COMAH)					
Explosive Sites					
Notification of Installations Handling Hazardous Substances (NIHHS)					
Planning Hazardous Substance Consents					
Planning Hazardous Substance Enforcements					
<b>Geological</b>					
BGS Recorded Mineral Sites	pg 21			1	2
BGS 1:625,000 Solid Geology	pg 21	Yes	n/a	n/a	n/a
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 21	Yes		n/a	n/a
Potential for Collapsible Ground Stability Hazards	pg 21	Yes		n/a	n/a
Potential for Compressible Ground Stability Hazards	pg 21	Yes		n/a	n/a
Potential for Ground Dissolution Stability Hazards				n/a	n/a
Potential for Landslide Ground Stability Hazards	pg 21	Yes	Yes	n/a	n/a
Potential for Running Sand Ground Stability Hazards	pg 22	Yes	Yes	n/a	n/a
Potential for Shrinking or Swelling Clay Ground Stability Hazards	pg 22	Yes		n/a	n/a
Radon Potential - Radon Affected Areas	pg 22	Yes	n/a	n/a	n/a
Radon Potential - Radon Protection Measures			n/a	n/a	n/a
<b>Industrial Land Use</b>					
Contemporary Trade Directory Entries	pg 23		12	14	17
Fuel Station Entries	pg 26				1

Data Type	Page Number	On Site	0 to 250m	251 to 500m	501 to 1000m (*up to 2000m)
<b>Sensitive Land Use</b>					
Areas of Adopted Green Belt	pg 27			1	1
Areas of Unadopted Green Belt	pg 27			1	
Areas of Outstanding Natural Beauty					
Environmentally Sensitive Areas					
Forest Parks					
Local Nature Reserves					
Marine Nature Reserves					
National Nature Reserves					
National Parks					
Nitrate Sensitive Areas					
Nitrate Vulnerable Zones					
Ramsar Sites					
Sites of Special Scientific Interest					
Special Areas of Conservation					
Special Protection Areas					

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
1	<p><b>Discharge Consents</b></p> <p>Operator: United Utilities Water Plc  Property Type: Sewerage Network - Sewers - Water Company  Location: Whalley Relief Sewer Sso, Whalley, Lancashire  Authority: Environment Agency, North West Region  Catchment Area: Not Given  Reference: 01rib0043  Permit Version: 1  Effective Date: 1st July 1991  Issued Date: Not Supplied  Revocation Date: 1st January 1995  Discharge Type: Public Sewage: Storm Sewage Overflow  Discharge: Unknown  Environment:  Receiving Water: Unknown Outlet; Licence Status: Revoked  <b>Status: Authorisation revokedRevoked</b>  Positional Accuracy: Located by supplier to within 100m</p>	A12SE (W)	186	1	372350 436310
1	<p><b>Discharge Consents</b></p> <p>Operator: United Utilities Water Plc  Property Type: Sewerage Network - Sewers - Water Company  Location: Whalley Relief Sewer Sso, Whalley, Lancashire  Authority: Environment Agency, North West Region  Catchment Area: Not Given  Reference: 017160332  Permit Version: 1  Effective Date: 1st May 1990  Issued Date: 1st May 1990  Revocation Date: Not Supplied  Discharge Type: Sewage Discharges - Stw Storm Overflow/Storm Tank - Water Company  Discharge: Freshwater Stream/River  Environment:  Receiving Water: River Calder  <b>Status: Post National Rivers Authority Legislation where issue date &gt; 31/08/1989</b>  Positional Accuracy: Located by supplier to within 100m</p>	A12SE (W)	188	1	372350 436305
2	<p><b>Discharge Consents</b></p> <p>Operator: United Utilities Water Plc  Property Type: Sewerage Network - Sewers - Water Company  Location: Longworth Rd/R'Way Viaduct, Billington, Ribble Valley, Lancashire  Authority: Environment Agency, North West Region  Catchment Area: Calder (Ribble)  Reference: 01RIB0021  Permit Version: 1  Effective Date: 1st April 1991  Issued Date: Not Supplied  Revocation Date: Not Supplied  Discharge Type: Public Sewage: Storm Sewage Overflow  Discharge: Freshwater Stream/River  Environment:  Receiving Water: Stream Of River Calder  <b>Status: Post National Rivers Authority Legislation where issue date &gt; 31/08/1989</b>  Positional Accuracy: Located by supplier to within 10m</p>	A8NE (S)	241	1	372720 435900
2	<p><b>Discharge Consents</b></p> <p>Operator: United Utilities Water Plc  Property Type: Sewage Disposal Works - Other  Location: Billington, Ribble Valley, Lancashire  Authority: Environment Agency, North West Region  Catchment Area: Not Given  Reference: 01la1549  Permit Version: 1  Effective Date: 13th July 1967  Issued Date: Not Supplied  Revocation Date: 13th July 1967  Discharge Type: Public Sewage: Storm Sewage Overflow  Discharge: Freshwater Stream/River  Environment:  Receiving Water: River Calder  <b>Status: Authorisation revokedRevoked</b>  Positional Accuracy: Located by supplier to within 100m</p>	A8NE (S)	241	1	372720 435900

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
3	<p><b>Discharge Consents</b></p> <p>Operator: United Utilities Water Plc  Property Type: Sewerage Network - Pumping Station - Water Company  Location: Neddy Lane Ps, Billington, Lancashire  Authority: Environment Agency, North West Region  Catchment Area: Not Given  Reference: 017180502  Permit Version: 1  Effective Date: 28th November 1994  Issued Date: Not Supplied  Revocation Date: Not Supplied  Discharge Type: Sewage Discharges - Pumping Station - Water Company  Discharge: Freshwater Stream/River  Environment:  Receiving Water: Trib River Calder  <b>Status: Post National Rivers Authority Legislation where issue date &gt; 31/08/1989</b>  Positional Accuracy: Located by supplier to within 100m</p>	A8NW (SW)	341	1	372510 435920
3	<p><b>Discharge Consents</b></p> <p>Operator: United Utilities Water Plc  Property Type: Sewerage Network - Pumping Station - Water Company  Location: Neddy Lane Ps, Billington, Lancashire  Authority: Environment Agency, North West Region  Catchment Area: Calder (Ribble)  Reference: 01RIB0046  Permit Version: 1  Effective Date: 1st January 1995  Issued Date: Not Supplied  Revocation Date: 1st January 1995  Discharge Type: Storm /emergency overflow  Discharge: Freshwater Stream/River  Environment:  Receiving Water: Trib River Calder  <b>Status: Consent revoked or revised: New Consent issued (Section 37(1))</b>  Positional Accuracy: Located by supplier to within 100m</p>	A8NW (SW)	344	1	372510 435915
4	<p><b>Discharge Consents</b></p> <p>Operator: North West Water Limited  Property Type: Not Given  Location: Whalley Wwt Plant, WHALLEY, Lancashire  Authority: Environment Agency, North West Region  Catchment Area: Calder (Ribble)  Reference: 17160014  Permit Version: Not Supplied  Effective Date: Not Supplied  Issued Date: 1st April 1991  Revocation Date: Not Supplied  Discharge Type: Sewage Effluent Discharge-Treated Effluent  Discharge: Freshwater Stream/River  Environment:  Receiving Water: River Calder  <b>Status: Not Supplied</b>  Positional Accuracy: Located by supplier to within 100m</p>	A12NE (W)	443	1	372080 436380
5	<p><b>Discharge Consents</b></p> <p>Operator: Clitheroe Rural District Council  Property Type: Sewerage Network - Sewers - Water Company  Location: Whalley Outfall Sewer, Ribble Valley, Lancashire  Authority: Environment Agency, North West Region  Catchment Area: Not Given  Reference: 011a0027  Permit Version: 1  Effective Date: 13th January 1953  Issued Date: Not Supplied  Revocation Date: 13th January 1953  Discharge Type: Storm sewage overflow discharge  Discharge: Freshwater Stream/River  Environment:  Receiving Water: River Calder  <b>Status: Authorisation revokedRevoked</b>  Positional Accuracy: Located by supplier to within 100m</p>	A9NW (SE)	463	1	373200 435950

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
6	<p><b>Discharge Consents</b></p> <p>Operator: United Utilities Water Plc  Property Type: Sewage Disposal Works - Water Company  Location: Whalley Wastewater Treatment Works, Whalley, Lancashire  Authority: Environment Agency, North West Region  Catchment Area: Calder (Ribble)  Reference: 017180634  Permit Version: 2  Effective Date: 1st January 2010  Issued Date: 14th October 2008  Revocation Date: Not Supplied  Discharge Type: Public Sewage: Storm Sewage Overflow  Discharge: Freshwater Stream/River  Environment:  Receiving Water: The River Calder  <b>Status:</b> <b>Modified (Water Resources Act 1991, Schedule 10 as amended by Environment Act 1995)</b>  Positional Accuracy: Located by supplier to within 10m</p>	A12NW (W)	523	1	372000 436390
6	<p><b>Discharge Consents</b></p> <p>Operator: United Utilities Water Plc  Property Type: Sewage Disposal Works - Water Company  Location: Whalley Wastewater Treatment Works, Whalley, Lancashire  Authority: Environment Agency, North West Region  Catchment Area: Calder (Ribble)  Reference: 017180634  Permit Version: 2  Effective Date: 1st January 2010  Issued Date: 14th October 2008  Revocation Date: Not Supplied  Discharge Type: Sewage Discharges - Final/Treated Effluent - Water Company  Discharge: Freshwater Stream/River  Environment:  Receiving Water: The River Calder  <b>Status:</b> <b>Modified (Water Resources Act 1991, Schedule 10 as amended by Environment Act 1995)</b>  Positional Accuracy: Located by supplier to within 10m</p>	A12NW (W)	523	1	372000 436390
6	<p><b>Discharge Consents</b></p> <p>Operator: United Utilities Water Plc  Property Type: Sewage Disposal Works - Water Company  Location: Whalley Wastewater Treatment Works, Whalley, Lancashire  Authority: Environment Agency, North West Region  Catchment Area: Calder (Ribble)  Reference: 017180634  Permit Version: 1  Effective Date: 31st May 2000  Issued Date: 1st March 1999  Revocation Date: 31st December 2009  Discharge Type: Public Sewage: Storm Sewage Overflow  Discharge: Freshwater Stream/River  Environment:  Receiving Water: The River Calder  <b>Status:</b> <b>New Consent (Water Resources Act 1991, Section 88 &amp; Schedule 10 as amended by Environment Act 1995)</b>  Positional Accuracy: Located by supplier to within 10m</p>	A12NW (W)	523	1	372000 436390
6	<p><b>Discharge Consents</b></p> <p>Operator: United Utilities Water Plc  Property Type: Sewage Disposal Works - Water Company  Location: Whalley Wastewater Treatment Works, Whalley, Lancashire  Authority: Environment Agency, North West Region  Catchment Area: Calder (Ribble)  Reference: 017180634  Permit Version: 1  Effective Date: 31st May 2000  Issued Date: 1st March 1999  Revocation Date: 31st December 2009  Discharge Type: Sewage Discharges - Final/Treated Effluent - Water Company  Discharge: Freshwater Stream/River  Environment:  Receiving Water: The River Calder  <b>Status:</b> <b>New Consent (Water Resources Act 1991, Section 88 &amp; Schedule 10 as amended by Environment Act 1995)</b>  Positional Accuracy: Located by supplier to within 10m</p>	A12NW (W)	523	1	372000 436390

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
6	<p><b>Discharge Consents</b></p> <p>Operator: North West Water Limited  Property Type: Not Given  Location: Whalley Et Works Hum, WHALLEY, Lancashire  Authority: Environment Agency, North West Region  Catchment Area: Calder (Ribble)  Reference: 17160014  Permit Version: Not Supplied  Effective Date: Not Supplied  Issued Date: 1st April 1991  Revocation Date: Not Supplied  Discharge Type: Sewage Effluent Discharge-Treated Effluent  Discharge: Freshwater Stream/River  Environment:  Receiving Water: River Calder  <b>Status: Not Supplied</b>  Positional Accuracy: Located by supplier to within 100m</p>	A12SW (W)	524	1	372000 436355
7	<p><b>Discharge Consents</b></p> <p>Operator: United Utilities Water Plc  Property Type: Sewage Disposal Works - Water Company  Location: Calderstones Stw, Ridding Lane, Whalley, Lancashire  Authority: Environment Agency, North West Region  Catchment Area: Not Given  Reference: 017160014  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: River Calder (Ribble)  <b>Status: Authorisation revokedRevoked</b>  Positional Accuracy: Located by supplier to within 100m</p>	A12SW (W)	523	1	372005 436305
7	<p><b>Discharge Consents</b></p> <p>Operator: United Utilities Water Plc  Property Type: Sewage Disposal Works - Water Company  Location: Calderstones Stw, Ridding Lane, Whalley, Lancashire  Authority: Environment Agency, North West Region  Catchment Area: Not Given  Reference: 017160014  Permit Version: 2  Effective Date: 31st January 1985  Issued Date: Not Supplied  Revocation Date: 8th December 1998  Discharge Type: Sewage Discharges - Stw Storm Overflow/Storm Tank - Water Company  Discharge: Freshwater Stream/River  Environment:  Receiving Water: River Calder (Ribble)  <b>Status: Authorisation revokedRevoked</b>  Positional Accuracy: Located by supplier to within 100m</p>	A12SW (W)	528	1	372000 436305
7	<p><b>Discharge Consents</b></p> <p>Operator: Unknown Operator  Property Type: Not Given  Location: Calderstones Sewage Treatment Works , Ridding Lane , WHALLEY , Lancashire  Authority: Environment Agency, North West Region  Catchment Area: Not Given  Reference: 017160014C  Permit Version: Not Supplied  Effective Date: Not Supplied  Issued Date: Not Supplied  Revocation Date: Not Supplied  Discharge Type: Sewage Treatment Works Final Effluent - Part Biological Treatment  Discharge: Freshwater Stream/River  Environment:  Receiving Water: Humus Tank Effluent; Outlet From Humus Tank; River Calder (Ribble)  <b>Status: Not Supplied</b>  Positional Accuracy: Located by supplier to within 100m</p>	A12SW (W)	529	1	372000 436300

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
7	<p><b>Discharge Consents</b></p> <p>Operator: United Utilities Water Plc  Property Type: Sewage Disposal Works - Water Company  Location: Calderstones Stw, Ridding Lane, Whalley, Lancashire  Authority: Environment Agency, North West Region  Catchment Area: Not Given  Reference: 017160014  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: River Calder (Ribble)  <b>Status: Authorisation revokedRevoked</b>  Positional Accuracy: Located by supplier to within 100m</p>	A12SW (W)	529	1	372000 436300
7	<p><b>Discharge Consents</b></p> <p>Operator: United Utilities Water Plc  Property Type: Sewage Disposal Works - Water Company  Location: Calderstones Stw, Ridding Lane, Whalley, Lancashire  Authority: Environment Agency, North West Region  Catchment Area: Calder (Ribble)  Reference: 017160014  Permit Version: 2  Effective Date: 31st January 1985  Issued Date: Not Supplied  Revocation Date: 8th December 1998  Discharge Type: Sewage Discharges - Stw Storm Overflow/Storm Tank - Water Company  Discharge: Freshwater Stream/River  Environment:  Receiving Water: River Calder (Ribble)  <b>Status: Authorisation revokedRevoked</b>  Positional Accuracy: Located by supplier to within 100m</p>	A12SW (W)	529	1	372000 436300
8	<p><b>Discharge Consents</b></p> <p>Operator: United Utilities Water Plc  Property Type: Sewage Disposal Works - Other  Location: Billington, Ribble Valley, Lancashire  Authority: Environment Agency, North West Region  Catchment Area: Not Given  Reference: 011a1548  Permit Version: 1  Effective Date: 13th July 1967  Issued Date: Not Supplied  Revocation Date: 13th July 1967  Discharge Type: Public Sewage: Storm Sewage Overflow  Discharge: Freshwater Stream/River  Environment:  Receiving Water: Trib River Calder  <b>Status: Authorisation revokedRevoked</b>  Positional Accuracy: Located by supplier to within 100m</p>	A7NE (SW)	659	1	372270 435710
8	<p><b>Discharge Consents</b></p> <p>Operator: United Utilities Water Plc  Property Type: Sewerage Network - Sewers - Water Company  Location: Whittams Farm-Abbey Mill, Billington, Lancashire  Authority: Environment Agency, North West Region  Catchment Area: Calder (Ribble)  Reference: 01RIB0020  Permit Version: 1  Effective Date: 1st April 1991  Issued Date: Not Supplied  Revocation Date: 13th April 2009  Discharge Type: Public Sewage: Storm Sewage Overflow  Discharge: Freshwater Stream/River  Environment:  Receiving Water: Stream Trib River Calder  <b>Status: Post National Rivers Authority Legislation where issue date &gt; 31/08/1989</b>  Positional Accuracy: Located by supplier to within 10m</p>	A7NE (SW)	659	1	372270 435710

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
9	<p><b>Discharge Consents</b></p> <p>Operator: United Utilities Water Plc  Property Type: Sewerage Network - Sewers - Water Company  Location: Whittams Farm-Abbey Mill, Billington, Lancashire  Authority: Environment Agency, North West Region  Catchment Area: Calder (Ribble)  Reference: 01rib0020  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: Stream Trib River Calder  <b>Status: Varied under EPR 2010</b>  Positional Accuracy: Located by supplier to within 10m</p>	A7NE (SW)	719	1	372190 435710
9	<p><b>Discharge Consents</b></p> <p>Operator: North West Water Limited  Property Type: Not Given  Location: Whittams Fm, Abbey Mill, RIBBLE VALLEY  Authority: Environment Agency, North West Region  Catchment Area: Not Given  Reference: RIB0020  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: Freshwater Stream/River  Environment:  Receiving Water: River Calder  <b>Status: Not Supplied</b>  Positional Accuracy: Located by supplier to within 100m</p>	A7NE (SW)	719	1	372190 435710
10	<p><b>Discharge Consents</b></p> <p>Operator: St. Leonards C.E. School  Property Type: Education  Location: St Leonards School Potter Lane, Samlesbury, Preston, Lancashire  Authority: Environment Agency, North West Region  Catchment Area: Not Given  Reference: 01534  Permit Version: 1  Effective Date: 15th April 1957  Issued Date: Not Supplied  Revocation Date: Not Supplied  Discharge Type: Sewage Discharges - Final/Treated Effluent - Not Water Company  Discharge: Freshwater Stream/River  Environment:  Receiving Water: Trib Bushburn Brook  <b>Status: Pre National Rivers Authority Legislation where issue date &lt; 01/09/1989</b>  Positional Accuracy: Located by supplier to within 100m</p>	A7NW (SW)	857	1	372000 435700
11	<p><b>Discharge Consents</b></p> <p>Operator: United Utilities Water Plc  Property Type: Sewage Disposal Works - Water Company  Location: Billington Stw, Elker Lane, Billington, Lancashire  Authority: Environment Agency, North West Region  Catchment Area: Not Given  Reference: 017160003  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: River Calder (Ribble)  <b>Status: Authorisation revokedRevoked</b>  Positional Accuracy: Located by supplier to within 100m</p>	A11NE (W)	945	1	371605 436600

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
11	<p><b>Discharge Consents</b></p> <p>Operator: United Utilities Water Plc  Property Type: Sewage Disposal Works - Water Company  Location: Billington Stw, Elker Lane, Billington, Lancashire  Authority: Environment Agency, North West Region  Catchment Area: Not Given  Reference: 017160003  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: River Calder (Ribble)  <b>Status: Authorisation revoked/Revoked</b>  Positional Accuracy: Located by supplier to within 100m</p>	A11NE (W)	946	1	371605 436605
11	<p><b>Discharge Consents</b></p> <p>Operator: North West Water Limited  Property Type: Not Given  Location: Billington Et Works  Authority: Environment Agency, North West Region  Catchment Area: Calder (Ribble)  Reference: 17160003  Permit Version: Not Supplied  Effective Date: Not Supplied  Issued Date: 1st April 1991  Revocation Date: Not Supplied  Discharge Type: Sewage Effluent Discharge-Treated Effluent  Discharge: Freshwater Stream/River  Environment:  Receiving Water: River Calder  <b>Status: Not Supplied</b>  Positional Accuracy: Located by supplier to within 100m</p>	A11NE (W)	948	1	371600 436595
11	<p><b>Discharge Consents</b></p> <p>Operator: United Utilities Water Plc  Property Type: Sewage Disposal Works - Water Company  Location: Billington Stw, Elker Lane, Billington, Lancashire  Authority: Environment Agency, North West Region  Catchment Area: Not Supplied  Reference: 017160003  Permit Version: 4  Effective Date: 1st January 2010  Issued Date: 24th September 2009  Revocation Date: Not Supplied  Discharge Type: Sewage Discharges - Final/Treated Effluent - Water Company  Discharge: Freshwater Stream/River  Environment:  Receiving Water: River Calder (Ribble)  <b>Status: Modified (Water Resources Act 1991, Schedule 10 as amended by Environment Act 1995)</b>  Positional Accuracy: Located by supplier to within 100m</p>	A11NE (W)	949	1	371600 436600
11	<p><b>Discharge Consents</b></p> <p>Operator: United Utilities Water Plc  Property Type: Sewage Disposal Works - Water Company  Location: Billington Stw, Elker Lane, Billington, Lancashire  Authority: Environment Agency, North West Region  Catchment Area: Not Supplied  Reference: 017160003  Permit Version: 4  Effective Date: 1st January 2010  Issued Date: 24th September 2009  Revocation Date: Not Supplied  Discharge Type: Sewage Discharges - Stw Storm Overflow/Storm Tank - Water Company  Discharge: Freshwater Stream/River  Environment:  Receiving Water: River Calder (Ribble)  <b>Status: Modified (Water Resources Act 1991, Schedule 10 as amended by Environment Act 1995)</b>  Positional Accuracy: Located by supplier to within 100m</p>	A11NE (W)	949	1	371600 436600

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
11	<p><b>Discharge Consents</b></p> <p>Operator: United Utilities Water Plc  Property Type: Sewage Disposal Works - Water Company  Location: Billington Stw, Elker Lane, Billington, Lancashire  Authority: Environment Agency, North West Region  Catchment Area: Not Supplied  Reference: 017160003  Permit Version: 3  Effective Date: 31st December 2005  Issued Date: 19th December 2005  Revocation Date: 31st December 2009  Discharge Type: Sewage Discharges - Final/Treated Effluent - Water Company  Discharge: Freshwater Stream/River  Environment:  Receiving Water: River Calder (Ribble)  <b>Status: Modified (Water Resources Act 1991, Schedule 10 as amended by Environment Act 1995)</b>  Positional Accuracy: Located by supplier to within 100m</p>	A11NE (W)	949	1	371600 436600
11	<p><b>Discharge Consents</b></p> <p>Operator: United Utilities Water Plc  Property Type: Sewage Disposal Works - Water Company  Location: Billington Stw, Elker Lane, Billington, Lancashire  Authority: Environment Agency, North West Region  Catchment Area: Not Supplied  Reference: 017160003  Permit Version: 3  Effective Date: 31st December 2005  Issued Date: 19th December 2005  Revocation Date: 31st December 2009  Discharge Type: Sewage Discharges - Stw Storm Overflow/Storm Tank - Water Company  Discharge: Freshwater Stream/River  Environment:  Receiving Water: River Calder (Ribble)  <b>Status: Modified (Water Resources Act 1991, Schedule 10 as amended by Environment Act 1995)</b>  Positional Accuracy: Located by supplier to within 100m</p>	A11NE (W)	949	1	371600 436600
11	<p><b>Discharge Consents</b></p> <p>Operator: United Utilities Water Plc  Property Type: Sewage Disposal Works - Water Company  Location: Billington Stw, Elker Lane, Billington, Lancashire  Authority: Environment Agency, North West Region  Catchment Area: Calder (Ribble)  Reference: 017160003  Permit Version: 2  Effective Date: 31st January 1985  Issued Date: 31st January 1985  Revocation Date: 30th December 2005  Discharge Type: Sewage Discharges - Stw Storm Overflow/Storm Tank - Water Company  Discharge: Freshwater Stream/River  Environment:  Receiving Water: River Calder (Ribble)  <b>Status: Consent revoked or revised: New Consent issued (Section 37(1))</b>  Positional Accuracy: Located by supplier to within 100m</p>	A11NE (W)	949	1	371600 436600
11	<p><b>Discharge Consents</b></p> <p>Operator: United Utilities Water Plc  Property Type: Sewage Disposal Works - Water Company  Location: Billington Stw, Elker Lane, Billington, Lancashire  Authority: Environment Agency, North West Region  Catchment Area: Not Given  Reference: 017160003  Permit Version: 2  Effective Date: 31st January 1985  Issued Date: 31st January 1985  Revocation Date: 30th December 2005  Discharge Type: Sewage Discharges - Final/Treated Effluent - Water Company  Discharge: Freshwater Stream/River  Environment:  Receiving Water: River Calder (Ribble)  <b>Status: Consent revoked or revised: New Consent issued (Section 37(1))</b>  Positional Accuracy: Located by supplier to within 100m</p>	A11NE (W)	949	1	371600 436600
12	<p><b>Local Authority Pollution Prevention and Controls</b></p> <p>Name: Abbey Cleaners  Location: 71 King Street, Whalley, Clitheroe, Bb7 9sw  Authority: Ribble Valley Borough Council, Environmental Health Department  Permit Reference: RVBC/PPC/52/06  Dated: 5th December 2006  Process Type: Local Authority Pollution Prevention and Control  Description: PG6/46 Dry cleaning  <b>Status: Authorisation revoked</b>  Positional Accuracy: Manually positioned to the address or location</p>	A14SW (E)	434	2	373306 436265

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
13	<p><b>Local Authority Pollution Prevention and Controls</b></p> <p>Name: Calderstones Hospital            Location: Mitton Road, Whalley, CLITHEROE, Lancashire, BB6 9PE            Authority: Ribbles Valley Borough Council, Environmental Health Department            Permit Reference: Rvbc/Epa/03/92            Dated: 1st February 1993            Process Type: Local Authority Air Pollution Control            Description: PG5/1 Clinical waste incineration processes under 1 tonne an hour            Status: <b>Authorisation revoked</b><del>Revoked</del>            Positional Accuracy: Manually positioned to the address or location</p>	A17NE (NW)	727	2	372156 437101
	<p><b>Nearest Surface Water Feature</b></p>	A13NW (NW)	0	-	372655 436460
14	<p><b>Pollution Incidents to Controlled Waters</b></p> <p>Property Type: Not Given            Location: Lancashire            Authority: Environment Agency, North West Region            Pollutant: Not Given            Note: River Calder; No Pollution Found            Incident Date: 30th April 1991            Incident Reference: 91330090            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</p>	A13SW (S)	12	1	372700 436200
15	<p><b>Pollution Incidents to Controlled Waters</b></p> <p>Property Type: Not Given            Location: Lancashire            Authority: Environment Agency, North West Region            Pollutant: Not Given            Note: River Calder; None Pollution Found            Incident Date: 9th August 1993            Incident Reference: 93330246            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</p>	A13NW (W)	32	1	372500 436400
16	<p><b>Pollution Incidents to Controlled Waters</b></p> <p>Property Type: Not Given            Location: Lancashire            Authority: Environment Agency, North West Region            Pollutant: Not Given            Note: Tributary River Calder; No Pollution Found            Incident Date: 13th July 1991            Incident Reference: 91330190            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</p>	A13NW (NW)	66	1	372600 436600
17	<p><b>Pollution Incidents to Controlled Waters</b></p> <p>Property Type: Not Given            Location: Location Description Not Available            Authority: Environment Agency, North West Region            Pollutant: Rubble/Litter Or Solids            Note: River Calder; Paint Tins            Incident Date: 30th April 1995            Incident Reference: 95330100            Catchment Area: Calder - Lancs            Receiving Water: Not Given            Cause of Incident: Vandalism            Incident Severity: Category 3 - Minor Incident            Positional Accuracy: Located by supplier to within 100m</p>	A13SW (S)	79	1	372700 436100
18	<p><b>Pollution Incidents to Controlled Waters</b></p> <p>Property Type: Mixed Agricultural            Location: WHALLEY            Authority: Environment Agency, North West Region            Pollutant: Organic Wastes: Animal Carcasses            Note: Dead Sheep In Stream            Incident Date: 7th April 1998            Incident Reference: CE980409            Catchment Area: Calder - Lancs            Receiving Water: Freshwater Stream/River            Cause of Incident: Unknown            Incident Severity: Category 3 - Minor Incident            Positional Accuracy: Located by supplier to within 100m</p>	A13NW (NW)	90	1	372500 436500

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
19	<b>Pollution Incidents to Controlled Waters</b> Property Type: Not Given Location: Location Description Not Available Authority: Environment Agency, North West Region Pollutant: Rubble/Litter Or Solids Note: Calder; Wood Incident Date: 25th March 1993 Incident Reference: 93330108 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	A8NE (SE)	263	1	373000 436000
19	<b>Pollution Incidents to Controlled Waters</b> Property Type: Not Given Location: Location Description Not Available Authority: Environment Agency, North West Region Pollutant: Oils - Unknown Note: River Calder Incident Date: 11th November 1995 Incident Reference: 95330266 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	A8NE (SE)	266	1	373000 435995
20	<b>Pollution Incidents to Controlled Waters</b> Property Type: Hospital Location: River Calderstones Hospital Authority: Environment Agency, North West Region Pollutant: Crude Sewage Note: Not Supplied Incident Date: 24th June 1998 Incident Reference: CE980568 Catchment Area: Calder - Lancs Receiving Water: Freshwater Stream/River Cause of Incident: Blocked Sewer Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A12NE (NW)	392	1	372200 436600
21	<b>Pollution Incidents to Controlled Waters</b> Property Type: Not Given Location: Location Description Not Available Authority: Environment Agency, North West Region Pollutant: Oils - Unknown Note: Not Supplied Incident Date: 18th November 1991 Incident Reference: 91330326 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	A9NW (SE)	486	1	373200 435900
22	<b>Pollution Incidents to Controlled Waters</b> Property Type: Water Company Sewage: Sewage Treatment Works Location: River Calder At , Whalley Weir Authority: Environment Agency, North West Region Pollutant: Chemicals - Detergents/Surfactant Note: River Calder; Detergents Incident Date: 6th June 1997 Incident Reference: 97330149 Catchment Area: Calder - Lancs Receiving Water: Freshwater Stream/River Cause of Incident: Other Cause Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A14SW (SE)	502	1	373300 436100
23	<b>Pollution Incidents to Controlled Waters</b> Property Type: Not Given Location: Location Description Not Available Authority: Environment Agency, North West Region Pollutant: Rubble/Litter Or Solids Note: Not Supplied Incident Date: 31st August 1994 Incident Reference: 94330238 Catchment Area: Calder - Lancs Receiving Water: Not Given Cause of Incident: Miscellaneous/Other Pollution Type Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A12NW (W)	524	1	372000 436400

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
24	<p><b>Pollution Incidents to Controlled Waters</b></p> <p>Property Type: Water Company Sewage: Sewage Treatment Works            Location: River Calder, Whalley Weir            Authority: Environment Agency, North West Region            Pollutant: Chemicals - Detergents/Surfactant            Note: River Calder; Foam            Incident Date: 17th April 1997            Incident Reference: 97330110            Catchment Area: Calder - Lancs            Receiving Water: Freshwater Stream/River            Cause of Incident: Unknown            Incident Severity: Category 3 - Minor Incident            Positional Accuracy: Located by supplier to within 100m</p>	A9NW (SE)	532	1	373300 436000
25	<p><b>Pollution Incidents to Controlled Waters</b></p> <p>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</p>	A18NE (N)	548	1	372900 437100
26	<p><b>Pollution Incidents to Controlled Waters</b></p> <p>Property Type: Not Given            Location: Location Description Not Available            Authority: Environment Agency, North West Region            Pollutant: Chemicals - Detergents/Surfactant            Note: Not Supplied            Incident Date: 8th October 1993            Incident Reference: 93330287            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</p>	A9NW (SE)	575	1	373300 435900
26	<p><b>Pollution Incidents to Controlled Waters</b></p> <p>Property Type: Not Given            Location: Location Description Not Available            Authority: Environment Agency, North West Region            Pollutant: Miscellaneous - Unknown            Note: Not Supplied            Incident Date: 18th April 1991            Incident Reference: 91330082            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</p>	A9NW (SE)	578	1	373300 435895
26	<p><b>Pollution Incidents to Controlled Waters</b></p> <p>Property Type: Not Given            Location: Lancashire            Authority: Environment Agency, North West Region            Pollutant: Not Given            Note: River Calder; No Pollution Found            Incident Date: 27th November 1991            Incident Reference: 91330330            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</p>	A9NW (SE)	582	1	373305 435895
27	<p><b>Pollution Incidents to Controlled Waters</b></p> <p>Property Type: Private Sewage (Non-PLC): Sewerage Systems            Location: Location Description Not Available            Authority: Environment Agency, North West Region            Pollutant: Crude Sewage            Note: Tributary Bushburn Bk            Incident Date: 19th September 1995            Incident Reference: 95330229            Catchment Area: Calder - Lancs            Receiving Water: Not Given            Cause of Incident: Blocked Sewer            Incident Severity: Category 3 - Minor Incident            Positional Accuracy: Located by supplier to within 100m</p>	A7NE (SW)	577	1	372300 435800

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
27	<p><b>Pollution Incidents to Controlled Waters</b></p> <p>Property Type: Domestic &amp; Residential: Private Dwellings            Location: 19 Weavers Croft, Lancashire            Authority: Environment Agency, North West Region            Pollutant: General Biodegradable : Sewage Debris / Screenings            Note: Not Supplied            Incident Date: 27th May 1999            Incident Reference: 30157            Catchment Area: Not Given            Receiving Water: Not Given            Cause of Incident: Wrong Connection            Incident Severity: Category 3 - Minor Incident            Positional Accuracy: Located by supplier to within 100m</p>	A7NE (SW)	580	1	372300 435795
28	<p><b>Pollution Incidents to Controlled Waters</b></p> <p>Property Type: Farm Drainage            Location: Location Description Not Available            Authority: Environment Agency, North West Region            Pollutant: Silage Liquor            Note: Tributary River Calder            Incident Date: 19th June 1991            Incident Reference: 91330162            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</p>	A14NE (E)	591	1	373500 436400
28	<p><b>Pollution Incidents to Controlled Waters</b></p> <p>Property Type: Farm Drainage            Location: Location Description Not Available            Authority: Environment Agency, North West Region            Pollutant: Silage Liquor            Note: Tributary River Calder            Incident Date: 28th November 1991            Incident Reference: 91330333            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</p>	A14NE (E)	592	1	373500 436395
28	<p><b>Pollution Incidents to Controlled Waters</b></p> <p>Property Type: Not Given            Location: Lancashire            Authority: Environment Agency, North West Region            Pollutant: Not Given            Note: Calder Tributary; None Pollution Found            Incident Date: 13th August 1991            Incident Reference: 91330217            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</p>	A14NE (E)	597	1	373505 436395
29	<p><b>Pollution Incidents to Controlled Waters</b></p> <p>Property Type: No Premises Identified            Location: River Calder, Lancashire            Authority: Environment Agency, North West Region            Pollutant: Other Pollutant            Note: Not Supplied            Incident Date: 12th June 1999            Incident Reference: 29872            Catchment Area: Not Given            Receiving Water: Not Given            Cause of Incident: Other Cause            Incident Severity: Category 3 - Minor Incident            Positional Accuracy: Located by supplier to within 100m</p>	A9NW (SE)	623	1	373300 435800
30	<p><b>Pollution Incidents to Controlled Waters</b></p> <p>Property Type: Connection To Surface Drains            Location: Location Description Not Available            Authority: Environment Agency, North West Region            Pollutant: Other Sewage            Note: Tributary Bushburn Brk; Sullage            Incident Date: 15th August 1995            Incident Reference: 95330196            Catchment Area: Calder - Lancs            Receiving Water: Not Given            Cause of Incident: Wrong Connection            Incident Severity: Category 3 - Minor Incident            Positional Accuracy: Located by supplier to within 100m</p>	A7NE (SW)	644	1	372305 435695

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
30	<b>Pollution Incidents to Controlled Waters</b> Property Type: Tip Drainage Location: Location Description Not Available Authority: Environment Agency, North West Region Pollutant: Chemicals - Alkali Note: Tributary Calder Incident Date: 30th May 1994 Incident Reference: 94330152 Catchment Area: Calder - Lancs Receiving Water: Not Given Cause of Incident: Other Incident/Unknown Incident Severity: Category 2 - Significant Incident Positional Accuracy: Located by supplier to within 100m	A7NE (SW)	644	1	372300 435700
30	<b>Pollution Incidents to Controlled Waters</b> Property Type: Not Given Location: Location Description Not Available Authority: Environment Agency, North West Region Pollutant: Miscellaneous - Other Note: Tributary Bushburn Brk; Concrete Leachate Incident Date: 15th August 1995 Incident Reference: 95330195 Catchment Area: Calder - Lancs Receiving Water: Not Given Cause of Incident: Miscellaneous/Other Pollution Type Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A7NE (SW)	647	1	372300 435695
31	<b>Pollution Incidents to Controlled Waters</b> Property Type: Cattle (Dairy) Farming: Other Location: Oil In Stream At , Animal Health Centre, Barton, ACCRINGTON Authority: Environment Agency, North West Region Pollutant: Oils - Diesel (Including Agricultural) Note: Dean Brook; Fuel Oil Incident Date: 26th June 1997 Incident Reference: 97310068 Catchment Area: Wyre Receiving Water: Freshwater Stream/River Cause of Incident: Accidental Spillage/Leakage Incident Severity: Category 2 - Significant Incident Positional Accuracy: Unknown	A7NW (SW)	645	1	372000 436000
32	<b>Pollution Incidents to Controlled Waters</b> Property Type: Not Given Location: Location Description Not Available Authority: Environment Agency, North West Region Pollutant: Miscellaneous - Unknown Note: Not Supplied Incident Date: 26th February 1993 Incident Reference: 93330068 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	A9NE (SE)	665	1	373400 435900
32	<b>Pollution Incidents to Controlled Waters</b> Property Type: Not Given Location: Lancashire Authority: Environment Agency, North West Region Pollutant: Miscellaneous - Other Note: River Calder; Dead Dog Incident Date: 5th March 1996 Incident Reference: 96330049 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	A9NE (SE)	667	1	373400 435895
32	<b>Pollution Incidents to Controlled Waters</b> Property Type: Water Company Sewage: Sewage Treatment Works Location: Lancashire Authority: Environment Agency, North West Region Pollutant: Chemicals - Detergents/Surfactant Note: River Calder; Detergent Incident Date: 17th June 1996 Incident Reference: 96330143 Catchment Area: Calder - Lancs Receiving Water: Not Given Cause of Incident: Miscellaneous/Other Pollution Type Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A9NE (SE)	671	1	373405 435895

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
32	<p><b>Pollution Incidents to Controlled Waters</b></p> <p>Property Type: Power Generation: Electricity Distribution            Location: Norweb Plc, River Calder, Whalley Weir, Lancashire            Authority: Environment Agency, North West Region            Pollutant: Organic Chemicals : Insulating Oils - (Transfrm/Cable)            Note: Not Supplied            Incident Date: 14th May 1999            Incident Reference: 28835            Catchment Area: Not Given            Receiving Water: Not Given            Cause of Incident: Power / Electronic Failures : Instrumentation Inadequate / Fails            Incident Severity: Category 3 - Minor Incident            Positional Accuracy: Manually positioned to the address or location</p>	A9NE (SE)	703	1	373444 435902
33	<p><b>Pollution Incidents to Controlled Waters</b></p> <p>Property Type: Not Given            Location: Lancashire            Authority: Environment Agency, North West Region            Pollutant: Not Given            Note: River Calder; None Pollution Found            Incident Date: 23rd June 1993            Incident Reference: 93330189            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</p>	A9NE (SE)	710	1	373400 435800
33	<p><b>Pollution Incidents to Controlled Waters</b></p> <p>Property Type: Domestic/Residential            Location: Nab End Cottage , WHALLEY            Authority: Environment Agency, North West Region            Pollutant: Miscellaneous - Other            Note: Tree Dumped In R Channel; River Calder; Tree Branches/Garden Cuttings            Incident Date: 23rd November 1997            Incident Reference: 97330242            Catchment Area: Calder - Lancs            Receiving Water: Freshwater Stream/River            Cause of Incident: Other Cause            Incident Severity: Category 3 - Minor Incident            Positional Accuracy: Located by supplier to within 100m</p>	A9NE (SE)	712	1	373400 435795
34	<p><b>Pollution Incidents to Controlled Waters</b></p> <p>Property Type: Water Company Sewage: Sewage Treatment Works            Location: Location Description Not Available            Authority: Environment Agency, North West Region            Pollutant: Sewage - Treated Effluent            Note: River Calder            Incident Date: 13th July 1994            Incident Reference: 94330191            Catchment Area: Calder - Lancs            Receiving Water: Not Given            Cause of Incident: Miscellaneous/Other Pollution Type            Incident Severity: Category 3 - Minor Incident            Positional Accuracy: Located by supplier to within 100m</p>	A9NE (SE)	720	1	373500 436000
35	<p><b>Pollution Incidents to Controlled Waters</b></p> <p>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</p>	A19NE (NE)	899	1	373400 437195
35	<p><b>Pollution Incidents to Controlled Waters</b></p> <p>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</p>	A19NE (NE)	903	1	373400 437200

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
36	<b>Pollution Incidents to Controlled Waters</b> Property Type: Nursing Home/Residential Location: Tributary Of Bushburn Brook, BILLINGTON Authority: Environment Agency, North West Region Pollutant: Sewage - Wrong Connection Note: Not Supplied Incident Date: 5th May 1998 Incident Reference: CE980376 Catchment Area: Calder - Lancs Receiving Water: Freshwater Stream/River Cause of Incident: Wrong Connection Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A7SW (SW)	933	1	372005 435595
36	<b>Pollution Incidents to Controlled Waters</b> Property Type: Construction Location: Tributary Of Bushburn Brook, BILLINGTON Authority: Environment Agency, North West Region Pollutant: Miscellaneous - Inert Suspended Solids Note: Not Supplied Incident Date: 5th May 1998 Incident Reference: CE980364 Catchment Area: Calder - Lancs Receiving Water: Freshwater Stream/River Cause of Incident: Land Runoff Incident Severity: Category 2 - Significant Incident Positional Accuracy: Located by supplier to within 100m	A7SW (SW)	934	1	372000 435600
36	<b>Pollution Incidents to Controlled Waters</b> Property Type: Construction Location: Tributary Of Bushburn Brook, BILLINGTON Authority: Environment Agency, North West Region Pollutant: Oils - Diesel (Including Agricultural) Note: Not Supplied Incident Date: 5th May 1998 Incident Reference: CE980365 Catchment Area: Calder - Lancs Receiving Water: Freshwater Stream/River Cause of Incident: Accidental Spillage/Leakage Incident Severity: Category 2 - Significant Incident Positional Accuracy: Located by supplier to within 100m	A7SW (SW)	937	1	372000 435595
37	<b>Pollution Incidents to Controlled Waters</b> Property Type: Connection To Surface Drains Location: Location Description Not Available Authority: Environment Agency, North West Region Pollutant: Other Sewage Note: Tributary River Calder; Wrong Connections Incident Date: 25th April 1995 Incident Reference: 95330097 Catchment Area: Calder - Lancs Receiving Water: Not Given Cause of Incident: Wrong Connection Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A16SE (NW)	975	1	371700 436900
38	<b>Pollution Incidents to Controlled Waters</b> Property Type: Not Given Location: Location Description Not Available Authority: Environment Agency, North West Region Pollutant: Oils - Diesel (Including Agricultural) Note: River Calder Incident Date: 17th May 1995 Incident Reference: 95330120 Catchment Area: Calder - Lancs Receiving Water: Not Given Cause of Incident: Accidental Spillage/Leakage Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A9NE (SE)	978	1	373700 435800
39	<b>Prosecutions Relating to Controlled Waters</b> Location: River Calder, Calderstone Park, Whalley Prosecution Text: A blocked sewer led to backed-up effluent spilling out into a nearby watercourse Prosecution Act: Wra91 S85(1) Hearing Date: 8th September 2004 Verdict: Guilty Fine: 10000 Cost: 1610 Positional Accuracy: Manually positioned within the geographical locality	A17SW (NW)	737	1	371983 436890

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	<b>River Quality</b> Name: Calder GQA Grade: River Quality C Reach: Whalley Weir To Ribble Estimated Distance (km): 4.2 Flow Rate: Flow less than 20 cumecs Flow Type: River Year: 2000	A13SW (SW)	0	1	372646 436277
	<b>River Quality</b> Name: Calder GQA Grade: River Quality D Reach: Hyndburn Bk To Whalley Weir Estimated Distance (km): 6.2 Flow Rate: Flow less than 10 cumecs Flow Type: River Year: 2000	A13SE (SE)	87	1	372857 436106
40	<b>River Quality Chemistry Sampling Points</b> Name: Calder Reach: Whalley Weir To Ribble Estimated Distance: 4.20 Objective: Not Supplied Positional Accuracy: Located by supplier to within 10m Year: 1990 GQA Grade: River Quality Chemistry GQA Grade E - Poor Compliance: Not Supplied Year: 1993 GQA Grade: River Quality Chemistry GQA Grade E - Poor Compliance: Not Supplied Year: 1994 GQA Grade: River Quality Chemistry GQA Grade E - Poor Compliance: Not Supplied Year: 1995 GQA Grade: River Quality Chemistry GQA Grade D - Fair Compliance: Not Supplied Year: 1996 GQA Grade: River Quality Chemistry GQA Grade D - Fair Compliance: Not Supplied Year: 1997 GQA Grade: River Quality Chemistry GQA Grade D - Fair Compliance: Not Supplied Year: 1998 GQA Grade: River Quality Chemistry GQA Grade C - Fairly Good Compliance: Not Supplied Year: 1999 GQA Grade: River Quality Chemistry GQA Grade C - Fairly Good Compliance: Not Supplied Year: 2000 GQA Grade: River Quality Chemistry GQA Grade C - Fairly Good Compliance: Not Supplied Year: 2001 GQA Grade: River Quality Chemistry GQA Grade C - Fairly Good Compliance: Not Supplied Year: 2002 GQA Grade: River Quality Chemistry GQA Grade C - Fairly Good Compliance: Not Supplied Year: 2003 GQA Grade: River Quality Chemistry GQA Grade C - Fairly Good Compliance: Not Supplied Year: 2004 GQA Grade: River Quality Chemistry GQA Grade C - Fairly Good Compliance: Not Supplied Year: 2005 GQA Grade: River Quality Chemistry GQA Grade C - Fairly Good Compliance: Not Supplied Year: 2006 GQA Grade: River Quality Chemistry GQA Grade B - Good Compliance: Not Supplied Year: 2007 GQA Grade: River Quality Chemistry GQA Grade B - Good Compliance: Not Supplied Year: 2008 GQA Grade: River Quality Chemistry GQA Grade B - Good Compliance: Not Supplied Year: 2009 GQA Grade: River Quality Chemistry GQA Grade B - Good Compliance: Not Supplied	A13SE (SE)	171	1	372927 436058

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
41	<b>Substantiated Pollution Incident Register</b> Authority: Environment Agency - North West Region, North Area Incident Date: 19th September 2003 Incident Reference: 191160 Water Impact: Category 2 - Significant Incident Air Impact: Category 4 - No Impact Land Impact: Category 4 - No Impact Positional Accuracy: Located by supplier to within 10m Pollutant: Crude Sewage	A12NE (NW)	497	1	372107 436649
42	<b>Substantiated Pollution Incident Register</b> Authority: Environment Agency - North West Region, North Area Incident Date: 8th May 2003 Incident Reference: 156944 Water Impact: Category 2 - Significant Incident Air Impact: Category 4 - No Impact Land Impact: Category 4 - No Impact Positional Accuracy: Located by supplier to within 10m Pollutant: Pollutant Not Identified: Not Identified	A9NW (SE)	556	1	373277 435897
	<b>Water Abstractions</b> 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: Impoundment 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	A24SW (NE)	1030	1	373200 437500
	<b>Water Abstractions</b> Operator: Dr S & T Clarke Licence Number: 2671336007 Permit Version: 102 Location: Borehole At Dean Nab, Whalley 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: Dean House , Dean Lane , The Nab. Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 1st July 2003 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m	A4NE (SE)	1209	1	373400 435100
	<b>Water Abstractions</b> Operator: Mr & Mrs Andrew Licence Number: 2671336007 Permit Version: 101 Location: Borehole At Dean Nab , Whalley 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): 2 Yearly Rate (m3): 830 Details: Dean House , Dean Lane , The Nab. Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 29th June 1998 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m	A4NE (SE)	1209	1	373400 435100

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	<p><b>Water Abstractions</b></p> <p>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</p>	(E)	1780	1	374600 437000
	<p><b>Water Abstractions</b></p> <p>Operator: Mr T Whitewell Mrs A M Wood  Licence Number: 2671336001  Permit Version: 100  Location: Spring At Sheepeat 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</p>	(E)	1814	1	374600 437100
	<p><b>Water Abstractions</b></p> <p>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</p>	(NW)	1829	1	371800 438200
	<p><b>Water Abstractions</b></p> <p>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 &amp; 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</p>	(N)	1845	1	373400 438300

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	<b>Water Abstractions</b> 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: Impoundment 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	(N)	1974	1	373200 438500
	<b>Groundwater Vulnerability</b> 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	A13NE (NE)	0	1	372772 436415
	<b>Groundwater Vulnerability</b> Soil Classification: Soils of High Leaching Potential (H1) - Soils which readily transmit liquid discharges because they are either shallow, or susceptible to rapid by-pass flow directly to rock, gravel or groundwater Map Sheet: Sheet 10 Central Lancashire Scale: 1:100,000	A13NE (NE)	0	1	372725 436374
	<b>Drift Deposits</b> 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	A13NE (E)	0	1	372738 436376
	<b>Bedrock Aquifer Designations</b> Aquifer Desination: Secondary Aquifer - Undifferentiated	A13SE (SE)	0	3	372783 436291
	<b>Bedrock Aquifer Designations</b> Aquifer Desination: Secondary Aquifer - A	A13NE (NE)	0	3	372725 436374
	<b>Superficial Aquifer Designations</b> Aquifer Designation: Unproductive Strata	A13NE (N)	0	3	372730 436420
	<b>Superficial Aquifer Designations</b> Aquifer Designation: Secondary Aquifer - A	A13NE (NE)	0	3	372725 436374
	<b>Extreme Flooding from Rivers or Sea without Defences</b> Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial Models Boundary Accuracy: As Supplied	A13SW (SW)	0	1	372685 436326
	<b>Flooding from Rivers or Sea without Defences</b> Type: Extent of Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial Models Boundary Accuracy: As Supplied	A13SW (SW)	0	1	372686 436305
	<b>Flooding from Rivers or Sea without Defences</b> Type: Extent of Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial Models Boundary Accuracy: As Supplied	A13SE (SE)	18	1	372836 436209
	<b>Areas Benefiting from Flood Defences</b> None				
	<b>Flood Water Storage Areas</b> None				
	<b>Flood Defences</b> Type: Flood Defences Reference: Not Supplied	A13SE (SE)	163	1	372918 436057

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
43	<p><b>Historical Landfill Sites</b></p> <p>Licence Holder: Not Supplied            Location: Riding Lane, Whalley, Blackburn, Lancashire            Name: Whalley Sewage Works            Operator Location: Not Supplied            Boundary Accuracy: As Supplied            Provider Reference: EAHLD07127            First Input Date: Not Supplied            Last Input Date: 31st December 1973            Specified Waste Type: Deposited Waste included Commercial and Household Waste            EA Waste Ref: Not Supplied            Regis Ref: Not Supplied            WRC Ref: 2300/0174            BGS Ref: Not Supplied            Other Ref: K1/03/022</p>	A12SE (W)	222	1	372304 436345
44	<p><b>Historical Landfill Sites</b></p> <p>Licence Holder: Not Supplied            Location: Off Mitton Road, Whalley Moor, Blackburn, Lancashire            Name: Calderstones Hospital A            Operator Location: Not Supplied            Boundary Accuracy: As Supplied            Provider Reference: EAHLD07479            First Input Date: Not Supplied            Last Input Date: 31st December 1974            Specified Waste Type: Deposited Waste included Inert, Commercial and Household Waste            EA Waste Ref: Not Supplied            Regis Ref: Not Supplied            WRC Ref: 2300/0173            BGS Ref: Not Supplied            Other Ref: K1/01/021</p>	A22SE (N)	940	1	372369 437484
	<p><b>Local Authority Landfill Coverage</b></p> <p>Name: Ribble Valley Borough Council            - Had landfill data but passed it to the relevant environment agency</p>		0	2	372725 436374
	<p><b>Local Authority Landfill Coverage</b></p> <p>Name: Lancashire County Council            - Had landfill data but passed it to the relevant environment agency</p>		0	7	372725 436374
	<p><b>Local Authority Landfill Coverage</b></p> <p>Name: Hyndburn Borough Council            - Has supplied landfill data</p>		974	8	373281 435303
45	<p><b>Registered Waste Treatment or Disposal Sites</b></p> <p>Licence Holder: Burnley Pendle &amp; Rossendale H.A.            Licence Reference: L 417            Site Location: Calderstones Hospital, Mitton Road, Whalley, Clitheroe, Lancashire            Operator Location: As Site Address            Authority: Environment Agency - North West Region, Central Area            Site Category: Storage            Max Input Rate: Very Small (Less than 10,000 tonnes per year)            Waste Source: No known restriction on source of waste            Restrictions:            Licence Status: Licence has completion certificateSurrendered            Dated: 1st July 1992            Preceded By: Not Given            Licence:            Superseded By: Not Given            Licence:            Positional Accuracy: Manually positioned to the address or location            Boundary Quality: Not Supplied            Authorised Waste: Clinical - As In Coll/Disp.Reg. Of '88            Max.Storage Of Ash            Max.Storage Of Clinical            Max.Waste Permitted By Licence</p>	A17NE (NW)	760	1	372226 437207

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
46	<b>BGS Recorded Mineral Sites</b> Site Name: Whalley Brick & Tile Works Location: Whalley, Great Harwood, Lancashire Source: British Geological Survey, National Geoscience Information Service Reference: 92758 Type: Opencast <b>Status: Ceased</b> Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Carboniferous Geology: Rad Brook Mudstone Member Commodity: Common Clay and Shale Positional Accuracy: Located by supplier to within 10m	A19SW (NE)	498	3	373235 436819
47	<b>BGS Recorded Mineral Sites</b> Site Name: Whalley Moor Brick Works Location: Whalley, Great Harwood, Lancashire Source: British Geological Survey, National Geoscience Information Service Reference: 92793 Type: Opencast <b>Status: Ceased</b> Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Carboniferous Geology: Clitheroe Limestone Formation And Hodder Mudstone Formation (Undifferentiated) Commodity: Common Clay and Shale Positional Accuracy: Located by supplier to within 10m	A18NW (N)	798	3	372384 437338
48	<b>BGS Recorded Mineral Sites</b> Site Name: Sand House Sand Pit Location: Whalley, Great Harwood, Lancashire Source: British Geological Survey, National Geoscience Information Service Reference: 92730 Type: Opencast <b>Status: Ceased</b> Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Quaternary Geology: Glaciofluvial Deposits, Devensian Commodity: Sand Positional Accuracy: Located by supplier to within 10m	A15SW (E)	929	3	373749 436042
	<b>BGS 1:625,000 Solid Geology</b> Description: Tournaisian and Visean (Carboniferous Limestone Series)	A13NE (NE)	0	3	372725 436374
	<b>Coal Mining Affected Areas</b> In an area which may not be affected by coal mining				
	<b>Non Coal Mining Areas of Great Britain</b> Risk: Highly Unlikely Source: British Geological Survey, National Geoscience Information Service	A13NE (NE)	0	3	372725 436374
	<b>Potential for Collapsible Ground Stability Hazards</b> Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13NE (N)	0	3	372730 436420
	<b>Potential for Collapsible Ground Stability Hazards</b> Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13NE (NE)	0	3	372725 436374
	<b>Potential for Compressible Ground Stability Hazards</b> Hazard Potential: Moderate Source: British Geological Survey, National Geoscience Information Service	A13NE (NE)	0	3	372725 436374
	<b>Potential for Compressible Ground Stability Hazards</b> Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13NE (N)	0	3	372730 436420
	<b>Potential for Ground Dissolution Stability Hazards</b> Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13NW (NW)	106	3	372552 436640
	<b>Potential for Landslide Ground Stability Hazards</b> Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service	A13NW (NW)	0	3	372616 436459
	<b>Potential for Landslide Ground Stability Hazards</b> Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13NE (NE)	0	3	372725 436374

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	<p><b>Potential for Landslide Ground Stability Hazards</b></p> <p>Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service</p>	A13SE (S)	99	3	372732 436037
	<p><b>Potential for Running Sand Ground Stability Hazards</b></p> <p>Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service</p>	A13NE (N)	0	3	372730 436420
	<p><b>Potential for Running Sand Ground Stability Hazards</b></p> <p>Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service</p>	A13NE (NE)	0	3	372725 436374
	<p><b>Potential for Running Sand Ground Stability Hazards</b></p> <p>Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service</p>	A8NW (S)	196	3	372631 435981
	<p><b>Potential for Shrinking or Swelling Clay Ground Stability Hazards</b></p> <p>Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service</p>	A13NE (NE)	0	3	372725 436374
	<p><b>Radon Potential - Radon Affected Areas</b></p> <p>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</p>	A13NE (NE)	0	3	372725 436374
	<p><b>Radon Potential - Radon Affected Areas</b></p> <p>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</p>	A13NE (NE)	0	3	372775 436476
	<p><b>Radon Potential - Radon Protection Measures</b></p> <p>Protection Measure: No radon protective measures are necessary in the construction of new dwellings or extensions Source: British Geological Survey, National Geoscience Information Service</p>	A13NE (NE)	0	3	372725 436374
	<p><b>Radon Potential - Radon Protection Measures</b></p> <p>Protection Measure: No radon protective measures are necessary in the construction of new dwellings or extensions Source: British Geological Survey, National Geoscience Information Service</p>	A13NE (NE)	0	3	372775 436476

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
49	<p><b>Contemporary Trade Directory Entries</b></p> <p>Name: Harrisons Engineering (Lancashire) Ltd            Location: Judge Walmsley Mill, Longworth Road, Billington, Clitheroe, Lancashire, BB7 9TP            Classification: Engineers - General  <b>Status: Inactive</b>            Positional Accuracy: Automatically positioned to the address</p>	A13SW (S)	85	-	372684 436109
49	<p><b>Contemporary Trade Directory Entries</b></p> <p>Name: Harrison Engineering            Location: Judge Walmsley Mill, Longworth Road, Billington, Clitheroe, Lancashire, BB7 9TP            Classification: Engineering Materials  <b>Status: Inactive</b>            Positional Accuracy: Automatically positioned to the address</p>	A13SW (S)	85	-	372684 436109
49	<p><b>Contemporary Trade Directory Entries</b></p> <p>Name: Harrisons Engineering            Location: Judge Walmsley Mill, Longworth Road, Billington, Clitheroe, Lancashire, BB7 9TP            Classification: Engineers - General  <b>Status: Active</b>            Positional Accuracy: Automatically positioned to the address</p>	A13SW (S)	85	-	372684 436109
50	<p><b>Contemporary Trade Directory Entries</b></p> <p>Name: Mantle Packaging Machinery Ltd            Location: Unit 1-2, The Sidings, Whalley, Clitheroe, Lancashire, BB7 9SE            Classification: Packaging &amp; Wrapping Equipment &amp; Supplies  <b>Status: Active</b>            Positional Accuracy: Automatically positioned to the address</p>	A13NE (NE)	156	-	373022 436550
50	<p><b>Contemporary Trade Directory Entries</b></p> <p>Name: Farnsworth'S            Location: Cumberland House, The Sidings, Whalley, Clitheroe, Lancashire, BB7 9SE            Classification: Sausage Manufacturers  <b>Status: Active</b>            Positional Accuracy: Automatically positioned to the address</p>	A13NE (NE)	166	-	373052 436528
50	<p><b>Contemporary Trade Directory Entries</b></p> <p>Name: Pressed To Impress            Location: Unit 8, The Sidings, Whalley, Clitheroe, Lancashire, BB7 9SE            Classification: Ironing &amp; Home Laundry Services  <b>Status: Active</b>            Positional Accuracy: Automatically positioned to the address</p>	A13NE (NE)	187	-	373042 436573
50	<p><b>Contemporary Trade Directory Entries</b></p> <p>Name: The Garment Specialists            Location: Unit 8, The Sidings, Whalley, Clitheroe, Lancashire, BB7 9SE            Classification: Dry Cleaners  <b>Status: Active</b>            Positional Accuracy: Automatically positioned to the address</p>	A13NE (NE)	187	-	373042 436573
50	<p><b>Contemporary Trade Directory Entries</b></p> <p>Name: Sm Uk Solutions            Location: Unit 12, The Sidings, Station Rd, Whalley, Clitheroe, Lancashire, BB7 9RH            Classification: Staircase, Balustrade &amp; Handrail Manufacturers  <b>Status: Active</b>            Positional Accuracy: Manually positioned to the address or location</p>	A13NE (NE)	206	-	373054 436589
50	<p><b>Contemporary Trade Directory Entries</b></p> <p>Name: Coco Moyo            Location: Unit 12, The Sidings, Whalley, Clitheroe, Lancashire, BB7 9SE            Classification: Confectionery Manufacturers  <b>Status: Inactive</b>            Positional Accuracy: Automatically positioned to the address</p>	A13NE (NE)	206	-	373054 436589
51	<p><b>Contemporary Trade Directory Entries</b></p> <p>Name: Scrubbers &amp; Co            Location: B, 1, Sunnyside Avenue, Billington, Clitheroe, Lancashire, BB7 9TR            Classification: Cleaning Services - Domestic  <b>Status: Active</b>            Positional Accuracy: Automatically positioned to the address</p>	A8NW (S)	201	-	372656 435973
52	<p><b>Contemporary Trade Directory Entries</b></p> <p>Name: Station Press            Location: Unit 14, The Sidings, Whalley, Clitheroe, Lancashire, BB7 9SE            Classification: Printers  <b>Status: Inactive</b>            Positional Accuracy: Automatically positioned to the address</p>	A14NW (NE)	213	-	373067 436585

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
52	<p><b>Contemporary Trade Directory Entries</b></p> <p>Name: Gilmartin Sheet Metal Ltd            Location: Unit 16, The Sidings, Whalley, Clitheroe, Lancashire, BB7 9SE            Classification: Sheet Metal Work  <b>Status: Active</b>            Positional Accuracy: Automatically positioned to the address</p>	A14NW (NE)	230	-	373055 436620
53	<p><b>Contemporary Trade Directory Entries</b></p> <p>Name: Still Glorious Card Co            Location: Marathan House, The Sidings, Whalley, Clitheroe, Lancashire, BB7 9SE            Classification: Greeting Card Publishers &amp; Wholesalers  <b>Status: Inactive</b>            Positional Accuracy: Automatically positioned to the address</p>	A19SW (NE)	322	-	373071 436720
53	<p><b>Contemporary Trade Directory Entries</b></p> <p>Name: Hurst Green Plastics Ltd            Location: Bowland House, The Sidings, Whalley, CLITHEROE, Lancashire, BB7 9SE            Classification: Plastics - Vacuum Forming  <b>Status: Inactive</b>            Positional Accuracy: Automatically positioned to the address</p>	A19SW (NE)	358	-	373074 436760
53	<p><b>Contemporary Trade Directory Entries</b></p> <p>Name: Hurst Green Plastics Ltd            Location: Bowland House, The Sidings, Whalley, Clitheroe, Lancashire, BB7 9SE            Classification: Plastic Products - Manufacturers  <b>Status: Active</b>            Positional Accuracy: Automatically positioned to the address</p>	A19SW (NE)	358	-	373074 436760
53	<p><b>Contemporary Trade Directory Entries</b></p> <p>Name: Hurst Green Plastics            Location: Bowland House, The Sidings, Whalley, Clitheroe, Lancashire, BB7 9SE            Classification: Plastic Products - Manufacturers  <b>Status: Inactive</b>            Positional Accuracy: Automatically positioned to the address</p>	A19SW (NE)	358	-	373074 436760
54	<p><b>Contemporary Trade Directory Entries</b></p> <p>Name: J Ainsworth            Location: 1-2, Pleasant View, Billington, Clitheroe, Lancashire, BB7 9NP            Classification: Road Haulage Services  <b>Status: Inactive</b>            Positional Accuracy: Automatically positioned to the address</p>	A8NE (S)	374	-	372946 435802
55	<p><b>Contemporary Trade Directory Entries</b></p> <p>Name: R Wilkinson &amp; Sons Ltd            Location: Old Manchester Offices, Whalley Road, Billington, Clitheroe, Lancashire, BB7 9NW            Classification: Commercial Vehicle Bodybuilders &amp; Repairers  <b>Status: Active</b>            Positional Accuracy: Automatically positioned to the address</p>	A8NE (S)	389	-	372794 435746
56	<p><b>Contemporary Trade Directory Entries</b></p> <p>Name: Culvert Garage            Location: Whalley Road, Billington, Clitheroe, Lancashire, BB7 9NZ            Classification: Garage Services  <b>Status: Inactive</b>            Positional Accuracy: Automatically positioned to the address</p>	A8NW (S)	399	-	372636 435761
57	<p><b>Contemporary Trade Directory Entries</b></p> <p>Name: Gilmartins Ironmongers            Location: 101, King Street, Whalley, Clitheroe, Lancashire, BB7 9SW            Classification: Hardware  <b>Status: Active</b>            Positional Accuracy: Automatically positioned to the address</p>	A14NW (E)	423	-	373327 436371
58	<p><b>Contemporary Trade Directory Entries</b></p> <p>Name: Abbey Clean            Location: 71, King Street, Whalley, Clitheroe, Lancashire, BB7 9SW            Classification: Dry Cleaners  <b>Status: Inactive</b>            Positional Accuracy: Automatically positioned to the address</p>	A14SW (E)	433	-	373307 436267
59	<p><b>Contemporary Trade Directory Entries</b></p> <p>Name: Alan Hindle Transport            Location: 6, Corn Mill Mews, Whalley, Clitheroe, Lancashire, BB7 9ST            Classification: Road Haulage Services  <b>Status: Inactive</b>            Positional Accuracy: Automatically positioned to the address</p>	A14SW (SE)	456	-	373233 436035

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
60	<p><b>Contemporary Trade Directory Entries</b></p> <p>Name: Whalley Catering Equipment            Location: Abbot Works, Rear Of, King Street, Whalley, Clitheroe, Lancashire, BB7 9SP            Classification: Catering Equipment            Status: <b>Inactive</b>            Positional Accuracy: Automatically positioned to the address</p>	A14SW (SE)	470	-	373263 436082
60	<p><b>Contemporary Trade Directory Entries</b></p> <p>Name: Oakhill Classic &amp; Sports Cars            Location: Back King Street, King Street, Whalley, Clitheroe, Lancashire, BB7 9SP            Classification: Classic Car Specialists            Status: <b>Inactive</b>            Positional Accuracy: Automatically positioned to the address</p>	A14SW (SE)	472	-	373272 436112
60	<p><b>Contemporary Trade Directory Entries</b></p> <p>Name: Whalley Catering Equipment            Location: Back King Street, King Street, Whalley, Clitheroe, Lancashire, BB7 9SP            Classification: Catering Equipment            Status: <b>Inactive</b>            Positional Accuracy: Automatically positioned to the address</p>	A14SW (SE)	472	-	373272 436112
61	<p><b>Contemporary Trade Directory Entries</b></p> <p>Name: Vega Holsters            Location: 49, King Street, Whalley, Clitheroe, Lancashire, BB7 9SP            Classification: Leather Garments &amp; Products            Status: <b>Active</b>            Positional Accuracy: Automatically positioned to the address</p>	A14SW (E)	499	-	373318 436144
61	<p><b>Contemporary Trade Directory Entries</b></p> <p>Name: Whalley Catering Equipment            Location: Abbot Works, King St, Whalley, Clitheroe, Lancashire, BB7 9SP            Classification: Catering Equipment            Status: <b>Inactive</b>            Positional Accuracy: Manually positioned to the road within the address or location</p>	A14SW (SE)	524	-	373333 436117
61	<p><b>Contemporary Trade Directory Entries</b></p> <p>Name: Abbey Engineering            Location: Unit 2 Abbot Works, King St, Whalley, Clitheroe, Lancashire, BB7 9SP            Classification: Engineers - General            Status: <b>Active</b>            Positional Accuracy: Manually positioned to the road within the address or location</p>	A14SW (SE)	531	-	373332 436100
62	<p><b>Contemporary Trade Directory Entries</b></p> <p>Name: Crooks Garage            Location: 21, King Street, Whalley, Clitheroe, Lancashire, BB7 9SP            Classification: Garage Services            Status: <b>Inactive</b>            Positional Accuracy: Automatically positioned to the address</p>	A14SW (SE)	520	-	373306 436050
62	<p><b>Contemporary Trade Directory Entries</b></p> <p>Name: Walsh            Location: Unit 8, Back King St, Whalley, Clitheroe, Lancashire, BB7 9SP            Classification: Staircase, Balustrade &amp; Handrail Manufacturers            Status: <b>Inactive</b>            Positional Accuracy: Manually positioned to the road within the address or location</p>	A14SW (SE)	547	-	373331 436040
63	<p><b>Contemporary Trade Directory Entries</b></p> <p>Name: Ribble Valley Concrete            Location: Whalley Rd, Billington, Clitheroe, Lancashire, BB7 9NA            Classification: Concrete &amp; Mortar Ready Mixed            Status: <b>Active</b>            Positional Accuracy: Manually positioned within the geographical locality</p>	A8NW (SW)	547	-	372408 435729
64	<p><b>Contemporary Trade Directory Entries</b></p> <p>Name: Aesthetic Window Shades            Location: 20, Hayhurst Close, Whalley, Clitheroe, Lancashire, BB7 9SQ            Classification: Blinds, Awnings &amp; Canopies            Status: <b>Inactive</b>            Positional Accuracy: Automatically positioned to the address</p>	A14NE (NE)	573	-	373424 436696
65	<p><b>Contemporary Trade Directory Entries</b></p> <p>Name: Calder Services Ltd            Location: Manorfield Service Centre, Manor Road, Whalley, Clitheroe, Lancashire, BB7 9TE            Classification: Boilers - Servicing, Replacements &amp; Repairs            Status: <b>Active</b>            Positional Accuracy: Automatically positioned to the address</p>	A14SE (E)	579	-	373426 436178

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
65	<p><b>Contemporary Trade Directory Entries</b></p> <p>Name: Central Garages            Location: Manor Road, Whalley, Clitheroe, Lancashire, BB7 9TE            Classification: Garage Services            Status: <b>Inactive</b>            Positional Accuracy: Automatically positioned to the address</p>	A14SE (E)	579	-	373426 436178
66	<p><b>Contemporary Trade Directory Entries</b></p> <p>Name: Whally Motors Ltd            Location: Accrington Road, Whalley, Clitheroe, Lancashire, BB7 9TD            Classification: Garage Services            Status: <b>Active</b>            Positional Accuracy: Automatically positioned to the address</p>	A14SE (E)	655	-	373475 436108
67	<p><b>Contemporary Trade Directory Entries</b></p> <p>Name: Renfrewshire Electronics            Location: 9, May Terrace, Billington, Clitheroe, Lancashire, BB7 9NB            Classification: Electrical Goods Sales, Manufacturers &amp; Wholesalers            Status: <b>Inactive</b>            Positional Accuracy: Automatically positioned to the address</p>	A7SE (SW)	696	-	372289 435636
68	<p><b>Contemporary Trade Directory Entries</b></p> <p>Name: Calderstones Partnership Nhs Foundation Trust            Location: Mitton Road, Whalley, Clitheroe, Lancashire, BB7 9PE            Classification: Hospitals            Status: <b>Active</b>            Positional Accuracy: Automatically positioned to the address</p>	A17NE (NW)	709	-	372210 437127
69	<p><b>Contemporary Trade Directory Entries</b></p> <p>Name: Barnes &amp; Tipping            Location: Mitton Road, Whalley, Clitheroe, Lancashire, BB7 9JU            Classification: Road Haulage Services            Status: <b>Active</b>            Positional Accuracy: Automatically positioned to the address</p>	A18NE (N)	739	-	372727 437334
70	<p><b>Contemporary Trade Directory Entries</b></p> <p>Name: Overload            Location: Billington, Clitheroe, Lancashire, BB7 9LX            Classification: Commercial Cleaning Services            Status: <b>Inactive</b>            Positional Accuracy: Manually positioned within the geographical locality</p>	A7SE (SW)	756	-	372329 435524
71	<p><b>Contemporary Trade Directory Entries</b></p> <p>Name: Home Clean Home            Location: 3, Billington Gardens, Billington, Clitheroe, Lancashire, BB7 9LU            Classification: Cleaning Services - Domestic            Status: <b>Active</b>            Positional Accuracy: Automatically positioned to the address</p>	A7SE (SW)	819	-	372225 435527
72	<p><b>Contemporary Trade Directory Entries</b></p> <p>Name: Walmsley            Location: 14, Pendle Drive, Whalley, Clitheroe, Lancashire, BB7 9JT            Classification: Paper &amp; Cardboard Products &amp; Packaging - Manufacturers            Status: <b>Active</b>            Positional Accuracy: Automatically positioned to the address</p>	A23SW (N)	888	-	372403 437440
73	<p><b>Contemporary Trade Directory Entries</b></p> <p>Name: Priory Windows            Location: 153, Pasturelands Drive, Billington, Clitheroe, Lancashire, BB7 9LJ            Classification: Window Frames - Sales &amp; Service            Status: <b>Active</b>            Positional Accuracy: Automatically positioned to the address</p>	A7SE (SW)	953	-	372113 435450
74	<p><b>Contemporary Trade Directory Entries</b></p> <p>Name: Appliance Repairs            Location: 39, Beech Drive, Whalley, Clitheroe, Lancashire, BB7 9RA            Classification: Washing Machines - Servicing &amp; Repairs            Status: <b>Active</b>            Positional Accuracy: Automatically positioned to the address</p>	A22SE (NW)	992	-	372126 437420
75	<p><b>Fuel Station Entries</b></p> <p>Name: Whalley Motor Services            Location: Accrington Road, Whalley, CLITHEROE, Lancashire, BB7 9TD            Brand: Obsolete            Premises Type: Not Applicable            Status: <b>Obsolete</b>            Positional Accuracy: Automatically positioned to the address</p>	A14SE (E)	654	-	373474 436107

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
76	<b>Areas of Adopted Green Belt</b> Authority: Ribble Valley Borough Council Plan Name: Ribble Valley District Wide Local Plan Status: <b>Adopted</b> Plan Date: 30th June 1998	A8NW (S)	412	4	372649 435743
77	<b>Areas of Adopted Green Belt</b> Authority: Hyndburn Borough Council Plan Name: Borough Of Hyndburn Local Plan Status: <b>Adopted</b> Plan Date: 30th November 1996	A4NW (SE)	987	5	373313 435308
78	<b>Areas of Unadopted Green Belt</b> Authority: Ribble Valley Borough Council Plan Name: Ribble Valley Districtwide Local Plan Alterations Review Status: <b>First Deposit</b> Plan Date: 31st March 2004	A8NW (S)	412	4	372649 435743

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













Agency & Hydrological	Version	Update Cycle
<b>Groundwater Vulnerability</b> Environment Agency - Head Office	January 2011	Not Applicable
<b>Drift Deposits</b> Environment Agency - Head Office	January 1999	Not Applicable
<b>Bedrock Aquifer Designations</b> British Geological Survey - National Geoscience Information Service	September 2011	Annually
<b>Superficial Aquifer Designations</b> British Geological Survey - National Geoscience Information Service	September 2011	Annually
<b>Source Protection Zones</b> Environment Agency - Head Office	July 2011	Quarterly
<b>Extreme Flooding from Rivers or Sea without Defences</b> Environment Agency - Head Office	February 2012	Quarterly
<b>Flooding from Rivers or Sea without Defences</b> Environment Agency - Head Office	February 2012	Quarterly
<b>Areas Benefiting from Flood Defences</b> Environment Agency - Head Office	February 2012	Quarterly
<b>Flood Water Storage Areas</b> Environment Agency - Head Office	February 2012	Quarterly
<b>Flood Defences</b> Environment Agency - Head Office	February 2012	Quarterly

Waste	Version	Update Cycle
<b>BGS Recorded Landfill Sites</b> British Geological Survey - National Geoscience Information Service	June 1996	Not Applicable
<b>Historical Landfill Sites</b> Environment Agency - North West Region - Central Area Environment Agency - North West Region - North Area	January 2012 January 2012	Quarterly Quarterly
<b>Integrated Pollution Control Registered Waste Sites</b> Environment Agency - North West Region	October 2008	Not Applicable
<b>Licensed Waste Management Facilities (Landfill Boundaries)</b> Environment Agency - North West Region - Central Area Environment Agency - North West Region - North Area	January 2012 January 2012	Quarterly Quarterly
<b>Licensed Waste Management Facilities (Locations)</b> Environment Agency - North West Region - Central Area Environment Agency - North West Region - North Area	October 2011 October 2011	Quarterly Quarterly
<b>Local Authority Landfill Coverage</b> Burnley Borough Council 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 May 2000	Not Applicable Not Applicable Not Applicable Not Applicable Not Applicable
<b>Local Authority Recorded Landfill Sites</b> Pendle Borough Council - Environmental Health Department Burnley Borough Council 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 May 2000	Not Applicable Not Applicable Not Applicable Not Applicable Not Applicable
<b>Registered Landfill Sites</b> Environment Agency - North West Region - Central Area Environment Agency - North West Region - North Area	March 2003 March 2003	Not Applicable Not Applicable
<b>Registered Waste Transfer Sites</b> Environment Agency - North West Region - Central Area Environment Agency - North West Region - North Area	March 2003 March 2003	Not Applicable Not Applicable
<b>Registered Waste Treatment or Disposal Sites</b> Environment Agency - North West Region - Central Area Environment Agency - North West Region - North Area	March 2003 March 2003	Not Applicable Not Applicable

Hazardous Substances	Version	Update Cycle
<b>Control of Major Accident Hazards Sites (COMAH)</b> Health and Safety Executive	December 2011	Bi-Annually
<b>Explosive Sites</b> Health and Safety Executive	December 2011	Bi-Annually
<b>Notification of Installations Handling Hazardous Substances (NIHHS)</b> Health and Safety Executive	November 2000	Not Applicable
<b>Planning Hazardous Substance Enforcements</b> Ribble Valley Borough Council Pendle Borough Council - Planning Hyndburn Borough Council - Planning Lancashire County Council Burnley Borough Council - Planning Services	June 2011 March 2011 March 2012 October 2011 September 2011	Annual Rolling Update Annual Rolling Update Annual Rolling Update Annual Rolling Update Annual Rolling Update
<b>Planning Hazardous Substance Consents</b> Ribble Valley Borough Council Pendle Borough Council - Planning Hyndburn Borough Council - Planning Lancashire County Council Burnley Borough Council - Planning Services	June 2011 March 2011 March 2012 October 2011 September 2011	Annual Rolling Update Annual Rolling Update Annual Rolling Update Annual Rolling Update Annual Rolling Update
Geological	Version	Update Cycle
<b>BGS Recorded Mineral Sites</b> British Geological Survey - National Geoscience Information Service	October 2011	Bi-Annually
<b>BGS 1:625,000 Solid Geology</b> British Geological Survey - National Geoscience Information Service	August 1996	Not Applicable
<b>Brine Compensation Area</b> Cheshire Brine Subsidence Compensation Board	November 2002	Not Applicable
<b>Coal Mining Affected Areas</b> The Coal Authority - Mining Report Service	August 2011	As notified
<b>Mining Instability</b> Ove Arup & Partners	October 2000	Not Applicable
<b>Non Coal Mining Areas of Great Britain</b> British Geological Survey - National Geoscience Information Service	February 2011	Not Applicable
<b>Potential for Collapsible Ground Stability Hazards</b> British Geological Survey - National Geoscience Information Service	February 2011	Annually
<b>Potential for Compressible Ground Stability Hazards</b> British Geological Survey - National Geoscience Information Service	February 2011	Annually
<b>Potential for Ground Dissolution Stability Hazards</b> British Geological Survey - National Geoscience Information Service	February 2011	Annually
<b>Potential for Landslide Ground Stability Hazards</b> British Geological Survey - National Geoscience Information Service	February 2011	Annually
<b>Potential for Running Sand Ground Stability Hazards</b> British Geological Survey - National Geoscience Information Service	February 2011	Annually
<b>Potential for Shrinking or Swelling Clay Ground Stability Hazards</b> British Geological Survey - National Geoscience Information Service	February 2011	Annually
<b>Radon Potential - Radon Affected Areas</b> British Geological Survey - National Geoscience Information Service	July 2011	As notified
<b>Radon Potential - Radon Protection Measures</b> British Geological Survey - National Geoscience Information Service	July 2011	As notified

Industrial Land Use	Version	Update Cycle
<b>Contemporary Trade Directory Entries</b> Thomson Directories	February 2012	Quarterly
<b>Fuel Station Entries</b> Catalist Ltd - Experian	November 2011	Quarterly
Sensitive Land Use	Version	Update Cycle
<b>Areas of Adopted Green Belt</b> Burnley Borough Council Hyndburn Borough Council Pendle Borough Council Ribble Valley Borough Council	May 2011 May 2011 May 2011 May 2011	As notified As notified As notified As notified
<b>Areas of Unadopted Green Belt</b> Burnley Borough Council Hyndburn Borough Council Pendle Borough Council Ribble Valley Borough Council	May 2011 May 2011 May 2011 May 2011	As notified As notified As notified As notified
<b>Areas of Outstanding Natural Beauty</b> Natural England	February 2012	Bi-Annually
<b>Environmentally Sensitive Areas</b> Natural England	February 2012	Annually
<b>Forest Parks</b> Forestry Commission	April 1997	Not Applicable
<b>Local Nature Reserves</b> Natural England	February 2012	Bi-Annually
<b>Marine Nature Reserves</b> Natural England	September 2011	Bi-Annually
<b>National Nature Reserves</b> Natural England	February 2012	Bi-Annually
<b>National Parks</b> Natural England	February 2012	Bi-Annually
<b>Nitrate Sensitive Areas</b> Department for Environment, Food and Rural Affairs (DEFRA - formerly FRCA)	February 2012	Not Applicable
<b>Nitrate Vulnerable Zones</b> Department for Environment, Food and Rural Affairs (DEFRA - formerly FRCA)	February 2012	Annually
<b>Ramsar Sites</b> Natural England	February 2012	Bi-Annually
<b>Sites of Special Scientific Interest</b> Natural England	February 2012	Bi-Annually
<b>Special Areas of Conservation</b> Natural England	February 2012	Bi-Annually
<b>Special Protection Areas</b> Natural England	February 2012	Bi-Annually

A selection of organisations who provide data within this report

Data Supplier	Data Supplier Logo
Ordnance Survey	
Environment Agency	
Scottish Environment Protection Agency	
The Coal Authority	
British Geological Survey	 <b>British Geological Survey</b> <small>NATURAL ENVIRONMENT RESEARCH COUNCIL</small>
Centre for Ecology and Hydrology	 <b>Centre for Ecology &amp; Hydrology</b> <small>NATURAL ENVIRONMENT RESEARCH COUNCIL</small>
Countryside Council for Wales	 <b>CYNGOR CEFN GWLAD CYMRU</b> <b>COUNTRYSIDE COUNCIL FOR WALES</b>
Scottish Natural Heritage	
Natural England	
Health Protection Agency	
Ove Arup	
Peter Brett Associates	

Contact	Name and Address	Contact Details
1	<b>Environment Agency - National Customer Contact Centre (NCCC)</b> PO Box 544, Templeborough, Rotherham, S60 1BY	Telephone: 08708 506 506 Email: enquiries@environment-agency.gov.uk
2	<b>Ribble Valley Borough Council - Environmental Health Department</b> Council Offices, Church Walk, Clitheroe, Lancashire, BB7 2RA	Telephone: 01200 425111 Fax: 01200 26339 Website: www.ribblevalley.gov.uk
3	<b>British Geological Survey - Enquiry Service</b> 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
4	<b>Ribble Valley Borough Council</b> Council Offices, Church Walk, Clitheroe, Lancashire, BB7 2RA	Telephone: 01200 425111 Fax: 01200 414488 Website: www.ribblevalley.gov.uk
5	<b>Hyndburn Borough Council</b> Development Services, Eagle Street, Accrington, Lancashire, BB5 1LN	Telephone: 01254 388111 Fax: 01254 391625 Website: www.hyndburnbc.gov.uk
6	<b>Natural England</b> 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	<b>Lancashire County Council - Waste Management Group</b> Environment Directorate, Guild House, Cross Street, Preston, Lancashire, PR1 8RD	Website: www.lancashire.gov.uk
8	<b>Hyndburn Borough Council - Environmental Health Department</b> Development Services, 20 Cannon Street, Accrington, Lancashire, BB5 1NJ	Telephone: 01254 380610 Fax: 01254 391625 Website: www.hyndburnbc.gov.uk
-	<b>Health Protection Agency - Radon Survey, Centre for Radiation, Chemical and Environmental Hazards</b> Chilton, Didcot, Oxfordshire, OX11 0RQ	Telephone: 01235 822622 Fax: 01235 833891 Email: radon@hpa.org.uk Website: www.hpa.org.uk
-	<b>Landmark Information Group Limited</b> 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.

# RSK

## 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.

### Site

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 outline) that are referenced by letters of the alphabet, starting from the bottom left corner of the slice "grid". This grid does not relate to National Grid lines but is designed to give best fit over 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 dark green, others in light blue. These 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 dataset to allow features to be quickly located on plots. Therefore a feature that has a quadrant reference of A7NW will be in Slice A, Segment 7 and the NW Quadrant.

A selection of organisations who provide data within this report:



Envirocheck reports are compiled from 136 different sources of data.

### Client Details

Miss L. Thomas, RSK Environment Ltd, Four Ways House,  
57 Hilton Street, Manchester, M1 2EJ

### Order Details

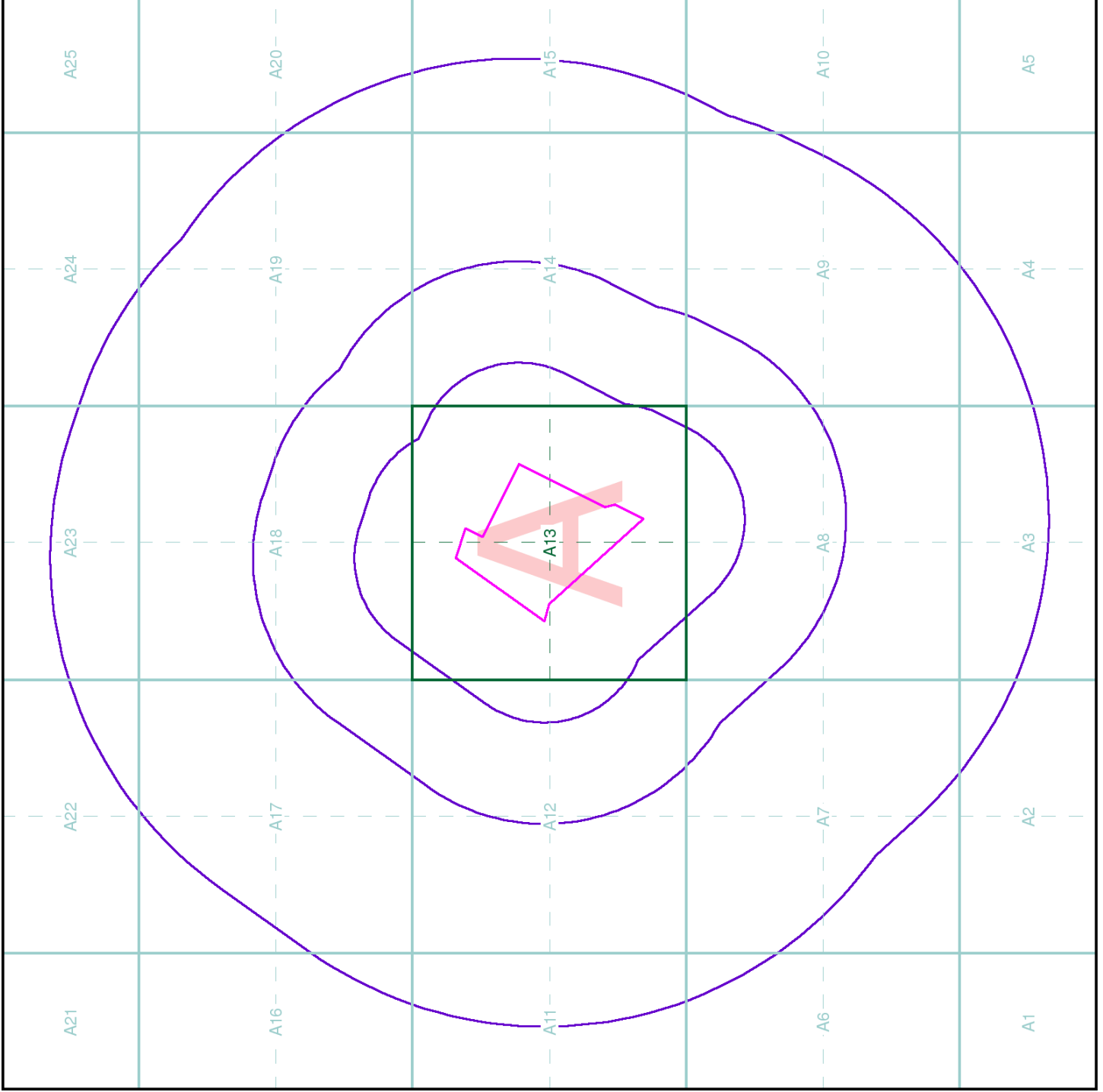
Order Number: 37954280\_1\_1  
Customer Ref: 17134  
National Grid Reference: 372720, 436380  
Site Area (Ha): 8.56  
Search Buffer (m): 1000

### Site Details

Site at 372750, 436420



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



## LANDMARK STANDARD TERMS AND CONDITIONS

refer to the contracting party who accesses the Website or places an Order with Us.

### 1. Basis of Contract

- a. These Terms govern the relationship between Us and You where You purchase Services from Us. Where these Terms are not expressly accepted by You, they will be deemed to have been accepted by You, and You agree to be bound by these Terms, when You place any Order, or pay for any Services provided to You by Us.
- b. You shall take all reasonable steps to check that the details that You provide in relation to Your Order are complete, accurate and correct and that the Report has been prepared for the correct location and property type. Neither We nor any Suppliers shall have any liability for errors or omissions in information provided by or on behalf of You or from Your failure to check that the Report relates to the correct location or property.
- c. We may modify these Terms, and may discontinue or revise any or all other aspects of the Services at Our sole discretion, with immediate effect and without prior notice, including without limitation changing the Services available at any given time. Any amendment or variation to these Terms shall be posted on Our Websites. You acknowledge that it shall remain Your responsibility to check Our Website from time to time for any such amendments or variation to these Terms. Continued Orders of the Services by You shall be deemed an acceptance by You to be bound by any such amendments to the Terms.

These Terms together with Your Order, the Fees and delivery details in relation to Your Order and Our privacy policy, which is available on the Website, constitute the entire agreement between the parties relating to the supply of Services to You by Us ("Agreement"). You acknowledge that You have not relied on any statement, promise or representation made or given by or on behalf of Us which is not set out in the Agreement or delivery details. Nothing in this clause 1.d shall limit or exclude any liability for fraud.

These Terms shall prevail at all times to the exclusion of all other terms and conditions including any terms and conditions which You may purport to apply even if such other provisions are submitted in a later document or purport to override these Terms and neither the course of conduct between parties nor trade practice shall act to modify these Terms.

### 2. Services and Licensed Use

- a. Subject to clauses 6.d, 6.k and 6.l, We shall use all reasonable skill, care and diligence in the performance of the Services.
- b. Subject always to these Terms You may, without further charge, make the Services available to:
  - i. the owner of the whole or part of the Property Site at the date of the Report; any person who purchases the whole or part of the Property Site;
  - ii. You agree to notify Us as soon as You suspect any infringement of Our or any of

- iii. Our Supplier's intellectual property rights and You agree to give Us all reasonably required assistance in pursuing any potential infringement.
- iv. Any person for whom You act in a professional or commercial capacity in relation to the Property Site;
- v. any person who acts for You in a professional or commercial capacity in relation to the Property Site; and/or prospective buyers of the whole or part of the Property Site as part of an Information Pack but for the avoidance of doubt, We shall have no liability to such prospective buyer unless the prospective buyer subsequently purchases the Property Site, and the prospective (or actual) buyer shall not be entitled to make the Service available to any other third party.

You shall not hold yourself out or describe yourself as Our agent or an agent of any of the Suppliers.

You shall ensure that acknowledgements of copyright and database right ownership are included in a conspicuous position in all copies of the Content. You may not delete any of Our or the Suppliers' intellectual property protection notices (including without limitation copyright notices or trade marks) from the Content.

You shall use Your best endeavours to use adequate technological and security measures, including measures We or Suppliers may reasonably recommend from time to time, to ensure that all Content which You hold or are responsible for is secure from unauthorised use or access.

The Content shall only be used strictly in accordance with these Terms and not for any other purpose; nor shall any use of the Content be made that would or might be deemed to be disparaging to Us, the Suppliers or any of them. You shall not be entitled to resell or rent any Content or otherwise any supply products incorporating such Content for commercial sale or rental.

You shall not reverse engineer, separate or otherwise tamper with the Content so that Content can be extracted and used for any purpose outside the scope of the Agreement.

If You are a Company or public body, You agree that the licensed use of Content pursuant to the Agreement always excludes its use by any of Your subsidiaries, holding companies or other entities of the same group (as such terms are defined in section 1159 of the Companies Act 2006) or by any government entity associated with You (in each case as applicable). You agree, and shall procure, that any such company or entity shall enter into a separate agreement with Us.

All other uses of the Content are prohibited. If You wish to use the Content in a manner which is not authorised by the Terms, then You must contact Us to seek the necessary consents or licences (which may include further licences from the Suppliers), for which there may be additional Fees.

Our Supplier's intellectual property rights and You agree to give Us all reasonably required assistance in pursuing any potential infringement.

### 3. Intellectual Property and Confidentiality

- a. You acknowledge and agree that all Intellectual Property Rights in Content are owned by Us and shall continue to be owned by Us or Our Suppliers and nothing in the Agreement shall transfer, assign or grant any rights to You (save for the licence as set out above).
- b. Subject to any use of the Content in accordance with these Terms, You acknowledge and agree that: You shall, and shall procure that any person to whom You provide access to the Content shall, treat as strictly private and confidential the Services, the Content and all information which they obtain from the Services and Content. You agree to indemnify Us against all liabilities, damages, penalties, costs, expenses (including legal expenses on an indemnity basis) or other loss suffered or incurred by Us in relation to any breach or alleged breach of this clause 3.b.

### 4. Termination

At any time, We may terminate the Agreement with immediate effect by giving You written notice:

- i. if You are in breach of the Terms and, if such breach is capable of remedy, You fail to remedy the breach within 30 days of written notice from Us specifying the breach and requiring it to be remedied; and
- ii. if You have a receiver or administrator appointed over You or any part of Your undertaking or assets or shall pass a resolution for winding up (otherwise than for the purpose of a bona fide scheme of solvent amalgamation or reconstruction) or a court of competent jurisdiction shall make an order to that effect or if You order or enter into a voluntary arrangement with Your creditors or shall cease or threaten to cease to carry on business or if You are presented with a bankruptcy petition.

In the event of the termination or expiry of the Agreement:

- i. You shall, subject to clause 4.b.iii, immediately cease to use the Report and any Content;
  - ii. You shall, subject to clause 4.b.iii, within 30 days of such termination or expiry, destroy all Content in any media which You hold or for which You are responsible and provide, at Our request, a sworn statement by a duly authorised person that You no longer hold such Content;
  - iii. except in the event of termination by Us under clause 4.a, You may retain Content in an archive following expiry of the Agreement for the sole purpose of addressing a complaint or challenge from a regulator or other third party regarding Your use of such Content during the term of the Agreement.
- Your rights are on condition that: (a)

the archive rights do not apply to Content that include third party Intellectual Property Rights (other than Content provided by Ordinance Survey) to the extent that the Intellectual Property Rights in such Content are owned by Ordinance Survey; (b) You shall not disclose Content retained under this clause 4.b.iii to any regulator or other third party except strictly to the extent necessary for the relevant purpose of addressing a complaint or challenge from a regulator or other third party and in paper or read-only electronic format only; (c) You must store such Content separately from any other data which You hold; and (d) subject to clause 6.a, We shall have no liability for Your use of it following termination or expiry of the Agreement; and

- iv. the parties shall have no further obligations or rights under the Agreement, without prejudice to those which have accrued to either party prior to termination or expiry save that (inclusive), this clause 4.b, clauses 5.d, 6, 7, 9, 10 and 11 together with those other clauses the survival of which is necessary for the interpretation or enforcement of the Agreement or which by their nature can be reasonably interpreted as surviving the expiry or termination of the Agreement, shall continue to have effect after such expiry or termination.

### 5. Payments

An individual or a monthly invoice showing all Orders created by You will be generated subject to these Terms. You will pay the Fees at the rates set out in Our or Our Authorised Reseller's invoice within 30 days of the date of each invoice without deduction, counterclaim or set off. Where Your order comprises a number of Services or severable elements within any one or more Services, any failure by Us or its Authorised Reseller to provide an element or elements of the Services shall not prejudice Our or Our Authorised Reseller's ability to require payment in respect of the Services delivered to You. You acknowledge that time is of the essence with respect to the payment of such invoices.

- a. VAT shall be due in addition to any Fees. You shall pay any other applicable indirect taxes related to Your use of the Services.
- b. Neither We nor any Authorised Reseller shall be required to notify You in advance of any amendment to the Fees and the placing of any further Order for Services shall be deemed acceptance of any revisions to the Fees.
- c. If You fail to pay by the due date any amount due and payable by You under the Agreement, We shall be entitled, but not obliged to, charge You interest on the overdue amount, payable by You immediately on demand, accruing from the date up to the date of actual payment, after as well as before judgment, at the rate set out in the Late Payment of Commercial Debts (Interest) Act 1998 from time to time and fixed sum compensation

under the Late Payment of Commercial Debts Regulations 2002. Such interest shall accrue on a daily basis.

### 6. Liability

Nothing in these Terms excludes or limits either party's liability for death or personal injury caused by that party's negligence or wilful default or for fraud; and the remainder of this clause 6 is subject to this provision. If You are a Consumer, Your statutory rights (which include, for example, that We will provide the Services to a reasonable standard and within a reasonable time) are not affected by anything in these Terms.

Save as set out in clause 6.a, We shall not be liable to You or to any End User in contract, tort (including negligence) or for breach of statutory duty or in any other way for:

- i. any indirect or consequential losses (which includes any loss that could not have been reasonably expected by You and Us at the time of entering into these Terms);
  - ii. loss arising from or in connection with loss of revenues, profits, contracts or business or failure to realise anticipated savings; or
  - iii. loss of goodwill or reputation.
- Save as set out in clause 6.a, Our total liability to You and/or any End User in contract or tort (including negligence) or for breach of statutory duty shall not exceed an amount of ten million pounds (£10,000,000) per claim or series of connected claims.

The Content that Services are based on is derived from third party sources. Therefore, save as set out in clause 6, in respect of risk assessments and professional opinions, We do not warrant the accuracy or completeness of any information or Content provided, unless We should reasonably have been alerted to any omission, error or inaccuracy in the Content. Such Content is provided specifically from the sources as described by Us and We do not claim that these represent an exhaustive or comprehensive list of all sources that might be consulted. You acknowledge and agree that neither You nor any End User shall have any claim or recourse against any Supplier of Third Party Content.

You acknowledge and agree that We do not warrant that the online supply of Content or Services or any internet ordering service will be: uninterrupted or error free or provide any particular facilities or functions; free from defects; free from software viruses; free of error from computer malfunction, inaccurate processing; free from corruption of data whilst geo-coding, processing by computer or electronic means or in the course of transmission; or similar, although We will use reasonable endeavours to correct any such issues within a reasonable period of them becoming known (which may be limited to notifying the relevant Supplier). Time shall not be of the essence in providing the Content or Services.

You acknowledge and agree that no physical inspection of the Property Site

the rights of termination stated in clause 4.a and in addition shall not prevent Us from:

- applying for injunctive relief in the case of: (1) breach or threatened breach of confidentiality; or (2) infringement or threatened infringement of Our or Our Suppliers' intellectual property rights; or pursuing a debt claim for the payment of the Fees.

### 11. General

- If any provision of the Agreement is found by either a court or other competent authority to be void, invalid, illegal or unenforceable, that provision shall be deemed to be deleted from the Agreement and never to have formed part of the Agreement and the remaining provisions shall continue in full force and effect.
- No delay, failure or omission on Our, or any Supplier's, part in enforcing, exercising or pursuing any right, power, privilege, claim or remedy conferred by or arising under the Agreement or by law shall be deemed to be or construed as a waiver of that or any other right, power, privilege, claim or remedy, nor shall any single or partial exercise of any such right, power, privilege, claim or remedy preclude the exercise of that or any other right, power, privilege, claim or remedy.
- Our privacy policy as displayed on Our Website and updated from time to time governs the use that We shall make of any information provided by You or an End User.
- A person who is not a party to any contract made pursuant to these Terms shall have no right under the Contract (Rights of Third Parties) Act 1999 to enforce any terms of the Agreement and We shall not be liable to any such third party in respect of the Products, save that any Supplier may enforce any of these terms and conditions against You in accordance with the Contracts (Rights of Third Parties) Act 1999. Notwithstanding any other provisions of the Agreement, We may rescind or vary the Agreement in accordance with its terms without the consent of the Suppliers and accordingly section 2(1) of the Contracts (Rights of Third Parties) Act 1999 shall not apply.
- You shall ensure that each End User complies with and is bound by the Terms and shall procure that We may in Our own right enforce such terms and conditions against the End User pursuant to the Contracts (Rights of Third Parties) Act 1999. You shall be responsible for End User's compliance with the Terms and You shall be liable for all breaches of the Terms by the End Users as if they were breaches by You.
- The Agreement and any non-contractual obligations arising out of or in connection with it shall be governed by and construed in accordance with the laws of England and, subject to clause 10.b, each party irrevocably submits to the exclusive jurisdiction of the courts of England and Wales.

reasonably to have been known to the First Purchaser or the First Purchaser's Lender prior to the purchase of the Report; (6) any condition which is caused by acts of war or an act of terrorism; (7) any property belonging to or in the custody or control of the First Purchaser which does not form a fixed part of the Property Site or the structure; (8) any fines liquidated damages punitive or exemplary damages; (9) any bodily injury, including without limitation, death, illness or disease, mental injury, anguish or nervous shock; (10) any financial loss in respect of any savings or business or any consequential indirect or economic loss damage or expense including the cost of rent of temporary premises or business interrupted; and/or (11) any losses incurred following a material change in use of, alteration or development of the Property Site.

- Without prejudice to Your other rights and remedies under the Agreement, the maximum sum that shall be contributed by Us in respect of any Contribution shall be limited to £60,000. In the event that more than one Report is purchased on the Property Site the Contribution will only be payable under the first Report purchased by or on behalf of any First Purchaser or First Purchaser's Lender and no subsequent Reports purchased by or on behalf of such First Purchaser, First Purchaser's Lender or any person connected to them.
- We shall only pay a Contribution where the Notice is served within 36 months of the issue date of the Report.
- Any rights to a Contribution under this clause 7 are not assignable, be in writing addressed to the Customer Service Support Manager at Our registered office, We will (or Our agents will) respond to any such complaints in writing as soon as practicable possible.
- If any dispute arises out of or in connection with the Terms of the Agreement or their validity ("Dispute") the parties undertake, subject to clause 10.c, that prior to commencement of court proceedings they will negotiate in good faith to settle such Dispute by mediation in accordance with the Centre for Effective Dispute Resolution Model Mediation Procedure as in force from time to time, which Procedure is deemed to be incorporated by reference into this clause. Unless otherwise agreed between the parties, the mediator will be nominated by the Centre for Effective Dispute Resolution. To initiate the mediation a party shall give notice in writing to the other party to the dispute requesting a mediation. The mediation will start not later than 21 days after the date of service of such notice. If the Dispute has not been resolved to the mutual satisfaction of the parties within 60 days (or such other period as they shall agree) after the date of service of such notice then either party may refer the Dispute to the courts in accordance with clause 11.f.

Environmental Protection Act 1990 You shall ensure that they advise Us within a maximum period of two months from receipt of such communication. This clause 7.h and the service of any notice under it shall not affect the provisions of clauses 7.e and 7.g, and any such communications, even if advised to Us will not operate as notice under clause 7.e.

- We reserve the right at any time prior to a claim for Contribution being made in accordance with clause 7.g above, to withdraw the offer of payment of Contributions without further notice.

### 8. Assignment and Sub-contracting

We shall be entitled to assign or transfer the Agreement as We reasonably see fit. The Agreement is personal to You. You shall not assign, transfer, sub-licence or otherwise deal with any of Your rights and obligations under the Agreement without Our prior written consent.

- We may authorise or allow Our contractors and other third parties to provide to Us and/or to You services necessary or related to the Services and to perform Our obligations and exercise Our rights under these Terms, which may include collecting payment on Our behalf.

### 9. Events Beyond Our Control

- Neither party to the Agreement shall be liable for any delay or failure to perform their obligations caused by any circumstance beyond their control, and such party shall be entitled to a reasonable extension of time for the performance of such obligation.

### 10. Complaints and Dispute Resolution

- Any complainants in relation to the Services addressed, in the first instance, be in writing to the Support Manager at Our registered office, We will (or Our agents will) respond to any such complaints in writing as soon as practicable possible.
- If any dispute arises out of or in connection with the Terms of the Agreement or their validity ("Dispute") the parties undertake, subject to clause 10.c, that prior to commencement of court proceedings they will negotiate in good faith to settle such Dispute by mediation in accordance with the Centre for Effective Dispute Resolution Model Mediation Procedure as in force from time to time, which Procedure is deemed to be incorporated by reference into this clause. Unless otherwise agreed between the parties, the mediator will be nominated by the Centre for Effective Dispute Resolution. To initiate the mediation a party shall give notice in writing to the other party to the dispute requesting a mediation. The mediation will start not later than 21 days after the date of service of such notice. If the Dispute has not been resolved to the mutual satisfaction of the parties within 60 days (or such other period as they shall agree) after the date of service of such notice then either party may refer the Dispute to the courts in accordance with clause 11.f.

agree to the limitations and exclusions of liability set out in this clause 6.

### 7. Contribution

- Save where expressly provided, this clause 7 shall apply solely to Envirosearch Residential Reports (regardless of the result of such Report). Nothing in this clause 7 shall operate to override or vary the provisions of clause 6.
- We are prepared to offer, without any admission or inference of liability, a contribution towards the costs of any remediation works required under a Notice (as defined below) on the terms of this clause 7 ("the Contribution").
- In the event that a Remediation Notice is served on the First Purchaser or First Purchaser's Lender of a Property Site under Part IIA of the Environmental Protection Act 1990 ("the Notice") We shall contribute to the cost of such works as either the First Purchaser or First Purchaser's Lender (but not both) are required to carry out under the Notice and on the following terms:
  - The Contribution shall only apply to contamination or a pollution incident present or having occurred prior to the date of the Report;
  - The Contribution shall only apply where the Property Site is a single residential dwelling house or a single residential flat within a block of flats. For the avoidance of doubt, this obligation does not apply to any commercial property, nor to any Property Site being developed or redeveloped whether for residential purposes or otherwise;
  - The Contribution is strictly limited to the cost of works at the Property Site and at no other site; and
  - The Contribution will not be paid in respect of any of the following: (1) radioactive contamination of whatsoever nature, directly or indirectly caused by or contributed to or arising from ionising radiations or contamination by radioactivity from any nuclear fuel or from any nuclear waste from the combustion of nuclear fuel or the radioactive toxic explosive or other hazardous properties of any explosive nuclear assembly or nuclear component thereof; (2) asbestos arising out of or related in any way to asbestos or asbestos-containing materials on or in structures or services serving the structures; (3) naturally occurring materials arising from the presence or required removal of naturally occurring materials except in circumstances where such materials are present in concentrations which are in excess of their natural non-compliance arising from the intentional dispersal of or knowing willful or deliberate non-compliance by any owner or occupier of the Property Site with any statute, regulation, administrative complaint, notice of violation, or notice letter of any Regulatory Authority; (5) any condition which is known or ought

reported on is carried out as part of any Services offered by Us and We do not warrant that all land uses or features whether past or current will be identified in the Services. The Services do not include any information relating to the actual state or condition of any Property Site nor should they be used or taken to indicate or exclude actual fitness or unfitness of a Property Site for any particular purpose nor should it be relied upon for determining suitability or value or used as a substitute for any physical investigation or inspection.

- You acknowledge and agree that We will not be held liable in any way if a Report is used otherwise than as provided for in these Terms and/or in the Report.
- You acknowledge and agree that the Services have not been prepared to meet Your or anyone else's individual requirements and it is Your responsibility to ensure that the Services ordered are suitable for Your (or the End Users') intended purpose.
- You acknowledge and agree that You shall, on receipt of a Report carry out a reasonable inspection to satisfy Yourself that there are no apparent defects or failures with respect to the description and location of the Property Site and shall promptly inform Us if there are any such defects or failures.
- All liability for any insurance products purchased by You rests solely with the insurer. We do not endorse any particular product or insurer and no information contained within the Services should be deemed to imply otherwise. You acknowledge that if You Order any such insurance We will deem such as Your consent to forward a copy of the Report to the insurers. Where such policy is purchased, You acknowledge and agree that all liability shall remain with the insurers and that You are entirely responsible for ensuring that the insurance policy offered is suitable for Your needs and should seek independent advice. We do not guarantee that an insurance policy will be available on a Property Site. You acknowledge and agree that all decisions with regard to the offer of insurance policies for any premises will be made solely at the discretion of the insurers and We accept no liability in this regard. The provision of a Report does not constitute any indication by Us that insurance will be available on the Property Site.
- We may provide You with professional opinions or a risk assessment in a Report. You acknowledge and agree that We shall carry out (or procure that third parties carry out) such assessment with reasonable skill and care and that We shall be liable where any such risk assessment is carried out negligently. Notwithstanding the foregoing We shall not be liable for any inaccurate statement, opinion or risk rating in a Report which resulted from a reasonable interpretation of the Content.
- Neither You, nor any End User or any other person may rely on a Service more than 12 months after it was originally provided.
- You shall use all reasonable endeavours to ensure that End Users acknowledge and

Landmark Information Group Limited, 7 Abbey Court, Eagle Way, Exeter, EX2 7HY Email: info@landmark.co.uk  
© Landmark Information Group Limited  
Order Number: 37954280



# Groundwater Vulnerability

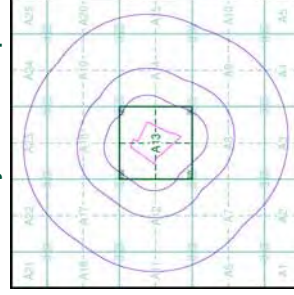
- General**
- Specified Site
  - Specified Buffer(s)
  - Bearing Reference Point
  - Map ID

## Agency and Hydrological

### Soil Classes

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

## Site Sensitivity Context Map - Slice A

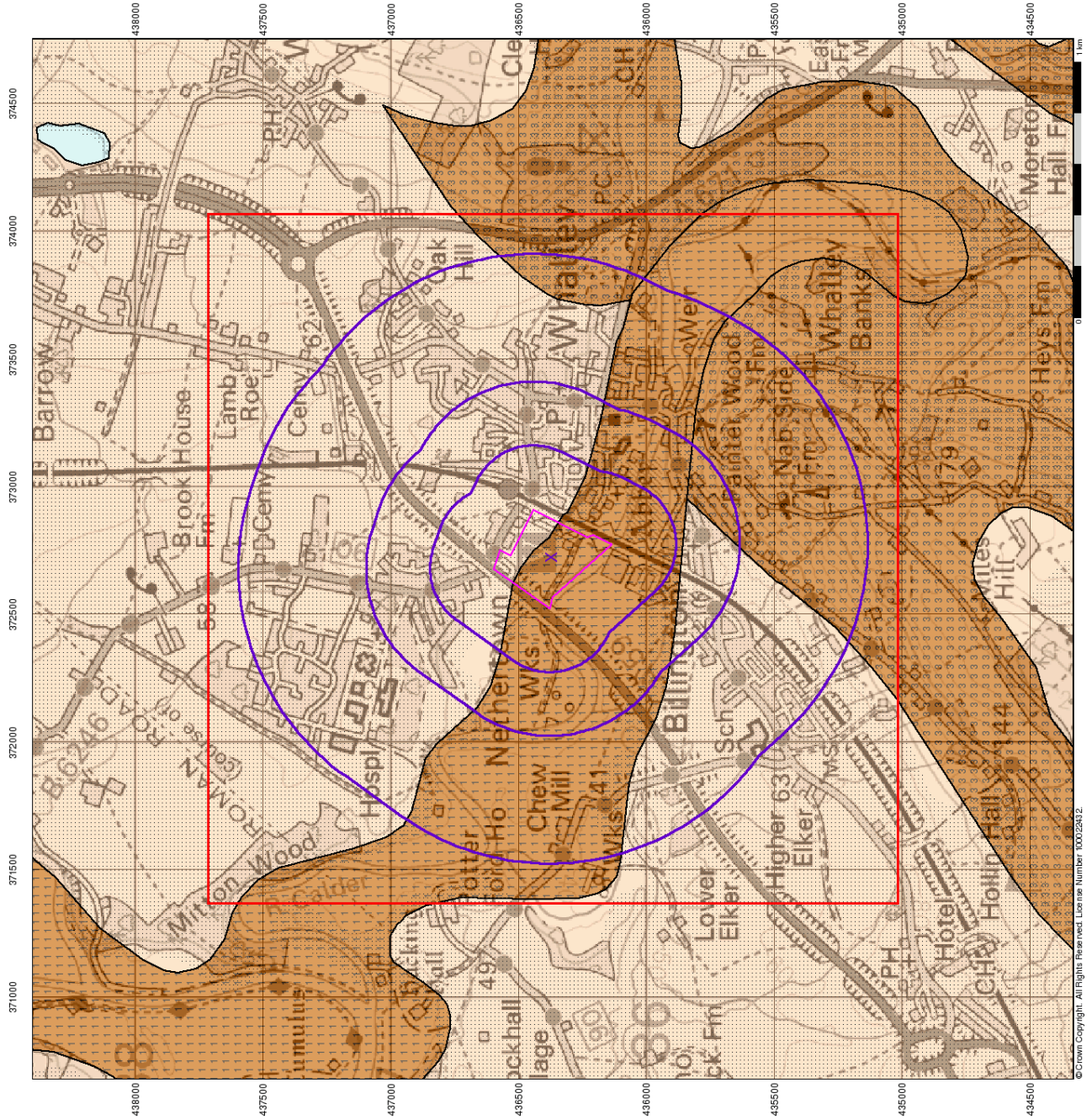


### Order Details

Order Number: 37954280\_1\_1  
 Customer Ref: 17134  
 National Grid Reference: 372730, 436370  
 Slice: A  
 Site Area (Ha): 8.56  
 Search Buffer (m): 1000

### Site Details

Site at 372750, 436420



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



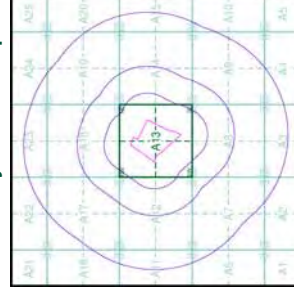
# Bedrock Aquifer Designation

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

## 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

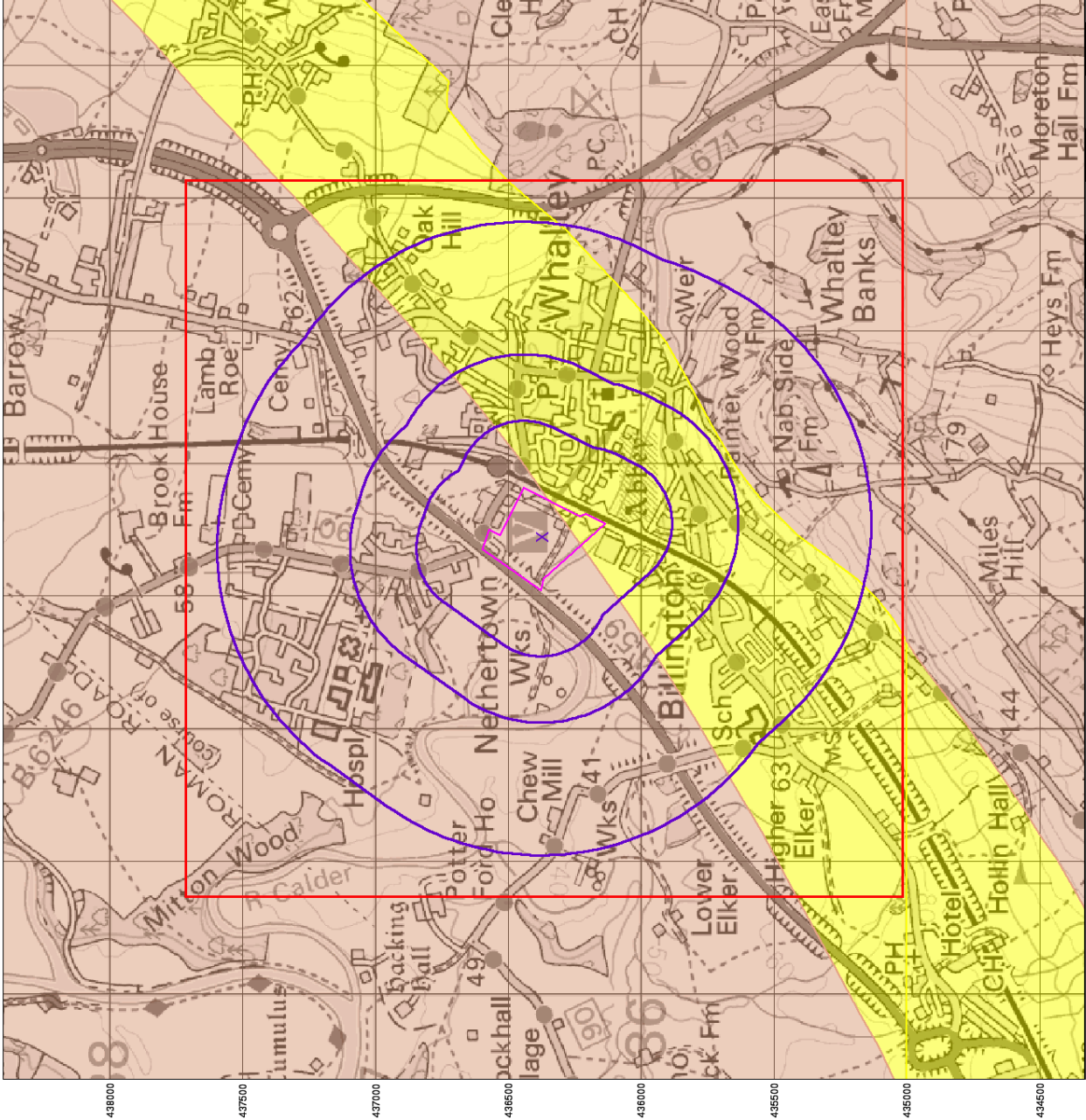
Order Number: 37954280\_1\_1  
 Customer Ref: 17134  
 National Grid Reference: 372730, 436370  
 Slice: A  
 Site Area (Ha): 8.56  
 Search Buffer (m): 1000

## Site Details

Site at 372750, 436420



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





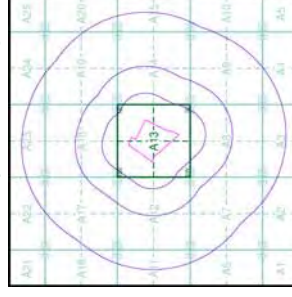
# Superficial Aquifer Designation

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

## Agency and Hydrological

- Geological Classes**
- Principal Aquifer
  - Secondary A Aquifer
  - Secondary B Aquifer
  - Secondary Undifferentiated
  - Unproductive Strata
  - Unknown

## Site Sensitivity Context Map - Slice A

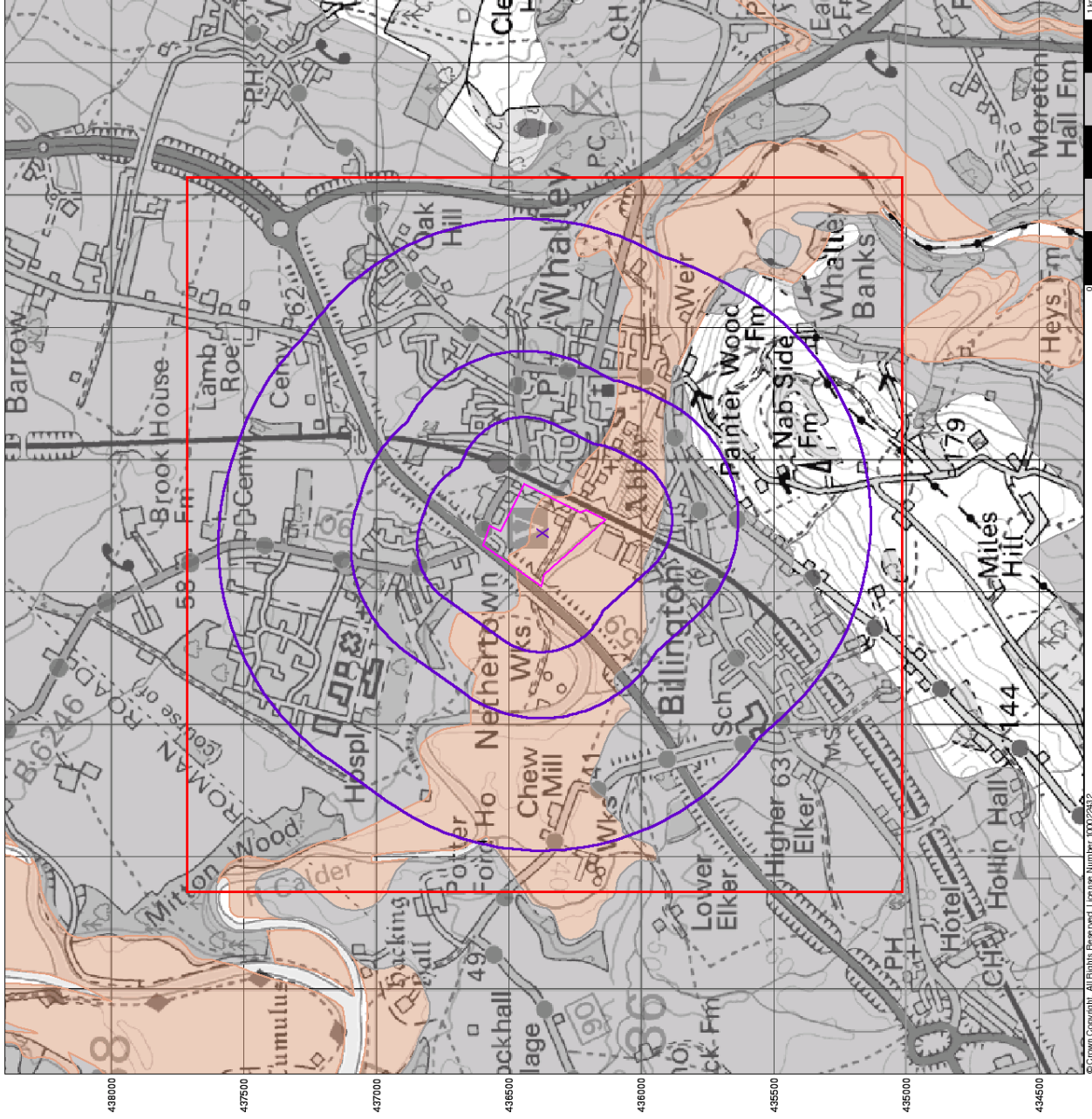


## Order Details

Order Number: 37954280\_1\_1  
 Customer Ref: 17134  
 National Grid Reference: 372730, 436370  
 Slice: A  
 Site Area (Ha): 8.56  
 Search Buffer (m): 1000

## Site Details

Site at 372750, 436420

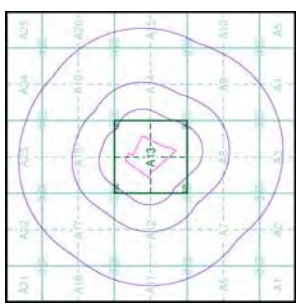




# Source Protection Zones

- General**
- Specified Site
  - Specified Buffer(s)
  - Bearing Reference Point
  - Site
  - Map ID
- Agency and Hydrological**
- Source Protection Zone I
  - Source Protection Zone II
  - Source Protection Zone III
  - Zone of Special Interest
  - Source Protection Zone Borehole

## Site Sensitivity Context Map - Slice A



### Order Details

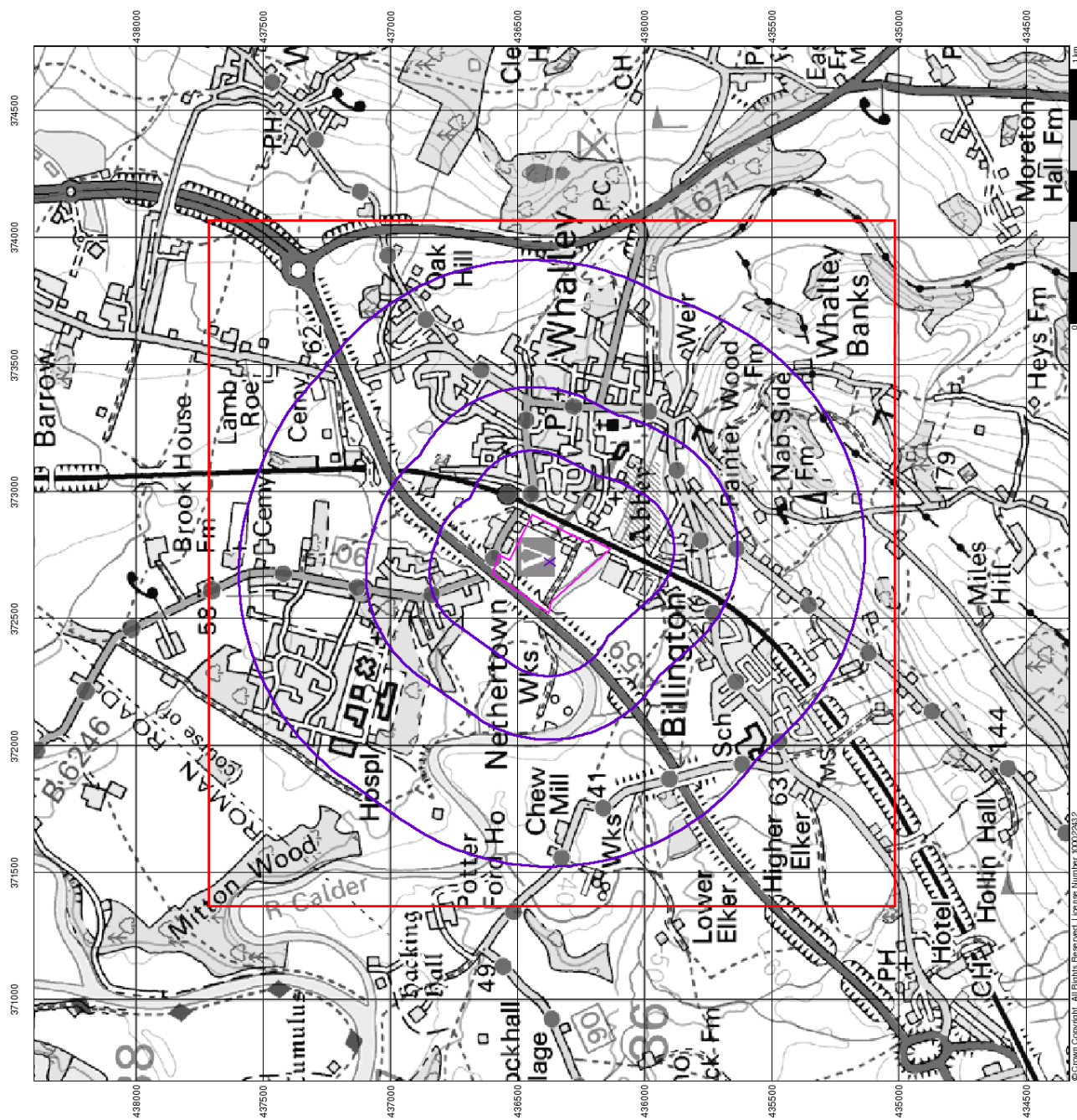
Order Number: 37954280\_1\_1  
 Customer Ref: 17134  
 National Grid Reference: 372730, 436370  
 Slice: A  
 Site Area (Ha): 8.56  
 Search Buffer (m): 1000

### Site Details

Site at 372750, 436420



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



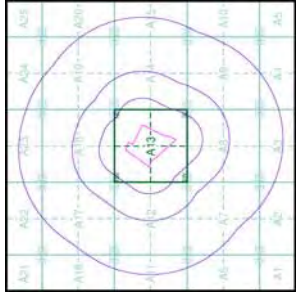
© Crown Copyright. All Rights Reserved. License Number: 10002802



## Sensitive Land Uses

- General**
- Specified Site
  - Slice
  - Bearing Reference Point
  - Map ID
- Sensitive Land Uses**
- Area of Adopted Green Belt
  - Area of Unadopted Green Belt
  - Area of Outstanding Natural Beauty
  - Environmentally Sensitive Area
  - Forest Park
  - Local Nature Reserve
  - Marine Nature Reserve
  - National Nature Reserve
  - National Park
  - Nitrate Sensitive Area
  - Nitrate Vulnerable Zone
  - Ramsar Site
  - Site of Special Scientific Interest
  - Special Area of Conservation
  - Special Protection Area

### Site Sensitivity Context Map - Slice A



### Order Details

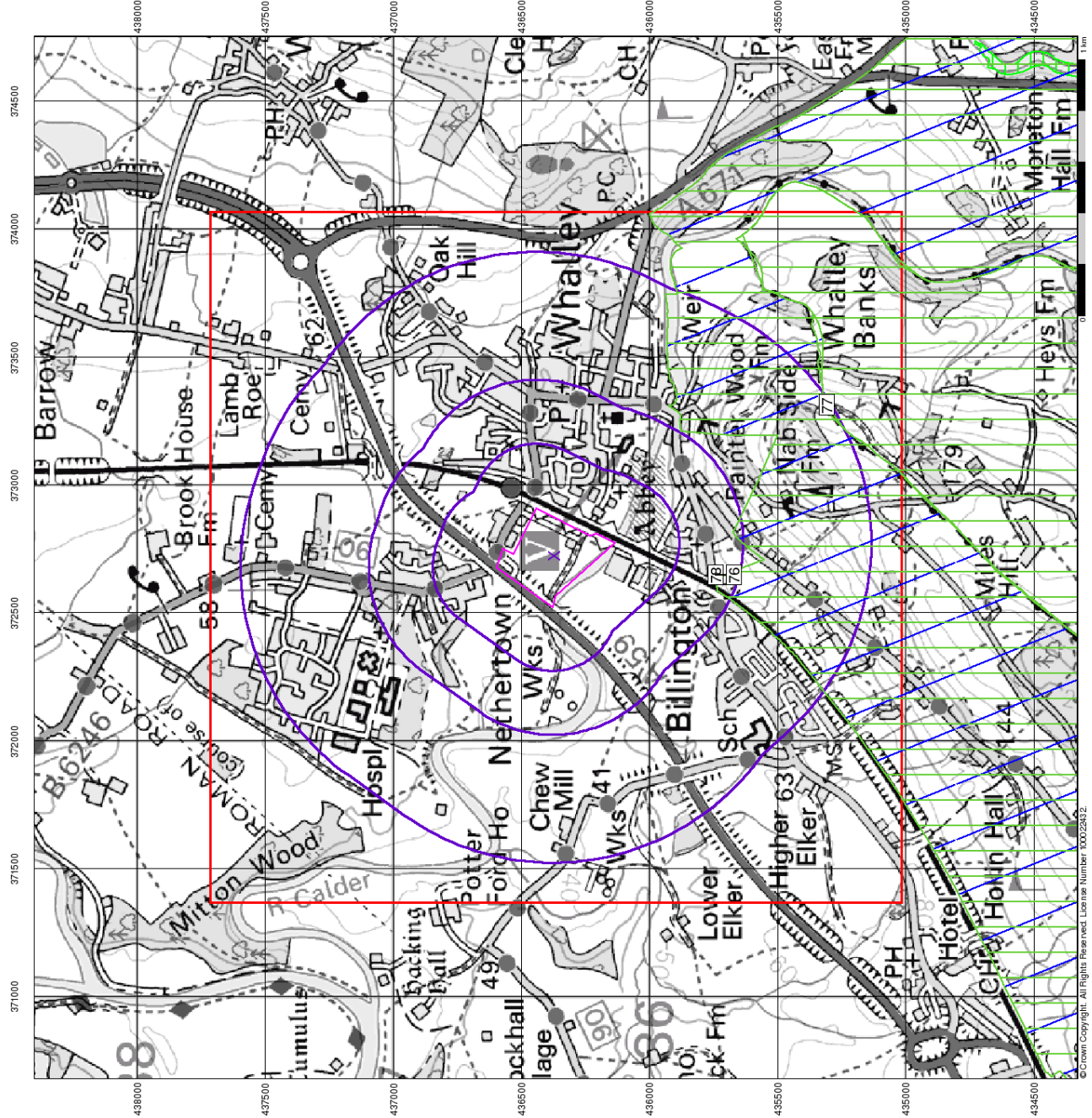
Order Number: 37954280\_1\_1  
 Customer Ref: 17134  
 National Grid Reference: 372730, 436370  
 Slice: A  
 Site Area (Ha): 8.56  
 Search Buffer (m): 1000

### Site Details

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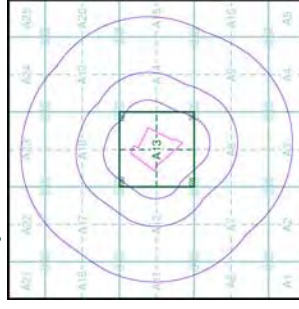
**General**

- Specified Site
- Bearing Reference Point

**Agency and Hydrological (Flood)**

- Extreme Flooding from Rivers or Sea without Defences (Zone 2)
- Flooding from Rivers or Sea without Defences (Zone 3)
- Area Benefiting from Flood Defence
- Flood Water Storage Areas
- Flood Defence

**Flood Map - Slice A**



**Order Details**

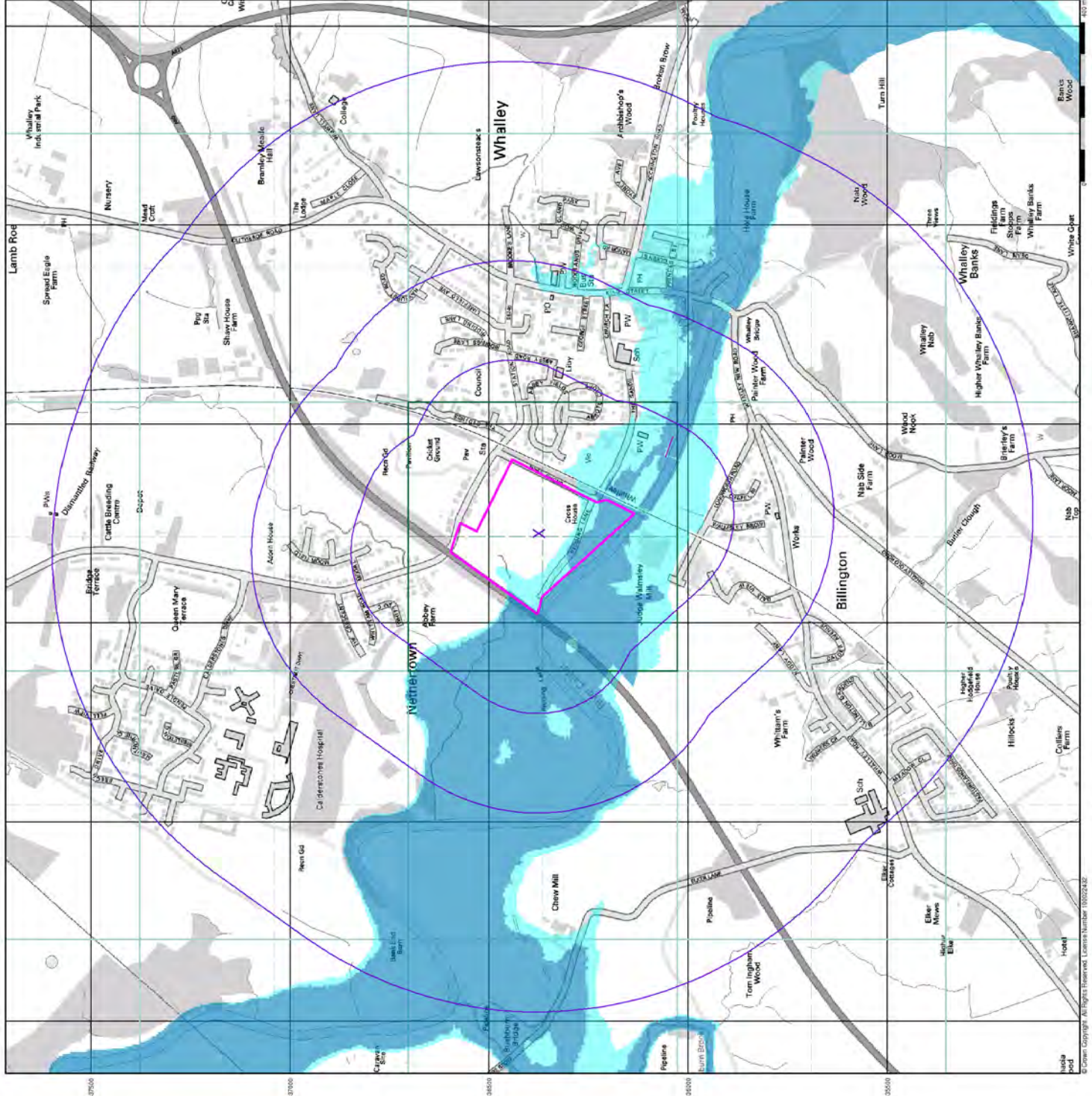
Order Number: 37954280\_1\_1  
 Customer Ref: 17134  
 National Grid Reference: 372730, 436370  
 Slice: A  
 Site Area (Ha): 8.56  
 Search Buffer (m): 1000

**Site Details**

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**General**

- Specified Site
- Specified Buffer(s)
- Bearing Reference Point
- Map ID
- Several of Type at Location

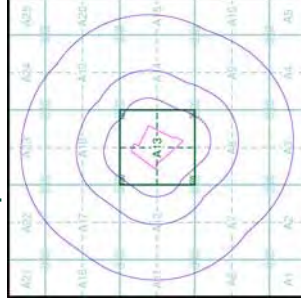
**Agency and Hydrological (Boreholes)**

- BGS Borehole Depth 0 - 10m
- BGS Borehole Depth 10 - 30m
- BGS Borehole Depth 30m +
- Confidential
- 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](http://www.envirocheck.co.uk).

**Borehole Map - Slice A**



**Order Details**

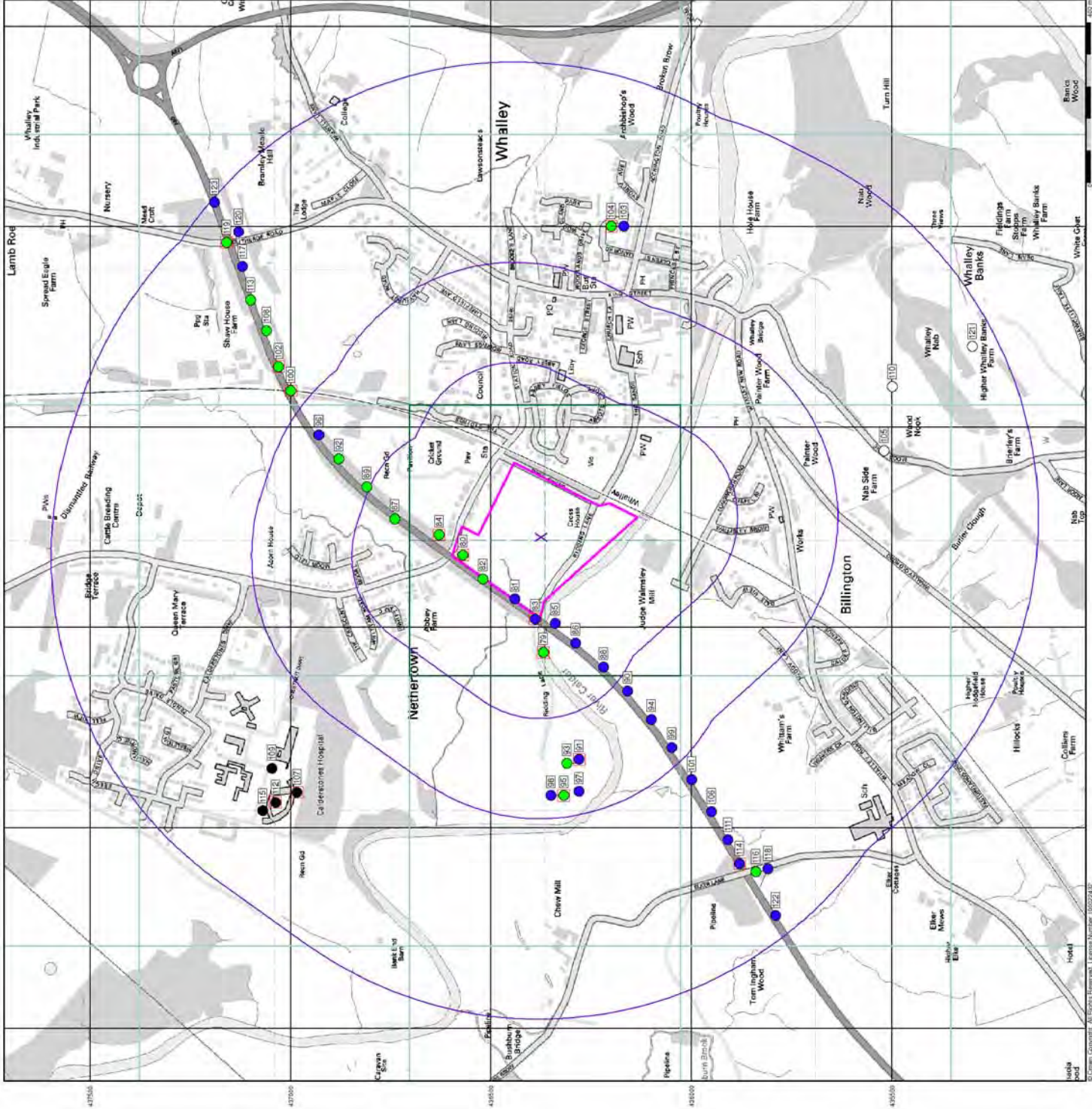
Order Number: 37954280\_1\_1  
 Customer Ref: 17134  
 National Grid Reference: 372730, 436370  
 Slice: A  
 Site Area (Ha): 8.56  
 Search Buffer (m): 1000

**Site Details**

Site at 372750, 436420



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# Lancashire And Furness

Published 1893

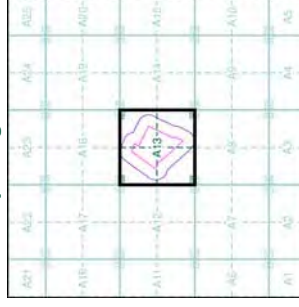
Source map scale - 1:2,500

The historical maps shown were reproduced from maps predominantly held at the OSO archive for England, Wales and Scotland in the 1840s. In 1864 the OSO archive was copied for mapping on an A3 scale. The published date of the maps is often the date of the original survey. 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

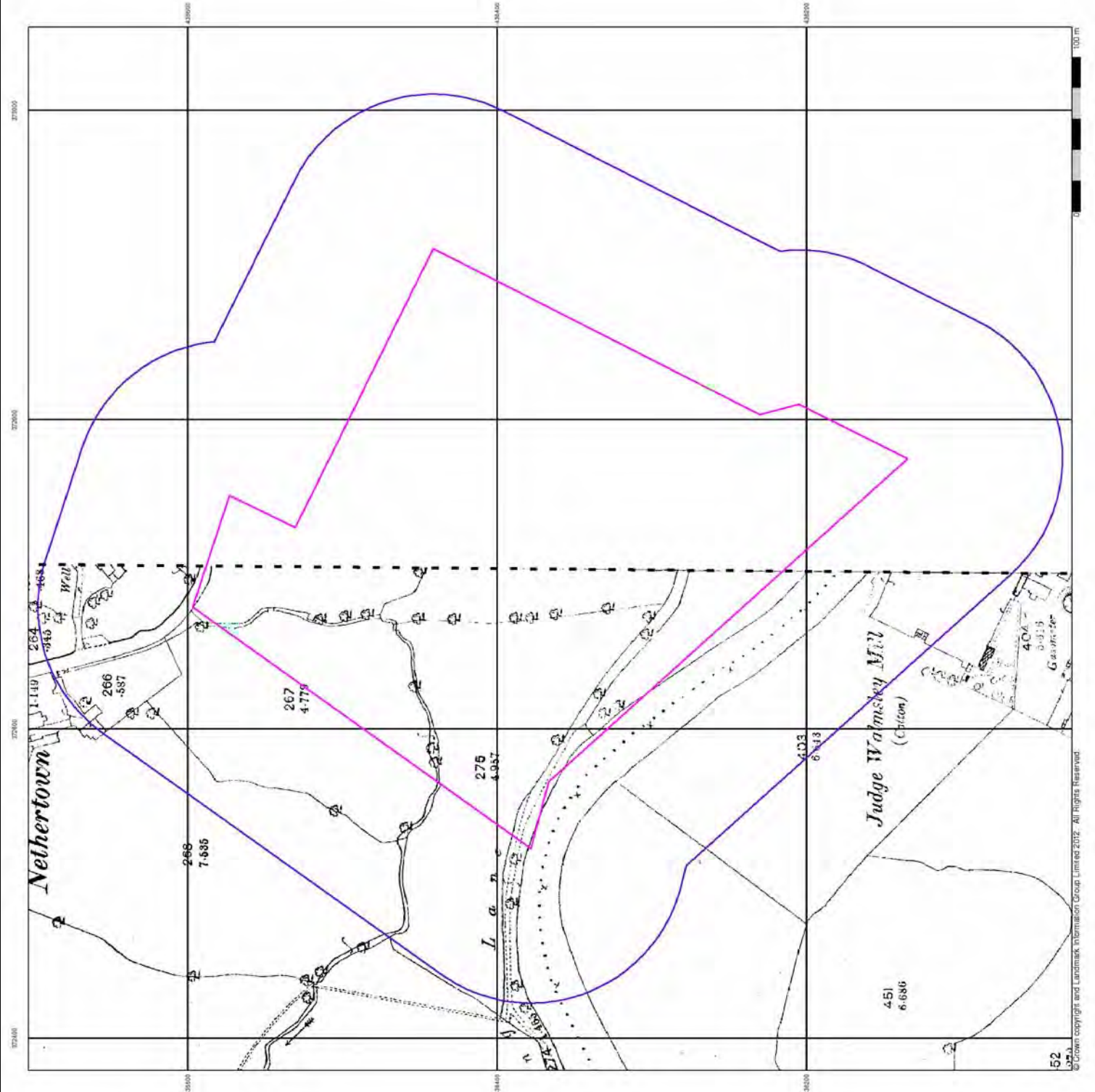
Order Number: 37954280\_1\_1  
Customer Ref: 177134  
National Grid Reference: 372730, 436370  
Slice: A  
Site Area (Ha): 8.56  
Search Buffer (m): 100

## Site Details

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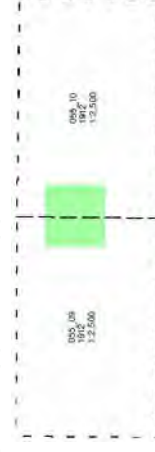
# Lancashire And Furness

## Published 1912

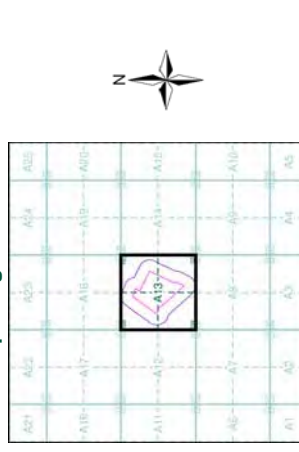
### Source map scale - 1:2,500

The historical maps shown were reproduced from maps predominantly held at the Ordnance Survey, England, Wales and Scotland in the 1840s in 1854 in the 1860s as copies of maps made in the 1840s and 1850s. The scale of the maps shown is 1:2,500. 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

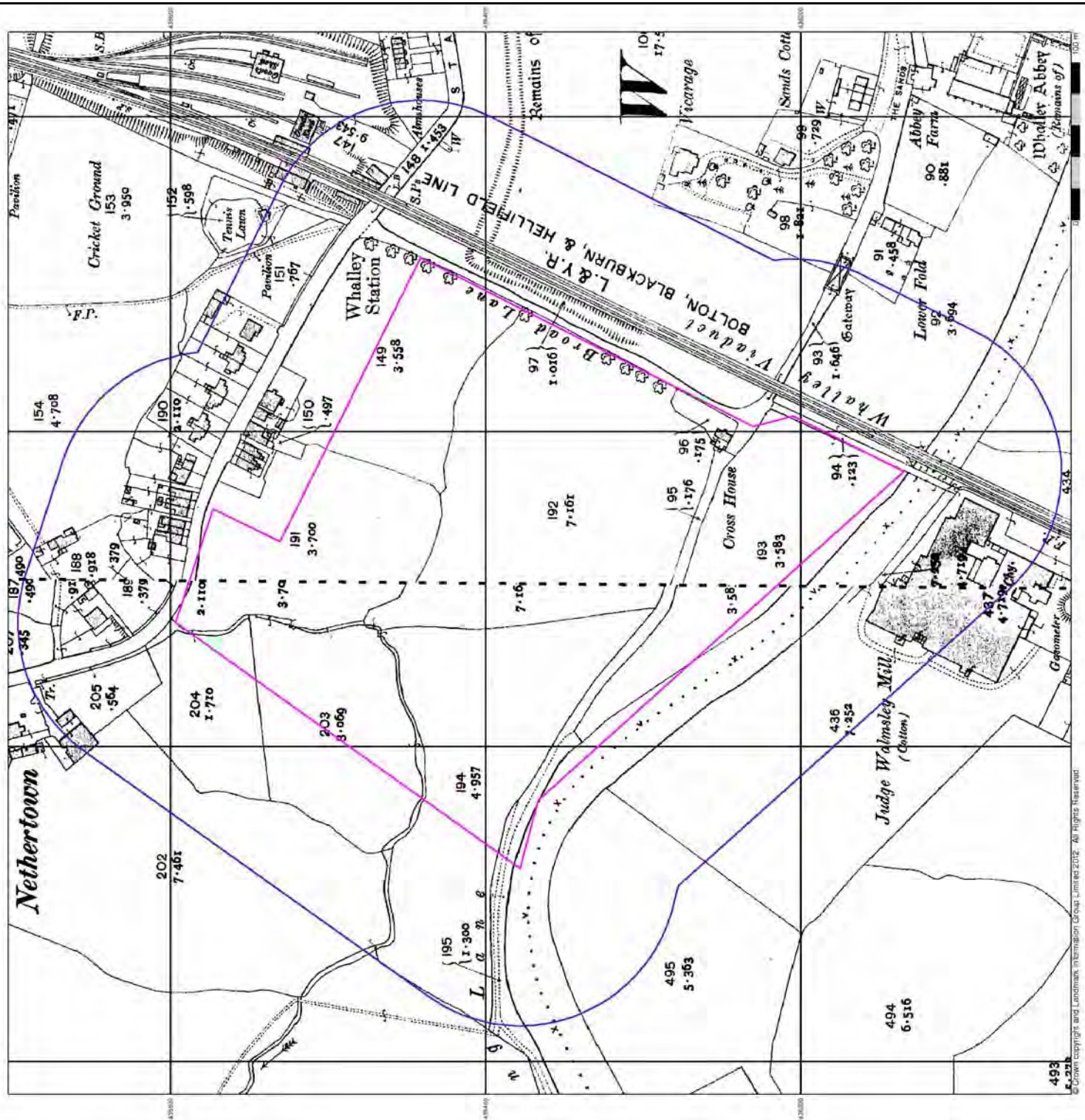
Order Number: 37954280\_1\_1  
Customer Ref: 177134  
National Grid Reference: 372730, 436370  
Slice: A  
Site Area (Ha): 8.56  
Search Buffer (m): 100

### Site Details

Site at 372750, 436420



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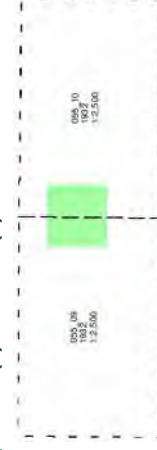
# Lancashire And Furness

## Published 1932

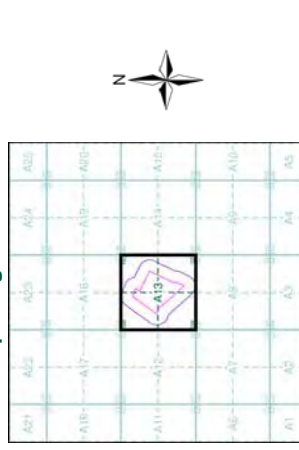
### Source map scale - 1:2,500

The historical maps shown were reproduced from maps predominantly held at the OS archives for England, Wales and Scotland in the 1840s. In 1864 the OS maps were copied or mapped on a new scale by the Ordnance Survey 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

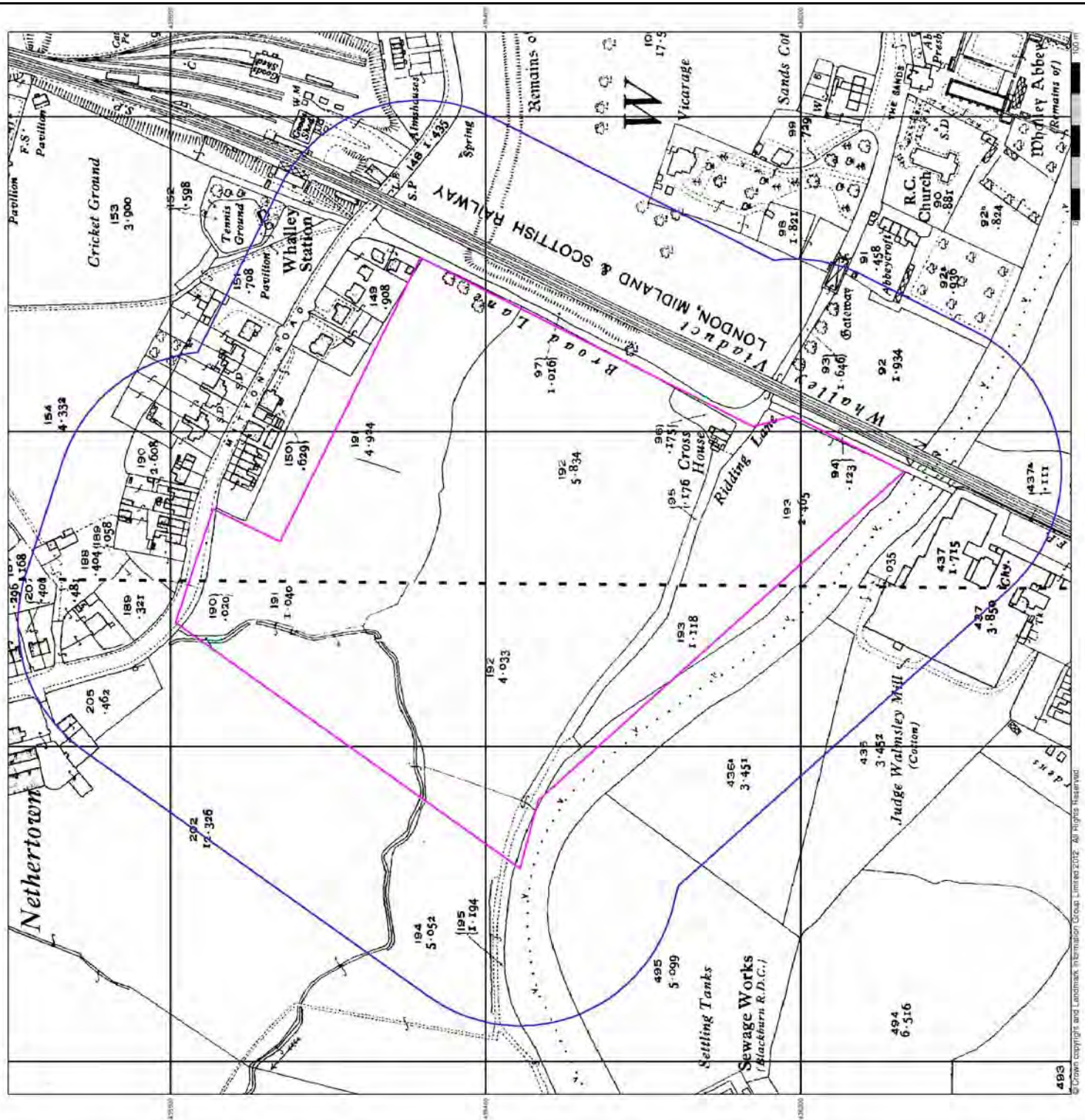
Order Number: 37954280\_1\_1  
Customer Ref: 17134  
National Grid Reference: 372730, 436370  
Slice: A  
Site Area (Ha): 8.56  
Search Buffer (m): 100

### Site Details

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# Lancashire And Furness

Published 1938

Source map scale - 1:2,500

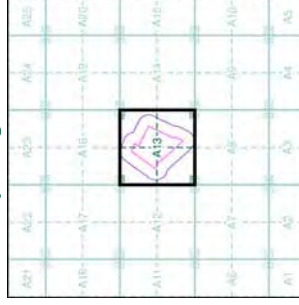
The historical maps shown were reproduced from maps predominantly held at the OS archives for England, Wales and Scotland in the 1860s. In 1864 the OS maps were copied for mapping in an area of the Lancashire coast. The published date given below is often some years later than the surveyed date. Before 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)



055\_10  
098  
1:2,500

## Historical Map - Segment A13



## Order Details

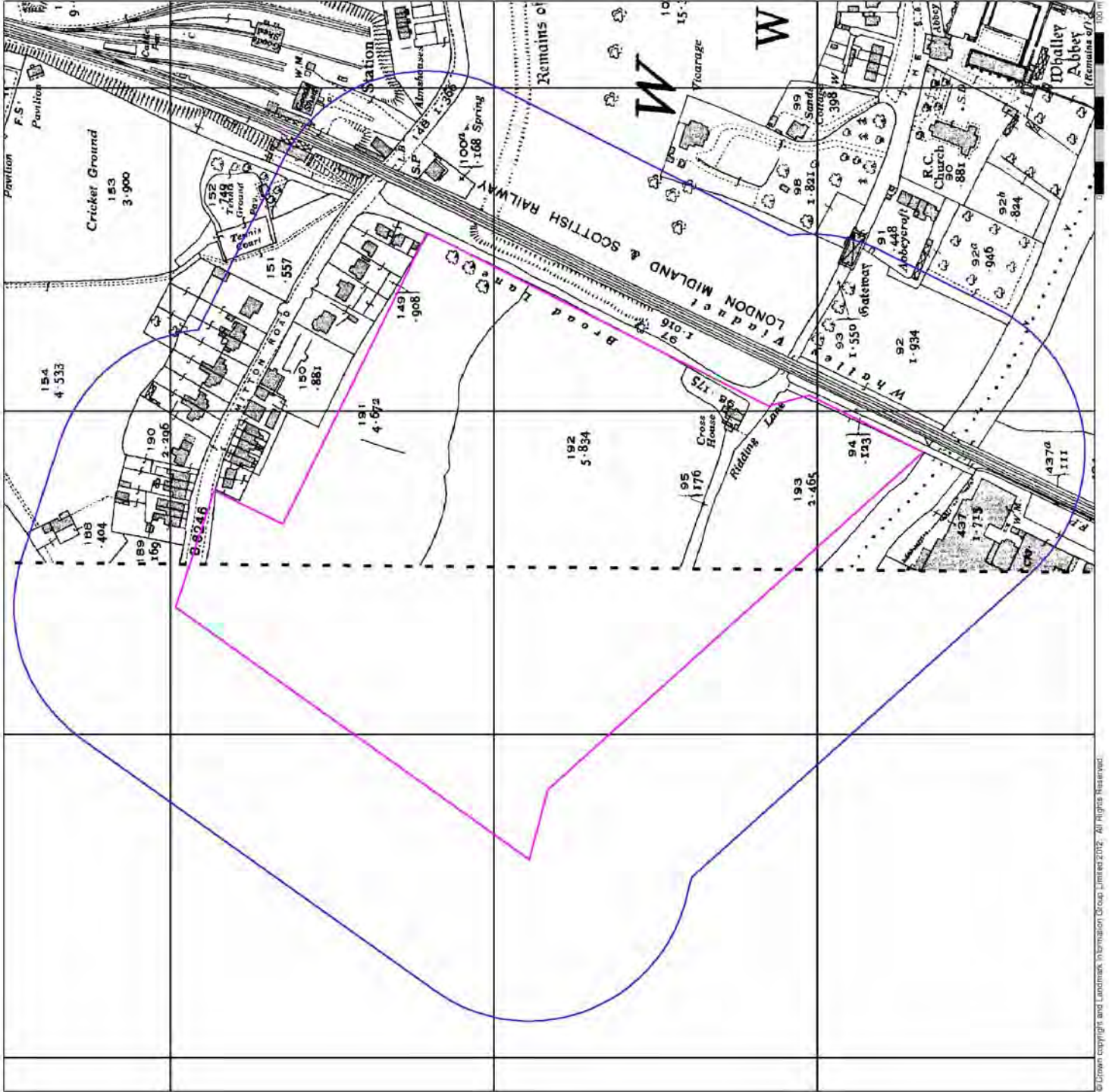
Order Number: 37954280\_1\_1  
Customer Ref: 17134  
National Grid Reference: 372730, 436370  
Slice: A  
Site Area (Ha): 8.56  
Search Buffer (m): 100

## Site Details

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# Ordnance Survey Plan Published 1968

## Source map scale - 1:2,500

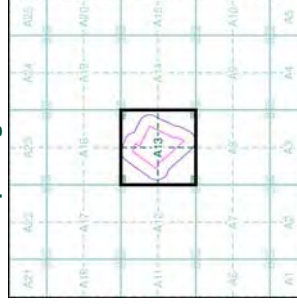
The historical maps shown were reproduced from maps predominantly held at the OS archives for England, Wales and Scotland in the 1840s. In 1864 the OS maps were copied for mapping urban areas in the United Kingdom. The published date given below is often some years later than the surveyed date. Before 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)

SD7236  
1968  
1:2,500

SD7346  
1968  
1:2,500

## Historical Map - Segment A13



## Order Details

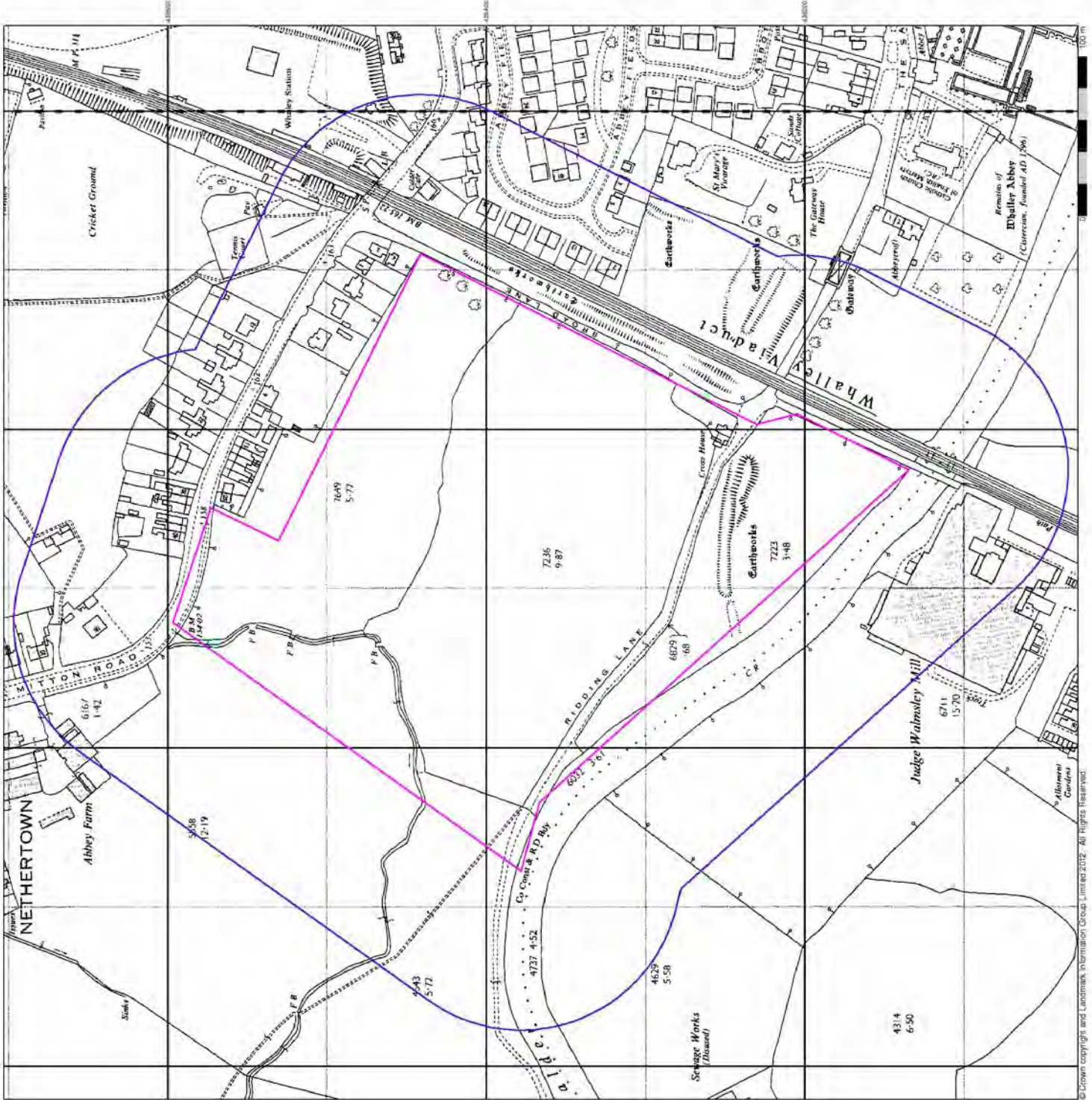
Order Number: 37954280\_1\_1  
Customer Ref: 17134  
National Grid Reference: 372730, 436370  
Slice: A  
Site Area (Ha): 8.56  
Search Buffer (m): 100

## Site Details

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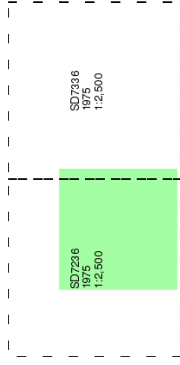


# Ordnance Survey Plan Published 1975

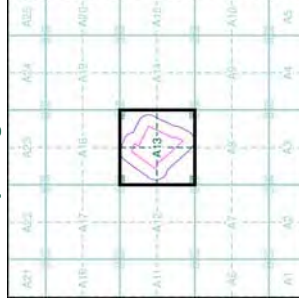
Source map scale - 1:2,500

The historical maps shown were reproduced from maps predominantly held at the OS archives for England, Wales and Scotland in the 1840s. In 1884 the OS scale was copied for mapping urban areas in the United Kingdom. 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

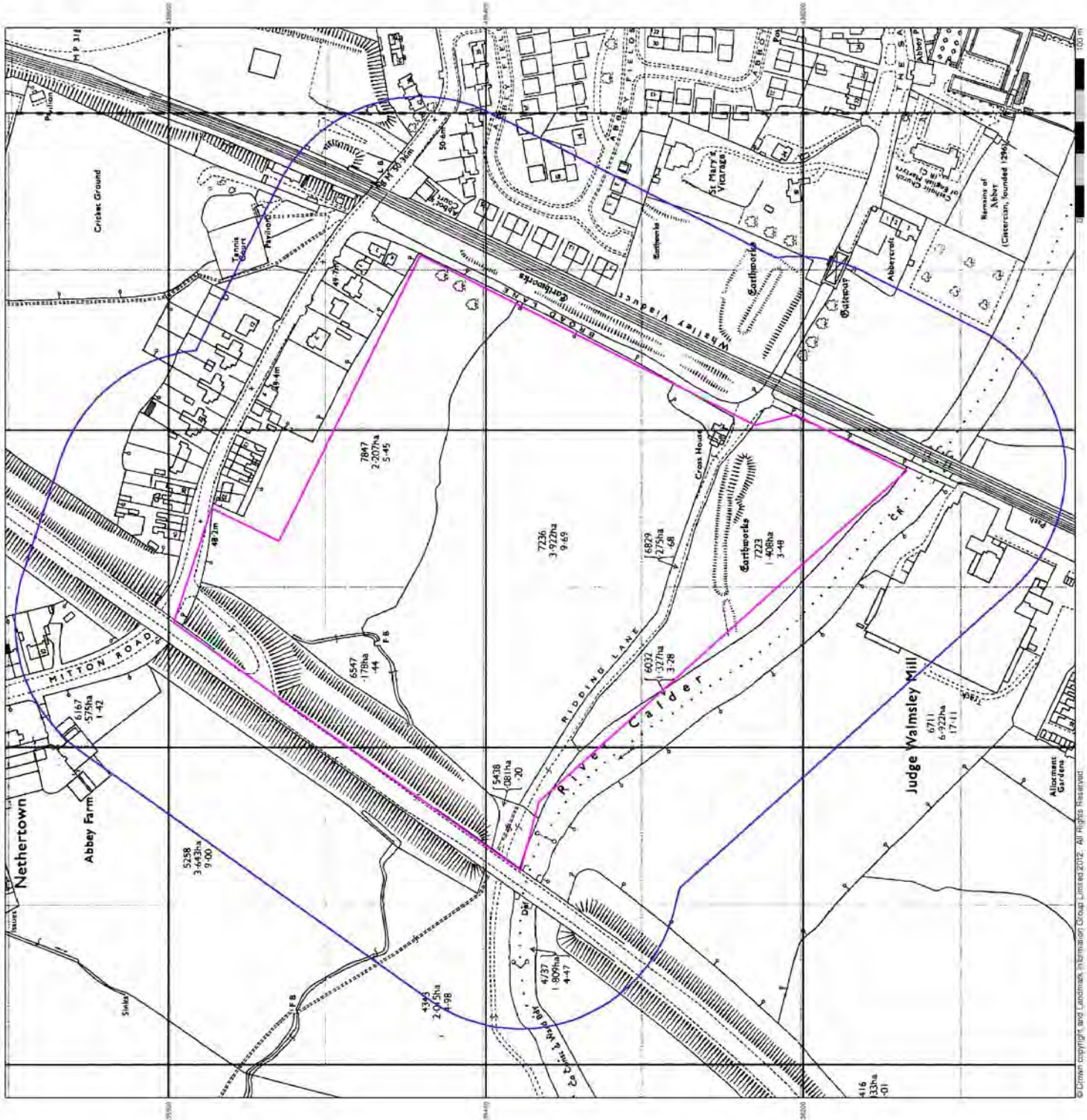
Order Number: 37954280\_1\_1  
Customer Ref: 17134  
National Grid Reference: 372730, 436370  
Slice: A  
Site Area (Ha): 8.56  
Search Buffer (m): 100

## Site Details

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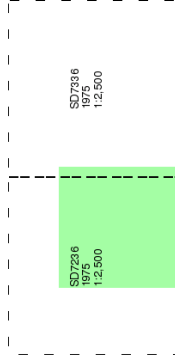
# Additional SIMs

## Published 1975

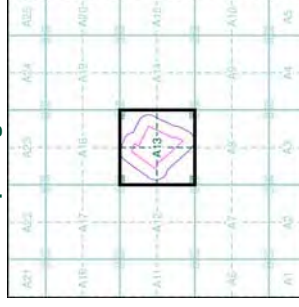
### Source map scale - 1:2,500

The SIM cards (Ordnance Survey's 'Survey of Information on Microfilm') are further, minor editions of mapping which were produced and published in the 1970s. The maps in this area were created from data from 1947 to 1994, and contain details of buildings, roads, railways and land-use. These maps were produced at both 1:2,500 and 1:1,250 scales.

### Map Name(s) and Date(s)



### Historical Map - Segment A13



### Order Details

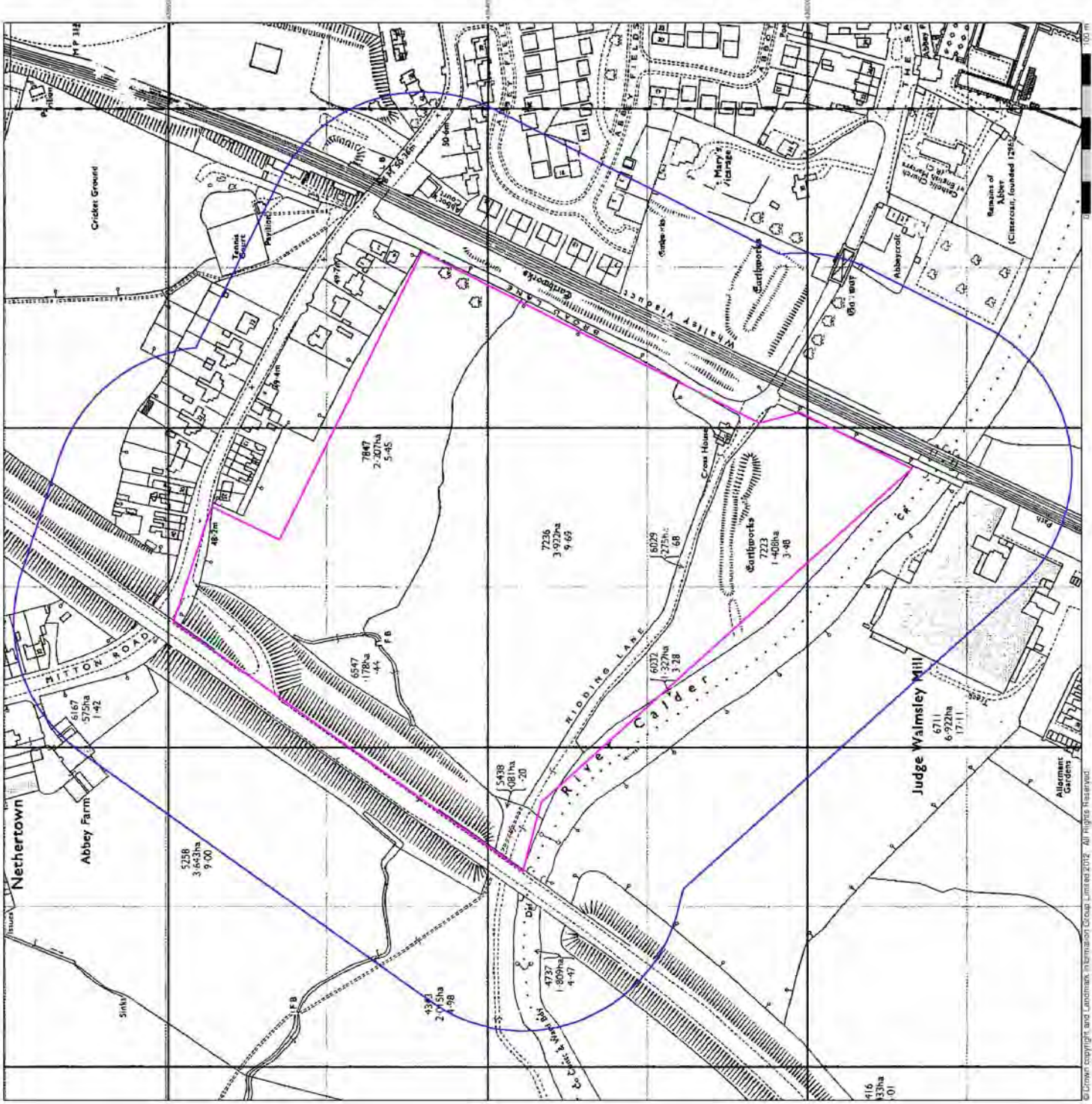
Order Number: 37954280\_1\_1  
Customer Ref: 17134  
National Grid Reference: 372730, 436370  
Slice: A  
Site Area (ha): 8.56  
Search Buffer (m): 100

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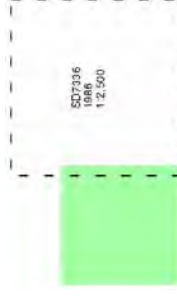
## Additional SIMs

### Published 1986

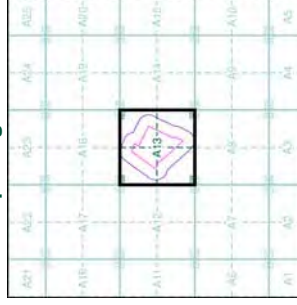
#### Source map scale - 1:2,500

The SIM cards (Ordnance Survey's 'Survey of Information on Microfilm') are further, minor editions of mapping which were produced and published in the form of SIM cards in the area which was mapped. These data from 1947 to 1994 and contain details of buildings, roads, railways and land-use. These maps were produced at both 1:2,500 and 1:1,250 scales.

#### Map Name(s) and Date(s)



#### Historical Map - Segment A13



#### Order Details

Order Number: 37954280\_1\_1

Customer Ref: 177134

National Grid Reference: 372730, 436370

Slice: A

Site Area (Ha): 8.56

Search Buffer (m): 100

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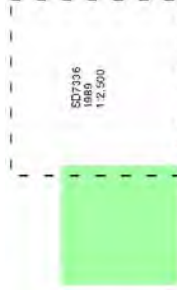
## Additional SIMs

### Published 1989

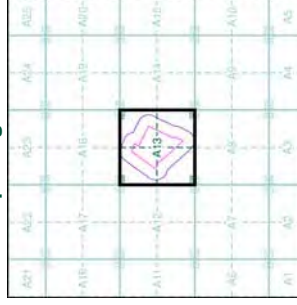
#### Source map scale - 1:2,500

The SIM cards (Ordnance Survey's 'Survey of Information on Microfilm') are further, minor editions of mapping which were produced and published in the form of microfilm cards. The area was mapped: first, from 1947 to 1954, and then in detail, from 1954 to 1989, in 1:2,500 scale. 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: 37954280\_1\_1

Customer Ref: 177134

National Grid Reference: 372730, 436370

Slice: A

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Search Buffer (m): 100

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